



Montana Department of Transportation

2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001

Michael T. Tooley, Director
Steve Bullock, Governor

August 1, 2013



RECEIVED
AUG 13 2013
ENVIRONMENTAL

Kevin L. McLaury
Division Administrator
Federal Highway Administration
585 Shepard Way
Helena, MT 59601-9785

Attention: Jeff Patten

Subject: Programmatic Categorical Exclusion (PCE) Concurrence Request
BH STWD(173)
Steel Br Rehab-Fatigue Det 2
CN: 7974000

Dear Kevin McLaury:

This submittal requests approval of the above-mentioned proposed project as a Categorical Exclusion under the provisions of 23 CFR 771.117(d) and the Programmatic Agreement as signed by the Montana Department of Transportation (MDT) and the Federal Highway Administration (FHWA) on April 12, 2001. This proposed action also qualifies as a Categorical Exclusion 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 PCE. A copy of the Preliminary Field Review Report/Scope of Work Report, dated January 3, 2013, and project location maps are attached. In the following form, "N/A" indicates not applicable; "UNK" indicates unknown.

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

- 1. This proposed project would have (a) significant environmental impact(s) as defined under 23 CFR 771.117(a). YES NO N/A UNK
2. This proposed project involves (an) unusual circumstance(s) as described under 23 CFR 771.117(b). YES NO N/A UNK
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. YES NO N/A UNK

	<u>YES</u>	<u>NO</u>	<u>N/A</u>	<u>UNK</u>
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 type="checkbox"/>	<input checked="" 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"/>
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</i> (16 USC 460L, <i>et seq.</i> ) on or adjacent to the project area.  The use of such <i>Section 6(f)</i> sites would be documented and compensated with the appropriate agencies. ( <i>e.g.</i> : MDFWP, local entities, etc.).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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</i> (16 USC 470, <i>et seq.</i> ) by the State Historic Preservation Office (SHPO), which would be affected by this proposed project.	<input checked="" type="checkbox"/>	<input 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</i> (49 USC 303) on or adjacent to the project area.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a. The proposed project would not impact the site(s), so a 4(f) evaluation is not necessary.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. De minimis finding(s) is/are necessary for this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. "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"/>
d. This proposed project requires a full ( <i>i.e.</i> : 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 ( <i>e.g.</i> , "state waters").	<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>
1. Conditions set forth in <i>Section 10</i> of the <i>Rivers and Harbors Act</i> (33 USC 403) and/or <i>Section 404</i> under 33 CFR Parts 320-330 of the <i>Clean Water Act</i> (33 USC 1251-1376) would be met.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input 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"/>
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 checked="" 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 checked="" type="checkbox"/>	<input type="checkbox"/>
c. South Fork of the Flathead River (headwaters to Hungry Horse Reservoir).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Missouri River (Fort Benton to Charles M. Russell National Wildlife Refuge).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
In accordance with <i>Section 7</i> of the <i>Wild and Scenic Rivers Act</i> (16 USC 1271 – 1287), 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"/>

	YES	NO	N/A	UNK
C. This is a "Type I" action as defined under 23 CFR 772.5(h), 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 23 CFR 772 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"/>
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 Stormwater Discharge conditions (ARM 17.30.1101-1117), 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	YES	NO	N/A	UNK
I. Documentation of an "invasive species" review to comply with both EO #13112 and the <i>County Noxious Weed Control Act</i> (7-22-2152, 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
If the proposed work would affect Important Farmlands, then a CPA 106 Farmland Conversion Impact Rating form would be completed in accordance with the <i>Farmland Protection Policy Act</i> (7 USC 4201, <i>et seq.</i> ).	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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> (42 USC 7521(a), as amended) under the provisions of 40 CFR 81.327 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 Resources Management Bureau, 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" under 40 CFR 52.1382(c)(2-4) and 40 CFR 81.417? (Northern Cheyenne, Flathead, and Fort Peck Indian Reservations; Glacier and Yellowstone National Parks; Anaconda-Pintlar, Bob Marshall, Cabinet Mountains, Gates of the Mountains, Medicine Lake, Mission Mountain, Red Rock Lakes, Scapegoat, Selway-Bitterroot, and U.L. Bend Wilderness Areas)	<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. Federally listed Candidate, 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 "jeopardy" opinion (under 50 CFR 402) 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.

