

Williamstown Township Trails and Greenways

An Amendment to the Township's Master Plan

McKENNA ASSOCIATES
Community Planning and Design
235 E. Main, Suite 105
Northville, Michigan 48167

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Introduction. In 2010, Williamstown Township was awarded an Energy Efficiency and Conservation Multi-purpose Block Grant by the Michigan Department of Energy, Labor and Economic Growth. The Township submitted an innovative proposal that included preparation of a trails and greenway element for the Township Master Plan.

The 2006 Township Master Plan dealt with trails and greenways in a cursory manner. The grant allowed the Township to do an in-depth review and plan for these facilities.

Goals. A chief goal of this element of the plan is to provide a trails and greenways system that is sustainable, and that has minimal impact on the Township's natural resources. According to Trail Planning, Design, and Development Guidelines¹, there are three key factors common to all sustainable trails, ecological sustainability, engendering stewardship, and physical sustainability.

Ecological sustainability means minimizing the ecological impacts of trails, especially in sensitive areas. Engendering stewardship involves fostering a sense of individual responsibility for stewardship of the trails. Physical sustainability calls for designing trails to retain their form over years of use and natural forces acting on them.

Other goals of the trails and greenways plan are:

- Satisfy the recreation, fitness, commuting, or utilitarian purposes of trail users.
- Connect origins with key destinations. For example, the trails should connect with the Township Community Park, the schools in the City of Williamston, the Township Hall, Branch School, the Heart of Michigan trail system, and downtown Williamston. Although many trips will originate at trail users' own homes, the plan identifies proposed public trailheads.
- Coordinate with Greening Mid-Michigan. In the fall of 2010 the Tri-County Regional Planning Commission, with several partners, published Greening Mid-Michigan, A Vision for Green Infrastructure in Clinton, Eaton, and Ingham Counties. The document identified three types of conservation areas: hubs (the ten largest blocks of natural areas in the region), sites (priority potential conservation areas (PCAs), and links (linear corridors of natural areas – "greenways").

Greening Mid-Michigan identifies a number of PCAs in Williamstown Township. The largest are in the Three Lakes area, along Coon Creek, west of the Summit Cemetery, and on the south side of the railroad in the northwest corner of the Township. This plan proposes four-foot bike lanes that will connect with each of these areas except the railroad PCA.

¹ Trail Planning, Design, and Development Guidelines. Minnesota Department of Natural Resources, 2007.

Greening Mid-Michigan also notes that the Red Cedar River is a link. Links provide wildlife corridors that facilitate genetic diversity and gene flow, and certain ecological processes such as flooding, predation, and foraging. According to Greening Mid-Michigan, river systems are the only remaining natural links in the region.

Planning Process. Williamstown Township created a Trails and Greenways Sub-committee to investigate the need and desire for a non-motorized transportation, trails, and greenways within the Township. Part of the investigation included a survey of residents available via web and hardcopy in July 2008.

The survey identified three major concerns or interests: 1) residents would like safe non-motorized access to the high school and other destinations; 2) residents want the plan to reflect the diverse interests of the population, particularly as it relates to recreation, transportation, and exercise and use of the road system; and 3) residents want to protect natural resources.

A windshield survey was conducted of the township, evaluating the existing roads, keeping in mind the major findings of the survey regarding safe non-motorized access, utilization and expansion of the existing roadway system, and protection of natural features. Shoulder widths and speed of the roadways were noted. This windshield survey set the baseline for further input from the community.

The Trails and Greenways Sub-committee identified key traits of a trail and greenway within the township. These evolved into three categories: Trail Origins and Destinations; Prominent Wildlife Corridors; Definition of "Trail," all within the context of the township. Key trail origins and destinations include: the Township Community Park, schools, downtown Williamston, Meridian Township trail connections and the Township Hall. Most prominent wildlife corridors occur along the Red Cedar River, the three lakes area, and various drains, creeks and large wetland/natural areas. A "trail" within the township could be any of the following: a sidewalk or paved shoulder of an existing road, off-road footpath, the river's edge, or a utility or drain easement.

On June 18, 2010, two focus group meetings were held to gather additional thoughts on the baseline plan, and to gather additional information about potential users and their needs. The first group consisted of invited stakeholders from various special interest groups, including representatives from Meridian Township Parks and Recreation, the Williamston Planning Commission, Williamston Parks and Recreation, a local cycling group, Mid-Michigan Active Transportation Coalition, and the Tri-County Regional Plan Commission. Invited but not in attendance were representatives from the local Equestrian Group, Boy Scouts, Senior Center, and Safe Routes to School. The second focus group was the Township Planning Commission.

The focus group meetings were publicly posted and locally advertised to reach all Township citizens. Both groups brought useful information about their user group and how they navigate throughout the township. The draft baseline plan depicted their initial ideas and throughout the sessions, revisions to the baseline plan were noted. Funding options to achieve the goals were also discussed. A key component was the importance of educating the public about the trail and greenways system. Knowledge of the system will help in community avocation of the plan while in pursuit of procuring funds for implementation.

