MDT Montana Department of Transportation
2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001

Jim Lynch, Director
Brian Schweitzer, Governor

August 5, 2011



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



**Subject:** **Programmatic Categorical Exclusion (PCE) Concurrence Request**
**HSIP 284-2(14)7**
**SF099 E of East Helena**
**Control Number: 7201000**

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, dated October 18, 2010, and a project location map 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).**

| | Yes | No | N/A | UNK |
|---|---|---|---|---|
| 1. This proposed project would have (a) significant environmental impact(s) as defined under 23 CFR 771.117(a). | ☐ | ☒ | ☐ | ☐ |
| 2. This proposed project involves (an) unusual circumstance(s) as described under 23 CFR 771.117(b). | ☐ | ☒ | ☐ | ☐ |
| 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. | ☐ | ☒ | ☐ | ☐ |
| 1. The context or degree of the right-of-way action would have (a) substantial social, economic, or environmental effect(s). | ☐ | ☒ | ☐ | ☐ |
| 2. A high rate of residential growth exists in the area of the proposed project. | ☐ | ☒ | ☐ | ☐ |
| 3. A high rate of commercial growth exists in the area of the proposed project. | ☐ | ☒ | ☐ | ☐ |
| 4. Work would be on and/or within approximately 1.6 kilometers (1± mile) of an Indian Reservation. | ☐ | ☒ | ☐ | ☐ |

| | Yes | No | N/A | UNK |
|---|---|---|---|---|
| 5. Parks, recreational, or other properties acquired/improved under Section 6(f) of the 1965 National Land & Water Conservation Fund Act (16 USC 460L, *et seq.*) are on or adjacent to the proposed project area. | ☐ | ☒ | ☐ | ☐ |
| The use of such Section 6(f) sites would be documented and compensated with the appropriate agencies (MDFWP, local entities, etc.). | ☐ | ☐ | ☒ | ☐ |
| 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, *et seq.*) by the State Historic Preservation Office (SHPO) would be affected by this proposed project. | ☐ | ☒ | ☐ | ☐ |
| 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. | ☐ | ☒ | ☐ | ☐ |
| a. The proposed project would not impact the site(s), so a 4(f) evaluation is not necessary. | ☐ | ☐ | ☒ | ☐ |
| b. A de minimis finding has been secured for this project. | ☐ | ☐ | ☒ | ☐ |
| c. Nationwide Programmatic Section 4(f) Evaluation forms for those sites are attached. | ☐ | ☐ | ☒ | ☐ |
| d. This proposed project requires a full Section 4(f) Evaluation. | ☐ | ☐ | ☒ | ☐ |
| 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"). | ☐ | ☒ | ☐ | ☐ |
| 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. | ☒ | ☐ | ☐ | ☐ |
| 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. | ☐ | ☐ | ☒ | ☐ |
| 3. A 124SPA would be obtained from the MDFWP. | ☐ | ☒ | ☐ | ☐ |
| 4. A delineated floodplain exists in the proposed project area under FEMA's Floodplain Management criteria. | ☐ | ☒ | ☐ | ☐ |
| The water surface at the 100-year flood limit elevation would exceed floodplain management criteria due to an encroachment by the proposed project. | ☐ | ☐ | ☒ | ☐ |
| 5. A Tribal Water Permit would be required. | ☐ | ☒ | ☐ | ☐ |
| 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. | ☐ | ☒ | ☐ | ☐ |

