

**Twin CATS Long Range Plan
2014-2040**

**Public Transit Section
Working Draft**

March 14, 2013




PLEASE NOTE

In an effort to gather additional comments and suggestions during the 2040 Long Range Transportation Planning process the Southwest Michigan Planning Commission is making the working draft sections of the plan available to the public.

Additional data collection and analysis is still being conducted and this information will be included in the next draft which is to be released mid April 2013.

Questions or comments can be directed to:



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PUBLIC TRANSIT

Over the last four years a comprehensive effort has been made to understand the current role of public transit and mobility in Berrien County. This effort included several transit focused studies that called for the establishment of a structure to build and sustain coordination efforts and for improved integration between countywide rural and small urban service. This was documented in the following completed studies from 2010-2012; Berrien County Coordinated Human Service Transportation Plan, Berrien County Transit Study, Niles Dial a Ride Transit Study and the Pokagon Band of Potawatomi Transit Study. In 2011 the KFH group was selected to conduct a three year countywide transit consolidation feasibility study with the purpose of identifying opportunities to coordinate or consolidate transit services in Berrien County. The study will provide detailed analysis of the following opportunities:

- To allow for additional rider benefits, such as better and increased services with in the County and services that cross county and state borders.
- To provide a more effective mechanism to address regional transportation issues
- To provide greater opportunities for the creation of local dedicated funding sources for transit; and
- To achieve economies of scale with regard to capital, operating, administrative, and human resources.

Since 2010 a Mobility Manager has been in place. Working with the SWMPC and other agencies the Mobility Manager is responsible for short-range planning, management activities and projects for improving coordination among public transportation and other transportation service providers with the intent of expanding the availability of services to people with disabilities, older adults and low-income individuals.

How well are transit needs being fulfilled in the St. Joseph Benton Harbor urbanized area?

- Transit is of critical importance as part of a life-sustaining network for many residents, especially for older adults, people with disabilities and low income households. Twin

Cities Area Transportation Authority (TCATA) is the public transit agency that serves the communities of Benton Harbor, Benton Township and the City of St. Joseph.

- There are four independently operated public transit systems spread throughout the county of Berrien. Twin Cities Area Transportation Authority is the designated transit provider in the St. Joseph Benton Harbor UZA and Berrien Bus is the designated rural provider for areas in the county not served by Niles Dial a Ride and Buchanan Dial a Ride. **See Map 1.1**
- Some level of public transit service is provided in 28 of Berrien County's 30 municipalities, townships and villages. However, many of these areas are limited in the amount and frequency of service they receive, especially in more rural areas of the county.
- The four independently operated transit agencies have combined annual budgets totaling over \$3.5 million. Three out of the four transit agencies receive local support in the form of a millage.
- Many of the life-sustaining needs of elderly, disabled, and low-income residents in Berrien County are being met, but there are large gaps in services that need to be addressed in the future.

Economic Growth

Public transportation service in the St. Joseph Benton Harbor enhances economic growth in many ways. For example, it can increase the local customer base for a range of services, including shopping malls, medical facilities, and other transportation services (such as Amtrak). Residents interested in attending community colleges or other local educational facilities may gain access to such training opportunities with

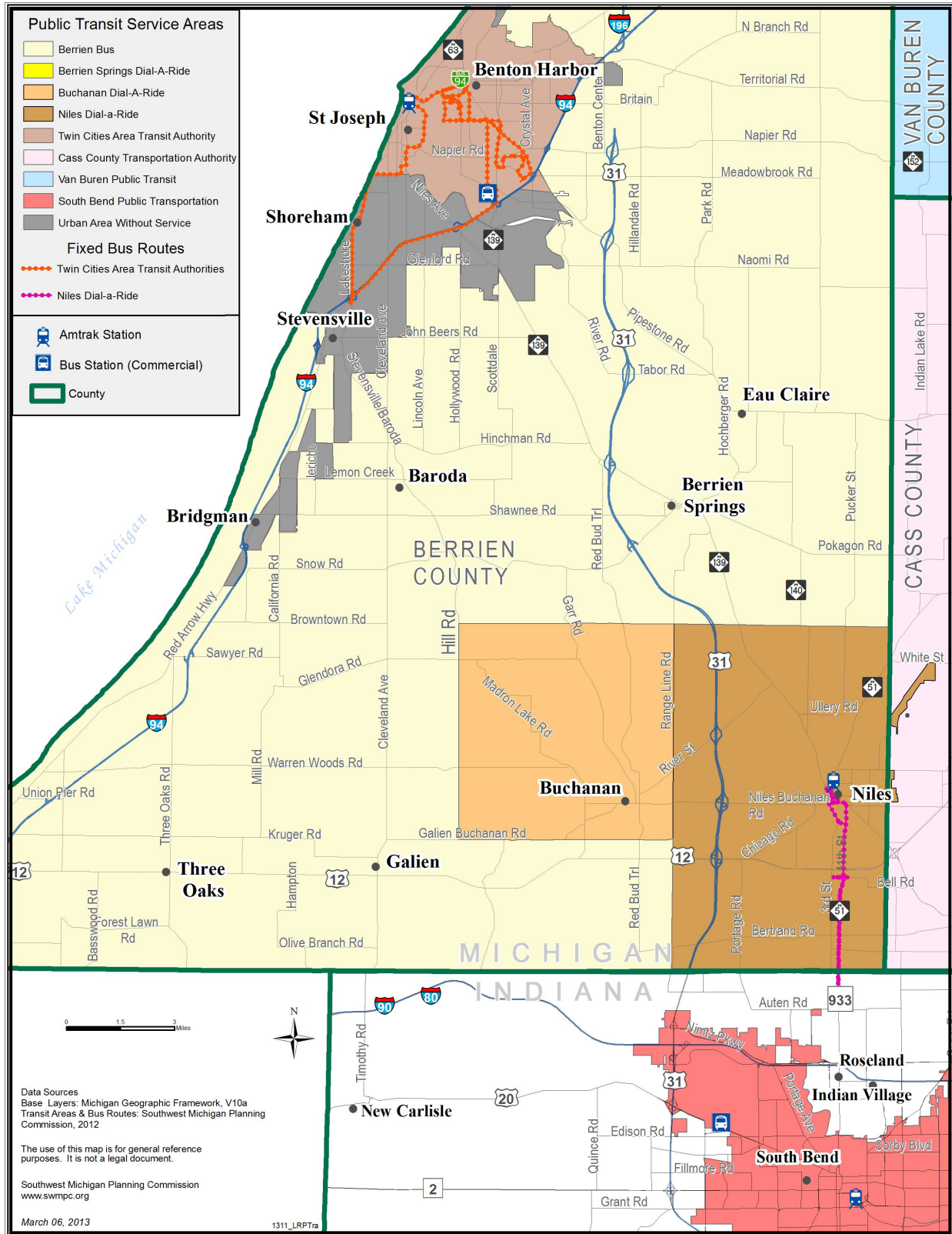
Today, public transit in Berrien County is generally not geared toward commuting to work.

transit service. Availability of public transportation may also increase the ability of human service agencies to serve individuals on public assistance and transport low-income residents to

jobs, training opportunities, and other support services. Transit can play an important role by providing local recreation-based businesses with an expanded supply of low-skilled workers from surrounding counties. In addition to assisting businesses in meeting their labor demands, transit also helps workers find jobs. While such jobs may be low-wage in nature, they serve as an important source of income to those who otherwise would likely face persistent unemployment.