Eric Thunstrom, Date: 8/1/13  
Eric Thunstrom  
Great Falls District Project Development Engineer  
MDT Environmental Services Bureau

Concur Heidy Bruner, Date: 8/2/13  
Heidy Bruner, P.E.  
Engineering Section Supervisor  
MDT Environmental Services Bureau

Concur Bruce Hanchel, Date: 8/12/13  
Federal Highway Administration

Attachments: Preliminary Field Review Report/Scope of Work Report and project location maps

electronic copies without attachments (unless otherwise noted):

Dave Hand	Great Falls District Administrator
Ed Toavs, P.E.	Missoula District Administrator
Stefan Streeter, P.E.	Billings District Administrator
Steve Prinzing, P.E.	Great Falls District Preconstruction Engineer
Tom Martin, P.E.	Environmental Services Bureau Chief

Heidy Bruner, P.E.	Environmental Services Bureau Engineering Section Supervisor
Kent Barnes, P.E.	Bridge Engineer
Paul Ferry, P.E.	Highways Engineer
Mark Goodman, P.E.	Hydraulics Engineer
Robert Stapley	Right-of-Way Bureau Chief
Stephanie Brandenberger, P.E.	Great Falls District Bridge Area Engineer
Suzy Price	Contract Plans Bureau Chief
Tim Tilton	Contract Section Supervisor
Lisa Hurley	Fiscal Programming Section Supervisor
Tom Erving	Fiscal Programming Section
Tim Holley	Great Falls District Environmental Engineering Specialist
Eric Thunstrom	Environmental Services Bureau Project Development Engineer
Montana Legislative Branch Environmental Quality Council (EQC) (with attachments)	
copies with attachments	
File	Environmental Services Bureau



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

**Memorandum**

To: Distribution

From: Kent Barnes, P.E. KB  
 Bridge Engineer

Date: January 3, 2013

Subject: BH STWD(173)  
 Steel Bridge Rehab – Fatigue Details 2  
 UPN 7974000  
 Work Type 240-Minor Bridge Rehabilitation

Attached is the Preliminary Field Review Report/Scope of Work Report which was approved on 1/3/13. 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:**

- |  |  |
|--|--|
| S. Streeter, Billings District Administrator         | Robert Stapley, Right-of-Way Bureau Chief                    |
| J. Ebert, Butte District Administrator               | E. Toavs, Missoula District Administrator                    |
| D. Wilmot, Acting Great Falls District Administrator | Tom Martin, Environmental Services Bureau Chief              |
| Kent Barnes, Bridge Engineer                         | Lynn Zanto, Rail, Transit, & Planning Division Administrator |
| Paul Ferry, Highways Engineer                        | Jake Goettle, Construction Engineering Services Bureau       |
| Roy Peterson, Traffic and Safety Engineer            | Matt Strizich, Materials Engineer                            |

**cc:**

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

**e-copies:**

- |   |   |
|---|---|
| Jim Walther, Engineering, Preconstruction Engineer    | Jake Goettle, Construction Bureau – VA Engineer               |
| Lesly Tribelhorn, Highways Design Engineer            | Sue Sillick, Research Section Supervisor                      |
| Mark Goodman, Hydraulics Engineer                     | Alyce Fisher, Fiscal Programming Section                      |
| Jon Axline, Acting Env. Resources Section Supervisor  | Jean Riley, Planner   |
| Heidi Bruner, Engineering Section Supervisor          | Dawn Stratton, Fiscal Programming Section                     |
| Joe Radonich, Haz. Waste Section Supervisor           | Duane Williams, Motor Carrier Services Division Administrator |
| Danielle Bolan, Traffic Operations Engineer           | Phillip Inman, Utilities Engineering Manager                  |
| Ivan Ulberg, Traffic Design Engineer                  | David Hoerning, R/W Engineering Manager                       |
| Kraig McLeod, Safety Engineer                         | Greg Pizzini, Acquisition Manager                             |
| Stephanie Brandenberger Bridge Area Eng., GF District | Joe Zody, R/W Access Management Section Manager               |
| Engineering Cost Analyst                              | Matt Strizich, Materials Engineer                             |
| Marty Beatty, Engineering Information Services        | Daniel Hill, Pavement Analysis Engineer                       |
| Paul Grant, Public Involvement Officer                | Paul Johnson, Project Analysis Bureau                         |
| Scott Helm, Geotechnical Manager                      | Wayne Noem, Secondary Roads Engineer                          |
| Bryce Larsen, Supervisor, Photogrammetry & Survey     | Dave Hand, Maintenance Division Operations Manager (RWIS)     |

e:copies (cont.)