| | Yes | No | N/A | UNK |
|---|---|---|---|---|
| The designated National Wild and/or Scenic River systems in Montana are: | | | | |
| a. Middle Fork of the Flathead River (headwaters to South Fork confluence). | ☐ | ☐ | ☒ | ☐ |
| b. North Fork of the Flathead River (Canadian Border to Middle Fork confluence). | ☐ | ☐ | ☒ | ☐ |
| c. South Fork of the Flathead River (headwaters to Hungry Horse Reservoir). | ☐ | ☐ | ☒ | ☐ |
| d. Missouri River (Fort Benton to Charles M. Russell National Wildlife Refuge). | ☐ | ☐ | ☒ | ☐ |
| 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). | ☐ | ☐ | ☒ | ☐ |
| 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. | ☐ | ☒ | ☐ | ☐ |
| 1. If yes, are there potential noise impacts? | ☐ | ☐ | ☒ | ☐ |
| 2. A Noise Analysis would be completed. | ☐ | ☐ | ☒ | ☐ |
| 3. There would be compliance with the provisions of both 23 CFR 772 for FHWA's Noise Impact analyses and MDT's Noise Policy. | ☒ | ☐ | ☐ | ☐ |
| D. Substantial changes in access control would be associated with the proposed project. | ☐ | ☒ | ☐ | ☐ |
| If yes, would they result in extensive economic and/or social impacts on the affected locations? | ☐ | ☐ | ☒ | ☐ |
| 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. | ☒ | ☐ | ☐ | ☐ |
| 2. Adverse effects to through-traffic dependant businesses would be avoided or minimized. | ☒ | ☐ | ☐ | ☐ |
| 3. Interference to local events would be minimized to all possible extent. | ☒ | ☐ | ☐ | ☐ |
| 4. Substantial controversy associated with this pending action would be avoided. | ☒ | ☐ | ☐ | ☐ |
| 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. | ☐ | ☒ | ☐ | ☐ |

| | Yes | No | N/A | UNK |
|---|---|---|---|---|
| All reasonable measures would be taken to avoid and/or minimize substantial impacts from same. | ☐ | ☐ | ☒ | ☐ |
| G. The Stormwater Discharge conditions (ARM 17.30.1101-1117), including temporary erosion control features for construction would be met. | ☒ | ☐ | ☐ | ☐ |
| H. Permanent desirable vegetation with an approved seeding mixture would be established on exposed areas. | ☒ | ☐ | ☐ | ☐ |
| 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. | ☒ | ☐ | ☐ | ☐ |
| 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, *et seq.*). | ☐ | ☐ | ☒ | ☐ |
| K. Features for the Americans with Disabilities Act (PL 101 336) compliance would be included. | ☐ | ☐ | ☒ | ☐ |
| L. A written Public Involvement Plan would be completed in accordance with MDT's Public Involvement Handbook. | ☒ | ☐ | ☐ | ☐ |
| 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 | | | | |
| 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.). | ☐ | ☐ | ☒ | ☐ |
| C. Is this proposed project in a "Class I Air Shed" under 40 CFR 52.1382(c)(3)? | ☐ | ☒ | ☐ | ☐ |
| 5. Federally listed Threatened or Endangered (T/E) Species: | | | | |
| A. Recorded occurrences, and/or critical habitat are in the vicinity of the proposed project. | ☐ | ☒ | ☐ | ☐ |
| 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? | ☐ | ☒ | ☐ | ☐ |

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.

Eric Thunstrom Date: 8/5/2011

Eric Thunstrom
Environmental Services Bureau
Great Falls District Project Development Engineer

Concur Heidy Bruner Date: 8/8/11
Heidy Bruner, P.E.
Environmental Services Bureau
Engineering Section Supervisor

Concur Date: 11 AUG 2011
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 |
| Roy Peterson, P.E. | Traffic and Safety Engineer |
| James Combs, P.E. | Great Falls District Traffic Engineer |
| Rob Stapley | Right-of-Way Bureau Chief |
| Dawn Stratton | Fiscal Programming Section |
| Suzy Price | Contract Plans Bureau Chief |
| Steve Prinzing, P.E. | Great Falls District Engineering Services Supervisor |
| Stacy Hill, P.E. | Great Falls District Environmental Engineering Specialist |
| Walt Scott | Right-of-Way Bureau Utilities Section |
| 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.**

HSB:ejt:S:\PROJECTS\GREAT-FALLS\7000-7999\7201000\7201000ENCED001.doc

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

**Memorandum**

To: Duane Williams, PE *Signed by Duane Williams 10/21/2010*
Traffic & Safety Bureau Chief

From: James Combs, PE
Great Falls District Traffic Engineer

Date: October 18, 2010

Subject: HSIP 284-2(14)7
SF 099 E of East Helena
UPN: 7201000
Work Type: 310~Roadway and Roadside Safety Improvement

Please approve the attached Preliminary Field Review Report.

