



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

Memorandum

To: Lisa Hurley
Fiscal Programming Section Supervisor

From: Heidi Bruner, P.E.
Engineering Services Supervisor
Environmental Services

Date: June 1, 2015

Subject: Categorical Exclusion (C) Determination
Arlee Ped X-ings
NH 5-2(169)17
Control Number: 8817000

Environmental Services has reviewed the proposed project and concluded that it 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 (8) which describes installation of fencing, sign, pavement markings, small passenger shelters, traffic signals, and railroad warning devices where no substantial land acquisition or traffic disruption will occur.

The proposed project is to provide enhanced pedestrian/school crossings of the US-93 northbound couplet in Arlee (between RP 17.4 and RP 17.7) in order to address pedestrian conflicts on this multilane roadway. The proposed project was nominated to place two new Rectangular Rapid Flashing Beacon (RRFB) crossings in Arlee; one at Whitworth/Morigeau & US 93 and the other at Wessinger/Houle & US 93. The four school crossing intersections will receive upgraded crosswalk-related signing and crosswalk-related pavement markings. The attached Preliminary Field Review Report/Scope of Work Report provides a location map and a more complete project description. 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.).

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).

Attachment

e-copies: Ed Toavs, District Administrator- Missoula
Roy Peterson, P.E., Traffic and Safety Engineer
Gabe Priebe, P.E., Traffic Project Engineer
Robert Stapley, Right-of-Way Bureau Chief
Suzy Price, P.E., Contract Plans Bureau Chief
Tom Martin, P.E., Environmental Services Bureau Chief
Susan Kilcrease, Missoula Project Development Engineer
Gene Kaufman, P.E., FHWA Operations Engineer
Tom Erving - Fiscal Programming Section
Montana Legislative Branch Environmental Quality Council

Copy: Environmental Services Bureau File



Memorandum

To: Distribution

From: Roy Peterson, P.E. [RAP]
 Traffic & Safety Engineer

Date: March 30, 2015

Subject: Arlee Ped X-ings
 NH 5-2(169)17
 UPN 8817000
 Work Type 411 – Signing, Pavement Markings, Chevrons, etc.

Attached is the Preliminary Field Review Report/Scope of Work Report which was approved on **March 30, 2015**. 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:

- | | |
|---|--|
| Ed Toavs, District Administrator | Tom Martin, Environmental Services Bureau Chief |
| Kent Barnes, Bridge Engineer | Lynn Zanto, Rail, Transit, & Planning Division Administrator |
| Lesly Tribelhorn, 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 | |

cc:

- | | |
|--------------------------------------|---|
| Gabe Priebe, Project Design Engineer | Dawn Stratton, Fiscal Programming Section |
| Traffic and Safety file | Dan Lozar, CSKT Roads |
| Susan Carnery, Arlee Schools | George Linthicum, Arlee Schools |

e-copies:

- | | |
|--|---|
| Jim Walther, Engineering, Preconstruction Engineer | Jake Goettle, Construction Bureau – VA Engineer |
| Lesly Tribelhorn, Highways Design Engineer | Shane Stack, District Preconstruction |
| Mark Goodman, Hydraulics Engineer | Ben Nunnallee, District Projects Engineer |
| KC Yahvah, District Hydraulics Engineer | Mike Dodge, District Materials Lab |
| Bryce Larsen, Supervisor, Photogrammetry & Survey | Steve Felix, District Maintenance Chief |
| Joseph Weigand, District Biologist | Maureen Walsh, District Right of Way Supervisor |
| Susan Kilcrease, District Project Development Engineer | Phillip Inman, Utilities Engineering Manager |
| Danielle Bolan, Traffic Operations Engineer | David Hoerning, Lands Section Supervisor |
| Ivan Ulberg, Traffic Design Engineer | Greg Pizzini, Acquisition Section Supervisor |
| Kraig McLeod, Safety Engineer | Joe Zody, R/W Access Management Section Manager |
| Chris Hardan, Missoula Bridge Area Engineer | Matt Strizich, Materials Engineer |
| John Pirre, Engineering Information Services | Jim Davies, Pavement Analysis Engineer |
| Paul Grant, Public Involvement Officer | Darin Reynolds, Surfacing Design Supervisor |
| Sue Sillick, Research Section Supervisor | Jeff Jackson, Geotechnical Engineer |
| Suzy Price, Contract Plans Bureau Chief | Bret Boundy, District Geotechnical Manager |
| Alyce Fisher, Fiscal Programming Section | Paul Johnson, Project Analysis Bureau |
| Matt Wagner, Engineering Division | Jean Riley, Planner |
| Matt Maze, ADA Coordinator | Dawn Stratton, Fiscal Programming Section |
| | Duane Williams, Motor Carrier Services Division Administrator |