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Map 1.1 Public Transit Service Areas



Twin Cities Area Transportation

Twin Cities Area Transportation Authority (TCATA) became an authority and began operations in 1975. TCATA's original authority and service area consisted of the communities of the City of Benton Harbor, Benton Township, City of St. Joseph, St. Joseph Township and Lincoln Township; all of these communities were members of the authority. Subsequent reductions of member communities in the authority reduced its membership to one community, the City of Benton Harbor.

Today, TCATA serves approximately 24,000 residents within a fourteen square mile service area, about fifty two percent of the St. Joseph-Benton Harbor urbanized area. The remaining forty seven percent of the St. Joseph-Benton Harbor urbanized area receives no service from TCATA.¹ Communities outside of the St. Joseph-Benton Harbor urbanized area in Berrien County are served by Berrien Bus, Niles Dial a Ride and Buchanan Dial a Ride.

Governance

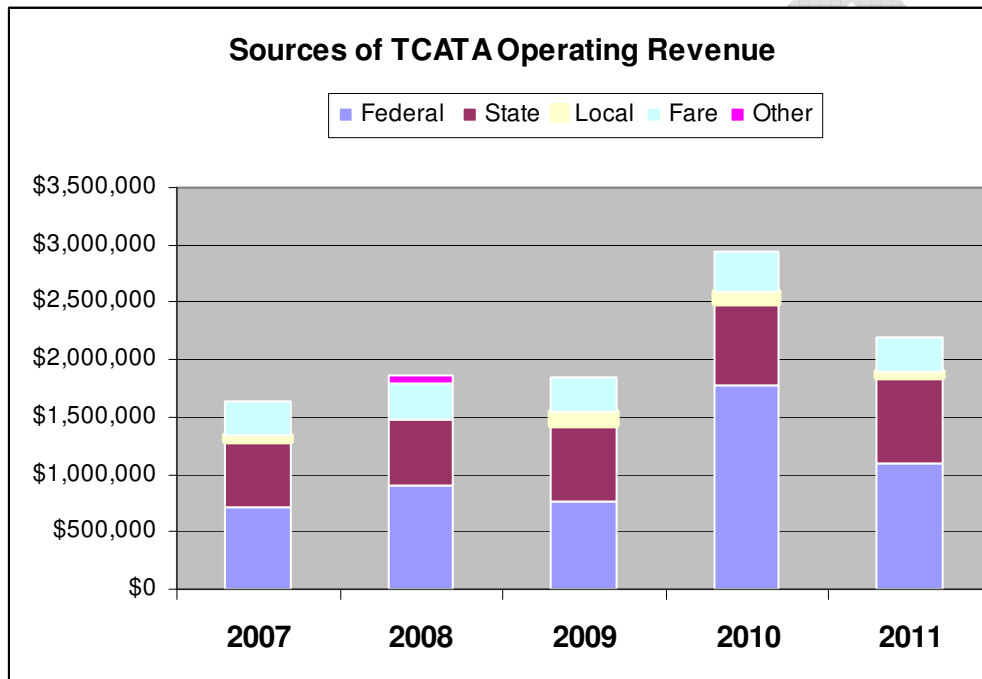
The Twin Cities Area Transportation Authority is organized under the Michigan Mass Transportation System Authorities Act 55 of 1963. The Authority is governed by a Board of Trustees comprised of members appointed by the City of Benton Harbor including one member of the public residing in the city of Benton Harbor, the city manager (*Emergency Financial Manager*) two members at large (*Area Agency on Aging, Disability Network of Southwest Michigan*) and the Executive Director of TCATA.

For the exclusive purposes of financing the contractual obligation created by a contract between the City of Benton Harbor and TCATA the City of Benton Harbor passed a levy of .243 mills (\$23.43 per \$1000) on all real and tangible personal property in the City of Benton Harbor for a period of twenty years in 2008. Prior to the current levy, the rate was 1.004 mills. The revenue generated by this levy is approximately \$128,000 per year. **See Appendix 1.1**

Funding

TCATA's operating costs are covered by a combination of federal, state and local funding as well as passenger fares. The City of Benton Harbor, TCATA's only source of local funds is funded through a twenty year transit millage the city has in place. **Figure 1.1** shows a breakdown of the sources of TCATA's operating revenue from 2007-2011.

Figure 1.1 Sources of TCATA Operating Revenue



Data Source: National Transit Database 2007-2011

Transportation Dependent Populations

Transit dependent populations are individuals considered by the transportation profession to be dependent upon public transit based on income, age, or disability. These population characteristics prevent most such individuals from driving and/or owning a reliable automobile, leaving ridesharing, public transit, and other community transportation options as the only other motorized forms of transportation available.

TCATA’s primary service area is comprised of three communities; the City of Benton Harbor, Benton Charter Township and the City of St. Joseph. The three communities have a population of 33,152 people that reside in one of the 13,394 households. A large percentage of the population within the service area can be considered transit dependent and they reside in the City of Benton Harbor and Benton Township.

Within the City of Benton Harbor forty two percent households have a median income of under \$15,000, and twenty nine percent of Benton Charter Township’s household income is under \$15,000. The income per capita in the City of Benton Harbor is only \$9,745, which includes all adults and children and is the lowest per capita in Michigan. The City of Benton Harbor population’s median age is twenty eight, considerably younger than the state of Michigan’s median age of thirty nine and the City of St. Joseph median age of forty two. See Table 1.1

Table 1.1 Population

People	Benton Township	Charter City of Benton Harbor	City of St. Joseph	
Population	14,749	10,038	8,365	9,883,640
Pop. Density	456	2,268	2,602	175
Pop. Change	-8.99%	-16.52%	-4.57%	-0.50%
Median Age	36	28	42	39
Households	5,913	3,548	3,933	3,872,508
Unemployment Rate*	8.20%	8.20%	8.20%	9.80
Income per Cap.	\$15,426	\$9,745	\$27,892	\$23,797
Household Income	\$28,415	\$18,970	\$39,623	\$46,932

US Census – 2010, Bureau of Labor Statistics*

Financial, legal and age limitations preclude many households in the City of Benton Harbor from owning or operating an automobile. It is not surprising that almost eighteen percent of the households in the City of Benton Harbor and commute using public transit or ridesharing, much higher than the state average of twelve percent. Households in the city of St. Joseph indicated that they never utilize public transit as a commute option, but TCATA driver logs indicate many seniors use public transit to access groceries and some medical services. Using public transit to commute by households in Benton Charter Township was less than one percent. This low

number is deceiving because according to 2011 TCATA passenger trip data over 24,142 passenger trips were provided in 2011 from origins to destinations within Benton Charter Township.