Types of Facilities. The following types of facilities are proposed in this plan:

Types of Trail and Greenway Facilities		
Type	Characteristics	Comments
Paved Shoulder	Typically 4 feet in width, may be striped to indicate edge of road, but not signed or marked to indicate preferential use by bicyclists.	May augment, but does not take the place of bike lanes or shared-use paved trails
Bike Lanes	Bike lanes are defined as “a portion of the roadway which has been designated by striping, signing and pavement marking for the preferential or exclusive use by bicyclists.” Bicycle lanes are one-way, carrying the bicyclist in the same direction of adjacent traffic. They should have a minimum width of 4 feet on roads with no curb and gutter.	Bicyclists are the primary users. May augment, but do not take the place of shared-use paved or aggregate surface trails.
Non-motorized Path	A shared use facility that is a minimum of 8 feet in width, and is physically separated from motor vehicle traffic with an open space or barrier. A shared-use non-motorized path can be accommodated within a utility corridor.	Walking, jogging, bicycling, and in-line skating are typically accommodated on all types of non-motorized paths when asphalt paved. In-line skating and some bicycling are not accommodated when aggregate surfacing is used.
Foot Path	Foot paths can have variable width. They typically have a non-paved surface, such as mowed vegetation.	Foot path are ideal for accessing natural beauty areas. Typically used by pedestrians only.
ADA Paved Trail	A paved path designed with ramps and slopes to specifically meet the requirements of the Americans with Disabilities Act standards.	Facilities funded by the Michigan Natural Resources Trust Fund must meet ADA requirements.
Utility Corridor	Utility corridors can accommodate any type of trail desired, if the utility company consents.	In most cases, where a utility corridor is used, a non-motorized shared-used facility is constructed.
River/Creek Greenway Corridor	Goal is to preserve the natural features along the greenway.	In the context of this plan, a greenway is not available for motorized or non-motorized travel.

Proposed Plan. The proposed plan, which is illustrated on the maps titled **Planned Trails and Greenway Corridors** and **Community Park**, provide facilities for a variety of users in the Township.

Bicyclists are accommodated on the existing bike lane along E. Grand River Avenue, and with 4-foot wide paved shoulders that provide a circuit around the Township on Meridian Road, Haslett Road, and N. Williamston Road, with connections in the City of Williamston. This route provides access to the Township Park, the MDOT roadside park, the high school and middle school, downtown Williamston, and the Heart of Michigan Trail System (future—see Map 4). Please note that the Heart of Michigan Trail System Map does not reflect the Township’s planned trail and greenway corridors, and is only provided to give a general idea of Ingham County’s trail and greenway network.

Adding to the bicyclist’s experience, the plan proposes a network of 4-foot wide bike lanes. Most of the bike lanes are between Haslett and Grand River, although there is a loop that extends into the north-east part of the Township north of Haslett Road. This planned network of bike lanes ties into the paved shoulder circuit mentioned previously, Branch School and the Township Hall, both of which are identified as potential trailheads; and the City of Williamston. Although the preference is to develop bike lanes along these routes, economic constraints may make it necessary to accept paved shoulders along some of them.

The plan proposes three 8-ft. wide non-motorized routes: 1) from the intersection of Mitchell Road and N. Williamston Road, west to the Red Cedar River, 2) along an east-west overhead power line utility corridor, near the center of the Townships, and 3) along an underground pipeline utility corridor in the northeast corner of the Township (see Map 1).

Non-motorized trails are the most versatile types of trails because of their shared-use function. The shared-use trail that would have the greatest utility in Williamstown Township is the one that is planned to run along the overhead utility line corridor because of its length, its connections to other trails, and the opportunity to pass through or by natural areas and farmlands.

There are some trails that are intended to be for pedestrian traffic only. On the Planned Trails and Greenways Corridor Map, two types of pedestrian-only paths are identified: foot paths within the Williamstown Township Community Park and the River Trail along the Red Cedar River. Pedestrian-only traffic is particularly appropriate for these areas because they traverse sensitive environmental areas. A crushed limestone surface is recommended for each of these trails (see Map 2).

Trails that comply with the American with Disabilities Act (ADA) are proposed in the Community Park, although this designation does not mean that other trails couldn’t be designed consistent with the ADA standards. An ADA paved trail in the park would be particularly appropriate because it would give people with disabilities access to the parks and recreation facilities existing and being developed.

Various amenities should be given consideration as trails are developed. These include trailhead parks, which are identified on the map. Trailheads usually consist of parking, restrooms, and benches. There may be the need for resting areas with restrooms in locations other than the trailheads. Signage is an important element of any trail system, ranging from bicycle traffic control signs to mile markers. For off-road trails it is helpful to identify roads that the trail crosses.

Map 4 illustrates regional trail linkages to strive for, as proposed by the Heart of Michigan Trails and Greenways Initiative and displayed on a map prepared by the Tri-County Regional Planning Commission. The two links illustrated on the regional plan are: 1) a trail along the Red Cedar River, which would continue into Williamstown and Meridian Township, and 2) a road corridor trail along Grand River Ave., which has been constructed.

