



REQUEST FOR PROPOSAL

2018 Pavement and Concrete Program

Request for Proposal No: 2018-01

Date of Issue: March 14, 2018

Proposal DEADLINE Submission Date and Time:

Thursday April 5th at 2:00 p.m. MST

**Proposal to be PHYSICALLY RECEIVED by the Town
as required below PRIOR TO Proposal Closing Date and Time above.**

RETURN TO:
**Town of Lochbuie
David Bebak
Lochbuie Town Hall
703 WCR 37
Lochbuie, CO 80603**

THIS REQUEST FOR PROPOSAL (“RFP”) IS NOT A COMPETITIVE BID BASED ON PRICE ONLY. The RFP allows the Town to select the company that best meets the needs of the Town, taking into consideration company’s qualifications, price, and service capabilities and other factors relevant to the Town’s policies, programs, administrative resources and budget. Questions concerning the submission of proposals, the RFP process, the specifications or scope of work, should be directed David Bebak.

PROPOSER’S CERTIFICATION

The undersigned proposer offers to furnish to the Town the services requested in accordance with the specifications described herein:

Proposer: _____
Address: _____
Town: _____ State ___ Zip Code _____
Telephone No. _____
Name: _____
Title: _____
Signature: _____

INTRODUCTION

The Town of Lochbuie is requesting sealed proposals from qualified companies with substantial and relevant experience and expertise in slurry seal/chip seal application, concrete repair and asphalt patching. Proposals are to be addressed and delivered to the Public Works Operations Manager for Town of Lochbuie, in accordance with the Instructions to Proposers and all other requirements as referenced in this RFP. Proposals will be received until the date and time set forth on the cover sheet of this RFP. The Town will use the following schedule for the selection process:

Issue RFP:
March 14, 2018

Proposal submission deadline:
Thursday April 5th, 2018 at 2:00 p.m. MST

Deadline for receipt of written (emailed only) questions and requests for addenda: Friday March 23, 2018 5:00 p.m. MST

Town responds to questions and posts any addenda (if required) by:
Monday March 26, 2018 5:00 p.m. MST

Contract Period of Performance:
From Notice to Proceed Contract will be substantially completed by September 28th, 2018.

Questions and requests must be emailed to David Bebak dbebak@lochbuie.org

The subject line of all emails should be **RFP-2018-1 REQUEST FOR PROPOSALS 2018 Pavement and Concrete Program**. IMPORTANT NOTE: The Town requires all questions be submitted by email.

INSTRUCTIONS TO PROPOSERS

1. Companies responding to this RFP must submit their proposals in the overall format as outlined in this solicitation.
2. Two (2) copies of signed proposal are to be submitted on or prior to the deadline date and time.
3. Proposals must be submitted in a sealed package or envelope listing the following information on the outside:

**Town of Lochbuie, Town Hall
703 Weld County Road 37
Lochbuie, CO 80603
RFP Title: 2018 Pavement and Concrete Program
RFP Number: 2018-01,
Proposer's name and address**

No telephone, electronic, or facsimile proposals will be accepted or considered.

4. Proposals must be sent by mail or hand delivered, allowing sufficient delivery time to ensure receipt in the Public Works Operations Manager's office by the deadline specified. The validation of the time and date of the Town's receipt of the proposal will be made by the Public Works Operations Manager whose determination of timely submittal will be final. All proposals received after the deadline will be automatically rejected and will be returned to the proposer unopened.
5. Proposals must be dated and signed by a duly authorized partner or corporate officer, with that person's name and title clearly identified. All of the proposal terms, conditions, contents, fees and charges must be guaranteed by the proposer for one year from the date of submission of the proposal to the Town.
6. The content of all proposals must conform to the following:
 - Proposers must respond to the questions in the order presented in this RFP.
 - Proposers may provide additional supporting documentation pertinent to clarification of the proposal.
7. Proposal Submittal Requirements - The following information must be included with your proposal in this order and be indexed/tabbed:
 - Signature Page. Must be the front page (page 1) of the proposal.
 - Acknowledgement of Addenda (if applicable). The proposer must acknowledge receipt of all addenda to this RFP issued by the Town. In all cases it will be the proposer's responsibility to obtain all addenda issued and include the acknowledgement form with the submittal.
 - Primary Contact. Provide the name and title of person(s) who will be the primary contact person and manager for the contract, plus contact phone number(s), e-mail and mailing address.
 - Company Information. Provide an overview of the history of the company, such as, but not limited to, range of services typically provided, expertise, number of employees and states in which company operates.

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- Provide an acknowledgement that your company will be able to complete work for the Town of Lochbuie no later than September 28, 2018.
 - Questions. Provide responses to all questions contained in this RFP, if any, in the order presented.
 - Sub-contractors. Identify whether the staff provided will be employees of your company or subcontractors. In order that the Town may be assured that only qualified and competent subcontractors and/or sub-consultants will be employed to provide services under the contract, proposers shall submit with their proposal a list of subcontractors and/or sub-consultants who would be called upon to perform the work. The proposer shall have determined to their own satisfaction that a listed subcontractor and/or sub-consultant has been successfully engaged in this work for a reasonable length of time and is qualified both technically and financially to perform that work for which they are listed.
 - Experience and References. List all recent work within the past three (3) years for which the proposer has performed similar types of services identified in the Scope of Work.
 - Cost. Provide pricing as per Bid Pricing Sheet.
8. Copies of the plans, specifications and contract documents are on file in the Town Clerk's office. Documents and all issued addenda shall be obtained from the Town's web page www.lochbuie.org

TERMS & CONDITIONS

9. All participating proposers, by their signature, agree to comply with all of the conditions, requirements, and instructions of this RFP as stated in this RFP. Should the Town omit anything from this document which is necessary to a clear understanding of the work, or should it appear that various instructions are in conflict, then the proposer shall contact the Town and secure written instructions from the Public Works Operations Manager at least 48 hours prior to the time and date of the scheduled opening of the proposals.
10. The proposer warrants that all equipment, materials, and work will conform within applicable drawings, specifications, samples, and/or other descriptions given to the Town, and that they will be free from defects.
11. The successful proposer shall be required to indemnify and hold the Town and its agents and employees harmless from and against all suits or actions of any kind, including workers' compensation claims, brought against them for or on account of any damages or injuries received or sustained by any parties, by or from the acts of the successful proposer or its agents or employees. The successful proposer shall maintain insurance for workers' compensation as required by law, and shall additionally maintain general liability insurance with limits established by the contract but not less than \$1,000,000.00 for bodily injury and \$1,000,000.00 for property damage. Comprehensive automobile liability insurance coverage is also required.

