

**INVITATION FOR BID
YELLOWSTONE COUNTY, MONTANA
2016 RSID CHIP SEAL AND CRACK SEAL PROJECT**

Notice is hereby given that the Board of County Commissioners of Yellowstone County, Montana is currently soliciting bids for chip sealing approximately 29 miles of County roadway and other associated items including crack sealing (of 29 miles). This project includes roads in Rural Special Improvement Districts (RSID). A list of the roads and / or subdivisions to be chip sealed and crack sealed are as follows:

- RSID 691 – Sun Valley – Sun Valley Road
- RSID 717 – Antelope Hills – all roads
- RSID 764 – Pioneer Road Estates – all roads
- RSID 657 – Copper Valley – all roads
- RSID 585 – Lockwood – all roads
- RSID 622 – Emerald Hills Acreage Tracts – all roads
- RSID 752 – Forest Hills – all roads
- RSID 600 – Hamilton Subdivision – all roads
- RSID 623 – Shackleford Yellowstone Subdivision – all roads
- RSID 654 – Crystal Springs Subdivision – all roads
- RSID 709 – Clarks Fork – all roads
- RSID 755 – Monterra Place Subdivision – all roads
- RSID 775 – Driftwood Subdivision – all roads
- RSID 769 – Brookwood Subdivision – all roads
- RSID 773 – West Meadows Subdivision – all roads
- RSID 711 – Lackman Subdivision – all roads
- RSID 741 – Conrad Park Subdivision – all roads
- RSID 665 – Chevelle Subdivision – all roads
- RSID 662 – Bridle Creek Subdivision – all roads
- RSID 690 – Mystic Moon Subdivision – all roads
- RSID 732 – CC Lamm Hardy Boys Subdivision – all paved roads
- RSID 642 – Wells Garden Estates 5th Filing – all roads
- RSID 771 – Granite Park Subdivision – all roads
- RSID 766 – Brey Subdivision – all roads
- RSID 651 – Cloverleaf Meadows Subdivision – all roads

Specifications for “CRACK SEAL” and “CHIP SEAL” are attached. Maps showing the roads to be crack sealed and chip sealed are available at the Yellowstone County Public Works office.

All bids must be labeled ‘2016 Chip Seal and Crack Seal Project’ and mailed in triplicate (1 original and 2 copies) to the Board of County Commissioners, PO Box 35000, Billings, MT 59107 or delivered to their office, Room 403, located on the fourth floor of the County Courthouse, 217 N 27th Street, Billings, MT 59101, to be received no later than 5:00 p.m. January 11, 2016. All bids received by this time and date will be opened and read aloud at 9:30 a.m. January 12, 2016 in the Commissioners

Board Room, Room 403A of the County Courthouse. Bids received after the aforementioned time and date will not be considered. No bid may be withdrawn after the scheduled time for receipt of the bids.

All bids must include a Bid Bond in favor of Yellowstone County in an amount equal to ten percent (10%) of the total Bid. The security may consist of cash, a cashier's check, a certified check, a bank money order, a certificate of deposit, a money market certificate, or a bank draft. The security must be: a) drawn and issued by a federally chartered or state chartered bank or savings and loan association that is insured by or for which insurance is administered by the Federal Deposit Insurance Corporation; or b) drawn and issued by a credit union insured by the National Credit Union Share Insurance Fund; or c) a bid bond or bonds, original only, no photocopies, executed by a surety company authorized to do business in the State of Montana. Facsimiles, personal and/or business checks are not an acceptable form of security. All bonds of the unsuccessful bidders will be returned within 10 days of the signing of a contract with the successful bidder.

The successful bidder will be required to provide the County with a performance bond and labor and materials payment bond, both in 100% of the contract amount, within ten days of the execution of the contract and prior to starting any work on the project.

A 5% retainage fee will be withheld from all progress payments made to the successful bidder. The fee will be returned to the contractor upon completion of the project and acceptance of the project by the County. The successful bidder will be required to pay the State of Montana a sum equal to 1% of the gross receipts from the public contract. The County will withhold this amount and forward it to the State of Montana.

All Montana laws pertaining to resident bidders, both state and county, will be adhered to if applicable.

The successful bidder will be required to follow all the directives included in section 18-2-422 of the Montana Code Annotated concerning Montana Prevailing Wages. Those directives are as follows:

- (1) The contractor and employers shall pay the standard prevailing wage rate, including fringe benefits, for each job classification during construction of the project;
- (2) each contractor and employer are required to maintain payroll records in a manner readily capable of being certified for submission under statute 18-2-423, for not less than 3 years after the contractor's or employer's completion of work on the project; and
- (3) each contractor is required to post a statement of all wages and fringe benefits in compliance with 18-2-423.