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Memorandum

To: Roy Peterson, P.E.
Traffic & Safety Engineer

From: Gabe Priebe, P.E. [GBP]
Traffic Project Engineer

Thru: Ivan Ulberg, P.E. [IBU]
Traffic Design Engineer

Date: March 30, 2015

Subject: Arlee Ped X-ings
NH 5-2(169)17
UPN 8817000
Work Type 411 – Signing, Pavement Markings, Chevrons, etc.

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

Approved [Signed by RAP] Date [3/30/15]
Roy Peterson, P.E.
Traffic & Safety 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.):
Traffic and Safety Master file

Preliminary Field Review/Scope of Work Report

Arlee Ped X-ings; NH 5-2(169)17
Project Manager: Gabe B. Priebe

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Introduction

A preliminary field review was held on February 9, 2015. The following attended the field review.

Matt Maze, Helena Civil Rights Bureau
Lee Petersen, Maintenance Section Supervisor - Evaro
Dan Lozar, CSKT Roads
Susan Carney, Arlee Schools
George Linthicum, Arlee Schools
Dwayne Miller, MDT Traffic Signing
Allen Levens, MDT Traffic Electrical
Gabe Priebe, MDT Traffic Design

Proposed Scope of Work

The proposed project was nominated to place two new Rectangular Rapid Flashing Beacon (RRFB) crossings in Arlee; one at Whitworth/Morigeau & US 93 and the other at Wessinger/Houle & US 93. All four existing school crossing intersections, including the two with RRFB upgrades, will receive upgraded crosswalk-related signing and crosswalk-related pavement markings as shown in the Traffic Section below.

Purpose and Need

The purpose of this project is to provide enhanced pedestrian/school crossings of the US-93 northbound couplet in Arlee in order to address pedestrian conflicts on this multilane roadway.

Project Location and Limits

This project is located in Arlee in Lake County on US-93 (N-5) between RP 17.4 and RP 17.7.

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 the project is on a Level 1 corridor, only short-term/off-peak through lane closures are anticipated to facilitate construction of the crosswalks, signing and flashers. 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

In 2008 US-93 through the project limits was reconstructed under project NH 5-1(31)13.

The US-93 northbound roadway consists of two 3.6 meter travel lanes, interspersed parking lanes, variable width shoulders, and curb and gutter with bulb-outs at the intersections. The pavement consists of 120 mm of plant mix over 545 mm of base course between intersections and 230 mm PCCP (colored and stamped) over 435 mm of base course immediately at the intersections. The concrete limits extend through each crosswalk on all four legs of the four intersections within the project.

The terrain along the project is level. Northbound US-93 intersects four main crossroads within the project limits: Morin/Bouch, Wessinger/Houle, Butch Larsen/Taelman and Whitworth/Morigeau. Each intersection has minimal or no skew. The roadside adjoins mainly commercial properties interspersed with a few residences.

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Project Manager: Gabe B. Priebe

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The US-93 alignment contains three tangents separated by two short and flat horizontal curves to the left within the project limits. ($R1=5,000$ m and $R2=2,000$ m, $\Delta1$ is approximately half a degree and $\Delta2$ is approximately 2 degrees)

The US-93 profile contains several short/minor crest and sag vertical curves within the project limits. Grades range between -0.42% and -1.22% and all flow north.

Traffic Data

The traffic data listed below is for US-93 (N-7) between RP 74.5 and 75.2.

2015 AADT	=	3,460 (Present)
2016 AADT	=	3,500 (Letting Year)
2036 AADT	=	4,540 (Design Year)
DHV	=	540
T	=	5.9%
EAL	=	125
Growth Rate (Annual)	=	1.3%

Crash Analysis

The analysis is for the intersection of US 93 (N-5) & Whitworth/Morigeau (L-24-1242) & U.S. 93 (N-5)& Wessinger Street (L-24-328)/Houle (L-24-1265) from January 1, 2011 to December 31, 2013. The time frame is reflects crashes since this section of roadway was reconstructed. There were no reported crashes at either one of the intersections in 2014.

