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VILLAGE OF DOWNERS GROVE Report for the Village 8/7/2018

SUBJECT:	SUBMITTED BY:	
Bid - 2018 Street Preservative Seal	Nan Newlon Director of Public Works	

SYNOPSIS

A motion is requested to award a contract for the 2018 Preservative and Restorative Seal to Corrective Asphalt Materials, LLC, South Roxana, Illinois in the amount of \$135,247.90.

STRATEGIC PLAN ALIGNMENT

The goals for 2017-2019 include *Top Quality Infrastructure*.

FISCAL IMPACT

The FY18 budget includes \$140,000 in the Capital Fund (Page 4-17, Line 20) for this project.

RECOMMENDATION

Approval on the August 7, 2018 consent agenda.

BACKGROUND

This contract is a component of the 2018 Roadway Maintenance Program (CIP Project ST-004). The scope of this contract includes application of a maltene-based rejuvenating/sealing agent on approximately 157,000 square yards of Village streets. The purpose of this product is to extend the life of the asphalt and increase the time between more expensive maintenance activities.

A Call for Bids (CFB) was issued and published in accordance with the Village's Purchasing Policy. One bid was received and publicly read on Thursday, July 19. A synopsis of the bids is as follows:

<u>Contractor</u>	Base Bid	
Corrective Asphalt Materials, LLC	\$135,247.90	Low Bid

Corrective Asphalt Materials has satisfactorily performed work of similar scope for the Village in 2016 and 2017 as well as multiple projects for the City of Elmhurst, Lisle Township and the Villages of Lombard, Villa Park and Glen Ellyn. Staff recommends award of this contract to Corrective Asphalt Materials, LLC.

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ATTACHMENTS

Contract Documents Contractor Evaluation Form List of Streets



CALL FOR BIDS - FIXED WORKS PROJECT

- I. Name of Company Bidding: Corrective Asphalt materials, LLC
- II. Instructions and Specifications:
 - A. Bid No.: ST-004E
 - B. For: Preservative and Restorative Seal for Asphalt Pavements
 - C. Bid Opening Date/Time: JULY 19, 2018 @ 9:30AM
 - D. Pre-Bid Conference Date/Time: NONE
 - E. Pre-Bid Conference Location: NONE
 - F. Contract Documents for pickup at the Public Works Building, 5101 Walnut Ave, Downers Grove, IL 60515
- III. Required of All Bidders:
 - A. Bid Deposit: 5%
 - B. Letter of Capability of Acquiring Performance Bond: YES
- IV. Required of Awarded Contractor(s)
 - A. Performance Bond or Letter of Credit: YES
 - B. Certificate of Insurance: YES

Legal Advertisement Published: July 5, 2018

This document comprises 44 pages, 1 map and 1 street list

DemandStar Number: CFB-0-45-2018/meg

RETURN <u>ORIGINAL</u> BID IN SEALED ENVELOPE MARKED WITH THE BID NUMBER AS NOTED ABOVE TO:

STEPHANIE GRAVES STAFF ENGINEER II VILLAGE OF DOWNERS GROVE 5101 WALNUT AVENUE DOWNERS GROVE, IL 60515 PHONE: 630/434-5487 FAX: 630/434-5495

www.downers.us

CALL FOR BIDS - FIXED WORKS PROJECT

Bid No.: ST-004E

The VILLAGE OF DOWNERS GROVE will receive bids Monday thru Friday, 8:00 A.M. to 5:00 P.M. at the Public Works Building, 5101 Walnut Avenue, Downers Grove, IL 60515.

The Village Council reserves the right to accept or reject any and all bids, to waive technicalities and to accept or reject any item of any Bid.

The documents constituting component parts of this Contract are the following:

- I. CALL FOR BIDS
- II. TERMS & CONDITIONS
- III. GENERAL PROVISIONS
- IV. SPECIAL PROVISIONS
- V. BID & CONTRACT FORM

All Bidders MUST submit the entire bid package, with one original Bid Form. Upon formal Award, the successful Bid will automatically convert to a Contract, and the successful Bidder will receive a copy of the executed contract upon formal award of the Bid with the Notice of Award.

DO NOT DETACH ANY PORTION OF THIS DOCUMENT. INVALIDATION COULD RESULT.

I. CALL FOR BIDS and INSTRUCTIONS TO BIDDERS

1. GENERAL

1.1 Notice is hereby given that Village of Downers Grove will receive sealed bids up to: <u>JULY 19</u>, <u>2018 @ 9:30 AM.</u>

1.2 Defined Terms:

- 1.2.1 Village the Village of Downers Grove acting through its officers or agents.
- 1.2.2 Contract Documents this document plus any drawings issued therewith, any addenda and the Bidder's completed proposal, bonds and all required certifications.
- 1.2.3 Bid this document completed by an individual or entity and submitted to the Village.
- 1.2.4 Bidder the individual or entity who submits or intends to submit a bid proposal to the Village.
- 1.2.5 Contractor the individual or entity whose bid is selected by the Village and who enters into a contract with the Village.
- 1.2.6 Work the construction or service defined herein.
- 1.2.7 Day unless otherwise stated all references to day "Day" "Days", "day" or "days" shall refer to calendar days.
- 1.2.8 Proposal Guaranty the required bid deposit.
- 1.3 Bids must be received at the Village by the time and date specified. Bids received after the specified time and date will not be accepted and will be returned unopened to the Bidder.
- 1.4 Bids shall be sent to the Village of Downers Grove, ATTN: John Welch, in a sealed envelope marked "SEALED BID." The envelope shall be marked with the name of the project, date, and time set for receipt of Bids. The bid package may be submitted any time prior to the time set for receipt of Bids.
- 1.5 All Bids must be submitted on the forms supplied by the Village and signed by a proper official of the company submitting the Bid. Telephone, email and fax Bids will not be accepted.
- 1.6 Under penalty of perjury, the Bidder certifies by submitting this Bid that he has not acted in collusion with any other Bidder or potential Bidder.

2. BID PREPARATION

- 2.1 It is the responsibility of the Bidder to carefully examine the Contract Documents and to be familiar with all of the requirements, stipulations, provisions, and conditions surrounding the proposed Work.
- 2.2 The Bidder shall inspect the site of the proposed Work in detail, investigate and become familiar

with all the local conditions affecting the Work and become fully acquainted with the detailed requirements of the Work. Submitting a Bid shall be a conclusive assurance and warranty that the Bidder has made these examinations and that the Bidder understands all requirements for the performance of the Work. If the Bid is accepted, the Bidder will be responsible for all errors in the Bid resulting from his willing or neglectful failure to comply with these instructions. IN NO CASE WILL THE VILLAGE BE RESPONSIBLE FOR ANY COSTS, EXPENSES, LOSSES OR CHANGES IN ANTICIPATED MARGINS OF PROFIT RESULTING FROM THE WILLING OR NEGLECTFUL FAILURE OF THE BIDDER TO MAKE THESE EXAMINATIONS. THE VILLAGE WILL NOT BE RESPONSIBLE FOR ANY COSTS, EXPENSES, LOSSES OR CHANGES IN ANTICIPATED MARGINS OF PROFIT RESULTING FROM THE WILLING OR NEGLECTFUL FAILURE OF THE CONTRACTOR TO PROVIDE THE KNOWLEDGE, EXPERIENCE AND ABILITY TO PERFORM THE WORK REQUIRED BY THIS CONTRACT. No changes in the prices, quantities or contract provisions shall be made to accommodate the inadequacies of the Bidder, which might be discovered subsequent to award of contract. The Bidder shall take no advantage of any error or omission in the Contract Documents nor shall any error or omission in the Contract Documents serve as the basis for an adjustment of the amounts paid to the Bidder.

- 2.3 When the Contract Documents include information pertaining to subsurface explorations, borings, test pits, and other preliminary investigations, such information is included solely for the convenience of the Bidder. The Village assumes no responsibility whatsoever with respect to the sufficiency of the information, and does not warrant, neither expressly nor by implication, that the conditions indicated represent those existing throughout the Work, or that unanticipated developments may not occur.
- 2.4 Any information shown in the Contract Documents regarding the locations of underground utility facilities is included solely for the convenience of the Bidder. The Village assumes no responsibility whatsoever with respect to the sufficiency, accuracy or inadequacy of such information. It shall be the Bidder's responsibility to obtain detailed information from the respective utility companies relating to the location of their facilities and the work schedules of the utility companies for removing or adjusting them. Utilities whose facilities may be affected by the work include, but may not be limited to, the following: Nicor, ComEd, AT&T, Comcast Cable, Downers Grove Sanitary District, and Village water, storm sewer, and street lighting systems.
- 2.5 No oral or telephone interpretations of specifications shall be binding upon the Village. All requests for interpretations or clarifications shall be made in writing and received by the Village at least five (5) business days prior to the date set for receipt of Bids or the pre-bid conference, if offered. The Village shall make all changes or interpretations of the Contract Documents in a written addendum and shall provide an addendum to any Bidder of record. Any and all changes to the Contract Documents are valid only if they are included by written addendum to all Bidders. Each Bidder must acknowledge receipt of any addenda by indicating same on the Bid Form. Each Bidder, by acknowledging receipt of any addenda, is responsible for the contents of the addenda and any changes to the Bid therein. Failure to acknowledge any addenda may cause the Bid to be rejected. The Village will not assume responsibility for receipt of any addenda. In all cases, it will be the Bidder's responsibility to obtain all addenda issued. Bidders will provide written acknowledgement of receipt of each addendum issued with the bid submission.
- 2.6 An estimate of the quantities of Work to be performed and the materials to be furnished is shown in

the Bid Form. It is given as a basis for comparing the properly submitted Bids, and shall be used by the Village in awarding the Contract. The Village does not expressly warrant nor imply that the estimated quantities shown will correspond with those quantities required to perform the Work. No Bidder shall plead misunderstanding or deception because of such an estimate of quantities, or because of the character, location or other conditions pertaining to the Work. Payment shall be based on the actual quantities of work properly performed in accordance with the Contract, at the Contract unit prices specified. The Village reserves the right to increase, decrease or omit entirely, any or all items. No allowance will be made for any change in anticipated profits due to an increase or decrease in the original estimate of quantities.

- 2.7 The Bidder must submit his Bid on the form furnished by the Village. The Bid shall be executed properly, and Bids shall be made for all items indicated in the Bid Form. The Bidder shall indicate, in figures, a unit price or lump sum price for each of the separate items called for in the Bid Form. The Bidder shall show the products of the respective quantities and unit prices in the column provided for that purpose. The gross sum shown in the place indicated in the Bid Form shall be the summation of said products. All writing shall be with ink or typewriter, except the signature of the Bidder, which shall be written with ink.
- 2.8 In case of error in the extension of prices in the Bid, the hourly rate or unit price will govern. In case of discrepancy in the price between the written and numerical amounts, the written amount will govern.
- 2.9 All costs incurred in the preparation, submission, and/or presentation of any Bid including the Bidder's travel or personal expenses shall be the sole responsibility of the Bidder and will not be reimbursed by the Village.
- 2.10 The Bidder hereby affirms and states that the prices quoted herein constitute the total cost to the Village for all work involved in the respective items, as well as the materials to be furnished in accordance with the collective requirements of the Contract Documents. The Bidder also affirms that this cost includes all insurance, bonds, royalties, transportation charges, use of all tools and equipment, superintendence, overhead expense, profits and other work, services and conditions necessarily involved in the work to be done.
- 2.11 The Bidder shall complete and submit with the Bid an "Affidavit" (IDOT Form BC-57, or similar)listing all uncompleted contracts, including subcontract work; all pending low bids not yet awarded or rejected, and equipment available.
- 2.12 The Bidder shall complete and submit with the Bid a "Municipal Reference List" indicating other municipalities for which the Bidder has successfully performed similar work.

3. PRE-BID CONFERENCE

- 3.1 A pre-bid conference may be offered to provide additional information, inspection or review of current facilities or equipment, and to provide an open forum for questions from Bidders. This pre-bid conference is not mandatory (unless stated "Required" on the cover of this document), but attendance by Bidders is strongly advised as this will be the last opportunity to ask questions concerning the Bid.
- 3.2 Questions may be posed in writing to the Village (faxed and emailed questions are acceptable), but

must be received by the Village prior to the scheduled time for the pre-bid conference. Questions received will be considered at the conference. An addendum may be issued as a result of the pre-bid conference. Such an addendum is subject to the provisions for issuance of an addendum as set forth in Section 2.5 above.

3.3 No Contract Documents will be issued after the pre-bid conference except to attendees.

4. BID SUBMISSION

- 4.1 An original copy of the sealed bid marked as indicated in Section 1 shall be submitted to the Village.
- 4.2 A bid deposit will be required, which shall not exceed ten percent (10%) of the estimated cost of the work to be furnished. Such bid deposit shall be in the form of a bid bond, certified check, cash or money order. Checks shall be drawn upon a bank of good standing payable to the order of the Village and said deposit shall be forfeited to the Village in the event the Bidder neglects or refuses to enter into a contract and bond when required, with approved sureties, to execute the Work or furnish the material for the price mentioned in his Bid and according to the plans and specifications in case the contract shall be awarded to him.
- 4.3 Bids shall be publicly opened at the hour and place indicated above.

5. BID MODIFICATION OR WITHDRAWAL

- A Bid that is in the possession of the Village may be altered by a letter bearing the signature or name of the person authorized for submitting a Bid, provided that it is received prior to the time and date set for the bid opening. Telephone, email or verbal alterations of a Bid will not be accepted.
- A Bid that is in the possession of the Village may be withdrawn by the Bidder, up to the time set for the bid opening, by a letter bearing the signature or name of the person authorized for submitting Bids. Bids may not be withdrawn after the bid opening and shall remain valid for a period of ninety (90) days from the date set for the bid opening, unless otherwise specified.
- 5.3 Any Bidder who does not submit a Bid is requested to return the enclosed Statement of "No Bid" postcard. Bidders not submitting Bids or "No Bid Statement" may otherwise be removed from the Village's bid mailing list.

6. BID REJECTION

6.1 Bids that contain omissions, erasures, alterations, additions not called for, conditional bids or alternate bids not called for, or irregularities of any kind, shall be rejected as informal or insufficient. Bids otherwise acceptable, which are not accompanied by the proper Proposal Guaranty, shall also be rejected as informal or insufficient. The Village reserves the right however, to reject any or all Bids and to waive such technical error as may be deemed best for the interest of the Village.

7. BIDDER COMPETENCY

7.1 No Bid will be accepted from or contract awarded to any person, firm or corporation that is in arrears or is in default upon any debt or contract. The Bidder, if requested, must present evidence to the Village of ability and possession of necessary facilities, and financial resources to comply with the terms of the Contract Documents. Evidence must be presented within three (3) business days.

8. BIDDER DISQUALIFICATION

- 8.1 Any one or more of the following causes may be considered as sufficient for the disqualification of a Bidder and the rejection of their Bid.
 - 8.1.1 More than one Bid for the same Work from an individual, firm partnership, or corporation under the same or different names.
 - 8.1.2 Evidence of collusion among Bidders.
 - 8.1.3 Unbalanced Bids in which the prices for some items are substantially out of proportion to the prices for other items.
 - 8.1.4 Failure to submit a unit price for each item of Work listed in the Bid Form.
 - 8.1.5 Lack of competency as revealed by financial statement or experience questionnaire.
 - 8.1.6 Unsatisfactory performance record as shown by past work, judged from the standpoint of workmanship and progress.
 - 8.1.7 Uncompleted work which, in the judgment of the Village, might hinder or prevent the prompt completion of this Work.
 - 8.1.8 Failure to submit a signed Bidder's Certificate stating the following:
 - 8.1.8.1 That the Bidder is not barred from bidding on this Contract as a result of a violation of Sections 720 ILCS 5/33-E3 and 720 ILCS 5/33-E4 of the Illinois Compiled Statutes; and
 - 8.1.8.2 The Bidder is not delinquent in the payment of any tax administered by the Illinois Department of Revenue; and
 - 8.1.8.3 The Bidder will maintain the types and levels of insurance required by the terms of this contract; and
 - 8.1.8.4 The Bidder will comply with the Illinois Prevailing Wage Act, 820 ILCS 130/1 *et seq.*

9. BASIS OF AWARD

9.1 The Village reserves the exclusive right to accept or reject any and all Bids or to waive sections, technicalities and irregularities, or to accept or reject any Bid or any item of any Bid.

10. AWARD OF CONTRACT

10.1 Unless the Village exercises its right to reject all Bids, the Contract will be awarded to that responsible Bidder whose Bid, conforming to the Contract Documents, will be most advantageous to the Village, price and other factors considered (e.g. credentials, financial information, bonding capacity, insurance protection, qualifications of the labor and management of the firm, past experience and ability to complete the project within time frame required).

10.2 Unless otherwise specified, if a Contract is not awarded within ninety (90) days after the opening of Bids, a Bidder may file a written request with the Village for the withdrawal of their Bid. The Village will have a maximum of ten (10) days after the receipt of such request to award the Contract or release the Bidder from further obligation by return of the Bidder's bid deposit. Any attempt or actual withdrawal or cancellation of a Bid by the awarded contractor who has been notified by the Village of the acceptance of said Bid shall be considered a breach of contract.

11. RETURN OF BID DEPOSIT

11.1 The bid deposit of all except the three (3) lowest responsive bidders on each contract will be returned within fifteen (15) days after the opening of Bids. The remaining bid deposits of each contractor will be returned within fifteen (15) days after the Village Council has awarded the contract and the required appurtenances to the contract have been received.

12. FAILURE TO ENTER INTO CONTRACT

- 12.1 Failure on the part of the successful Bidder to execute a Contract and provide acceptable bonds, as provided herein, within ten (10) days from the date of receipt of the Contract and Notice of Award from the Village, will be considered as just cause for the revocation of the award. The Bidder's bid security shall then be forfeited to the Village, not as a penalty but in payment of liquidated damages sustained as a result of such failure.
- 12.2 The Bidder shall not be allowed to claim lack of receipt where the Contract and Notice of Award was mailed by U.S. Postal Services certified mail to the business address listed in his Bid. In case the Village does not receive evidence of receipt within ten (10) days of the date of Notice of Award, the Village may revoke the award. The Bidder shall then forfeit the bid security to the Village, not as a penalty but in payment of liquidated damages sustained as the result of such failure to execute the Contract.
- 12.3 By submitting a Bid, the Bidder understands and agrees that, if his Bid is accepted, and he fails to enter into a contract forthwith, he shall be liable to the Village for any damages the Village may thereby suffer.

13. SECURITY FOR PERFORMANCE

13.1 The successful Bidder shall, within ten (10) days after acceptance of the Bidder's Bid by the Village, furnish a Performance Bond and a Materials and Labor Payment Bond acceptable to the Village in the full amount of the Bid. Said bonds shall guarantee the Bidder's performance under the Contract Documents and shall guarantee payment of all subcontractors and material suppliers. Any bond shall include a provision as will guarantee faithful performance of the Illinois Prevailing Wage Act, 820 ILCS 130/1 et seq.

14. TAX EXEMPTION

14.1 The Village is exempt from Illinois sales or use tax for direct purchases of materials and supplies. A copy of the Illinois Sales Tax Exemption Form will be issued upon request. The Village's federal identification number will also be provided to the selected Bidder.

15. RESERVED RIGHTS

15.1 The Village reserves the right to waive sections, irregularities, technicalities and informalities to this Contract and to accept any Bid and to reject any and all Bids and to disapprove of any and all subcontractors as may be in the best interest of the Village. Time and date requirements for receipt

of Bids, however, will not be waived.

16. CATALOGS AND SHOP DRAWINGS

16.1 Each Bidder shall submit catalogs, descriptive literature, and detailed drawings, where applicable, to fully illustrate and describe the work or material he proposes to furnish.

17. TRADE NAMES AND SUBSTITUTIONS

17.1 Certain materials and equipment are specified by a manufacturer or trade name to establish standards or quality and performance and not for the purpose of limiting competition. Products of other manufacturers may be substituted, if, in the opinion of the Village, they are equal to those specified in quality, performance, design, and suitability for intended use. If the Bidder proposes to furnish an "equal", the proposed "equal" item must be so indicated in the written Bid. Where two or more items are specified, the selection among those specified is the Bidder's option, or he may submit his Bid on all such items. Detail specification sheets shall be provided by Bidder for all substituted items.

II. TERMS AND CONDITIONS

18. VILLAGE ORDINANCES

18.1 The successful Bidder, now the Contractor, will strictly comply with all ordinances of the Village of Downers Grove and laws of the State of Illinois.

19. USE OF VILLAGE'S NAME

19.1 The Contractor is specifically denied the right of using in any form or medium the name of the Village for public advertising unless the Village grants express permission.

20. HOURS OF WORK

20.1 The Contractor shall do no work between the hours of 7:00 p.m. and 7:00 a.m., nor on Saturdays, Sundays or legal holidays, unless otherwise approved in writing by the Village. However, such work may be performed at any time if necessary, for the proper care and protection of work already performed, or in case of an emergency. All after-hour work is still subject to the permission of the Village. Any work, including the starting and/or idling of vehicles or machinery, or a congregation of workers prior to starting work, which may cause any noise level that can be heard by adjacent residents, performed outside of these hours of work and not authorized by the Village shall be subject to a fine of \$250 per day, per violation.

21. PERMITS AND LICENSES

21.1 The Contractor shall obtain all necessary permits and licenses required to complete the Work. The cost of acquisition of all necessary permits, bonds, insurance and services as specified herein shall be considered INCIDENTAL, and no additional compensation will be allowed the Contractor.

22. INSPECTION

22.1 The Village shall have a right to inspect, by its authorized representative, any material, components or workmanship as herein specified. Materials, components or workmanship that have been rejected by the Village as not in accordance with the terms of the contract specifications shall be replaced by the Contractor at no cost to the Village.

23. DELIVERIES

23.1 All materials shipped to the Village must be shipped F.O.B. designated location, Downers Grove, Illinois.

24. SPECIAL HANDLING

24.1 Prior to delivery of any product that is caustic, corrosive, flammable or dangerous to handle, the Contractor will provide written directions as to methods of handling such products, as well as the antidote or neutralizing material required for its first aid before delivery. Contractor shall also notify the Village and provide material safety data sheets for all substances used in connection with this Contract which are defined as toxic under the Illinois Toxic Substances Disclosure to Employees Act.

25. NONDISCRIMINATION

- 25.1 Contractor shall, as a party to a public contract:
 - 25.1.1 Refrain from unlawful discrimination in employment and undertake affirmative action to assure equality of employment opportunity and eliminate the effects of past discrimination;

- 25.1.2 By submission of this Bid, the Contractor certifies that he is an "equal opportunity employer" as defined by Section 2000(e) of Chapter 21, Title 42, U.S. Code Annotated and Executive Orders #11246 and #11375, which are incorporated herein by reference. The Equal Opportunity clause, Section 6.1 of the Rules and Regulations of the Department of Human Rights of the State of Illinois, is a material part of any contract awarded on the basis of this Bid.
- 25.2 It is unlawful to discriminate on the basis of race, color, sex, national origin, ancestry, age, marital status, physical or mental handicap or unfavorable discharge for military service. Contractor shall comply with standards set forth in Title VII of the Civil Rights Act of 1964, 42 U.S.C. Secs. 2000 et seq., The Human Rights Act of the State of Illinois, 775 ILCS 5/1-101 et seq., and The Americans With Disabilities Act, 42 U.S.C. Secs. 1210l et seq.

26. SEXUAL HARASSMENT POLICY

- 26.1 The Contractor, as a party to a public contract, shall have a written sexual harassment policy that:
 - 26.1.1 Notes the illegality of sexual harassment;
 - 26.1.2 Sets forth the State law definition of sexual harassment;
 - 26.1.3 Describes sexual harassment utilizing examples;
 - 26.1.4 Describes the Contractor's internal complaint process including penalties;
 - 26.1.5 Describes the legal recourse, investigative and complaint process available through the Illinois Department of Human Rights and the Human Rights Commission and how to contact these entities; and
 - 26.1.6 Describes the protection against retaliation afforded under the Illinois Human Rights Act.

27. EQUAL EMPLOYMENT OPPORTUNITY

- 27.1 In the event of the Contractor's non-compliance with the provisions of this Equal Employment Opportunity Clause, the Illinois Human Rights Act or the Rules and Regulations of the Illinois Department of Human Rights ("Department"), the Contractor may be declared ineligible for future contracts or subcontracts with the State of Illinois or any of its political subdivisions or municipal corporations, and the contract may be canceled or voided in whole or in part, and such other sanctions or penalties may be imposed or remedies invoked as provided by statute or regulation. During the performance of this Contract, the Contractor agrees as follows:
 - 27.1.1 That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, marital status, national origin or ancestry, age, physical or mental disability unrelated to ability, military status, order of protection status, sexual orientation, sexual identity, or an unfavorable discharge from military service; and further that it will examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such underutilization.
 - 27.1.2 That, if it hires additional employees in order to perform this Contract or any portion thereof,

it will determine the availability (in accordance with the Department's Rules and Regulations) of minorities and women in the area(s) from which it may reasonably recruit and it will hire for each job classification for which employees are hired in such a way that minorities and women are not underutilized.

- 27.1.3 That, in all solicitations or advertisements for employees placed by it or on its behalf, it will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, marital status, national origin or ancestry, age, physical or mental disability unrelated to ability, military status, order of protection status, sexual orientation, or an unfavorable discharge from military services.
- 27.1.4 That it will send to each labor organization or representative of workers with which it has or is bound by a collective bargaining or other agreement or understanding, a notice advising such labor organization or representative of the Contractor's obligations under the Illinois Human Rights Act and the Department's Rules and Regulations. If any such labor organization or representative fails or refuses to cooperate with the Contractor in its efforts to comply with such Act and Rules and Regulations, the Contractor will promptly so notify the Department and the contracting agency and will recruit employees from other sources when necessary to fulfill its obligations thereunder.
- 27.1.5 That it will submit reports as required by the Department's Rules and Regulations, furnish all relevant information as may from time to time be requested by the Department or the contracting agency, and in all respects comply with the Illinois Human Rights Act and the Department's Rules and Regulations.
- 27.1.6 That it will permit access to all relevant books, records, accounts and work sites by personnel of the contracting agency and the Department for purpose of investigation to ascertain compliance with the Illinois Human Rights Act and the Department's Rules and Regulations.
- 27.1.7 That it will include verbatim or by reference the provisions of this clause in every subcontract it awards under which any portion of the contract obligations are undertaken or assumed, so that such provisions will be binding upon such subcontractor. In the same manner as with other provisions of this Contract, the Contractor will be liable for compliance with applicable provisions of this clause by such subcontractors; and further it will promptly notify the contracting agency and the Department in the event any subcontractor fails or refuses to comply therewith. In addition, the Contractor will not utilize any subcontractor declared by the Illinois Human Rights Commission to be ineligible for contracts or subcontracts with the State of Illinois or any of its political subdivision or municipal corporations.