Rod Nelson, Billings District Projects Engineer  
Mike Taylor, Billings District Construction Engineer  
Randy Roth, Billings District Maintenance Chief  
Dustin Rouse, Butte District Engineering Services  
Bill Fogarty, Butte District Construction Engineer  
Kam Wrigg, Butte District Maintenance Chief

Steve Prinzing, Great Falls District Engineering Services  
Doug Wilmot, Great Falls District Construction Engineer  
Tony Strainer, Great Falls District Maintenance Chief  
Shane Stack, Missoula District Engineering Services  
Dean Jones, Missoula District Operations Engineer  
Jack May, Missoula District Maintenance Chief



## Preliminary Field Review/Scope of Work Report

BH STWD(173) Steel Br Rehab – Fatigue Det 2  
Project Manager: S. Brandenberger

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### Introduction

This project was nominated to investigate and correct details in steel girders that are prone to fatigue induced failures. Bridges nominated for this project are located statewide and were chosen based on deficiencies observed in the field. Many of these deficiencies were found during construction of a similar project or during routine bridge condition inspections. Due to the dispersion and number of locations involved, and since the field inspections were sufficiently thorough to determine the presence of fatigue prone details, no project field review will be involved.

### Proposed Scope of Work

The scope of work for this project is inspection, documentation and remediation of fatigue prone areas in steel girders. Work will be limited to the welded intersections of longitudinal and transverse stiffeners, fixed cross frame connections, miscellaneous weld tabs, or observed cracks. No work will be performed on the decks, railing, or other areas of the beams that exhibit deterioration.

### Purpose and Need

The purpose of this project is to extend the service life of steel bridges by addressing fatigue prone details that can result in sudden and severe cracking failure.

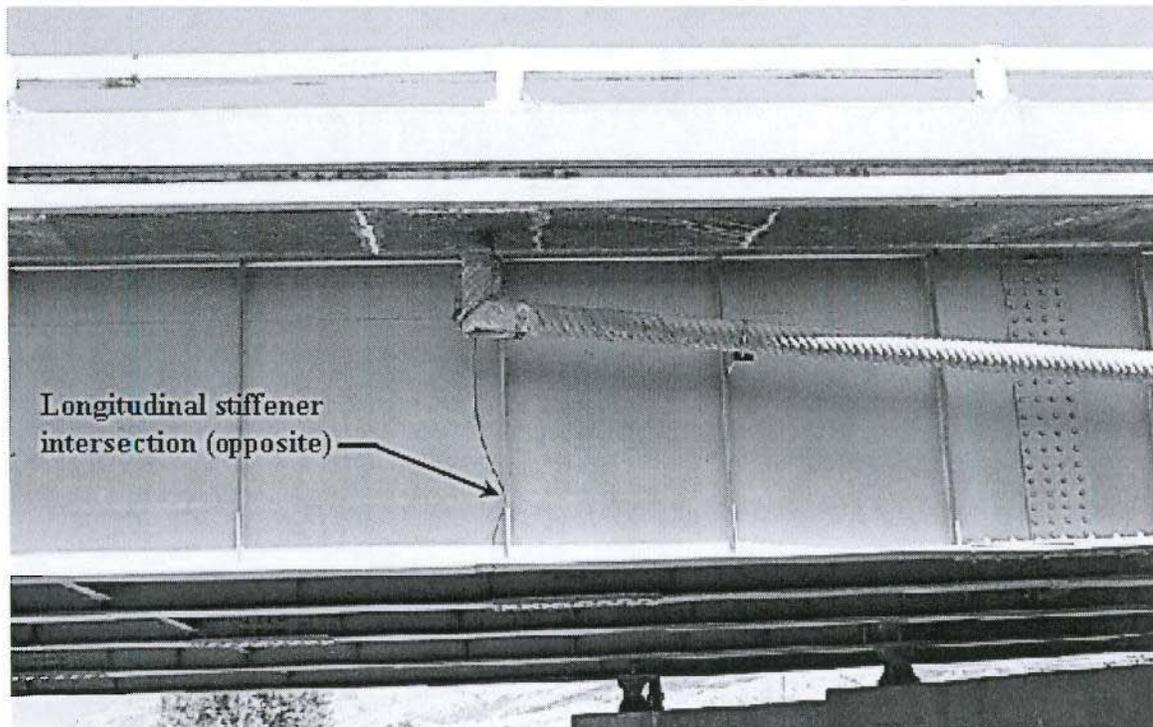


Figure 1 - Example of damage due to fatigue cracking

### Project Location and Limits

There are 14 structures statewide chosen for this project. Eight bridges are on Interstate 15, four bridges are on Interstate 90, and two are on primary routes. One of the structures is located within the city limits of Boulder. The majority of bridges (eight) are in the Great Falls Administration District.

