



March 2, 2012

Alan Woodmansey
Operations Engineer
Federal Highway Administration
585 Shepard Way
Helena, MT 59601-9785

Subject: Statewide Pavement Preservation Project
UPP 1020(18)
Laurel Road – Billings
Control Number: 7720 000

Dear Alan Woodmansey,

The MDT Environmental Services Bureau has reviewed the Preliminary Field Review/Scope of Work Report (PFR/SOW) for the subject project. Based on the completed Environmental Checklist for Pavement Preservation Projects (Checklist), we conclude that the Statewide Programmatic Categorical Exclusion for these types of projects would cover this project.

The following special provision will be included in this project:

- PROTECTION OF AQUATIC RESOURCES

For your information, I have attached a copy of the PFR/SOW, the signed Environmental Checklist, and the special provision listed above. If you have questions or concerns, please contact Tom Gocksch at 444-9412. He will be happy to assist you.

Sincerely,

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

e-copy (w/ all attach):

- | | |
|-----------------------|--|
| Stefan Streeter, P.E. | Billings District Administrator |
| Paul R. Ferry, P.E. | Highway Engineer |
| Tom S. Martin, P.E. | Chief, Environmental Services Bureau |
| Heidy Bruner, P.E. | Environmental Services Bureau Engr. Section Supervisor |
| Kevin Christensen, PE | Construction Engineer |
| Suzy Price | Contract Plans Bureau Chief |
| Nicole Pallister | Fiscal Programming |
| Tom Erving | Fiscal Programming |
| Tom Gocksch, PE | Environmental Services |

Hard copy (w/ checklist):

- Montana Legislative Branch Environmental Quality Council (EQC)
- Environmental Services File

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(FOR PROJECTS WITH NO RIGHT-OF-WAY INVOLVEMENT)

Applicant cannot be authorized to proceed with the proposed work until ALL of the conditions of the checklist have been satisfied.

ENVIRONMENTAL CHECKLIST FOR PAVEMENT PRESERVATION PROJECTS

(CRACK SEALING, SEAL & COVER, THIN OVERLAYS, MILL & FILL, PLANT MIX LEVELING, MILL OGFC, MICRO SURFACING, FOG SEAL)

UPN: 77200000 ID: UPP 1020(18) Project Name: Laurel Road-Billings

Reference Post (Station) 0.24 to Reference Post (Station) 1.72

Applicant's Name: Montana Department of Transportation Address: PO Box 201001; Helena, MT 59620-1001

Type of Proposed Pavement Preservation Activity: Mill and Overlay

IMPACTS ON THE PHYSICAL ENVIRONMENT (TO BE COMPLETED BY APPLICANT)

Table with 3 columns: Impact Questions, Yes, No, Comment. Contains 14 rows of questions regarding environmental impacts like Wild/Scenic Rivers, species, water quality, wetlands, and air quality.

Checklist prepared by:

Rod Nelson

Project Design Engineer

2/16/2012

Applicant

Title

Date

Approved by:

Handwritten signature of Heidi Bruner

ENVIRONMENTAL ENGINEER SECTION SUPERVISOR

Title

Handwritten date 3/2/12 and text 'Click here to enter a date.' Date

(When any of the above questions are checked "Yes")

The Applicant is **not** authorized to proceed with the proposed work until the checklist has been reviewed and approved, as necessary, and any requested conditions of approval have been incorporated.

- A. Complete the checklist items 1 through 7, indicating "Yes" or "No" for each item. Include comments, explanations, information sources, and a description of the magnitude/importance of potential impacts in the right hand column. Attach additional and supporting information as needed. The checklist preparer, by signing, certifies the accuracy of the information provided.
- B. When "Yes" is indicated on any item, the checklist preparer must explain why and provide the appropriate documentation, evaluation, permit, and/or mitigation measures required to satisfy environmental concerns for the project. Use attachments if necessary. **Any proposed mitigation measures will become a condition of approval.**
- C. If the applicant checks "Yes" for any one item, the checklist and MDT's mitigation proposal, documentation, evaluation and/or permit shall be submitted to MDT Environmental Services Bureau. Electronic format is preferred. Contact Number 444-7228.
- D. When the applicant checks a "Yes" item, MDT cannot be authorized to proceed with the proposed work until Environmental Services Bureau reviews the information and signs the checklist.
- E. MDT will obtain all necessary permits or authorizations from other entities with jurisdiction prior to beginning the Pavement Preservation Activity.
- F. The links above are provided as a starting point for potential sources of information for completing the checklist. The Applicant is encouraged to consult Environmental Services Bureau and/or other information sources.