28. DRUG FREE WORK PLACE

- 28.1 Contractor, as a party to a public contract, certifies and agrees that it will provide a drug free workplace by:
 - 28.1.1 Publishing a statement:
 - (1) Notifying employees that the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance, including cannabis, is prohibited in the Village's or Contractor's workplace.
 - (2) Specifying the actions that will be taken against employees for violations of such

prohibition.

- (3) Notifying the employee that, as a condition of employment on such contract or grant, the employee will:
 - (A) Abide by the terms of the statement; and
 - (B) Notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five (5) days after such conviction.
- 28.1.2 Establishing a drug free awareness program to inform employees about:
 - (1) The dangers of drug abuse in the workplace;
 - (2) The Village's or Contractor's policy of maintaining a drug free workplace;
 - (3) Any available drug counseling, rehabilitation and employee assistance programs;
 - (4) The penalties that may be imposed upon employees for drug violations.
- 28.1.3 Providing a copy of the statement required by subparagraph 1.1 to each employee engaged in the performance of the contract or grant and to post the statement in a prominent place in the workplace.
- 28.1.4 Notifying the contracting or granting agency within ten (10) days after receiving notice under part (3)(B) of subparagraph 1.1 above from an employee or otherwise receiving actual notice of such conviction.
- 28.1.5 Imposing a sanction on, or requiring the satisfactory participation in a drug abuse assistance or rehabilitation program by, any employee who is so convicted as required by section 5 of the Drug Free Workplace Act.
- 28.1.6 Assisting employees in selecting a course of action in the event drug counseling, treatment and rehabilitation is required and indicating that a trained referral team is in place.
- 28.1.7 Making a good faith effort to continue to maintain a drug free workplace through implementation of the Drug Free Workplace Act.

29. SUBSTANCE ABUSE PREVENTION ON PUBLIC WORKS PROJECTS ACT

In the event this is a public works project as defined under the Prevailing Wage Act, 820 ILCS 130/2, Contractor agrees to comply with the Substance Abuse Prevention on Public Works Projects Act, 820 ILCS 265/1 et seq., and further agrees that all of its subcontractors shall comply with such Act.. As required by the Act, Contractor agrees that it will file with the Village prior to commencing work its written substance abuse prevention program and/or that of its subcontractor(s) which meet or exceed the requirements of the Act.

30. PREVAILING WAGE ACT

30.1 Contractor agrees to comply with the Illinois Prevailing Wage Act, 820 ILCS 130/1 et seq., for all work completed under this Contract. Contractor agrees to pay the prevailing wage and require that all of its subcontractors pay prevailing wage to any laborers, workers or mechanics who perform work pursuant to this Contract or related subcontract. For applicable rates, go to the State of Illinois – Department of Labor website (www.state.il.us/agency/idol/rates/rates.HTM) and use the most current DuPage County rate. The Department revises the prevailing wage rates and the Contractor or subcontractor has an obligation to check the Department's website for revisions to prevailing wage rates throughout the duration of this Contract.

- 30.2 Contractor and each subcontractor shall keep or cause to be kept accurate records of all laborers, mechanics and other workers employed by them on the public works project, which records must include each worker's name, address, telephone number when available, social security number, classification, hourly wage paid (including itemized hourly cash and fringe benefits paid in each pay period), number of hours worked each day, and the starting and ending times of work each day. These records shall be open to inspection at all reasonable hours by any representative of the Village or the Illinois Department of Labor and must be preserved for five (5) years from the date of the last payment on the public work.
- 30.3 Since this is a contract for a public works project, as defined in 820 ILCS 130/2, Contractor agrees to post at the job site in an easily accessible place, the prevailing wages for each craft or type of worker or mechanic needed to execute the contract or work to be performed.
- 30.4 Because this is a public works project as defined under the Prevailing Wage Act, 820 ILCS 130/2, any and all contractors and subcontractors shall submit certified payroll records to the Village no later than the tenth (10th) day of each calendar month for the immediately preceding month in which construction on a public works project has occurred. WITHOUT THIS PAPERWORK, NO INVOICE SHALL BE PAID BY THE VILLAGE. Contractors and subcontractors must also submit a statement affirming that the records are true and accurate, that the wages paid to each worker are not less than the prevailing rate, and that the contractor and subcontractor are aware that filing false records is a Class A misdemeanor. The records must include the name, address, telephone number, social security number, job classification, hours of work, hourly rate, and start and end time of work each day for every worker employed on the public work. The Village reserves the right to check the pay stubs of the workers on the job. The Village further cautions that payment for any services rendered pursuant to this Contract may be predicated upon receipt of said records.
- 30.5 In the event that this is a construction project where Motor Fuel tax monies or state grant monies are used in the construction, maintenance and extension of municipal streets, traffic control signals, street lighting systems, storm sewers, pedestrian subways or overhead crossings, sidewalks and off-street parking facilities, and the like, the Village will require an Apprenticeship and Training Certification, attached after the Bidder's Certification.
- 30.6 Any bond furnished as security for performance shall include a provision as will guarantee faithful performance of the Illinois Prevailing Wage Act, 820 ILCS 130/1 et seq.

31. PATRIOT ACT COMPLIANCE

31.1 The Contractor represents and warrants to the Village that neither it nor any of its principals, shareholders, members, partners, or affiliates, as applicable, is a person or entity named as a Specially Designated National and Blocked Person (as defined in Presidential Executive Order 13224) and that it is not acting, directly or indirectly, for or on behalf of a Specially Designated National and Blocked Person. The Contractor further represents and warrants to the Village that the it and its principals, shareholders, members, partners, or affiliates, as applicable are not, directly or indirectly, engaged in, and are not facilitating, the transactions contemplated by this Contract on behalf of any person or entity named as a Specially Designated National and Blocked Person. The Contractor hereby agrees to defend, indemnify and hold harmless the Village, and its elected or appointed officers, employees, agents, representatives, engineers and attorneys, from and against any and all claims, damages, losses, risks, liabilities and expenses (including reasonable attorney's

fees and costs) arising from or related to any breach of the foregoing representations and warranties.

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32. INSURANCE REQUIREMENTS

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32.1 Prior to starting the Work, Contractor and any Subcontractors shall procure, maintain and pay for such insurance as will protect against claims for bodily injury or death, or for damage to property, including loss of use, which may arise out of operations by the Contractor or Subcontractor or any Sub-Sub Contractor or by anyone employed by any of them, or by anyone for whose acts any of them may be liable. Such insurance shall not be less than the greater of coverages and limits of liability specified below or any coverages and limits of liability specified in the Contract Documents or coverages and limits required by law unless otherwise agreed to by the Village.

Workers Compensation	\$500,000	Statutory
Employers Liability	\$1,000,000 \$1,000,000 \$1,000,000	Each Accident Disease Policy Limit Disease Each Employee
Comprehensive General Liability	\$2,000,000 \$2,000,000	Each Occurrence Aggregate (Applicable on a Per Project Basis)
Commercial Automobile Liability	\$1,000,000	Each Accident
Professional Errors & Omissions (Pursuant to section.9 below)	\$2,000,000 \$2,000,000	Each Claim Annual Aggregate
Umbrella Liability	\$ 5,000,000	

- 32.2 Comprehensive General Liability Insurance required under this paragraph shall be written on an occurrence form and shall include coverage for Products/Completed Operations, Personal Injury with Employment Exclusion (if any) deleted, Blanket XCU and Blanket Contractual Liability insurance applicable to defense and indemnity obligations and other contractual indemnity assumed under the Contract Documents. The limit must be on a "Per Project Basis".
- 32.3 Commercial Automobile Liability Insurance required under this paragraph shall include coverage for all owned, hired and non-owned automobiles.
- 32.4 Workers Compensation coverage shall include a waiver of subrogation against the Village.
- 32.5 Comprehensive General Liability, Employers Liability and Commercial Automobile Liability Insurance may be arranged under single policies for full minimum limits required, or by a combination of underlying policies with the balance provided by Umbrella and/or Excess Liability policies.

- 32.6 Contractor and all Subcontractors shall have their respective Comprehensive General Liability (including products/completed operations coverage), Employers Liability, Commercial Automobile Liability, and Umbrella/Excess Liability policies endorsed to add the "Village of Downers, its officers, officials, employees and volunteers" as "additional insureds" with respect to liability arising out of operations performed; claims for bodily injury or death brought against the Village by any Contractor or Subcontractor employees, or the employees of Subcontractor's subcontractors of any tier, however caused, related to the performance of operations under the Contract Documents. Such insurance afforded to the Village shall be endorsed to provide that the insurance provided under each policy shall be *Primary and Non-Contributory*.
- 32.7 Contractor and all Subcontractors shall maintain in effect all insurance coverages required by the Contract Documents at their sole expense and with insurance carriers licensed to do business in the State of Illinois and having a current A. M. Best rating of no less than A- VIII. In the event that the Contractor or any Subcontractor fails to procure or maintain any insurance required by the Contract Documents, the Village may, at its option, purchase such coverage and deduct the cost thereof from any monies due to the Contractor or Subcontractor, or withhold funds in an amount sufficient to protect the Village, or terminate this Contract pursuant to its terms.
- 32.8 All insurance policies shall contain a provision that coverages and limits afforded hereunder shall not be canceled, materially changed, non-renewed or restrictive modifications added, without thirty (30) days prior written notice to the Village. Renewal certificates shall be provided to the Village not less than five (5) days prior to the expiration date of any of the required policies. All Certificates of Insurance shall be in a form acceptable to the Village and shall provide satisfactory evidence of compliance with all insurance requirements. The Village shall not be obligated to review such certificates or other evidence of insurance, or to advise Contractor or Subcontractor of any deficiencies in such documents, and receipt thereof shall not relieve the Contractor or Subcontractor from, nor be deemed a waiver of the right to enforce the terms of the obligations hereunder. The Village shall have the right to examine any policy required and evidenced on the Certificate of Insurance.
- 32.9 If the Work under the Contract Documents includes design, consultation, or any other professional services, Contractor or the Subcontractor shall procure, maintain, and pay for Professional Errors and Omissions insurance with limits of not less than \$2,000,000 per claim and \$2,000,000 annual aggregate. If such insurance is written on a claim made basis, the retrospective date shall be prior to the start of the Work under the Contract Documents. Contractor and all Subcontractors agree to maintain such coverage for three (3) years after final acceptance of the Project by the Village or such longer period as the Contract Documents may require. Renewal policies during this period shall maintain the same retroactive date.
- 32.10 Any deductibles or self-insured retentions shall be the sole responsibility of the Insured. At the option of the Village, either: the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the Village, its officers, officials, employees and volunteers; or the Contractor shall procure a bond guaranteeing payment of losses and related investigations, claim administration and defense expenses.

33. INDEMNITY AND HOLD HARMLESS AGREEMENT

33.1 To the fullest extent permitted by law, the Contractor shall indemnify, keep and save harmless the Village and its agents, officers, and employees, against all injuries, deaths, strikes, losses, damages,

claims, suits, liabilities, judgments, costs and expenses, which may arise directly or indirectly from any negligence or from the reckless or willful misconduct of the Contractor, its employees, or its subcontractors.

33.2 The Contractor shall at its own expense, appear, defend and pay all charges of attorneys and all costs and other expenses arising therefrom or incurred in connection therewith, and, if any judgment shall be rendered against the Village in any such action, the Contractor shall, at its own expense, satisfy and discharge the same. This agreement shall not be construed as requiring the Contractor to indemnify the Village for its own negligence. The Contractor shall indemnify, keep and save harmless the Village only where a loss was caused by the negligent, willful or reckless acts or omissions of the Contractor, its employees, or its subcontractors.

34. SUBLETTING OF CONTRACT

34.1 No contract awarded by the Village shall be assigned or any part subcontracted without the written consent of the Village. In no case shall such consent relieve the Contractor from his obligation or change the terms of this Contract.

All approved subcontracts shall contain language which incorporates the terms and conditions of this Contract.

35. TERMINATION OF CONTRACT

- 35.1 The Village reserves the right to terminate the whole or any part of this Contract, upon written notice to the Contractor, for any reason.
- 35.2 The Village further reserves the right to terminate the whole or any part of this Contract, upon written notice to the Contractor, in the event of default by the Contractor. Default is defined as failure of the Contractor to perform any of the provisions of this Contract or failure to make sufficient progress so as to endanger performance of this Contract in accordance with its terms. In the event that the Contractor fails to cure the default upon notice, and the Village declares default and termination, the Village may procure, upon such terms and in such manner as it may deem appropriate, supplies or services similar to those so terminated. The Village may also contact the issuer of the Performance Bond to complete the Work. The Contractor shall be liable for any excess costs for such similar supplies or services. Any such excess costs incurred by the Village may be offset against any monies due and owing by the Village to the Contractor.

36. BILLING AND PAYMENT PROCEDURES

- Payment will be made upon receipt of an invoice referencing Village purchase order number. Once an invoice and receipt of materials or service have been verified, the invoice will be processed for payment in accordance with the Village's payment schedule. The Village will comply with the Local Government Prompt Payment Act, 50 ILCS 505/1 et seq., in that any bill approved for payment must be paid or the payment issued to the Contractor within 60 days of receipt of a proper bill or invoice. If payment is not issued to the Contractor within this 60 day period, an interest penalty of 1.0% of any amount approved and unpaid shall be added for each month or fraction thereof after the end of this 60 day period, until final payment is made.
- 36.2 The Village shall review each bill or invoice in a timely manner after its receipt. If the Village determines that the bill or invoice contains a defect making it unable to process the payment request, the Village shall notify the Contractor as soon as possible after discovering the defect pursuant to

- rules promulgated under 50 ILCS 505/1 et seq. The notice shall identify the defect and any additional information necessary to correct it.
- 36.3 As this Contract is for work defined as a "fixed public work" project under the Illinois Prevailing Wage Act, 820 ILCS 130/2, any contractor or subcontractor is required to submit certified payroll records along with the invoice. No invoice shall be paid without said records.
- 36.4 Please send all invoices to the attention of: Village of Downers Grove, Accounts Payable, 801 Burlington Avenue, Downers Grove, IL 60515.

37. COMPLIANCE WITH OSHA STANDARDS

37.1 Equipment supplied to the Village must comply with all requirements and standards as specified by the Occupational Safety and Health Act. All guards and protectors as well as appropriate markings will be in place before delivery. Items not meeting any OSHA specifications will be refused.

38. CERCLA INDEMNIFICATION

- 38.1 The Contractor shall, to the maximum extent permitted by law, indemnify, defend, and hold harmless the Village, its officers, employees, agents, and attorneys from and against any and all liability, including without limitation, costs of response, removal, remediation, investigation, property damage, personal injury, damage to natural resources, health assessments, health settlements, attorneys' fees, and other related transaction costs arising under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, 42 U.S.C.A. Sec. 9601, et seq., as amended, and all other applicable statutes, regulations, ordinances, and under common law for any release or threatened release of the waste material collected by the Contractor, both before and after its disposal.
- 38.2 If the Contractor encounters any waste material governed by the above Act, it shall immediately notify the Village and stop working in the area until the above requirements can be met.

39. COPYRIGHT or PATENT INFRINGEMENT

39.1 The Contractor agrees to indemnify, defend, and hold harmless the Village against any suit, claim, or proceeding brought against the Village for alleged use of any equipment, systems, or services provided by the Contractor that constitutes a misuse of any proprietary or trade secret information or an infringement of any patent or copyright.

40. BUY AMERICA

- 40.1 The Contractor agrees to comply with 49 U.S.C.5323(j), the Federal Transportation Administration's (FTA) Buy America regulations at 49 C.F.R. Part 661, and any amendments thereto, and any implementing guidance issued by the FTA, with respect to this Contract, when financed by Federal funds (through a grant agreement or cooperative agreement).
- 40.2 As a condition of responsiveness, the Contractor agrees to submit with its Bid submission, an executed Buy America Certificate, attached hereto.

41. CAMPAIGN DISCLOSURE

41.1 Any contractor, proposer, bidder or vendor who responds by submitting a bid or proposal to the Village of Downers Grove shall be required to submit with its bid submission, an executed Campaign Disclosure Certificate, attached hereto.

- 41.2 The Campaign Disclosure Certificate is required pursuant to the Village of Downers Grove Council Policy on Ethical Standards and is applicable to those campaign contributions made to any member of the Village Council.
- 41.3 Said Campaign Disclosure Certificate requires any individual or entity bidding to disclose campaign contributions, as defined in Section 9-1.4 of the Election Code (10 ILCS 5/9-1.4), made to current members of the Village Council within the five (5) year period preceding the date of the bid or proposal release.
- 41.4 By signing the bid documents, contractor/proposer/bidder/vendor agrees to refrain from making any campaign contributions as defined in Section 9-1.4 of the Election Code (10 ILCS 5/9-1.4) to any Village Council member and any challengers seeking to serve as a member of the Downers Grove Village Council.

42. GUARANTEE PERIOD

42.1 The Contractor shall guarantee all work and provide a maintenance bond for the full amount of the contract, covering a minimum period of one (1) year after approval and acceptance of the Work. The bond shall be in such form as the Village may prescribe, unless otherwise noted in the Specifications, and shall be submitted before receiving final payment. If longer guarantee periods are required, they will be noted in the Special Provisions for this project.

43. SUCCESSORS AND ASSIGNS

43.1 The terms of this Contract will be binding upon and inure to the benefit of the parties and their respective successors and assigns; provided, however, that neither party will assign this Contract in whole or in part without the prior written approval of the other. The Contractor will provide a list of key staff, titles, responsibilities, and contact information to include all expected subcontractors.

44. WAIVER OF BREACH OF CONTRACT

44.1 The waiver by one party of any breach of this Contract or the failure of one party to enforce at any time, or for any period of time, any of the provisions hereof will be limited to the particular instance and will not operate or be deemed to waive any future breaches of this Contract and will not be construed to be a waiver of any provision except for the particular instance.

45. CHANGE ORDERS

- 45.1 The contract price is a "not-to-exceed" cost. At any time additional work is necessary or requested, and the not-to-exceed price is increased thereby, all parties must agree to any change, addition or price increase in writing.
- 45.2 Change orders for public works projects which authorize an increase in the contract price that is 50% or more of the original contract price or that authorize or necessitate any increase in the price of a subcontract under the contract that is 50% or more of the original subcontract price must be resubmitted for bidding in the same manner by which the original contract was bid. (50 ILCS 525/1)

46. SEVERABILITY OF INVALID PROVISIONS

46.1 If any provisions of this Contract are held to contravene or be invalid under the laws of any state, country or jurisdiction, contravention will not invalidate the entire Contract, but it will be construed as if not containing the invalid provision and the rights or obligations of the parties will be construed

and enforced accordingly.

47 GOVERNING LAW

47.1 This Contract will be governed by and construed in accordance with the laws of the State of Illinois. Venue is proper only in the County of DuPage for state cases or the Northern District of Illinois for federal cases.

48. NOTICE

48.1 Any notice will be in writing and will be deemed to be effectively served when deposited in the mail with sufficient first class postage affixed, and addressed to the party at the party's place of business. Notices shall be addressed to the Village as follows:

Village Manager Village of Downers Grove 801 Burlington Ave. Downers Grove, IL 60515

And to the Contractor as designated on the Contract Form.

49. AMENDMENT

49.1 This Contract will not be subject to amendment unless made in writing and signed by all parties.

50. COOPERATION WITH FOIA COMPLIANCE

50.1 Contractor acknowledges that the Freedom of Information Act may apply to public records in possession of the Contractor or a subcontractor. Contractor and all of its subcontractors shall cooperate with the Village in its efforts to comply with the Freedom of Information Act. 5 ILCS 140/1 et seq.

51. EMPLOYMENT OF ILLINOIS WORKERS ON PUBLIC WORKS ACT

51.1 If the work contemplated by this Contract is funded or financed in whole or in part with State Funds or funds administered by the State, Contractor agrees to comply with the terms of the Employment of Illinois Workers on Public Works Act by employing at least 90% Illinois laborers on the project. 30 ILCS 570/1 et seq. Contractor agrees further to require compliance with this Act by all of its subcontractors.

III. GENERAL PROVISIONS

1. STANDARD SPECIFICATIONS

- 1.1 The following standards shall govern the construction of the proposed improvements:
 - 1.1.1 <u>Standard Specifications for Water and Sewer Main Construction in Illinois</u>, Seventh Edition, 2014 (the Water & Sewer Specs.); and
 - 1.1.2 <u>Standard Specifications for Road and Bridge Construction</u> as adopted by the Illinois Department of Transportation, April 1, 2016; along with <u>Supplemental Specifications and Recurring Special Provisions</u> (collectively the "Standard Specifications") as adopted by the Illinois Department of Transportation, April 1, 2016 and January 1, 2017; and
 - 1.1.3 Water Distribution Specifications, Village of Downers Grove, Illinois, revised January 2017.
- 1.2 These Contract Documents shall take precedence whenever there are conflicts in the wording or statements made by the above specifications and these Contract Documents.
- 1.3 Unless otherwise referenced herein, Division I of the Water and Sewer Specs and Section 102 and Articles 104.02, 104.03, 104.07, 107.02, 107.27, 107.35, 108.10, 108.11, and 108.12 of the Standard Specifications are hereby suspended.

2. COOPERATION OF CONTRACTOR

- 2.1 The Contractor will be supplied with a minimum of 2 sets of approved plans and contract assemblies including Special Provisions, one set of which the Contractor shall keep available on the work site at all times. The Contractor shall give the work site constant attention necessary to facilitate the progress thereof, and shall cooperate with the Village in every way possible.
- 2.2 The Contractor shall have on the work site at all times, as the Contractor's agent, a competent English-speaking representative capable of reading and thoroughly understanding the Contract Documents, and thoroughly experienced in the type of work being performed. The representative shall also be capable of receiving instruction from the Village, and shall have full authority to promptly respond to such instruction. He shall be capable of supplying such materials, equipment, tools, labor and incidentals as may be required. The Contractor shall not replace him without prior written notification to the Village.

3. LEGAL REGULATIONS AND RESPONSIBILITY TO THE PUBLIC

- 3.1 Section 107 of the Standard Specifications shall govern the Contractor's legal regulations and responsibility to the public, with the following additions:
 - 3.1.1 PROJECT SAFETY. Add the following to Article 107.28:
 - 3.1.1.1 The Contractor shall conduct his work in such a manner as to provide an environment consistent with the safety, health and well-being of those engaged in the completion of the work specified in this contract.
 - 3.1.1.2 The Contractor shall comply with all State and Federal Safety Regulations as outlined in the latest revisions of the Federal Construction Safety Standards

(Series 1926) and with applicable provisions regulations of the Occupation Safety and Health Administration and (OSHA) Standards of the Williams-Stelger Occupational Health Safety Act of 1970 (Revised). SPECIAL ATTENTION SHALL BE PAID TO COMPLIANCE WITH OSHA'S SUBPART P – EXCAVATIONS STANDARD.

- 3.1.1.3 The Contractor and Village shall each be responsible for their own respective agents and employees.
- 3.1.1.4 The Contractor shall, prior to performing any work, request information from the Village regarding any existing confined spaces owned by the Village that may be entered in the course of the work, and shall obtain all required confined space entry permits prior to entering any confined spaces. Contractor shall follow all current laws and regulations with regard to confined space entry. Contractor shall maintain and, upon request, provide full documentation of compliance with the appropriate confined space permits for each separate confined space entered on the project.
- 3.1.2 BACKING PRECAUTIONS. Pursuant to Sections 14-139(b) and 14-171.l of the Downers Grove Municipal Code, any motor vehicle which has an obstructed view to the rear and is to be operated at any time in reverse gear on the public streets of the Village by the Contractor or any subcontractor shall either be equipped with a reverse signal alarm (backup alarm) audible above and distinguishable from the surrounding noise level, or shall provide an observer to signal that it is safe to back up.
- 3.1.3 OVERWEIGHT, OVERWIDTH AND OVERHEIGHT PERMITS. The Village has and supports an overweight truck enforcement program. Contractors are required to comply with weight requirements and safety requirements as established by Illinois Law or Village Ordinance, for vehicles, vehicle operators and specialty equipment. In some instances, specialty equipment for road repairs or construction projects requires the movement of overweight, overwidth, or overheight loads utilizing a Village roadway. Such movement will require obtaining a permit from the Village Police Department's Traffic Supervisor.
- 3.1.4 BARRICADES AND WARNING SIGNS. The Contractor shall provide the Village with a telephone number of a person or company who is available 24 hours per day, seven days per week, to erect additional barricades or signs. If the Village or its representative deems it necessary for the Public's safety to erect additional barricades or signs during normal working hours, the Contractor will furnish the necessary barricades or signs, and have them in place within 30 minutes. If, after normal working hours, the requested signs are not in place within three hours after the request is made, the Village reserves the right to have the barricades and signs erected. The cost of erecting the barricades and signs shall be deducted by the Village from any payments due the Contractor.

4. PROSECUTION AND PROGRESS

- 4.1 Section 108 of the SSRBC shall govern the prosecution and progress of the work, with the following additions:
 - 4.1.1 The Contractor shall schedule his work such that all improvements shall be substantially complete within 30 calendar days of the notice to proceed. Substantial completion shall mean all work excluding possible full parkway turf restoration. Although actual sod placement may be delayed until more favorable weather conditions, all disturbed turf areas shall be backfilled and dressed and left in a safe and useable condition conducive to possible foot traffic and to the satisfaction of the Village. The completion date will remain binding throughout the duration of the Contract unless revised in writing by the Village.
 - 4.1.2 The total duration of disturbance for work related to means of public egress through the project site or access to private property (e.g. removal and replacement of curb and gutters, sidewalks, driveway entrances, etc.) must not exceed ten (10) calendar days. The Contractor may use high-early strength concrete, meeting all specifications herein, at his own expense to help meet this requirement.
 - 4.1.3 The Contractor shall also make special note of the following work schedule requirements:
 (a) N/A
 - 4.1.4 Should the Contractor fail to complete the work on or before the specified completion dates set forth in Sections 4.1.1, 4.1.2 or 4.1.3 or within such extended time as may be allowed, the Contractor shall be liable for liquidated damages in accordance with the applicable sections of Article 108.09 of the SSRBC.
 - 4.1.5 Prior to commencing construction, a meeting will be held with the Contractor and the Village. Any questions concerning procedures, general conditions, special provisions, plans or specific items related to the project shall be answered and clarified. No Pre-Construction meeting shall be scheduled until submittals, performance bonds, and certificates of insurance are delivered to, and approved by, the Village.
 - 4.1.6 Weekly progress meetings may be required by the Village. If required, the Contractor shall have a capable person, such as a site superintendent or project manager, attend such meetings and be prepared to report on the prosecution of the Work according to the progress schedule. The Village reserves the right to require adjustments to scheduling of work.