US 93 & Whitworth/Morigeau Intersection

The Montana Highway Patrol records indicate a total of 3 crashes have occurred at this intersection during the study period. Two of the crashes resulted in vehicles failing to yield to through traffic at the intersection. Of these crashes, 1 resulted in a right angle collision in which an eastbound vehicle failed to yield to a northbound vehicle and the other resulted in a sideswipe same direction collisions involving a vehicle making an improper left turn at the intersection (left turn from the right lane). The remaining crash at the intersection was a rear end collision, in which a northbound vehicle was rear ended while stopping for a pedestrian at the intersection. The pedestrian crash resulted in a property damage only crash. The severity of the crashes at the intersection resulted in one possible injury crash with one possible injury and two property damage only crashes.

US 93 & Wessinger St/Houle Intersection

The Montana Highway Patrol records indicate a total of 2 crashes have occurred at the intersection during the study period. One of the crashes resulted in a sideswipe same direction collision involving a vehicle making an improper left turn at the intersection (left turn from the right lane) and the other was a road departure crash in which a northbound vehicle left the roadway and struck a sign. The severity of the crashes at the intersection resulted in two property damage only crashes.

Major Design Features

- Design Speed.** The geometric design criteria for NHS Urban curbed Principle Arterials indicate that the design speed is 40-45 mph. The posted speed limit is 35 mph.
- Horizontal Alignment.** The horizontal alignment will not change with this project.
- Vertical Alignment.** The vertical alignment will not change with this project.

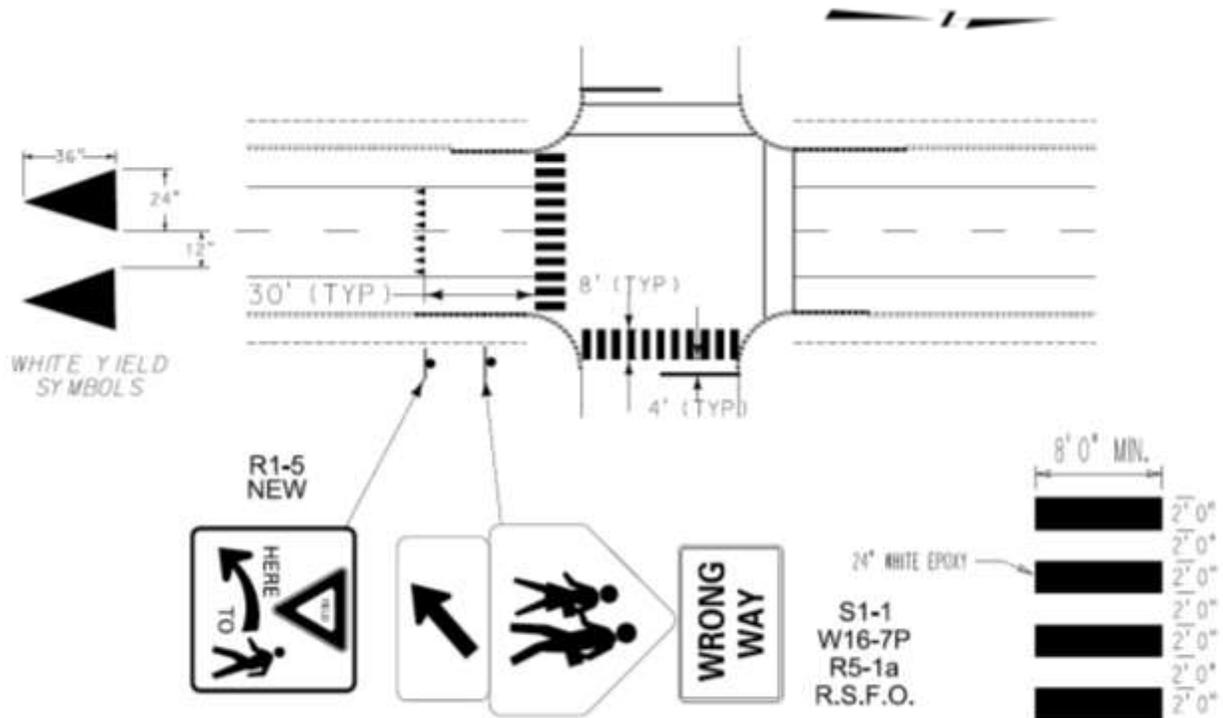
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Project Manager: Gabe B. Priebe

