



Saline

Adopted September 11, 2017

Non-Motorized Transportation Plan 2017



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INTRODUCTION

Non-Motorized Transportation

typically implies walking or bicycling. Well designed bicycle and pedestrian paths can accommodate multiple forms of non-motorized activities, including skating, skateboarding, push scooters, and wheelchairs.

Demand for dedicated non-motorized pathways continues to grow as cyclists and pedestrians look for safe routes to travel. While not every individual is looking to completely abandon their car, it is clear that more and more are looking for opportunities to walk, run, or ride to destinations within their communities and beyond. The reasons for this increased usage varies, ranging from personal health and recreation, to a desire to lessen their environmental impact. Ultimately, individuals look to this exercise as a way to enhance their quality of life.

The City of Saline is working to make it safer and easier for more people to bicycle and walk throughout the City by enhancing and expanding existing non-motorized transportation facilities.

PURPOSE OF THE PLAN

This Plan articulates a vision for non-motorized transportation in the City of Saline. It provides a vision for a city-wide non-motorized network, a plan for non-motorized facility development, and clear direction for the implementation of non-motorized facilities throughout the City.

The Plan is intended to guide non-motorized facility planning, design, and construction for the City of Saline. The Plan is implementation oriented and utilizes community and stakeholder involvement and input. It is also intended to serve as a foundation for future grant applications and funding requests.

While the focus of this Plan is on infrastructure improvements, education and enforcement are also considered as important elements of a comprehensive approach to non-motorized transportation planning.

The Plan includes the following elements:

- A review of current and past documents and initiatives related to non-motorized transportation planning,
- An analysis of existing conditions,
- The identification of destinations,
- The formulation of goals and objectives for the plan,
- The description of design guidelines for on- and off-road non-motorized facilities,
- The identification of corridors and routes that present non-motorized opportunities,
- Recommendations for facility improvements and treatment, and
- The formulation of an action plan providing strategies for implementing the city-wide vision by addressing priority, phasing, and funding.

The City of Saline 2010 Complete Streets ordinance requires that the City update their non-motorized plan every five years. The most recent plan prior to this edition was adopted in 2009. The 2017 Plan was developed with input from the community and a Steering Committee comprised of City officials and staff, business owners, and other community stakeholders. A Planning Fair held on October 27, 2015, gave community members an opportunity to share their visions for the City's non-motorized trails, park, and recreation facilities, as well as for the fabric of the City as a whole. Citizens were also encouraged to offer suggestions on an innovative on-line forum, MiCommunityRemarks.com, a map-based platform which enables users to comment on specific points and interact with other users to determine solutions to existing problems. A draft copy of the Plan was made available via the City's website, with hard copies available for review at City Hall, the Saline District Library, and the Saline Rec Center. Finally, a public hearing took place on September 11, 2017, before adoption of the Plan by City Council.

BENEFITS OF NON-MOTORIZED TRANSPORTATION

The positive outcomes of walking or bicycling as a healthy mode of transportation or as a recreational activity extend over many aspects of our lives. The benefits, manifested primarily through improving environmental and individual health, are many and varied. Individuals may realize economic benefits via reduced costs for health care and costs associated with automobile operation. Communities that encourage walking and bicycling may gain benefits in the form of reduced traffic congestion and improved quality of life. Other economic benefits, such as increased tourism and exposure for local businesses, can be directly tied to activities to promote bicycle and pedestrian mobility.



PLANNING CONTEXT

Saline's residents have strongly supported and continue to support the development of bicycle and pedestrian paths, and a "linear trail" along a portion of the abandoned Ann Arbor Railroad track bed.

The concept of a pedestrian and non-motorized transportation network is an adopted policy for the City supported by Comprehensive Plans beginning in 1991 continuing in subsequent Comprehensive Plans. A separate pathway plan has guided the development of sidewalks and shared-use pathways throughout Saline.

In addition, the City of Saline's Parks and Recreation Master Plan adopted in 2004, established the development of a non-motorized transportation network as an important goal for the City and further identified priority segments for implementation. This support was subsequently echoed in both the 2009 and 2016 Recreation Master Plans, the 2009 Non-motorized Plan, and the 2010 Complete Streets ordinance.

Non-motorized transportation systems are tremendous community assets that promote healthier communities and increase recreation opportunities. Non-motorized networks can also attract visitors and increase property values, thereby boosting local and regional economies. These benefits can improve overall quality of life, while fostering greater economic and environmental sustainability. The first section of this plan examines state and regional programs, which promote non-motorized transportation and describes non-motorized transportation facility planning and development at the state and regional levels.

HEALTH AND ACTIVE COMMUNITY PROGRAMS

Several significant programs promoting pedestrian and bicycle friendly communities in Michigan, Washtenaw County, and locally have come together to create incentives and facilitate non-motorized transportation planning and development in Saline.

Promoting Active Communities

The Promoting Active Communities (PAC) program is an online assessment and award system sponsored by the Michigan Department of Community Health, the Governor's Council on Physical Fitness, Sports, and Health, Michigan State University, and the Prevention Research Center of Michigan. The Promoting Active Communities (PAC) Program is part of a state initiative on physical activity to help Michigan communities make changes to their policies, promotion strategies, and the physical design of their communities to make it easier for community residents to be physically active.

The PAC assessment is a self-assessment tool that enables communities to examine their policies, programs, and built environments. The assessment, which requires teamwork between community leaders and citizens, generates ideas for community improvements. Upon completion, every community is eligible to earn one of five award levels from the Governor's Council and Michigan Department of Community Health, based on their assessment score.



Since 2001, more than 140 communities from 43 Michigan counties have completed the PAC assessment and received an award. In addition, 54 communities have completed the assessment more than once and many of those have made enough improvements in their community to move up the awards ladder. Saline received level 3 (with level 4 being the highest level) in 2005, which was upgraded to Silver in 2007. A silver award level identifies communities that have achieved significant progress toward making it easy for people to be active.

Bicycle Friendly Communities Campaign

Bicycle Friendly Communities offers awards of national recognition for communities that provide safe and plentiful bikeways, access to safe and convenient bike parking, and encourage “share the road” programs for non-cyclists. The list of recognized communities includes cities like Portland, Oregon and Boulder, Colorado. Several Michigan communities were recognized in 2015, including Ann Arbor, Houghton, Marquette, Battle Creek, Flint, Grand Rapids, Lansing, Midland, and Portage.

Program to Educate All Cyclists

The Program to Educate All Cyclists (PEAC) is a non-profit organization that was developed in 2004 to teach children with disabilities to become cyclists. With financial assistance from the University of Michigan’s Mott Children’s Hospital, Dance Marathon, Saline United Way, and CARES, PEAC has run summer programs for children with disabilities in Saline for the past few years. In 2017, PEAC is offering a summer cycling program in Saline and six other communities around southeast Michigan and northwest Ohio.

Saline Safety Town

The Saline Community Education, McNaughton & Gunn, and the Saline Police and Fire Departments annually hold a “Safety Town” education program geared for pre-kindergarten children. The program covers a variety of safety related topics including pedestrian and bicycle safety, with an emphasis on traffic safety. The children are asked to ride through a miniature “city” with buildings, crossing guards, and street signs, teaching them how to safely navigate through city streets.

WASHTENAW COUNTY PUBLIC HEALTH

Building Healthy Communities Program

The original 2009 Saline Non-Motorized Transportation Plan was funded by the Washtenaw County Public Health Department through the Michigan Department of Community Health's Cardiovascular Health, Physical Activity, and Nutrition Section, and the Building Healthy Communities initiative. This program aims to make policy and environmental changes to communities in ways that make it easier for residents to be physically active, obtain healthful foods, and not smoke. Since 2005, Washtenaw County Public Health has been funded by the state through this program and has partnered with several communities, including Saline.

Funded projects that promote physical activity in Saline have included: designing and distributing walking maps, building new and enhancing existing trails, promoting educational and encouragement events such as community walks, and installing bike parking and pedestrian-oriented benches.

Washtenaw County Health Improvement Plan

The Washtenaw County Health Improvement Plan (HIP) is an on-going collaboration of local agencies, coalitions, and the Washtenaw County Public Health Department. HIP identifies physical activity as a means to improve health for county residents. The HIP 2020 report established two specific objectives to measure progress on physical activity:

- Increase the proportion of residents with pedestrian sidewalks, paths, or trails in or near their neighborhood from 78 to 86 percent, and
- Develop surveillance for bikeable communities.

By providing non-motorized transportation infrastructure and programs, residents may be more inclined to walk or bike to more places thereby improving their health and well-being.

RELATED PLANNING EFFORTS

Saline is committed to managing the future development of pedestrian and bicycle facilities to enhance economic benefit, recreational activities, and overall quality of life for its residents. Several significant planning, design, and development efforts have taken place at the regional and local levels which have relevance to a non-motorized transportation network for the City of Saline. The following paragraphs describe these efforts.

State of Michigan - Iron Belle Trail

First announced in 2012, the Iron Belle Trail (IBT) system is the longest designated state trail in the United States. The trail, which is approximately 69% complete, will provide a 1,273 mile hiking and 791 mile biking route winding from Belle Isle in Detroit to Ironwood in the far northwest corner of the Upper Peninsula. The trail takes advantage of existing multi-use trail systems, and fills gaps between communities where needed.

The IBT will become an important leg in the North Country Trail, the 4,600 mile trail system which spans from eastern New York to central North Dakota. Michigan's section of the trail will be the longest in the North Country system. Volunteers from the North Country Trail Association perform maintenance on the hiking trails. The Michigan Department of Transportation (MDOT) maintains the bike trail along US-2 in the Upper Peninsula, while the Michigan Department of Natural Resources (MDNR) and local municipalities are responsible for the bike sections in the Lower Peninsula.

While the IBT does not pass directly through Saline, the program could have major implications for trail development in the area. The IBT has spurred a flurry of activity across the state, with communities vying for the opportunity to connect with the system. The IBT will eventually travel just north of the city, following Washtenaw County's B2B trail. The state has shown a preference for funding projects which directly connect the gaps in the IBT, but also is looking for projects which connect communities to the trail system.

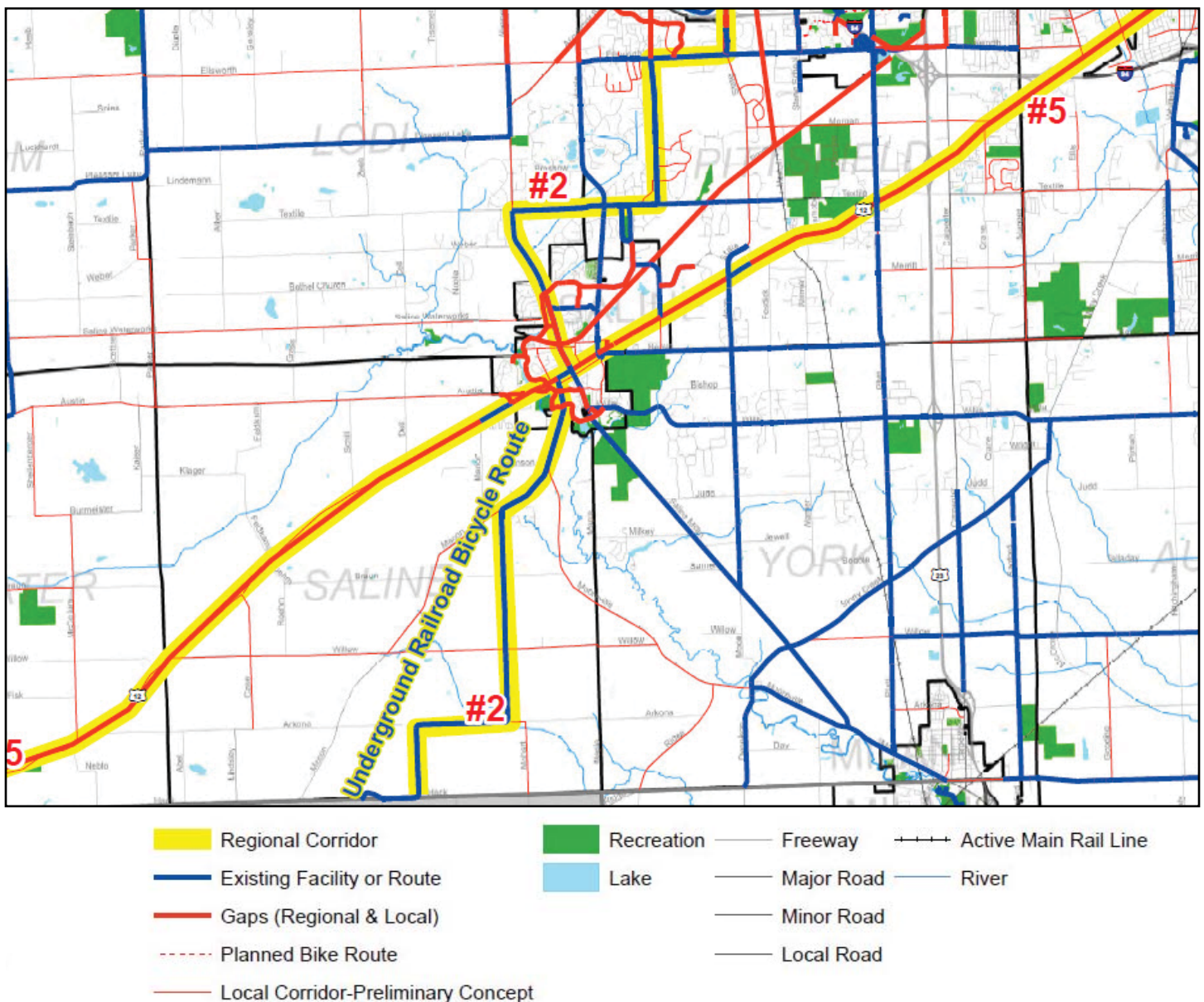
Bicycle and Pedestrian Travel Plan for Southeast Michigan

In 2014, the Southeast Michigan Council of Governments (SEMCOG) released its comprehensive plan outlining non-motorized transportation opportunities for the southeast Michigan area including Saline. The plan was a refinement of the 2006 Southeast Michigan Greenways Vision, which reflects the desired non-motorized connections in the region. The plan incorporates a number of different initiatives, including The Washtenaw County Regional Trails and Greenways Vision.

As shown in Figure 1, the plan shows two major routes crossing through Saline. The Underground Railroad Bicycle Route (#2 in Figure 1) travels from Mobile, Alabama to Owen Sound, Ontario, Canada; the Detroit Alternate Route breaks off from the main trail in Oberlin, Ohio, roughly following US 223 to Adrian at which point it turns north and passes through Tecumseh and entering Saline along Macon Road. The trail ultimately connects to the Border-to-Border (B2B) trail in Ann Arbor and continues on through Detroit and north into Canada. The Route, while well defined, is not particularly well marked in Michigan, and represents an opportunity for communities to highlight historic points along its path.

The second route (#5 in Figure 1) follows the US 12 / Michigan Avenue corridor from the Lenawee County Line to Napier Road, connecting Saline, Pittsfield Township, and Ypsilanti with Canton Township. SEMCOG envisions this trail becoming part of the US Bicycle Route 36, which currently runs from Chicago to the Michigan state line.

Figure 1: SEMCOG Regional Non-Motorized Corridors



Adapted from: SEMCOG Bicycle and Pedestrian Plan for Southeast Michigan, 2014

Washtenaw County Parks and Recreation Commission

The Washtenaw County Parks and Recreation Commission (WCPRC) has made significant progress toward developing non-motorized transportation facilities in Washtenaw County, with connections to neighboring Livingston and Jackson Counties. Their efforts have focused on the development of the Border-to-Border Trail along the Huron River connecting the cities of Ann Arbor and Ypsilanti.

The Border-to-Border Trail (B2B) represents the primary connector for non-motorized transportation in the county. As a part of the IBT which, in turn, is part of the North Country Trail systems, the B2B provides a jumping point to thousands of miles of trails within the state and beyond. Taken in combination with the aforementioned Underground Railroad and US-12 routes, the trails form a triangle connecting Saline, Ann Arbor, and Ypsilanti.

In addition, the WCPRC was instrumental in the development of the Lohr-Textile and Platt Road multiuse trail projects, completed with funds from the Michigan Department of Transportation (MDOT) Enhancement program, Washtenaw County Parks, and Pittsfield Township. The trails connect to bike lanes along Ellsworth and Maple Roads. Proposed connections to the Ann Arbor Railroad corridor and to Michigan Avenue by way of the Pittsfield Preserve form a desirable non-motorized link for Saline area residents.

Southeast Michigan Greenways Vision

Figure 2: Pittsfield Township / Platt Road Trail Map



Source: EyeOnMichigan.com

The seven-county region of southeast Michigan developed an updated Southeast Michigan Greenways Vision, which reflects the desired non-motorized connections in the region. This initiative was facilitated by the Community Foundation for Southeast Michigan. Counties worked together with local municipalities and community interest groups to develop a long-term vision for a connected system of greenways and non-motorized facilities. The vision for trails and greenways in Washtenaw County resulted from input gathered at several workshops. While grant funding was completed in 2006, the foundation continues to share their greenway experience with interested communities.

