MDT

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

Memorandum

To: Lisa Hurley, Supervisor
Fiscal Programming Section

From: Heidy Bruner, P.E.
Engineering Section Supervisor

Date: September 8, 2015

Subject: Categorical Exclusion (c) (23)
TA 34(37)
Highway 89 Path - S of Livingston
Control Number: 8692000

Environmental Services has determined that this proposed project will not involve unusual circumstances as described under 23 CFR 771.117(b). As a result, the project qualifies as a Categorical Exclusion under the provisions of 23 CFR 771.117(c), part (23), which describes Federally-funded projects that receive less than $5,000,000 of Federal funds. This proposed action also qualifies as a Categorical Exclusion under the provisions of ARM 18.2.261 (Sections 75-1-103 and 75-1-201, M.C.A.).

The proposed project involves the construction of a new shared-use path along the west side of US Highway 89 starting approximately 3.2 miles south of Livingston. No additional right of way will be required. The total estimated cost of the project at this time including CN + CE w/INF + IDC = $815,692.

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

e-copies:

Jeff Ebert - Butte District Administrator
Wade Salyard – Consultant Project Engineer
Lesly Tribelhorn, P.E. - Highways Engineer
Robert Stapley - Right-of-Way Bureau Chief
Tom Martin - Environmental Services Bureau Chief
Heidy Bruner – Engineering Section Supervisor
Jeff Patten – FHWA
Barry Brosten – Environmental
Nicole Pallister - Fiscal Programming Section Supervisor

copy: project file

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MASTER FILE COPY

Memorandum

To: Ryan Dahlke, P.E.
Consultant Design Engineer

From: Mike Wherley, P.E. MJW
CTEP/TA Engineeer

Date: February 13, 2015

Subject: TA 34(37)
Highway 89 Path – South of Livingston
UPN 8692000
Project Work Type – 620

Please approve the attached Preliminary Field Review Report.

Approved Ryan Dahlke Date 2-18-2015
Ryan Dahlke, P.E.
Consultant Design Engineer

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

cc:
Wade Salyards, Project Design Manager, TA
Dawn Stratton, Fiscal Programming Section
Michael Inman, Park County
Kristen Galbraith, Park County
Parks Frady, Park County

e-copies:
Jim Walther, Engineering, Preconstruction Engineer
Lesly Tribelhorn, Highways Design Engineer
Mark Goodman, Hydraulics Engineer
Walter Ludlow, District Hydraulics Engineer
Bryce Larsen, Supervisor, Photogrammetry & Survey
Deb Wambach, Butte District Biologist
Barry Brosten, District Project Development Engineer
Danielle Bolan, Traffic Operations Engineer
Ivan Ulberg, Traffic Design Engineer
Leroy Wosoba, District Traffic Project Engineer
Kraig McLeod, Safety Engineer
Bridge Area Engineer, Butte District
Engineering Cost Analyst
John Pirre, Engineering Information Services
Paul Grant, Public Involvement Officer
Sue Sillick, Research Section Supervisor
Suzy Price, Contract Plans Bureau Chief
Alyce Fisher, Fiscal Programming Section
Matt Wagner, Engineering Division
Angela Zanin, Bicycle/Pedestrian Coordinator
Jake Goettle, Construction Bureau – VA Engineer
Dustin Rouse, District Preconstruction Engineer
Joe Walsh, District Projects Engineer
Mike Walsh, District Materials Lab
Kam Wrigg, District Maintenance Chief
Therese Iwaniak, District Right of Way Supervisor
Phillip Inman, Utilities Engineering Manager
David Hoerning, Lands Section Supervisor
Greg Pizzini, Acquisition Section Supervisor
Joe Zody, R/W Access Management Section Manager
Matt Strizich, Materials Engineer
Jim Davies, Pavement Analysis Engineer
Darin Reynolds, Surfacing Design Supervisor
Jeff Jackson, Geotechnical Engineer
Pat McCann, District Geotechnical Manager
Paul Johnson, Project Analysis Bureau
Jean Riley, Planner
Dawn Stratton, Fiscal Programming Section
Matt Maze, ADA Coordinator

Introduction

A combination field review/scoping meeting for the subject project was held November 13, 2014 at the City/County Complex in Livingston, MT. The following people were in attendance:

Mike Wherley	MDT CTEP/TA Program Manager (Helena)
Wade Salyards	MDT Consultant Project Engineer (Helena)
Michael Inman	Planning Director, Park County
Kristen Galbraith	Grants and Projects Developer and Manager, Park County
Parks Frady	Public Works Director, Park County
Mitch Stelling	KLJ (Great Falls)
Josh Sommer	KLJ (Great Falls)

Proposed Scope of Work

This project will include the construction of approximately 4,430 linear feet of a new shared-use path along the west side of US Highway 89 starting approximately 3.2 miles south of Livingston in Park County, Montana. The new path will serve as an extension of an existing path system. The project will include an 8 foot wide path with asphalt surfacing, approximately 2,200 lineal feet of new guardrail for separation from the highway, rock fall protection measures, and one crossing of the Livingston Ditch (irrigation).