Statute 18-2-423 is as follows: If a complaint is filed with the department alleging noncompliance with 18-2-422, the department may require the project to submit to it certified copies of the payroll records for workers employed on that project. A contractor or a subcontractor shall pay employees receiving an hourly wage on a weekly basis. If a wage violation complaint is filed with the department, the

contractor or subcontractor shall provide the employee's payroll records to the department within 5 days of receiving the payroll request from the department.

(4) The Contractor is required to comply with all other applicable provisions of Title 18, Chapter 2, Part 4 of the Montana Code Annotated.

The Contractor must, in performance of work under this contract, fully comply with all applicable federal, state or local laws, rules, regulations, including the Montana Human Rights Act, Civil Rights Act of 1964, the Age Discrimination Act of 1975 and the American with Disabilities Act of 1990. Any subletting or subcontracting by the Contractor subjects subcontractors to the same provisions. In accordance with section 49-3-207, MCA, the Contractor agrees that the hiring of persons to perform the contract will be made on the basis of merit and qualifications and there will be no discrimination based upon race, color, religion, creed, political ideas, sex, age, marital status, physical or mental disability, or national origin by the persons performing under the contract.

The Board of County Commissioners reserves the right to reject any or all bids received, to waive informalities to evaluate the bids submitted, and to accept the bid that best serves the interests of Yellowstone County. Yellowstone County intends to award all work to one (1) contractor. It is the intention of the County to undertake and complete all portions of this project in 2016 but if that is not possible either because of weather, funding, or availability of materials; the lowest bid submitted for the overall project will considered first. A preconstruction meeting will be held after bid opening and prior to the County giving Contractor the Notice to Proceed.

Done by order of the Board of County Commissioners, Yellowstone County, Montana this 15th day of December, 2015.

Board of County Commissioners
Yellowstone County, Montana

Bill Kennedy, Chair

(Seal)
Attest:

Jeff Martin, Clerk and Recorder

INSURANCE REQUIREMENTS

The following insurance coverage must be in force throughout the project. Coverage may be obtained through either a general liability policy or excess liability umbrella coverage.

General Liability

Commercial General Liability	General Aggregate	\$2,000,000
Products-Comp/OP AGG		\$2,000,000
Occurrence	Personal & Adv Injury	\$1,000,000
Each Occurrence		\$1,000,000
Fire Damage (any one fire)		\$ 100,000
Medical Expense (any one person)		\$ 5,000

Automobile Liability	\$1,000,000
(Hired and non-owned autos)	

Workers Compensation

State	Statutory
Federal	Statutory
Employer's Liability	\$ 500,000

CHECK LIST

Please be sure you have completed the following prior to submitting your bid.

1. Read and understand the specifications.
2. Enclosed a ten (10) percent bid bond.
3. Have made yourself familiar with any State laws that pertain to the bid.
4. Asked and received answers to any questions regarding the bid procedure, specifications or general information.
5. Addressed and mailed or delivered your bid to be received at the correct address by the time and date indicated in the Invitation to Bid.

Yellowstone County 2016 Chip Seal and Crack Seal Project Price Sheet (1 of 6)

Please include this sheet (these sheets) with your other documents when submitting your proposal.
Please place bid price sheet(s) in the front of your proposal.

Bidder to perform all of the work described in the Specifications and shown on the Plans for the following amount.

Item No.	Quantity	Unit of Measure	Item Description	Unit Price	Total Price
1.	<u>1</u>	<u>L.S.</u>	<u>Crack Seal RSID 691</u> <u>Sun Valley – Sun Valley Rd</u>	_____	_____
2.	<u>1</u>	<u>L.S.</u>	<u>Chip Seal RSID 691</u> <u>Sun Valley – Sun Valley Rd</u> <u>Using “pick up” broom</u>	_____	_____
3.	<u>1</u>	<u>L.S.</u>	<u>Crack Seal RSID 717</u> <u>Antelope Hills – all roads</u>	_____	_____
4.	<u>1</u>	<u>L.S.</u>	<u>Chip Seal RSID 717</u> <u>Antelope Hills – all roads</u> <u>Using “pick up” broom</u>	_____	_____
5.	<u>1</u>	<u>L.S.</u>	<u>Crack Seal RSID 764</u> <u>Pioneer Road Estates – all roads</u>	_____	_____
6.	<u>1</u>	<u>L.S.</u>	<u>Chip Seal RSID 764</u> <u>Pioneer Road Estates – all roads</u> <u>Using “pick up” broom</u>	_____	_____
7.	<u>1</u>	<u>L.S.</u>	<u>Crack Seal RSID 657</u> <u>Copper Valley – all roads</u>	_____	_____
8.	<u>1</u>	<u>L.S.</u>	<u>Chip Seal RSID 657</u> <u>Copper Valley – all roads</u> <u>Using “pick up” broom</u>	_____	_____
9.	<u>1</u>	<u>L.S.</u>	<u>Crack Seal RSID 585</u> <u>Lockwood – all roads</u>	_____	_____
10.	<u>1</u>	<u>L.S.</u>	<u>Chip Seal RSID 585</u> <u>Lockwood – all roads</u> <u>Using “pick up” broom</u>	_____	_____
11.	<u>1</u>	<u>L.S.</u>	<u>Crack Seal RSID 622</u> <u>Emerald Hills Acreage Tracts – all roads</u>	_____	_____
12.	<u>1</u>	<u>L.S.</u>	<u>Chip Seal RSID 622</u> <u>Emerald Hills Acreage Tracts – all roads</u> <u>Using “pick up” broom</u>	_____	_____

Yellowstone County 2016 Chip Seal and Crack Seal Project Price Sheet (2 of 6)

Please include this sheet (these sheets) with your other documents when submitting your proposal.
Please place bid price sheet(s) in the front of your proposal.

