



Montana Department of Transportation

2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001

Timothy W. Reardon, Director
Brian Schweitzer, Governor

January 3, 2012

Kevin McLaury
Division Administrator
Federal Highway Administration
585 Shepard Way
Helena MT 59601

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ENVIRONMENTAL

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JAN 05 2012
FHWA
MONTANA DIVISION

Subject: Programmatic Categorical Exclusion (PCE) Concurrence Request
NH 102-1(7)4
River Dr-25th to 38th (GTF)
CN: 7627000

MASTER FILE
COPY

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 MDT and FHWA on April 12, 2001. This proposed action also qualifies as a Categorical Exclusion under ARM 18.2.261 (MCA 75-1-103 and MCA 75-1-201).

The following form provides documentation required to demonstrate that all of the conditions are satisfied to qualify for a Programmatic Categorical Exclusion. A copy of the Preliminary Field Review Report/Scope of Work Report, dated December 16, 2011, including a project location map, is 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).

Table with 4 columns: Yes, No, N/A, UNK. Contains 3 main questions and 4 sub-questions regarding environmental impact, unusual circumstances, and right-of-way/easements.

	<u>Yes</u>	<u>No</u>	<u>N/A</u>	<u>UNK</u>
5. Parks, recreational, or other properties acquired/improved under Section 6(f) of the 1965 National Land & Water Conservation Fund Act (16 USC 460L, <i>et seq.</i>) are on or adjacent to the proposed project area.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The use of such Section 6(f) sites would be documented and compensated with the appropriate agencies (MDFWP, local entities, etc.).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Sites either on, or eligible for the National Register of Historic Places with concurrence in determination of eligibility or effect under Section 106 of the National Historic Preservation Act (16 USC 470, <i>et seq.</i>) by the State Historic Preservation Office (SHPO) would be affected by this proposed project.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Parks, recreation sites, school grounds, wildlife refuges, historic sites, historic bridges, or irrigation that might be considered under Section 4(f) of the 1966 US Department Of Transportation Act (49 USC 303) are 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. A de minimis finding has been secured for this project.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Nationwide Programmatic Section 4(f) Evaluation forms for those sites are attached.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. This proposed project requires a full Section 4(f) 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 water body (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 Section 10 of the Rivers and Harbors Act (33 USC 403) and/or Section 404 of the Clean Water Act (33 USC 1251-1376) codified at 33 CFR 320-330 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 (EO) #11990, and 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 would be obtained from the MDFWP.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. A delineated floodplain exists 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. A 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 that 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 and/or 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 Section 7 of the Wild and Scenic Rivers Act (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"/>
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. Substantial changes in access control would be associated with the 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 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 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 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 County Noxious Weed Control Act (7-22-2152, MCA), including directions as specified by the county(ies) wherein its intended work would be done would be conducted.	<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. If the proposed work would affect Important Farmlands, then an AD 1006 Farmland Conversion Impact Rating form would be completed in accordance with the Farmland Protection Policy Act (7 USC 4201, <i>et seq.</i>)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
K. Features for the Americans with Disabilities Act (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 Clean Air Act's Section 176(c) (42 USC 7521(a), as amended) under the provisions of 40 CFR 81.327 as it is either in a Montana air quality:				
A. "Unclassifiable"/attainment area. This proposed project is not covered under the EPA's September 15, 1997 Final Rule on air quality conformity. and/or	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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 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" under 40 CFR 52.1382(c)(3)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Federally listed Threatened or Endangered (T/E) Species:				
A. Recorded occurrences, and/or critical habitat are in the vicinity of the proposed project.	<input type="checkbox"/>	<input checked="" 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 and Wildlife Service on any Federally listed T/E Species?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

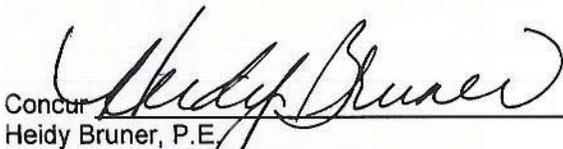
This proposed project would not create disproportionately high and/or adverse impacts on the health or environment of minority and/or low-income populations (EO #12898). The project also complies with the provisions of Title VI of the Civil Rights Act of 1964 (42 USC 2000d) under FHWA regulations (23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

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



Date: 1/3/2012

Eric Thunstrom
Environmental Services Bureau
Great Falls District Project Development Engineer



