

# Appendix P

## Planning Steps and Tips

### 1. Build a team. Determine a vision for the future and include the wishes of students.

Examples of visions include:

“...to increase the safety of street crossings, so children are not dodging cars—and losing the bet.”

*-Parent*

“...to walk and talk with your friends, because you don’t have a lot of time to do that at school.”

*-4th grade student*

“...to make bicycling or walking to school the norm, not just a program, so children have healthier lifestyle options each and every school day.”

*-Educator*

“...to have sidewalk all the way to school, so my parents will let me walk”

*-5th Grade Student*



Photo courtesy David Parisi, Safe Routes to School National Training Course



Photo courtesy Governor's Council on Physical Fitness

### 2. Collect survey information from parents and students. Listen to what students have to say.



Photo courtesy Governor's Council on Physical Fitness

- How many students bicycle or walk to school?
- What have parents and students said were their concerns?
- What are the most serious problems to address?

# Appendix P

## Planning Steps and Tips, cont.

**3. Hold a walking and/or bicycling audit. Invite experts. Identify the highest priority problems to address, including easy fixes that can be accomplished in the short run as well as long-term challenges.**

- a. The school property and school zone
- b. Street crossings
- c. Sidewalks, pathways, bike lanes
- d. Speed, traffic volume, driver behavior
- e. Crime, abandoned homes, loose dogs, other issues



Photo courtesy Governor's Council on Physical Fitness

**4. Complete an Action Plan. Consult with experts on appropriate and effective engineering, education, encouragement, and enforcement solutions.**



[SCHOOL NAME] Safe Routes to School Action Plan  
[DATE]

Walking Audit or Survey Recommendation	Steps to Take to Achieve Outcome	Person Responsible	Date Completed	Approval			Other Partners
				Road	School	Other	
EDUCATION							
1.	1. 2. 3.	1. 2. 3.	1. 2. 3.				
2.	1. 2. 3.	1. 2. 3.	1. 2. 3.				
3.	1. 2. 3.	1. 2. 3.	1. 2. 3.				
ENCOURAGEMENT							
1.	1. 2. 3.	1. 2. 3.	1. 2. 3.				
2.	1. 2. 3.	1. 2. 3.	1. 2. 3.				
3.	1. 2. 3.	1. 2. 3.	1. 2. 3.				
ENFORCEMENT							
1.	1. 2. 3.	1. 2. 3.	1. 2. 3.				
2.	1. 2. 3.	1. 2. 3.	1. 2. 3.				
3.	1. 2. 3.	4. 1. 2.	1. 2. 3.				
ENGINEERING							
1.	1. 2. 3.	1. 2. 3.	1. 2. 3.				
2.	1. 2. 3.	1. 2. 3.	1. 2. 3.				
3.	1. 2. 3.	1. 2. 3.	1. 2. 3.				

**5. Celebrate early wins and keep the vision alive.**



Photo courtesy Governor's Council on Physical Fitness



Photo courtesy Fitness Council of Jackson



Photo courtesy Governor's Council on Physical Fitness

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# Appendix Q

## Questions and Quick Answers

Questions arise as SR2S initiatives begin and continue. A partial list of other SR2S Handbook resources to use to answer questions and become more familiar with safe routes includes:

- Acronyms and Definitions—Appendix A
- 5 Es: Education, Encouragement, Enforcement, Engineering and Evaluation—Appendix E
- Funds for SR2S—Appendix F
- Unique Challenges: Safe Routes for Everyone—Appendix U
- Your Role in SR2S—Appendix Y
- Fast Facts—Walk to School Day module
- Win-Win Responses to Doubters—SR2S Team module

The following questions are often asked by SR2S team members and members of the wider community:

### **1. How is an effective SR2S partnership or coalition built?**

Many organizations and local governmental units share goals with Safe Routes to School. SR2S's mission is an intersection of public health, transportation, education and land use agendas. While specific objectives of coalition members vary, it is easy for most people to see how advancing the goals of SR2S links to member-specific agendas. Emphasize similarities of partner missions and respect differences.

### **2. Rural transportation issues are different from urban and suburban concerns. Does SR2S apply to rural schools?**

All SR2S communities are unique. Successful rural initiatives build on the strengths of their community, as do urban and suburban settings.

Some specific adaptations that have been successful are the use of trails and pathways to link the school to student homes and provide safe bicycling options. See the Welcome to Safe Routes to School module for an example of effective trail usage.

