

Trail Signing Handbook

Guidelines for signing
snowmobile and ATV
trails



Wisconsin Department of Natural Resources
PO Box 7921, Madison, WI 53707-7921
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2012

Introduction

The purpose of posting trail signs is to regulate the flow of snowmobile traffic, inform riders of particular trail characteristics and provide information necessary to the enjoyment of the trail riding experience. To provide a training resource to snowmobile club members charged with the responsibility for trail signing, the Department first published the Snowmobile Trail Signing Handbook in 1978. Its purpose today has remained unchanged: to describe the techniques of posting standardized signs and to promote uniformity of snowmobile trail signing throughout the state. More than ever before, snowmobilers travel longer distances and go well beyond their local trail systems. **On these unfamiliar trails, a rider's enjoyment and safety are enhanced by the use of standardized trail signs posted uniformly throughout the trail. Few experiences in snowmobiling rival the unpleasantness of feeling lost, hungry and being low on fuel somewhere on a poorly signed trail system.**

This is the tenth printing of the Trail Signing Handbook and it incorporates a number of revisions and changes from previous publications.

The signing guidance provided by this Handbook should not be construed as reducing the basic operator responsibility of operating a snowmobile in an observant and prudent manner.

Wisconsin law for the snowmobile and all-terrain vehicle programs, sections 350.13 and 23.33, Stats., respectively, charge the Department of Natural Resources to consult with the Department of Transportation and to establish rules that prescribe uniform trail and route signs for the snowmobile and all-terrain vehicle programs. Chapters NR 50 and 64 of the Wisconsin Administrative Code detail the standards regarding color, shape, size and reflectorization for snowmobile and all-terrain vehicle signs, respectively.

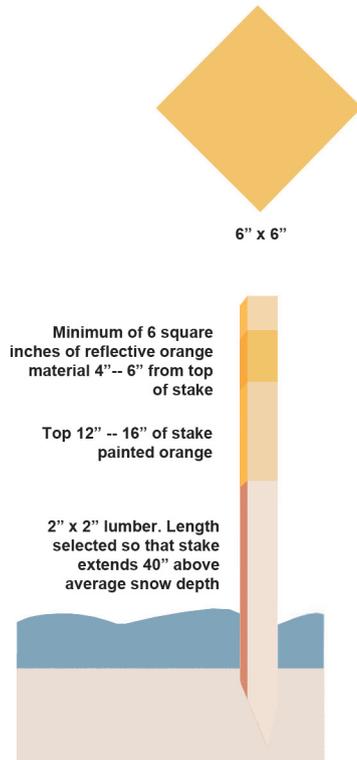
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General Guidelines

- Except for informational and guide signs, all trail signs must be fully reflectorized. We recommend upgrading to new reflectorized standard as they are replaced.
- No trail sign should be placed more than 6 feet from the edge of the groomed trail.
- Place signs and posts carefully with regard to anticipated vehicle speeds, brush, line of sight and anticipated snow depths. The desirable mounting height of signs is a minimum 40 inches above the snow depth. Adjustments to sign height above the snow may be necessary to respond to changing snow depths.
- Place trail signs to the right of the trail to conform with the rider's familiarity with the placement of highway signs.
- If two signs are used on one post, place the sign with the more important message on top. Stop signs always convey the most important message.
- Place signs as late in the fall as possible and remove promptly at the end of the season, if necessary. This reduces vandalism, reduces potential trespass and conserves sign life by reducing exposure to the elements.
- Use adequately sized wood or metal sign posts to provide stability and deter vandalism.
- Posts are used for the proper placement of regulatory, caution and stop signs.
- Trail signing should be done by a small group of people familiar with trail signing guidelines to retain as much uniformity as possible. Individuals signing the trail should also coordinate placement of signs with trail groomer operators.
- Avoid overuse of all signs. Only trail signs meeting standards for shape, color, size and reflectorization are allowed on trails. This avoids clutter and confusion.
- Informational signs may be placed on the trail by trailside businesses, but these signs must conform to the standard, color and shape.
- Extra signs and hardware should be carried with the grooming equipment and trail patrols so that missing or vandalized signs can be quickly replaced.
- Federal Forest Service sign specifications may be used on Forest Service lands.

Trail Signs



Blazer

3

The purpose of the blazer is to reassure the rider that he or she is on the designated trail. In heavily wooded areas where trail exits and entrances are minimal, use of blazers can be kept to a minimum (i.e., 3-4 per mile).

For reassurance purposes, blazers should be posted immediately beyond points of intersection with other trails and immediately beyond intersections where the user is stopped or slowed, e.g., road crossings.

In open and agricultural areas, blazers should be closely spaced to clearly show the trail location. Spacing between blazers is dictated by sight distance, topography, and anticipated vehicle speeds. In open areas, as the snowmobiler passes one blazer, the next should be clearly visible during the day or night in a variety of weather conditions.

When leaving an open area and entering a wooded area, blazers should be placed on both sides of the trail at the point where it enters the wooded area.

Blazers should not be placed on utility poles, fence posts, trees, or structures located more than 6 feet off the groomed trail surface as this tends to lead the rider off the trail.

Blazers should be placed on both the right and left sides of gate openings and be clearly visible from both directions. Double faced blazers are recommended.

Field Staking

Field staking through agricultural fields and other cleared areas is an acceptable alternative to the use of blazers. The standard field stake is a 2" x 2" (minimum) piece of lumber sharpened at one end. The top 12"-16" of the stake is painted orange and has at least 6 square inches of reflective orange material fastened 4"-6" beneath the top of the stake. The material is mounted on each side of the stake so that it is visible in both directions of travel. Since the stakes identify the trail corridor, they need to be installed in pairs.



12" x 6"

Directional Arrow

The primary purpose of the directional arrow is to advise the rider of a significant change in trail direction. Directional arrows should not be used to mark trails in place of blazers and should only point left or right, and be placed in advance of the turn only on the right side of the trail. In situations where a trail user will need to slow down to negotiate a curve or corner, the use of the caution curve or caution sharp turn (shown on next page) is more desirable.

EXAMPLES



12" x 12" Minimum

Caution

Caution signs are used to advise the rider to proceed with caution at a reduced speed (e.g., "Logging Ahead," "Left Curve") or to advise the rider of a specific trail condition (e.g. "Bridge Ahead," "Steep Hill," "Dip"). Normally one caution sign placed to the right of the trail will be adequate. In potentially hazardous situations, however, a caution sign should be placed on each side of the trail in advance of the trail condition.

The use of a caution sign with a specific message is always better than posting the generic "Caution Ahead" message. The generic message does not give the rider a clear understanding of the trail condition they may encounter.

The caution "Railroad Crossing" sign is posted in advance of non-road crossings of railroad tracks. It is not to be posted at railroad crossings in conjunction with roads.



"Generic"



EXAMPLES



Sharp Curve

12" x 12" Minimum

The "Stop Ahead" caution sign should always be used in conjunction with a Stop sign. "Yield Ahead" may be used prior to a Yield sign.

Trail intersection caution signs should be placed in advance of trail junctions or intersections.

Caution left or right curve, sharp curve, or jog signs are a much more effective means of indicating changes of direction that require a reduction in speed than the use of multiple directional arrows.

When a section of trail is extremely hilly with many curves, the rider should be advised at the beginning of the section of trail that these conditions exist. The "Winding Trail" should be used at the beginning of the curvy trail segment and may be repeated occasionally for added emphasis. Within the curvy segment, especially sharp curves should be indicated with the caution sharp curve sign.

