

# TONGUE RIVER ROAD (S-332)

## Corridor Planning Study

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### Corridor Planning Study Highlights

The Montana Department of Transportation (MDT), in partnership with Custer and Rosebud Counties, initiated a *Corridor Planning Study* of Secondary Route 332 (S-332) from approximately reference post (RP) 0.00 (MT-59 intersection) extending 50.4 miles southwest to approximately RP 50.4 (S-447 intersection). Known locally as “Tongue River Road”, S-332 is functionally classified as a rural major collector on the Secondary Highway System. S-332 serves as a north-south corridor between Miles City and Ashland that generally parallels the Tongue River, passing through rolling terrain that consists of farm and ranch land.

The purpose of the study is to determine potential improvement options to address safety and geometrical concerns within the transportation corridor based on needs presented by the community, the study partners, and resource agencies. The study also considers potential traffic volumes based on proposed coal development in the region. The study examined geometric characteristics, crash history, and existing and projected operational characteristics of the S-332 corridor. Existing and projected physical constraints, land uses, and environmental resources were also analyzed.

The study, intended as a planning study and not a design project, was developed through a collaborative process with MDT, Custer and Rosebud Counties, and the Federal Highway Administration (FHWA) and involved focused outreach to the community, key stakeholders, and resource agencies. An evaluation of known and publically available resource information was conducted. The study includes the following elements:

- Research and analysis of existing S-332 roadway conditions, including identification of corridor issues and areas of concern.
- Synthesis of known environmental resources and impacts in the study area.
- Identification and documentation of existing and future conditions.
- Consultation and coordination with local officials, stakeholders, resource agencies, and the community.
- Identification of corridor needs and objectives.
- Development of corridor improvement options with consideration to costs, available funding, feasibility, community input, and known environmental resource constraints.
- Documentation of potential funding mechanisms for improvement options.

### Final Informational Meeting

Wednesday, October 24, 2012

6:00 PM

Miles Community College

2715 Dickinson Street

Room #106

Miles City, MT

**The public is welcome and encouraged to attend. We hope to see you there!**

## Corridor Needs and Objectives

Based on the analyses of existing and future conditions of the study area, the following needs and objectives were established and used in the development of improvement options.

### **NEED 1: IMPROVE SAFETY AND OPERATION OF S-332**

#### *Objectives (To the Extent Practicable)*

- Improve geometric elements to meet current MDT design criteria.
- Accommodate existing and future capacity demands within the corridor, including potential increases in semi-truck traffic.
- Provide adequate clear zones to meet current MDT design criteria.
- Provide appropriate drainage facilities throughout the corridor to minimize water on the roadway.
- Provide consistent roadway and bridge widths.
- Provide appropriate surfacing to allow for “all-weather” travel.
- Improve maintenance practices, given limited funding, to address washboards, potholes, and dust issues.

### **NEED 2: PRESERVE THE ENVIRONMENTAL, CULTURAL, RECREATIONAL AND AGRICULTURAL NATURE OF THE CORRIDOR**

#### *Objectives (To the Extent Practicable)*

- Evaluate and incorporate “best practice” mitigation strategies as appropriate to reduce animal-vehicle conflicts.
- Respect the agricultural nature of the corridor and allow for farm access as needed.
- Avoid adverse impacts to the extent practicable, otherwise minimize adverse impacts to historic, cultural, archaeological, and environmental resources that may result from improvement options.
- Evaluate fish (aquatic organism) passage issues and incorporate appropriate solutions to improve aquatic connectivity and stream function through structures and culverts.
- Provide reasonable access to recreational sites in the corridor.

### **NEED 3: MINIMIZE CONFLICTS ALONG THE CORRIDOR**

#### *Objectives (To the Extent Practicable)*

- Minimize impacts to existing residential and agricultural uses along the corridor.
- Minimize impacts to the Amish community, the Northern Cheyenne Indian Reservation and the St. Labre Indian School, all located south of the southern termini of S-332.
- Consider all modes of transportation in the corridor.

### **OTHER**

#### *Objectives (To the Extent Practicable)*

- Reduce roadway maintenance costs.
- Limit disruptions during construction as much as practicable.
- Availability and feasibility of funding.

