



July 15, 2011

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ENVIRONMENTAL

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

**Subject: Programmatic Categorical Exclusion (PCE) Concurrence Request
NH 8-2(80)44
11th Avenue-Helena
Control Number: 7460000**



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/Scope of Work Report, dated June 16, 2011, 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).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. This proposed project involves (an) unusual circumstance(s) as described under 23 CFR 771.117(b).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1. The context or degree of the right-of-way action would have (a) substantial social, economic, or environmental effect(s).	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. A high rate of residential growth exists in the area of the proposed project.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. A high rate of commercial growth exists in the area of the proposed project.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Work would be on and/or within approximately 1.6 kilometers (1± mile) of an Indian Reservation.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

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

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

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: 7/15/2011
Eric Thunstrom
Environmental Services Bureau
Great Falls District Project Development Engineer

Heidy Bruner Date: 7/15/11
Concur Heidy Bruner, P.E.
Environmental Services Bureau
Engineering Section Supervisor

[Signature] Date: 21 July 2011
Concur
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
Rob Stapley	Right-of-Way Bureau Chief
Dawn Stratton	Fiscal Programming Section
Dustin Rouse, P.E.	Road Design Area Engineer
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.



Memorandum

To: Distribution

From: Paul Ferry, P.E. *LT for PF*
 Highways Engineer

Date: June 16, 2011

Subject: NH 8-2(80)44
 11th Avenue-Helena
 UPN 7460000
 Work Type 180:Resurfacing-Asphalt (Thin Lift ≤ 0.20 ft)

Attached is the Preliminary Field Review Report/Scope of Work Report which was approved on _____. 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:

- | | |
|---|--|
| Mick Johnson, District Administrator | Lynn Zanto, Rail, Transit, & Planning Division Administrator |
| Jon Swartz, Maintenance Administrator | Jake Goettle, Construction Engineering Services Bureau |
| Tom Martin, Environmental Services Bureau Chief | Matt Strizich, Materials Engineer |
| Roy Peterson, Traffic and Safety Engineer | Kent Barnes, Bridge Engineer |
| Robert Stapley, Right-of-Way Bureau Chief | |

cc:

- | | |
|---|---------------------------------------|
| Dawn Stratton, Fiscal Programming Section | Dustin Rouse, Project Design Engineer |
| Damian Krings, Road Design Engineer | Highways file |
| Ryan Leland, City Engineer | Ben Sautter, Street Superintendent |
| 316 N. Park Ave. | 316 N. Park Ave. |
| Helena MT 59624 | Helena MT 59624 |

e-copies:

- | | |
|---|---|
| Jim Walther, Engineering, Preconstruction Engineer | Jake Goettle, Construction Bureau – VA Engineer |
| Lesly Tribelhorn, Highways Design Engineer | Steve Prinzing, District Preconstruction |
| Mark Goodman, Hydraulics Engineer | Christie McOmer, District Projects Engineer |
| Kurt Marcoux, District Hydraulics Engineer | Stanley Kuntz, District Materials Lab |
| Bonnie Gundrum, Env. Resources Section Supervisor | Tony Strainer, District Maintenance Chief |
| Paul Strum, District Biologist | Walt Scott, R/W Utilities Section Supervisor |
| Eric Thunstrom, District Project Development Engineer | David Hoerning, R/W Engineering Manager |
| Danielle Bolan, Traffic Engineer | Greg Pizzini, Acquisition Manager |
| Ivan Ulberg, District Traffic Project Engineer | Joe Zody, R/W Access Management Section Manager |
| Kraig McLeod, Safety Engineer | Paul Johnson, Project Analysis Bureau |
| S. Brandenberger, Bridge Area Engineer, G.F. District | Sue Sillick, Research Section Supervisor |
| Matt Strizich, Materials Engineer | Alice Flesch, ADA Coordinator |
| Daniel Hill, Pavement Analysis Engineer | Alyce Fisher, Fiscal Programming |
| Lee Grosch, District Geotechnical Manager | Jean Riley, Planner |
| Bryce Larsen, Supervisor, Photogrammetry & Survey | Dawn Stratton, Fiscal Programming |
| Marty Beatty, Engineering Information Services | Doug Wilmot, G.F. Construction Engineer |
| Paul Grant, Public Involvement Officer | |



