

Trail Signing Handbook

Guidelines for Signing Off-Highway Vehicle Trails



Wisconsin Department of Natural Resources
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Introduction

The purpose of posting trail signs is to regulate the flow of off-highway vehicle traffic, inform riders of particular trail characteristics and provide information necessary to the enjoyment of the trail riding experience. Some trails have multiple uses during a season and are marked for dual use or purpose. The Department of Natural Resources created this handbook to provide standards to off-highway vehicle club members charged with the responsibility for trail signing and to describe the techniques of posting standardized signs and to promote uniformity of off-highway vehicle trail signing throughout the state. Some off-highway vehicle operators 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 with off-highway vehicle travel rival the unpleasantness of feeling lost, hungry and being low on fuel somewhere on a poorly signed trail system. This is the eleventh printing of the Trail Signing Handbook and it incorporates a number of revisions and changes from previous publications. The signing standards provided by this handbook should not be construed as reducing the basic operator responsibility of operating an off-highway vehicle in a safe, observant and prudent manner.

Please note the distance requirements as specified throughout this handbook or contact the Wisconsin Department of Transportation (WisDOT) regarding legal requirements for sign posting on or along public roadways.

Wisconsin law for snowmobile and all-terrain vehicle/utility terrain vehicle programs. sections 350.13 and 23.33, Stats., respectively, charge the Department to consult with WisDOT 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.

NOTE: For the purposes of this publication, the term Off-Highway Vehicles (OHV) includes snowmobile, all-terrain vehicle (ATV), utility terrain vehicle (UTV), and off-highway motorcycle (OMH). Also, the use of the term ATV specifically incorporates UTV, unless stated otherwise.

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General Guidelines

- Except for informational and guide signs, all trail signs must be fully reflectorized. It is recommended to upgrade to new reflectorized standards as signs are replaced.
- No trail sign may 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 recommended 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 all trail signs to the right of the trail to conform with the rider's familiarity with the placement of highway signs, except where otherwise permitted.
- 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.
- Trail sign posts installed on highway right-of-way must meet the same support safety standards required by WisDOT.
- Trail signs cannot be attached to any WisDOT or local government sign posts without the permission of the sign owner.
- Use adequately sized sign posts for the proper placement of regulatory, warning 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. For route signing on state highways, consult with WisDOT. A traffic signing permit from WisDOT is also required.
- All route signing shall be done at the discretion of the maintaining authority of the highway.
- Avoid overuse of 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.
- It is recommended to call Wisconsin Digger's Hotline, (800) 242-8511 or 8-1-1 prior to the placement of posts.

Trail Signs

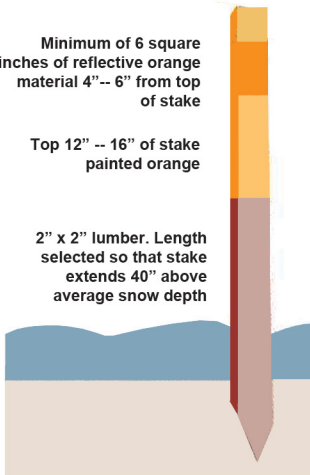


6" x 6"

Minimum of 6 square inches of reflective orange material 4" -- 6" from top of stake

Top 12" -- 16" of stake painted orange

2" x 2" lumber. Length selected so that stake extends 40" above average snow depth



Field Staking (snowmobile only)

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.

Blazers on state right-of-way usually are unnecessary except to mark a turn.

Field Staking (snowmobile only)

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"

EXAMPLES



12" x 12" Minimum



"Generic"



Warning Signs

Warning signs are used to alert the rider to proceed with caution at a reduced speed (e.g., "Logging Ahead," "Left Curve") or to alert the rider of a specific trail condition (e.g. "Bridge Ahead," "Steep Hill," "Dip"). Normally one warning sign placed to the right of the trail will be adequate. In potentially hazardous situations, however, a warning sign should be placed on each side of the trail in advance of the trail condition. The use of a warning 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 "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. Warning signs on a trail when visible from a highway should be the minimum size specified.

The primary purpose of the yellow and black directional arrow is to alert the rider of a significant change in trail direction, such as sharp turns and intersections. Sweeping curves should be posted with chevrons in addition to the warning curve. Directional arrows should not be used to mark trails in place of blazers and must only point left or right. Directional arrows may not be mounted on the same post as a stop sign. NOTE: Posting of multiple directional arrows on long sections of winding trail is unnecessary. Instead, see proper use of the "winding trail" sign on the following page. If the the yellow and black direction arrow is used in combination with chevron, one chevron should be placed on both sides of the arrow. Chevrons may not be used in areas where they are visible to motor vehicle traffic. Chevrons are not to be used as a substitute for directional arrows.

EXAMPLES



Stop Ahead



T-Intersection



Curve



Reverse Turn



Winding Trail

12" x 12" Minimum



Sharp Curve



Intersection



Chevron
12" x 12"



The "Stop Ahead" sign shall always be used in conjunction with a stop sign. "Yield Ahead" shall be used prior to a yield sign.

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

Left or right curve, sharp curve, or reverse turn 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 trail segment is extremely hilly with many curves, the rider should be warned at the beginning of the segment of trail that these conditions exist. The "Winding Trail" sign should be used at the beginning of the curvy trail segment and may be repeated occasionally for added emphasis. Within the curvy segment, any sharp curve should be indicated with the 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, but cannot be less than two per direction of travel. The use of chevrons is always preceded by the use of an appropriate advanced warning sign.

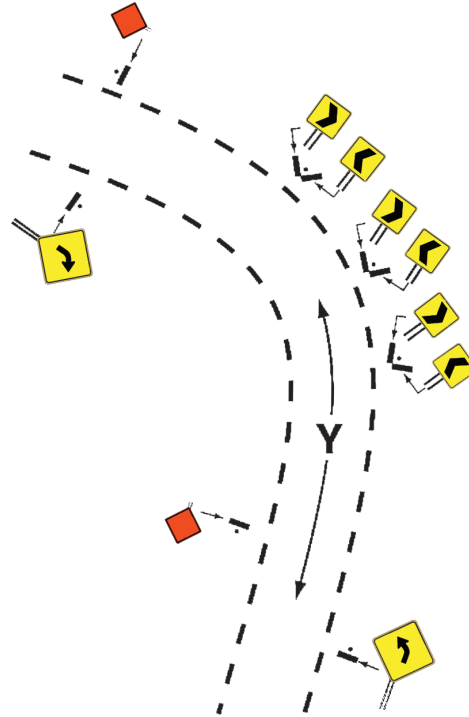
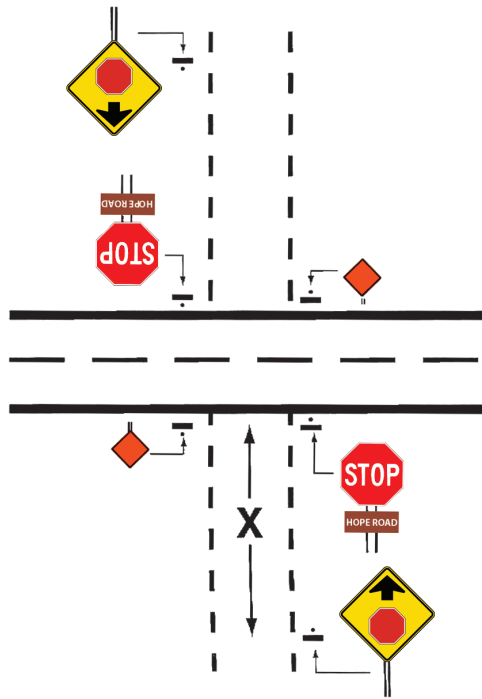
Warning Sign Posting Guidance

One of the most frequently asked questions in posting warning 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 Wisconsin Manual on Uniform Traffic Control Devices and field observations. The minimum sign posting distances recommended below pertain only to warning signs. Unlike warning signs, regulatory signs are posted where the desired action is to take place.

