



June 17, 2011

2701 Prospect Avenue  
PO Box 201001  
Helena MT 59620-1001

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

Subject: Statewide Programmatic Categorical Exclusion for Pavement Preservation Project  
South Ave. – Bow to S. Higgins  
UPP 8120(6)  
Control Number: 7431 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,

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

Attachments: PFR/SOW Report, Environmental Checklist

copies: w/signed checklist: Paul Ferry, P.E.  
Ben Nunnallee  
Dan Ham  
Susan Kilcrease  
Montana Legislative Branch  
Environmental Services File

Highway Engineer  
Project Design Manager  
Missoula District Envir. Engineering Specialist  
Missoula District Project Development Engineer  
Environmental Quality Council (and w/PFR/SOW)

copies: Doug Moeller  
Tom Martin, P.E.  
Kevin Christensen, P.E.  
Suzy Price  
Dawn Stratton  
Gene Kaufman, P.E.

Missoula District Administrator  
Environmental Services Bureau Chief  
Construction Engineer  
Contract Plans Bureau Chief  
MDT Fiscal Programming Section Supervisor-acting  
FHWA Operations Engineer

HB:smk: S:\PROJECTS\MISSOULA\7431\7431ENCEDPPP.docx



(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 8120(6) Control No.: 7431000 Project Name: South Ave. – Bow to S. Higgins

Reference Post (Station): 3.43 To Reference Post (Station): 3.98

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

Type of Proposed Pavement Preservation Activity: Seal & Cover

Type of Proposed Pavement Preservation Activity: Work Type 183 – Resurfacing – Seal & Cover

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

Table with 3 columns: Impact Questions, Yes, No, Comment. Contains 13 rows of questions regarding environmental impacts like Wild or Scenic Rivers, species, water quality, wetlands, and air quality.

Checklist prepared by:

Ben Nunnallee, P.E. Applicant

Project Design Engineer

6/3/2011

ENVIRONMENTAL ENGINEERING SECTION SUPERVISOR

Date

Approved by:

Signature of Ben Nunnallee, Environmental Services

Click here to enter text.

Title

Signature and date: 6/3/11, Date

**Project Number: UPP 8120(6) Control No.: 7431000 Project Name: South Ave. – Bow to S. Higgins**  
(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**

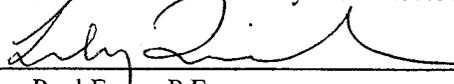
To: Paul Ferry, P.E.  
Highways Engineer

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

Date: June 6, 2011

Subject: UPP 8120(6)  
South Ave. – Bow to S. Higgins  
UPN 7431000  
Work Type 183 – Resurfacing – Seal & Cover

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

Approved  Date June 6, 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

## Preliminary Field Review/Scope of Work Report

UPN 7431000, UPP 8120(6), South Ave. – Bow to S. Higgins  
Project Manager: Ben Nunnallee, P.E.

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### **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  
Doug Harby – Missoula City Public Works Department  
Scot Wohlin – Missoula District Road Design

A separate onsite field review was held on June 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 mill and plant mix overlay, and a seal & cover was originally proposed for this project. However, due to the harsh conditions the roadway experienced this past winter the roadway deteriorated to a condition that MDT and the City of Missoula decided that the proposed treatment would not address the current conditions. Earlier this spring, the City went ahead and performed more intensive rehabilitation to this stretch of roadway. This project will follow up that work with the seal & cover portion of the originally proposed project. Replacement of a few flashing signals, signing, and pavement markings will also be included with this project.

### **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.

### **Project Location and Limits**

This project is located in Missoula County, beginning at the South Avenue and Bow Street intersection on U-8120 (South Avenue). The project begins at Reference Post (RP) 3.43± (English Station 10+77.00). The project extends easterly 0.55 miles to RP 3.98± (English Sta. 40+48.00). This segment of road is located in Township 13 N, Range 19 W (Sections 28, 29, 32 and 33).

U-8120 is functionally classified as a Minor Arterial – Urban. See the attached location map.

### **Work Zone Safety and Mobility**

At this time, Level 3 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 in an urban setting. The roadway goes by a high school in the first block of the project. Also, there are numerous private approaches for residences and small businesses located along both sides of the roadway throughout the project length.