Approved *Duane Williams* Date *10/21/2010*

Duane Williams, PE
Traffic and Safety Bureau Chief

We are requesting comments from those on the distribution list. We will assume their concurrence if we receive no comments within two weeks of the approval date.

Distribution:
Michael Johnson, District Administrator
Kent Barnes, Bridge Engineer
Tom Martin, Environmental Services Bureau Chief
Duane Williams, Traffic and Safety Engineer
Robert Stapley, Right-of-Way Bureau Chief
Paul Ferry, Highways Engineer
Lynn Zanto, Rail, Transit, & Planning Division Administrator
Jake Goettle, Construction Engineering Services Bureau
Matt Strizich, Materials Engineer
Jon Swartz, Maintenance Administrator
Alan Woodmansey, FHWA - Operations Engineer

cc:
Dave Jensen, Fiscal Programming Section Supervisor
Dustin Rouse, Road Design Area Engineer
Damian Krings, Road Design Engineer
Eric Griffin, Public Works Director, Lewis & Clark County, 3402 Cooney Drive, Helena, MT 59602

e-copies:
Jim Walther, Engineering, Preconstruction Engineer
Lesly Tribelhorn, Highways Design Engineer
Mark Goodman, Hydraulics Engineer
Kurt Marcoux, District Hydraulics Engineer
Bonnie Gundrum, Env. Resources Section Supervisor
Paul Sturm, District Biologist
Eric Thunstrom, G.F. District Environmental Eng.
Danielle Bolan, Traffic Engineer
Ivan Ulberg, G.F. District Traffic Project Engineer
Pierre Jomini, Safety Management Engineer
Mary Gayle Padmos, PvMS Engineer
Daniel Hill, Pavement Analysis Engineer
Lee Grosch, District Geotechnical Manager
Marty Beatty, Engineering Information Services
Paul Grant, Public Involvement Officer
Jean Riley, Planner
Linda Cline, District R/W Design
Jason Sorenson, Engineering Cost Analyst
Jake Goettle, Construction Bureau – VA Engineer
Steve Prinzing, District Preconstruction Engineer
Christie McOmber, District Projects Engineer
Stan Kuntz, G.F. District Materials Lab
Kam Wrigg, Butte District Maintenance Chief
Walt Scott, R/W Utilities Section Supervisor
David Hoerning, R/W Engineering Manager
Greg Pizzini, Acquisition Manager
Joe Zody, R/W Access Management Section Manager
Paul Johnson, Project Analysis Bureau Chief
Sue Sillick, Research Section Supervisor
Wayne Noem, Secondary Roads Engineer
Doug Wilmot, G.F. District Construction Engineer
Jerilee Weibel, District R/W Supervisor
Dennis Ghekiere, District Utility Agent

## Introduction

This report was developed from information taken from the preliminary field review conducted on October 6, 2010 with the following personnel in attendance:

| | |
|---|---|
| Jonathon Floyd | Helena Traffic Safety Management |
| Dustin Rouse | Road Design Area Engineer |
| Paul Sturm | Helena Environmental |
| Scott Bunton | Helena Road Design-Great Falls |
| Gerry Brown | Engineering Oversight |
| James Combs | Great Falls Traffic Engineer |
| Christie McOmber | District Projects Engineer |
| Laci Bogden | Great Falls Road Design |

## Proposed Scope of Work

The project was nominated as part of the Road Hazard Elimination (STPHS/HSIP) Program to address the accident trend on S-284 between RP's 7.0 and 7.5.

