MDT **Montana Department of Transportation**
2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001

Jim Lynch, Director
Brian Schweitzer, Governor

June 17, 2011

Brian Hasselbach
Federal Highway Administration (FHWA)
585 Shepard Way
Helena MT 59601-9785

Subject: Statewide Programmatic Categorical Exclusion for Pavement Preservation Project
Clements Rd & 3rd St.
UPP 8199(99)
Control Number: 7430 000

Dear Brian Hasselbach:

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.

For your information, I have attached a copy of the PFR/SOW (including the location map) and the signed Checklist. We will supply any environmental-related Special Provisions to the Contract Plans Bureau for inclusion in the project plans.

If you have questions or concerns, please contact Susan Kilcrease at (406)523-5842. She will be pleased to assist you.

Sincerely,

Heidy Bruner

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

Attachments: PFR/SOW Report, Environmental Checklist

copies: w/signed checklist:	Paul Ferry, P.E.	Highway Engineer
	Ben Nunnallee	Project Design Manager
	Dan Ham	Missoula District Envir. Engineering Specialist
	Susan Kilcrease	Missoula District Project Development Engineer
	Montana Legislative Branch	Environmental Quality Council (and w/PFR/SOW)
	Environmental Services File	
copies:	Doug Moeller	Missoula District Administrator
	Tom Martin, P.E.	Environmental Services Bureau Chief
	Kevin Christensen, P.E.	Construction Engineer
	Suzy Price	Contract Plans Bureau Chief
	Dawn Stratton	MDT Fiscal Programming Section Supervisor-acting
	Gene Kaufman, P.E.	FHWA Operations Engineer

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ENVIRONMENTAL

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

Memorandum

To: Tom S. Martin, P.E, Chief, Environmental Services Bureau

From: for Paul R. Ferry, P.E., Highways Engineer

Date: June 2, 2011

Subject: UPP 8199(99)
Clements Rd. & 3rd St.
UPN 7430000
Work Type 160 – Minor Rehabilitation

Attached is the Preliminary Field Review/Scope of Work Report for the subject project. The project meets the criteria for the Statewide Programmatic Categorical Exclusion for pavement preservation projects and the environmental checklist is attached.

Please send the notification for the environmental documentation on this project to the FHWA. If you need additional information, contact Ben Nunnallee at 523-5846.

Environmental Services					
Act	Info	Champ	Date 6/13 Routing	Attach	Initial
			Bureau Chief		
			Engineering Supervisor		
			Resources Supervisor		
			Pavement Engineer		
✓			Susan		
✓			Pat B		
✓			Jon		
✓			Brian		
✓			Phil		

Attachments (Environmental Checklist and PFR)

copies: Damian Krings, w/attach (checklist only)
Ben Nunnallee, " (Missoula District)
Highways File, "

(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)

Project Number: UPP 8199(99) Control No.: 7430000 Project Name: Clements Rd. & 3rd St.

Reference Post (Station): 0.00 (U-8101), 0.00 (U-8102) To Reference Post (Station): 1.26 (U-8101), 0.68 (U-8102)

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

Type of Proposed Pavement Preservation Activity: Mill & Fill, Seal & Cover, Fog Seal Bike Path

Type of Proposed Pavement Preservation Activity: Work Type 160 – Minor Rehabilitation