One important goal of SR2S is to increase physical activity. Schools can provide physical activity options for students once they arrive at school when busing is necessary.

For example, a walking course around the school property provides physical activity for students who ride the bus.

### **3. What are the liability issues when starting a SR2S initiative?**

Consult your school principal and/or school district for specific information.

When asked, Michigan pilot school principals said that liability was not a concern when deciding to adopt SR2S. They felt that health benefits to students outweigh any risks of walking and bicycling to school and that risks associated with SR2S were not higher than in other school-sponsored activities (e.g., a roller skating party). They also commented that school districts carry large liability insurance coverages. In addition, principals mentioned that Michigan schools are not obligated by law to provide busing and do so as a convenience for families.

Most schools require parents and guardians to inform the school as to how their child will arrive and depart. Schools ask for notification if that procedure changes (e.g., if a child usually rides the bus, a note is required for that child to walk). A parent permission form for Walk to School Day is provided in the Walk to School Day module.

### **4. What is the response to concerns that bus drivers could lose their jobs if students walk or bicycle to school?**

Busing cuts are happening in many Michigan schools as a result of shrinking budgets and scarce resources. It appears that in some districts, the loss of bus services can be an incentive to start a SR2S initiative. It is important that SR2S teams identify unsafe walking and bicycling conditions and work with school and city officials to remedy those safety hazards, if a walking program is implemented.

# Appendix R

## Roads and Road Experts

Roads play a big role in many SR2S initiatives. Many of the safety issues and challenges that arise for SR2S teams will be related to a roadway. However, it is important to remember that many problems should be addressed by education and encouragement strategies, in addition to, or instead of, engineering strategies.

In this appendix information is provided to help SR2S teams understand terminology and issues they might encounter when working to improve walking and biking safety for school children. The appendix concludes with two lists of state offices that are helpful to know about: contact lists for Michigan Department of Transportation Regional Offices and for Michigan Department of Transportation Service Centers.

### Road Jurisdiction and Authority

Roads are paid for, developed and maintained by one of the following:

- Michigan Department of Transportation
- County Road Commission
- City or Village

Townships may also have an interest in roads; however, funding is through the county.

To determine who controls a road near the school:

- If the school is located in a city or village, the city or village likely pays for and maintains the road.
- If the road has an “M” or “U.S.” in front of the road number, or if it is an interstate, it belongs to the Michigan Department of Transportation.
- If the school is located in a township or a rural area, the county road commission is probably the authority.

If in doubt, city or village officials will be able to tell you who controls the road.

**Contact** the appropriate road authorities to:

- Invite them to join the SR2S team
- Ask questions and receive expert advice
- Inquire about funding opportunities
- Request approval for any changes desired to the road or in the road right-of-way (e.g., for sidewalks along a road)

There are a total of 26 Transportation Service Centers and seven regional offices managed by the Michigan Department of Transportation. A complete listing of these facilities follows.

# Appendix R

## Roads and Road Experts, cont.

MICHIGAN DEPARTMENT OF TRANSPORTATION REGIONAL OFFICES AND TRANSPORTATION SERVICE CENTERS (TSC)		
Bay Region	Grand Region	Metro Region
<p>Bay Region Office 55 E. Morley Drive Saginaw, MI 48601</p> <p>Phone: 989-754-7443 Fax: 989-754-8122</p>	<p>Grand Region Office 1420 Front Avenue, NW Grand Rapids, MI 49504</p> <p>Phone: 616-451-3091 Fax: 616-451-0707</p>	<p>Metro Region Office 18101 W. Nine Mile Road Southfield, MI 48075</p> <p>Phone: 248-483-5100 Fax: 248-569-3103</p>
<p>Bay City TSC 2590 E. Wilder Road Bay City, MI 48706</p> <p>Phone: 989-671-1555 Fax: 989-671-1530</p>	<p>Grand Rapids TSC 2660 Leonard Street, NE Grand Rapids, MI 49525</p> <p>Phone: 616-464-1800 Fax: 616-464-1189</p>	<p>SEMTOC 1060 W. Fort Street Detroit, MI 48226</p> <p>Phone: 313-256-9800 Fax: 313-256-9036</p>
<p>Davison TSC 9495 E. Potter Road Davison, MI 48423</p> <p>Phone: 810-653-7470 Fax: 810-653-1248</p>	<p>Muskegon TSC 2225 Olthoff Drive Muskegon, MI 49444</p> <p>Phone: 231-777-3451 Fax: 231-777-3621</p>	<p>Detroit TSC 1060 W. Fort Street Detroit, MI 48226</p> <p>Phone: 313-965-6350 Fax: 313-965-6340</p>
<p>Mt. Pleasant TSC 1212 Corporate Drive Mt. Pleasant, MI 48858</p> <p>Phone: 989-773-7756 Fax: 989-775-6329</p>	<p>West Michigan Transportation Operations Center (WMTOC) 1420 Front Avenue, NW Grand Rapids, MI 49504</p> <p>Phone: 616-451-3091</p>	<p>Macomb/St. Clair TSC 26170 21 Mile Road Chesterfield Twp, MI 48051</p> <p>Phone: 586-421-3920 Fax: 586-598-4043</p>
		<p>Oakland TSC 800 Vanguard Drive Pontiac, MI 48341</p> <p>Phone: 248-451-0001 Fax: 248-451-0125</p>
		<p>Taylor TSC 6510 Telegraph Road Taylor, MI 48180</p> <p>Phone: 313-375-2400 Fax: 313-295-0822</p>



