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ENVIRONMENTAL

September 4, 2013

Kevin L. McLaury  
Division Administrator  
Federal Highway Administration  
585 Shepard Way, Suite 2  
Helena, MT 59601-9785

Attention: Gene Kaufman

Subject: Programmatic Categorical Exclusion (PCE) Concurrence Request  
SF109 – LT TURN BAY – MONTFORD RD  
HSIP 52-2(40)47  
CN 7539000

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 Alignment and Grade Report 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).**

	<u>YES</u>	<u>NO</u>	<u>N/A</u>	<u>UNK</u>
1. This proposed project would have (a) significant environmental impact(s) as defined under 23 CFR 771.117(a).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. This proposed project involves (an) unusual circumstance(s) as described under 23 CFR 771.117(b).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. This proposed project involves one (or more) of the following situations where:				
A. Right-of-Way, easements, and/or construction permits would be required.	<input 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. The context or degree of the Right-of-Way action would have (a) substantial social, economic, or environmental effect(s).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. There is a high rate of residential growth in this proposed project's area.	<input checked="" type="checkbox"/>	<input 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 proposed the project area.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The use of such <i>Section 6(f)</i> sites would be documented and compensated with the appropriate agencies. ( <i>e.g.</i> : MDFWP, local entities, etc.).	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
6. Are there any sites either on, or eligible for the National Register of Historic Places with concurrence in determination of eligibility or effect under <i>Section 106</i> of the <i>National Historic Preservation Act</i> (16 USC 470, <i>et seq.</i> ) by the State Historic Preservation Office (SHPO), which would be affected by this proposed project.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. There are parks, recreation sites, school grounds, wildlife refuges, historic sites, historic bridges, or irrigation that might be considered under <i>Section 4(f)</i> of the 1966 <i>US DEPARTMENT OF TRANSPORTATION Act</i> (49 USC 303) on or adjacent to the project area.	<input checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. De minimis finding(s) is/are necessary for this project.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 of the 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Impacts in wetlands, including but not limited to those referenced under Executive Order (E.O.) #11990, and their proposed mitigation would be coordinated with the US Army Corps of Engineers and other Resource Agencies (Federal, State and Tribal) as required for permitting	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. A 124SPA Stream Protection Authorization would be obtained from the MDFWP?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. There is a delineated floodplain in the proposed project area under FEMA’s Floodplain Management criteria.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
The water surface at the 100-year flood limit elevation would exceed floodplain management criteria due to an encroachment by the proposed project.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5. Tribal Water Permit would be required.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 of the 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"/>

	<u>YES</u>	<u>NO</u>	<u>N/A</u>	<u>UNK</u>
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	<u>YES</u>	<u>NO</u>	<u>N/A</u>	<u>UNK</u>
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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
K. Features for the <i>Americans with Disabilities Act</i> (PL 101-336) compliance would be included.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
L. A written Public Involvement Plan would be completed in accordance with MDT’s Public Involvement Handbook.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. This proposed project complies with the <i>Clean Air Act’s Section 176(c)</i> (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"/>
5. Federally listed Threatened or Endangered (T/E) Species:				
A. There are recorded occurrences and/or critical habitat in this proposed project’s vicinity.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	<u>YES</u>	<u>NO</u>	<u>N/A</u>	<u>UNK</u>
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.

Susan Kilcrease, Date: 9/4/13  
Susan Kilcrease - Missoula District Project Development Engineer  
MDT Environmental Services Bureau

for Concur Susan Kilcrease, Date: 9/6/13  
Heidy Bruner, P.E. - Engineering Section Supervisor  
MDT Environmental Services Bureau

Concur [Signature], Date: 9/17/13  
Federal Highway Administration

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

Attachment: Alignment and Grade Report (8/1/2013)

