

Stateline Mass Transit District Transit Development Plan

Final Report



Stateline Area Transportation Study

December 2016



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Introduction and Service Review

Transit System Overview

The Stateline Mass Transit District (SMTD) provides dial-a-ride public transportation service in the rapidly expanding Northern Illinois area of South Beloit, Rockton, Roscoe and Rockton Township. Transit service has been provided since February 4, 2008.

SMTD provides service Monday through Friday between 6:00 a.m. and 10:00 p.m.; Saturdays from 8:00 a.m. until 6:00 p.m.; and on Sundays from 8:30 a.m. until 4:30 p.m. All riders must make reservations to use the service. Reservations are accepted Monday through Saturday between 8:00 a.m. and 5:00 p.m. No service is provided on the following holidays:

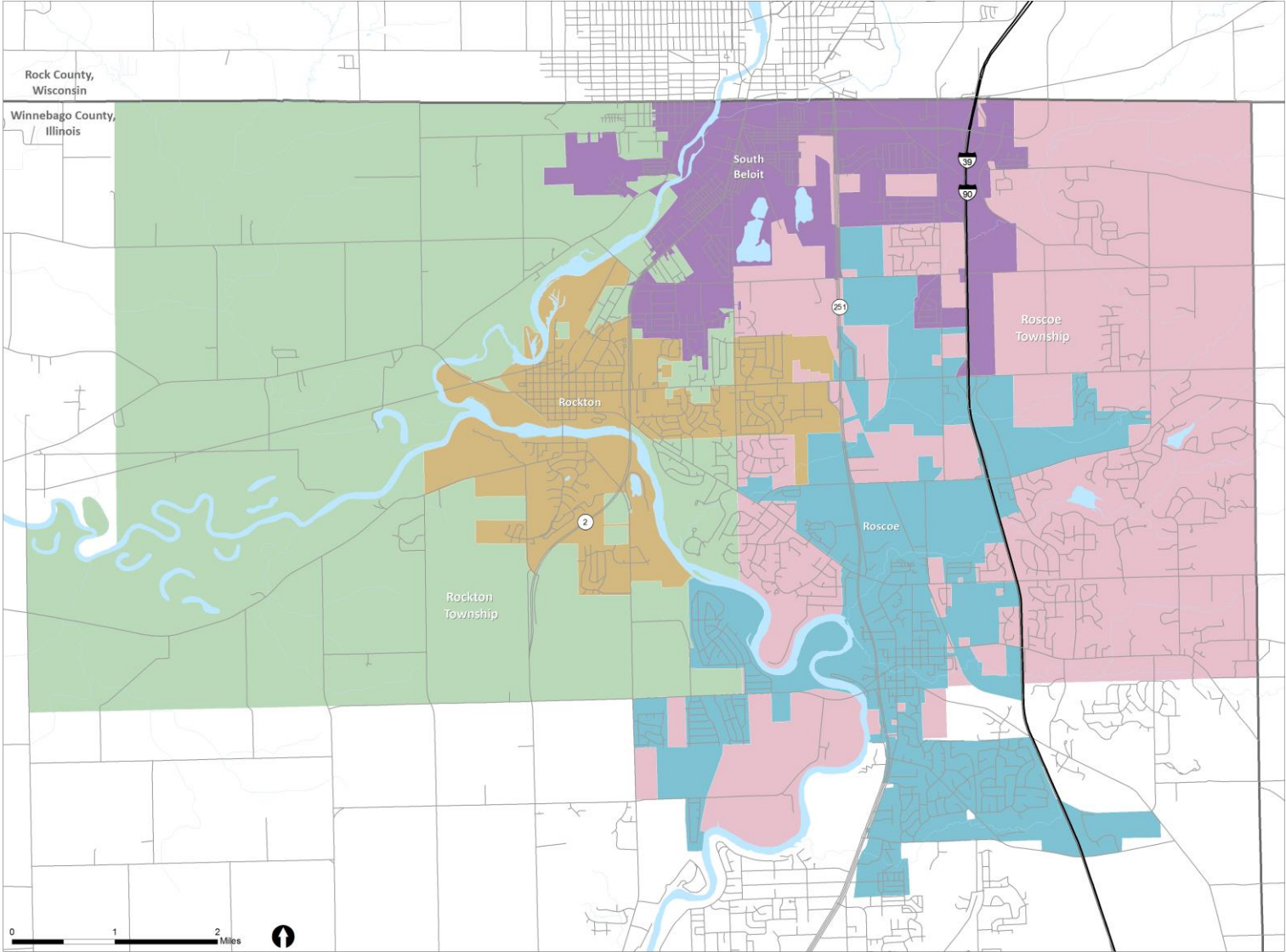
- New Year's Day
- Memorial Day
- Independence Day
- Labor Day
- Thanksgiving Day
- Christmas Day

Passengers may ride from any origin in the SMTD service area to any destination in the SMTD service area, or to transfer points on the Rockford Mass Transit District or Beloit Transit Systems at Illinois 173 in Machesney Park or Shirland Avenue in Beloit respectively. SMTD provides special service stops to businesses along the Highway 173 corridor, not further west than Highway 251, nor further east than Mitchell Road. The SMTD Service Area is shown in Figure 1. Table 1 shows the fare structure for SMTD.

Table 1. SMTD Fare Structure

Adult (17-64 years old)	\$3.00
Senior (65 years old or older)	\$1.50
Disabled (with prior certification)	\$1.50
Youth (7-16 years old)	\$1.50
Child (under 7 years old)	Free with a fare paying customer
Personal care attendant	Free when travelling with approved client

Figure 1. SMTD Service Area



Community Characteristics

The following section provides an overview of the community characteristics in the SMTD service area. These characteristics provide some indication of the potential transit market. The corresponding figures for each of the community characteristics can be found at the end of this section.

Population

As shown in Table 2, the population in the SMTD service areas of South Beloit, Rockton, and Roscoe has been steadily increasing over the last four years. Population in Unincorporated Rockton Township has declined. Growth in population often increases the need for transit service. While not included in the inventory here, the community of Roscoe Township was added to the SMTD service area in 2016.

Table 2. Population in SMTD Service Area

Year	South Beloit	Rockton	Roscoe	Unincorporated Rockton Township	SMTD Service Area Population Totals
2011	7,847	7,260	10,286	1,112	26,505
2012	7,917	7,370	10,679	1,030	26,996
2013	8,151	7,425	10,882	751	27,209
2014	8,129	7,461	10,724	717	27,031

Source: American Community Survey 5-Year Estimates

Transit Supportive Areas

Transit service requires a minimum level of employment and population density to function effectively. This becomes even more important when considering establishing fixed-route transit service. In this section, land use and employment in the SMTD is assessed for the type and level of transit service it can support. For this analysis, areas were identified as fixed-route transit supportive if they have four or more households or five or more jobs per acre. As shown on Figure 2, there are few pockets of fixed-route transit supportive areas in the SMTD service area, with most of these found in South Beloit and Rockton. Other areas are more typically supportive of demand-responsive transit service.

Senior Population

The senior population (65 years and older) is a core component of a transit market. The distribution of the senior population in the SMTD service area is shown in Table 3 and Figure 3. The table shows the percentage of senior population living in each service area city. The figure shows that the senior population is dispersed throughout the service area; however there are higher concentrations of seniors in portions of South Beloit and Rockton. These levels of seniors are fairly typical for similar sized communities in the Midwest.

Table 3. Senior Population in SMTD Service Area by Municipality (2014)

Percentage of Total Population	South Beloit	Rockton	Roscoe	Rockton Township
65 Years and Over	9.2%	12.5%	10.7%	13.4%

Source: 2010-2014 American Community Survey 5-Year Estimate

Automobile Ownership

Automobile ownership is indicative of transit reliance. Households that have no automobiles rely on transit, walking, ridesharing, or bicycling to meet mobility needs. Residents of these households are often the core of a transit market. In Figure 4, the spatial distribution of zero-vehicle households is presented. Higher concentrations of zero-vehicle households are located in South Beloit, Rockton and the eastern part of Roscoe. Areas where greater than 10 percent of households are without vehicle access are typically strong candidates for transit service.

Income

Income and poverty status are also indicators of transit use. People with low incomes are likely to rely on transit for mobility, and may not have access to a personal vehicle. In Table 4, income characteristics of the SMTD service area are shown. This includes median household income and the percentage of households whose incomes fall below the poverty level. The spatial distribution of households in poverty is shown in Figure 5.

Table 4. Income Characteristics (2014)

City	Median Income	Percent of Households in Poverty
South Beloit	\$55,246	11%
Rockton	\$73,284	8%
Roscoe	\$68,253	8%
Unincorporated Rockton Township	\$56,099	13%

Source: 2010-2014 American Community Survey 5-Year Estimate

Figure 2. Fixed Route Transit Supportive Areas

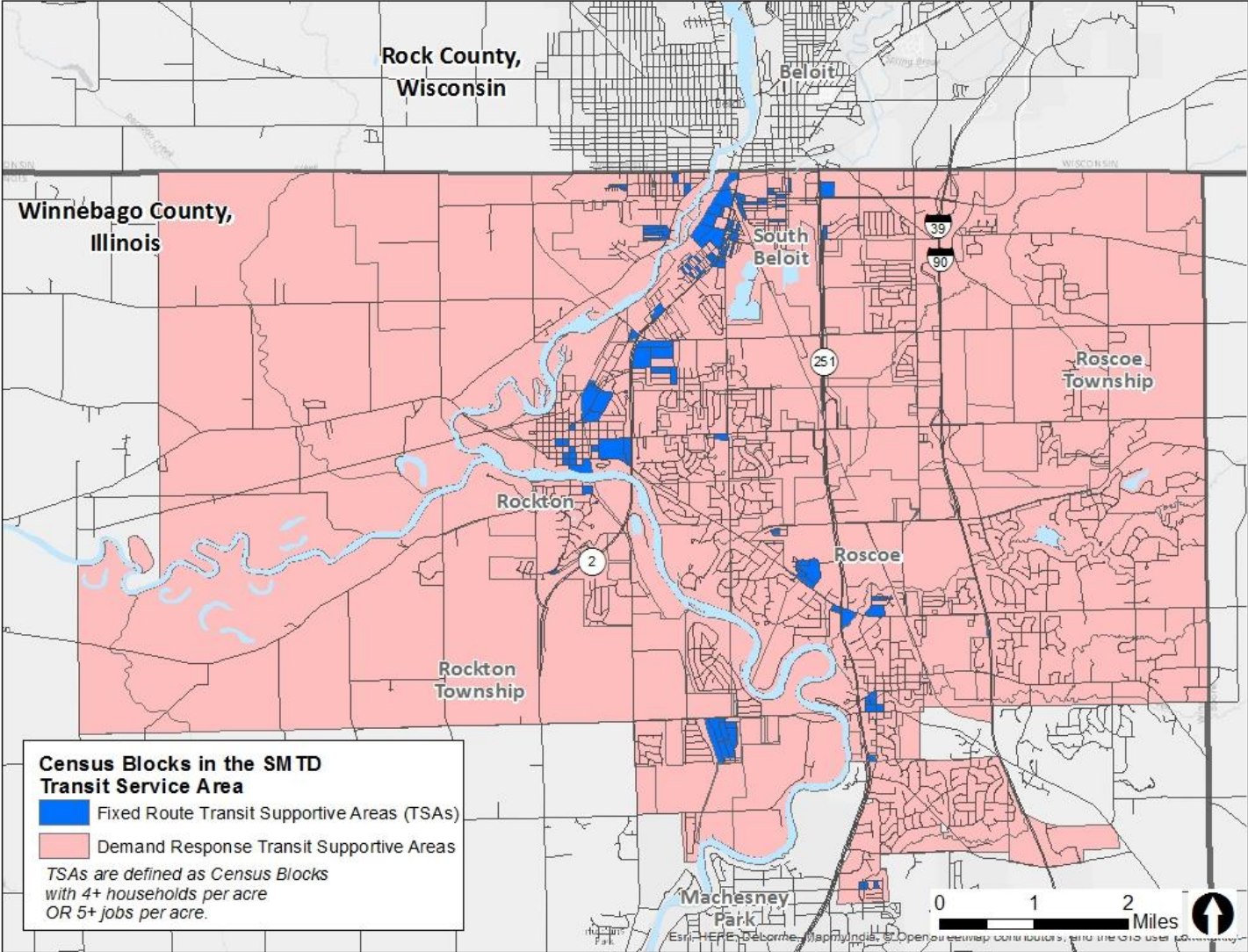


Figure 3. Senior Population

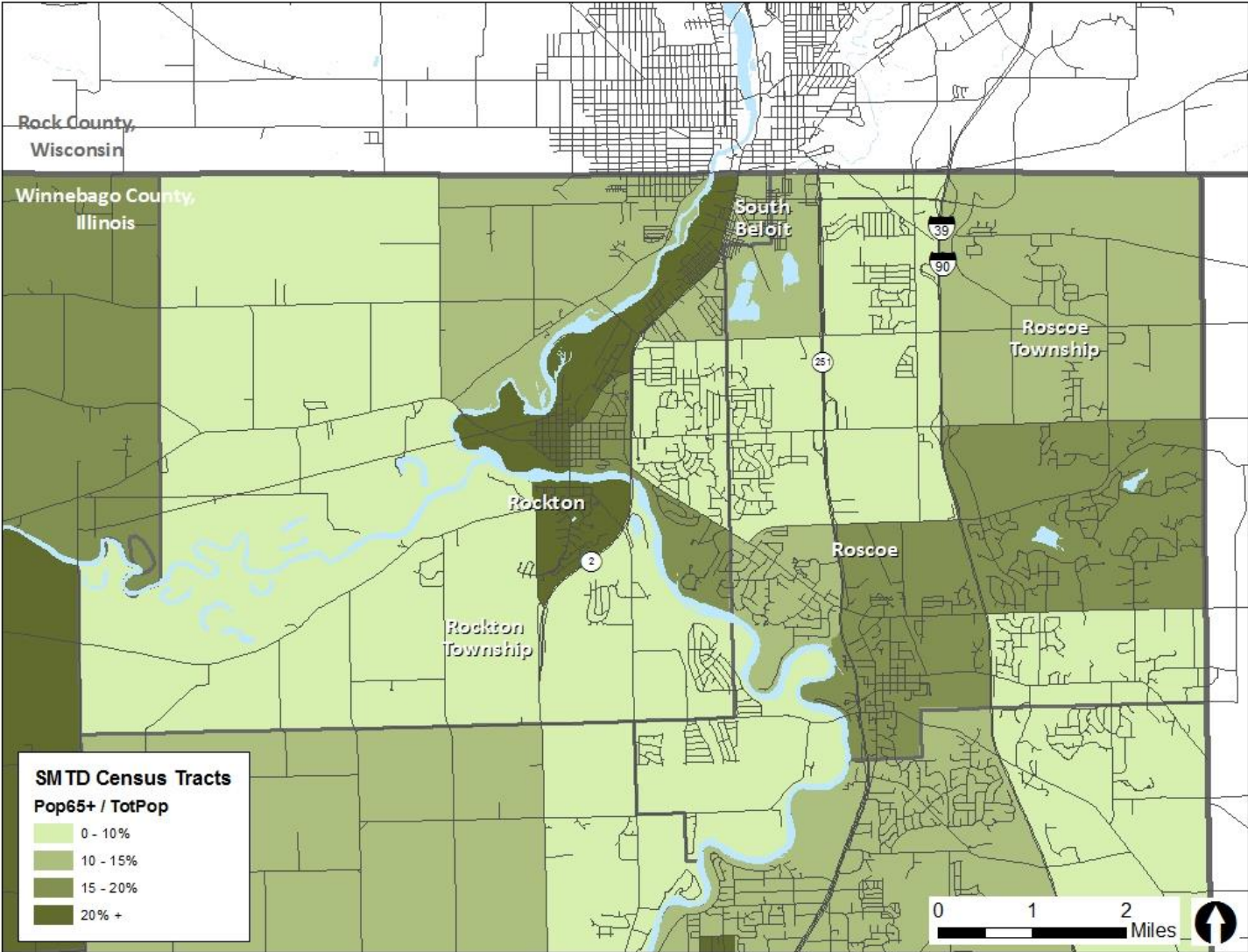


Figure 4. Zero-Car Households

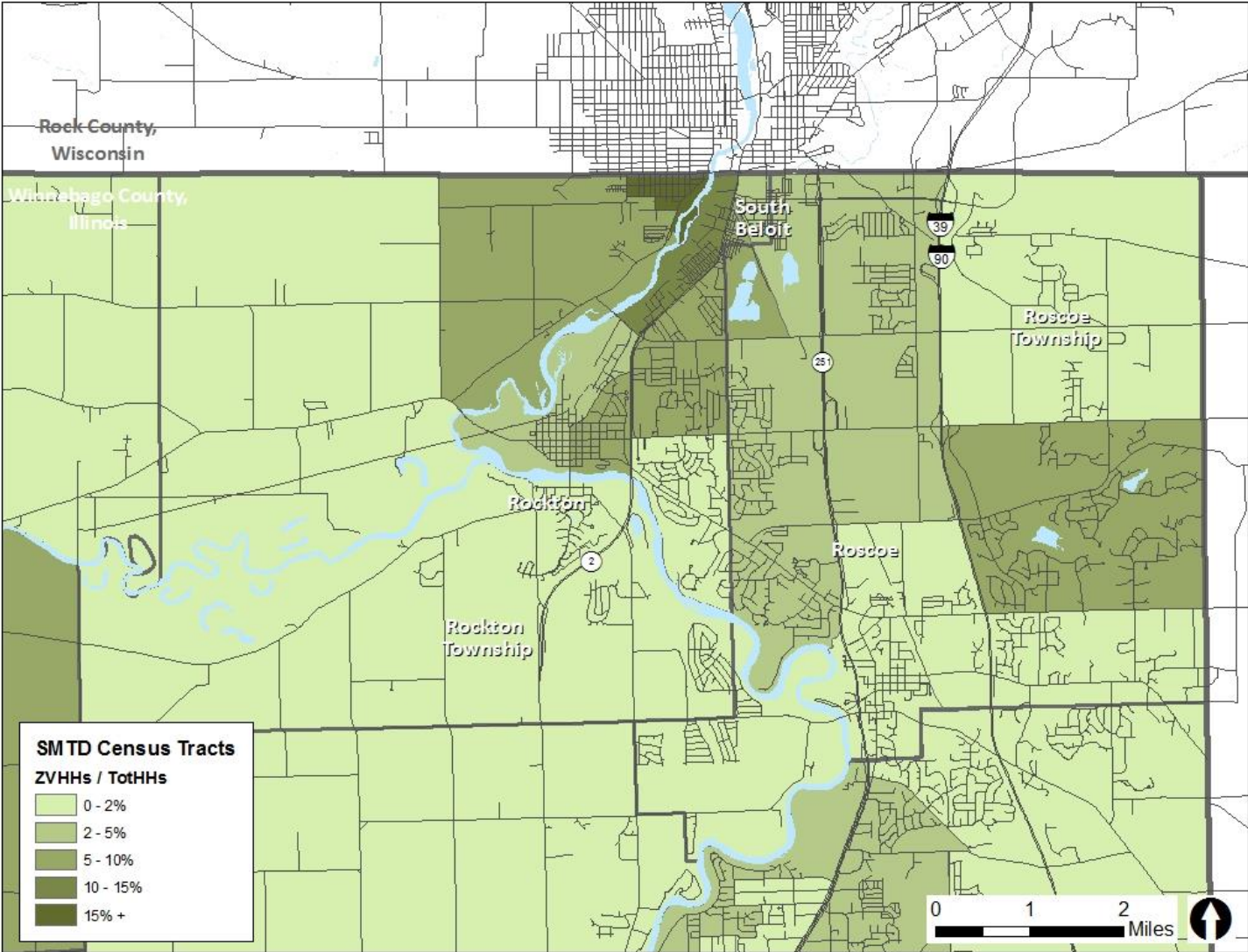
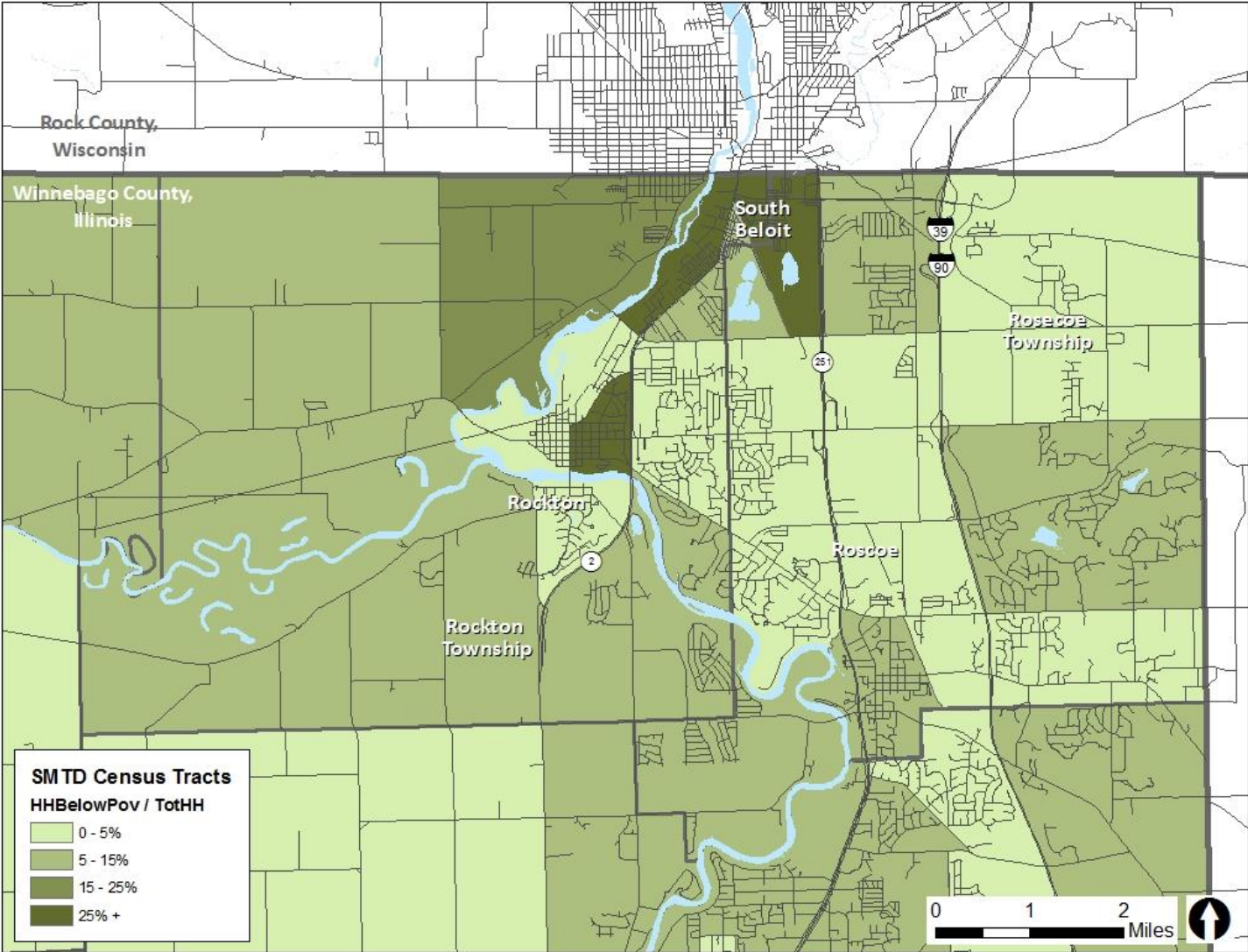