# Appendix R

## Roads and Road Experts, cont.

MICHIGAN DEPARTMENT OF TRANSPORTATION REGIONAL OFFICES AND TRANSPORTATION SERVICE CENTERS (TSC)		
North Region	Southwest Region	Superior Region
<p>North Region Office 1088 M-32 East Gaylord, MI 49735</p> <p>Phone: 989-731-5090 Fax: 989-731-0536</p>	<p>Southwest Region Office 1501 E. Kilgore Road Kalamazoo, MI 49001</p> <p>Phone: 269-337-3900 Fax: 269-337-3916</p>	<p>Superior Region Office 1818 3rd Avenue North Escanaba, MI 49829</p> <p>Phone: 906-786-1800 Fax: 906-789-9775</p>
<p>Alpena TSC 1540 Airport Road Alpena, MI 49707</p> <p>Phone: 989-356-2231 Fax: 989-354-4142</p>	<p>Coloma TSC 3880 Red Arrow Highway Benton Harbor, MI 49022</p> <p>Phone: 269-849-1165 FAX: 269-849-1227</p>	<p>Crystal Falls TSC 120 Tobin-Alpha Road Crystal Falls, MI 49920</p> <p>Phone: 906-875-6644 Fax: 906-875-6264</p>
<p>Cadillac TSC 7915 US-131 Cadillac, MI 49601</p> <p>Phone: 231-775-3487 Fax: 231-775-0301</p>	<p>Kalamazoo TSC 5372 South 9th Street Kalamazoo, MI 49009</p> <p>Phone: 269-375-8900 Fax: 269-544-0080</p>	<p>Ishpeming TSC 100 S. Westwood Drive Ishpeming, MI 49849</p> <p>Phone: 906-485-4270 Fax: 906-485-4878</p>
<p>Gaylord TSC 1088 M-32 East Gaylord, MI 49735</p> <p>Phone: 989-731-5090 Fax: 989-732-3637</p>	<p>Marshall TSC 15300 W. Michigan Avenue Marshall, MI 49068</p> <p>Phone: 269-789-0592 Fax: 269-789-0936</p>	<p>Newberry TSC 14113 M-28 Newberry, MI 49868</p> <p>Phone: 906-293-5168 Fax: 906-293-3331</p>
<p>Traverse City TSC 2084 US-31 South, Suite B Traverse City, MI 49684</p> <p>Phone: 231-941-1986 Fax: 231-941-1512</p>		



# Appendix R

## Roads and Road Experts, cont.

MICHIGAN DEPARTMENT OF TRANSPORTATION REGIONAL OFFICES AND TRANSPORTATION SERVICE CENTERS (TSC)		
<b>University Region</b>		
University Region Office 4701 W. Michigan Avenue Jackson, MI 49201  Phone: 517-750-0401 Fax: 517-750-4397		
Brighton TSC 10321 E. Grand River, Suite 500 Brighton, MI 48116  Phone: 810-227-4681 Fax: 810-227-7929		
Jackson TSC 2750 N. Elm Road Jackson, MI 49201  Phone: 517-780-7540 Fax: 517-780-5454		
Lansing TSC 2700 Port Lansing Road Lansing, MI 48906  Phone: 517-335-3754 Fax: 517-335-3752		