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

	Impact Questions	[Y/N] There are Potential Impacts; or Item Requires Documentation, Evaluation, Mitigation Measures, and/or (a) Permit(s).		
		Yes	No	Comment (Use attachments if necessary)
1.	Does the proposed action require work in, across, and/or adjacent to a listed or proposed Wild or Scenic River? (See http://www.rivers.gov/wildriverslist.html)	☐	☒	
2a.	Are there any listed or candidate threatened or endangered species in the vicinity of the proposed activity?	☐	☐	☒ Unknown
2b.	Will the proposed action adversely affect listed or candidate threatened or endangered species, or adversely modify critical habitat?	☐	☐	☒ Unknown
3.	Will the proposed action have potential to affect water quality? If 'Yes', an environment-related permit or authorization may be required. If 'No', go to question 4.	☐	☒	
3a.	If the answer to question 3 is yes, is a Clean Water Act Section 402 permit (i.e., MPDES or NPDES permit)required? (Need for an MPDES or NPDES is generally triggered by a disturbance area equal to or greater than one acre.)	☐	☐	☒ N/A
3b.	Is the proposed project within an MS4 Permit Area? (See http://deq.mt.gov/wqinfo/MPDES/StormWater/ms4.mcpx). (Billings, Great Falls, and Missoula Urbanized areas, and Butte, Bozeman, and Helena)	☒	☐	
4.	Does the proposed project have impacts to wetlands , streams, or other water bodies? If 'No', go to question 5.	☐	☒	
4a.	If the answer to question 4 is 'Yes', is a Clean Water Act Section 404 permit authorization required?	☐	☐	☒ N/A
4b.	If the answer to question 3 or 4 is 'Yes', is a Stream Protection Act 124SPA consultation required?	☐	☐	☒ N/A
5.	Are solid wastes, hazardous materials or petroleum products likely to be encountered? (For example, project occurs in or adjacent to Superfund sites, known spill areas, underground storage tanks, or abandoned mines.) (See http://nris.mt.gov/deq/remsitequery/portal.aspx)	☐	☒	
6.	Is the proposed activity on and/or within approximately 1 mile of an Indian Reservation? If answer is 'No', go to question 7.	☐	☒	
6a.	Are any Tribal water permits required?	☐	☐	☒ N/A
7.	Is the proposed project in a "Class I Air Shed" or a nonattainment area? (See http://deq.mt.gov/AirQuality/Planning/AirNonattainment.mcpx) (Class I Air Sheds include the Northern Cheyenne, Flathead, and Fort Peck Reservations; Glacier and Yellowstone National Parks; Anaconda-Pintlar, Bob Marshall, Cabinet Mountains, Gates of the Mountains, Medicine Lake, Mission Mountain, Red Rock Lakes, Scapegoat, Selway-Bitterroot, and U.L Bend Wilderness Areas)	☐	☒	

Checklist prepared by:

Ben Nunnallee, P.E.	Project Design Engineer	6/2/2011
Applicant	**Title**	**Date**

Approved by:

[signature]	ENVIRONMENTAL ENGINEERING SECTION SUPERVISOR Click here to enter text.	6/2/11 Click here to enter a date.
Environmental Services	**Title**	**Date**

Project Number: UPP 8199(99)Control No.: 7430000 Project Name: Clements Rd. & 3rd St.
(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.

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

MASTER FILE COPY

Memorandum

To: Paul Ferry, P.E.
Highways Engineer

From: Shane Stack, P.E.
Missoula District Preconstruction Engineer

Date: June 2, 2011

Subject: UPP 8199(99)
Clements Rd. & 3rd St.
UPN 7430000
Work Type 160 – Minor Rehabilitation

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

Approved _____ Date June 2, 2011

for 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

Introduction

An onsite field review was held on April 5, 2011. The following people attended:

Sandy Dorsett – Missoula District Design Supervisor
Steve McEvoy – MDT Surfacing Design
Erik Dickson – Missoula County Roads
Scot Wohlin – Missoula District Road Design

A separate onsite field review was held on May 3, 2011 by Ben Nunnallee – Missoula District Projects Engineer.

Proposed Scope of Work

The proposed project has been nominated to preserve the asphalt pavement and to extend the service life of the roadway. A seal & cover with some areas of mill and fill was originally proposed for this project. At the review, the review team decided that due to the harsh conditions the roadway experienced this past winter, Clements Rd. would instead need to be milled 0.15' and receive an 0.15' overlay between South Avenue and Seventh Street and the rest of the project would be chip sealed only. Replacement of the pavement markings and signing will also be included.

Purpose and Need

The purpose of this project is to preserve the existing pavement to extend the service life of the existing asphalt surfacing. This section of highway is due for pavement resurfacing before the deterioration of the pavement begins to accelerate any further.