12. The successful proposer shall comply with all applicable federal, state, and local laws, regulations, administrative rulings, and codes, and shall secure all necessary licenses and permits.
13. All proposals submitted to the Town shall become the property of the Town and shall be held, controlled, manipulated and retained by the Town in accordance with the Town's policies and records retention schedule and applicable law, including the Colorado Open Records Act.
14. By submitting a proposal, the proposer agrees that venue for any and all legal action regarding or arising out of or related to the RFP, proposals submitted or response to RFP, or work performed thereunder shall be solely in the appropriate court in and for Weld County, State of Colorado. The transactions covered herein shall be governed by and construed in accordance with the laws of the State of Colorado.
15. The Town is exempt from sales, use, and excise taxes. Certification of tax exemption will be issued upon request. Any appropriate taxes shall be shown as a separate item in the proposal.
16. The Town reserves the right to cancel without penalty, at any time, any awards occurring as a result of this RFP. Time is of the essence. When a date is set for the delivery of goods or the performance of work, the goods must be delivered, and/or the work must be performed, in accordance with the proposal specifications or description on or before that date, or the order to the delinquent proposer may be canceled and re-awarded.
17. The Town reserves the right to:
 - Reject any and all proposals received as a result of this RFP.
 - Abandon the RFP process at any time for any reason.
 - Waive, modify or decline to waive any requirements or formalities in this RFP.
 - Extend the deadline for the receipt of proposals for the convenience of the Town or to remedy an inequity declared by the Town in the RFP process.
 - Waive or decline to waive any errors, irregularities, or defects in any proposal or responses submitted to the Town.
 - Adopt all or any part of the proposer's proposal.
 - Negotiate with one or more proposers desired modifications of changes in the Scope of Work or services to be provided.
 - Withhold the award of work for any reason.
18. The Town shall not be liable for any costs incurred by the proposer in the preparation, production, or delivery of the proposal, contract negotiations or for any work performed prior to the effective date of a contract.

19. All changes in the RFP documents shall be made through written addendum (a) issued by the Town and if the identity and contact information of a prospective proposer is known to the Town, furnished to such prospective proposers.
20. All information contained in this RFP and acceptable provisions of the proposer's response are made part of the executed contract between the Town and the proposer receiving the award of work.
21. Final evaluation and selection may be based on, but not limited to, any or all of the following:
 - Responsiveness and completeness of the proposal in meeting the requirements of this RFP;
 - Ability of the proposer to provide quality and timely goods, products and/or services requested;
 - Qualifications and experience of the proposer on similar or comparable projects or service contracts;
Responses to background and reference checks of the proposer, its employees and staff, and subcontractors, if applicable;
 - Interview if conducted; and
 - Cost of goods, products, and/or services.
22. The Town's review and selection shall not be made on a basis of age, race, color, national origin, gender, creed, or disability. Proposers to whom a contract is awarded shall not discriminate on the basis of age, race, color, national origin, gender, creed, or disability.

SCOPE OF WORK & SPECIFICATIONS

Asphalt Patching

23. The contractor shall commence work no later than ten (10) calendar days from, and including, the date of the Notice to Proceed. Work shall be substantially complete within forty-five (45) calendar days of the Notice to Proceed. Work shall take place between April 23, 2018 and September 28, 2018. . **In areas where concrete, asphalt patching, slurry work or cape seal overlap, the contractor shall complete the application of slurry seal or cape seal after all other work has been completed.**
24. This item shall consist of furnishing all labor, materials, equipment and traffic control which references MUTCD, for existing asphalt removal and disposal and new prep and patching of asphalt streets in the Town of Lochbuie Colorado.
25. Asphalt Patching
Area to be patched with asphalt shall be cut in a straight line for the full depth of the existing asphalt; the shape shall be in general rectangular with square corners, parallel or perpendicular to the flow of traffic. The depth of patch shall be a minimum of 6-inches or the depth of existing asphalt, whichever is greater. Existing base/sub-base material shall be leveled and compacted. A heavy Tack Coat shall be applied to all edges of existing asphalt prior to placing the patch. Where exposed base material is aggregate, a light Tack Coat shall be applied to the bottom. The HMAP grading shall be SX with PG 64-22 binder. Asphalt compaction shall be 95% Marshall Density according to ASTM D 1559.
- The finish product shall result in a smooth transition between the new patch and the existing asphalt surface. A patch depression or bump will be justification for rejection of the patch.
26. Contractor shall contact the Town Representative prior to arriving in Town to saw cut patching locations. Contractor and Town representative shall meet to review locations and Town shall mark each location for cutting dimensions.
27. Contractor shall clean all debris from roads, sidewalks and driveways as a result of patching operations.
28. Contractor and the Town shall agree on all patching quantities.
29. Payment adjustments:
Extra depth of asphalt shall be paid for in increments of 1-inch. Depth measurements of

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0.51-inch shall be paid for as one full inch. Depth measurements of 0.0 to 0.50-inch shall not result in any additional payment.

Payment will be made at the unit price quoted in the Bid Schedule based on measurement of actual service provided. Payment for work performed in accordance with the Agreement Documents will be made upon completion of the individual Task Order(s) and acceptance of the invoice(s). Payment will be made within 45 days of invoice being approved for payment.

30. Warranty

The Contractor is responsible for providing a TWO-YEAR (2) warranty to the Bidders for all work completed under this contract. The beginning of the TWO-YEAR (2) warranty period will be established with the issuance of the Certificate of Substantial Completion. There shall be no additional cost to each Bidder for material, equipment, labor and/or traffic control for warranty work.

Warranty work will be completed in accordance with these contract specifications and within 30 days of written notification by the Project Representative unless otherwise noted.

31. Location of Work

The attached list of streets will give the general location of the work to be performed under this contract. The final designation of locations will be verified after the contract has been awarded. The Town reserve the right to alter quantities (both increase and decrease) from those shown on the plan and bidder's documents. Such alterations of quantities will not change the unit price of the accepted contract. Please refer to **Exhibit "A" Asphalt Patching Locations** for additional reference.

Street	Sq Yds
1. Cherry Street- between Plum St. and Locust, two patches from gutter to gutter.	19.5
2. Intersection of Cherry and Willow Dr., patch around valve box.	2.0
3. 518 Willow Dr.	77.0
4. Intersection of Willow Dr. and Willow Pl., three small patches NE corner of intersection.	50
5. Intersection of Willow Dr. and Locust St., patch around valve boxes.	3.0
6. 102 Locust, three patches across the address, including patch around manhole and patching along gutter.	33.0
7. Intersection of Zante St. and Winnipeg St., NW corner.	7.0
8. Wagon Trail, SB Lane between Willow and County Road 2	2.0
9. Stampede Way and Canyon Court Manhole Patch	3.0
10. Stampede Way and Willow Dr. NW corner of intersection	1.0
11. 108 Ravine Place, around valve boxes	2.5

CONTINUATION SHEET
Request for Proposal No. 2018-01
2018 Pavement and Concrete Program

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12. 109 Ravine Place Manhole work	2.0
13. 201 Willow, patching by curb and cluster mailbox	34.0
14. 205 Willow , North side of street	3.0
15. Intersection of Willow and Yakima	1.5
PROJECT TOTAL SQ YDS	240.5

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BID PRICING SCHEDULE

Item No.	Item Description	Est. Quantity	Unit	Unit Cost	Item Cost
1	Asphalt Patching – Grade SX PG 64-22		SY		

Total Project Cost	\$
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Proposer: _____

Address: _____

Town: _____ **State** ___ **Zip Code** _____

Telephone No. _____

Name: _____

Title: _____

Signature: _____

SCOPE OF WORK & SPECIFICATIONS

Slurry Seal

32. Contractor shall provide all labor, equipment, materials, tools and transportation to apply Type II asphalt slurry seal in accordance with the contained specifications in this RFP. **In areas where concrete, asphalt patching, slurry work or cape seal overlap, the contractor shall complete the application of slurry seal or cape seal after all other work has been completed.**

33. Description:

The bituminous slurry surface shall consist of properly proportioned and mixed mineral aggregate, asphalt emulsion and water, spread evenly on the surface of the streets identified for this project. The slurry, when cured, shall have a homogenous appearance; fill all cracks; adhere firmly to the adjacent surface; and have a skid resistant texture.

