



Montana Department of Transportation

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Jim Lynch, Director  
Brian Schweitzer, Governor

August 25, 2006

Janice W. Brown  
Division Administrator  
Federal Highway Administration  
585 Shepard Way  
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LEGISLATIVE ENVIRONMENTAL  
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MONTANA DIVISION

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ENVIRONMENTAL

Subject: STPHS 90-7(82)351  
2001 – Safety – East Springdale W.  
CN 5029

This is to request approval of this proposed project as a Categorical Exclusion (CE) under the provisions of 23 CFR 771.117(d), and the Programmatic Agreement as signed by the MONTANA DEPARTMENT OF TRANSPORTATION (MDT) and the FHWA on April 12, 2001. A Copy of its Preliminary Field Review (Dec 9, 2005) is attached. This proposed action also qualifies as a CE under ARM 18.2.261 (Sections **75-1-103** and **75-1-201, MCA**).

The following form provides the documentation required to demonstrate that all of the conditions are satisfied to qualify for a Programmatic Categorical Exclusion Approval (PCE) as initially agreed by the (former) MONTANA DEPARTMENT OF HIGHWAYS (MDOH) and the FHWA on December 6, 1989. (Note: An "X" in the "N/A" column is "Not Applicable" to, while one in the "UNK" column is "Unknown" at the present time for this proposed project.)

**NOTE:** A response in a box will require additional documentation for a Categorical Exclusion request in accordance with 23 CFR 771.117(d).

	YES	NO	N/A	UNK
1. This proposed project would have (a) significant environmental impact(s) as-defined under <u>23 CFR 771.117(a)</u> .	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. This proposed project involves (an) unusual circumstance(s) as described under <u>23 CFR 771.117(b)</u> .	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. This proposed project involves one (or more) of the following situations where:				
A. Right-of-Way, easements, and/or construction permits would be required.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1. The context or degree of the Right-of-Way action would have (a) substantial social, economic, or environmental effect(s).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. There is a high rate of residential growth in this proposed project's area.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. There is a high rate of commercial growth in this proposed project's area.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Work would be on and/or within approximately 1.6 kilometers (1± mile) of an Indian Reservation.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	<u>YES</u>	<u>NO</u>	<u>N/A</u>	<u>UNK</u>
5. There are parks, recreational, or other properties acquired/improved under <i>Section 6(f)</i> of the 1965 <i>National Land &amp; Water Conservation Fund Act (16 USC 460L, et seq.)</i> on or adjacent to proposed the project area.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The use of such <i>Section 6(f)</i> sites would be documented and compensated with the appropriate agencies. (e.g.: MDFWP, local entities, etc.).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Are there any sites either on, or eligible for the National Register of Historic Places with concurrence in determination of eligibility or effect under <i>Section 106</i> of the <i>National Historic Preservation Act (16 USC 470, et seq.)</i> by the State Historic Preservation Office (SHPO), which would be affected by this proposed project.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. There are parks, recreation sites, school grounds, wildlife refuges, historic sites, historic bridges, or irrigation that might be considered under <i>Section 4(f)</i> of the 1966 <i>US DEPARTMENT OF TRANSPORTATION Act (49 USC 303)</i> on or adjacent to the project area.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a. "Nationwide" Programmatic <i>Section 4(f)</i> Evaluation forms for these sites are attached.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. This proposed project requires a full (i.e.: DRAFT & FINAL) <i>Section 4(f)</i> Evaluation.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
B. The activity would involve work in a streambed, wetland, and/or other waterbody(ies) considered as "waters of the United States" or similar (e.g.: "state waters").	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1. Conditions set forth in <i>Section 10</i> of the <i>Rivers and Harbors Act (33 USC 403)</i> and/or <i>Section 404</i> under <i>33 CFR Parts 320-330</i> of the <i>Clean Water Act (33 USC 1251-1376)</i> would be met.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Impacts in wetlands, including but not limited to those referenced under Executive Order (E.O.) #11990, and their proposed mitigation would be coordinated with the US Army Corps of Engineers and other Resource Agencies (Federal, State and Tribal) as required for permitting	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. A 124SPA Stream Protection Authorization would be obtained from the MDFWP?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. There is a delineated floodplain in the proposed project area under FEMA's Floodplain Management criteria.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The water surface at the 100-year flood limit elevation would exceed floodplain management criteria due to an encroachment by the proposed project.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Tribal Water Permit would be required.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Work would be required in, across, and/or adjacent to a river which is a component of, or proposed for inclusion in Montana's Wild and/or Scenic Rivers system as published by the US Department of Agriculture, or the US Department of the Interior.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