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

Memorandum

To: Paul R. Ferry, P.E.
Highways Engineer

From: Damian Krings, P.E. [DMK](#)
Road Design Engineer

Date: June 16, 2011

Subject: NH 8-2(80)44
11th AVE-HELENA
UPN 7460000
Work Type: 180 Resurfacing-Asphalt (Thin Lift \leq 0.20 ft)

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

Approved [signed by Lesly Tribelhorn for Paul Ferry](#) [Date June 17, 2011](#)
Paul Ferry, P.E.
Highways 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.):
Damian Krings, Road Design Engineer

Preliminary Field Review/Scope of Work Report

NH 8-2(80)44

Project Manager: Dustin Rouse

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Introduction

This report was developed from information taken from the preliminary field review conducted on April 7, 2011 with the following in attendance:

Mick Johnson	District Administrator	MDT- Great Falls
Stephen Prinzing	District Engineering Services Engineer	MDT- Great Falls
Steve McEvoy	Surfacing	MDT- Helena
Dan Hill	Surfacing	MDT- Helena
Dustin Rouse	Road Design	MDT- Helena
Charles Pierce	Road Design	MDT- Helena
Jerry Sabol	Road Design	MDT- Helena
Eric Thunstrom	Environmental	MDT- Helena
Mike Matthews	Maintenance	MDT- Helena
Kevin Millhouse	Maintenance	MDT- Helena
Ryan Leland	Helena City Engineer	Helena

Proposed Scope of Work

The proposed project has been nominated for a preventative maintenance thin lift overlay. The proposed work includes new asphalt surfacing, cold milling, curb and gutter, new pavement markings, updated signs, and drainage improvements. Existing sidewalks and ADA features will also be addressed to meet PROWAG standards. Sidewalks in good condition will not be disturbed with this project.

Purpose and Need

The intent of the project is to extend the life of the roadway by overlaying the roadway with 0.15 feet of plant mix bituminous surfacing full width.

Project Location and Limits

- a. The project is located within the City of Helena (in the Helena Urban Boundary) in Lewis and Clark County on Route N-8 beginning at the intersection with Montana Avenue (RP 44.36±) Sta. 93+37 and extending east to the bridge crossing Interstate 15 (RP 45.43±) Sta. 150+44.
- b. The functional classification of N-8 is Principal Arterial and the project will be designed to the geometric design criteria of a curbed urban roadway.
- c. The project length is 1.0 mile.
- d. This project lies in Township 10 North, Range 3 West.
- e. We were unable to find As-Builts from Montana Ave. to Hannaford Street. There are As-Built plans for the section from Hannaford to the I-15 structure, I-IG-ING 15-4(4)182. In 2007 the project was seal and covered under project number NH 8-2(72)44.

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. The plans package will include a Transportation Management Plan (TMP) consisting mainly of a Traffic Control Plan (TCP). A limited Public Information (PI) component to address lane closures and wide load detours will also be included in the plan package. These issues are discussed in more detail under the Traffic Control and Public Involvement sections.

Preliminary Field Review/Scope of Work Report

NH 8-2(80)44

Project Manager: Dustin Rouse

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Physical Characteristics

- a. This project is located in level terrain within an urban area. The adjacent land is used for both commercial and residential property.
- b. This project consists of two travel lanes beginning at the intersection with Montana Avenue (RP 44.36±) extending east to the bridge crossing Interstate 15 (RP 45.40±). The finished top width is 36 ft face-of-curb to face-of-curb with two 12 ft driving lanes and 6 ft shoulders beginning at the intersection with Montana Ave. After a short distance the top width widens to a 42 ft finished top with two 12 ft driving lanes a 6 ft right shoulder and a 12 ft left shoulder. From Cooke to Roberts Street the top width drops back down to a 36 ft wide top. From Roberts Street to Oakes the top width is 42 ± ft with two 12 ft driving lanes and 9 ft shoulders. From Oakes Street to Hannaford the top width is 52± ft with two 14 ft shoulders. From Hannaford Street to Fee the top width is 45± ft with two 10 ft shoulders. From Fee Street to the I-15 structure the top width is 32± ft with two 4 ft shoulders.
- c. The original roadway construction was done in 1924 as project FAP 214, surfaced with gravel. It was resurfaced with Plant Mix in 1936. The surface of the project has been upgraded several times since by the City of Helena. Most recently, the project had a seal and cover applied in 2007.
- d. The Road Log shows average pavement thickness is 3.2 inches; the average subgrade thickness is 15 inches. Cores have been requested.