Figure 5. Households in Poverty



Transit Performance Assessment

The following section summarizes transit performance data for SMTD. This assessment will identify trends in the following areas:

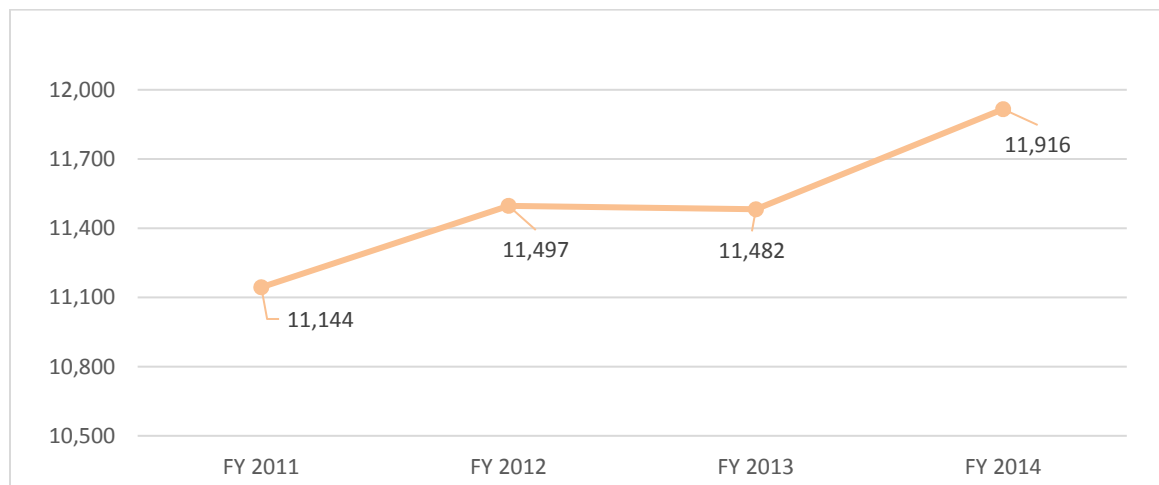
- Annual Ridership
- Passengers per Capita
- Operating Cost per Passenger
- Subsidy per Passenger

Data in this section was collected from SMTD annual reports.

Annual Ridership

In 2014, SMTD provided 11,916¹ rides on its system. Ridership has grown nearly seven percent between 2011 and 2014 (Figure 6). This growth has mainly been in South Beloit and Rockton (Figures 7 and 8). As described in the preceding section, South Beloit and Rockton have the highest concentrations of populations with a propensity to ride transit within the SMTD service area; additionally, they are areas of higher population and employment density. As shown in Figure 9, ridership in Roscoe has decreased significantly since 2011.

Figure 6. System-wide Annual Ridership (2011-2014)



¹ This ridership includes special event service.

Figure 7. South Beloit Annual Ridership (2011-2014)

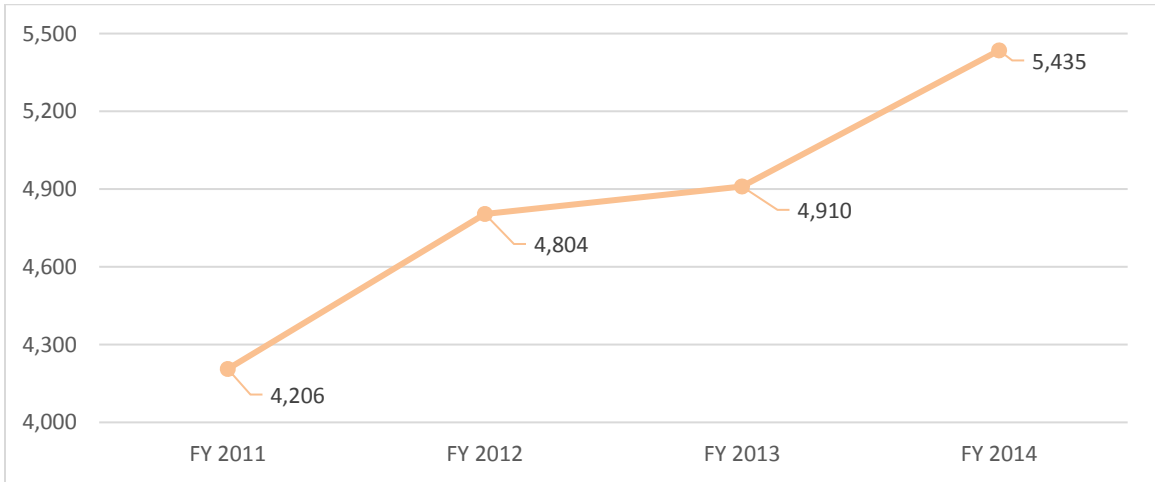


Figure 8. Rockton Annual Ridership (2011-2014)

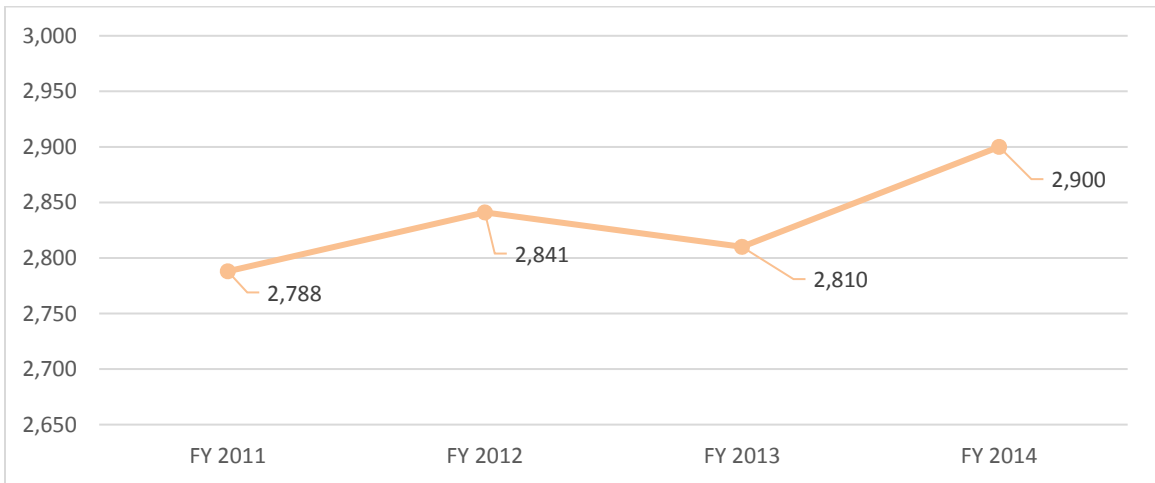
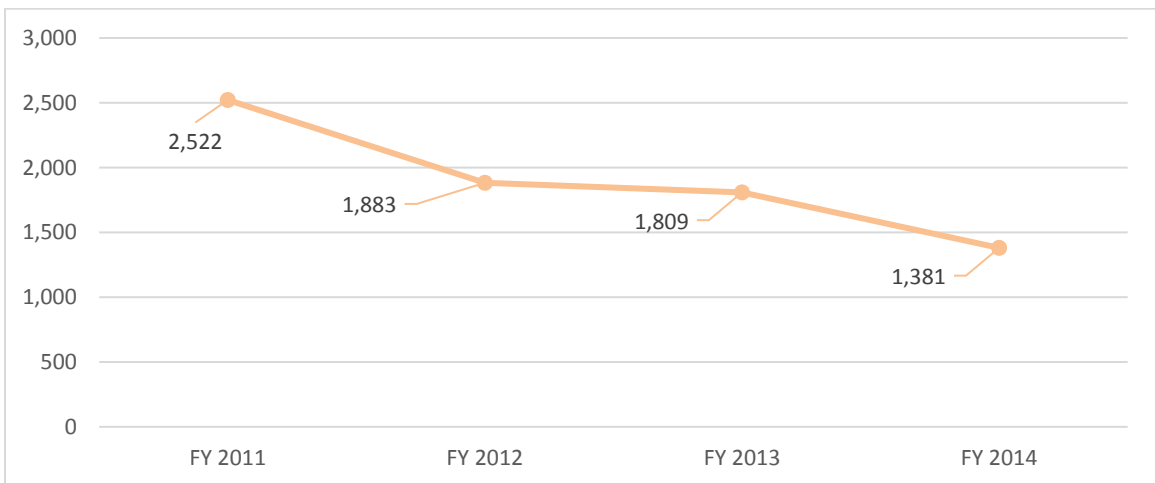


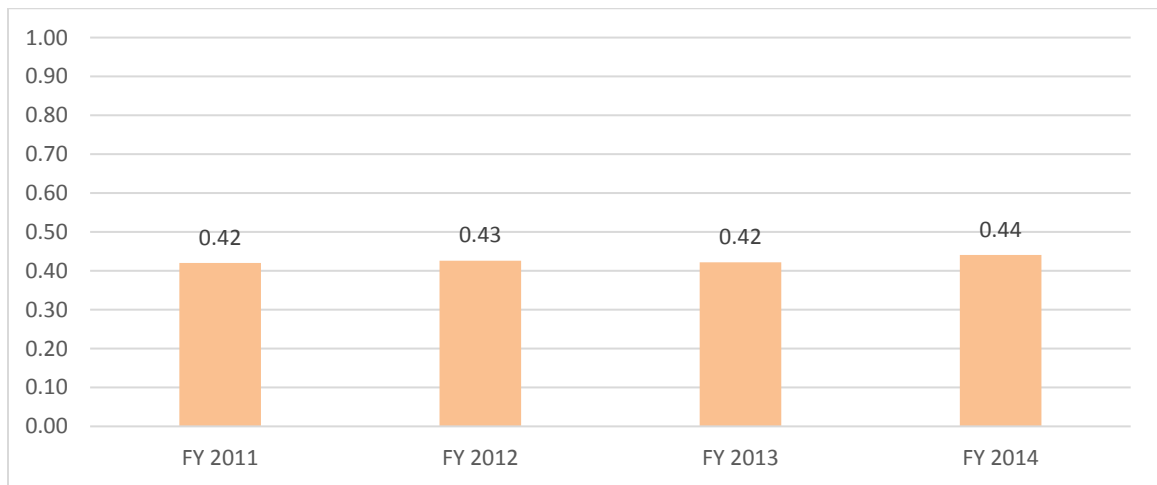
Figure 9. Roscoe Annual Ridership (2011-2014)



Passengers per Capita

Passengers per capita is a measure of market penetration of current services. This measure looks specifically at the annual ridership compared to the total population of the service area. In 2014, the average resident in the SMTD service area used transit 0.44 times per year (Figure 10). This is on the low end of the range of how transit performs in similarly sized communities in the Midwest. Typically for demand response systems, ridership is greater than one trip per capita.

Figure 10. Passengers per Capita (2011-2014)



Operating Cost per Passenger

Cost effectiveness addresses transit use in relation to the level of resources expended. It is a key measure that should be considered by decision makers and funding agencies. The primary measure for comparison under this area is operating cost per passenger. As shown in Figure 11, the operating cost per passenger in 2014 was \$45.50. This level is somewhat higher than similar demand response systems in operated in peer communities. This reflects total operating cost, which includes any overhead or administrative fee recovered by RMTD as a contractor.

Subsidy per Passenger

As operating costs increased due to a greater demand in transit service, the subsidy per passenger has also increased. In 2014, the subsidy per passenger was \$37.73. The subsidy per passenger has steadily increased over the last four years as shown in Figure 122.

Figure 11. Operating Cost per Passenger (2011-2014)

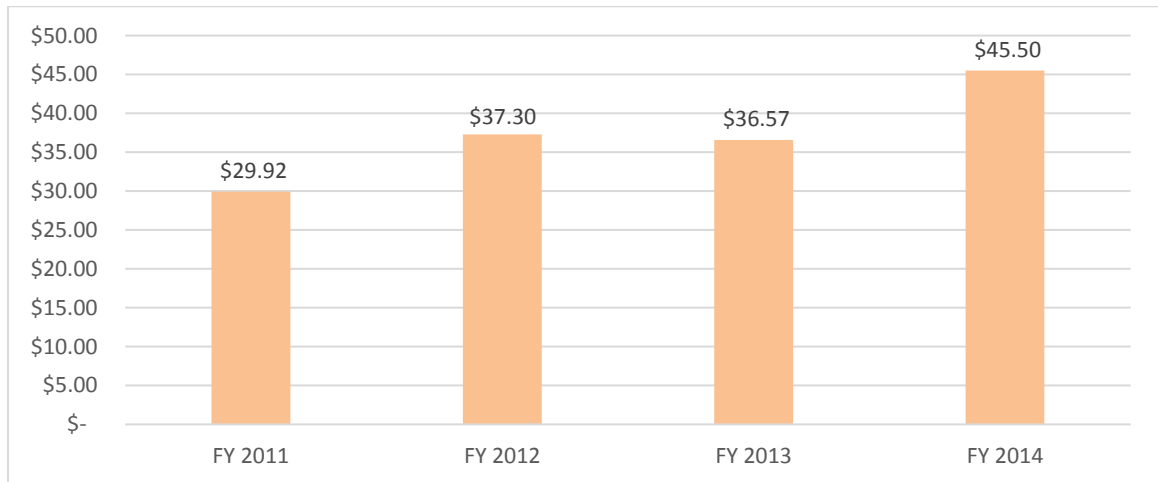
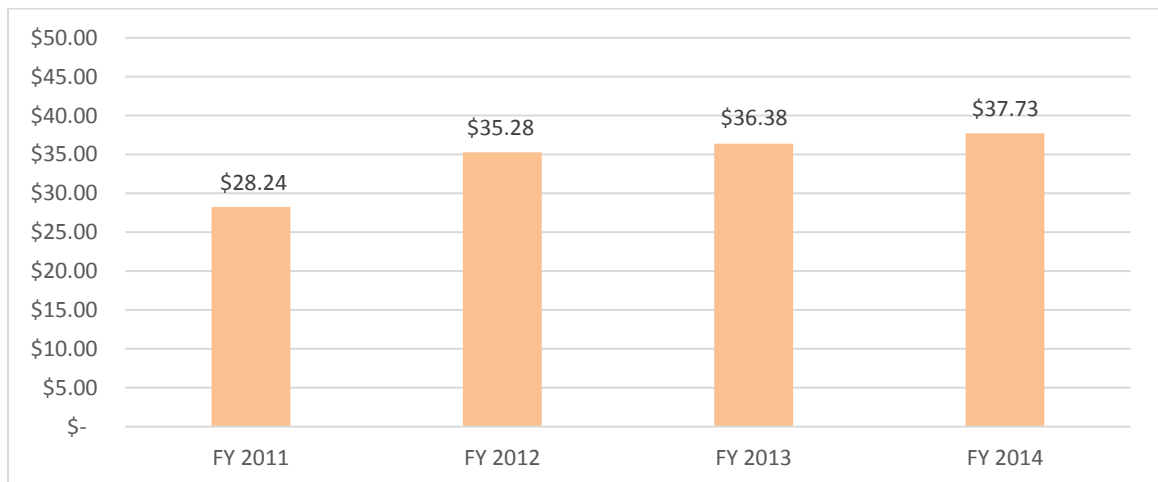


Figure 12. Subsidy per Passenger (2011-2014)



Findings

The intent of the performance review is to identify indicators for further investigation. Ridership trends are increasing in parts of the SMTD service area, and recommendations will look to build on the existing strengths of a growing market. Additionally, recommendations will look at ways to address inefficiencies. With the growth in ridership and expansion of the scope of services, SMTD costs have also risen over its lifetime. Upon review, South Beloit and Rockton have socio-economic indicators that show support or enhanced transit services. Input received from stakeholders will better delineate the market for transit services, and demonstrate how the SMTD service area fits into the broader region.

Stakeholder Outreach

The project team developed several events and tools to gather meaningful input to the transit development plan process. Information was collected from stakeholders on system utilization, and dialogue was initiated to gauge how well the current system meets local travel needs and identify opportunities for change. The input process was completed through a series of meetings and focused discussions with area stakeholders; these conversations aided the project team in gathering input on unmet needs early in the process of the project. Participants included transit system staff and management, local elected officials, planners, and other community leaders. As needed, the project team also conducted in-person and telephone interviews of stakeholders.

Another component of stakeholder outreach was an open house meeting. In the open-house meeting interactive display boards and maps were set up, along with easel pads on which comments were recorded. Each display board or group of boards constitutes a “listening station” staffed by someone from the project team where members of the public could ask questions and make comments individually. The open houses were interactive and conversational to help articulate the community vision and goals.

Outreach Kick-Off Meeting

The project team conducted the on-site visit the week of February 22, 2016. After some initial field observations, Joe Kapper (SRF) and Bob Bourne (Bourne Transit Consulting) met with Sharon Hecox, Executive Director of SMTD, to get background on the service area (population growth, health care centers, and trends in commercial activity), identify stakeholders, and ask questions about SMTD funding. This meeting also provided an opportunity to have an informal conversation about general transit topics, and initial thoughts on the feasibility of recommendations. Topics included:

- The growth of commercial activity in the SMTD and its impacts on transit ridership. Examples include a new grocery store, Wal-Mart, health care facilities and clinics, and other transit destinations on the Highway 173 corridor.
- The structure of grant funding that is allocated to the Beloit and Rockford Urbanized Areas (from FTA and IDOT), and how it supports operating and capital projects
- SMTD’s current contractual arrangement with Rockford Metropolitan Transit District (RMTD) to provide transit services
- Agency goals: A discussion of cost-effectiveness balanced with mobility options and geographic coverage

Focused Discussion

While on-site in the communities of South Beloit, Rockton, and Rockford the project team held several focused discussion sessions with stakeholders. For each meeting a discussion guide was distributed to participants. The guide covered a variety of topics designed to prompt discussion about the strengths and weaknesses of the SMTD system. These were also made available at the SMTD board meeting and the open house. The discussion guide can be found in Appendix A.

Focused Discussion – February 23, 2016

The first focused discussion/outreach meeting was held at the Rockton Township Offices on February 23, 2016. Invitees included SMTD board members, members of the local business community, transit and transportation providers, and staff from health care facilities.

Meeting Summary

Attendees: Paula Hughes, Grants Specialist, Rockford Metropolitan Transit District; T.J. Nee, MPO Coordinator, Stateline Area Transportation Study (SLATS); Marilyn McClenathan, SMTD Board Member; Sharon Hecox, Executive Director, SMTD; Joe Kapper, SRF Consulting Group Inc.; Bob Bourne, Bourne Transit Consulting

SMTD Performance

Strengths:

- Referring to the points on the discussion guide, SMTD performs well and trends are improving
- SMTD offers service 7 days per week, 11 percent of ridership occurs on evenings and weekends
- Proven, effective relationship between SMTD and RMTD

Areas for Improvement:

- No Saturday night service is offered in Rockford. Offering a Saturday night service in the Stateline area would require a change in RMTD operations.
- How does SMTD relate to the Wisconsin side of the state line? How can we get Beloit riders into South Beloit and vice versa?
- There is a need for improved connections between Rockford and Beloit
- There is a need to better leverage funding from State and Federal programs
- Currently no formal travel training program, but SMTD does outreach at community events (Old Settlers Days, RoRo Expo, etc.)