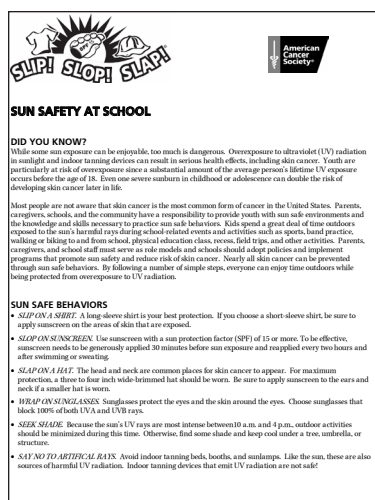
# Appendix S

## Sun Safety for Good Health

### INTRODUCTION

Walking or biking to and from school on a warm, sunny day is a great way for students to get the physical activity they need for good health. However, students also need to be educated on the risks involved with overexposure to the sun's ultraviolet (UV) radiation. Besides the immediate effect of sunburn, overexposure to UV rays can cause skin cancer, eye damage, immune system suppression, and premature aging. Children are highly susceptible to harmful UV radiation. Just one or two blistering sunburns in childhood may double the risk of developing melanoma.<sup>1</sup>

Teaching children about sun safety is one of the keys to reducing the risk of future health problems. The American Cancer Society has provided handouts explaining how students can protect themselves from the sun's rays while enjoying their daily walk to school. The handouts<sup>2</sup> shown below are included the Safe Routes to School CD.



### Sun Safety at School

Kids spend a great deal of time outdoors exposed to the sun's harmful rays during school-related events and activities such as sports, band practice, walking or biking to and from school, physical education class, recess, field trips, and other activities. This flyer describes the steps school administrators, teachers, coaches and parents can take to protect students against overexposure to UV rays.



### Are You and Your Family Sun Safe?

Kids and adults enjoy spending time outdoors and in the sun year round. However, while some sun exposure can be enjoyable, too much is dangerous. Protect yourself and your family from overexposure to UV radiation by following the simple steps outlined in this flyer.

<sup>1</sup> Source: National Safety Council, Washington, D.C.



<sup>2</sup> Source: American Cancer Society, Centers for Disease Control and Prevention, Environmental Protection Agency. Funding provided by Centers for Disease Control and Prevention. Contact the American Cancer Society at 1.800.ACS.2345 / [www.cancer.org](http://www.cancer.org).





# Appendix S

## Sun Safety for Good Health, cont.



### COACHES GUIDE ON SUN SAFETY FOR ATHLETES

**DID YOU KNOW?**  
While some sun exposure can be enjoyable, too much is dangerous. Overexposure to ultraviolet (UV) radiation in sunlight and indoor tanning devices result in serious health effects, including skin cancer. Youth are particularly at risk of overexposure since a substantial amount of the average person's lifetime UV exposure occurs before the age of 18. Even one severe sunburn in childhood can double the risk of developing skin cancer. Most people are not aware that skin cancer is the most common form of cancer in the United States.

Some athletes spend a great deal of time outdoors exposed to the sun's harmful rays. By following a number of simple steps, everyone can enjoy time outdoors while being protected from overexposure to UV radiation. Nearly all skin cancer can be prevented through sun safe behaviors. As a coach, you can provide youth with sun safe environments and the knowledge and skills necessary to practice sun safe behaviors.

**SUN SAFE BEHAVIORS**  
**SLIP ON A SHIRT** A long-sleeved shirt is your best protection. If you choose a short-sleeved shirt, be sure to apply sunscreen to the areas of skin that are exposed.  
**SLIP ON SUNSCREEN** Use sunscreen with a sun protection factor (SPF) of 15 or more. To be effective, sunscreen needs to be generously applied 30 minutes before sun exposure and reapplied every two hours and after swimming or sweating.  
**SLAP ON A HAT** The head and neck are common places for skin cancer to appear. For maximum protection, a three to four inch wide-brimmed hat should be worn. Be sure to apply sunscreen to the ears and neck if a smaller hat is worn.  
**WRAP ON SUNGLASSES** Sunglasses protect the eyes and the skin around the eyes. Choose sunglasses that block 100% of both UVA and UVB rays.