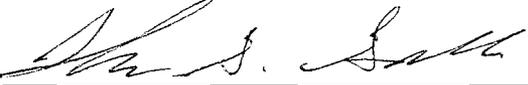
	<u>YES</u>	<u>NO</u>	<u>N/A</u>	<u>UNK</u>
The designated National Wild & Scenic River systems in Montana are:				
a. Middle Fork of the Flathead River (headwaters to South Fork confluence).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. North Fork of the Flathead River (Canadian Border to Middle Fork confluence).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. South Fork of the Flathead River (headwaters to Hungry Horse Reservoir).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Missouri River (Fort Benton to Charles M. Russell National Wildlife Refuge).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
In accordance with <i>Section 7 of the Wild and Scenic Rivers Act (16 USC 1271 – 1287)</i> , this work would be coordinated and documented with either the Flathead National Forest (Flathead River), or US Bureau of Land Management (Missouri River).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C. This is a "Type I" action as defined under <u>23 CFR 772.5(h)</u> , which typically consists of highway construction on a new location or the physical alteration of an existing route which substantially changes its horizontal or vertical alignments or increases the number of through-traffic lanes.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1. If yes, are there potential noise impacts?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. A Noise Analysis would be completed.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. There would be compliance with the provisions of both <u>23 CFR 772</u> for FHWA's Noise Impact analyses and MDT's Noise Policy.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
D. There would be substantial changes in access control involved with this proposed project.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If yes, would they result in extensive economic and/or social impacts on the affected locations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
E. The use of a temporary road, detour, or ramp closure having the following conditions when the action(s) associated with such facilities:				
1. Provisions would be made for access by local traffic, and be posted for same.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Adverse effects to through-traffic dependant businesses would be avoided or minimized.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Interference to local events( e.g.: festivals) would be minimized to all possible extent.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Substantial controversy associated with this pending action would be avoided.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
F. Hazardous wastes /substances, as defined by the US Environmental Protection Agency (EPA) and/or the Montana Department of Environmental Quality (MDEQ), and/or (a) listed "Superfund" (under CERCLA or CECRA) site(s) are currently on and/or adjacent to this proposed project.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	<u>YES</u>	<u>NO</u>	<u>N/A</u>	<u>UNK</u>
All reasonable measures would be taken to avoid and/or minimize substantial impacts from same.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
G. The Montana Pollutant Discharge Elimination System's conditions ( <u>ARM 16.20.1314</u> ), including temporary erosion control features for construction would be met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
H. Permanent desirable vegetation with an approved seeding mixture would be established on exposed areas.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I. Documentation of an "invasive species" review to comply with both EO #13112 and the <i>County Noxious Weed Control Act</i> (7-22-21, MCA), including directions as specified by the county(ies) wherein its intended work would be done.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
J. There are "Prime" or "Prime if Irrigated" Farmlands designated by the Natural Resources Conservation Service on or adjacent to the proposed project area.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If the proposed work would affect Important Farmlands, then an AD-1006 Farmland Conversion Impact Rating form would be completed in accordance with the <i>Farmland Protection Policy Act</i> ( <b>7 USC 4201</b> , <i>et seq.</i> ).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
K. Features for the <i>Americans with Disabilities Act</i> (PL 101-336) compliance would be included.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
L. A written Public Involvement Plan, would be completed in accordance with MDT's Public Involvement Handbook.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. This proposed project complies with the <i>Clean Air Act's Section 176(c)</i> ( <b>42 USC 7521(a)</b> , as amended) under the provisions of <u>40 CFR 81.327</u> as it's either in a Montana air quality:				
A. "Unclassifiable"/attainment area. This proposed project is <u>not</u> covered under the EPA's September 15, 1997 Final Rule on air quality conformity.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
and/or				
B. "Nonattainment" area. However, this type of proposed project is either exempted from the conformity determination requirements (under EPA's September 15, 1997 Final Rule), or a conformity determination would be documented in coordination with the responsible agencies: (Metropolitan Planning Organizations, MDEQ's Air Quality Division, etc.).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
C. Is this proposed project in a "Class I Air Shed" (Indian Reservations) under <u>40 CFR 52.1382(c)(3)</u> ?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Federally listed Threatened or Endangered (T/E) Species:				
A. There are recorded occurrences, and/or critical habitat in this proposed project's vicinity.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
B. Would this proposed project result in a " <u>jeopardy</u> " opinion (under <u>50 CFR 402</u> ) from the Fish & Wildlife Service on any Federally listed T/E Species?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The proposed project would not induce significant land use changes, nor promote unplanned growth. There would be no significant effects on access to adjacent property, nor to present traffic patterns.