Project Location and Limits

This project is located in Missoula County, beginning at the intersection of U-8101(Clements Road) and U-8120 (South Avenue). The project begins at Reference Post (RP) 0.00±, English Station 0+15.00 on As-Built plans NRS 287. The project extends northerly 1.26 miles to RP 1.26±, English Station 66+48.10 on As-Built plans NRS 287, where U-8101 curves into U-8102 (3rd Street). U-8101 ends at this point and U-8102 begins. The project then extends easterly for 0.68 miles on U-8102 and ends at RP 0.68±, English Station 102+35.00 on NRS 287, at the Stallion Lane intersection. This segment of road is located in Township 13 N, Range 20 W (Sections 23, 24, 25 and 26).

U-8101 and U-8102 are functionally classified as a Minor Arterials– Urban. See the attached location map.

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 of a Traffic Control Plan (TCP). A limited Public Information (PI) component to address public notification will also be included. These issues are discussed in more detail under the Traffic Control and Public Involvement sections.

Physical Characteristics

The existing terrain within the project limits is level, mostly in a rural residential setting. There is one school at the beginning of the project and another school at RP 0.89±. There are 22 public approaches along this project. Private and farm field approaches are also located throughout the project length.

In 1934, the roadway from RP 0.01 (English As-Built Station 0+15.00, route U-8101) to RP 1.26± (English As-Built Station 66+48.10, Route U-8101) and from RP 0.00 (English As-Built Station 66+48.10, Route U-8102) to RP 0.68 (English As-Built Station 103+69.20, route U-8102) was reconstructed under project NRS 287.

There are basically three typical sections along this section of roadway. The two-lane roadway consists of two 12' travel lanes and either no or 1' paved shoulders. From RP 0.0 to RP 0.244 consists of two 12' travel lanes, a 10' paved shoulder on the left side, and a 2' paved shoulder on the right side. Surfacing inslopes are 6:1.

The original existing surfacing consists of: (From RP 0.0 to RP 1.25, U-8101)
3.0 in. Bituminous Plant Mix
6.0 in. Crushed Base Course

(From RP 0.0 to RP 0.68, U-8102)
2.5 in. Bituminous Plant Mix
4.0 in. Crushed Base Course

U-8101 (Clements Road) was overlaid (approximately 1" depth) in August 2004 from South Ave to 7th Street. Clements Road north of 7th Street and U-8102 (3rd Street) from Clements Rd. to Stallion Lane was overlaid (2" depth) in August 2009.

Surfacing depths determined from core samples taken in April 2011 by the MDT Missoula District Materials Lab in Missoula indicate that the existing asphalt thicknesses are about 0.70' deep at the southern end of Clements Road as it approaches South Ave. The thickness is less further to the north as the roadway approaches 7th Street (0.27' – 0.46'). The top layer in the cores is stripped and the lower sections of the core are severely stripped.

Surfacing inslopes are 6:1 with steep adjacent fill slopes.

From the available As-Built information, the one horizontal curve on the project, where Clements Road turns into 3rd Street, does not meet current design standards for the 35 mph design speed. The minimum possible radius is 371' (with a 4% super) while the existing radius is 191'. The curve is signed with chevrons and a turn arrow sign with a 25 mph speed advisory plaque. All vertical curves on this project meet the stopping sight distance criteria for a design speed of 35 mph. None of the vertical grades exceed the allowed maximum of 6%.

The Pavement Management System does not have a pavement condition and treatment recommendation for these sections of road because these Urban routes are not profiled and therefore not documented. Missoula County uses the PASER Rating System to evaluate the condition of the Urban Routes within its jurisdiction. U-8101 (Clements Rd) from South Ave. to 7th St. was given a rating of 4 (Fair) which means it needs structural improvement and leveling (overlay or recycling). U-8101 from 7th St. to 3rd St. was given a rating of 6 (Good) which means it needs preservative treatments (seal coating). U-8102 from Clements to Stallion Lane was given a rating of 8 (Very Good) which means it needs routine maintenance, crack sealing, and/or minor patching.

Traffic Data
2011 AADT = 2,840 (Present)
2011 AADT = 2,840 (Letting Year)

2031 AADT = 4,470 (Design Year)
DHV = 450
Com Trucks = 2.0%
Growth Rate = 2.3% (Annual)
ESAL's = 27

Crash Analysis
Safety Management completed a crash analysis for the five-year period from 01/01/06 through 12/31/10 for the segment RP 0.00 to RP 1.25 on U-8101 and RP 0.00 to RP 0.68 on U-8102:

Total Recorded Crashes:	25
Fatal Injury Crashes:	0
Incapacitating Injury Crashes:	1
Non-incapacitating Injury Crashes & Other Injury Crashes:	4
Property Damage Only Crashes:	20

The crash rate was 2.44 as opposed to a statewide average of 5.03, the severity index was 1.60 as opposed to a statewide average of 1.68, and the severity rate was 3.90 as opposed to a statewide average of 8.43.