5. MEASUREMENT AND PAYMENT

- 5.1 Section 109 of the Standard Specifications shall govern measurement and payment, with the following additions:
 - 5.1.1 Modifies Article 109.07 Partial payments will be made per Section 36 of Part II of this document (Billing and Payment Procedures.)
 - 5.1.2 The Village will require that partial and final affidavits for all labor, materials and equipment used on the Project, be submitted with the partial and final payment requests. Such waivers shall indicate that charges for all labor, materials and equipment used on the project have been paid. Partial waivers from suppliers and subcontractors may be submitted after the first

payment to the Contractor, and before the subsequent payment to that which they apply. However, partial waivers from the Contractor must accompany the invoice of the payment to which it applies. All final waivers, from all suppliers and subcontractors MUST accompany the Contractor's invoice upon submittal for final payment. A sworn statement by the Contractor shall accompany full waivers. Such requirement for full waivers is solely for the benefit of the Village and shall not be construed to benefit any other person. Partial payment for work done shall in no way imply acceptance of the work to that date.

IV. SPECIAL PROVISIONS

The following Special Provisions shall modify, supersede, or supplement the Standard Specifications referred to in Section III - General Provisions.

Where any section, subsection, paragraph, or subparagraph of the Standard Specifications is *supplemented* by any of the following paragraphs, the provisions of such section, subsection, paragraph, or subparagraph shall remain in effect. The Special Provisions shall govern in addition to the particular Standard Specification so supplemented, and not in lieu thereof.

Where any section, subsection, paragraph, or subparagraph of the Standard Specifications is *amended*, *voided*, *or superseded* by any of the following paragraphs, any provision of such section, subsection, paragraph, or subparagraph standing unaffected, shall remain in effect. The Special Provisions shall govern in lieu of any particular provision of the Standard Specification so amended, voided, or superseded, and not in addition to the portion changed.

GENERAL SCOPE OF WORK

This work consists of the application of preservative and restorative seal on various asphalt roads throughout the Village of Downers Grove.

MALTENE-BASED ASPHALT REJUVENATOR

- A. General Scope: This work shall consist of furnishing all labor, material and equipment necessary to perform all operations for the application of an Emulsified Maltene-Based Asphalt Rejuvenating agent to bituminous asphaltic concrete surface courses. The rejuvenation of surface courses shall be by spray application of a cationic Maltene-Based Rejuvenating Agent composed of petroleum oils and resins emulsified with water. The base used for the emulsion shall be naphthenic. All work shall be in accordance with the specifications, any applicable drawings, and subject to the terms and conditions of this contract.
- B. **Pre-Construction:** The CONTRACTOR shall present samples of materials, laboratory reports, calibration reports, and proof of work experience as required by these specifications to the Resident Engineer at the pre-construction meeting.
- C. **Material Specifications:** The emulsion will be a naphthenic, <u>maltene-based rejuvenating agent composed of four maltene components (listed below) uniformly emulsified with water</u>. Each bidder must submit with his bid a certified statement from the asphalt rejuvenator manufacturer showing that the asphalt rejuvenating emulsion conforms to the required physical and chemical requirements.

NAPHTHENIC MALTENE-BASED ASPHALT REJUVENATOR SPECIFICATIONS:

	Test Method		Requirements		
Property	ASTM	Min.		Max.	
Tests on Emulsion:					
Viscosity @ 25°C, SFS	D-244	15		40	
Residue, w%	D-244 (Mod) ³	60		65	
Miscibility Test	D-244 (Mod.) ²		No Coagulati	on	
Sieve Test, w%	D-244 (Mod.) ¹			0.1	
Particle Charge Test	D-244		Positive		
Tests on Distillation Residue:					
Flash Point, COC, °C	D-92	196			
Viscosity@ 60°C, cSt	D-445	100		200	
Asphaltenes, %w	D-2006-70			0.75	
Maltene Dist. Ratio (Polar Compounds) + (1 st Acidaffins) (Saturates) + (2 nd Acidaffins)	D-2006-70	0.3		0.6	
Polar Compounds/Saturates Ratio	D-2006-70	0.5			
Saturated Hydrocarbons, S	D-2006-70	21		28	

¹Test procedure identical with ASTM D-244 60 except that distilled water shall be used in place of two percent (2%) sodium oleate solution.

²Test procedure identical with ASTM D-244 60 except that .02 Normal Calcium Chloride solution shall be used in place of distilled water.

³ASTM D-244 Modified Evaporation Test for percent of residue is made by heating 50 gram sample to 149°C (300°F) until foaming ceases, then cool immediately and calculate results.

D. Material Performance: The rejuvenating agent shall have record of at least two years of satisfactory service as asphalt rejuvenating agent and in-depth sealer. Satisfactory service shall be based on the capability of the material to penetrate, replace lost maltene fractions, and decrease the viscosity and increase the penetration value of the in-place asphalt binder as follows; the viscosity shall be reduced by a minimum of forty-five (45) percent, the penetration value shall be increased by a minimum of twenty-five (25) percent. Testing shall be performed by an independent testing laboratory on extracted asphalt cement from pavement to a depth of three-eighths inch (3/8"). In addition, the pavement shall be in-depth sealed to prevent the intrusion of air and water.

The bidder must submit with their bid:

- 1. Asphalt Rejuvenator product name and descriptive literature. Literature shall be descriptive and detailed information and shall show it at least meets the material specifications.
- 2. A current Material Safety Data Sheet (MSDS) for the material.
- 3. The manufacturer's certification that the material proposed for use is in compliance with these specification requirements.
- 4. Previous use documentation and test data conclusively demonstrating that the rejuvenating agent has been used successfully for a period of two years by government agencies such as Cities, Counties, or DOT's.
- 5. Testing data from a minimum of five projects showing that the asphalt rejuvenating agent has been proven to perform, as heretofore required, through field testing by an independent testing laboratory as to the required change in the asphalt binder viscosity and penetration number.
- E. Product Standards: The product "Reclamite"® produced by Tricor Refining, LLC is the standard for the naphthenic emulsified maltene-based asphalt rejuvenating agent requirements and the prices quoted on the Bid Sheet Base Bid shall be for "Reclamite" or approved equal. If an alternate material is proposed, bidder must submit the above referenced material specifications and testing data along with their bid to be reviewed by the Village, and bidder must clearly state on the bid form that the bid pricing is not based on "Reclamite", but rather an alternate material. Submittal of an alternate material which does not meet or exceed the requirements in these specifications may be justification for disqualification of a bid. The determination of a product's suitability as an equal alternative to Reclamite shall be solely based on the judgment of the Village.
- F. **Applicator Experience:** The asphalt rejuvenating agent shall be applied by an experienced applicator of such material. The bidder shall have a minimum of five (5) years' experience in applying the product proposed for use on municipal streets. The Contractor must submit with his bid a list of five (5) projects on which he applied said rejuvenator. He shall indicate the project dates, number of square yards treated in each and the name and phone number of the manager in charge of each project.
 - A project superintendent knowledgeable and experienced in application of the asphalt rejuvenating agent must be present and in control of each day's work. The bidder shall submit at the preconstruction meeting a written experience outline of the project superintendent.
- G. Application Temperature and Weather Limitations: The temperature of the asphalt rejuvenation emulsion, at the time of application shall be as recommended by the manufacturer. The asphalt

rejuvenating agent shall be applied only when the existing surface to be treated is thoroughly dry and when there is no likelihood of precipitation forecasted within twenty-four (24) hours of application. The asphalt rejuvenating agent shall not be applied when the ambient temperature is below 45 degrees Fahrenheit or when temperatures are forecasted to fall below 40 degrees Fahrenheit within twenty-four (24) hours of application. It shall be the discretion of the Engineer to determine when weather conditions are not appropriate for the application to occur. Contractor shall halt the application process when so ordered by the Engineer.

- H. Handling of Asphalt Rejuvenating Agent: Contents in tank cars or storage tanks shall be circulated at least forty-five minutes before withdrawing any material for application. When loading the distributor, the asphalt rejuvenating agent concentrate shall be loaded first and then the required amount of water shall be added. The water shall be added into the distributor with enough force to cause agitation and thorough mixing of the two (2) materials. To prevent foaming, the discharge end of the water hose or pipe shall be kept below the surface of the material in the distributor which shall be used as a spreader. The distributor truck will be cleaned of all of its asphalt materials, and washed out to the extent that no discoloration of the emulsion may be perceptible. Cleanliness of the spreading equipment shall be subject to inspection and the Contractor shall halt the application process when so ordered by the Engineer.
- I. Application Equipment: The distributor for spreading the emulsion shall be self- propelled, and shall have pneumatic tires. The distributor shall be designed and equipped to distribute the asphalt rejuvenating agent uniformly on variable widths of surface at readily determined and controlled rates from 0.05 to 0.5 gallons per square yard of surface, and with an allowable variation from any specified rate not to exceed five (5) percent of the specified rate. Distributor equipment shall include full circulation spray bars, pump tachometer, volume measuring device and a hand hose attachment suitable for application of the emulsion manually to cover areas inaccessible to the distributor. The distributor shall be equipped to circulate and agitate the emulsion within the tank. A check of distributor equipment as well as application rate accuracy and uniformity of distribution shall be made when directed by the Engineer. The truck used for sanding shall be equipped with a spreader that allows the sand to be uniformly distributed onto the pavement. The spreader shall be able to apply 1.5 pounds to 3 pounds of sand per square yard in a single pass. The spreader shall be adjustable so as to not broadcast sand onto driveways or tree lawns. Any wet sand shall be rejected from the job site. Any equipment which is not maintained in full working order, or is proven inadequate to obtain the results prescribed, shall be repaired or replaced at the direction of the Engineer.
- J. Application of Rejuvenating Agent: The asphalt rejuvenating agent shall be applied by a distributor truck at the temperature recommended by the manufacturer and at the pressure required for the proper distribution. The emulsion shall be so applied that uniform distribution is obtained at all points of the areas to be treated. Distribution shall be commenced with a running start to insure full rate of spread over the entire area to be treated. Areas inadvertently missed shall receive additional treatment as may be required by a hand sprayer application. Application of the asphalt rejuvenating agent shall be on one-half width of the pavement at a time. When the second half of the surface is treated, the nozzle nearest the center of the road shall overlap the previous by at least one-half the width of the nozzle spray. In any event the construction joint of the pavement shall be treated in both passes of the distributor truck. Before spreading, the asphalt rejuvenating agent shall be blended with water at the rate of two (2) parts rejuvenating agent to one (1) part water, by volume or as specified by the manufacturer. The combined mixture of asphalt rejuvenating agent and water shall be spread at the rate of 0.05 to 0.10 gallons per square yard, or as approved by the Engineer following field testing. Where more than one application is to be made, succeeding applications shall be made as soon as penetration of the preceding application

has been completed and approval is granted for additional applications by the Engineer. Grades or super elevations of surfaces that may cause excessive runoff in the opinion of the Engineer shall have the required amounts applied in two (2) or more applications as directed. Said treatment shall be uniformly applied by a method acceptable to the Engineer. Care should be taken during all rejuvenator applications to not get excessive material on the curb and gutter. Additional cleaning may be required if this occurs at the contractor's expense. After the rejuvenating emulsion has penetrated, a coating of dry sand shall be applied to the surface in sufficient amount to protect the traveling public as required by the Engineer. The Contractor shall furnish a quality inspection report showing the source and manufacturer of asphalt rejuvenating agent. When directed by the Engineer, the Contractor shall take representative samples of material for testing.

- K. Field Testing: Viscosity and penetration testing shall be done on three different streets during the application process. Four (4) cores shall be taken at each location prior to and approximately 50 days following the application of the maltene-based asphalt rejuvenator. Core locations will be determined by the Engineer and core holes shall be filled with approved mix. The top three-eighths (3/8) inch of each core shall be removed and the asphalt extracted and recovered using California Test Method 365 (CTM 365). Viscosities of the recovered asphalt binder shall be determined using a sliding plate microviscometer (CTM 348). Penetration numbers shall be calculated from a nomograph. The results from the pre-treatment and the post-treatment cores from each street shall be compared and the present change in each calculated. The average value of the pre-treatment results and the post treatment results will be used to determine the final Viscosity and Penetration value. No compensation will be made for material not meeting specifications. Test indicating failure to meet the specifications may result in additional tests being required on other streets. No additional compensation will be made for additional testing. Testing shall be performed by an independent third party testing laboratory that has experience with the specified test methods and equipment. Testing shall be coordinated with Village's materials testing laboratory and in their presence when cores are extracted or when required by the Engineer. The Village reserves the right to extract treated cores 1 year after rejuvenator application. Viscosity and Penetration values shall be determined using California Test Method 365 (CTM 365) and compared to the original untreated values.
- L. Street Sweeping: The Contractor shall be responsible for sweeping and cleaning of the streets prior to and after treatment. Prior to treatment, the street will be cleaned of all standing water, dirt, leaves, foreign materials, etc. This work shall be accomplished by hand brooming, power blowing or other methods approved by the Engineer. If hand cleaning is not sufficient, then a self-propelled street sweeper shall be used. All sand used during the treatment must be removed no later than forty-eight (48) hours after treatment of the street. This shall be accomplished by a combination of hand and mechanical sweeping. All turnouts, cul-de-sacs, etc. must be cleaned and free of any material that would interfere with the treatment. All debris generated by sweeping shall be picked up and disposed of by the contractor. Street sweeping shall be included in the price bid per square yard for asphalt rejuvenating agent. If after sand is sweep and it is determined that a hazardous condition exists on the roadway, the Contractor must apply additional sand and sweep no later than twenty-four (24) hours following reapplication. No additional compensation will be allowed for reapplications and removal of sand.
- M. Traffic Control and Safety: The Contractor shall schedule his operations and carry out the work in a manner to cause the least disturbance and/or interference with the normal flow of traffic over the areas to be treated. Treated portions of the pavement surfaces shall be kept closed and free from traffic until penetration has become complete and the area is suitable for traffic. Cure time shall be no longer than 90 minutes. When traffic must be maintained at all times on a particular street, then the Contractor shall

apply asphalt rejuvenating agent to one (1) lane at a time. Traffic shall be maintained in the untreated lane until the traffic may be switched to the completed lane. Access to adjacent properties shall be maintained during the application. The Contractor shall be responsible for all traffic control and signing required to permit safe travel. All signing and barricading of the work zone shall comply with MUTCD guidelines and IDOT standards. The Contractor shall notify the Engineer as to the streets that are to be treated each day. All support vehicles used shall also have flashing beacons that can be seen from all sides of the vehicle, for safety considerations for all work on major arterials. If the Contractor fails to provide the required signing, the Contractor shall stop all operations until safe signing and barricading is achieved.

N. Spreading of Sand or Screenings: Contractor shall furnish all materials, equipment, tools, labor and incidentals necessary to perform the sanding operation in accordance with this contract.

Spreading shall consist of applying free flowing sharp sand, FA2 or limestone screenings to insure even distribution of the sand or screenings to be worked into any voids in the payment surface as directed by customer representative. A twin spinner, rubber belt feed system aggregate distributor shall be used for uniform application. The aggregate distributor shall apply sand or screenings at a rate of two pounds to four pounds per square yard for the restorative application.

Aggregate distributor must be able to carry enough aggregate to cover an applied load of the restoring agent, at least (9) nine tons. Repeated sanding may be required on some areas of pavement and contractor must be available on an as needed basis to provide the required sanding.

- O. **Notification:** The contractor shall distribute by hand, a typed notice to all residences and businesses on the street to be treated. The notice will be delivered no more than 24 hours prior to the treatment of the road. The notice will have a local phone number that residents may call to ask questions. The notice shall be of the door hanger type which secures to the door handle of each dwelling. Unsecured notices will not be allowed. The contractor shall also place the notice on the windshield of any parked cars on the street.
- P. **Basis of Payment:** Asphalt rejuvenating agent shall be measured by the square yard of material in place and will be paid for at the contract unit price for Maltene-Based Asphalt Rejuvenating Agent per square yard. Prices shall be full compensation for furnishing all materials, equipment, labor and incidentals to complete the work as specified and required.

V. BID and CONTRACT FORM (Village)

***THIS BID WHEN ACCEPTED AND SIGNED BY AN AUTHORIZED SIGNATORY OF THE VILLAGE OF DOWNERS GROVE SHALL BECOME A CONTRACT BINDING UPON BOTH PARTIES.

Entire Form Must Be Completed If a Submitted Bid Is To Be Considered For Award

BIDDER:	
Corrective Asphalt Materials, LLC Company Name	July 11, 2018 Date
300 Daniel Boone Trail, PO Box 87129 Street Address of Company	holleran@cammidwest.com; homco@cammidwest.com E-mail Address
South Roxana, IL 62087 City, State, Zip	Ja <u>ck Holleran-Project Foreman; Mark Homco-Proje</u> ct Coordinator Contact Name (Print)
618-254-3855 Business Phone	630-853-0832 (Hollera); 630-465-4142 (Homco) 24-Hour Telephone
618-254-2200 Business Fax	Signature of Officer, Partner or Sole Proprietor
ATTEST: if a Corporation	Marc Taillon Vice President Print Name & Title
Signature of Corporation Secretary	
	ers Grove all necessary materials, equipment, labor, etc. to becified herein and in accordance with the provisions, shown on the Schedule of Prices.
VILLAGE OF DOWNERS GROVE:	ATTEST:
Authorized Signature	Village Clerk
Title	
Date	Date

In compliance with the specifications, the above-signed offers and agrees, if this Bid is accepted within 90 calendar days from the date of opening, to furnish any or all of the services upon which prices are quoted, at the price set opposite each item, delivered at the designated point within the time specified above.

Date

V. BID and CONTRACT FORM (Contractor)

***THIS BID WHEN ACCEPTED AND SIGNED BY AN AUTHORIZED SIGNATORY OF THE VILLAGE OF DOWNERS GROVE SHALL BECOME A CONTRACT BINDING UPON BOTH PARTIES.

Entire Form Must Be Completed If a Submitted Bid Is To Be Considered For Award BIDDER: Corrective Asphalt Materials, LLC July 11, 2018 Company Name Date 300 Daniel Boone Trail, PO Box 87129 holleran@cammidwest.com; homco@cammidwest.com E-mail Address Street Address of Company South Roxana, IL 62087 Jack Holleran-Project Foreman; Mark Homco-Project Coordinator City, State, Zip Contact Name (Print) 630-853-0832 (Hollera); 630-465-4142 (Homco) 618-254-3855 **Business Phone** 24-Hour Telephone 618-254-2200 Signature of Officer, Partner or Sole Proprietor Business Fax Marc Taillon Vice President Print Name & Title ATTEST: if a Corporation Signature of Corporation Secretary We hereby agree to furnish the Village of Downers Grove all necessary materials, equipment, labor, etc. to complete the project within the timeframe specified herein and in accordance with the provisions, instructions and specifications for the unit prices shown on the Schedule of Prices. VILLAGE OF DOWNERS GROVE: ATTEST: Village Clerk Authorized Signature Title

In compliance with the specifications, the above-signed offers and agrees, if this Bid is accepted within 90 calendar days from the date of opening, to furnish any or all of the services upon which prices are quoted, at the price set opposite each item, delivered at the designated point within the time specified above.

Date

SCHEDULE OF PRICES:

Pay Item	Quantity	Units	Unit Price	Total
Maltene-Based Asphalt Rejuvenating Agent	157,265	SY	\$0.86	\$135,247.90

TOTAL BASE BID

\$135,247.90

BIDDER'S CERTIFICATION (page 1 of 3)

With regard to Preservative and Restorative Seal (ST-004D), Bidder Corrective Asphalt Materials, LLC

(Name of Project) (Name of Bidder)

hereby certifies the following:

- 1. Bidder is not barred from bidding this Contract as a result of violations of Section 720 ILCS 5/33E-3 (Bid Rigging) or 720 ILCS 5/33E-4 (Bid-Rotating);
- 2. Bidder certifies that it has a written sexual harassment policy in place and full compliance with 775 ILCS 5/2-105(A)(4);
- Bidder certifies that not less than the prevailing rate of wages as determined by the Village of Downers Grove, DuPage County or the Illinois Department of Labor shall be paid to all laborers, workers and mechanics performing work for the Village of Downers Grove. All bonds shall include a provision as will guarantee the faithful performance of such prevailing wage clause. Bidder agrees to comply with the Illinois Prevailing Wage Act, 820 ILCS 130/1 et seq., for all work completed. Bidder agrees to pay the prevailing wage and require that all of its subcontractors pay prevailing wage to any laborers, workers or mechanics who perform work pursuant to this Contract or related subcontract. Bidder and each subcontractor shall keep or cause to be kept an accurate record of names, occupations and actual wages paid to each laborer, workman and mechanic employed by the Bidder in connection with the contract. This record shall be sent to the Village on a monthly basis along with the invoice and shall be open to inspection at all reasonable hours by any representative of the Village or the Illinois Department of Labor and must be preserved for five (5) years following completion of the contract. Bidder certifies that Bidder and any subcontractors working on the project are aware that filing false payroll records is a Class A misdemeanor and that the monetary penalties for violations are to be paid pursuant to law by the Bidder, contractor and subcontractor. The Village shall not be liable for any underpayments. If applicable: Since this is a contract for a fixed public works project, as defined in 820 ILCS 130/2, Contractor agrees to post at the job site in an easily accessible place, the prevailing wages for each craft or type of worker or mechanic needed to execute the contract or work to be performed;
- 4. Bidder certifies that it is in full compliance with the Federal Highway Administrative Rules on Controlled Substances and Alcohol Use and Testing, 49 C.F.R. Parts 40 and 382 and that all employee drivers are currently participating in a drug and alcohol testing program pursuant to the Rules;
- 5. Bidder further certifies that it is not delinquent in the payment of any tax administered by the Department of Revenue, or that Bidder is contesting its liability for the tax delinquency or the amount of a tax delinquency in accordance with the procedures established by the appropriate Revenue Act. Bidder further certifies that if it owes any tax payment(s) to the Department of Revenue, Bidder has entered into an agreement with the Department of Revenue for the payment of all such taxes that are due, and Bidder is in compliance with the agreement.

BIDDER'S CERTIFICATION (page 2 of 3)
BY:
Bidder's Authorized Agent
3 7 - 1 3 5 9 5 7 5
FEDERAL TAXPAYER IDENTIFICATION NUMBER
Social Security Number
Subscribed and sworn to before me
TINA REVERMANN "OFFICIAL SEAL" My Commission Expires November 10, 2019 Notary Public Topical Seal" My Commission Expires November 10, 2019 Notary Public
(Fill Out Applicable Paragraph Below)
(a) <u>Corporation</u> The Bidder is a corporation organized and existing under the laws of the State of, which operates under the Legal name of, and the full names of its Officers are as follows:
President:
Secretary:
Treasurer:
and it does have a corporate seal. (In the event that this bid is executed by other than the President, attach hereto a certified copy of that section of Corporate By-Laws or other authorization by the Corporation which permits the person to execute the offer for the corporation.)
(b) <u>Partnership</u> Signatures and Addresses of All Members of Partnership:
Anthony J. Witte, JrPresident; 213 Mason Glen Dr. Lake St. Louis, MO 63367
Marc Taillon-Vice President; 5180 Springfield Dr. Edwardsville, IL 62025

BIDDER'S CERTIFICATION (page 3 of 3)

The partnership does business under the legal name of: Corrective Asphalt Materials	s, LLC
which name is registered with the office of South Roxana, IL	in the state of
<u>Illinois</u> .	
(c) <u>Sole Proprietor</u> The Bidder is a Sole Proprietor whose full name is:	
and if operating under a trade name, said trade name is:	
which name is registered with the office of	in the state of
-	
6. Are you willing to comply with the Village's insurance requirements wi of the contract? Yes	thin 13 days of the award
INSURER'S NAME: _Acuity	_
AGENT: USI Insurance Services LLC	
Street Address: 308 North 21st Street	
City, State, Zip Code: St. Louis, MO 63103-MO	
Telephone Number: 314-436-2399	
I/We hereby affirm that the above certifications are true and accurate and that I/we them.	have read and understand
Print Name of Company: Corrective Applied Meterials 11 C	
Print Name and Title of Authorizing Signature: Marc Taillon Vica	2 President
Signature:	
Date: _July 11, 2018	

MUNICIPAL REFERENCE LIST

Municipality:

Bloomington, City of

Address:

115 E. Washington St PO 3157 Bloomington, IL 61702

Contact Name:

Jeffrey Kohl Phone #: 309-275-1633

Name of Project: Bloomington Pavement Preservation

Contract Value:

\$141,541.87

Municipality:

DeKalb County Hwy Dept

Address:

1826 Barber Green Road Dekalb, IL 60115

Contact Name:

Nathan Schwartz Name of Project: Reclamite Rejuvenator

Contract Value:

\$142,579.44

Date of Completion: 06/14/14

Date of Completion: 09/18/13

Municipality:

Arrow Construction

Address:

3401 S. Busse Road Mt. Prospect, IL 60056

Contact Name:

Terry Payne

Phone #: 847-783-6680

Phone #: 815-756-9513

Name of Project: McHenry County Reclamite-various roads

Contract Value:

\$127,286.64

Date of Completion: 08/06/15

Municipality:

Elmhurst, City of

Address:

209 North York Street Elmhurst, IL 60126

Contact Name:

Kim McGrew

Phone #: 630-530-3020

Name of Project: 2016 Asphalt Rejuvenating Treatment

Contract Value:

\$103,786.00

Date of Completion: 10/31/16

Municipality:

Arlington Heights, Village of

Address:

33 South Arlington Heights Road Arlington Heights, IL 60005

Contact Name:

Scott Shirlty

Phone #: 847-368-5800

Name of Project: MPI Join Bid: Pavement Rejuvenation Contract

Contract Value:

\$144,693.24

Date of Completion: 08/25/17

SUBCONTRACTORS LIST

The Bidder hereby states the following items of work will not be performed by its organization. (List items to be subcontracted as well as the names, addresses and phone numbers of the subcontractors.)

1) SJS Contractors, Inc.	Type of Work S	weeping	
Addr: PO Box 368	City Hampshire	_ State IL	_Zip_60140
2)	Type of Work		
Addr:	City	_ State	_ Zip
3)	Type of Work _		
Addr:	City	State	_ Zip
4)	Type of Work		
Addr:	City	State	_Zip
5)	Type of Work		
Addr:	City	State	_Zip
6)	Type of Work		
Addr:	City	_ State	_Zip
7)	Type of Work		
Addr:	City	_ State	_Zip
8)	Type of Work		
Addr:		_ State	_Zip



VENDOR W-9 REQUEST FORM

The law requires that we maintain accurate taxpayer identification numbers for all individuals and partnerships to whom we make payments, because we are required to report to the I.R.S all payments of \$600 or more annually. We also follow the I.R.S. recommendation that this information be maintained for all payees including corporations.