In a sweeping curve or sharp right angle turn situation, the addition of chevrons in the apex of the curve is very desirable. The chevron is not a replacement for a directional arrow. The chevrons are placed on the outside of a turn or curve at approximately a right angle to the approaching snowmobile traffic. This will result in the chevrons being placed on the left-hand side of the trail on one approach. The minimum number of chevrons visible is based on trail design. The use of chevrons is always preceded by the use of an appropriate advanced caution sign.



Chevron
12" x 12"

Caution Sign Posting Guidance

One of the most frequently asked questions in posting caution signs is how far in advance of the trail condition should the sign be placed. The following matrix offers some guidance on what the appropriate sign posting distances should be. These recommendations have been developed through a variety of snowmobile and traffic publications, including the Manual on Uniform Traffic Control Devices and field observations. The minimum sign posting distances recommended below pertain only to caution signs. Unlike caution signs, regulatory signs are posted where the desired action is to take place.

Suggested Minimum Posting Distances for Snowmobile Caution Signs					
Judged Speed (mph)	Condition Requiring Stop "X" =	Deceleration Distance to Desired Speed (mph) "Y" =			
		10	20	30	40
20	*	**			
25	*	100	**		
30	175	150	100		
35	225	200	175	**	
40	300	275	250	175	
45	350	350	300	250	**
50	425	400	400	325	225
55	500	500	475	400	300

Recommendation Only

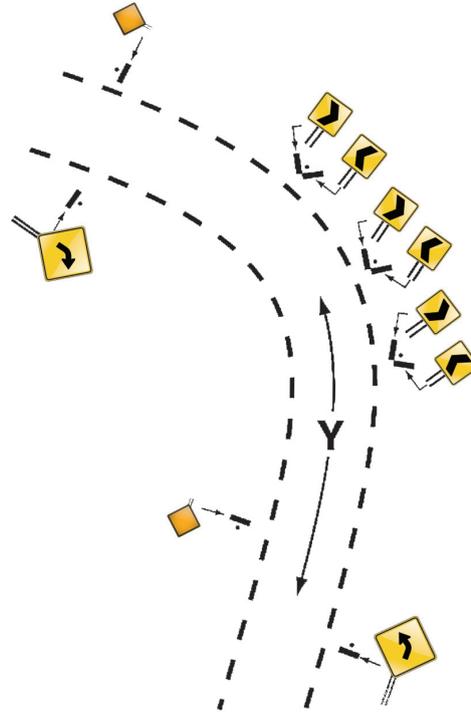
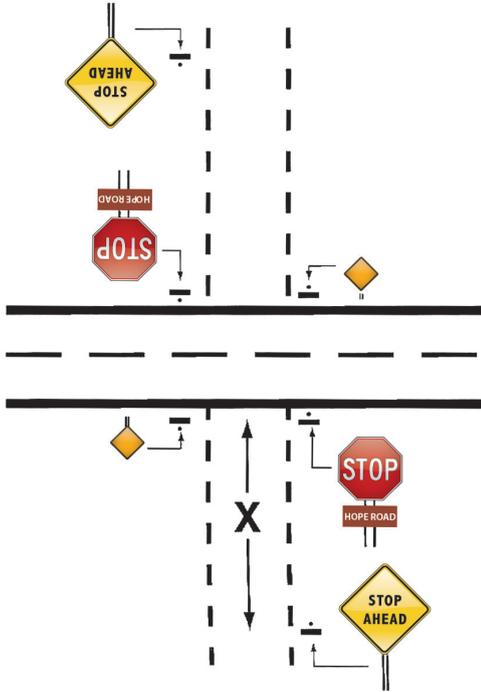
The sign posting matrix looks at two situations. The first is a situation where a caution sign is posted so a snowmobile can come to a complete stop before the trail condition. The most common examples of this situation would be "Stop Ahead," "Bridge Ahead" and "Intersection Ahead" signs. The second signing situation is one where a caution sign is posted so that a snowmobiler might have to reduce speed, but not necessarily come to a complete stop. Examples of this situation might be "Logging Ahead," "Left Curve," "Steep Hill," or "Dip."

A **key** factor in using this matrix is the judgment of the signing crew on what the speed of the majority of snowmobilers in that situation would be and what reduction in speed, if any, would be necessary for the snowmobiler to comfortably and safely negotiate the trail condition.

Examples of How To Use this Matrix:

In the first situation, the trail goes across a 40 acre cornfield and the signing crew **judges** the speed of most snowmobilers across the cornfield would be roughly 50 mph. Using the matrix, the minimum distance between the Stop and the Stop Ahead (“X” in the illustration) would be 425 feet.

In the second example, the same cornfield has a large sweeping curve in it. The trail sign crew **judges** that (1) the predominate speed through the cornfield prior to the curve would be 50 mph and (2) the most snowmobilers would have to reduce their speed to 40 mph to negotiate the curve safely and comfortably. Using the matrix, the minimum distance between the “Caution curve” and the apex of the curve signed with chevrons (“Y” in the illustration) would be 225 feet.





12" x 12" Minimum



12" x 12" x 12" Minimum

Regulatory

Stop signs are used to halt users on a snowmobile trail at road crossings, highway bridge crossings, public railroad grade crossings or trail intersections.

The use of Stop signs is mandatory at all crossings where the snowmobile operator must cross one or more lanes of highway traffic. It is also mandatory where the snowmobile operator must enter and utilize a lane of traffic for a short distance, e.g., railroad grade or highway bridge crossing. Stop signs should be used at trail intersections or junctions where a lesser traveled trail intersects a major trail and at other intersections where a combination of high speed and/or restricted visibility pose potential hazards. When unusual conditions exist, Stop signs should be placed on each side of the trail for added emphasis.

Yield signs rather than Stop signs may be used at trail intersections or junctions where speed and visibility allow the safe blending of vehicles without the necessity of a stop. An example of these low volume situations might be a trail intersection with a driveway.

Placement of Stop or Yield signs in highway right-of-way requires the permission of the unit of government in charge of maintaining the highway.

Regulatory signs are also used to inform the snowmobiler of laws or regulations that would not be otherwise apparent.

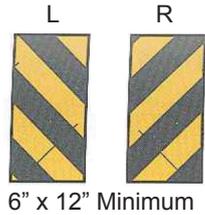


12" x 18"



12" x 12" Minimum



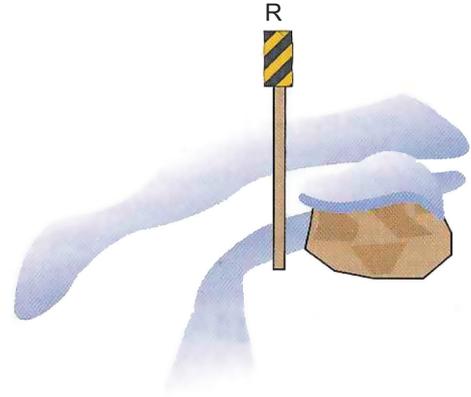
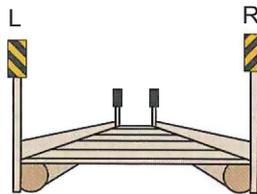
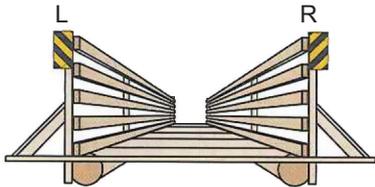


Bridge, Culvert and Hazard Markers

Snowmobile bridge and culvert crossings should be signed with the standardized reflective black and yellow hazard markers. Used in pairs, the hazard markers delineate an opening through which the rider must pass. The markers should be placed on each end rail of the bridge or on separate posts if the bridge is not railed. 6" x 12" Minimum Each hazard marker of the pair is placed with the alternate black and yellow 45° diagonal stripes facing down and in toward the center of the bridge or culvert.