Recommended Minimum Posting Distances for Snowmobile Warning 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

The sign posting matrix looks at two situations. The first is a situation where a warning 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 warning 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 “Warning 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 OHV trails at road crossings, highway bridge crossings, public railroad grade crossings or trail intersections. Due to the importance of regulatory signs, it is not recommended that other signs share the same post. If affixed, smaller signs (guide signs, directional arrows, blazers and markers) shall be positioned below the regulatory sign. No more than one additional sign shall be affixed to a regulatory sign post, except that blazers may be attached to the backside of the sign post if facing the opposite direction.

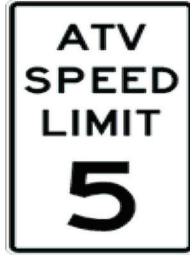
The use of stop signs is mandatory at all crossings where the OHV operator must cross one or more lanes of highway traffic. It is also mandatory where the OHV operator must enter and utilize a lane of traffic for a short distance, e.g., railroad grade or highway bridge crossing. Stop signs should be 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.

NOTE: Placement of stop or yield signs in highway right-of-way requires the permission of the maintaining authority of the highway.

All signs should be placed outside of snowplowing range at least 20' from the pavement and desirably more. Stop signs should be placed parallel to the highway, i.e., the trail approaching the highway should be aligned to be as near to a right angle as possible.

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



12" x 18"

24" x 24" on state highways R5-51



12" x 12" Minimum

The ATV and snowmobile prohibited signs with the red exclusion mark have not been approved by the Federal Highway Administration at this time for use on highway right-of-way.



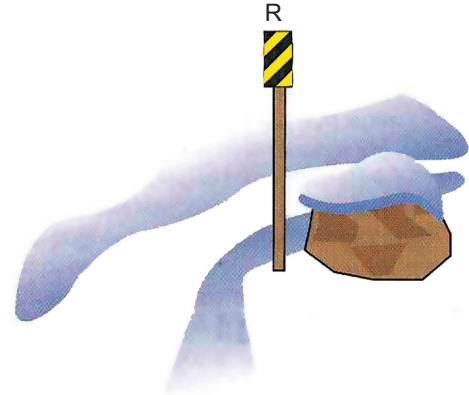
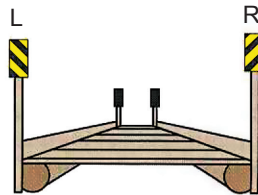
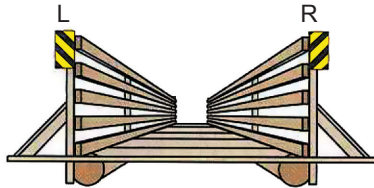
6" x 12" Minimum

Bridge, Culvert and Hazard Markers

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. 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 "Bridge Ahead" warning sign 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 "Narrow Bridge" warning 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 restricted by a barrier or gate, the cable, chain or bar shall 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.

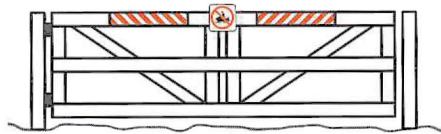


LEFT

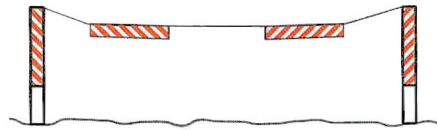


RIGHT

6" x 36" minimum

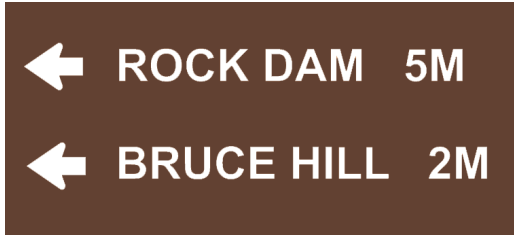


GATE, NO POSTS



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.

NOTE: Signs that depict symbols related to alcoholic beverages are strictly forbidden on state-owned properties.

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 Sign

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, 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.



6" x 6"

Corridor Sign (snowmobile only)

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.

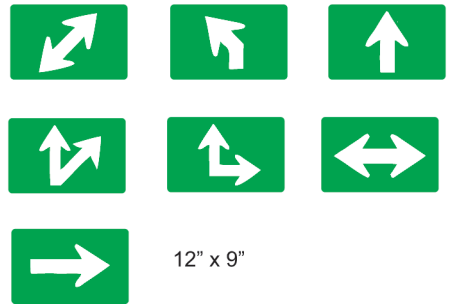
The corridor sign should be placed at intersections and major decision points.



Size Variable



24" x 18"



12" x 9"

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

Highway Guide Signs

Highway guide signs are placed on highway right-of-way to direct the user to a specific 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 department office or the WisDOT region office.

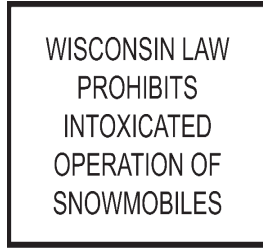
Snowmobile Route Signs

The primary use of the snowmobile route sign and route arrow is to alert the snowmobile operator that it is permissible to use the traveled portion of the road or highway. This sign also alerts motor vehicle traffic that snowmobiles are using the road or highway for travel. Snowmobile routes are established by ordinance by local governments.

Route signs with arrows shall 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. See illustration on page 16.

At the point where the snowmobile route ends and the trail begins, the yellow and black directional arrow should indicate the direction of the trail.

Note: For ATV Route signs, refer to page 28 and for OHM page 33.



24" x 24"



24" x 24"

30" x 30"
W11-630" x 30"
W11-15A30" x 30"
W11-50

The regulatory intoxicated OHV operator law sign may be posted along trails and/or routes.

OHV Highway Crossing Signs

The highway crossing sign alerts traffic that OHVs 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.

All route signing shall be done at the discretion of the maintaining authority of the roadway.

NOTE: Recreational vehicle symbols may be used on guide signs whereas WisDOT uses the text warning signs on the roadway except for snowmobile crossings.