Washtenaw County Non-Motorized Plan

The Washtenaw Area Transportation Study (WATS) developed a county-wide non-motorized transportation plan for Washtenaw County in 2006. The plan includes an inventory of existing walking and bicycling facilities and identifies non-motorized transportation deficiencies across the County.

WATS identified 67 miles of roads that warranted pedestrian facilities in Saline, and found that 15 miles lacked pedestrian facilities. Similarly, they identified 23 miles of roadways that warranted bicycle facilities and found that none existed.

An updated WATS plan is due to be published in 2017. The new plan will focus on the identification of primary and secondary county-wide transportation commuting corridors.

Washtenaw Bicycling and Walking Coalition

The Washtenaw Bicycling and Walking Coalition (WBWC) is a group dedicated to increasing the quality and quantity of bicycling and walking opportunities in Washtenaw County through advocacy and education. The group is comprised of local organizations, agencies, retail stores, as well as individual cyclists and walkers.

Saline Land Use and Parks and Recreation Plans

The City's 2017 Master Plan contains statements and maps that guide how the City plans and implements future improvements. As mentioned earlier, the concept of a pedestrian and non-motorized transportation network is an adopted policy for Saline and a pathway plan has guided to date the development of sidewalks and pathways throughout the City.

In addition, the City's Parks and Recreation Master Plan, adopted in 2016, established the development of a linear park pathway network as an important goal for the City. The Plan further identified priority segments for implementation.

Saline City Council Visioning Sessions

The City Council annually conducts a strategic planning visioning session to discuss the strengths and weaknesses of the community and identify opportunities for improvement. Among the topics covered are 'healthy living', 'recreation', and 'infrastructure' goals and objectives that include non-motorized needs. Participants at the 2016 session noted that non-motorized transportation promotes wellness in the community, increases foot traffic, brings people into town, improves quality of life, and raises property values. Participants suggested launching a public campaign to increase awareness and fundraising for Saline's trail system, and discussed the implementation of a dedicated millage. There was also discussion regarding connecting to Washtenaw County's Border to Border trail and the creation of an inter-community trail.

Urban Design Plan - Envisioning the Next 20 Years

The Saline Downtown Blueprint Study, prepared in 2005, provided a critique of the strengths and challenges of Saline's downtown and made recommendations regarding the identified issues. The recommendations were further addressed in the Saline Urban Design Plan prepared in 2007. The Urban Design Plan included proposals for the development of a new downtown public gathering space, identified potential sites for public art and provided suggestions for streetscape, parking, and other public improvements. Several projects were completed as part of the 2016 Michigan Avenue reconstruction project, including:

- Medians in the downtown section of Michigan Avenue between Monroe and Harris streets
- Dedicated left turn lanes on Michigan Avenue at Lewis and Harris streets
- Streetscape improvements from Harris to Monroe streets
- Improved bicycle parking in the downtown area

Other projects and recommendations included:

- Create a downtown gathering place for a farmers' market or other events
- Develop new public green space or plaza
- Encourage infill/new development within downtown
- Support mixed use redevelopment
- Preserve residential character at the downtown's edges

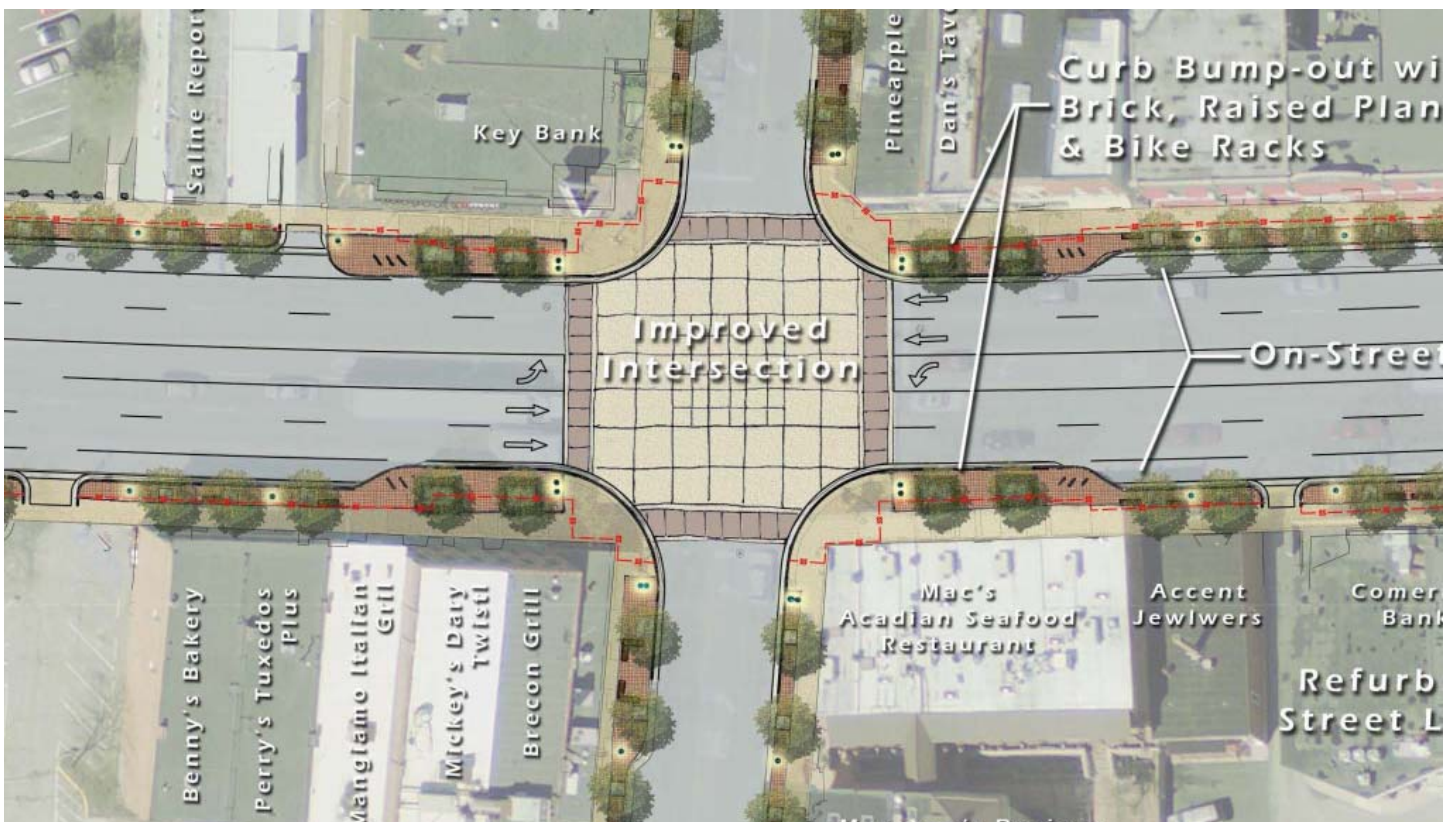
Michigan Avenue Reconstruction

The Michigan Department of Transportation (MDOT) began reconstruction of Michigan Avenue/US-12 between North Maple Road/Old Creek Drive to the Saline River bridge in April 2016. Projects that were addressed include:

- Widening US-12 to five lanes between Lewis Street and Harris Street to add a center turn lane
- Storm sewer, sanitary sewer, and water main upgrades,
- Sidewalk improvements,
- New decorative pedestrian lighting,
- New wide pathway from downtown to Curtiss Park,
- New raised planter beds,
- New traffic islands,
- New traffic calming measures, and
- Traffic signal upgrades.

An enhancement grant allowed upgrades to downtown amenities including enhanced crosswalks at major intersections, the addition of mid-block islands, and enhanced lighting along the corridor.

Figure 3: Detail of Michigan Avenue Improvements



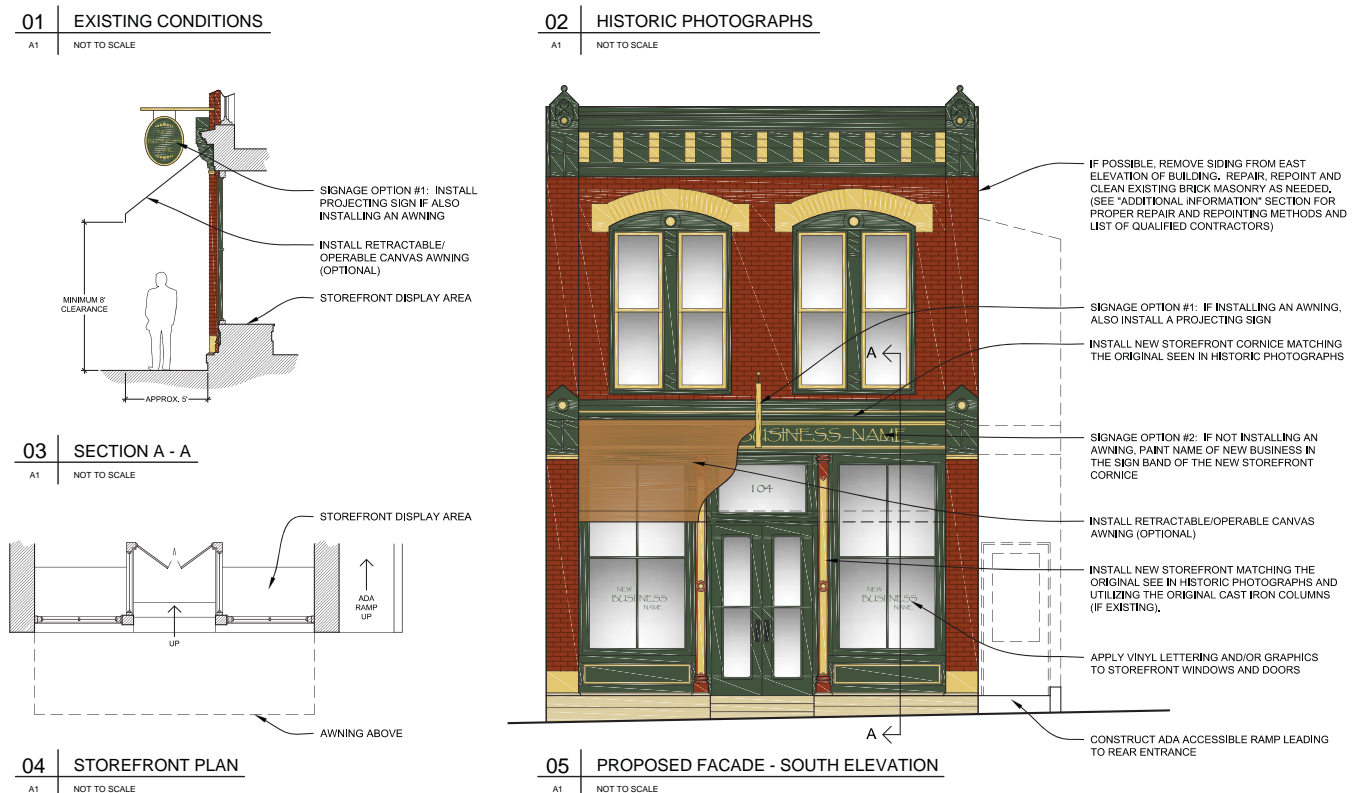
Michigan Main Street / Saline Main Street Programs

Feeding off of the success of the Urban Design Plan, Saline applied for and was granted Associate Level status in the Michigan Main Street Program in 2011. The Michigan Main Street program, a component of the Michigan State Housing development Authority, offers suggestions and strategies for downtown and neighborhood district revitalization. The program emphasizes a four-part approach to community revitalization developed by the National Trust for Historic Preservation. These techniques include Design, Economic Restructuring, Promotion and Organization, all working together with community collaborations and partnerships. A complete list of services available can be found at: <http://www.michiganmainstreetcenter.com/AboutTheProgram/WhatWeProvide.aspx>

Saline Main Street achieved "Selected" level status in 2012, providing new opportunities for volunteers to obtain training in area such as streetscape visioning, graphic design training, and more. In late 2016, Saline Main Street achieved "Master" level status, the highest level possible.

The Saline Main Street Board is made up of business and property owners; city, downtown and township residents; retirees; and ex-officio members from the City, youth in the community and the Saline Area Chamber of Commerce. Meetings are held the 2nd Tuesday of each month at 6:30 PM at the Saline Main Street office at 131 East Michigan, Suite E. The Board promotes activities occurring throughout the downtown area such as Winterfest, the Summer Music Series, and the Mastodon Celtic Challenge. Information on the program can be found at <http://www.salinemainstreet.org/>.

Figure 4: Downtown Storefront and Sidewalk Treatment Concept



Source: Saline Main Street

EXISTING CONDITIONS

Type A: Advanced or experienced riders are generally using their bicycles as they would a motor vehicle. They are riding for convenience and speed and want direct access to destinations with a minimum of detour or delay. They are typically comfortable riding with motor vehicle traffic; however, they need sufficient operating space on the traveled way or shoulder to eliminate the need for either themselves or a passing motor vehicle to shift position.

Type B: Basic or less confident adult riders may also be using their bicycles for transportation purposes, e.g., to get to the store or to visit friends, but prefer to avoid roads with fast and busy motor vehicle traffic unless there is ample roadway width to allow easy overtaking by faster motor vehicles. Thus, basic riders are comfortable riding on neighborhood streets and shared-use paths and prefer designated facilities such as bike lanes or wide shoulder lanes on busier streets.

Type C: Children, riding on their own or with their parents, may not travel as fast as their adult counterparts but still require access to key destinations in their community, such as schools, convenience stores, and recreational facilities. Residential streets with low motor vehicle speeds, linked with shared-use paths and busier streets with well-defined pavement markings between bicycles and motor vehicles, can accommodate children without encouraging them to ride in the travel lane of major arterials

Existing sidewalks and pedestrian paths currently provide Saline residents the opportunity to travel throughout most of the community without a car. However, some of these sidewalks or pathways are missing or do not exist on both sides of the streets. In addition, Saline's roadways have limited bike lanes which provide safe bicycle travel. Residents perceive the major arterials of North Ann Arbor Street, Maple Road, and Michigan Avenue as unsafe and challenging because of the fast traffic flow and unfriendly pedestrian environment.

Studies have shown that bicycle users and pedestrians share destinations and trip purposes common to other road users and, as a result, use all types of streets. Therefore, it would seem logical to add some bicycle and pedestrian improvements to all City streets. Different types of users, however, generally prefer different types of streets. The American Association of State Highway Transportation Officials (AASHTO, 1999) recognizes different types of riders which are described in the margin. Children (Type C) and casual (Type B) riders or pedestrians often prefer quiet neighborhood streets or pathways. On the other hand, serious commuting and recreation (Type A) riders or pedestrians can generally be found on major roads. National studies have shown that on-road bicycle facilities for basic adult riders and advanced or experienced riders are generally safer than a sidewalk or wide side path type of facility because they provide greater driver visibility. This is especially true at intersections and driveways, where conflicts with vehicles are most likely to occur.

Since walkers and bicyclists vary in skill and experience, the emphasis must be on establishing minimum standards which accommodate a full range of user types while optimizing safety for all. The selection of non-motorized route corridors and facility development depends on a combination of several factors including potential destinations, scenic and recreation amenities, the existing road network, traffic volumes and speed, as well as current design standards and guidelines.



Type "A" Rider on Michigan Avenue

Source: Eye On Michigan

SALINE'S DESTINATIONS

Saline's downtown is the primary focal point for the community, providing services, retail shops, and restaurants. Parks and schools generate a number of pedestrian and bicycle trips. Other destinations include community facilities, shopping centers, and major places of employment as follows. An estimated range of 3 to 6 miles would cover most recreational and commuting trips.