1. The proposed work includes replacing and extending the existing guardrail increasing delineation, removing trees, updating signing and possible slope flattening and correcting a roadway heave.
2. This project is being designed in the Great Falls District Design Unit, the ready date will be determined through the override process.

## Purpose and Need

The intent of this project is to address the single-vehicle run-off-the-road crashes

## Project Location and Limits

The project is located in Lewis and Clark County on Secondary Route 284 also known as Canyon Ferry Road. The functional classification is a Major Collector road designed to the Geometric Design Criteria for a Rural Collector Road. The project was nominated as a safety project between RP's 7.0 and 7.5; however, to include signing upgrades the project limits may need to be extended. As-built stationing will be utilized.

The project lies within Township 10 North, Range 1 West, Section 9.

As-Built Plans:

| Project ID | From | | To | | Year Built |
|---|---|---|---|---|---|
| | Station | RP | Station | RP | |
| S-6(3) | 0+00.0 | 0.000 | 460+77.7 | 8.893 | 1958 |
| RTS 284-1(1) | | 0.000 | | 8.893 | 1995 |
| STPHS-STPS 284-2(10)7 | 366+53.5 | 7.0± | 607+14 | 11.6± | 1999 |
| SFCS 284-1(3)0 | 0+00 | 0.000 | 460+77.7 | 8.893 | 2006 |

## Work Zone Safety and Mobility

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

**Physical Characteristics**

The PTW traverses a rural area through moderately timbered, rolling terrain. Per the road log, the roadway surface is currently 24' consisting of two 12' lanes with no shoulders. The original surfacing is made up of 0.20' of plant mix with a 0.83' base. Existing unprotected fill side slopes appear to be 6:1 or flatter for the majority of the project; however, approximately 20' from the edge of traveled way the slope breaks severely to a 0.5:1.

1. **Project History:**
   The original roadway was built in 1958 under S-6(3). The roadway through the project limits was built with 0.15' of top course and 0.65' to 1.0' of base course to accommodate a future 24' wide overlay 0.20' deep. It is not clear what year the 0.20' overlay took place.
2. **Project Improvements:**
   a. The project was overlaid again in 1995 under RTS 284-1(1)0 (UPN 2756).
   b. In 1999 safety project STPS-STPHS 284-2(10)7 replaced the existing cable rail with metal guardrail through this project (UPN 3490).
   c. In 2006 this roadway received a seal and cover under SFCS 284-1(3)0 (UPN 5533).

**Traffic Data**

| | | |
|---|---|---|
| 2010 ADT | = | 2,020 Present |
| 2012 ADT | = | 2,160 Letting Year |
| 2032 ADT | = | 4,300 Design Year |
| DHV | = | 520 |
| Com Trks | = | 1.8% |
| ESAL | = | 11 |
| AGR | = | 3.5% |

**Crash Analysis**

1. The accident analysis for Secondary Route 284 from RP 7.0 to RP 7.5 was taken for the dates of January 1, 2000 through December 31, 2009.
2. The all vehicle crash rate is 6.44, severity index is 2.60, and severity rate is 16.74 compared to the statewide average for Rural Secondary Routes of 1.47, 2.32, and 3.43 respectively.
3. The total number of recorded crashes is 15.
   a. Variations from Average Occurrence:
      i. 66.7% were single-vehicle run-off-the-road crashes vs. 36.4% statewide average for rural Secondary routes
      ii. 46.7% of the crashes occurred during icy, snowy, or slushy road conditions vs. 19.6% statewide average for rural Secondary routes.
   b. HES Clusters or Projects:
      The section from reference point 7.0 to 7.5 was identified as a crash cluster. As a result the Safety Management Section recommended the extension of guardrail on both sides of the roadway, the removal of trees and increased delineation throughout the curves in the cluster area. These safety improvements based on a cost estimate of $111,062 generated a benefit-to-cost ratio of 11.24 using the study period from January 1, 1998 through December 31, 2007.
   c. Remarks:
      i. The main crash trend is single-vehicle run-off-the-road crashes. Of these crashes, 5 resulted in overturning of the vehicle and 6 crashes involved vehicles impacting a tree.
      ii. Three of the crashes involved a collision with a wild animal.
      iii. Two of the crashes involved a motorcycle.
      iv. There was one fatal crash (with 1 fatality) along this segment of roadway during the study period.
      v. Please note the high crash rate, severity index, and severity rate.
      vi. Please consult with hydraulics to resolve any potential drainage impacts.

vii. With this project, slope flattening may be needed for the guardrail extension. Also, upgrade guardrail end treatments.

