

SECTION I. INSTRUCTIONS TO BIDDERS:

All bids are subject to the provisions and requirements of the Oregon Revised Statutes, the Attorney General's Model Public Contract Rules and the Administrative Rules of the Department of Administrative Services. Any additional Instructions to Bidders contained within the *City of Baker City Standard Conditions for Public Improvement Contracts* are incorporated into and made a part of this Section by this reference.

1. BIDDERS NOTE:

(A) It is the responsibility of all proposed Bidders to obtain bid document(s) and any addendum(s) issued. COBC shall not be responsible for failure of Bidders to obtain any issued addendum(s).

(B) Bidders who obtain bid documents from Plan Centers will not be shown on COBC's Plan Holders List. COBC shall not be responsible for Bidders not shown on the Plan Holders List.

(C) Proposals may be rejected for failure to follow instructions contained in the bid documents or any issued addendum(s).

(D) ORS 279C.505(2) requires that all public improvement contracts contain a provision requiring contractors to demonstrate that an employee drug-testing program is in place. Bidder is therefore required to certify that Bidder has an employee drug-testing program in place that applies to all employees and will maintain a drug-testing program at all times during the performance of the Contract awarded. Failure to maintain a program shall constitute a material breach of Contract.

(E) First-Tier Subcontractor Disclosure form must be received no later than two (2) hours after closing time (see page 1). Failure to comply with this requirement shall result in rejection of the bid as non-responsive. The Subcontractor Disclosure Form is included in this document.

2. BID DOCUMENTS:

(A) Bidders shall be responsible for obtaining all bid documents, including all attachments and/or addenda to the bid document. Unless otherwise noted, bid documents are available at the Baker City Department of Public Works, Baker City Hall, Baker City Oregon.

(B) Bidders may also request copies of bid documents by e-mail, telephone or fax:

E-mail jbornstedt@bakercity.com
Phone (541) 524-2046
Fax (541) 524-2029
Web www.bakercity.com (please e-mail for inclusion on plan holders list)

3. APPLICABLE STANDARD CONDITIONS: The Standard Conditions which apply to the work on this project are found in the latest edition of the *City of Baker City Standard Conditions for Public Improvement Contracts*. The Bidder shall obtain and become acquainted with the applicable provisions of these Standard Conditions

4. PROTEST OF SPECIFICATIONS OR CONTRACT TERMS: A Bidder who believes bid specifications are unnecessarily restrictive or limit competition may submit a protest, in writing, to COBC. To be considered, protests shall be received at least five (5) calendar days before the closing date.

The right to protest bid specifications and/or contract terms is provided in OAR 137-049-0260, as a provision for "checks and balances" on the Information to Bidders (ITP). COBC shall promptly respond to each written protest, and where appropriate, issue all revisions, substitutions, or clarifications via addendum(s).

Envelopes containing bid protests shall be marked as follows:

BID SPECIFICATION PROTEST
BID # 2016-04, 2016 FULL-DEPTH RECLAMATION AND ASPHALT PAVING PROJECT

Protest of technical or contractual requirements shall include the reason for protest, supported by documented factual information, and any proposed changes to the requirement.

5. BID SUBMISSION: Sealed bids, containing a minimum of one (1) original signed bid response including any addenda which require signature, shall be received and date and time-stamped by COBC prior to closing. No proposal received after the closing date and time shall be considered. To ensure that your bid receives priority treatment within our mailing system, your bid should be labeled with the following information:

BID # 2016-04, 2016 FULL-DEPTH RECLAMATION AND ASPHALT PAVING PROJECT, June 16, 2016

CITY OF BAKER CITY
P.O. BOX 650/1655 FIRST STREET
BAKER CITY, OR 97814

COBC is not responsible for the proper identification and handling of any bid not submitted in a timely manner.

6. SIGNATURE ON BID: Bids shall be signed, in ink, by an authorized representative of the Bidder. Signature on a bid certifies that the bid is made without connection with any person, firm or corporation making a bid for the same goods and/or services and is in all respects fair and made without collusion or fraud. Signature on a bid also certifies that the Bidder has read, fully understands and agrees with all bid specifications, terms and conditions. No consideration will be given to any claim resulting from submission of proposal without fully comprehending all requirements of the Invitation to Bid.

Bidders shall only enter information within the bid document where it is requested or required. Bidders shall not make any alterations to the Original Solicitation Document. Any bid that has been altered may be rejected.

7. **BID WITHDRAWALS:** No Bidder may withdraw a bid after the hour set for closing unless award is delayed for a period exceeding thirty (30) days.
8. **BID OPENING:** Bids received in response to this Invitation to Bid shall be publicly opened on June 16, 2016 at 2:30 p.m., at **COBC, City Hall, 1655 First Street, Baker City, Oregon 97814-0650** (unless otherwise specified). Bidders who attend the opening shall be informed only of the names of Bidders submitting bids and the total bid price. No other information shall be available at that time. Award decisions will NOT be made at the opening.
9. **INVESTIGATION OF REFERENCES:** COBC reserves the right to investigate the references and the past performance of any Bidder with respect to its successful performance of similar services, compliance with specifications and contractual obligations, and its lawful payment of suppliers, subcontractors, and workers. COBC may postpone the award or execution of the contract after the announcement of the apparent successful Bidder in order to complete its investigation. COBC reserves the right to reject any proposal or to reject all proposals at any time prior to COBC's execution of contract, upon good cause and upon COBC finding that it is in the public interest.
10. **INTENT TO AWARD NOTICE:** Pursuant to OAR 137-049-0395, COBC reserves the right to announce the Intent to Award prior to the formal contract award by faxing or mailing the Tabulation Sheet to all Bidders. This shall serve as a notice to all bidders of COBC's intent to make the award to the lowest responsible and responsive bidder(s). Bidders shall have five (5) business days within which they can view the bid file(s) by appointment or request any clarifications, etc. concerning the award(s). After the expiration of this five (5) day period, COBC shall proceed with the formal award of the contract(s). If it is determined by COBC that there are no Bidders that could be grieved by the award of this solicitation, COBC reserves the right to waive or shorten the protest period and to proceed with award.
11. **PROTEST OF AWARD:** Bidders shall have five (5) business days, after COBC announces their intent to award, within which to file a written protest. OAR 137-049-0450 provides that the protest must specify the grounds upon which the protest is based. COBC will not accept protests submitted more than five (5) business days after the intent to award notice. After expiration of the five (5) day period and resolution of all protests, COBC will proceed with final award.
12. **PRIOR ACCEPTANCE OF DEFECTIVE PROPOSALS:** Due to limited resources, COBC generally will not completely review or analyze any proposal which on its face fails to comply with the requirements of the bid documents or which clearly is not the best bid, nor will COBC generally investigate the references or qualifications of those who submit such proposals. Therefore, neither the release of a Bidder's bond, the return of a bid, nor acknowledgment that the selection is complete shall operate as a representation by COBC that a proposal was complete, sufficient, or lawful in any respect.
13. **COMMENCEMENT OF WORK:** Contractor shall commence no work under this contract until all certificates of insurance, as required in Section III, have been provided and a Notice to Proceed has been issued by COBC.
14. **PROJECT WORK SCHEDULE** It is agreed that COBC intends to turn over the **2016 FULL-DEPTH RECLAMATION AND ASPHALT PAVING PROJECT** to the Contractor for construction on or before September 6, 2016, and that the time for completion of the contract shall be within twenty-five (25) calendar days from the date of written notification, and on or before September 30, 2016. **Noise generating activities (such as idling or operating equipment) shall not occur prior to 7:00 am PST, and no work shall occur on the project on Saturdays, Sundays, or legal holidays without prior written consent from COBC.**

Regardless of the contract completion time stated above, it is hereby agreed that once the Contractor commences the Work, all of the Work specified in the contract shall be completed within ten (10) calendar days of the start of Work. The Contractor will be responsible for coordinating the full-depth reclamation and paving work (including allowance for adequate cure times) so that all work is completed within this timeframe.

SECTION II. SPECIAL TERMS AND CONDITIONS

Any additional terms and conditions contained within the *City of Baker City Standard Conditions for Public Improvement Contracts* are incorporated into and made a part of this section by this reference. It is the responsibility of the Bidder to be familiar with all terms and conditions contained within both documents.

1. **DEFINITIONS:** "COBC" means the City of Baker City.
"FDR-C" means Full-Depth Reclamation with Cement
2. **ENGINEER:** "Engineer" means City Engineer acting either directly or through authorized representatives.
3. **HEADINGS:** The section headings in this Contract are included for convenience only; they do not give full notice of any portion of the terms of this Contract and are not relevant to the interpretation of any provision of this Contract.
4. **BIDDER CERTIFICATIONS:** (A) Bidder certifies that this proposal has been arrived at independently and has been submitted without any collusion designed to limit independent proposing or competition.

(B) Bidder certifies compliance with State of Oregon statutory requirements governing registration of corporations and/or assumed business names.
5. **DISCLOSURE OF CONFLICT OF INTEREST:** All Bidders shall disclose, on the Invitation to Bid, any relationship to the manager or person in charge of evaluating the contract performance. Failure to disclose such information may be grounds for termination of the contract.
6. **PREVAILING WAGE:** If the bid amount exceeds \$50,000, the prevailing wage requirements as listed in the *City of Baker City Standard Conditions for Public Improvement Contracts* shall apply.
7. **INSURANCE/BONDING REQUIREMENTS:** The apparent low Bidder shall provide all required proof of insurance and bonding (if required) to COBC, within ten (10) calendar days of notification of Intent to Award. Failure to present the required documents within ten (10) calendar days may be grounds for rejection.
8. **PROPOSAL SECURITY:** Each proposal shall be accompanied by a certified or cashier's check, savings and loan secured check or bond payable to the City of Baker City in an amount equal to ten percent (10%) of the total amount of the proposal. If proposal security is in the form of a bond, Bidders shall use the City of Baker City Bond form provided as an attachment to this bid.

The Bidder further agrees that the certified check, cashier's check, savings and loan secured check or bond payable to the City of Baker City, accompanying this proposal, is furnished as security to COBC; that the amount thereof is the measure of liquidated damages which the City will sustain by the failure of the undersigned to execute and deliver the above-named agreement and performance security; and that if the undersigned defaults in executing that agreement within ten (10) days of written notification of the award of the contract or in the furnishing of the performance security, then the check or bond shall become property of the City of Baker City; but if this proposal is not accepted within thirty days of the time set for submission of the bids or if the undersigned executes and delivers said contract and bond, the bond or the amount of the check shall be returned.

9. **PERFORMANCE/PAYMENT BOND:** The successful Bidder will be required to furnish a performance bond (COBC issued Performance/Payment Bond Form) in the total amount (100%) of the awarded contract, executed in favor of the City of Baker City, to insure faithful performance as specified in the contract awarded.

COBC issued performance bond form includes payment of prevailing wage to all workers and payment to suppliers and sub-contractors. This is the performance/payment bond form approved for this project.