Schools:

- Heritage Elementary
- Woodland Meadows Elementary
- Pleasant Ridge Elementary School
- Harvest Elementary School
- Liberty School
- Saline Middle School
- Saline High School

Community Parks and recreation facilities:

- Brecon Park
- Canterbury Park
- Colony Park
- Curtiss Park
- Henne Field
- Marlpool Park
- Mill Pond Park
- Peoples Park
- Risdon Park
- Saline Recreation Center
- Salt Springs Park
- Stonecliff Park
- Tefft Park
- Wilderness Park

Community facilities:

- City Hall
- Library
- Post Office
- Senior Center

Businesses and services:

- Downtown restaurants & businesses
- Emagine Theater

Major places of employment:

- Saline Area Schools
- Faurecia
- Industrial Parks

Others:

- Depot Museum
- Rentschler Farm Museum
- Oakwood Cemetery



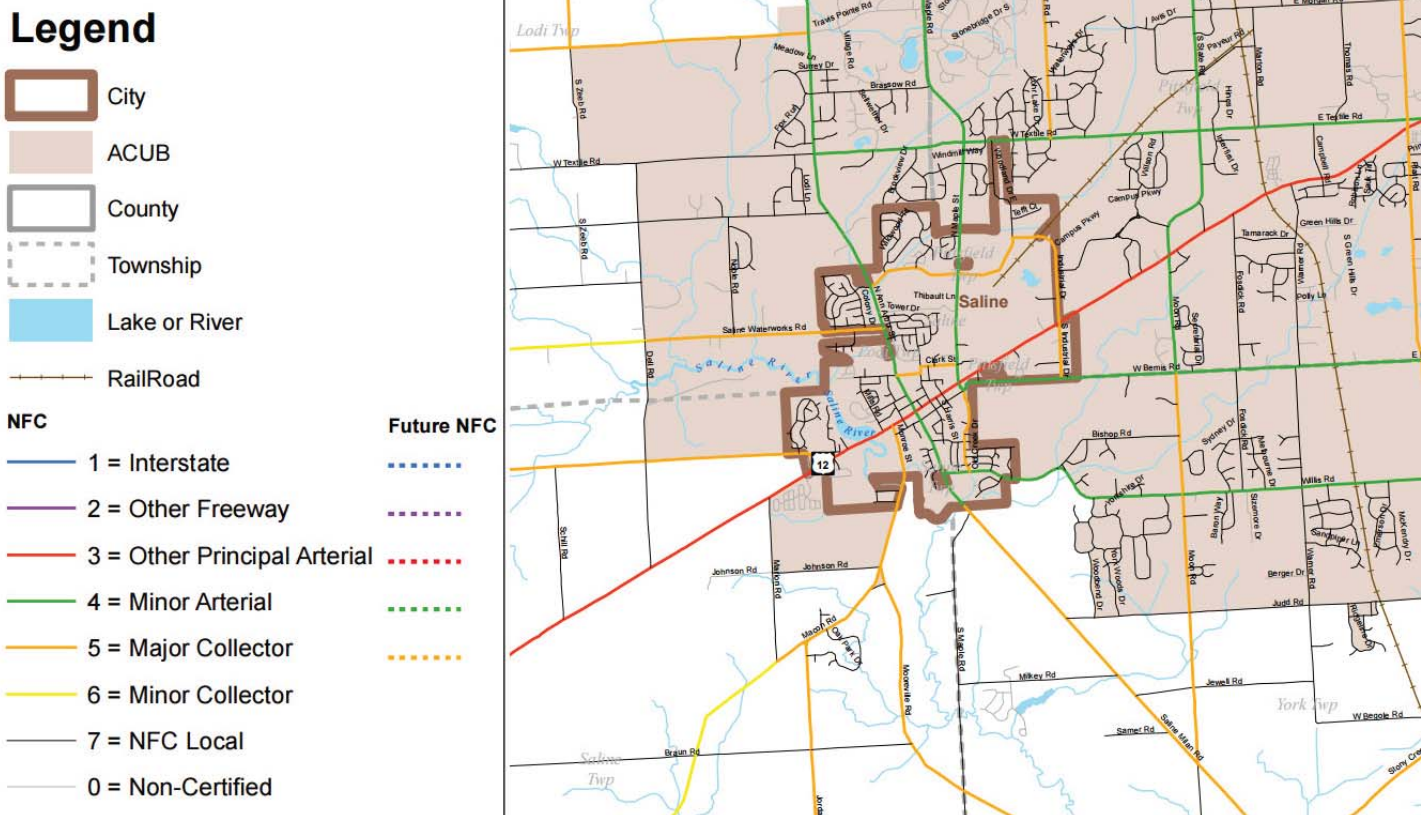
EXISTING ROAD NETWORK

Saline's main thoroughfare is Michigan Avenue (U.S.-12), the historic Chicago-to-Detroit road. The City's transportation network provides direct connections to outlying communities. U.S.-12 provides access to Ypsilanti and Detroit, while Ann Arbor-Saline and -Milan roads connect to Ann Arbor and Milan, respectively. These routes also link to major highways including I-94 and U.S.-23, which in turn provide access to Jackson, Flint, Detroit, and Toledo.

The Michigan Department of Transportation (MDOT) classifies roadways according to a hierarchical functional system which determines whether a road is eligible for federal aid. Federal aid roads include all principal arterials, minor arterials, urban collectors, and rural major collectors. The national functional classification for Saline roadways is illustrated on Figure 7 and described as follows:

- Principal arterial roads run relatively long distance, and service travel movements to important traffic generators. Michigan Avenue belongs to this category (2.48 miles).
- Minor arterial roads are similar, with trips being carried shorter distance to lesser traffic generators. They include North and South Ann Arbor streets as well as Maple, Bemis, and Willis roads (3.98 miles).
- Collector roads funnel traffic from residential or rural areas to arterial roads and some provide access to residences. They include Woodland Drive East, Industrial Drive, East Bennett/North Harris/Clark streets, Old Creek Drive, Saline-Waterworks Road, Austin Road, and Monroe Street (5.52 miles).
- Local roads provide access to residential neighborhoods and include all other streets in Saline (23.93 miles).

Figure 5: National Functional Classification (NFC) Map



Traffic counts for Saline's principal and minor arterials as well as collector roads have been reported to SEMCOG by various agencies including MDOT, the Washtenaw County Road Commission (WCRC), and the City of Saline. Traffic counts in previous plans had been provided by WATS; as of 2017, WATS has transitioned monitoring of traffic counts to SEMCOG and their MS2 platform. The MS2 software simplifies data management, but does not allow entering of pre-2015 data. Table 1 shows the most recent Average Annual Daily Traffic (AADT) for the given location, adjusted by a month and day of week factor to account for seasonal variations in traffic, as reported by SEMCOG's community data and the MS2 platform. The most heavily used road in Saline continues to be Michigan Avenue, with peak traffic counts over 28,000 cars per day. Ann Arbor Street and Maple Road are the next most heavily used roadways with traffic counts with counts of 12,360 and 11,317.

Table 1: Traffic Counts

Road Name	Limits	Year	AADT
Ann Arbor	NB - North Of Bennett	1997	12360
Ann Arbor	SB - North Of Saline Waterworks	1997	12320
Ann Arbor	2-WAY - N Of Bennett	2012	8692
Ann Arbor	2-WAY - South Of Bennett	2003	8530
Ann Arbor	2-WAY - N Of Saline Waterworks	2012	8364
Ann Arbor	2-WAY - S Of Bennett	2012	7489
Ann Arbor	SEB - 100 Feet North Of Us-12 (Michigan Ave)	2003	5459
Ann Arbor	SB - 100 Feet North Of Us-12 (Michigan Ave)	1999	5158
Ann Arbor	NWB - 100 Feet North Of Us-12 (Michigan Ave)	2003	4703
Ann Arbor	NB - 100 Feet North Of Us-12 (Michigan Ave)	1999	4303
Ann Arbor	NB - 100 Feet South Of Us-12 (Michigan Ave)	1999	4209
Ann Arbor	SB - 100 Feet South Of Us-12 (Michigan Ave)	1999	3349
Ann Arbor	SB - North Of Henry	2006	3140
Ann Arbor	SEB - 100 Feet South Of Us-12 (Michigan Ave)	2003	3131
Ann Arbor	NWB - 100 Feet South Of Us-12 (Michigan Ave)	2003	3023
Ann Arbor	NB - South Of Henry	2006	2920
Ann Arbor	NB - North Of Henry	2006	2830
Ann Arbor	SB - South Of Henry	2006	2590
Ann Arbor Saline	SB - North Of Woodland Dr	2009	4410
Ann Arbor Saline	NB - North Of Woodland Dr	2009	3930
Austin	2-WAY - West Of Saline City Limits	2013	3302
Austin	SB - 0.1 Mile West Of Us-12(Michigan)(Saline W. Limits)	2003	2933

Road Name	Limits	Year	AADT
Austin	NB - 0.1 Mile West Of Us-12(Michigan)(Saline W. Limits)	2003	2928
Bemis	2-WAY - West of Moon Road	2016	6300
Bennett	EB - West Of Ann Arbor St	1996	1850
Bennett	WB - West Of Ann Arbor St	1996	1150
Clark	WB - West Of Maple	2002	2460
Clark	EB - West Of Maple	2002	2410
Davenport	NB - North Of Michigan/Us12	1996	190
Davenport	SB - North Of Michigan/Us12	1996	110
Harris	SEB - 100 Feet North Of Us-12 (Michigan Ave)	2003	2011
Harris	NWB - 100 Feet North Of Us-12 (Michigan Ave)	2003	1693
Harris	SEB - 100 Feet South Of Us-12 (Michigan Ave)	2003	1689
Harris	NWB - 100 Feet South Of Us-12 (Michigan Ave)	2003	1654
Henry	2-WAY - West Of Ann Arbor	2006	3290
Henry	2-WAY - East Of Ann Arbor	2006	3250
Henry	WB - West Of Ann Arbor	2006	2070
Henry	WB - East Of Monroe	2006	2040
Henry	WB - East Of Ann Arbor	2006	1710
Henry	EB - East Of Ann Arbor	2006	1540
Henry	EB - West Of Ann Arbor	2006	1210
Henry	EB - East Of Monroe	2006	990
Industrial	2-WAY - South Of Campus	2004	5300
Industrial	2-WAY - North Of Campus	2004	4970
Industrial	2-WAY - S Of Michigan	2012	3571
Industrial	SB - North Of Us-12(Michigan)	2006	3335
Industrial	NB - North Of Us-12(Michigan)	2006	3078
Industrial	2-WAY - At Railroad Near Woodland Dr/Us-12 Hwy	2000	2829

Road Name	Limits	Year	AADT
Industrial	SB - 100 Ft S Of Us-12/ Michigan	2006	2066
Industrial	NB - 100 Ft S Of Us-12/ Michigan	2006	1933
Maple	2-WAY - N Of Michigan	2012	11317
Maple	2-WAY - N Of Echo	2012	10999
Maple	SB - 100 Feet North Of Us- 12(Michigan)	2003	5799
Maple	SB - North Of Echo Ct	1999	5470
Maple	NB - 100 Feet North Of Us- 12(Michigan)	2003	5324
Maple	NB - North Of Echo Ct	1999	4970
Maple	SB - North Of Michigan/ Us-12	1999	4660
Maple	NB - North Of Michigan/ Us-12	1999	4480
Michigan	2-WAY - West Of Industrial	2002	28066
Michigan	2-WAY - Btwn Industrial Dr. & Saline Ecl. (City Of Saline)	2002	28066
Michigan	2-WAY - East Of Austin	2002	25287
Michigan	2-WAY - 0.1 Mile Southwest Of Mills St Or Ne Of Austin Rd.	2008	19888
Michigan	EB - West Of Industrial	2003	14313
Michigan	EB - West Of Harris	2002	14249

Road Name	Limits	Year	AADT
Michigan	SWB - Btwn Industrial Dr. & Saline Ecl. (City Of Saline)	2010	14245
Michigan	NEB - Btwn Industrial Dr. & Saline Ecl. (City Of Saline)	2010	14243
Michigan	WB - East Of Monroe	2001	14123
Michigan	SWB - 100 Ft Ne Of Monroe	2001	14123
Michigan	EB - East Of Bemis/Maple	2003	13700
Michigan	NEB - 0.2 Mi.Ne Of Bemis Maple Rds.(Saline El)	2003	13700
Michigan	SWB - 0.2 Mi.Ne Of Bemis Maple Rds.(Saline El)	2003	13631
Michigan	WB - East Of Bemis/Maple	2003	13531
Michigan	EB - East Of Monroe	2001	13347
Michigan	NEB - 100 Ft Ne Of Monroe	2001	13347
Michigan	EB - West Of Bemis/Maple	2003	13236
Michigan	WB - West Of Industrial	2003	13198
Michigan	SWB - Btwn Mills & Monroe Sts	2001	13145
Michigan	WB - West Of Monroe	2001	13145
Michigan	NEB - 100 Ft S.W. Of Maple	2010	12762
Michigan	EB - East Of Harris	2003	12655
Michigan	NEB - 100 Ft N.E. Of Harris St.	2003	12655
Michigan	WB - West Of Bemis/Maple	2003	12561
Michigan	SWB - 100 Ft S.W. Of Maple	2010	12050



Road Name	Limits	Year	AADT
Michigan	NEB - 0.1 Mile Southwest Of Mills St Or Ne Of Austin Rd.	2001	12023
Michigan	EB - West Of Ann Arbor Rd	2003	12000
Michigan	SWB - 100 Ft N.E. Of Harris St.	2003	11612
Michigan	WB - East Of Harris	2003	11612
Michigan	WB - West Of Ann Arbor Rd	2003	11561
Michigan	WB - West Of Harris	2003	11545
Michigan	NEB - 100 Ft S.W. Of Harris St.	2015	11533
Michigan	SWB - 100 Feet Northeast Of Ann Arbor Rd.	2003	11443
Michigan	WB - East Of Ann Arbor Rd	2003	11443
Michigan	SWB - 100 Ft S.W. Of Harris St.	2015	11315
Michigan	SWB - 0.1 Mile Southwest Of Mills St Or Ne Of Austin Rd.	2003	10982
Michigan	WB - East Of Austin	2003	10982
Michigan	NEB - 0.1 Mile Southwest Of Ann Arbor Rd.	2008	10803
Michigan	EB - East Of Ann Arbor Rd	2003	10651
Michigan	NEB - 100 Feet Northeast Of Ann Arbor Rd.	2003	10651
Michigan	SWB - 0.1 Mile Southwest Of Ann Arbor Rd.	2008	10215
Michigan	NEB - 100 Feet Northeast Of Austin Street	2003	10178
Michigan	EB - East Of Austin	2003	10178
Michigan	SWB - 100 Feet Northeast Of Austin Street	2003	9752
Michigan	NEB - 100 Feet Southwest Of Austin St.	2003	6833

Road Name	Limits	Year	AADT
Michigan	EB - West Of Austin	2003	6833
Michigan	SWB - 100 Feet Southwest Of Austin St.	2003	6431
Michigan	WB - West Of Austin	2003	6431
Mills	NB - 100 Feet North Of Us-12 (Michigan Ave)	1999	1442
Mills	SB - 100 Feet North Of Us-12 (Michigan Ave)	2001	1397
Monroe	SB - South Of Henry	2006	2320
Monroe	NB - South Of Henry	2006	2160
Monroe	NB - South Of Michigan/ Us12	2006	2140
Monroe	SEB - 100 Ft Se Of Us-12	2001	1955
Monroe	NWB - 100 Ft Se Of Us-12	2001	1772
Monroe	SB - South Of Michigan/ Us12	2006	1260
Saline-Waterworks	2-WAY - West of Noble Road	2013	681
Textile	WB - East of Maple Road	2008	3340
Textile	EB - East of Maple Road	2008	3030
Willis	2-WAY - East Of Saline City Limits	2013	2362
Willis	WB - East Of Old Creek	1994	1110
Willis	EB - West Of Rosemont	1994	1100
Willis	EB - East Of Old Creek	1994	1080
Willis	WB - West Of Rosemont	1994	850
Woodland	2-WAY - E Of Ann Arbor-Saline	2012	4281
Woodland	2-WAY - S Of Industrial	2012	3479
Woodland	2-WAY - South Of Textile	2004	2980
Woodland	2-WAY - North Of Woodland Dr	2004	280

Source: SEMCOG

EXISTING SIDEWALKS

The City of Saline keeps up-to-date records on sidewalk deficiencies and improvements. According to the City of Saline, there are currently over 61 miles of sidewalks and pathways in the City and about 9 miles of missing sidewalks. Table 2 presents this information.