## Major Design Features

This project was nominated to address a specific crash trend on S-284 between approximate RP's 7.0 and 7.5.

a. **Design Speed.** According to the Geometric Design Criteria for Rural Collector Roads and using the rolling design control, the project qualifies for a design speed of 50 mph. The existing posted daytime speed limit is 55 mph; however, the advisory signs that precede the curves suggest a reduce speed of 45 mph through the curves.

b. **Horizontal Alignment**. The intent of this project is not to change the horizontal alignment of the roadway. The existing roadway consists of 2 curves; of which the minimum radius is 819' exceeding the design criteria minimum of 760'.

c. **Vertical Alignment**. The intent of this project is not to change the vertical alignment of the roadway. However, during the field review a roadway heave was noticed in the uphill curve. The District proposes leveling this heave if plant mix will be available from a nearby safety project and if the two projects can be tied. The existing roadway contains 2 VPI's; of which one of the grades exceed the maximum 7% grade for rolling Rural Collector Roads. The project limits begin with a grade of 7.107%. There is approximately a 170' elevation difference within this 0.5 mile project. All K-values for crest and sag exceed the geometric design criteria.

d. **Typical Sections and Surfacing**. The as-builts and roadlog data associated with this project describe a 24' wide asphalt surface compared to the Geometric design criteria of 36' for the current AADT of 2,020. The typical sections from S-6(3) describe a 3' graveled buffer zone where the fill slopes are 2½:1 or steeper. The roadway was likely widened slightly in 1995 under RTS 284-1(1)0 to accommodate the overlay and maintain a 24' finished surface. It is unknown what the existing asphalt depth is as the roadlog states 0.2'; however, the 1995 overlay only milled the connections.

e. **Geotechnical Considerations**. Geotech assistance may be necessary to determine the stability of the slopes. More information will be provided as the design progresses.

f. **Hydraulics**. Hydraulics may be consulted to resolve any potential drainage impacts.

g. **Bridges.** There are no bridges within the project limits. No bridge involvement is anticipated with this project.

h. **Traffic.** The Traffic Section will be requested to provide signing plans.

i. **Pedestrian/Bicycle/ADA**. No ADA, pedestrian, or bicycle improvements are anticipated with this project.

j. **Miscellaneous Features**. Any disturbed slopes will be re-vegetated. All guardrail height, measured to the top of the rail, ranges between 25" and 27" which is below the minimum requirement of 27¾". All existing guardrail will be replaced. Trees will need to be removed from the clear zone to improve sight distance and decrease obstacles; the number of trees needing to be removed will be evaluated once survey has been received. Maintenance will be contacted to grade the shoulders where erosion has washed gravel away adjacent to the paved surface.

k. **Context Sensitive Design Issues**. No features considered context sensitive are proposed with this safety project.

## Other Projects

HSIP 284-2(12)6, SF079 Canyon Ferry Rd-Hlna (UPN 6412000), will consist of shoulder widening and superelevation repair. The District is considering tying these two projects if asphalt can be made available for this project to correct the roadway heave and to pave behind the guardrail.

## Location Hydraulics Study Report

No hydraulics issues are anticipated with this project.

**Design Exceptions**
At this time there are two known deviations from the Geometric Design Standards for Rural Collector Roads. The first is the grade of 7.107%, which exceeds the Geometric Design Criteria maximum grade of 7.0%. The second is the roadway width of 24'; the Geometric Design Criteria states a minimum roadway width of 36' for a current AADT of 2,020 and a minimum roadway width of 40' for a DHV of 520The proposed scope of this project precludes surface widening and/or reconstruction. No formal design exceptions are anticipated with this project.