A large majority of the service area’s commute time is fifteen minutes or less. For people dependent on transit this short commute time is due to the fact that many entry level service jobs that are accessible by public transit are located in Benton Charter Township. **See Table 1.3**

Table 1.3 Travel Behaviors

Transportation	City of Benton Harbor	Benton Charter Township	City of St. Joseph	Michigan
Commute Time	18.8	19.5	17.3	26.3
COMMUTE MODE				
Auto (alone)	71.95%	78.13%	87.76%	82.51%
Carpool	14.20%	14.46%	4.72%	9.28%
Mass Transit	3.53%	0.61%	0.00%	1.35%
Work at Home	3.31%	3.97%	3.78%	3.45%
COMMUTE TIME TO WORK				
Commute Less Than 15 min.	49.58%	41.88%	59.51%	29.93%
Commute 15 to 29 min.	37.67%	45.16%	29.41%	38.19%
Commute 30 to 44 min.	9.11%	8.30%	6.55%	18.92%
Commute 45 to 59 min.	1.29%	1.82%	2.09%	7.03%
Commute greater than 60 min.	2.35%	2.83%	2.45%	5.93%

US Census - 2010

A large percentage of the City of Benton Harbor and Benton Township population is employed in the service sector and warehousing and transportation occupations. Statewide thirty two percent of workforce is employed in those sectors and that number is almost doubled in Benton Harbor and Benton Township. The majority of these occupations require shifts that begin or end after TCATA’s hours of operation and many times public transit is not a commute option. **See Table 1.4**

Table 1.4 Populations by Occupation

	City of Benton Harbor	Benton Charter Township	City of St. Joseph	Michigan
POPULATION BY OCCUPATION				
Management, Business, and Financial Operations	3.94%	7.69%	12.67%	12.63%
Professional and Related Occupations	6.22%	11.01%	26.89%	20.10%
Service	26.99%	17.68%	13.52%	14.18%
Sales and Office	22.74%	24.43%	25.57%	25.55%
Farming, Fishing, and Forestry	0.57%	1.39%	0.25%	0.46%
Construction, Extraction, and Maintenance	5.96%	6.47%	6.49%	9.21%
Production, Transportation & Material Moving	33.61%	31.35%	14.59%	17.87%

US Census - 2010

In order to bring workers and industries together, the state continues to focus programs and initiatives centered on workforce development. Lake Michigan College plays an integral role in those initiatives. There are several programs in place at LMC to ensure more students and adults can access a college education and the increased earnings potential it provides. LMC 2012 enrollment indicated that over 20 percent of their students reside in Benton Harbor and Benton Township while over 60 percent of the enrollment resides within the TwinCATS study area.

TCATA currently provides demand response service from origins located in the City of Benton Harbor, Benton Township and the City of St. Joseph to LMC. It is ranked in the top five demand response destinations within TCATA’s service area. **See Appendix**

Community Mobility Options for Older Adults

Reductions in mortality have resulted in increases in life expectancy that have contributed to the growth of the elderly population, especially in the oldest age brackets. This is in contrast to the early days of our nation when high fertility and high mortality kept the nation “young.” A century ago in 1910 life expectancy at birth was a mere 46 years for boys and 48 years for girls.³ Today, life expectancy at birth is 75 for boys and 80 for girls.⁴ Many citizens in the region can expect to live well beyond retirement. In fact, more and more people in the region are in their 70s, 80s and 90s.

Differences among older adults must be taken into account. The older adult population is the most diverse of all age groups. In particular, people between the ages of sixty and seventy can quite a different set of needs when compared with people age eighty and above. A Michigan Department of Transportation demographic analysis and survey found that older adults age eighty and older reported lower levels of health and functioning, drove less and closer to home and were more likely to think there was a chance their driving ability could become a problem within the next five years. In addition, their participation in outside activities was limited and they also reported a higher level of perceived isolation.

[Insert Senior population data here - By community](#)

For older adults who are unable or choose not to drive, support for community transportation options will become increasingly important. A number of services are available to meet some of the needs of older adults who no longer drive and still require or desire mobility. They include TCATA, Amtrak, Berrien Bus and Greyhound. There is limited supplemental transportation available within the study area that specifically provides service to older adults. Adults sixty years and older can receive services from seven independently operated senior service centers and meal sites located throughout Berrien County. Each of the seven centers is supported financially by a countywide

Neither traditional public transit services nor special demand services will come anywhere near meeting mobility needs of the country's aging population.
American Society in Aging

senior millage that provides approximately two million dollars annually in funding. This funding helps support activities, transportation and facilities.

Each of senior centers provides transportation services to older adults in its service area. However, the frequency and service area varies from one senior center to the next. For example, an older adult who resides in the Niles Senior Service area has access to countywide and cross-county transportation services, while someone who lives in the Benton Harbor or St. Joseph senior services area only has access to destinations in Benton Harbor and St. Joseph. See Table 1.5. There is little or no coordination that takes place between the seven centers in the provision of transportation services, leaving some residents with very limited transportation options.

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Table 1.5 Berrien County Senior Service Providers

Senior Center / Origins	Destinations	Center Hours	Transportation Hours	Number of Vehicles	Popular Destinations
Benton Harbor Senior Center <i>Benton Harbor, Benton Twp.</i>	St. Joseph, Royalton Twp. Lincoln Twp. St. Joseph Twp. City of Benton Harbor Benton Twp.	Monday-Friday 8:00-4:30pm	Monday-Friday 9:00-4:00pm	Three – 12 passenger vans (One lift equipped)	Lakeland Hospital Napier Royalton
City of Buchanan Senior Center <i>City of Buchanan, Buchanan Township</i>	City of Buchanan City of Benton Harbor Bertrand Twp. Battle Creek Niles Twp.	Monday-Friday 9:00am-4:00pm	Monday-Friday 9:00am-4:00pm	One 5-6 passenger van	Lakeland Hospital Niles
Central County Senior Center <i>Berrien Twp. Sodus Twp., Oronoko Twp. Pipestone Twp. Berrien Twp. Baroda Twp, Village of Baroda Village Berrien Springs</i>	Berrien County, Kalamazoo, Battle Creek	Monday-Friday 8:30am-4:30pm	Monday-Friday 8:30am-4:30pm	Five vehicles ranging in size from 7 passenger to 24 passenger (One lift equipped)	Lakeland Hospital - Napier Royalton Meijer – Benton Harbor
Niles Senior Center <i>City of Niles, City of Buchanan, Niles Twp.</i>	City of Niles City of Buchanan Battle Creek (hospital) South Bend Medical destinations.	Monday-Friday 8:00am-4:00pm	Monday-Friday 8:00am-4:00pm	One 4-5 passenger mini vans	Lakeland Hospital Niles South Bend Medical
North Central Senior Services <i>City of Coloma, Coloma Twp, Hagar Twp, Watervliet Twp, City of Watervliet</i>	Berrien County	Monday-Friday 8:00am-4:00pm	Monday-Friday 9:00am-3:00pm	Two 6 passenger vans One 4 passenger sedan	Royalton Watervliet Meijer - Benton Harbor
St. Joseph Lincoln Senior Services <i>City of St. Joseph, St. Joseph Charter Twp. Lincoln Twp. Royalton Twp. Village of Stevensville Benton Twp. City of Benton Harbor</i>	City of St. Joseph, St. Joseph Twp. Lincoln Twp. Royalton Twp. Village of Stevensville Benton Twp. City of Benton Harbor	Monday-Friday 8:00am-4:00pm	Monday-Friday 9:00 am- Noon	One 12 passenger bus One 7 passenger van One 5 passenger suv	Lakeland Hospital Napier Royalton
River Valley Senior Services <i>City of New Buffalo Three Oaks Twp. Galien Twp. Lake Twp. Bridgeman ,St. Joseph Watervliet, Battle Creek, Benton Harbor Royalton Twp.</i>	New Buffalo Three Oaks Galien Twp. Lake Twp. Bridgeman ,St. Joseph Watervliet, Battle Creek, Benton Harbor Royalton Twp.	Monday-Friday 9:00am-4:00pm	Monday-Friday 9:00am-4:00pm	One 12 passenger van	Lakeland Hospital, Meijer - Stevensville