34. Materials:

Asphalt Emulsion: The liquid emulsion shall be water-based emulsified asphalt comprised of straight-run vacuum tower bottoms, synthetic SBR latex polymer, and emulsification agents. The SBR polymer shall be co-milled during the emulsification process such that a bi-continuous polymer-asphalt network is formed upon curing of the finished emulsion. The emulsion shall be pumpable and suitable for use in a Slurry Seal machine.

The emulsified asphalt shall conform to the requirements of the ASTM specification for quick set CQS with revisions as indicated in the table below. In addition, the emulsion shall contain 1%, 3% minimum SBR latex solids based on weight of asphalt cement. The slurry seal mixture shall contain an emulsion content of 10 – 20% by weight of dry aggregate which shall be determined in the laboratory by an approved mix design process. The residual asphalt content shall be 5 – 15% based on weight of dry aggregate.

Tests on CQS Emulsion:

	<u>Minimum:</u>	<u>Maximum:</u>	<u>Test Method:</u>
Viscosity Saybolt Furol, 77 ⁰ F, s	20	100	ASTM D244
Residue, %	60		ASASHTO T59
Partial Charge Test	<u>Positive</u>		ASTM D244
Sieve Test, ⁰ / ₀ ^(A)		0.1	ASTM D6933
Distillation ^(B)	60		AASHTO T59
Penetration, 77 ⁰ F, 100g, 5s	40	90	ASTM D5

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Ductility, 77 ^o F, 5 cm/min, cm	40		ASTM D113
Solubility in trichloroethylene, %	97.5		ASTM D2042
Elastic recovery, 77 ^o F, 10cm, 1h, %	40		ASTM D6084

The specification for Slurry Emulsion is in accordance with the material properties and test methods as specified by ISSA, ASTM, and AASHTO.

- (a) This test requirement on representative samples is waived if successful application of the material has been achieved in the field.
- (b) Residue by evaporation is intended to provide rapid determination of the percent residue and to provide material for tests on residue. If the percent residue or any test on the residue fails to meet specifications, the tests will be repeated using the distillation test specified by AASHTO T59. For polymer modified emulsions, the distillation and evaporation tests will be modified to include 400F maximum temperature to be held for 15 minutes.
- (c) If the solubility of the residue is less than 97.5%, the base asphalt binder for the emulsion shall be tested. The solubility of the base asphalt binder shall be greater than 99 percent.

AGGREGATE - The aggregate shall consist of manufactured granite crusher fines. The smooth textured crusher fines shall have less than 1.25% water absorption. The aggregate shall be gray in color with 100% fractured faces, clean and free from organic matter or other deleterious substances and clay balls. Oversized granular material and/or presence of clay balls will require the project to be stopped and shall meet the following requirements:

Gradation Table – Aggregate (percent passing) (a) (b)

SIEVE SIZE	PERCENT PASSING TYPE II	STOCKPILE TOLERANCE
3/8"	100	+/- 4%
1/4"	99.8	+/- 4%
No. 4	90-100	+/- 4%
No. 8	65-90	+/- 4%
No. 16	45-70	+/- 4%
No. 30	30-50	+/- 4%
No. 50	18-30	+/- 4%
No. 100	10-21	+/- 3%
No. 200	5-15	+/- 2%

- (a) Meets ISSA gradation.
- (b) If oversize material is present, screening through a 1/4" screen will be required prior to delivery to the slurry machine. If clay balls are present, the aggregate may not be used.

- Resistance to Degradation (ASTM C131grading D) 20% maximum loss
- Soundness of Aggregate (ASTM C88) 15% maximum loss
- Sand Equivalent (ASTM D 2419) 55% maximum
- LA Abrasion (AASHTO T96) 20% maximum loss

Mineral Filler: Hydrated lime, limestone dust, or other approved filler meeting the requirements of ASTM D242 shall be used if required by the mix design. They shall be considered as part of the dry aggregate.

Water: All water used shall be potable and free of dissolved materials which may affect the mix characteristics or finished characteristics of the product.

Additives: Additives may be used to accelerate or retard the break-set of the Slurry Seal or to improve the resulting finished surface. The use of additives in the Slurry mix (or individual materials) shall be made initially in quantities predetermined by the mix design with field adjustments, if required, after approval by the Project Manager.

Slurry Seal Mix Design Specifications: Before work begins, the Contractor shall submit a mix design covering the specific materials to be used on the project. The mix design shall identify the job mix formula and present test results for the required specifications verifying the compatibility of the aggregate and the modified CQS-1HL. The mix design shall follow the standards and guidelines as set forth by ISSA.

Composition of mixture: The owner shall approve the design mix and all Slurry Seal materials and methods prior to use and shall designate the proportions to be used within the following limits:

Residual Asphalt: 5% – 15% by dry weight of aggregate.

Emulsion Content: 10% - 20% by dry weight if aggregate.

Mineral Filler: 0.5% to 2% by dry weight of aggregate.

Polymer Content: 1%, 3% minimum based on weight of asphalt cement.

Water (Potable): As required to provide proper consistency.

Application Rate (average): 16-20 lbs. per square yard (Type II)
18-22 lbs. per square yard (Type III)

35. Equipment:

The material shall be mixed by either a truck mounted or self-propelled micro surfacing mixing machine. The machine shall employ continuous flow mixing and be able to accurately deliver and proportion the aggregate, emulsified asphalt, mineral filler and water to a revolving multi-blade mixer and discharge the mixed product on a continuous

flow basis. The machine shall have sufficient storage capacity for aggregate, emulsified asphalt, mineral filler and water to maintain an adequate supply to the proportioning controls.

Individual volume or weight controls for proportioning each material to be added to the mix shall be provided. Each material control device shall be calibrated and properly marked. The aggregate feed to the mixer shall be equipped with a revolution counter or similar device so the amount of aggregate used may be determined at any time. The emulsion pump shall be a heated positive displacement type and shall be equipped with a revolution counter or similar device so that the amount of emulsion used may be determined at any time. The mixing machine shall be equipped with a water pressure system and nozzle type spray bar to provide a water spray immediately ahead of and outside the spreader box. The mixing machine shall be equipped with an approved fines feeder that shall provide a uniform, positive, accurately metered, predetermined amount of the specified mineral filler.

Spreading Equipment: The paving mixture shall be spread uniformly by means of a mechanical type squeegee box attached to the mixer, equipped with paddles and/or augers to agitate and spread the materials throughout the box. A front seal shall be provided to insure no loss of the mixture at the road contact surface. The rear seal shall act as final strike off and shall be adjustable. The mixture shall be spread to fill cracks and minor surface irregularities and leave a uniform skid resistant application of aggregate and asphalt on the surface. The spreader box and rear strike-off shall be so designed and operated that a uniform consistency is achieved to produce a free flow of material to the rear strike-off. No "burlap" will be permitted to be drug behind the squeegee box except along the seams where a 2' to 3' wide burlap "blanket" will be permitted to be drug to the extent necessary to achieve an acceptable finish at the seams as determined by the owner.

Rut filling equipment will require adjustable steel strike-off plates. The seam where two spreads join shall be neat appearing and uniform. All excess material shall be removed from ends of each job site immediately.