Bidder to perform all of the work described in the Specifications and shown on the Plans for the following amount.

13.	<u>1</u>	<u>L.S.</u>	<u>Crack Seal RSID 752</u> <u>Forest Hills – all roads</u>	_____	_____
14.	<u>1</u>	<u>L.S.</u>	<u>Chip Seal RSID 752</u> <u>Forest Hills – all roads</u> <u>Using “pick up” broom</u>	_____	_____
15.	<u>1</u>	<u>L.S.</u>	<u>Crack Seal RSID 600</u> <u>Hamilton Subdivision – all roads</u>	_____	_____
16.	<u>1</u>	<u>L.S.</u>	<u>Chip Seal RSID 600</u> <u>Hamilton Subdivision – all roads</u> <u>Using “pick up” broom</u>	_____	_____
17.	<u>1</u>	<u>L.S.</u>	<u>Crack Seal RSID 623</u> <u>Shackleford Yellowstone Sub – all roads</u>	_____	_____
18.	<u>1</u>	<u>L.S.</u>	<u>Chip Seal RSID 623</u> <u>Shackleford Yellowstone Sub – all roads</u> <u>Using “pick up” broom</u>	_____	_____
19.	<u>1</u>	<u>L.S.</u>	<u>Crack Seal RSID 654</u> <u>Crystal Springs Subdivision – all roads</u>	_____	_____
20.	<u>1</u>	<u>L.S.</u>	<u>Chip Seal RSID 654</u> <u>Crystal Springs Subdivision – all roads</u> <u>Using “pick up” broom</u>	_____	_____
21.	<u>1</u>	<u>L.S.</u>	<u>Crack Seal RSID 709</u> <u>Clarks Fork – all roads</u>	_____	_____
22.	<u>1</u>	<u>L.S.</u>	<u>Chip Seal RSID 709</u> <u>Clarks Fork – all roads</u> <u>Using “pick up” broom</u>	_____	_____
23.	<u>1</u>	<u>L.S.</u>	<u>Crack Seal RSID 755</u> <u>Monterra Place Subdivision – all roads</u>	_____	_____
24.	<u>1</u>	<u>L.S.</u>	<u>Chip Seal RSID 755</u> <u>Monterra Place Subdivision – all roads</u> <u>Using “pick up” broom</u>	_____	_____

Yellowstone County 2016 Chip Seal and Crack Seal Project Price Sheet (3 of 6)

Please include this sheet (these sheets) with your other documents when submitting your proposal.
Please place bid price sheet(s) in the front of your proposal.

Bidder to perform all of the work described in the Specifications and shown on the Plans for the following amount.

25.	<u>1</u>	<u>L.S.</u>	<u>Crack Seal RSID 775</u> <u>Driftwood Subdivision – all roads</u>	_____	_____
26.	<u>1</u>	<u>L.S.</u>	<u>Chip Seal RSID 775</u> <u>Driftwood Subdivision – all roads</u> <u>Using “pick up” broom</u>	_____	_____
27.	<u>1</u>	<u>L.S.</u>	<u>Crack Seal RSID 769</u> <u>Brookwood Subdivision – all roads</u>	_____	_____
28.	<u>1</u>	<u>L.S.</u>	<u>Chip Seal RSID 769</u> <u>Brookwood Subdivision – all roads</u> <u>Using “pick up” broom</u>	_____	_____
29.	<u>1</u>	<u>L.S.</u>	<u>Crack Seal RSID 773</u> <u>West Meadows Subdivision – all roads</u>	_____	_____
30.	<u>1</u>	<u>L.S.</u>	<u>Chip Seal RSID 773</u> <u>West Meadows Subdivision – all roads</u> <u>Using “pick up” broom</u>	_____	_____
31.	<u>1</u>	<u>L.S.</u>	<u>Crack Seal RSID 711</u> <u>Lackman Subdivision – all roads</u>	_____	_____
32.	<u>1</u>	<u>L.S.</u>	<u>Chip Seal RSID 711</u> <u>Lackman Subdivision – all roads</u> <u>Using “pick up” broom</u>	_____	_____
33.	<u>1</u>	<u>L.S.</u>	<u>Crack Seal RSID 741</u> <u>Conrad Park Subdivision – all roads</u>	_____	_____
34.	<u>1</u>	<u>L.S.</u>	<u>Chip Seal RSID 741</u> <u>Conrad Park Subdivision – all roads</u> <u>Using “pick up” broom</u>	_____	_____
35.	<u>1</u>	<u>L.S.</u>	<u>Crack Seal RSID 665</u> <u>Chevelle Subdivision – all roads</u>	_____	_____
36.	<u>1</u>	<u>L.S.</u>	<u>Chip Seal RSID 665</u> <u>Chevelle Subdivision – all roads</u> <u>Using “pick up” broom</u>	_____	_____