System Operating Data

The TCATA operating data summarized below in Table 1.6 provides five year overview of the combined operating data for demand response and fixed route service.

The average increase in TCATA public transit ridership was 16 percent between 2007- 2011, while passenger miles service averaged an increase of about 6 percent. Over the same five year period TCATA experienced a 4 percent decrease in passengers per revenue hour with a 5 percent increase in the number of service revenue hours.

Table 1.6 System Operating Data for All Services

Fiscal Year	Unlinked Trips	Unlinked Trips	Annual Revenue Miles	Vehicle Hours
2007	156,890	156,890	440,722	34,610
2008	169,424	169,424	464,892	35,043
2009	153,800	153,800	440,656	39,200
2010	148,311	148,311	570,795	49,035
2011	139,284	139,284	595,635	46,511

Source: FTA National Transit Data Base

Changes in operating data can be impacted by changes in hours, operations, new or discontinued services. Table 1.7 below provides an overview of the changes in service that have taken place during the FY 2007-2011 time period.

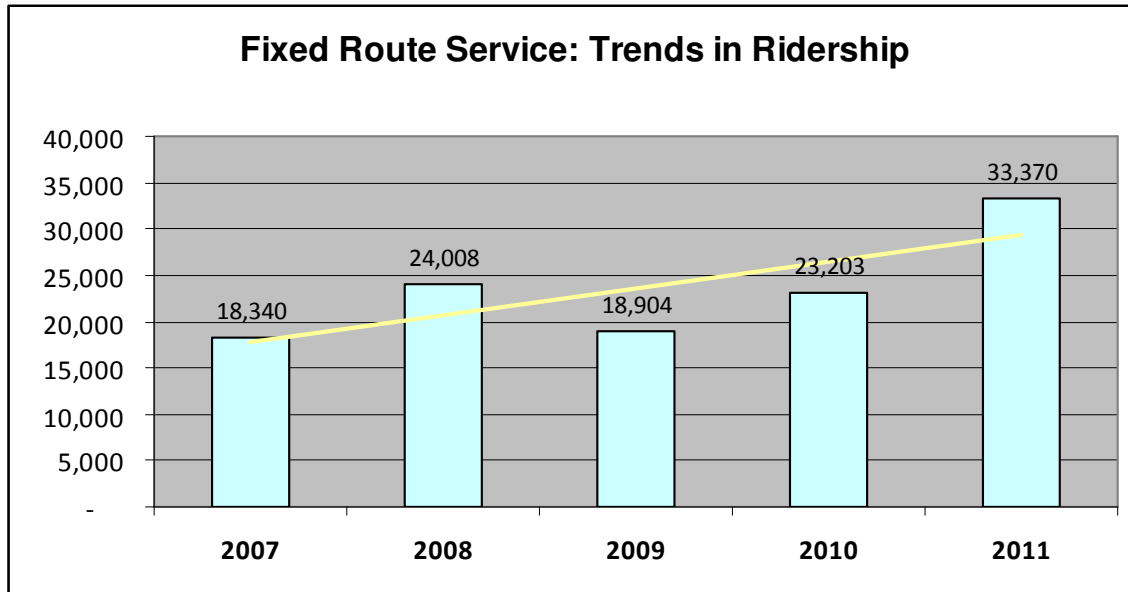
Table 1.7 TCATA Service Changes

Mode of Service	Service Prior FY 2007-2009	Service Changes FY 2009-2010	Service Changes FY 2010-2012
	Hours	Hours	Hours
Demand Response	Monday - Friday 6:00 am - 6:00 pm Saturday 8:00 am - 4:00 pm	Monday - Friday 6:00 am - 6:00 pm Saturday 8:00 am - 4:00 pm	Monday - Friday 6:00 am - 6:00 pm Saturday 8:00 am - 3:00 pm
Blue Route	Monday - Friday 8:00 am - 5:00 pm Saturday 8:00 am - 4:00 pm	Monday - Friday 6:00 am - 10:00 pm Saturday 8:00 am - 10:00 pm	Monday - Friday 6:00 am - 10:00 pm Saturday 8:00 am - 10:00 pm
Red Route		Monday - Friday 6:00 am - 6:00 pm Saturday 8:00 am - 3:00 pm	Monday - Friday 6:00 am - 10:00 pm Saturday 8:00 am - 10:00 pm
Green Route		Monday - Friday 8:00 am - 5:00 pm Saturday 8:00 am - 10:00 pm	Eliminated

During FY 2007 and 2008 the Blue route was the only fixed route service provided by TCATA. During that time period the Blue route utilized two vehicles to provide service every thirty minutes and operated nine hours per day Monday through Friday and seven hours per day on Saturdays.

In FY 2009 a Job Access Reverse Commute grant was awarded to increase the Blue route's hours of service by seven hours during the week and seven hours on Saturday. A grant from the same source in FY2009 also provided funding in the amount of \$280,000 to support a new fixed route that utilized one vehicle and mirrored the extended hours of the blue route. A third route (Green) was created during FY 2009 and operated nine hours per day on week days. The route was discontinued in the middle of FY2010.

