MDT
Montana Department of Transportation
2701 Prospect Avenue
PO Box 201001
Helena MT 59620-1001
Jim Lynch, Director
Brian Schweitzer, Governor

July 25, 2011

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

Subject: Statewide Programmatic Categorical Exclusion for Pavement Preservation Project
Arthur Ave. – South Ave. to Beckwith
UPP 8121(3)
Control Number: 7672 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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MDT Montana Department of Transportation
PO Box 201001
Helena, MT 59620-1001

MASTER FILE COPY
RECEIVED
JUL 8 2011
ENVIRONMENTAL

Memorandum

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

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

Date: July 8, 2011

Subject: UPP 8121(3)
Arthur Ave. – S. Ave. to Beckwith
UPN 7672000
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.

Attachments (Environmental Checklist and PFR)

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

Environmental Services

Act	Info	Champ	Routing (Date 7/22)	Attach	Initial
			Bureau Chief		
			Engineering Supervisor		
			Resources Supervisor		
			Haz-Waste Supervisor		
			ECCP Supervisor		
✓		✓	Dwayne		
✓			Pat		
✓			Jon		
✓			Doug		

(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 8121(3) Control No.: 7672000 Project Name: Arthur Ave. – S. Ave. to Beckwith

Reference Post (Station): 0.00 To Reference Post (Station): 0.57

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

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	7/7/2011
Applicant	Title	Date

Approved by: [signature] ENVIRONMENTAL ENGINEERING SECTION SUPERVISOR 7/26/11

Environmental Services	Click here to enter text.	Click here to enter a date.
	Title	Date

Project Number: UPP 8121(3) Control No.: 7672000 Project Name: Arthur Ave. – S. Ave. to Beckwith
(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: July 8, 2011

Subject: UPP 8121(3)
Arthur Ave. – S. Ave. to Beckwith
UPN 7672000
Work Type 160 – Minor Rehabilitation

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

Approved _____ Date 7/8/2011

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

A second field review was held on May 3, 2011. The following people attended:

Ben Nunnallee - Missoula District Projects Engineer
Sandy Dorsett – Missoula District Design Supervisor
Doug Harby – Missoula City Public Works Department
Scot Wohlin – Missoula District Road Design

This second meeting was held to clarify project limits based on planned City construction at the intersection of Arthur Ave. and South Ave. and to identify sidewalk and driveway treatments.

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 full width, 0.15 ft mill, 0.15 ft plant mix overlay, and a seal & cover are proposed for this project. Some spot fixes to the roadway surfacing will be needed before this project begins. These fixes will be done by the City of Missoula Public Works Department. Truncated domes will be added in certain locations in order to bring the intersections into ADA compliance. The ramps at the southeast and southwest corners of the Arthur and Beckwith intersection will be reconstructed to bring this intersection into ADA compliance. Ten driveways along the roadway will also need to be reconstructed to eliminate adverse cross slopes. Adverse sidewalk conditions other than the driveways and curb ramps, such as excessively faulted sidewalk joints and cracked sidewalk, will be addressed by City of Missoula Public Works Department. Replacement of the 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 roadway 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 Arthur Avenue and South Avenue intersection on U-8121 (Arthur Avenue). The project will begin at Reference Post (RP) 0.00±, Metric As-built station 0+00.00. The cold milling and overlay will begin at RP 0.02±, Metric As-built station 0+32.00, but the seal and cover will begin at RP 0.00±. The project extends northerly 0.57 miles to RP 0.57±, Metric As-built station 9+15.62. This segment of road is located in Township 13 N, Range 19 W (Section 27).

U-8121 is functionally classified as a Minor Arterial – 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 in an urban setting. There are numerous private and public approaches along this roadway through a residential district just south of the University of Montana.

The roadway was constructed and has been maintained by the City of Missoula. 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:

Reference Posts	Improvement Project ID	Total Width	Lanes	Surf. Depth	Base Depth	Left	Right
RP 0.000 to 0.563 South Ave. to 40' south of Beckwith	CM 8121(2)	40'	2-12'	2"	5"	Curb & Sidewalk	Curb & Sidewalk
RP 0.563 to 0.571 Beckwith.	CM 8121(2)	40'	2-12'	4"	5"	Curb & Sidewalk	Curb & Sidewalk

The rest of the pavement width not used for the travel lanes is used for bicycle lanes. On-street parking is prohibited.