Copy (w/o attach.):	Ed Toavs	Missoula District Administrator
	Kent Barnes, P.E.	Bridge Engineer
	Tom S. Martin, P.E.	Environmental Services Bureau Chief
	Heidy Bruner, P.E.	Environmental Services Bureau
	Suzy Price	Contract Plans Bureau Chief
	Lisa Hurley	Fiscal Programming Section Supervisor
	Tom Erving	Fiscal Programming Section
	Robert Stapley	Right-of-Way Bureau Chief
	Susan Kilcrease	Environmental Services Bureau
	File	Environmental Services Bureau
	Montana Legislative Branch	Environmental Quality Council (EQC)



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

**Memorandum**

To: Paul R. Ferry, PE  
 Highways Engineer

From: Shane Stack, PE  
 District Engineering Services Supervisor  
 Missoula District

Date: August 1, 2013

Subject: HSIP 52-2(40)47  
 SF109 – LT TURN BAY – MONTFORD RD  
 UPN 7539000  
 Work Type: 310 – Roadway & Roadside Safety Improvements

Please Approve the **Alignment and Grade Review** for this project.

Approved \_\_\_\_\_ Date \_\_\_\_\_  
 Paul R. Ferry, PE  
 Highways Engineer

We are requesting comments from the below distribution. If no comments are received within two weeks of the release date we will assume concurrence.

**Distribution:**

- |   |  |
|---|--|
| Ed Toavs, District Administrator                | Lynn Zanto, Rail, Transit, & Planning Division Administrator |
| Kent Barnes, Bridge Engineer                    | Jake Goettle, Construction Engineering Services Bureau       |
| Tom Martin, Environmental Services Bureau Chief | Matt Strizich, Materials Engineer                            |
| Roy Peterson, Traffic and Safety Engineer       | Jon Swartz, Maintenance Administrator                        |
| Robert Stapley, Right-of-Way Bureau Chief       | Paul Ferry, Highways Engineer                                |

**cc:**

- |   |  |
|---|--|
| Dawn Stratton, Fiscal Programming Section | Bill Squires, District Design Project Manager      |
| Shane Stack, Project Design Manager       | Ben Nunnallee, Missoula District Projects Engineer |

**e-copies:**

- |   |  |
|---|--|
| Jim Walther, Preconstruction Engineer                 | Michael Grover, Engineering Cost Analyst               |
| Lesly Tribelhorn, Highways Design Engineer            | Jake Goettle, Construction Bureau – VA Engineer        |
| Mark Goodman, Hydraulics Engineer                     | Shane Stack, District Preconstruction Engineer         |
| K.C. Yahvah, District Hydraulics Engineer             | Darin Reynolds, District Materials Supervisor          |
| Bill Semmens, Env. Resources Section Supervisor       | Gary Engman, Dist. Maintenance Chief (Kalispell)       |
| Pat Basting, District Biologist                       | Philip Inman, Utilities Engineering Manager            |
| Susan Kilcrease, Dist. Environmental Project Engineer | David Hoerning, R/W Engineering Manager                |
| Danielle Bolan, Traffic Operations Engineer           | Greg Pizzini, Acquisition Manager                      |
| Ivan Ulberg, Traffic Design Engineer                  | Joe Zody, R/W Access Management Section Manager        |
| Gabe Priebe, District Traffic Project Engineer        | Paul Johnson, Project Analysis Bureau                  |
| Kraig McLeod, Safety Management Engineer              | Sue Sillick, Research Section Supervisor               |
| Chris Hardan, District Bridge Area Engineer           | Alice Flesch, ADA Coordinator                          |
| Matt Strizich, Materials Engineer                     | Mark Keeffe, Bicycle/Pedestrian Coordinator            |
| Daniel Hill, Pavement Analysis Engineer               | Maureen Walsh, District R/W Supervisor                 |
| Bret Boundy, Missoula District Geotechnical Manager   | James Freyholtz, District Traffic Engineer (Kalispell) |
| Bryce Larsen, Supervisor, Photogrammetry & Survey     | Ray Sacks, Construction Bureau                         |
| Marty Beatty, Engineering Information Services        | Suzan Foley, R/W Design Supervisor                     |
| Paul Grant, Public Involvement Officer                | Breta Duncan, District Utility Engineering (Kalispell) |
| Jean Riley, Planner                                   | Dawn Stratton, Fiscal Programming Section              |
| Robert Vosen, District Construction Engineer          | Alyce Fisher, Fiscal Programming Section               |
| Dean Jones, Asst. District Construction Engineer      | Marisa Mailand, Planner                                |

## Alignment and Grade Report

UPN 7539000, HSIP 52-2(40)47, SF109 – LT TURN BAY – MONTFORD RD  
Project Manager: Shane Stack, P.E.