## Preliminary Field Review/Scope of Work Report

BH STWD(173) Steel Br Rehab – Fatigue Det 2  
 Project Manager: S. Brandenberger

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**Table 1- Project Location and Limits**

	Bridge ID	District	County	Route	RP	Feature Crossed
1	I00090 042+0.9191	D1 Missoula	Mineral	Interstate 90	42.9 ±	Clark Fork
2	I00090 042+0.9192	D1 Missoula	Mineral	Interstate 90	42.9 ±	Clark Fork
3	I00090 045+0.1802	D1 Missoula	Mineral	Interstate 90	45.2 ±	Clark Fork
4	I00090 049+0.3972	D1 Missoula	Mineral	Interstate 90	49.4 ±	Clark Fork
5	P00069 038+0.3961	D2 Butte	Jefferson/ City of Boulder	Primary 69 / MT 69	38.4 ±	Intch Boulder, I15
6	I00015 239+0.1771	D3 Great Falls	Lewis & Clark	Interstate 15	239.2 ±	Missouri River, BNSF, Local
7	I00015 239+0.1772	D3 Great Falls	Lewis & Clark	Interstate 15	239.2 ±	Missouri River, BNSF, Local
8	I00015 240+0.4151	D3 Great Falls	Cascade	Interstate 15	240.4 ±	Dearborn Intch, Missouri River
9	I00015 240+0.4152	D3 Great Falls	Cascade	Interstate 15	240.4 ±	Dearborn Intch, Missouri River
10	I00015 241+0.0011	D3 Great Falls	Cascade	Interstate 15	241.0 ±	Missouri River
11	I00015 241+0.0012	D3 Great Falls	Cascade	Interstate 15	241.0 ±	Missouri River
12	I00015 241+0.8671	D3 Great Falls	Cascade	Interstate 15	241.9 ±	Missouri River, Local
13	I00015 241+0.8672	D3 Great Falls	Cascade	Interstate 15	241.9 ±	Missouri River, Local
14	P00045 000+0.9831	D5 Billings	Sweet Grass	Primary 45 / US 191	1.0 ±	Yellowstone River

### Physical Characteristics

Table 2 presents additional information about each structure on the project.

**Table 2 - Physical Characteristics**

	Bridge ID	Location	Year Built	Bridge Width (ft)	Bridge Length (ft)	General Layout Dwg No.
1	I00090 042+0.9191	6 km W Superior	1982	41-5	1092-0	12238
2	I00090 042+0.9192	6 km W Superior	1984	41-5	1092-0	12238
3	I00090 045+0.1802	4 km W Superior	1960	28-0	620-11	4470
4	I00090 049+0.3972	3 km W Superior	1960	28-0	800-11	4485
5	P00069 038+0.3961	Boulder	1973	43-6	259-8	9429
6	I00015 239+0.1771	8 km N Craig	1971	34-0	1248-6	7407
7	I00015 239+0.1772	8 km N Craig	1971	34-0	1288-0	7407
8	I00015 240+0.4151	10 km N Craig	1971	38-0	839-9	7380
9	I00015 240+0.4152	10 km N Craig	1971	38-0	849-0	7380
10	I00015 241+0.0011	11 km N Craig	1971	38-0	531-0	7445
11	I00015 241+0.0012	11 km N Craig	1971	38-0	531-0	7445
12	I00015 241+0.8671	12 km N Craig	1971	34-0	790-6	7467
13	I00015 241+0.8672	12 km N Craig	1971	34-0	817-6	7467
14	P00045 000+0.9831	1 M N Big Timber	1938	24-0	379-9	1872

## Preliminary Field Review/Scope of Work Report

BH STWD(173) Steel Br Rehab – Fatigue Det 2  
Project Manager: S. Brandenberger

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### 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. The plans package will include a Transportation Management Plan (TMP) consisting mainly of a Traffic Control Plan (TCP). These issues are discussed in more detail under the Traffic Control and Public Involvement sections.