**SUN SAFETY TIPS**

- Serve as a role model by engaging in sun safe behaviors.
- Encourage school administrators and board members to support skin cancer prevention programs and school policies that promote sun safety.
- Teach athletes about the importance of sun safe behaviors by including skin cancer prevention as part of a coordinated school health program.
- Provide sun safety education during times of the year when athletes are exposed to the sun.
- Provide sun safety information to parents and caregivers.

Source: American Cancer Society, Centers for Disease Control and Prevention, Environmental Protection Agency  
Funding provided by Centers for Disease Control and Prevention  
The American Cancer Society is the nationally recognized leader in voluntary health organizations dedicated to eliminating cancer as a major health problem by preventing cancer, saving lives, and decreasing suffering through research, education, advocacy, and service. We monitor what you see, so you help. Contact us at anytime for more information and support. [Helping Hands](#) 1-800-A-C-S-2047 [cancer.org](#)

### Coaches Guide on Sun Safety for Athletes

Some athletes spend a great deal of time outdoors exposed to the sun's harmful rays. By following a few simple steps outlined in this flyer, coaches can provide youth with sun safe environments and the knowledge and skills necessary to practice sun safe behaviors.



### SUN SAFETY AT SCHOOL: PA Announcements

Did you know that skin cancer is the most common form of cancer in the United States? Nearly all skin cancer can be prevented through sun safe behaviors. Just **Slip** on a shirt, **Slap** on sunscreen, and **Slap** on a hat!

Cloudy or sunny, the sun's harmful UV rays will find you! Be sun safe...**Slip** on a shirt, **Slap** on sunscreen, and **Slap** on a hat!

Nearly all skin cancer can be prevented by limiting exposure to the sun's harmful UV rays. Ultraviolet rays are an invisible form of radiation that come from the sun. Tanning beds, booths, and sunlamps are also sources of harmful UV radiation. Why fry? Protect the skin you're in!

Have you been led to believe that indoor tanning is safe? The truth is... it's not! **ALL** indoor tanning devices that emit UV rays are dangerous. And indoor tanning does not protect you from sunburns. Protect the skin you're in!

You can't hear your skin cooking out in the sun. But if it's not cooking, why do they call it a **sunbath**? Don't get burned...**Slap** on sunscreen with a SPF of 15 or more 30 minutes before going outside. Reapply sunscreen every two hours and after swimming or sweating.

Fry now, pay later! Even one severe sunburn while you're young can double your risk of developing skin cancer later in life. So, let's face it, your mom was right when she told you it wasn't good to fry out in the sun. **Slip** on a shirt, **Slap** on sunscreen, and **Slap** on a hat!

Sun spots, wrinkled skin, even cancer. Don't think it can happen to you? Think again. More than 1 million cases of skin cancer occur each year in the United States. But, guess what? Nearly all skin cancer can be prevented if you avoid indoor tanning and **Slip** on a shirt, **Slap** on sunscreen, and **Slap** on a hat when outdoors.



Water, spring, summer, or fall, you enjoy spending time outdoors and in the sun. While some sun exposure can be enjoyable, too much is dangerous. **Slip** on a shirt, **Slap** on sunscreen, and **Slap** on a hat!

Ouch! Don't let a sunburn show you down. Any change in skin color, sunburns or sunken, means you have damaged your skin. Protect the skin you're in. **Slip** on a shirt, **Slap** on sunscreen, and **Slap** on a hat!

Source: American Cancer Society, Centers for Disease Control and Prevention, Environmental Protection Agency  
Funding provided by Centers for Disease Control and Prevention  
The American Cancer Society is the nationally recognized leader in voluntary health organizations dedicated to eliminating cancer as a major health problem by preventing cancer, saving lives, and decreasing suffering through research, education, advocacy, and service. We monitor what you see, so you help. Contact us at anytime for more information and support. [Helping Hands](#) 1-800-A-C-S-2047 [cancer.org](#)

### Sun Safety at School: PA Announcements

This handy guide contains sun safety facts and tips that principals, teachers and students can use during PA announcements at school.



### INDOOR TANNING IS NOT SAFE!

Most people are not aware that skin cancer, while largely preventable, is the most common form of cancer in the United States. Overexposure to ultraviolet (UV) radiation in sunlight and indoor tanning devices can result in serious health effects, including skin cancer. Many people have been led to believe that indoor tanning is safe. The truth is... it's not!