A caution "Bridge Ahead" should be placed at a reasonable distance ahead of the bridge or culvert, depending on terrain, to alert the rider of the impending crossing. In the situation where the width of the bridge or culvert is less than the groomed trail surface, a caution "Narrow Bridge" sign should be used.

Used singly, a hazard marker can mark an obstruction adjacent to the trail. When used in this manner, the black and yellow stripes slope downward away from the side of the obstruction on which the trail is to pass.



Barrier and Gate

When entry to a particular area or trail is to be restricted by a barrier or gate, the cable, chain or bar should be marked with reflectorized panels of red diagonal stripes on a white background. The stripes of each panel shall point downward on a 45° angle toward the center of the trail on both sides of the barricade or cable. The panel should span as much of the space between the posts as possible. A regulatory sign may be added in the space between the two panels for added emphasis. The supporting gate posts may be signed in a similar fashion. However, if the gate is swung open to permit use for a period of time, the red and white markers must be removed from the gate posts and replaced with blazers.



LEFT

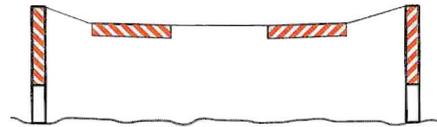


RIGHT

6" x 36" minimum

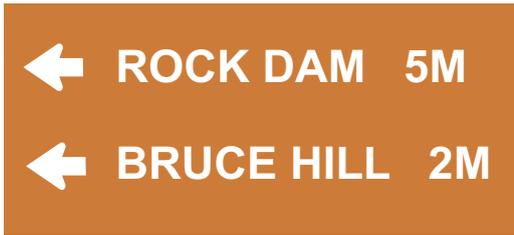


GATE, NO POSTS



GATE WITH POSTS

GATE OPENED
PERMITTING TRAVEL



Size Variable
2" Upper Case Letters Minimum



Size Variable
2" Upper Case Letters Minimum



Typically
9" x 9"

Guide Signs

Guide signs are used to direct the rider to a destination on the trail. They should be placed at decision points along the trail such as intersections and trailheads. These signs must have a reflectorized white legend on a brown background. When indicated, mileage figures should be calculated as accurately as possible to the nearest mile. Arrows used to show direction on these signs may point in any direction.

The use of guide signs to direct trail users to gas stations, resorts, restaurants and other trailside businesses is helpful, but the number of signs for this purpose should be kept reasonable.

Informational Signs

Informational signs are used to furnish information to the rider about trails, facilities or road crossings. Also, streams and other geographic features can be named as a matter of interest and help in establishing location. The standard colors for the sign are a white legend on a brown background. Reflectorization of informational signs is encouraged but not required.

Where the county has a standard color scheme for informational signs in county parks that differ from the white on brown color scheme, that county's color scheme may be adapted for trail information or guide signing purposes. A trail signing technique growing in popularity is the use of informational signs that identify numbered trail intersections.

Special Signs

In some areas and on some trails it may be desirable to use special signs to assist the user.



Size Variable

You are Here

A common method of helping a rider find his or her location is to provide trail maps along the trail with the location pointed out by the phrase “You are Here.” These maps, mounted on plywood and covered with clear plastic, have the advantage of showing the entire trail system with the user’s exact location. “You are Here” maps can also be placed at parking lots, entrance points and rest stops. Care should be taken in placement of “You are Here” sign to prevent fading as a result of direct exposure to the sun.

Corridor Sign

The corridor sign designates major travelways out of metropolitan areas and major north-south, east-west corridors. It is a numbering system that is statewide and overlays local numbering systems. Colors of the corridor sign are: blue background with a white badge symbol, the word “Corridor,” numbers and letters. The sign is fully reflectorized.

The corridor sign should be placed at intersections and major decision points.



6" x 6"



Size Variable



24" x 18"



12" x 9"

Snowmobile highway signs must conform with sign size, shape, reflectorization, color and legend listed in the Wisconsin Manual of Traffic Control Devices.

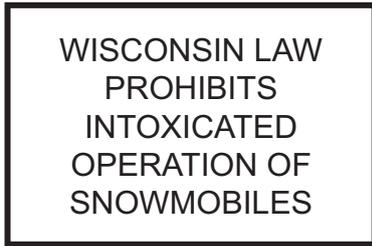
Highway Guide Signs

Highway guide signs are placed on the highway right-of-way to direct the user to a specific snowmobile facility or trail. Highway guide signs must always be reflectorized. Signs must never be placed on highway right-of-way without the permission of the unit of government that maintains the highway. When in doubt, contact the nearest county highway commission office or the district office of the Wisconsin Department of Transportation.

Snowmobile Route Signs

The primary use of the snowmobile route sign and route arrow is to alert the trail user that it is permissible to use the traveled portion of the road or highway. This sign also alerts traffic that snowmobiles are using the road or highway for travel. Snowmobile routes are established by ordinance by cities, villages or towns.

Route signs and arrows should be placed at the beginning of a snowmobile route and at such intervals that enable the snowmobiler to follow the route. At the point where the trail user leaves a trail and enters a route, a green and white route arrow should indicate which direction the user should proceed on the road or highway. At the point where the snowmobile route ends and the trail begins, an orange and black directional arrow should indicate the direction the trail takes.



24" x 24"



30" x 30"

The regulatory intoxicated snowmobile operator law sign may be posted in conjunction with route signs and arrows.

Snowmobile Highway Crossing Signs

The highway crossing sign alerts traffic that snowmobiles are crossing the highway or road or entering a lane of traffic at a designated place. These signs can only be placed by the unit of government that maintains the highway or road.

Illustrations

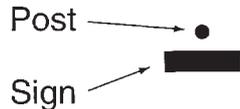
The following pages contain simplified trail sign illustrations intended to give signing crews a few of the basic signing situations they will encounter on the trail.