10. **METHOD OF AWARD:** Award shall be made to the lowest responsive and responsible bidder for the total of the items selected for award. COBC reserves the right to withdraw any item(s) from award consideration if it is in the best interest of the City.
11. **CONTRACT PROVISIONS BINDING:** The provisions of this contract shall be binding and shall supersede those of any other document concerning transactions conducted under this contract between CONTRACTOR and the CITY.
12. **AMENDMENTS:** The terms of this contract shall not be waived, altered, modified, supplemented or amended in any manner whatsoever without prior written approval of COBC.
13. **FUNDS AVAILABLE AND AUTHORIZED:** COBC reasonably believes at the time of entering into this Contract that sufficient funds are or will be available and authorized for expenditure to finance the cost of this Contract within COBC's appropriation or limitation. Contractor understands and agrees that, to the extent that sufficient funds are not available and authorized for expenditure to finance the cost of this Contract, COBC's payment of amounts under this Contract attributable to services performed after the last day of the current budget is contingent on COBC receiving from the Baker City Council appropriations, limitations or other expenditure authority sufficient to allow COBC, in the exercise of its reasonable administrative discretion, to continue to make payments under this Contract."
14. **RESPONSIBILITY FOR DAMAGES / HOLD HARMLESS:** Contractor shall be responsible for all damage to property, injury to persons, and loss, expense, inconvenience, and delay that may be caused by, or result from, the carrying out of the Work to be done under this Contract, or from any act, omission or neglect of the Contractor, his subcontractors, personnel, or agents, and the Contractor shall indemnify, defend and hold harmless COBC against any claims arising from said damage, injury, loss or expense.
15. **HAZARD COMMUNICATION:** Products which contain hazardous chemicals, as defined by Oregon Administrative Rules Chapter 437, must be labeled, tagged or marked with the following information:

- (A) Identity of the hazardous chemical(s).
- (B) Appropriate hazard warning; and name and address of the chemical manufacturer, importer or other responsible party.

Upon request, Contractor shall provide a Material Safety Data Sheet, as required by CHAPTER 437-002-360 (35), 29 CFR 1910.1200, for any item included in this contract which contains hazardous chemicals.

Bidders should address questions about the Administrative Rules referenced in this section to the Department of Consumer and Business Services, Oregon Occupational Health & Safety Administration Section, Labor and Industries Building, Salem, Oregon 97310, (800) 922-2689, FAX: (503) 947-7463.

16. CONTACT PERSON: Contractor shall designate one or more person(s) responsible for Contractor's work under this contract. Contractor shall provide to COBC the names, addresses and telephone numbers of such person(s) and shall keep this information current at all times. Should contact with such person(s) require long-distance calls, COBC reserves the right to call collect.

17. NONDISCRIMINATION: Contractor shall comply with all applicable requirements of federal and state civil rights and rehabilitation statutes, rules and regulations.

18. AWARD TO FOREIGN CONTRACTOR: If the amount of this contract exceeds \$10,000 and if Contractor is not domiciled in or registered to do business in the State of Oregon, Contractor shall promptly provide to the Oregon Department of Revenue and the Secretary of State Corporation Division all information required by those agencies relative to this contract. COBC shall withhold final payment under this contract until Contractor has met this requirement.

19. GOVERNING LAW; VENUE; CONSENT TO JURISDICTION: This contract shall be governed by and construed in accordance with the laws of the State of Oregon, without regard to principles of conflicts of law. Any claim, action, suit, or proceeding (collectively "the claim") between City of Baker and Contractor that arises from or relates to this contract shall be brought and conducted solely and exclusively within the Circuit Court of Baker County for the State of Oregon. Provided, however, if the claim must be brought in a federal forum, then it shall be brought and conducted solely and exclusively within the United States District Court for the District of Oregon. CONTRACTOR, BY EXECUTION OF THIS CONTRACT, HEREBY CONSENTS TO THE IN PERSONAM JURISDICTION OF SAID COURTS.

20. SECURITY OF DOCUMENTS AND PROPERTY: All COBC property, materials and documents and all personal property of COBC employees are to be left undisturbed and are not to be handled, read or otherwise used by Contractor or Contractor's employees, except as directed by COBC. Contractor shall consider all documents confidential. Any disclosure of confidential information or removal of COBC property by Contractor or Contractor's employees shall be cause for immediate contract cancellation. Any liability, including but not limited to, attorney fees, arising from any action or suit brought against COBC because of Contractor's willful or negligent release of information, documents or property shall be borne by Contractor.

21. SILENCE OF SPECIFICATION: The apparent silence of this specification and supplemental specification as to any detailed description concerning any point, shall be regarded as meaning that only the best commercial practice is to prevail and that only materials and workmanship of first quality are to be used.

22. CONTRACT TIME TO COMPLETE WORK: The time for completion of the work is an essential condition of this Proposal, and the work shall be completed no later than the completion date listed in this bid document. It shall be understood and agreed, by and between the Contractor and COBC, that the contract time for the completion of the work described herein is a reasonable time, taking into consideration the average climate and economic conditions and other factors prevailing in the locality of the work. The Contractor will proceed with the work at such rate of progress to ensure that the work is completed within the contract time.

23. LIQUIDATED DAMAGES FOR FAILURE TO COMPLETE ON TIME: Failure to complete the project by the specified time may result in damage to COBC. Since actual damage may be difficult to determine, it is agreed that the Contractor shall pay to COBC, not as a penalty but as liquidated damages, \$500 per day for each calendar day elapsed in excess of the completion date. The total liquidated damages may be deducted from final money due the Contractor.

24. HOURS OF LABOR No person shall be employed in connection with this contract for more than eight (8) hours in any one day, or forty (40) hours in any one week except in case of necessity, emergency, or where the public policy absolutely requires it, and in such cases, the laborer shall be paid at least time-and-a-half pay for all overtime in excess of eight (8) hours a day, and for work performed on Saturday and on any legal holiday specified in ORS 279C.520 and 279C.540. This section shall not apply if the Contractor or Subcontractor is a party to a collective bargaining agreement in effect with any labor organization.

25. SUPERINTENDENCE: The Contractor shall appoint a single designated representative to act as project superintendent on the project. The project superintendent shall be available on the project site during the hours of work and shall be available to the Engineer at all times for contact by telephone. The project superintendent shall have full authority and responsibility to promptly execute orders or directions from the Engineer and to supply all materials, equipment, labor, an incidentals necessary for performance of the work. The project superintendent shall not be changed except by consent of the Engineer, unless the superintendent proves to be unsatisfactory to the Contractor and ceases to be in his/her employ.

25a. PRECONSTRUCTION CONFERENCE: Before any contract work is performed, supervisory personnel of the Contractor, including the project superintendent and supervisory personnel of any subcontractors who are to be involved in the full-depth reclamation or paving work, shall meet with the Engineer at a mutually agreed time to discuss methods of accomplishing all phases of the contract work.

26. NOTIFICATION OF EXCAVATION: Before commencing any excavation, the Contractor shall provide notice of scheduled commencement of excavation to all public utilities. Notification may be made through the one-call notification centers or by contacting the utilities directly.

Oregon Utility Notification Center -
Utilities Underground Notification Center -

811 or 1-800-332-2344
1-800-424-5555

This notice must be communicated to said utilities not less than 2 business days or more than ten (10) business days before the scheduled date for commencement of excavation.

27. DANGER SIGNALS, SAFETY DEVICES: The Contractor shall take all necessary precautions to guard against damages to property and injury to persons. He/she shall put up and maintain in good condition, sufficient flashing warning lights at night, suitable barricades and other devices necessary to protect the public. In case the Contractor fails or neglects to take such precautions, COBC may have such lights and barricades installed and charge the cost of this work to the Contractor. Such action by COBC does not relieve the Contractor of any liability incurred under these specifications or contract. Every effort will be made to assure that the work done under this Contract causes the minimum inconvenience to the public.

28. WORK PROCEDURE: The Contractor shall complete each phase of the work as the job progresses. Construction shall not begin in a new area until all work in the area under construction is completed unless approved by the Engineer. The Contractor shall keep the public right-of-way open and maintain access to those areas as required by the Contract and the Engineer.
29. KEEPING THE ENGINEER INFORMED: The Contractor shall at all times keep the Engineer informed of his/her work plans as the job progresses. Failure of compliance will be cause for the Engineer to stop construction until a work schedule has been submitted.
30. INSPECTION: An inspector assigned by the Engineer will check the work periodically for compliance to these specifications. Any work found not meeting these specifications or deviating from the lines and grades shall be removed and replaced by the Contractor at his/her expense upon oral notification by the Inspector, or if desired by the Contractor, upon written notification by the Engineer. Failure of the Contractor to correct any rejected work will be cause for COBC to refuse future payments. Inspection of the work by the Inspector or Engineer does not relieve the Contractor of responsibility for the work.
31. LINES AND GRADES: Lines and grades shall be furnished by the Contractor unless otherwise stated.
32. INDEMNITY: The Contractor shall indemnify and save harmless COBC from and against all losses and all claims, demands, payments, suits, actions, recoveries, and judgments of every nature and description made, brought or recovered against COBC by reason of any act or omission of the Contractor, his/her agents, or employees, in the execution of the work or in guarding the same.
33. CLEANING UP: The Contractor shall, as directed by the Engineer, remove from COBC's property and from all Public and Private property at his/her own expense, all temporary structures, rubbish and waste materials resulting from his/her operations.
34. MAINTENANCE GUARANTEE: The Contractor hereby agrees to make, at his/her own expense, any repairs or replacements made necessary by defects in materials or workmanship supplied by him/her that become evident within one (1) year after the date of final payment. The Contractor also agrees to hold the City harmless from claims of any kind arising from damage due to said defects. The Contractor shall make all repairs or replacements promptly upon receipt of written orders for same from the Engineer. If the Contractor fails to make the repairs and replacements promptly, the City may do the work, and the Contractor and his/her Surety shall be liable for the cost thereof.

SECTION III. INSURANCE REQUIREMENTS

The following are the minimum insurance requirements for this contract. These requirements supersede those contained in the *City of Baker City Standard Conditions for Public Improvement Contracts*.

The apparent low Bidder shall provide all required proof of insurance and bonding (if required) to COBC within ten (10) calendar days of notification of Intent to Award. Failure to present the required documents within ten (10) calendar days may be grounds for proposal rejection.