On state highways, sign sizes are:

- 30" x 30" on all 2-lane conventional highways, and multi-lane conventional highways posted at 40 mph or less
- 36" x 36" on all multi-lane conventional highways posted at 45 mph or greater
- 48" x 48" on all expressways posted at 60 mph or greater

Illustrations

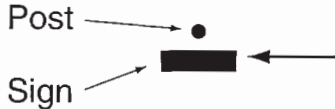
The following pages contain simplified trail sign illustrations intended to give signing crews a few of the basic signing situations they will encounter on the trail.

Legend

Type of sign and orientation

Example

Orientation



Type of sign



Plowed Road

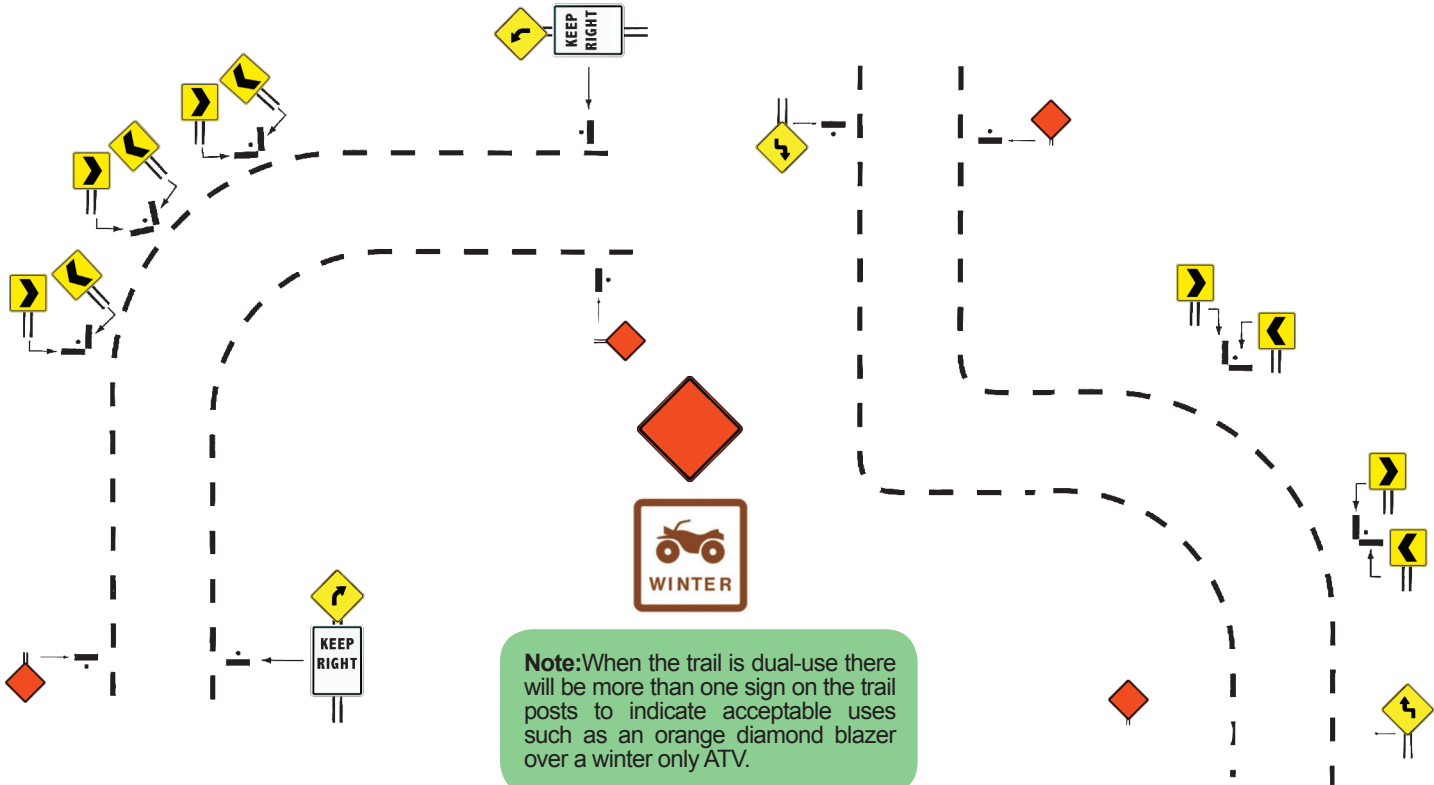


Snowmobile Trail

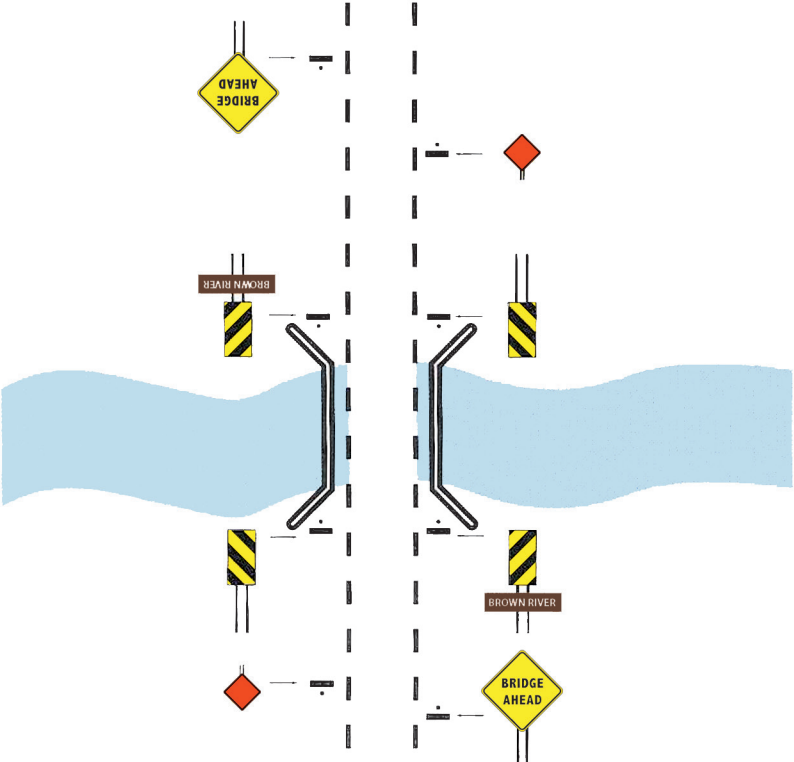
Drawings are not to scale.

