



*Environmental Services*  
MONTANA DEPARTMENT OF TRANSPORTATION  
Helena, Montana 59620

**Memorandum**

To: Lisa Hurley  
Fiscal Programming Section Supervisor

From: Heidi Bruner, P.E.   
Environmental Engineering Section Supervisor

Date: January 26, 2015

Subject: Categorical Exclusion (c)(23)  
SF 139-Guardrail E of St. Regis  
HSIP 90-1(207)38  
Control Number: 8630 000

Environmental Services Bureau has reviewed the proposed project and concluded that it will not involve unusual circumstances as described under 23 CFR 771.117(b). As a result, the project qualifies as a Categorical Exclusion under the provisions of 23 CFR 771.117(c), part (23), which describes Federally-funded projects that receive less than \$5,000,000 of Federal funds. The proposed action also qualifies as a Categorical Exclusion under the provisions of ARM 18.2.261 (Sections 75-1-103 and 75-1-201, MCA).

The project is located on a curve on westbound Interstate 90 between RP 38.3 and 39.5. The project is to extend guardrail through a curve to address a run-off-the-the-road crash trend. Right-of-way involvement will not be necessary. A cultural resource survey will not be necessary. A Level A public involvement plan is proposed for the project. The total estimated cost of the project at this time including CN + CE w/INF + IDC = \$107,070.

In accordance with the Federal Highway Administration (FHWA) letter of March 29, 1999, please notify FHWA that the proposed action is being processed in accordance with 23 CFR 771.117(c).

e-copies: Ed Toavs, Missoula District Administrator  
Roy Peterson, P.E., Traffic & Safety Engineer  
Gabe Priebe, P.E., Project Design Engineer  
Robert Stapley, Right-of-Way Bureau Chief  
Suzy Price, Contract Plans Bureau Chief  
Tom Martin, P.E., Environmental Services Bureau Chief  
Susan Kilcrease, Environmental Services Project Development Engineer  
Tom Erving, Fiscal Programming  
Montana Legislative Branch Environmental Quality Council

copy: Gene Kaufman, P.E., FHWA Operations Engineer  
Environmental Services Bureau File



**Memorandum**

To: Distribution

From: Roy Peterson, P.E. [RAP]  
 Traffic & Safety Engineer

Date: October 24, 2014

Subject: SF 139 – GRDRAIL E OF ST REGIS  
 HSIP 90-1(207)38  
 UPN 8630000  
 Work Type 310 – Roadway & Roadside Safety Improvements

Attached is the Preliminary Field Review Report/Scope of Work Report which was approved on [October 28, 2014]. We request that those on the distribution review this report and submit your concurrence within two weeks of the approval date.

Your comments and recommendations are also requested if you do not concur or concur subject to certain conditions. When all personnel on the distribution list have concurred, and the environmental documentation is approved, we will submit this report to the Preconstruction Engineer for approval.

I recommend approval:

Approved \_\_\_\_\_ Date \_\_\_\_\_

**Distribution:**

- |   |  |
|---|--|
| Ed Toavs, District Administrator          | Tom Martin, Environmental Services Bureau Chief    |
| Kent Barnes, Bridge Engineer              | Lynn Zanto, Rail, Transit, & Planning Division Ad  |
| Paul Ferry, Highways Engineer             | Jake Goettle, Construction Engineering Services Bt |
| Robert Stapley, Right-of-Way Bureau Chief | Matt Strizich, Materials Engineer                  |

**cc:**

- |   |   |
|---|---|
| Gabe Priebe, Project Design Engineer<br>Traffic and Safety file | Dawn Stratton, Fiscal Programming Section |
|---|---|