The design has been broken into two engineering phases. The Phase I scope of work will consider path alignment and grade options, initial geotechnical investigations, initial rock fall potential and mitigation options, and will also focus on the project feasibility. Phase II of the project will include final geotechnical investigations (if necessary), final rock fall mitigation design, final plans and special provisions.

Consultant Design will manage the project and KLJ has been selected to provide survey and design services.

Needs and Objectives

The purpose of this project is to provide a critical last link of path along the west side of US Highway 89 between the existing Carter's Bridge Bike/Pedestrian Path to Old Yellowstone Trail Road. This section is currently used by pedestrians and bicyclists, but it has no developed non-motorized facilities which requires pedestrians and bicyclists to utilize the existing road or shoulders. Currently the pedestrians and bicyclists frequently cross US Highway 89 in this area to access the east side of the highway where wider shoulders are present, and then re-cross the highway back to the west side to access the Old Yellowstone Trail Road. This creates an undesirable condition. This project will provide a continuous shared-use path, which will allow users to remain on the west side of the highway and will improve safe alternative transportation opportunities by removing the need to cross US Highway 89.

Project Location and Limits

The project is located approximately 3.2 miles south of Livingston, Montana within the west side right-of-way of US Highway 89 between the intersections with East River Road (M.P. 49.8) and Old Yellowstone Trail Road (M.P. 48.9).

Work Zone Safety and Mobility

This project qualifies as a Level 3 project in the Work Zone Safety and Mobility Guidelines. A Transportation Management Plan will be required consisting of a Traffic Control Special Provision in the plans package.

Physical Characteristics

The new path will be located in the rural setting of the Paradise Valley and will follow the gentle terrain along the abandoned railway bed on the west side of US Highway 89. The north end of the path will

begin at the existing path terminus near the highway intersection with East River Road and will cross the Livingston Ditch at one location approximately 1,280 feet from its north beginning point. Between the halfway point of the path extension to the south and the southern terminus at Old Yellowstone Trail Road, the new path will be constructed immediately adjacent to the highway and near the "toe" of three distinct rock cut areas. Guardrail will be considered for this section of path along the rock cut areas due to the proximity to the highway and to provide for physical separation of pedestrians, bicyclists, etc. from vehicle traffic. In addition, rockfall potential and possible mitigation measures will be considered. These rock cut areas have MDT Rockfall Hazard Ratings of "A" and "B".

Traffic Data

Based on the Paradise Valley Corridor Planning Study dated July 16, 2013, the Average Annual Daily Traffic (AADT) varies from 3,460 to 4,700 vehicles per day on US Highway 89 in the project area.

Crash Analysis

A crash analysis was not required for this bicycle/ pedestrian path project.

Major Design Features

a. **Design Speed.** Design speed is not applicable to this path project. The posted speed limit on US Highway 89 in the project vicinity transitions from 55 mph to 70 mph.
b. **Horizontal Alignment**. The path horizontal alignment will run generally parallel to the highway and will follow the existing railway bed at the north end. The path will be constructed adjacent to the highway through the rock cut areas. US Highway 89 curves from the southeast to the southwest in the project area.
c. **Vertical Alignment**. Vertical alignment will generally match the existing gently sloping grade of the railway bed at the north end. The vertical grade of the path through the rock cut areas is uncertain until survey is completed and options can be reviewed. The vertical alignment through the rock cut areas will be set to avoid cuts into the existing rock faces and to address rockfall concerns.
d. **Typical Sections and Surfacing**. The new path will be 8 feet in width in accordance with Section 5.2.1 of the AASHTO Guide for the Development of Bicycle Facilities. An 8 foot width is justified due to the relatively low use anticipated and due to width constraints in the rock cut areas. The path will be surfaced with asphalt over aggregate base course. Shoulders with a 2 foot width (minimum) and 6:1 (maximum) slopes will be necessary where the path is located between guardrail and any rock fall mitigation features.
e. Geotechnical Considerations. Geotechnical considerations include assessment of rockfall impacts on the path and identification of potential rockfall mitigation measures. Depending on whether or not the path is elevated in the rock cut areas, slope stability analysis of the highway embankment may also be necessary. The initial geotechnical investigations in Phase I will include review of existing MDT rockfall and geotechnical information available for the highway, initial assessments of the rockfall potential and identification of mitigation options. If the initial investigations indicate that more extensive analysis is necessary to design adequate rock fall mitigation and to assess the stability of the existing roadway embankment, these services would be provided in conjunction with the Phase II Engineering Services.
f. **Hydraulics**. The path will require one crossing of the Livingston Ditch (irrigation) and a new culvert will be installed at the crossing location. Coordination with the irrigation district will be necessary to determine design flow rates and freeboard requirements for the new culvert. Potential impacts to the waterway will be considered as the level of environmental documentation is determined. Placement of the path immediately adjacent to the highway in the rock cut areas will need to consider potential impacts to roadside drainage. New ditches and/or culverts may be necessary along the path alignment.
g. **Bridges.** No bridges will be required for this project.
h. **Traffic.** The project will not include any elements related to vehicle traffic on the highway.
i. **Pedestrian/Bicycle/ADA**. This project will connect an existing multi-use path that currently terminates at East River Road, to Old Yellowstone Trail Road. The Old Yellowstone Trail