This proposed project would not create disproportionately high and/or adverse impacts on the health or environment of minority and/or low-income populations (EO #12898). It also complies with the provisions of *Title VI* of the *Civil Rights Act* of 1964 (**42 USC 2000d**) under the FHWA's regulations (23 CFR 200).

In accordance with the provisions of 23 CFR 771.117(a), this pending action would not cause any significant individual, secondary, or cumulative environmental impacts. Therefore, the FHWA's concurrence is requested that this proposed project is properly classified as a Categorical Exclusion.

  
\_\_\_\_\_, Date: 8/25/06  
Thomas G. Gocksch P.E.  
Project Development Engineer  
MDT Environmental Services Bureau

Concur   
\_\_\_\_\_, Date: 8/25/06  
Jake Goettle  
Acting Engineering Section Supervisor  
Environmental Services Bureau

Concur   
\_\_\_\_\_, Date: 9-7-06  
Federal Highway Administration

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Attachments

- cc w/o Attachments:
- Jeffrey M. Ebert, P.E. - District Administrator-Butte
  - Paul R. Ferry, P.E. - Highway Engineer
  - Scott A. Keller, P.E. - MSU Design Supervisor
  - John H. Horton - MDT Right-of-Way Bureau Chief
  - Suzy Price - MDT Contract Plans Section Supervisor
  - David W. Jensen, Supervisor - MDT Fiscal Programming Section
  - Jean A. Riley, P.E., Chief - Environmental Services Bureau
  - Tom Gocksch P.E. – Environmental Services Bureau
  - Deb Wambach – Environmental Services Bureau

- Cc w/ Attachements:
- Environmental Quality Council  
Park County (414 East Callender, Livingston, MT 59047)

MDT attempts to provide accommodation for any known disability that may interfere with a person participating in any service, program or activity of the Dept. Alternative accessible formats of this information will be provided upon request. For further information, call 406-444-7228 or TTY (800-335-7592), or call Montana Relay at 711.



Montana Department of Transportation  
PO Box 201001  
Helena, MT 59620-1001

**Memorandum**

To: Paul R. Ferry, P.E.  
Highway Engineer

From: Damian Krings, P. E.  
Road Design Engineer

Date: December 9, 2005

Subject: STPHS 90-7(82)351  
2001 – Safety – East Springdale W.  
Control No. 5029

We request that you approve the Preliminary Field Review Report for this project.