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### **Introduction**

An office and on-site field review was held on July 12, 2013. The following people attended:

Ben Nunnallee – District Projects Engineer – Missoula  
Sue Cusker – Missoula District Road Design – Kalispell  
James Freyholtz – Traffic Engineer – Kalispell  
Johnathon Schmidt – Construction – Kalispell (office review only)

### **Scope of Work**

The proposed project has been nominated as a safety project. The proposed scope of work is to improve safety by widening the roadway to the southeast in order to add a westbound left turn bay at the intersection of MT 35 and Montford Rd., east of Kalispell. This improvement will reduce the conflict points at this intersection. The existing guardrail, on the northwest side of MT 35, will be replaced to conform to height requirements. The replacement of pavement markings will also be included.

### **Project Location and Limits**

This project is located in Flathead County on Non-NHS – Primary 52 (P-52, MT 35), east of Kalispell. The intersection at Montford Road is at approximately Reference Post (RP) 46.83. This segment of roadway begins in Township 28 North Range 20 West, Section 6. It ends in Township 28 North Range 21 West, Section 1.

The project begin and end stationing is based on as-built project STPP 52-2(20)40. The project begins at Sta. 708+86.00 (RP 46.621) and continues southwesterly 0.348 miles to the project end at Sta. 727+22.67 (RP 46.969). Project stationing increases from northeast to southwest, so the right side is to the northwest and the left side is to the southeast.

This section of P-52 is functionally classified as a Minor Arterial. The geometric design criteria for Rural Minor Arterials (Non-NHS – Primary) will be used. See the attached location map.

### **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 of a Traffic Control Plan (TCP). A limited Public Information (PI) component to address public notification will also be included. These issues are discussed in more detail under the Traffic Control and Public Involvement sections.

### **Physical Characteristics**

The project is located in a predominantly rural residential area. The adjacent terrain is generally level with a slight rolling section just before the Montford Road intersection. A fishing access to McWinegar Slough is located northwest of the Montford Road intersection and the slough runs adjacent to the roadway.

The project begin Sta. 708+86.00 has a top width of 52'. Left of centerline the top width consists of one 12' turn bay, one 12' travel lane, and one 8' shoulder. Right of centerline the top width consists of one 12' travel lane and one 8' shoulder. From Sta. 708+86.00 to Sta. 716+06.00 the top width transitions to 40'. From Sta. 716+06.00 to the end of the project, the top width remains 40' and consists of two 12' travel lanes and two 8' shoulders.

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This section of MT 35 was constructed in 1996 under project STPP 52-2(20)40. The existing surfacing consists of 0.30' plant mix surfacing (PMS) over 0.15' crushed top surfacing (CTS) and 1.20' crushed base course (CBC).

The roadway received a 0.5" micro-mill and chip seal in 2009 under project STPP 52-2(34)40.

Surfacing depths determined from core samples recently taken by the MDT Missoula District Materials Lab in Kalispell indicate the existing asphalt thickness ranges from 0.27' to 0.33' thick.

The Pavement Management System generated the following performance indices for the survey year 2012 and treatment recommendations for the years 2013 and 2015:

### TREATMENT YEAR 2011

BEG MP	END MP	RIDE	RUT	ACI	MCI	CONST. TREAT. REC.
41.448	49.248	79.8 (fair)	65.0 (good)	95.7 (good)	99.8 (good)	None ('13), Do Nothing ('15)

There are a total of two horizontal curves in this project section. The as-built plans show the superelevations to be 4% and 2%. Both horizontal curves meet or exceed MDT design criteria for a 55 mph design speed (for rolling terrain) that requires a minimum radius of 960'.