Surfacing depths determined from core samples taken in April 2011 by the MDT Missoula District Materials Lab in Missoula indicate the existing asphalt thicknesses from RP 0.0 to RP 0.6 range from 0.23 ft to 0.27 ft. The samples have been sent to Helena for stripping analysis.

There are no detectable changes in bearing on this project. The existing typical section appears to have a normal crown throughout. Using the Low-Speed Urban Streets design criteria for the posted speed limits, the normal crown geometry would be acceptable.

There are no detectable vertical curves on this project. The route is level based on physical observation.

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 86 – 97 (on a 0 – 100 scale) in 2010 before the deterioration of the roadway this last winter. According to the City's Treatment Strategies, the PCI range of 80 – 94 indicates that this stretch of roadway requires patching, sectioning, chip seal, reclamite, crack sealing, some drainage improvements, or thin overlays. Based on the field review, it was agreed that a thin 0.15' mill/fill and chip seal would be the appropriate treatment for this section of roadway.

Traffic Data

2011 AADT = 8,300 (Present)
2011 AADT = 8,300 (Letting Year)
2031 AADT = 10,130 (Design Year)
DHV = 1,010
Com Trucks = 0.2%
Growth Rate = 1.0% (Annual)
ESAL's = 41

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 0.57:

Total Recorded Crashes:	29
Fatal Injury Crashes:	0
Incapacitating Injury Crashes:	1
Non-incap. and Other Injury Crashes:	6
Property Damage Only Crashes:	22

The crash rate was 3.53 as opposed to a statewide average of 5.03, the severity index was 1.66 as opposed to a statewide average of 1.68, and the severity rate was 5.84 as opposed to a statewide average of 8.43.

No significant variations were noted in comparison to statewide averages for city streets.

The main crash trend identified is intersection or intersection related crashes. Twenty-six of the 29 reported crashes were cited as occurring in or related to an intersection. Ten of the 29 reported crashes cited rear end collision. Eight of the 29 reported crashes cited right angle collision. Two of the 29 reported crashes cited sideswipe same direction collision. Nine of the 29 reported crashes cited failed to yield as a contributing circumstance. Four of the 29 reported crashes cited collisions with a bus. A total of three crashes were related to vehicles stopping for either a pedestrian or a bicycle within the study area and being rear-ended by vehicles.

Traffic and Safety did not make any suggestions for safety improvements to 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.

a. **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.
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. The full width of the roadway will receive a 0.15' mill and 0.15' overlay (Commercial Grade, PG Binder 64-28) followed by a chip seal (Cover Type 2 and CRS-2P seal oil). This project will chip seal the section of Arthur Ave. at the intersection with South Ave. that the City will repave with their intersection project that will occur prior to this project.
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 segment of U-8121.
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 will also provide the necessary plans, quantities, details, and specifications for replacing the existing signing.
i. **Pedestrian/Bicycle/ADA**. There are existing sidewalks on the LT and RT sides of Arthur Ave. At all intersections, the sidewalks have ADA ramps. Existing curb ramps that do not have landings will be upgraded to meet current ADA standards. Truncated domes will be added to all existing ADA ramps that currently do not have them. Ten driveways along the roadway will also need to be reconstructed to eliminate adverse cross slopes. There are bike lanes on both sides of the roadway. These bike lanes will be perpetuated with this project.
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. & 3rd St.,
UPN 7431000, South Ave. – Bow to S. Higgins, and
UPN 7432000, Main St. – Woody to Jefferson

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. The City has stated that there is adequate existing right-of-way. No right-of-way acquisition or construction permits will be required for the construction of this project.

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

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 pavement resurfacing.

Railroads – There will be no railroad involvement on this project.

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 ADA curb ramp upgrades, signing and pavement markings, and to 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 $384,000 (CN = $349,000 and CE = $35,000). The total nomination cost estimate including IDC was $513,137.