Legend

Type of sign and orientation

Example

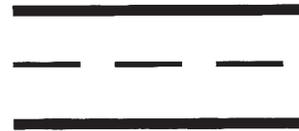
Orientation



Type of sign



Post



Plowed Road

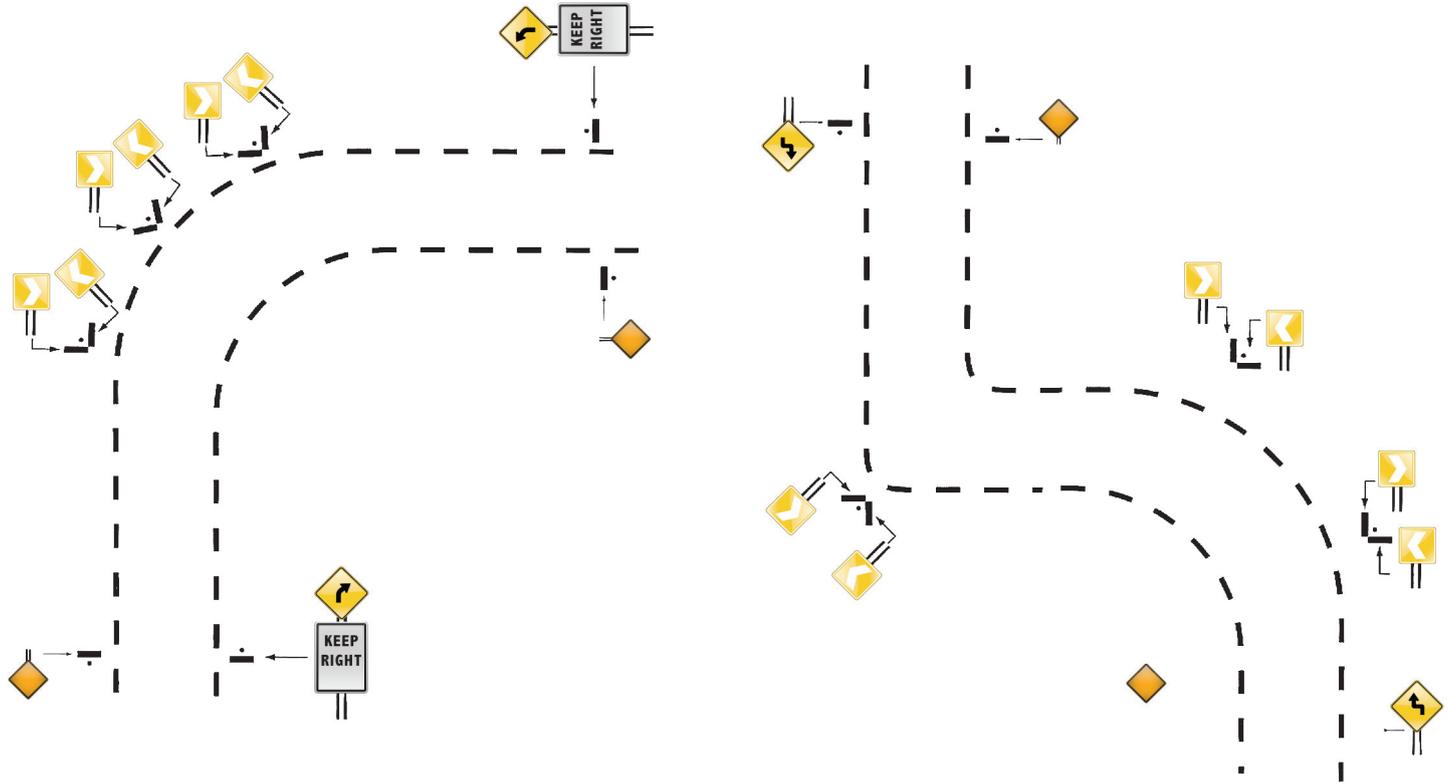


Snowmobile Trail

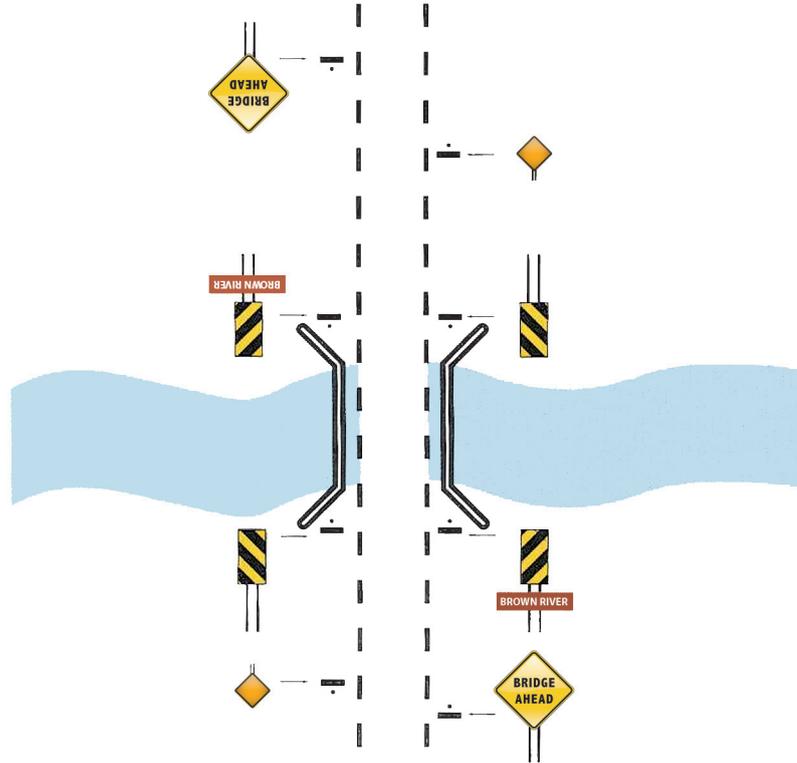
Drawings are not to scale.