Please complete the following substitute W-9 letter to assist us in meeting our I.R.S. reporting requirements. The information below will be used to determine whether we are required to send you a Form 1099. Please respond as soon as possible, as failure to do so will delay our payments.

	s failure to do so will de	elay our payments.
BUSINESS (PLEAS	SE PRINT OR TYPE):	
NAME:	Corrective Asphalt Materi	als, LLC
Address:	PO Box 87129	
CITY:	South Roxana	
STATE:	IL	
ZIP:	62087	
PHONE: 6	318-254-3855	FAX: 618-254-2200
TAX ID #(1		
(If you are supplying	ng a social security num	ber, please give your full name)
REMIT TO ADDRES	S (IF DIFFERENT FROM	ABOVE):
NAME:		
Address:		
CITY: _		
STATE: _		ZIP:
TYPE OF ENTITY	Y (CIRCLE ONE):	
Ir	ndividual	Limited Liability Company -Individual/Sole Proprietor
S	ole Proprietor	Limited Liability Company-Partnership
P	artnership	Limited Liability Company-Corporation
Medical	Corporation	
C	haritable/Nonprofit	Government Agency
SIGNATUR	E: this ser	DATE: July 11, 2018

Apprenticeship and Training Certification

(Does not apply to federal aid projects. Applicable only to maintenance and construction projects that use Motor Fuel Tax funds or state grant monies.)
Name of Bidder: Corrective Asphalt Materials, LLC
In accordance with the provisions of Section 30-22 (6) of the Illinois Procurement Code, the Bidder certifies that it is a participant, either as an individual or as part of a group program, in the approved apprenticeship and training programs applicable to each type of work or craft that the bidder will perform with its own forces. The Bidder further certifies for work that will be performed by subcontract that each of its subcontractors submitted for approval either (a) is, at the time of such bid, participating in an approved applicable apprenticeship and training program; or (b) will, prior to commencement of performance of work pursuant to this Contract, begin participation in an approved apprenticeship and training program applicable to the work of the subcontract. The Illinois Department of Labor, at any time before or after award, may require the production of a copy of each applicable Certificate of Registration issued by the United States Department of Labor evidencing such participation by the contractor and any or all of its subcontractors. Applicable apprenticeship and training programs are those that have been approved and registered with the United States Department of Labor. The Bidder shall list in the space below, the official name of the program sponsor holding the Certificate of Registration for all of the types of work or crafts in which the Bidder is a participant and that will be performed with the Bidder's forces. Types of work or craft work that will be subcontracted shall be included and listed as subcontract work. The list shall also indicate any type of work or craft job category that does not have an applicable apprenticeship or training program. The Bidder is responsible for making a complete report and shall make certain that each type of work or craft job category that will be utilized on the project is accounted for and listed. Return this with the Bid. Associated Builders and Contractors, Inc-Illinois Chapter
The requirements of this certification and disclosure are a material part of the Contract, and the Contractor shall require this certification provision to be included in all approved subcontracts. In order to fulfill this requirement, it shall not be necessary that an applicable program sponsor be currently taking or that it will take applications for apprenticeship, training or employment during the performance of the work of this Contract.
Print Name and Title of Authorizing Signature: Marc Taillon Vice President
Signature:
Date:

BUY AMERICA CERTIFICATION

Certification requirement for procurement of steel, iron, or manufactured products when Federal funds (Grant Agreement or Cooperative Agreement) are used.

Instructions:

Certificate of Compliance

regulations in 49 CFR Part 661.

Bidder to complete the Buy America Certification listed below. Bidder shall certify EITHER COMPLIANCE OR NON-COMPLIANCE (not both). This Certification MUST BE submitted with the Bidder's bid response. Special Note: Make sure you have signed only one of the above statements – either Compliance OR Non-Compliance (not both).

The bidder or offeror hereby certifies that it will meet the requirements of 49 U.S.C. 5323(j)(1), as amended, and the applicable

Signature
Company Name Corrective Asphalt Materials, LLC
Title Vice President
Date _July 11, 2018
Certificate of Non-Compliance
The bidder or offeror hereby certifies that it cannot comply with the requirements of 49 U.S.C. 5323(j)(1), as amended, and 49 C.F.R. 661, but it may qualify for an exception pursuant to 49 U.S.C. 5323(j)(2)(A), 5323(j)(2)(B), or 5323(j)(2)(D), and 49 C.F.R. 661.7.
Signature
Company Name
Title
Date

AFTER THIS CERTIFICATE HAS BEEN EXECUTED, A BIDDER MAY NOT SEEK A WAIVER.

Note: The U.S/Canadian Free Trade Agreement does not supersede the Buy America requirement.

Suspension or Debarment Certificate

Non-Federal entities are prohibited from contracting with or making sub-awards under covered transactions to parties that are suspended or debarred or whose principals are suspended or debarred. Covered transactions include procurement for goods or services equal to or in excess of \$100,000.00. Contractors receiving individual awards for \$100,000.00 or more and all sub-recipients must certify that the organization and its principals are not suspended or debarred.

By submitting this offer and signing this certificate, the Bidder certifies to the best of its knowledge and belief, that the company and its principals:

- 1. Are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any federal, state or local governmental entity, department or agency;
- 2. Have not within a three-year period preceding this Bid been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction, or convicted of or had a civil judgment against them for a violation of Federal or state antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- 3. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (2) of this certification; and
- 4. Have not within a three-year period preceding this application/proposal/contract had one or more public transactions (Federal, State or local) terminated for cause or default.

If the Bidder is unable to certify to any of the statements in this certification, Bidder shall attach an explanation to this certification.

Company Name: Corrective Asphalt Materials,	LLC
Address: 300 Daniel Boone Trail, PO Box 87129	1
City: South Roxana, IL	Zip Code: _62002
Telephone: (618) 254-3855	Fax Number: (618)254-2200
E-mail Address: Tina@cammidwest.com (Tina R	evermann-Office Manager)
Authorized Company Signature:	<i>II- TIII</i>
Print Signature Name: Marc Taillon	Title of Official: Vice President
Date: July 11, 2018	

CAMPAIGN DISCLOSURE CERTIFICATE

Any contractor, proposer, bidder or vendor who responds by submitting a bid or proposal to the Village of Downers Grove shall be required to submit with its bid submission, an executed Campaign Disclosure Certificate.

The Campaign Disclosure Certificate is required pursuant to the Village of Downers Grove Council Policy on Ethical Standards and is applicable to those campaign contributions made to any member of the Village Council.

Said Campaign Disclosure Certificate requires any individual or entity bidding to disclose campaign contributions, as defined in Section 9-1.4 of the Election Code (10 ILCS 5/9-1.4), made to current members of the Village Council within the five (5) year period preceding the date of the bid or proposal release.

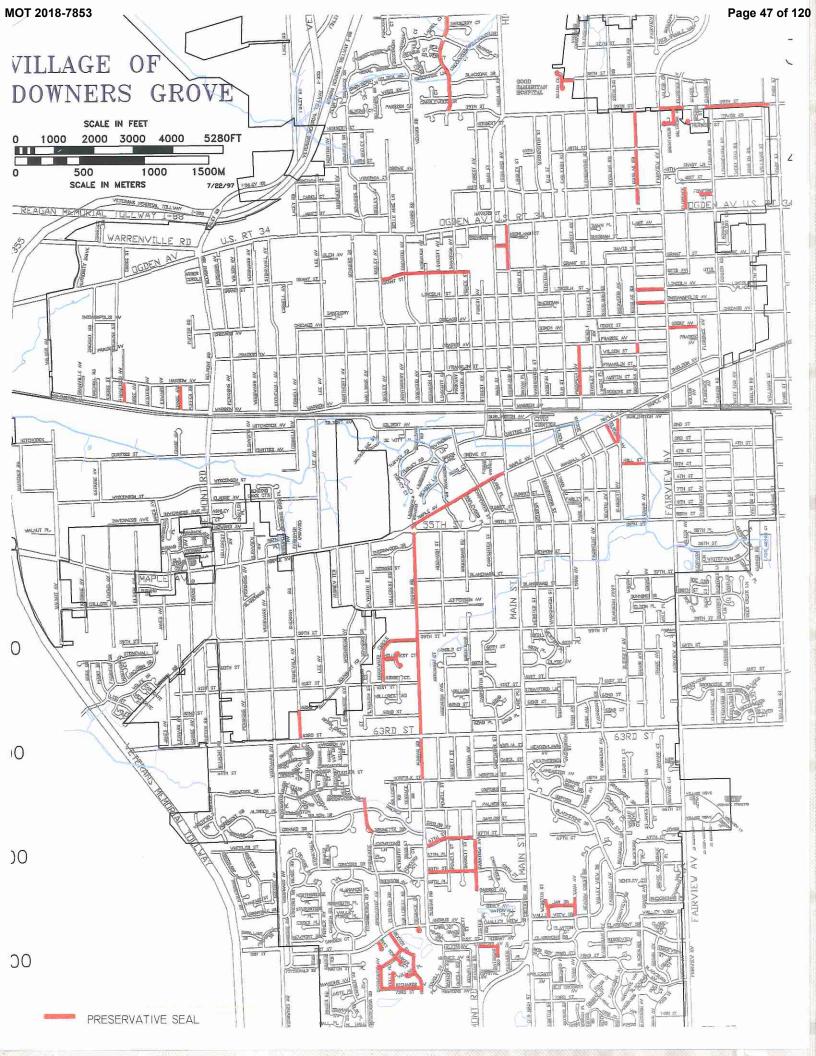
By signing the bid documents, contractor/proposer/bidder/vendor agrees to refrain from making any campaign contributions as defined in Section 9-1.4 of the Election Code (10 ILCS 5/9-1.4) to any Village Council member and any challengers seeking to serve as a member of the Downers Grove Village Council.

Under penalty	y of perjury, I declare:		···
	Bidder/vendor has <u>not</u> contrib (5) years.	buted to any elected Village posit	tion within the last five
	Signature	Marc Taillon Print Name	
	☐ Bidder/vendor has contribute Village Council within the last five (ed a campaign contribution to a (5) years.	current member of the
	Print the following information: Name of Contributor:	(company or individual)	
	To whom contribution was made:		£
	Year contribution made:	Amount: \$	
	Signature	Print Name	

BID SUBMITTAL CHECKLIST

Each Bidder's Bid Package must be submitted with all requisite forms properly completed, and all documentation included. The following list is not all-inclusive, but is designed to facilitate a good, competitive bidding environment.

1.	to the	Instructions to Bidders read and understood. Any questions must be asked according instructions.
2.	V	Cover sheet filled-in
3.		Bid Form copies filled-in. All copies must have original signatures and seals on them.
4.		Bid Bond or cashier's check enclosed with bid package.
5.		Schedule of Prices completed. Check your math!
6.		Bidder Certifications signed and sealed.
7.	1	Letter from Surety ensuring issuance of Performance and Labor Bonds.
8.		Letter from Insurance Agent or Carrier ensuring issuance of required job coverage.
9.	V	Municipal Reference List completed.
10.	7	Vendor request form W-9 completed.
11.	1	Affidavit (IDOT Form BC-57, or similar).
12.		Bid package properly sealed and labeled before delivery. If sending by mail or nger, enclose in a second outer envelope or container. Project plan sheets do not have neluded with the bid package.



2018 ROADWAY MAINTENANCE PROGRAM STREETS ESTIMATED FOR PRESERVATIVE SEAL

STREET	FROM	ТО	LENGTH LF	AREA SY
20TH CT	DULONCT	ELIMITO	308	633
38TH ST 39TH ST	DILLON CT W. of CUMNOR RD	E LIMITS E. of WILLIAMS ST	1690	5105
	All alliant to be a first the second of the	The Table of the Control of the Cont	1967 900 900	
39TH ST	FAIRVIEW AVE	FLORENCE AVE	605	2214
67TH ST	DUNHAM RD	SARATOGA AVE	1300	4983
68TH ST	DUNHAM RD	SARATOGA AVE	1260	3920
71ST TERRACE	CUL DE SAC	71ST ST	260	1265
BAKER CT	CUL DE SAC	SPRINGSIDE AVE	250	1170
BILTMORE RD	39TH ST	BRENTWOOD PL	360	1410
BLODGETT AVE	RANDALL ST	MAPLE AVE	670	1787
BRENTWOOD PL	W. END	BILTMORE RD	280	1065
BRYCE PL	CUL DE SAC	SARATOGA AVE	245	1360
CHASE AVE	BURLINGTON AVE	HADDOW AVE	663	1547
DEXTER RD	S. of RICHARDS AVE	71ST ST	1930	5790
DILLON CT	N CUL DE SAC	S CUL DE SAC	504	1796
DOUGLAS RD	39TH ST	S. of 41ST ST	2392	5316
DOUGLAS RD	WILSON ST	PRAIRIE AVE	330	880
DUNHAM RD	63RD ST	55TH ST	5210	16859
DUNHAM RD	NORFOLK ST	63RD ST	1120	4729
ELMWOOD AVE	RANDALL ST	MAPLE AVE	570	1520
FLORENCE AVE	OGDEN AVE	N END	545	1433
FLORENCE AVE	75TH FRONTAGE	SOUTH LIMITS	1225	3811
FOXFIRE CT	W. END	CUMNOR RD	342	1083
FRANCISCO ST	BURLINGTON AVE	HADDOW AVE	552	1104
GIERZ ST	FAIRVIEW AVE	FLORENCE AVE	773	1890
GRANT ST	SEELEY AVE	PRINCE ST	2210	6256
GREGORY PL	CUL DE SAC	SARATOGA AVE	220	1219
HERBERT ST	W. CUL DE SAC	SCHOOL ST	240	667
HIGHLAND AVE	GRANT ST	OGDEN AVE	1205	3213
HILL ST	BLODGETT AVE	GRAND AVE	650	1806
HILLCREST CT	RIDGEWOOD CIR	E. CUL DE SACS	720	2560
INDIANAPOLIS AVE	DOUGLAS RD	FAIRVIEW AVE	750	1833
JAY DR	WEBSTER ST	LYMAN AVE	680	2116
KELLY PL	CUL DE SAC	RICHARDS AVE	400	1618
LINCOLN AVE	DOUGLAS RD	FAIRVIEW AVE	750	1875
LYMAN AVE	VALLEYVIEW DR	N. of JAY DR	450	1400
MAPLE AVE	DUNHAM RD	MAIN ST	2775	8627
MATTHIAS RD	STANFORD AVE	S. END	321	999
OAK HILL RD	VENARD RD	SARATOGA AVE	910	3579
PROSPECT AVE	ROGERS ST	PRAIRIE AVE	1300	3467
RICHARDS AVE	SPRINGSIDE AVE	DEXTER RD	1005	3015
RIDGEWOOD CIR	DUNHAM RD	61ST ST	1847	5746
PLANE DESCRIPTION OF THE PARTY	31ST ST.	CUL-DE-SAC	357	1358
ROSEWOOD	16 - 10 - 10 - 10 - 10 - 10 - 10 - 10 -			
SARATOGA AVE	OAK HILL RD	VENARD RD	1455	5093
SARATOGA AVE	39TH ST	35TH ST	2565	8826
SARATOGA AVE	67TH ST	S. of 68TH ST	1320	4106
SHERMAN ST	MAIN ST	HIGHLAND AVE	313	835
SPRINGSIDE AVE	BRUNETTE DR	N. of BOLSON DR	935	2909
SPRINGSIDE AVE	RICHARDS AVE	DEXTER RD	1235	3965
STANFORD	DUNHAM RD.	MATTHIAS RD	430	1663
STONEWALL AVE	63RD ST	62ND ST R.O.W.	730	2271
TERRACE DR	CUL DE SAC	71ST ST	150	864
WEBSTER ST	VALLEYVIEW DR	N. of JAY DR	485	1509
WILLARD PL	CUL DE SAC	DEXTER RD	255	1200

Total >

Miles >

50,047

9.48

157,265

Document A310[™] – 2010

Conforms with The American Institute of Architects AIA Document 310

Bid Bond

CONTRACTOR:

(Name, legal status and address) Corrective Asphalt Materials, LLC

P.O. Box 87129 S. Roxana, IL 62087

SURETY:

(Name, legal status and principal place of business) The Cincinnati Insurance Company P.O. Box 145496 Cincinnati, OH 45250-5496

Mailing Address for Notices

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

(Seal)

(Seal)

OWNER:

(Name, legal status and address)

Village of Downers Grove 5101 Walnut Avenue Downers Grove, IL 60515

BOND AMOUNT: Five Percent of Amount Bid

PROJECT:

(Name, location or address, and Project number, if any)

Preservative and Restorative Seal for Asphalt Pavements Bid No. ST-004E

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

Signed and sealed this

19th

day of July

2018

(Principal)

Bornes - Admin

Corrective Asphalt Materials, LLC

The Cincinnati Insurance Company

(Title) Brandi L. Bullock, Attorney-in-Fact

THE CINCINNATI INSURANCE COMPANY

Fairfield, Ohio

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That THE CINCINNATI INSURANCE COMPANY, a corporation organized under the laws of the State of Ohio, and having its principal office in the City of Fairfield, Ohio, does hereby constitute and appoint Michael T. Reedy; Stephen C. Ruff; Patricia A. Inchiostro; Gregory L. Stanley; Theresa A. Hunziker; Barbara M. Johnson; Christopher J. O'Hagan;

Brandi L. Bullock; Don K. Ardolino; Kimberly Ann Connell; Timothy E. Griffin; Michael A. Flavin and/or Debra Baggett

its true and lawful Attorney(s)-in-Fact to sign, execute, seal of Chesterfield and St. Louis, Missouri and deliver on its behalf as Surety, and as its act and deed, any and all bonds, policies, undertakings, or other like instruments, as follows: Any such obligations in the United States, up to

Fourty Million and No/100 Dolalrs (\$40,000,000.00).

This appointment is made under and by authority of the following resolution passed by the Board of Directors of said Company at a meeting held in the principal office of the Company, a quorum being present and voting, on the 6th day of December, 1958, which resolution is still in effect:

"RESOLVED, that the President or any Vice President be hereby authorized, and empowered to appoint Attorneys-in-Fact of the Company to execute any and all bonds, policies, undertakings, or other like instruments on behalf of the Corporation, and may authorize any officer or any such Attorney-in-Fact to affix the corporate seal; and may with or without cause modify or revoke any such appointment or authority. Any such writings so executed by such Attorneys-in-Fact shall be binding upon the Company as if they had been duly executed and acknowledged by the regularly elected officers of the Company."

This Power of Attorney is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Board of Directors of the Company at a meeting duly called and held on the 7th day of December, 1973.

"RESOLVED, that the signature of the President or a Vice President and the seal of the Company may be affixed by facsimile on any power of attorney granted, and the signature of the Secretary or Assistant Secretary and the seal of the Company may be affixed by facsimile to any certificate of any such power and any such power of certificate bearing such facsimile signature and seal shall be valid and binding on the Company. Any such power so executed and sealed and certified by certificate so executed and sealed shall, with respect to any bond or undertaking to which it is attached, continue to be valid and binding on the Company."

IN WITNESS WHEREOF, THE CINCINNATI INSURANCE COMPANY has caused these presents to be sealed with its corporate seal, duly attested by its Vice President this 1st day of October, 2015.

CORPORATI

STATE OF OHIO COUNTY OF BUTLER THE CINCINNATI INSURANCE COMPANY

On this 1st day of October, 2015, before me came the above-named Vice President of THE CINCINNATI INSURANCE COMPANY, to me personally known to be the officer described herein, and acknowledged that the seal affixed to the preceding instrument is the corporate seal of said Company and the corporate seal and the signature of the officer were duly affixed and subscribed to said instrument by the authority and direction of said corporation.

MARK J. HULLER, Attorney at Law NOTARY PUBLIC - STATE OF OHIO My commission has no expiration

date. Section 147.03 O.R.C.

I, the undersigned Secretary or Assistant Secretary of THE CINCINNATI INSURANCE COMPANY, hereby certify that the above is a true and correct copy of the Original Power of Attorney issued by said Company, and do hereby further certify that the said Power of Attorney is still in full force and effect.

GIVEN under my hand and seal of said Company at Fairfield, Ohio.

this

day of July, 2018

BN-1005 (10/15)



July 12, 2018

Ms. Stephanie Graves Staff Engineer II Village of Downers Grove 5101 Walnut St. Downers Grove, IL 60515

RE:

Corrective Asphalt Materials, LLC

Bid No. ST-004E – Preservative and Restorative Seal for Asphalt Pavements

To Whom It May Concern:

This is to confirm that we are currently providing bonds through Cincinnati Insurance Company and have established a bonding line of credit for Corrective Asphalt Materials, LLC in the approximate amount of \$2,000,000 for single projects with a total aggregate program of \$6,000,000.

If Corrective Asphalt Materials, LLC were to be awarded any projects under the captioned Proposal, we anticipate no problems in continuing this bonding capacity and are prepared to provide any needed Performance and Payment bonds requested by Corrective Asphalt Materials, LLC subject to its request and it continuing to meet the underwriting criteria of the bonding company.

Sincerely,

Don K. Ardolino

Don K. Andolins

Affiliated with

CRANE

100 N. Broadway • Ste. 900 • St. Louis, MO 63102 Phone: 314-444-4949 • www.jdkutter.com



USI Insurance Services 308 North 21st Street St Louis, MO 63103 www.usi.com Tel: 800.969.2399

July 12, 2018

Kelli L Bornes
Administrative Assistant
Corrective Asphalt Materials, LLC
P.O. Box 87129
300 Daniel Boone Trail
South Roxana, IL 62087

Re: Village of Downers Grove Preservative and Restorative Seal

Dear Kelli,

After review of the insurance specifications, your insurance will comply with the Insurance Requirements outlined in 32.1 - 32.10

Thank you.

Sincerely,

USI Insurance Services, LLC

Char Hanselman

Char Hanselman, CRIS Senior Account Manager



Affidavit of Availability
For the Letting 7/19/2018

(Letting date)

Instructions: Complete this form by either typing or using black ink.
"Authorization to Bid" will not be issued unless both sides of this form are

completed in detail. Use additional forms as needed to list all work.

Part I. Work Under Contract

List below all work you have under contract as either a prime contractor or a subcontractor. It is required to include all pending low bids not yet awarded or rejected. In a joint venture, list only that portion of the work which is the responsibility of your company. The uncompleted dollar value is to be based upon the most recent engineer's or owners estimate, and must include work subcontracted to others. If no work is contracted, show **NONE**.

	1	2	3	4	5	
Contract Number	18079	18080	18093	18040	18072	
Contract With	Lino Lakes, MN	Kirkwood, MO	Urbana	Bannockburn, IL	Bensenville, IL	
Estimated Completion Date	07/2018	07/2018	08/2018	8/1/2018	8/1/2018	
Total Contract Price	87,730.80	2,650,810.00	18,506.70	17,278.17	35,751.42	Accumulated Totals
Uncompleted Dollar Value if Firm is the Prime Contractor	87,730.80	26,508.10	18,506.70	17,278.17	35,751.42	185,775.19
Uncompleted Dollar Value if Firm is the Subcontractor						0.00
				Total Value of All Wo	ork	185.775.19

Part II. Awards Pending and Uncompleted Work to be done with your own forces.

List below the uncompleted dollar value of work for subcontracted to others will be listed on the reverse of						Accumulated
company. If no work is contracted, show NONE.	s, and round in a joint to	maro, not only mar portio	ar ar are work to be do	one by your		Totals
Earthwork	NONE	NONE	NONE	NONE	NONE	0.00
Portland Cement Concrete Paving	NONE	NONE	NONE	NONE	NONE	0.00
HMA Plant Mix	NONE	NONE	NONE	NONE	NONE	0.00
HMA Paving	NONE	NONE	NONE	NONE	NONE	0.00
Clean & Seal Cracks/Joints	NONE	NONE	NONE	NONE	NONE	0.00
Aggregate Bases & Surfaces	NONE	NONE	NONE	NONE	NONE	0.00
Highway,R.R. and Waterway Structures	NONE	NONE	NONE	NONE	NONE	0.00
Drainage	NONE	NONE	NONE	NONE	NONE	0.00
Electrical	NONE	NONE	NONE	NONE	NONE	0.00
Cover and Seal Coats	NONE	NONE	NONE	NONE	NONE	0.00
Concrete Construction	NONE	NONE	NONE	NONE	NONE	0.00
Landscaping	NONE	NONE	NONE	NONE	NONE	0.00
Fencing	NONE	NONE	NONE	NONE	NONE	0.00
Guardrail	NONE	NONE	NONE	NONE	NONE	0.00
Painting	NONE	NONE	NONE	NONE	NONE	0.00
Signing	NONE	NONE	NONE	NONE	NONE	0.00
Cold Milling, Planning & Rotomilling	NONE	NONE	NONE	NONE	NONE	0.00
Demolition	NONE	NONE	NONE	NONE	NONE	0.00
Pavement Markings (Paint)	NONE	NONE	NONE	NONE	NONE	0.00
Other Construction (List)	NONE	NONE	NONE	NONE	NONE	0.00
Asphalt Rejuvenation	87,730.80	26,508.10	0.00	17,278.17	35,751.42	167,268.49
						0.00
Totals	87,730.80	26,508.10	0.00	17,278.17	35,751.42	167,268.49

Part III. Work Subcontracted to Others

,	1	2	3	4	5
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					V_
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor			12		
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor		y.			
Type of Work					
Subcontract Price		-			
Amount Uncompleted					_
Total Uncompleted	0.00	0.00	0.00	0.00	0.00



Affidavit of Availability
For the Letting 7/19/2018

(Letting date)

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Part I. Work Under Contract

List below all work you have under contract as either a prime contractor or a subcontractor. It is required to include all pending low bids not yet awarded or rejected. In a joint venture, list only that portion of the work which is the responsibility of your company. The uncompleted dollar value is to be based upon the most recent engineer's or owners estimate, and must include work subcontracted to others. If no work is contracted, show NONE.

	6	7	8	9	10	
Contract Number	18095	18083	18074	18073	18056	
Contract With	Grundy County	St. Charles, IL	Brothers Asphalt	Brothers Asphalt	Columbia, IL	
Estimated Completion Date	08/2018	08/2018	09/2018	09/2018	8/1/2018	
Total Contract Price	10,620.00	131,247.88	26,321.85	19,624.15	66,068.00	Accumulated Totals
Uncompleted Dollar Value if Firm is the Prime Contractor	10,620.00	131,247.88			66,068.00	393,711.07
Uncompleted Dollar Value if Firm is the Subcontractor			26,321.85	19,624.15		45,946.00
		<u>. </u>	Т	otal Value of All Wo	rk	439.657.07

Part II. Awards Pending and Uncompleted Work to be done with your own forces.