36. Calibration:

Each mixing unit to be used during performance of the work shall be calibrated in the presence of the Project Manager prior to construction. Previous calibration documentation covering the exact materials to be used may be acceptable, provided they were made during the same calendar year. The documentation shall include an individual calibration of each material at various settings, which can be related to each machine's metering devices. No machine will be allowed to work on the project until all calibrations have been completed and/or accepted by the Project Manager.

37. Lines:

Care shall be taken to insure straight lines along curbs and shoulders. No runoff on these areas will be permitted. Lines at intersections shall be kept straight to provide a good appearance.

38. Joints:

No excessive build-up or unsightly appearance shall be permitted on longitudinal or transverse joints. The use of burlap drags or other type drags shall be at the discretion of the Engineer. When drags are used, they must be kept relatively clean, and free of excessive build-up. Joints shall be straight and have a neat appearance.

39. Handwork:

Approved hand squeegees, with burlap drags, shall be used to spread Slurry in areas not accessible to the Slurry spreader box. Care shall be exercised in leaving no unsightly appearance from handwork.

40. Curing:

Slurry treated areas shall be allowed to cure until such time as the Town permits their opening to traffic. **The slurry seal mixture shall be proportioned to permit traffic on the newly sealed surface within 4 hours of placement. The Contractor is responsible for monitoring the curing rate and timing of applications to insure that the streets are not closed to traffic before 8:00 am and then reopened to traffic no later than 5:00 P.M. each day.**

Areas damaged within 24 hours of application of Slurry, or prior to moving to new work locations, shall be repaired by the Contractor at their expense.

41. Surface Preparation:

Immediately prior to applying the Slurry Seal, the surface shall be cleared of all loose material, oil spots, vegetation and other objectionable material. Any standard cleaning method will be acceptable. If water is used, cracks shall be allowed to dry thoroughly before Slurry surfacing. Manholes, valve boxes, drop inlets and other service entrances shall be protected from the Slurry Seal by a suitable method. The Project Manager shall approve the surface preparation prior to surfacing. The Contractor will be responsible for the application of a chemical soil sterilization agent to kill all weed growth in the streets to be resurfaced. This work will be done approximately two (2) weeks prior to commencement of the work to be performed in this contract. The Contractor shall remove any dead or remaining vegetation from the street surface before sweeping and applying the slurry seal.

42. Weather Limitations:

The Slurry Seal shall not be applied if either the pavement or air

temperature is below 50°F (10°C) and falling, but may be applied when both pavement and air temperatures are above 45°F (7°C) and rising. No Slurry Seal shall be applied when air temperatures will be below freezing within 24 hours. The Slurry Seal shall not be applied when the pavement is moist, or when the weather is or may be detrimental. Detrimental weather is defined as rain showers, cool temperatures, moist pavements, threat of rain showers, or other environmental factors which could affect the performance of the Slurry Seal construction. The mixture shall not be applied when the weather and/or other conditions prolong opening to traffic beyond a reasonable time.

43. Manholes and Valve Covers:

Shall be covered in a suitable manner prior to the application of the mix and the covers removed immediately after the street is sealed. All manhole and valve covers shall be clean when the work is completed.

44. Machine Speed:

In order to minimize the rippling, slurry machines will not be permitted to travel in excess of 220 ft. /min. This speed may be further reduced by the Town if there is excessive rippling of the surface due to the machines speed.

45. Method of Measurement:

Slurry Seal will be measured and paid for by the square yard complete in place and shall include all materials, equipment, labor, and incidentals required to accomplish the work. All aggregate weigh tickets, and emulsion delivery tickets shall be turned into the Town Representative at the time of delivery. The Contractor is encouraged to check quantities with run sheets to avoid any penalties. Responsibility for ensuring proper spread rates and material proportions is solely the Contractors.

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46. Basis of Payment:

The accepted quantities of slurry seal will be paid for at the contact price per square yard for slurry seal, minus any reduction for noncompliance with the approved application rates. Payment shall include all equipment, labor, materials, public notification, traffic control, overhead, incidentals, and mobilization required to complete the work described in the specifications.

Payment will be made under:

Pay Item	Pay Unit
Slurry Seal (Type II)	square yard

47. Location of Work: The attached list of streets will give the location of the work to be performed under this contract. The final designation of locations will be verified after the contract has been awarded. The Town reserve the right to alter quantities (both increase and decrease) from those shown on the plan and bidder's documents. Such alterations of quantities will not change the unit price of the accepted contract. Please refer to **Exhibit "B" Slurry Seal Locations** as additional reference.

SLURRY SEAL LOCATIONS CHART

No.	Street	Sq Yds
1	Ravine Pl, from Willow Dr. North to end.	1135.73
2	Laredo Pl, from Willow Dr. North to end.	1104.86
3	Stampede Pl., from Willow Dr. north to end.	1150.14
4	Ravine Ct., from Willow Dr. south to Meadowlark Ln.	1572.47
5	Meadowlark Ln., east from Ravine Ct. to end.	2221.91
6	Canyon Ct. from Ravine Ct. to Stampede Way	1148.83
7	Stampede Way from willow Dr. south to Meadowlark Ln.	1206.12
8	Willow Dr., from Wagon Trail Ave. east to WCR 37	7341.04
9		
10		
11		
12		
13		
PROJECT TOTAL SQ YDS		16881.10

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BID PRICING SHEET

Item No.	Item Description	Est. Quantity	Unit	Unit Cost	Total Cost
1	Slurry Seal Type II		Sq. Yds.		

Proposer: _____

Address: _____

City: _____ State _____ Zip Code _____

Telephone No. _____

Name: _____

Title: _____

Signature: _____

SCOPE OF WORK & SPECIFICATIONS

Cape Seal Application Locust Street

48. The Contractor shall furnish all labor, equipment, material, supplies, environmental protection, no parking signs, raised markers, signage, traffic control, secondary sweeping, and other incidentals necessary to provide an application of polymerized emulsified asphalt, cover coat aggregate and a Slurry Seal to an existing roadway surface. . **In areas where concrete, asphalt patching, slurry work or cape seal overlap, the contractor shall complete the application of slurry seal or cape seal after all other work has been completed.**

49. Materials:

Polymer Pre-Modified Base Emulsion: Polymer Modified Cationic Rapid Set emulsion (CRS-2P) shall be an emulsified blend of polymer modified asphalt, water, and emulsifiers. The emulsion shall contain a minimum of three percent (3.0%) styrene-butadiene (SB) or styrene-butadiene-styrene (SBS) polymer by weight of asphalt cement. The asphalt cement shall be polymer modified prior to emulsification using a block SB or SBS co-polymer. The emulsion standing undisturbed for a minimum of 24 hours shall show no white, milky separation but shall be smooth and homogeneous throughout. The emulsion shall be pumpable and suitable for application through a distributor.

Tests on CRS-2P Emulsion	Minimum	Maximum	Test Method
Viscosity, Saybolt Furol, 50°C, sec, (a)	50	450	ASTM D 244
Storage Stability, 24-hr, % (a)		1.0	ASTM D 6930
Demulsibility, 35 ml, 0.8% Dioctyl Sodium Sulfosuccinate, %	40		ASTM D 6936
Particle Charge	Positive		ASTM D 244
Sieve, % (a)		0.1	ASTM D 6933
Distillation: (b)			AASHTO T 59
Oil Distillate by Volume of Emulsion, %		3.0	AASHTO T 59
Residue, %	65		AASHTO T 59
Tests on Residue (b)			
Penetration, 25 °C, 100g , 5s, dmm	70	150	ASTM D 5
Solubility in Trichloroethylene, % (c)	97.5		ASTM D 2042
Toughness, in-lb	70		ASTM D 5801
Tenacity, in-lb	45		ASTM D 5801

The specification for CRS-2P is in accordance with the material properties and test methods as specified by ASTM, AASHTO, and CDOT.