Sweeping Curve

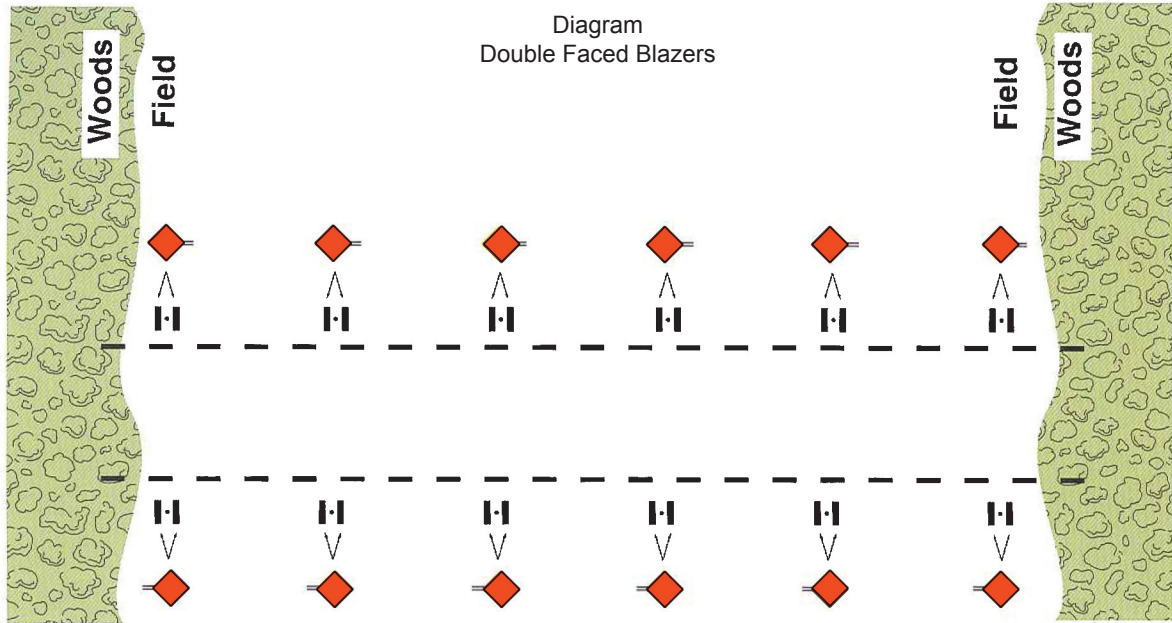
Sharp Turn



Trail Bridge Crossing

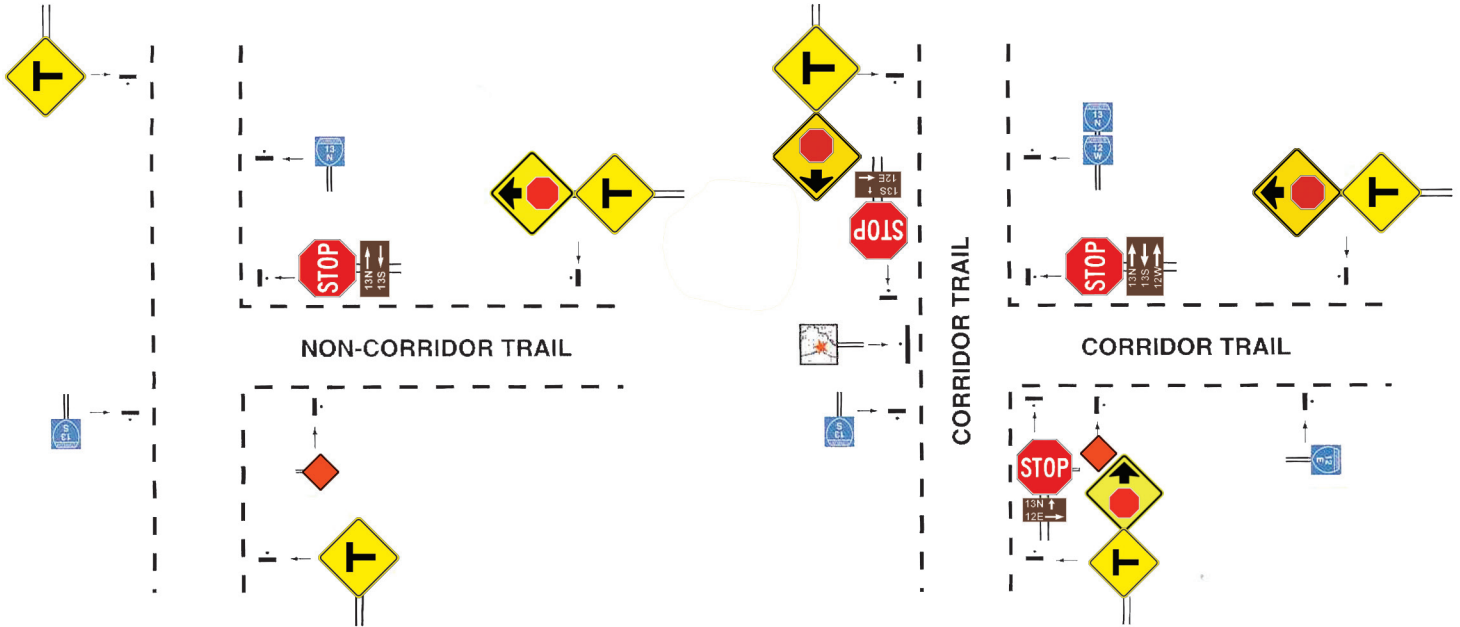


Open Field Signing

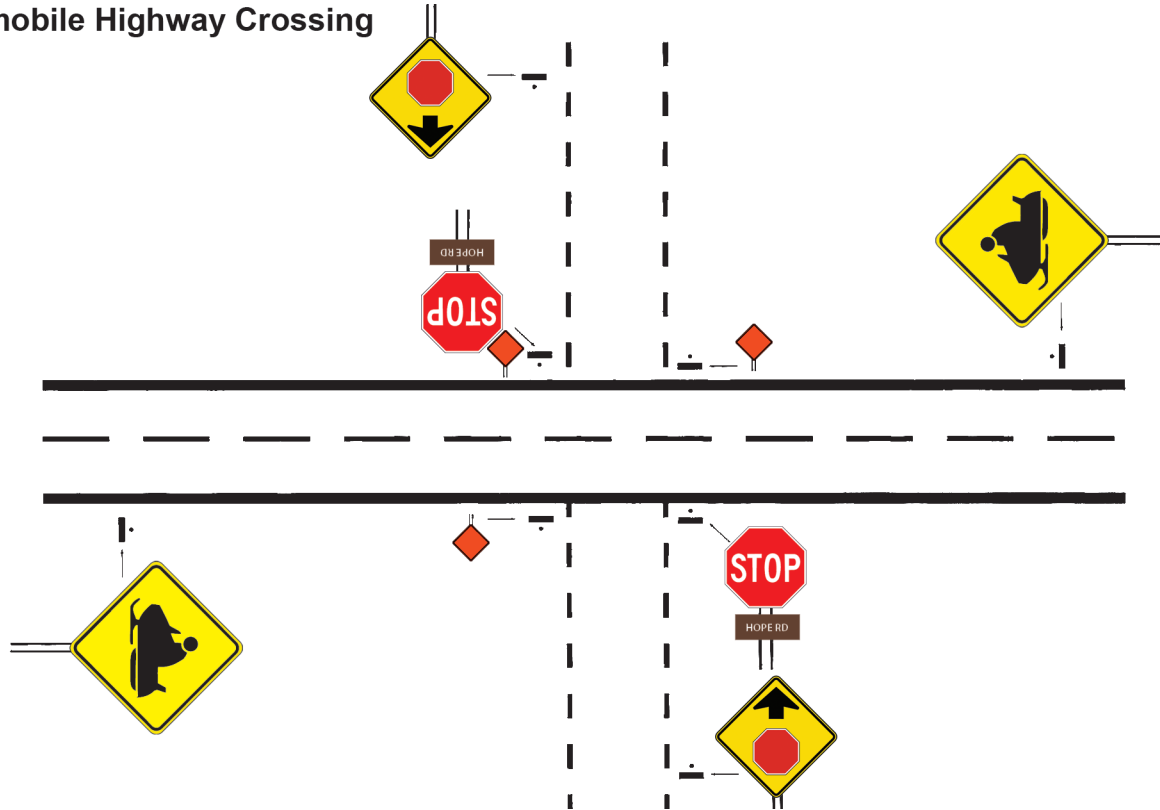


This diagram illustrates blazers being placed on both sides of the post for visibility in both directions. Double faced blazers are encouraged for this purpose.