Road extends south to Gardiner, MT and is utilized for recreational uses such as biking, hiking, cross-country skiing, walking and running activities. The new path will be designed to MDT standards and will incorporate Public Right-of-Way Accessibility Guidelines.

j. **Miscellaneous Features**. Steel W-beam guardrail may be incorporated in the rock cut areas to provide physical separation of path users from highway vehicles. Retaining walls, catchment areas, and rockfall mitigation measures may be necessary in the rock cut areas. Lighting is not planned along the path.

k. **Context Sensitive Design Issues**. No context sensitive issues were identified.

Other Projects
There are no other known projects proposed for this area in the near future.

Location Hydraulics Study Report
The scope of work for this project does not require a Location Hydraulics Study Report.

Design Exceptions
Design exceptions are not anticipated for this project.

Right-of-Way
Right-of-way acquisition will not be required for this project. All proposed construction will be within the existing MDT right-of-way.

Access Control
This project will not have an impact on US Highway 89 access.

Utilities/Railroads
Existing utilities within the corridor of the new path include buried fiber optic and telephone lines. Utility conflicts are anticipated to be minimal or non-existent as a result of this project. There is no railroad involvement on this project. The new path will follow the alignment of the MDT-owned abandoned railroad bed.

Maintenance Items
Currently MDT maintains the US Highway 89 right-of-way. Park County will assume maintenance responsibilities associated with the new path. The project will consider the possibility of cleaning rock debris from the existing catchment bench located along the southern rock cut slope to provide additional capacity for future rock fall. The extent of existing rock fall debris will be assessed during the design survey phase.

Intelligent Transportation Systems (ITS) Features
There are no ITS features planned for this project.

Experimental Features
There are no experimental project features planned for this project.

Survey
There is no MDT survey control located within the project corridor. A local datum/control will be established for use during design surveys and for construction staking. Control points will be durable and available at the time of construction and easily reproduced. A topographic survey will be conducted along the project corridor and along the rock cut features at a level necessary to perform detailed design.

Located utilities within the construction limits will also be surveyed.

Public Involvement
Level A public involvement is anticipated. A news release will be distributed under the Phase II portion of the project.

Environmental Considerations
Significant environmental issues and permitting are not anticipated for this project. It is anticipated that the environmental documentation for the proposed project will consist of the following standard MDT documents:

- Level of Environmental Documentation Form
- Programmatic Categorical Exclusion Approval Worksheet
- Categorical Exclusion (c) letter

Energy Savings/Eco-Friendly Considerations
There are no energy savings or eco-friendly consideration for this project.

Traffic Control
Construction activity at the north end of the project will generally be confined to the right-of-way outside of the highway limits and should not adversely impact motorized traffic. Construction activity within the rock cut areas may include installation of guardrail and will require work in very close proximity to the edge of the south bound travel lane. The Plans Package will include a special provision requesting a traffic control plan from the Contractor. The Contractor Traffic Control Plan will need to be reviewed and approved by MDT.

Project Management
This will be a Consultant Design project with Wade Salyards as the MDT Project Manager. KLJ is the selected consultant and Josh Sommer is the consultant's Project Manager.