Additional Discussion/Opportunities:

- Per grant and funding requirements, SMTD service must start and end within its designated service area
- Transit providers in the region are willing and able to coordinate with each other
- RMTD drivers are trained to provide fixed route service should that develop as part of the SMTD system

Markets for Transit Service

Key destinations:

- Medical care in Rockford is more extensive than Beloit. As most passengers are State of Illinois residents, medical assistance programs direct them to receive care at Illinois locations.
- Transit eliminates a barrier to seeking and securing employment
- Beloit tends to be a shopping destination for South Beloit residents
- Connections between NorthPointe Wellness Center and Beloit

Importance of Transit

Transit in the Stateline Area accomplishes the following:

- Mobility for those that are unable to drive, or do not have access to an automobile
- Provides access to regional services; travel is necessary from suburban and rural areas to service centers that can be found in larger communities
- Aging in place: older adults need access to resources and transit can provide them with that connection and promote a good quality of life
- Providing over 200 rides per month and increasing

Goals/Objectives

- SMTD should be in a position where they no longer have to say “I am sorry, we don’t do that.”
- SMTD will need to address the issue of offering service in Roscoe Township (currently they are not part of the system)
- Improve service to Beloit
- Explore the possibility of providing Medical Assistance trips
- Improve connections with Beloit Transit System

SMTD Board Meeting – February 24, 2016

In addition to the focused discussion, stakeholders had another opportunity to provide input on the project at the SMTD Board Meeting held on February 24, 2016. An agenda from this meeting is attached in Appendix B.

Meeting Format

The project team was one item on the SMTD board agenda. Joe Kapper provided a presentation and project update and then facilitated a work session with the board members that were present. The work session agenda mirrored the guide from the focused discussions (these were distributed to board members and audience members), and a copy of the presentation from the meeting is attached in Appendix C.

SMTD Board Feedback

SMTD Performance

Participants were asked what they felt were the strengths of the transit system, and to identify areas for improvement.

- Consensus that “more service” is a good thing. Specifically this means an increase in service span and the exploration of fixed-route and other modes of transit.
 - o Later service on Sundays
- Fares might be too low given the level of service provided; with fare increases may also come a decrease in ridership.
- Bulk fares seem to be popular, and more people are inclined to use multi-ride passes.
- General positive opinion of transit system from board perspective
- There is a perception from some customers that it is a private taxi service, and that it is not a public transit/shared-ride service. However, with time, users have gotten more used to the transit system.
- Roscoe Township is underserved

Increasing Transit Ridership

Participants were asked about strategies that would be effective in increasing transit ridership in the service area.

- Advertise with Beloit Transit System, and improving connections between South Beloit and Beloit
- Beloit is a shopping destination for South Beloit residents, so partnering with retailers and coordinating shopping trips may attract South Beloit ridership
- Medical care and appointments are a common trip purpose and there may be coordination opportunities with health care providers
 - o Advertising
 - o Public health and community outreach
 - o Scheduling appointments in coordination with transit service

Values

Participants were asked about the core values of the transit system.

- How important is public transit service to the community?
- What is the general perception among community leaders of the value of transit?
- How do you assess community support for a potential expansion of transit services?
- What are some reasons why people may support such an expansion?
- What are some reasons people may not support an expansion?

Feedback from the SMTD board was as follows:

- SMTD is a great value given that for a low fare people can be connected to a broad geographic area and receive a premium level of service
- Enables freedom for people that do not have access to a personal vehicle
- The SMTD service area is a regional center for many rural areas. Need more connections to these communities in Winnebago County.
- There is a need to serve a growing population of older adults
- There is somewhat of a stigma around transit; there is a perception that it is only for certain segments of the population (people with disabilities, older adults, etc.) and not the general public
- A challenge is that the public and elected officials are territorial about tax dollars. People seek a quantifiable and immediate return on investment, and transit service can take time to mature and local match supports a system with benefits that are regional and not localized.

Open House Meeting

In addition to focused discussions and a work session with the SMTD board an open house meeting was held at The South Beloit Public Library on February 23, 2016 as an opportunity to engage the general public, and invite stakeholders to provide input on the Transit Development Plan.

Meeting Format

The consultant team spent about 1.5 hours at the South Beloit Library. As per the suggestion of library staff, the open house was held midday (beginning around the noon-hour) as that is a busier time.

There were several stations set up at tables in the front of the library with a map of the transit service area, and two interactive exercises (see Figures 13 and 14 and Appendix D). Additionally, members of the consultant team were available for a discussion about SMTD service and to answer any general questions.

Public Input

Workshop Exercises

Meeting participants indicated that for general purpose travel (shopping, medical appointments, etc.) SMTD was adequately meeting people's transportation needs. These are trips that are planned in advance and are consistent with the demand-response service mode. This service is also focused on travel within one's community. However, meeting participants indicated that people wishing to travel throughout the region or interregionally, commuters, and visitors to the Stateline area were not as well served. Conversation yielded that this was mostly due to a lack of familiarity with this type of transit service, and long travel times.

Meeting participants had no recommendations for improving facilities or vehicles, however they did suggest that transit could better serve some destinations. In particular, SMTD could better connect with destinations on the Wisconsin side of the state border, including downtown Beloit, and technical college campuses in Monroe and Janesville.

Figure 13. How well does transit meet mobility needs?

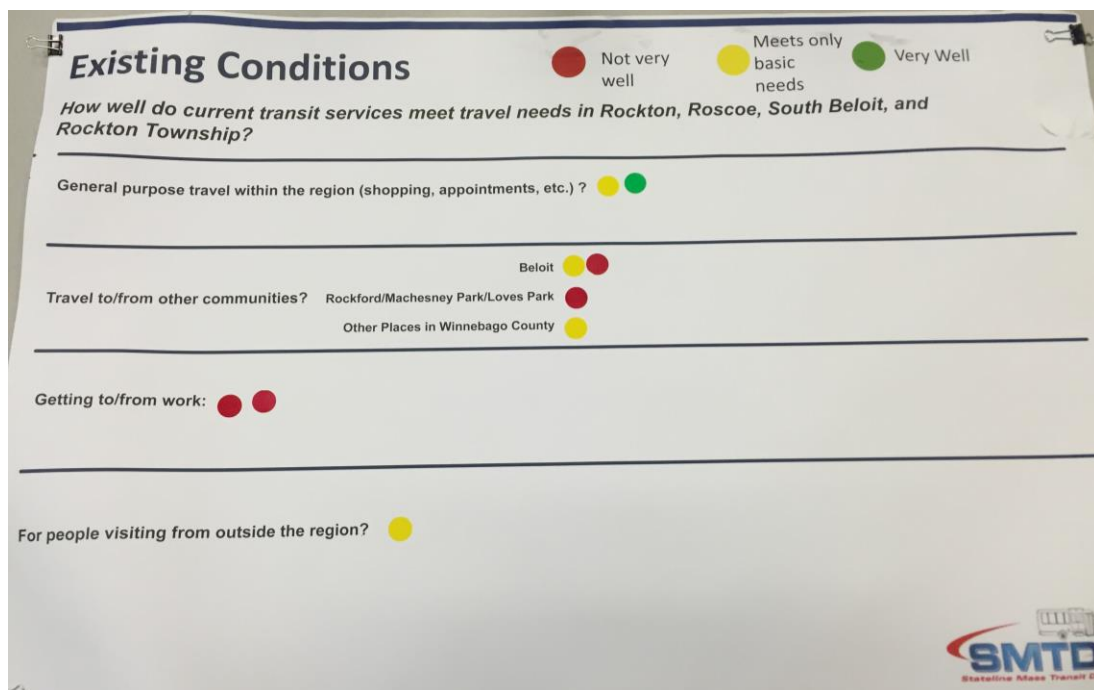


Figure 14. Prioritizing Service Changes

Service Changes

Place red stickers on the service changes that are most important to you.

What modifications to transit service are most important?

<p>Serve a new destination (write in):</p> <p>• <i>West Hill - connection to Blackstone Tech</i></p> <p>• <i>56 - Lynn</i></p>	<p>Improve the facilities and vehicles:</p>
<p>Service should run earlier or later:</p> <p>•</p>	<p>Provide better customer information (maps, signage, technology):</p> <p>•</p> <p>•</p>
<p>Offer fixed route bus service (Beloit Transit System, RMTD):</p> <p>•</p>	<p>Other (write in):</p> <p>• <i>Mobile App</i></p>

SMTD
Statenline Mass Transit District

Another priority was to improve customer information, if possible through the use of a smartphone app where people could have a guide to the system and schedule rides. Participants were also open to service running earlier or later, and the establishment of fixed route service.

Discussion

Members of the project team were also available to answer questions about the system and record general feedback on the plan. Open house attendees had the opportunity to familiarize themselves with SMTD service, and remark on an overall vision for transportation in the region.

Discussion Notes

General Discussion

- The region is “very car dependent.” People are not used to taking public transportation, and are comfortable with “rural life” which generally involves a car.
- A participant stated that SMTD is a valuable transportation option for people. There is a chance that anyone in the community would lose their ability to drive, and SMTD enables people to be part of the community.
- Expansion is contingent upon more communities joining the system
- New vehicles will help meet growing demand, and implement plan recommendations
- Service has become more efficient over the years

Figure 15. Stakeholders and Project Team Members Discuss Transit in SMTD Service Area



Local Transit Market

- Accessing services in Rockford is important (health care, employment, government offices)
- SMTD can be a regional link between Beloit and Rockford
- Medical trips and other “lifelines” tend to be the backbone of the system given that it is demand response

Interviews

Using the same guide for the focused discussions, the consultant team conducted several interviews with transit stakeholders. Interviews and discussions with RMTD staff are recorded in the Field Observations section.

Michelle Gavin – Director, Beloit Transit System (BTS)

On March 4, 2016 the consultant team contacted Michelle Gavin via conference call to discuss the Transit Development Plan. In addition to going through the SMTD board meeting presentation and the discussion guide, topics included her perspective on transit coordination opportunities and service expansion.

Coordination/Feasibility

In terms of expanding BTS fixed route service, they have the vehicles and staff to operate across the state line. The major constraint would be the need for additional operating and capital dollars to assure continuity of service. BTS recently eliminated their school tripper service, and they have three heavy-duty transit buses that are being re-allocated into their

current system to make improvements to frequency. Also, expansion vehicles are expected to arrive later this year. This presents an opportunity to operate a pilot project in South Beloit if that is an outcome of the TDP.

BTS could have a similar arrangement to the one they have with Janesville Transit System where there is a seamless operation between the two systems. A fare structure would need to be established – perhaps a zone fare system – to ease interoperability; this structure would need to be equitable in that it can't favor non-Beloit users if they are transferring from SMTD to BTS. BTS and Janesville Transit System have the same farebox technology making this easier.

Market for Transit Service

- Anecdotally, BTS gets requests to pick up south of the WI/IL border and requests for service expansion. BTS refers them to SMTD.
- People are interested in getting into South Beloit
- There is an opportunity to have a timed connection to the Van Galder Bus at the Road Ranger on I-90
- The I-39/90 project presents an opportunity for transit expansion. The Milwaukee Road interchange will be reconfigured to a diverging diamond, and this will free right-of way for a park-and-ride facility. This could also be an intercity bus hub where Van Galder could shift their operations [instead of Road Ranger].
- Previous TDP's and commuter studies have shown that more people commute to the Janesville and Madison area than to Rockford. There is vocal interest in improving connections to Madison.
- Any new service will be expected to have performance (revenue and ridership) consistent with BTS fixed route or paratransit service. It is understood that new service takes a few years to mature.
- Regionalization is a good thing – Regional Transit Authorities are a long way off in Wisconsin, but we can do things incrementally and cooperatively.

Rebecca Smith – General Manager Janesville Transit System, and Terry Nolan – Janesville MPO

On May 18, 2016 the project team conducted a teleconference with Rebecca Smith (Janesville Transit System) and Terry Nolan (Janesville MPO) to discuss the SMTD Transit Development Plan project and gather any input they may have. Comments received include:

- Currently, regional connections are made using the Van Galder Bus. Outside of Janesville or Beloit, direct connections to the intercity bus stops are limited. Additionally, Van Galder Bus tickets are not as affordable as a public transit fare.
- SMTD likely serves a market that would benefit from direct connections to Beloit more so than Janesville. Even so, connections to Janesville are made using the Beloit-Janesville Express service that could connect to SMTD in downtown Beloit.

- As there are currently no dedicated regional funding systems in Wisconsin, any service expansion would require a local sponsor
- Rock County uses Routematch software. This is the same product that RMTD uses and there may be some opportunities for coordinated dispatch.

Existing Conditions and Field Review

Existing Scope of Service

Stateline Mass Transit District (SMTD) provides a demand-response transit service in South Beloit, Rockton, Roscoe, and Rockton Township, in Northern Illinois and Southern Wisconsin. The service area is comprised of 52.7 square miles and is located between Rockford, IL and Beloit, WI; the service area population is 27,031. SMTD contracts with Rockford Mass Transit District (RMTD) to provide all operations, administrative support, and grant management assistance. An employee of Rockton Township acts as a part-time Executive Director of SMTD. In 2016, Roscoe Township was added to the SMTD service area. The current service area population (resulting from this expansion) is 39,240 and the service area is 74.1 square miles.

General purpose trips terminate at the Beloit Transit Center in Beloit, or at the Hwy 173 Target in Machesney Park. At these locations, passengers can transfer to fixed-route buses or to a different paratransit service if they are eligible for paratransit in Beloit or Rockford. Passengers are able to make trips into Rockford and Beloit for medical purposes without changing vehicles.

Figure 16. RMTD Bus Departing Machesney Park Transfer Point with SMTD Bus



Passengers are required to register with SMTD in order to ride – providing their name, address, age, and disability status. Accommodations are made for passengers wishing to travel “on demand” on the same day on a space available basis. However, SMTD recommends making a reservation at least one day in advance. The process of pre-registration and advanced reservations, though typical of demand response service, can inhibit spontaneous use or be unattractive to new users.

SMTD does not provide Non-Emergency Medical Transportation (NEMT) through the State of Illinois brokerage system currently administered by First Transit. RMTD provides limited service under the brokerage at certain times of the day. The dispatching software is able to keep the RMTD Medicaid trips separate from SMTD and not allow Medicaid trips for SMTD passengers. Passengers who are eligible for Medicaid trips are using SMTD service as a regular passenger, paying the appropriate fare. SMTD currently has no agency fare agreement with care organizations to provide medical trips.

Operating Cost

RMTD provides drivers and maintenance at a rate that is based on the overall cost of their paratransit system in the Rockford urbanized area. RMTD has 22 vehicles in paratransit service, and SMTD has three vehicles in normal service with an occasional fourth vehicle added to meet periods of high demand. SMTD benefits from economies of scale when using the cost base of the much larger RMTD system, with technical capacities in technology, maintenance, and financial management consistent with a large urban transit system.

The formula for determining the cost of operation is the marginal cost for drivers and maintenance. A five percent administrative charge (for administrative overhead) is added to the cost model and is an appropriate level of charges for the administrative effort. A charge is also included for additional grants management tasks. The fully allocated cost for RMTD service is approximately \$120 per hour. This is somewhat higher than other urban paratransit systems in the region; for example, Madison, Wisconsin has rates that historically are closer to \$95-\$105 per hour² for in-house paratransit. The fully allocated hourly rate for Beloit Transit System service is approximately \$91 per hour³. However, the structure of the contract includes a host of administrative services like dispatching, maintenance, and grants management. Paratransit is typically service for which a transit agency will contract with a nonprofit agency or private contractor. It is less typical for a contractor to take on such a full scope of administrative tasks. Recommendations will account for the full array of services received from RMTD.

Field Observations

SMTD Operations

Dispatching

Drivers are provided by RMTD and can be assigned to SMTD service or RMTD paratransit service. When there is a temporary shortage of drivers, RMTD fixed-route drivers who are

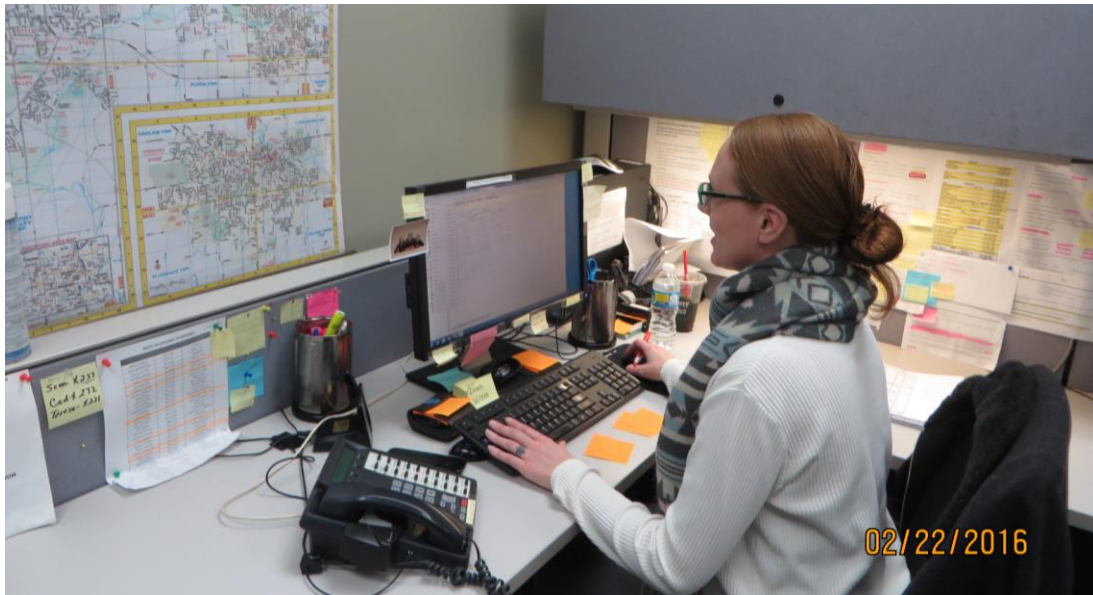
² Source: National Transit Database

³ Source: National Transit Database

qualified for paratransit service can be used on SMTD or RMTD paratransit service. This scheduling flexibility is an important element in maintaining a lean operation and minimizing the cost of the extra board.

Dispatching service is provided by one RMTD staff member primarily assigned to SMTD trips, but other RMTD dispatchers have access to the software scheduling and can schedule SMTD trips when needed. A part-time administrative assistant also supports dispatchers.

Figure 17. RMTD Dispatching Staff Assigned to RMTD Trips



SMTD has a fleet of vehicles that are dedicated to its demand response service. However, RMTD vehicles can be used when there are not enough SMTD vehicles available. The scheduling software also allows insertion of an RMTD trip into the SMTD driver's manifest when a vehicle has available time. Financial and ridership allocation is tracked by the software. Each transit system gains efficiencies and flexibility through this manner of operation.

The RouteMatch software recognizes trips that go outside of the SMTD service area into Rockford and Beloit. However, the dispatcher has the ability to manually adjust trips. On the day of observation, the dispatcher was attempting to keep one vehicle in the northern portion of the service area (South Beloit and Rockton) for local, short-distance trips. Because many trips have a trip end in the southern portion of the district or in Rockford, this strategy provides greater flexibility and shorter response times for unusual situations, delays, or same-day calls in the northern portion of the district.

It is difficult to second guess the algorithms used for paratransit scheduling. However, zonal protection through manual adjustments is a common strategy used by dispatchers in many transit systems. While it may not minimize cost, it does give dispatchers more flexibility to respond to immediate problems, which some software does not allow.

SMTD on-time performance is good, with 92.3% of all trips operating on-time in the first six months of the current fiscal year. Lack of complaints in the areas of driver courtesy, safe driving, or wheelchair securement competency – along with some field observations – indicate that these are not major issues of concern for SMTD.

Ridership Patterns

While on-site, the project team conducted informal interviews with RMTD management, dispatchers, and drivers to understand ridership patterns. Despite the proximity of SMTD communities to Beloit, the majority of trips are made into or out of RMTD communities. The medical facilities in the Rockford area are major trip attractors. Medicaid-eligible customers are required to seek medical care in Illinois, which may explain the high percentage of trips to the RMTD area. There is also a significant portion of trips made completely within the SMTD communities. Walmart tends to be the largest trip generator, and many of the trips completely within SMTD areas are for groceries or essential shopping purposes.

Marketing and Outreach

Marketing and outreach efforts are led by the Executive Director. This includes advertisements in local newspapers, magazines, and chamber of commerce/tourism publications. Additionally, the Executive Director works with board members and regional elected officials to secure funding, assure that community goals and objectives are being met, and serve as the point of contact between the SMTD board and RMTD. SMTD service is also promoted to employers, health care facilities, and at community events. Numerous promotional materials and souvenirs are available. The Executive Director is engaged and active in the development and promotion of the system, regularly interacting with passengers and RMTD staff. She also has a keen understanding of the local transit market and regional development trends. However, as a part-time position, her time is limited to conduct market research and fully develop this part of the transit operation.