## Improvement Options and Strategies

Multiple improvement option concepts were developed after a comprehensive review of publically available information relative to environmental resources and existing infrastructure, and focused outreach with the public, stakeholders, and various resource agencies.

Both small and large scale improvement options were identified. Small scale (i.e. spot improvements) may be as simple as installing guardrail. Larger, more complex improvements include placing new gravel surfacing on the existing gravel roadway, widening the gravel section of the roadway to a consistent width, or paving the gravel portion of S-332.

Improvement options are described in terms of “concepts” as a way of packaging options together. The concepts identified for potential implementations are described as follows:

- **Concept 1** identified several individual, geographically distinct spot improvements. These improvements are aimed at addressing identified roadway issues and areas of concern. They include bringing past slide areas up to standards, fixing sub-standard vertical curves (and associated grades), improving sub-standard horizontal curvature just west of the Tongue River Bridge, and installing guardrail at locations with apparent high, steep fill slopes.
- **Concept 2** includes improving the gravel roadway from RP 17.7 to RP 50.4 without major reconstruction. This can be done by either placing new gravel surfacing on the currently graveled portion of S-332 or could consist of a double-shot / bitumen surfacing treatment on top of the existing gravel road. Under both scenarios, no reconstruction or widening of the roadway would occur.
- **Concept 3** would result in the reconstruction and widening of the existing gravel portion of the roadway from RP 17.7 to RP 50.4.
- **Concept 4** consists of a mill, fill, and overlay of the existing pavement section between RP 0.0 and RP 17.7 and the reconstruction and widening of the existing gravel portion of the roadway from RP 17.7 to RP 50.4.
- **Concept 5** includes a total reconstruction of S-332 from RP 0.0 to RP 50.4 to include asphalt surfacing.

## Improvement Options Summary

Inherent to any improvement concept (or concepts) there will need to be sensitivity to wildlife and aquatic connectivity concerns. Due to the proximity to the Tongue River, implementation of any of the improvement concepts may necessitate close coordination with resource agencies to identify areas of sensitivity in regards to wildlife and aquatic needs. The following table contains a summary of the potential improvement options along with planning level cost estimates.