ILLUSTRATIONS

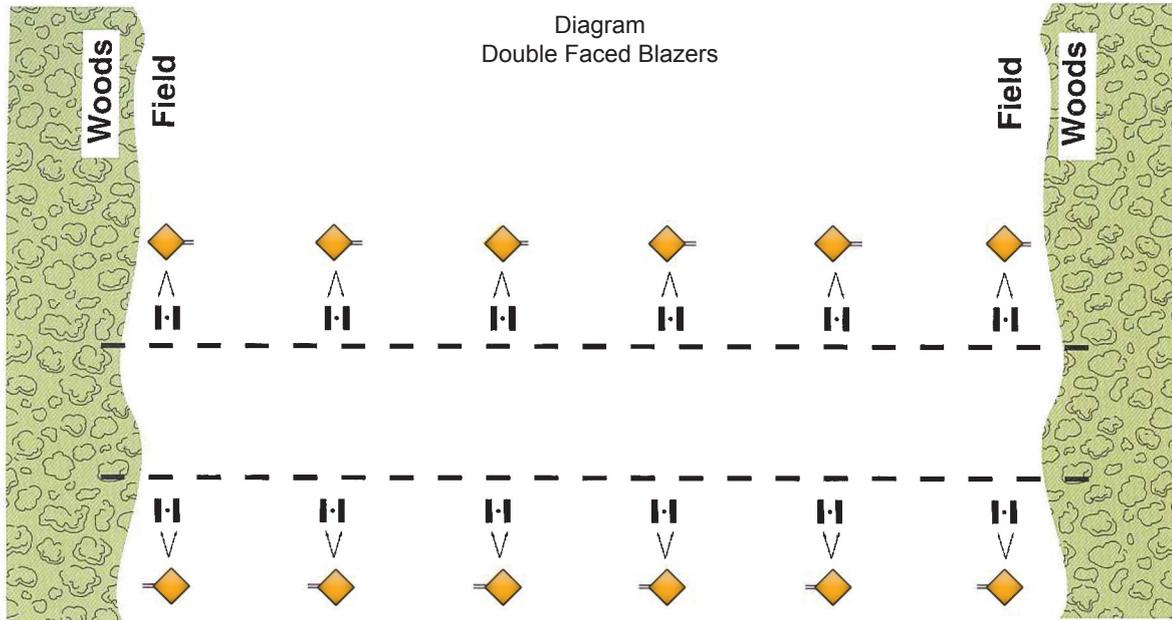
Sweeping Curve and Sharp Turn



Trail Bridge Crossing

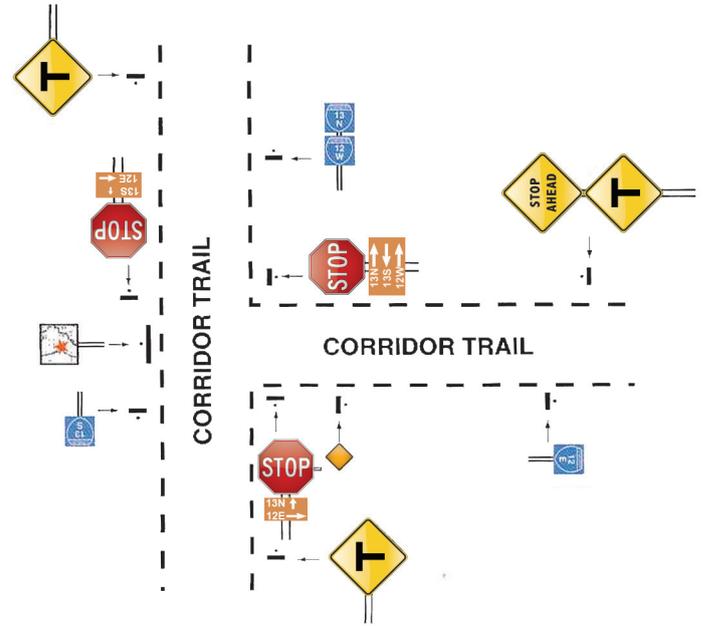
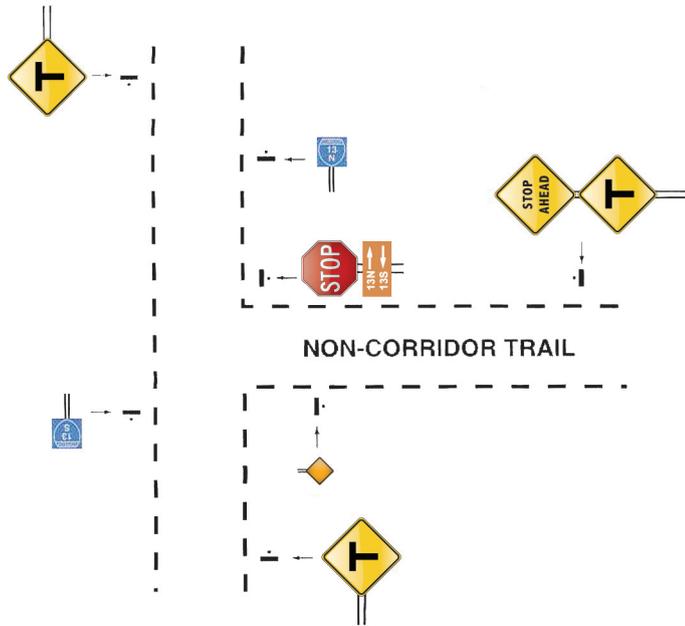


Open Field Signing

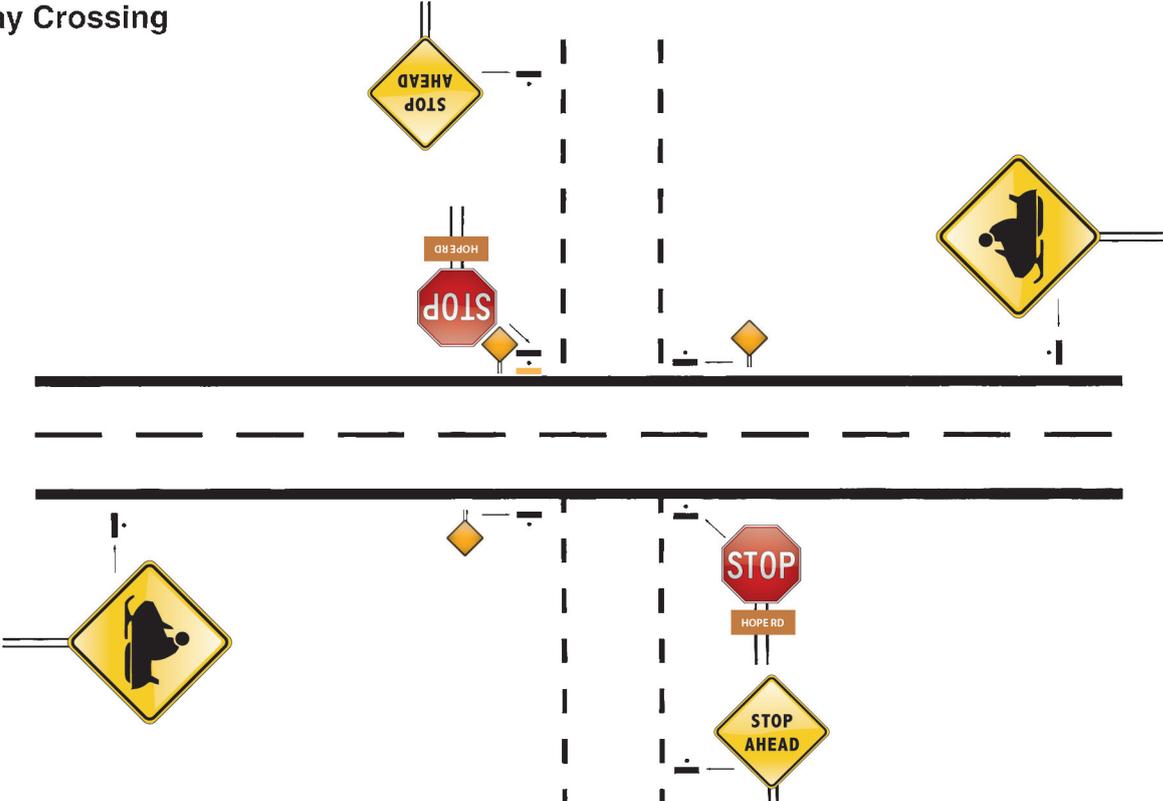


This diagram illustrates blazers being placed on both sides of the post for visibility in both directions. Double faced blazers are encouraged for this purpose.