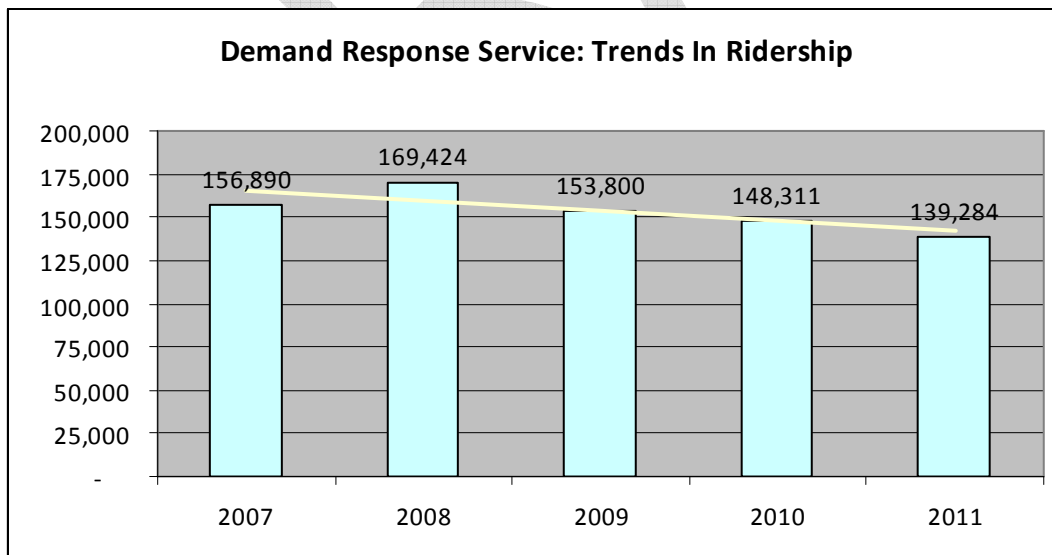
Figure 1.2 Fixed Route Ridership 2007-2011



Data Source: National Transit Database 2007-2011

[Add additional analysis here](#)

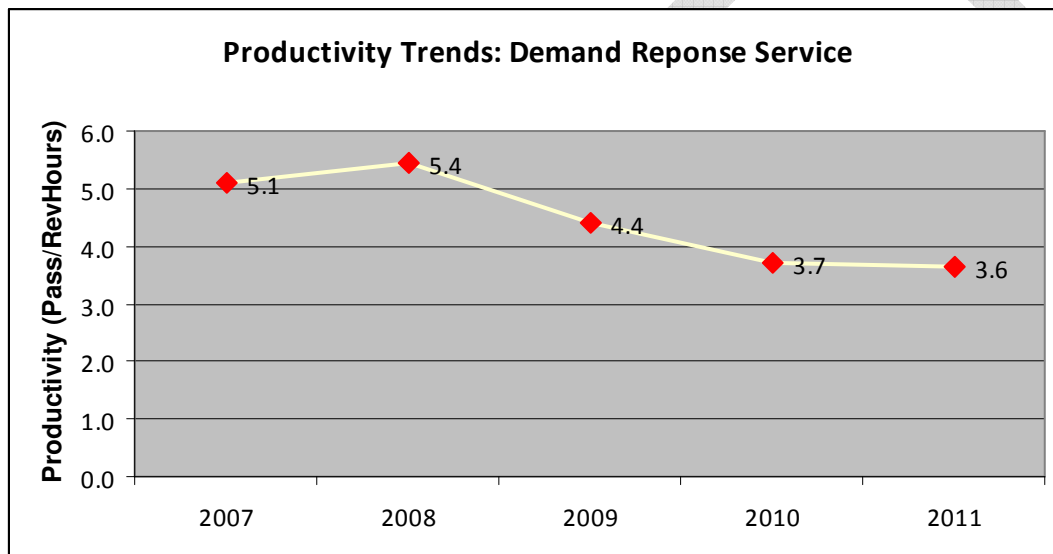
Table 1.3 Demand Response Service Ridership 2007-2011



Data Source: National Transit Database 2007-2011

The Federal Transit Administration and the Michigan Department of Passenger Transportation evaluate public transit services for both efficiency (*doing things right*) and effectiveness (*doing the right things*). Efficiency is usually analyzed by operating cost per hour, per mile or cost per passenger trip. Effectiveness emphasized by passenger productivity is usually analyzed by passenger trips per mile or hour. TCATA measures vehicle hours based on the hours that a vehicle is scheduled or actually travels from the time it pulls out from its garage to go into revenue service to the time it pulls in from revenue service.

Figure 1.4



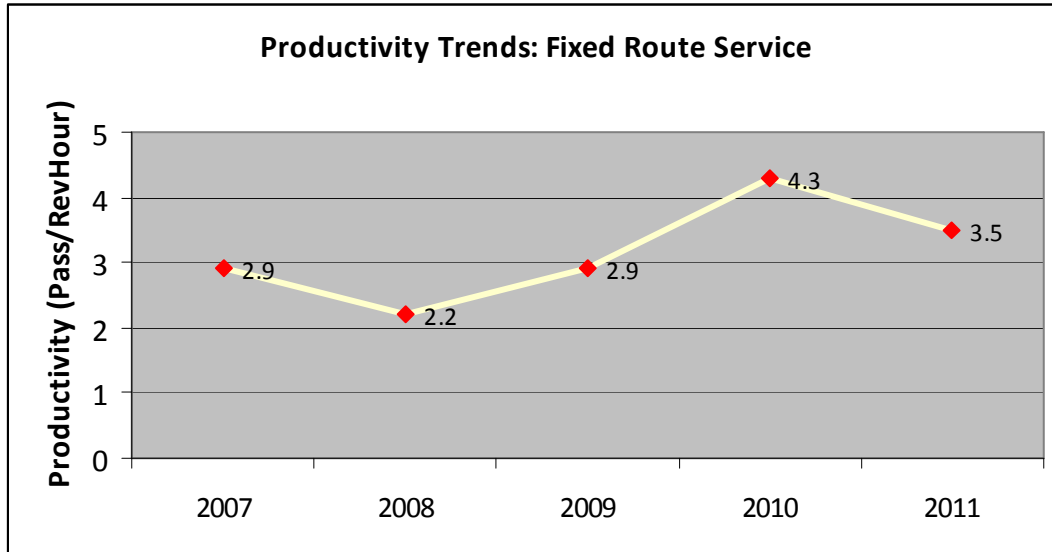
Data Source: National Transit Database 2007-2011

According to the ridership operating data provided above, the demand response service has decreased over the last three years. On a national level, the average demand response passenger per hour productivity goal is at least two passengers per hour. The above higher than average ridership per hour for TCATA demand response service is likely due to the population density of the core ridership from the City of Benton Harbor and parts of Benton Township.

In many parts of TCATA’s service area there is a duplication of service where both demand response service and fixed routes service the same area. Customers refer to the scheduled fixed route service as the “special” service and the demand response service as the “regular” service. This is counter to operations of most transit systems that typically encourage customers to ride fixed route

services and only provide demand response type service for customers unable to access scheduled fixed route services. Typically in small urban areas more extensive scheduled services are operated than are currently in place within TCATA's service area.³

Figure 1.5



Data Source: National Transit Database 2007-2011

TCATA's fixed route productivity based on trips per hour is below the industry norms. This may be in part a result of areas in Benton Harbor and Benton Township where there is both fixed-route and Dial-A-Ride service. During FY 2007 and 2008 the blue route was the only fixed route service provided by TCATA. During that time period the Blue route utilized two vehicles to provide service every thirty minutes and operated nine hours per day Monday through Friday and seven hours per day on Saturdays.

Data indicates that in FY 2009 and FY 2010 when three fixed routes were in place, trips per revenue hour increased by two people per hour from FY 2008.