PROTECTION OF AQUATIC RESOURCES

Aquatic resources include, but are not limited to, wetlands, springs, streams (perennial, ephemeral, and intermittent drainages), rivers, lakes, ponds, reservoirs, irrigation systems, and associated riparian areas.

Impacts to aquatic resources are not anticipated in association with this project. MDT has NOT acquired any water quality permits or authorizations, including a Clean Water Act Section 404 permit (COE), a Stream Protection Act 124 (MFWP), or a 318 Authorization (DEQ). Therefore, impacts to any and all aquatic resources located adjacent to the project are not permitted. Avoid all equipment traffic, fill material, staging activities and other disturbances to aquatic resources.

In areas adjacent to any water body, including wetland areas, conduct operations in a manner to avoid placement of materials in these areas.

Any impacts to these areas and associated consequences, without the proper permitting, are the responsibility of the Contractor. The Contractor must secure the appropriate permits or authorizations prior to working in these areas. If complete avoidance of these areas is not possible, contact the Project Manager immediately and coordinate the permitting effort with the District Biologist at 444-7227 or the District Environmental Engineering Specialist at 657-0273.

Montana Department of Transportation
Helena, Montana 59620-1001

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ENVIRONMENTAL

MASTER FILE

COPY

Memorandum

To: Heidy Bruner, P.E.
ESS – Environmental Services Bureau

From: Paul Ferry, P.E. 
Highways Engineer

Date: February 16, 2012

Subject: UPP 1020(18)
Laurel Road – Billings
Control No. 7720000

Attached is the combined Preliminary Field Review/Scope of Work Report and the Environmental Checklist for the subject project. The project meets the criteria for the Statewide Programmatic Categorical Exclusion for pavement preservation projects. The final approval for the SOW will not be granted until the environmental document is approved

Please send the appropriate environmental documentation on this project to the FHWA. If you need additional information, contact Rod Nelson at 657-0229.

Pf.

Attachment

cc: Rod Nelson
File, w/attachment

Environmental Services					
Act	Info	Champ	Date	Attach	Initial
			3/6		
			Routing		
			Bureau Chief		
			Engineering Supervisor		
			Resources Supervisor		
			High Ways Supervisor		
			ESS Supervisor		
/			TOM G		
/			BIYIS		
/			JON		
/			PATD		

Preliminary Field Review/Scope of Work Report



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

Memorandum

To: Paul Ferry, P.E.
Highways Engineer

From: Gary Neville *for*
District Engineering Services Supervisor

Date: February 15, 2012

Subject: **UPP 1020(18)**
Laurel Road-Billings
UPN 7720000
Project Work Type Number – 180 – Resurfacing Asphalt

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

Approved _____

Paul Ferry
Paul Ferry, P.E.
Highways Engineer

Date _____

2/16/12

The same report is also being distributed under a separate cover as a Scope of Work Report for comments and approval recommendations.

cc (w/attach.):
Damian Krings, Road Design Engineer
Master file

Introduction

A project preliminary field review was conducted on November 8, 2011 with the following individuals in attendance:

Gary Neville	District Engineering Services Supervisor	Billings
Rod Nelson	District Projects Engineer	Billings
Ryan Dahlke	Project Design Engineer	Helena
Louise Stoner	Road Designer	Helena
Jeff Olsen	Billings Bridge Area Engineer	Helena
Aaron Eschler	District Design Supervisor	Billings
Ed Shea	Pavement Design	Helena

Proposed Scope of Work

The proposed project was nominated as a pavement preservation project. The anticipated scope consists of the following:

- 0.15' full width mill and overlay
- Type II Seal and cover
- Upgrade guardrail terminal end sections
- New signing as needed
- New pavement markings
- Upgraded ADA features as needed

Purpose and Need

The purpose and need of this project is to preserve and extend the life of the existing asphalt surfacing and provide a safe roadway for the traveling public.