1. COMPREHENSIVE/COMMERCIAL GENERAL LIABILITY: Contractor shall obtain, at Contractor's expense, and keep in effect during the term of this Contract, Comprehensive/Commercial General Liability Insurance covering bodily injury and property damage in a form and with coverages that are satisfactory to COBC. This insurance shall include personal injury liability, products and completed operations, and contractual liability coverage for the indemnity provided under this Contract and is made on an occurrence basis. Combined single limit per occurrence shall not be less than \$1,000,000 for each job site or location. Each annual aggregate limit shall not be less than \$1,000,000.
2. AUTOMOBILE LIABILITY: Contractor shall obtain, at Contractor's expense, and keep in effect during the term of this Contract, Automobile Liability Insurance covering all owned, non-owned or hired vehicles. This coverage may be written in combination with the Comprehensive or Commercial General Liability Insurance. Combined single limit per occurrence shall not be less than \$1,000,000.
3. WORKERS' COMPENSATION: All employers, including Contractor, that employ subject workers who work under this Contract in the State of Oregon shall comply with ORS 656.017 and provide the required Workers' Compensation coverage, unless such employers are exempt under ORS 656.126. Contractor shall ensure that each of its subcontractors complies with these requirements.
4. ADDITIONAL INSURED: The insurance coverages, except Workers' Compensation, required for performance of the Contract shall include the City of Baker City, and its divisions, officers and employees as Additional Insureds but only with respect to the Contractor's activities to be performed under this Contract. Coverage shall be primary and non-contributory with any other insurance and self-insurance.
5. CERTIFICATE(S) OF INSURANCE: As evidence of the Insurance coverages required by this Contract, the Contractor shall furnish Certificate(s) of Insurance to COBC, prior to the award of the Contract if required by the procurement document, but in all events prior to Contractor's commencement of work under this Contract. The Certificate(s) will specify all of the parties who are endorsed on the policy as Additional Insureds (or Loss Payees). Insurance coverages required under this Contract shall be obtained from Insurance Companies acceptable to COBC. The Contractor shall pay for all Deductibles, Self-Insured Retention and/or Self-Insurance included hereunder.
6. NOTICE OF CANCELLATION OR CHANGE: There shall be no cancellation, material change, potential exhaustion of aggregate limits or non-renewal of insurance coverage(s) without thirty (30) days' written notice from the Contractor or its insurer(s) to COBC. Any failure to comply with the reporting provisions of this clause shall constitute a material breach of Contract and shall be grounds for immediate termination of this Contract by COBC.
7. "TAIL" COVERAGE: If any of the required liability insurance is on a "claims made" basis, "tail" coverage will be required at the completion of this contract for a duration of 24 months or the maximum time period the Contractor's insurer will provide if such is less than 24 months. Contractor shall furnish certification of "tail" coverage as described or continuous "claims made" liability coverage for 24 months following Contract completion. Continuous "claims made" coverage will be acceptable in lieu of "tail" coverage, provided its retroactive date is on or before the effective date of this contract. This will be a condition of the Final Acceptance of Work or Services and Related Warranty (if any).

**Each Bidder must read and comply with the following Sections.
Failure to do so may result in proposal (offer) rejection.**

SECTION IV. RESIDENCY INFORMATION

ORS 279A.120(2) states "For the purpose of awarding a public contract, a contracting agency shall: (a) give preference to goods or services that have been manufactured or produced in this state if price, fitness, availability and quality are otherwise equal; and (b) add a percentage increase on the bid of a nonresident Bidder equal to the percent, if any, of the preference given to that Bidder in the state in which the Bidder resides."

"Resident Bidder" means a Bidder that has paid unemployment taxes or income taxes in this state during the 12 calendar months immediately preceding submission of the bid, has a business address in this state and has stated in the bid whether the Bidder is a "resident Bidder" [ORS 279A.120(1)(b)].

"Non-resident Bidder" means a Bidder who is not a "resident Bidder" as defined above [ORS 279A.120(1)(a)].

a. Check one: Bidder is a () RESIDENT Bidder () NON-RESIDENT Bidder.

b. If a resident Bidder, enter your Oregon business address: (physical and mailing address)

c. If a non-resident Bidder, enter state of residency: _____

d. If a non-resident Bidder, do you or your firm receive, or are you or your firm eligible for, any preference in award of contracts with your state's government or with other governmental bodies in your state?

CHECK ONE: () YES () NO

If yes, state the preference percentage: _____%

If yes, but not a percentage of proposal price, describe the preference:

If yes, state the law or regulation that allows the preference described (legal citation):

SECTION V. CERTIFICATION OF COMPLIANCE WITH DISCRIMINATION LAWS

By my signature in Section XII of this ITB, I hereby attest or affirm under penalty of perjury that I am authorized to act on behalf of Contractor in this matter, and to the best of my knowledge the Contractor has not discriminated against minority, women or emerging small business enterprises in obtaining any required subcontract and that the Contractor is not in violation of any Discrimination Laws.

SECTION VI. CERTIFICATE OF COMPLIANCE WITH OREGON TAX LAWS

By my signature in Section XII of this ITB, I hereby attest or affirm under penalty of perjury that I am authorized to act on behalf of Contractor in this matter, that I have authority and knowledge regarding the payment of taxes, and that Contractor is, to the best of my knowledge, not in violation of any Oregon Tax Laws.

For purposes of this certificate, 'Oregon Tax Laws' means those programs listed in ORS 305.380(4) which is incorporated herein by this reference. Examples include the state inheritance tax, personal income tax, withholding tax, corporation income and excise taxes, amusement device tax, timber taxes, cigarette tax, other tobacco tax, 9-1-1 emergency communications tax, the homeowners and renters property tax relief program and local taxes administered by the Department of Revenue (Lane Transit District Self-Employment Tax, Lane Transit District Employer Payroll Tax, Tri-County Metropolitan Transit District of Oregon "Tri-Met" Employer Payroll Tax, and Tri-Met Self-Employment Tax).

SECTION VII. FINANCIAL RESPONSIBILITY

COBC reserves the right, pursuant to OAR 137-049-0390, to investigate and evaluate, at any time prior to award and execution of the contract, the lowest responsible Bidder's/apparent successful bidder's financial responsibility to perform the contract. Submission of a signed offer shall constitute approval for COBC to obtain any information COBC deems necessary to conduct the evaluation. COBC shall notify the apparent successful bidder, in writing, of any other documentation required, which may include, but need not be limited to, recent profit-and-loss history; current balance statements; assets-to-liabilities ratio, including number and amount of secured versus unsecured creditor claims; availability of short and long-term financing; bonding capacity and credit information; material; equipment; facility and personnel information; performance record of contract performance; etc. Failure to promptly provide this information shall result in proposal rejection.

COBC may postpone the award of the contract after announcement of the apparent successful bidder in order to complete its investigation and evaluation. Failure of the apparent successful bidder to demonstrate financial responsibility, as required under OAR 137-049-0390, shall render the bidder non-responsible and shall constitute grounds for offer rejection, as required under OAR 137-049-0390.

SECTION VIII. DRUG TESTING POLICY CERTIFICATION

Pursuant to OAR 137-049-00200(c)(B), the Bidder certifies by its signature in Section XII of this ITB, that it has a Qualifying Drug Testing Program in place for its employees that includes, at a minimum, the following:

- (a) A written employee drug testing policy,
- (b) Required drug testing for all new Subject Employees or, alternatively, required testing of all Subject Employees every 12 months on a random selection basis, and
- (c) Required testing of a Subject Employee when the Bidder has reasonable cause to believe the Subject Employee is under the influence of drugs

A drug testing program that meets the above requirements will be deemed a "Qualifying Employee Drug Testing Program." An Employee is a "Subject Employee" only if that employee will be working on the Project job site.

If awarded a Public Improvement Contract as a result of this solicitation, the Bidder agrees that at the time of contract execution it shall represent and warrant to COBC that its Qualifying Employee Drug Testing Program is in place and will continue in full force and effect for the duration of the Public Improvement Contract. COBC's performance obligation (which includes, without limitation, COBC's obligation to make payment) shall be contingent on Contractor's compliance with this representation and warranty.

The Bidder also agrees that at the time of Contract execution, it shall require each Subcontractor providing labor for the Project to:

- (a) Demonstrate to the Contractor that it has a Qualifying Employee Drug Testing Program for the Subcontractor's Subject Employees, and represent and warrant to the Contractor that the Qualifying Employee Drug Testing Program is in place at the time of subcontract execution and will continue in full force and effect for the duration of the subcontract; or
- (b) Require that the Subcontractor's Subject Employees participate in the Contractor's Qualifying Employee Drug Testing Program for the duration of the subcontract.

SECTION IX. PROPOSAL FORM

Quantities in the following proposal have been stated with as much accuracy as possible. COBC reserves the right to adjust the quantities +/- 25% at the bid price. The Bidder proposes to furnish all material, equipment and labor, and perform all work for the City project designated as **2016 Full-Depth Reclamation and Asphalt Project** in strict accordance with the plans and specifications attached, on the basis of the lump sum and/or unit prices as follows:

Proposal

ITEM	DESCRIPTION	EST. QTY.	UNIT	UNIT PRICE	TOTAL PRICE
1	Mobilization (Not to exceed 7% of total bid price)	1	Lump Sum	\$	\$
2	Traffic Control** (see footnote)	1	Lump Sum	\$	\$
3	Cold Milling (grindings to be hauled off by COBC)	8100	Square Yard	\$	\$
4	Full-Depth Reclamation with Cement (FDR-C) Includes pulverization of AC and granular base, rough grading, watering, cement application, mixing, final grading, compaction, sealing, and micro-fracturing	8100	Square Yard	\$	\$
5	Cement for FDR-C	125	Ton	\$	\$
6	Curing Seal (Type CSS-1H emulsified asphalt or approved equivalent)	7	Ton	\$	\$
7	Class 'C' Asphalt Concrete, In Place - Grade PG 64-28 Oil (Or Approved Alternate), 3" total thickness	1450	Ton	\$	\$
<i>Proposal Total</i>					\$

** Note: Traffic Control is an alternate bid item. Subject to budget and staffing constraints, the COBC may elect to provide traffic control for the project or may direct the Contractor to provide the required traffic control. If COBC provides traffic control, the lump sum amount bid for traffic control will not be paid.

Bidder:

Company: _____

By: _____

SECTION X. BOND FORMS

CITY OF BAKER CITY

**STANDARD PUBLIC IMPROVEMENT CONTRACT
BID BOND**

We, _____, as "Principal,"
(Name of Principal)
and _____, an _____ Corporation,
(Name of Surety)

authorized to transact business in Oregon, as "Surety," hereby jointly and severally bind ourselves, our respective heirs, executors, administrators, successors and assigns to pay unto the City of Baker City ("Obligee") the sum of (\$_____)

_____ dollars.

WHEREAS, the condition of the obligation of this bond is that Principal has submitted its proposal to an agency of the Obligee in response to Obligee's procurement document for the project identified as:

BID # 2016-04, 2016 FULL-DEPTH RECLAMATION AND ASPHALT PAVING PROJECT

which proposal is made a part of this bond by reference, and Principal is required to furnish security in an amount equal to ten (10%) percent of the total amount of the proposal pursuant to ORS 279C.365(4) and the procurement document.

NOW, THEREFORE, if the proposal submitted by Principal is accepted, and if a contract pursuant to the proposal is awarded to Principal, and if Principal enters into and executes such contract within the time specified in the procurement document and executes and delivers to Obligee its good and sufficient performance and payment bonds required by Obligee within the time fixed by Obligee, then this obligation shall be void; otherwise, it shall remain in full force and effect.

IN WITNESS WHEREOF, we have caused this instrument to be executed and sealed by our duly authorized legal representatives this _____ day of _____, 20__

(Surety) (Principal)

By _____ By _____
(Attorney in Fact)

(Company)

(Address) (Telephone Number)

SECTION XI. FIRST-TIER SUBCONTRACTOR DISCLOSURE FORM

**CITY OF BAKER CITY
FIRST-TIER SUBCONTRACTOR DISCLOSURE FORM
(OAR 137-049-0360)**

Proposals which are submitted by Closing, but for which a required disclosure submittal has not been made by the specified Disclosure Deadline, are not responsive and shall not be considered for Contract award.