Red Route

Route Description

The Red Route operates Monday through Friday from 6:00 am – 10:00 pm and on Saturday from 8:00 am – 10:00 pm. This hourly one way loop route originates in the City of Benton

Harbor at Union, an area with higher than average poverty rates, unemployment and no access to a vehicle. Along the route there are several clusters of entry level employment opportunities and life sustaining services including Lakeland Hospital, Berrien County Court House, Michigan WORKS and two large grocery stores. The Red Route also offers an option to flex to locations along the route if the route is on schedule.

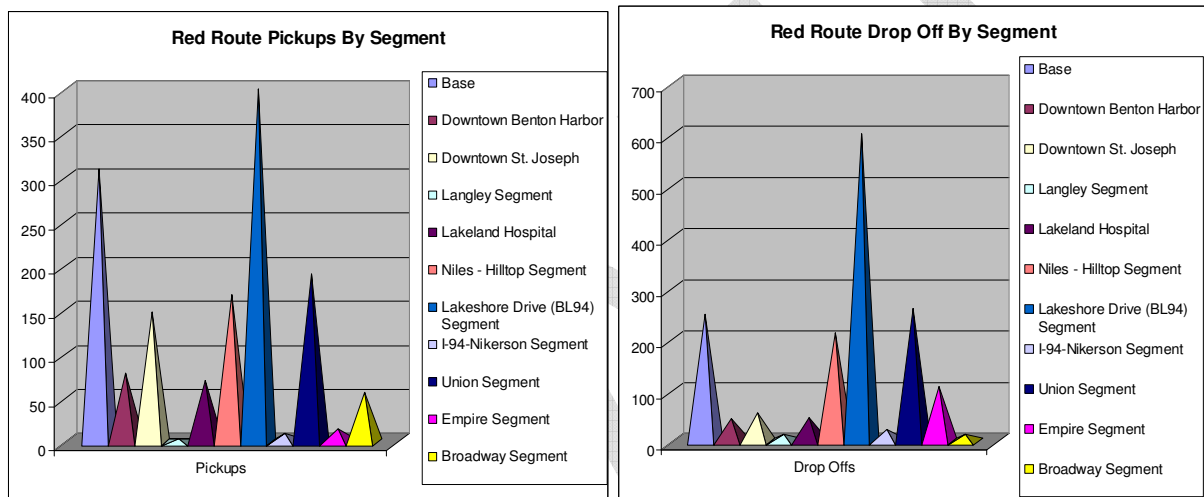
Based on 2012 annual data, the red route served four passengers per hour and the annual ridership was 19,196. A contributing factor to the low ridership per hour is the route's length, the one way loop configuration and the lack of sidewalk infrastructure along several segments of the route. This route is funded through FTA JARC 5316 funds since 2009.

Route Characteristics

The Red Route has been in service since December 2009 and since that time the route has experienced consistent growth in ridership. Ridership is most productive along the Lakeshore Drive/BL 94 segment and at the TCATA headquarters where customers can transfer from the Blue Route. See Figure 1.6. The segment of the route that has lowest productivity is the portion between Meijer stop and the Briarwood stop in Benton Township. Ten minutes of the route is used in this segment traveling on I-94 where it exits at M139 near the MDOT Interstate bus terminal and the MDOT carpool parking lot. Typically, in a loop route configuration the number of ons and offs at each stop are equal, as people ride around the loop to reach their destinations. The Red Route does not have this pattern, which could indicate people are utilizing this route for only one leg of their trip.

Route Pickups and Drop offs By Segment (INSERT MAP HERE BEFORE CHARTS BELOW)

Figure 1.6 Red Route Segment Data



Blue Route

Route Description

The Blue Route operates Monday through Friday from 6:00 am – 10:00 pm and on Saturday from 8:00 am – 10:00 pm. This hour loop route originates in the City of Benton Harbor at TCATA headquarters and provides services to several housing developments, social service agencies and retail locations. The route is serviced by two vehicles that leave on the hour and half hour. The majority of stops along the route receive service every thirty minutes with the exception of Intercare, DHS and River Terrace which receive service every fifteen minutes with inbound and outbound stops. The Blue Route also offers an option to flex to locations along the route if the route is on schedule. The early morning (6:00 am – 8:00 am) and the late night

(6:00 pm -10:00 pm) portion of this route’s hours have been funded through FTA JARC 5316 funds since 2009, but in 2015, funding from this program will no longer be available.

Based on 2012 annual data, the Blue route served almost four passengers per hour and the annual ridership was 32,294. Contributing factors to the low ridership per hour are the route’s use of two vehicles to provide the service every thirty minutes, and the lack of sidewalk infrastructure along several segments of the route in Benton Township on M139, Mall Drive and Pipestone.

Route Characteristics

[Insert analysis and narrative here](#)

Potential for Additional Fixed Routes and Improved Pedestrian Connectivity

Many transit trips require pedestrian or bicycle connections. In addition to having well-planned routes, a good transit system provides its riders with safe, accessible stops. To encourage active use of the current TCATA routes and any planned future routes, a network of sidewalks bike lanes or shared use paths could connect transit stops to neighborhoods and popular destinations and improve the efficiency of the fixed routes. It would be increase the efficiency if the bus stops were located adjacent to the corridor. Unfortunately the current stops within the townships of Benton and St. Joseph require the bus to pull off the route onto private property to pick up passengers. Currently there is a lack of pedestrian and bicycle connections along several corridors forcing public transit to place fixed route stops on private property that off the corridor. This lack of infrastructure increases several things including the route length and time of the route.

Table ___ below illustrates corridors within the TwinCATS study area that exhibit strong indicators of need and opportunity for fixed route transit service. These indicators include population density, employment density, activity centers, demographic characteristics associated with transit dependency and large volume of existing riders.

Table __. __ Corridors Exhibiting Need and Opportunity for Fixed Route Service

Corridor	From	To	Jurisdiction	Responsible Agency
Mall Drive	M-139	Pipestone Ave	Benton Township	Berrien Road Commission
Hilltop Road	Niles Ave.	Lakeshore Drive (BL94)	City of St. Joseph, St. Joseph Twp.	Berrien Road Commission, City of St. Joseph
Napier Ave.	Miami Road	Pipestone Ave	City of St. Joseph, St. Joseph Twp. Benton Twp.	Berrien Road Commission
M 139	Britain Ave.	Nickerson Ave.	Benton Twp	Berrien Road Commission, MDOT
Fair Ave.	Britain Ave.	Territorial Road	Benton Twp. City of Benton Harbor	Berrien Road Commission, Benton Harbor
Martin Luther King	Britain Ave.	Territorial Road	Benton Twp. City of Benton Harbor	Berrien Road Commission

Strategies

Use current demand-response services more efficiently to expand capacity of current services offered to individuals who need human service and specialized transportation by integrating countywide rural service, small urban dial-a-ride services, and fixed-route services.

There is an existing demand for transportation that is not currently being met because of capacity restraints. This demand is anticipated to grow tremendously over time, yet services will remain constrained because of a lack of funding and/or the lack of political will to provide additional funding. As such, it is up to human service agencies and transportation service providers to make strategic decisions that can help stretch available dollars, making their services operate more efficiently while at the same time maintaining acceptable levels of service.