Table 2: Sidewalk Deficiencies,

Roadway Segment	Side	Missing Feet
N. Ann Arbor - Waterworks St. to Woodland Dr. East	W	645
S. Ann Arbor - Crestwood Circle to Willis Rd.	W	132
Austin Dr. - W. Austin Rd. to Washington St.	N	455
Austin Dr. - W. Austin Rd. to Washington St.	S	1274
Barnes Ct. - Industrial Dr. to end	N	1217
Barnes Ct. - Industrial Dr. to end	S	956
Beach Ct. - S. Industrial Dr. to end	N	1044
Beach Ct. - S. Industrial Dr. to end	S	513
Bemis Rd. - S. Industrial Dr. to Keveling Dr.	N	1496
Bemis Rd. - S. Industrial Dr. to City limits	N	666
E. Bennett St. - N. Harris St. to Ann Arbor St.	S	1176
Bennett St. - N. Ann Arbor St. to Hickory Ln.	N	717
Davenport St. - Michigan Ave. to Detroit St.	E	334
Davenport St. - Michigan Ave. to E. Henry St.	E	348
Davenport St. - E. Henry St. to end	W	351
Davenport St. - E. Henry St. to end	E	210
E. Henry St. - Old Creek Dr. to Davenport St.	N	812
Hickory Ln. - W. Bennett St. to end	E	361
Hickory Ln. - W. Bennett St. to end	W	266
Industrial Dr. - Michigan Ave. to Woodland Dr.	E, N	3200
S. Industrial Dr. - Michigan Ave. to Bemis Rd.	E	859
S. Industrial Dr. - Sauk Tr. Ct. to Beach St.	W	886
S. Industrial Dr. - Beach St. to Bemis Rd.	W	345
Keveling Dr. - Michigan Ave. to Bemis Rd.	E	343
Keveling Dr. - Michigan Ave. to Bemis Rd.	W	347
Leutheuser Dr. - Maple Rd. to end	S	477
N. Lewis St. - W. McKay St. to Russell St.	E	388
Linden Ct. - Mills Rd. to end	N	295
Linden Ct. - Mills Rd. to end	S	246
N. Maple Rd. - Leutheuser Dr. to Woodland Dr.	E	2872
N. Maple Rd. - Woodland Dr. to City limits	E	343
N. Maple Rd. - Maplewood St. to Maplewood	W	267
McKay St. - N. Ann Arbor St. to Hall St.	S	258
Mills Rd. - Michigan Ave. to Russell St.	W	775
Mills Rd. - W. Bennett St. to Linden Ct.	W	328
Monroe St. - W. Henry St. to City limits	W	436

Roadway Segment	Side	Missing Feet
Monroe St. - W. Henry St. to City limits	E	740
Old Creek Dr. - Michigan Ave to E. Henry St.	W	328
Owen St. - Harris St. to end	N	327
Owen St. - Harris St. to end	S	328
Park Place - Clark St. to end	W	267
Saline-Milan Rd. - Willis Road to City limits	W	230
Saline-Waterworks Rd. - Breconshire St. to City limits	N	1240
Tefft Ct - Woodland Dr. to end	N	1500
Tefft Ct - Woodland Dr. to end	S	1392
Michigan Ave. - Hopper St. to S. Industrial Dr.	S	1043
Michigan Ave. - Maple Rd. to Industrial Dr.	N	1738
Michigan Ave. - Mills St. to Austin Rd.	N	1732
Washington St. - Austin Dr. to end	E	337
Washington St. - Austin Dr. to end	W	332
Whitlock St. - Michigan Ave. to end	E	530
Whitlock St. - Michigan Ave. to end	W	538
William St. - Michigan Ave. to Henry St.	W	168
William St. - Michigan Ave. to Henry St.	E	336
William St. - Henry St. to end	W	498
William St. - Henry St. to end	E	330
Willis Rd. - Old Creek Dr. to East	S	450
Willis Rd. - Ann Arbor St. to Old Creek Dr.	S	998
Wiltshire - Woodland Dr. to end	S	146
Woodland Dr. - Maple Rd. to Industrial Dr.	N, W	2468
Woodland Dr. - Industrial Dr. to Tefft Ct.	W	972
Woodland Dr. - Tefft Ct. to Textile Dr.	W	767
Woodland Dr. - Ann Arbor St. to Colony Dr.	N	693
TOTAL FEET		46,726
TOTAL MILES		8.85

Table 3: Sidewalk Additions Since 2009

Roadway Segment	Side	Missing Feet
Michigan Ave. - Mills St. to Austin Rd.	N	1732

Source: City of Saline Engineering Department

EXISTING POLICIES AND LAWS

The City of Saline was one of the first communities in Michigan to adopt a complete streets ordinance in 2010. The ordinance calls for appropriate accommodation for bicyclists, pedestrian, transit users, and persons of all ages and abilities for all new and retrofitted transportation projects. The ordinance requires that construction projects in the right-of-way must reference the Saline Non-motorized Plan for guidance.

State law allows bicycles to ride on sidewalks and all public roads except where restricted or on limited-access highways. Therefore, bicyclists are found in travel lanes on streets, road shoulders, bike lanes, sidewalks, and shared-use paths or trails across the state. Saline has limited designated bike lanes throughout the City.

The City is required to meet the requirements set forth by the Michigan Barrier Free Public Act of 1966 and MDOT standards for construction of sidewalks and ramps. These laws conform with the regulations established by the Americans with Disabilities Act (ADA) of 1990. In addition, the City is required to bring non-compliant curb ramps into compliance throughout the City as part of a transition plan.

The United States Access Board published revised Architectural Barriers Act (ABA) Standards 2015. These guidelines cover pedestrian access to sidewalks and streets, including crosswalks, curb ramps, street furnishings, pedestrian signals, parking, and other components of public right-of-way. The ABA requires that buildings and facilities that are designed, constructed, or altered with Federal funds, or leased by a Federal agency, comply with Federal standards for physical accessibility. The standards are limited to new and altered buildings and in newly leased facilities.

The Department of Justice published revised, enforceable accessibility standards called the 2010 ADA Standards for Accessible Design. Compliance with the 2010 Standards was required for new construction and alterations as of March 2012, and is also the compliance date for using the 2010 Standards for program accessibility and barrier removal.

Assessing the suitability of the road network for bicycle use and bike lane striping is one of the first steps in selecting nonmotorized transportation improvements. When evaluating roadway corridors for bicycle use, many factors are considered including roadway width, number of travel lanes, presence of on-street parking, traffic volumes, car speeds, presence of large trucks, and pedestrian activity.

SALINE NON-MOTORIZED PLAN

The Non-motorized Plan for Saline articulates goals, objectives, and actions that are based on background information, existing conditions, and public input. They also consider current standards for the development of non-motorized facilities. The following goals, objectives, and actions should be incorporated into the City's Parks and Recreation Master Plan and Master Land Use Plan.

GOAL, OBJECTIVES, AND ACTIONS

Saline's non-motorized transportation goal:

To make it safer and easier for more people to bicycle and walk throughout Saline.

Four principal objectives are identified for achieving this goal:

1. Network development,
2. Regulations and maintenance,
3. Education, encouragement, and enforcement, and
4. Funding, coordination, and implementation.

Network Development

Develop an interconnected network of pedestrian and bicycle facilities to encourage increased non-motorized transportation use in the City.

- Provide safe travel to key destinations including residential areas, schools, parks and recreation facilities, shopping, and other community facilities.
- Provide a well-defined separation of pedestrians, bicycles, and cars on arterial and collector streets with the use of designated bicycle facilities including off-the-road shared-use pathways, on-the-road bike lanes, or other pedestrian or bicycle facilities.
- Ensure that facilities meet Americans with Disabilities Act (ADA) and American Association of State Highway and Transportation Officials (AASHTO) standards
- Coordinate the provision of bicycle facilities during road improvement work:
 - Ensure that transportation projects adhere to Saline's complete street ordinance
 - Stripe bike lanes during road resurfacing work
 - Add bike lanes and other proposed improvements during road reconstruction work.

Regulations and Maintenance

Incorporate the Non-motorized Plan recommendations into ordinances and plans.

- Incorporate the Non-motorized Plan into Saline's Master Land Use and Parks and Recreation Master Plans.
- Enforce Saline's complete street ordinance to ensure that developments accommodate pedestrian, bicycle, and vehicular uses and follow the guidelines of the Non-motorized Plan.
- Continue to promote the installation of bicycle racks at community parks, schools, library, and other destinations.
- Incorporate bicycle parking requirements into zoning ordinance regulations for non-residential development.
- Develop a uniform signage and wayfinding system for the non-motorized network to identify pedestrian and bicycle facilities as well as destinations.
- Identify and designate pedestrian and bicycle routes or loops with letters or names and create a map for distribution.
- Establish a regular maintenance program for sidewalks, pathways, and bicycle facilities. Current ordinances require adjacent land owners to pay for and implement sidewalk maintenance and repair. City initiated repairs require a lengthy special assessment procedure. A more streamlined, city-managed, shared-cost approach to sidewalk maintenance should be developed.

Education, Encouragement, and Enforcement

Educate key target groups and the public on non-motorized safety issues.

- Develop a safety and education campaign targeting pedestrians, bicyclists, and motorists to raise awareness of the system and encourage its appropriate use.
- Develop or acquire a drivers' training program curriculum to teach drivers how to legally and safely interact with bicyclists and pedestrians. Distribute the program curriculum to local drivers' training schools and Saline Community Education.
- Coordinate with Saline Community Education, the Parks and Recreation Department and community organizations to develop pedestrian and bicycle education programs teaching safety skills such as bike rodeos, bike classes, and individual training.
- Promote bicycling as transportation to and from schools.
- Support and encourage participation by all Saline Area Schools in the federal Safe Routes to School Program.
- Monitor safety facts regarding crash and injury.
- Work with the Saline Police Department to raise awareness of the non-motorized plan and encourage enforcement of pedestrian, bicycle, and vehicular laws.
- Develop diversion programs which offer training to individuals in place of a traffic violation. Although remedial in nature, they target individuals who disregard the safe practice for motorists, cyclists, and pedestrians.
- Promote existing bicycle registration system.

Funding, Coordination, and Implementation

Ensure implementation of this plan.

- Communicate and coordinate non-motorized projects and efforts with adjacent communities and county agencies.
- Seek grant funding.
- Monitor and evaluate the effectiveness of non-motorized facilities.
- Consult the Non-motorized Plan in all transportation projects.

NON-MOTORIZED ROUTES AND MAP

Providing a network of non-motorized facilities throughout Saline is essential to achieving the goal of this Plan. Bike lane development, roadway crossing improvements, shared-use pathways, and sidewalks are needed in Saline for pedestrians and bicyclists to make it easier and safer to reach major destinations.

The Plan, illustrated on Figure 8, shows the proposed non-motorized transportation routes for Saline. While some of these routes currently have existing sidewalks and bicycle facilities, some need to be established to accommodate bicycle or pedestrian travel. When implemented, the interconnected network of on- and off-road facilities proposed in this Plan will serve these critical corridors as well as many other parts of the City.

The Plan represents a long-term vision and is intended to serve as a guide to future non-motorized funding, design, and implementation. Further design and engineering work will need to follow this initial planning effort.

The Plan proposes off-the-road shared-use trails in loops along roadway corridors and in linear trails in the abandoned railroad corridor and in community parks. Four major loops and five segments are proposed:

1. An 8-foot to 10-foot off-road shared-use pathway along North Ann Arbor Street, Woodland Drive East, Maple Road, and Thibault Lane which includes a small short cut from Woodland Drive East to Thibault Lane. The 8-foot portion of this loop is located within road rights-of-way while the 10-foot portions are located outside of roadways.
2. An 8-foot to 10-foot off-road shared-use pathway along North Ann Arbor Street, Thibault Lane, Maple Road, the Library-Brecon Trail, and Depot Trail. Again, the 8-foot portion of this loop is located within road rights of-way while the 10-foot portions are located outside of roadways.
3. An 8-foot off-road shared-use pathway along Woodland Drive to the existing 8-foot shared-use pathway located along Industrial Drive.
4. Recreation Center Connection: an existing 8-foot off-road shared-use pathway along Woodland Drive to the Recreation Center.
5. A 10-foot off-road shared-use pathway along the railroad corridor from North Ann Arbor Street to Mill Pond Park, Curtiss Park, Peoples Park to South Ann Arbor Street.
6. A 10-foot off-road shared-use pathway from Curtiss Park through Salt Springs Park and continuing on to Wilderness Park

7. A 10-foot off-road shared-use pathway from North Ann Arbor Street and Woodland Drive East to the railroad corridor along the Wood Outlet Drain.
8. A bridge from Mill Pond Park to Stonecliff Park along with a 10-foot off-road shared-use pathway connecting to the existing sidewalk network.
9. An 8-foot to 10-foot off-road shared-use pathway along South Ann Arbor Street from Peoples Park to Wilderness Park, along the Saline River, and to Curtiss Park. Again, the 8-foot portion of this loop is located within road rights-of-way while the 10-foot portions are located outside of roadways.
10. West and East Connections: an 8-foot off-road shared use pathway along Austin Road and Drive on the west side of Saline and along Leutheuser Drive to Michigan Avenue on the east side.

The Plan also proposes the establishment of 8-foot shared-use trails along both sides of Michigan Avenue between Austin Road and Monroe Street, and from Maple Road to Industrial Drive.

On-the-road bicycle facilities have been implemented along North Ann Arbor Street and portions of East Woodland Drive. Additional facilities are proposed for all of the City's major arterial and collector roadways as well as some minor collector streets. This includes Woodland Drive, Maple Road, Industrial Drive, Bennett Street, Clark Street, portions of Harris Street, Mills Road, Michigan Avenue, Monroe Street, Henry Street, Pleasant Ridge Drive, Bemis Road, Willis Road, and Old Creek Drive.

The plan also includes provision of pedestrian safe crossings at a number of intersections including:

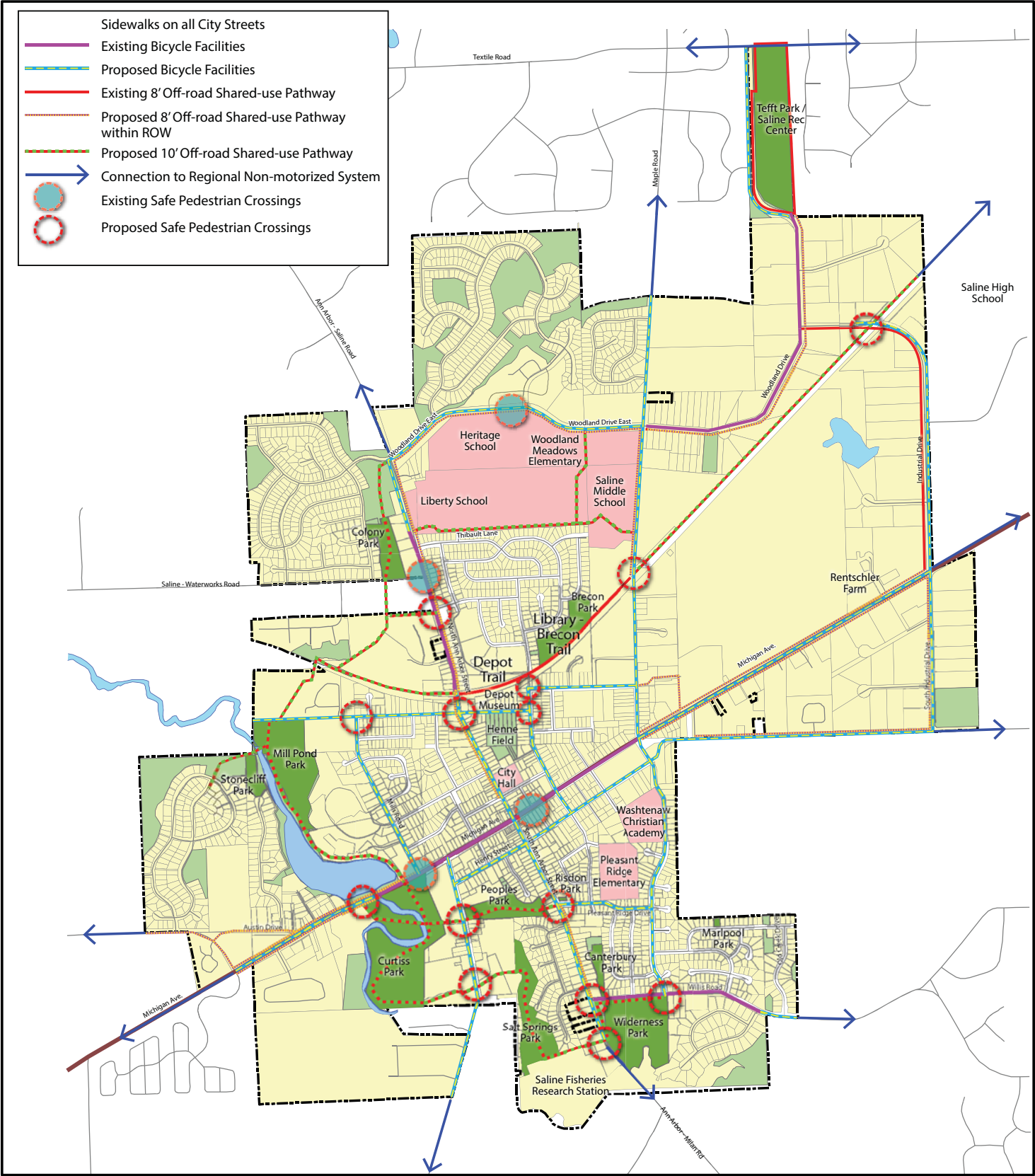
- North Harris Street at Clark and Bennett streets,
- North Ann Arbor at Harper Street, and the rail-trail,
- Mills Road at West Bennett Street,
- Maple Road at the rail-trail,
- Monroe Street at both Peoples Park and the Saline River,
- South Ann Arbor Street at Pleasant Ridge Drive, Willis Road, and the fish hatchery, and
- Michigan Avenue at the Saline River and Whitlock Street.

Recently completed safe crossings are located at:

- Woodland Drive East in front of school complex,
- North Ann Arbor Street at Saline-Waterworks Road, and
- Michigan Avenue at Mills Road and at Hall Street.