### Traffic Data

Traffic Data will not be requested at this time.

### Crash Analysis

Crash Analysis will not be requested at this time.

### Major Design Features

The PFR Report should provide a general discussion for each of the following design features, if pertinent:

- a. **Horizontal / Vertical Alignment.** N/A
- b. **Typical Sections and Surfacing.** N/A
- c. **Geotechnical Considerations.** N/A
- d. **Hydraulics.** N/A
- e. **Traffic.** NA
- f. **Pedestrian/Bicycle/ADA.** N/A
- g. **Bridges.** Design features of this project involve the rehabilitation and repair of steel bridge girders. No other elements of the bridge or roadway will be modified. Other bridges may be added to the project if issues are identified during the PE phase. General descriptions of the repair work anticipated for the structures follow:
  - Magnetic particle inspection (MPI) and non-destructive testing of welded connections at intersecting stiffeners, fixed connection plates, weld tabs, and known cracks;
  - drill cracks found during MPI to prevent propagation (stop drill);
  - cut and remove lateral diaphragms, stiffener plates, connection plates, welds and other steel elements to reduce likelihood of fatigue induced damage;
  - repair or replace paint in localized areas around the work to prevent section loss, which may include sandblasting and rust removal, primer and paint application;

### Other Projects

There is a high likelihood that other projects will be under construction during the same time period as this work is completed. This project is expected to take multiple seasons to complete. Because the locations are dispersed throughout the state, it is difficult to assess the impacts to other projects at this time. Consideration will be given to coordination of work and traffic control with other projects as this project is developed.

### Right-of-Way

All work proposed will be completed within the existing right of way. Access to the steel girders is expected to be from the bridge deck using a boom or snooper truck.

### Utilities/Railroads

Four bridges cross railroad tracks: I00015 239+01771 & 2; and I00015 240+04151 & 2. These pairs of bridges are on Interstate 15 in the Great Falls District. It is highly possible that work will occur over or within 50' of the tracks.

## Preliminary Field Review/Scope of Work Report

BH STWD(173) Steel Br Rehab – Fatigue Det 2  
Project Manager: S. Brandenberger

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### Survey

Survey will not be required for this project.

### Public Involvement

Level A public involvement is anticipated for development of this project. A news release explaining the project and including a department point of contact should be appropriate.

The project should require advance notice to the public of lane closures along with progress updates throughout the duration of the project. The “Public Advisory Program” standard special provision will be included in the plans package.

A limited PI component will be included in the project outlining strategies for public notification. Possible strategies appropriate for this project would be: Radio public service announcements, Montana Travel Info, and variable message boards.

### Environmental Considerations

Environmental Documentation proposed by Environmental Services is a Categorical Exclusion. Multi-district coordination to complete one document for this project will be handled within Environmental services. Hazardous waste generated by paint removal (if needed) may require special consideration for containment and disposal. Pre-emptive distractive measures may be required to avoid conflicts with protected species, particularly migratory bird nest removal. Environmental permits are not anticipated. Standard notification procedures will be followed.

### Traffic Control

Traffic control procedures likely to be used for the construction zone include lane closures or lateral traffic shifts.

A Traffic Management Plan (TMP) consisting of a Traffic Control Plan (TCP) and a limited Public Information (PI) component should be appropriate for this project.

### Project Management

The Bridge Bureau will manage the project through Preconstruction. This project is not under full FHWA oversight.

### Preliminary Cost Estimate

	Estimated cost	Inflation (INF) (from PPMS)	TOTAL costs w/INF + IDC (from PPMS)
Repair Structure	\$1,610,000		
Traffic Control	\$50,000		
<b>Subtotal</b>	<b>\$1,660,000</b>		
Mobilization (12%)	\$200,000		
<b>Subtotal</b>	<b>\$1,860,000</b>		
Contingencies(10%)	\$186,000		
<b>Total CN</b>	<b>\$2,046,000</b>	<b>\$ 285,826</b>	<b>\$ 2,590,192</b>
<b>CE (15%)</b>	<b>\$307,000</b>	<b>\$ 42,887</b>	<b>\$ 388,654</b>
<b>TOTAL CN+CE</b>	<b>\$2,353,000</b>	<b>\$328,713</b>	<b>\$ 2,978,846</b>

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

BH STWD(173) Steel Br Rehab – Fatigue Det 2

Project Manager: S. Brandenberger

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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 11.08% as of FY 2013.

