



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

Memorandum

To: Lisa Hurley
 Fiscal Programming Section Supervisor



From: *JMK for* Heidi Bruner, P.E.
 Engineering Services Supervisor
 Environmental Services

Date: November 23, 2015

Subject: Categorical Exclusion (C) Determination
 SF 139 - SFTY IMPRV N OF LOLO
 HSIP 7-2(63)86
 Control Number: 8639000

Environmental Services 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 (8) which describes installation of fencing, sign, pavement markings, small passenger shelters, traffic signals, and railroad warning devices where no substantial land acquisition or traffic disruption will occur.

The purpose of the project is to address curve-related crashes. The project is needed to enhance roadside safety for the traveling public. The proposed project is to provide a vehicle sensing LED chevron system on US-93 north of Lolo between reference post 85.9 and reference post 86.5. The attached Preliminary Field Review Report/Scope of Work Report provides a location map and a more complete project description. This proposed action also qualifies as a Categorical Exclusion under the provisions of ARM 18.2.261 (Sections 75-1-103 and 75-1-201, M.C.A.).

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

Attachment

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



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Memorandum

To: Distribution

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

Date: November 6, 2015

Subject: SF 139 - SFTY IMPRV N OF LOLO
 HSIP 7-2(63)86
 UPN 8639000
 Work Type 310 – Roadway & Roadside Safety Improvements

Attached is the Preliminary Field Review Report/Scope of Work Report which was approved on [November 9, 2015]. 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, Missoula District Administrator
 Kent Barnes, Bridge Engineer
 Lesly Tribelhorn, Highways Engineer
 Robert Stapley, Right-of-Way Bureau Chief

Tom Martin, Environmental Services Bureau Chief
 Lynn Zanto, Rail, Transit, & Planning Division Administrator
 Jake Goettle, Construction Engineering Services Bureau
 Matt Strizich, Materials Engineer
 Jon Swartz, Maintenance Division Administrator

cc:

Gabe Priebe, Project Design Engineer
 Traffic and Safety file

Dawn Stratton, Fiscal Programming Section
 Damian Krings, Road Design Engineer

e-copies:

Located at the end of this document



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: November 6, 2015

Subject: SF 139 - SFTY IMPRV N OF LOLO
HSIP 7-2(63)86
UPN 8639000
Work Type 310 – Roadway & Roadside Safety Improvements

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

Approved [Signed by RAP] Date [November 9, 2015]
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 - SFTY IMPRV N OF LOLO; HSIP 7-2(63)86

Project Manager: Gabe B. Priebe

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Introduction

On November 4th and 5th informal discussions and an office review of the site were conducted in lieu of a formal preliminary field review meeting. Those involved in the discussions regarding the scope of the project included:

Shane Stack, Missoula District Preconstruction Engineer
Glen Cameron, Traffic Engineer – Missoula
Gabe Priebe, Traffic Project Engineer, Traffic & Safety – Helena
Dan Cunningham, Electrical, Traffic & Safety – Helena
Ben Nunnallee, Missoula Project Engineer – Missoula
Dwayne Miller, Traffic Signing – Helena
Patricia Burke, Safety Engineering - Helena
Kraig McLeod, Safety Engineer - Helena
Jim Cornell, Traffic Signing – Helena
Bill Squires, Missoula Area Engineer – Helena
Lesly Tribelhorn, Highways Engineer – Helena
Joshua Dold, Missoula Road Design Supervisor – Helena
Dean Jones, Missoula District Construction Operations Engineer - Missoula

Proposed Scope of Work

The proposed project has been nominated to install a vehicle sensing LED chevron system on US-93 north of Lolo. The Safety Engineering Section identified a curve-related crash cluster within this segment of highway and recommended the proposed work as a cost-effective countermeasure.

Needs and Objectives

The purpose of the project is to address curve-related crashes. The project is needed to enhance roadside safety for the traveling public.

Project Location and Limits

The project is located on US-93 (N-7) north of Lolo between reference post 85.9 and reference post 86.5. The project is in Missoula County approximately 3 miles north of Lolo and falls within Sections 22 and 15 of Township 12 North, Range 20 West.

Work Zone Safety and Mobility

At this time, Level 2 construction zone impacts are anticipated for this project as defined in the Work Zone Safety and Mobility (WZSM) guidance. This project is on a Level 1 corridor but is not a Significant Project. Due to the short construction duration, we expect a small degree of public impact, and propose to consider this project as a Level 2 project. The plans package will include a Transportation Management Plan (TMP) consisting mainly of a Traffic Control Plan (TCP). A limited Public Information (PI) component is proposed to address public notification for this and the other tied projects along the corridor. These issues are discussed in more detail under the Traffic Control and Public Involvement and Other Projects sections.

Physical Characteristics

The terrain within the project varies from level to rolling. The Bitterroot River parallels the roadway to the east. The adjacent land use is rural in nature, with scattered agricultural, commercial and residential development.

The cut and fill slopes are up to 1.5:1 within this section of US-93.