PvMS Data: The recommended treatment in the Pavement Analysis Section's 2010 Pavement Conditions, and the 2011 & 2013 Pavement Treatment Reports are:

2011 AC Thin Overlay for both maintenance and construction activities.

2013 AC Major Rehabilitation for construction activities, and AC Reactive Maintenance for maintenance activities.

The indices and condition levels for the 2010 survey year are given in the following table:

PVMS INDICES	
Ride	59.2(Poor)
Rut	59.7(Poor)
Alligator Cracking	100.0(Good)
Miscellaneous Cracking	92.5(Good)

Traffic Data

The traffic data as provided by the Traffic Data and Collection Section is as follows:

2010 ADT	= 13,480 Present
2011 ADT	= 13,610 Letting Year
2031 ADT	= 16,610 Design Year
DHV	= 1660
Com Trucks	= 1.7%
ESAL	= 86
AGR	= 1.0%

Preliminary Field Review/Scope of Work Report

NH 8-2(80)44

Project Manager: Dustin Rouse

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Crash Analysis

- a. The accident analysis for NI-NHS Route 8 from RP 44.36 to RP 45.40 was taken for the dates of July 1, 2007 through June 30, 2010.
- b. Statistics for NI-NHS and state primary routes within city limits and the study area are shown: A vehicle crash rate of 5.03 vs. 4.61 in the study area; a vehicle severity index of 1.68 vs. 1.45 in the study area; and a vehicle severity rate of 8.43 vs. 6.70 in the study area. There were 3 truck crashes.
- c. The total recorded crashes over the study period are 97.
- d. The variations from the average occurrence were: 84.1% on the roadway vs. 67.9% statewide average for NI-NHS routes within the city limits and 43.3% rear end crashes vs. 30.6% statewide average for NI-NHS routes within city limits.
- e. There were no crash clusters identified for NI-NHS Route 8 from RP 44.36 to RP 45.40.
- f. The main crash trend for NI-NHS Route 8 from RP 44.36 to RP 45.40 was identified as intersection or intersection related crashes. Fifty-four of the 97 reported crashes were cited as occurring in or related to an intersection. The majorities of crashes within the study area were right angle or rear-end crashes.

Major Design Features

- a. **Design Speed.** The proposed design speed for this project is 40 mph. The posted speed limit is 35 mph throughout the project.
- b. **Horizontal Alignment.** The horizontal alignment consists of four deflection angles of less than 0.5 degree and two spiral curves. The first curve is a 955' radius spiral curve to the left with a 4% superelevation and a PI Sta. at 134+83.74. The second curve is a 1,637' spiral curve to the right with a 4% superelevation and a PI Sta. at 146+24.02. The horizontal alignment meets or exceeds the $e_{max}=4\%$ criteria for 40 mph design speed. This alignment is an attempt to match the as-built alignment and will not be changed.
- c. **Vertical Alignment.** The existing vertical alignment consists of 7 crest vertical curves and 5 sag vertical curves. Though all but one sag vertical curve meets or exceeds the 40 mph design speed, 40 mph design stopping site distance is provided through the entire project due to existing street lighting. The vertical curve that doesn't meet 40 mph standards is a 320' sag vertical curve at Sta. 106+80 that meets 35 mph standards. The minimum grade is 0.024% and the maximum grade is 4.030%. According to geometric design tables the maximum allowable grade for an urban principal arterial is 6%. The proposed vertical alignment generally follows the existing except it will be 0.05' lower because of milling 0.20' and overlaying 0.15'. The vertical alignment may be further altered slightly if areas of severe crown can be corrected with the milling.
- d. **Typical Sections and Surfacing.** The existing 36-ft and 42-ft finished top widths from the beginning of the project at Sta. 93+37 to Sta. 102+93, just past Roberts St., will be perpetuated.
From Sta. 102+93 to Sta. 106+88, just before Sanders St., the roadway is without curb and gutter on the left side. This section of roadway will be widened about 2-ft to the left to a finished top of 44-ft to include new curb & gutter on the left to match the existing width before and after this section. The 44-ft top will provide two 12-ft driving lanes and 10-ft shoulders.
From Sta. 107+72 to Sta. 116+47 at Oakes St., the left side curb is either missing, buried or in poor condition. The roadside is also without sidewalk on the left from Sta. 111+68