Trail Intersection with Corridor Trail (snowmobile only)

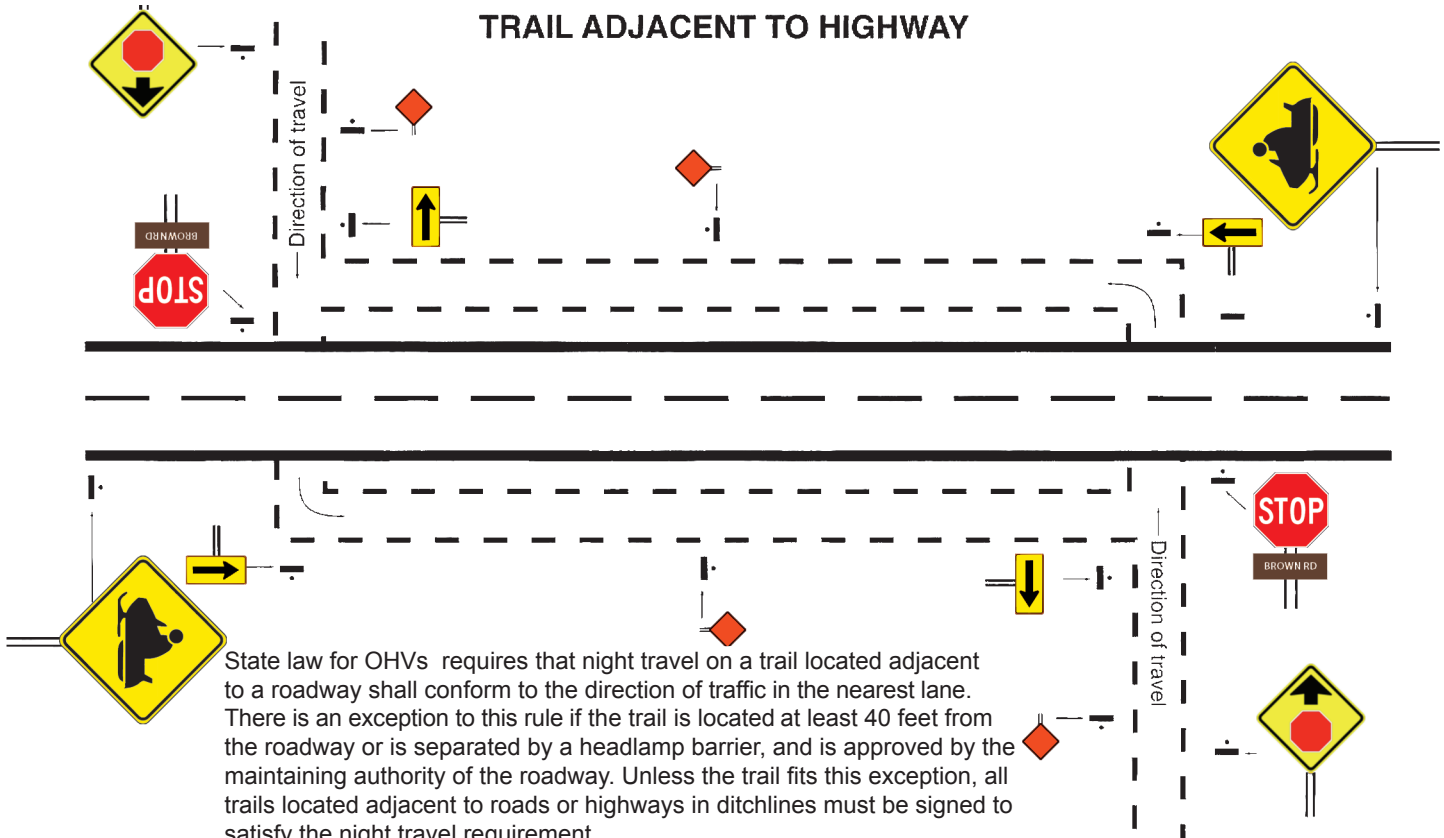


Snowmobile Highway Crossing



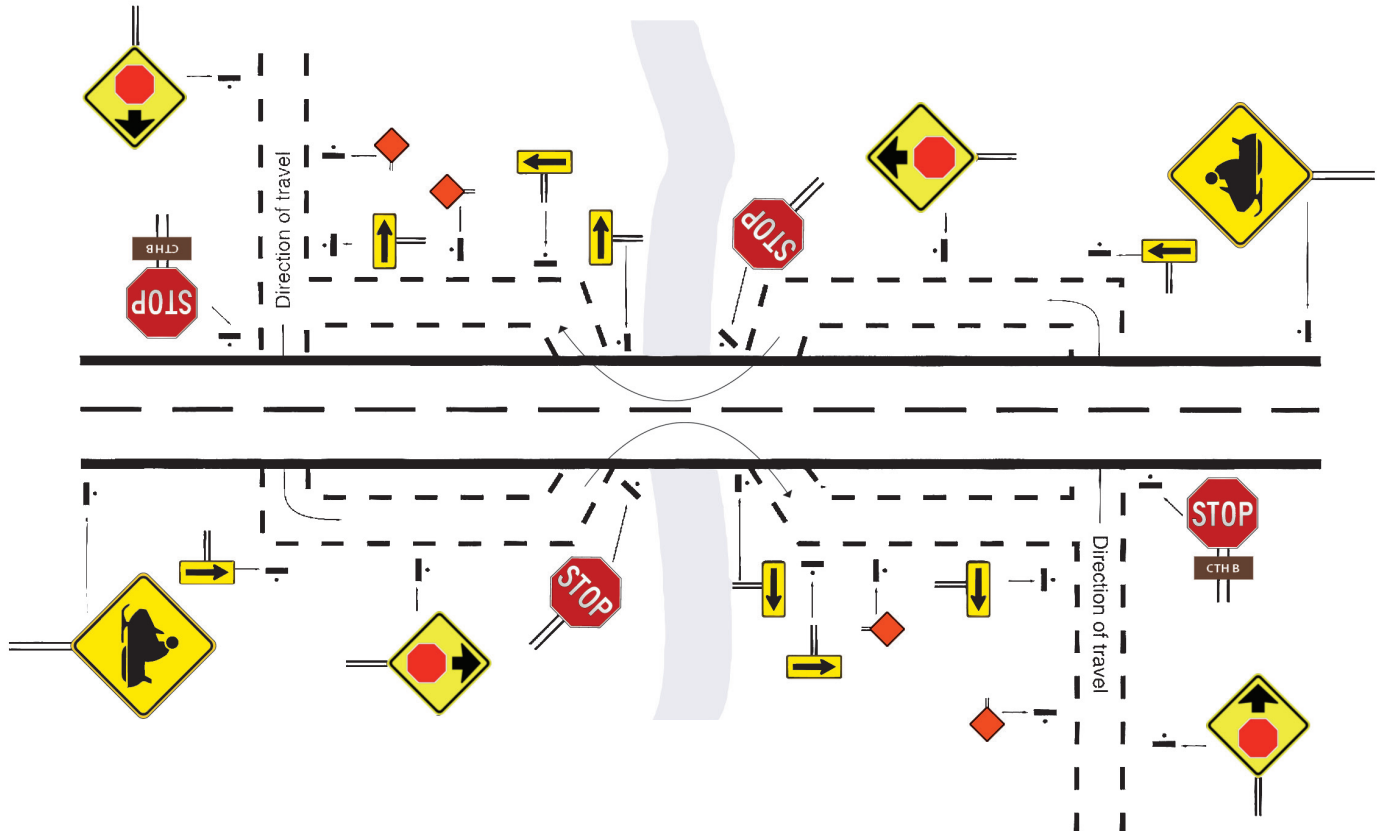
Blazers are acceptable on the back of stop signs where deemed necessary. Stop signs on both sides of the intersection are appropriate.