Figure 18. Executive Director Sharon Hecox with Promotional Materials



Figure 19: SMTD Event Display



Front Line Operations and Transit Service Area

While on-site, the project team had an opportunity to observe passenger transfer points, drive potential transit routes, and identify opportunities for transit development. This included the following:

- Observing the Machesney Park transfer point
- Mapping potential fixed routes and future transfer points
- Riding on transit trips

South Beloit and Rockton represent the two portions of the service area that have contiguous development, a street grid, and pedestrian facilities. Rockton Township, Roscoe, and the unincorporated areas have a lower population density and generally greater distances between typical origins and destinations. Despite the efficiencies gained by dispatching procedures and technology, travel times and trip distances can be quite long due to the low density environment. No issues were observed associated with driver training or customer service.

Figure 20. SMTD Bus on Layover



Customer Perspective

On February 25, 2016 project team staff traveled on board SMTD service for observations. Meeting with passengers, some of the benefits of SMTD service were illustrated. On this particular day a gentleman was riding the service on a trip home from work. He is currently disabled and living in an assisted housing complex in South Beloit. Unable to drive, before SMTD was in service he relied on transportation through the help of relatives, usually a parent. However, as he and his parents got older, this arrangement became more of a challenge. SMTD allowed the passenger – and his family members -- to maintain independence, attend doctor’s appointments, and keep part-time employment.

Field Review Summary

After conducting the field review, the project team identified the transit system’s **strengths, weaknesses, opportunities, and threats** that inform transit development plan recommendations.

Strengths

- SMTD has strong leadership from the Executive Director; the manager interacts with customers and clients, and knows how to maximize existing resources
- Professional and technically capable operation and management from the RMTD transit system
- RMTD handles all personnel issues (training, hiring, etc.)
- Local funding is stable from the current communities

- Expansion vehicles have been programmed into TIP, presenting an opportunity for expansion
- Span of service includes weekday evenings, Saturdays, and Sundays

Weaknesses

- Demand response system is less visible within the community than a service with fixed stops and routes; also requires advanced scheduling and registration which may be unattractive or confusing to new users
- No evening fixed route or paratransit service in Beloit, WI
- Expansive service area, with low population density and land uses that do not support fixed-route transit suggest that demand response – which has a higher cost per passenger – may be the most suitable mode of transportation in the region

Opportunities

- Willing partners in both Beloit and Rockford transit system, many future opportunities for coordination
- Capital funding is available for expansion service
- Currently IDOT Downstate Operating Assistance Program (DOAP) funds are not maximized due to a lack of local match; this is an untapped resource for future expansion
- Latent demand for fixed route service in South Beloit and Rockton

Threats

- Potential reduction of Illinois DOAP program from 65 to 55 percent of operating expense
- Some communities have a negative perception of transit, and political support for transit could be reduced in the future

Service Concepts

This section outlines several options for continued development of transit services in the SMTD service area. Options focus on three different modes of transit service: demand response, flex route, and fixed route services. Service can be improved and future demand can be met by adding paratransit vehicles, formalizing some components of the service to add scheduled time points, or adding fixed bus routes. Additionally, this report outlines opportunities to leverage additional funding into transit operations, including Illinois DOAP and agency fares, and capital investment.

Transit Mode Definitions

Demand Response

SMTD is currently a demand response transit system. Demand response service is defined by FTA as any non-fixed route system of transporting individuals that requires advanced scheduling by the customer, including services provided by public entities, nonprofits, and private providers. Service is provided curb-to-curb and there are no formalized schedules. These services can be provided by public agencies, taxi companies or private transportation providers. The vehicles do not operate over a fixed route or on a fixed schedule except, perhaps, on a temporary basis to satisfy a special need. The vehicle may be dispatched to pick up several passengers at different pick-up points before taking them to their respective destinations and may even be interrupted en route to these destinations to pick up other passengers.

Flex Route

A flex route – also referred to as a “deviated fixed route” or “flexible bus” -- is a transit mode that operates as a hybrid of a fixed-route bus and a demand response service. There are several scheduled time points strategically placed along a travel corridor, and the vehicle will operate curb-to-curb service within a set geographic area. If the geographic area exists as a $\frac{3}{4}$ mile or greater buffer, it is deemed to be equivalent to ADA complementary paratransit. Rides are dispatched as they are for paratransit service, and still have conventional bus stops and shelters corresponding to the time points.

Fixed Route

In the Stateline region, fixed route bus service is operated by RMTD and BTS. Fixed route service is provided on a repetitive, scheduled basis along a specific route with vehicles stopping to pick up and deliver passengers to specific locations; each fixed route trip serves the same origins and destinations. There are typically posted schedules and signed bus stops, and the service can be operated by either a public agency or as a contracted service.

Functional Area Recommendations

Service and capital recommendations are one component of an effective plan, however to ensure successful implementation this report also makes recommendations on several functional areas of the transit system. This includes governance and contracting, marketing and outreach, and agency management. Capital investments are also inventoried in this section.

Evaluation and Discussion

Each recommendation will be evaluated and discussed based on the following criteria:

- **Frequency and Ridership** – Improvements in the availability of service, and the ridership benefit
- **Project Readiness** – The time frame at which the project can be implemented
- **Administration** – Level of administrative work necessary to implement the project
- **Operating and Capital Cost** – Cost of transit operations and expanded capital assets

Additionally, all of the recommendations will be vetted and refined by SMTD and SLATS staff to make sure that they correspond to agency goals and objectives.

Figure 21. Transit Development Plan Process



Service Options

Enhanced Demand Response Service

Option 1: Additional Service Hours and Expanded Fleet

The first step in further developing the demand response service is to add another vehicle to the existing fleet during revenue hours. With the potential addition of Roscoe Township to the service area, to efficiently keep up with growing demand and coordinate trips will require an expanded fleet. Adding another bus into the current demand response model would improve response time and allow greater opportunities to provide same day service.

SMTD can expect a gradual increase in ridership with an increased effort in promotion and advertising, building on some of the existing strengths of the transit system. Instead of three buses in regular daily service (with four in service as needed), there would consistently be four buses dedicated to SMTD during revenue service with an additional vehicle as a spare. The bus would initially be scheduled during the current peak travel times. As ridership grows, the span of service for the extra bus can be expanded to start earlier or end earlier.

Revenue Generation with Non-Emergency Medical Transportation

NEMT service and reimbursement is not provided by the current SMTD network. While many Medicaid-eligible passengers may be using the current service, formalizing the Medicaid reimbursement process can be a source of new revenue for the system. It may also increase demand, which would use some of the available time from the added vehicle.

Option 2: Expanded Service Area

Longer Distance Trips

An alternative approach using additional vehicles in demand response service would be to allow SMTD vehicles to deliver passengers to specific destinations in Rockford or Beloit. While buses can now deliver to medical locations, the acceptable destinations could be expanded to include some retail locations (Walmart, Cherryvale Mall, etc.) or to work destinations of people who live in the SMTD area and work in the RMTD service area.

Broader Service Area

Another demand response option is to use the extra bus to expand in nearby townships if local financial support can be obtained from these communities. This process would require at least one year of planning and negotiation with the governing bodies of the nearby communities.

The two demand response options will have similar cost, but different outcomes. The first option of increased availability of same-day service would be popular and effective in that it would primarily grow ridership by making service more convenient for existing users. Participation in Medicaid services would result in higher operating revenue, and open up SMTD to a new customer base. Serving longer trip lengths to Rockford or Beloit would be well received by current passengers who transfer. The expansion to other areas would meet travel needs of people without transportation in those areas, but requires a long implementation period.

Flex Route Service

A flex route is a hybrid service that has characteristics of both a fixed-route service and a demand-response service. Typically, a flex route has a few fixed time points, and then the route varies between time points depending on the calls that the dispatcher receives. Passengers boarding at fixed points do not have to call a dispatcher. They tell the driver where they are going and the driver can vary the route to deliver them to their destination and coordinate this with the dispatch office. Most computer-aided dispatch software packages can accommodate this type of service. Communication between dispatcher and driver is necessary to keep the software functioning properly on each trip.

The flexible part of the service is typically limited to $\frac{3}{4}$ mile from the primary route. Highway design, traffic patterns, and land use may alter that distance slightly in some locations. Typically, commercial nodes, middle schools, and high schools generate most of the customers who board at a fixed time point and tell the driver their final destination.

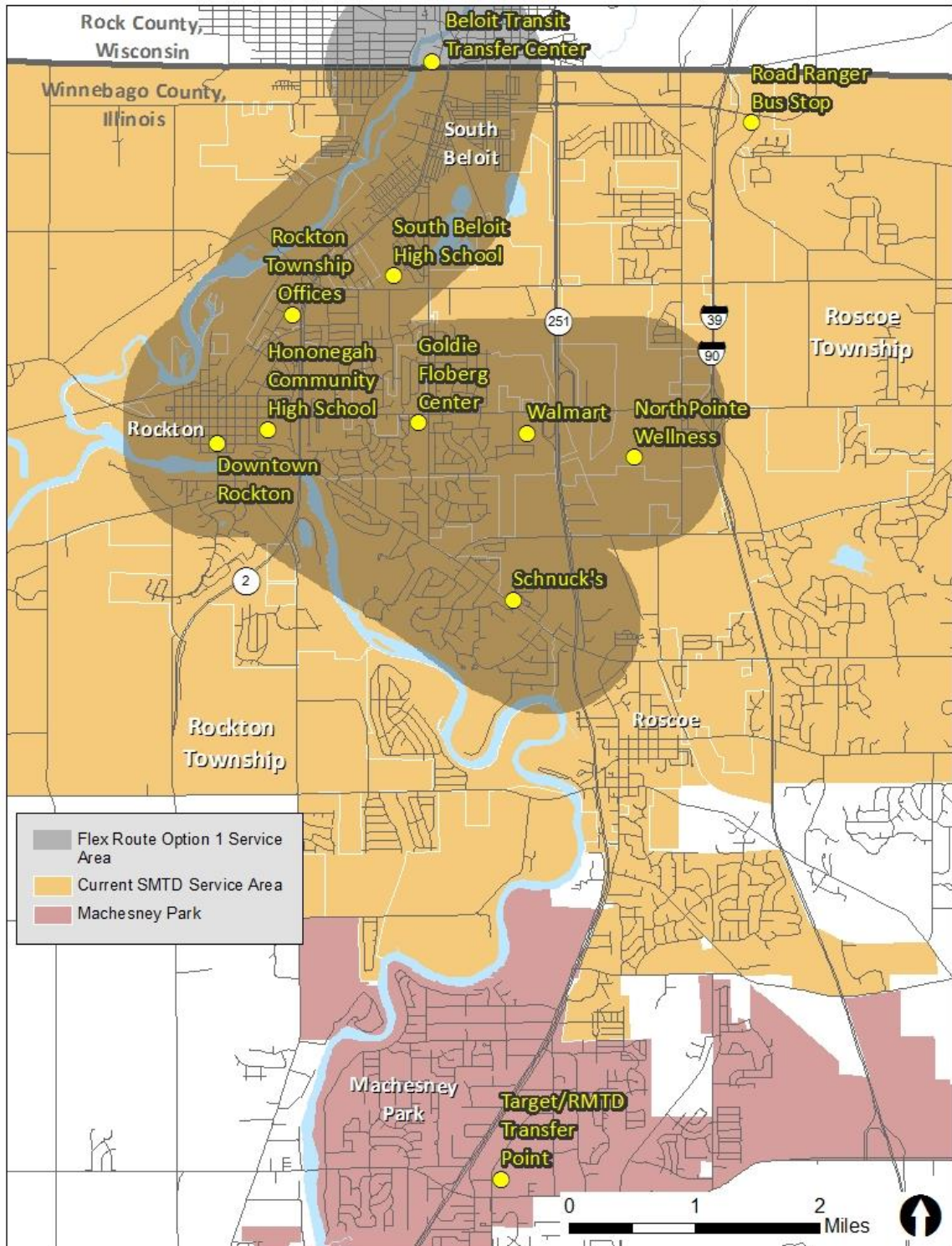
A flex route can be operated from Beloit Transit Center and designed to serve trips in South Beloit and Rockton. It could also be extended to Rockton and Hwy 173 Target in Machesney Park. There would be fixed time points at several locations on the route, but the bus can modify its route to meet demand. Passengers would not be required to pre-register with SMTD for flex service. Flex routes can also be used to formalize service and build a market for fixed routes.

The following are two concepts for flex-route service:

Option 1: Beloit to Rockton/Roscoe (Near Term Option)

In the performance assessment both Rockton and South Beloit had the greatest level of demographic indicators and densities of employment and population to support a fixed route service. The first flex route option, shown in Figure 22, would have scheduled time points at Beloit Transit Center and include the areas with the greatest population density and key destinations in South Beloit and Rockton, with some commercial and medical destinations in Roscoe. Fixed time points would exist at Beloit Transit Center, South Beloit Middle School, South Beloit Senior High School, downtown Rockton, Hononegah High School, Walmart and Schnuck's.

Figure 22. Flex Route Option 1



One bus could cycle between these locations and pick up and drop off passengers at their origins and destinations that are not at the fixed time points. This bus would primarily operate in South Beloit and Rockton. The remainder of the current demand response operation would remain unchanged. The interval between buses at the fixed stops would be 80 minutes and would connect with every other departure pulse of Beloit buses at the Beloit Transit Center.

Option 2: Beloit Transit Center to Machesney Park

Another flex route option is to add additional time points in downtown Roscoe and at Hwy 173 Target (see Figure 23). A second vehicle would be needed to extend the service south of Schnuck's to Target. With two buses, the interval between buses at the flex stops would be 80 to 120 minutes depending on ridership demand and traffic conditions. Buses would connect with Beloit buses at the Beloit Transit Center and RMTD buses at Hwy 173 Target. Current demand response service would be continued.

Some of the current SMTD passengers may switch to the flex route because it does not require an advance phone call and allows passengers the flexibility to change their travel plans dependent on their needs of the day. Registration with SMTD would not be required for those passengers boarding at a defined flex-route stop.

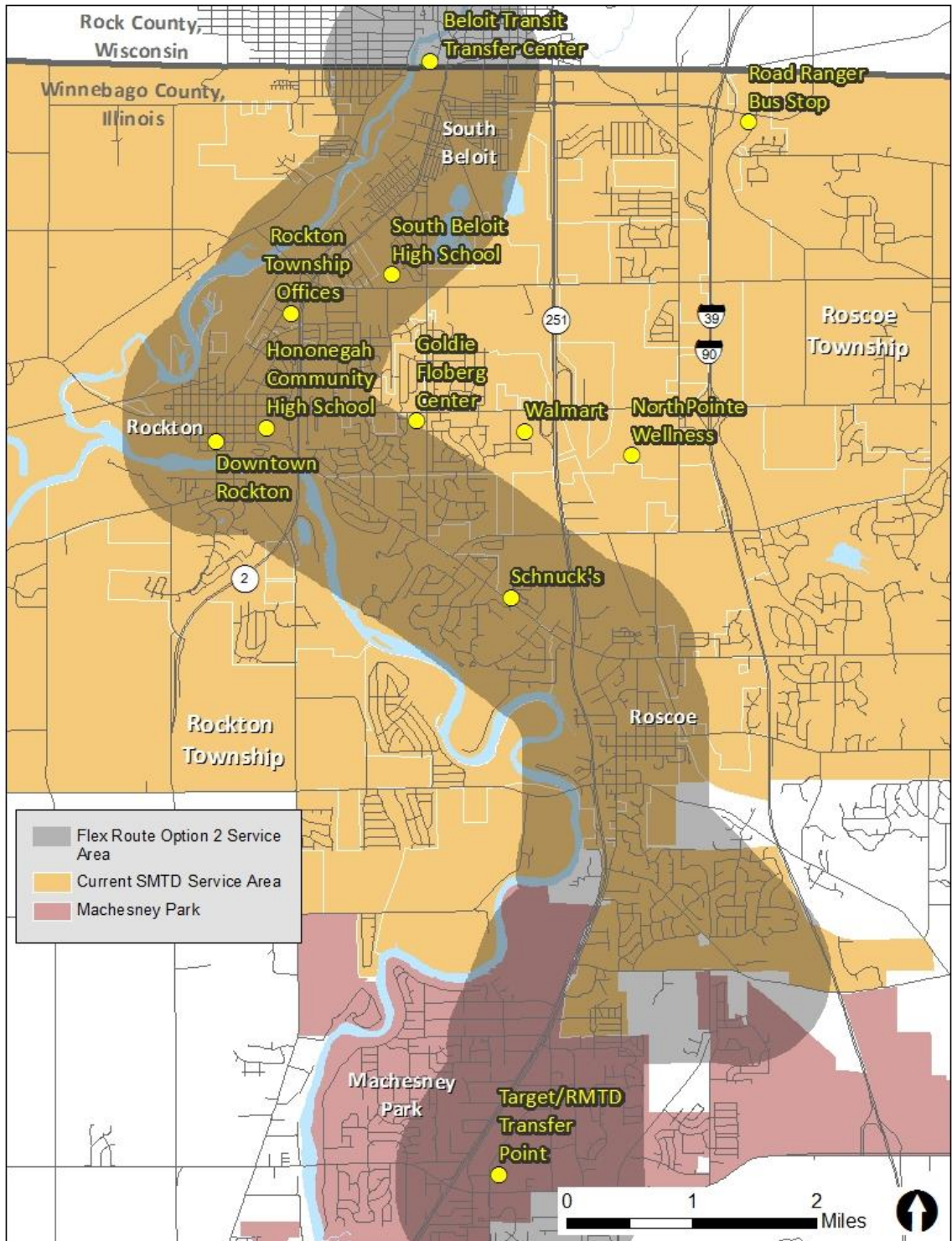
If ridership development at high schools or middle schools is desired, specific times can be added at these locations only when students would likely be using the service. This may require adjusting the cycle times before the start of classes in the morning and at the end of the class day.

This type of service would be popular with some of the current riders and would attract new passengers to the system. Productivity on well-developed flex-route systems is often between five and eight passengers per hour. SMTD can expect system ridership to increase 75% to 100% with a well-designed and well delivered service.

For this service to be successful, it would require extensive management oversight during the first year. Changes could include the elimination of lightly used stops or the addition of new stops. Operating patterns could also be adjusted. A normal pattern would be to leave Beloit Transit Center and then make the flex stops and other pickups/drop-offs until arrival at Schnuck's. The bus would then reverse its order of flex stops on its way to Beloit. An alternative would be to stop at Walmart only in one direction or only stop at Schnuck's less frequently if ridership is high and buses fall behind schedule.

Typically, afternoon traffic is worse than morning traffic, and a different flex stop operating pattern may be necessary in the afternoon in order to maintain the 80-minute cycle time. Management oversight would be responsible for the best operating pattern that maximizes ridership and allows drivers to operate safely and on time. Times at the fixed time points may need to be adjusted several times in the first year. A successful flex-route service may evolve into a fixed-route service.

Figure 23. Flex Route Option #2



Fixed Route Service

Fixed-route service would operate in a manner similar to the fixed routes in Beloit and Rockford with specific time points and marked bus stops along the route. A rule of thumb for placing bus stops is approximately one every ¼ mile. Bus stops at transfer points and at areas that have greater than 20 boardings per day are candidates for shelter facilities.

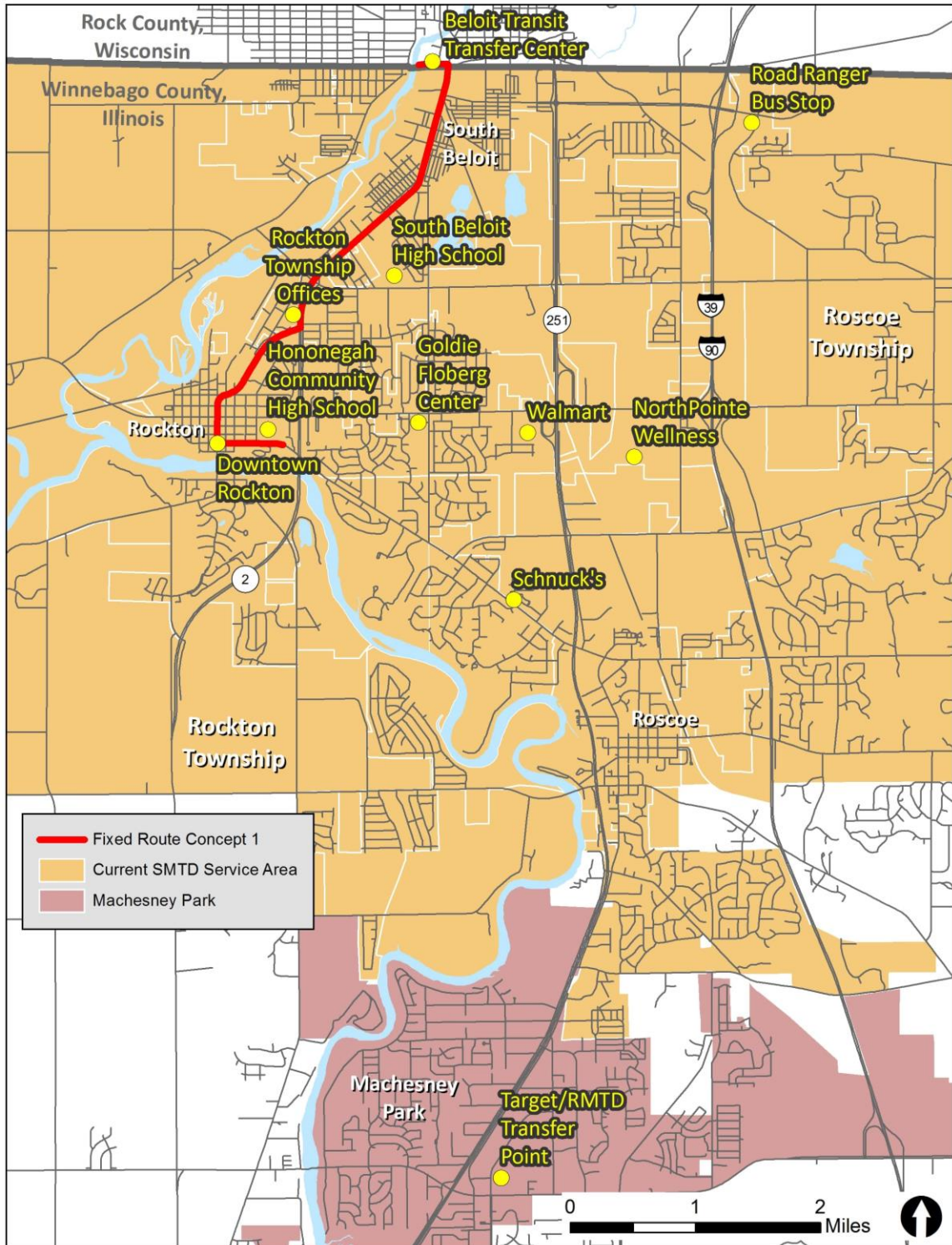
The portion of the SMTD service area that is most promising for fixed route transit is South Beloit and Rockton. These areas have the demographic indicators that suggest a greater propensity for transit, sufficient population and employment density, and efficient connectivity with Beloit Transit System to improve transit linkages to Rock County.