AGENCY SUPPLIED INFORMATION:

BID TITLE: BID # 2016-04, 2016 FULL-DEPTH RECLAMATION AND ASPHALT PAVING PROJECT

CLOSING: Date: 6/16/16 Time: 2:30 AM X PM
REQUIRED DISCLOSURE DEADLINE: Date: 6/16/16 Time: 4:30 AM X PM
Deliver Form To : City of Baker City
Designated Recipient (Person): Joyce Bornstedt Phone #: 541) 524-2046.
City's Address: 1655 First Street
P.O. Box 650
Baker City, OR 97814

INSTRUCTIONS:

Submission of this form is not required if the contract value is anticipated to be less than \$100,000. Otherwise this form must be submitted either with the proposal or within two (2) working hours after the advertised closing date and time; but no later than the DISCLOSURE DEADLINE stated above.

Unless otherwise stated in the solicitation, this document shall not be submitted by facsimile. It is the responsibility of Bidders to submit this disclosure form and any additional sheets, with the bid title and project name clearly marked, at the location indicated by the specified disclosure deadline. See "Instructions to Bidders".

List below the Name and Category of Work for each first-tier subcontractor that would be furnishing labor, or labor and material, for which disclosure is required. Enter the word "NONE" if there are no first-tier subcontractors subject to disclosure. ATTACH ADDITIONAL SHEETS IF NECESSARY.

BIDDER DISCLOSURE:

SUBCONTRACTOR NAME	CATEGORY OF WORK	DOLLAR VALUE
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____
5. _____	_____	_____
6. _____	_____	_____

The above listed first-tier subcontractor(s) are providing labor, or labor and material, with a Dollar Value equal to or greater than:

- a) 5% of the total Contract Price, but at least \$15,000. [If the Dollar Value is less than \$15,000 do not list the subcontractor above.]
- OR
- b) \$350,000 regardless of the percentage of the total Contract Price.

Form Submitted By (Bidder Name): _____
Contact Name: _____ Phone #: _____

SECTION XII. SIGNATURE OF BIDDER'S DULY AUTHORIZED REPRESENTATIVE

THIS OFFER MUST BE SIGNED, IN INK, BY AN AUTHORIZED REPRESENTATIVE OF THE BIDDER. ANY ALTERATIONS OR ERASURES TO THE OFFER MUST BE INITIALED IN INK BY THE UNDERSIGNED AUTHORIZED REPRESENTATIVE.

The undersigned acknowledges, attests and certifies individually and on behalf of the Bidder that:

- (1) He/she is a duly authorized representative of the Bidder, has been authorized by Bidder to make all representations, attestations, and certifications contained in the proposal document and all addenda, if any issued, and to execute this proposal document on behalf of Bidder;
- (2) Bidder, acting by its authorized representatives, has read and understands all proposal instructions, specifications, and terms and conditions contained in this proposal document (including all listed attachments and addenda, if any issued);
- (3) Bidder certifies that this proposal had been arrived at independently and has been submitted without collusion designed to limit independent submission or competition;
- (4) Bidder is bound by and will comply with all requirements, specifications, and terms and conditions contained in this proposal document (including all listed attachments and addenda, if any issued);
- (5) Bidder will furnish the designated item(s) and/or service(s) in accordance with the proposal specifications and requirements and will comply in all respects with the terms of the resulting contract upon award;
- (6) BIDDER WILL PROVIDE/FURNISH FEDERAL EMPLOYEE IDENTIFICATION NUMBER OR SOCIAL SECURITY NUMBER WITH PROPOSAL SUBMISSION.

I hereby acknowledge having received and duly considered the following addenda to the specification and the following revision or additions to the plans:

Addenda No _____ to No. _____ inclusive.

Bidder (COMPANY) Name FEIN ID# or SSN (REQUIRED)

Bidder Address

Authorized Signature Date

Title of Authorized Representative

Contact Person Phone Fax

CONSTRUCTION CONTRACTORS BOARD

Bidders shall be registered with the Construction Contractors Board, 700 Summer Street NE, Suite 300, Salem, Oregon 97310, telephone (503) 378-4621. Bidders shall provide their Construction Contractors Board registration number below:

CONSTRUCTION CONTRACTORS BOARD REGISTRATION NO.: _____

SECTION XIII

**CONTRACT
2016 FULL-DEPTH RECLAMATION AND ASPHALT PAVING PROJECT**

THIS CONTRACT, made and entered into this ____ day of _____, 2016, by and between the City of Baker City, Oregon, a municipal corporation, hereinafter referred to as "Owner" and _____, hereinafter called the "Contractor".

WITNESSETH:

Said Contractor, in consideration of the sum to be paid him/her by the said Owner and of the covenants and agreements herein contained, hereby agrees at his/her own cost and expense to do all the work and furnish all the materials, tools, labor, and all appliances, machinery and appurtenances for the:

2016 FULL-DEPTH RECLAMATION AND ASPHALT PAVING PROJECT

to the extent of the Proposal made by the Contractor on the 16th day of June, 2016, all in full compliance with the contract documents referred to herein.

The "Invitation to Bid", the signed copy of the "Proposal" made by the Contractor on the 16th day of June, 2016, the fully executed "Performance Bond", the "Information for Bidders", the "General Conditions", and the "Specifications", are hereby referred to and by this reference made a part of this Contract (as fully and completely as if the same were fully set forth herein) and are mutually cooperative herewith.

In consideration of the faithful performance of the work herein embraced, as set forth in these contract documents, and in accordance with the directions of the Engineer and to his/her satisfaction to the extent provided in the contract documents, the owner agrees to pay to the Contractor the amount bid as adjusted in accordance with the Proposals as determined by the contract documents, or as otherwise herein provided, and based on the said Proposal made by the Contractor, and to make such payments in the manner and at the times provided in the contract documents.

The Contractor agrees to complete the work within the time specified herein and to accept as full payment hereunder the amounts computed as determined by the contract documents and based on the said Proposal.

The Contractor undertakes to indemnify and save harmless the Owner, and for or on account of the Owner to investigate and defend all claims for damages to persons or to property alleged to have been caused through the negligent performance of any part of the work herein, whether such default be asserted to have been in the performance of a duty of employees, to the owners of property or to the members of the public.

Contractor shall be responsible to the Owner for the acts and omissions of all persons, firms or corporations, directly or indirectly employed by Contractor in connection with the work.

It is agreed that the Contractor will abide with all provisions of ORS 279C.800. The current rates are shown in exhibit 'B'.

It is agreed that the work for the **2016 FULL-DEPTH RECLAMATION AND ASPHALT PAVING PROJECT** will be completed in accordance with the project work schedule described in section 1-14. PROJECT WORK SCHEDULE.

In the event that the Contractor shall fail to complete the work within the time limit or the extended time limit agreed upon as more particularly set forth in the contract documents, liquidated damages shall be computed at the rate of Five Hundred Dollars (\$500.00) per day. Sundays and legal holidays shall be excluded in determining days in default.

IN WITNESS WHEREOF, we, the parties hereto, each herewith subscribed the same this ____ day of _____, 2016.

CITY OF BAKER CITY, OREGON:

By: _____

City Manager

By: _____

City Recorder

CONTRACTOR:

By: _____

Title: _____

SECTION XIV. TECHNICAL SPECIFICATIONS

1 Mobilization

A. Description: This item consists of operations and preparatory work necessary to become ready to perform the work or an item of work. This item shall not exceed 7% of the total bid price.

B. Measurement - Lump Sum Basis: There will be no measurement of work performed under this section.

C. Payment: Payment for this item will be the contract lump sum amount.

The amounts paid for mobilization in the contract progress payment will be based on the percent of the original contract amount that is earned from other contract items not including advances on materials and as follows:

- 1) When five (5) percent is earned, either fifty (50) percent of the amount for mobilization or five (5) percent of the original contract amount, whichever is the least.
- 2) When ten (10) percent is earned, either one hundred (100) percent of the mobilization or ten (10) percent of the original contract amount, whichever is the least.
- 3) When all work is completed, amount of mobilization exceeding ten(10) percent of the original contract amount.

2 Traffic Control

A. Description: This item consists of designing, installing, maintaining, and removing Temporary Traffic Control devices in accordance with the Manual on Uniform Traffic Control Devices (MUTCD). This work shall include but not be limited to any and all traffic control plans, signage, barricades, drums, tubular markers, advance warning signs, flaggers, pilot cars, or similar deemed necessary to safely move the travelling public through and around the project site for the entire duration of the project. The proposed traffic control plan shall be coordinated with and approved by COBC prior to the Notice to Proceed.

Traffic Control is considered an alternate bid item. The COBC may, at its sole discretion, elect to provide traffic control for the project or direct the Contractor to provide the required traffic control in accordance with the requirements of this section. If COBC provides traffic control, COBC will supply all required signs, barricades, markers, flaggers, etc. at no cost to the Contractor. In such a case, the bid item will be deleted from the contract and not paid. If COBC directs the Contractor to provide traffic control, the lump sum amount bid shall be full compensation for work performed under this Section.

B. Traffic Control Plan: The Contractor shall, prior to scheduling the preconstruction conference, submit to the City Engineer for review and approval a Traffic Control Plan (TCP) detailing the type, placement, and timing of all Traffic Control Devices and other temporary traffic control proposed for use on the project. The Contractor's TCP shall include such items as the spacing and size of Traffic Control Devices, the legends of warning signs, the methods of supporting the Traffic Control Devices, the number of flaggers required, and the periods of operations requiring flaggers, if any. No Work shall be started on any stage of construction until the TCP has been approved and all required Traffic Control Measures are in place and operating satisfactorily.

During the Project, the Contractor shall be responsible for providing and maintaining all required Traffic Control Measures. The Engineer may verbally or in writing require immediate changes to the Traffic Control Measures being used on the Project. The Contractor shall immediately implement the changes as directed by the Engineer.

During the performance of the Work, the Contractor shall determine if any additional Traffic Control Measures are necessary or warranted and immediately notify the Engineer. The Contractor shall immediately implement any approved changes as directed, but shall not place or remove any Traffic Control Devices without prior approval from the Engineer.

C. Materials: All traffic control devices used on the project shall meet the requirements of the latest edition of the MUTCD. All flaggers, signal operators, and pilot car operators employed on the Project shall have satisfactorily completed all required training courses and possess all required valid certifications.

Any Traffic Control Devices used on the Project shall remain the property of the Contractor. Upon completion of the Work, all Traffic Control Devices shall be removed from the Project by the Contractor and all evidence of their existence obliterated.

