



Montana Department of Transportation

2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001

Jim Lynch, Director
Brian Schweitzer, Governor

County PARK

August 3, 2005

RECEIVED

AUG 05 2005

LEGISLATIVE ENVIRONMENTAL
POLICY OFFICE

To Whom It May Concern:

Subject: Cooperating Agency Environmental Documentation

As a Cooperating Agency under the provisions of 23 CFR 771.111 the Montana Department of Transportation (MDT) is providing you a copy of this project's environmental documentation.

This environmental documentation complies with the provisions of 23 CFR 771.117(a) and (d) for categorically excluding this proposed project from further National Environmental Policy Act (NEPA) (42 U.S.C. 4321, et seq.) documentation requirements. The attached also complies with the provisions of 75-1-103 and 75-1-201, MCA (see ARM 18.2.237 and 18.2.261, MEPA "Actions that qualify for a Categorical Exclusion" as applicable to the MDT).

If you have any questions concerning the attached environmental documentation please call the MDT Environmental Services Division at (406) 444-7228.

Sincerely,

Jean A. Riley, P.E.
Bureau Chief
Environmental Services Division

S:\ADMIN\48_GEN_CORRESP\MAILINGS\COOP AGENCY LTR.DOC\CEDARCREEK_16KMNGARDNER_4577

Attachment



July 26, 2005

Carl James, Program Development Engineer
Federal Highway Administration (FHWA)
2880 Skyway Drive
Helena, MT 59602

Subject: NH 11-1(41)10
CEDAR C-16KM N OF GARDNER
Control No. 4577

Environmental Services has reviewed the above proposed project's impacts and has determined that this proposed project still qualifies as a CATEGORICAL EXCLUSION under the provisions of 23 CFR 771.129(c). The original categorical exclusion was signed 12/10/04. This proposed action also continues to qualify as a categorical exclusion under the provisions of ARM 18.2.261 (Sections 75-1-103 and 75-1-201, M.C.A.). This determination is based on the following:

The Scope-of-Work for the proposed project has been reviewed and has changed. The PFRR had indicated that the project would utilize a pipe at the Cedar Creek Crossing. The current intent is to construct a bridge at the crossing. The bridge ends will be slightly higher than the existing roadway elevations, however, changes to the existing vertical alignment will be negligible. This is partially due to the high fill that the existing culvert is in that allows the bridge grade to be kept so close to existing. Hydraulics has recommended a new bridge in lieu of new culverts because the stream gradient is steep, bed load is significant, Right-of-way is restricted, fish passage and long term maintenance requirements.

As a result of these changes, we have reviewed the biological report and found that in accordance with 23 CFR 771.117(a), this action will neither individually or cumulatively, have any significant environmental impacts. The minor alignment modifications result in only minor impacts that will be handled through our permitting process with the regulatory agencies.

In accordance with the Federal Highway Administration's (FHWA) concurrence letter of April 15, 1999, this notification documents that this proposed action is still properly classified as a CE under the provisions of 23 CFR 771.117(d).

Tom Hansen, P.E.
Engineering Section Supervisor
Environmental Services

"ALTERNATIVE ACCESSIBLE FORMATS OF THIS DOCUMENT WILL BE PROVIDED ON REQUEST."

bc

cc: Jeff Ebert, P.E. - Butte District Administrator
Paul Ferry, P.E. - Highway Engineer
Kent Barnes, P.E. - Bridge Engineer
David W. Jensen, Supervisor - Fiscal Programming Section
Jean Riley, Manager - Environmental Services
file



Montana Department of Transportation
Butte District Office
PO Box 3068
Butte, MT 59702-3068

Memorandum

To: Damian Krings, P.E., Road Design Engineer *DMK*
From: *For* Joe Olsen, P.E., Engineering Services Supervisor *JAO*
Date: July 15, 2005
Subject: NH 11-1(41)10; CN: 4577
Cedar Creek – 16km North of Gardiner
Work Type – 210 (New Bridge)

SCOPE OF WORK REPORT

1. SCOPE OF WORK

The intent of this project is to replace the double 1981mm CMP culvert at the Cedar Creek crossing on NH Primary Route 11, approximately 16km north of Gardiner. The existing culverts are badly rusted and in very poor condition. Initially, the culverts were to be replaced with appropriate culvert features, but based on recommendations set forth in the Preliminary Field Review Report it was determined a bridge would be the appropriate feature for this location.