For the first phase of implementation, there are three examples of viable fixed-route concepts. Responding to some stakeholder input, there is also a long term recommendation to continue the fixed route service to Machesney Park. In this scenario the route could also be extended through Roscoe to meet RMTD routes at the Target bus stop on Hwy 173 in Machesney Park. While many of the major stops on the route are identical to the flex-route stops proposed in the previous section, the major difference is that the buses would adhere to the fixed route and would not deviate from the route to pick up or drop off passengers. Implementation of a fixed-route system should be viewed as an iterative process, where the route can be extended or frequency can be increased in subsequent years, depending on funding availability and ridership response to the route.

Option #1: Beloit to Downtown Rockton

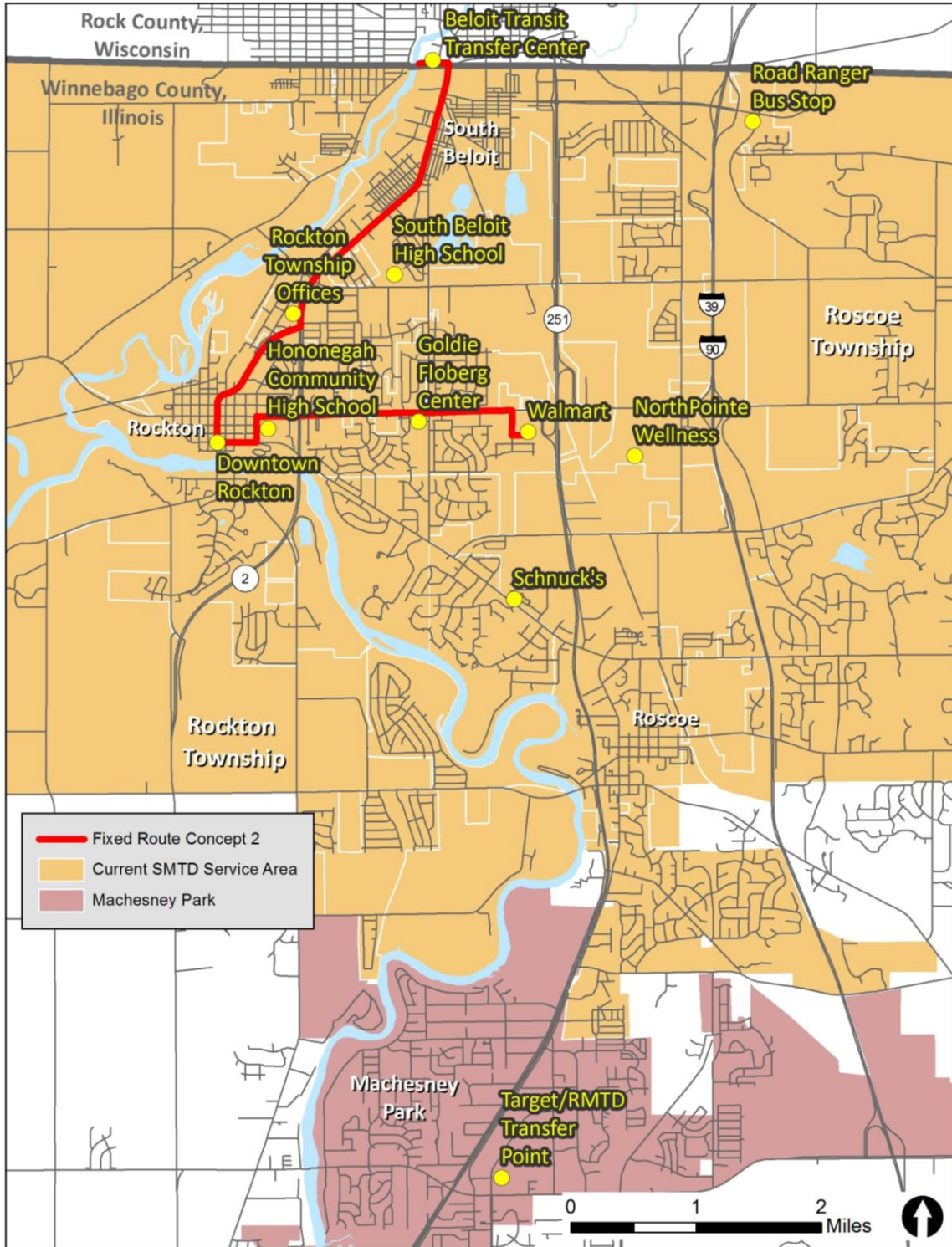
Fixed route option #1, as shown in Figure 24, would require one vehicle and match the “pulse” of Beloit Transit System. Total cycle time for this service would be about 40 minutes, and it would mainly serve Blackhawk Boulevard in South Beloit and Rockton, and East Main Street in Rockton. The northern terminal of the route would be the Beloit Transit Center and the southern terminal would be Hononegah High School. This route would require one vehicle per day and operate from 7:00a.m. to 6:00p.m.

Figure 24. Fixed Route Option #1 Map



Option #2: Beloit to Roscoe Walmart

Figure 25. Fixed Route Option #2 Map



Fixed route option #2, as shown in Figure 25, also requires one vehicle, but would have a longer cycle time of 60 minutes. This would continue from downtown Rockton and terminate at the Walmart in Roscoe serving the Rockton Road corridor. This route would operate from 7:00a.m. to 6:00p.m.

Option #3: Beloit to Roscoe Schnuck's

Fixed route option #3, as shown in Figure 26, can be operated with one or two vehicles. This route would continue southbound beyond downtown Rockton and serve the Hononegah Road corridor terminating at Schnuck's in Roscoe. If operated with two vehicles a route with an approximate frequency of 40 minutes that would correspond to the Beloit Transit System pulse would be feasible. If only one vehicle is available the frequency of the service would be approximately 80 minutes.

Hybrid Option

Fixed route Options #2 and #3 could also be operated with two vehicles as a hybrid option with one bus terminating at Walmart and one bus terminating at Schnuck's. The Rockton Road corridor and the Hononegah Road corridor would serve as branches to a trunk route that operated as Option #1. This would provide a higher frequency of service in the denser parts of Rockton and South Beloit.

Option #4: Long Term Service Concept – Beloit to Machesney Park

The fourth option is outlined illustratively as a later phase improvement to the SMTD system (see Figure 27). Given the current level of resources available and the geography of the region, a conventional fixed route running from Beloit to Rockford is not recommended for near-term (5-year) implementation. A route operating one bus from Beloit to Machesney Park (connecting with RMTD at the Highway 173 Target transfer point), would have a cycle time of 120 minutes; two buses would have a cycle time of 60 minutes. Scheduling would correspond to a connection with RMTD buses and the span of service would be from 6:00a.m. to 10:00p.m.

Figure 26. Fixed Route Option #3

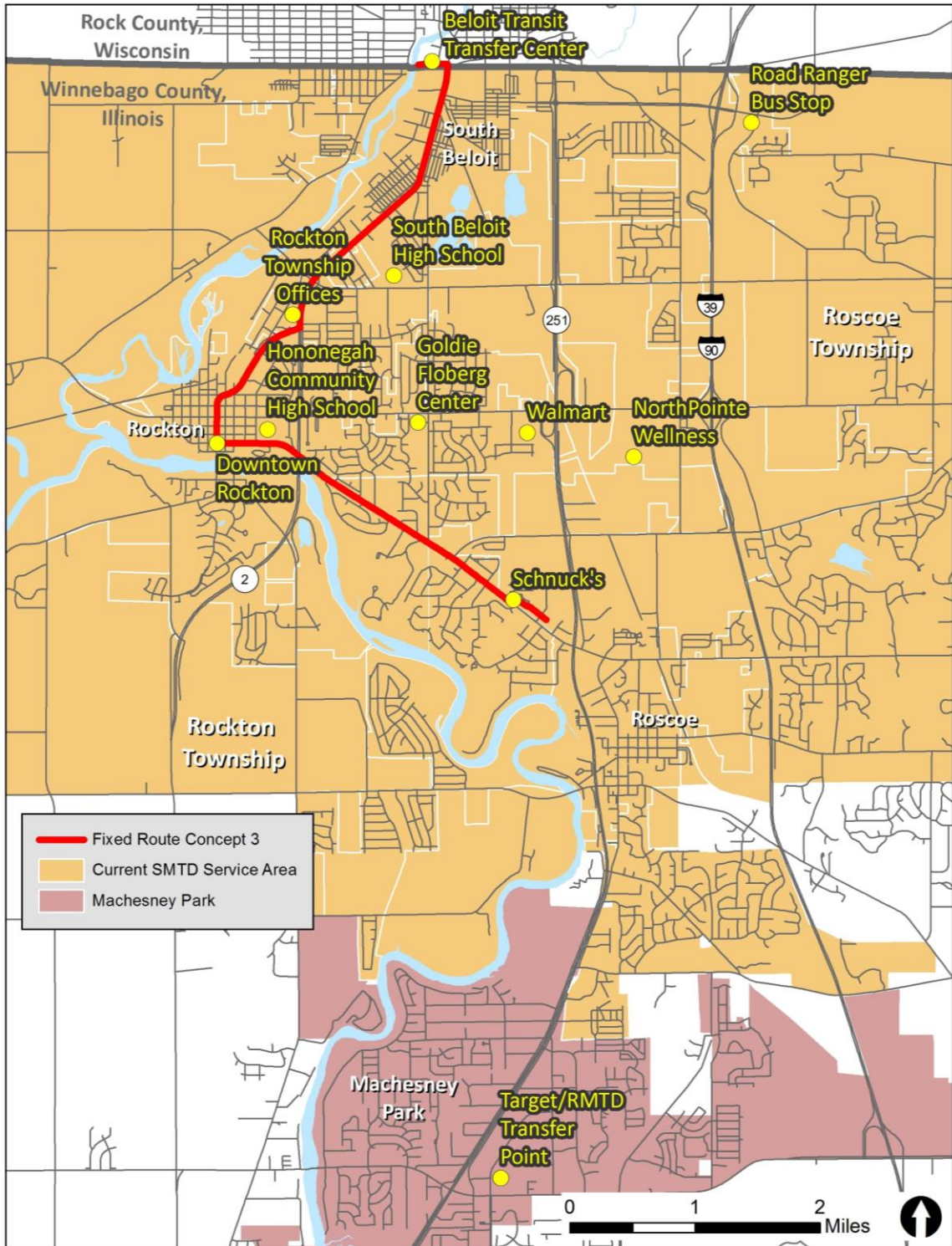


Figure 27. Fixed Route Option #4



ADA Complimentary Paratransit Service

When a transit system operates a fixed route service it is mandated under the Americans with Disabilities Act (ADA) to provide complimentary paratransit service. This is an accessible, origin to destination service that is made available on the same schedule as a fixed route. ADA service must be provided within $\frac{3}{4}$ mile of a local fixed route. Since SMTD already provides demand response service operated by a paratransit provider, this does not present an undue administrative burden. However, SMTD would need to ensure that the service is operating within ADA standards. These include the following requirements:

- ADA service must be provided to all areas within $\frac{3}{4}$ mile of a local fixed route
- ADA service must be provided for all days and hours that a local fixed route bus is provided
- SMTD would need to develop an ADA paratransit plan and ADA eligibility standards that are ADA compliant— certification that an individual cannot ride a fixed route service as a result of a disability
- There can be no restrictions or priorities based on trip purpose
- Paratransit reservations must be available during the transit system’s regular business hours
- Paratransit fares cannot exceed twice that of the fixed route system’s base fares for a trip of similar length, and at a similar time of day
- Service denials are not allowed, however there are rare circumstances in which this happens. As a standard, no more than 3 percent of requests should be denied. SMTD can offer a reasonable alternative (referral to other program or provider, minor schedule adjustment, etc.) to avoid a denial.

No fixed route service is currently being recommended outside of the SMTD service area, so to provide an ADA “equivalent level” of service the above requirements would need to be met using the existing demand response service. Part of the administrative requirements of ADA paratransit service would be to monitor performance and compliance with ADA standards. SMTD is at an advantage, however, in that both BTS and RMTD are current paratransit operators and could offer guidance and policy examples from which SMTD could develop its system. They are also potential coordination partners for the provision of ADA services.

The research document *TCRP Report 124: A Guidebook for Measuring, Assessing, and Improving Performance of Demand Responsive Transportation* offers several performance measures that can be applied to paratransit and general demand response service. Performance and service monitoring will be detailed in the implementation plan, but these measures are particularly applicable to successful ADA paratransit service.

- Scheduling effectiveness
 - Do not exceed 5 percent “no-shows”
 - Do not exceed 10 percent cancellations
- Customer satisfaction

- Continuously monitor measure of “complaints per 100 trips”
- Continuously monitor telephone wait times
- Customer time in vehicle does not exceed 60 minutes per trip

Intercity Service

A Rockford-Beloit Express operating through the SMTD with limited stops at select locations is not considered viable at this time. However, it should continuously be evaluated for future transit development plans as the market for passenger transportation develops. Within Illinois, passenger flows for employment and medical care tend to be toward major commercial centers in Rockford, Machesney Park, and Roscoe. South Beloit benefits from connectivity to the Beloit area and Rock County for educational trips and shopping. After the development of fixed-route service, consideration of an express service should be considered in conjunction with the Illinois Intercity Bus plan that is currently under development.

Long-Term Recommendation

Existing intercity service is provided by Van Galder Bus in the I-39/90 corridor. Stops near the SMTD service area are present in Janesville, WI, South Beloit, IL, and Rockford, IL. Additionally, a future intercity bus stop or facility may be built in Beloit in conjunction with the I-39/90 expansion project that would accommodate public transit. Using the existing system of demand response service, SMTD can coordinate with intercity trips by having a scheduled connection at the South Beloit stop. SMTD buses could also connect to Van Galder on demand throughout its service day. There are also opportunities to promote SMTD services to Van Galder customer and establish transfer agreements so that SMTD provides the “last mile” transportation from intercity bus stops and stations in Rockford and South Beloit.

Service Recommendations Summary

Assumptions

Table 5. Operational Assumptions

Measure		Notes
Demand Response Operating Costs	\$30.00/hour – Rock County \$92.00/hour – City of Beloit \$120.00/hour – RMTD	Based on operating costs for Rock County, City of Beloit, and RMTD
Flex Route Operating Cost	\$90.00 - \$120.00/hour	
Fixed Route Operating Cost	\$90.00 - \$120.00/hour	
Demand Response Ridership	3-5 Passengers Per Hour	
Flex Route Ridership	5-7 Passengers Per Hour	
Fixed Route Ridership (Year 1)	7-10 Passengers Per Hour	
Fixed Route Ridership (Year 3)	10-15 Passengers Per Hour	Consistent with Beloit Transit System productivity.

A summary of service options is shown in Table 6. This outlines the service concept, number of vehicles required, additional service hours, and service frequency. For the flex route and fixed route options it is assumed that there will be an approximate 10 percent savings in existing demand response operating costs due to the shift of passengers from demand response service. This is a conservative estimate based on examples cited in *TCRP Synthesis 76: Integration of Paratransit and Fixed Route Services*.⁴ However, some systems do achieve a greater cost savings depending on the degree of mode shift. This would yield an approximate operating budget devoted to demand response service of approximately \$488,000.

Additional market research including on-board and community surveys and transit demand estimates will need to be conducted to determine how many passengers will shift from demand response to a different mode of transit. The figures in Table 6 represent the total additional ridership the service could support if consistent with transit service in Beloit, WI.

⁴ http://onlinepubs.trb.org/onlinepubs/tcrp/tcrp_syn_76.pdf

Table 6. Service Options Summary

Service Option	Vehicles (w/Spares)	Service Days	Add'l Annual Revenue Hours	Frequency	Annual Operating and Maintenance Cost Impact	Projected Five-Year Ridership
Existing Conditions						
SMTD Service	4	M-F 6:00a.m. – 10:00p.m. S 8:00a.m. – 6:00p.m. Su 8:30a.m. – 4:30p.m.	N/A	N/A	\$543,000 (2014)	11,916 (2014)
Demand Response						
Option 1: Added Service Hours	5	Added hours from 9:00a.m. – 3:00p.m. on weekdays	1,560	N/A	+ \$48,600 - \$187,200	+ 4,700 – 7,800 trips per year
Option 2a: Longer Distance Trips	5	Current	2,080	N/A	+ \$62,400 - \$249,600	+ 6,240 – 10,400 trips per year
Option 2b: Broader Service Area	5	Current	4,160	N/A	+ \$124,800 - \$499,200	+ 10,400 – 12,400 trips per year
Flex Route						
Option 1: Beloit - Roscoe	5	Added flex-route hours from 7:00a.m. – 5:00p.m.	2,600	80 min	+ \$210,000 - \$280,000	Flex route will accommodate 13,000 – 18,200 trips per year
Option 2: Beloit - RMTD	6	Added flex-route hours from 7:00a.m. – 10:00p.m.	6,240	80–120 min	+ \$561,000 - \$749,000	Flex route will accommodate approximately 31,000 trips per year
Fixed Route						
Option 1: Beloit - Rockton	5	Added fixed route hours from 7:00a.m. – 6:00p.m.	2,860	40 min	+ \$232,000 – \$309,000	Fixed route will accommodate 20,000 – 43,000 trips per year
Option 2: Beloit – Walmart	5	Added fixed route hours from 7:00a.m. – 6:00p.m.	2,860	60 min	+ \$232,000 – \$309,000	Fixed route will accommodate 20,000 – 43,000 trips per year
Option 3a: Beloit – Schnuck's High Frequency	6	Added fixed route hours from 7:00a.m. – 6:00p.m.	5,720	40 min	+ \$463,000 - \$618,000	Fixed route will accommodate 40,000 – 86,000 trips per year
Option 3b: Beloit – Schunck's Low Frequency	5	Added fixed route hours from 7:00a.m. – 6:00p.m.	2,860	80 min	+ \$232,000 – \$309,000	Fixed route will accommodate 20,000 – 43,000 trips per year
Option 3c: Beloit – Roscoe Split Route	6	Added fixed route hours from 7:00a.m. – 6:00p.m.	5,720	40-80 min	+ \$463,000 - \$618,000	Fixed route will accommodate 40,000 – 86,000 trips per year
Option 4: Beloit – RMTD Low Frequency	5	Added fixed route hours from 6:00a.m. – 10:00p.m.	3,640	120 min	+ \$295,000 - \$393,000	Fixed route will accommodate 25,000 – 55,000 trips per year
Option 5: Beloit – RMTD High Frequency	6	Added fixed route hours from 6:00a.m. – 10:00p.m.	6,240	60 min	+ \$505,000 - \$674,000	Fixed route will accommodate 43,000 – 94,000 trips per year

Evaluation

Table 7. Preliminary Evaluation of Options

Service Option	Frequency	Ridership	Readiness	Administration	Annual Op. Cost	Annual Cap. Cost	Overall Rating
Demand Response							
Option 1: Added Service Hours	N/A	●	●	●	●	●	●
Option 2a: Longer Distance Trips	N/A	○	●	●	●	●	●
Option 2b: Broader Service Area	N/A	●	●	●	●	●	●
Flex Route							
Option 1: Beloit - Roscoe	○	●	●	●	●	●	●
Option 2: Beloit - RMTD	○	●	○	●	○	●	●
Fixed Route							
Option 1: Beloit - Rockton	●	●	●	●	●	●	●
Option 2: Beloit - Walmart	●	●	●	●	●	●	●
Option 3a: Beloit - Schnuck's High Frequency	●	●	●	●	○	○	●
Option 3b: Beloit - Schunck's Low Frequency	●	●	●	●	●	●	●
Option 3c: Beloit - Roscoe Split Route	●	●	●	●	○	●	●
Option 4: Beloit - RMTD Low Frequency	○	●	○	●	●	●	○
Option 5: Beloit - RMTD High Frequency	●	●	○	●	○	○	○

Legend: ○ = Lowest Rating ● = Medium Rating ● = Highest Rating

Functional Area Recommendations

Capital Investment

Bus Stops

A fixed route or flex route system should have marked bus stops and shelters at areas with high boarding rates, or timed transfer points. One way to make travel times more consistent on local routes and improve on-time performance is to install formal marked bus stops on the system. Conflict between passengers and drivers can also be reduced with signed bus stops, as safe pick up and drop off locations are clearly delineated. Agency liability for boarding and alighting passengers at unmarked bus stops can also be reduced. In denser, more walkable areas like downtown Rockton or South Beloit bus stops should be spaced approximately every other block; in other areas bus stops should be placed at a rate of about 4-5 per mile. As other local routes are improved and flex routes are converted to fixed routes, bus stop locations should be included in these updates.