Project Location and Limits

This project is located on U-1020 within the City Limits of Billings located in Yellowstone County. This route is classified as a urban principal arterial. The nominated project limits are from RP 0.24 to 1.72.

Work Zone Safety and Mobility

At this time, Level 1 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 Traffic Control Plan (TCP) as well as a Transportation Operations (TO) and Public Information (PI) component. The TCP will address traffic safety and control through the construction zone, while the TO will address sustained operation and management of the construction impact area. The PI component will address communication with the public and concerned stakeholders.

Physical Characteristics

1. Construction history:
 - Roadway constructed in 1963 with U-FG-228(16)
 - Roadway overlaid with a City project about 10 years ago. No plans available.
2. Existing surfacing:
 - According to the road log there is about 6" of plant mix on top of 17" of base.
3. Existing roadway geometrics:
 - East Bound:
 - Curb and Gutter exists on the south side and raised median on the north side. Roadway width varies between 26' and 35'. Median width varies between 5' and 40'.
 - West Bound:
 - A 6:1 surfacing slope exists on the north side and a raised median on the south side.
 - Roadway width varies between 30' and 47'.
4. Pavement Management System Recommendations:
 - The MDT's Pavement Management System for pavement condition and recommended treatments does not cover this urban route. However, the City of Billings does utilize MicroPaver to manage all routes within the urban limits. The pavement condition on this

roadway was evaluated by the City and the proposed treatment is appropriate for the condition.

Traffic Data

The traffic data for this section of U-1020 is as follows:

2011 ADT (present) =	22,170
2012 ADT (letting) =	22,390
2032 ADT (design) =	27,320
DHV =	2,730
Percent trucks =	2.2%
ESAL's =	122
Annual Growth Rate =	1.0%

Crash Analysis

The crash analysis for U-1020 from RP 0.2 to RP 1.8 is listed below for the time period of 7-01-2008 to 6-30-2011.

Crash rates are not available for urban routes.

The total number of recorded crashes is 98.

a. Variations from Average Occurrence:

59.2% Rear End Collisions vs. 28.7% Statewide Average for City Crashes

b. Crash Clusters or Safety Projects:

There was a safety project within the study area at the intersection of Laurel Road and Moore Lane. The project involved the railroad crossing on Moore Lane, UPN 4847.

c. Remarks and Recommendations:

The following is a summary of the crash data:

- The main crash trend is multivehicle collisions (83 of 98). The main multi vehicle collisions were rear end (58), right angle (9), sideswipe same direction (7), and left turn opposite direction collisions (4).
- Sixty-one crashes occurred either in the intersection or were intersection related.
- Fifteen crashes were single vehicle run off-the-road crashes.
- Two crashes involved commercial vehicles.
- Two crashes involved buses.
- One crash involved a bicycle.

Please verify sufficient signage is provided in advance of the signalized intersections.

Response:

Sufficient signage in advance of the signalized intersections will be evaluated by the Traffic Bureau.

Major Design Features

- a. **Design Speed.** The design speed for this section of U-1020 is 45 mph. The posted speed limit is 45 mph.
- b. **Horizontal Alignment.** The existing horizontal alignment will be utilized for this project as is.
- c. **Vertical Alignment.** The existing vertical alignment will be utilized for this project as is.
- d. **Typical Sections and Surfacing.** According to the road log, the existing typical section is comprised of about 6" of asphalt plant mix and 17" of gravel base. Plant mix cores were recently taken and show an average asphalt depth of about 6". Therefore, the existing asphalt plant mix will receive a 0.15' mill and overlay.
- e. **Geotechnical Considerations.** No geotechnical issues have been identified on this project.
- f. **Hydraulics.** No hydraulic issues or work have been identified on this project.
- g. **Bridges.** No bridges exist within the project limits. This project ends at a bridge end of the 6th Street overpass.
- h. **Traffic.** No intersection improvements are being proposed with this project. Signing will be evaluated by the Traffic Bureau to determine if any upgrades or changes are needed.
- i. **Pedestrian/Bicycle/ADA.** There are currently some scattered ADA ramps within the project

limits. Some have sidewalk connected to them, others do not. There is no continuous sidewalk or separated pathway for the length of this project. It was not determined during this PFR/SOW review meeting what should be constructed with this project. Therefore, a separate on-site review will be scheduled with the ADA coordinator to determine what, if any, ADA features will be upgraded or constructed with this project.