**Right-of-Way**
The right-of-way varies from 50' to 170' from centerline left and 75' to 180' from centerline right according to the 1958 as-builts. The existing right-of-way will need to be plotted but no new right-of-way involvement is anticipated with this safety project.

**Access Control**
This section of roadway is not an access controlled facility.

**Intelligent Transportation Systems (ITS) Features**
No ITS features have been discussed at this time

**Experimental Features**
No experimental features have been discussed at this time

**Utilities/Railroads**
According to the 1958 as-builts, there are both telephone and overhead power crossings within the project limits. Occurrences of underground utilities are unknown at this time and existence of utilities will require surveyed locations to determine impacts associated with extending guardrail and flattening slopes.

There are no railroads in the vicinity; railroad participation is not necessary.

**Survey**
The survey request was submitted to construction September 28, 2010; a copy of which is attached to this PFR.

**Public Involvement**
Due to the limited scope of this project, a level "A" public involvement plan should suffice. This will include a news release to the local media.

**Environmental Considerations**
Per the Safety Engineering Study Evaluation dated September 13, 2010, it was suggested that some tree removal may be necessary to improve sight distance and decrease obstacles. The District Environmental Engineer and the District Biologist will be consulted to address any issues related to tree removal.

It is anticipated this safety project will qualify for a categorical exclusion.

**Energy Savings/Eco-Friendly Considerations**
No Energy Savings/Eco-Friendly features have been discussed at this time.

**Traffic Control**
Traffic will be maintained throughout the construction of the project with the appropriate signing, flagging, etc. in accordance with the Manual on Uniform Traffic Control Devices. Due to the confined setting and relatively limited sight distance, a short term one-lane, two-way operation with flagging may be necessary. Work will likely be limited to daylight hours and non-holiday weekdays only as this

section of S-284 is a primary route between Helena and the popular recreation areas of Canyon Ferry Lake. This section of Canyon Ferry Road is outside the limits of Canyon Ferry Road defined in the High-Crash Severity Corridors for State Secondary Routes.

At this time, Level 3 construction zone impacts are anticipated for this project as defined in the Work Zone Safety and Mobility (WZSM) guidance. The plans package will include a Transportation Management Plan (TMP) consisting mainly of a Traffic Control Plan (TCP).

**Project Management**

James Combs, P.E. Great Falls District Traffic Engineer.

This project is not under full FHWA oversight.

**Preliminary Cost Estimate**

The project was nominated at $107,000 for construction and construction engineering costs without inflation and IDC. Roadwork includes the cost of guardrail, guardrail widening, signing, and tree removal. Per the nominated construction amount, the cost per mile is approximately $194,000.

| | | Estimate Costs | Inflation (INF) (from PPMS) | w/INF + IDC (from PPMS) |
|---|---|---|---|---|
| Road work | | $54,000 | | |
| Traffic Control | | $25,000 | | |
| **Subtotal** | | **$79,000** | | |
| Mobilization | 10% | $7,900 | | |
| **Subtotal** | | **$86,900** | | |
| Contingencies | 12% | $10,428 | | |
| **Total CN** | | **$97,328** | **$17,877** | **$130,584** |
| **CE** | 10% | **$9,733** | **$1,788** | **$13,058** |
| IDC: | 13.35% | **$107,061** | **TOTAL** | **$143,643** |
| | **Inflation Factor (ppms)** | | 0.183673469 | |

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 13.35% as of FY 2011.