D. Construction Requirements: All temporary traffic control signs may be mounted on acceptable temporary and portable bases. During the project, all Traffic Control Devices shall be maintained by the Contractor in proper position, clean, and legible at all times. Lights, flashers, and similar devices shall be kept clean, visible, and operable. Damaged or destroyed Traffic Control Devices shall be immediately repaired, restored, or replaced by the Contractor, regardless of the cause. On a daily basis, and prior to beginning and ceasing operations, the Contractor shall patrol the traffic control area for the purpose of maintaining Traffic Control Devices and removing or covering all non-applicable signs during periods when they are not needed. The Contractor shall monitor the effectiveness of the installed Traffic Control Devices at frequent intervals, in both daylight and dark conditions, by actual travel and inspection, and shall remove any vegetation or other obstructions that obscure the public's clear view of the devices.

Lane and driveway closures shall be kept to a minimum to minimize impacts to residents, businesses, and the travelling public. Notify COBC at least 48 hours prior to any construction activities that will result in lane or driveway closures so that adequate advanced notification can be given to residents, tenants, and emergency service providers.

E. Measurement: Traffic Control will be paid on a lump sum basis. No measurement of quantities will be made for work performed under this Section.

F. Payment: If COBC elects to have the Contractor provide the required work zone traffic control, the Traffic Control work will be paid for at the Contract lump sum amount. Payment will be payment in full for designing, furnishing, installing, moving, operating, maintaining, inspecting, and removing all Traffic Control Devices and related materials, and for furnishing all equipment, labor, and incidentals necessary to complete the work as specified. No additional payment will be made for the replacement of any Traffic Control Devices that are damaged or destroyed, unless such damage is the direct result of actions by COBC equipment or personnel.

If COBC elects to perform traffic control for the project, no payment will be made under this pay item.

3 Cold Milling

A. Description: This item shall consist of cold milling the existing asphalt concrete pavement to a depth of 3" within the area indicated on the plans, unless otherwise directed by COBC. Trucking, hauling, and disposing of all grindings resulting from the milling operations will be by COBC at no additional cost to the Contractor.

All preparatory work prior to milling, including adjustment or relocation of utilities, washing, sweeping, etc will be conducted by COBC at no additional cost to the Contractor.

B. Equipment: The cold milling work shall be completed with a power operated, self-propelled milling machine capable of removing the pavement to the desired profile grades along each edge of the machine (within $\pm 0.01'$) by reference from the existing pavement. The milling machine shall be equipped with an automatic system for controlling grade elevation and cross-section. The use of a heating device to soften the pavement will not be permitted.

C. Construction: The existing pavement surface shall be removed to a depth of 3" and to the width, grade, and cross-section as shown on the plans or as directed by COBC. Trucking, hauling, and disposing of grindings resulting from the milling work will be by COBC. The Contractor shall coordinate their milling operations with COBC prior to beginning work to ensure adequate and proper sequencing of trucks is provided to accommodate the work.

Sensing and depth measuring will be approximately from centerline, gutters, or other approved locations. The milling cut shall be made to a place established by these reference points unless otherwise directed.

When ending a cut section with the milling machine, the ends shall be tapered as directed to accommodate traffic through the construction area.

D. Measurement: The quantities of Cold Milling will be measured by the square yard, regardless of the depth of cut, along the lines and grades of the area actually milled.

E. Payment: The accepted quantities of Cold Milling actually completed will be paid for at the contract unit price per square yard, rounded to the nearest 0.1 square yard. Payment made will be considered payment in full for furnishing all equipment, labor, and incidentals necessary to complete the work as specified.

4 Full-Depth Reclamation with Cement (FDR-C)

A. Description: This work shall occur following the Cold Milling work described in Section 3, and shall consist of pulverizing and mixing the remaining asphalt concrete pavement and a portion of the underlying aggregate base layer to the specified depth, rough grading, compacting, removing excess materials as needed to achieve the desired grade, applying and mixing water and cement, fine grading and compacting the cement mixture to the required minimum compaction, applying a curing seal of emulsified asphalt to the finished surface, and micro-fracturing the cured FDR-C layer with a vibratory roller.

The FDR-C material shall be mixed and compacted in a single lift of approximately 8" in depth, unless otherwise directed. It shall be proportioned, mixed, placed, compacted, and cured in accordance with these specifications, and shall conform to the lines, grades, thicknesses, and cross-sections shown on the plans or as directed in the field.

B. Mix Design: A mix design will be provided to the Contractor by COBC prior to commencement of the project. If a project-specific mix design is not provided, the FDR-C material shall be processed in accordance with these specifications, as directed by the Engineer, and in accordance with typical best industry practices.

C. Quality Control: The Contractor shall designate a ground supervisor who is responsible for monitoring the FDR-C activities, advising project personnel, and interfacing with testing personnel, the Engineer, the project inspector, and other COBC personnel as needed.

D. Materials: Materials used on or incorporated into the FDR-C layer shall comply with the following:

1. **Cement:** Cement used on this project shall conform with the requirements of Section 5.
2. **Water:** Water used on this project shall be reasonably clear and free of contaminants or substances deleterious to the hardening of the cement-treated material. Unless otherwise approved, the water used on this project shall be taken from a potable source.
3. **Curing Seal:** Curing seal applied to the finished FDR-C layer shall conform with the requirements of Section 6.
4. **Mixed Material:** The pulverized mixture of asphalt concrete, aggregate base material, and cement shall not contain roots, topsoil, or any material deleterious to its reaction with cement, and shall comply with the following gradation requirements:

FDR-C Gradation

Sieve Size	Percentage Passing
3"	100
2"	95-100
1.5"	85-100
No. 4	55-100

E. Equipment: FDR equipment used on the project shall comply with the following unless otherwise approved:

The FDR machine shall have independent and interlocked systems for water and must include a digital electronic control system, pumping system, and spray bar system. The water storage equipment must not leak and shall be attached to the FDR machine with a tow bar and hose. The equipment used shall be capable of introducing cement into the mixture within $\pm 5\%$ of the specified rate. Use a pug-mill type, auger type, or cross-shaft type road mixing machine capable of providing a uniform homogeneous mixture throughout the material to the specified depth and capable of achieving the required gradation.

Grading and compacting equipment must be self-propelled and reversible. The frequency and amplitude of vibrating rollers must be adjustable and able to exceed a force of 15 tons in vibratory mode. Grading equipment shall include a motor grader with automatic grade controls for profile elevation and cross-slope.

F. Construction: Construction of the FDR-C layer shall comply with the following:

1. **General:** Prior to commencing FDR-C activities, all manholes, valve boxes, and similar utilities will be adjusted by COBC so they are below the proposed pulverization depth. Existing facilities that cannot be adjusted, such as catch basins and concrete gutters, shall be avoided by the contractor and protected from damage.

Do not start FDR-C activities if the ambient air temperature is below 40 degrees F or the road surface is below 40 degrees F.

2. **Surface Preparation:** Prior to beginning any FDR activities, the Contractor shall mark the proposed longitudinal cut lines on the existing pavement. The cut lines should coincide with points where the existing cross-slope changes, typically at centerline and the edge of the travel lane. Cut lines should indicate the sequence of cuts.

Surface preparation of the existing roadway, including cleaning, sweeping, removal of vegetation and debris, etc. shall be the responsibility of COBC. In addition, COBC will, prior to FDR activities, survey the existing street profile and cross-slope so that subgrade elevations can be provided to the Contractor as needed during final grading.

3. **Pulverizing:** Do not pulverize more material than can be mixed with cement and compacted in one day. Do not leave a wedge where the pulverizing drum cuts into the existing material. The 1st pass should utilize the full width of the pulverizing drum, and subsequent cuts should overlap the prior cut by at least 4 inches. Do not leave a gap of unpulverized material between cuts.

Mark the pavement at the center of the pulverizing drum whenever the pulverizing drum stops. Resume pulverizing along the same alignment at least 2 feet behind the mark.

Pulverize the material to comply with the specified gradation. Notify the Engineer if poor quality subgrade materials (such as soft spots, clays, silts, or organic materials) or oversize rocks or stones (larger than 3 inches) are encountered.

4. **Spreading Materials:** Grade and compact the pulverized materials to the grades shown on the plans or as directed in the field. After grading the materials to the satisfaction of the Engineer, incorporate additives and process the material as described below.

Spread cement uniformly over the full roadway surface width. Do not spread cement more than 30 minutes before mixing. Do not apply dry cement in windy conditions that could result in dust outside of the project limits. Apply cement at the design rate $\pm 5\%$. Do not spread cement prior to pulverizing the existing surface. Moisture in the base course material at the time of cement application shall not exceed the quantity that will permit a uniform and cohesive mixture of the pulverized asphalt, base material, and cement during mixing operations, and shall be within 2% of the optimum moisture content for the processed material at the start of compaction.

5. **Incorporating Additives and Mixing:** Incorporate water and cement into the pulverized material (FDR-C) as specified and in accordance with the approved design. Perform more than one pass of the road mixing machine if necessary to produce a uniform, homogeneous mixture or to achieve the required gradation. Introduce water during the final pass only.

Synchronize the application rate for cement with the machine speed to provide a uniform application. Spreading equipment shall be capable of accurately measuring the cement spread rate. If the spread rate varies from the design application rate by more than 5%, stop the operation until corrective action can be completed.

Introduce water at the time of mixing using a metering device on the mixing machine that produces a completed mixture with a uniform moisture content meeting the mix design requirements. Adjust the water application rate proportionally to the actual cut width of each pass.

6. **Compacting and Grading:** Immediately after pulverizing and mixing, compact the processed material to the grades specified on the plans or as marked in the field. Compact the mixture to at least 96 percent of the standard proctor density (ASTM D558), or compact by establishing a roller pattern in which the final roller pass adds no more than 0.5 lb/ft³ to the previous in-place density. A new roller pattern should be established whenever material conditions change or at the discretion of the Engineer.

Compaction should be achieved using a steel-wheeled vibratory roller. Do not allow more than 2 hours between final mixing of the pulverized material with cement and final compaction.

During grading and final compaction, add water as needed to maintain the mixing moisture content within 2% of the optimum moisture.

7. **Finishing:** Shape the compacted mixture to the finished lines and grades shown on the plans or as directed. If necessary, reestablish the roadway profile and cross-slopes to be consistent with the plans. The finished FDR-C surface should be smooth and should not vary by more than 0.05 feet from the lower edge of a 12-foot straight edge laid parallel and perpendicular to the centerline.

Immediately after compaction, apply water and roll with pneumatic-tired rollers or steel drum roller with no vibration. The finished surface must be free of ruts, bumps, indentations, segregation, raveling, and any loose material.

The operation of cement application, mixing, spreading, compacting, and finishing shall be continuous and shall be completed within 2 hours of the start of mixing.

8. **Sealing:** Protect the finished surface against drying by applying a surface seal as specified in Section 6. The surface seal shall be sufficient to provide a continuous membrane over the surface until the new lift of asphalt concrete is applied. Apply the curing seal as soon as possible but no later than twenty-four (24) hours after completion of compaction or finish rolling. The surface shall be kept continuously moist prior to application of the curing material. Apply the seal to a surface that has sufficient moisture content to prevent excess penetration of the emulsified asphalt.

Should it be necessary for construction equipment or other traffic to use the sealed surface before the bituminous material has dried sufficiently to prevent pickup, a sufficient sand covering shall be applied before allowing such use.