(a) This test requirement on representative samples is waived if successful application of the material has been achieved in the field.

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(b) Residue by evaporation is intended to provide rapid determination of the percent residue and to provide material for tests on residue. If the percent residue or any test on the residue fails to meet specifications, the tests will be repeated using the distillation test specified by AASHTO T 59. For polymer modified emulsions, the distillation and evaporation tests will be modified to include 400F maximum temperature to be held for 15 minutes.

(c) If the solubility of the residue is less than 97.5%, the base asphalt binder for the emulsion shall be tested. The solubility of the base asphalt binder shall be greater than 99 percent.

Cationic Quick Setting Emulsified Asphalt (Slurry Seal): CQS-1hL shall be an emulsified mixture of *straight-run vacuum tower bottoms asphalt*, synthetic SBR polymer dispersion, emulsifiers and water. The emulsion shall contain a minimum of one percent (1.0%) styrene butadiene rubber (SBR) solids by weight of asphalt cement. The SBR polymer dispersion shall be co-milled during the emulsification process such that a bicontinuous polymer-asphalt network is formed upon curing of the finished emulsion. The emulsion shall be pumpable and suitable for use in a Slurry Seal machine. The emulsified asphalt shall conform to the following requirements:

Test on Emulsion	Minimum	Maximum	Test Method
Viscosity, Say bolt Furol, 77 F,s	20	100	ASTM D244
Storage Stability Test, 24-h,%(a)		1	ASTM D6930
Particle Charge Test	Positive		ASTM D244
Sieve Test, %(a)		0.1	ASTM D6933
Distillation: (b)			
Residue, %	60		ASTM D6997
Polymer:			
Polymer content, % polymer solids based on asphalt solids	1.0	3.0	Supplier Cert.
Polymer Type:	SBR Latex		Supplier Cert.
Test on Residue from 325 F hot plate evaporation test (Colorado DOT CP_L2212*) b			
Penetration, 77 F, 100g,5s	40	90	ASTM D5
Ductility, 77 F, 5 cm/min,cm	40		ASTM D113
Solubility in Trichloroethylene, %	97.5		ASTM D2042
Elastic Recover, 77 F, 10cm,1h,%	40		ASTM D5976

A) This test requirement on representative samples is waived if successful application of the material has been achieved in the field.

B) Distillation to 260°C (T-59 §11 to 15) shall be the reference method for percent residue. Residue by hot plate evaporation at 163°C (CP-L2212 modified to a maximum temperature of 325°F) shall be the reference method to obtain material for tests on residue. Residue from distillation shall not be used for tests on residue due to polymer degradation at 260°C.

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Colorado DOT Procedure CP-L 2212* modified to a 163°C maximum temperature may be used for acceptance testing of percent residue.

C) If the solubility of the residue is less than 97.5 percent, the base asphalt binder for the emulsion shall be tested. The solubility of the base asphalt binder shall be greater than 99 percent.

* CP-L 2210, CP-L 2211, and CP-L 2212 are Colorado DOT test procedures.

Cover Coat Material: The chip or cover coat and slurry aggregate shall be washed, hard, durable, clean rock and free from coatings or deleterious material. All of the aggregate shall be crushed gray granite with 100 percent fractured faces. The aggregate shall have maximum loss of 20 percent when tested with the LA Abrasion procedure as defined by AASHTO T96 using grade C or D.

The maximum amount of flat and elongated aggregate with a ratio of 3:1 shall not exceed 12%

as determined by ASTM D4791. Only one source of aggregate shall be used and shall conform to the following gradations.

Gradation Table - Cover Coat Aggregate (percent passing)

Sieve Size	3/8" Chip	1/4"
1/2"	100	
3/8"	95-100	
1/4"	0-35	95-100
No. 8	0-3	
No. 200	0-1.5	0-
	1.5	

Gradation Table – Slurry Aggregate (percent passing)

Sieve Size	Type II % Passing	Type III % Passing	Stockpile Tolerance
3/8	100	100	+ or-
5% No. 4	90-100	70-90	+
	or- 5% No. 8	65-90	45-70
	+ or- 5% No. 16	45-70	28-50
	+ or- 5% No. 30	30-50	19-34
	+ or- 5% No. 50	18-36	12-25
	+ or- 4% No. 100	10-24	7-18
	+ or- 3% No. 200	5-15	5-15

+ or- 2%

50. Construction Requirements

Equipment:

The size and condition of all equipment shall be approved prior to construction. Should equipment be unsatisfactory for whatever cause, the Contractor shall remove and replace the equipment without delay or cost. The equipment shall conform to the following minimum requirements.

Bituminous Distributor:

A minimum of two like distributors shall be used on this project. The distributors shall be self-powered and capable of providing a uniform application rate of emulsion varying from .05-1.00 gallons per square yard over a variable width up to 20 feet in a single pass. The uniformity of the distributors shall not vary by more the two-hundredths gallons per square yard. The distributors shall be equipped with a variable power unit for the pump and full circulation spray bars, which are adjustable laterally and vertically. The nozzle angle and bar height shall be set to provide one hundred percent of double coverage in a single pass. Where multiple passes will be required to complete the full width, the four inches adjacent to the second pass may be left with 50 percent coverage so that the next pass will complete the full application rate specified. Distributors shall be self-powered and include a computerized application controls, a tachometer, pressure gauges, accurate volume devices, calibrated tank, and a thermometer for measuring temperatures of the emulsion in the tank.

Aggregate Spreader:

The aggregate spreader shall be self-propelled and supported by at least four tires on two axles capable of providing a uniform application rate of aggregate from five to fifty pounds per square yard over a variable width up to 20 feet in a single pass. The uniformity of this machine shall not vary by more than one pound per square yard. The aggregate spreader shall be equipped with the means of applying the cover coat material to the surface with computerized application controls so that the required amount of material will be deposited uniformly over the full width of the bituminous material. A computer rate controlled aggregate spreader shall be required.

Rollers:

A minimum of two self-propelled pneumatic tired rollers shall be used on the project unless otherwise requested by the Project Manager. The rubber tired rollers shall have a gross load adjustable to apply 200 – 250 pounds per inch of rolling width. Tire pressure shall be specified for the pneumatic tire rollers and shall not vary more than plus or minus 5.0 psi. The smooth drum roller shall be a single drum roller with a loaded rate of five tons. Depending on the speed of the Chip Seal operation and the width of coverage, additional rollers may be required. At no time shall the rollers travel more than 10 miles per hour.

Mixing Slurry Machine:

The Slurry course shall be mixed in a self-propelled mixing machine equipped with a continuous flow pug mill capable of accurately delivering and automatically proportioning the aggregate, emulsified asphalt, water and admixtures to a double shafted, multi-blade pugmill mixer capable of minimum speeds of 200 revolutions per minute.

A minimum of two mixing machines, of 12 cubic yards or larger shall be utilized on the project. The Slurry course retention time in the pugmill shall be less than three seconds. The mixing machine shall have sufficient storage capacity of aggregate, emulsified asphalt, and water to maintain an adequate supply to the proportioning controls.