In 1945, the roadway from RP 3.2 to RP 4.4 was reconstructed by the city. It is unknown when this roadway was originally built and no as-built plans are available. The TIS Road Log indicates the following existing roadway information:

**Preliminary Field Review/Scope of Work Report**

UPN 7431000, UPP 8120(6), South Ave. – Bow to S. Higgins

Project Manager: Ben Nunnallee, P.E.

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Reference Posts	Improvement Project ID	Total Width	Lanes	Surf. Depth	Base Depth	Left	Right
RP 3.226 to 3.487 Bow to Bancroft	City construction 1945	74'	2-12'	3.00"	6"	Curb & Sidewalk	Curb & Sidewalk
RP 3.487 to 3.984 Bancroft to Higgins	City construction 1945	60'	2-12'	3.00"	6"	Curb & Sidewalk	Curb & Sidewalk

The rest of the pavement width not used for the travel lanes and bike lanes is used for on-street parking.

Surfacing depths determined from core samples taken in March 2011 by the MDT Missoula District Materials Lab in Missoula indicate the existing asphalt thicknesses from RP 3.4 to RP 3.9 range from 0.43 ft to 0.63 ft. The core samples were sent to Helena for stripping analysis.

The project is on a tangent throughout its length. Any slight changes in bearing likely occur without horizontal curves.

The project is relatively level throughout. There are no As-Built plans available to determine alignment. Any slight changes in grade have no effect on stopping sight distance.

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. The City of Missoula gave Pavement Condition Indices (PCI) for this stretch of road varying from 74 – 78 (on a 0 – 100 scale) in 2010 before the deterioration of the roadway this last winter and the rehabilitation work that they did this past spring. According to the City's Treatment Strategies, this PCI range indicates that this stretch of roadway requires an overlay. The street is generally structurally sound but the existing asphalt is worn out. It will usually require some sectioning of bad areas, drainage improvements, curb installation, and ADA upgrades.

**Traffic Data**

2011 AADT = 7,930 (Present)  
 2011 AADT = 7,930 (Letting Year)  
 2031 AADT = 14,050 (Design Year)  
 DHV = 1,410  
 Com Trucks = 0.1%  
 Growth Rate = 2.9% (Annual)  
 ESAL's = 46

**Crash Analysis**

Safety Management completed a crash analysis for the five-year period from 07/01/05 through 06/30/10 for the segment RP 3.43 to RP 3.98:

Total Recorded Crashes: 38  
 Fatal Injury Crashes: 0  
 Incapacitating Injury Crashes: 2  
 Non-incapacitating Injury Crashes  
 And Other Injury Crashes: 4

## Preliminary Field Review/Scope of Work Report

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Property Damage Only Crashes: 32

The crash rate was 4.99 as opposed to a statewide average of 5.06, the severity index was 1.58 as opposed to a statewide average of 1.67, and the severity rate was 7.87 as opposed to a statewide average of 8.48.

One variation from the average occurrence on Urban routes was identified:

- 47.4% rear end collisions vs. 29.9% statewide average for city crashes.

The crash trend is intersection or intersection related crashes (25 out of 38). Of the 38 crashes, 18 cited rear end collision as being the first or most harmful event (with 4 of those related to vehicles stopping for pedestrians in marked crosswalks), 11 cited right angle collision, 3 cited sideswipe same direction collision, 3 cited parked motor vehicle as being the first or most harmful event, 8 cited failure to yield as a contributing circumstance.

At the intersection of South Ave. and Bancroft St., the majority of the crashes resulted in either a rear-end collision (5) or a right angle collision (3). The rear-end crashes were the result of vehicles slowing or stopping for traffic. All of the right angle crashes were due to vehicles failing to yield the right-of-way at this stop-controlled intersection.

