



December 29, 2011

2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001

Brian Hasselbach
Federal Highway Administration (FHWA)
585 Shepard Way
Helena MT 59602

Subject: Statewide Programmatic Categorical Exclusion for Pavement Preservation Project
Stevensville - South
STPS 269-1(38)17
Control Number: 7656000

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 Environmental Checklist. Environmental-related Special Provisions will be included in the contract plans.

If you have questions or concerns, please contact Susan Kilcrease at 523.5842 or me at 444.7203. We will be pleased to assist you.

Sincerely,

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

Attachments: PFR/SOW Report, Environmental Checklist

Enclosure

e-copies w/checklist encl.:

Shane Stack, acting Missoula District Administrator
Tom Martin, P.E., Environmental Service Bureau Chief
Heidi Bruner, P.E., ESB Engineering Section Supervisor
Paul Ferry, P.E., Highways Engineer
Kevin Christensen, P.E., Construction Engineer
Suzy Price, Contract Plans Bureau Chief
Dawn Stratton, Fiscal Programming
Alyce Fisher, Fiscal Programming
Susan Kilcrease, Missoula District Project Development Engineer
Ben Nunnallee, P.E., Project Design Manager

Montana Legislative Branch Environmental Quality Council
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: STPS 269-1(38)17 Control No 7656000 Project Name: Stevensville – South
Reference Post (Station): RP 17.2 (160+38.10) To Reference Post (Station): RP 20.1 (312+00.00)
Applicant's Name: Montana Department of Transportation Address: PO Box 201001; Helena, MT 59620-1001
Type of Proposed Pavement Preservation Activity: Microsurfacing

Table with 3 columns: Impact Questions, [Y/N] There are Potential Impacts; or Item Requires Documentation, Evaluation, Mitigation Measures, and/or (a) Permit(s), and Comment (Use attachments if necessary). Rows include questions about rivers, species, water quality, wetlands, air quality, and tribal water permits.

Checklist prepared by:

Ben Nunnallee
Applicant
Approved by: [Signature]
Environmental Services

Project Design Engineer
Title
ENVIRONMENTAL ENGINEERING
SECTION SUPERVISOR
Title

12/19/2011
Date
1/5/12
Date

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

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

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



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

MASTER FILE
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Memorandum

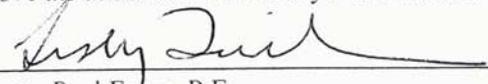
To: Paul Ferry, P.E.
Highways Engineer

From: Ben Nunnallee, P.E.
Missoula District Preconstruction Engineer (Acting)

Date: December 19, 2011

Subject: STPS 269-1(38)17
Stevensville – South
UPN 7656000
Work Type 183 – Resurfacing - Seal and Cover

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

Approved  Date Dec-19, 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 7656000, STPS 269-1(38)17, Stevensville – South
Project Manager: Ben Nunnallee, P.E.

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Introduction

An onsite field review was held on November 21, 2011. The following people attended:

Ben Nunnallee – Missoula District Projects Engineer
Sandy Dorsett – Missoula District Design Supervisor
Dan Hill – MDT Surfacing Design
Joe Leary – Missoula District Road Design

Proposed Scope of Work

The proposed project has been nominated to preserve the asphalt pavement and to extend the service life of the roadway. Microsurfacing is proposed for this project. Replacement of the signing and pavement markings will also be included.

This project was originally nominated as a mill / fill and seal & cover project. However, during the field review, the project team decided that this project would be a good candidate for microsurfacing due to the pavement being in pretty good shape other than the rutting.

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 Ravalli County on S-269. The project begins at Reference Post (RP) 17.2±, south of Higgins Lane, at English Station 160+38.10, on As-Built plans FAS 4-A(1). The project extends northerly 2.9 miles to the north side of the intersection of S-269 and Eastside Highway (S-203) at RP 20.1± in Stevensville, English Station 312+00.00, on As-Built plans RTS 269-1(3)19. This segment of road is located in Township 8 N, Range 20 W (Sections 10 and 3) and in Township 9 N Range 20 W (Sections 34 and 27).

S-269 is on the Secondary Highway System and is functionally classified as a Major Collector (Rural). 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 agricultural setting. The 0.8-mile section of highway at the northern end of the project that goes through Stevensville is in an urban setting with residences and businesses. Private, public, and farm field approaches are located throughout the project length.