Date: 1/3/12

Concur Heidy Bruner, P.E.
Environmental Services Bureau
Engineering Section Supervisor



Date: 6 JAN 2012

Concur Federal Highway Administration

Attachment

electronic copies without attachment:

Tom Martin, P.E.	Environmental Services Bureau Chief
Heidy Bruner, P.E.	Environmental Services Bureau Engineering Section Supervisor
Michael P. Johnson	Great Falls District Administrator
Kent Barnes, P.E.	Bridge Engineer
Paul Ferry, P.E.	Highways Engineer
Mark Goodman, P.E.	Hydraulics Engineer
Rob Stapley	Right-of-Way Bureau Chief
Christie McOmber, P.E.	Great Falls District Projects Engineer
Dawn Stratton	Fiscal Programming Section
Alyce Fisher	Fiscal Programming Section
Brad Burns	Budget and Planning Bureau
Nicole Pallister	Helena Purchasing
Steve Prinzing, P.E.	Great Falls District Engineering Services Supervisor
Suzy Price	Contract Plans Bureau Chief
Tim Tilton	Contract Section Supervisor
Vacant	Great Falls District Environmental Engineering Specialist
Montana Legislative Branch Environmental Quality Council (EQC)	

copies with attachment:

File Environmental Services Bureau

MDT attempts to provide accommodation for any known disability that may interfere with a person participating in any service, program or activity of the Department. 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.



Memorandum

To: Distribution

From: Paul R. Ferry, P.E. *Lesly Tribelhorn 12/16/11*
 Highways Engineer

Date: *December 16, 2011*

Subject: NH 102-1(7)4
 River Dr-25th to 38th (GTF)
 UPN 7627000
 Work Type 180 – Resurfacing – Asphalt (Thin Lift ≤ 0.20 ft.)

Attached is the Preliminary Field Review Report/Scope of Work Report which was approved on 12/16/11. 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:

- | | |
|---|--|
| Michael Johnson, 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 |
| Robert Stapley, Right-of-Way Bureau Chief | Jon Swartz, Maintenance Administrator |
| | Alan Woodmansey, Operations Engineer |

cc:

- | | |
|--|-------------------------------------|
| Dawn Stratton, Fiscal Programming Section | P.O. Box 5021, Great Falls MT 59403 |
| Robert Snyder, Road Design Area Engineer | P.O. Box 5021, Great Falls MT 59403 |
| Damian Krings, Road Design Engineer | P.O. Box 5021, Great Falls MT 59403 |
| Jim Rearden, Public Works Director, City of Great Falls, | P.O. Box 5021, Great Falls MT 59403 |
| Michael Haynes, City-County Planning Department, | |
| Dave Dobbs, Engineering Division, City of Great Falls, | |
| Andrew Finch, City-County Planning Department, | |

e-copies:

- | | |
|---|---|
| Jim Walther, Engineering, Preconstruction Engineer | Jake Goettle, Construction Bureau – VA Engineer |
| Lesly Tribelhorn, Highways Design Engineer | Steve Prinzing, District Preconstruction Engineer |
| Mark Goodman, Hydraulics Engineer | Christie McOmer, District Projects Engineer |
| Kurt Marcoux, District Hydraulics Engineer | Stan Kuntz, G.F. District Materials Lab |
| Bonnie Gundrum, Env. Resources Section Supervisor | Tony Strainer, District Maintenance Chief |
| Paul Sturm, District Biologist | Jerilee Weibel, District R/W Supervisor |
| Eric Thunstrom, Project Development Engineer | Phillip Inman, Utilities Engineering Manager |
| Danielle Bolan, Traffic Engineer | David Hoerning, R/W Engineering Manager |
| Ivan Ulberg, G.F. District Traffic Project Engineer | Greg Pizzini, Acquisition Manager |
| Kraig McLeod, Safety Engineer | Joe Zody, R/W Access Management Section Manager |
| Stephanie Brandenberger, Bridge Area Eng, G.F. District | Paul Johnson, Project Analysis Bureau |

Matt Strizich, Materials Engineer
Daniel Hill, Pavement Analysis Engineer
Lee Grosch, District Geotechnical Manager
Bryce Larsen, Supervisor, Photogrammetry & Survey
Marty Beatty, Engineering Information Services
Paul Grant, Public Involvement Officer
Jean Riley, Planner
Dawn Stratton, Fiscal Programming
Scott Bunton, Engineering Cost Analyst

Sue Sillick, Research Section Supervisor
Alyce Fisher, Fiscal Programming
Doug Wilmot, G.F. District Construction Engineer
Dennis Ghekiere, District Utility Agent
Linda Cline, District R/W Design
James Combs, District Traffic Engineer



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

Memorandum

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

From: Christie W. McOmber, P.E. 
District Projects Engineer

Date: December 16, 2011

Subject: NH 102-1(7)4
River Dr-25th to 38th (GTF)
UPN 7627000
Work Type 180 – Resurfacing – Asphalt (Thin Lift ≤ 0.20 ft.)