Trail Intersection with Corridor Trail

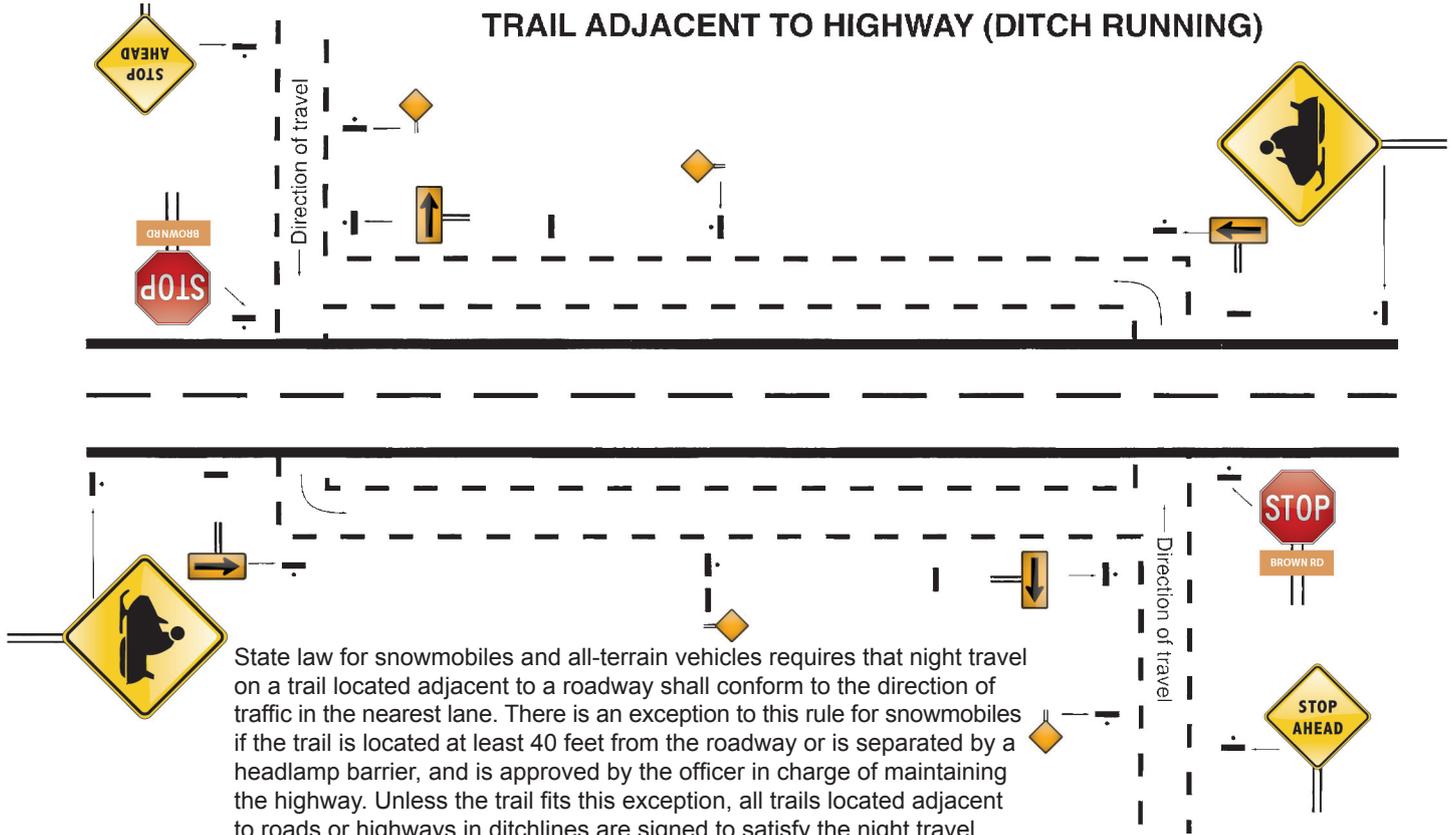


Highway Crossing

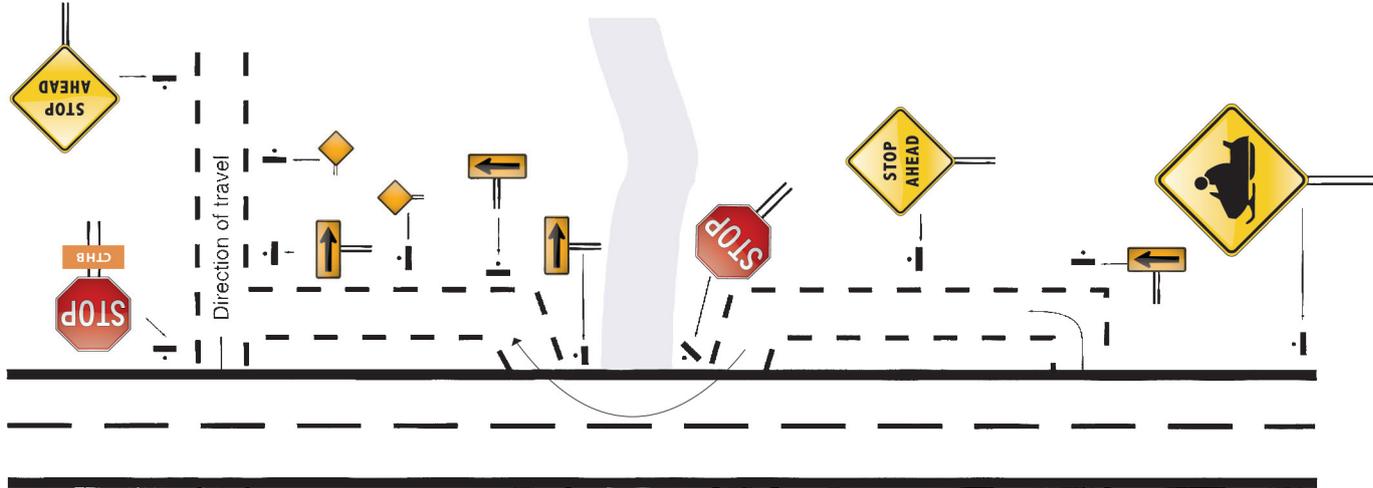


Blazers are acceptable on the back of stop signs where deemed necessary. Stop signs on both sides of the intersection are appropriate as necessary.

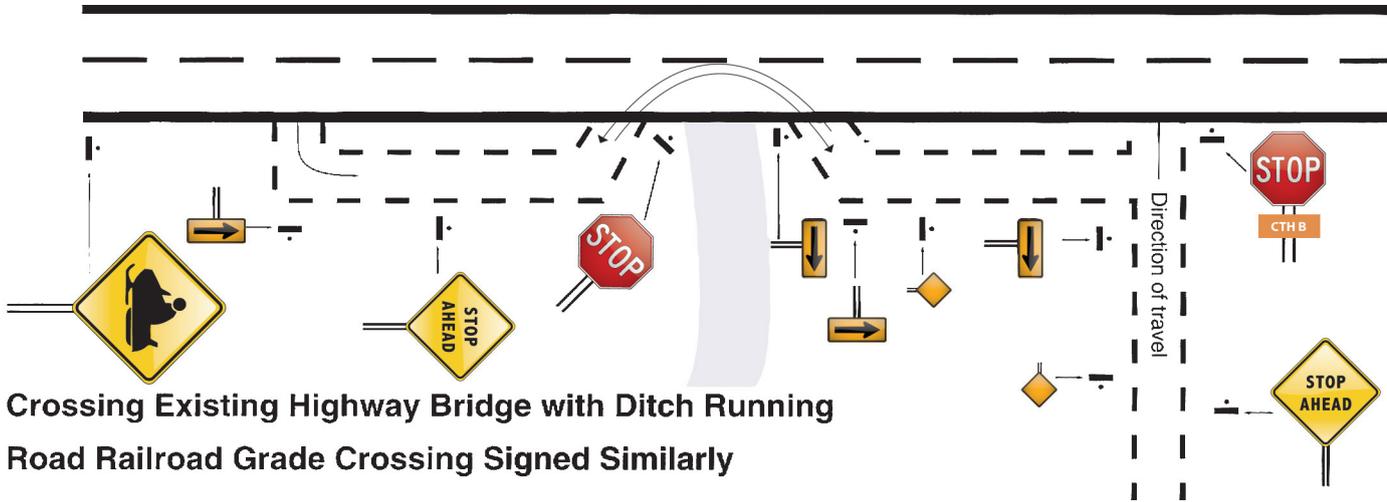
TRAIL ADJACENT TO HIGHWAY (DITCH RUNNING)



State law for snowmobiles and all-terrain vehicles requires that night travel on a trail located adjacent to a roadway shall conform to the direction of traffic in the nearest lane. There is an exception to this rule for snowmobiles if the trail is located at least 40 feet from the roadway or is separated by a headlamp barrier, and is approved by the officer in charge of maintaining the highway. Unless the trail fits this exception, all trails located adjacent to roads or highways in ditchlines are signed to satisfy the night travel requirement.