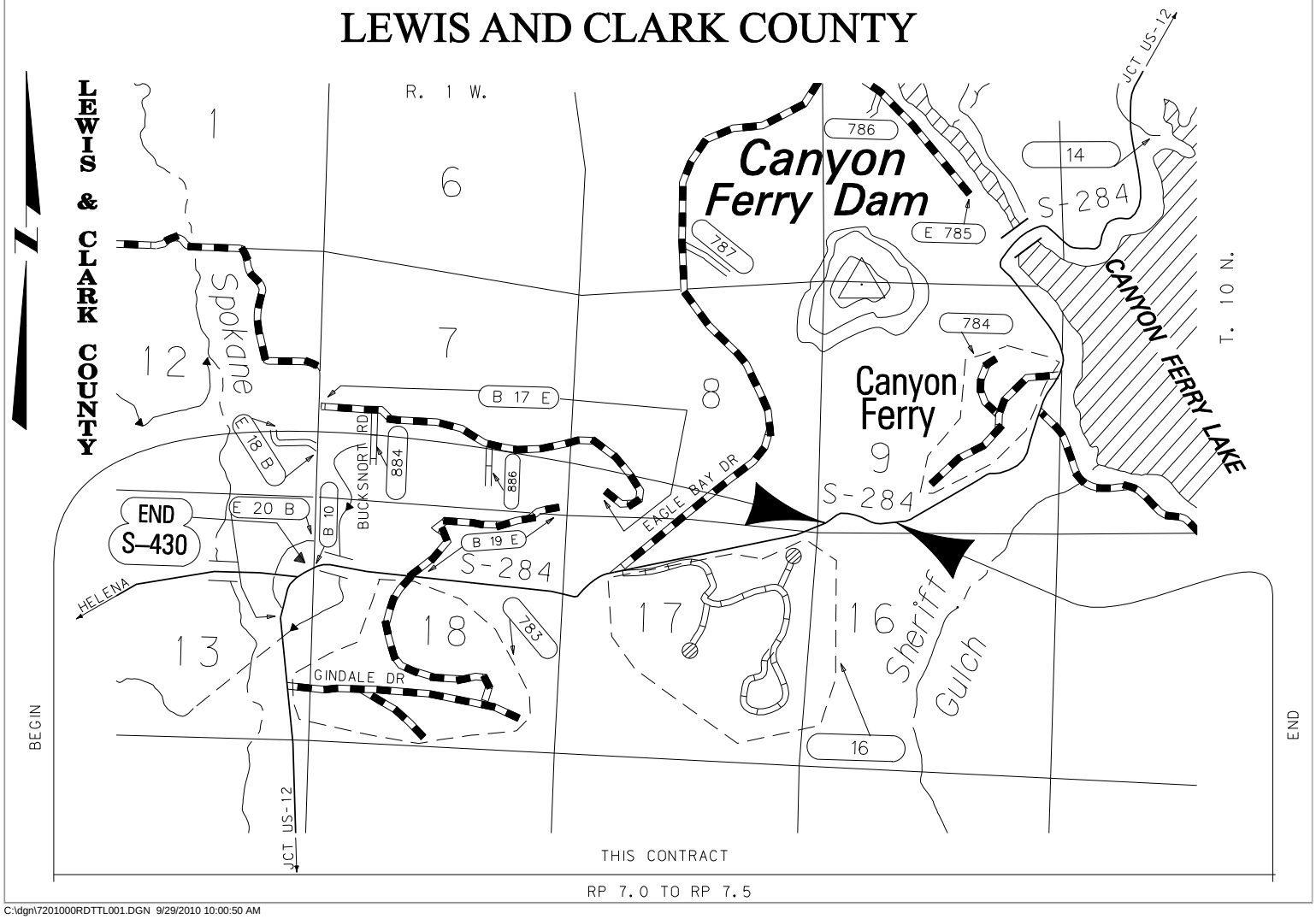
**Ready Date**

The project is being designed in the Great Falls Design Unit and the ready date will be determined through the override process.

**Site Map**

The project site map is attached.

# FEDERAL AID PROJECT HSIP 284-2(14)7
# SAFETY, GUARDRAIL, & SLOPE FLATTENING
# SF 099 E OF EAST HELENA
# LEWIS AND CLARK COUNTY




C:\dgn\7201000RDTTL001.DGN 9/29/2010 10:00:50 AM