The roadway from RP 17.2 (English Station 160+38.10) to RP 20.2 (English Station 317+41.00) was originally constructed in 1939 under project FAS 4-A(1). The roadway consisted of two 12' travel lanes and no shoulders.

The original surfacing consisted of: 1.5 in. Bituminous Plant Mix

Preliminary Field Review/Scope of Work Report

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Project Manager: Ben Nunnallee, P.E.

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3.5 in. Top Course Gravel
6.0 in. Loose Sub-Base Material

In 1984, the roadway from RP 19.4 (English As-Built Station 274+00.00) to RP 20.1 (English As-Built Station 312+00.00) was reconstructed under project RS 269-1(3)19. The design speed for this project was 25 mph.

The following is a summary of the typical sections and the locations of each typical section from metric project RS 269-1(3)19 that are pertinent to this project:

274+00.00 to 274+50.00 – 28' (2 travel lanes, and 2 shoulders)
274+50.00 to 276+00.00 – 26.5' (2 travel lanes, 1 shoulder, curb and gutter on one side)
276+00.00 to 278+38.50 – Transition
278+38.50 to 293+00.00 – 44' (2 travel lanes, 2 shoulders, and curb and gutter on each side)
293+00.00 to 293+50.00 – Transition
293+50.00 to 295+76.00 – 46.5' (2 travel lanes, 2 shoulders, and curb and gutter on each side)
295+76.00 to 296+58.90 – Transition
296+58.90 – 56.7' (2 travel lanes, 2 shoulders, parking on one side, and curb and gutter on each side)
296+58.90 to 297+00.80 – Transition
297+00.80 to 311+38.00 – 80' (2 travel lanes, 2 shoulders, and parking and curb and gutter on each side)
311+38.00 to 311+71.40 – Transition
311+71.40 to 312+0.00 – 53' (2 travel lanes, 2 shoulders, and a painted median)

The existing surfacing consists of: 2.4 in. Bituminous Plant Mix
6.6 in. Crushed Base Course

The most recent roadway surfacing occurred in 1995 where the roadway was overlaid and in 1996, the roadway from RP 17.2 (English As-Built Station 160+38.10) to RP 19.4 (English As-Built Station 274+00.00) was sealed and covered under project RTS 269-1(17)12.

There is one typical section along this section of highway. The two-lane highway consists of two 12' travel lanes and no shoulders.

There is basically one typical section along this section of highway. The two-lane highway consists of two 12' travel lanes and no shoulders.

The existing surfacing consists of: 3.3 in. Bituminous Plant Mix
7.5 in. Crushed Base Course

There is one structure on this project:

Bridge Number	Feature Crossed	Reference Post	English As-Built Stationing	Width x Length
S00269020+08001	Bitterroot River Overflow	20.8	260+07.20 to 260+23.50	28.1' x 16.3'

There are seven horizontal curves and two changes in bearing on the project. The horizontal curve at PI Station of 272+00.50 (within the section of roadway designed for 60 mph) is the only curve out of four that exceeds the minimum radius of 1,200' required for a 60 mph design speed. All three horizontal curves within the section of roadway designed for 30 mph exceed the minimum

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radius of 220'. The superelevation information is not available on the existing as-builts, but there do not appear to be any adverse issues related to the existing superelevation.

There are 13 vertical curves and four changes in grade without vertical curves on this project. All curves meet stopping sight distance standards for a 60 mph design speed. There are no areas on the project that exceed the maximum allowable grade. The maximum gradient on the project is 3.180%.

The Pavement Management System generated the following performance indices for the survey year 2010 and treatment recommendations for the years 2011 and 2013:

TREATMENT YEARS 2011 & 2013

BEG RP	END RP	RIDE	RUT	ACI	MCI	CONST. TREAT. REC.
12.212	19.353	70.3 (fair)	48.0 (fair)	93.8 (good)	93.0 (good)	Minor Rehab Rut ('11), Minor Rehab Rut ('13)
19.353	21.364	72.7 (fair)	59.8 (fair)	99.2 (good)	93.5 (good)	Crack Seal & Cover ('11), Thin Overlay ('13)

Traffic Data

2011 AADT = 7,220 (Present)
2012 AADT = 7,470 (Letting Year)
2032 AADT = 14,570 (Design Year)
DHV = 1,600
Com Trucks = 1.0%
Growth Rate = 3.4% (Annual)
ESAL's = 42

Crash Analysis

A crash history will not be requested for this microsurfacing project.