Yellowstone County 2016 Chip Seal and Crack Seal Project Price Sheet (4 of 6)

Please include this sheet (these sheets) with your other documents when submitting your proposal.
Please place bid price sheet(s) in the front of your proposal.

Bidder to perform all of the work described in the Specifications and shown on the Plans for the following amount.

37.	<u>1</u>	<u>L.S.</u>	<u>Crack Seal RSID 662</u> <u>Bridle Creek Subdivision – all roads</u>	_____	_____
38.	<u>1</u>	<u>L.S.</u>	<u>Chip Seal RSID 662</u> <u>Bridle Creek Subdivision – all roads</u> <u>Using “pick up” broom</u>	_____	_____
39.	<u>1</u>	<u>L.S.</u>	<u>Crack Seal RSID 690</u> <u>Mystic Moon Subdivision – all roads</u>	_____	_____
40.	<u>1</u>	<u>L.S.</u>	<u>Chip Seal RSID 690</u> <u>Mystic Moon Subdivision – all roads</u> <u>Using “pick up” broom</u>	_____	_____
41.	<u>1</u>	<u>L.S.</u>	<u>Crack Seal RSID 732</u> <u>CC Lamm Hardy Boys Sub – all roads</u>	_____	_____
42.	<u>1</u>	<u>L.S.</u>	<u>Chip Seal RSID 732</u> <u>CC Lamm Hardy Boys Sub – all roads</u> <u>Using “pick up” broom</u>	_____	_____
43.	<u>1</u>	<u>L.S.</u>	<u>Crack Seal RSID 642</u> <u>Wells Garden Estates 5th – all roads</u>	_____	_____
44.	<u>1</u>	<u>L.S.</u>	<u>Chip Seal RSID 642</u> <u>Wells Garden Estates 5th – all roads</u> <u>Using “pick up” broom</u>	_____	_____
45.	<u>1</u>	<u>L.S.</u>	<u>Crack Seal RSID 771</u> <u>Granite Park Subdivision – all roads</u>	_____	_____
46.	<u>1</u>	<u>L.S.</u>	<u>Chip Seal RSID 771</u> <u>Granite Park Subdivision – all roads</u> <u>Using “pick up” broom</u>	_____	_____
47.	<u>1</u>	<u>L.S.</u>	<u>Crack Seal RSID 766</u> <u>Brey Subdivision – all roads</u>	_____	_____
48.	<u>1</u>	<u>L.S.</u>	<u>Chip Seal RSID 766</u> <u>Brey Subdivision – all roads</u> <u>Using “pick up” broom</u>	_____	_____

Yellowstone County 2016 Chip Seal and Crack Seal Project Price Sheet (5 of 6)

Please include this sheet (these sheets) with your other documents when submitting your proposal.
Please place bid price sheet(s) in the front of your proposal.

Bidder to perform all of the work described in the Specifications and shown on the Plans for the following amount.

49.	<u>1</u>	<u>L.S.</u>	<u>Crack Seal RSID 651</u> <u>Cloverleaf Meadows Sub. – all roads</u>	_____	_____
50.	<u>1</u>	<u>L.S.</u>	<u>Chip Seal RSID 651</u> <u>Cloverleaf Meadows Sub. – all roads</u> <u>Using “pick up” broom</u>	_____	_____

Total Bid: _____

BASIS OF AWARD: The Board of County Commissioners reserves the right to reject any or all bids received, to waive informalities to evaluate the bids submitted, and to accept the bid that best serves the interests of Yellowstone County. Yellowstone County intends to award all work to one (1) contractor. It is the intention of the County to undertake and complete all portions of this project in 2016 but if that is not possible either because of weather, funding, or availability of materials; the lowest bid submitted for the overall project will be considered first. A preconstruction meeting will be held after bid opening and prior to the County giving Contractor the Notice to Proceed.

**Yellowstone County 2016 Chip Seal and Crack Seal Project
Price Sheet (6 of 6)**

Please include this sheet (these sheets) with your other documents when submitting your proposal.

SIGNATURE OF BIDDER:

If an Individual: _____, doing business

as _____

If a Partnership: _____

by _____, partner

If a Corporation: _____

(a _____ Corporation)

by _____ (SEAL &)

Title _____ (ATTEST)

Business Address and Phone Number of Bidder

The Bidder acknowledges receipt of the following Addenda, which have been considered in preparation of this Bid:

No. _____ Dated _____

No. _____ Dated _____

Submitted this _____ day of _____, 20_____.