The vertical alignment meets or exceeds MDT design criteria for a 55 mph design speed. The maximum gradient on the as-built plans is -3.375% which is flatter than the 4% maximum grade allowable in rolling terrain.

### Horizontal Alignment

The existing horizontal alignment will not be changed with this project. The roadway will be widened 12 ft. to the southeast. The widening transition begins at Sta. 708+86.00 and is at full width at Sta. 714+48.07. The full width widening continues to Sta. 720+62.67 and then transitions back to the PTW at Sta. 727+22.67.

### Vertical Alignment

The existing vertical alignment will not be changed with this project.

### Surfacing and Typical Section

The proposed typical section will have a final overall roadway width of 52' and includes two 12' travel lanes, one 12' left turn bay, and two 8' shoulders. Standard 6:1 surfacing inslopes are proposed. The end of the project will transition to the existing PTW top width of 40' and includes two 12' travel lanes and two 8' shoulders.

The surfacing type will be plant mix bituminous surfacing. The Surfacing Design Section has provided the following surfacing recommendation. This recommendation is based on 311 ESAL's and an R value of 25:

- 0.4 ft. Plant Mix Bituminous Surfacing (Grade S – PG 70-28 – 5.6% asphalt content)
- 0.9 ft. Crushed Aggregate Course (revised since PFR report)
- 1.3 ft.

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A full width seal and cover will be required to modify the striping lanes. The cover type will be Type 2 and the seal oil will be CRS-2P.

### **Grading**

The grading on this project will be unclassified excavation. There are no major geotechnical considerations for this safety project. The existing roadside slopes will only be disturbed on the southeast side of the roadway, for the roadway widening. Guardrail widening and shoulder gravel will be required on the northwest side of the roadway for the guardrail replacement.

### **Hydraulics**

From Sta. 708+13 to Sta. 713+57, there is an existing 4" perforated PVC edge drain running parallel to and left of the roadway that may be impacted by the widening. A 24" corrugated steel pipe cross drain is located at Sta. 723+05. The pipe length is 121' with end sections being a FETS on the left and a square end on the right. This culvert will remain as is and lengthening will not be required.

New approach pipes will be designed for the approaches at Sta. 710+75.40 LT. and Sta. 719+72.67 LT.

### **Bridges**

There are no bridges located within the project limits.

### **Traffic**

The pavement marking layout will include the additional left turn bay lane. The current pavement marking layout has passing lane stripping at the end of the project. Traffic Engineering will need to determine the new location and layout of the passing lane outside the project limits. Traffic Engineering will provide the quantities, details, and specifications for interim paint and final epoxy and signing upgrades or revisions. These items will be included in the road plans package.

Geometrics provided the left turn bay storage and transition lengths, and the Montford Rd. approach layout. Geometrics will need to work with the road designer to determine a final road approach layout for Montford Rd.

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

ITS solutions will not be designed with this safety project.

### **Miscellaneous**

The height of the existing guardrail was determined to be lower than the current standards. Therefore, both runs of guardrail on the right side will be replaced. Although the first run of guardrail extends outside the project limits, to maintain consistency, the entire length of guardrail will be replaced from Sta. 703+00 to Sta. 718+00.

Rumble strips are present throughout the project except for areas of guardrail and approach openings. The rumble strips will be perpetuated as needed.

There are three memorial crosses located on this project. The memorial crosses will need to be

## Alignment and Grade Report

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Project Manager: Shane Stack, P.E.

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removed and reset by others.

### **Design Exceptions**

Design exceptions are not required because this is a safety improvement project. At this time, all existing features meet the current design criteria for Rural Minor Arterials (Non-NHS – Primary) in rolling terrain. As the design progresses, it will be determined and documented in the additional reports if any new design features do not meet current design standards.

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

The existing right-of-way on the left (southeast) is 110' and on the right (northwest) is 80'. Design has made every effort to stay within the current right-of-way. No new right-of-way is anticipated.