List below the uncompleted dollar value of work for each contract and awards pending to be completed with your own forces. All work Subcontracted to others will be listed on the reverse of this form. In a joint venture, list only that portion of the work to be done by your company. If no work is contracted, show NONE.						
Earthwork	NONE	NONE	NONE	NONE	NONE	0.00
Portland Cement Concrete Paving	NONE	NONE	NONE	NONE	NONE	0.00
HMA Plant Mix	NONE	NONE	NONE	NONE	NONE	0.00
HMA Paving	NONE	NONE	NONE	NONE	NONE	0.00
Clean & Seal Cracks/Joints	NONE	NONE	NONE	NONE	NONE	0.00
Aggregate Bases & Surfaces	NONE	NONE	NONE	NONE	NONE	0.00
Highway,R.R. and Waterway Structures	NONE	NONE	NONE	NONE	NONE	0.00
Drainage	NONE	NONE	NONE	NONE	NONE	0.00
Electrical	NONE	NONE	NONE	NONE	NONE	0.00
Cover and Seal Coats	NONE	NONE	NONE	NONE	NONE	0.00
Concrete Construction	NONE	NONE	NONE	NONE	NONE	0.00
Landscaping	NONE	NONE	NONE	NONE	NONE	0.00
Fencing	NONE	NONE	NONE	NONE	NONE	0.00
Guardrail	NONE	NONE	NONE	NONE	NONE	0.00
Painting	NONE	NONE	NONE	NONE	NONE	0.00
Signing	NONE	NONE	NONE	NONE	NONE	0.00
Fbl	NONE	NONE	NONE	NONE	NONE	0.00
Demolition	NONE	NONE	NONE	NONE	NONE	0.00
Pavement Markings (Paint)	NONE	NONE	NONE	NONE	NONE	0.00
Other Construction (List)	NONE	NONE	NONE	NONE	NONE	0.00
Asphalt Rejuvenation	10,620.00	131,247.88	26,321.85	19,624.15	66,068.00	421,150.37
						0.00
Totals	10,620.00	131,247.88	26,321.85	19,624.15	66,068.00	421,150.37

Part III. Work Subcontracted to Others

	6	7	8	9	10
Subcontractor					
Type of Work					
Subcontract Price		-			
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted				1)	
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					T
Amount Uncompleted					
Total Uncompleted	0.00	0.00	0.00	0.00	0.00



Affidavit of Availability
For the Letting 7/19/2018

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(Letting date)

(Letting date)

2300 South Dirksen Parkway/Room 322 Springfield, Illinois 62764

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	11	12	13	14	15	
Contract Number	18014	18015	18097	18036	18096	1
Contract With	Desco Group	Desco Group	Lake in the Hills, IL	Evanston, IL	Riverview Subdivision	
Estimated Completion Date	07/2018	07/2018	08/2018	8/1/2018	09/2018	
Total Contract Price	8,444.59	16,590.42	28,309.68	52,531.53	1,713.60	Accumulated Totals
Uncompleted Dollar Value if Firm is the Prime Contractor	8,444.59	16,590.42	28,309.68	52,531.53	1,713.60	501,300.89
Uncompleted Dollar Value if Firm is the Subcontractor						45,946.00
			То	tal Value of All Wo	ork	547,246,89

Part II. Awards Pending and Uncompleted Work to be done with your own forces.

List below the uncompleted dollar value of work Subcontracted to others will be listed on the revers company. If no work is contracted, show NONE.						Accumulated Totals
Earthwork	NONE	NONE	NONE	NONE	NONE	0.00
Portland Cement Concrete Paving	NONE	NONE	NONE	NONE	NONE	0.00
HMA Plant Mix	NONE	NONE	NONE	NONE	NONE	0.00
HMA Paving	NONE	NONE	NONE	NONE	NONE	0.00
Clean & Seal Cracks/Joints	NONE	NONE	NONE	NONE	NONE	0.00
Aggregate Bases & Surfaces	NONE	NONE	NONE	NONE	NONE	0.00
Highway,R.R. and Waterway Structures	NONE	NONE	NONE	NONE	NONE	0.00
Drainage	NONE	NONE	NONE	NONE	NONE	0.00
Electrical	NONE	NONE	NONE	NONE	NONE	0.00
Cover and Seal Coats	NONE	NONE	NONE	NONE	NONE	0.00
Concrete Construction	NONE	NONE	NONE	NONE	NONE	0.00
Landscaping	NONE	NONE	NONE	NONE	NONE	0.00
Fencing	NONE	NONE	NONE	NONE	NONE	0.00
Guardrail	NONE	NONE	NONE	NONE	NONE	0.00
Painting	NONE	NONE	NONE	NONE	NONE	0.00
Signing	NONE	NONE	NONE	NONE	NONE	0.00
Cold Milling, Planning & Rotomilling	NONE	NONE	NONE	NONE	NONE	0.00
Demolition	NONE	NONE	NONE	NONE	NONE	0.00
Pavement Markings (Paint)	NONE	NONE	NONE	NONE	NONE	0.00
Other Construction (List)	NONE	NONE	NONE	NONE	NONE	0.00
Asphalt Rejuvenation	8,444.59	16,590.42	28,309.68	52,531.53	1,713.60	528,740.19
						0.00
Totals	8,444.59	16,590.42	28,309.68	52,531.53	1,713.60	528,740.19

	11	12	13	14	15
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					//
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					n n
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work		_			
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted		-			
Total Uncompleted	0.00	0.00	0.00	0.00	0.00



Affidavit of Availability
For the Letting 7/19/2018

......

(Letting date)

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Part I. Work Under Contract

List below all work you have under contract as either a prime contractor or a subcontractor. It is required to include all pending low bids not yet awarded or rejected. In a joint venture, list only that portion of the work which is the responsibility of your company. The uncompleted dollar value is to be based upon the most recent engineer's or owners estimate, and must include work subcontracted to others. If no work is contracted, show **NONE**.

	16	17	18	19	20	
Contract Number	18037	18059	18098	18039	18071	
Contract With	Glenview, IL	Golden Valley, MN	Wood Dale, IL	Lake Zurich, IL	Long Grove, IL	
Estimated Completion Date	8/1/2018	07/2018	07/2018	8/1/2018	8/1/2018	
Total Contract Price	26,266.00	43,271.40	35,198.50	21,012.00	135,695.70	Accumulated Totals
Uncompleted Dollar Value if Firm is the Prime Contractor Uncompleted Dollar Value if Firm is the	26,266.00	43,271.40	35,198.50	21,012.00	135,695.70	762,744.49
Uncompleted Dollar Value if Firm is the Subcontractor						45,946.00
			T	otal Value of All Wo	ork	808 690 49

Part II. Awards Pending and Uncompleted Work to be done with your own forces.

List below the uncompleted dollar value of work for each contract and awards pending to be completed with your own forces. All work Subcontracted to others will be listed on the reverse of this form. In a joint venture, list only that portion of the work to be done by your						
company. If no work is contracted, show NONE.	e of this form. In a joint	venture, list only that po	ation of the work to be	done by your		Totals
Earthwork	NONE	NONE	NONE	NONE	NONE	0.00
Portland Cement Concrete Paving	NONE	NONE	NONE	NONE	NONE	0.00
HMA Plant Mix	NONE	NONE	NONE	NONE	NONE	0.00
HMA Paving	NONE	NONE	NONE	NONE	NONE	0.00
Clean & Seal Cracks/Joints	NONE	NONE	NONE	NONE	NONE	0.00
Aggregate Bases & Surfaces	NONE	NONE	NONE	NONE	NONE	0.00
Highway,R.R. and Waterway Structures	NONE	NONE	NONE	NONE	NONE	0.00
Drainage	NONE	NONE	NONE	NONE	NONE	0.00
Electrical	NONE	NONE	NONE	NONE	NONE	0.00
Cover and Seal Coats	NONE	NONE	NONE	NONE	NONE	0.00
Concrete Construction	NONE	NONE	NONE	NONE	NONE	0.00
Landscaping	NONE	NONE	NONE	NONE	NONE	0.00
Fencing	NONE	NONE	NONE	NONE	NONE	0.00
Guardrail	NONE	NONE	NONE	NONE	NONE	0.00
Painting	NONE	NONE	NONE	NONE	NONE	0.00
Signing	NONE	NONE	NONE	NONE	NONE	0.00
Cold Milling, Planning & Rotomilling	NONE	NONE	NONE	NONE	NONE	0.00
Demolition	NONE	NONE	NONE	NONE	NONE	0.00
Pavement Markings (Paint)	NONE	NONE	NONE	NONE	NONE	0.00
Other Construction (List)	NONE	NONE	NONE	NONE	NONE	0.00
Asphalt Rejuvenation	26,266.00	43,271.40	35,198.50	21,012.00	135,695.70	790,183.79
						0.00
Totals	26,266.00	43,271.40	35,198.50	21,012.00	135,695.70	790,183.79

Part III. Work Subcontracted to Others

	16	17	18	19	20
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work			<		
Subcontract Price					
Amount Uncompleted					
Subcontractor				l.	
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					ii —
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Total Uncompleted	0.00	0.00	0.00	0.00	0.00



Affidavit of Availability

For the Letting 7/19/2018

(Letting date)

Instructions: Complete this form by either typing or using black ink. "Authorization to Bid" will not be issued unless both sides of this form are completed in detail. Use additional forms as needed to list all work.

Part I. Work Under Contract

List below all work you have under contract as either a prime contractor or a subcontractor. It is required to include all pending low bids not yet awarded or rejected. In a joint venture, list only that portion of the work which is the responsibility of your company. The uncompleted dollar value is to be based upon the most recent engineer's or owners estimate, and must include work subcontracted to others. If no work is contracted, show NONE.

	21	22	23	24	25	
Contract Number	18084	18049	18041	18023	18035	
Contract With	Bloomington, IL	Moberly, MO	Morton Grove, IL	New Madrid, MO	North Chicago, IL	
Estimated Completion Date	10/2018	09/2018	07/2018	09/2018	08/2018	
Total Contract Price	178,264.40	11,147.32	11,518.00	3,500.00	66,645.00	Accumulated Totals
Uncompleted Dollar Value if Firm is the Prime Contractor	178,264.40	11,147.32	11,518.00	1,750.00	66,645.00	1,013,562.51
Uncompleted Dollar Value if Firm is the Subcontractor						192,751.20
			Т	otal Value of All Wo	ork	1,206,313.71

Part II. Awards Pending and Uncompleted Work to be done with your own forces.

List below the uncompleted dollar value of work for each contract and awards pending to be completed with your own forces. All work Subcontracted to others will be listed on the reverse of this form. In a joint venture, list only that portion of the work to be done by your company. If no work is contracted, show NONE.							
Earthwork	NONE	NONE	NONE	NONE	NONE	0.00	
Portland Cement Concrete Paving	NONE	NONE	NONE	NONE	NONE	0.00	
HMA Plant Mix	NONE	NONE	NONE	NONE	NONE	0.00	
HMA Paving	NONE	NONE	NONE	NONE	NONE	0.00	
Clean & Seal Cracks/Joints	NONE	NONE	NONE	NONE	NONE	0.00	
Aggregate Bases & Surfaces	NONE	NONE	NONE	NONE	NONE	0.00	
Highway,R.R. and Waterway Structures	NONE	NONE	NONE	NONE	NONE	0.00	
Drainage	NONE	NONE	NONE	NONE	NONE	0.00	
Electrical	NONE	NONE	NONE	NONE	NONE	0.00	
Cover and Seal Coats	NONE	NONE	NONE	NONE	NONE	0.00	
Concrete Construction	NONE	NONE	NONE	NONE	NONE	0.00	
Landscaping	NONE	NONE	NONE	NONE	NONE	0.00	
Fencing	NONE	NONE	NONE	NONE	NONE	0.00	
Guardrail	NONE	NONE	NONE	NONE	NONE	0.00	
Painting	NONE	NONE	NONE	NONE	NONE	0.00	
Signing	NONE	NONE	NONE	NONE	NONE	0.00	
Cold Milling, Planning & Rotomilling	NONE	NONE	NONE	NONE	NONE	0.00	
Demolition	NONE	NONE	NONE	NONE	NONE	0.00	
Pavement Markings (Paint)	NONE	NONE	NONE	NONE	NONE	0.00	
Other Construction (List)	NONE	NONE	NONE	NONE	NONE	0.00	
Asphalt Rejuvenation	178,264.40	11,147.32	11,518.00	1,750.00	66,645.00	1,206,313.71	
						0.00	
Totals	178,264.40	11,147.32	11,518.00	1,750.00	66,645.00	1,206,313.71	

Part III. Work Subcontracted to Others

	21	22	23	24	25
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work		5			
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work		IC			
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					4
Total Uncompleted	0.00	0.00	0.00	0.00	0.00



Affidavit of Availability

For the Letting 7/19/2018

(Letting date)

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Part I. Work Under Contract

List below all work you have under contract as either a prime contractor or a subcontractor. It is required to include all pending low bids not yet awarded or rejected. In a joint venture, list only that portion of the work which is the responsibility of your company. The uncompleted dollar value is to be based upon the most recent engineer's or owners estimate, and must include work subcontracted to others. If no work is contracted, show NONE.

	26	27	28	29	30	
Contract Number	18025	18027	18053	18051	18070	
Contract With	Osage Beach, MO	Peculiar, MO	Peter Baker & Son	Priority Properties	Richfield, MN	
Estimated Completion Date	09/2018	08/2018	07/2018	09/2018	07/2018	
Total Contract Price	22,978.64	24,058.40	179,260.12	3,500.00	486,200.00	Accumulated Totals
Uncompleted Dollar Value if Firm is the Prime Contractor	22,978.64	24,058.40		3,500.00	486,200.00	1,550,299.55
Uncompleted Dollar Value if Firm is the Subcontractor			79,464.86			272,216.06
			1	otal Value of All Wo	ork	1,822,515.61

Part II. Awards Pending and Uncompleted Work to be done with your own forces.

List below the uncompleted dollar value of work for each contract and awards pending to be completed with your own forces. All work subcontracted to others will be listed on the reverse of this form. In a joint venture, list only that portion of the work to be done							
by your company. If no work is contracted, show	NONE.	·	• •			Totals	
Earthwork	NONE	NONE	NONE	NONE	NONE	0.0	
Portland Cement Concrete Paving	NONE	NONE	NONE	NONE	NONE	0.00	
HMA Plant Mix	NONE	NONE	NONE	NONE	NONE	0.0	
HMA Paving	NONE	NONE	NONE	NONE	NONE	0.0	
Clean & Seal Cracks/Joints	NONE	NONE	NONE	NONE	NONE	0.0	
Aggregate Bases & Surfaces	NONE	NONE	NONE	NONE	NONE	0.0	
Highway,R.R. and Waterway Structures	NONE	NONE	NONE	NONE	NONE	0.0	
Drainage	NONE	NONE	NONE	NONE	NONE	0.00	
Electrical	NONE	NONE	NONE	NONE	NONE	0.0	
Cover and Seal Coats	NONE	NONE	NONE	NONE	NONE	0.0	
Concrete Construction	NONE	NONE	NONE	NONE	NONE	0.0	
Landscaping	NONE	NONE	NONE	NONE	NONE	0.0	
Fencing	NONE	NONE	NONE	NONE	NONE	0.0	
Guardrail	NONE	NONE	NONE	NONE	NONE	0.0	
Painting	NONE	NONE	NONE	NONE	NONE	0.00	
Signing	NONE	NONE	NONE	NONE	NONE	0.0	
Cold Milling, Planning & Rotomilling	NONE	NONE	NONE	NONE	NONE	0.00	
Demolition	NONE	NONE	NONE	NONE	NONE	0.00	
Pavement Markings (Paint)	NONE	NONE	NONE	NONE	NONE	0.0	
Other Construction (List)	NONE	NONE	NONE	NONE	NONE	0.0	
Asphalt Rejuvenation	22,978.64	24,058.40	79,464.86	3,500.00	486,200.00	1,822,515.6	
						0.0	
Totals	22,978.64	24,058.40	79,464.86	3,500.00	486,200.00	1,822,515.6	

Part III. Work Subcontracted to Others

	26	27	28	29	30
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price		\			
Amount Uncompleted			-		
Subcontractor					
Type of Work	=======================================				
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor) ()	
Type of Work					
Subcontract Price					
Amount Uncompleted				=	
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Total Uncompleted	0.00	0.00	0.00	0.00	0.00



Affidavit of Availability For the Letting 7/19/2018

(Letting date)

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Part I. Work Under Contract

List below all work you have under contract as either a prime contractor or a subcontractor. It is required to include all pending low bids not yet awarded or rejected. In a joint venture, list only that portion of the work which is the responsibility of your company. The uncompleted dollar value is to be based upon the most recent engineer's or owners estimate, and must include work subcontracted to others. If no work is contracted, show NONE.

	31	32	33	34	35	
Contract Number	18102	18042	18043	18026	18075	
Contract With	Gunther Const.	Rolling Meadows, IL	Skokie, IL	Speedway Sand & Gravel	Jokerst Paving	
Estimated Completion Date	10/2018	8/1/2018	8/1/2018	09/2018	08/2018	
Total Contract Price	4,417.28	46,076.00	21,012.00	40,050.00	17,051.00	Accumulated Totals
Uncompleted Dollar Value if Firm is the Prime Contractor		46,076.00	21,012.00			1,635,894.25
Uncompleted Dollar Value if Firm is the Subcontractor	4,417.28			40,050.00	17,051.00	186,929.14
				Total Value of All Wo	ork	1,822,823.39

Part II. Awards Pending and Uncompleted Work to be done with your own forces.

List below the uncompleted dollar value of work for each contract and awards pending to be completed with your own forces. All work subcontracted to others will be listed on the reverse of this form. In a joint venture, list only that portion of the work to be done						
by your company. If no work is contracted, show N	IONE.	•	•			Totals
Earthwork	NONE	NONE	NONE	NONE	NONE	0.0
Portland Cement Concrete Paving	NONE	NONE	NONE	NONE	NONE	0.00
HMA Plant Mix	NONE	NONE	NONE	NONE	NONE	0.00
HMA Paving	NONE	NONE	NONE	NONE	NONE	0.00
Clean & Seal Cracks/Joints	NONE	NONE	NONE	NONE	NONE	0.00
Aggregate Bases & Surfaces	NONE	NONE	NONE	NONE	NONE	0.00
Highway,R.R. and Waterway Structures	NONE	NONE	NONE	NONE	NONE	0.00
Drainage	NONE	NONE	NONE	NONE	NONE	0.00
Electrical	NONE	NONE	NONE	NONE	NONE	0.00
Cover and Seal Coats	NONE	NONE	NONE	NONE	NONE	0.00
Concrete Construction	NONE	NONE	NONE	NONE	NONE	0.00
Landscaping	NONE	NONE	NONE	NONE	NONE	0.00
Fencing	NONE	NONE	NONE	NONE	NONE	0.00
Guardrail	NONE	NONE	NONE	NONE	NONE	0.00
Painting	NONE	NONE	NONE	NONE	NONE	0.00
Signing	NONE	NONE	NONE	NONE	NONE	0.00
Cold Milling, Planning & Rotomilling	NONE	NONE	NONE	NONE	NONE	0.00
Demolition	NONE	NONE	NONE	NONE	NONE	0.00
Pavement Markings (Paint)	NONE	NONE	NONE	NONE	NONE	0.00
Other Construction (List)	NONE	NONE	NONE	NONE	NONE	0.00
Asphalt Rejuvenation	4,417.28	46,076.00	21,012.00	40,050.00	17,051.00	1,804,316.69
						0.00
Totals	4,417.28	46,076.00	21,012.00	40,050.00	17,051.00	1,804,316.69

Part III. Work Subcontracted to Others

	31	32	33	34	35
Subcontractor					
Type of Work					4
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted				1	
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					_
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Total Uncompleted	0.00	0.00	0.00	0.00	0.00



Affidavit of Availability

For the Letting

7/19/2018

(Letting date)

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Part I. Work Under Contract

List below all work you have under contract as either a prime contractor or a subcontractor. It is required to include all pending low bids not yet awarded or rejected. In a joint venture, list only that portion of the work which is the responsibility of your company. The uncompleted dollar value is to be based upon the most recent engineer's or owners estimate, and must include work subcontracted to others. If no work is contracted, show NONE.

	36	37	38	39	40	
Contract Number	18094	18013	18045	18101	18052	
Contract With	Cary, IL	Wheatland Twp	Wilmette, IL	Lake County DOT	Woodbury, MN	
Estimated Completion Date	08/2018	8/1/2018	8/1/2018	10/2018	07/2018	
Total Contract Price	27,363.46	15,600.00	5,759.00	281,366.52	298,319.00	Accumulated Totals
Uncompleted Dollar Value if Firm is the Prime Contractor	27,363.46	15,600.00	5,759.00	281,366.52	298,319.00	2,264,302.23
Uncompleted Dollar Value if Firm is the Subcontractor						186,929.14
1				Total Value of All Wo	ork	2,451,231.37

Part II. Awards Pending and Uncompleted Work to be done with your own forces.

List below the uncompleted dollar value of work for each contract and awards pending to be completed with your own forces. All work subcontracted to others will be listed on the reverse of this form. In a joint venture, list only that portion of the work to be done by your company. If no work is contracted, show NONE.						
Earthwork	NONE	NONE	NONE	NONE	NONE	0.00
Portland Cement Concrete Paving	NONE	NONE	NONE	NONE	NONE	0.00
HMA Plant Mix	NONE	NONE	NONE	NONE	NONE	0.00
HMA Paving	NONE	NONE	NONE	NONE	NONE	0.00
Clean & Seal Cracks/Joints	NONE	NONE	NONE	NONE	NONE	0.00
Aggregate Bases & Surfaces	NONE	NONE	NONE	NONE	NONE	0.00
Highway,R.R. and Waterway Structures	NONE	NONE	NONE	NONE	NONE	0.00
Drainage	NONE	NONE	NONE	NONE	NONE	0.00
Electrical	NONE	NONE	NONE	NONE	NONE	0.00
Cover and Seal Coats	NONE	NONE	NONE	NONE	NONE	0.00
Concrete Construction	NONE	NONE	NONE	NONE	NONE	0.00
Landscaping	NONE	NONE	NONE	NONE	NONE	0.00
Fencing	NONE	NONE	NONE	NONE	NONE	0.00
Guardrail	NONE	NONE	NONE	NONE	NONE	0.00
Painting	NONE	NONE	NONE	NONE	NONE	0.00
Signing	NONE	NONE	NONE	NONE	NONE	0.00
Cold Milling, Planning & Rotomilling	NONE	NONE	NONE	NONE	NONE	0.00
Demolition	NONE	NONE	NONE	NONE	NONE	0.00
Pavement Markings (Paint)	NONE	NONE	NONE	NONE	NONE	0.00
Other Construction (List)	NONE	NONE	NONE	NONE	NONE	0.00
Asphalt Rejuvenation	27,363.46	15,600.00	5,759.00	281,366.52	298,319.00	2,432,724.67
						0.00
Totals	27,363.46	15,600.00	5,759.00	281,366.52	298,319.00	2,432,724.67

Part III. Work Subcontracted to Others

	36	37	38	39	40
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
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Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work		- 17			
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Total Uncompleted	0.00	0.00	0.00	0.00	0.00



Affidavit of Availability

For the Letting _

7/19/2018

(Letting date)

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Part I. Work Under Contract

List below all work you have under contract as either a prime contractor or a subcontractor. It is required to include all pending low bids not yet awarded or rejected. In a joint venture, list only that portion of the work which is the responsibility of your company. The uncompleted dollar value is to be based upon the most recent engineer's or owners estimate, and must include work subcontracted to others. If no work is contracted, show NONE.

	41	42	43	44	45	
Contract Number	18078	18081	18076	18100	18087	
Contract With	Brimfield Church	Bloomington, IL	University City, MO	Dorr Twp	WoodStock, IL	
Estimated Completion Date	08/2018	08/2018	8/1/2018	08/2018	07/2018	
Total Contract Price	1,683.00	124,025.20	67,200.00	11,060.00	29,856.20	Accumulated Totals
Uncompleted Dollar Value if Firm is the Prime Contractor	1,683.00	43,570.32	47,167.68	11,060.00	29,856.20	2,397,639.43
Uncompleted Dollar Value if Firm is the Subcontractor			4			186,929.14
			Т	otal Value of All V	Vork	2,584,568.57

Part II. Awards Pending and Uncompleted Work to be done with your own forces.

List below the uncompleted dollar value of work for work subcontracted to others will be listed on the re- by your company. If no work is contracted, show NO	everse of this form. In a					Accumulated Totals
Earthwork	NONE	NONE	NONE	NONE	NONE	0.00
Portland Cement Concrete Paving	NONE	NONE	NONE	NONE	NONE	0.00
HMA Plant Mix	NONE	NONE	NONE	NONE	NONE	0.00
HMA Paving	NONE	NONE	NONE	NONE	NONE	0.00
Clean & Seal Cracks/Joints	NONE	NONE	NONE	NONE	NONE	0.00
	10000000					
Aggregate Bases & Surfaces	NONE	NONE	NONE	NONE	NONE	0.00
Highway,R.R. and Waterway Structures	NONE	NONE	NONE	NONE	NONE	0.00
Drainage	NONE	NONE	NONE	NONE	NONE	0.00
Electrical	NONE	NONE	NONE	NONE	NONE	0.00
Cover and Seal Coats	NONE	NONE	NONE	NONE	NONE	0.00
Concrete Construction	NONE	NONE	NONE	NONE	NONE	0.00
Landscaping	NONE	NONE	NONE	NONE	NONE	0.00
Fencing	NONE	NONE	NONE	NONE	NONE	0.00
Guardrail	NONE	NONE	NONE	NONE	NONE	0.00
Painting	NONE	NONE	NONE	NONE	NONE	0.00
Signing	NONE	NONE	NONE	NONE	NONE	0.00
Cold Milling, Planning & Rotomilling	NONE	NONE	NONE	NONE	NONE	0.00
Demolition	NONE	NONE	NONE	NONE	NONE	0.00
Pavement Markings (Paint)	NONE	NONE	NONE	NONE	NONE	0.00
Other Construction (List)	NONE	NONE	NONE	NONE	NONE	0.00
Asphalt Rejuvenation	1,683.00	43,570.32	47,167.68	11,060.00	29,856.20	2,566,061.87
		J. I.				0.00
Totals	1,683.00	43,570.32	47,167.68	11,060.00	29,856.20	2,566,061.87

Part III. Work Subcontracted to Others

	41	42	43	44	45
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price	V				
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Amount Uncompleted		Y		, , , , , , , , , , , , , , , , , , ,	
Subcontractor					
Type of Work				1	
Subcontract Price					1)
Amount Uncompleted					
Total Uncompleted	0.00	0.00	0.00	0.00	0.00



Affidavit of Availability For the Letting

7/19/2018

(Letting date)

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Part I. Work Under Contract

List below all work you have under contract as either a prime contractor or a subcontractor. It is required to include all pending low bids not yet awarded or rejected. In a joint venture, list only that portion of the work which is the responsibility of your company. The uncompleted dollar value is to be based upon the most recent engineer's or owners estimate, and must include work subcontracted to others. If no work is contracted, show NONE.

	46	47	48	49	50	<u>[</u>
Contract Number	18091					
Contract With	Gershenson Construction					
Estimated Completion Date	08/2018					
Total Contract Price	5,760.00					Accumulated Totals
Uncompleted Dollar Value if Firm is the Prime Contractor Uncompleted Dollar Value if Firm is the						2,397,639.43
Uncompleted Dollar Value if Firm is the Subcontractor	5,760.00					192,689.14
				Total Value of All Wo	ork	2,590,328.57

Part II. Awards Pending and Uncompleted Work to be done with your own forces.