**e-copies:**

- |  |  |
|--|--|
| Jim Walther, Engineering, Preconstruction Engineer     | Jake Goettle, Construction Bureau – VA Engineer  |
| Lesly Tribelhorn, Highways Design Engineer             | Shane Stack, District Preconstruction            |
| Mark Goodman, Hydraulics Engineer                      | Ben Nunnallee, District Projects Engineer        |
| KC Yahvah, District Hydraulics Engineer                | Mike Dodge, District Materials Lab               |
| Bill Semmens, Env. Resources Section Supervisor        | Gary Engman, District Maintenance Chief - Kalisp |
| Joseph Weigand, Missoula District Biologist            | Maureen Walsh, District Right of Way Supervisor  |
| Susan Kilcrease, District Project Development Engineer | Phillip Inman, Utilities Engineering Manager     |
| Danielle Bolan, Traffic Operations Engineer            | David Hoerning, Lands Section Supervisor         |
| Ivan Ulberg, Traffic Design Engineer                   | Greg Pizzini, Acquisition Section Supervisor     |
| William Squires, Project Engineer                      | Joe Zody, R/W Access Management Section Mana     |
| Kraig McLeod, Safety Engineer                          | Matt Strizich, Materials Engineer                |
| Chris Hardan, Bridge Area Engineer, Missoula District  | Jim Davies, Pavement Analysis Engineer           |
| Mike Grover, Engineering Cost Analyst                  | Bret Boundy, District Geotechnical Manager       |
| Marty Beatty, Engineering Information Services         | Bryce Larsen, Supervisor, Photogrammetry & Surv  |
| Paul Grant, Public Involvement Officer                 | Paul Johnson, Project Analysis Bureau            |
| Sue Sillick, Research Section Supervisor               | Jean Riley, Planner                              |
| Alyce Fisher, Fiscal Programming Section               | Dawn Stratton, Fiscal Programming Section        |
| Angela Zanin, Bicycle/Pedestrian Coordinator           | Matt Maze, ADA Coordinator                       |
| Suzy Price, Contract Plans Bureau                      | Doug McBroom, Maintenance Division Operations    |



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

**Memorandum**

To: Roy Peterson, P.E.  
Traffic & Safety Engineer

From: Gabe Priebe, P.E. [GBP]  
Traffic Project Engineer

Thru: Ivan Ulberg, P.E. [IBU]  
Traffic Design Engineer

Date: October 24, 2014

Subject: SF 139 – GRDRAIL E OF ST REGIS  
HSIP 90-1(207)38  
UPN 8630000  
Work Type 310 – Roadway & Roadside Safety Improvements

Please approve the attached Preliminary Field Review Report/Scope of Work Report.

Approved [Signed by RAP] Date [10/28/14]  
Roy Peterson, P.E.  
Traffic & Safety Engineer

The same report is also being distributed under a separate cover as a Scope of Work Report for comments and approval recommendations.

cc (w/attach.):  
Traffic and Safety Master file

## Preliminary Field Review/Scope of Work Report

SF 139 – GRDRAIL E OF ST REGIS; HSIP 90-1(207)38

Project Manager: Gabe B. Priebe

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### **Introduction**

A preliminary field review was held on August 18, 2014. The following attended the field review.

Jason Shorten, Missoula Maintenance – Missoula (Office only)  
Shane Stack, Missoula District  
Ben Nunnallee, Missoula District (Office only)  
Glen Cameron, Traffic Engineer – Missoula  
Gabe Priebe, Traffic Project Engineer, Traffic & Safety – Helena  
Daniel Birlut, Safety Designer, Traffic & Safety – Helena

### **Proposed Scope of Work**

The proposed project has been nominated to extend guardrail through a curve on westbound Interstate 90 east of St. Regis.

### **Purpose and Need**

The purpose of this project is to install guardrail to address a run-off-the-road crash trend. The project is needed to enhance roadside safety for the traveling public.

### **Project Location and Limits**

This project is located east of St. Regis in Mineral County on I-15 between RP 38.3 and 39.5.

### **Work Zone Safety and Mobility**

At this time, Level 3 construction zone impacts are anticipated for this project as defined in the Work Zone Safety and Mobility (WZSM) guidance. The plans package will include a Transportation Management Plan (TMP) consisting only of a Traffic Control Plan (TCP). These issues are discussed in more detail under the Traffic Control and Public Involvement sections.