TRAIL ADJACENT TO HIGHWAY

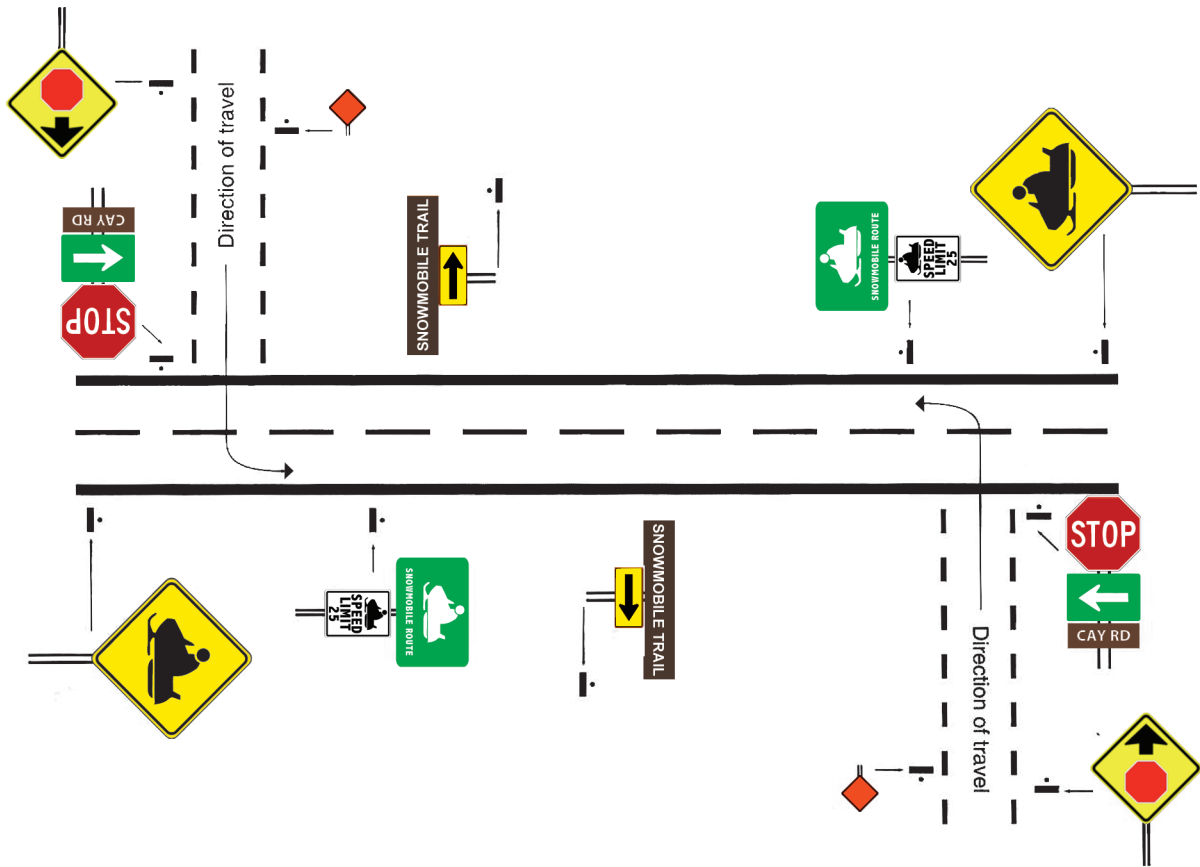


State law for OHVs requires that night travel on a trail located adjacent to a roadway shall conform to the direction of traffic in the nearest lane. There is an exception to this rule if the trail is located at least 40 feet from the roadway or is separated by a headlamp barrier, and is approved by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