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

Approved Lesly Tribelhorn for Date 12/16/11
Paul R. Ferry, P.E.
Highways 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.):
Damian Krings, Road Design Engineer
Master file
Dave Dobbs, City of Great Falls, 2 Park Drive South, P.O. Box 5021, Great Falls, MT 59403

Preliminary Field Review/Scope of Work Report

NH 102-1(7)4 River Dr-25th to 38th (GTF)
Project Manager : Christie W. McOmer, P.E.

Page 2 of 12

Introduction

This report was developed from information taken from the preliminary field review conducted on November 30, 2011 with the following personnel in attendance:

Mick Johnson	District Administrator	Great Falls
Steve Prinzing	District Preconstruction Engineer	Great Falls
Christie McOmer	District Projects Engineer	Great Falls
Steve McEvoy	Pavement Analysis	Helena
Gerry Brown	Construction Engineering Services	Lewistown
Robert Vosen	Construction Engineer	Great Falls
Jeania Cereck	District Design Supervisor	Great Falls
Dennis Oliver	Maintenance	Great Falls
Jamie Winstead	Utilities Section	Helena
Jody Toney	Utilities Section	Helena
Jason Handl	City of Great Falls	Great Falls

Proposed Scope of Work

The proposed pavement preservation project has been nominated to include striping, milling, leveling, localized failure fixes, an overlay, seal & cover and construction of a retaining wall to stabilize the fill slope. The project will have work adjacent to a railroad crossing. This project is anticipated to be let for the 2012 construction season.

The plans for the proposed project will be in English stationing. The project begins at RP 4.3± and continues south approximately 1.1 miles to RP 5.4±.

Purpose and Need

Significant rutting is present along this project and the leveling needs do not allow for an overlay without slight milling and correcting the crown. The roadway is sloughing in one area, so a retaining wall to stabilize the fill slope will be built with this project.

Project Location and Limits

This project is located in Great Falls and resides in Cascade County on NINHS Route 102 (N-102/U-5205) beginning at RP 4.3±, approximately 245' east of the junction with 25th Street North (U-5217), and proceeding east for approximately 1.1 miles to RP 5.4, west of the intersection with 38th Street North (U-5219). The functional classification of this route is a Principal Arterial – Non Interstate.

This project is located within the City Limits and Urban Area of Great Falls.

Begin: RP 4.3, Section 6, T. 20 N., R. 4 E., Cascade County
End: RP 5.4, Section 5, T. 20 N., R. 4 E., Cascade County
Length: 1.1 miles

The following table identifies original as-built project location and year built:

Preliminary Field Review/Scope of Work Report

NH 102-1(7)4 River Dr-25th to 38th (GTF)
Project Manager : Christie W. McOmber, P.E.

Page 3 of 12

Original As-Built Project ID	From RP	To RP	Year Built
City Construction *	4.274	4.923	1945
S-US-386(1)	4.923	5.429	1962

* As-built project was not found.

The following table identifies improvement as-built project location and year built:

Improvement As-Built Project ID	From RP	To RP	Year Built
RTF 5205(4) *	3.367	5.429	1990
NH STPE 5205(18)	5.429	7.464	2007

* As-built project was not found.

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; although, this project is on the Level 1 corridor list and is a Principal Arterial within the Great Falls Urban Area.

Due to high traffic volumes and lack of an alternative route for truck traffic construction personnel have determined night work will be used for major construction activities. Through the use of night work, the following items will be avoided:

- Through-lane closures for more than 3 continuous days
- Through-lane closures during morning, lunch time, or evening peak directional traffic flow periods for more than 3 continuous days

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

Physical Characteristics

The P.T.W. traverses level terrain within the Great Falls City Limits.