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

- South Avenue and Bancroft Street: Based on a review of the available information, it appears the overhead flasher at this intersection is an 8-inch diameter lens and meets the requirements of the 2009 MUTCD; however, given the number of crashes in this intersection (8), consideration should be given to upgrading this flasher to 12-inch diameter lenses.
  - Response: These flashers will all be upgraded with this project.
- South Avenue and Park Street: Based on a review of the available information, it appears the “dual flashers” mounted above and below the pedestrian warning crossing sign(s) at this intersection are 8-inch diameter in accordance with the 2009 MUTCD; however, if the overhead flasher at South Avenue and Bancroft is replaced, consideration should also be given to upgrading these pedestrian warning flashers to 12-inch diameter lenses.
  - Response: These flashers will also be upgraded with this project.

No Safety projects are scheduled for this section of roadway.

### **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.

- Design Speed.** The geometric design criteria for Urban Minor Arterials with curbs indicate that the design speed should be 35 mph. The posted speed limit is 30 mph throughout the project length. Design speed is not an applicable design criterion for preventative maintenance projects.
- Horizontal Alignment.** The existing horizontal alignment will not be changed with this pavement resurfacing preventative maintenance project.
- Vertical Alignment.** The existing vertical alignment will not be changed with this pavement resurfacing preventative maintenance project.
- Typical Sections and Surfacing.** The current typical section widths will remain unchanged. The roadway will receive a full width chip seal (Cover Type 2 and CRS-2P

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- seal oil).
- e. **Geotechnical Considerations.** There are no geotechnical considerations for this resurfacing 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 provide the necessary plans, quantities, details, and specifications for replacing the existing signing and to upgrade the overhead flashers at the intersection with Bancroft Street.
  - i. **Pedestrian/Bicycle/ADA.** There are existing bike lanes on the LT and RT sides of the roadway from the Bancroft intersection and ending just short of the Higgins Avenue intersection. There are existing sidewalks on both sides of U-8120 throughout the entire project length. The sidewalks at all intersections have new ADA ramps at the corners that were installed with a recent CTEP project. Most all of these new ramps have truncated domes as well, however, there are a handful that do not. This project will add the truncated domes where they are missing. The cross slope of the sidewalk is steeper than ADA requirements allow at most of the private approach crossings. Due to the nature of this preventative maintenance project, the existing sidewalk facilities will not be affected by the project and no new accommodations will be added.
  - 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 7430000, Clements Rd. & 3<sup>rd</sup> St.,**

**UPN 7432000, Main St. – Woody to Jefferson, 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.

### Right-of-Way

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

### Access Control

This section of roadway is not an access control facility.

### Utilities/Railroads

Utilities – There will be no utility involvement on this project. Existing manholes, water valves, and storm drains within the roadway will be protected so that they will not be impacted by the

## Preliminary Field Review/Scope of Work Report

UPN 7431000, UPP 8120(6), South Ave. – Bow to S. Higgins  
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pavement resurfacing.

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**

No energy savings/eco-friendly considerations are proposed for this pavement resurfacing preventative maintenance project.

### **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

## Preliminary Field Review/Scope of Work Report

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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 \$330,000 (CN = \$300,000 and CE = \$30,000). The total nomination cost estimate including IDC was \$374,055.

### *Current Cost Estimate:*

	Estimated cost	Inflation (INF) (from PPMS)	TOTAL costs w/INF + IDC (from PPMS)
Road Work	\$109,000		
Electrical	\$10,000		
Traffic Control	\$12,000		
<b>Subtotal</b>	<b>\$131,000</b>		
Mobilization (10%)	\$13,000		
<b>Subtotal</b>	<b>\$144,000</b>		
Contingencies (8%)	\$12,000		
<b>Total CN</b>	<b><u>\$156,000</u></b>	<b><u>\$27,931</u></b>	<b><u>\$208,485</u></b>
<b>CE (10%)</b>	<b><u>\$16,000</u></b>	<b><u>\$2,864</u></b>	<b><u>\$21,382</u></b>
<b>TOTAL CN+CE</b>	<b><u>\$172,000</u></b>	<b><u>\$30,795</u></b>	<b><u>\$229,867</u></b>

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.

The large discrepancy between the nomination cost estimate and the current estimate is due to the change of the scope of this project from a mill/fill project to just a seal and cover.