### **Physical Characteristics**

In 1982 I-90 through the project limits was reconstructed under project I 90-1(57)39 U2 and last improved with a plant mix overlay and a seal and cover under project IM 90-1(153)28 in 2010.

The westbound of I-90 roadway top width is 38 feet and consists of two 12-ft travel lanes, a 10-ft outside shoulder and a 4-ft inside shoulder. The pavement consists of 0.66 feet of plant mix over 0.75 feet of base course.

The terrain along the project is rolling. The roadside traverses scattered residential properties and Forest Service.

The westbound I-90 alignment contains two horizontal curves separated by a 5 ft tangent; these curves essentially form a compound curve. The western curve (radius approximately 4600 ft. and deflection angle of approximately 40 degrees) begins with a point of curvature approximately 3100 ft. west of the eastern end of the existing guardrail. The western curve extends 3200 ft. east to a point of curvature with the eastern curve (radius 2291 ft. and deflection angle of approximately 54.8 degrees). The eastern curve then extends 2,368 to a point of tangency near the eastern project limit. See Site Map at the end of this report.

The westbound I-90 profile has a maximum grade of +3.292% (upgrade to the east just outside eastern end of project) and features one sag vertical curve 2,000 feet long (K=194) within the project limits. Stopping sight distance is provided at 70 mph throughout.

## Preliminary Field Review/Scope of Work Report

SF 139 – GRDRAIL E OF ST REGIS; HSIP 90-1(207)38

Project Manager: Gabe B. Priebe

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### Traffic Data

The traffic data listed below is for I-15 between RP 38.3 and 39.5.

2014 AADT	=	6,920 (Present)
2015 AADT	=	7,020 (Letting Year)
2035 AADT	=	9,300 (Design Year)
DHV	=	1,300
T	=	21.9%
EAL	=	805
Growth Rate (Annual)	=	1.4%

### Crash Analysis

The Montana Highway Patrol records show 26 crashes along this section of roadway for the dates January 1, 2007 through December 31, 2011. The main crash trend is road departure (RD) crashes. Eleven of 26 reported crashes were RD incidents. Of the 11 RD incidents, 6 resulted in a rollover, 3 resulted in a collision with a guardrail or embankment, and 2 resulted in a jack-knifed trailer. There were also 7 collisions involving a wild animal, 4 crashes involving a vehicle stopped on the roadway, 2 rear-end crashes, and 1 sideswipe, same direction crash. There were 8 injury crashes resulting in a total of 14 injuries, and the remaining 18 crashes resulted in property damage only. Seven crashes occurred as part of the same chain reaction incident which was started when a truck jack-knifed and blocked the roadway in icy conditions. Of the 26 total crashes, 14 occurred in icy road conditions.

Seven of the crashes were considered addressable by extending the guardrail through the curve to RP 39.1. Two of the addressable crashes were injury crashes resulting in a total of 4 injuries. The safety improvements yielded a benefit-to-cost ratio of 22.15, based on a project cost of \$102,791.

There have been 2 additional crashes in the study area from January 1, 2012 through December 31, 2013. Both were single vehicle road departure crashes resulting in property damage only. One crash resulted in a rollover while the other resulted in a jack-knifed trailer. Both would be considered addressable by the proposed improvements.

### Major Design Features

- a. **Design Speed.** The geometric design criteria for NHS Interstate indicate that the design speed should be 60 mph based on rolling terrain. The posted speed limit is 75 mph.
- b. **Horizontal Alignment.** The horizontal alignment will not change with this project.
- c. **Vertical Alignment.** The vertical alignment will not change with this project.
- d. **Typical Sections and Surfacing.** The current surfacing will not be changed.
- e. **Geotechnical Considerations.** There are no known Geotechnical issues.
- f. **Hydraulics.** There are no known Hydraulics issues.
- g. **Bridges.** There are no bridges within the project limits.
- h. **Traffic.** Traffic will be responsible for roadway plans. Roadway plans will include removing an existing end section, adding approximately 2,700 ft. of w-beam guardrail and a new optional terminal section.
- i. **Pedestrian/Bicycle/ADA.** There are no dedicated pedestrian/bicycle or ADA facilities within the project and none are proposed.
- j. **Miscellaneous Features.** No miscellaneous features are anticipated.
- k. **Context Sensitive Design Issues.** There are no context sensitive design issues identified for this project.