Bus stops should also be placed along roadways instead of making off-route diversions into parking lots. Running buses through parking lots creates inefficiencies in both time and circulation patterns; additionally large parking lots are prone to conflicts with pedestrians and poor sight lines for vehicular traffic. There may be cases where there are no sidewalks or safe crossings and it is necessary for a vehicle to drop passengers off in a parking lot.

As bus stops become formalized, attention should be paid to the physical environment around bus stops. This includes connections to the local sidewalk or trail network, and providing adequate facilities. Any new bus stops will need to be compliant with the ADA, providing adequate access and safe approaches for people with disabilities. A fixed-route system will require more bus stops at safe locations for pedestrians. With the high auto speeds along the proposed route, SMTD will need to coordinate with public works and engineering departments for safe bus stop placement and development.

A sheltered bus stop in downtown Beloit is shown in Figure 28. An example of a suburban bus stop that has been retrofitted for ADA compliance is shown in Figure 29. An example of a basic, signed bus stop is shown in Figure 30. A bus stop sign with various types of customer information is shown in Figure 31. This includes routing, schedules, a bus stop number to help people obtain schedule information, and a map.

Figure 28. Downtown Beloit Bus Stop (Beloit, WI)



Figure 29. Figure 1: Retrofitted Bus Stop (Burnsville, MN)



Figure 30. Basic Bus Stop With Bench (Shakopee, MN)



Figure 31. Bus Stop Sign with Detailed Information



Source: Metro Transit, Minneapolis, MN

Vehicles

The current light- and medium-duty buses used in demand response service are adequate for any of the potential service options. Smaller buses are desirable for the expanded demand response option and the flex-route option because they will be traveling to some locations, such as cul-de-sacs and rural roads, where a large bus would have difficulty maneuvering.

Future buses purchased by SMTD should have a destination sign and fixed-route package (stanchions and handrails, farebox, etc.) included. There may be times of the day when a smaller bus can be used in flex or fixed service, and signage will differentiate the demand response service from the flex or fixed service. SMTD buses can be assigned to demand response service or fixed route service.

If the fixed-route option is chosen, the small buses would be adequate initially, with some form of permanent or temporary destination sign attached to the vehicle. If the fixed-route service grows, a low-floor bus is recommended as a future purchase and should be programmed into the Transit Improvement Program in 2019. Low floor vehicles offer an easier and faster boarding process.

Technology

Currently, SMTD uses RouteMatch as its computer aided dispatch software package. Like many software packages, it can be integrated with website information, real-time vehicle locations, and application for mobile devices. Upgrades like this should be programmed into

capital plans. Even for pure demand response service, mobile reservations and customer information can be provided in real time to improve the user experience. Real-time information can also be provided at transfer points with electronic signs.

Governance and Contracting

Intergovernmental Agreement

SMTD currently contracts with RMTD under a purchased service agreement. This provides benefits to both systems. SMTD benefits from a high level of administrative and technical capacity, and RMTD has a larger base of customers to spread its cost. Economies of scale are maximized for both systems.

For the demand response options and the flex-route options, continuation of the contract with RMTD is reasonable. However, if the cost of operation, on a per-trip basis, exceeds the equivalent cost of operation for an hourly charge, negotiations between SMTD and RMTD should commence to determine a mutually beneficial contract.

Another feasible contracting option, particularly for fixed route service, would be to contract with BTS for operations. There are numerous examples of cross-border service in Wisconsin, and a similar intergovernmental agreement could be established here.

- The City of Superior, Wisconsin contracts with Duluth Transit Authority for fixed route and ADA complimentary paratransit service.
- The City of La Crescent, Minnesota contracts with the La Crosse Municipal Transit Utility for fixed route and ADA complimentary paratransit service.
- Western Kenosha County Transit, which has a portion of its service area within the Round Lake Beach, IL Urbanized Area, has a fixed route that serves the Antioch, IL Metra Rail Station.

If BTS has a lower cost structure for fixed-route service and is the preferred operator, SMTD could continue the ADA paratransit and demand response service with RMTD while contracting for fixed-route with BTS. A cost comparison for fixed-route service should also include the support elements needed, including administrative services provided within the bid package, incentives for on-time performance, penalties of poor performance, and a range of other typical contract conditions.

Contracted Operation

Another option is to offer the entire demand response service and flex (or fixed) service to a private contractor. The private contractor would be required to establish a garage in the service area and would use the current SMTD vehicles. Typically, a contracted operation requires a full-time contract administrator for the public entity that is contracting with the private operator. The current Executive Director is a part-time position that would be expanded to monitor contract performance and complete the administrative tasks required

to continue to receive FTA 5307 and DOAP funding. Private contractors typically pay lower rates for labor and can adjust their pay rates depending on the stability of the work force and competition for labor with other driving positions.

Direct Operation – Long Term Option

Direct operation of the service by SMTD is another option, though it is not considered feasible in the near term due its significant administrative burden. This would include hiring employees to operate and maintain the buses, establishing a garage location, properly staffing it, and performing the administrative tasks to continue to receive federal, state, and local funds. There is a potential for lower cost of operation compared to BTS or RMTD, but it would require more administrative time, effort, and cost as well as a significant public workforce expansion.

With direct operation, all risks associated with bus operations would be completely assumed by SMTD including labor shortages, fuel price risk, insurance risk, and other costs of operation that can be unpredictable. SMTD would be required to pay a reasonable wage to attract qualified candidates for operating positions. The management structure would include a supervisor and two dispatchers, in addition to the Executive Director. Additional administrative support may be required on a part-time basis. The proposed services would require approximately seven to ten full- and part-time drivers, two mechanics, and four or more management/administrative people. The ratio of supervision and management to drivers would not be cost effective for an operation of the current service.

Marketing and Outreach

Branding and Identity

Marketing a flex- or fixed-route system is different than marketing a demand response system. Improved brand identification with improved vehicle graphics and colors should be implemented with the arrival of new vehicles. The current white vehicles are not identifiable as unique and are not easily distinguishable from RMTD vehicles. If the flex or fixed options are chosen, a route number that is not duplicated by Beloit or Rockford should be chosen for the destination signs. If BTS or RMTD operates the service, an agreement that one of their buses could be used as a spare bus should be negotiated. The bus fleet, which will be used in regular BTS or RMTD service, should have the SMTD destination signs programmed in those buses. Similarly, the RMTD demand response buses that have a destination sign should have a reading for SMTD included.

Basic transit information training for city, township, and county employees in the service area should be conducted yearly to build brand identification and also to allow them to answer questions that arise during their normal duties. Local media presence is also important and a planned series of press releases and other marketing and public relations strategies should be considered. These are labor-intensive actions and additional

administrative assistance will be needed. This could be a paid intern position, an additional part-time person, or changing the current Executive Director position to a full-time position.

Figure 32. SMTD Promotional Materials



Outreach and Market Research

To fully implement the service options, a revitalized marketing program for the newly merged transit system is recommended. The marketing work program will focus on understanding current and future transit markets in the SMTD service area. SMTD already promotes its operations at community events, and visibility at gathering places can be used to introduce new services and engage transit users. Participatory survey efforts, or events like farmers markets are all ways that other transit agencies in the Upper Midwest have interacted with customers and the broader community at their facilities. Periodic surveys should also be conducted to understand customer needs and assess how well SMTD is fulfilling its mission. In general, continuous understanding of the current transit customer in the service area will aid SMTD planners in designing and prioritizing service options.

Travel Training and Mobility Management Activities

SMTD, in partnership with RMTD, already does outreach and travel training for people in the service area. However, in rural and semi-rural areas where transit is not a common part of everyday life for most residents, transit agencies must make a robust effort to reach potential riders. Working with senior centers, care organizations, advocates for people with disabilities, and major employers is necessary to develop new bases of ridership. Additionally, one-on-one work with new riders to train them on using transit service. “Bus buddy” programs have been highly successful in other settings and provide a safe orientation to transit service where people have someone to assist them with scheduling, boarding, and understanding where the bus can take them. These types of activities are often funded with FTA Section 5310 program dollars, and are reimbursable at 80 percent. This type of program would require additional staff.

Staffing

The continual growth of the system shows that there is a growing market for transit service, and the Executive Director is focusing her efforts on generating ridership. As the transit service grows, it will be necessary for her to spend more time on transit service and less time with her other duties in township government. A flex- or fixed-route system requires additional interaction with customers and coordination with local governments. More aggressive marketing and social media applications will be needed to promote the new services. Travel training is time intensive but effective in assisting current passengers in understanding how a fixed-route service works and helping them learn how to use fixed-route service instead of demand response. Travel training is also needed as new people attempt to use the system. The travel trainer will help them choose either the fixed-route service or demand response, depending on the abilities of the customers.

Additional labor can be secured by making the Executive Director a full-time position. This position can continue to be housed in Rockton Township, or become a direct employee of SMTD.

An alternative scenario is to use a paid intern to do some of the activities, such as system marketing, resolving operating complaints and suggestions, and preparing some reports. Some of the duties are routine and repetitive, but would be interesting and valuable experience for an intern. A third alternative is to hire a part-time shared position with another local government to do some of these routine duties. Adequate funding should be allocated for additional administrative labor.

Service Options Summary

This section summarizes a variety of approaches to developing the market for transit service in the Stateline region. The service options include adding an additional vehicle to the demand response service to improve response time and geographic reach, creating a flex route, and converting a portion of the area to fixed route service. Flex route service can also be used to build a market for fixed route service.

SMTD has a dedicated Executive Director and a supportive environment to provide expanded bus service to the residents of the SMTD service area. A thoughtful analysis and decision making process will allow SMTD to continue to expand its service to meet the travel needs of SMTD residents.

Functional Area Options

Before any of the service expansion options are pursued, there are several recommendations related to functional areas that must be improved so that the service expansion is successful. These are outlined in the priorities below and will be detailed in the implementation plan.

Most Promising Service Expansion Options

While all options presented in this report are technically feasible, upon initial evaluation three options are determined to be most promising for near-term implementation given the existing resources of the system. It is also the consultant team's recommendation that these are most suitable for a 5 year time frame under ideal circumstances.

Demand Response Option #1 and/or Option #2

Pursuing further investment into the demand responses system is viable for the time frame of this plan.

Flex Route Option #1 or Fixed Route Option #1

The population density of the SMTD service area is conducive to a demand response service. However, there are portions of South Beloit and Rockton that can support corridor or route based transit service, and are the areas where there is the greatest potential to gain ridership. The most basic options are most appropriate for a 5-10 year time frame given the existing resources of the system. They would also be suitable for a pilot project.

Priorities for Implementation

Upon transit development plan adoption, the following items are recommended as the top priorities for implementation.

- Begin the process of developing flex- or fixed-route service in South Beloit and Rockton (schedules, bus stop locations, transfers, marketing, etc.)
- Continue high level of responsiveness to customers
- Minimize duplicative administrative costs through RMTD partnerships
- Seek opportunities to leverage DOAP and capital funding
- Hire additional labor, either permanent intern, a second part-time shared position, or full-time Executive Director with a focus on service development through person-to-person interaction with customers, including local social service agencies, and other nonprofit organizations.

Implementation Plan: Service Priorities

The most promising service development options were presented for comment and refinement to SLATS staff, SMTD staff, and the SMTD Board of Directors in September 2016. Additionally stakeholders (community members, RMTD staff, and transit users) were invited to an open house meeting occurring after the September board meeting to discuss the service options and assist the consultant team in prioritizing recommendations. This meeting was promoted to SMTD customers and emailed to members of the SMTD board and various project contacts. Many of the functional area recommendations identified earlier in the document were accepted, as were two of the most promising service expansion options.

This document summarizes and prioritizes service and organizational recommendations based on feedback from these key stakeholders. Recommendations are organized into the following categories:

Near Term Recommendations – Service options that can be completed with minimal cost or administrative effort, and should be completed first.

Medium Term Recommendations – Service options that require a relatively low administrative effort and can be completed within the 5-year transit development plan time frame, but may require more significant investment.

Long Term Recommendations -- Service options that require more significant administrative effort and investment. These may not be completed until the end of the 5-year transit development time frame or later.

Near Term Recommendations

In order to be successful in growing and maintaining the transit system, SMTD should prioritize improvements in various functional areas of the organization. Growing ridership and expanding the customer base can be accomplished through focusing resources on marketing, outreach, and expanded partnerships.

Functional Area Recommendations

Mobility Management and Staffing

One of the key strengths of the transit system is its competent and energetic management. Both the Executive Director at SMTD and the operations staff at RMTD bring technical skill and customer responsiveness to the system. However, as the transit system grows, bringing on a part-time or full time staff person to assist with mobility management activities and marketing will be necessary.

Mobility Management

Mobility management refers to a set of activities that are reimbursable at an 80 percent share by FTA programs, and are focused on removing barriers to coordinated transportation and better serving people with disabilities and older adults. However, mobility management activities also benefit general public transit riders as well. Here are some elements of a mobility manager's position:

- Trip planning assistance to customers
- Helping customers troubleshoot mobility challenges
- Orienting new and potential users to transit service (travel training)
- Serving as the liaison between SMTD and human service agencies
- Serving as the point of contact between SMTD and other transportation providers
- Promoting SMTD services

A mobility manager, or similar staff position, can take over some of the marketing and customers service tasks that are currently held by the Executive Director and SMTD and focus specifically on meeting transportation needs within the SMTD service area. It is noted that Rock County, WI has a successful mobility management program in place and may also be able to provide resources to help SMTD identify travel needs and patterns from its service area to Rock County – a goal identified at the outset of this project.

It is estimated that this position will add approximately \$30,000 - \$60,000 to the transit system's operating budget.

Market Research

SMTD should commence efforts that help it understand its customer base and broader community. A focused approach on reaching specific markets for transit service and better service for those currently using the service will yield the greatest returns. Examples of market research activities include the following:

- Onboard surveys and interviews of current passengers
- Community surveys
- Dialogue with customers and community members on social media
- Attendance at various community events
- Establishing a transit customer advisory committee made up of passengers and agency representatives to get feedback on service

Many of these activities can be led by a mobility manager. Examples of passenger and community surveys that can be modified for SMTD are attached in Appendix E.

Service Recommendations

Performance Monitoring

Part of SMTD's regular reporting to the Board of Directors should include several performance measures that are common in the transit industry. While SMTD is compliant in reporting requirements to FTA and IDOT, investigating service standards and system performance proved challenging through the course of the Transit Development Plan project. SMTD should integrate that data collection and performance monitoring into a decision making process. The following are service standards commonly used in the transit industry that can be used when making service planning decisions. These measures can also be incorporated into a system dashboard to communicate performance to key stakeholders.

Figure 33. Basic System Performance Measures

Cost effectiveness	<ul style="list-style-type: none">• Operating expense per passenger
Service efficiency	<ul style="list-style-type: none">• Operating expense per revenue hour
Service effectiveness	<ul style="list-style-type: none">• Passengers per revenue hour
Market penetration	<ul style="list-style-type: none">• Passengers trips per capita• Revenue hours per capita
Passenger revenue effectiveness	<ul style="list-style-type: none">• Average fare per passenger• Passenger revenue per operating expense (farebox return)• Subsidy per passenger

Of these measures, service effectiveness and service efficiency are the highest priorities for reporting. In order to accomplish this, monthly and annual revenue hours should be reported from the service contractor and compared to expenses and ridership.

Contracting, Partnerships, and Program Revenue

Purchased Transportation and Coordination

SMTD should continually evaluate its relationship with contractors and seek partnerships with other agencies to expand service when able. In particular, there may be a future opportunity to contract with BTS and/or Rock County for expanded service. A fixed route or flex route service that is anchored with a transfer to the BTS system would be the clearest opportunity for this contract through an intergovernmental agreement. During the final input session, stakeholders and board members brought the feasibility of an interstate agreement for transit service into question. There are numerous examples of interstate agreements in the State of Wisconsin for purchased transportation. This includes The City of

Superior, WI contracting with the Duluth Transit Authority and the City of La Crescent, MN contracting with the La Crosse Municipal Transit Authority (La Crosse, WI). While there are many varied ways these contracts can be structured, in both cases a local government agrees to pay the local share of operating transit service. Communities are invoiced based on hours of service provided. An example agreement between the City of Superior and Duluth Transit Authority is attached in Appendix F.

Revenue

SMTD can also explore partnerships with human service agencies, care organizations, and medical assistance programs to collect agency fares. Agency fares are negotiated rates between human service agencies and public transit providers that are typically higher than the cash fare. Typically a care organization will buy fare passes in bulk or receive a bill from a transit agency for services provided. Agency fares can be a source of additional revenue into a public transit system, as they can recover a greater share of the cost of transportation. They should be booked and treated in the same manner as a public transit passenger, i.e. not receive a priority over a standard reservation.

Medium Term Recommendations

Demand Response Service Expansion

In the Service Options section, expanding the existing demand response service was identified as a promising option. This report recommends adding one additional vehicle to revenue service. This can be done in one of two ways:

- Using the vehicle to cover a larger service area
- Using the vehicle in the existing service area to shorten response time and increase system capacity

The best option will depend on the result of further outreach and understanding of the target market. However, the greatest returns will be achieved from making the transit system better for those who currently use the service, providing more trips for existing customers and making a more convenient service. Effectively, unlinked trips will increase because people will use the service more often.

In consulting peer systems, a conservative goal for transit ridership growth in a suburban transit service is approximately 1-3% year-to-year. This is a reasonable performance goal for SMTD. If an additional vehicle is added to the system, the service should be able to carry an additional 4,700 – 7,800 trips per year.

Recommendation	Goal	Budget	Ridership Benefit
Add vehicle to demand response service to improve response time and better serve target markets	<ul style="list-style-type: none"> - Make SMTD more convenient and grow ridership among existing customers - As service area expands, maintain high level of service in core areas 	\$120,000 in operating funds \$16,000 local share for bus.	6,300 trips per year

Long Term Recommendation

Develop Flex Route Service

Based on the analysis completed in this plan, the areas in the SMTD service area that can support transit service that goes beyond demand response is primarily located in South Beloit and Rockton. The street network, density, and demographics in these communities are the most conducive to flex route or fixed route service. Feedback from the SMTD Board of Directors was most favorable toward the concept of flex route service. Flex Route Option #1 is the most promising for implementation during the time frame of this transit development plan. This would involve a bus meeting up with a Beloit Transit System pulse every 80 minutes, and serving key time points in South Beloit, Rockton, and Roscoe. An outbound trip from Beloit to the southern terminal would take less than 40 minutes. Field testing is required to determine an exact terminal location. A potential terminal would be the Roscoe Wal-Mart. Service hours would correspond to BTS running Monday-Saturday.

It is also noted that this plan document does not preclude RMTD expanding its fixed route service area to the north. RMTD may be able to expand its network to reach some of the industrial and semi-rural areas north of Machesney Park, and leverage its connections to a broad fixed route network in Rockford. Looking within the SMTD service area, the higher densities near Beloit and the transit services in Wisconsin make it easier to design a flex route or fixed route in this area.

Recommendation	Goal	Budget	Ridership Benefit
Add flex route service that originates in Beloit and connects to the SMTD service area	<ul style="list-style-type: none"> - Improve connections to Beloit and Rock County - Invest in service that offers the greatest return on ridership 	\$240,000 in total operating funds \$16,000 local share for bus. \$8,000 local share for stops and shelters at key stations	A fully developed route can serve about 40,000 trips per year. It will take 3-5 years with a substantial marketing effort to realize this benefit.

Appendices

Appendix A: Focused Discussion Guide

Stateline Mass Transit District Transit Development Plan

Focused Discussion Guide

SMTD Performance

1. How would you assess the performance of SMTD in the following areas?
 - Span of service—how many days, and how early and late the buses run
 - User fare levels and general fare structure
 - Condition of vehicles and facilities
 - Understanding of customers, and providing good customer information
 - Public perceptions of efficiency, reliability, convenience and customer service
2. Which user groups are well served by transit? Which ones are poorly served?
3. What strategies do you think would increase ridership?

Examples:

- Add longer distance service to neighboring communities
- Add more weekend service
- Operate fixed route service
- Use different types of vehicles
- Keep system as-is, but market better
- Park-and-ride services
- Expand employer incentives
- Reduce fares
- Add formal bus stop locations

Importance of Transit to the Community

1. How important is public transit service to the community? What is the general perception among community leaders of the value of transit?
2. How do you assess community support for a potential expansion of transit services? What are some reasons why people may support such an expansion? What are some reasons people may not support an expansion?