CRACK SEAL

SPECIAL PROVISIONS

- 1) **DESCRIPTION:** This item shall consist of preparing the road surface for chip sealing. This includes patching all potholes and replacing all failed pavement areas; in addition to sealing cracks in asphalt pavements for the following roads:

Roads to be crack sealed are as follows (maps showing the roads to be crack sealed are available at the Yellowstone County Public Works office):

- RSID 691 – Sun Valley – Sun Valley Road
- RSID 717 – Antelope Hills – all roads
- RSID 764 – Pioneer Road Estates – all roads
- RSID 657 – Copper Valley – all roads
- RSID 585 – Lockwood – all roads
- RSID 622 – Emerald Hills Acreage Tracts – all roads
- RSID 752 – Forest Hills – all roads
- RSID 600 – Hamilton Subdivision – all roads
- RSID 623 – Shackelford Yellowstone Subdivision – all roads
- RSID 654 – Crystal Springs Subdivision – all roads
- RSID 709 – Clarks Fork – all roads
- RSID 755 – Monterra Place Subdivision – all roads
- RSID 775 – Driftwood Subdivision – all roads
- RSID 769 – Brookwood Subdivision – all roads
- RSID 773 – West Meadows Subdivision – all roads
- RSID 711 – Lackman Subdivision – all roads
- RSID 741 – Conrad Park Subdivision – all roads
- RSID 665 – Chevelle Subdivision – all roads
- RSID 662 – Bridle Creek Subdivision – all roads
- RSID 690 – Mystic Moon Subdivision – all roads
- RSID 732 – CC Lamm Hardy Boys Subdivision – all paved roads

- RSID 642 – Wells Garden Estates 5th Filing – all roads
- RSID 771 – Granite Park Subdivision – all roads
- RSID 766 – Brey Subdivision – all roads
- RSID 651 – Cloverleaf Meadows Subdivision – all roads

This portion of the project shall be bid lump sum per each RSID.

- Crack Seal – Lump Sum

- 2) **POTHOLE PATCHING:** The contractor and a representative of the Yellowstone County Public Works Department shall mark with paint the potholes to be patched.

The contractor shall remove any loose asphalt material, remove any standing water, compact existing road base material (not required if an asphalt surface is visible and appears solid), tack all asphalt edges (and surfaces), and then place and compact hot mix asphalt in the marked locations. No measurement or payment shall be made for this item but it shall be included in the cost of the other bid items.

The contractor shall not chip seal over patched potholes prior to verification (from a representative of the Yellowstone County Public Works Department) that all marked potholes have been patched.

- 3) **REPLACING FAILED PAVEMENT AREAS:** The contractor and a representative of the Yellowstone County Public Works Department shall mark with paint the failed pavement areas where the road section is to be replaced.

This shall consist of removing existing failed pavement areas of road in need of repair and replacing with a specified road section of the greater of either the existing section or the following:

- 3 inches of B-Modified asphalt;
- over 3 inches of 1 ½ inch minus road base;
- over 12 inches of 3 inch minus road base.

The contractors' equipment and methods for the preparation and handling of the asphaltic concrete mixture shall conform to Section 02510 of the Montana Public Works Standard Specifications.

The existing asphaltic pavement shall be cut in a straight line using equipment that will obtain a reasonably straight, square, and clean break.

The base and subgrade shall be compacted to at least 95% of maximum density as determined by AASHTO T 99, Method A or C.

Edges of existing asphalt and of gutter (if any) shall be tacked. The tack coat shall be allowed to cure properly before any further operation is done.

The asphaltic pavement shall be a minimum compacted thickness as specified of an approved hot plant mix asphaltic concrete. After placing the asphaltic concrete, the course shall be compacted with approved self propelled rollers. Such rolling shall be

such as to produce at least 97 percent of the Marshall density. If repaired areas are too small for self propelled rollers, other approved equipment may be used but the minimum density must still comply with Section 02510 of the Montana Public Works Standard Specifications.

The contractor shall not chip seal over replaced failed pavement areas prior to verification (from a representative of the Yellowstone County Public Works Department) that all marked failed pavement areas have been completed. No measurement or payment shall be made for this item but it shall be included in the cost of the other bid items.

- 4) **CRACK SEAL GENERAL:** This item shall consist of the cleaning and sealing of cracks before the application of other surfacing (chip seal, micro slurry seal, pavement overlay, etc.).