### **Ready Date**

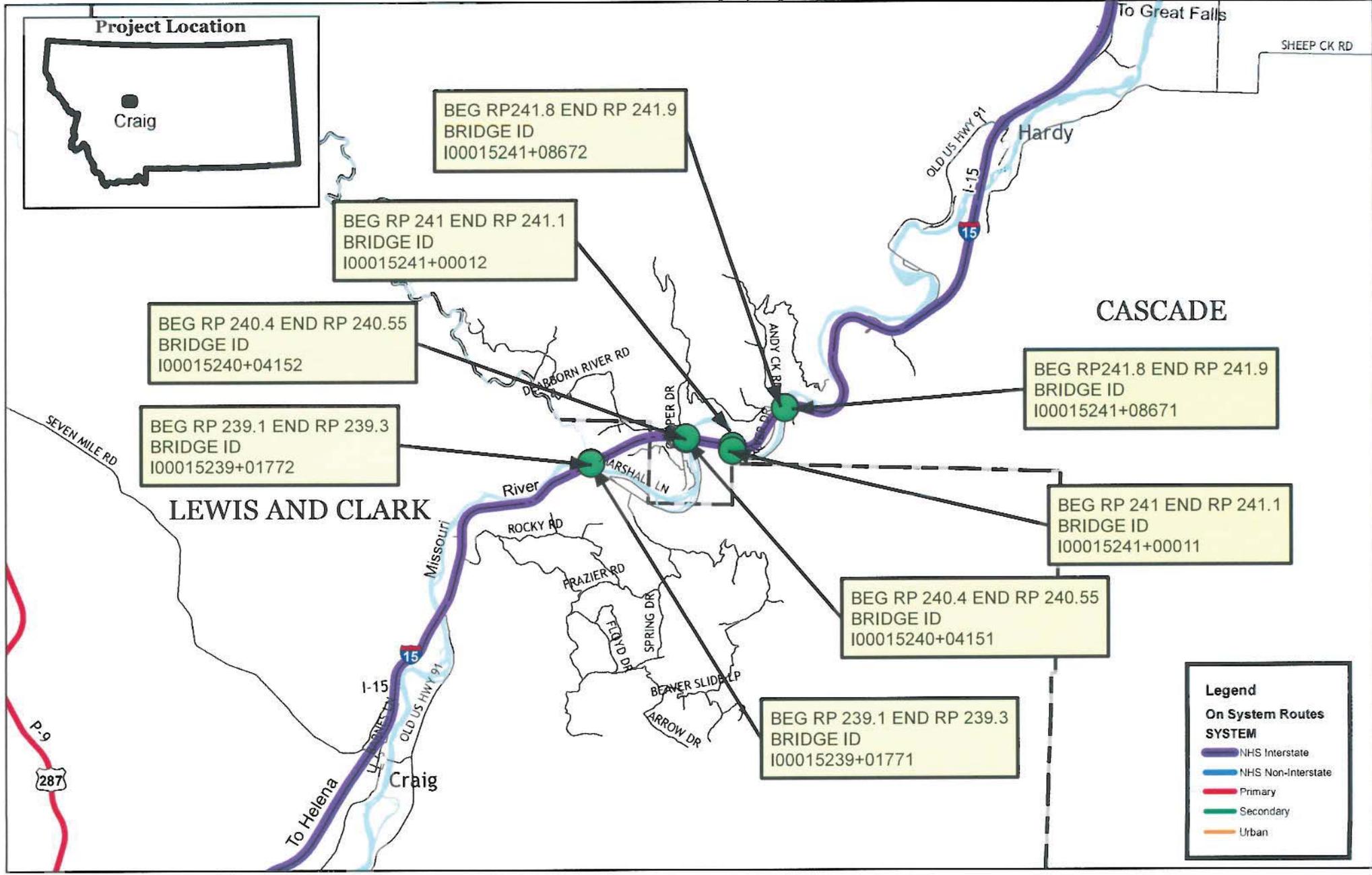
The ready date will be established through the override process. Construction is tentatively planned for 2014 if the schedule allows.

### **Site Map**

The project site maps are attached.