Existing Surfacing

As-built projects could not be found between RP 4.274 and RP 4.923; therefore, existing surfacing and base material is uncertain. As-built project S-US-386(1) between RP 4.923 and RP 5.429 consists of 1.10' crush base course, 0.15' crushed top course and 0.50' plant mix surfacing (2 lifts).

Pavement Analysis indicated that the RTF 5205(4) as-built project added a 0.15' overlay from RP 3.367 to RP 5.429 in 1990.

A widening project added the turning lanes and wider shoulders at the Giant Springs Road (U-5221) in 2001 between RP 4.9± and RP 5.2±.

A few cores submitted by the district lab indicate that existing pavement is about 11" deep at RP 4.5 in the westbound travel lane, over 12" deep at RP 4.7 eastbound travel lane, about 7" deep at RP 5.0 in the

Preliminary Field Review/Scope of Work Report

westbound travel lane and over 8" deep at RP 5.1 in the eastbound travel lane.

Based on Field observation, the roadway varies from 25' wide between face of rail and historic retaining wall to 55' wide with a rural typical section at the end of the project just west of the intersection with 38th Street tying into the concrete section.

Horizontal Alignment

Due to the fact that the majority of the as-builts could not be found for this project, the horizontal alignment has been drawn based on a previous planning-level photogrammetric survey. It appears that the alignment features meet design criteria.

There are four curves throughout the project limits. The minimum radius within the project limits is approximately 1200', which meets the Geometric Design Criteria for Urban Principal Arterials of 711' for level terrain and a design speed of 45 mph.

Vertical Alignment

It appears that the alignment features meet design criteria. Based on the planning-level photogrammetric survey that was completed in the spring of 2009, the maximum known grade of 3.425% (from asbuilt S-US-386(1)) does not exceed the Geometric Design Criteria for Urban Principal Arterials of 6% for level terrain. Passing sight distance and stopping sight distance will not be addressed with this pavement preservation project.

PVMS Data

Neither PVMS Data nor OCI Data could be located for this project. Pavement Management Section is in agreement that milling, leveling, localized failure fixes, an overlay and seal & cover is an appropriate preservation strategy for the existing conditions.

Bridges

There are no structures located within the limits of this project.

Traffic Data

2011 (Current) AADT = 11,270
2012 (Letting Year) AADT = 11,420
2032 (Design Year) AADT = 14,840
DHV = 1,480
Trucks = 6.6%
ESAL = 295
Basis of Projected Traffic Growth = 1.3%

Crash Analysis

The following engineering study evaluation from RP 4.3 to RP 5.5 was taken from January 1, 2008 to December 31, 2010:

Total Recorded Crashes = 29
Truck Crashes = 2

Preliminary Field Review/Scope of Work Report

	Statewide Average for Rural Interstate Routes	Study Area
All Vehicles Crash Rate	4.86	1.92
All Vehicles Severity Index	1.68	1.48
All Vehicles Severity Rate	8.16	2.85

Traffic variations from average occurrence:

- No significant variations were noted in the comparison to statewide averages for N-P routes thru urban areas.

There have been no crash clusters or safety projects within this section during the study period.

Remarks:

For comparison purposes the 2006-2010 crash rates for N and P routes through urban areas with a population over 5,000 inhabitants are used. The following is a breakdown of the 29 crashes:

- 11 of the 29 reported crashes were rear-end collisions.
- 4 of the 29 reported crashes were right angle collisions
- 3 crashes occurred at the rail road crossing.
- 15 drivers were between the ages of 15 and 20.

<u>Location</u>	<u>Recorded Crashes</u>
Intersection of River Dr. & 25th St	6
Intersection of River Dr. & Giant Springs Rd	1
Intersection of River Dr. & 18th Ave	1
Intersection of River Dr. & 38th St	2
River Dr. between 19th St & 25th St	3
River Dr. between 25th St & Giant Springs Rd	8
River Dr. between 18th Ave & 38th St	5
River Dr. between Giant Springs Rd & 18th Ave	3

	<i>Total 29</i>

The Safety Engineering Section also checked the first 6-months of 2011 for MHP recorded crashes for this section of roadway and found there were 5 reported crashes in this time period. Two of the crashes were intersection related crashes, and another crash was related to the railroad crossing. There was one single vehicle crash that resulted in a rollover, and the other four crashes involved 2 or more vehicles. Four of the 5 crashes resulted in property damage only, while one crash resulted in a possible injury.