The mixing machine shall be equipped with hydraulic controls for proportioning the material by volume to the mix. Each material control device shall be calibrated, properly marked, preset. The mixing machine shall be equipped with water pressure system and nozzle type spray bars to provide water spray immediately ahead of the spreader box.

The mixing machine shall be equipped with an approved fines feeder that provides a uniform, positive, accurately metered, pre-determined amount of a mineral filler at the same time and location that the aggregate is fed.

The Slurry mixture shall be uniformly spread by means of a controlled spreader box capable of spreading a traffic lane width and shall have strips of flexible rubber belting or similar material on each side of the box. The rear flexible strike-off blade shall make close contact with the pavement and shall be capable of being adjusted to the various crown shapes so as to apply a uniform layer of material. Slurry mixture, to be spread in areas inaccessible to the controlled spreader box, may be spread by other approved methods.

Each mixing unit to be used in performance of the Slurry work shall be calibrated prior to construction at a minimum of once per year. Calibration documentation covering the exact materials to be used may be acceptable, provided they were made during the calendar year. The documentation shall include an individual calibration of each material at various setting, which can be related to the machine's metering devices. No machine will be allowed to work on the project until the calibration has been completed and accepted.

Sweepers:

A vacuum designed sweeper having only negative air pressure at the road surface capable of removing excess aggregate and debris material shall be used on this project. The body hoppers shall be rated at 46 inches of negative water pressure. Sweepers shall meet applicable U.S. Environmental Protection Agency Standards. No mechanical pick-up

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brooms will be allowed on the project. Any areas adjacent to the project where a vacuum broom cannot access, shall be removed by the use of a blow pack. No mechanical pick-up brooms will be allowed on the project.

Material application rates

Material	3/8" Cape Seal	1/4"
Cape Seal CRS-2P Chip Seal	.26-.36 Gal/SY	.20-
.32 Gal/SY Cover Coat Aggregate	20 lbs/SY Minimum	28
lbs/SY Minimum		
Slurry Mix	22 lbs/SY Minimum	18 lbs/SY Minimum

The specific size of aggregate used shall be determined using factors such as surface temperature, traffic volume, existing road condition, and time of year. The Contractor may alter the application rate at any time during the course of the construction upon approval by the Project Manager.

Manholes, Valves and Inlets:

Manholes, valve boxes, and inlets shall be covered and or protected with an approved material during the operation and shall be removed immediately after the street has been Cape Sealed. The Contractor is responsible for locating all exposed manholes, valve boxes and prior to construction.

Weather Limitations:

The Chip Seal shall not be applied when the pavement is moist, or when the weather is or may be detrimental. Detrimental weather is defined as rain showers, cool temperatures, moist pavements, threat of rain showers, or other environmental factors which could affect the performance of the Chip Seal construction. If either the pavement or air temperature is below 55°F (10°C) and falling, but may be applied when both pavement and air temperatures are above 50°F (7°C) and rising.

The Slurry Seal shall not be applied if either the pavement or air temperature is below 50°F (10°C) and falling, but may be applied when both pavement and air temperatures are above 45°F (7°C) and rising. No Slurry Seal shall be applied when air temperatures will be below freezing within 24 hours. The mixture shall not be applied when weather conditions prolong opening to traffic beyond a reasonable time.

Water:

All water used in making the Slurry shall be potable. The effect of moisture content on the specific weight of the aggregate, and the moisture content of the aggregate

being used, shall be taken into account in calibrating the machine to deliver asphalt in the correct proportion.

Mix Design:

Before work begins the Contractor shall submit a mix design for the Slurry Seal, covering the specified materials to be used on this project. This design shall be prepared by the emulsion supplier with a laboratory qualified in Slurry Seal mix design and testing. Once the materials are selected, no substitution will be permitted unless first tested and approved by the laboratory preparing the mix design.

EXECUTION OF THE WORK

Surface Preparation:

The Contractor shall be responsible for all measures required providing a thoroughly clean and dry pavement surface including vegetation removal, and sweeping prior to the Chip Seal application. The Contractor shall observe the condition of the pavement prior to bidding to determine the work necessary to provide a clean, dry pavement for construction and shall include the work necessary in the bid.

Application of Bituminous Material (Chip Seal):

The application of the emulsion shall be performed by means of a pressure distributor in a manner to achieve a uniform and continuous spread over the asphalt surface. The temperature of the emulsion shall be a minimum of 160 F. The quantity of emulsion per square yard shall be as specified herein and agreed upon with the project manager. The distributor shall be moving forward at proper application speed at the time the spray bar is opened. If at any time a nozzle becomes clogged or not spraying a proper pattern, the operation shall be immediately halted until repairs are made. Repairs shall be made immediately after deficiencies are noted and prior to the aggregate spreader at all times during construction. The width of the spread shall be no greater than the width of the aggregate spreader except where additional passes are required the emulsion shall be four inches beyond the aggregate spread at fifty percent application rate. At no time shall the emulsion be allowed to break, chill, setup, harden, or otherwise impair the aggregate retention before the aggregate has been properly applied and rolled

Application of Cover Coat Aggregate (Chip Seal):

The aggregate shall be applied immediately following the emulsion application by the approved aggregate spreader. The quantity of cover coat aggregate per square yard shall be specified herein and agreed upon with the Project Manager. The Contractor, prior to start of work, shall calibrate the aggregate spreader to achieve the design application rate of the cover coat aggregate. Spreading shall be accomplished in such a manner that the

tires of the trucks and aggregate spreader never contact the newly applied bituminous material. The width of the aggregate spreader shall be equal to the width of the emulsion spread, except where additional passes are required. Areas, which are deficient in aggregate, shall be covered immediately with additional material.

Rolling (Chip Seal):

Initial rolling shall begin immediately after the application of cover coat aggregate. Rollers shall work in tandem and complete a minimum of three passes with a sufficient overlap. Should the rolling operation be delayed, the aggregate and emulsion spreading shall be halted until the operation regains proper sequencing and timing. The maximum speed of the rolling operations shall be ten miles per hour

Sweeping (Chip Seal):

Within 24 hours of the Chip Seal application, excess aggregate shall be swept and removed from the roadway and adjacent areas with the specified sweepers.

Application of Material (Slurry):

Within 48 hours of the Chip Seal application the Slurry course will be applied. The surface shall be fogged with water directly preceding the spreader. The Slurry mixtures shall be of the desired consistency, based on the submitted mix design, as it leaves the mixer with additional approved additive if required. A sufficient amount of Slurry shall be carried in all parts of the spreader at all times so that complete coverage is obtained.

No lumping, balling, or unmixed aggregates shall be permitted. No segregation of the emulsion and aggregate fines from the coarse aggregate will be permitted. No excessive breaking of the emulsion will be allowed in the spreader box. Rippling of the finished pavement is undesirable and shall be minimized.

No excessive build-up or unsightly appearance shall be permitted on longitudinal or transverse joints. The use of burlap drags or other type drags shall be used so that joints will be straight and have a neat appearance. Squeegees shall be used to spread Slurry in areas not accessible to the Slurry mixer. Care shall be exercised as the leave a good appearance. Care shall be taken to insure straight lines along curbs, shoulders and joints. Lines at intersections will be kept straight to provide a good appearance.

Slurry treated areas shall be allowed to cure until such time as traffic will not damage the finished product. Contractor will be responsible for monitoring roadways treated to insure sufficient cure time is allowed before allowing traffic over the treated areas.