9. **Traffic:** Completed portions of the FDR-C base can be opened to low-speed local traffic and to construction equipment once the sealing material and FDR-C base have become sufficiently stable to prevent marring, rutting, or permanent deformation from such traffic. Any marring or deformations caused by traffic to the FDR-C base shall be repaired by the Contractor prior to paving at no additional cost to the City.

10. **Micro-Fracturing:** After the finished and sealed FDR-C surface has cured for 24-48 hours, finish roll the processed and compacted material completely with a single pass of a steel drum roller on high vibration frequency and travelling at 2-3 MPH to produce micro-fractures within the finished FDR-C surface.

11. **Disposal of Excess Material:** Excess processed material which must be excavated and/or removed from the project in order to achieve the desired finished grades will be hauled and disposed of by COBC. The Contractor shall coordinate such work with COBC, and shall notify COBC at least 24 hours in advance of performing any work that will require COBC equipment or personnel to haul or dispose of any excess materials.

12. **Paving:** Place asphalt concrete pavement on the finished FDR-C surface within 24 hours of micro-fracturing, unless otherwise approved.

13. **Maintenance:** The Contractor shall maintain the FDR-C surface in good condition until all work is accepted and the asphalt concrete layer is completed. Maintenance shall include immediate repairs of any defects that may occur. Such maintenance shall be done by the Contractor at Contractor's own expense.

If it is necessary to replace any processed FDR-C material, the replacement shall be for the full depth of the FDR-C layer with vertical cuts using either cement-treated material or concrete. No skin patches will be allowed.

G. Measurement: The quantity of Full-Depth Reclamation with Cement will be measured by the square yard according to the length and width of street surface actually treated. This item shall include all work related to Full-Depth Reclamation with Cement as described in this Section.

H. Payment: The accepted quantities of Full-Depth Reclamation with Cement actually completed will be paid for at the contract unit price per square yard, rounded to the nearest 0.1 square yard. Payment made will be considered payment in full for furnishing and placing all material, and for furnishing all equipment, labor, and incidentals necessary to complete the work as specified. All costs associated with FDR-C activities not specifically listed in this Section or provided for in another pay item will be considered incidental to the Full-Depth Reclamation with Cement work and borne by the Contractor. Such activities may include but are not limited to: stripping and disposing of unsuitable material, grade control work, additional pulverization and/or mixing passes, grading, rolling, shaping, and watering.

5 Cement for FDR-C

A. Description: This item shall consist of supplying and applying portland cement into the FDR-C material at the specified rate.

B. Materials: The cement material shall be Type II or Type V portland cement applied at a rate of 30 lb/sq. yd. (approximately 3.5% by weight of pulverized material) unless otherwise directed in the field.

C. Construction: Apply and mix cement into the FDR-C material as described in Section 4.

D. Measurement: Cement as described in this Section will be measured by the Ton of approved cement actually applied to the FDR-C material. Measurement shall be by certified scale of each truck load delivered to the job site unless otherwise approved. Partial loads not used on the project shall be re-weighed for deduct to determine the final pay quantity. For the purpose of this measurement, a Ton shall be construed to be 2,000 pounds.

E. Payment: The accepted quantities of Cement actually used on the project will be paid for at the contract unit price per Ton, rounded to the nearest 0.01 ton. Payment made will be considered payment in full for furnishing and placing all material, and for furnishing all equipment, labor, and incidentals necessary to complete the work as specified.

6 Curing Seal

A. Description: This item shall consist of applying curing seal of asphaltic emulsion in a single layer to the finished FDR-C surface.

B. Materials: The curing seal shall be emulsified asphalt, Type CSS-1H, applied at a rate of 0.15 to 0.20 gal/sq. yd. unless otherwise directed. If the material is diluted, the amount of water added to the asphaltic emulsion shall not exceed a ratio of 1:1 by weight.

C. Construction: Protect the finished FDR-C surface against drying by applying a surface seal of emulsified asphalt at the specified rate. The surface seal shall be applied so as to provide a continuous membrane over the surface until the new lift of asphalt concrete is applied. Apply the curing seal as soon as possible but no later than twenty-four (24) hours after completion of compaction or finish rolling. Apply the seal to a surface that has sufficient moisture content to prevent excess penetration of the emulsified asphalt. The surface shall be kept continuously moist prior to the application of the curing material. The treated surface should be damp but free of standing water at the time of application. Do not water the surface after the asphaltic emulsion is applied.

D. Measurement: Curing Seal as described in this Section will be measured by the Ton of approved asphaltic emulsion actually applied to the finished FDR-C surface. Measurement shall be by certified scale of each truck load delivered to the job site unless an alternate method of measurement is approved. Partial loads not used on the project shall be re-weighed for deduct to determine the final pay quantity. For the purpose of this measurement, a Ton shall be construed to be 2,000 pounds.

E. Payment: The accepted quantities of Curing Seal actually used on the project will be paid for at the contract unit price per Ton, rounded to the nearest 0.01 ton. Payment made will be considered payment in full for furnishing and placing all material, and for furnishing all equipment, labor, and incidentals necessary to complete the work as specified.

7 Class 'C' Asphaltic Concrete, In Place:

A. Description: This work consists of the application of an asphalt tack coat of emulsified asphalt and the placement and compaction of a 3 inch (or as directed) compacted thickness of Class 'C' asphaltic concrete on a previously prepared FDR-C surface constructed by the Contractor.

1. Tack Coat: Tack coat is the application of emulsified asphalt to an existing surface prior to placing an overlying course of asphalt paving.

2. Asphaltic Concrete: Asphaltic concrete is a hot mixture of asphalt cement; well graded, high quality aggregate; and a mineral filler and additives as required; plant mixed into a uniformly coated mass, hot laid on a prepared base, and compacted.

B. Materials:

1. General: The tack coat shall be CSS-1 emulsified asphalt. Dilution of the tack coat material with water shall be allowed to a maximum of 1:1 ratio by weight. The mixture shall be applied at a temperature of 120°F or higher.

The asphalt concrete mixture shall be a well-graded, uniform durable mix of the class or classes as shown on the plans and these specifications or approved by the City. The components shall be within the broadband limits set forth in the following table unless modified by the job mix formula.

BROADBAND LIMITS DENSE GRADED MIXTURE	
Sieve Size (passing)	Percentage of Total Aggregate (by weight) CLASS 'C'
3/4"	99 - 100
1/2"	90 -100
1/4"	52 - 80
No. 10	21 - 46
No. 40	8 - 25
No. 200 *	3 - 8
Asphalt Cement **	5.5-8
*Includes any lime or cement filler. When treatment of aggregate with lime is required, the percentage passing the #200 sieve will be increased 0.5%	
**Percent of total mix by weight.	

2. Asphalt Cement and Additives:

a) Asphalt Cement: Asphalt cement shall be Performance Grade Oil as specified in the contract proposal (example PG 64-28) as adopted by ODOT, or approved alternate. Request for use of alternate must be submitted in writing no later than June 8, 2016 in order to receive consideration. Notification of acceptance or denial of request will be transmitted verbally and in writing by June 13, 2016.

b) Asphalt Cement Additives: Anti-stripping additives ordered and/or approved by the Engineer shall be added to the asphalt cement and shall meet the requirements of the OSHD Standard Specifications.

3. New Aggregates:

a) General: The aggregate material shall be either crushed stone or crushed gravel. If the material is to be crushed stone, it shall be manufactured from sound, hard, and durable rock of accepted quality and crushed to specification size. All strata, streaks and pockets of clay, dirt, sand, stone, soft rock or other unsuitable material occurring with the sound rock shall be discarded and not allowed to enter the crusher.

The supplier shall modify or adjust crushing and screening operations as necessary to produce materials meeting the specifications. During production of aggregates, samples of each size shall be provided as frequently as the Engineer considers necessary to determine conformance to the specifications.

The determination of sizes and gradings shall comply with OSHD TM 204. When treatment of aggregates with hydrated lime is required, all testing requirements will apply prior to treatment.

The aggregate shall be stockpiled and removed from stockpiles in a manner that will minimize segregation.

b) Fracture of Gravel: 100 percent of crushed gravel retained on the ¼-inch sieve shall have two fractured faces. A minimum of 75 percent of the material passing the ¼-inch sieve but retained on the #10 sieve shall have at least one fractured face. All aggregate shall conform to OSHD TM 213.

c) Sand Equivalent, Plasticity Index and Liquid Limit: Sand Equivalent shall be not less than 30 when tested in accordance with OSHD TM 101.

That portion of the aggregate, including any blended filler, passing a #40 mesh sieve, shall have a plasticity index of not more than 6, as determined by ASTM D 424, and a liquid limit of not more than 25 as determined by ASTM D 423.

d) Durability: The material from which the aggregates are produced and the crushed aggregates shall meet the following test requirements.

Test	Test Method	Maximum Values	
		Coarse Aggregates	Fine Aggregates
Soundness (5 cycles)	OSHD TM 206	12%	12%
Degradation			
Passing #20 Sieve	OSHD TM 208	30%	30%
Sediment Height	OSHD TM 208	3"	4"
Abrasion	OSHD TM 211	30%	--

e) Deleterious Substances: The amount of deleterious substances in each test fraction of the crushed aggregate material shall not exceed the following values.

Test	Test Method	Maximum Percentages (By Weight)
Lightweight Pieces	OSHD TM 222	1.0
Wood Particles	OSHD TM 225	0.1
Friable Particles		
Coarse Aggregate	OSHD TM 221	1.0
Fine Aggregate	OSHD TM 221	2.05
Flat & Elongated Pieces		
Coarse Aggregate	OSHD TM 229	5.0

The aggregates shall be free from all other deleterious substances such as soft or disintegrated pieces, clay, loam, or vegetative matter, either in a free state or adherent to the aggregate.

f) Coarse Aggregate Grading: That portion of the aggregate retained on a ¼-inch sieve with allowable undersize will be known as coarse aggregate and shall be crushed rock or crushed gravel.

The grading of the separated sizes of coarse aggregate shall conform as closely as possible to the following target values.

Sieve Size (Passing)	Separate Sizes (Percentage by Weight)					
	¾ - ¼		¾ - ½		½ - ¼	
	Target Value	Target Tolerance	Target Value	Target Tolerance	Target Value	Target Tolerance
1"	100	0	100	0	--	--
¾"	90	+/- 5	75	+/-7	100	-1
½"	60	+/-8	8	+/-8	95	+/-5
¼"	8	+/-8	7	+/-7	8	+/-8
#10	5	+/-5	5	+/-5	5	+/-5
#40	3	+/-3	3	+/-3	3	+/-3
#200	1	+/-1	1	+/-1	1	+/-1

g) Fine Aggregate Grading: That portion of the aggregate passing the ¼-inch sieve with allowable oversize shall be known as fine aggregate and shall consist of finely crushed rock or finely crushed gravel and fine sand. No more than 15 percent by weight of natural or uncrushed material passing the #10 sieve shall be re-blended into the total fine aggregate. The grading of the fine aggregate shall conform as closely as possible to the following target values, and must be within the allowable tolerances.