List below the uncompleted dollar value of work subcontracted to others will be listed on the by your company. If no work is contracted, show No.	everse of this form. In a					Accumulated Totals
Earthwork	NONE	NONE	NONE	NONE	NONE	0.00
Portland Cement Concrete Paving	NONE	NONE	NONE	NONE	NONE	0.00
HMA Plant Mix	NONE	NONE	NONE	NONE	NONE	0.00
HMA Paving	NONE	NONE	NONE	NONE	NONE	0.00
Clean & Seal Cracks/Joints	NONE	NONE	NONE	NONE	NONE	0.00
Aggregate Bases & Surfaces	NONE	NONE	NONE	NONE	NONE	0.00
Highway,R.R. and Waterway Structures	NONE	NONE	NONE	NONE	NONE	0.00
Drainage	NONE	NONE	NONE	NONE	NONE	0.00
Electrical	NONE	NONE	NONE	NONE	NONE	0.00
Cover and Seal Coats	NONE	NONE	NONE	NONE	NONE	0.00
Concrete Construction	NONE	NONE	NONE	NONE	NONE	0.00
Landscaping	NONE	NONE	NONE	NONE	NONE	0.00
Fencing	NONE	NONE	NONE	NONE	NONE	0.00
Guardrail	NONE	NONE	NONE	NONE	NONE	0.00
Painting	NONE	NONE	NONE	NONE	NONE	0.00
Signing	NONE	NONE	NONE	NONE	NONE	0.00
Cold Milling, Planning & Rotomilling	NONE	NONE	NONE	NONE	NONE	0.00
Demolition	NONE	NONE	NONE	NONE	NONE	0.00
Pavement Markings (Paint)	NONE	NONE	NONE	NONE	NONE	0.00
Other Construction (List)	NONE	NONE	NONE	NONE	NONE	0.00
Asphalt Rejuvenation	5,760.00	0.00	0.00	0.00	0.00	2,571,821.87
						0.00
Totals	5,760.00	0.00	0.00	0.00	0.00	2,571,821.87

Part III. Work Subcontracted to Others

For each contract described in Part I, list all the work you have subcontracted to others.

	46	47	48	49	50
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor					
Type of Work					
Subcontract Price					
Amount Uncompleted					
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Type of Work					
Subcontract Price					
Amount Uncompleted					
Subcontractor	İ				
Type of Work					
Subcontract Price					
Amount Uncompleted					
Total Uncompleted	0.00	0.00	0.00	0.00	0.00

I, being duly sworn, do hereby declare this affidavit is a true and correct statement relating to ALL uncompleted contracts of the undersigned for Federal, State, County, City and private work, including ALL subcontract work, ALL pending low bids not yet awarded or rejected and ALL estimated completion dates

Subscribed and sworn to before me	
this dayof	
Sim Rem	Type or Print Name Warc Taillon Vice President Officer or District
Notary Public	Signed
My commission expires: ///o//9	
TINA REVERMANN	Company Corrective Asphalt Materials, LLC
My Commission Expire November 10, 2019	South Roxana, IL 62087
alth	



P.O. Box 5877 Bakersfield, CA 9338

61.393.7440

RECLAMITE®Asphalt Pavement Rejuvenator

Reclamite Benefits:

- · Delays the aging process
- · Reverses aging
- Stops premature aging reverses oxidation
- Waterproofs and seals
- Restores the components of asphalt
- Less than ¼ to ½ the cost of other-wear course seals.

Reclamite* is a maltene-based cationic petroleum emulsion formulated to maximize and maintain high road ratings and extend the service life of your asphalt pavement, while conserving your maintenance budget.

Reclamite® restores maltenes, the components of asphalt lost in the aging process, and improves the durability of the pavement near the surface where deterioration begins. Pavements in good profile, but exhibiting signs of aging—hairline cracking, raveling and pitting—will benefit from a Reclamite® application, as will pavements with segregation issues.

Reclamite* assists in adjusting the rheology of asphalt binder by increasing penetration values and decreasing viscosity and corresponding DSR (Dynamic Shear Rheometer) values.

Formulated from a single sourced naphthenic crude base, Reclamite has a high natural solvency ability, co-mingling and fluxing with the asphalt binder to restore the asphalt/aggregate bond. It is a 100% petroleum rejuvenator base containing 0% asphalt.

Reclamite* has a proven 50-year history of use with national and international distribution. When used in pavement maintenance programs, application is usually on a 4 to 6 year basis. Product cost is generally $\frac{1}{3}$ to $\frac{1}{2}$ of conventional wear course treatments.

Reclamite® is used to extend pavement life at the top of the maintenance curve, pushing that curve as long as possible before more expensive wear course seals such as scrub seal, chip seal, slurry and cape seals are required.

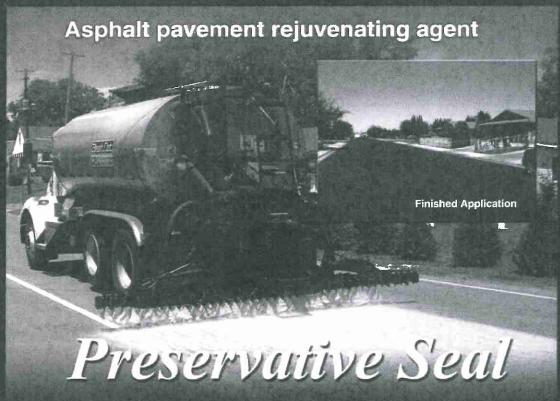
Please contact your Tricor distributor for more information or visit tricorrefining.com to learn more about our products.







RECLAMITE



WHAT IS RECLAMITE® PRESERVATIVE SEAL?

eclamite® is an emulsion of specific petroleum oils and resins designed to penetrate dry and weathered asphalt pavements. Reclamite® penetrates seeking the asphalt in the pavement in preference to the aggregate. The result is that Reclamite® combines with the asphalt so as to restore its original desirable properties. In some cases the asphalt is improved over the original because of the superior quality of the added components.

Reclamite® stops pavement deterioration where it begins, at the top. The light components or fractions in the asphalt binder referred to as maltenes oxidize from the binder causing asphalt to become dry and brittle. The resulting loss of aggregate, cracking and moisture intrusion furthers pavement deterioration that will eventually without

intervention, lead to total pavement failure.

Pavements exhibiting early signs of aging (hairline cracking, raveling, segregation, pitting, dryness) as well as new asphalt pavement are excellent candidates for Reclamite® Preservative Seal treatment. Reclamite® increases penetration values and reduces viscosity values. Reclamite® seals out moisture, restores the asphaltene/maltene balance. Reclamite® having natural solvency ability because of its naphthenic base, fluxes with the asphalt restoring the aggregate/asphalt bond.

Reclamite® Preservative Seal will preserve an asphalt pavement at one-half to one-third the cost of other conventional treatments.



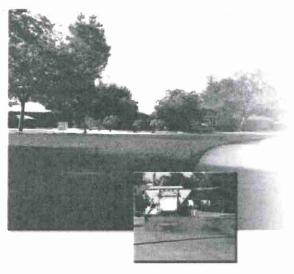








PRODUCERS of GOLDEN BEAR PRESERVATION PRODUCTS

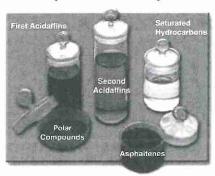


Appearance of fine cracks
Asphalt has become brittle

Deteriorating New
Pavement Pavement

Fine aggregate material loss

Components of Asphalt



Reclamite® is an emulsion manufactured from a naphthenic crude stock, Naphthenic base is wax free, has a natural low pour point and has excellent natural solvency ability allowing it to penetrate and absorb.



P.O. Box 5877, Bakersfield, CA 93388-5877 Phone 661.393.7110 ext. 107 www.reclamite.com

HOW RECLAMITE® PRESERVATIVE SEAL EXTENDS PAVEMENT LIFE.

Reclamite® has been used successfully for over 40 years. Whether you are dealing with asphalt pavement in the hot, dry southwest United States, humid southern and southeast states or the damp and colder climates experienced in northern climates and Canada, application results are similar; improved durability of the asphalt, (durability being the interdependence between composition and aging), rebalancing the chemistry of the oxidized pavement, ability to delay the aging process and reverse premature aging.

Reclamite® Preservative Seal provides a simple, one step method for sealing and waterproofing the asphalt. It is effective for extending the life of newly constructed pavement.

Reclamite® delays the aging process by replenishing the maltenes and re-constituting the binder. Aged asphalt can be restored to a new and highly durable mix, virtually equal to or better than the original consistency.

Asphalt consists of five basic components: asphaltenes, polar compounds, first acidaffins, second acidaffins and saturated hydrocarbons. The later four are referred to as maltene fractions. These components in asphalt are subject to weathering and oxidation.

Reclamite® is spray applied. The emulsion is diluted 2:1 (product to water) or 1:1 with water. Application rates are measured in square yards or meters and vary according to pavement absorption and application needs. Normal treatment can provide 5-7 years additional service life. A second application can be considered at that time.

Your Reclamite Representative:			

Asphalt Rejuvenators "Fact, or Fable"

Robert E. Boyer, Ph.D., P.E. <u>Senior District Engineer</u> Asphalt Institute



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Prepared for Presentation at the

Transportation Systems 2000 (TS2K) Workshop San Antonio, Texas February 28 – March 3, 2000

ASPHALT REJUVENATORS - "Fact, or Fable"

By: Robert E. Boyer. Ph.D., P.E.

There are numerous methods being employed for asphalt pavement preservation, including rejuvenator emulsions, asphalt emulsion fog seals, a variety of surface treatments (including slurry and micro surfacing technologies), and emerging asphalt thin overlay technologies. These methods range in cost from approximately \$0.50 to \$2.50 per square yard. To make the most of maintenance budgets, many agencies have resorted to the use of asphalt rejuvenators as an alternative to revive aging and brittle asphalt pavements. With the proven performance of asphalt rejuvenators to revive an aging pavement, the pavement engineer has an economical method to extend pavement life. This type asphalt pavement treatment has the potential to extend the life of an asphalt pavement for several years beyond the point where rehabilitation, or major reconstruction would normally be required; thus significantly decreasing the pavements annual maintenance costs.

The objective of this discussion is to establish criteria necessary to ascertain the performance of a rejuvenator; i.e., the material parameters and a method of measuring its performance. Subsequently, the results of research programs and construction projects are reviewed. Lastly, recommendations are advanced concerning the use of rejuvenators.

CRITERIA FOR A REJUVENATOR

Asphalt binders cannot be represented by a single chemical formula. The American Society of Testing and Materials (ASTM) defines it as "a dark brown to black cementitious material in which the predominating constituents are bitumens which occur in nature or are obtained in petroleum processing."

Asphalt binders are, however, fractionated into two subdivisions, i.e., asphaltenes and maltenes as depicted in Figure 1. Asphaltenes (A) are defined as that fraction of the asphalt insoluble in n-pentane. The function of the asphaltenes is to serve as a bodying agent. Maltenes is the collective name for the remainder of the asphalt material left after precipitation of the asphaltenes. Four principle bodies of maltenes have been identified and each has a specific function. These four bodies are:

- Polar compounds or Nitrogen bases (N) components of highly reactive resins,
 which act as a peptizer for the asphaltenes.
- First acidiffins (A₁) components of resinous hydrocarbons which function as a solvent for the peptized asphaltenes.
- Second acidiffins (A₂) components of slightly unsaturated hydrocarbons that also serve as a solvent for the peptized asphaltenes.

 Saturated hydrocarbons or paraffins (P) – components of hydrocarbons, which function as a jelling agent for the asphalt components.

The cementing agent in an asphalt pavement, the asphalt binder (normally 4-7% by weight) represents the component that experiences premature hardening as a result of oxidation. Asphalt pavements, which are structurally sound, deteriorate as a result of oxidation and occasionally as a result or incorrect design or improper construction practice. The first phenomena, that of oxidation, is prevalent in all asphalt pavements, and is the subject addressed in this discussion.

In tests conducted by Rostler and White (1), it was reported that the "A" and "P" asphalt components were the most stable; and the "N", "A₁", and "A₂" components were more subject to oxidation in descending order, respectively. Consequently, during oxidation the "N" components convert to "A" components rapidly while the conversion process for the "A₁" and "A₂" components proceed at a slower rate. This process results in an increase in the "A" fraction of asphalt with time, and decreases the "N", "A₁", and "A₂" components. It was also reported the "the maltenes parameter (N+A₁)/(P+A₂), the ratio of chemically more active to less reactive components present in the asphalt binder, is a measure of predictable durability."

During the process of weathering or oxidation, the ratio of maltenes to asphaltenes is reduced with the result being a dry and brittle pavement. Therefore, if a rejuvenator is to successfully resurrect an aged facility, it must be able to penetrate the pavement and to a

limited depth improve or restore the maltenes to asphaltenes balance. A reasonable measure of the ability of a rejuvenator to improve a pavement's durability can be had:

- By comparing the penetration at 25°C (77°F) of the asphalt binder extracted from untreated and treated cores.
- By comparing the viscosity at 60°C (140°F) of the asphalt binder extracted from untreated and treated cores.
- By comparing the percentage loss of aggregate when untreated and treated samples are subjected to a pellet abrasion test.

The latter two methods were employed by Rostler and White (1) in laboratory tests performed on prototype asphalt rejuvenators. The use of asphalt viscosity and penetration values has been incorporated into the contract specifications for Federal and Public Works rejuvenation contracts.

In summary, the criteria for a rejuvenator must involve two phenomena:

- First, the product must contain maltenes fractions of asphalt in order to improve and balance the maltenes to asphaltenes ratio.
- Secondly, a test method must be employed to measure improved durability of a
 pavement; e.g., an asphalt penetration, viscosity, or abrasion loss test.

TEST PROGRAMS

Billions of square yards of asphalt pavements make up more than 93 percent of the U.S. pavement infrastructure, and there is a growing interest to employ rejuvenators as an economic pavement preservation technique. Documentation regarding asphalt pavement rejuvenator practice and performance is needed to support Agency Pavement Preservation Programs. Several research efforts have been conducted in an effort to document application of the asphalt rejuvenators. They include:

• A study sponsored by the Air Force Weapons Laboratory, dated May 1970, entitled "Rejuvenation of Asphalt Pavement" (1) which consisted of a laboratory investigation of five products. The method of investigation entailed preparation of sand/asphalt briquettes composed of graded Ottawa sand, Portland cement and asphalt of specified penetration values. Test briquettes were subjected to equal application rates of five rejuvenator products, aged until one-half of the volatile constituents of the rejuvenating agent was lost, and subsequently, subjected to various tests, including permeability, depth of penetration, viscosity, and pellet abrasion. The conclusion of this study revealed that Reclamite and Koppers Bituminous Pavement Rejuvenator (BPR) performed as asphalt rejuvenators in that the viscosity of the asphalt binder was improved and the loss of aggregate from the pellet abrasion test was substantially reduced by application of both products. This conclusion was based on comparisons with untreated control samples and the other products.

- Technical Report R690 (2), dated August 1970, sponsored by the Naval Facilities Engineering Command and conducted by the Naval Civil Engineering Laboratory at Port Hueneme, California, which consisted of a study of the claims of the proprietary product called Reclamite. The report approached the subject in a neutral manner and balanced the claims of the manufacturer against actual field use by several agencies, including several Federal users, the California State Division of Highways and several city and county governments. The conclusion was that the manufacturer's claims for the performance of Reclamite were essentially correct and no further investigations were required to determine the effectiveness of the product.
- Evaluation of Reclamite by the U.S. Navy as reported in their publication "Value Engineering," dated August 1973 (3). This report concerned the application of Reclamite on three roads at the Naval Weapons Center, China Lake, California. The project involved treating the three roads with Reclamite and retaining an untreated test section at each test site. At periodic intervals, judgements, photographs, and core samples for asphalt penetration measurements were taken to assess the effectiveness of the product. The test covered a period of almost two years. The conclusion of this evaluation revealed that field tests and laboratory reports "show conclusively that Reclamite does prolong the life of asphalt concrete pavements."
- A study, sponsored by the Air Force Civil Engineering Center and accomplished by the U.S. Army Corps of Engineers, Waterways Experiment Station, Vicksburg,

Mississippi, February 1976 (4), involved treating adjacent pavement areas at three Air Force bases with four proprietary rejuvenator products and an asphalt emulsion seal. The tests were conducted at a base in the dry, hot southwestern part of the United States, a base in the humid, hot southeastern part of the country, and a third base located in the cold north-central part of the country. The study covered a period of four years and reached the conclusion that Koppers BPR, Reclamite, and Petroset do rejuvenate the old asphalt binder while Gilsabind and SS-1 Asphalt Emulsion have a hardening effect. Other conclusions were reported, including an indication that the viscosity of treated asphalt is a better indicator of the rejuvenating effect of the materials tested than was the penetration test. There have been no comprehensive independent tests comparing the performance of asphalt rejuvenators since this study was completed (6). Since 1995, at least two rejuvenator products have been introduced into the market; however, the FAA continues to rely on the data presented in the Air Force study.

CASE EXPERIENCE

Asphalt rejuvenators have been used extensively by Federal, State, County an Municipal Agencies over the past 15 years, and predicated on past performance results, it is noted that there are clear-cut opinions regarding success of a rejuvenator product. Once a rejuvenator product has been used, a pavement engineer's opinion appears to be that the project was either totally successful, or completely ineffective. It is hypothesized that these diverse

attitudes stem from proper and improper application of a product, rather than the performance of a product itself.

As rejuvenators increase in popularity, proprietary specifications are being given widespread use. Initially, this situation did not create any major problems, as the manufacture of rejuvenators was regional with competitive products separated by the distance across the United States. Typical examples of projects accomplished under method type specifications were US395, North of Carson City, Nevada, which was treated with Reclamite at a rate of .12 gallons per square yard in 1965, and an airfield pavement at Wright-Patterson AFB, Ohio, treated with Koppers BP at a rate of .15 gallons per square yard in 1972. As use of the products increased and competition intensified, proprietary specifications were challenged. Specifications were then written to permit competitive products. A specified rate was included in the contractual documents. This practice is common in current specifications. However, the rejuvenator products perform differently among themselves in a given environment, and differently within themselves in changing environments. Therefore, a given application rate, in most projects, does not insure a desired end product. In a project at Kincheloe AFB, Michigan, in the summer of 1974, a performance specification was used. The specification called for a 30 percent increase in the penetration of the asphalt in the top 1/4 inch of the pavement 60 days subsequent to application. Cores were required prior to treatment and 60 days subsequent to application. The contractor used Reclamite and achieved an average increase in the asphalt penetration of approximately 120 percent.

Further restrictions are suggested to govern application rates to avoid unacceptable anti-skid, softness and/or performance characteristics. These were:

"The contractor shall be responsible for conducting preliminary testing to determine the proper application rate for the rejuvenator so as to achieve the required end results specified above. This shall be accomplished without causing the pavement to become unstable to 90 degree turns of an automobile at 5 MPH, or exhibit more than a 25 percent loss in measured friction resistance values at 12 hour periods subsequent to application of the rejuvenator," and

"Should the required increase in penetration value not be achieved, additional applications of the rejuvenator and mineral aggregate shall be made at application rates not to exceed 50 percent of the initial application rate. Retreatment and retesting shall be at the expense of the contractor. The Contracting Officer shall hold the contractor's performance bond in full force and effect until final test data indicates the work was completed in accordance with the specifications."

A contract was awarded in June 1976. The rejuvenator product Reclamite was used and the contract was accomplished and successfully completed with the above specification requirements in November 1976. This was the first documented case of using a rejuvenator emulsion performance specification on an asphalt pavement. Satisfactory performance guidelines or targets should be based on the capability of the material to decrease the viscosity and increase the penetration value of the asphalt binder. In the case of asphalt pavements less than 2 years old, the viscosity shall be reduced by a minimum of 20 percent and the penetration shall be increased by a minimum of 10 percent. For asphalt

pavements more that 2 years old, the viscosity shall be reduced by a minimum of 40 percent and the penetration value shall be increased by a minimum of 20 percent. Testing shall be performed on recovered asphalt binder from the pavement to a depth of three-eighths (3/8") inch. Standard ASTM Test methods to measure the viscosity @ 60°C (140°F) and penetration @ 25°C (77°F) on the recovered asphalt binder should be specified. Treated test cores will be extracted no sooner than 60 days following rejuvenation of pavement, or as approved by the Contracting Agency.

USING REJUVENATORS - GUIDE

All rejuvenators are applied in the same way--by spraying the chemical onto the pavement surface with an asphalt distributor. However, from this point the procedures vary because of the different products and because of the different end results desired. Discussion of the use of rejuvenators can be considered in three separate categories; new construction, maintenance, and re-construction.

Using a rejuvenator on new construction does not seem to be logical at first glance. However, it has been established that the greatest change in composition of an asphalt binder takes place during the manufacture of the hot mix asphalt (HMA). Applying a rejuvenator to a new surface a few weeks after it has been laid does several things to the pavement. Besides restoring the original asphalt properties that were lost in the HMA manufacture, the chemical assists in sealing the pavement as well as in improving the durability of the surface course.

Maintenance can be subdivided into preventive and corrective maintenance. Preventive maintenance should be applied to pavements at the first signs of aging of the surface course, pitting, raveling, shrinkage, and cracking. Some pavement experts maintain that preventive maintenance should begin before any of these described signs occur. However, to do this, there must be a certain amount of clairvoyance involved in determining the right time before these conditions show up. Starting a maintenance program too early can become a costly item. Nonetheless, applying the rejuvenator at periodic intervals can restore the asphaltenemaltene balance so essential to maintain a ductile, pliable pavement. This type of preventive maintenance is particularly applicable to pavements in the hot, dry southwestern section of the country.

Corrective maintenance involves reworking and salvaging existing road mixes. Using a rejuvenator in this type of maintenance can facilitate scarifying and mixing. It will aid in replasticizing old asphalt and improve its durability. This form of maintenance should be considered when the road mix surface appears weathered and crusted and cannot be restored by applying only a rejuvenator.

The third category of rejuvenator use is that of re-construction. This involves more than applying a rejuvenator emulsion onto the surface and rolling the treated pavement. Work in the category is undertaken when the pavement has outlived its life; when preventive maintenance has failed to stop the pavement deterioration; or when a HMA overlay is to be placed over the existing pavement. The overlayment may be due to a need for increased

structural strength, or it may be necessitated by failure of the old surface to respond to normal maintenance.

If the existing pavement possesses good structural qualities and the overlay is being placed to increase its strength, a rejuvenator can be applied to the old surface several days before the overlay is constructed. This application will cause the existing surface to soften, regain some of its original ductility, and will promote a good bond between the old and new surfaces.

Where the existing surface has progressed to a condition where cracking, pitting, and raveling has occurred, and it is feared that these structural deformations will reflect through the new pavement, different procedures are being advanced. Cracks as much as two inches deep in the airfield pavements at the civilian airport at Augusta, Georgia were repaired by a treatment with Koppers BPR and a lengthy follow-on program of constant rolling (5). Reclamite, on the other hand, has had excellent success with heater planing and heater mixing of old pavements. One of the most successful projects of this nature was completed at the El Paso International Airport. The heater-planer process involves heating the surface of the existing pavement with a traveling infrared heat source. Once the old asphalt is heated, it becomes very pliable for a short period of time. During this time of pliability, a sharp blade following the application of heat peels off the oxidized or deteriorated asphalt to the desired depth. The applicator truck follows immediately behind the heater-planer. Once the old asphalt is removed, the process is similar to that described previously, i.e., the rejuvenator helps to rejuvenate the old surface and promotes a good bond between the old

and new pavements. The heater-scarified method is very much like the heater-planer method. The difference is that instead of planing off the old surface, the pavement is scarified to the desired depth, usually less than an inch, then treated with the rejuvenator. The new asphalt, if an overlay is to follow, is laid directly over the treated and scarified material. The thickness of the overlay lift may be as small as three-fourths to one inch.

An advantage of the heater-planer or heater-scarified method is readily evident when one considers grades and drainage when several overlays are applied to city streets. By continuing to use the existing material, restoring and balancing the asphaltene-maltene ratio through rejuvenators, expensive hot mix is no longer needed and design drainage elevations between curbs can be maintained for longer periods.

RECOMMENDATIONS

- Rejuvenators should be applied before raveling and other serious deterioration begins. A final conclusion reached is that problems may be experience with of improper rates
- The Using Agency should adopt a performance type specification.
- Develop a periodic maintenance program using rejuvenators in three to five year cycles will extend the life of existing pavements.
- The secret to proper rejuvenation application procedures is <u>CAUTION</u>. It is better
 to apply two or more low-rate applications of the emulsion to achieve the proper
 rate of application than to make only on pass and have it be too heavy. The

project engineer must be wary of areas that might contain free oil, grease, petroleum, or asphalt when applying the chemical. The engineer must also take care not to apply the rejuvenator to a densely graded pavement or to a surface that has been treated in a manner that will prevent penetration by the rejuvenator.

CONCLUSIONS

An asphalt rejuvenator emulsion offers three beneficial reactions:

- Increases penetration values and lowers the viscosity of the asphalt binder in the top portion of the pavement, which extends the pavement's life cycle.
- Seals the pavement against intrusion of air and water, thereby slowing oxidation,
 preventing stripping and raveling and protects the pavement in-depth.
- Increases the durability of the asphalt binder in the top portion of the pavement by improving the balance of chemical fractions of the asphalt binder.

As in most engineering projects, the project specifications are as important as the project design. The specifications should require a given measure of results rather than payment for quantity of emulsion. The reason for using a rejuvenator is to improve or restore the viscous properties of the asphalt; therefore, requiring the rejuvenator to achieve a given measure of standard penetration or measure of viscosity will insure a more satisfactory result than simply specifying a given rate of application.

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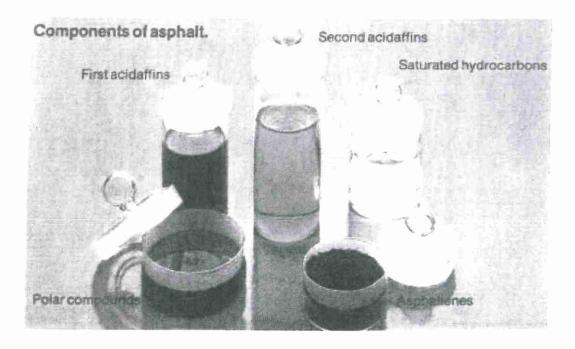


Figure 1. Asphalt Binder Fractions, Asphaltenes and Maltenes.



November 3, 1997 File No. 97-6327A

City of Orlando
Engineering/Streets and Drainage Bureau
Public Works Department
400 South Orange Avenue
Orlando, Florida 32801-3302

Attention:

Mr. Rick Howard, P.E., City Engineer

Subject:

Report of Phase II Pavement Rejuvenation Study

Various City Streets Orlando, Florida

Gentlemen:

As requested and authorized, Ardaman & Associates, inc. has completed engineering and testing services for Phase II of this pavement rejuvenation study. Phase I of this project included obtaining pavement samples prior to treatment with the rejuvenating agent and developing this testing program to evaluate the rejuvenating agent and provide data to assess the application period.