Strengths, Weaknesses, Opportunities

1. What are some of the greatest successes related to transit in the SMTD area?
2. What are areas where transit may fall short of its potential?
3. What are some key opportunities for transit in the region? What would be a successful outcome of the transit development plan?

Appendix B: SMTD Board Meeting Agenda

**STATELINE MASS TRANSIT DISTRICT
Regular Board Meeting
Agenda
1:30 pm
Wednesday, February 24, 2016
Rockton Village Hall
110 E. Main Street
Rockton, IL 61072**

- I. WELCOME AND ROLL CALL**
- II. APPROVAL OF AGENDA**
- III. PUBLIC COMMENT**
- IV. ACCEPTANCE AND APPROVAL of Minutes of Meeting January 27, 2016.**
- V. FINANCE ISSUES:**
 - a. Update and discussion as necessary on local, state, and federal grant programs.
 - b. Discussion and take any action on Resolution Authorizing Application for Public Transportation Capital Assistance Grant under the Illinois Department of Transportation's General Authority to Make Such Grants Resolution 16-R-02.
 - c. Discussion and update on Transit Development Plan--SRF/Bourne Transit Consulting
 - d. 2016 Certifications and Assurances update and discussion.
- VI. MARKETING**
 - a. Update and discussion on ridership.
 - 1. January 2016--1165
 - b. Update and discussion and take whatever action regarding advertising program development.
 - 1. Update regarding participation in RORO Expo 2016
 - 2. Update and discussion as necessary regarding status on implementation of bus passes for the district riders.
- VII. OTHER BUSINESS.**
 - a. Other business as may come before the board.
- VIII. APPROVAL OF BILLS**
- IX. ADJOURNMENT**

Appendix C: SMTD Board Presentation

Stateline Mass Transit District

Transit Development Plan

February 24, 2016



Today's Agenda

- Project Background
- Update on Community Conditions and Service Review
- Outreach Tasks
- SMTD Board Work Session

Project Activities

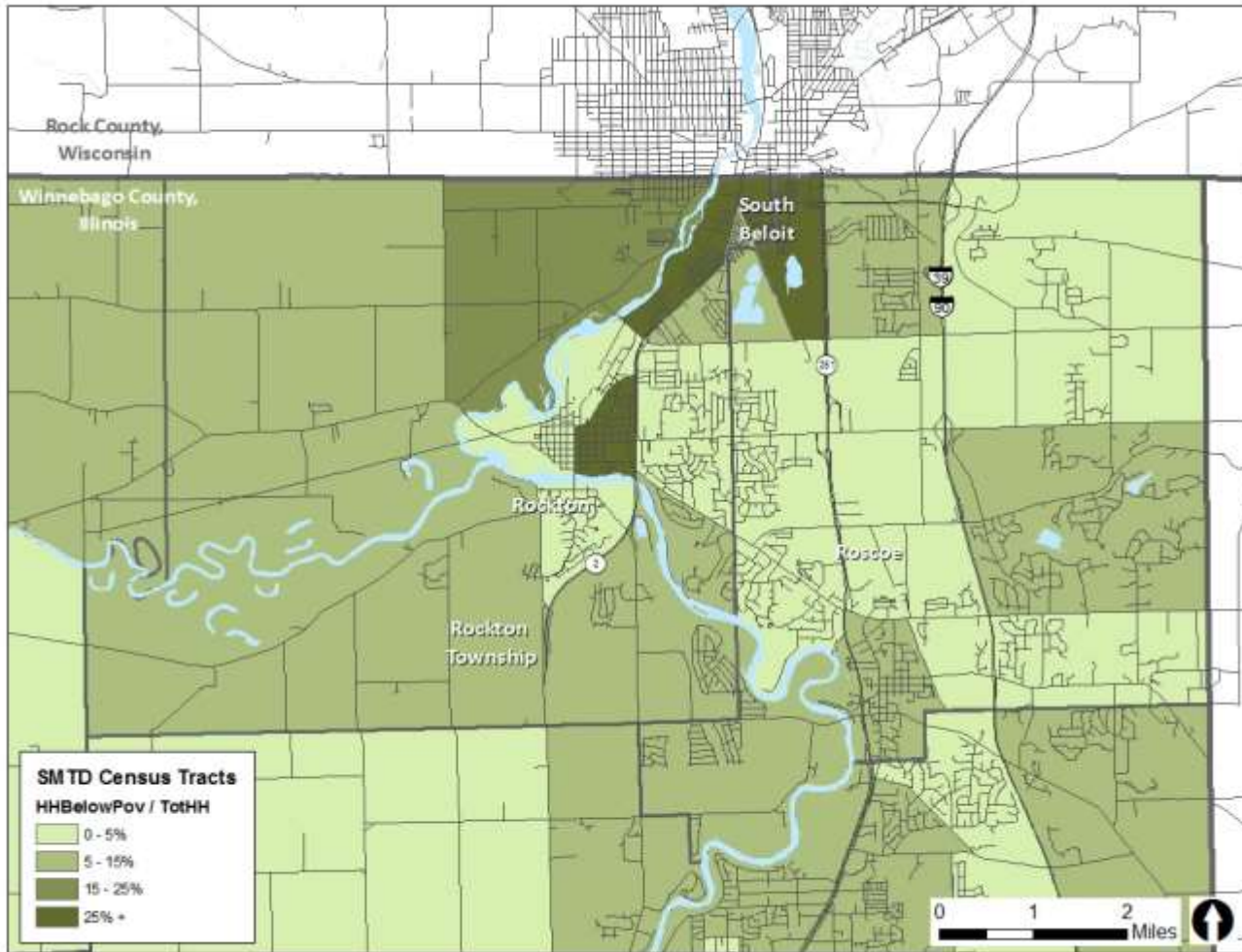
- Ongoing stakeholder outreach
- Evaluation of existing services
 - Data and performance review
 - Field observations
- Develop Service Options
 - Community characteristics
 - Review previous studies
 - Inventory transit service scenarios
- Develop Service Expansion Plan and Funding Strategy
- 5-Year Implementation Plan

COMMUNITY CONDITIONS

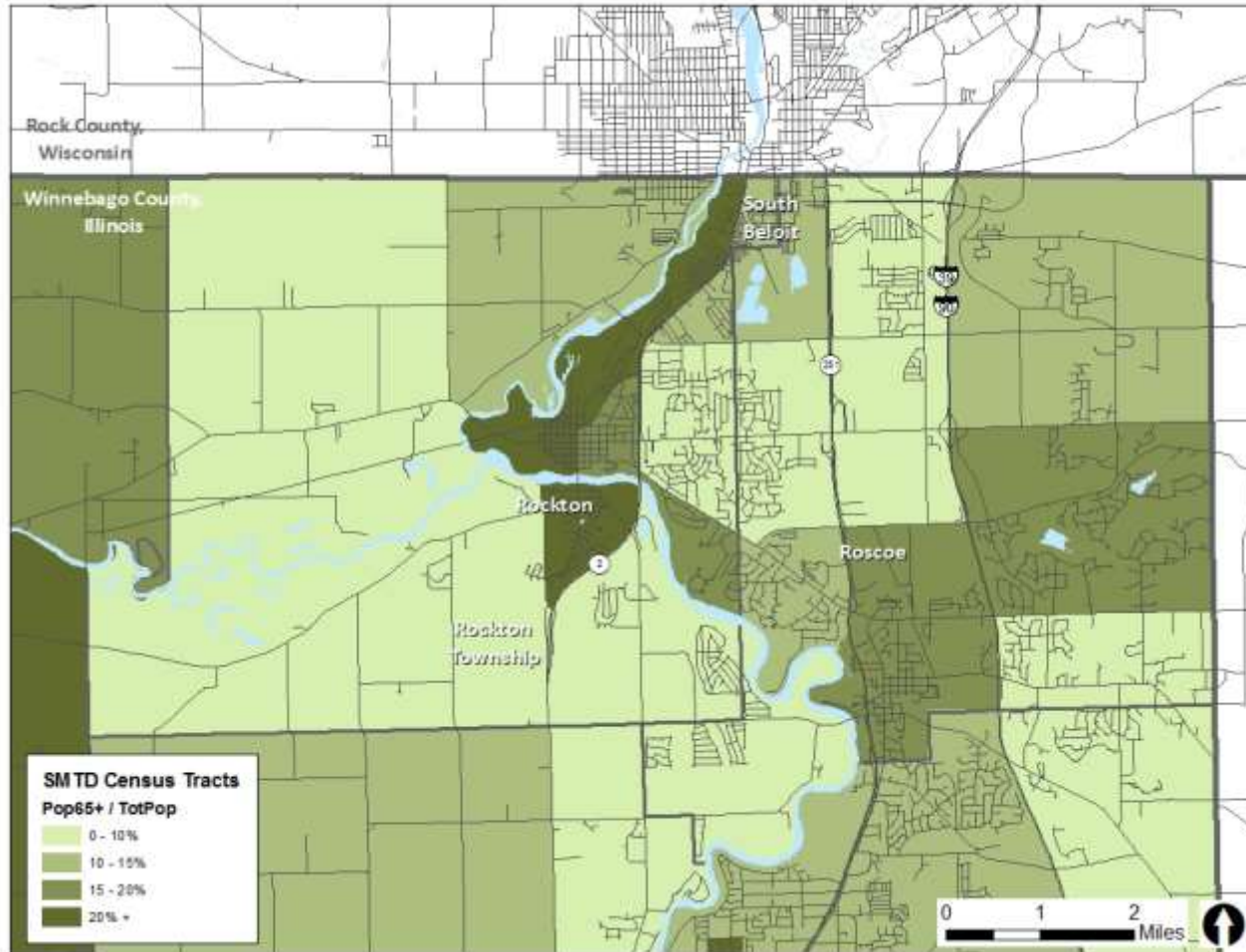
Service Area Population

Year	South Beloit	Village of Rockton	Roscoe	Unincorp. Rockton Township	Totals
2011	7,847	7,260	10,286	1,112	26,505
2012	7,917	7,370	10,679	1,030	26,996
2013	8,151	7,425	10,882	751	27,209
2014	8,129	7,461	10,724	717	27,031

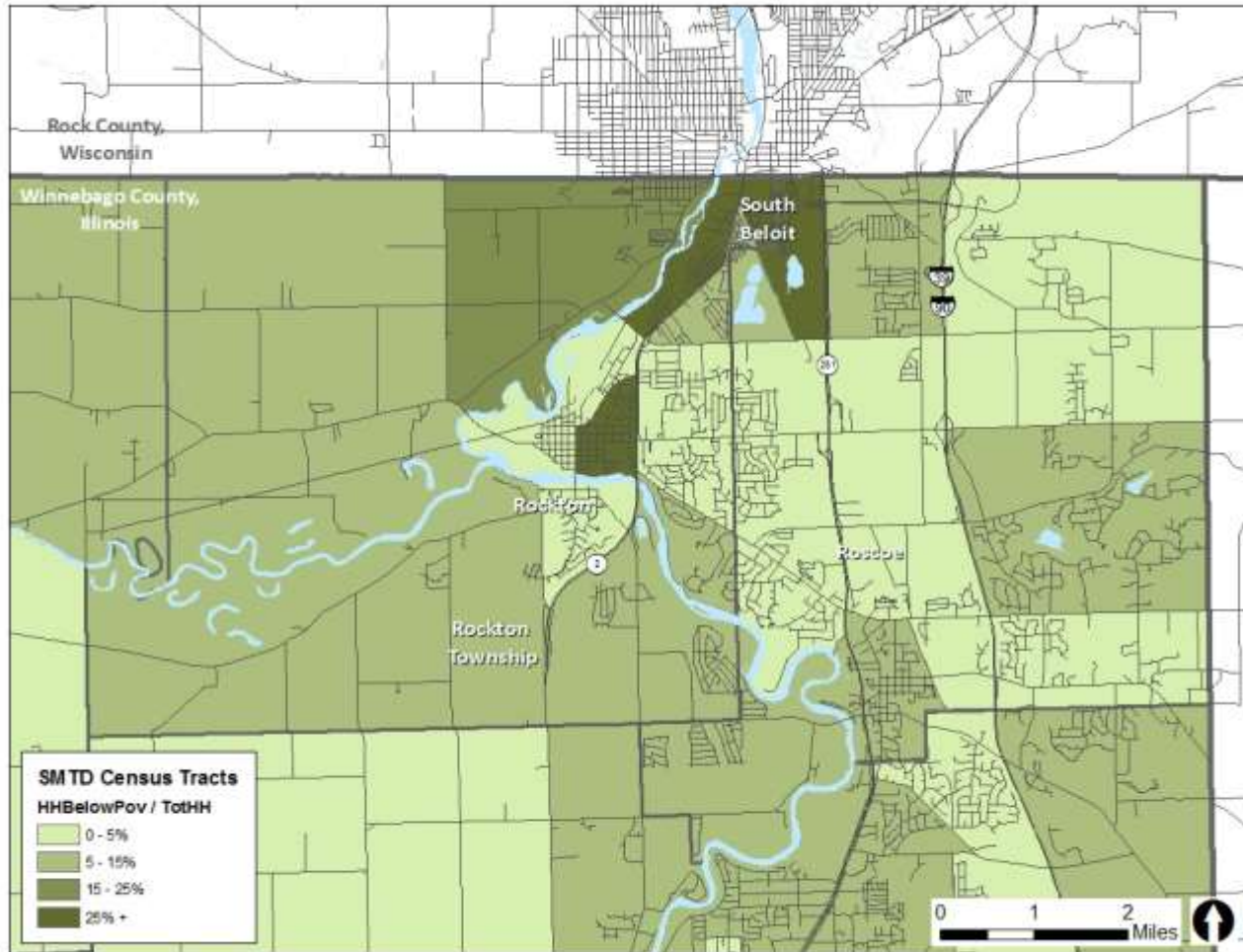
Poverty Status



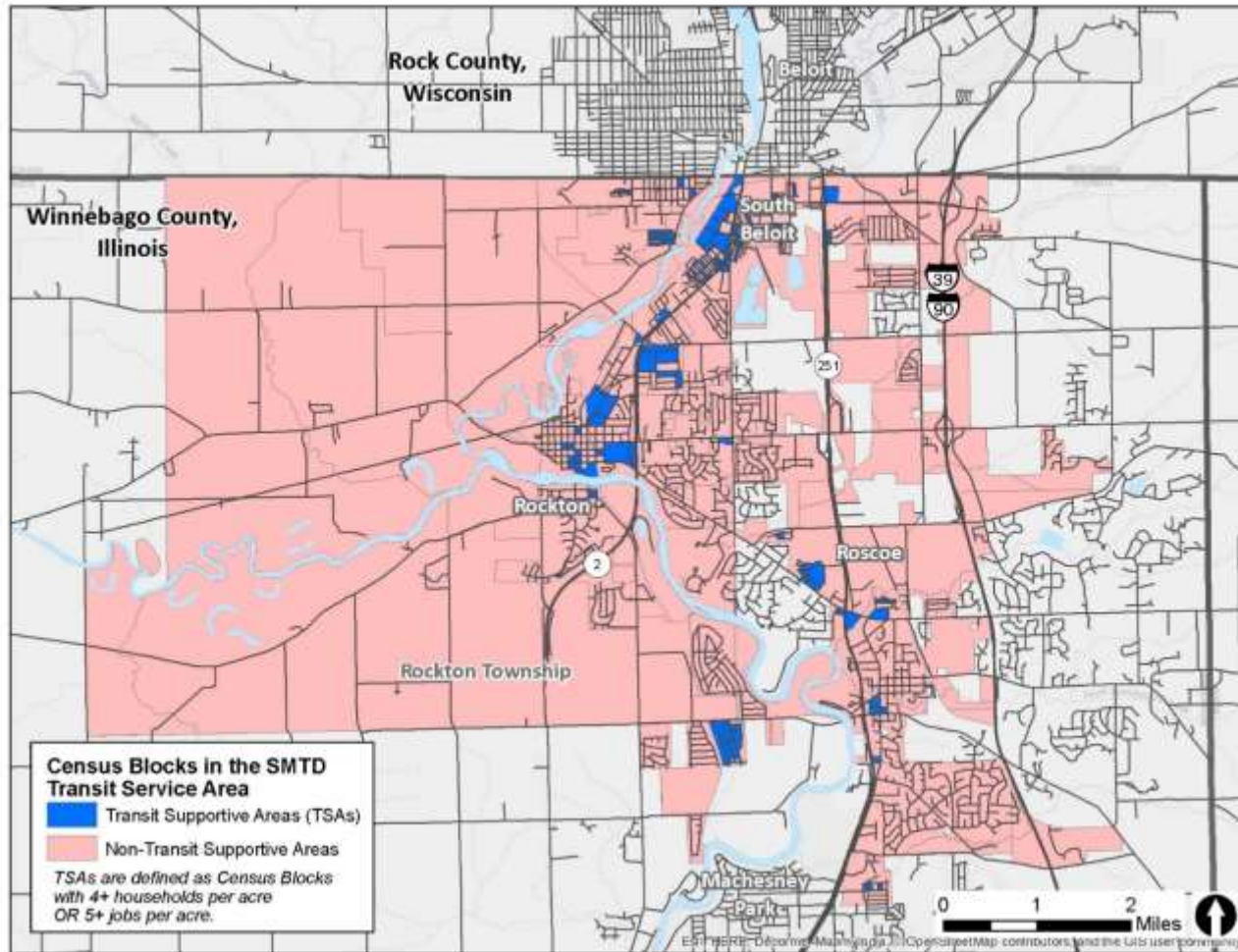
Older Adults



Zero Vehicle Households



Transit Supportive Density



SERVICE REVIEW

Performance Measures

- Ridership, revenue, and expense trends
- Field observations

Cost Effectiveness	<ul style="list-style-type: none">• Transit use in relation to the level of resources expended
Service Efficiency	<ul style="list-style-type: none">• The amount of service provided in relation to the amount of resources expended
Service Effectiveness	<ul style="list-style-type: none">• The consumption of transit service in relation to the supply of transit service available.
Passenger Revenue Effectiveness	<ul style="list-style-type: none">• The performance and effectiveness of revenue collection.
Geographic Coverage and Access	<ul style="list-style-type: none">• People and destinations served by transit

Field Observations

- Transfer facilities
- Dispatch center
- Interactions with riders
- Open house meetings



Other Information

- Operating ratio hovering around 4 percent
- Project team will evaluate current contract arrangement with RMTD and look at coordination opportunities and peer practices

WORK SESSION

SMTD Performance

- How would you assess the performance of SMTD in the following areas?
 - Span of service
 - Fare levels
 - Condition of vehicles and facilities
 - Understanding of customers/providing customer information
 - Who is well served by transit?



Increasing Ridership



Value of Transit

- How important is public transit service to the community?
What is the general perception among community leaders of the value of transit?
- How do you assess community support for a potential expansion of transit services?
What are some reasons why people may support such an expansion?
What are some reasons people may not support an expansion?

Strengths, Weaknesses, Opportunities

- What are some of the greatest successes related to transit in the SMTD area?
- What are areas where transit may fall short of its potential?
- What are some key opportunities for transit in the region? What would be a successful outcome of the transit development plan?

Next Steps

- Develop Service and Governance Options
- Deliver Technical Memos
- Second Trip to Present Draft Recommendations



Joseph Kapper, AICP
Associate Planner
SRF Consulting Group
jkapper@srfconsulting.com
(651)333-4100

THANK YOU!

Appendix D: Open House Materials

Existing Conditions



Not very well



Meets only basic needs



Very Well

How well do current transit services meet travel needs in Rockton, Roscoe, South Beloit, and Rockton Township?

General purpose travel within the region (shopping, appointments, etc.) ?

Beloit

Travel to/from other communities? Rockford/Machesney Park/Loves Park

Other Places in Winnebago County

Getting to/from work:

For people visiting from outside the region?



Service Changes

 Place red stickers on the service changes that are most important to you.

What modifications to transit service are most important?