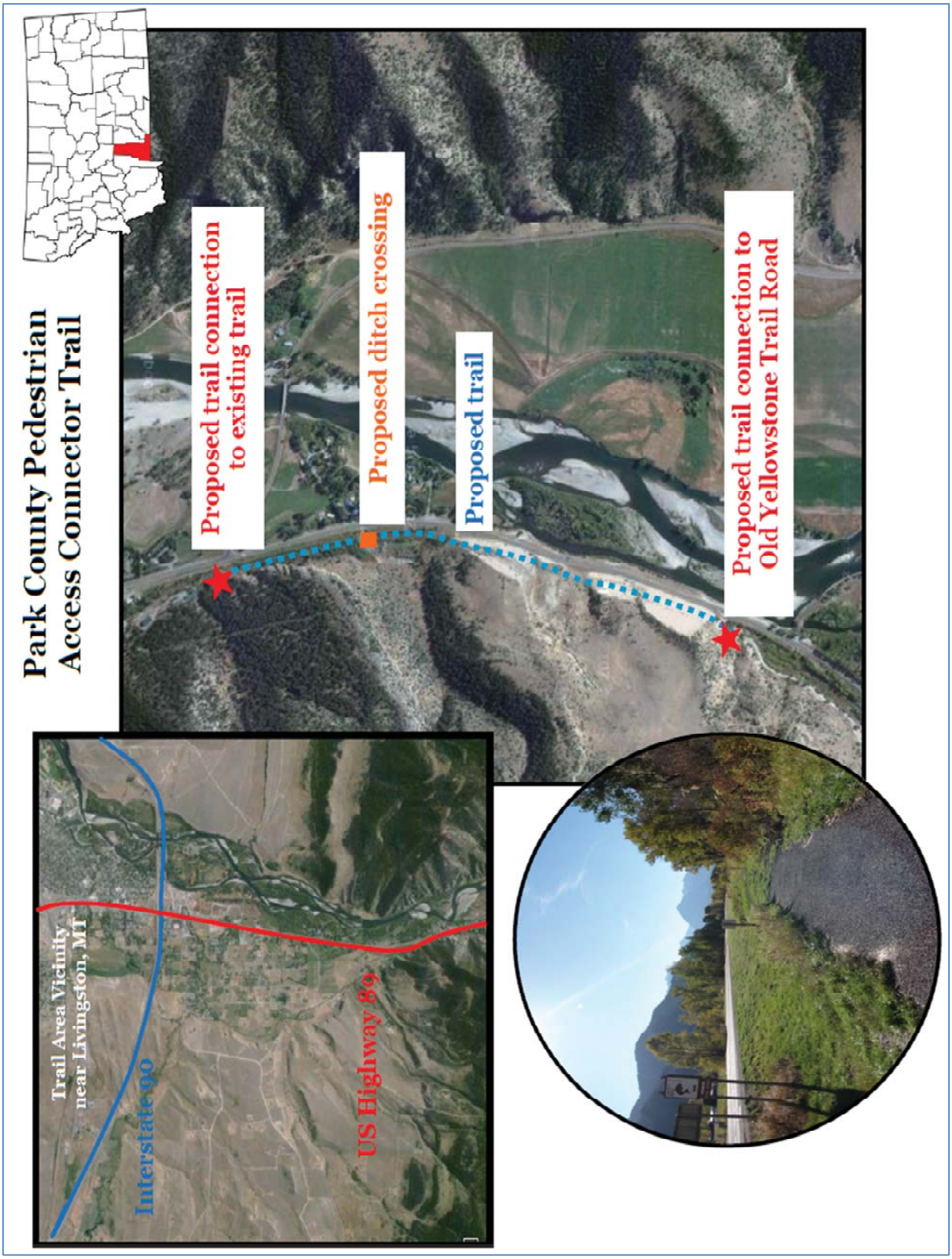
Preliminary Construction Cost Estimate
The initial cost estimate for the project at nomination was $597,564 (CN+CE) based upon the grant proposal submitted by the Park County Commission. The project cost estimate has been updated to reflect revisions to unit costs for guardrail and rockfall mitigation. The current cost estimate for the project is $647,184 (CN+CE).

	Estimated cost	Inflation (INF) (from PPMS)	w/INF + IDC (from PPMS)
Path	$453,973		
Subtotal	**$453,973**		
Mobilization (10%)	$45,397		
Subtotal	**$499,370**		
Contingencies (20%)	$99,874		
Total CN	**$599,244**	**$92,839**	**$755,270**
CE (8%)	**$47,940**	**$7,427**	**$60,422**
TOTAL CN+CE	**647,184**	**$100,266**	**$815,692**

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 9.13% as of FY 2015.

Ready Date
The project schedule has a March 6, 2015 finish date for the feasibility report of Phase I. Dependent on the results of the Phase 1 feasibility study, a ready date will be established in OPX2 at the beginning of Phase II.

Site Map


Park County Pedestrian Access Connector Trail
Proposed trail connection to existing trail
Proposed ditch crossing
Proposed trail
Proposed trail connection to Old Yellowstone Trail Road
Trail Area Vicinity near Livingston, MT
Interstate 90
US Highway 89