Preliminary Field Review/Scope of Work Report

to Sta. 116+47. From Sta. 107+72 to Sta. 110+00 the roadway will be widened about 2-ft to the left to a finished top of 44-ft to include new curb & gutter on the left. From Sta. 110+00 to 110+50 the roadway will be widened to the left to include new curb and gutter on the left and transition from a 44-ft to 52-ft finished top. From Sta. 110+50 to 116+47 the roadway will be widened about 10-ft to a 52-ft top to match the roadway width beyond and include new curb, gutter and sidewalk. The 52-ft top will provide two 12-ft driving lanes and 14-ft shoulders.

From Sta. 116+47 to the end of the project at Sta. 150+44 the existing finished top widths will be perpetuated.

Only the existing 11th Ave roadway top will be milled full width. The existing slip lanes to Albertsons and Fee Street will not be included in the project.

The minimum roadway width requirements, for a two-lane curbed Principal Arterial Non-Interstate roadway is 24-ft for both curbed and uncurbed roadways.

The roadway will receive a full width 0.20 ft mill and a 0.15 ft overlay using a 3/8" plant mix which does not require seal and cover. Cold milling will taper from a depth of 0.20 ft to 0.15 ft on the shoulders to tie into the curb.

A bike lane is also proposed for the project. The bike lane will be striped on the north shoulder of 11th Ave. from beginning of the project at Sta. 93+47 continuing east to Sta. 137+32 at Fee St. where it will tie to the new pedestrian/bike path being built this fall. There will be no parking on north side of 11th Ave.

The City of Helena was asked if they wanted the cold millings produced from this project. The city may take part or all of the cold millings. Lewis & Clark County will take any remaining cold millings produced.

The proposed typical section widths are described in the Table 1 below.

Table 1. Typical Sections

From	To	Lane Width (No.) ft	Shoulder Left Ft.	Bike Lane Left Ft.	Shoulder Right Ft.	Sidewalk
Sta. 93+37 11th Ave	Sta.102+93	(2) 12	6	5	6	Existing Both Sides
Sta. 102+93 11 th Ave	Sta.106+88	(2) 12	10	5	10	Existing Both Sides
Sta. 107+72 11 th Ave	Sta.110+00	(2) 12	10	5	10	Existing Both Sides
Sta. 110+00 11 th Ave	Sta.116+47	(2) 12	14	5	14	Existing Rt. New Lt.
Sta. 116+47 11 th Ave	Sta.132+00	(2) 12	14	5	14	Existing Both Sides
Sta. 132+00 11 th Ave	Sta.150+44	(2) 12	5	5	5	NONE

- e. **Geotechnical Considerations.** No issues are identified at this time but after cores are received there may be areas of dig outs for failing subgrade.
- f. **Hydraulics.** There are several areas where surface drainage problems exist. The existing facilities function as designed except as noted below:
 - A. Many of the inlet grates have flat iron welded to them to make them bicycle safe and are too low in elevation. These inlet grates will be replaced with new frames and grates and adjusted to grade.