The enhancements and features at each crossing will be determined based on various factors including: crossing width, traffic volume, pedestrian and bicycle traffic volumes, and sight lines.

Figure 6: Saline Non-Motorized Transportation Plan



**City of Saline
Non-Motorized Transportation System**

City of Saline
Washtenaw County

Adapted from City of Saline Non-Motorized Plan, 2009

8-29-2017
Carlisle/Wortman Associates, Inc.
Ann Arbor, Michigan

NON-MOTORIZED FACILITIES

A variety of non-motorized facilities and accommodations are recommended to form the proposed interconnected network. Each type or combination will need to be selected based on further evaluation of each roadway or area.

The primary references for establishing the standards for nonmotorized facility development are:

- Guide for the development of Bicycle Facilities (AASHTO, 1999, 2013);
- Michigan Manual on Uniform Traffic Control Devices (MMUTCD) (MDOT, 2013); and
- Selecting Roadway Design Treatments to Accommodate Bicycles (FHWA, 1994).

Based on the review of current standards for non-motorized facility development, there are five types of facilities proposed for Saline:

1. Sidewalks for pedestrian use,
2. Shared roadways for bicycle use,
3. Bicycle lanes for bicycle use,
4. Shared-use pathways for pedestrians and bicyclists, and
5. Pedestrian Refuge Islands.

Sidewalks

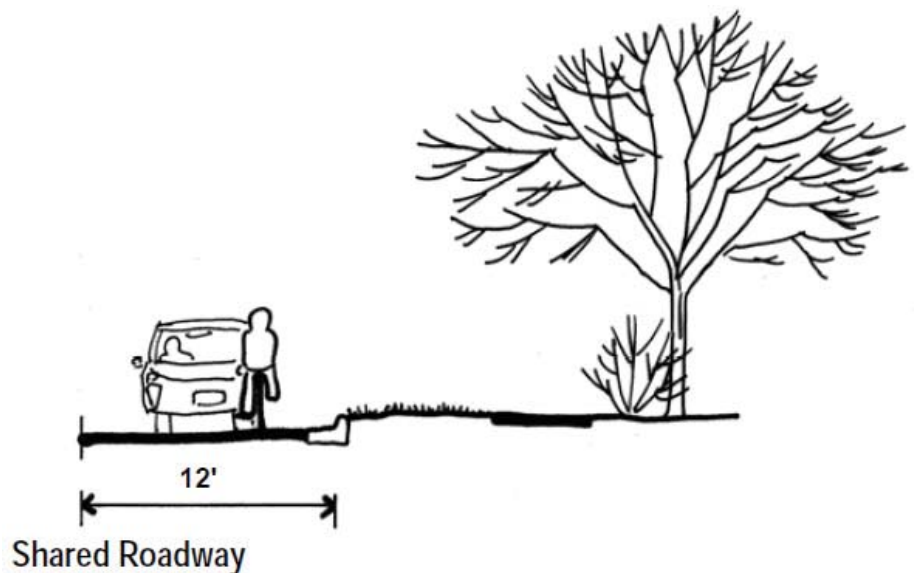
Sidewalks are for pedestrians and are located within road rights-of-way. They usually consist of concrete pavement and are separated from the roadway by a landscaped area. In Saline, most existing sidewalks are 4 or 5 feet wide. In the downtown area, they are wider with no separation from the roadway. Any new sidewalk construction must comply with current ADA standards, be at least 5 feet wide, and include appropriate ramps at roadways.



Shared Roadways

Shared roadways include roads upon which a bicycle may be legally used and marked as a bike route. According to the Federal Highway Administration (1994), shared roadways are appropriate on local roads having low daily volumes or speeds of less than 30 mph. They serve all types of riders. Most streets in Saline are currently suitable for shared roadway bicycling with no additional improvements necessary.

Shared roadways are also appropriate in locations where it is not feasible to add pavement at the edge of a roadway to create a bike lane and at roadway intersections. The City may consider reducing travel lane widths to 10 or 11 feet and striping a broken line indicating the area where motorists should be prepared to see bicyclists. The resulting three- to five-foot marked lane would increase the safety of bicyclists.



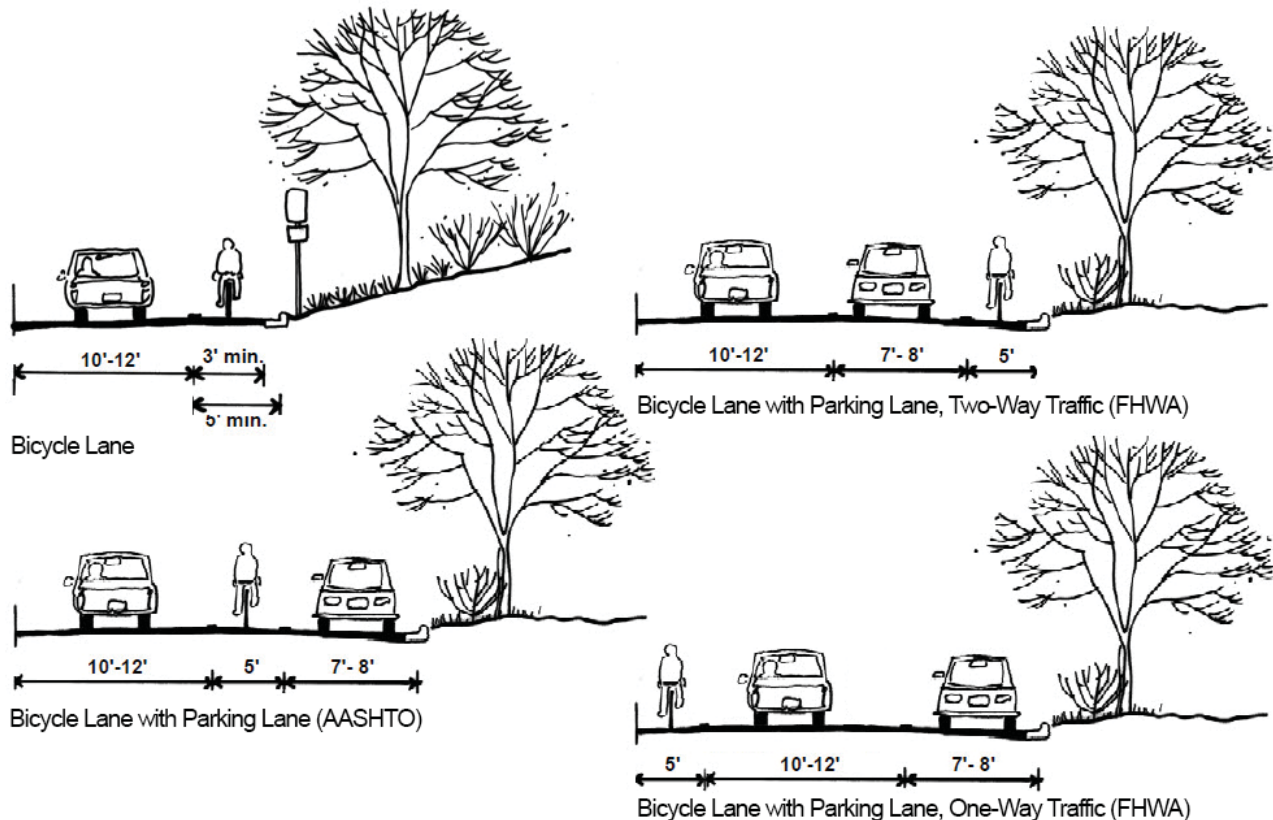
Source: Humantransport.org

A sharrow may also be used to mark the shared roadway. Sharrows are chevrons pointing in the direction of vehicle traffic to indicate where a bicyclist may ride. They provide a visual cue that bicycles are expected and indicate the location to ride on the roadway. They are typically used on roadways where there is not enough space for bicycle lanes or which connect gaps between other bicycle facilities.

Introduced in San Francisco in 2004, sharrows were incorporated into the federal MUTCD in 2009. The effectiveness of sharrows as compared to dedicated bike lanes remains a question. According to a 2016 Transportation Research Board study, streets marked with sharrows had higher incidences of injuries than comparable streets with bike lanes. The study also noted that bike ridership was significantly higher along routes with dedicated bike lanes. (Ferenchak 2016)

Bicycle Lanes

Bicycle lanes include designated lanes on roadways that incorporate striping, signing, and pavement markings for the preferential or exclusive use of bicyclists. They are typically delineated by pavement markings



and should be one-way, a minimum of five feet wide to the face of the curb. A minimum of three feet rideable surface should be provided where the joint between the gutter pan and pavement surface is smooth. If the joint is not smooth, four feet rideable surface should be provided. Similarly, bicycle lanes should be a minimum of four feet wide on streets without curbs.

According to the Federal Highway Administration (FHWA 2015), bicycle lanes are appropriate on roadways having daily volumes that exceed 10,000 or car speeds that exceed 30 mph. While they definitely serve Type A riders, bicycle lanes will attract and serve Type B riders as well.

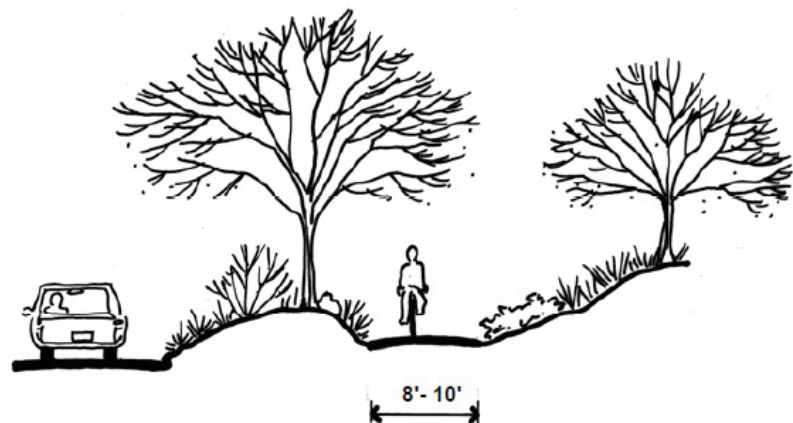
AASHTO and FHWA take different approaches to the placement of bike lanes where on-street parking is permitted. AASHTO states that a five foot wide bicycle lane should always be placed on the right side of the street between the parking lane and the motorized vehicle lane. FHWA guidelines, on the other hand, recommends bike lanes on the left side of the street on one way streets with cars parked on the right; for two way streets, the bike lane is between the parked car and the curb. The configuration recommended by AASHTO is more prevalent in Michigan.

An important consideration in the design of bicycle lanes is the location of bicycle lanes at intersections. Guidance for pavement markings and signs at intersections is contained in the Michigan Manual on Uniform Traffic Control Devices (MMUTCD).

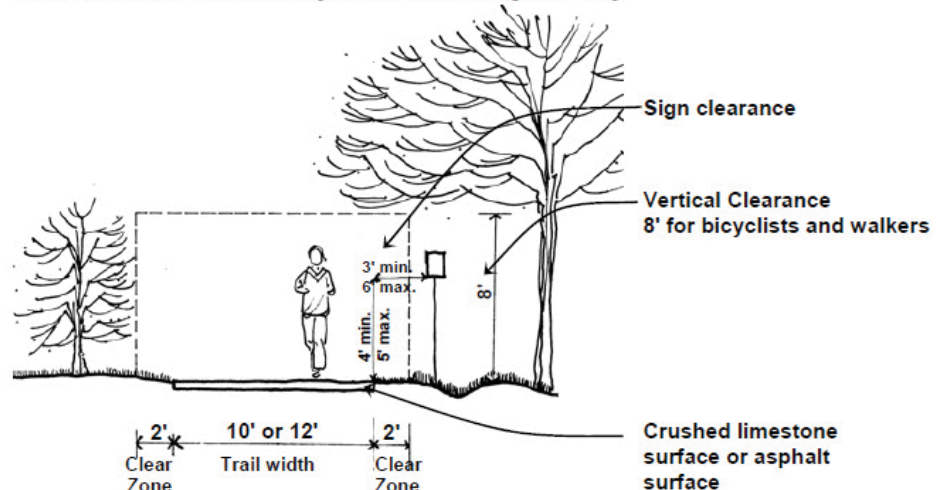


Shared-use Off-Road Pathways

A shared-use off-road pathway is physically separated from motor vehicular traffic by an open space. The path may be within the road right-of-way or within a park or easement. Paths are normally two-way facilities. The AASHTO (2012) recommended pavement width is 10 feet, but 8 feet may be considered where path usage is low, where space is limited or where pathways are located on both sides of roadways. Similarly, 12 feet may be considered a better suited width where path usage is expected to be high, such as in an urban situation. A minimum of a 2-foot clear zone needs to be maintained along both sides of a pathway, with an 8 foot vertical clearance.



Off-road Shared-Use Pathway within a Road Right-of-Way



Off-road Shared-Use Pathway outside of Roadways

Pedestrian Refuge Islands

Refuge islands are one option to improve the safety of pedestrians and bicyclists crossing streets. These islands are raised longitudinal spaces placed in the center of a roadway, separating opposing lanes of traffic, and slotted along the pedestrian path. They reduce pedestrian crossing distances, act as a traffic calming feature, and increase the visibility of the crosswalk to motorists.



OTHER CONSIDERATIONS

Other design issues should be considered with the implementation of non-motorized facilities throughout Saline. They include the pavement markings of bike lanes, the use of uniform signage, and the elimination of road hazards.

Pavement Markings and Signage

A bike lane should be painted with standard pavement symbols to inform bicyclists and motorists of the presence of the bike lane. The standard pavement symbols are a bicycle symbol and a directional arrow (white and reflectorized) (MMUTCD, 2011). They are placed at the beginning and ending points of bike lanes as well as at regular intervals of about 750 feet. Bike lane signs should be placed at about the same location of the pavement markings.

There are three primary types of signs utilized along designated routes. They include:

- Route signs that help identify connecting non-motorized routes,
- Warning signs which advise non-motorized users and motorists of facilities and crossings, and
- Regulatory signs which inform bicyclists of specific traffic laws and regulations such as “Stop” and “Bike Lane Ends.”

Directional signs and wayfinding maps should be placed along pathways and bike routes, and at key locations in Saline. Providing these features can improve non-motorized travel, safety, and help ensure efficient connections to destinations.



Source: Terrabilt

Figure 9B-4. Guide Signs and Plaques for Bicycle Facilities (Sheet 1 of 2)

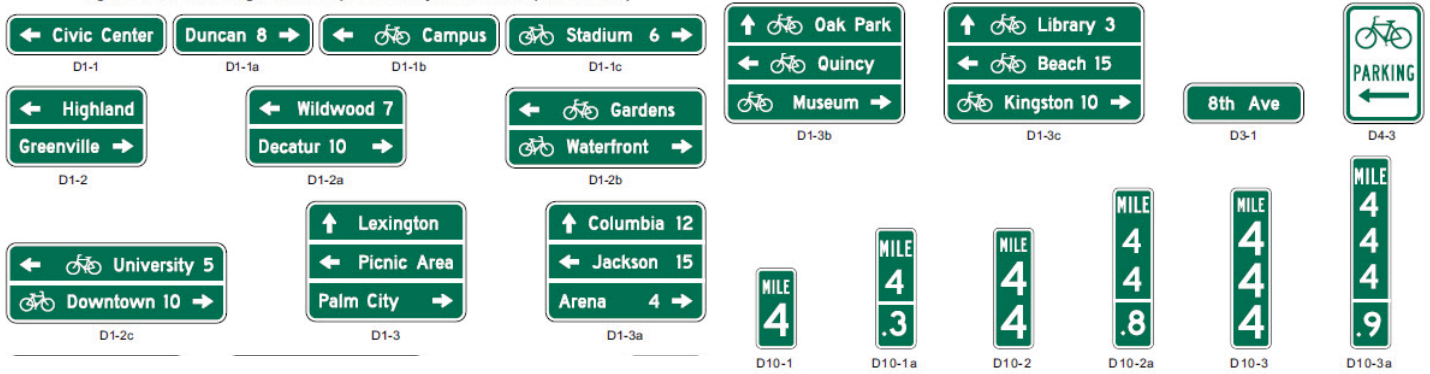


Figure 9B-4. Guide Signs and Plaques for Bicycle Facilities (Sheet 2 of 2)