Preliminary Field Review/Scope of Work Report

SF 139 - SFTY IMPRV N OF LOLO; HSIP 7-2(63)86

Project Manager: Gabe B. Priebe

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This section of US 93 was originally constructed under F-215(16), Lolo – Missoula, RP 82.7 to 90.2 (449+88.3 to 817+73.9) in 1969. The initial surfacing included 0.25' of plant mix surfacing, 0.15' crushed top surfacing and 1.25' of crushed base course.

The paved width is 68 feet and provides two 6-ft. shoulders, four 12-ft, travel lanes and an 8-ft. median with concrete barrier rail.

The project involves one horizontal curve with a radius of 1,146 feet and superelevation of 7.0%. The profile includes one sag vertical curve and one crest vertical curve with K values of 395 and 376 respectively.

Traffic Data

The Traffic Data Collection & Analysis Section provided the following traffic data on UPN 8732:

RP 83.2 to RP 90.9

2014 ADT = 23,740 (Present)

2017 ADT = 25,640 (Letting Year)

2037 ADT = 42,850 (Design Year)

DHV = 4,500

T = 4.6%

EAL = 235

AGR = 2.6%

Crash Analysis

A crash analysis will be included in the Scope of Work Approval document.

Major Design Features

- a. **Design Speed.** The geometric design criteria for Rural Principal Arterials (NHS) indicate that the design speed should be 60 mph based on rolling terrain. The posted speed limit is 65 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 typical sections and surfacing will not be changed with this project.
- e. **Geotechnical Considerations.** No geotechnical involvement is anticipated.
- f. **Hydraulics.** No Hydraulic involvement is anticipated
- g. **Bridges.** The Bridge involvement is anticipated.
- h. **Traffic.** Traffic will be responsible signing and electrical plans which will include actuated LED chevrons for northbound traffic only. The overhead advance curve warning sign will also be replaced. The existing flashing beacon will remain in place.
- i. **Pedestrian/Bicycle/ADA.** None of these facilities exist along the corridor and no improvements are anticipated.
- j. **Miscellaneous Features.** No Miscellaneous features are anticipated.
- k. **Context Sensitive Design Issues.** There are no context sensitive design issues identified for this project.
- l. **Permanent Erosion and Sediment Control (PESC) Features.** No PESC measures are anticipated.

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Other Projects

The project will be tied with the following projects for construction:

- 7930000 NH 7-1(137)47 MAIN/MARCUS SIG UPGRADE-HAMILTON
- *8732000 NH-G 7-2(59)83 LOLO - MISSOULA
- 8057000 HSIP-G 7-2(62)87 SF 129 - GUARDRAIL N LOLO

*The Lolo-Missoula project will include a detail for casting electrical conduits in the median barrier rail to facilitate installation of the LED chevrons on the top of the rail.

Location Hydraulics Study Report

No LHSR is required.

Design Exceptions

No design exceptions are anticipated.

Right-of-Way

No new right-of-way is anticipated.

Access Control

No access control changes are anticipated.

Utilities/Railroads

Power will be required for the LED system. Utilities are not expected to be impacted by this project; the standard utility one-call will be required to ensure conduit runs avoid underground utilities. Although the roadway is adjacent to the railroad, no railroad involvement is anticipated. R/W Utilities staff should review the scope of work and confirm railroad coordination is not required.

Maintenance Items

No maintenance involvement is required.

Intelligent Transportation Systems (ITS) Features

Actuated LED chevrons are considered ITS features. The LED lights will be activated as drivers approach the curve and will turn on in a sequential pattern to assist drivers around the curve.

Survey

No survey is required.

Public Involvement

The project will include a 'Level A' standard of public involvement. This is proposed to include a letter of intent and News Release explaining the project and including a department point of contact

Environmental Considerations

A Categorical Exclusion is anticipated. No other environmental concerns were identified.

Energy Savings/Eco-Friendly Considerations

No special Energy Savings or Eco-Friendly Considerations are anticipated.

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Experimental Features

Actuated LED chevrons are considered ITS features.

Traffic Control

Any necessary signing and/or flagging operations will be conducted in accordance with the Manual on Uniform Traffic Control Devices and in conjunction with the Lolo-Missoula project listed in the Other Projects Section.

Preliminary Construction Cost Estimate

	Estimated cost	Inflation (INF) (from PPMS)	TOTAL costs w/INF + IDC (from PPMS)
Signing, delineation	\$65,703		
Traffic Control	\$5,000		
Subtotal	\$70,703		
Mobilization (10%)	\$7,070		
Subtotal	\$77,773		
Contingencies (10%)	\$7,777		
Total CN	<u>\$85,550</u>	<u>\$13,937</u>	<u>\$109,803</u>
CE (10%)	<u>\$8,555</u>	<u>\$1,393</u>	<u>\$10,979</u>
TOTAL CN+CE	<u>\$94,105</u>	<u>\$15,330</u>	<u>\$120,782</u>

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 10.37% as of FY 2016.

Preliminary Engineering

The nominated PE amount should be enough to complete the project.

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

The expected ready date is January 21, 2015 for an April 21st letting.