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 Rural Collector Roads (Secondary System) indicate that the design speed should be 60 mph based on the level terrain. In Stevensville, from RP 19.4 to RP 20.1, the roadway was designed for a 30 mph design speed. The posted speed limit at the beginning of the project is 65 mph. At RP 17.30± the posted speed limit changes to 55 mph. The posted speed limit then changes to 45 mph at RP 18.14±, to 35 mph at RP 19.22±, and to 25 mph at RP 19.24±. The posted speed limit remains at 25 mph for the remainder of the project. 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 microsurfacing preventative maintenance project.
- c. **Vertical Alignment.** The existing vertical alignment will not be changed with this microsurfacing preventative maintenance project.
- d. **Typical Sections and Surfacing.** The current typical section widths will remain unchanged. Before microsurfacing begins, there will be a 12' wide digout section centered on the centerline of the roadway from Sta. 285+28.80 to Sta. 290+40.10. This digout section will be removed and repaved. Next, there will be two passes of microsurfacing placed on the project. The first, referred to as the scratch course, will fill

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- the ruts. The second microsurfacing lift will be placed across the entire roadway. The application rate for each lift will be approximately 27.5 lbs/yd². The microsurfacing aggregate will have a “Type III” gradation with all aggregate passing the 3/8” sieve. The microsurfacing emulsion will be a CQS-1h polymer-modified asphalt emulsion.
- 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 microsurfacing preventative maintenance project.
 - g. **Bridges.** There is one bridge on this segment of S-269. The bridge runs from Sta. 260+07.20 to Sta. 260+23.50. Plant mix exists across the span of the bridge. The new microsurfacing will be placed across the bridge.
 - h. **Traffic.** The existing pavement marking layout will be used to re-stripe the roadway. A Traffic Engineering Consultant will provide the quantities, details, and specifications for interim paint and final epoxy. These items will be included in the road plans package. The Traffic Engineering Consultant will also provide the necessary plans, quantities, details, and specifications for upgrades to the signing and delineation.
 - i. **Pedestrian/Bicycle/ADA.** There are no dedicated pedestrian or bicycle facilities. Due to the nature of this preventative maintenance project, no new accommodations will be added.
 - j. **Miscellaneous Features.** There are no Miscellaneous Features associated with this project.
 - k. **Context Sensitive Design Issues.** There are no special context sensitive design issues identified for this microsurfacing preventative maintenance project.

Other Projects

There is another microsurfacing pavement preservation project adjacent to the south end of this project: **Bell Crossing – N&S, UPN 7628000**, from RP 12.2 to RP 17.2. We currently anticipate that we will tie these two projects together in order to reduce costs.

There is also a CTEP project: **Stevensville Streetscape, UPN 7320000** in Stevensville on S-269 from RP 19.7 to RP 20.1 to improve pedestrian facilities in town by constructing bulbouts at intersections, reconstructing sidewalks and ADA features. This project is also scheduled for construction in late 2012. This project is being designed by a Consultant. As the design of this CTEP project progresses, we’ll determine how the CTEP project and this pavement preservation project may impact each other and modify the designs accordingly.

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, three of the horizontal curves do not meet current design standards.

Right-of-Way

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

Access Control

This section of highway is not an access control facility.

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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 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

Survey will not be required for this project.

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 microsurfacing preventative maintenance project.

Experimental Features

There are no experimental features identified for this microsurfacing 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.

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Project Manager: Ben Nunnallee, P.E.

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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 \$880,000 (CN = \$800,000 and CE = \$80,000). The total nomination cost estimate including IDC was \$1,089,973.

Current Cost Estimate:

	Estimated cost	Inflation (INF) (from PPMS)	TOTAL costs w/INF + IDC (from PPMS)
Road Work	\$269,000		
Traffic Control	\$21,000		
Subtotal	\$290,000		
Mobilization (10%)	\$29,000		
Subtotal	\$319,000		
Contingencies (8%)	\$26,000		
Total CN	<u>\$345,000</u>	<u>\$6,601</u>	<u>\$385,495</u>
CE (10%)	<u>\$35,000</u>	<u>\$669</u>	<u>\$39,107</u>
TOTAL CN+CE	<u>\$380,000</u>	<u>\$7,270</u>	<u>\$424,602</u>

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 9.64% as of FY 2012. The project's lower cost estimate is due to revising the scope from a mill/fill and seal & cover to a microsurfacing treatment.