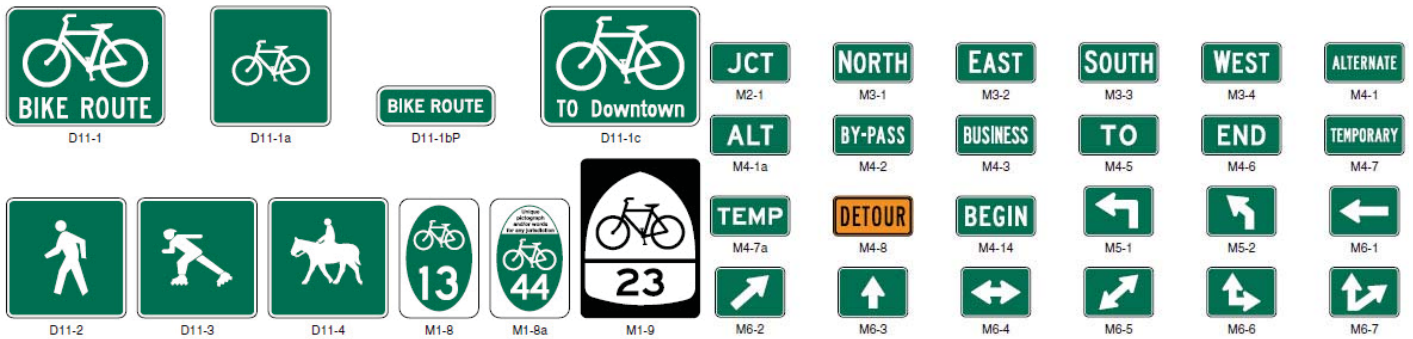
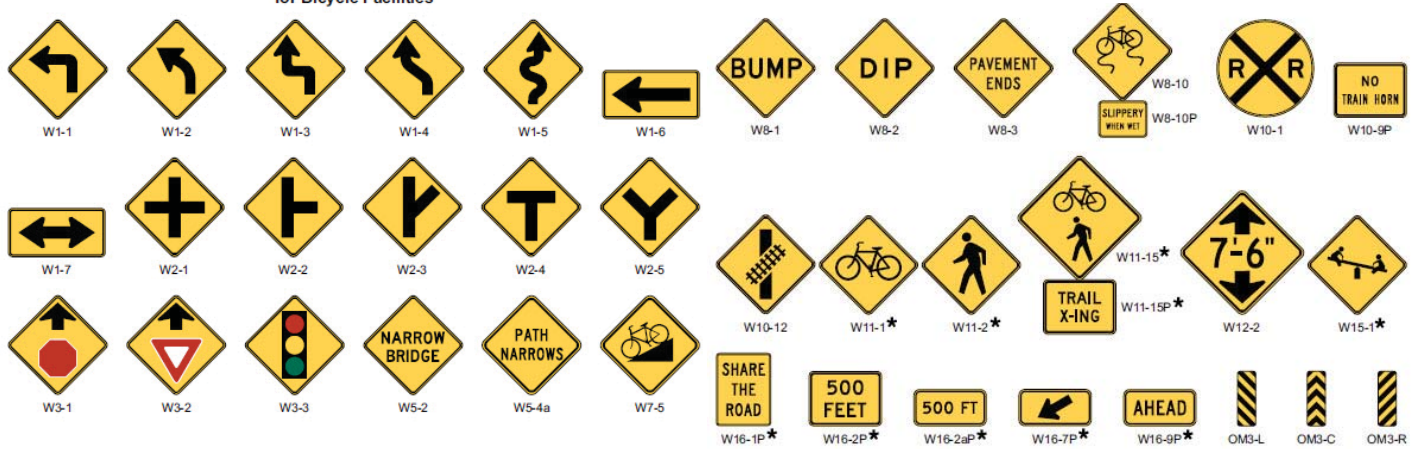
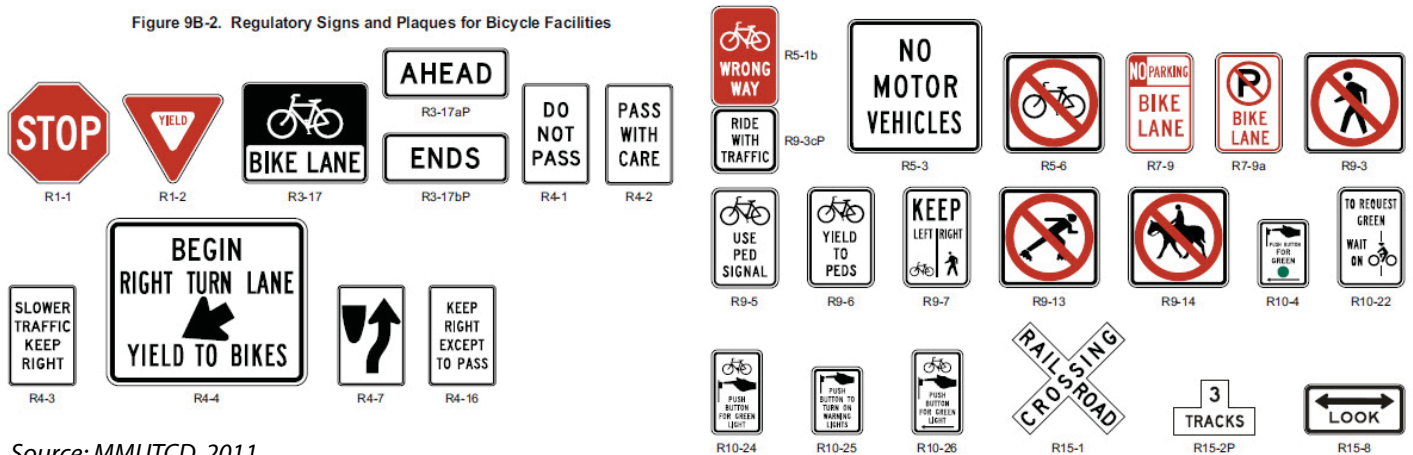


Figure 9B-3. Warning Signs and Plaques and Object Markers for Bicycle Facilities



* A fluorescent yellow-green background color may be used for this sign or plaque. The background color of the plaque should match the color of the warning sign that it supplements.

Figure 9B-2. Regulatory Signs and Plaques for Bicycle Facilities



Source: MMUTCD, 2011

Road Hazards

Because most roads have been designed without bicycle travel in mind, there are often many ways they should be improved to safely accommodate bicycle travel. Some of the common hazards to safe bicycle travel include wheel eating drainage grates and poor pavement conditions.

Drainage grate inlets and utility covers can be problematic to bicyclists and pedestrians, and should be kept out of bicyclists' expected path. Newly constructed or repaired inlets are required to have a bicycle-safe grate. Curb inlets should be used wherever possible to completely eliminate exposure of bicyclists to grate inlets. A temporary correction recommended by AASHTO involves welding steel cross straps perpendicular to the parallel bars to provide safe openings.

Pavement surface irregularities are also dangerous to bicyclists. Pavement surfaces should be free of irregularities such as gaps in longitudinal paving joints, potholes, and bumps. The presence of debris along curbs due to the failure of routinely sweeping pavement edges reduces the operating space for bicycles and can also create dangerous situations. On older pavements it may be necessary to fill joints, adjust utility covers or, in extreme cases, overlay the pavement to make it suitable for bicycling.



RECOMMENDED FACILITY TREATMENTS

The Non-motorized Transportation Plan for Saline recommends a variety of non-motorized facilities including off-the-road and on-the-road facilities. The following section addresses on-the-road facilities. The figures included in the following pages depict proposed road cross-sections for some of Saline's roadways. Each of the cross-sections is unique and corresponds to a particular location along a specific roadway.

The proposed facilities are not final recommendations; rather they are options for development and a starting point for considering bicycle facilities on Saline roadways. They will require additional evaluation before implementation. Additional analysis including available space, traffic considerations, and engineering aspects will help determine the optimum design for each location.

They are based on the assumption that roadway widening should be kept at a minimum or reserved for intersection improvements. Some of these recommendations propose minimum width configurations that may or may not be desirable. Most of the recommendations will result in the loss of on-street parking.

The recommendations proposed in the following pages are provided as a tool to help accomplish implementation of the Plan. The following is recommended before implementation:

- Review the proposed non-motorized facilities set forth in the Non-motorized Plan (Figure 8),
- Review the existing roadway configuration and optimize the proposed cross-section dimensions,
- Develop an optimum cross-section for the entire length of the roadway including segments not specifically considered here,
- Seek further public input, and
- Obtain necessary approvals for design and construction.

Figure 7: Maple Road Cross Section

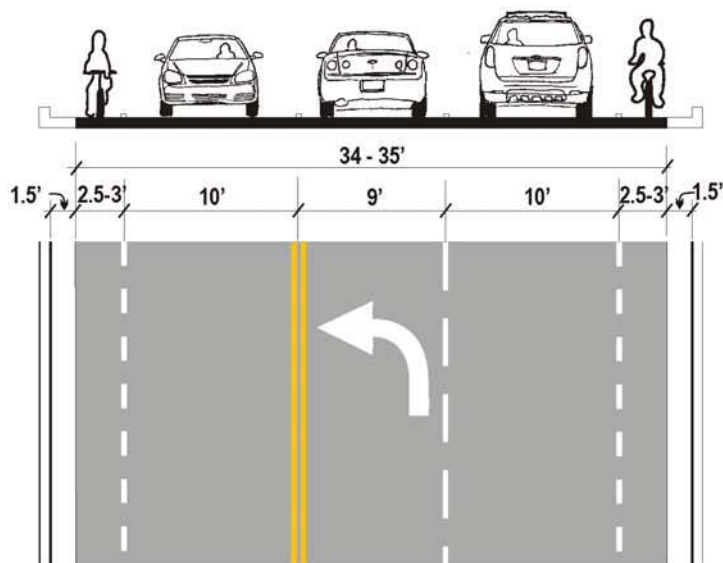
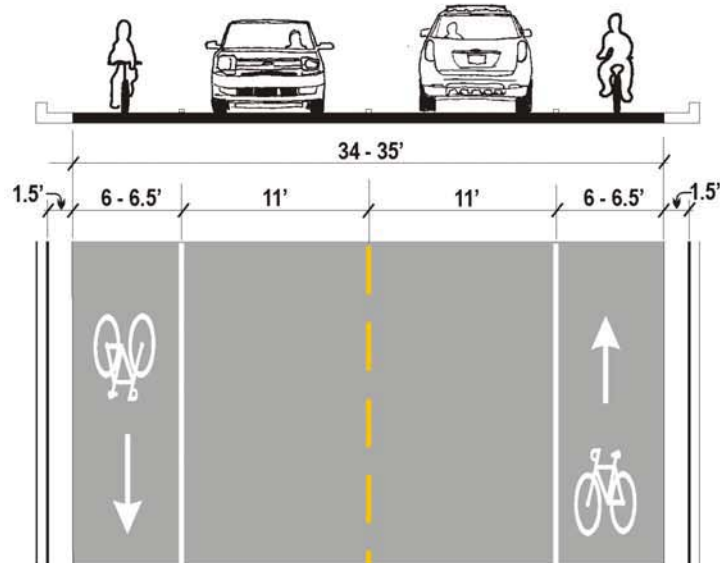
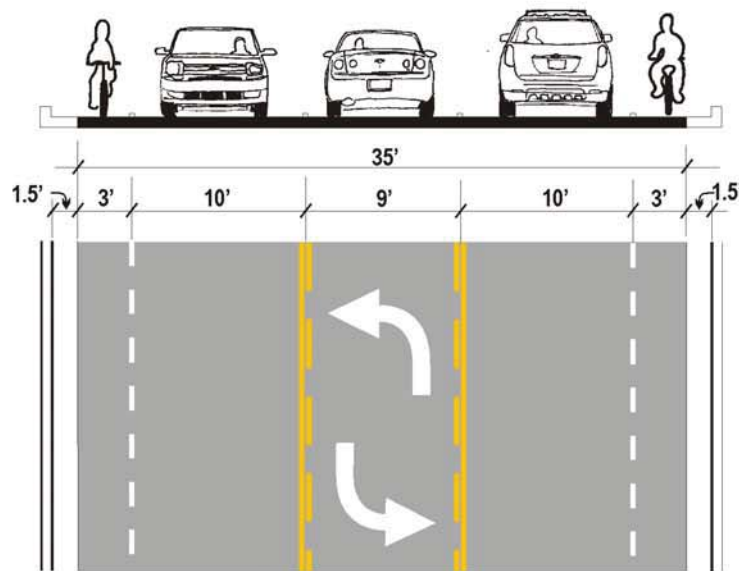


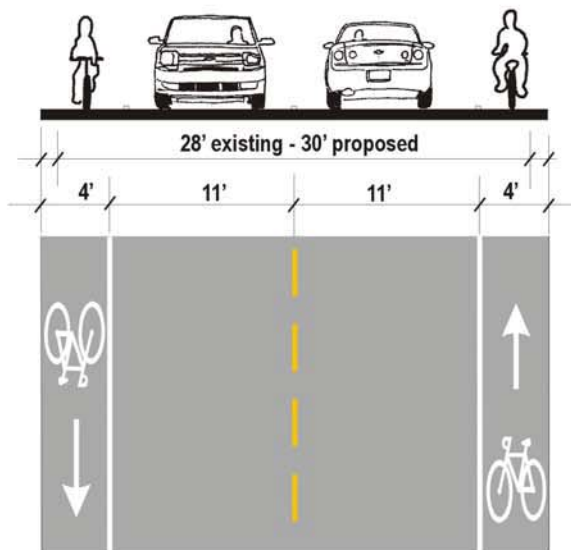
Figure 8: Industrial Drive Cross Section



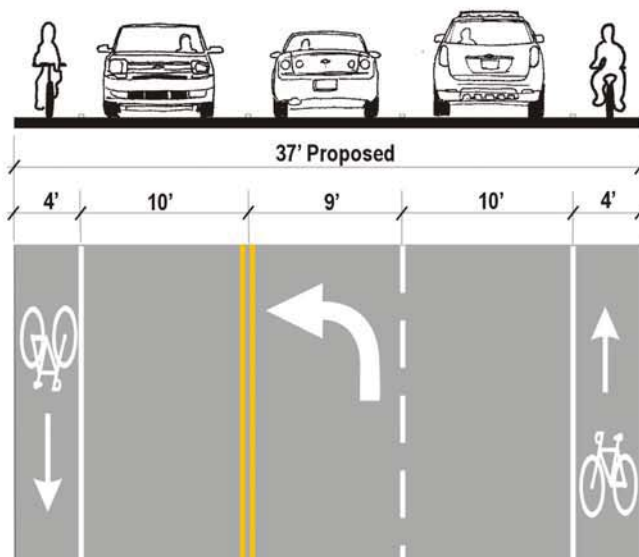
2 10'-travel lanes
 1 center left-turn lane
 Bicycles share the road
 - bike area marked with broken line striping

As an alternative, use same treatment as Maple Road with center left-turn lane at Campus Parkway, Barnes Court, Sauk Trail Court, and Beach Court.