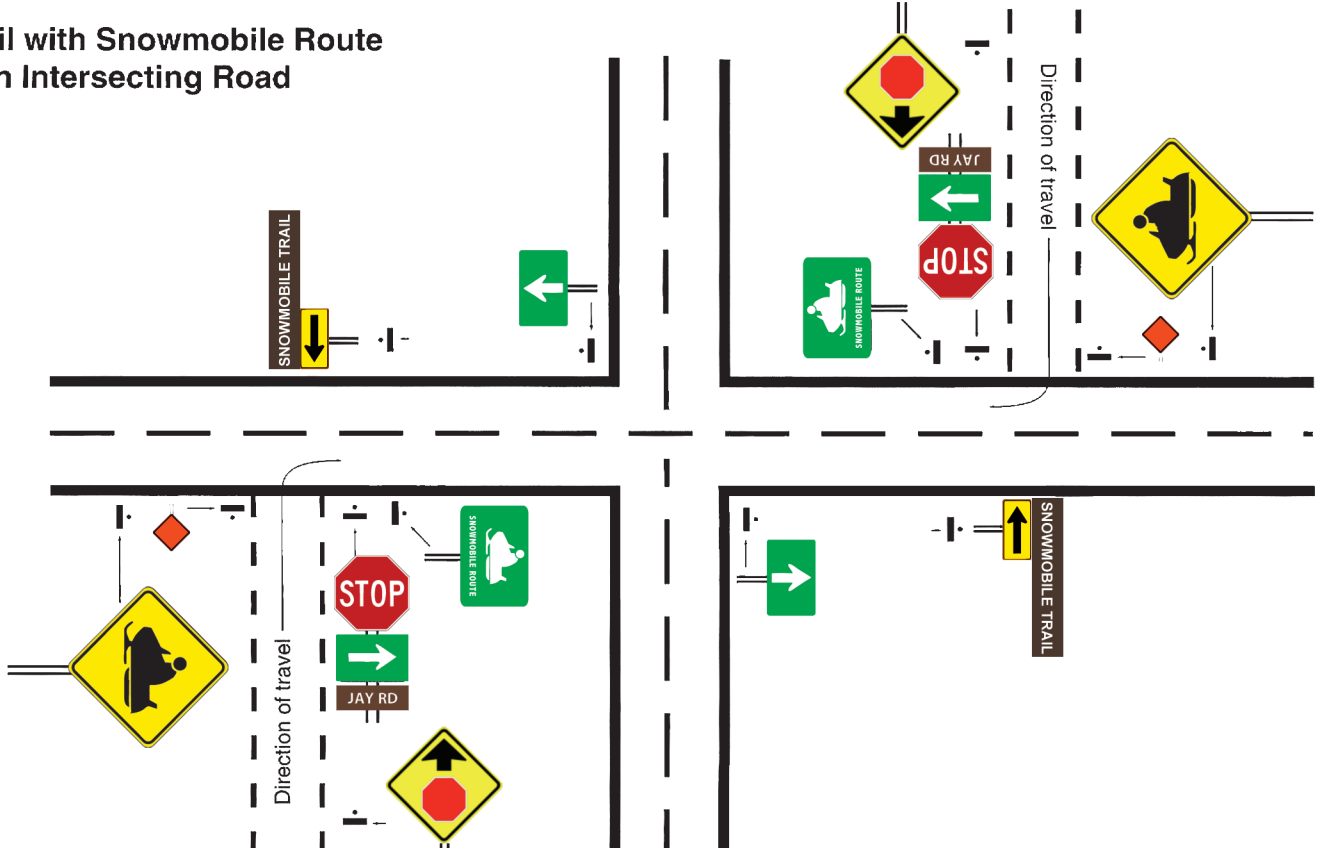
Crossing Existing Highway Bridge with an obstruction such as a road railroad grade, culvert or stream crossing.



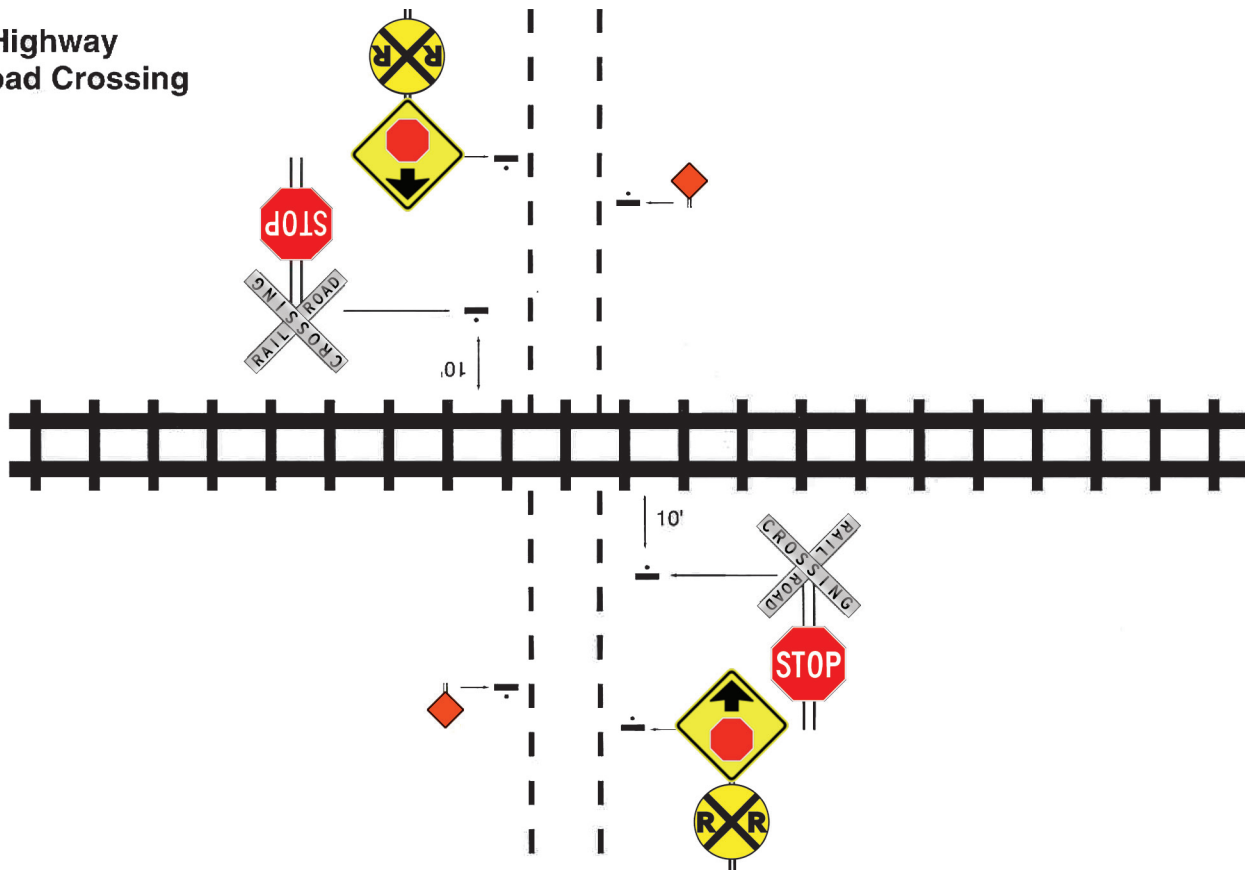
Trail with Snowmobile Route with Snowmobile Speed Limit



Trail with Snowmobile Route with Intersecting Road



Non-Highway Railroad Crossing



ATV/UTV Signing



6" x 6"



Trail Signs

The basic core of signs and signing techniques for ATV trails are the same as for snowmobile trails and is contained in the snowmobile portion of the Trail Signing Handbook. The use of the term ATV specifically incorporates UTV unless stated otherwise.

The major differences or additions to the preceding pages are:

- 1) All ATV trails allow ATV/UTV traffic unless posted.
- 2) Trails are signed with a 6"x 6," fully reflective, ATV trail marker. Sign colors are a white symbol and border on a brown back ground. The purpose of the trail marker is to indicate that the trail is open to ATV use. Because many of the ATV trails also serve as snowmobile trails, it is important to delineate which trails are open for ATV use and which are not. ATV trail markers should be used at trail decision points and intersections.
- 3) The signing standards provided with this Handbook should not be construed as reducing the basic operator responsibility to operate an ATV in an observant and prudent manner.