CRACK SEAL MATERIALS: The crack sealant used must meet or exceed the following specifications:

Crack Sealant

Use sealant meeting the following specifications when sampled and prepared in accordance with ASTM D 3405 specifications, or an approved equal that will produce the desired finished product and meets all of this specifications requirements:

Cone Penetration, 77°F (25°C), dmm (ASTM D3407)	90 max.
Flow, 140°F (60°C), (ASTM D3407)	3 mm max.
Resilience, (ASTM D3407)	60% min.
Bond, 0°(-18°), 100% ext. (ASTM 3407)	Pass 3 cycles
Bond, -20°F (-29°C), 50% ext. (ASTM D3407)	Pass 3 cycles
Recommended Pour Temperature	380°F
Safe Heating Temperature	400°F
Asphalt Compatibility (ASTM D3407)	Pass

Sampling

Testing of material will be at the discretion of the engineer or inspector on the job site. Testing may be completed by an independent certified testing firm. If there is a failure of the installed crack seal, or if the engineer or inspector has concerns of failure of the installed crack seal material, testing will be required and the cost of said testing will be the responsibility of the contractor.

- 4a) **CONSTRUCTION METHODS:** Traffic can use the road as soon as the crack is filled and covered with blotter sand (or other approved blotter material) and the crack fill material has “cured”. The amount of cure time needed or required before additional surface treatment (chip seal, micro slurry seal, pavement overlay, etc.), is the responsibility of the Contractor to determine and control other project schedule related coordination, and is dependent on weather and other site specific parameters.

- i) **Surface Preparation:** The cleaning and preparation of the road surface required by the specifications shall include the removal of grass and other vegetative matter growing in any cracks in the road surface. Any vegetative material in the roadway

area where cracks are to be sealed must be sprayed with appropriate materials with a color dye additive to allow visual observation of the Engineer or other authorized representative of the Owner that said vegetative material has been sprayed.

- (1) When blowing the cracks clean, material cannot be blown into the open traffic lanes.
- (2) Ensure that both the reservoir and crack are dry and free of dust, dirt and loose materials immediately before applying the sealant.
- (3) Use air equipment producing at least 100 CFM and a continuous line pressure of at least 125 PSI. The air must be oil and water free.
- (4) The subsequent crack sealing process shall not proceed until a reasonable period of time has passed so as to allow full kill of all said vegetative material. The Contractor shall clean the roads to be crack sealed prior to the crack seal. No measurement or payment shall be made for this item but it shall be included in the cost of the other bid items.

ii) **Sweeping After Crack Sealing:** After a reasonable crack sealing cure time, all roads shall be swept by the Contractor to remove excess blotter sand (or other blotter materials – if used), and any other materials from the surface of the road. No measurement or payment shall be made for this item but it shall be included in the cost of the other bid items.

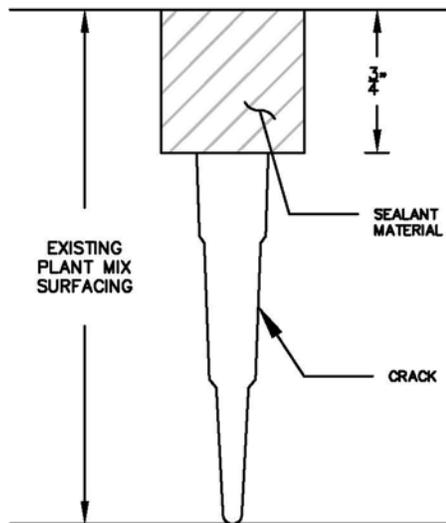
iii) **Routing:** Routing will be required for cracks of 1/8 inch wide up to 3/4 inch wide. Cracks of width greater than 3/4 inch in width up to 1 1/2 inches in width may be filled without routing (see the attached detail drawing of a typical section).

5) **METHOD OF MEASUREMENT AND BASIS OF PAYMENT:** This item shall be measured and paid for by the lump sum basis for all roads that are being crack sealed and used in the completed work, at the contract lump sum price bid for "Crack Seal". The price and payment shall constitute full compensation for all storage, handling, and other charges, materials (including sand, blotter materials, etc.), tools, equipment, labor, and the performance of all work necessary or incidental to complete this work.

CRACKS 1/8" TO 3/4" WIDE

ROUT 3/4" WIDE X 3/4" DEEP
PRIOR TO APPLYING SEALANT

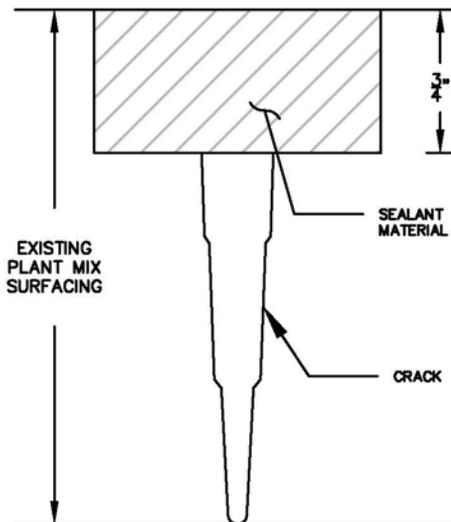
→ | 1/8" - 3/4" | ←



CRACKS WIDER THAN 3/4" TO 1 1/2" WIDE

NO ROUTING REQUIRED

← | 3/4" - 1 1/2" | →



SCALE NTS	DRAWN BY: <u>DS</u>	YELLOWSTONE COUNTY 	SHEET
	DESIGNED BY: <u>MB</u>		STANDARD DRAWING
	CHECKED BY: <u>MB</u>	TITLE TYPICAL SECTION FOR HOT CRACK SEALING	
	FILE NAME: <u>PUBLICWORKS-FS/DARIN S/AUTOCAD DWG'S/CRACK SEAL.PDF</u>		1 OF 1
	JUNE - 2011		