Approved Signed by Lesly Tribelhorn 12-12-05 Date \_\_\_\_\_  
Paul R. Ferry, P.E.  
Highway Engineer

cc:

Kent Barnes - Bridge	John Horton – Right-of-Way
Jeff Ebert – Butte District	John Blacker - Maintenance
Jean Riley – Environmental	Matt Strizich – Materials
Mac McArthur (2 copies)- Const.	Duane Williams – Traffic and Safety
John Pirre – Eng. Management	Joe Olsen – Butte District
Mark Goodman – Hydraulics	Walt Scott – Utilities
Sandy Straehl – Planning	David Jensen – Fiscal Programming
Damian Krings – Road Design	Pierre Jomini – Safety Management
Scott Keller – MSU Design	Rich Jackson – Geotech
Highways File	

### **Preliminary Field Review Report**

This report has been developed from information discussed at the Preliminary Field Reviews and from significant input received since those reviews. The initial field review was held November 6, 2003 with the following personnel in attendance:

Danielle Bolan, Traffic Engineer, Helena  
Joe Olsen, Butte District Engineering Services Engineer, Butte  
Jerry Martello, Maintenance Section, Livingston  
Mark Peterson, Maintenance Superintendent, Bozeman  
Tom Hanek, Safety Management Section, Helena  
Sandie Stiffler, Traffic and Safety Bureau, Helena  
Linda Cline, MSU Design Unit, Bozeman  
Scott Keller, MSU Design Unit, Bozeman

A second field review was held on April 19, 2004 with the following personnel in attendance:

Joe Olsen, Butte District Engineering Services Engineer, Butte  
Jerry Martello, Maintenance Section, Livingston  
Scott Helm, Butte District Geotechnical Manager, Helena  
Scott Keller, MSU Design Unit, Bozeman

#### **Proposed Scope of Work**

The proposed scope of work for this project is to stop the majority of the rocks from reaching the roadway and/or minimizing the damage to the vehicles should a rock be encountered. The initial project nomination identified a rock fall net and guardrail as a possible solution. Other solutions such as rock scaling, some type of physical or energy attenuation barrier on the slope bench above the roadway, or some type of warning system that would alert drivers when rock was on the roadway have also been proposed by the Geotechnical Section. Combinations of these strategies will also be considered.

The Geotechnical Section will be tasked with researching and developing the most cost-effective design for this location.

#### **Project Location and Limits**

This project is located on Interstate 90 and begins at approximately Reference Post 350.9 and extends to approximately Reference Post 351.0. The project is located in Sections 28, 29, and 33 of Township 1 South, Range 12 East in Park County

#### **Physical Characteristics**

The existing roadway was completed in 1960 under the FAP I-117 (10) Unit 2 contract. An overlay was completed in 2003 under the IM 90-7(85)340 contract. The roadway consists of 2-12 foot driving lanes and a 10-foot outside shoulder in both the

Eastbound and Westbound Directions. The Eastbound and Westbound lanes are separated with an 8-foot median with concrete barrier rail down the paved median centerline.

The roadway consists of a short tangent section running in a nearly North-South direction at the project location. Immediately west and lower in elevation, is the Montana Rail Link Railway and to the west of that is the Yellowstone River. The roadway parallels both of these features in this area.

To the East of the roadway is an existing v-ditch that has been partially filled by sediment and small rock debris. The earthen back slope of this cut section is very steep (approximately 1:1 slopes) and approximately half way up this cut slope is a 20-40 foot wide bench. The bench varies in width due to MDT Maintenance forces removing loose rock over the years that has broken off the rock face. The bench serves as an access road for Maintenance forces to remove rock and debris that is stopped on the bench. Above the bench is a steep rock cut (approximately 0.25:1 slopes) that has been fragmented and weathered over the years.

#### Traffic Characteristics

2005 ADT	=	10, 230
2025 ADT	=	18, 470
DHV	=	2400
T	=	21.0 %
18 kip ESAL's	=	1675 Daily
Growth Rate	=	3.0 % Annually

#### Accident Data

The section of I-90 between reference posts 350.9 and 351.0 was identified as a crash cluster location in the 2001 Safety Engineering Improvement Program. The crash history and location were reviewed by Safety Management and Butte District personnel. A benefit/cost analysis for the safety improvement recommendation, rock fall net or rail, resulted in a b/c ratio of 2.05 and the subject project was programmed. The benefit/cost ratio was calculated using 9 addressable crashes (3 injury crashes causing 3 injuries and 6 property damage only) of the total 16 recorded crashes between July 1, 1990 and June 30, 2000.

#### Major Design Features

##### Design Speed

The design speed for this project is 60 miles per hour, for a freeway in rolling terrain. The posted speed limit on the project is currently 75 miles per hour.