BACKGROUND

The City has been treating low volume streets with Reclamite® asphalt rejuvenating agent for about 10 years. An initial application is typically made within one year after placement of the asphaltic concrete for an overlay. Reapplication is scheduled at a period of about 6 years. The intent of this program is to reverse the effects of "aging" (sometimes referred to as weathering or oxidation) by reintroducing portions of the asphaltic cement lost as a result of weathering. With aging, oxidation occurs and, in effect, reduces the petrolenes fraction of the asphaltic cement. Increasing the petrolenes fraction improves the ductility of the asphaltic cement and therefore pavement durability.

Specifications developed for pavement rejuvenators and prior testing by others have concentrated on verifying that the rejuvenating products decrease the viscosity (or increase the penetration) of the asphaltic cement. Viscosity is measured on asphaltic cement extracted from cores obtained prior to treatment and after treatment with a rejuvenating agent. There is not much information available regarding critical values of viscosity, penetration or ductility that would indicate when the pavement is likely to develop cracks. SHRP-A-369 indicates that, in previous studies, penetration

¹ Manufactured by Golden Bear Division, Wilco Corporation, P.O. Box 456, Chandler, AZ 85244, Supplied by Pavernent Technology, Inc., Westlake, OH.

² Asphalt consists of four basic components: asphaltenes (A), Polar aromatics (PA), napthene aromatics (NA) and saturates(S). The latter three components, PA, NA and S are referred to as the petrolenes fractions. Asphaltenes are soluble only in the presence of polar and napthene aromatics, which act as media to disperse the dissolved asphaltenes. The saturates devalop the setting characteristics of the entire solution:

less than 10 and ductility less than 20, measured at 25°C, were established to be the limits at which pavements start to show cracking.

TESTING PROGRAM

This study included field sampling and laboratory testing. The field sampling was performed in two phases. In Phase I, initial field samples were obtained from eight city streets³ in mid-February 1997 prior to application of the rejuvenating agent in July/August 1997. The sample locations are presented in our report dated May 30, 1997, which is included in Appendix I. Four of the streets were selected for continued testing in Phase II. Additional samples were collected from locations near the pretreatment cores for each street after application of the rejuvenating agent. Testing to measure rheological properties was performed by PRI Asphalt Technologies, Inc. of Tampa, Florida, as a subconsultant to Ardaman, on the following samples:

Phase IIA:

- pretreatment core samples obtained in Phase I;
- post treatment core samples obtained to compare with pretreatment conditions;

Phase IIB:

- virgin asphaltic cement from a local distributor; and
- asphaltic cement from a local distributor treated with Reclamite.

Dynamic shear and stiffness testing was performed on samples of these materials before and after artificial aging for 5 time intervals based on procedures and performance graded asphalt binder specifications established by the Strategic Highway Research Program (SHRP) as part of the SuperpaveTM (Superior Performing Asphalt Pavements) system. The testing program and procedures are further described in the following subsections.

Superpave™ Specification

This project used the Superpave specification as a basis for evaluating the performance of asphalt binder with and without rejuvenating agent, subjected to various degrees of field and laboratory-simulated aging. The following brief discussion explains the concepts of the Superpave system. The Asphalt Institute Publication No. SP-1, SUPERPAVE Performance Graded Asphalt Binder Specification and Testing, is a concise readable document which we recommend as a reference for more details regarding Superpave.

The Superpave specification addresses the following aspects of binder performance with the corresponding testing procedures listed:

Handling/Pumping — Rotational Viscometer
Permanent Deformation and Fatigue Cracking — Dynamic Shear Rheometer
Thermal Cracking — Bending Beam Rheometer or Direct Tension Tester.

The Superpave system uses new parameters such as the complex shear modulus and the phase angle between stress and strain in place of viscosity and penetration. The complex shear modulus,

Per the City, the streets that we studied were generally resurfaced in 1990. Reclamite was applied in 1991 and again in 1997.

 G^* , is the ratio of total shear stress ($T_{max} - T_{min}$) to total shear strain ($Y_{max} - Y_{min}$). The time lag between stress and strain is related to the phase angle, δ . For a perfectly elastic material, an applied load causes an immediate response; thus the phase angle is zero. For a viscous material (such as asphalt at mixing temperatures) the phase angle approaches 90° Asphalt binders are viscoelastic at normal pavement temperatures and behave somewhere between these two extremes. For a more detailed explanation of these parameters refer to SP-1.

The Superpave binder specification tests asphalt binders in conditions that simulate the three critical stages during the binder's life:

- · transport, storage and handling
- mix production and construction
- · long-term aging.

Only long-term aging-related parameters are relevant for this project.

The original binder material represents the condition during transport, storage and handling. The Rolling Thin Film Oven (RTFO) test simulates mixing and placement of asphalt binder. The Pressure Aging Vessel (PAV) procedure simulates long-term in-service aging. The standard PAV 20-hour exposure corresponds to 5 to 10 years of field aging. This relationship is approximate and there are many contributing factors that make it difficult to reliably extrapolate for the field equivalency of greater or lesser PAV exposure times.

An excerpt from Table 1 of SP-1, provided as Exhibit 1, shows the performance graded asphalt binder specification. The performance grade (PG) evaluated for Orlando is PG 64-22. The 64 (°C) corresponds to the maximum pavement design temperature and the -22 (°C) corresponds to the minimum pavement design temperature. One important distinction between corresponds to the specifications and the Superpave specification is that the required physical properties remain constant for all of the performance grades. However, the temperatures at which these properties must be reached vary depending on the climate in which the binder is expected to be used. The applicable temperatures for Orlando are shaded.

EXHIBIT 1

Table 1. Performance Graded Asphale Binder Specification

Performance Grade	1	PG 44	Ó				PC 5	2					PC 5	3		T		PC	64		and the same
	-34	-40	-44	-10	-16	.22	-23	-34	-40	-46	-16	-22	-28	-34	40	-10	-16	-22	-28	-34	-40
Average 7-day Maximum Pavement Design Temperature, 4C 3		<46				<	52						<58	-	-		<	64			-
Minimum Parement Daties Temperature, "C 2	>-3-4	>-40	>-40	>-10	>-16	>-32	>-28	>-34	>-40	-	ــــــــــــــــــــــــــــــــــــــ	1	> -28	>-34	>-40	>-10	>-16	>-22	>-28	>-34	>.4
		- Average	_				-			Orig	inai B		- Country								
Plash Poline Temp, T48: Minimum C											230										
Viscosity, ASTM D 4402: ^b Maximum, J Pars (3000 cP), Test Temp, °C											135										
Dynamic Shear. TP5: C C*/sin & Minimum, 1,00 kPa Test Temperature in 10 and/sec. C		46					52			*			58					6	4		
					P	colling	Thin	Film (Dveiz (T 240	or T	hin fil	NT ON	T) eu	179) F	kesidus					
Nass Loss. Maxinum, 46	T										1.00										
Dyvianie Shear, TP5: G'isin & Minimum, 2.20 kPa Test Temp &: 10 rad/sec. C		40					52						58					ô	d		
								Pre	ssure	Aging	Vesse	Resid	ue (P)	P1)	HPH MEDIN	-	~~			a estimate a	
PAV Aging Temperature. °C d	T	90				-	90						100			1		10	10		
Dynamic Shear, TP5: G"sla 8, Maximum, 5000 kPs Tue Tump & 10 rad/sec. "C	10	7	4	25	22	19	16	13	10	7	23	22	19	15	13	31	28	25	23	19	16
Physical Hardening *						-					Repar		,							S. DALMARA	
Creep Suffriess, T91 f 5, Machaum, 300 MPs meralus, Minimum, 0.300 Test Temp, 4: 60 sec. 'C'	-24	-30	-36	0	46	-13	.18	-24	-30	-36	-6	-12	. (8	-24	-30	0	÷ō	-12	-18	-24	-30
Oirect Tension, TP3: ^f Failure Strain, Missimum, 1.0% Ters Temp # 1.0 movinin, *C	-24	-30	-36	Ü	-G	-12	-18	-24	-30	-36	·ő	-12	.18	-24	-30	0	-6	-12	-18	-24	-30

Notes

- a. Pavement temperatures can be estimated from air temperatures using an algorithm contained in the Superpave's software program or may be provided by the specifying agency, or by following the procedures as outlined in PPX.
- This requirement may be visived at the discretion of the specifying agency if the supplier warrants that the asphale binder can be adequately pumped and mixed at temperatures that weet all applicable safety standards.
- For quality control of unmodified asphale comene production, measurement of the viscosity of the original asphale comene may be substituted for dynamic shear measurements of G*/sin 6 at test temperatures where the asphale is a Newtonian fluid. Any suitable standard means of viscosity measurement may be used, including capillary or rotational viscometes (AASHTO, T 201 or T 202).
- d. The PAV aging temperature is based on simulated elimatic conditions and is one of three temperatures 90°C, 100°C or 110°C. The PAV aging temperature is 100°C for PG 54- and above, except in desert climates, where it is 110°C.
- e. Physical Hardening TP 1 is performed on a set of asphalt beams eccording to Section 13.1 of TP 1, except the conditioning time is extended to 24 into z 10 minutes at 10°C above the minimum performance temperature. The 24-hour niffness and in-value are reported for information purposes only.
- E. If the creap stiffness is below 300 MPa, the direct tension test is not required. If the creep stiffness is between 300 and 600 MPa, the direct tension failure strain requirement can be used in lieu of the creep stiffness requirement. The abvalue requirement court be writted to both seven

The testing program is further described in the following subsections.

Phase IIA: Core Testing

Pretreatment Core Samples

We tested four of the 16 core samples obtained in Phase I of this study to measure the viscosity of the asphaltic concrete. The samples were selected from sunny and shaded locations both from the wheel path and outside the wheel path. The following table describes the test sample locations:

Test Sample Location	Wheel Path	Outside Wheel Path
Sunny	Ross Place (NW,RP,W1 and W2*)	Lucerne Terrace (SW,LT,C1 and C2*)
Shaded	Church Street (NE,CS,W1 and W2*)	Mack Avenue (SW,MA,C1 and C2*)

^{*} Samples obtained as reserves.

The testing involved trimming the top 1/2- to 1/2-inch of the cores and extracting the asphaltic cement using toluene and Rotavapor distillation (ASTM D5404-93). The extracted asphaltic cement was then subjected to testing. The rheological properties were measured using a Dynamic Shear Rheometer (DSR) under three different conditions where the shear rate and temperature were varied. Two of the tests measured viscosity at a temperature of 25°C using the DSR in sliding plate viscometer mode. One test was performed with a shear rate of 0.05 reciprocal seconds (1/sec) and a second with a shear rate of 0.001 (1/sec). The third test was performed at a temperature of 64°C with a shear rate of 10 radians/sec using the Superpave DSR protocol (AASHTO TP5) for binder. The testing was performed from July 23-30, 1997.

Post Treatment Core Samples

We obtained three additional cores from each of the selected streets on which pretreatment testing was performed adjacent to the locations where cores were previously obtained. They are referenced as follows:

Test Sample Location	Wheel Path	Outside Wheel Path
Sunny	Ross Place (NW,RP,W3, W4* and W5*)	Lucerne Terrace (SW,LT,C3, C4° and C5°)
Shaded	Church Street (NE,CS,W3, W4* and W5*)	Mack Avenue (SW,MA,C3, C4° and C5°)

^{*} Samples obtained as reserves.

Again the cores were trimmed to obtain the top 1/2- to 1/2-inch of material. The asphaltic cement was extracted and distilled as described above. The extracted asphaltic cement was subjected to testing as described above for the pretreatment samples.

Phase IIB: Asphalt Coment Testing

Virgin (neat) asphalt cement (AC-30) was obtained from an asphaltic cement producer and was tested both with and without the rejuvenating agent Reclamite.

Virgin Asphaltic Cement

It should be recognized that different sources of asphaltic cement may have different aging characteristics. We therefore attempted to obtain asphaltic cement used in past City of Orlando resurfacing projects. The asphaltic cement was obtained from a local distributor, Marathon Oil Company, Tampa, Florida, which has provided asphaltic cement for many of the City's resurfacing projects.

Samples of this asphaltic cement were subjected to artificial aging using the RTFO Procedure (AASHTO T240 or ASTM D 2872) followed by the AASHTO PP1 protocol in a Pressure Aging Vessel (PAV). A 20-hour time of exposure in the PAV is used to simulate 5 to 10 years of aging. For this testing, we obtained samples after 10, 15, 20, 25, and 30 hours of exposure in the PAV. Samples from each of the exposure time increments were subjected to dynamic shear and bending beam rheometer (BBR) stiffness testing (AASHTO TP1) to measure rheologic properties.

Treated Asphaltic Cement

The asphalt cement was treated with Reclamite at a ratio corresponding to the manufacturer's recommended application rate—0.06 gallons per square yard or 0.153 parts Reclamite emulsion⁴ to 1 part AC. Treated asphalt was also tested at a much higher application rate of rejuvenating agent—0.35 parts Reclamite concentrate to 1 part AC, which is equivalent to 1.05 parts Reclamite emulsion to 1 part AC—to test whether high dosage had undesirable effects on pavement properties. Table 1 provides the calculations for the ratios of Reclamite to asphalt cement used in the testing. The testing procedures (including aging) performed for the virgin AC were repeated for the treated samples.

RESULTS

One purpose of this project was to identify test procedures that would effectively identify the appropriate time intervals and dosage for the City to apply rejuvenating agent. In order for this approach to work the specification parameter must

- (i) approach a limit signaling impending cracking at some level of (simulated) aging:
- (ii) be susceptible to improvement with the rejuvenating agent.

The specification parameters/tests for in-place binder in the first column of Exhibit 1 represent potentially useful indicators.

Phase (IA: Core Testing

Viscosity

The results of viscosity testing are presented in Table 2 and Figure 1. Testing data are included in Appendix II. For the centerline (C) samples, the viscosity decreases an average of 45 percent between pretreatment and post treatment. For the traffic area/wheelpath (W) samples, the

^{*}Reclamite is recommended to be difuted i part concentrate to 2 parts water.

viscosity decreases an average of 3 percent. However, the Church Street sample tested at a shear rate of 0.001 (1/sec), shows a 78 percent decrease in viscosity. Without this result there appears to be little change in viscosity for the samples obtained from the wheelpath.

Superpave Binder Specification

The results of DSR testing are presented in Table 2 and Figure 2. Testing data are included in Appendix II. G*/sin & decreases an average of 37 percent between pretreatment and post treatment for the centerline samples and increases an average of 11 percent for the wheelpath samples. All of the measured values are comfortably above the Superpave specification of 2.20 kPa, with or without treatment.

Rheological analysis of extracted and recovered asphalts provided the following results:

Centerline asphalt samples (C's) exhibited reduced binder viscosity and complex shear modulus (G*) with the Reclamite treatment. Centerline binder viscosities are higher than traffic lane binder viscosities. This observation is attributed to the stearic hardening (molecular structuring) that is allowed to occur in the non-traffic areas of the pavement. Traffic areas, on the other hand, are stressed by vehicular loads, "working" the binder and aggregate, which retards the molecular structuring (a reversible phenomenon). The stearic hardening hypothesis may explain why pavements first exhibit distress/cracking in the non-traffic areas.

Extracted and recovered asphalt from the traffic areas (Ws), exhibit similar rheological properties with or without the Reclamite treatment. It is hypothesized that the binder and Reclamite blend together by different modes in the traffic and non-traffic areas. Additionally, the traffic areas constantly "work" the treated binder, which may influence:

- the compatibility of the asphalt and Reclamite;
- susceptibility to hydraulic actions of rain water;
- the relative permeability of the pavement.

Penetration of the Reclamite is probably higher in the non-traffic areas relative to the traffic paths. In addition, the rate of penetration reportedly decreases with successive applications of Reclamite. This is the second time that the payements in this study have been treated.

Additional testing may better explain the differences observed between the centerline and traffic areas.

Phase IIB: Asphalt Cement Testing

The results of testing are presented in Table 3 and Figures 3, 4 and 5. Testing data are included in Appendix II. The dynamic shear rheology (DSR) has been expressed in kPa @ 64°C (147.2°F) as a function of G*/sin ō, which defines an asphalt's stiffness at a frequency equivalent to vehicular traffic, Since asphalt is a non-Newtonian thermoplastic material (more fluid at high temperature, and brittle at cold temperature), rheological measurements such as G*/sin ō provide information on the asphalt's ability to withstand stresses induced by vehicular traffic and/or climate conditions, while the creep stiffness measured assesses the material's flexibility/pliability at cold service temperatures, after aging, when it is in its most brittle state.

If an asphalt is too fluid at the high service temperatures, it may deform by rutting. If it is too stiff at cold temperatures, it will crack when stresses are induced. Therefore, the asphalt binder must possess a combination of properties to provide a long and successful service life.

Dynamic Shear Rheometer

Reclamite reduced the complex modulus of the treated asphalt binder. The degree of complex modulus reduction is dosage-dependent, see Table 3. The virgin AC-30 sample without aging is fairly close to the minimum specification value of 1.00 kPa and is actually lower than the 2.20 kPA required after the sample has been subjected to the Rolling Thin Film Oven procedure. Otherwise, the untreated binder is comfortably above the specification value after aging. The sample treated with Reclamite at the manufacturer's recommended amount is near the specified minimum without aging. This would indicate that the Reclamite should not be added to this unaged asphalt cement.

The high dosage Reclamite samples fail to meet the specification criteria even after aging, which would indicate that this amount of rejuvenating agent is excessive.

Reciamite tended to reduce the rate of aging, as measured at 54°C. This implies that Reclamite, itself, has good aging characteristics. At the Reclamite recommended dosage of 0.153 parts per 1.0 part asphalt, the rheological properties of the treated asphalt after PAV_{20hours} (5 - 10 years of service life) were equivalent to PAV_{10 hours} of the untreated binder (3 - 5 years of service life).

Bending Beam Rheometer

Creep stiffness (S) data @ -12°C (10.4°F), assess the binder's response to thermally induced stress at the coldest expected temperature for the geographical region. Normally done on PAV-aged samples, the Superpave binder requirements are a maximum S of 300 MPa (300,000 kPA) with a corresponding minimum m-value of 0.300.

Reclamite lowered the stiffness and increased the m-value (see Table 3). However, the results for the untreated AC-30 show that it comfortably meets the S specification and meets the m-value specification even after 30 hours of PAV aging.

Again, the degree of reduction of the creep stiffness and increase of the m-value are dosage-dependent.

As an approximation, the m-value of Reclamite-treated aspiralt (recommended dosage), after PAV_{30hours} (8 - 12 years of field aging), was equal to the untreated asphalt after PAV_{30hours} (3 - 4 years of service life).

Aging

The purpose of developing typical aging curves for Orlando streets is to project when pavements will fail to meet specifications and problems such as cracking can be expected to develop. Coupled with other information such as the effectiveness of rejuvenating agents added at various stages of the aging cycle, these curves would allow the City to develop a pavement management and monitoring strategy.

The dynamic shear test results in Figure 3 show that the majority of the post treatment cores tested would have values comparable to the virgin asphalt (AC-30) tested with an exposure time of 15 to less than 30 PAV hours. This is roughly equivalent to 5 to 12 years of aging in the field. The

pretreatment cores had values similar to the virgin asphalt for exposure time of 10 to more than 30 PAV hours.

The average G*/sin ŏ for the pretreatment cores is 14.8 kPa. The average for the post treatment cores is 11.7 kPa. The slope of the aging curve for treated AC-30 (at the manufacturer's recommended application rate) is 0.249 kPa/PAV hour. At this rate, post treatment binder would return to pretreatment values after 12 PAV hours or roughly 3 to 6 years. This would suggest that a reapplication time of 6 years might be appropriate. Additional testing as described in the following section is necessary to support this finding.

We were unable to develop satisfactory aging curves for in-place asphalt pavement representative of the current practice of the City of Orlando from the available data. The G*/sin ō values for the street cores—post treatment and pretreatment—corresponded to well aged (5 to 12+ years) virgin AC-30. This might be explained by differences between the actual paving material and the reference material. It is known that recycled asphalt is typically combined with new binder in resurfacing projects. This would explain higher DSR values for the pavement cores than for the reference AC-30. Running additional tests as recommended below would give us more points to correlate.

RECOMMENDED ADDITIONAL TESTING

Dynamic shear rheometer (DSR) testing at 25°C (77°F) should be performed on post treatment cores (and pretreatment cores, if available) for the four locations tested in Phase IIA. This testing should also be performed on the reference AC-30 material with a range of aging times up to 30 PAV hours. The purpose of this testing would be to establish whether asphalt cements typically used in Oriando meet the Superpave binder specification to prevent fatigue cracking at intermediate operating temperatures. The DSR testing performed thus far was targeted at achieving a minimum specified G*/sin ō value to avoid permanent deformation at high temperature. All of the cores tested were comfortably above this limit, so there is no need to consider this test further. Phase IIB testing has shown that, even with aging, the virgin AC-30 met the criteria for DSR at 64 °C and flexural creep stiffness and m-values at -12°C from the bending beam rheometer (BBR) testing.

Other testing that should be considered is aging and treating rather than treating and aging the AC-30. Reclamite would be added to virgin asphalt cement samples at increments of 10, 15, 20, 25 and 30 PAV hours. These treated samples would then be subjected to DSR testing at 25°C and BBR testing at -12°C.

Application/mixing rate for the Reclamite per the manufacturer's recommendation would appear to be appropriate for this additional testing.

Testing of the annual cores should include DSR testing at 25°C and possibly BBR testing at -12°C, if funding permits.

OVERALL FINDINGS

The results of this study suggest the following general findings:

 Reclamite®, at the specified application rate, imparts favorable properties to neat asphalt binders.

When Reclamite was added to neat asphalt binder the complex modulus and stiffness were decreased. The asphalt binder viscosity and complex modulus from the cores decreased with the application of Reclamite at the specified rate. These values in the tested samples were not decreased to the degree that they were too low. However, over application could yield pavement susceptible to rutting at high temperatures.

 The application rate on the order of 0.06 gallons per square yard appears to be appropriate for a treatment period of about 6 years.

The results of the laboratory testing on the neat asphalt binders suggest that the recommended application rate for Reclamite is appropriate for the conditions in which the City of Orlando is using it. The results of testing on artificially aged asphalt binder found that the complex modulus of the binder treated with the recommended dosage returned to pretreatment values after about 12 hours of PAV exposure (equivalent to 3 to 6 years of aging). Therefore, a treatment period of 6 years is within the range predicted by the test results. However, we note that the asphalt binder in the pavement in-place is probably substantially different than that used in the testing. The resurfacing program includes recycled asphalt and may include modifiers which could not be practically included in a testing program. The dosage rate used should be correlated to the pavement to be treated.

 The data suggest that the dosage rate for a relatively new pavement will be different than for a highly oxidized pavement.

If Reclamite is applied to a new pavement, the application rate should be limited to avoid creating a low viscosity which allows ruts to develop under high temperatures. The data shows that the recommended application rate causes the complex modulus to decline to 1.163 kPa for unaged asphalt binder. This value should be at least 2.2 kPa to avoid rutting under high temperatures. Highly oxidized pavement can tolerate a higher level of treatment before reaching a level where rutting can be a problem. Also the older pavement may be less absorptive.

 The results of the core testing are variable and suggest that treatment is not as effective in the wheel path as it is in the remainder of the pavement.

The average binder viscosity from the wheel path cores was less than the average for the centerline cores.

Asphalt Pavement And Recycling Technologies, Inc. (APART, Inc.)

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Report: 07-1227

January 20, 2008

Customer:

CAM, LLC - Jack Witte

Project:

RECLAMITE® Preservative Seal - Cities of Springfield, Moberly,

Alton and Jefferson City

Samples submitted: 20 pavement core samples (10 treated and 10 untreated) identified as follows:

Jefferson City	Springfield	Moberly	Alton
County Club Street	Rocklyn Street	South Williams St.	N. Rodgers Ave.
J-1 treated	S-2 treated	T-1 treated	CA-1 treated
J-2 treated	S-1 treated	T-2 treated	CA-2 treated
JU-1 untreated	S-3 untreated	M-1 untreated	AL-2 untreated
JU-2 untreated	S-4 untreated	M-2 untreated	AL-3 untreated
	Covington Street		
	SA-1 treated		
	SA-2 treated		
	SU-1 untreated		
	SU-2 untreated		

Application rate for treated materials was reported as being 0.065-0.08 gallons/square yard at a 2:1 dilution (RECLAMITE®/water).

Testing:

The top 3/8-inch of each core was removed for testing. The asphalt was extracted and recovered as prescribed by California Test Method 365 (CTM 365). Viscosities were determined on the recovered asphalt binder using a sliding plate microviscometer (CTM 348). Penetrations were calculated from a nomograph. Test results are reported by Table I.

Conclusion:

Reported data are based on the testing of limited sample submitted as being representative the treated and untreated pavements.

Test data reported herein has been secured by reliable testing procedures. As we have no knowledge of, or control over the conditions that may affect the use of material from which samples were taken, we assume no responsibility in furnishing this data other than to warrant that they represent reliable measurements of the properties of the sample (s) received and tested. No warranties, expressed or implied, including warranties of merchantability or fitness for a particular use, are made with respect to the products described herein. Nothing contained herein shall constitute a permission or recommendation to practice any invention covered by a patent without license from the owner of the patent.

Table I CAM, LLC RECLAMITE® Preservative Seals

	Microviscos	ity, 25°C, MP	Equivalent
Sample Identification	0.05 sec ⁻¹	0.001 sec ⁻¹	Penetration
Jefferson City, MO			
County Club Street			
J-1 treated	42.0	65.2	16
J-2 treated	31.6	52.4	18
JU-1 untreated	105	92.0	10
JU-2 untreated	66.0	80.2	12
Springfield, MO			
Rocklyn Street			
S-2 treated	33.6	50.8	17
S-1 treated	35.0	52.4	17
S-3 untreated	84.0	168	11
S-4 untreated	86.8	208	11
Covington Street	:		. 377,077
SA-1 treated	39.0	52.4	16
SA-2 treated	34.6	53.8	17
SU-1 untreated	83.5	188	11
SU-2 untreated	84.8	176	11
Moberly, MO			
South Williams Street			
T-1 treated	13.2	16.7	27
T-2 treated	11.0	13.4	29
M-1 untreated	19.0	32.6	22
M-2 untreated	19.2	38.7	22
lton, IL			
North Rodgers Avenue			
CA-1 treated	17.8	28.2	23
CA-2 treated	17.8	24.2	23
AL-2 untreated	34.0	40.0	16
AL-3 untreated	31.6	40.2	16

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Report: 09-1105

November 11, 2009

Customer:

Corrective Asphalt Materials - Jack Witte

Project:

City of Kansas City, Missouri, RECLAMITE® treatment

Samples submitted:

Core samples representing 4 locations (treated and untreated) identified as

follows:

	Treatment Date	Sample Date
Holmes (89 th - Bannister)	9-24-09	
Untreated		9-18-09
Treated @ 0.06-0.065 gsy of 2:1 Dilute Reclamite		10-26-09
104th (Holmes – I 435)	9-23-09	
Untreated		9-18-09
Treated @ 0.07-0.075 gsy of 2:1 Dilute Reclamite		10-26-09
Minor Dr. (State Line - Wornall)	9-22-09	
Untreated		9-18-09
Treated @ 0.075 gsy of 2:1 Dilute Reclamite		10-26-09
Holmes (I 435 - Red Bridge)	9-24-09	
Untreated		9-18-09
Treated @ 0.065 gsy of 2:1 Dilute Reclamite		10-26-09

Testing:

The top 3/8-inch of each core was removed for testing. The asphalt was extracted and recovered as prescribed by California Test Method 365 (CTM 365). Viscosities were determined on the recovered asphalt binder using a sliding plate microviscometer (CTM 348). Penetrations were calculated from a nomograph. Test results are reported by Table I.