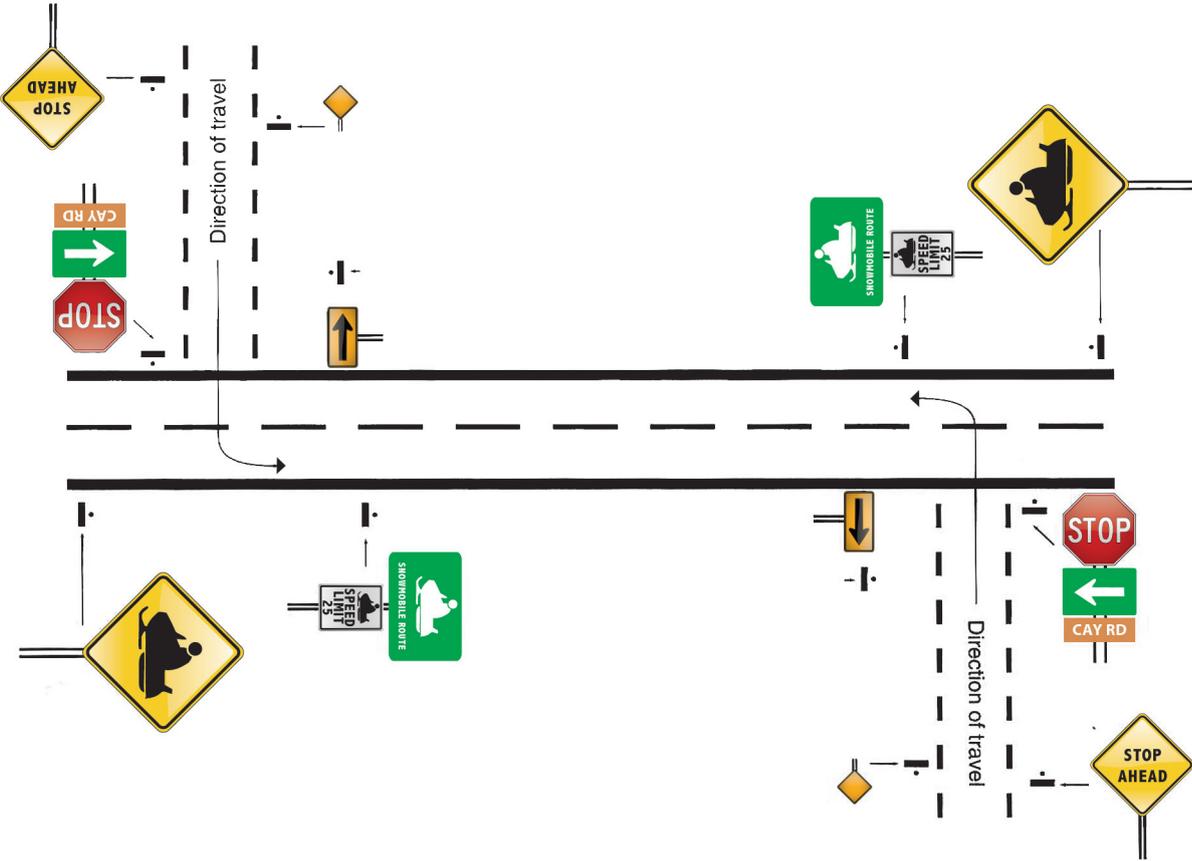


**Crossing Existing Highway Bridge with Ditch Running
Road Railroad Grade Crossing Signed Similarly**

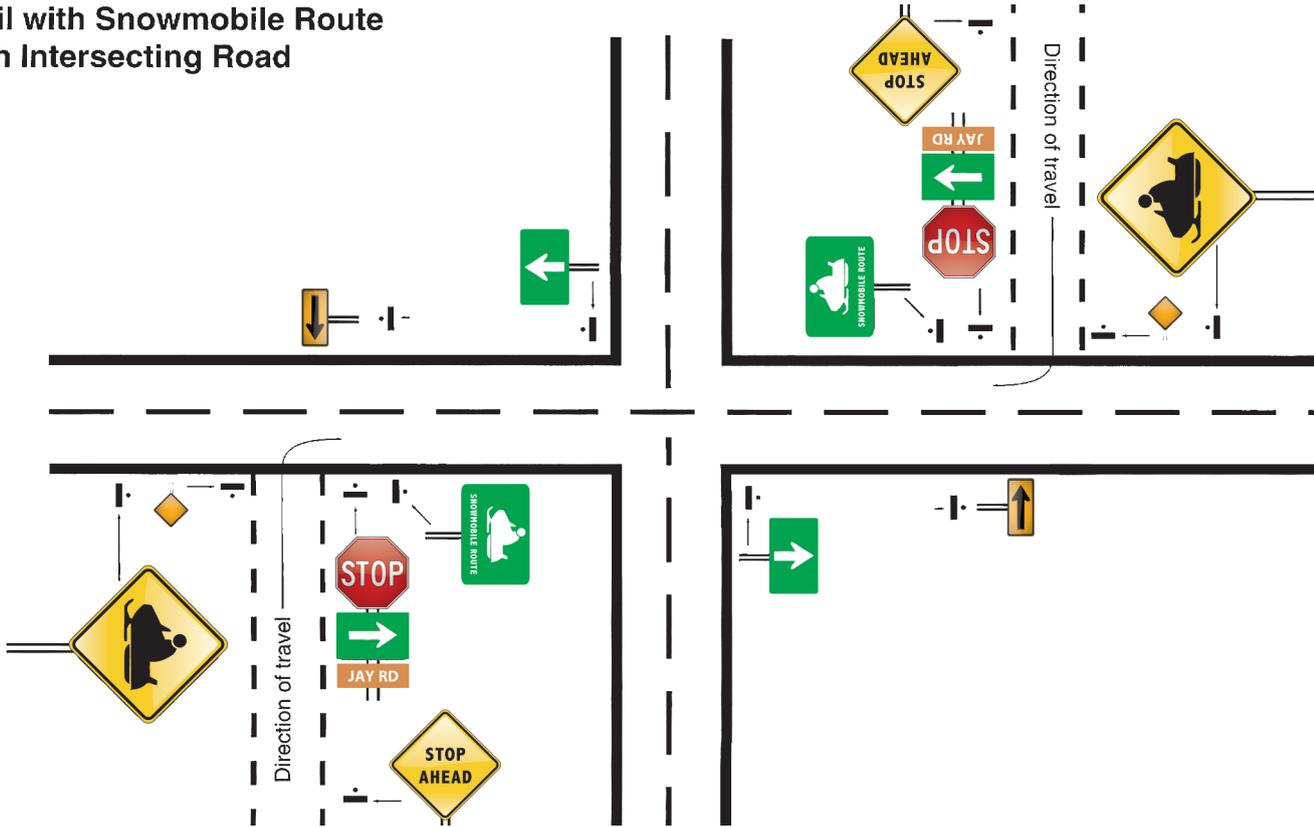


**Crossing Existing Highway Bridge with Ditch Running
Road Railroad Grade Crossing Signed Similarly**

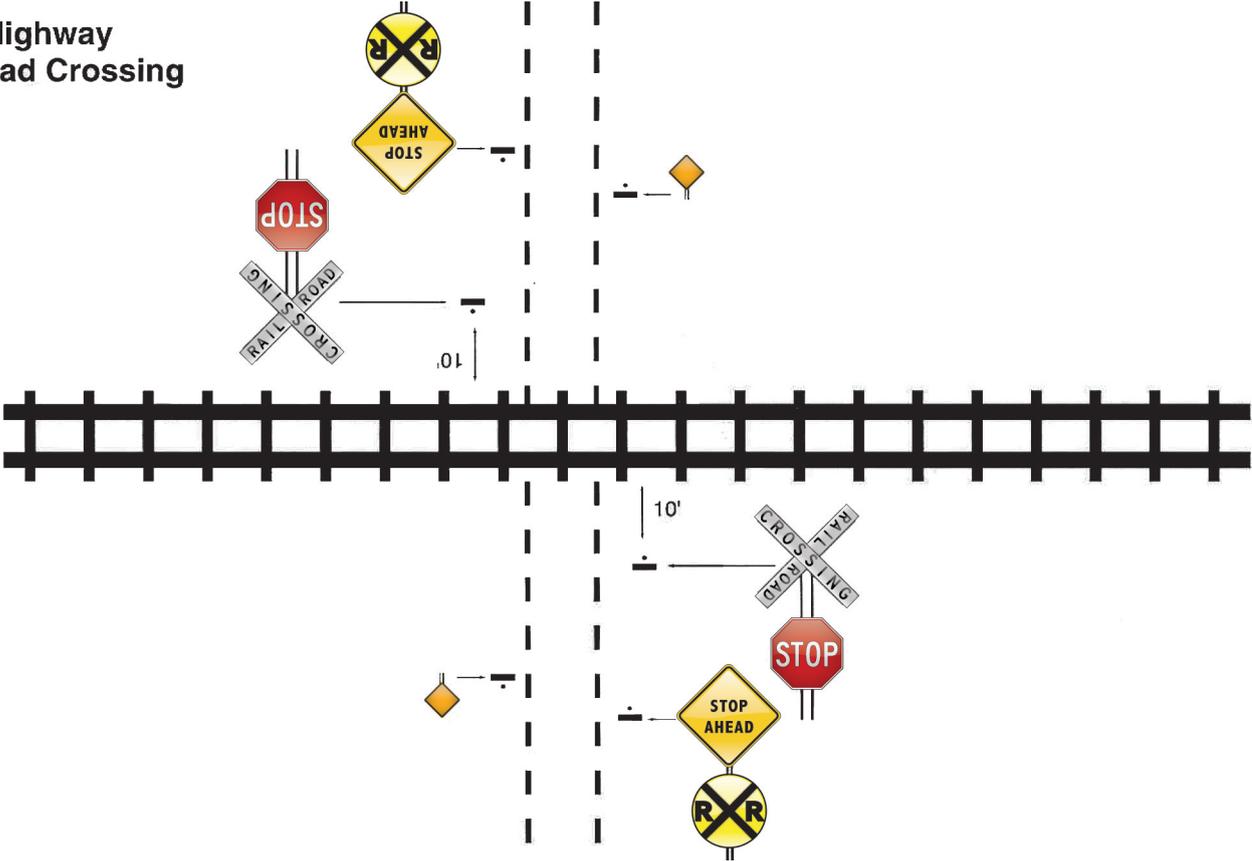
Trail with Snowmobile Route with Snowmobile Speed Limit



Trail with Snowmobile Route with Intersecting Road



Non-Highway Railroad Crossing



All-Terrain Vehicle Signing Supplement

Trail Signs

The basic core of signs and signing techniques for all-terrain vehicle trails are the same as for snowmobile trails and is contained in the snowmobile portion of the Trail Signing Handbook.

The major differences or additions to the preceding pages are:

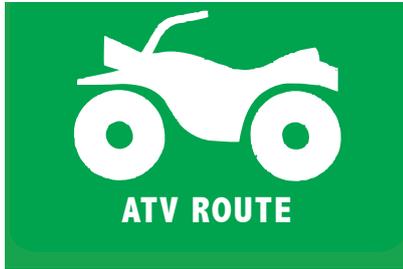
- 1) In addition to the use of the blazer for reassurance, all-terrain vehicle trails are signed with a 6"x 6," fully reflective, all-terrain vehicle trail marker. Sign colors are a white symbol and border on a brown background. The purpose of the trail marker is to indicate that the trail is open to all-terrain vehicle use. Because many of the all-terrain vehicle trails also serve as snowmobile trails, it is important to delineate which trails are open for all-terrain vehicle use and which are not. All-terrain vehicle trail markers should be used at trail decision points and intersections.
- 2) The signing guidance provided with this Handbook should not be construed as reducing the basic operator responsibility to operate an all-terrain vehicle in an observant and prudent manner.



6" x 6"



Highway Signs



24" x 18"



12" x 9"

All-Terrain Vehicle Route Signs

The primary use of the all-terrain vehicle route sign and arrow is to alert the trail user that it is permissible to use the traveled portion of the road or highway. This sign also alerts traffic that all-terrain vehicles are using the road or highway for travel. All-terrain vehicle routes are established by cities, villages, towns or counties.