### **Utilities/Railroads**

The road plans, provided for the AGR review, show an impact to the power pole at Sta. 711+74 LT. The design will be revised so there is no impact to the power poles. There is an underground 8" waterline crossing at Sta. 716+57± that may be impacted by the widening.

There will be no railroad involvement on this project.

### **Environmental Considerations**

McWenneger Slough is located on the right side of the roadway. The proposed widening will be on the left side of the roadway. The guardrail on the right side of the roadway will be replaced. No significant environmental impacts or issues were identified. We anticipate a categorical exclusion will provide the appropriate level of environmental evaluation and documentation.

### **Experimental Features**

There are no experimental features identified for this safety project.

### **Traffic Control**

Traffic will be maintained through the construction of the project with appropriate signing, flagging, pilot cars, etc., in accordance with the Manual on Uniform Traffic Control Devices. The work zone may require single lane closures during construction operations. However, one lane in each direction will remain open for traffic when construction operations are not occurring.

The Traffic Management Plan (TMP) will include a Traffic Control Plan (TCP) and appropriate Public Involvement (PI) components for this project. Due to the relatively simple nature of the work, the TCP will consist of only special provisions.

### **Public Involvement**

Based on the presently anticipated scope of work, a Level A public involvement plan is more appropriate than a Level B that was identified in the PFR, due to no right-of-way impacts, very minor construction impacts, and local support for the project. A News Release explaining the project and including a department point of contact was distributed on September 21, 2011.

### **Cost Estimate**

The cost estimate in the PFR Report dated July 13, 2011 was:

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### *PFR Estimate:*

	<b>Estimated cost</b>	<b>Inflation (INF) (from PPMS)</b>	<b>TOTAL costs w/INF + IDC (from PPMS)</b>
Road Work	\$492,000		
Traffic Control	\$23,000		
<b>Subtotal</b>	<b>\$515,000</b>		
Mobilization (10%)	\$51,500		
<b>Subtotal</b>	<b>\$566,500</b>		
Contingencies (15%)	\$84,975		
<b>Total CN</b>	<b><u>\$651,475</u></b>	<b><u>\$85,595</u></b>	<b><u>\$808,123</u></b>
<b>CE (10%)</b>	<b><u>\$65,148</u></b>	<b><u>\$8,559</u></b>	<b><u>\$80,812</u></b>
<b>TOTAL CN+CE</b>	<b><u>\$716,623</u></b>	<b><u>\$94,154</u></b>	<b><u>\$888,935</u></b>

### *Current Estimate:*

	<b>Estimated cost</b>	<b>Inflation (INF) (from PPMS)</b>	<b>TOTAL costs w/INF + IDC (from PPMS)</b>
Road Work	\$384,000		
Traffic Control	\$17,000		
<b>Subtotal</b>	<b>\$401,000</b>		
Mobilization (10%)	\$40,000		
<b>Subtotal</b>	<b>\$441,000</b>		
Contingencies (15%)	\$66,000		
<b>Total CN</b>	<b><u>\$507,000</u></b>	<b><u>\$10,464</u></b>	<b><u>\$564,656</u></b>
<b>CE (10%)</b>	<b><u>\$51,000</u></b>	<b><u>\$1,052</u></b>	<b><u>\$56,799</u></b>
<b>TOTAL CN+CE</b>	<b><u>\$558,000</u></b>	<b><u>\$11,516</u></b>	<b><u>\$621,455</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 9.12% for FY 2014.

### **Ready Date**

The current Ready Date in OPX2 is January 1, 2014 and the Letting Date has been set for March 25, 2014. According to OPX2, the project is currently about 6 months behind schedule to meet the Ready Date. However, according to the critical path schedule, there appears to be several tasks listed that are driving the schedule that are no longer necessary (significant geometric design time, right-of-way plans and acquisition, and significant utility impacts). When this report is distributed, an e-mail request will be sent to the FM's to revise their tasks according to the current scope of the project. This should cause the project to get back on schedule.

### **Site Map**

The project site map is attached.

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