Concept Title	Description	Estimated Cost
<b>CONCEPT 1 – SPOT IMPROVEMENTS</b>		
<b>1.A - Vertical Curves</b>	<ul style="list-style-type: none"> <li>Modify existing vertical curves to increase the driver's sight distance.</li> <li>Identified in both paved and graveled sections.</li> <li>46 total curves identified.</li> </ul>	\$1,380,000
<b>1.B - Slide Areas</b>	<ul style="list-style-type: none"> <li>Identified in both paved and graveled sections.</li> <li>Nine (9) areas identified.</li> </ul>	\$2,761,000
<b>1.C - Guardrail</b>	<ul style="list-style-type: none"> <li>Protect drivers from potential safety hazards due to the steep slopes.</li> <li>Guardrail warrants to be evaluated prior to installation.</li> <li>Re-work of slopes may not be feasible.</li> </ul>	\$1,290,000
<b>1.D - Horizontal Curves (RP 40.23 – RP 40.98)</b>	<ul style="list-style-type: none"> <li>Improve three (3) horizontal curves that do not meet current standards.</li> <li>Limited to area just west of the Tongue River Bridge.</li> </ul>	\$689,000
<b>CONCEPT 2 – GRAVEL WITHOUT RECONSTRUCTION (RP 17.7 to RP 50.4)</b>		
<b>2.A - Gravel Placement</b>	<ul style="list-style-type: none"> <li>Place new 4" gravel surface on the roadway.</li> <li>No widening of the roadway.</li> <li>No reconstruction to address identified areas of concern.</li> </ul>	\$2,741,000
<b>2.B - Double Shot / Bitumen Treatment</b>	<ul style="list-style-type: none"> <li>Double chip seal coat on top of existing gravel road.</li> <li>No widening of the roadway.</li> <li>No reconstruction to address identified areas of concern.</li> </ul>	\$2,183,000
<b>CONCEPT 3 – RECONSTRUCT AND WIDEN GRAVEL SECTION (RP 17.7 to RP 50.4) *</b>		
<b>Reconstruct and Widen Gravel Section</b>	<ul style="list-style-type: none"> <li>Reconstruct gravel portion to a base width of 36' with a 32' top surface.</li> <li>May require additional right-of-way (not included in cost estimate).</li> </ul>	\$25,341,000
<b>Bridge Replacement</b>	<ul style="list-style-type: none"> <li>Replace three (3) bridges.</li> </ul>	\$1,878,000
<b>CONCEPT 4 – REHABILITATE WITH MILL / FILL / OVERLAY (RP 0.0 to RP 17.7) AND RECONSTRUCT AND WIDEN GRAVEL SECTION (RP 17.7 to RP 50.4) *</b>		
<b>Rehabilitate with Mill / Fill / Overlay (RP 0.0 to RP 17.7)</b>	<ul style="list-style-type: none"> <li>Mill the existing asphalt pavement, fill areas for better drainage (as needed), and place a new asphalt overlay.</li> <li>No modifications to existing road widths.</li> <li>No modifications to existing bridge or hydraulic structures.</li> </ul>	\$10,690,000
<b>Reconstruct &amp; Widen Gravel Section (RP 17.7 to RP 50.4)</b>	<ul style="list-style-type: none"> <li>Reconstruct gravel portion to a base width of 36' with a 32' top surface.</li> <li>May require additional right-of-way (not included in cost estimate).</li> </ul>	\$25,341,000
<b>Bridge Replacement</b>	<ul style="list-style-type: none"> <li>Replace three (3) bridges along gravel section.</li> </ul>	\$1,878,000
<b>CONCEPT 5 – RECONSTRUCT WITH PAVEMENT (RP 0.00 to RP 50.4) *</b>		
<b>Reconstruct with Pavement (RP 0.0 to RP 50.4)</b>	<ul style="list-style-type: none"> <li>Reconstruct both the paved and gravel section of the roadway to a paved section.</li> <li>Width dependent on AADT</li> <li>May require additional right-of-way (not included in cost estimate).</li> </ul>	\$54,614,000 (24') \$63,716,000 (28') \$72,819,000 (32') \$81,921,000 (36') \$91,023,000 (40')
<b>Bridge Replacement</b>	<ul style="list-style-type: none"> <li>Replace one (1) bridge along paved section.</li> <li>Replace three (3) bridges along gravel section.</li> </ul>	\$2,790,000

\* The continuation of improvements described under these concepts for the 2.7 miles of S-447, located between the intersection of S-332/S-447 and the beginning of existing pavement, should be considered if and when a project is developed.

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#### Check out the Study Website at:

[www.mdt.mt.gov/  
pubinvolve/tongueriver](http://www.mdt.mt.gov/pubinvolve/tongueriver)

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### Input Wanted

The draft *Corridor Planning Study* will be made available for review and comment on **October 23, 2012**. Copies can be accessed via the study website at: <http://mdt.mt.gov/pubinvolve/tongueriver/>. The deadline for receiving comments is **November 13, 2012**.

Comments may be submitted in writing at the Informational Meeting, online via the study website, or by mail to **Tom Kahle**, MDT Statewide and Urban Planning, Project Manager, PO Box 201001, Helena, MT. 59620-1001. Please indicate comments are for the *Tongue River Road Corridor Planning Study*. MDT will collect and consider all comments to better understand the community's view of potential issues and concerns within the study area.

### Next Steps

After the public comment period closes, comments will be reviewed and the *Corridor Planning Study* will be finalized.

The ability to implement improvement options for S-332 is dependent on the availability of existing and future federal, state, local, and private funding sources. At the current time, there is no funding identified to complete the improvement options contained in the study.

MDT attempts to provide accommodations for any known disability that may interfere with a person participating in any service, program, or activity associated with this study. Alternative accessible formats of this information will be provided upon request. For further information, call (406) 447-5000 or TTY (800) 335-7592, or call Montana Relay at 711. Accommodation requests must be made at least 48 hours prior to the scheduled activity and / or meeting.

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