Route signs and arrows should be placed at the beginning of an all-terrain vehicle route and at such intervals that enable the rider to follow the route. At the point where the rider leaves a trail and enters a route, a green and white route arrow should indicate the direction(s) the rider could proceed on the road or highway. At the point where the all-terrain vehicle route ends and the trail begins, an orange and black directional arrow should indicate the direction the trail takes.

When a route serves both all-terrain vehicles and snowmobiles, a combination snowmobile and all-terrain route sign can be used. When all-terrain vehicles and snowmobiles share the same route, one directional arrow can serve both vehicles. In instances where an all-terrain vehicle route differs from a snowmobile route, an arrow(s) should be placed beneath each respective route sign to communicate the different route of travel for each vehicle. The use of green message placards may also be helpful in communicating the different routes of travel.

All-Terrain Vehicle Highway Crossing Signs

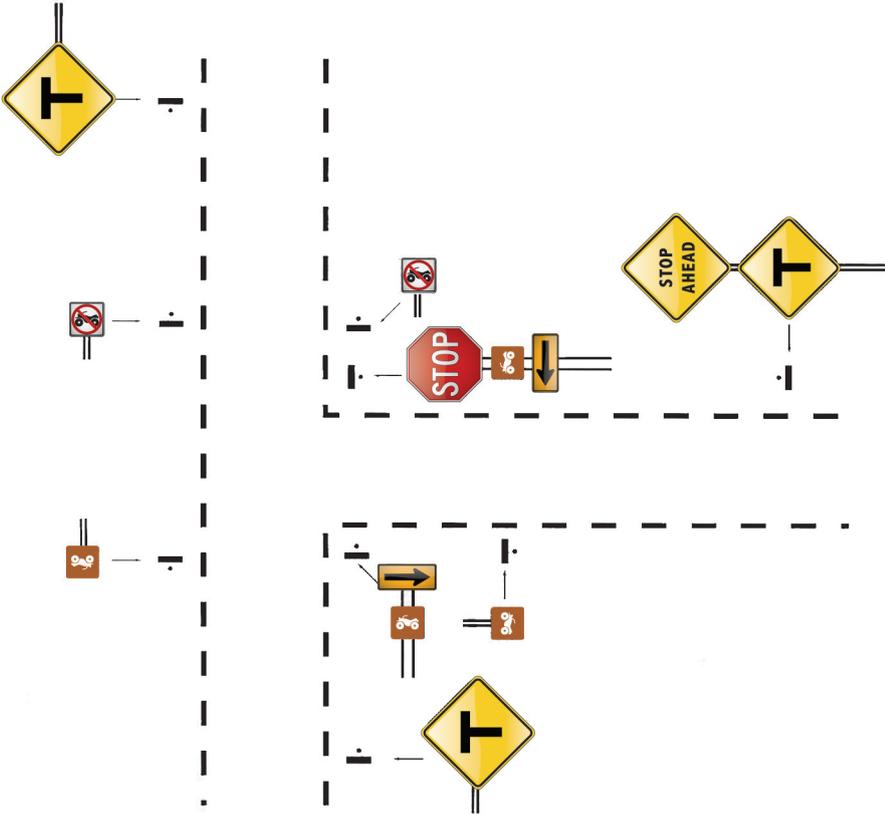
The highway crossing sign alerts traffic that all-terrain vehicle riders are crossing the highway or road or entering a lane of traffic at a designated place. These signs can only be placed by the unit of government that maintains the highway or road.

Highway all-terrain vehicle crossing signs should be displayed during the seasons in which all-terrain vehicles are making use of a trail. When all-terrain vehicles and snowmobiles are making use of a trail during the winter months, placement of two crossing signs, each with the respective symbol, is not required. There may be instances, however, when placement of both signs is desirable, e.g., same trail serving as a winter snowmobile trail and a year around all-terrain vehicle trail.



30" x 30"

**ATV Use of Snowmobile Trail
with One Segment
Closed to ATV Use**



ATV and Snowmobile Route Combination