Figure 9: Woodland Drive Cross Section



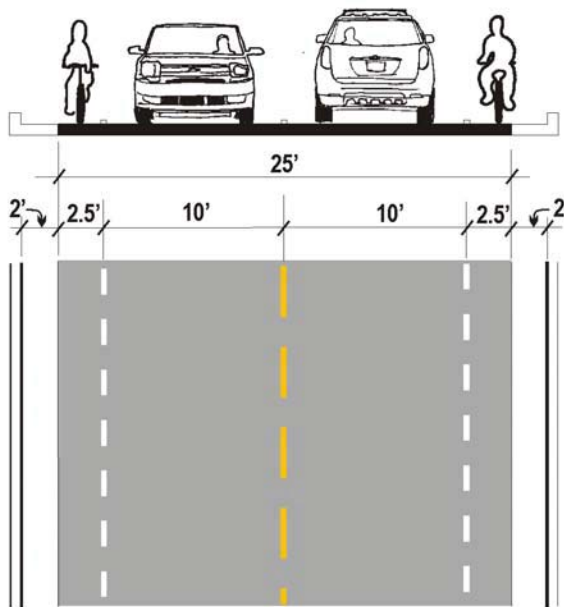
2 11'-travel lanes
2 bike lanes (minimum width: 4' without curb & gutter, 3.5' with curb & gutter)



At intersection with N. Ann Arbor Street, school entrances, Wildwood Trail, Sycamore Run, and Maple Street:

2 10'-travel lanes
2 bike lanes (minimum width: 4' without curb & gutter, 3.5' with curb & gutter)
1 center left-turn lane at intersections

Figure 10: North Ann Arbor, South of Bennett Street Cross Section

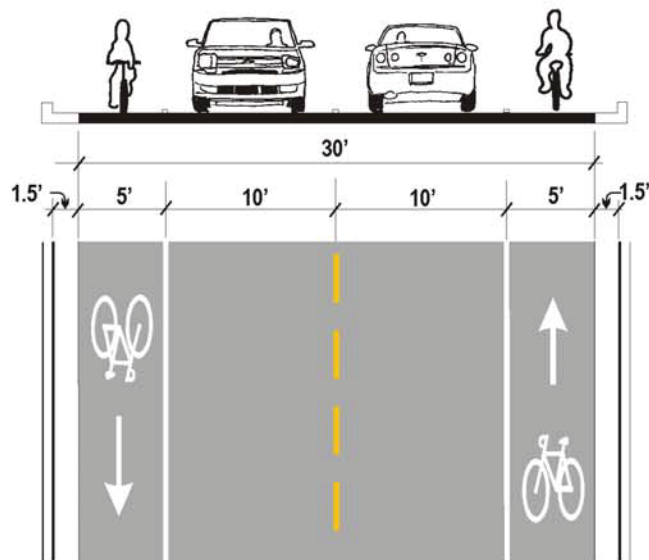


2 10'-travel lanes
Bicycles share the road - bike area marked
with broken line striping

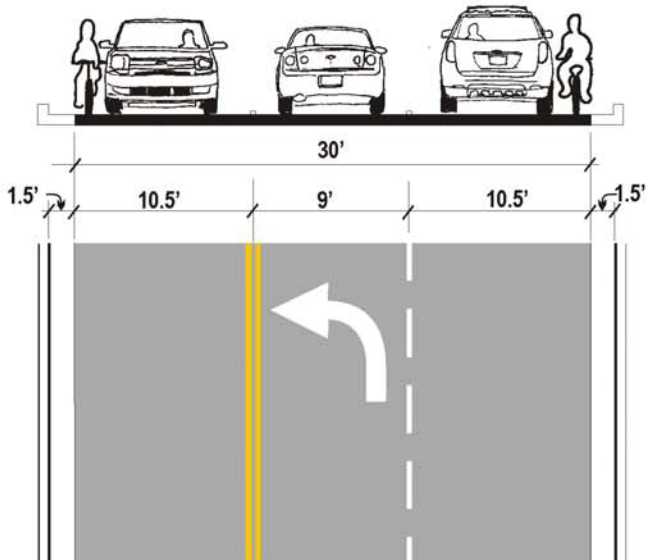
Figure 11: Clark Street Cross Section



Same treatment for:
 Woodland Drive (from Maple Road to road bend)
 Maple Road south of Clark Street
 West and East Bennett Street
 Henry Street
 Pleasant Ridge Drive



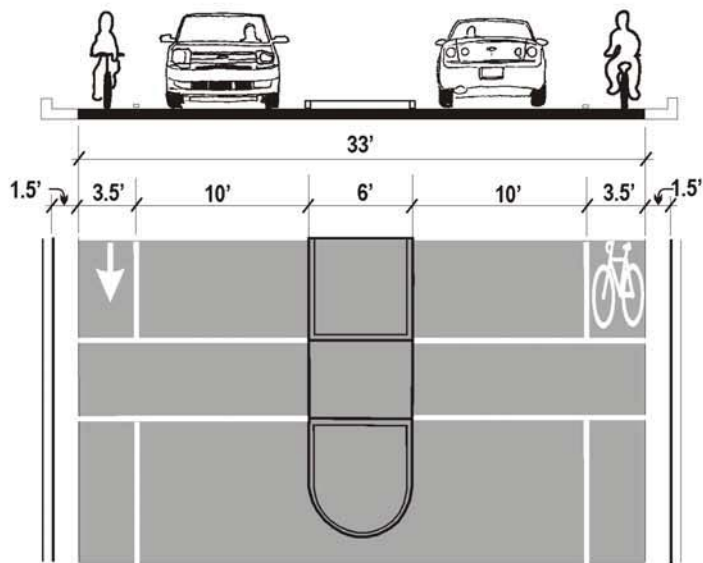
2 10'-travel lanes
 2 bike lanes (varying widths)



At intersection with Maple Street:

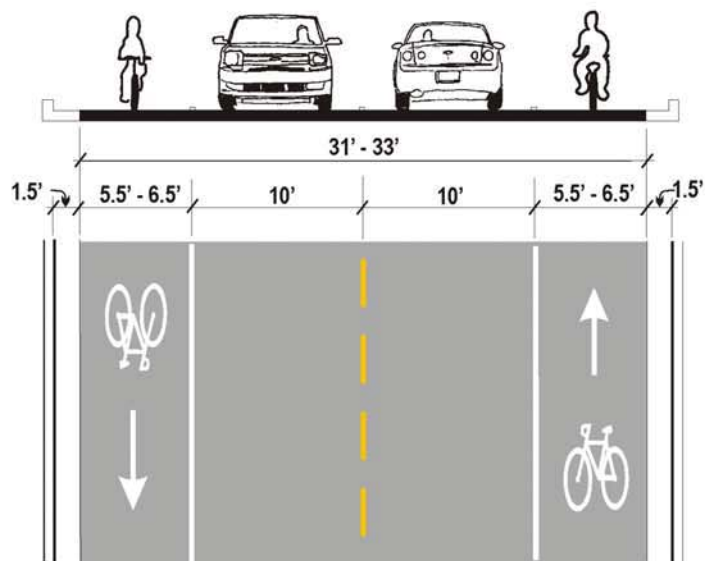
2 travel lanes
 1 center left-turn lane
 Bicycles share the road at intersections

Figure 12: North Harris Street Cross Section



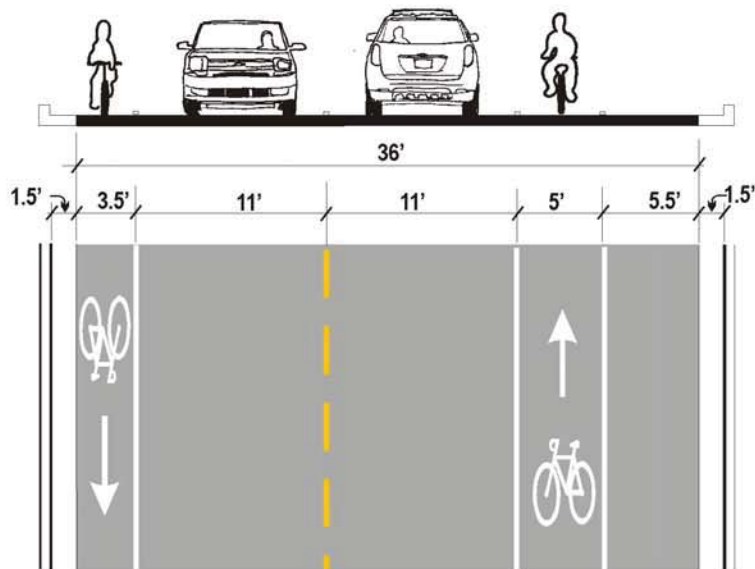
At intersection with Clark Street and Bennett Street:

- 2 10'-travel lanes
- 2 bike lanes (3.5' minimum width)
- Refuge islands south of Clark Street and south of Bennett Street

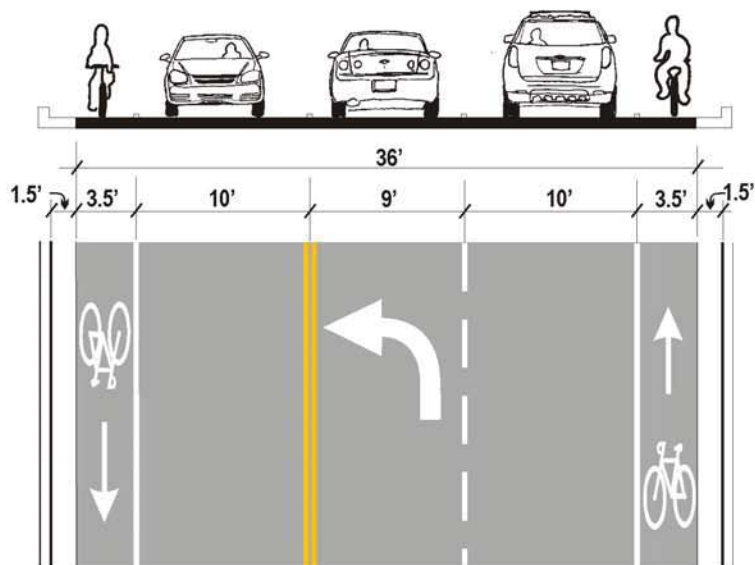


- 2 10'-travel lanes
- 2 bike lanes (varying widths)

Figure 13: Monroe Street Cross Section



2 11'-travel lanes
1 parking lane
2 bike lanes (minimum widths: 3.5' from curb & gutter or 5' between parking and travel lane)



At intersection with Michigan Avenue:

2 10'-travel lanes
2 bike lanes (3.5' minimum width)
1 center left-turn lane

Figure 14: South Ann Arbor Street Cross Section

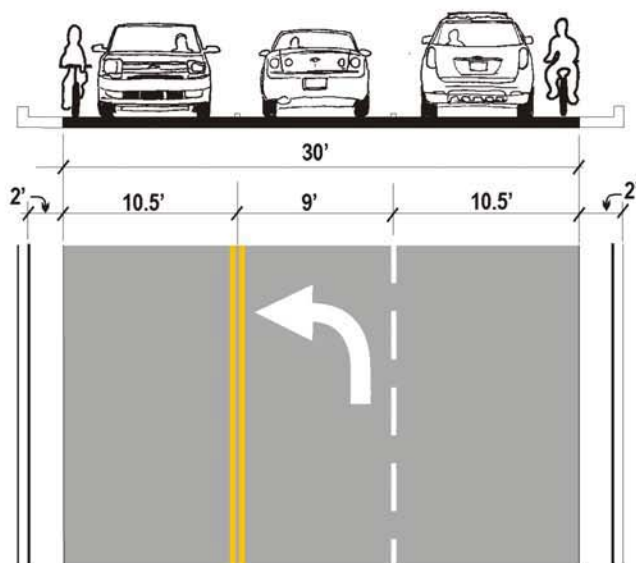
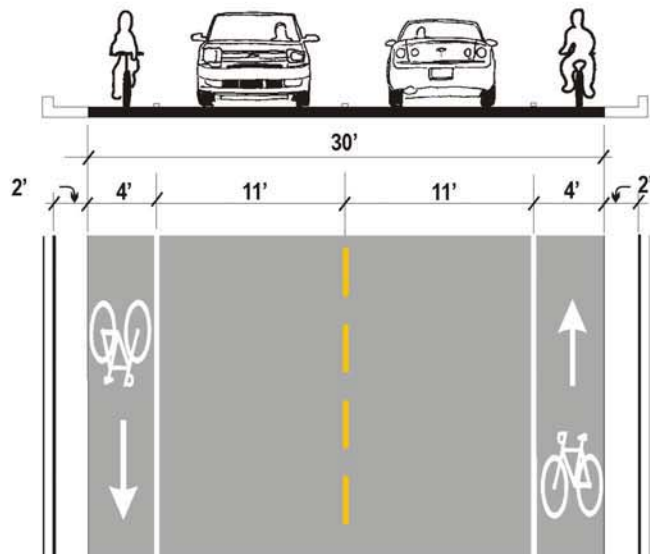
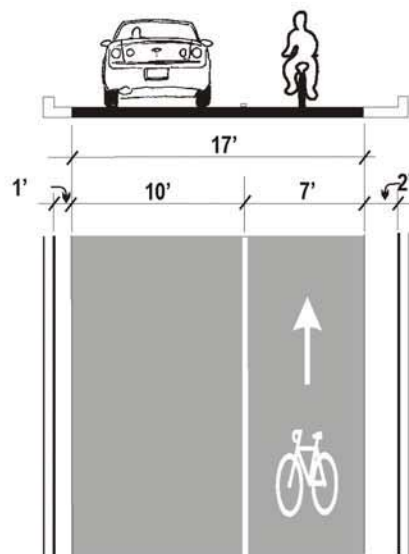
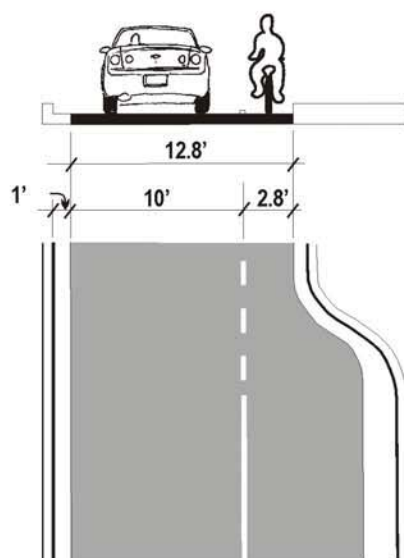


Figure 15: Oak Creek Drive Cross Section



1 10'-travel lane
1 bike lane



At bulb-out intersection

1 10'-travel lane
Bicycles share the road at intersection - bike area marked
with broken line striping

IMPLEMENTATION

This section of the plan details the manner in which the network of bikeways and pathways will be implemented. It includes a list of specific projects and a project schedule with suggested improvements, priorities, and strategies for implementation.

IMPLEMENTATION SCHEDULE

Table 4 lists individual projects along with the specific task to be accomplished and a cost estimate. In addition, a high, medium, or low priority has been assigned to each project. Although implementation will be dependent on a variety of factors such as street project schedules, private development, grant opportunities, and funding, priorities were based on anticipated use levels, improvement to connectivity, and desirability.

Table 4: Implementation Schedule

Corridor Route	Type of Facility	Proposed Non-motorized Improvement	Cost Estimate	Priority
Off-Road Pathway Improvements				
Woodland Dr. E. - N. Ann Arbor St. to Maple Rd.	Shared-use Pathway	Add/replace sidewalk to meet 8' off-road shared-use pathway guidelines	\$39780 - \$79550 (4000')	Medium
Woodland Dr. E. - Maple Rd. to Industrial Dr.	Shared-use Pathway	Add/replace sidewalk to meet 8' off-road shared-use pathway guidelines	\$34310 - \$68610 (3450')	Medium
Woodland Dr. E. - Industrial Dr. to Tefft Park	Shared-use Pathway	Add/replace sidewalk to meet 8' off-road shared-use pathway guidelines	\$16910 - \$33810 (1700')	Medium
Maple Rd. - Woodland Dr. E. to Rail-trail	Shared-use Pathway	Add/replace sidewalk to meet 8' off-road shared-use pathway guidelines	\$23870 - \$47730 (2400')	High
N. Ann Arbor St. - Woodland Dr. E. to Railtrail	Shared-use Pathway	Construct/replace sidewalk to meet 8' off-road shared-use pathway guidelines	\$37790 - \$75570 (3800')	High
N. Ann Arbor St. - Rail-trail to McKay St.	Shared-use Pathway	Construct/replace sidewalk to meet 8' off-road shared-use pathway guidelines	\$16410 - \$32820 (1650')	High
Depot Trail - N. Harris St. to N. Ann Arbor St.	Shared-use Pathway	Resurface 10' off-road shared-use pathway	\$11440 - \$22870 (1150')	Medium
Depot Trail - N. Ann Arbor St. to Mill Pond Park	Shared-use Pathway	Construct 10' off-road shared-use pathway	\$119330 - \$178980 (3000')	High
Park Trail A - Mill Pond Park to S. Ann Arbor St.	Shared-use Pathway	Construct 10' off-road shared-use pathway	\$276430 - \$414640 (6950')	High
N Connection - Rail-trail North to S. Ann Arbor St.	Shared-use Pathway	Construct 10' off-road shared-use pathway	\$174480 - \$262500 (4400')	Medium
S. Ann Arbor St. - Peoples to Wilderness Parks	Shared-use Pathway	Construct/replace sidewalk to meet 8' off-road shared-use pathway guidelines	\$14910 - \$29840 (1500')	Medium
Park Trail B - Curtiss to Wilderness Parks	Shared-use Pathway	Construct 10' off-road shared-use pathway	\$230690 - \$346030 (5800')	Low
Rail with Trail - Maple Rd. to East City Limits	Shared-use Pathway	Construct 10' off-road shared-use pathway	\$256540 - \$384810 (6450')	Low