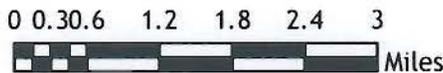
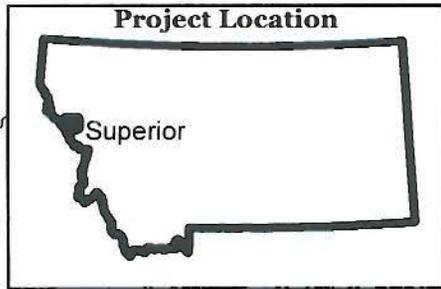
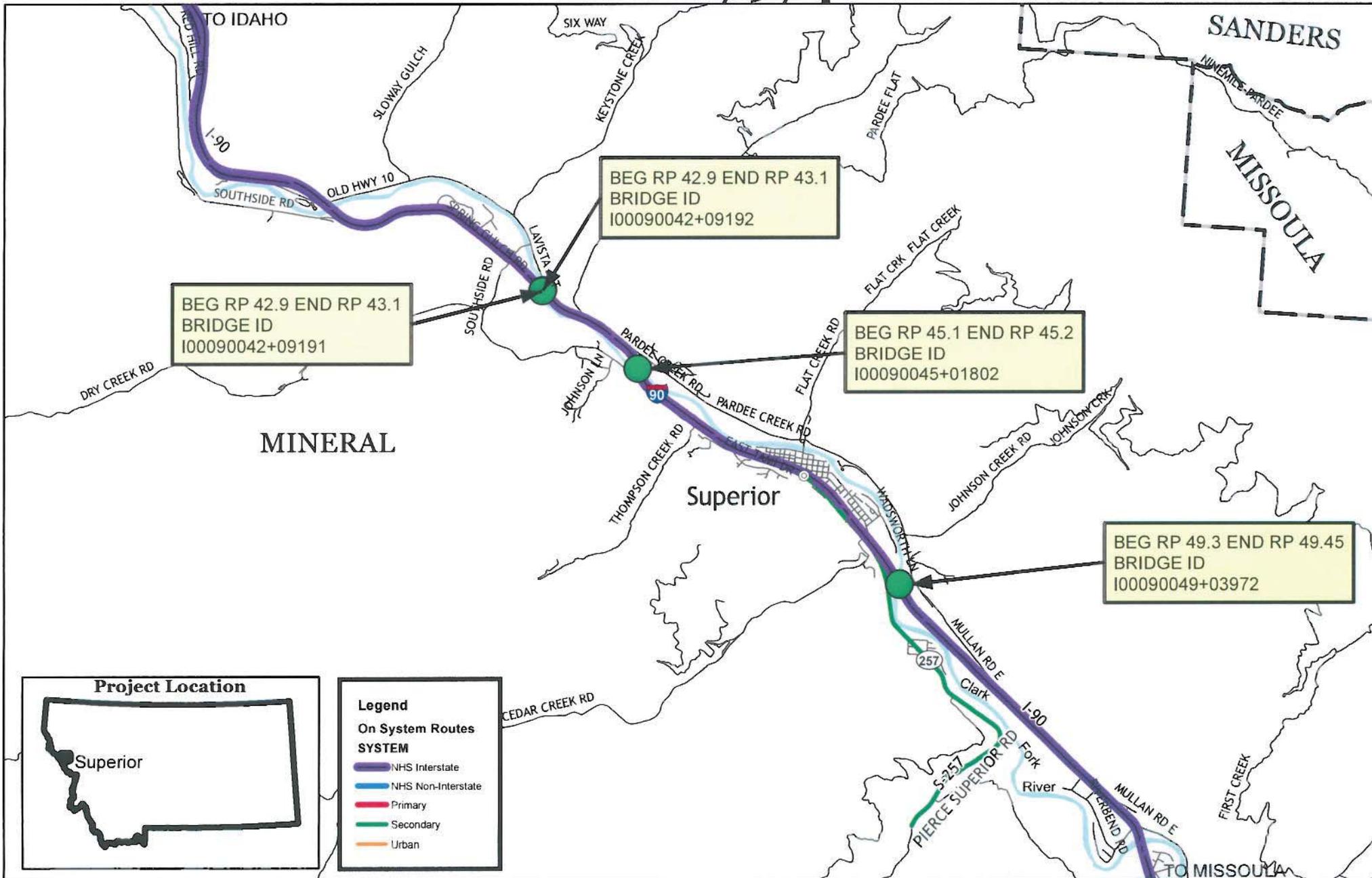
# STEEL BR REHAB-FATIGUE DET 2