Integrating both demand-response service (for seniors and disabled persons) and fixed-route services (for able-bodied riders) can be a cost-effective way to reduce the number of general public demand-response trips. With the reduction in general public demand response trips there is additional capacity to provide rides to those individuals who require specialized transportation.

With this in mind, proposed conceptual routes have been created (See Map 1.3), including a combination of fixed routes in higher density areas and flex-route service in lower density areas with scheduled transfer points throughout the service area. The service recommendations have been developed utilizing TCATA demand response service driver log data to identify popular destinations and origins.

Beyond the high density activity corridors, there are other key travel patterns that indicate opportunities for public transit. Consultation with the management of Berrien Bus indicated that many of their “Contract Routes” could support a bus feeder system connecting rural passengers to fixed route services. See Map 1.2

The goal of all of these new service concepts is to provide an optimized route structure to increase the ability of public transit to accommodate trips between cities in rural and urban areas in Berrien County.

Make fixed routes more accessible, thereby decreasing rider dependence on demand-response service, by creating a pedestrian- and bicycle-friendly infrastructure that will encourage people to walk and bicycle to transit stops.

To promote and maintain active lifestyles, people need a variety of transportation options beyond personal automobiles, including walking, bicycling, and public transit. As state and local agencies design transportation systems, it is critical to provide routine accommodation for all users of the roadway, including pedestrians, bicyclists, individuals with disabilities, seniors, users of public transportation, and motorists. This is particularly important for seniors, since elderly populations are increasing.

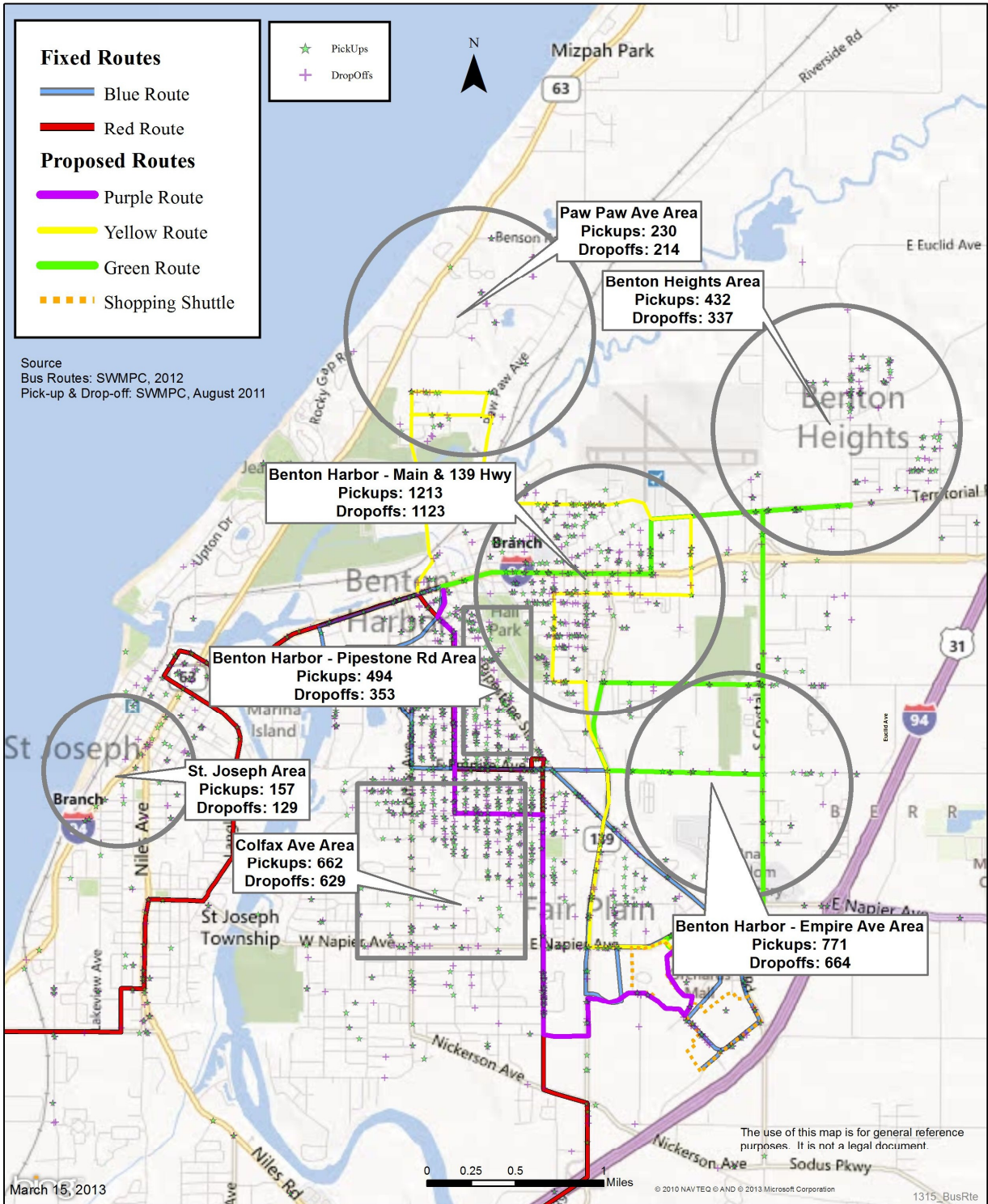
- **Implement “complete streets” policies to provide for the safe and convenient travel of all users of the roadway, including pedestrians, bicyclists, public transit users, motorists, children, seniors, and people with disabilities.** “Complete streets” is a design strategy to ensure that all roads provide routine accommodation for all users, including bicyclists, transit users, and

pedestrians of *all ages and abilities*. This is done by including or enhancing pedestrian and bicycle infrastructure during routine road maintenance and repair, new construction, and redesign. Comprehensive complete streets solutions include: 1) traffic calming measures, such as widening sidewalks, raising medians, and narrowing roadways; 2) placing bus stops in a safe and convenient environment; and 3) making various improvements (e.g., refuge medians) for disabled travelers—all of which play a role in reducing the number of crashes and reducing pedestrian risk of injury.