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Traffic Control:

A traffic control plan approved by Project Manager will be required before any work commences. Temporary raised pavement markers will be installed as needed, at a minimum of 40' spacing. The cost of signage, markers, and traffic control necessary to complete this project shall be included in the unit price of the Cape Seal.

Method of Measurement & Payment:

The Cape Seal shall be measured and paid for by the square yard sealed and accepted by the owner. Payment shall be full compensation for the Cape Seal work completed in accordance with the above specifications.

Location of Work:

The attached list of streets will give the location of the work to be performed under this contract. The final designation of locations will be verified after the contract has been awarded. The Town reserve the right to alter quantities (both increase and decrease) from those shown on the plan and bidder's documents. Such alterations of quantities will not change the unit price of the accepted contract. Please refer to **Exhibit "C" Cape Seal Application** Locations for additional reference.

Cape Seal Location Chart

No.	Street	Sq Yds
1	Locust Ave between Bonanza Blvd and Weld County Road 37	5644.63
	Total	5644.63

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BID PRICING SHEET

Item No.	Item Description	Est. Quantity	Unit	Unit Cost	Total Cost
1	Cape Seal -Locust Ave		Sq. Yds.		

Proposer: _____

Address: _____

City: _____ State _____ Zip Code _____

Telephone No. _____

Name: _____

Title: _____

Signature: _____

SCOPE OF WORK & SPECIFICATIONS

Concrete Work

51. The Contractor shall furnish all labor, equipment, material, supplies, environmental protection, no parking signs, signage, traffic control, secondary sweeping, and other incidentals necessary to install:

- **Curb, gutters and sidewalk in accordance with CDOT M-609-1 standard and;**
- **ADA-compliant curb ramp in accordance with CDOT M-608-1 standard.**

The proposed pricing shall include demolition and disposal costs.

52. Location of Work:

The attached list of streets will give the location of the work to be performed under this contract. The final designation of locations will be verified after the contract has been awarded. The Town reserve the right to alter quantities (both increase and decrease) from those shown on the plan and bidder's documents. Such alterations of

Gutter repair/ ramp installation description and location

No.	Street	LF
1	ADA ramp, access to Lochwood park from Locust Ave.	
2	102 Locust AVE, south side of street, N side of Park, Mountable C&G ,	120
3	244 Elm combination, sidewalk & gutter combo	10
4.	201 Willow Dr. Mountable C&G	60

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BID PRICING SHEET

Item No.	Item Description	Est. Quantity	Unit	Unit Cost	Total Cost
1.	Gutter repair				
2.	Ramp installation				

Proposer: _____

Address: _____

City: _____ State _____ Zip Code _____

Telephone No. _____

Name: _____

Title: _____

Signature: _____

53. General Conditions

Days of operation of this Agreement shall be as follows: Monday through Friday unless prior approval is given and then the contractor will be required to pay the cost of any Town overtime required. There will be no work allowed on Saturdays or Sundays unless approved by the Town

Hours of operation shall be agreed to between the Town and the Contractor, but no earlier than 8:00 a.m. and no later than 7:00 p.m. on Weekdays. On certain Arterial Streets hours for traffic control and construction may be more restrictive.

The Contractor shall have a field supervisor in the field at all times who shall be equipped with a cell phone.

Contractor shall be responsible for all traffic control. Traffic control is to be paid as part of the unit price and will not be paid for separately. Contractor must submit traffic control plans for Town approval.

The Contractor shall erect "No Parking" signs 24 hours before the street is to be Slurry Sealed or Cape Sealed. The Contractor will repair and/or compensate for all damages that have resulted from the Contractors operations within the Town of Lochbuie at the expense of the Contractor. All complaints regarding any said damages will be handled by the Contractor to the satisfaction of the citizen and the Town. Streets are not to be closed to traffic before 8:00 am and must be reopened to traffic no later than 5:00 P.M. each day.

Pre-Construction Meeting: The Contractor shall contact Town of Lochbuie Public Works Operations Manager, at least 10 working days prior to the anticipated construction start time for a Pre-Construction Conference to review the traffic control plan and resident notification plan. The meeting time and location shall be determined by the Town.

Traffic Control: A traffic control plan approved by Public Works Operations Manager will be required before any work commences.

The Town will advertise (1 week) in advance a general notice on the Town's web page.

Notification

The Contractor (if required) will post on all properties adjacent to construction a notification pamphlet twenty-four (24) hours prior to commencement of work. The pamphlets shall only be delivered between the hours of 8:00 A.M. and 6:00 P.M. When delivering the pamphlets, the Contractor shall make an effort to make personal contact with the resident or business to advise them what will be happening on their street. If there is a delay due to weather, equipment breakdowns, and/or other causes, the Contractor shall post on all properties a re-notification pamphlet twenty four (24) hours prior to commencement of work. Notification pamphlets will be supplied by the Contractor to the Town for approval at the pre-construction meeting.

The handout will have at least the following verbiage:

1. Construction will begin in approximately 24 hours so the homeowner will be responsible for removing their vehicles from the street until the No Parking signs are removed by the Contractor.
2. All vehicles not removed will be towed by the Town at the owner's expense.
3. The Contractors phone number, if there are any questions.
4. Weather disclaimer.

Parked Cars: Cars shall be towed by the Town, and at Town expense, only after 24 hours of advance notice and posting of no parking signs has been done by the Contractor. Cars that have been towed without adequate notice will be paid for by the Contractor.

No Parking Signs:

The Contractor will be required to notify residents and businesses along streets and possibly side streets where construction is to be performed. The use of portable **NO PARKING SIGNS**, in addition, will be required to aid in removing cars parked in construction zones. These signs shall meet MUTCD Standards Section 2B.39 governing regulatory signs. No Parking signs will be placed at no more than 200 ft. intervals or minimum four per block on both sides of streets in areas of construction (if needed). These signs will be placed on streets no sooner than 48 hours in advance of work taking place. These signs shall have the dates of construction, as well as the time of day the work will be performed. These dates and times may be added to the signs with a black erasable marker. If dates cannot be met due to scheduling or other problems, these dates and times will be changed on signs, or signs will be removed.

54. Field verification and areas to be sealed:

It is the responsibility of the Contractor to familiarize their workers with the list of streets (Exhibit "A") and map (Exhibit "B") to be sealed. Unless given written directions otherwise, any street(s) that are not on the above list will be done at the Contractor's Expense.