Implementation. Four implementation steps are recommended for this trails and greenways master plan:

- a. **Prioritize.** The first step in implementation is to prioritize the proposed projects so that Township resources are concentrated toward a common goal. Without clear priorities, resources and energy will be spread too thinly over multiple projects and it is likely nothing will get done. The following prioritization is recommended:
 1. Complete the primary loop consisting of Grand River Avenue (completed), and Meridian, Haslett, and N. Williamston Roads (4-ft. wide paved shoulders). This loop is the backbone of the trail system in the Township.
 2. Complete the barrier-free trail in the Williamstown Township Community Park. It is important to make the facilities in the park accessible to all segments of the population.
 3. Complete the trail on the Township Hall property. This should be a crushed limestone trail so that it does not cause injury to young athletes (see Map 3).
 4. Work on the 8-foot wide non-motorized routes shown on the Planned Trails and Greenways Corridors Map (Map 1). Because they are off-road facilities, these multi-use facilities provide an entirely different recreation experience compared to other planned trail facilities.
 5. Develop the network of 4-foot wide bike lanes shown on the map.
 6. Continue to develop the Red Cedar Riverwalk as opportunities arise (for example, through sale of land or acquisition of an easement). Although this is shown as project 6, acquisition of right-of-way should occur whenever the opportunity presents itself.
- b. **Seek Funding.** There are two primary sources of funding for trails in Michigan, the Michigan Natural Resources Trust Fund, which is administered by the Michigan Department of Natural Resources and Environment, and the Transportation Enhancement Fund, which is administered by the Michigan Department of Transportation Ingham. The Ingham County Road Commission should be approached about funding for bike lanes or paved shoulders on every road paving project in the Township. Another source of funding used by a number of communities in Michigan is a dedicated millage. Often communities will issue bonds and pledge millage proceeds to pay off the bonds, rather than fund the

project on a pay-as-you-go basis. The benefit of this approach is that the millage produces significant results almost immediately.

- c. **Educate.** The Township Board, Planning Commission and residents who are involved in parks and recreation activities in the Township are likely aware of the quality of life benefits of trails and greenways. If Williamstown Township is like other communities, there is a large segment of the population that does not share this level of appreciation, perhaps because of a lack of knowledge. Opportunities must be identified to inform residents, through newsletters, the web site, public meetings, etc.
- d. **Advocate.** Development of trails and greenways is more than a local affair. Securing funding sources at the state level occurs, in part, as a result of rigorous efforts to advocate on behalf of trails and greenways. The most active organization in the state in this regard is the Michigan Trails and Greenways Alliance.

Costs. Once the property for a trail has been acquired, the Township will need to consider what type of trail is appropriate. The cost of construction is a major consideration in making this determination. The following table identifies typical costs for an 8-foot wide trail constructed of various materials.

Estimated Cost for Non- Motorized Trail Development		
Description	Cost Per Mile	Longevity
Granular Stone, Crushed Limestone	\$60-100,000	7-10 Years
Asphalt	\$210-270,000	7-15 Years
Concrete	\$300-500,000	20+ Years
Boardwalk	\$1,500,000-2,000,000	7-15 Years
Resin Stabilized	Varies based on application	7-15 Years
Wood Chips	\$65-85,000	
Pre-Fabricated pedestrian bridge (15 ft. wide, 45 ft. long, steel truss)	\$70,000 each unit	

Sources: Oakland County (MI) Trails Master Plan 2008; Trails for the 21st Century; Rails-to-Trails Conservancy, 2001; PEDSAFE Manual; Wade Trim.

A paved asphalt trail is generally preferred for most share-use trails to allow accessibility by the most users. Wetlands and a narrow railroad corridor along portions of the route may increase design and construction challenges. Connection to the Township Community Park from the north could also be explored given some aspect to the costs listed above. More detailed design and engineering is needed to determine specific costs for any proposed implementation.

Grant funding is another consideration that may affect the decision regarding the type trail to be built. Grant funds are available, but typically only for trails that are ADA compliant. Granular stone and wood chip trails may not satisfy this requirement.

Maintenance.

Typical annual maintenance costs for one-mile paved trail are listed in the following table. It is likely that as the trail increases in length the per mile cost will decrease, due to economies of scale.

Annual Maintenance Costs per Mile of Paved Trail	
Task	Cost
Drainage and storm channel maintenance	\$500
Sweeping/blowing debris off trail (if trail is paved)	\$1,200
Pick-up/removal of trash	\$500
Weed control and vegetation management	\$1,000
Mowing of grass shoulder	\$1,200
Minor repair to trail furniture/safety features	\$500
Maintenance supplies for work crews	\$300
Equipment, fuel and repairs	\$600
Total estimated cost per mile:	\$5,800

Source: Oakland County (MI) Trails Master Plan 2008

The township should adopt a uniform system for maintenance and operation of the various trail segments throughout the township. Adopt-a-Trail programs may also be considered.

McKENNA ASSOCIATES

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