Ready Date

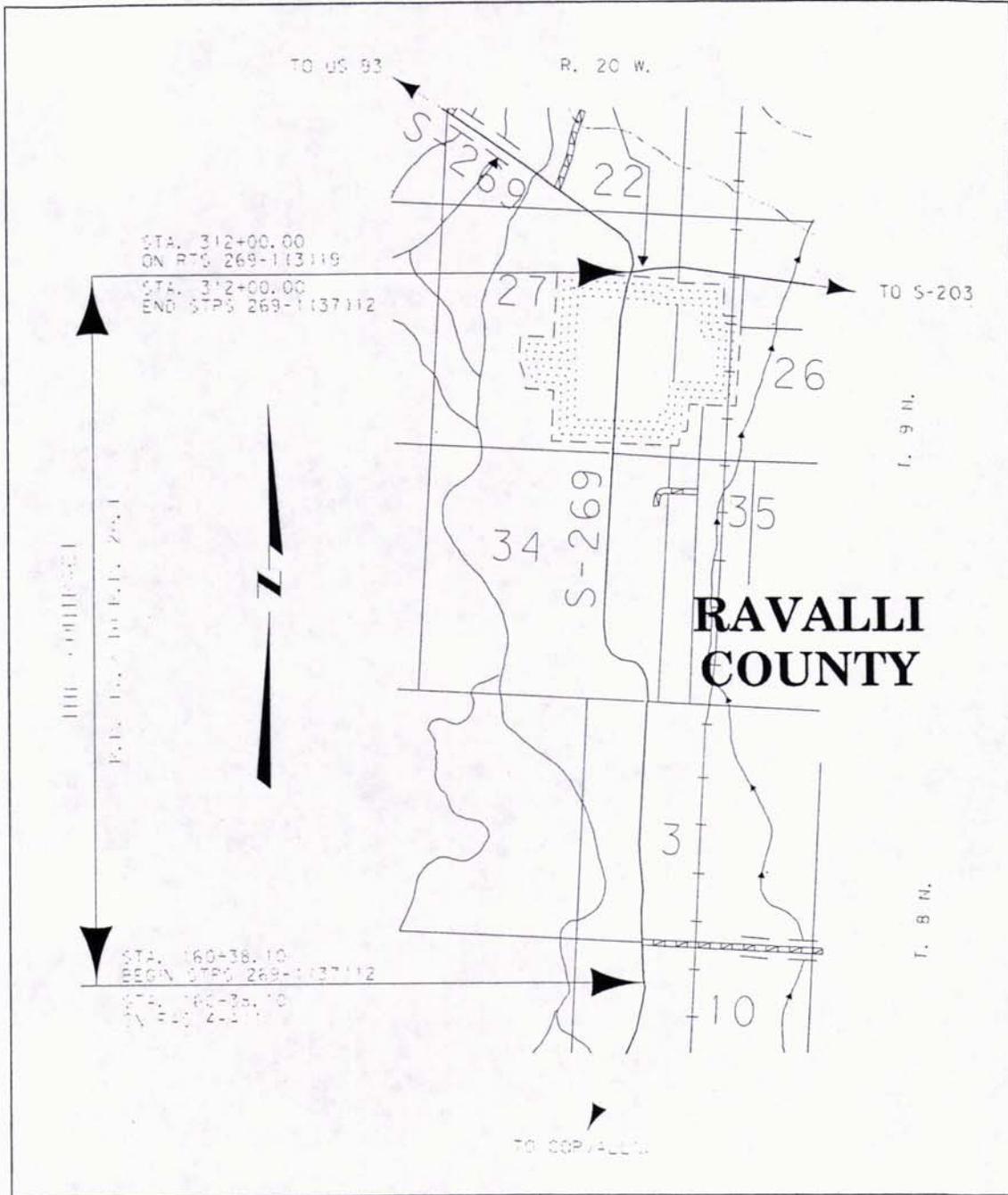
This project has a Ready Date of May 24, 2012. The Letting Date is currently scheduled for August 23, 2012. The project is currently on schedule in OPX2. We will try to expedite the design of this project so that it can be Let earlier and constructed in the 2012 construction season.

Site Map

The project site map follows.

Preliminary Field Review/Scope of Work Report

UPN 7656000, STPS 269-1(38)17, Stevensville - South
Project Manager: Ben Nunnallee, P.E.



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