Sieve Size (Passing)	Separate Sizes (Percentage by Weight)					
	¼" - 0 **		¼" - #10		#10 - 0	
	Target Value	Target Tolerance	Target Value	Target Tolerance	Target Value	Target Tolerance
¾"	100	-1	100	-1	--	--
¼"	93	+/- 7	90	+/-10	100	-1
#10	--	--	10	+/-7	90	+/-10
#40	--	--	5	+/-5	37	+/-8
#200	--	--	2	+/-2	12	+/-4

**If the Contractor elects to produce fine aggregates in the ¼" - 0 size, the following percentages (by weight) shall apply.

Of the fraction passing the ¼ inch sieve, the following percentages shall pass the #10 sieve.

Class of Asphalt Concrete Mixture	TOLERANCE		
	Target Individual		Weighted Average of All Tests
	Value	Test	
'B', 'C', and 'D'	50	+/- 7	+/- 2
	15	+/- 8	+/- 2

Of the fraction passing the #10 sieve, the following percentage, by weight, shall pass the #40 sieve.

Class of Asphalt Concrete Mixture	Target Value	Tolerance
'B', 'C', and 'D'	42	+/- 10

Of the fraction passing the #40 sieve, the following percentage, by weight shall pass the #200 sieve.

Class of Asphalt Concrete Mixture	Target Value	Tolerance
'B', 'C', and 'D'	14	+/- 5
	24	+/- 4

h) Aggregate Treatment: When specified or directed, new aggregates shall be treated with lime in the following proportions to undergo an aging process.

Separated Sizes	Percent Hydrated Lime (By Weight of Aggregate)	Tolerance (Percent)
3/4" - 1/4", 3/4" - 1/2", 1/2" - 1/4"	0.35	+0.15
1/4" - 0	1.50	+0.15
1/4" - #10	1.00	+0.15
#10 - 0	2.00	+0.15

Each size of aggregate shall be stockpiled separately. One of the following treatment procedures shall be used.

1) Dry Hydrated Lime Added to Wet Aggregate: At the time of mixing the aggregate and hydrated lime, the minimum moisture content of the coarse and fine aggregate shall be 2.5 percent and 5.0 percent, respectively. Hydrated lime, water, and aggregate shall be thoroughly mixed in a pugmill or other approved mechanical mixer and shall then be stockpiled. If the aggregate contains free water (water not adhering to the aggregate surface), the excess moisture shall be removed before adding hydrated lime. The mixed material shall remain in the stockpile for a minimum of 24 hours before being used in the production of asphalt concrete mixture

2) Lime Slurry Added to Aggregates: The lime shall be added to the aggregate in the form of a slurry. The lime slurry shall contain a minimum of 70 percent water by weight. The slurry and aggregate shall be thoroughly mixed in a pugmill or other approved mechanical mixer and shall then be stockpiled. The mixed material shall remain in the stockpile for a minimum of 24 hours before being used in the production of asphalt concrete mixture.

4. Recycled Aggregates: The use of recycled aggregates will not be allowed in surface courses.

5. Portland Cement and Hydrated Lime: Portland cement filler shall meet the requirements of the OSHD Standard Specifications. Hydrated lime used as a filler or used to treat aggregates shall meet the requirements AASHTO M 216, Type 1, Grade A. The Contractor shall furnish manufacturer's certifications.

6. Mineral Filler: Mineral filler shall meet the requirements of AASHTO M 17.

7. Job Mix Formula: The supplier shall furnish a job mix formula for the approval of the Engineer or may propose the use of a current job mix formula on file with the Owner or with OSHD. A job mix formula will be required for each aggregate source.

8. Tolerances: After the job mix formula is determined, the mixture shall conform to the formula within the following tolerances.

Constituents of Mixture	Narrow Band Tolerance (from the job mix formula)	
	Leveling Courses	Base & Surface Courses
Aggregate passing 1", ¾", and ½" sieves	Within the Broadband ranges specified in subsection 6-2 B. 1.	Within the Broadband ranges specified in subsection 6-2 B. 1.
Aggregate passing ¼" sieve	+/- 7.0%	+/- 6.0%
Aggregate passing #10 sieve	+/- 5.0%	+/- 4.0%
Aggregate passing #40 sieve	+/- 5.0%	+/- 4.0%
Aggregate passing #200 sieve	+/- 2.0%	+/- 2.0%
Asphalt Cement	+/- 0.6%	+/- 0.5%
Moisture content at the time of discharge from the mixing plant (upper limit)	+/- 0.6% Max.	+/- 0.6% Max.
Compaction Density (lower limit)	Control Strip Method : 98 percent of target density.	

C. Construction:

1. Tack Coat: The tack coat shall be uniformly applied at the rate specified. The tack coat shall be spread with pressure spray equipment, which will provide for uniform coverage at the prescribed rates. Hand application or other approved means shall be used on areas inaccessible to the distributor. The rate shall be as specified or as determined by the engineer and will be in the range of 0.05 to 0.15 gallon per square yard. Rates of application shall not vary from prescribed rates by more than 10 percent. The contractor shall protect curbs, structures and vegetation from being spattered, stained or marred and shall remove stains and remedy disfigurements.

Application of tack coat shall be scheduled so as to offer the least interference to traffic, and to limit accidental pickup. During application of the tack coat and until the tack coat is covered with asphaltic concrete, traffic shall be controlled by flaggers, pilot cars, detours or other approved means.

The surface upon which the tack coat is applied shall be dry and cleaned of dirt, dust and other matter detrimental to the adherence of asphalt. Tack coat shall not be applied during wet, cold, or windy weather or during darkness. Tack coat shall be applied only so far in advance as is appropriate to insure a tacky condition of the asphalt at the time of placing the next course of paving material. The tack coat shall be covered the same day as applied. Once the tack coat is applied, time must be allowed for emulsion to break (turn from brown to black) prior to placing hot mix on it. Tack coat will be applied prior to placing each layer of asphalt.

2. Weather Limitations: The placing of the asphalt concrete mixture will be permitted only when the aggregate temperature of the underlying surface upon which the bituminous mixture is to be placed is 50°F or greater, and the air temperature is at least 40°F and rising. The mixture shall be placed at a temperature between 250° and 300°F. All aggregates, dirt or foreign materials on the concrete curb and all foreign materials on the street shall be removed before beginning any paving of asphaltic concrete.

Placing of any mixture during rain or other adverse weather conditions normally will not be permitted, except that mix in transit at the time these adverse conditions occur may be laid if at proper temperature, if the mix has been covered during transit, if placed on a foundation free from pools or flow of water and if all other requirements of these specifications are met. Asphalt concrete mixtures shall not be placed when the underlying layer is frozen or when, in the opinion of the project Engineer, weather conditions either existing or expected will prevent the proper handling, finishing, or compaction of the mixtures.

3. Asphalt Concrete Mixing Plant:

a) DEQ Requirements: Prior to producing and furnishing asphalt concrete from a new or revised stationary plant location or a portable plant, the Contractor shall furnish the following items to the Engineer.

- 1) A current air contaminate discharge permit number for the plant being used;
- 2) The expiration date of the permit; and,
- 3) A written statement that the DEQ has been advised of the location of the plant and when operation is to commence.

b) Plant Scales: Scales shall be accurate to 0.5 percent throughout the range of use and shall be tested and adjusted as often as directed by the Engineer to verify continued accuracy.

4. Drying, Heating and Separating Aggregates into Designated Sizes:

a) Drying: Aggregates shall be dried to the extent that any retained moisture will not result in visible defects in the mixture such as slumping loads, boils, or slicks.

b) Screening: In plants which have screens, the aggregates shall be separated, immediately after drying and heating, by screening into the sizes required for separate handling, storing and proportioning at the mixing plant.

5. Heating Asphalt Cement: Asphalt heating equipment shall be capable of uniformly heating the asphalt to the temperature specified.

The temperature of the asphalt cement when introduced in the mixture shall be not less than 250° nor more than 350°F.

6. Mixing: All the components of the asphalt concrete mixing plant shall be utilized and operated in a manner to ensure compliance with this section. The combined materials shall be mixed until the asphalt cement is distributed thoroughly in the mixture and the aggregate particles are completely and uniformly coated.

The moisture content of the mix shall not exceed 0.60 percent at the time of discharge from the mixing plant.

The temperature of the mix at discharge from the plant shall not exceed 325°F.

7. Hauling Equipment: Vehicles used for hauling asphalt concrete mixtures shall have tight, clean, and smooth beds which have been thinly coated with paraffin oil, lime solution, soapy water, or other approved material to prevent the mixture from adhering to the beds. Diesel oil may be used when requested by the supplier and approved by the Engineer. During each application of approved coating material, and prior to loading, the vehicle bed shall be drained of all excess coating material. Hauling vehicles shall be equipped with covers to protect against moisture intrusion and heat loss.

Vehicles which cause excess segregation, leak badly, or delay normal operations shall not be used.

8. Asphalt Concrete Pavers: Pavers shall be self-contained, power-propelled units with an activated screed and strike-off assembly, heated screed plate, and capable of spreading and finishing layers of asphalt concrete material to the widths, thicknesses, lines, grades and cross-sections required.

The paver shall be equipped with a receiving and distribution system of sufficient capacity for a uniform spreading operation and capable of placing the mixture uniformly in front of the screed without segregation of materials. Extensions added to the paver when used on travel lanes shall have the same auguring and screeding equipment as the rest of the paver.

The paver shall be designed so minor irregularities in the surface of the base will not be reflected in the surface of the layer being placed. The weight of the paver shall be supported on tracks or wheels none of which shall contact the mixture being placed. The contact area of the screed or strike-off assembly shall be uniform over the entire width of the mixture being placed.

The paver shall be capable of laying down a strip 17.5 feet in width, and only one longitudinal joint shall be allowed on a 35 foot street width.

The screed or strike-off assembly shall produce a finished surface of the required smoothness and texture without tearing, shoving, or gouging the mixture. The paver shall be equipped with electronic grade control.

9. Compactors: Rollers shall be steel wheel, pneumatic tire, vibratory or a combination of these types. They shall be in good condition and capable of reversing without backlash.

a) Steel Wheel Rollers: Steel wheeled rollers shall have a minimum gross static weight of 10 tons for static rollers and 8 tons for vibratory rollers with a minimum static weight on the drive wheel of 250 pounds per inch of width. For finish rolling a 6-ton minimum gross static weight is acceptable and the 250 pounds per inch of width will not be required.

b) Vibratory Rollers: Vibratory rollers shall be equipped with amplitude and frequency controls and shall be specifically designed for compaction of asphalt concrete mixture. The rollers shall be capable of frequencies of not less than 2,000 vibrations per minute.

c) Pneumatic Rollers: The pneumatic-tired rollers shall be self-propelled, tandem or multiple axle, multiple wheeled with smooth-tread pneumatic tires. The tires shall be of equal size and staggered on the axles at spacings and overlaps that will provide uniform compacting pressure for the full compacting width of the roller. Ground pressures shall be at least 80 pounds per square inch of tire contact area. Pneumatic-tired rollers shall be fully skirted to insulate the tires from significant heat loss during compaction.