2. LOCATION AND LIMITS

The project is on NH Primary Route 11 (US 89) in Park County. It is located at RP 10.02 in Section 13, T8S, R7E.

The culverts to be replaced are station 105+44.16 (English sta.= 345+95).

3. PHYSICAL CHARACTERISTICS

A) GENERAL

Original construction of the roadway at this location was completed as part of Project F 43-1(2) in 1969. The existing paved top is 9.8m.

The project traverses rolling terrain. Two or three private homes and several outbuildings occupy the adjacent land. The Yellowstone River is to the west of the project, but beyond the project limits.

B) EXISTING SURFACING SECTION

According to as built plans, the existing surfacing consists of the following.

- 76mm compacted plant mix surfacing.
- 203mm compacted crushed gravel.

C) EXISTING CULVERTS

The existing 1981mm SSPP's have skew bevels with a concrete headwall at the inlets. Both culverts are badly rusted and in poor condition. Scouring is present at the outlets.

The culvert to the north has a fish ladder at the outlet end. The bottom of the beveled end of this pipe has rusted completely away. The rusted pipe end and scour have made the fish ladder relatively ineffective.

Existing cover over the pipes is about 2.5 meters.

D) HORIZONTAL ALIGNMENT

There are no horizontal curves within the project limits.

E) VERTICAL ALIGNMENT

The roadway at the culvert location is on a tangent grade of 0.4831%.

F) EXISTING SLOPES

Existing fill slopes in the vicinity of the culvert range from 4:1 to 1½:1 and vary from about 3 to 5 meters in height.

G) BRIDGES

There are no existing bridges on the project, however a new bridge is planned to replace the culverts.

H) TRAFFIC DATA

2001 ADT	2260
2002 ADT	2340
2022 ADT	4650
DHV	720
D	NA
Com Trks	5.4%
ESAL	87.56
AGR	3.500%

4. ACCIDENT ANALYSIS

Safety Management conducted a computer accident record search between RP 9.6 and RP 10.4 for the dates January 1, 1991 through December 31, 2000. There were no recorded crashes on this section of N-11 during the ten-year study period.

5. MAJOR DESIGN FEATURES

A) DESIGN SPEED

The design speed for this project will be 100km/h, which is appropriate for rolling terrain.

B) HORIZONTAL & VERTICAL ALIGNMENT

This project follows the existing horizontal alignment. The new bridge ends will be slightly higher (less than 0.1m) than the existing roadway elevations, however, changes to the existing vertical alignment will be negligible. This is due in part to the high fill the existing culverts are in, which allows the bridge grade to be kept so close to existing.

C) TYPICAL SECTION

The preliminary surfacing section is as follows.

90mm Plant Mix Surfacing

345mm Crushed Aggregate Course

This typical was designed when it was planned to use a pipe. It is based on A-1 soils class assuming an R-Value of 30 for backfilling the roadway. Surfacing Design will review the section to determine if it is still adequate now that a bridge will be constructed.

The finished top will be 12 meters. Both ends will transition from the existing width of 9.8 meters to 12 meters.

D) GRADING

Preliminary quantities show about 3000 cubic meters of grading on the project. The bid item will be Embankment in Place.

E) GUARDRAIL

Guardrail is warranted for all four corners of the new bridge and for some fill slopes. Due to the close proximity of existing approaches to the bridge ends, Intersecting Roadway Transitions will be utilized for end treatment on the guardrail. Guardrail will be installed where warranted.

F) HYDRAULICS

The Location Hydraulic Study Report and Preliminary Hydraulic Report have been completed. Bridge opening recommendations have been sent to Bridge.

Hydraulics has recommended a new bridge in lieu of new culverts because of the steep stream gradient, significant bed load, R/W restrictions, special engineering for fish passage, and long term maintenance. A bridge instead of new culverts will significantly reduce or eliminate these concerns. This is discussed in more detail in the Preliminary Hydraulic Report dated April 6, 2004.

There is no delineated floodplain for Cedar Creek, however, the project is upstream and in the vicinity of the Yellowstone River floodplain. The Hydraulics Section will contact the Park County Floodplain Administrator to determine any permitting requirements. No other drainage features are involved with this project.