Three variations from the average occurrence for Non-Interstate Highway and State Primary routes within City Limits were identified:

- 24.0% of the crashes resulted in Outside Shoulder - Right vs. 1.7% statewide average for City Routes.
- 40.0% of the crashes occurred in Cloudy conditions vs. 26.2% statewide average for City Routes.
- 24.0% of the crashes occurred during Dark – Not Lighted conditions vs. 7.2% statewide average for City Routes.

The crash trend for this stretch of roadway involves two or more vehicles. Of the 25 reported crashes, 9 were Single Vehicle Off-the-Road crashes and resulted in 4 overturning, 2 cited Wild Animal Vehicle collisions, 12 were cited as Intersection Related crashes. 14 of the 25 reported crashes involved two or more vehicles. 6 of the 25 reported crashes were Right Angle collisions. 3 of the 25 reported crashes were Rear End collisions. 2 of the 25 reported crashes were Sideswipe Opposite Direction collisions. 1 of the 25 reported crashes was Sideswipe Same Direction collision. 1 of the 25 reported crashes was a Left Turn Same Direction collision.

The following are suggestions that Traffic and Safety would like to be examined (followed by our responses addressing each suggestion):

- Based on a desktop review of the corridors, it appears at least two signs are obscured by roadside vegetation. This vegetation should be removed or trimmed to remove the visual obstruction.
- Response: These are County-maintained roadways. The County will be apprised of the situation.

Major Design Features
This project will be developed in accordance with the latest Guidelines for Nomination and

Development of Pavement Projects. The plans will be developed in English units.

a. **Design Speed.** The geometric design criteria for Urban Minor Arterials indicate that the design speed should be 35 mph based on the level terrain. The posted speed limit is 35 mph throughout the project limits. Design speed is not an applicable design criterion for preventative maintenance projects.
b. **Horizontal Alignment**. The existing horizontal alignment will not be changed with this pavement resurfacing preventative maintenance project.
c. **Vertical Alignment**. The existing vertical alignment will not be changed with this pavement resurfacing preventative maintenance project.
d. **Typical Sections and Surfacing**. The current typical section widths will remain unchanged. A full width chip seal (Cover Type 1 and CRS-2P seal oil) will be placed across the entire roadway. The first part of the project, from South Avenue to Seventh Street along Clements Road, will be milled a depth of 0.15'and filled 0.15'. There will also need to be several digout areas included with the project near the intersections of Clements Road with North Ave., Mount Ave., and Spurgin Dr.
e. **Geotechnical Considerations**. There are no geotechnical considerations for this pavement resurfacing preventative maintenance project. The existing roadside slopes will not be disturbed and there are no grading considerations.
f. **Hydraulics**. There are no hydraulics considerations for this pavement resurfacing preventative maintenance project.
g. **Bridges.** There are no bridges on this project.
h. **Traffic.** The existing pavement marking layout will be used to re-stripe the roadway. Traffic Engineering will provide the quantities, details, and specifications for interim paint and final epoxy. These items will be included in the road plans package. Traffic Engineering also will also provide the necessary plans, quantities, details, and specifications for replacing the existing signing and delineation.
i. **Pedestrian/Bicycle/ADA**. There is an existing bike/ped path that runs along the entire length of Clements Rd. From South Ave. to North Ave. (RP 0.244), the path is immediately adjacent to the LT side of the roadway. At North Ave. the path shifts to the RT side of the roadway and is separated from the roadway by a boulevard section. The path extends from RP 0.244 to RP 0.510 (Mount Ave.) where the path shifts back to the LT side and then continues to the north separated from the roadway by a boulevard section all the way to the north end of Clements Rd. Due to the nature of this preventative maintenance project, no new accommodations will be added. However, the bike/ped path will be fog sealed and detectable warning devices will be added where the path crosses public approaches.
j. **Miscellaneous Features**.
There are no additional features beyond what has already been covered.
k. **Context Sensitive Design Issues**. There are no special context sensitive design issues identified for this pavement resurfacing preventative maintenance project.