Corridor Route	Type of Facility	Proposed Non-motorized Improvement	Cost Estimate	Priority
E. Connection - Leutheuser St. to Michigan Ave.	Shared-use Pathway	Construct/replace sidewalk to meet 8' off-road shared-use pathway guidelines	\$11930 - \$23870 (1200')	Medium
W Connection - Austin Rd. and Austin Dr.	Shared-use Pathway	Construct/replace sidewalk to meet 8' off-road shared-use pathway guidelines	\$27850 - \$55690 (2800')	Medium
NW Connection - Mill Pond to Stonecliff Parks	Shared-use Pathway	Construct bridge and 10' off-road shared-use pathway	\$31820 - \$47740 (800')	Medium
Bicycle Facilities and Intersection Improvements				
N. Ann Arbor St. - At Harper St. and Rail-trail	Intersection Improvements & Safe Crossing	Reconstruct intersections to accommodate bike lanes, enhanced crosswalks, and turn lanes, and construct safe pedestrian crossing at rail-trail	TBD	Medium
Maple Rd. - North City Limits to Clark St.	Bike Lane	Stripe bike lanes on existing pavement, provide appropriate pavement markings and signage	\$6070 - \$36400 (6100')	High
Maple Rd. - At Rail-trail	Safe Crossing	Construct safe pedestrian crossing	TBD	Low
Woodland Dr. - Industrial Dr. to Textile Rd.	Bike Lane	Stripe bike lanes on existing pavement, provide appropriate pavement markings and signage	\$4780 - \$28640 (4800')	High
Woodland Dr. E. - N. Ann Arbor St. to Maple Rd.	Bike Lane	Construct bike lanes provide appropriate pavement markings, and signage	\$39780 - \$59670 (4000')	Medium
Industrial Dr. - Woodland Dr. to Michigan Ave.	Bike Lane	Stripe bike lanes on existing pavement, provide appropriate pavement markings and signage	\$5170 - \$31030 (5200')	Medium
Industrial Dr. - At Rail-trail	Safe Crossing	Construct safe pedestrian crossing	TBD	Low
S. Industrial Dr. - Michigan Ave. to Bemis Rd.	Bike Lane	Stripe bike lanes on existing pavement, provide appropriate pavement markings and signage	\$2590 - \$15510 (2600')	Low
Clark St. - Maple Rd. to N. Harris St.	Bike Lane	Stripe bike lanes on existing pavement, provide appropriate pavement markings and signage	\$1550 - \$9260 (1550')	High
N. Harris St. - Clark St. to Bennett St.	Bike Lane	Stripe bike lanes on existing pavement, provide appropriate pavement markings and signage	\$1260 - \$1500 (250')	High
N. Harris St. - At Clark St. and Bennett St.	Intersection Improvements	Reconstruct intersections to accommodate bike lanes, enhanced crosswalks, and turn lanes	TBD	Low
N. Harris St. - Bennett St. to Michigan Ave.	Bike Lane	Stripe bike lanes on existing pavement, provide appropriate pavement markings and signage	\$1240 - \$7460 (1250')	High
E. Bennett St. - N. Harris St. to N. Ann Arbor St.	Bike Lane	Stripe bike lanes on existing pavement, provide appropriate pavement markings and signage	\$1000 - \$5970 (1000')	High
W. Bennett St. - N. Ann Arbor St. to Mill Pond Park	Bike Lane	Stripe bike lanes on existing pavement, provide appropriate pavement markings and signage	\$2790 - \$16710 (2800')	High

Corridor Route	Type of Facility	Proposed Non-motorized Improvement	Cost Estimate	Priority
Mills St. - At W. Bennett St. and to Michigan Ave	Safe Crossing & Shared Roadway	Reconstruct intersection to provide safe crossing and provide appropriate pavement markings and signage	TBD	Medium
N. Ann Arbor St. - Bennett St. to Michigan Ave.	Bike Lane	Stripe bike lanes on existing pavement, provide appropriate pavement markings and signage	\$1800 - \$10750 (1800')	Medium
N. Ann Arbor St. - Bennett St. to Michigan Ave.	Bike Lane	Reconstruct segment to provide appropriate bike lanes with pavement markings and signage	\$71590 - \$107390 (1800')	Medium
Maple Rd. - Clark St. to Michigan Ave.	Bike Lane	Stripe bike lanes on existing pavement, provide appropriate pavement markings and signage	\$800 - \$4780 (800')	High
Maple Rd. - Clark St. to Michigan Ave	Bike Lane	Reconstruct segment to provide appropriate bike lanes with pavement markings and signage	\$31820 - \$47730 (800')	High
Henry St. - Monroe St. to Old Creek Dr.	Bike Lane	Stripe bike lanes on existing pavement, provide appropriate pavement markings and signage	\$3480 - \$20890 (3500')	Medium
Monroe St. - Michigan Ave. to South City limits	Bike Lane	Stripe bike lanes on existing pavement, provide appropriate pavement markings and signage	\$2240 - \$13420 (2250')	Medium
Monroe St. - At Peoples Park and Park Trail B	Safe Crossing	Construct safe pedestrian crossings	TBD	Low
Old Creek Dr. - Michigan Ave. to Willis Rd.	Bike Lane	Stripe bike lanes on existing pavement, provide appropriate pavement markings and signage	\$4040 - \$24170 (4050')	High
S. Harris St. - Michigan Ave. to Henry St.	Bike Lane	Stripe bike lanes on existing pavement, provide appropriate pavement markings and signage	\$1370 - \$2090 (350')	Medium
S. Ann Arbor Rd. - Michigan Ave. to South City Limits	Bike Lane	Stripe bike lanes on existing pavement, provide appropriate pavement markings and signage	\$4620 - \$27750 (4650')	Medium
S. Ann Arbor St. - At Pleasant Ridge Dr. & Park Trail B	Intersection Improvements & Safe Crossing	Reconstruct intersection to accommodate bike lanes, enhanced crosswalks, and turn lanes, and construct safe pedestrian crossing at trail	TBD	Low
Willis Rd. - At Old Creek Dr	Intersection Improvements	Reconstruct intersection to accommodate bike lanes, enhanced crosswalk, and turn lane	TBD	Medium
Pleasant Ridge Dr. - S. Ann Arbor Rd. to Old Creek Dr.	Bike Lane	Stripe bike lanes on existing pavement, provide appropriate pavement markings and signage	\$1400 - \$8360 (1400')	Medium
Bemis Rd. - To East City Limits	Bike Lane	Construct bike lanes provide appropriate pavement markings and signage	\$44750 - \$67120 (4500')	Medium

Corridor Route	Type of Facility	Proposed Non-motorized Improvement	Cost Estimate	Priority
Michigan Avenue Improvements				
Michigan Ave. - Maple Rd. to Austin Rd.	Bike Lane	Stripe bike lanes, provide appropriate pavement markings and signage	TBD (3950')	Low
Michigan Ave. - At Mill Pond	Safe Crossing	Construct safe pedestrian crossing across multi-lane highway	TBD	Medium

FUNDING OPPORTUNITIES

The following programs are publicly funded by federal, state, and county agencies. The type of projects allowed depend on the program, however, the categories range from planning and construction of non-motorized facilities to design of public spaces, to educational programs, research, and studies of methods for reducing air pollution.

Transportation Enhancement Funds

At the federal level, the Michigan Department of Transportation (MDOT) funds Transportation Enhancements (TE) activities for community-based projects that expand travel choices and enhance the transportation experience by improving the cultural, historic, aesthetic, and environmental aspects of the transportation infrastructure. To be eligible, a project must fall into one of the 12 TE activities and relate to surface transportation. Activities which may apply to the City of Saline include:

- Provision of facilities for pedestrians and bicycles including new or reconstructed sidewalks, walkways, curb ramps, bike lane striping, bike parking, off-road trails, bike and pedestrian bridges, and underpasses as listed:
 - Sidewalks,
 - Bike lanes,
 - Pedestrian crosswalks,
 - Shared use paths 10 feet wide or greater,
 - Path/trail user amenities,
 - Grade separations, and
 - Bicycle parking facilities.
- Provision of safety and educational activities for pedestrians and bicyclists including programs designed to encourage walking and bicycling by providing potential users with education and safety instruction through classes, pamphlets, and signage.
- Preservation, conversion, and use of abandoned railway corridors including acquiring railroad rights-of-way, planning, designing, and constructing shared-use trails, developing rail-with-trail projects, and purchasing unused railroad property for reuse.

A rolling application procedure allows applicants to submit projects at any time and awards are made up to three times per year. A minimum 20 percent local match is required for proposed projects and applications are accepted online.

Congestion Mitigation/Air Quality (CMAQ)

This funding is provided to areas that are not in compliance with air quality standards or are in a maintenance area for air quality nonattainment issues. Congestion Mitigation/Air Quality (CMAQ) projects are awarded competitively and jointly between MDOT and the Southeast Michigan Council of Governments (SEMCOG). Applicants must demonstrate that they reduce emissions in order to be considered eligible for funding as determined by the Federal Highway Administration. Southeast Michigan is a designated non-attainment area.

http://www.michigan.gov/mdot/0,4616,7-151-9621_11041_60661---,00.html

Applicants must demonstrate that they reduce emissions in order to be considered eligible for funding as determined by the Federal Highway Administration. Washtenaw County CMAQ projects are prioritized by Washtenaw Area Transportation Study Committees. This funding also requires a minimum of 20 percent match.

Southeast Michigan which includes all of Washtenaw County is a designated non-attainment area. Approximately \$8 million are available in the Southeast Michigan region for local non-transit improvements.

In addition, SEMCOG's 2040 Regional Transportation Plan for Southeast Michigan describes how \$36 billion in revenues will be invested to support the region's transportation system. While the plan places a primary emphasis on improvements to existing motorized infrastructure, the report recognizes the popularity and importance of trail development, as well as the continued development of complete street programs. Of the programs funded in the 2014-2017 update, \$1,101,000 is dedicated to development of non-motorized facilities in Washtenaw County alone.

MAP-21: Transportation Alternatives Program & Safe Routes to Schools

MAP-21 (Moving Ahead for Progress in the 21st Century Act) is the most recent federal transportation funding law. It consolidates transportation funding programs that were available under the previous funding law including the Transportation Enhancement program, the Safe Routes to School program, and the Recreation Trails program into a program called Transportation Alternatives Program (TAP). This singular program is the largest federal source for trail funding.

Transportation Alternative activities are projects that “expand travel choices and enhance the transportation experience by integrating modes and improving the cultural, historic, and environmental aspects of our transportation infrastructure.” Activities which may apply to the City of Saline include:

- Construction, planning, and design of on-road and off-road facilities for pedestrians, bicyclists, and other non-motorized forms of transportation, including sidewalks, bicycle infrastructure, pedestrian and bicycle signals, traffic calming techniques, lighting and other safety-related infrastructure, and transportation projects to achieve compliance with the Americans with Disabilities Act; and
- Construction, planning, and design of infrastructure-related projects and systems that will provide safe routes for non-drivers, including children, older adults, and individuals with disabilities to access daily needs.

Transportation Enhancement and Safe Routes to School (K – 8th grade) funds are distributed through a partnership between SEMCOG and MDOT. Each project are jointly evaluated by SEMCOG and MDOT staff to determine eligibility, consistency with TAP program requirements, and how well the project meets SEMCOG’s Creating Success goals.

SEMCOG awarded over \$6.2 million in TAP funding for the 2017 fiscal year. \$5 million will be available to be distributed in the SEMCOG region in 2018. Applications must be submitted through the Michigan Department of Transportation’s online grant system (MILogin). A minimum 20 percent local match from non-federal sources is required for proposed projects and applications are accepted online. Applications for 2018 are currently being accepted.

<http://www.semCog.org/TAPCall.aspx>

Michigan Natural Resources Trust Fund

Revenues from the Michigan Transportation Fund (MTF) are generated from state gas and value taxes. The funding is divided among MDOT, road commissions, cities, and villages. Each Act 51 agency is required by law to spend at a minimum an average of one percent of their Act 51 dollars on non-motorized improvements for 10 years subsequent to Act 51 award.

State grants are available to local units of government for acquisition and development of land and facilities for outdoor recreation such as shared-use paths. 2017 priorities were trails, wildlife/ecological corridors, and projects located within urban areas. The Michigan Natural Resources Trust Fund (MNRTF) provides funding for the purchase and development of land for natural resource based preservation and recreation. Goals of the program are to:

- Protect natural resources and provide for their access, public use and enjoyment,
- Provide public access to Michigan's waters, particularly the Great Lakes and facilitate their recreation use,
- Meet regional, county, and community needs for outdoor recreation opportunities,
- Improve the opportunities for outdoor recreation in urban areas, and
- Stimulate Michigan's economy through recreation related to tourism and community revitalization.

Grant proposals must include a local match of at least 25 percent of the total project cost. There is no minimum or maximum for acquisition projects. For development projects, the minimum funding request was \$15,000 and the maximum was \$300,000 in 2013. MNRTF grants require an approved 5-year recreation plan. Applications are due in April 1.

http://www.michigan.gov/dnr/0,4570,7-153-58225_58301---,00.html

Land and Water Conservation Fund

The Land and Water Conservation Fund (LWCF) is a federal appropriation to the National Park Service, who distributes funds to the Michigan Department of Natural Resources for development of outdoor recreation facilities. The focus of the program has recently been on trailway systems and other community recreation needs such as playgrounds, picnic areas, athletic fields, and walking paths. Minimum grant requests were \$30,000 and maximum requests were \$150,000 in 2016. The match percentage must be 50 percent of the total project cost. LWCF grants require an approved 5-year recreation plan. Applications are due April 1.

http://www.michigan.gov/dnr/0,4570,7-153-58225_58672---,00.html

DALMAC Fund

The goals of the DALMAC Fund are to expand and improve the bicycling environment in Michigan, increase bicycle safety, and promote goodwill toward bicycling in the community. Eligible activities include construction and design of bicycle facilities, bicycle education programs, bicycle promotion activities, purchase of bicycles and related equipment, and developing bicycle routes or maps. The fund is sponsored by the Tri-County Bicycle Association, which focuses primarily on Clinton, Eaton, and Ingham Counties. The DALMAC Fund, however, does not require that a project be located in one of those counties. The fund granted over \$75,000 in 2016. Fund amounts and application due dates for 2017 have not yet been made available.

http://www.biketcba.org/content.aspx?page_id=22&club_id=604795&module_id=224021

People for Bikes Community Grant Program

The People for Bikes community grant program is funded by members of the American Bicycle Industry. Their mission is to put more people on bikes more often. The program funds projects in three categories: facility, education, and capacity building. Requests for funding can be up to \$10,000 for projects such as bike paths, trails, lanes, parking, transit, and safe routes to school. Applications are reviewed on a quarterly basis.

<http://www.peopleforbikes.org/pages/community-grants>

State and Community Highway Safety (Highway Safety Project Grant)

Grants are available from the Office of Highway Safety Planning to provide a coordinated national highway safety program to reduce traffic crashes, deaths, injuries, and property damage. Grants are awarded to projects that demonstrate commitment to one of the nine national priority program areas including: alcohol and other drug countermeasures, police traffic services, occupant protection, traffic records, emergency medical services, motorcycle safety, pedestrian/bicycle safety, speed control, and roadway safety.

Eligible applicants include states while eligible beneficiaries include political subdivisions, through the State Highway Safety Agencies. Highway Safety Plans must be submitted by September 1 each year.

Rivers, Trails, and Conservation Assistance

Advisory services and counseling are available nationally as part of a technical resource program to increase the number of rivers and lands protected and to expand the number of trails established nationwide. Applicants eligible for this service include local government agencies. Applicants need to complete and submit proposals by July and must contact the program leader for Rivers, Trails and Conservation Assistance in the appropriate National Park Service Regional Office.

Surface Transportation Program Urban Funds

Washtenaw County is allocated approximately \$4.3 million in Urban Surface Transportation Program (STPU) funds. This money does not carry over and therefore must be spent each year. A 20 percent match is required. WATS has an adopted policy of allocating 4 percent of the County's STPU funds to non-motorized projects over time. This amounts to approximately \$150,000 each year. In recent years, few non-motorized improvements have been submitted by agencies during the call for improvements. The Saline Nonmotorized Transportation Plan will serve as a resource for possible improvements that can be submitted for STPU funding consideration.

Transportation Economic Development Fund (TEDF) - Urban Areas in Rural Counties (Category F)

TEDF Category F grants are intended to provide funding for transportation projects that improve access to the state all-season system, improve safety on routes having high commercial traffic, and provide all-season routes within an urban area. A 20 percent local match is required, and grants are limited to a maximum of \$375,000. Engineering and right-of-way acquisition costs are not eligible. The City of Saline is eligible for this funding source which can be used for street construction including sidewalk and ramp construction work.

http://www.michigan.gov/mdot/0,1607,7-151-9621_17216_18230---,00.html

Small Grant Programs

Kodak, the National Geographic Society, and the Conservation Fund provide small grants to stimulate the planning and design of greenways. The grant program was instituted in response to the President's Commission on Americans Outdoors recommendation to establish a national network of greenways. The application period typically runs from March 1st through June 1st. Program goals are to develop new, action-oriented greenways projects, assist grassroots greenway organizations, leverage additional money for conservation and greenway development, and recognize and encourage greenway proponents and organizations. While the maximum grant amount is \$2,500, most grants range from \$500 to \$2,500.

<http://www.rlch.org/funding/kodak-american-greenways-grants>

Local Support

Matching funds may be available through the Saline Area School District. A ½ mill tax levy was approved in 2009 for the Cultural, Arts, Recreation, Enrichment, and Senior Citizens (CARES) program. Although this millage has decreased, a new school sinking fund was approved for capital projects on school properties. There may be an opportunity to obtain some funds through these programs.

Additional funds may be available through local economic development funds (EDC, TIFA, and LDFA) particularly along Saline's major routes including Michigan Avenue, North Ann Arbor Street, Woodland Drive East, and Maple Road. Public support for bike lane and pathway development will be crucial in determining the success of non-motorized transportation development for Saline. A specific millage over a limited period could be considered in the future for particular projects such as trail development.

The City of Saline should investigate additional sources of funding. Seeking donations, attracting sponsors, holding fund-raising events, and seeking out other revenue sources are methods that should be pursued aggressively to raise funding for non-motorized facility development.