## UPN #7974



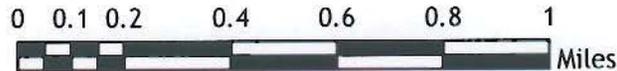
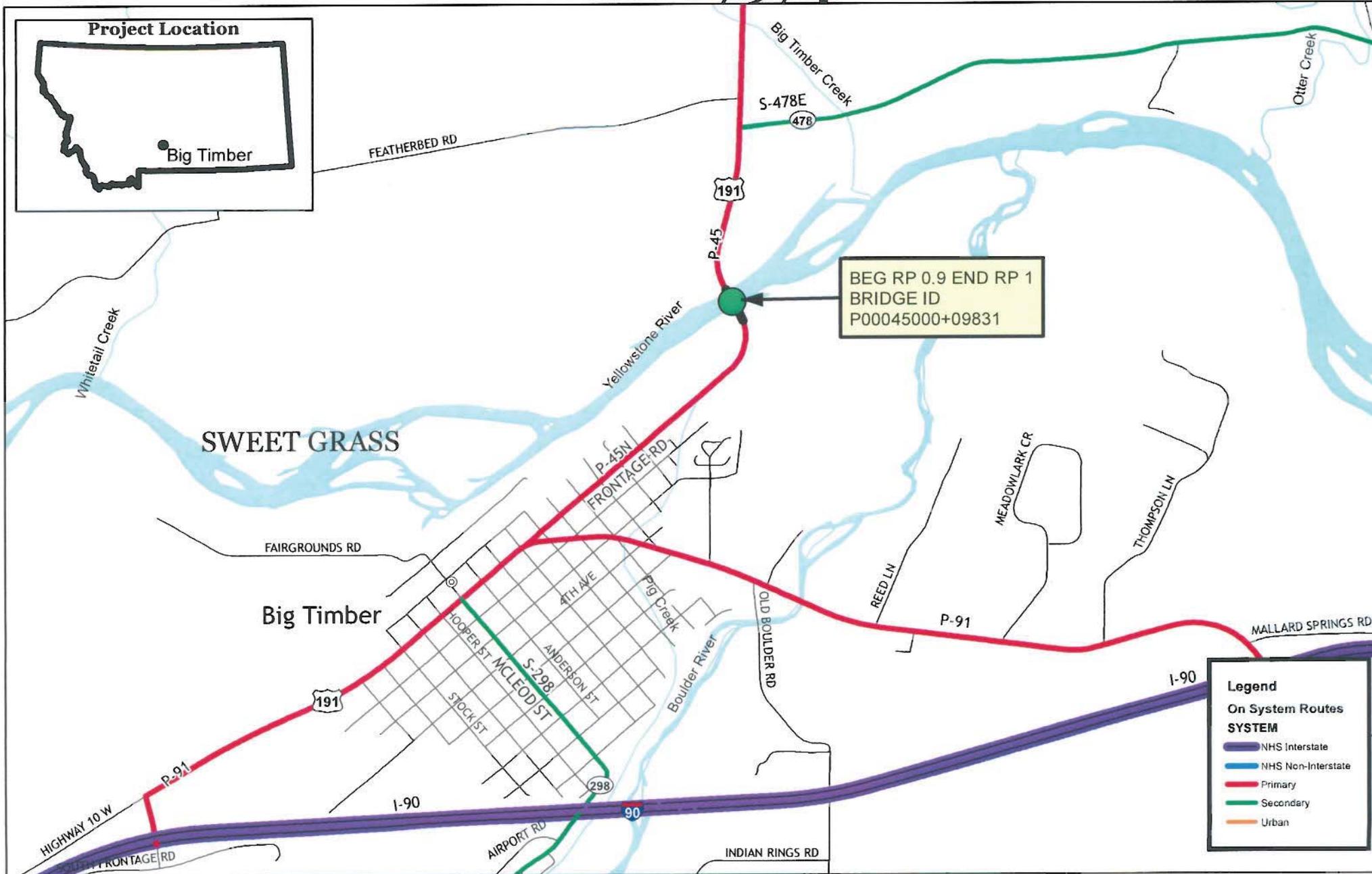
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