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- d. **Typical Sections and Surfacing.** The current surfacing will not be changed.
- e. **Geotechnical Considerations.** There are no known Geotechnical issues.
- f. **Hydraulics.** There are no known Hydraulics issues.
- g. **Bridges.** There are no bridges within the project limits.
- h. **Traffic.** Traffic will be responsible for electrical and signing plans. Electrical plans will consist of two RRFBs and associated hardware. Signing plans will include updated crosswalk markings and updated pedestrian/school signing. An in-depth discussion at and following the PFR concluded that east-west school crossings should be on the south leg of each intersection and north-south crossings should be updated to show school crossing pavement markings on the east leg of each intersection. This conclusion was based primarily on the proximity of schools and planned pedestrian facilities to the east of the highway and the need to minimize turning vehicle/pedestrian conflicts.

Proposed Signing and Pavement Markings at each intersection. (RRFBs not shown)



- i. **Pedestrian/Bicycle/ADA.** See discussion in Traffic Section above. Concrete work including pedestrian ramps, detectable warnings and landings was recently constructed with NH 5-1(31)13 and does not need further upgrades.
- j. **Miscellaneous Features.** No miscellaneous features are anticipated.
- k. **Context Sensitive Design Issues.** There are no context sensitive design issues identified for this project.

Other Projects

There do not appear to be any projects that will be under construction that could affect this project.

Preliminary Field Review/Scope of Work Report

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Project Manager: Gabe B. Priebe

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Location Hydraulics Study Report

A Location Hydraulics Study Report will not be needed for this project.

Design Exceptions

No design exceptions are anticipated for this project.

Right-of-Way

No new right-of-way is anticipated with this project.

Access Control

No new access control is anticipated with this project.

Utilities/Railroads

No utility impacts are anticipated. MDT's Standard Specifications require the contractor to contact the Utilities Underground Location Center prior to excavation.

No railroad involvement is anticipated.

Maintenance Items

No maintenance involvement is anticipated.

Intelligent Transportation Systems (ITS) Features

No ITS features beyond the RRFBs are anticipated.

Survey

A survey is not anticipated; recent as-builts are available.

Public Involvement

The project will include a 'Level A' standard of public involvement. This includes a news release explaining the project and a Department point of contact. Additional coordination with Arlee school and the CSTK tribe will be conducted as the design progresses.

Environmental Considerations

No significant environmental impacts or issues were identified. A Categorical Exclusion is anticipated for this project.

Energy Savings/Eco-Friendly Considerations

No Energy Savings/Eco-Friendly Considerations have been identified at this time.

Experimental Features

No experimental features will be used on this project.

Traffic Control

A Transportation Management Plan (TMP) consisting of a Traffic Control Plan (TCP), a limited Transportation Operations (TO) component and a limited Public Information (PI) component is appropriate for this project. The final traffic control plan (TCP) will be discussed at the plan-in-hand with district personnel. The TCP will include a sequencing special provision that will provide a safe route for the travelling public at all times. All signing and/or flagging operations will be in accordance with the Manual on Uniform Traffic Control Devices.

Preliminary Field Review/Scope of Work Report

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Project Manager: Gabe B. Priebe

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Project Management

Traffic & Safety – Helena will be responsible for developing the plans. Gabe Priebe is the project manager.

Preliminary Construction Cost Estimate

The estimate below is based on information provided during nomination and will be refined as design progresses.

	Estimated cost	Inflation (INF) (from PPMS)	TOTAL costs w/INF + IDC (from PPMS)
Signing/Electrical	\$37,087		
Traffic Control	\$5,000		
Subtotal	\$42,087		
Mobilization (10%)	\$4,209		
Subtotal	\$46,296		
Contingencies (8%)	\$3,704		
Total CN	<u>\$50,000</u>	<u>\$7,799</u>	<u>\$63,076</u>
CE (10%)	<u>\$5,000</u>	<u>\$779</u>	<u>\$6,306</u>
TOTAL CN+CE	<u>\$55,000</u>	<u>\$8,578</u>	<u>\$69,382</u>

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.

Preliminary Engineering

It is not anticipated the project will require a significant addition or reduction to the nominated PE amount.

Project and Risk Management

Gabe Priebe will be the Project Design Engineer. This project is not a PoDI project by FHWA.

It is expected the overall level of risk is low to project costs and schedule.

Ready Date

Ready and letting dates will be established after OPX-2 over-rides have been completed.

Site Map

Preliminary Field Review/Scope of Work Report

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