ATV

Highway Signs



24" x 18"
D11-10



24" x 18"
D11-8



36" x 36" when used on state highways.
Smaller sizes may be used on local roads. D11-10A (white on green) or R59-52 (black on white)



M7-1



M7-2



M7-5



M7-6

12" x 9"

ATV Route Signs

The primary use of the ATV route sign and arrow is to alert the ATV and UTV user that it is permissible to use the traveled portion of the road or highway. This sign also alerts motor vehicle traffic that ATVs are using the road or highway for travel. ATV routes are established by local units of government such as cities, villages, towns or counties.

Route signs and arrows are traffic signs that must be placed in accordance with the Wisconsin Manual on Uniform Traffic Control Devices (WMUTCD). 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 ATV route ends and the trail begins, a yellow and black directional arrow should indicate the direction the trail takes.

When a route serves both ATVs and snowmobiles, a combination snowmobile and ATV sign can be used. When ATVs and snowmobiles share the same route, one directional arrow can serve both vehicles. In instances where an ATV 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.

Sign sizes and codes are shown for reference.



24" x 9"
D11-10P



24" x 12"
MK4-6

ATV Highway Crossing Signs

The highway crossing sign alerts traffic that ATV 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.

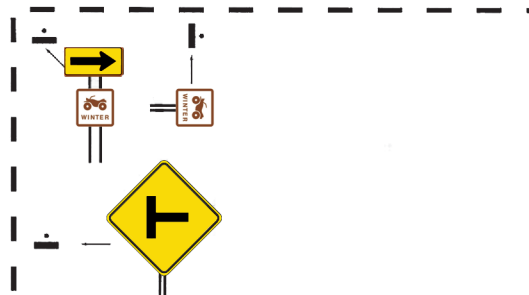
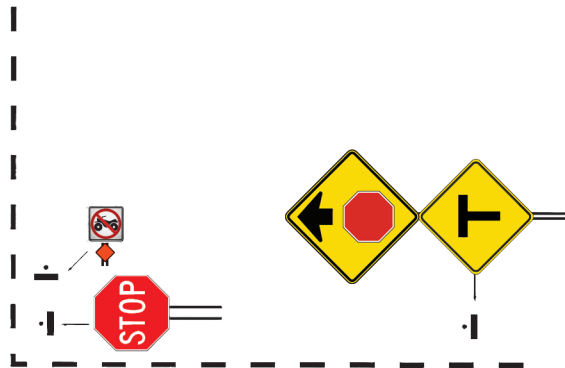
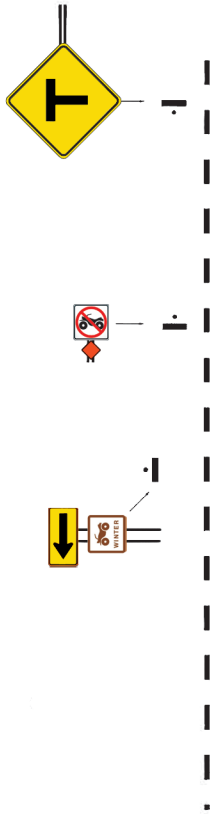
ATV crossing signs should be displayed during the seasons when ATV route or trail users are crossing a highway. When ATVs and snowmobiles are making use of a trail during the winter months, placement of two crossing signs, each with the respective alert, is not required. There may be instances, however, when placement of both signs is desirable, e.g., same trail serving as a winter snowmobile trail and a year around ATV trail.



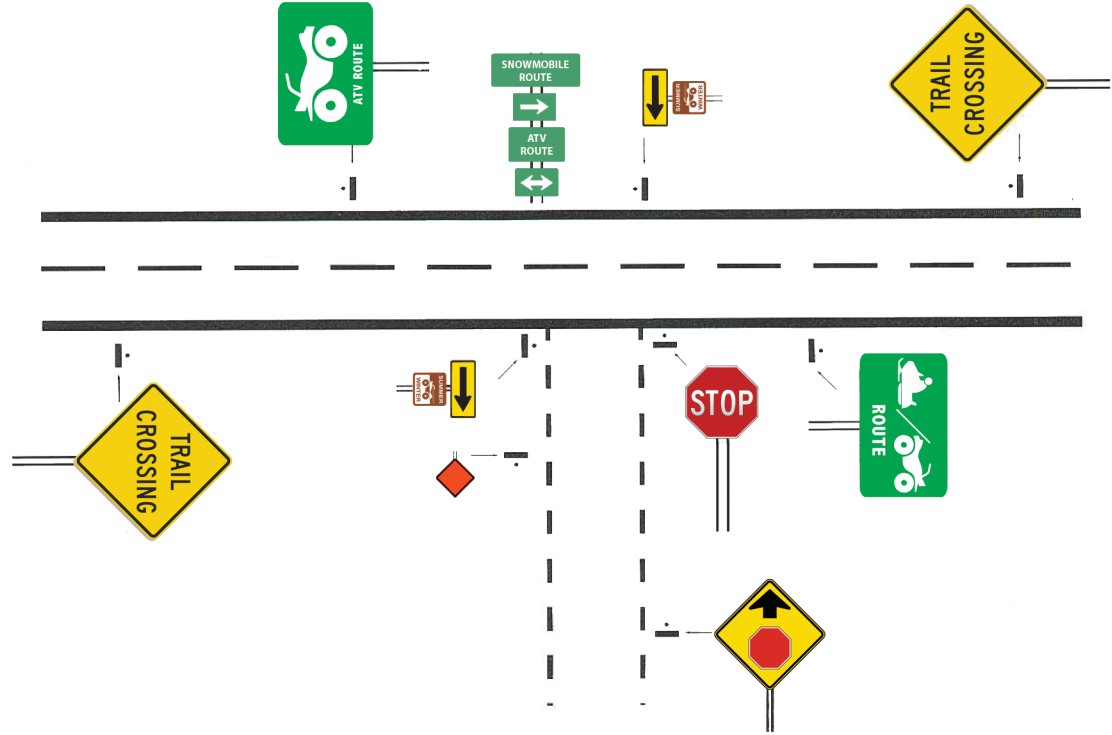
30" x 30" *
W11-50

* See page 15 for other sign sizes
on state highways

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



ATV and Snowmobile Route Combination



OHM Signing

Trail Markers:

Off-Highway Motorcycle trails are signed with a 6"x6" (or 3"x3" single track trail), white off-highway motorcycle (OHM) symbol on a dark brown background, OHM trail marker. The purpose of the trail marker is to indicate that the trail is open to OHM use.



Trail Sign
Size: 6"x 6" or 3"x 3"



Route Sign (Highway Sign)
24" x 18"

Route Markers:

Off-highway motorcycle routes are signed as shown on the left. Sign colors are white reflectorized lettering on a green background.

The primary use of the OHM route sign and arrow is to alert the ATV/UTV/OHM users that it is permissible to use the traveled portion of the road or highway. This sign also alerts motor vehicle traffic that OHMs are using the road or highway for travel. OHM routes are established by local governments. Route signs and arrows are traffic signs that must be placed in accordance with the Wisconsin Manual on Uniform Traffic Control Devices.



12" x 9"

Notes:

