

Guidelines for Snowmobile Trail Signing and Placement



**EASTERN SD GRANT-IN-AID TRAILS
South Dakota Snowmobile Trails Program
2017-2018**

2017-2018 Signing Guidelines

This manual provides suggested guidelines for the effective placement of signs on Grant-In-Aid snowmobile trails in Eastern South Dakota. They follow suggestions from the International Association of Snowmobile Administrators and should not be construed as minimizing the rider's responsibility to operate their vehicle in a reasonable, responsible and prudent manner on the trails at all times. While trail terrain and local conditions may not make it practical or possible to conform to these suggested guidelines 100 percent of the time, clubs should attempt to follow these guidelines to the extent possible. The principles and guidelines offered are intended to complement safe riding practices for a safe and enjoyable trail riding experience. Always keep in mind that trails should be signed to help guide people not familiar with the route.

ORDERING SUPPLIES

Metal signs and markers are produced at Pheasantland Industries at the South Dakota State Penitentiary in Sioux Falls. **To order signs, please contact Ryan Raynor at (605) 280-6953 or via e-mail at ryan.raynor@state.sd.us.** Be sure to include your UPS mailing address, as PO box numbers will create added expense and delay. In most cases, the signs can be made and shipped in a short period of time.

Rebar and metal fasteners may be purchased locally, but please be sure to include all receipts with your reimbursement package.

GETTING STARTED

Signing may begin November 1, unless prior arrangements are made with your local DOT office. Signing should be a group effort as it can become long and tedious. When working with groups, however, be sure to have at least one experienced person with each party to ensure the signing is done correctly. Signing must be completed on or before **November 23, 2017.**

SIGN PLACEMENT

Generally, signs should be placed to the right of the trail to conform to the rider's familiarity with highway signs. Remember to place the signs somewhat higher than eye level when riding a snowmobile, and don't forget to consider snow accumulation.

A FEW TIPS:

- ✓ Never attach signs to the Department of Transportation's signs or posts. We are guests in the DOT's right-of-way and they do not want us to place our signs upon theirs. Blazers or Diamonds are O.K., but any other signs need to be attached to their own post or rebar. Failure to do so jeopardizes our eastern South Dakota trail system.
- ✓ Leave the right-of-way if needed, especially when narrow or hazardous conditions exist in the ditch. Easements from adjacent landowners may be obtained. Landowners who sign easements for recreational use are free of liability, as per state law. The laws governing this matter may be found at the end of this document.
- ✓ Do not place stop signs at driveways. State law mandates vehicles entering or crossing a public highway from a driveway must yield the right-of-way to all vehicles approaching on the highway or in its right-of-way.
- ✓ Have your signage reviewed by someone less familiar with the area to identify potential problems.

Signs, Markers and Their Proper Uses



Stop – Instructs riders to bring their snowmobile to a complete stop before proceeding with caution. These signs must be placed at the intersection of federal and state highways and at the intersection of county and township roads. They should be between 6 feet and 10 feet off the road shoulder to avoid conflict with snowplows. Stop signs should not be placed at driveways. Department of Transportation stop signs do not replace the need for snowmobile stop signs.



Stop Ahead – Informs riders that they are approaching a stop sign and will need a stop ahead. These signs should generally be placed between 175 feet and 500 feet before any Stop sign.



Directional Arrow – This arrow sign informs riders that the trail ahead makes a distinct change in direction. It advises riders to slow down to ensure they're prepared to safely negotiate the change in direction.



Slow – Warns riders that there may be a potentially hazard condition or feature ahead on the trail. These signs should generally be placed between 175 feet and 500 feet before any directional arrow or potentially hazard condition or feature ahead on the trail. A slow sign is not needed in conjunction with a directional arrow if riders are being brought to a complete stop. Riders are to temporarily slow their snowmobile when seeing this sign so they can watch for the full range of potential hazardous operating conditions that might be present.



Reassurance Blazer or Diamonds-Informs riders they are on a designated trail.



No Snowmobiling – Identifies areas where snowmobiling is not allowed.

These signs may be used in areas where trespassing complaints are common. Often these signs can placate landowner concerns about people riding through their yards or across their property.



Stay on Trail/Shoulder – Reminds riders of the importance of staying on the designated trail or shoulder. These signs may also be used in areas where trespassing complaints are common or where riders are to be on the shoulder of the roadway due to obstacles in the right-of-way. Often these signs can placate landowner concerns about people riding through their yards or across their property.



Junction Ahead – Informs riders that they are approaching a trail intersection. These signs may be used when the snowmobile trail intersects with another segment of snowmobile trail. In addition to the Junction Ahead sign, T intersection signs are also available:



Trail Closed - Informs riders this section of trail is closed for a short period of time. These signs should be used only when disturbances (accidents, fallen trees, vehicles stuck in the ditch etc) are located in the corridor; and the club can not clear such objects in a timely manner. A “Trail Closed Ahead” sign (which is not listed) must be used in conjunction with this sign and placed between 175 feet and 500 feet before any trail temporarily closed sign. **The Snowmobile Trails Coordinator in Pierre must be notified if and when a section of trail will be closed and the reason for its temporary closure.**

Setting the Corridor

There are two generally accepted methods of establishing a corridor:

1. **Pairs:** placing stakes or poles in pairs at right angles to the trail to set a “gate” through which a snowmobiler passes through; this must be the method used across leased private property.
2. **Single:** setting a single line of single stakes or poles with periodic pairs of stakes/poles to reinforce which side of the stake or pole line is intended for the flow of traffic; if in a road ditch, the single line should generally be set at the far outside edge or middle of the borrow ditch, depending upon ditch width and configuration (flat or sloped).

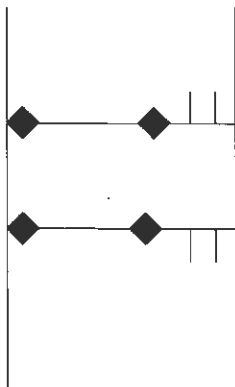
BLAZER PLACEMENT

In open areas, riders should generally be able to see the next blazer or blazer set ahead of them as they pass by a blazer or pair of blazers. Exact spacing will vary on the nature of the terrain being marked. If setting the trail corridor with pairs, the two posts should be spaced wide enough to accommodate grooming equipment and provide passage for two snowmobiles traveling in opposite directions. Blazers should be mounted on wooden or rebar posts. The blazers should be placed an adequate distance off the shoulder to avoid conflict with snowplows so as to help prevent loss of sign posts and blazers. Blazers may also be posted on existing utility poles if the club receives permission from the proper utility company. Blazers should be placed on both sides of all gate posts whenever the trail travels through a fence line.

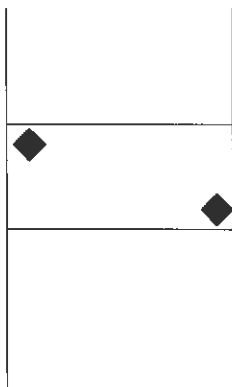
APPROACHES

If an approach contains a culvert, both sides of the approach must be marked with a pair of blazers to provide a passage around the culvert. On approaches without a culvert, one set of single blazers may be used if visible from both directions. Narrow township road ditches with a small culvert in the center of the approach can be marked with a single blazer from both directions in the center of the culvert if there is insufficient room between the fence line or road shoulder to use a pair; this reassures the rider they are following the designated trail while directing sleds to either side of the culvert.

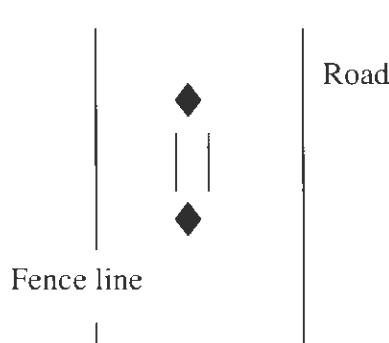
Approach / Culvert



Approach / No Culvert



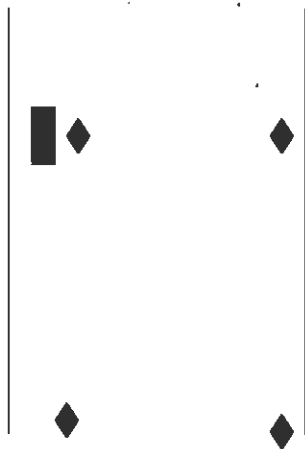
Narrow Township Road



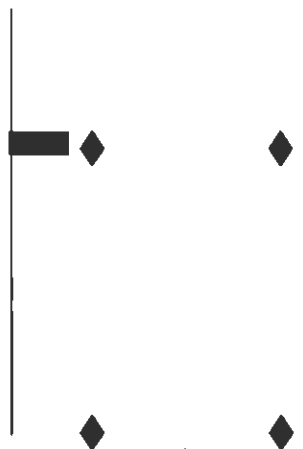
OTHER PLACEMENT TIPS

The placement of the trail corridor can help minimize obstacles along its route. For instance, if an electrical box is located along the trail, route the trail away from this potential hazard by using a pair of blazers to set the trail corridor. The same is true with culverts, guy wires, and/or other potential hazards. Below are a few examples of ways to mark your corridor around obstacles in a right-of-way:

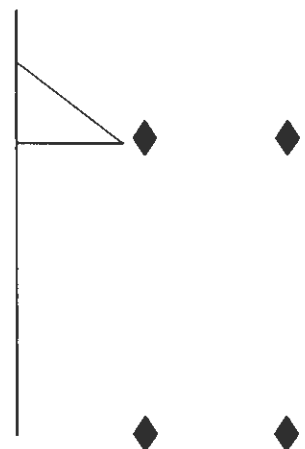
Electrical Box



Small Culvert



Guy Wire



TYPES OF BLAZERS

Two types of blazers may be ordered. Thick blazers contain horizontal mounting holes for placement on rebar. Thin blazers contain vertical mounting holes for nailing to fixed objects including fence posts and utility poles. Please indicate which type you need when ordering them.

A FINAL NOTE ON BLAZERS

Again, the orange reassurance blazers should be used only for marking the trail route. They should generally be placed at least 10-12 feet apart to allow the passage of two snowmobiles and/or grooming equipment. Blazers may also be placed slightly offset of one another to set a clear passage route. When trail width in a road ditch does not accommodate clear passage for a groomer, clubs should seek alternate routes around narrow stretches with easements from adjacent landowners.

4.0 Trail Sign Placement

This section provides basic information on how snowmobile trail signs are to be oriented and installed.

4.1 Sign Orientation

The most critical part of sign mounting is understanding how reflective signs work. One good analogy is to think of reflective signs as mirrors. To maximize the nighttime view of the sign it must be placed at eye level, perpendicular to the direction of travel of the trail. This orientation also ensures that the sign is visible over the longest possible period so that the rider has a chance to understand the message and to react accordingly. This important concept is illustrated by Figures 1 and 2.

Figure 3 defines an imaginary "window" for sign locations. Signs should be oriented perpendicular to trail within a 5' x 5' area which starts 3' from the trails edge and 2' above the trail. Signs mounted outside the window will not perform as well.

4.1 Sign Orientation

One of the most frequently asked questions in posting signs is how far in advance of the trail condition should the sign be placed. Table 1 on the following page 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.

The sign posting table looks at two situations. The first is a situation where a caution sign is posted so that a snowmobile can come to a complete stop before the trail condition. The most common example of this situation would be a "Stop Ahead," trail sign prior to a STOP sign. 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 changes in trail direction. A key factor in using Table 1 is the judgment of the signing crew on what the speed of the majority of reasonable 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.

Figure 1 - Sign orientation, side view

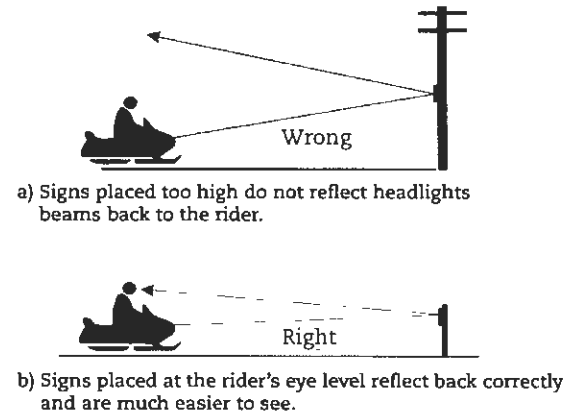


Figure 2 - Sign orientation, plan view

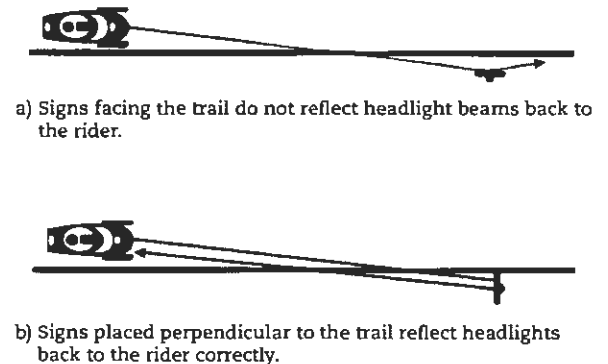
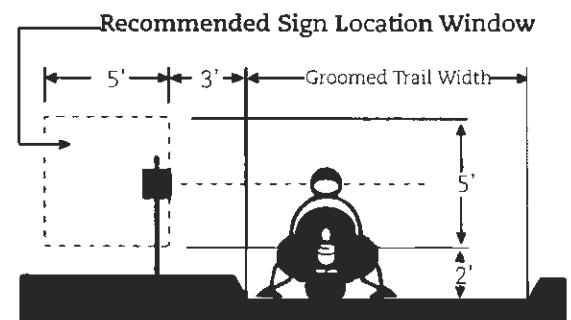


Figure 3 - Recommended sign location window



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

*No suggested minimum distance recommended. At these speeds, sign location depends on physical conditions at the site.

** No suggested minimum distance recommended. At these 5 mile per hour reductions in speed, location depends on the physical conditions at the site.

Regulatory signs shall be placed to the side of the trail. Unlike caution signs, regulatory signs are located where the desired action is to take place.

The Table above shows a range of distances for trail sign placements. The Table is adapted from previous IASA Signing Guidelines and is intended as a general guide for sign placement distances. Other studies, specifically those by Michigan Technological Keweenaw Research Center, are specific to defined snow and ice surfaces found during their study. Most snowmobile trails typically have a mix of trail surface conditions and those conditions can change daily depending upon weather conditions and other factors. Terrain also has to be taken into account. For these reasons the IASA guidelines use the signing distance range table shown above.

Miscellaneous Signing Issues

ROAD SHOULDERS

When the snowmobile trail must be routed up onto a road shoulder to get around bridges, cattle passes, large culverts, etc., extra advisory signing may be used depending upon local conditions and local discretion. If the road shoulder is wide, road traffic volume medium to low and the snowmobile driver doesn't need to slow down excessively to navigate from the ditch onto the shoulder and back down to the ditch (shoulder route deviation) – no additional signing may be needed. If the road shoulder is narrower, traffic volumes higher, and/or snowmobile speeds must be reduced considerably to safely navigate the trail route – installation of a SLOW sign in advance of the shoulder route deviation may be considered. If local conditions warrant, a STOP sign at both ends of the shoulder route deviation may also be considered.

GUY WIRES

When a guy wire is located near the trail route, contact the responsible utility company and request that the guy wire be covered with a fluorescent cover, if it does not already have one.

SNOWMOBILE CROSSINGS

Snowmobile Crossing signs are furnished and placed by the Department of Transportation (DOT) at any crossing point along state or federal highways. This should be coordinated with your local Department of Transportation office.

LEASED LANDS

- A. If prior consent is obtained from individual landowners, signs may be placed on leased property before November 1. All fences should remain intact and all gates should remain closed until December 1. If written permission is obtained from the landowner, signs may remain in place year-round. All gates or fence openings are to have a blazer on both side of post. Gates that are part of the trail system shall not be signed until the gate is completely opened so the wire is not a hazard. The gate shall be securely wired open during the snowmobiling season.
- B. Trail corridors through leased property should be 20' to 25' wide and include the standard signing procedures. In hilly areas, set blazers on hilltops and avoid sharp turns, fences or other hazards on the other side of the hill.
- C. Trail signs and posts must be removed from leased land before **April 15**, but not before March 31, without prior approval from the Snowmobile Trails Coordinator in Pierre. An exception can be made on property where landowner permission allows year-round signing.

SIGN INSTALLATION

All trail signs must be installed on or before **November 23, 2017**.

SIGN REMOVAL

All trail signs must be removed before **May 1, 2018**. The Snowmobile Trails Program Permit to Occupy Right-Of-Way with the DOT expires on April 30 of each year.

LANDOWNER LIABILITY AND RECREATION ~ SD STATUTES

20-9-12. Definition of terms. Terms used in § § 20-9-12 to 20-9-18, inclusive, mean:

- (1) "Charge," the admission price or fee asked in return for invitation or permission to enter or go upon the land. Any nonmonetary gift to an owner that is less than one hundred dollars in value may not be construed to be a charge;
- (2) "Land," land, trails, water, watercourses, private ways and agricultural structures, and machinery or equipment if attached to the realty;
- (3) "Outdoor recreational purpose," includes, but is not limited to, any of the following activities, or any combination thereof: hunting, fishing, swimming other than in a swimming pool, boating, canoeing, camping, picnicking, hiking, biking, off road driving, nature study, water skiing, winter sports, snowmobiling, viewing or enjoying historical, archaeological, scenic or scientific sites;
- (4) "Owner," the possessor of a fee interest, a tenant, lessee, occupant or person in control of the premises.



20-9-13. Landowner not obligated to keep land safe for use by others for outdoor recreational purposes or to give warning -- Exception. Except as provided in § 20-9-16, an owner of land owes no duty of care to keep the land safe for entry or use by others for outdoor recreational purposes, or to give any warning of a dangerous condition, use, structure, or activity on his land to persons entering for outdoor recreational purposes.

20-9-14. Liability of landowner for invitation to use property for outdoor recreational purposes -- Exception. Except as provided in § 20-9-16, an owner of land who either directly or indirectly invites or permits without charge any person to use his property for outdoor recreational purposes, including any person who is on the property pursuant to § 41-9-8, does not thereby:

- (1) Extend any assurance that the land is safe for any purpose;
- (2) Confer upon any person the legal status of an invitee or licensee to whom a duty of care is owed; or
- (3) Assume responsibility for, or incur liability for, any injury to persons or property caused by an act of omission of the owner as to maintenance of the land.

20-9-15. Liability of owner of land leased to state for outdoor recreational purposes. Unless otherwise agreed in writing, the provisions of § § 20-9-13 and 20-9-14 apply to the duties and liability of an owner of land leased to the state or any political subdivision thereof for outdoor recreational purposes.

20-9-16. Liability of landowner for gross negligence or injury suffered where consideration charged or law violated. Nothing in § § 20-9-12 to 20-9-18, inclusive, limits in any way any liability which otherwise exists:

- (1) For gross negligence or willful or wanton misconduct of the owner;
- (2) For injury suffered in any case where the owner of land charges any person who enters or goes on the land for the outdoor recreational use thereof, except that in the case of land leased to the state or a political subdivision thereof, any consideration received by the owner for such lease may not be deemed a charge within the meaning of this section nor may any incentive payment paid to the owner by the state or federal government to promote public access for outdoor recreational purposes be considered a charge; or
- (3) For injury suffered in any case where the owner has violated a county or municipal ordinance or state law which violation is a proximate cause of the injury.

20-9-17. Liability for injury to persons or property or failure to exercise care in use of land for outdoor recreational purposes. Sections 20-9-12 to 20-9-18, inclusive, may not be construed to create a duty of care or ground of liability for injury to persons or property, or relieve any person using the land of another for outdoor recreational purposes from any obligation which he may have in the absence of § § 20-9-12 to 20-9-18, inclusive, to exercise care in his use of such land and in his activities thereon, or from the legal consequences of failure to employ such care.

20-9-18. Doctrine of attractive nuisance not affected. Sections 20-9-12 to 20-9-18, inclusive, does not affect the doctrine of attractive nuisance or other legal doctrines relating to liability arising from artificial conditions highly dangerous to children.