Major Design Features

- Design Speed.** The design speed for Urban Principle Arterials is 45 mph. The posted speed limit is 35 mph between the beginning of the project and the most eastern side of the scenic pullout and then changes to 45 mph through the rest of the project length.
- Horizontal Alignment.** The existing horizontal alignment is adequate for a preventative maintenance treatment.
- Vertical Alignment.** The existing vertical alignment is satisfactory for a preventative maintenance project.

Preliminary Field Review/Scope of Work Report

d. **Typical Sections and Surfacing.**

- The minimum roadway width for a NHS route is 28 feet. The existing surface width according to the roadlog is 30 feet; however, based on the field survey a short section of roadway is 25 feet wide between Face of Rail and the face of the historic retaining wall. The guardrail and retaining wall will not be disturbed with this project.
- A widening project added the turning lanes and wider shoulders at the Giant Springs Road (U-5221) in 2001 between RP 4.9± and RP 5.2±; this included a left turn lane onto Giant Springs Road for a roadway width of 50'
- Two – 12' travel lanes with various shoulder widths will be provided throughout the project limits. Milling at a depth of 0.2' is required and will be as wide as possible so as to not disturb the historic wall and existing guardrail.
- White topping was discussed as an option for a repair, but white topping is not highly recommended due to:
 - project delivery - a longer project preparation would move the project out
 - constructability concerns
 - service life – white topping could last 30 + years. If we are going to reconstruct the project in 15 years, only a portion of the white topping service life would be utilized
 - the existing typical section is warped as are the supers.
- Areas of two pullouts located within the project limits will be patched, followed by an overlay of 0.20' and seal and cover.
- There are some localized pavement failures on mainline that will be patched prior to the overlay. A new pavement recommendation is necessary.
- Seal and cover full width, followed by new striping, will complete the treatment for this roadway.

e. **Geotechnical Considerations.** An area that has been sloughing since 1984 has routinely been maintained by MDT Maintenance forces. Since this is a potential safety concern that could result in a road closure, the design for a retaining wall to stabilize the fill slope is proposed. Approval to have the geotechnical costs to come out of the core NH funding in a subsequent year was received from FHWA on 12/14/11. The Geotechnical Section will supply borings and MDT will provide survey for a retaining wall to protect the slope from future sloughing. The contractor's chosen gravity-wall supplier will design and build the wall. The retaining wall will be constructed within the available right of way limits.

f. **Hydraulics.** A drop inlet located at the beginning of the project will be milled around and will not be disturbed. Drainage will be perpetuated to this drop inlet. There are no other Hydraulic issues anticipated for this project.

g. **Bridges.** No bridges are located within the project limits.

h. **Traffic.** New pavement markings will be included with this project. New railroad pavement markings will be needed.

i. **Pedestrian/Bicycle/ADA.** There are no existing features in need of ADA upgrades. An existing separated bike path located closer to the Missouri River provides ample space for non-motorized traffic, and no new facilities will be provided with this project.

j. **Miscellaneous Features.** A Historic retaining wall on the south side of the road will not be disturbed.

k. **Context Sensitive Design Issues.** No context sensitive design issues will be addressed with this project; however, there are two scenic pullouts located within the limits of this project. Both of these pullouts will receive patching and a 0.20' overlay. A Historic retaining wall on the south side of the road will not be disturbed. A historic sign stating data about "Black Eagle" will not be disturbed.

Preliminary Field Review/Scope of Work Report

Other Projects

UPN 6953000 River Dr. 15th – 25th – GTF has a chip seal needing to be applied over the plant mix placed the summer of 2011. A special provision will be included to coordinate with this project.

Projects that will be under construction around Great Falls in 2012 are:

STPU-CM 5201(19) Smelter Ave-3rd St-Div Rd.-GTF is a reconstruction of Smelter Avenue in Great Falls and has a letting date in May 2012.

NH 60-2(93)93 10th Ave S – Warden Br – 18th – GF is a concrete resurfacing project on 10th Avenue South in Great Falls. This has a letting of February 2012.

Location Hydraulics Study Report

No hydraulic issues are anticipated for this project.

Design Exceptions

No design exceptions are anticipated for this project.

Right-of-Way

Plans for S-US-386(1) show existing right-of-way varies on each side of centerline between 50' and 90'. The right-of-way limit at the location of the new retaining wall is 50 feet from centerline. The retaining wall will be constructed within the available right of way limits. The contractor's chosen gravity-wall supplier will design and build the retaining wall. There is no right-of-way involvement for this project.