Other Projects

This project will probably be tied with three other Missoula Urban Pavement Preservation projects that are also scheduled for construction in 2012:
UPN 7432000, Main St. – Woody to Jefferson,
UPN 7431000, South Ave. – Bow to S. Higgins, and
UPN 7672000, Arthur Ave. – S. Ave. to Beckwith

Location Hydraulics Study Report

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

Design Exceptions
The design exception process does not apply to pavement preservation projects. However, as previously noted, one of the horizontal curves does not meet current design standards.

Right-of-Way
There will be no right-of-way involvement on this project.

Cold-In-Place Recycle
Due to the short length of the mill/fill section and resultant high cost of mobilization for this process, this project is not a good candidate for Cold-In-Place Recycling.

Access Control
This section of roadway is not an access control facility.

Utilities/Railroads
Utilities –There will be no utility involvement on this project.
Railroads - There are no railroads located within the project limits.

Intelligent Transportation Systems (ITS) Features
Implementation of ITS solutions will not be included with this project.

Survey
A topographic survey has been requested to obtain sufficient information to design the signing and pavement markings and determine roadway quantities.

Public Involvement
A Level A public involvement plan is appropriate for this project. A News Release explaining the project and including a department point of contact will be distributed to the local media.

Environmental Considerations
No significant environmental impacts or issues were identified. We reviewed the project and determined it meets the criteria for the Programmatic Agreement as a Categorical Exclusion under the provisions of 23 CFR 771.117(d) as signed by MDT on February 18, 2005 and concurred by FHWA on March 4, 2005. The Environmental Checklist for Pavement Preservation Projects has been submitted separately.

Energy Savings/Eco-Friendly Considerations
The cold millings from this project will be taken by MDT Maintenance for reuse on future projects.

Experimental Features
There are no experimental features identified for this pavement resurfacing preventative maintenance project.

Traffic Control
Traffic will be maintained through the construction of the project with appropriate signing, flagging, pilot cars, etc., in accordance with the Manual on Uniform Traffic Control Devices. The work zone will require single lane closures during construction operations. A minimum of one lane will remain open for traffic at all times during the construction of this project. Possible

stipulations governing the time of year, the days of the week during which construction activities may take place, time of day, and maximum length of roadway that may be under construction at a time may be specified in the contract in order to minimize public impact.

A Transportation Management Plan (TMP) consisting of a Traffic Control Plan (TCP) is appropriate for this project. Due to the relatively simple nature of the work, the TCP will consist of only special provisions.

Project Management

The Missoula District Design Crew will be responsible for developing the plans. Ben Nunnallee will manage the design of this project. See contact information below:

Ben Nunnallee, P.E.
Montana Department of Transportation
2100 West Broadway, PO Box 7039
Missoula, MT 59807-7039
(406) 523-5846
e-mail: bnunnallee@mt.gov

This project is not under full FHWA oversight.

Preliminary Cost Estimate

The nomination cost estimate (without IDC) that was originally programmed for this project was $308,000 (CN = $280,000 and CE = $28,000). The total nomination cost estimate including IDC and inflation was $411,410.

Current Cost Estimate:

	Estimated cost	**Inflation (INF) (from PPMS)**	**TOTAL costs w/INF + IDC (from PPMS)**
Road Work	$317,000		
Traffic Control	$17,000		
Subtotal	**$334,000**		
Mobilization (10%)	$33,000		
Subtotal	**$367,000**		
Contingencies (8%)	$29,000		
Total CN	**$396,000**	**$70,660**	**$528,959**
CE (10%)	**$40,000**	**$7,137**	**$53,429**
TOTAL CN+CE	**$436,000**	**$77,797**	**$582,388**