Many older tanning devices used light sources that emitted shortwave ultraviolet rays (UVB) that caused burning. As a result, new tanning devices were introduced that emit mostly longwave ultraviolet rays (UVA). UVA rays reduce the risk for burns, but they penetrate more deeply than UVB and weaken the skin's inner connective tissue. Despite overwhelming evidence on the connection between indoor tanning and the risk for skin cancer, over 25,000 tanning salons around the country are serving an estimated 28 million Americans each year.

**Indoor Tanning Facts**

- There are just as many risks associated with indoor tanning as outdoor.
- Tanning beds, booths, and sunlamps release high levels of dangerous UV radiation, which can increase risk for skin cancer.
- Indoor tanning does not protect you from sunburns.
- Indoor tanning contributes to saggy, wrinkled skin later in life and can damage your eyes and immune system.
- In Michigan, tanning salons and tanning equipment (beds, booths, and sunlamps) are not registered or inspected by the state, and operators of tanning salons are not licensed.

By following a number of simple steps, you can keep your skin looking young and healthy and significantly reduce your risk for skin cancer. The American Cancer Society says to avoid indoor tanning devices that emit UV radiation and to **Slip** on a shirt, **Slap** on sunscreen with a sun protection factor (SPF) of 15 or higher, and **Slap** on a hat when outdoors. You can also wrap on sunglasses for added protection.

**Protect the skin you're in!**

Source: American Cancer Society, Centers for Disease Control and Prevention, Environmental Protection Agency  
Funding provided by Centers for Disease Control and Prevention  
The American Cancer Society is the nationally recognized leader in voluntary health organizations dedicated to eliminating cancer as a major health problem by preventing cancer, saving lives, and decreasing suffering through research, education, advocacy, and service. We monitor what you see, so you help. Contact us at anytime for more information and support. [Helping Hands](#) 1-800-A-C-S-2047 [cancer.org](#)

### Indoor Tanning Is Not Safe!

Despite overwhelming evidence on the connection between indoor tanning and the risk for skin cancer, over 25,000 tanning salons around the country are serving an estimated 28 million Americans each year. By following the simple steps outlined in this flyer, you can keep your skin looking young and healthy and significantly reduce your risk for skin cancer.

# Appendix T

## Trails as Safe Routes to School

*Prepared by the Michigan Trails and Greenways Alliance*

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 of the Michigan Trails and Greenways Alliance at [nancy@michigantrails.org](mailto:nancy@michigantrails.org), or phone (517) 485-6022.

### EXISTING TRAILS

If a hiking/biking path exists within a two-mile radius of the school and is in alignment between the neighborhoods and the school, you should assess its safety. Today, there are safe design requirements in order to get public grant funding, but older trails or those built entirely with private funds may not be in complete compliance with these standards.

In the case of older trails, a public grant for rehabilitation of the surface will help you to bring it up to today's standards. In the case of privately built trails, you should assess whether the lack of a certain feature puts the trail user at substantial risk that warrants remedial action.

#### 1. Safe Crossings at Road/Trail Intersections

- a. Stop or Yield signs at each crossing.
- b. For paved trails: Supplemental warning on pavement before traffic intersections (i.e., stop bar, change in surface type and/or wording). For unpaved trails, a supplemental warning sign posted on the right side of the trail and a paved apron of at least 10 feet before a paved road surface.
- c. Signage on road alerting motorists to trail crossing.
- d. Path crosses road at a perpendicular angle.
- e. Clear sight lines at road/trail intersection.
- f. Signs 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 (drain grates, culverts) are clear of debris.

#### 3. Surface

- a. Shoulders are mowed 3 feet on either side and overhanging limbs and foliage are pruned back 3 feet on the side and 9 feet overhead.
- b. 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 8 feet.

*continued on next page*

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# Appendix T

## Trails as Safe Routes to School, cont.

### 4. Line of Sight

- a. Pedestrians must be able to see 50 feet ahead.
- b. Bicyclists must be able to see 150 feet ahead.

### 5. Connections to the Trail

- a. Sidewalks, bike lanes, or paths from adjacent neighborhoods to the trail along busy roads are built according to professional design standards.<sup>1</sup>
- b. The sidewalk connection to the trail is debris-free, and the surface in good repair.

### 6. Bridges

Safety Requirements:

- a. Bridge railings, fences, barriers on both sides are at least 42 inches high.
- b. Minimum clear width same as the rest of the path plus a two-foot clearance on both sides
- c. Vertical clearance of 10 feet (to allow for occasional motorized vehicle access).
- d. Supports weight load of an emergency vehicle.

Additional Safety Considerations:

- a. Deck boards nailed down and not splintered.

### 7. Underpasses

Safety Requirements:

- a. Minimum clear width is the same as the rest of the path plus a 2 foot clearance on both sides.
- b. Vertical Clearance of 10 feet (to allow for occasional motorized vehicle access).
- c. Drainage away from underpass.

Additional Safety Considerations:

- a. Underpass lighting—if existent, does it work and if non-existent, is it needed?

### 8. Wayfinding

- a. Trail clearly marked with easy-to-read and appropriately placed signage.

<sup>1</sup> The three professional resources for non-motorized transportation facility design are:

- AASHTO (American Association of State Highway and Transportation Officials): [www.aashto.org](http://www.aashto.org)
- ADA (Americans with Disabilities Act) – Civil rights legislation (Public Law 226, 101st Congress) prohibiting discrimination against people with disabilities. For ADA rules and regulations, contact the U.S. Government Printing Office, Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954, Telephone: (202) 512-1800. For a detailed explanation of ADA applicability to sidewalks and trails: DESIGNING SIDEWALKS AND TRAILS FOR ACCESS: Part I of II: Review of Existing Guidelines and Practices, July, 1999, Publication No.: FHWA-HEP-99-006 (also available on FHWA website: [www.fhwa.dot.gov/environment/sidewalks](http://www.fhwa.dot.gov/environment/sidewalks)) and DESIGNING SIDEWALKS AND TRAILS FOR ACCESS: Part II of II: Best Practices Design Guide, September 2001, Publication No. FHWA-EP-01-027 (available on FHWA website: [www.fhwa.dot.gov/environment/sidewalk2](http://www.fhwa.dot.gov/environment/sidewalk2))
- Manual on Uniform Traffic Control Devices (MUTCD) – available on the FHWA website (<http://mutcd.fhwa.dot.gov>)



# Appendix T

## Trails as Safe Routes to School, cont.

### NEW TRAIL POTENTIAL

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.

*TIP: If you do not know whether the land is in public control or ownership, check with the local tax assessor's office. They will have parcel maps indicating land ownership.*

The public land you are evaluating should have at least these features:

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

### To Assess Trail Potential:

Identify your nonmotorized transportation network. The more transportation opportunities created by your proposed trail, the better you will fare in grant funding. Look at the following connection potential:

- 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 connect to the trail?
- c. Are there existing trails for the new trail to connect to?
- d. Are there parks, municipal buildings, libraries, another school or other destinations that this trail could connect?

Review your local government's master plans related to parks, nonmotorized transportation, open space, and overall land use, if available, to see how the trail fits into the overall picture. (See the local planning and zoning department). Ask about proposed projects which could affect your trail corridor, such as utilities, road projects, or future residential, commercial, and industrial development.

Pay special attention to vacant lands and proposed uses. There may be an opportunity to add a staging area or such amenities as parking, restrooms, kiosks, etc.

**Obstacles** that require avoidance or special attention in trail routing:

- 1) High traffic road crossings
- 2) Active railroad crossings
- 3) "Dark" and/or isolated areas
- 4) Environmentally hazardous areas
- 5) Environmentally sensitive areas (check for rare and/or endangered species of plants and animals on the Michigan Natural Features Inventory)<sup>2</sup>
- 6) Crossing a designated "natural river"<sup>3</sup>

*continued on next page*

<sup>2</sup> Information on the Michigan Natural Features Inventory within the Michigan Department of Natural Resources can be found at: <http://mnfi.anr.msu.edu/>

<sup>3</sup> Designated natural rivers are listed on the Michigan Department of Natural Resources website: [www.michigan.gov/dnr](http://www.michigan.gov/dnr)



# Appendix T

## Trails as Safe Routes to School, cont.

### NEXT STEPS:

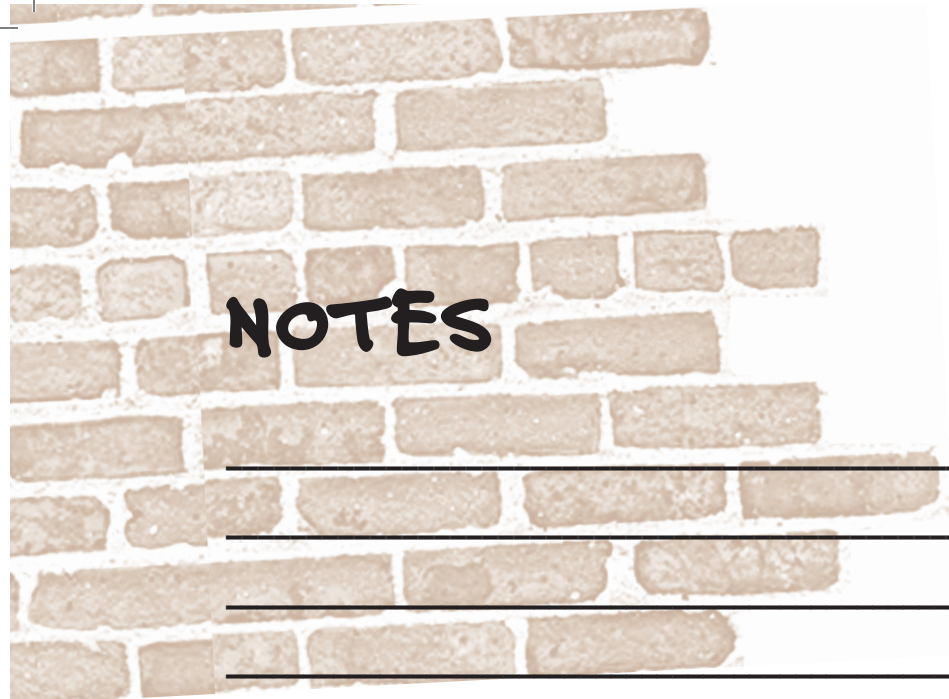
1. Identify your “friends.” Think of all community organizations who may have an interest in the trail, including fitness, health, environmental, historic preservation, community development, retailers, church, community service organizations, trail user groups (bicycle, walking, and equestrian) as well as others. The trail may present opportunities for joint ventures or other mutual benefits.
2. Obtain a map of the route. 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.google.com](http://www.google.com) and some GIS mapping from [www.usgs.org](http://www.usgs.org)). Note important landmarks and attractions as well as potential obstacles.
3. Photograph good and bad points of the route.
4. Develop a vision statement for your trail and its potential significance to the community.
5. Tap into the following resources for assistance:
  - a. Rails-to-Trails Conservancy—[www.railstotrails.org](http://www.railstotrails.org)
  - b. Trails and Greenways Clearinghouse—[www.trailsandgreenways.org](http://www.trailsandgreenways.org)
  - c. National Center for Bicycling and Walking—[www.bikewalk.org](http://www.bikewalk.org)
  - d. American Trails—[www.americantrails.org](http://www.americantrails.org)
  - e. Greenways Incorporated—[www.greenways.com](http://www.greenways.com)
6. Consider holding a preliminary “friends” meeting, an opportunity for stakeholders and the general public to ask questions and express their views. The meeting will bring supporters to the forefront as well as adjacent landowners with concerns.
7. Look into hiring a professional consultant, either a landscape architect or engineer, who will:
  - a. Facilitate public meetings and help answer adjacent landowner concerns
  - b. Do a master plan complete with:
    - feasibility study
    - preliminary cost estimate
    - design criteria, including alignment, cross-section design, and surface recommendations
    - recommendations for ownership, operation and maintenance
    - project timeline and implementation strategy
    - research on grant opportunities, and assistance with applications
    - conformance to professional engineering standards and grant guidelines

### TRAILS ACROSS PRIVATE LAND

Most trails are routed across public land. However, depending on the attitude of the property owner and other special circumstances, it may be possible to gain an easement across private land. As you strategize about securing a donation, easement, or outright purchase of the land, it is best to build a positive relationship with the land owner early in the project, talking about how to make the trail a “win-win” opportunity.

For more information on these steps, contact:

Michigan Trails and Greenway Alliance  
Nancy Krupiarz, Executive Director <[nancy@michigantrails.org](mailto:nancy@michigantrails.org)>  
Phone: (517) 485-6022



# NOTES

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This image shows a blank sheet of white paper with horizontal ruling lines. In the top-left corner, there is a decorative graphic consisting of several brown rectangular bricks arranged in a staggered pattern, resembling a wall or a header section. The rest of the page is empty except for the lines.