55. Final Payment

Final payment shall be paid by the Bidder to the Contractor with forty-five (45) days after substantial completion of the work unless otherwise stipulated in the Notice of

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Completion, and subject to statutory retention for unresolved claims

Exhibit "A" Asphalt Patching Locations

Town of Lochbuie 2018 Pavement and Concrete Program RFP # 2018-01

NOTE: Location numbers correspond to location descriptions identified in Section 31 of the RFP

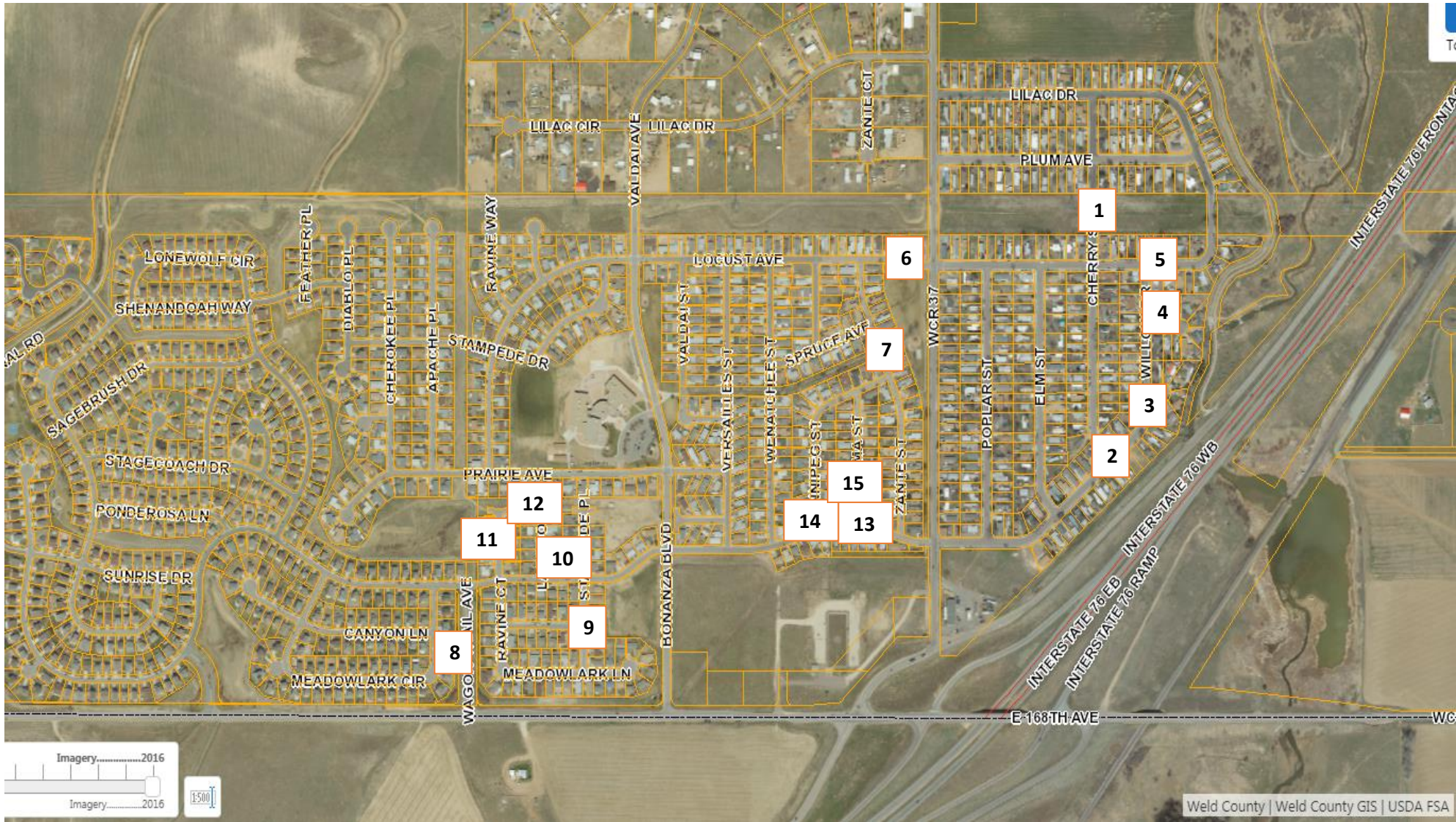


Exhibit "B" Slurry Seal Application

Town of Lochbuie 2018 Pavement and Concrete Program RFP # 2018-01

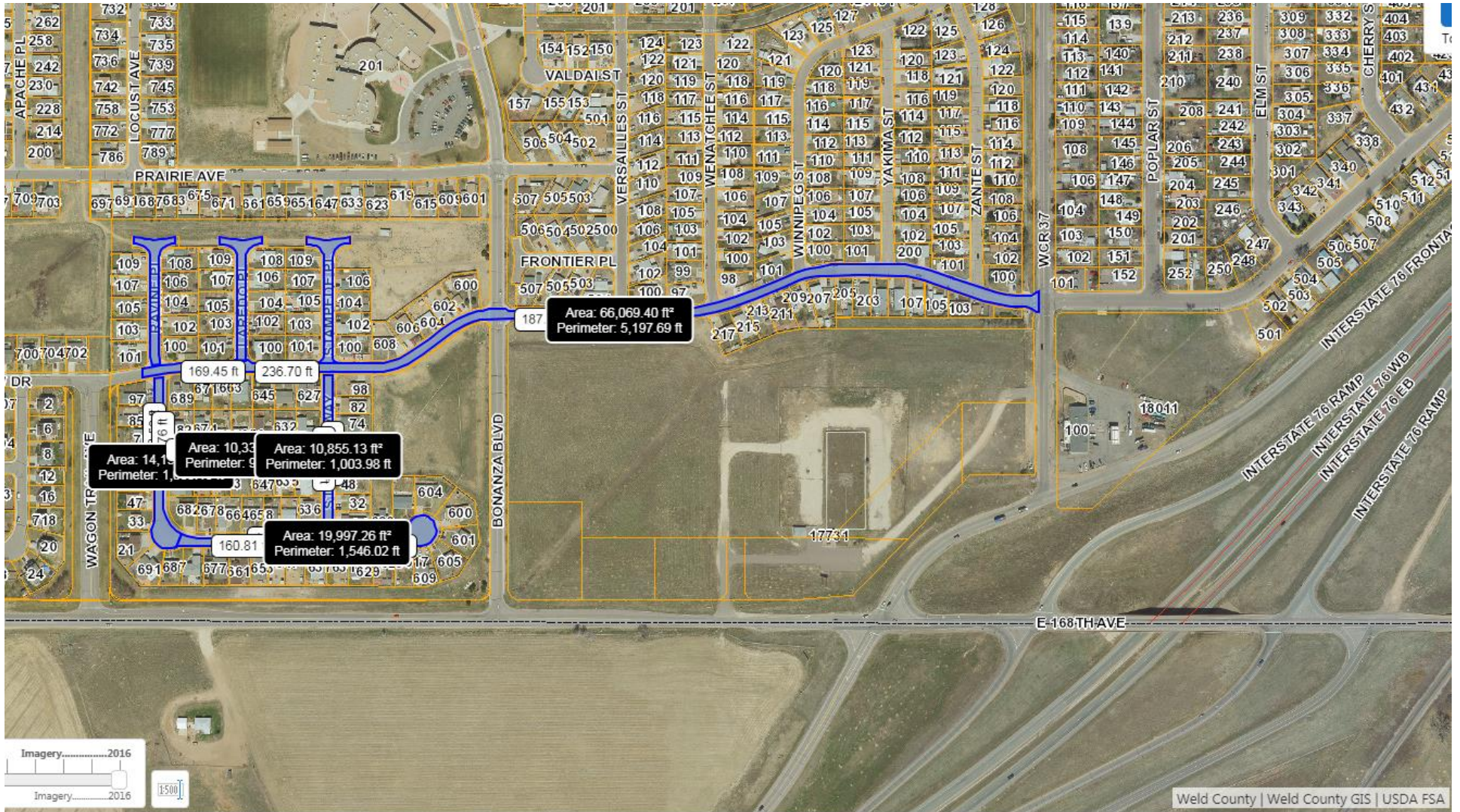


Exhibit "C" Cape Seal Application

Town of Lochbuie 2018 Pavement and Concrete Program RFP # 2018-01