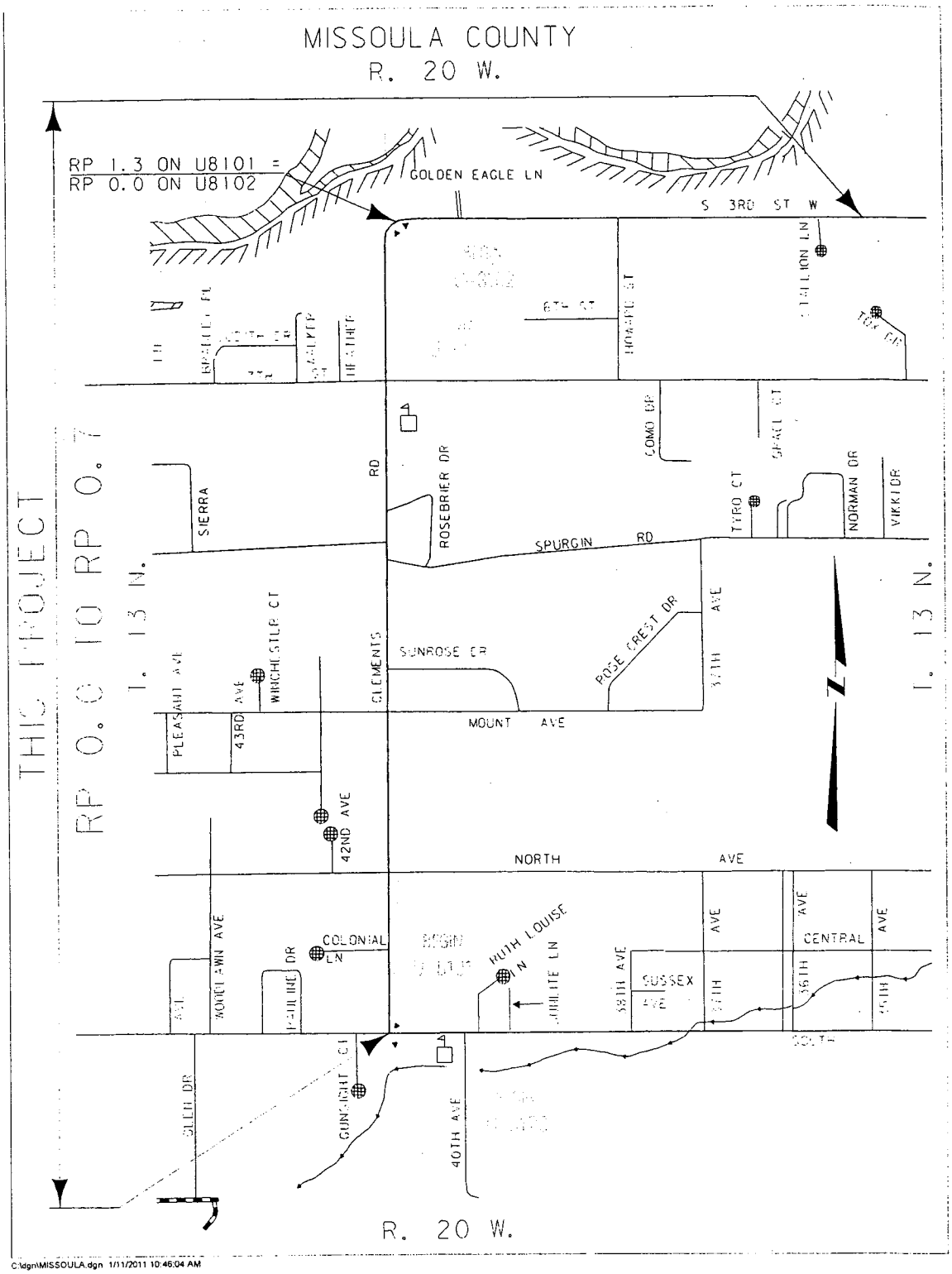
Note: Inflation is calculated in PPMS to the letting date. If there is no letting date, the project is assumed to be inside the current TCP and is given a maximum of 5 years until letting. IDC is calculated at 13.35% as of FY 2011. Currently, a Letting Date has not been established in PPMS.

Ready Date

This project has a Ready Date of December 1, 2011. The Letting Date has not yet been established but it will be let for construction in 2012. The project is currently about 1.5 months ahead of schedule in OPX2.

Site Map

The project site map follows.



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