Conclusion:

Reported data are based on the testing of limited sample submitted as being representative the treated and untreated pavements.

Test data reported herein has been secured by reliable testing procedures. As we have no knowledge of, or control over the conditions that may affect the use of material from which samples were taken, we assume no responsibility in furnishing this data other than to warrant that they represent reliable measurements of the properties of the sample (s) received and tested. No warranties, expressed or implied, including warranties of merchantability or fitness for a particular use, are made with respect to the products described herein. Nothing contained herein shall constitute a permission or recommendation to practice any invention covered by a patent without license from the owner of the patent.

Table I Corrective Asphalt Materials

City of Kansas City, MO. <u>Top 3/8-inch of Core Samples</u>

	Microviscos	ity, 25°C, MP	Equivalent
Sample Identification	0.05 sec ⁻¹	0.001 sec ⁻¹	Penetration
Holmes (89th - Bannister)			
Untreated	14.60	19.80	26
Treated	7.16	8.00	36
104 th (Holmes – I 435)			
Untreated	100.9	283.2	10
Treated	9.68	14.95	32
Minor Dr.(State Line - Wornall)			
Untreated	29.90	42.57	18
Treated	4.00	6.24	46
Holmes (I 435 - Red Bridge)			
Untreated	19.45	30.08	22
Treated	2.97	4.37	53

	Increase in Penetration, %
Holmes (89th - Bannister)	38.4
104 th (Holmes – I 435)	220.0
Minor Dr.(State Line - Wornall)	155.6
Holmes (I 435 – Red Bridge)	140.9

Asphalt Pavement And Recycling Technologies, Inc.

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Report: 11-1123

December 10, 2011

Customer:

Corrective Asphalt Materials, LLC - Jack Witte

Project:

RECLAMITE® Preservative Seal - City of Bloomington, IL

Samples submitted: 12 pavement core samples identified as follows:

Graham Street #1 (Treated and Untreated) Graham Street #2 (Treated and Untreated) Prairie Street #1 (Treated and Untreated) Prairie Street #2 (Treated and Untreated) Park Street #1 (Treated and Untreated) Park Street #2 (Treated and Untreated)

Application rate for treated pavement was not reported. Untreated core samples were taken on 09-23-11. Treated core samples 11-17-11.

Testing:

The top 3/8-inch of each core was removed for testing. The asphalt was extracted and recovered as prescribed by California Test Method 365 (CTM 365). Viscosities were determined on the recovered asphalt binder using a sliding plate microviscometer (CTM 348). Penetrations were calculated from a nomograph. Test results are reported by Table 1.

Conclusion:

Reported data are based on the testing of limited sample submitted as being representative the treated and untreated pavements. Since no untreated core was submitted the percent change in viscosity and penetration were calculated using data from the previously submitted Paseo #2 (Untreated) core. This data was reported by APART Report #10-1206.

Fest data reported herein has been secured by reliable testing procedures. As we have no knowledge of, or control over the conditions that may affect the use of material from which samples were taken, we assume no responsibility in furnishing this data other than to warrant that they represent reliable measurements of the properties of the sample (s) received and tested. No warranties, expressed or implied, including warranties of merchantability or fitness for a particular use, are made with respect to the products described herein. Nothing contained herein shall constitute a permission or recommendation to practice any invention covered by a patent without license from the owner of the patent.

Table I

Corrective Asphalt Materials, LLC
City of Bloomington, Illinois
Top 3/8"of Core Sample

	Microviscos	ity, 25°C, MP	Equivalent
Sample Identification	0.05 sec ^{-T}	0.001 sec	Penetration
Graham Street #1			
Untreated	37.80	45.43	17
Treated	9.17	9.97	32
Graham Street #2			
Untreated	37.36	49.90	17
Treated	12.79	13.35	28
Prairie Street #1			
Untreated	35.99	54.06	17
Treated	10.81	12.46	30
Prairie Street #2			
Untreated	33.35	41.14	17
Treated	12.97	15.55	28
Park Street #1			
Untreated	151.8	223.5	9
Treated	55.99	72.04	14
Park Street #2			
Untreated	154.8	233.9	9
Treated	55.10	71.55	14

Change in Asphalt Binder

	Viscosity, 25°C % Decrease	Penetration, 25°C % Increase
Graham Street #1	75.7	88.2
Graham Street #2	65.8	64.7
Prairie Street #1	70.0	76.5
Prairie Street #2	61.1	64.7
Park Street #1	61.6	55.6
Park Street #2	64.4	55.6

Asphalt Pavement And Recycling Technologies, Inc.

5207 Minter Field Avenue Telephone: (661) 393-2748 Shafter, CA 93263 Fax: (661) 393-2804

Report: 12-1101

November 5, 2012

Customer:

Corrective Asphalt Materials, LLC - Jack Witte

Project:

RECLAMITE® Preservative Seal - City of Bloomington, IL

Samples submitted: 12 pavement core samples identified as follows:

Mt. Vernon Drive, Untreated Mt. Vernon Drive, Untreated Mt. Vernon Drive, Treated Mt. Vernon Drive, Treated Mt. Vernon Drive, Treated Mason Street, Untreated Mason Street, Untreated Mason Street, Treated Koch Street, Untreated Koch Street, Untreated Koch Street, Untreated Koch Street, Untreated Koch Street, Treated Koch Street, Treated Koch Street, Treated

Application rate for treated pavement was not reported. Untreated core samples were taken on 07-19-12. Treated core samples were taken on 10-26-12.

Testing:

The top 3/8-inch of each core was removed for testing. The asphalt was extracted and recovered as prescribed by California Test Method 365 (CTM 365). Viscosities were determined on the recovered asphalt binder using a sliding plate microviscometer (CTM 348). Penetrations were calculated from a nomograph. Test results are reported by Table I.

Conclusion:

Reported data are based on the testing of limited sample submitted as being representative the treated and untreated pavements.

Michael topast

Test data reported herein has been secured by reliable testing procedures. As we have no knowledge of, or control over the conditions that may affect the use of material from which samples were taken, we assume no responsibility in furnishing this data other than to warrant that they represent reliable measurements of the properties of the sample (s) received and tested. No warranties, expressed or implied, including warranties of merchantability or fitness for a particular use, are made with respect to the products described herein. Nothing contained herein shall constitute a permission or recommendation to practice any invention covered by a patent without license from the owner of the putent.

Table I CAM, LLC

City of Bloomington, Illinois Top 3/8"of Core Samples

1700	Microviscos	ity, 25°C, MP	Equivalent
Sample Identification	0.05 sec	0.001 sec ⁻¹	Penetration
Mt. Vernon Drive		ļ	
Untreated	49.06	51.21	14
Untreated	43.77	44.98	15
Treated	22.04	22.38	21
Treated	19.25	20.08	22
% Increase in Penetration		48	
% Decrease in Viscosity		125	
Total Co.			
Mason Street			
Untreated	5.776	7.324	39
Untreated	6.237	6.837	38
Treated	2.582	2.056	57
Treated	2.562	1.821	57
% Increase in Penetration	48		
% Decrease in Viscosity		134	
Koch Street	T		
Untreated	34.22	31.41	17
Untreated	31.88	28.28	18
Treated	11.39	9.606	29
Treated	10.48	7.792	30
6 Increase in Penetration		69	
6 Decrease in Viscosity		202	



Asphalt Solutions and Industrial Dust Control Airports · Roadways · Utilities · Parking Areas

Corrective Asphalt Materials, LLC (CAM, LLC) manufactures Reclamite and certifies the final product will comply with the following TRICOR REFINING, LLC specifications.

RECLAMITE® Asphalt Rejuvenating Agent

Specifications:				
	Test	Method	Require	nents
Tests	ASTM	AASHTO	Min.	Max.
Tests on Emulsion:	- Complete C	A HLD TO THE TOTAL PROPERTY OF THE TOTAL PRO		
Viscosity @ 25°C, SFS	D-244	T-59	15	40
Residue, % w(1)	D-244 (mod)	T-59 (mod)	60	65
Miscibility Test ⁽²⁾	D-244 (mod)	T-59 (mod)	No Coagu	lation
Sieve Test, % w(1)	D-244 (Mod)	T-59 (mod)	***	1.0
Particle Charge Test	D-244	T-59	Positiv	e
Percent Light Transmittance(4)	GB	GB	pd 44 94	30
Cement Mixing	D-244			2.0
Tests on Residue		.,		
Flash Point, COC, °C	D-92	T-48	196	(models
Viscosity @ 60°C, cSt	D-445		100	200
Asphaltenes, %w	D-2006-70	ta	0.4	0.75
Maltene Distribution Ratio	D-2006-70	***	0.3	0.6
$PC + A_1^{(5)}$				
S + A ₂				
PC/S Ratio ⁽⁵⁾	D-2006-70	: 	0,5	
Saturate hydrocarbons, S(5)	D-2006-70	(Marie	21	28

ASTM D-244 Evaporation Test for percent of residue is made by heating 50 gram sample to 149°C (300°F) until foaming ceases, then cool immediately and calculate possible.

PC = Polar Compounds, A1:

 A_1 = First Acidaftins.

A2 = Second Acidaffins,

S = Saturated Hydrocarbons.

Note: For gal/ton conversion use 242 gal/ton.

Note: Data presented are typical. Slight variation may occur from lot to lot.

300 Daniel Boone Trail · P.O. Box 87129 · South Roxana, IL 62087 (800) 374-5560 · (618) 254-3855 · www.camllcil.net

²Test procedure identical with ASTM D-244 60 except that .02 Normal Calcium Chloride solution shall be used in place of distilled water..

³Test procedure identical with ASTM D-244 60 except that distilled water shall be used in place of two percent sodium oleate solution.

⁴Test procedure is attached.

⁵Chemical composition by ASTM Method D-2006-70:



SAFETY DATA SHEET

1. Identification

Product identifier

RECLAMITE

Other means of identification

Product Code

1902

Recommended use

Asphalt Rejuvenator

Recommended restrictions

Must be diluted with water following manufacturer's recommendations.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Manufacturer: Address:

Tricor Refining, LLC.

P.O. Box 5877

Bakersfield, CA 93388

24-hour Telephone

Number:

(661) 393-7110

CHEMTREC:

1-800-424-9300 (North America)

1-703-527-3887 (International)

2. Hazard(s) identification

Physical hazards

Not classified.

Health hazards

Carcinogenicity

Not classified.

Environmental hazards OSHA defined hazards

Not classified.

Label elements



Signal word

Danger

Hazard statement

Not available.

Prevention

Obtain special instructions before use. Wear protective gloves/protective clothing/eye

protection/face protection. Do not handle until all safety precautions have been read and

Response

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician, Do NOT induce

vomiting. IF exposed or concerned: Get medical advice/attention.

Storage

Store in accordance with international regulations. Store locked up.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

Category 1B

Hazard(s) not otherwise classified (HNOC)

None known.

Supplemental information

Not applicable.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY NAPHTHENIC		64742-52-5	<=40
EXTRACTS (PETROLEUM), HEAVY NAPHTHENIC DISTILLATE SOLVENT		64742-11-6	<=40
WATER		7732-18-5	<=40
PROPRIETARY INGREDIENTS		N/A	< 5

^{*}Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.

Eve contact Rinse with water. Get medical attention if irritation develops and persists.

Ingestion Rinse mouth. Do not induce vomiting without advice from poison control center. If vomiting occurs,

keep head low so that stomach content doesn't get into the lungs.

Most important

symptoms/effects, acute and

delayed

Indication of immediate medical attention and special

Treat symptomatically.

treatment needed

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

Direct contact with eyes may cause temporary irritation.

5. Fire-fighting measures

Suitable extinguishing media

Water fog. Foam. Dry chemical powder. Dry chemicals. Carbon dioxide (CO2).

Unsuitable extinguishing

media

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from

the chemical

During fire, gases hazardous to health may be formed.

Special protective equipment

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

and precautions for firefighters

Fire-fighting

Cool containers exposed to heat with water spray and remove container, if no risk is involved.

equipment/instructions Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Avoid prolonged or repeated contact with skin, Avoid prolonged exposure. Use only in

well-ventilated areas.

Conditions for safe storage, including any incompatibilities

Keep away from heat and sources of ignition. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

Components	Туре	Value	Form	
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY NAPHTHENIC (CAS 54742-52-5)	PEL	5 mg/m3	Mist.	
EXTRACTS (PETROLEUM), HEAVY NAPHTHENIC DISTILLATE SOLVENT (CAS 54742-11-6)	PEL	5 mg/m3	Mist.	

Material name: RECLAMITE

US. NIOSH: Pocket Guide Components	e to Chemical Hazards Type	Value	Form		
DISTILLATES (PETROLEUM), HYDROTREATED HEAVY NAPHTHENIC (CAS 64742-52-5)	STEL	10 mg/m3	Mist.		
	TWA	5 mg/m3	Mist.		
EXTRACTS (PETROLEUM), HEAVY NAPHTHENIC DISTILLATE SOLVENT (CAS 64742-11-6)	STEL	10 mg/m3	Mist.		
	TWA	5 mg/m3	Mist.		
Biological limit values	No biological exposure limits noted for the				
Appropriate engineering controls	Provide adequate ventilation, including ap occupational exposure limit is not exceed	opropriate local extraction, t ed.	o ensure that the defined		
Individual protection measur Eye/face protection	es, such as personal protective equipme Wear safety glasses with side shields (or				
Hand protection	Chemical resistant gloves are recommend gloves.	ed. If contact with forearms	s is likely wear gauntlet style		
Other	Wear appropriate chemical resistant doth	ing.			
Respiratory protection	Not available.	Not available.			
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.				
General hygiene considerations	Always observe good personal hygiene me before eating, drinking, and/or smoking. remove contaminants.	easures, such as washing af Routinely wash work clothir	ter handling the material and ng and protective equipment to		
9. Physical and chemical	properties				
Appearance					
Physical state	Liquid.				
Form	Liquid.				
Color	Not available.				
Odor	Not available.				
Odor threshold	Not available.				
рН	Not available.				
Melting point/freezing point	Not available.				
Initial boiling point and boiling range	> 212 °F (> 100 °C) IBP				
Flash point	> 413.6 °F (> 212.0 °C)				
Evaporation rate	Not available.				
Flammability (solid, gas)	Not available.				
Upper/lower flammability or e	xplosive limits				
Flammability limit - lower (%)	OF CHARLES IN CONTRACTOR				
Flammability limit - upper (%)	Not available.				

Explosive limit - lower

Not available.

Explosive limit - upper (%)

Not available.

Vapor pressure

Not available.

Vapor density Relative density Not available.

Solubility(ies)

Solubility (water)

Readily Dispersible

Partition coefficient

Not available.

(n-octanol/water) Auto-ignition temperature

500 °F (260 °C) estimated

Material name: RECLAMITE

SDS US

5586 Version #: 04 Revision date: 03-27-2015 Issue date: 05-30-2014

Decomposition temperature

Viscosity

Not available.

Not available.

Other information

10. Stability and reactivity

Reactivity

The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability

Material is stable under normal conditions.

Possibility of hazardous

reactions

No dangerous reaction known under conditions of normal use.

Conditions to avoid

Avoid temperatures exceeding the flash point. Contact with incompatible materials.

Incompatible materials

Strong oxidizing agents.

Hazardous decomposition

No hazardous decomposition products are known.

products

11. Toxicological information

Information on likely routes of exposure

Ingestion

Expected to be a low ingestion hazard.

Inhalation

Prolonged inhalation may be harmful.

Skin contact Eye contact

No adverse effects due to skin contact are expected. Direct contact with eyes may cause temporary irritation.

Symptoms related to the

Direct contact with eyes may cause temporary irritation.

physical, chemical and toxicological characteristics

Information on toxicological effects

Acute toxicity

Not available.

Skin corrosion/irritation

Prolonged skin contact may cause temporary irritation.

Serious eye damage/eye

irritation

Direct contact with eyes may cause temporary irritation.

Respiratory or skin sensitization

Respiratory sensitization

Not available

Skin sensitization

This product is not expected to cause skin sensitization.

Germ cell mutagenicity

No data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

Carcinogenicity

Contains a substance/a group of substances which may cause cancer. Contains polycyclic aromatic compounds (PACs). Prolonged and/or repeated skin contact with certain PACs has been shown to cause skin cancer. Prolonged and/or repeated exposures by inhalation of certain PACs may also cause cancer of the lung and of other sites of the body.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed

Reproductive toxicity

This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity

- single exposure

Not classified.

Specific target organ toxicity

- repeated exposure

Not classified.

Aspiration hazard

Not available

Chronic effects

Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability

No data is available on the degradability of this product.

Bioaccumulative potential

No data available.

Mobility in soil

No data available.

Other adverse effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

Material name: RECLAMITE

SDS IIS

13. Disposal considerations

Disposal instructions

Collect and reclaim or dispose in sealed containers at licensed waste disposal site.

Local disposal regulations

Dispose in accordance with all applicable regulations.

Hazardous waste code

The waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Waste from residues / unused products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal

instructions).

Contaminated packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is

emptied.

14. Transport information

Not regulated as dangerous goods.

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Not available. Annex II of MARPOL 73/78

and the IBC Code

15. Regulatory information

US federal regulations

All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - No Delayed Hazard - Yes Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312

No

Hazardous chemical

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Safe Drinking Water Act

Not regulated.

(SDWA)

US state regulations

WARNING: This product contains a chemical known to the State of California to cause cancer.

US. Massachusetts RTK - Substance List

DISTILLATES (PETROLEUM), HYDROTREATED HEAVY NAPHTHENIC (CAS 64742-52-5) EXTRACTS (PETROLEUM), HEAVY NAPHTHENIC DISTILLATE SOLVENT (CAS 64742-11-6)

US. New Jersey Worker and Community Right-to-Know Act

Not regulated.

US. Pennsylvania RTK - Hazardous Substances

EXTRACTS (PETROLEUM), HEAVY NAPHTHENIC DISTILLATE SOLVENT (CAS 64742-11-6)

Material name: RECLAMITE

MOT 2018-7853

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

International Inventories

Country(s) or region	Inventory name On inventory (ye	s/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes
WA 1957-19 1- 41 SE-A 17		

^{*}A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

 Issue date
 05-30-2014

 Revision date
 03-27-2015

 Version #
 04

*

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other

materials or in any process, unless specified in the text.

Revision Information Product and Company Identification: Product and Company Identification

Composition / Information on Ingredients: Ingredients

Accidental release measures: Personal precautions, protective equipment and emergency procedure

s Physical & Chemical Properties: Multiple Properties

Material name: RECLAMITE



1134 Manor St. • Oildale, CA 93308 / P.O. Box 5877 • Bakersfield, CA 93388 Phone 661.393.7110 – Fax 661.393.1601

RECLAMITE® Asphalt Rejuvenating Agent

Specifications:

	Test Method		Requirements	
Tests	ASTM	AASHTO	Min.	Max.
Tests on Emulsion:	<u> </u>			
Viscosity @ 25°C, SFS	D-244	T-59	15	40
Residue, % w(1)	D-244 (mod)	T-59 (mod)	60	65
Miscibility Test(2)	D-244 (mod)	T-59 (mod)	No Coagu	lation
Sieve Test, % w ⁽³⁾	D-244 (Mod)	T-59 (mod)		0.1
Particle Charge Test	D-244	T-59	Positiv	e
Percent Light Transmittance(4)	GB	GB	***	30
Cement Mixing	D-244			2.0

Tests on Residue from Distillation	11 11 11 11 11 11 11 11 11 11 11 11 11			
Flash Point, COC, °C	D-92	T-48	196	
Viscosity @ 60°C, cSt	D-445		100	200
Asphaltenes, %w	D-2006-70	411		0.75
Maltene Distribution Ratio $\underline{PC + A_1}^{(5)}$	D-2006-70	222	0.3	0.6
$S + A_2$				
PC/S Ratio(5)	D-2006-70	***	0.5	
Saturate hydrocarbons, S ⁽⁵⁾	D-2006-70		21	28

¹ASTM D-244 Evaporation Test for percent of residue is made by heating 50 gram sample to 149°C (300°F) until foaming ceases, then cool immediately and calculate results.

PC = Polar Compounds,

A1 = First Acidaffins.

A, = Second Acidaffins,

S = Saturated Hydrocarbons.

Note: For gal/ton conversion use 242 gal/ton.

Note: Data presented are typical. Slight variation may occur from lot to lot.

²Test procedure identical with ASTM D-244 60 except that .02 Normal Calcium Chloride solution shall be used in place of distilled water..

³Test procedure identical with ASTM D-244 60 except that distilled water shall be used in place of two percent sodium oleate solution.

⁴Test procedure is attached.

⁵Chemical composition by ASTM Method D-2006-70:

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Village of Downers Grove Contractor Evaluation

Contractor: Corrective Asphalt Materials, LLC
Projects: 2017 Pavement Preservative Seal (E)
Primary Contact: Mark Homco Phone: (630) 465-4142
Time Period: September 2017
On Schedule (allowing for uncontrollable circumstances) $igthigs$ Yes $igcap$ No
Provide details if early or late completion: All work completed in timely fashion prior to completion date.
Change Orders (attach information if needed): CO was processed for final quantity balancing. Project under original bid amount.
Difficulties / Positives: Good ongoing communication with field and office personnel. Generally conscientious regarding specs / workmanship.
Interaction with public:
☐ Excellent ☐ Good ☐ Average ☐ Poor
(Attach information on any complaints or compliments)
General Level of Satisfaction with work:
□ Well Satisfied Satisfied Not Satisfied
Reviewers: John Welch
Date: 07/24/18

2018 ROADWAY MAINTENANCE PROGRAM STREETS ESTIMATED FOR PRESERVATIVE SEAL

STREET	FROM	ТО	LENGTH LF	AREA SY
20711.07	DILLONGT	E LIMITO	200	622
38TH ST	DILLON CT W. of CUMNOR RD	E LIMITS E. of WILLIAMS ST	308	633
39TH ST			1690	5105
39TH ST	FAIRVIEW AVE	FLORENCE AVE	605	2214
67TH ST	DUNHAM RD	SARATOGA AVE	1300	4983
68TH ST	DUNHAM RD	SARATOGA AVE	1260	3920
71ST TERRACE BAKER CT	CUL DE SAC	71ST ST	260	1265
	CUL DE SAC	SPRINGSIDE AVE	250	1170
BILTMORE RD	39TH ST RANDALL ST	BRENTWOOD PL	360	1410
BLODGETT AVE	_	MAPLE AVE	670	1787
BRENTWOOD PL	W. END	BILTMORE RD	280	1065
BRYCE PL	CUL DE SAC	SARATOGA AVE	245	1360
CHASE AVE	BURLINGTON AVE	HADDOW AVE	663	1547
DEXTER RD	S. of RICHARDS AVE	71ST ST	1930	5790
DILLON CT	N CUL DE SAC	S CUL DE SAC	504	1796
DOUGLAS RD	39TH ST	S. of 41ST ST	2392	5316
DOUGLAS RD	WILSON ST	PRAIRIE AVE	330	880
DUNHAM RD	63RD ST	55TH ST	5210	16859
DUNHAM RD	NORFOLK ST	63RD ST	1120	4729
ELMWOOD AVE	RANDALL ST	MAPLE AVE	570	1520
FLORENCE AVE	OGDEN AVE	N END	545	1433
FLORENCE AVE	75TH FRONTAGE	SOUTH LIMITS	1225	3811
FOXFIRE CT	W. END	CUMNOR RD	342	1083
FRANCISCO ST	BURLINGTON AVE	HADDOW AVE	552	1104
GIERZ ST	FAIRVIEW AVE	FLORENCE AVE	773	1890
GRANT ST	SEELEY AVE	PRINCE ST	2210	6256
GREGORY PL	CUL DE SAC	SARATOGA AVE	220	1219
HERBERT ST	W. CUL DE SAC	SCHOOL ST	240	667
HIGHLAND AVE	GRANT ST	OGDEN AVE	1205	3213
HILL ST	BLODGETT AVE	GRAND AVE	650	1806
HILLCREST CT	RIDGEWOOD CIR	E. CUL DE SACS	720	2560
INDIANAPOLIS AVE	DOUGLAS RD	FAIRVIEW AVE	750	1833
JAY DR	WEBSTER ST	LYMAN AVE	680	2116
KELLY PL	CUL DE SAC	RICHARDS AVE	400	1618
LINCOLN AVE	DOUGLAS RD	FAIRVIEW AVE	750	1875
LYMAN AVE	VALLEYVIEW DR	N. of JAY DR	450	1400
MAPLE AVE	DUNHAM RD	MAIN ST	2775	8627
MATTHIAS RD	STANFORD AVE	S. END	321	999
OAK HILL RD	VENARD RD	SARATOGA AVE	910	3579
PROSPECT AVE	ROGERS ST	PRAIRIE AVE	1300	3467
RICHARDS AVE	SPRINGSIDE AVE	DEXTER RD	1005	3015
RIDGEWOOD CIR	DUNHAM RD	61ST ST	1847	5746
ROSEWOOD	31ST ST.	CUL-DE-SAC	357	1358
SARATOGA AVE	OAK HILL RD	VENARD RD	1455	5093
SARATOGA AVE	39TH ST	35TH ST	2565	8826
SARATOGA AVE	67TH ST	S. of 68TH ST	1320	4106
SHERMAN ST	MAIN ST	HIGHLAND AVE	313	835
SPRINGSIDE AVE	BRUNETTE DR	N. of BOLSON DR	935	2909
SPRINGSIDE AVE	RICHARDS AVE	DEXTER RD	1235	3965
STANFORD	DUNHAM RD.	MATTHIAS RD	430	1663
STONEWALL AVE	63RD ST	62ND ST R.O.W.	730	2271
TERRACE DR	CUL DE SAC	71ST ST	150	864
WEBSTER ST	VALLEYVIEW DR	N. of JAY DR	485	1509
WILLARD PL	CUL DE SAC	DEXTER RD	255	1200

Total >	50,047	157,265
Miles >	9.48	