Current Cost Estimate:

	Estimated cost	Inflation (INF) (from PPMS)	TOTAL costs w/INF + IDC (from PPMS)
Road Work	$305,000		
Traffic Control	$15,000		
Subtotal	**$320,000**		
Mobilization (10%)	$32,000		
Subtotal	**$357,000**		
Contingencies (10%)	$36,000		
Total CN	**$393,000**	**$51,635**	**$487,497**
CE (10%)	**$39,000**	**$5,124**	**$48,377**
TOTAL CN+CE	**$432,000**	**$56,759**	**$535,874**

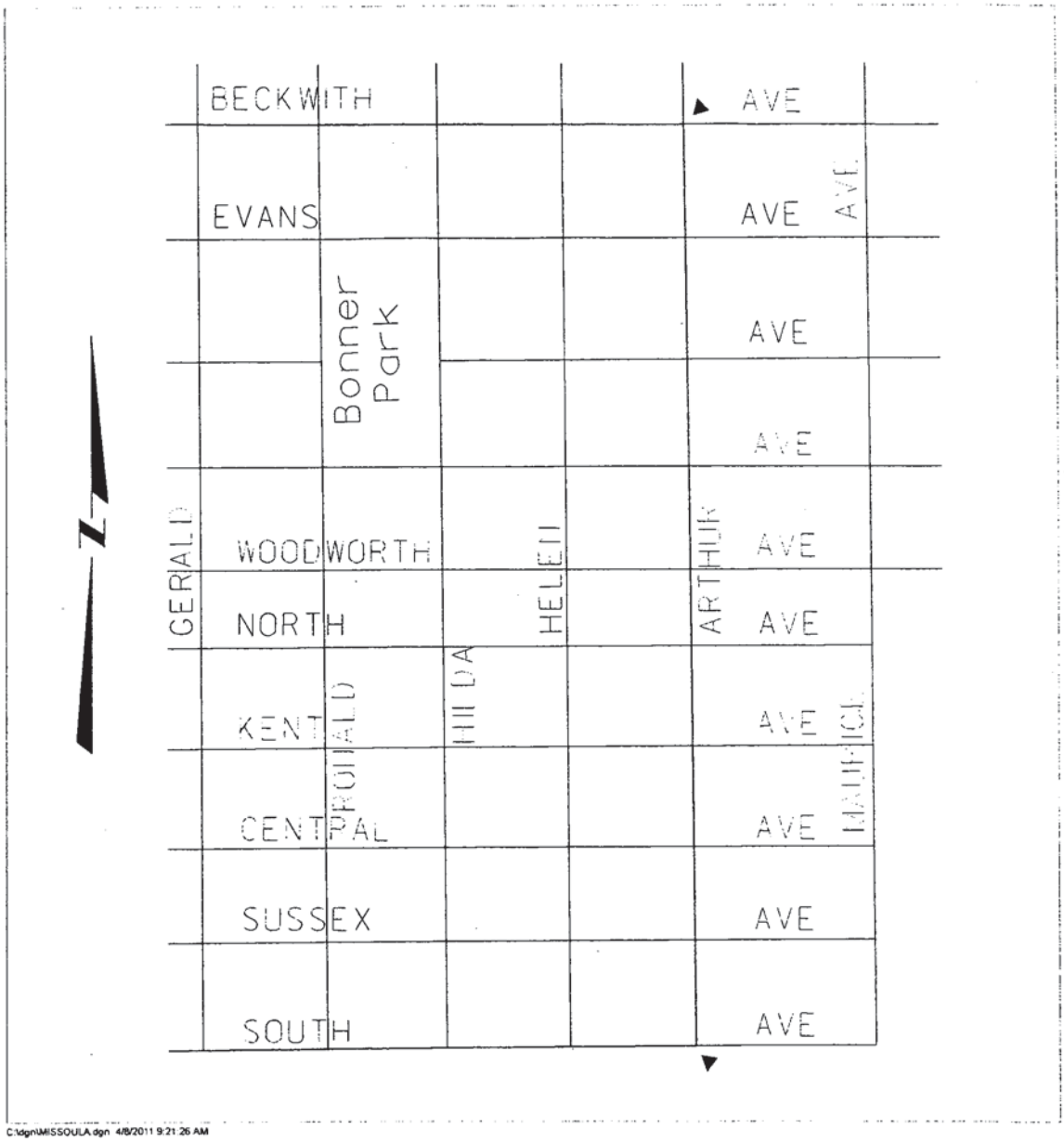
Note: Inflation is calculated in PPMS to the letting date. If there is no letting date, the project is assumed to be inside the current TCP and is given a maximum of 5 years until letting. IDC is calculated at 9.64% as of FY 2012. Currently, a Letting Date has not been established in PPMS.

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 on schedule in OPX2.

Site Map

The project site map follows.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