CHIP SEAL

SPECIAL PROVISIONS

1. Summary of Work:

Roads to be chip sealed are as follows:

- RSID 691 – Sun Valley – Sun Valley Road
- RSID 717 – Antelope Hills – all roads
- RSID 764 – Pioneer Road Estates – all roads
- RSID 657 – Copper Valley – all roads
- RSID 585 – Lockwood – all roads
- RSID 622 – Emerald Hills Acreage Tracts – all roads
- RSID 752 – Forest Hills – all roads
- RSID 600 – Hamilton Subdivision – all roads
- RSID 623 – Shackleford Yellowstone Subdivision – all roads
- RSID 654 – Crystal Springs Subdivision – all roads
- RSID 709 – Clarks Fork – all roads
- RSID 755 – Monterra Place Subdivision – all roads
- RSID 775 – Driftwood Subdivision – all roads
- RSID 769 – Brookwood Subdivision – all roads
- RSID 773 – West Meadows Subdivision – all roads
- RSID 711 – Lackman Subdivision – all roads
- RSID 741 – Conrad Park Subdivision – all roads
- RSID 665 – Chevelle Subdivision – all roads
- RSID 662 – Bridle Creek Subdivision – all roads
- RSID 690 – Mystic Moon Subdivision – all roads
- RSID 732 – CC Lamm Hardy Boys Subdivision – all paved roads
- RSID 642 – Wells Garden Estates 5th Filing – all roads

- RSID 771 – Granite Park Subdivision – all roads
- RSID 766 – Brey Subdivision – all roads
- RSID 651 – Cloverleaf Meadows Subdivision – all roads

This portion of the project shall be bid lump sum, per each bid item.

- Chip Seal – Lump Sum, sweep after using “pick-up” broom

Any project that has a total contract amount that exceeds \$25,000 will require the Contractor to pay State prevailing wages to all employees and / or subcontractors employees per State law.

2. **Guarantee:** All work shall be guaranteed for a period of one (1) year. Defective construction observed before the expiration of the one (1) year guarantee shall be removed and replaced at no cost to the owner.
3. **Coordination with Other Contractors:** The Contractor shall coordinate his work on this project with the work of other contractors in the area to assure orderly completion of the work and to maintain safe conditions with reasonable traffic flow.
4. **Date of Completion:** The entire work shall be completed within the time stated in the Agreement Form.
5. **Claims for Extra Work:** No claim for extra work will be allowed unless it is presented before the final progress payment estimate and is accompanied by a written order given by the Owner for such extra work. The order must state the approximate amount and the price to be paid for the same. The Owner reserves the right to contract with any person or firm, other than the Contractor, for any or all extra work. The Montana Public Works Standard Specifications shall determine the methodology for any extra work and therefore provide the basis for the cost of extra work.
6. **Testing:** All quality control and compliance testing of work accomplished will be performed by Contractor, or its designated representative, at no cost to the Owner. All testing costs are to be included in the lump sum price for the work to be done under this contract and no additional compensation will be allowed for testing.
7. **Responsibility to Property Owners:** The Contractor shall, at all times, conduct his work so as to insure, in the greatest possible degree, the uninterrupted convenience and safety of the property owners adjacent to the work. Access for these property owners shall be maintained at all times.
8. **Notification of Property Owners:** It shall be the Contractor’s responsibility to notify property owners and/or tenants 48 hours in advance of their approaching road work operations in order to arrange for the removal of parked vehicles or other items in the road that would interfere with his operations.

9. **Special Considerations:** Several public works projects may be under construction during the same time period in and near the areas proposed for this project. It may be necessary for the Contractor to coordinate his activities in those circumstances.
10. **Traffic Control:** Traffic control on this project shall be in accordance with Section 01570 of the Montana Public Works (MPW) Standard Specifications. No measurement or payment shall be made for this item but it shall be included in the cost of the other bid items.
11. **Chip Seal:** The following provisions shall be applicable to the application of the chip seal and shall be in addition to Section 02504 of the MPW Standard Specifications.
 - A) **Surface Preparation:** The cleaning and preparation of the road surface required by the specifications shall include the removal of grass and other vegetative matter growing along any gutters (curb or valley) or elsewhere in the road surface. The Contractor shall clean the roads to be chip sealed prior the chip seal. No measurement or payment shall be made for this item but it shall be included in the cost of the other bid items.
 - B) **Stone Chips:** The aggregate for the chip seal shall meet the following gradation:

Percent Passing, by Weight

<u>Sieve Size</u>	<u>Percent Passing</u>
3/8 inch	100
No. 4	0-20
No. 10	-
No. 100	-
No. 200	0-2

Of the fraction retained on the No. 4 sieve, a minimum of 75% of the particles by weight shall have at least one fractured face and a minimum of 50% of the particles by weight shall have at least two fractured faces. The chips shall be of uniform quality throughout and shall be clean. The Contractor shall furnish test results for compliance daily during production.