Serve a new destination (write in):

Improve the facilities and vehicles:

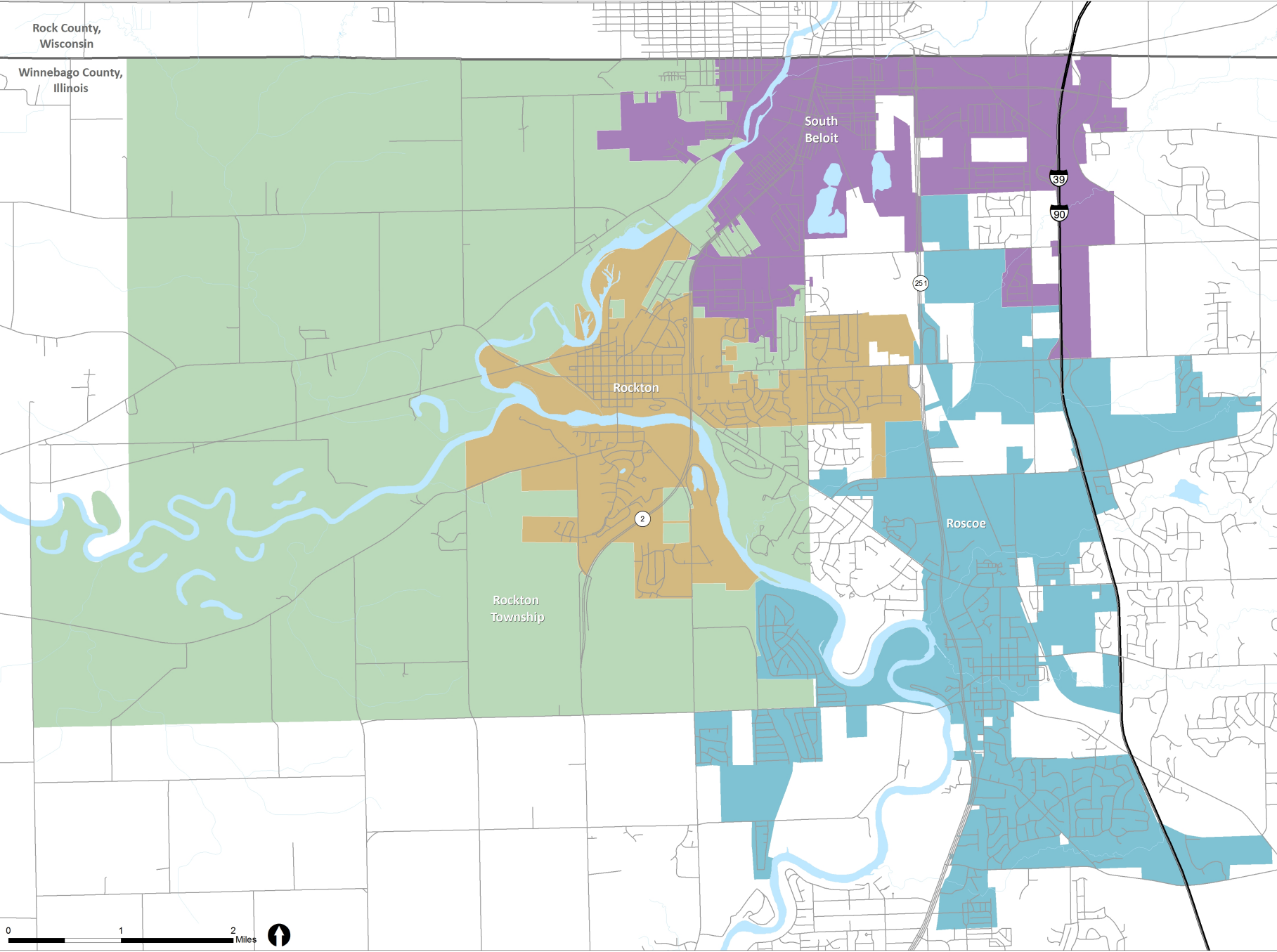
Service should run earlier or later:

Provide better customer information (maps, signage, technology):

Offer fixed route bus service (Beloit Transit System, RMTD):

Other (write in):





Appendix E: Example Surveys from Peer Systems

Eau Claire Transit Development Plan On-Board Survey

EAU CLAIRE TRANSIT ON-BOARD SURVEY

Thank you for helping Eau Claire Transit improve services for you. Your participation in this survey is voluntary and confidential. Please return the completed survey to the bus driver.

Please tell us about your trip today:

1. Which route are you on? _____
2. Where are you **coming from** now?

<input type="checkbox"/> Home	<input type="checkbox"/> School (K-12)	<input type="checkbox"/> Shopping	<input type="checkbox"/> Other (specify) _____
<input type="checkbox"/> Work	<input type="checkbox"/> College/Technical School	<input type="checkbox"/> Government Agency	
<input type="checkbox"/> Medical	<input type="checkbox"/> Recreation or Social Event	<input type="checkbox"/> Social Service Agency	
3. Where are you **going to** now?

<input type="checkbox"/> Home	<input type="checkbox"/> School (K-12)	<input type="checkbox"/> Shopping	<input type="checkbox"/> Other (specify) _____
<input type="checkbox"/> Work	<input type="checkbox"/> College/Technical School	<input type="checkbox"/> Government Agency	
<input type="checkbox"/> Medical	<input type="checkbox"/> Recreation or Social Event	<input type="checkbox"/> Social Service Agency	
4. Did you transfer to this route or will you transfer to another route to complete your journey? Yes If yes, which route: _____ No
5. For **this** trip, did you pay using: Cash Pass Transfer Free (UWEC)
6. What is the main reason you took the bus today? (Please check only one)

<input type="checkbox"/> Don't drive/don't have valid license	<input type="checkbox"/> Bus is more economical	<input type="checkbox"/> Eau Claire Transit is more convenient
<input type="checkbox"/> Car is not available	<input type="checkbox"/> Parking is too difficult/ expensive	<input type="checkbox"/> Other (Specify) _____
7. How often do you use Eau Claire Transit? Everyday A couple times per week Occasionally
8. How long have you been a transit user? Less than 1 year 1 to 5 years Over 5 years
9. At what point would you begin riding transit less if fares increased? (Check one only)

<input type="checkbox"/> Fares increased by \$0.25 per ride	<input type="checkbox"/> Fares increased by \$0.50 per ride	<input type="checkbox"/> Any amount
---	---	-------------------------------------
10. How would you rate these potential improvements to Eau Claire Transit service?


Provide new route to _____	<input type="checkbox"/> Not Important to me	<input type="checkbox"/> Somewhat Important to me	<input type="checkbox"/> Very Important to me
Less time between buses on routes (more frequent)	<input type="checkbox"/> Not Important to me	<input type="checkbox"/> Somewhat Important to me	<input type="checkbox"/> Very Important to me
Operate service on Sunday	<input type="checkbox"/> Not Important to me	<input type="checkbox"/> Somewhat Important to me	<input type="checkbox"/> Very Important to me
Convert some routes to limited stop to speed up travel	<input type="checkbox"/> Not Important to me	<input type="checkbox"/> Somewhat Important to me	<input type="checkbox"/> Very Important to me
Design routes so now everything transfers downtown (create additional transfer locations)	<input type="checkbox"/> Not Important to me	<input type="checkbox"/> Somewhat Important to me	<input type="checkbox"/> Very Important to me
Offer park and ride lots and corresponding service	<input type="checkbox"/> Not Important to me	<input type="checkbox"/> Somewhat Important to me	<input type="checkbox"/> Very Important to me
Other (please write here) _____	<input type="checkbox"/> Not Important to me	<input type="checkbox"/> Somewhat Important to me	<input type="checkbox"/> Very Important to me

Please tell us about yourself:

11. Your age is:

<input type="checkbox"/> 18 years or under	<input type="checkbox"/> 25 to 34	<input type="checkbox"/> 45 to 54	<input type="checkbox"/> 65 or over
<input type="checkbox"/> 19 to 24	<input type="checkbox"/> 35 to 44	<input type="checkbox"/> 55 to 64	
12. What is your race?

<input type="checkbox"/> White Non-Hispanic	<input type="checkbox"/> Hispanic	<input type="checkbox"/> Native American
<input type="checkbox"/> Black Non-Hispanic	<input type="checkbox"/> Asian	<input type="checkbox"/> Other
13. What is your gender? Male Female
14. How many cars are available in your household? 0 1 2 or more
15. How many people are in your household? 1 2 3 or more
16. Do you have any mobility limitations? Yes No



Thank you for your time to participate in the survey. Your answers will help improve Eau Claire Transit service in the future.

DeKalb Transit Development Plan Off-Board Community Survey

1. In which city do you currently live while attending school?

DeKalb
 Sycamore
 Cortland
 Other → Please Specify:

2. In which city do you currently work?

DeKalb
 Sycamore
 Cortland
 Does not apply/I'm not working
 Other → Please Specify:

3. On average, how often do you leave the DeKalb region per month?

Daily
 A few times a week
 Weekly
 A few times a month
 Monthly
 Never

4. How do you get to the places you want to go? Please check all that apply.

Drive or ride in my own vehicle
 Drive or ride in someone else's vehicle
 Walk or use a wheelchair
 Use a Bicycle
 Ride the bus
 Other → Please Specify:

4a. How do you get to campus most often?

Drive my own vehicle
 Drive someone else's vehicle
 Walk or use a wheelchair
 Ride a bicycle
 Ride the bus
 Other → Please Specify:

5. In the last six months, have you missed or been late to any of the following due to a lack of transportation? Please check all that apply.

Work
 Medical appointments
 Visiting friends or family
 Shopping
 Social/entertainment opportunities
 School/class
 Kids activities (pool, park, etc.)
 Senior nutrition or day center
 Social service agency appointments
 Religious events and ceremonies
 Other → Please Specify:

Does not apply

6. Have you ever quit a job or lost a job because it was hard for you to get to work?

Yes
 No → Go to 7.

6a. Why was it hard for you to get to work?

7. On average, how often do you ride the bus in the DeKalb region per month?

Daily
 A few times a week
 Weekly
 A few times a month
 Monthly
 Never

8. How often would you ride the bus if it stopped at the places where you want to go?

Daily
 A few times a week
 Weekly
 A few times a month
 Monthly
 A few times a year
 Never / I won't ride the bus

NIU Survey- Off Bus

8a. Please list the places you would like to go that you can't get to by bus now.

9. When would you like to ride the bus? Please check all that apply.

	Weekdays	Saturday	Sunday
Before 7:00 a.m.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:00 a.m. to 8:59 a.m.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9:00 a.m. to 11:59 a.m.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12:00 noon to 3:59 p.m.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4:00 p.m. to 6:59 p.m.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7:00 p.m. to 9:00 p.m.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
After 9:00 p.m.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. How frequently would the bus have to run for you to ride it? Please check the longest time you would be willing to wait for a bus.

- Less than 15 minutes
- Every 15 minutes
- Every 30 minutes
- Every 45 minutes
- Every 60 minutes
- More than 60 minutes

11. Please rank the top five factors that would cause you to ride the bus more often. Please rank the factors in order of importance where 1 is most important to you.

- | | |
|---|--|
| <input type="checkbox"/> Buses run earlier in the morning | <input type="checkbox"/> Improve driver safety |
| <input type="checkbox"/> Buses run later in the evening | <input type="checkbox"/> Improve driver customer service |
| <input type="checkbox"/> Shorter wait times between buses | <input type="checkbox"/> Knowing exactly what time the bus will get to your stop |
| <input type="checkbox"/> Knowing the bus will be on time | <input type="checkbox"/> Have buses go to more places <u>in town</u> |
| <input type="checkbox"/> Stops closer to home | <input type="checkbox"/> Have buses go to more places <u>out of town</u> |
| <input type="checkbox"/> Shorter travel times | <input type="checkbox"/> Improve coordination between TransVAC and NIU buses |
| <input type="checkbox"/> Improve safety on the bus | <input type="checkbox"/> Service is fine the way it is |
| <input type="checkbox"/> Improve safety at shelters | <input type="checkbox"/> Other → Please specify: |
-

12. What else could be done to improve bus service in the DeKalb region?

13. How old are you?

- 18 - 24
- 25 - 29
- 30 - 39
- 40 - 49
- 50 - 59
- 60 - 69
- 70 - 79
- 80 and over

14. How do you classify yourself? Please select all that apply.

- American Indian or Alaska Native
- Asian
- Black or African American
- Hispanic or Latino/a
- Middle Eastern
- Native Hawaiian or Pacific Islander
- White
- Other

15. What was your total household income before taxes during the past 12 months?

- Less than \$25,000
- \$25,000 to \$34,999
- \$35,000 to \$49,999
- \$50,000 to \$74,999
- \$75,000 to \$99,999
- \$100,000 to \$149,999
- \$150,000 or more

NIU Survey- Off Bus

Appendix F: Example Interstate Agreement

2011

CITY OF SUPERIOR, WISCONSIN
AND
DULUTH TRANSIT AUTHORITY

BUS SERVICE AGREEMENT

July 1982

AGREEMENT

THIS AGREEMENT, made and entered into this 23rd day of July, 1982, by and between the City of Superior, a municipal corporation located in Douglas County, Wisconsin, hereinafter referred to as "Superior", and the DULUTH TRANSIT AUTHORITY of the City of Duluth, Minnesota, a body politic organized and existing pursuant to Chapter 720 of the Laws of the State of Minnesota, 1969, hereinafter referred to as the "Authority".

WHEREAS, the Authority has been and is presently providing public bus transit service on a regular, scheduled basis over certain routes within the City of Superior; and

WHEREAS, it is the desire of Superior that such bus service be continued within the City of Superior, Wisconsin, and

WHEREAS, the parties recognize that the expenses incurred by the Authority as a result of providing such transit service to the City of Superior may exceed revenues derived therefrom.

NOW, THEREFORE, in consideration of the mutual covenants herein contained, the parties agree as follows:

1. Subject to the provisions of paragraph 6 of the Agreement, the Authority agrees to continue the present public bus transportation system within the City of Superior and between the cities of Duluth, Minnesota, and Superior, Wisconsin, with regularly scheduled bus routes at regularly scheduled intervals similar to those routes and times as are presently established. The management and operation of the system shall in all respects comply with the provisions of Appendix A of the Mass Transit Aid Program Contract between Superior

and the State of Wisconsin Department of Transportation and shall be in accordance with the purpose of the Mass Transit Aid Program contained in Wisconsin Statute 85.05 (1981).

2. (a) That the City of Superior, Wisconsin, shall reimburse the Authority on a monthly basis for losses incurred in providing such bus service to Superior as follows: The Authority shall continue using accepted accounting procedures which have been approved by the Finance Director of Superior to determine the operating costs per mile or per hour (not to include return on investment) for each month for the entire Duluth-Superior bus transit system. For purposes of determining such cost, depreciation of that non-Federal portion of the cost of equipment financed by the Authority or the City of Duluth shall be included as an expense of operation. All non-operating income of the Authority shall be credited against each month's operating costs before arriving at such cost. For purposes of the Agreement, advertising revenue shall be considered to be operating revenue. Such monthly cost when multiplied by the number of miles run or hours operated in Superior, whichever cost basis is approved by the City of Superior upon budget adoption or at the time of a schedule change shall serve as the basis for determining the expense of providing transit service to Superior, Wisconsin. During the term of the Agreement, Superior shall pay to the Authority the amount by which expenses as herein determined exceed revenues attributable to transit service provided to Superior for the preceding month. Should income for any month exceed expenses for that month, said excess shall offset any loss in operation for the next successive month or months.

(b) Notwithstanding the provisions of subparagraph (2), above, Superior agrees at a minimum to pay to the Authority each month the total operating deficit of the Authority. "Total Operating Deficit" means the amount by which the total operating expense (not to include return on investment) incurred in the operation of the system in the City of Superior, Wisconsin, exceeds the amount of operating revenue derived therefrom. Such deficit shall be determined by the Secretary of the Wisconsin Department of Transportation, and the determination shall be in accordance with generally accepted accounting principles and practices.

(c) The Finance Director of Superior and auditors of the Wisconsin Department of Transportation shall have the right and authority to examine the books of the Authority at any and all reasonable times during the life of this Agreement.

(d) The Authority shall forward to the Finance Director of Superior, an estimated cost by December 1.

(e) The Authority shall forward to the Finance Director of Superior, Wisconsin at least semi-annually, actual route by route revenue generated in Superior.

(f) All Authority surveys should be conducted in both Duluth and Superior where practicable.

3. The State boundary between Minnesota and Wisconsin shall be used as the point from which miles run, or hours operated within the City of Superior are determined.

4. Fares: The Authority's fare schedule will be determined by the City of Superior during the budgetary process or at any other

time agreeable by both parties. Fare changes will be in accordance with all State and Federal Regulations.

5. The Authority shall continue to use metered fare boxes to determine revenue collected in the City of Superior.

6. Traffic Changes: The Authority agrees that it will not change any schedules or bus routes with respect to operations which exist and were adopted during budget deliberations for the subsequent year without the approval of Superior, unless such changes are required to implement Federal or State grant agreements. The City of Superior agrees that it will not change any schedules or bus routes with respect to operations which exist and were adopted during budget deliberations for the subsequent year without the approval of the Authority, unless such changes are required to implement Federal or State grant agreements.

Such approval shall not be withheld when the City of Superior shows its projected annual "net cost" shall be increased by 10% or more as determined by the City Finance Director. Such approval shall not be unreasonably withheld where the Authority or the City of Superior demonstrates the necessity of changes to coordinate with schedules for buses operating in the City of Duluth. Under no circumstances shall the Authority be obligated to provide bus transit service to Superior during any period when the Authority is not providing bus transit service in the City of Duluth.

7. The Authority shall defend, indemnify and otherwise hold Superior harmless from any claim which may arise as a result of the service provided pursuant to this Agreement, unless such claim is

occasioned by the negligence of Superior.

8. (a) With respect to receipt of operating assistance from the Federal Government under Section 5 of the Urban Mass Transit Act of 1964. Superior agrees to the same terms for protection of the rights of employees presently employed by ATE Management of Duluth, Inc., as are contained in the existing agreement between the Authority and General Drivers, Warehousemen, Helpers and Inside Employees, Local Union No. 346 of Duluth, Minnesota, which agreement was entered into pursuant to the requirements of Section 13(c) of the Urban Mass Transportation Act of 1964. Superior further agrees to defend, indemnify and otherwise hold the Authority harmless from any claim which may arise against the Authority as a result of a violation by Superior of the provisions of the terms of such Section 13(c) agreement.

(b) The Authority shall be responsible to complete, with the advice and assistance of Superior, any forms for Federal assistance, assistance from the State of Wisconsin, reports required by Federal or State agencies, and all grant applications related to the furnishing of bus service in the City of Superior.

9. This Agreement shall be in effect from 7/23/82 and shall not be terminable except by 90 day written notice by either party to the other.

10. It is further agreed by and between the Authority and the City of Superior that in further consideration for the promises and payments made under the terms of the service contract between the Authority and the City, the Authority agrees that the following

definitions shall apply:

..In the event the Authority desires to increase the City's net costs for bus service, shall refer to a sudden increase request by the Authority by 10% or more as determined by the City Finance Director in the overall cost structure used to develop the annual Superior operating budget, or to a sudden decrease by 10% or more in the overall revenue structure used to develop the annual Superior operating budget.

"--present to the city plans for bus service cutbacks and efficiencies which would offset the proposed increases", refers to a desire by the Superior City Council to receive a set of options for reaction to a sudden cost increase, as defined, that may include justifications for the City's expanded support of existing mass transit service levels.

11. Interest of members of/or Delegates to Congress: No members of/or delegates to the Congress of the United States shall be admitted to any share or part of this contract or to any benefit therefrom.

12. Equal Employment Opportunity: In connection with the execution of this contract, the Authority shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, or nation or origin. The Consultant shall take affirmative action to insure that applicants are employed and that employees are treated during their employment, without regard to their race, religion, color, sex, or nation of origin. Such actions shall include, but not be limited to the following: employment, upgrading,

demotion, or transfer; recruitment or advertising; layoff, or termination; rates of pay, or other forms of compensation; and the selection for training.

13. Audit and Inspection of Records: The Authority shall permit the authorized representatives of the City, the U.S. Department of Transportation, and the Comptroller General of the United States to inspect and audit all data and records of the Consultant relating to his performance under the contract until the expiration of three (3) years after the final payment under this contract.

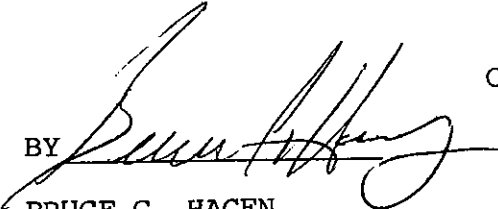
14. Minority Business Enterprise: In connection with the performance of this contract, the Authority will cooperate with the City of Superior in meeting their commitments and goals with regard to the maximum utilization of minority business enterprises and will use its best efforts to insure that minority business enterprises shall have maximum practicable opportunity to compete for sub-contract work under this contract.

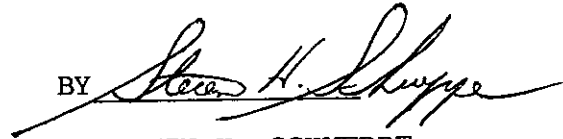
15. It shall be the responsibility of the Authority to advise the City on a monthly basis of the expenditures incurred. It shall be the City of Superior's responsibility to pay all bills submitted in accordance with this contract within 30 days of the date received.

16. Any proposed changes to the form of this contract must be presented in writing to the other party 30 days prior to discussions on these changes.

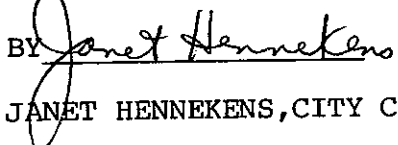
Exhibit I-D

IN WITNESS WHEREOF, the parties hereto have set their hands and seals this 23rd day of July, 1982.


CITY OF SUPERIOR
BY 
BRUCE C. HAGEN,
MAYOR

BY 
STEVEN H. SCHWEPPE,
CITY ATTORNEY

ATTEST:

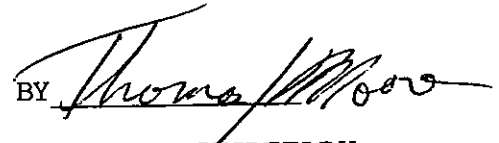
BY 
JANET HENNEKENS, CITY CLERK


ATTEST:

BY 
TIMOTHY M. NELSON
FINANCE DIRECTOR

DULUTH TRANSIT AUTHORITY

BY 
PRESIDENT

BY 
SECRETARY

ATTEST: 

ATTEST: 