### Ready Date

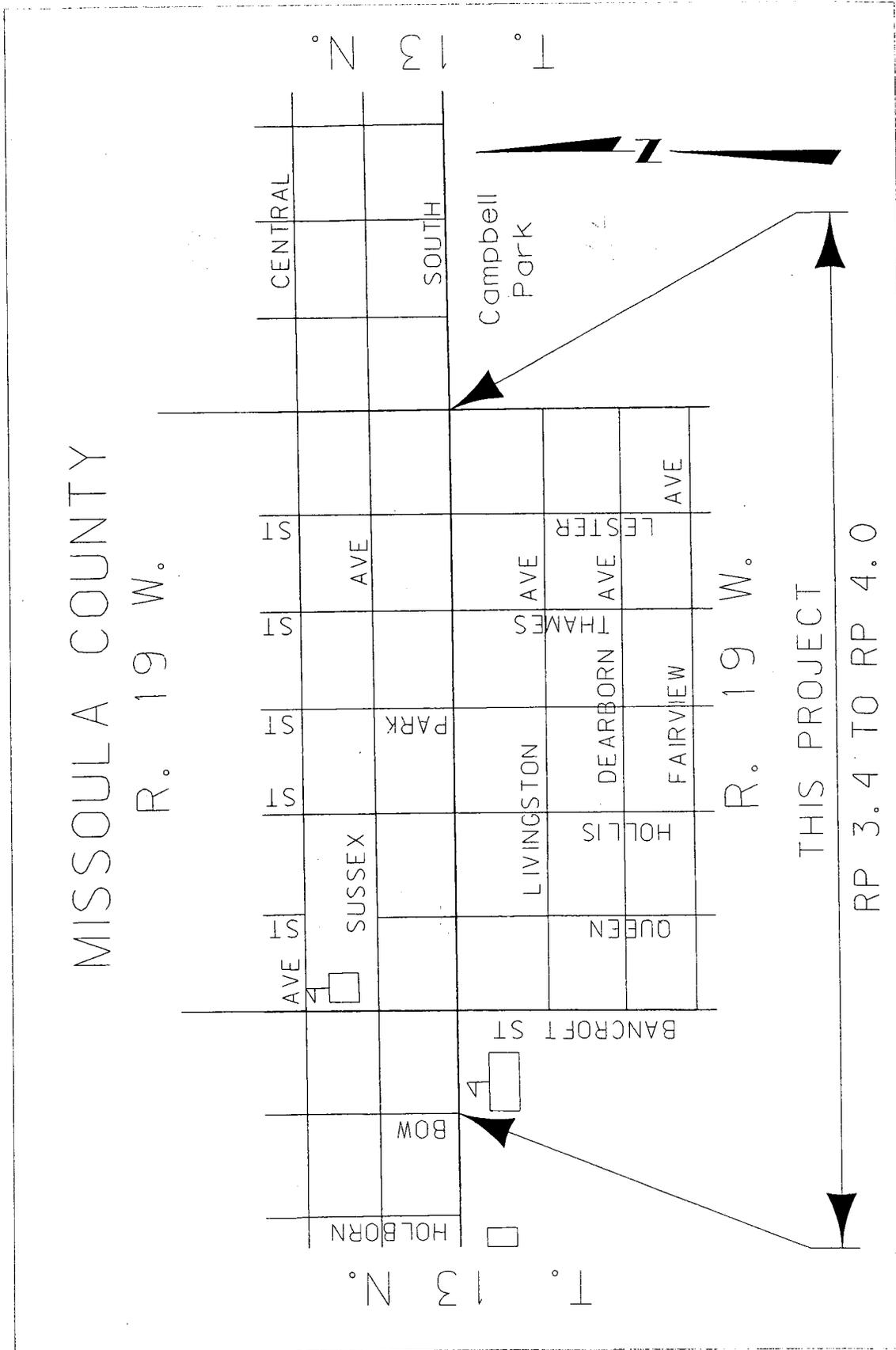
This project has a Ready Date of December 1, 2011. The Letting Date has not yet been established but it will be let for construction in 2012. The project is currently about 1.5 months ahead of schedule in OPX2.

### Site Map

The project site map follows.

Preliminary Field Review/Scope of Work Report

UPN 7431000, UPP 8120(6), South Ave. - Bow to S. Higgins  
 Project Manager: Ben Nunnallee, P.E.



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