TRAILS AS SAFE ROUTES TO SCHOOL

Scattered throughout Michigan, in both rural and urban landscapes, are over 2,000 miles of off-road multi-use trails for walking, biking, and other non-motorized modes of transportation. While most people tend to think of these as recreational paths, they can effectively serve as a main artery in a Safe Routes to School (SR2S) system, provided they are designed for safety and primarily aligned between the school and where people reside.

If no trails exist in the area, there are a variety of land uses which could accommodate a new trail. This checklist delineates the safety features that are needed for multi-use trails and the first steps to take in determining feasibility for a new trail.

For questions or for assistance with SR2S trail development, contact Nancy Krupiarz, Executive Director, Michigan Trails and Greenways Alliance by e-mail at nancy@michigantrails.org or phone 517-485-6022.

EXISTING TRAILS

If a hiking/biking path exists within a 2 mile radius of the school and is in alignment between the neighborhoods and the school, check for these features:

The trail, at the very least, should have the following safety features. (In designing the path, engineers should have followed AASHTO, ADA and MUTCD guidelines, but depending on when the trail was built, standards have changed over the years.)

1) Safe Crossings:
    a) Stop or Yield signs at each crossing.
    b) Warning on pavement at least 4 feet before intersections alerting trail users to intersections with roads (stop bar, change in surface type and/or wording)
    c) Signage on road that is crossing the trail alerting motorists to trail crossing
    d) The path should cross the road at a perpendicular angle.
    e) Clear sight lines at the corners of the road/trail intersection
    f) Signs that are in good shape, readable and not bent.

2) Drainage Features
    a) Path is free of standing water within a few hours of a rainstorm. (recommended minimum cross-slope is 1-2 percent)
    b) Steep banks are protected from erosion
    c) Drainage features (drains grates, culverts) are clear of debris.

3) Surface
    a) Shoulders are mowed 3 feet on either side and overhanging limbs and understory growth are pruned back 3ft on the side and 9 ft. overhead.

b) The surface is free of debris.
c) Cracks and buckles in the surface are marked as hazardous and repaired as soon as possible
d) Surface width is at least 7 feet wide.

4) Line of Sight
    a) A safe trail provides the minimum required length of unobstructed vision forward and rear view at all times.
        - Pedestrians – 50 linear feet each way
        - Bicyclists – 150 linear feet each way

5) Connections to the Trail
    a) Sidewalks, bike lanes, or sidepaths from adjacent neighborhoods to trail along busy roads built according to AASHTO, ADA, and MUTCD standards.
    b) The sidewalk system to get to the trail is free of debris, and surfaces are in good repair.

6) Bridges and Underpasses
    a) Consider the following characteristics for bridges:
        - railings at least 42 inches high on both sides
        - deck boards nailed down, not splintered
        - minimum clear width should be the same as the rest of the path plus a 2 foot clearance on both sides.
    b) Consider the following characteristics for underpasses:
        - Lighting - If existent, does it work and if non-existent, is it needed
        - Drainage away from underpass
        - Minimum clear width should be the same as the rest of the path plus a 2 foot clearance on both sides.

7) Wayfinding
    a) Is the trail clearly marked with easy-to-read and appropriately placed signage

<u>NEW TRAIL POTENTIAL</u>

There may be potential for a new trail if there is a park, drainage corridor, utility easement or land in public control or ownership that is naturally aligned between the neighborhoods and the school. Look for these features:

1) At least 20 feet width of relatively dry and level right-of-way
2) Stretches of right of way along roads with as few driveway crossings as possible to avoid interface with automobile traffic.

These are the initial steps you should take to check the feasibility of developing a trail on this land:

1) First, identify the owner of the land (if not readily identifiable, check with the register of deeds and/or the tax assessor's office). Second, determine its value (check with the tax assessor's office). Third, check to see if the taxes are paid up to date. Then develop a strategy to contact the owner relative to donation, easement and/or purchase.
2) Identify which agencies and property owners would be affected adjacent to the corridor before going public. They can be your greatest ally or worst enemy. If problems are apparent, be mindful of possible alternatives for that section of the route.
3) Identify how the trail might fit into an existing non-motorized network, including both bikeable roads, existing trails, and other destinations that could use a non-motorized connection. The more transportation opportunities created by your proposed trail, the better you will fare in funding.
   a) Are there existing sidewalks that would connect to your route?
   b) Are there connecting roads with existing bike lanes or roads with paved shoulders that could serve as bike lane connections to the trail?
   c) Are there other trails nearby for the new trail to connect to?
   d) Are there parks, municipal buildings, libraries, other schools that this trail could connect along your proposed route?
4) Avoid these obstacles to your proposed trail route:
   - High traffic road crossings
   - Active Railroad crossings
   - "Dark" and/or isolated areas
   - Environmentally hazardous areas
   - Environmentally sensitive areas (check for rare and/or endangered species of plants and animals on the MIRIS – Michigan Inventory of re
   - Crossings of a designated "natural river"
5) Review the master land use plan , park master plan, non-motorized transportation plan, and open space plan, if available within the proposed trail's political jurisdiction to see how the trail may fit into the overall picture. (See the local planning and zoning department) Ask about proposed projects which may affect the trail corridor, such as utilities, road projects, or future residential, commercial, and industrial development.
6) Pay special attention to vacant lands and proposed uses. If the parcel is in public ownership, there may be an opportunity to add a staging area for the trail, including such amenities as parking, restrooms, kiosks, etc.

If the trail appears to be feasible, take these steps:

1) Identify your stakeholders. Think of all community organizations who may have an interest in the trail, including fitness, health, environmental, historic preservation, community development, retailers, church, community service, trail

user groups (bicycle, walking, and equestrian) and others. Also consider opportunities for joint ventures and other mutual benefits.

2) Map the corridor. Check with your local planning and zoning department for availability of aerial or GIS maps of the corridor. (you can also obtain some aerial photography from www.mapquest.com and some GIS mapping from www.usgs.org) Make notes on the map of important landmarks and attractions as well as potential obstacles.
3) Photograph the corridor, including attractions along the way, as well as good and bad points about the route.
4) Develop a vision statement for what you are trying to accomplish.
5) Consider holding an issues identification workshop, an opportunity for the general public or a specific public, such as adjacent landowners to express their views. Commitment to working with them to address concerns should be expressed at this meeting.
6) Tap into the following resources for assistance in addressing concerns:
    - Rails-to-Trails Conservancy – www.railtrails.org
    - Trails and Greenways Clearinghouse – www.trailsandgreenways.org
    - National Center for Bicycling and Walking – www.bikewalk.org
    - American Trails – www.americantrails.org
    - National Bicycle and Pedestrian Clearinghouse – www.bikefed.org/clear.htm
    - Greenways Incorporated – www.greenways.com
7) Consider who would own and manage the corridor.
8) Consider hiring a professional consultant, either a landscape architect or engineer, who will:
    a) Help with public meetings
    b) Do a master plan complete with:
    - feasibility study
    - preliminary cost estimate
    - design criteria, including alignment, cross-section design, and surface recommendations
    - recommendations for operation and maintenance
    - project timeline and implementation strategy
    - research on grant opportunities, and assistance with applications
    - conformance to the following standards:
      1)AASHTO (American Association of State Highway and Transportation Officials
      2) ADA – Americans with Disabilities Act
      3) MDOT – Michigan Department of Transportation
      4) ITE – Institute for Transportation Engineers
      5) MDNR – Michigan Department of Natural Resources
      6) MUTCD - Manual on Uniform Traffic Control Devices

FOR More information on these steps, contact:

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