- j. **Miscellaneous Features.** Terminal end sections of the existing guardrail will be upgraded.
- k. **Context Sensitive Design Issues.** No context sensitive design issues are being proposed for this project.

Other Projects

There is an opportunity to tie this project to another project, Montana Ave-Billings, which is also located on U-1020 at RP 2.05 to 4.33. Montana Ave-Billings is also planned for letting in FFY 2013.

Location Hydraulics Study Report

A LHSR will not be needed for this project due to the scope of work.

Design Exceptions

No design exceptions are anticipated on this project.

Right-of-Way

No right of way acquisition or permits will be needed for this project.

Access Control

There will be no impacts to access control.

Utilities/Railroads

No utility relocations are anticipated for this project. However, utility locates will be requested by District Survey personnel to ensure no gas appurtenances are located either in the roadway surface or in potential ADA ramp locations. There are no RR tracks within the project limits.

Intelligent Transportation Systems (ITS) Features

No ITS solutions are currently being considered for this project.

Survey

Plant mix cores will be needed for this project. Utility locates will be requested by District Survey personnel to ensure no gas appurtenances are located either in the roadway surface or in potential ADA ramp locations.

Public Involvement

The type of public involvement for this project will be Level B, mainly consisting of:

- A news release explaining the project and a department point of contact.
- Personal contacts with local officials.
- Construction notification and information during construction.

Environmental Considerations

This project meets the criteria for a programmatic categorical exclusion. Due to the project scope, no effects on any threatened, endangered, proposed, candidate or sensitive species are anticipated with this project. No wetlands, streams, or other aquatic resources will be affected. Therefore, a Stream Protection Act 124 and a Clean Water Act 404 permit will not be required. The following note will be included in the plan package "If situations are observed during construction that may potentially impact water quality, including wetland areas, utilize Best Management Practices (BMP) and/or temporary erosion control measures as necessary to protect the resource. Refer to Section 208 of the MDT Detailed Drawings for erosion and sediment control Best Management Practices. The installation of temporary erosion control measures will be paid as Miscellaneous Work." No water quality permits/notifications are

anticipated.

Energy Savings/Eco-Friendly Considerations

Millings from this project will be given to Yellowstone County to improve the gravel driving surface on county roads. This is eco-friendly by not disposing the millings in the landfill.

Experimental Features

No experimental features are currently being considered for this project.

Traffic Control

The traffic control plan (TCP) will address traffic safety and control through the construction zone. Traffic will be maintained through the construction project with the appropriate signing and flagging in accordance with the Manual of Uniform Traffic Control Devices. Temporary lane closures during milling and paving operations are anticipated.

Project Management

The project will be designed by District Design staff with Rod Nelson as the design project manager. The project is not under full FHWA oversight.

Preliminary Cost Estimate

The estimated cost to construct the project is shown below.

	Estimated cost	Inflation (INF) (from PPMS)	w/INF + IDC (from PPMS)
Road Work	313,223		
Traffic Control	100,000		
Subtotal	413,223		
Mobilization (10 %)	41,322		
Subtotal	454,545		
Contingencies (10 %)	45,455		
Total CN	\$ 500,000	\$ 18,403	\$ 568,377
CE (10 %)	\$ 40,000	\$ 1,472	\$ 45,470
TOTAL CN+CE	\$ 540,000	\$ 19,875	\$ 613,847

Note: Inflation is calculated in PPMS to the letting date plus one year to estimate the mid-point of construction. The project is given 5 years until letting if there is no published letting date. IDC is calculated at 9.64% as of FFY 2012.

Ready Date

The ready date for this project is October 1, 2012. The planned letting date is March 25, 2013.

Site Map

A project site map is attached

LAUREL ROAD-BILLINGS UPN #7720