G) BRIDGE

The preliminary bridge layout indicates the new bridge will be a 31m clear span prestressed concrete structure. Preliminary bridge end stations and elevations have been determined. Animal paths will be included under the bridge on both sides of the creek.

H) MATERIALS AND GEOTECHNICAL

The District Materials Lab has completed the soils survey. The Geotechnical Section has provided the bore logs requested by the Bridge Bureau. The Geotechnical Analysis will be completed when load information has been received from Bridge.

I) DETOUR

The detour will have a paved riding surface 7.2m wide. The proposed detour is approximately 234m long and located on the left (upstream) side of the existing stream crossing. The design speed for the detour is 80km/h. A detour pipe or bridge will be required for the temporary stream crossing. If a detour culvert is to be used instead of a bridge, a culvert large enough to provide fish passage will be specified.

J) TRAFFIC

Traffic will furnish pavement marking quantities and signing plans for the project. There are no intersections within the project limits. Existing approaches will be perpetuated.

K) SLOPES

Fill slopes at the bridge ends will be 2:1. Other slopes will be standard except as noted under Item 6, DESIGN EXCEPTIONS.

6. DESIGN EXCEPTIONS

Some fill slopes will be warped to stay within existing R/W and avoid impacts to the residence and outbuildings that exist just outside the R/W on the right.

The following mainline fill slopes will be warped. All of these slopes will be protected with guardrail.

-Station 104+90 to 105+30, Rt.: Standard fill slopes are 6:1 and 4:1. 3:1 slopes will be utilized to stay within existing R/W and avoid conflicts with a residence and outbuildings adjacent to the roadway.

-Station 105+75 to 106+50, Rt.: Standard fill slopes are 4:1, 2:1 and 3:1 slopes will be utilized to stay within the existing R/W.

A design exception will be requested for these warped fill slopes.

7. RIGHT-OF-WAY

The new bridge can be constructed within the existing R/W. However, temporary construction permits are needed for the detour and possibly for other construction activities.

8. UTILITIES/RAILROAD

Conflicts with underground and overhead utilities will be encountered. There is no Railroad involvement.

9. ENVIRONMENTAL

Minor impacts to Cedar Creek and associated wetlands are unavoidable. The impacts will be concentrated to the immediate vicinity of the mainline and detour stream crossings. All impacts will be minimized to the extent possible by warping fill slopes. Environmental Services will identify the environmental and biological concerns and complete the necessary permit applications.

SPA 124 and CWA 404 permits will be needed. FHWA approved the Categorical Exclusion for the project in December 2004, however the document states the culverts in place will be replaced with new culverts. Environmental Services will amend the document to indicate a new bridge will be used. The document will be resubmitted to FHWA for approval.

Current design and construction specifications will minimize any water quality impacts. In stream timing restrictions from June 1 to September 1 will be required. This will have a bearing on when this project is let.

10. PUBLIC INFORMATION

A news release was distributed in December 2002. An informational public meeting was held on April 17, 2003. Because it was planned to utilize new culverts at the time of the public meeting, District personnel will contact local government and landowners to

NH 11-1(41)10; CN: 4577
Cedar Creek-16km No. of Gardiner
Scope of Work Report

inform them that a new bridge will be constructed instead of new culverts.

11. TRAFFIC CONTROL

A detour will be utilized to maintain traffic through the project during construction. Access to adjacent properties will be maintained. A Traffic Control Plan will be written for the project.

12. READY DATE

The current ready date for this project is December 2006.

15. ESTIMATED COSTS

New structure	\$314,000
Detour	\$ 50,000
Road	\$155,000
<u>SUBTOTAL</u>	<u>\$519,000</u>
<u>Mobilization (18%)</u>	<u>\$ 93,400</u>
<u>SUBTOTAL</u>	<u>\$612,400</u>
<u>Contingencies (10%)</u>	<u>\$ 61,000</u>
<u>SUBTOTAL</u>	<u>\$673,490</u>
<u>Inflation (3%/yr. for 1yr.)</u>	<u>\$ 7,900</u>
<u>TOTAL CN</u>	<u>\$681,300</u>
<u>CE (15%)</u>	<u>\$102,000</u>
GRAND TOTAL	\$783,300

JAO/MSH/mh
4577rdsow0001.doc

copies: District File