##### Horizontal Alignment

The horizontal alignment will remain unchanged. It consists of a tangent section of roadway approximately 360 feet in length with a two degree left hand spiraled curve

immediately preceding it to the west and a two degree 15 minute right hand circular curve immediately following it to the East. Both curves meet the 60 MPH design speed criteria and horizontal sight distance requirements.

#### Vertical Alignment

The vertical alignment will remain unchanged in the project area. It consists of a 1600 foot vertical crest curve with a +3.00 % grade meeting a -2.50 % grade. This vertical curve meets desirable stopping sight distance criteria for the 60 mile per hour design speed using the 6 inch object height.

#### Typical Section

The roadway typical section will remain unchanged. It consists of 2-12 foot driving lanes and a 10-foot outside shoulder in both the Eastbound and Westbound Directions. The Eastbound and Westbound lanes are separated with an 8-foot median with concrete barrier rail at the median mid-point. The existing v-ditch on the east side of the roadway does not meet current MDT standards and will be cleaned to remove accumulated sediment and small rock debris. (Please see the design exceptions portion of the report below for more details on the v-ditch.)

#### Surface Design

The roadway surface was overlaid in 2003 and will be used as is with no changes.

#### Grading

Unclassified excavation will be used to clean the v-ditch and reshape the earthen slopes where required on the east side of the roadway. The drainage will be slightly impacted in the ditch adjacent to the roadway and minor grading using motor patrol hours may be required to assure proper drainage. Disturbed soil areas will be seeded and fertilized and, if appropriate, erosion control best management practices will be used.

Rock scaling and possibly minor blasting will be used to remove loose rock above the slope bench. Contractor disposal of the removed material will be required as there are no adjacent disposal areas within the right-of-way.

#### Slope Design

Due to the limited nature of this project, the final slope design will be very similar to the original slope design on the East side of the roadway. Loose rock will be removed from the 0.25:1 rock slope above the bench. The v-ditch will be regraded to remove the sediment and rock debris that has accumulated over the years.

#### Geotechnical Considerations

The Geotechnical Section will determine the most cost-effective design for this location.

#### Hydraulics

There are minimal hydraulic considerations due to the limited scope of this project. The only impacts will be in the ditch adjacent to the East side of the roadway.

No new culverts or drainage features are proposed at this time.

#### Bridges

There are no bridges within the project limits.

#### Safety Enhancements

Depending on the design selected by the Geotechnical Section, safety will be improved by a number of possible methods. Possible methods include removing loose rock, which could eventually come down on to the roadway below. Rock fall netting or a physical or energy attenuation barrier would stop the smaller rock from getting to the roadway surface. A rock fall detection system would alert the driving public to larger rock on the roadway and allow the driver the ability to avoid a collision with the rock.

#### Traffic

At this point in time it does not appear that the Traffic and Safety Bureau will be involved in regards to existing signs, pavement markings, or delineation.

Should a rock fall detection system be developed for this project the Traffic and Safety Bureau will be consulted to aid in the detection system development.

#### Design Exceptions

The design exception process does not apply to this type of safety project. We will perpetuate the existing v-ditch and in place slopes as described in the physical characteristics section of this report. It is beyond the scope of this safety project to use the current MDT standard 10 foot wide, 20:1 flat bottom ditch or 1.5:1 back slope design at this location.

#### Right-of-Way

At this time, no new right-of-way is anticipated, as all of the work will be completed within the existing right-of-way. Construction permits may be required and will be determined later in the design process when construction limits are developed.

#### Access Control

The location of this project is within a full access control area. Access breaks are not anticipated at this point in time as the work will be completed within the existing right-of-way fencing.

#### Utilities

Overhead power and underground telephone, as well as an underground fiber optic line parallel the roadway and are located west of the roadway, between the roadway and the railroad tracks. These lines may require shielding during scaling and/or blasting activities, if these methods are used.

#### Railroad

The Montana Rail Link Railroad line parallels the roadway to the west. The railroad lies between the roadway and Yellowstone River. Scaling and/or blasting