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- B. At the Montana/11th intersection a significant amount of drainage was observed flowing around the sidewalk ramp to the existing inlet in the southwest quadrant. A second inlet on the south side of Montana just east of the radius tie in is proposed. This new inlet will be installed if it can be done without impacting the existing new ADA ramps and sidewalk.
 - C. The 11th Ave. /Sanders intersection has two existing inlets in the southeast quadrant, one in the southwest quadrant and one inlet west of the intersection in the north curb line. The inlets in the southeast and southwest quadrant are located in the wheel path. The inlets will be relocated out of wheel path if possible.
 - D. Ponding was observed in the south curb line west of Sanders Street. A new inlet will be installed at this low point and connected to the existing storm drain.
 - E. Between Sanders and Oakes Street new curb and gutter is being installed on the north side. New inlets will be installed along the section of new curb and gutter and tied to inlets on south side of 11th Avenue.
 - F. In the northeast quadrant of the intersection of Oakes Street and 11th a new inlet will be added to reduce runoff into Jorgenson's parking lot.
 - G. At the 11th Ave. /Lamborn Street intersection the drop inlets in the southeast and southwest quadrants are functioning however, the outlet structure in the northeast quadrant is not functioning. The city filmed the pipe between the drop inlet and the outlet. It appears that the pipe was trenched through during fiber optic installation causing a blockage and storm water to percolate up through the sidewalk near the outlet structure. This will be repaired with a new pipe and outlet structure.
- g. **Bridges.** There are no bridges within the project limits.
- h. **Traffic.** The traffic signals on 11th Avenue have been previously updated. No upgrades are included in this project.

New signage and striping will be included with this project for the proposed bike lane will be required.

Much of this project is wide enough to allow for three lanes so the Traffic Section was requested to look at the level of service of 11th Ave to determine if a third lane was warranted. The Traffic Design Section has performed a capacity and operational analysis of a three lane concept on 11th Ave. In addition an internal discussion involving Traffic Section, Road Design and Great Falls District personnel was conducted to discuss issues related to adding a third lane on 11th. The following is a brief description of the issues discussed:

- The 11th Ave/Capitol Interchange SB ramps intersection is over capacity and is the controlling intersection. To reduce congestion on 11th would require three lanes across the interchange overpass bridge. There are no plans for a new wider bridge in the near future. Traffic volumes at the proposed third lane drop location at the SB slip ramp just before the 11th/ramps intersection are not significant enough to provide congestion relief.
- Northbound right turn from Fee is over 300-vehicles at PM peak hour. Most of these vehicles would be attempting to merge into stopped traffic backed up from the Capitol Interchange. Other traffic that has waited to the last moment to merge would add further operational issues.

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- Truck and possibly car turning ability will be impacted due to decreased shoulder width.
- To address the geometric concerns would require work beyond the scope of an overlay project (widening, ADA, ROW, traffic signal work).
- Where to start a third lane was discussed. Beginning at 11th Ave posed geometric problems and concerns for pedestrians crossing at the non-signalized Cook St. intersection. Intersections contributing the highest volumes, being candidates, are located closer to the Capitol Interchange posing difficulty as to how to accomplish smooth lane transitions.

The Conclusion/Recommendation is that a three lane section would provide more operational and safety issues than would solve. Therefore 11th Ave should continue with the current two lane configuration until the bridge over I-15 is reconstructed to provide more capacity.

The District Administrator and others are very disappointed with this conclusion as they believe that adding a third lane would help with the congestion and demonstrate to the public an effort to provide better service with limited funds.

- Pedestrian/Bicycle/ADA.** Sidewalk exists along much of the project on both sides of the roadway from Montana Ave. to Hannaford St. Two new short sections of sidewalk will be included in the project. The first is a 55'± long section connecting the existing sidewalk and ADA ramps just east of Montana Ave. on the left. The second is a 600'± section extending the sidewalk from mid-block east to Oakes St. on the left. Existing sidewalks in poor enough condition to hinder wheelchair traffic and intersections requiring ADA features will be addressed to meet PROWAG standards. A new bike lane will be striped on the north shoulder of 11th Ave. extending from the intersection of Montana Ave. east to Fee St. where it will connect to the new pedestrian/bike path to be constructed this summer.
- Miscellaneous Features.** Due to the condition of existing curb and gutter, new curb and gutter will be installed throughout the project. Existing curb and gutter in good condition will not be disturbed with this project.
- Context Sensitive Design Issues.** The City of Helena has requested a bike lane on the north side of 11th Ave. and will seek City Commission approval to eliminate parking on the north side of 11th Ave..

Other Projects.

The project NH 8-2(82)43; Lyndale/MT Ave – Helena; UPN 7461000, is scheduled for letting the same time as this project.

Design Exceptions

Design exceptions are not required for substandard design elements for preventative maintenance projects.

Right-of-Way

No new right-of-way is needed or anticipated for this project. Construction permits may be required for new sidewalk and upgrades to ADA accessibility.