- C) **Emulsified Asphalt:** The Contractor shall submit to the Owner all volume tickets for each load of emulsified asphalt delivered. The spraying of emulsified asphalt shall be so conducted as to provide a seal at the joint between the edge of the concrete gutter and the adjoining road surface. Spraying widths necessary to cover the width of the road shall be calculated so as to keep the amount of oil on any gutters (or other concrete surfaces) to a minimum. Hand spraying may be necessary where road widths are irregular. The type of emulsified asphalt shall be CRS – 2P.
- D) **Estimated Application Rates:** The application rates for this project shall be determined in the field by the Contractor, warranted by what road conditions necessitate. The following are approximate minimum requirements.

Emulsified Asphalt	0.37 gal. / S.Y.
Seal Coat Aggregate	23 lbs. / S.Y.

The actual quantities required may be more than the estimated application rates above. Payment will be made at the lump sum price for this project.

No asphalt material shall be applied if the atmospheric temperature in the shade is less than 65°F. Chips shall be applied at appropriate rates to prevent pick up by the construction equipment. Rolling shall proceed immediately after application to ensure maximum embedment of the aggregate. Traffic can be permitted on the completed surface in four hours or as directed by the Contractor.

- E) **Sweeping (1st Time) After Chip Sealing:** Within 48 hours after chip sealing, all roads shall be swept by the Contractor to remove excess (unattached) chips from the surface of the road. No measurement or payment shall be made for this item but it shall be included in the cost of the other bid items.

The method of sweeping is by “pick-up broom”.

- F) **Sweeping (2nd Time) After Chip Sealing:** Thirty (30) days after 1st sweeping, all roads shall be swept a 2nd time by the Contractor to remove excess (unattached) chips from the surface of the road. No measurement or payment shall be made for this item but it shall be included in the cost of the other bid items.

The method of sweeping is by “pick- up broom”.

12. **Cul – de – sac Treatment / Sealing:** Any roads with cul-de-sacs or “bulb” areas that are mainly used for vehicles turning around shall not be chip sealed. These areas shall be sealed with a Type II Emulsified Asphalt Slurry Seal using the performance guideline specifications as detailed by the International Slurry Surfacing Association, under “Recommended Performance Guideline for Emulsified Asphalt Slurry Seal A105 (Revised 2010)”, published by the International Slurry Surfacing Association of Annapolis, MD.

Contractor shall include compensation for this work in the lump sum price for chip seal. The Contractor shall be responsible for his own layout and control in the field. No measurement or payment shall be made for this work item but shall be included in the cost of the other bid items.

13. **Pavement Marking:** Any roads with existing pavement markings shall be repainted with epoxy paint after the chip seal. Contractor shall include compensation for this work in the lump sum price for chip seal. The Contractor shall be responsible for his own layout and control in the field. No measurement or payment shall be made for permanent pavement markings but shall be included in the cost of the other bid items.

Temporary center-line (yellow) and lane marks (white) shall be applied wherever any existing striping is removed or covered prior to opening the area to traffic. When road surface is covered (due to patching, chip sealing, or overlaying), and prior to opening the area to traffic, yellow and white tabs must be installed every 10 to 15 feet. No

measurement or payment shall be made for temporary markings but shall be included in the cost of the other bid items.

14. **Manhole Adjustment:** Manholes shall be adjusted to grade in accordance with Section 02113 of the MPW Standard Specifications. If feasible, adjustment shall be made with a two-inch concrete adjusting ring. Use of brick and mortar for adjustment will be allowed if concrete adjusting rings will not provide the proper height adjustment. Manholes may be adjusted to final grade before or after pavement overlay, however, final grade must be within 1/4 inch below finished road surface. No measurement or payment shall be made for this item but it shall be included in the cost of the other bid items.

15. **Water Valve and Monument Adjustment:** Water valves and monument boxes shall be adjusted to grade in accordance with Section 02113 of the MPW Standard Specifications. Adjustment shall be made by screwing the extension up or down as necessary to adjust the valve box to the finished grade of the asphalt surface. Water valves shall be excavated and exposed so as to readily determine whether height adjustment can be made without substituting a longer section. No measurement or payment shall be made for this item but it shall be included in the cost of other bid items.