10. Preparation of Foundation: All bases and foundations on which the pavement is to be constructed shall meet the applicable specifications and be approved prior to the start of paving. Existing bases and foundations shall be reconditioned as specified.

Broken or ragged edges of existing paved surfaces underlying or abutting the new pavements shall be trimmed back to firm material. Surfaces against which asphalt concrete is to be placed shall be treated with an asphalt tack coat of emulsified asphalt or asphalt cement as specified in Sections 14-7 B. and 14-7 C. of this document, with the exception of concrete curbs.

11. Asphalt Concrete Storage: Storing or holding of hot asphalt concrete mixture in open stockpiles will not be permitted.

12. Delivery, Storage and Handling of Aggregates: During production, hauling and storage, aggregates shall be handled in a manner that will prevent segregation of materials or intermingling of separate gradings or kinds of aggregates. Covers shall be used to protect the mixture when adverse weather or cold air temperature is encountered during hauling.

13. Control of Lines and Grades: The compacted thickness of the surface course shall be as shown on the plans unless otherwise directed by the Engineer. The line and grade shall be controlled by a multi-footed ski of a length and sensitivity that will control the paver to the grade specified.

14. Spreading, Temperature Control and Finishing:

a) Spreading:

1) General: Asphalt pavers conforming to subsection 14-2 C.8. shall be used to distribute the mixture. The Contractor shall adjust mix delivery timing to allow proper compaction of the mix and as much as possible, eliminate stopping or slowing down the paver.

In areas where patching, irregularities or unavoidable obstacles make the use of specified equipment impracticable, the mixture may be spread with other equipment approved by the Engineer.

2) Dropoffs: When placing asphalt concrete pavement under traffic in courses in excess of a 2-inch thickness, work shall be scheduled so that at the end of each working shift the full width of the area being paved, including shoulders, shall be complete to the same elevation with no longitudinal drop-offs.

When placing asphalt concrete pavement under traffic in courses between 1 and 2 inches in thickness, work shall be scheduled so that at the end of each working shift a strip of new pavement shall not extend beyond the adjoining strip of new pavement more than the distance normally covered by each shift. Prior to any suspension of operations for a period of one day or more, the full width of the area to be paved, including shoulder, shall be completed to the same elevation with no longitudinal drop-offs.

The transverse drop-off at the end of each strip shall be feathered out in accordance with subsection 14-7 C.15.

Where abrupt or sloped drop-offs occur within or at the edge of the paved surface, the Contractor shall provide suitable warning signs.

3) Construction Joints: The width of pavement strips shall be adjusted to minimize the number of longitudinal joints required. The longitudinal joints in one layer shall offset those in the layer immediately below by a minimum of 6 inches.

b) Temperature of Mixture: The temperature of the mixture at the time it is placed in final position shall be between 250°F and 300°F.

c) Finishing and Details: Segregation of materials, non-uniform texture, fouled surfaces preventing full bonding between lifts of mixture, and other defects determined by the Engineer as detrimental, shall be corrected by the Contractor.

d) Manholes, Water Valves, Catch Basins, etc.: When a manhole, water valve riser, or monument box is in line with the course being constructed, the paver shall continue over and past the manhole, water valve or monument box. If deemed necessary by the project Engineer to prevent the asphalt from adhering to manholes, water valves and monument boxes, they shall be covered with building paper. Water valves, monument boxes, and manholes will be reset to finished grade by City forces at a later date.

The approaches into all catch basins shall be sloped gradually and uniformly. Abrupt drop-offs into catch basins will not be allowed.

The Contractor shall protect the cut edges of existing asphalt from damage by equipment being driven over the edges by the use of planking, gravel or other accepted methods.

All joints shall be raked to produce a smooth, even joint, and all coarse material raked off shall be wasted. All joints, when finished, shall be smooth without bumps or depressions.

15. Transverse Joints: On wearing courses, pavement depth, line and grade shall be maintained at least 4 feet beyond the selected transverse joint location. On all courses, a sloped end section shall be constructed. If subject to traffic, the end section shall be sloped at not steeper than 2%. If not subject to traffic, the end section shall be sloped at not steeper than 10%.

When paving is not expected to continue from the transverse joint until the following day or later, paper or other suitable material shall be placed under the material ahead of the transverse joint location. Dirt joints will not be acceptable.

Prior to continuing the permanent paving lift, the contractor shall remove the material beyond the joint to a vertical face against which paving will resume. The base shall be cleaned of all debris. A tack coat shall then be applied to the vertical edge and surface of the exposed area before paving is continued.

After placement and finishing of the new asphalt concrete, both sides of the joint shall be compacted to the specified density. The joint surface shall conform to the requirements of subsection 14-7 E.

When delays cause the paver to stop during the paving operation and the unrolled asphalt temperature behind and under the machine drops below 180°F, the Contractor shall construct a transverse joint and remove all non-compacted material either on the street or in the paver that is below 180°F.

16. Thickness and Number of Layers: The compacted thickness of the wearing course shall generally be 3", unless otherwise directed by the Engineer.

D. Compaction: Immediately after the asphalt concrete mixture has been spread, struck off and surface irregularities and other defects remedied, it shall be thoroughly and uniformly rolled until the mixture is compacted.

No load shall be sent out so late in the day as to prevent the spreading and compacting of the mixture during daylight, unless artificial light satisfactory to the project Engineer is provided.

1. General: The type, number and weight of rollers shall be sufficient to compact the mixture while it is still within the specified temperature range. Rollers shall not be operated in vibratory mode when the temperature of the mixture has dropped below 180°F.

Steel roller wheels shall be moistened with water or other approved material to the least extent necessary to prevent pickup of mixture and not cause spotting or defacement of the surface of the mixture.

Rollers shall be operated at speeds recommended by the roller manufacturer and slow enough to avoid displacement of the mixture. The maximum speeds shall be 3-5 miles per hour for vibratory rollers, static steel-wheeled rollers and pneumatic-tired rollers.

Care shall be exercised not to displace the line and grade of edges. Displacement of any course occurring as a result of the reversing of the direction of a roller, or from other causes, shall be corrected at once by the use of approved rakes and addition of fresh mixture when required.

Any mixture that becomes loose and broken, contaminated, segregated, or is in any way defective, shall be removed and replaced with new mixture.

Finish rolling shall continue until all roller marks are eliminated.

Along curbs and walls, on walks, irregular areas, and other areas not practicably accessible to specified rollers, the mixture shall be compacted with approved self-propelled rollers, mechanical tampers, hot hand tampers, or heavy hand rollers. On depressed areas, a trench roller may be used or cleated compression strips may be used under the roller to transmit compression to the depressed area.

2. Target Density: The following test procedures must be adhered to:

Testing: Testing will be conducted by COBC or an independent firm retained by COBC to conduct materials and density testing on the project. The Contractor shall provide access to the work and any materials to be incorporated into the work as necessary for COBC to conduct testing as required by these specifications or as directed by the Engineer.

Construction of Initial Point and Control Strip: A control strip shall be constructed and tested at the beginning of the work on each lift of pavement. Each control strip shall be part of the roadway and the material shall be placed to the specified width and thickness. The minimum length of the control strip shall be 200 feet. Materials used in the construction of the control strip shall be of the type and from the same source as the remainder of the course represented by the control strip.

The asphalt concrete mix provided must be within mix design gradation and asphalt tolerances. It must also conform to lay down temperatures as specified.

Rollers used in the compaction of the initial point in the control strip shall conform to the requirements of 14-7 C.9. Roller speed shall conform to 14-7 D.1. Compaction of the control strip shall be performed while the mixture is in proper condition and when the rolling does not cause undue displacement, cracking or shoving. Compaction of the initial point in the control strip shall continue until

no increase in density is obtained by addition roller coverage. All breakdowns and immediate compaction shall normally be performed while the temperature of the mixture is above 180°F. Finish rolling shall continue until all roller marks are eliminated.

Testing of Control Strip: The density of the control strip will be determined by averaging the final results of five density tests taken by the City with a nuclear gauge at randomly selected sites within the control strip and shall become the target density. The supplier shall furnish the project Engineer with sufficient No. 10 minus filler material to perform the density tests with a nuclear gauge. The filler shall be manufactured from the same aggregate used in the asphaltic concrete.

E. Pavement Smoothness: The wearing surface of the asphalt concrete pavement shall not vary by more than 0.02 feet when tested with a 10-foot straightedge either parallel with or perpendicular to the centerline. Non-wearing courses shall not vary by more than 0.04 feet when tested with the 10-foot straightedge either parallel with or perpendicular to the centerline.

The joint between the pavement and the top surface of utility structures, such as valve boxes located in the traveled way, shall meet the pavement surface tolerances.

The surface of the finished pavement shall be within 0.02 feet of the specified line, grade and cross section. The surface of non-wearing courses shall be within 0.04 feet of the specified line, grade and cross section.

The contractor shall correct any surface tolerance deficiency using a method approved by the City.

F. Special Protection Under Traffic: No traffic or equipment shall come in contact with the compacted mixture until it has cooled and set sufficiently to prevent displacement or marking. Edges shall be protected from being broken down, and edge drop-offs 1 inch or more in height shall be marked with warning devices visible by day and night to the traveling public and placed at spacing as directed by the Engineer.

G. Sampling and Testing: The Contractor is responsible for process control and shall conduct sampling, testing, measurement and inspection as necessary to insure the finished pavement meets specifications.

The City will determine the suitability of the final product through final acceptance testing.

1. Aggregate Gradation and Asphalt Content: The City may take samples from the grade on a random basis for testing by the Engineer.

2. Compaction Acceptance Testing: Compaction acceptance testing is the responsibility of COBC. Tests will be taken at an interval of one test per panel per 300 feet, or a minimum of three per course per project, whichever is greater, unless additional testing is requested by the Engineer. The average compaction for each course shall not be less than 98% of the target density as determined according to 14-7 D.2.

3. Pavement Thickness: The final compacted pavement thickness shall be 3" unless otherwise directed.

4. Certification: The Contractor shall furnish the City with a certified summary from the asphaltic concrete mix supplier. The summary shall state the mix design including asphalt cement type and percentage of asphalt cement. The certification shall also state the total tons of asphaltic concrete placed on each lift of the project.

H. Measurement: Measurement of Class 'C' Asphaltic Concrete, In Place, shall be by the Ton of asphalt concrete placed and accepted on the project. Measurement shall be by certified scale of each truck load delivered to the job site. Any load not totally used on the project shall be re-weighed for deduction in order to determine the final pay quantity. For the purpose of this measurement, a ton shall be construed to be 2,000 pounds.

I. Payment: The accepted quantity of Class 'C' Asphaltic Concrete, In Place, will be paid for at the contract unit price per Ton, rounded to the nearest 0.01 ton. Payment made will be considered payment in full for furnishing and placing all materials, and for furnishing all equipment, labor, water, tools, hauling, rolling, and incidentals necessary to complete the work as specified. The tack coat and any necessary traffic control are considered incidental to the paving work and no additional payment for these items will be made.

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for the current
prevailing wage
rate information.**