## **Preliminary Field Review/Scope of Work Report**

SF 139 – GRDRAIL E OF ST REGIS; HSIP 90-1(207)38

Project Manager: Gabe B. Priebe

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### **Other Projects**

There do not appear to be any projects that will be under construction that could affect this project.

### **Location Hydraulics Study Report**

A Location Hydraulics Study Report will not be needed for this project.

### **Design Exceptions**

No design exceptions are anticipated for this project.

### **Right-of-Way**

No new right-of-way is anticipated with this project.

### **Access Control**

No changes to access control are proposed.

### **Utilities/Railroads**

No utility impacts are anticipated. MDT's Standard Specifications require the contractor to contact the Utilities Underground Location Center prior to excavation.

No railroad involvement is anticipated for this project.

### **Maintenance Items**

No maintenance involvement is anticipated.

### **Intelligent Transportation Systems (ITS) Features**

No ITS features are anticipated.

### **Survey**

A survey is not anticipated.

### **Public Involvement**

The project will include a 'Level A' standard of public involvement. This includes a news release explaining the project and a Department point of contact.

### **Environmental Considerations**

No significant environmental impacts or issues were identified. A Categorical Exclusion is anticipated for this project.

### **Energy Savings/Eco-Friendly Considerations**

No Energy Savings/Eco-Friendly Considerations have been identified at this time.

### **Experimental Features**

No experimental features will be used on this project.

### **Traffic Control**

A Transportation Management Plan (TMP) consisting of a Traffic Control Plan (TCP) only is appropriate for this project. The final traffic control plan (TCP) may be discussed at the plan-in-hand with district personnel. The TCP may include a sequencing special provision that will

## Preliminary Field Review/Scope of Work Report

SF 139 – GRDRAIL E OF ST REGIS; HSIP 90-1(207)38

Project Manager: Gabe B. Priebe

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provide a safe route for the travelling public at all times. All signing and/or flagging operations will be in accordance with the Manual on Uniform Traffic Control Devices.

### Project Management

Traffic & Safety – Helena will be responsible for developing the plans. Gabe Priebe is the project manager.

### Preliminary Construction Cost Estimate

The estimate below is based on information provided during nomination and will be refined as design progresses.

	Estimated cost	Inflation (INF) (from PPMS)	TOTAL costs w/INF + IDC (from PPMS)
Road Work	\$54,815		
Traffic Control	\$10,000		
<b>Subtotal</b>	<b>\$64,815</b>		
Mobilization (10%)	\$6,481		
<b>Subtotal</b>	<b>\$71,296</b>		
Contingencies (8%)	\$5,704		
<b>Total CN</b>	<b><u>\$77,000</u></b>	<b><u>\$11,568</u></b>	<b><u>\$97,418</u></b>
<b>CE (10%)</b>	<b><u>\$7,700</u></b>	<b><u>\$1,146</u></b>	<b><u>\$9,653</u></b>
<b>TOTAL CN+CE</b>	<b><u>\$84,700</u></b>	<b><u>\$12,714</u></b>	<b><u>\$107,071</u></b>

Note: Inflation is calculated in PPMS to the letting date. If there is no letting date, the project is assumed to be inside the current TCP and is given a maximum of 5 years until letting. IDC is calculated at 9.13% as of FY 2015.

### Preliminary Engineering

It is not anticipated the project will require a significant addition or reduction to the nominated PE amount.

### Project and Risk Management

Gabe Priebe will be the Project Design Engineer. This project is not a PoDI project by FHWA.

It is expected the overall level of risk is low to project costs and schedule.

### Ready Date

Ready and letting dates will be established after OPX-2 over-rides have been completed.

### Site Map

A project Site Map is attached.

# Preliminary Field Review/Scope of Work Report

SF 139 – GRDRAIL E OF ST REGIS; HSIP 90-1(207)38  
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