Existing right-of-way on Eleventh Avenue from Sta. 93+37 to Sta. 126+08 is 35-ft from

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centerline right and left. From Sta. 126+08 to Sta. 153+36 existing right-of-way is 55-ft from centerline right and left. No new right-of-way or construction permits are anticipated for this project.

Access Control

Access control is not being implemented on this project. Existing approach locations will be maintained. Requests for approach modifications and relocations will be evaluated based on proximity to intersections and location of adjacent approaches.

Utilities/Railroads

No railroad involvement on this project is expected.

The manholes, drop inlets, water valves, and street monuments inside the project limits will need to be adjusted to accommodate the overlay. Conflicts may exist between new storm drain and underground utilities. A SUE survey will be required to identify possible conflicts.

Intelligent Transportation Systems (ITS) Features

There are no opportunities identified at this time for ITS solutions with this project. The WIM/ATR Site Map show an Automatic Traffic Recorder (ATR) in the area but according to the Traffic Data Collection and Analysis Section there are no ATR's present.

Survey

Initial roadway survey has been complete. Additional pick up survey is requested for storm drain design at Lamborn Street and Oakes Street. Roadway survey from the street center to 5-ft behind the sidewalk is needed down the east side of Lamborn from 11th Ave. north to Prospect Ave. Roadway survey is needed on the north side of 11th at Oakes Street to include the radii plus 10-ft north on the west side of Oakes and 200-ft north on the east side. The pickup survey request is attached.

A SUE I survey is requested for the southeast quadrant of the 11th and Montana Ave intersection and on 11th Ave from Roberts Street to Lamborn Street. A SUE II survey will be requested as storm drain design progresses.

Public Involvement

A Level "B" public involvement plan is appropriate for this project. A limited PI component will be included in the project outlining strategies for public notification. The Level "B" plan will include the following:

- News release explaining the project and including a department point of contact.
- Personal contacts with local government officials.
- Personal contacts with adjacent landowners explaining final design.
- Construction notification and information during construction.

Environmental Considerations

No apparent significant environmental issues have been identified. It is anticipated that the project meets the criteria for the Statewide Programmatic Categorical Exclusion. This project is located in a designated MS4 area, and the project must comply with local requirements, such as Helena ordinances addressing urban storm water runoff.

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The Environmental Services Bureau will secure the appropriate Environmental documentation for this project.

The Environmental Checklist is attached at the end of this report.

Energy Savings/Eco-Friendly Considerations

It is expected the project will generate approximately 1800CY of millings. Cold millings produced from this project will be excepted for use by the City of Helena and/or Lewis & Clark County.

Experimental Features

Experimental features are not proposed for this project.

Traffic Control

The proposed traffic control plan includes limited sections of lane closures on 11th Avenue during construction. Closure of the entire roadway section will be prohibited. Traffic will be maintained on at least one lane at all times with only minor delays allowed. Traffic will be maintained at the intersections of Montana Ave, N. Roberts St., Fee St., and the southbound on-ramp of I-15 at Capitol Interchange with only minor delays allowed. Local Access will be maintained to the maximum extent possible to minimize impact to local residents, businesses, and traveling public. Reasonable business access will be maintained and coordinated with local businesses during construction of this project. Alternate routes and possible detour designations will be discussed as the project develops.

No night time construction will be allowed due to hotel businesses in the vicinity of this project.

A Traffic Management Plan (TMP) consisting of a Traffic Control Plan (TCP), a limited Traffic Operations (TO) component and a limited Public Information (PI) component is appropriate for this project.

Project Management

Helena Urban Design will design this project and Dustin Rouse is the Project Design Engineer.

Preliminary Cost Estimate

The 2011 Tentative Construction Program shows \$1,273,000 in CN funding available for this project.

	Estimated cost	Inflation (INF) (from PPMS)	TOTAL costs + INF +IDC (13.35% for 2011)
Road Work	650,000		
Traffic Control	100,000		
Subtotal	750,000		
Mobilization (18%)	135,000		
Subtotal	885,000		
Contingencies (15%)	133,000		
Total CN	\$ 1,018,000		\$ 1,154,000
CE (15%)	\$ 153,000		\$173,000
TOTAL CN+CE	\$ 1,171,000		\$1,327,000