Cold-In-Place Recycle

Cold-In-Place Recycle (CIR) does not appear to be a viable construction activity for this project. The length of the project is too short to accommodate a cold in place operation. AADT is high throughout this project. Because CIR typically involves an overlay the cost associated with CIR is too expensive and will not be used.

Access Control

Access control will not be required for this project.

Utilities/Railroads

Overhead light poles follow along the highway both left and right of centerline and will not be disturbed. The poles and guy wire are located behind guardrail or behind the historic retaining wall. Overhead power lines exist in the area with some lines crossing centerline. Due to the nature of this project, no utility involvement is anticipated.

A BNSF railroad track crosses mainline at about the end of the project. The crossing was updated previously in 2009 with concrete. The crossing is controlled by signals. The roadway will be milled and overlaid up to the track to create a smooth transition at the crossing. New railroad pavement markings will be needed. A Flagging agreement with the railroad will be obtained.

Intelligent Transportation Systems (ITS) Features

There are no ITS solutions that will be designed within this project.

Preliminary Field Review/Scope of Work Report

Survey

A planning-level photogrammetric survey was completed in the area for a feasibility study in March 2009 and will be used in the design of this project. Additional survey has been requested in the area of the proposed retaining wall for the use in the design. No other additional survey is anticipated.

Public Involvement

Due to the limited scope of the project, a level “A” public involvement plan is appropriate. The plan will include a news release explaining the project and including a department point of contact.

Environmental Considerations

No apparent significant environmental concerns or issues were identified. The Retaining wall will be constructed within the existing right of way limits. Due to the retaining wall for slope stability, the appropriate level of environmental documentation will be a Programmatic Categorical Exclusion instead of a Statewide Programmatic Categorical Exclusion for Pavement Preservation projects.

Energy Savings/Eco-Friendly Considerations

Due to the nature of this project, extending the useful life of the pavement is aimed directly at minimizing the footprint on the environment. This is accomplished by postponing reconstruction projects through routine maintenance.

Experimental Features

There are currently no experimental features planned for this project.

Traffic Control

Because this is a fairly rapid moving project, shifting traffic to one lane of travel for short periods of time will be used to maintain working space. Night work will be used for major construction activities in order to reduce impacts to the traveling public. A Transportation Management Plan (TMP) consisting of a Traffic Control Plan (TCP) is appropriate for this project. Traffic issues that will require special consideration are as follows:

- Swift setup and removal of traffic signing in accordance with the Manual on Uniform Traffic Control Devices will be necessary, as this is a heavily used route.
- Extra caution should be used by the workers to maintain a safe working area as far away from the traveling lanes as possible.
- Limit work requiring lane closures to off-peak hours or night time work.

Project Management

The Great Falls District will be responsible for the plans. Christie W. McOmber, P.E., is the Great Falls District Projects Engineer.

This project is not under full FHWA oversight.

Preliminary Cost Estimate

The project was programmed at \$845,000. The cost with CE, CN and IDC is \$1,031,342. The cost per mile is \$746,577. This estimate includes a retaining wall, milling, overlay, seal & cover, pavement markings, localized failure fixes and leveling for rutting and crown correction.

Preliminary Field Review/Scope of Work Report

NH 102-1(7)4 River Dr-25th to 38th (GTF)
 Project Manager : Christie W. McOmber, P.E.

Page 9 of 12

Project Name		Estimate	Inflation (INF)	w/INF + IDC
		Costs	(from PPMS)	(from PPMS)
Road work		\$503,063		
Retaining Wall		\$200,000		
Traffic Control		\$65,000		
Subtotal		\$768,063		
Mobilization	8%	\$61,445		
Subtotal		\$829,508		
Contingencies	8%	\$66,361		
Total CN		\$895,869	\$8,531	\$991,583
CE	5%	\$44,793	\$427	\$49,579
IDC:	9.64%		TOTAL	\$1,041,162
Inflation Factor (ppms)			<i>0.009522066</i>	

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 9.64% as of FY 2012.

Ready Date

The ready date is **January 26, 2012**, with an anticipated letting date in April 2012. A survey was requested in the area where the retaining wall will be constructed and should be completed soon. The borings, survey and location of the wall will be supplied to the Contractor for submittal to the Contractor's chosen gravity -wall supplier who will design and construct the wall with the contract. The project is a little behind in OPX2 but is expected to be complete in time for the January ready date.

Site Map

The project site map is attached.