Site Map

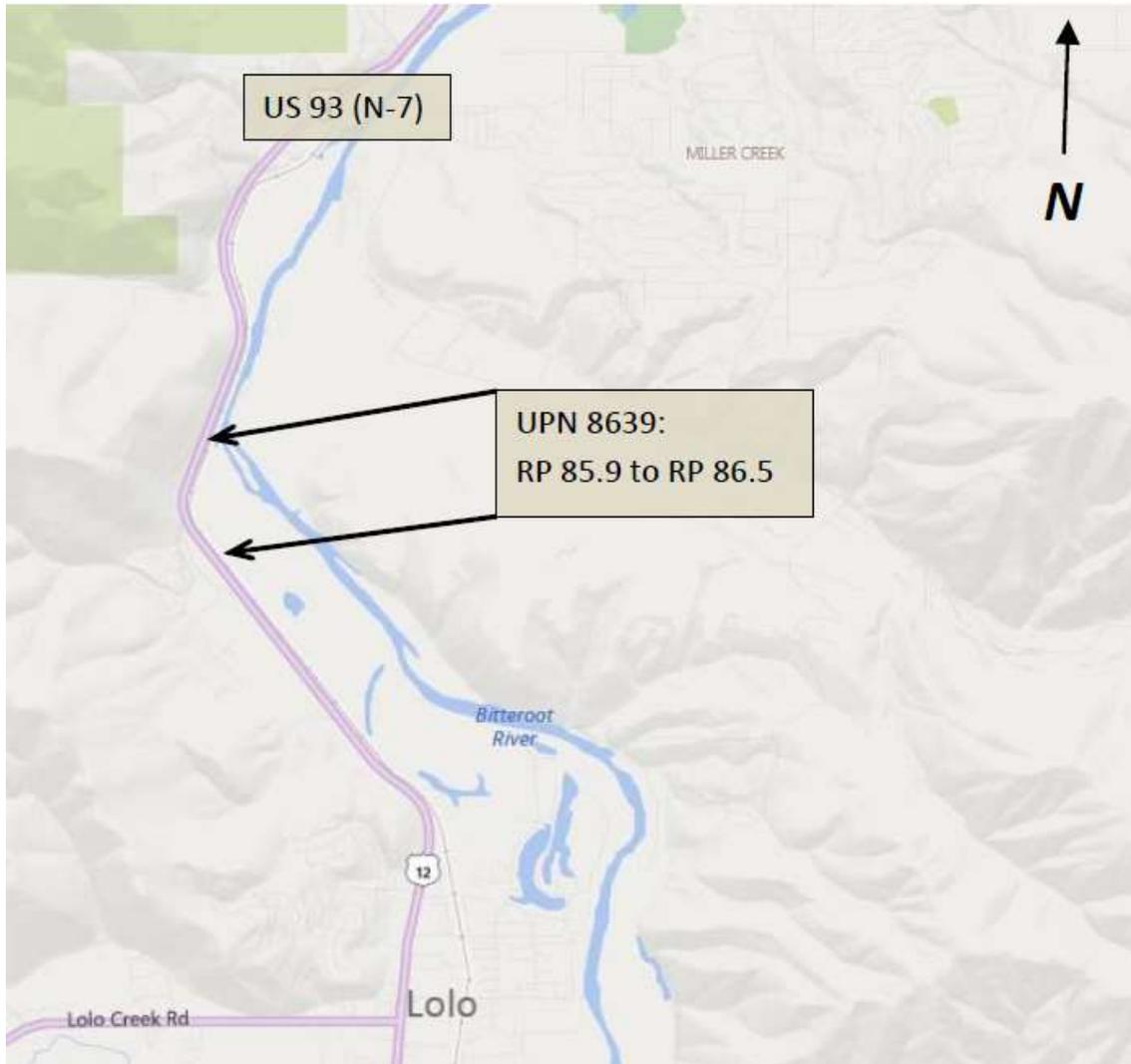
The Site Map is attached.

Preliminary Field Review/Scope of Work Report

SF 139 - SFTY IMPRV N OF LOLO; HSIP 7-2(63)86

Project Manager: Gabe B. Priebe

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e-copies:

Dave Hedstrom, Hydraulics
KC Yahvah, Missoula District Hydraulics Engineer
Bryce Larsen, Supervisor, Photogrammetry & Survey
Joe Weigand, Missoula District Biologist
Susan Kilcrease, District Project Development Engineer
Danielle Bolan, Traffic Operations Engineer
Ivan Ulberg, Traffic Design Engineer
Kraig McLeod, Safety Engineer
Chris Hardan, Missoula Bridge Area Engineer
Chad Richards, Engineering Cost Analyst
John Pirre, Engineering Information Services
Jan Nettet, Public Involvement Officer
Sue Sillick, Research Section Supervisor
Suzy Price, Contract Plans Bureau Chief
Alyce Fisher, Fiscal Programming Section
Michael Murphy, Bridge Management System
Wayne Noem, Secondary Roads Engineer

Jake Goettle, Construction Bureau – VA Engineer
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Steve Felix, District Maintenance Chief
Maureen Walsh, District Right of Way Supervisor
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