Map 1.2 Rural Connector Service Concept (Berrien Bus/Rural & TCATA)



Map 1. __ Current and Proposed Fixed Routes to Reduce Need for Demand Response Service



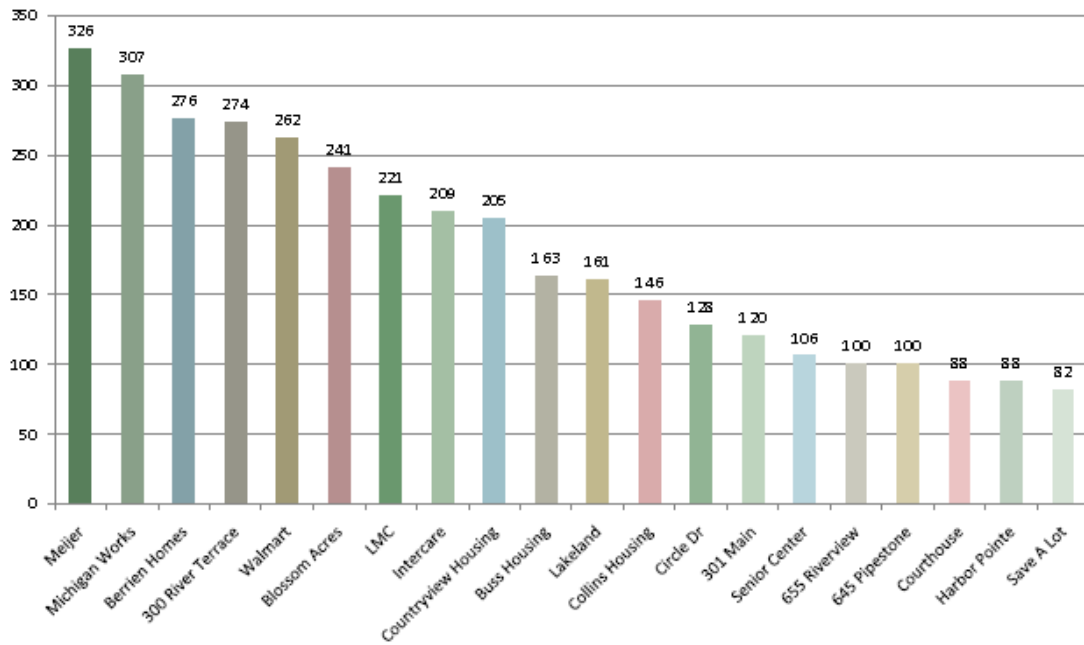
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Add conclusion here

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APPENDIX

Top 20 Demand/Response Pick-up Locations

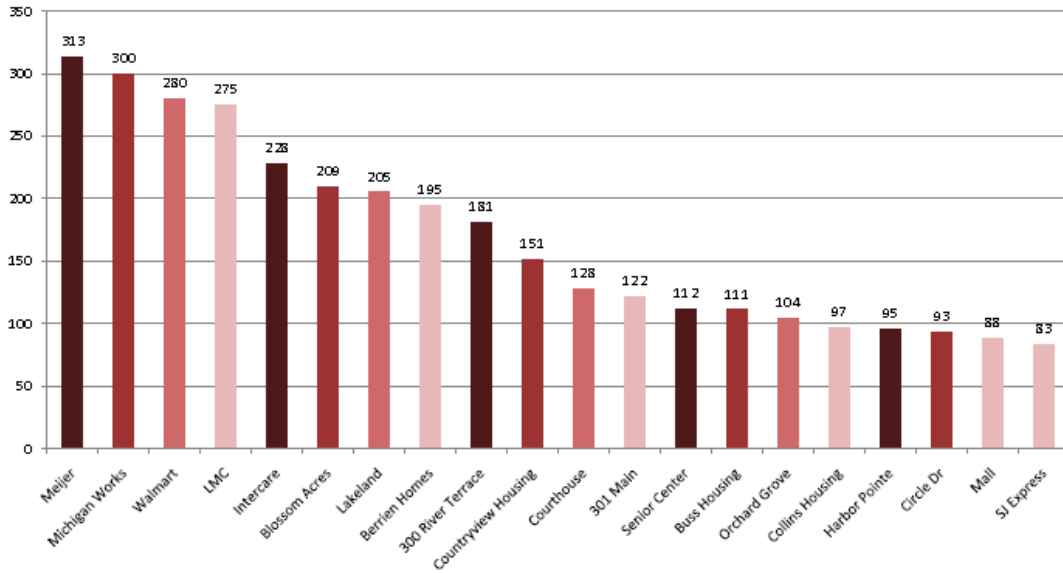


Top 20 Locations Total: 3603 Pick-ups
 Total Pick-ups in July 10: 10,042
 Top 20 Locations represent 36% of all Pick-ups

Data Source: TCATA Driver Logs
 Time Period: 26 Operating Days, July 2010

DR

Top 20 Demand/Response Drop-off Locations



Top 20 Locations Total: 3370 Drop-offs
 Total Pick-ups in July 10: 10,042
 Top 20 Locations represent 36% of all Drop-offs

Data Source: TCATA Driver Logs
 Time Period: 26 Operating Days, July 2010

DRAFT

1. 2011 letter concerning the cooperative distribution of Federal Transit Administration (FTA) formula funds to Berrien Bus and Twin Cities Area Transportation Authority operating in the Benton Harbor Urbanized Area.

*The service area population is larger than TCATA's reported service population. This is due to a non-urbanized portion of Benton Township that is not served by TCATA. For the purpose of this plan the population from the US Census will be used for this section.

3 <http://www.census.gov/prod/1/pop/p23-190/p23190-g.pdf>

4. <http://www.census.gov/compendia/statab/2012/tables/12s0104.pdf>

5. Berrien County Transit Consolidation Feasibility Study Technical Memorandum No. 1: Evaluation of Current Operations

DRAFT

LETTER OF AGREEMENT BETWEEN BERRIEN COUNTY AND TWIN CITIES AREA TRANSPORTATION AUTHORITY.

June 16, 2011

Bill Purvis, Director:

The purpose of this letter is to set forth in writing the understanding between the County of Berrien, as operators of Berrien County's transit system (BerrienBus), and the Twin Cities Area Transportation Authority (TCATA), as operators of TCATA Dial-A-Ride, concerning the cooperative distribution of Federal Transit Administration (FTA) formula funds to the two transit agencies operating in the Benton Harbor Urbanized Area. This letter of understanding shall be renewed on an annual basis unless the County of Berrien and TCATA mutually agree to a longer term.

This understanding, based on discussions between the two systems, is to use a local urban-area apportionment methodology parallel to that used in the annual apportionment of funds from the FTA to the State of Michigan for the urban transit agency formula program. The FTA provides formula funding to urban transit agencies based upon decennial census population and population density numbers. These decennial numbers are combined with an annual factor to determine funding to the State of Michigan for each urbanized area. By this understanding, the County of Berrien and TCATA will similarly utilize the population of their respective transit system service areas to determine the share of funding available to each entity. Funding which is available, but which is based on population not served by one of the two transit agencies will be split equally between the two until such time as service area boundaries change so that the populations within any service area change by 5% or more, at which time the corrected population figures will be used and the percentage adjusted accordingly. On an annual basis either system may decline their share of funding for the unserved area and allow the other system to use 100% of the available funding for that area.

Using this methodology and 2010 Census figures, the distribution formula for FY 2011 is set out as follows:

- Total Benton Harbor Urbanized Area Population – 60,386 persons
- TCATA Urban Service Area Population – 31,819 persons = 52.69% of available funds
- Berrien County's transit system Service Area Population -- 0 persons = 0% of available funds
- Unserved Urban Population – 28,567 persons = 47.30% of available funds

For FY 2011 Berrien County declines their share of funding for the unserved portion of the urbanized area. This permits TCATA to obtain 100% of the available funding for the Benton Harbor Urbanized Area for FY 2011.

Sincerely,

Dave Pagel, Chairman
Board of Commissioners
Berrien County

Date

Twin Cities Area
Transportation Authority

Date

M. Louise Stine, County Clerk Date

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