PROJECT DOCUMENTS

REBID BRIDGE REPAIR PROJECT
WEST 44TH AVE OVER CLEAR CREEK
B-01-19
ITB-20-04
JANUARY 13, 2020

Prepared by:
DEPARTMENT OF PUBLIC WORKS
CONSTRUCTION DIVISION

CITY OF WHEAT RIDGE
7500 W. 29TH AVENUE
WHEAT RIDGE, CO 80033
(303) 235-2861 Engineering
(303) 235-2857 (FAX)

The engineering material and data contained in these Project Documents were prepared under the supervision and
direction of Russ Higgins, PE, Field Supervisor.
# TABLE OF CONTENTS

INVITATION TO BID ................................................................. 3  
INFORMATION FOR BIDDERS .................................................. 4  
GENERAL PROVISIONS ............................................................. 8  
DOCUMENTS REQUIRED TO BE SUBMITTED WITH BID  
   BIDDER ACKNOWLEDGEMENT FORM ................................... 16  
   CONTRACTORS QUALIFICATION FORM ................................. 17  
   LIST OF SUBCONTRACTORS AND AMOUNT .......................... 24  
   NON-DISCRIMINATION ASSURANCE FORM ......................... 25  
   ILLEGAL ALIEN COMPLIANCE FORM ................................. 26  
   NON COLLUSION AFFIDAVIT .............................................. 27  
   KEEP JOBS IN COLORADO FORM ....................................... 28  
   PROPOSAL FORM .......................................................... 29  
   PRICING SCHEDULE ........................................................ 30  
   BID BOND FORM ............................................................ 33  
SAMPLE AGREEMENT & FORMS ............................................ 34  

CDOT STANDARD SPECIAL PROVISIONS  
   Section 103 – Colorado Resident Bid Preference ...................... 43  
   Section 106 – Buy America Requirements – Non-Federal Aid .... 43  
   Sections 107 and 208 – Water Quality Control under One Acre of Disturbance .... 44  
   Section 109 – Asphalt Cement Cost Adjustment ...................... 47  
   Section 601 – Structural Concrete ....................................... 48  
   Section 630 – Barrier (Temporary) ....................................... 60  

CITY PROJECT SPECIAL PROVISIONS  
   Section 101 – Definitions and Terms ..................................... 61  
   Section 102 – Bidding Requirements and Conditions ............... 63  
   Section 103 – Award and Execution of Contract ...................... 65  
   Section 104 – Scope of Work ............................................. 65  
   Section 105 – Control of Work ............................................ 66  
   Section 106 – Control of Material ......................................... 68  
   Section 107 – Legal Relations and Responsibility to Public ....... 69  
   Section 108 – Prosecution and Progress ................................ 69  
   Section 109 – Measurement and Payment ............................. 70  
   Section 201 – Clearing and Grubbing ................................... 71  
   Section 202 – Removal of Structures and Obstructions ............. 71  
   Section 206 – Excavation and Backfill for Structures ............... 72  
   Section 208 – Erosion Control ............................................ 73  
   Section 304 – Aggregate Base Course ................................... 74  
   Section 403 – Hot Mix Asphalt ........................................... 75  
   Section 601 – Structural Concrete ....................................... 75  
   Section 614 – Traffic Control Devices ................................... 77  
   Section 627 – Pavement Marking ......................................... 78  
   Section 630 – Construction Zone Traffic Control ..................... 78  
   Section 713 – Traffic Control Materials ................................. 79  
   Section 720 – Materials Sampling and Testing ....................... 79  

DRAWINGS (if applicable)  
ADDENDA (if applicable)
INVITATION TO BID
ITB-20-04
REBID - BRIDGE REPAIR PROJECT
WEST 44TH AVE OVER CLEAR CREEK
CITY OF WHEAT RIDGE

Bid Due Date: Thursday, February 6th, 2020 by 2:00 PM our clock. Public Opening: City Hall, 7500 W. 29th Avenue, Wheat Ridge, CO.

Project Number: B-01-19

Scope of Work: Provide all labor, equipment and materials for a bridge rehabilitation project that includes replacing the existing expansion devices and repairing a pier cap. The expansion device in the middle of the bridge will be eliminated and the bridge expansion devices on each end of the bridge will be replaced. The bridge cannot be closed; two-way traffic will be maintained on the bridge at all times. Four lanes of traffic shall be maintained during the Carnation festival July 31st through August 10th. A 404 permit has been submitted for this project. Approximate quantities include: 136 LF of bridge expansion device, 11,730 LB of Epoxy coated reinforcing steel, 95 SY of asphalt removal, 31 Tons of asphalt. Cost Range is $300,000 to $350,000. Anticipated start date is March. Completion time is approximately 120 working days. A pre-bid conference will not be held for this project.

Deadline for Questions: January 27st, 2020 by 3:00 PM

Contractor Qualification: Bidder must complete and submit the Contractor Qualification Form provided with the bid document. Failure to complete this form and submit with bid may result in the disqualification of the contractor. The City’s acceptance of this bid shall be based on information provided by the contractor in this form. Bid amount and qualifications are evaluated subsequent to bid opening to determine the successful bidder. The City does not pre-qualify contractors. On federally funded projects, Contractor cannot be banned or debarred, per current sam.gov information at www.sam.gov.

Disadvantaged Businesses: Disadvantaged business enterprises are afforded full opportunity to submit bids and will not be discriminated against on the grounds of race, color or national origin in consideration for an award.

Labor Compliance: Contractors shall comply with the amended provisions of CRS 8-17.5-101 and requirements of the Keep Jobs in Colorado Act, H.B. 13-1292 and CRS 8-17-101 et seq., regarding employment of illegal aliens and Colorado laborers to perform on public contracts.

Bid Bond: A 5% bid bond is required to be submitted with the bid. Payment and performance bonds for 100% of the contract price and insurance will be required for the successful bidder.

Submit Sealed Bids to: City of Wheat Ridge Municipal Building
Attn: Kirby Hollums
7500 W 29th Avenue, Purchasing & Contracting Division
Wheat Ridge, CO 80033

Mark Sealed Envelopes: ITB-20-04, Rebid - Bridge Repair Project West 44th Ave over Clear Creek

Comments: All bids will be validated. No bids will be accepted after the bid due time. Bids received after the bid opening time will be filed unopened. The City of Wheat Ridge reserves the right to reject any and all bids or any part and to waive any formalities or informalities to make an award in the best interest of the City.

Bid Documents: Available on the Rocky Mountain E-Purchasing System (a division of BidNet) at www.rockymountainbidsystem.com (800-835-4603 option #2) and the City website at www.ci.wheatridge.co.us. Visit the City website for bid tab sheets and project updates.

Point of Contact: Kirby Hollums, Buyer II, khollums@ci.wheatridge.co.us, or phone 303-235-2885. Do not contact the requesting department.

Kirby Hollums, Buyer II

Publish Dates:
City website: January 13
Daily Journal: January 13 & January 20, 2020
**INFORMATION FOR BIDDERS**

1.0 BID SUBMISSION REQUIREMENTS

1.1 Sealed Bids for ITB-20-04, REBID Bridge Repair Project West 44th Ave over Clear Creek, B-01-19 will be received by the City of Wheat Ridge, Office of the Purchasing Agent, 7500 W. 29th Avenue, Wheat Ridge, CO 80033, as stated in the Advertisement. Bid opening date is set for Thursday, February 6th, 2020 by 2:00 PM our clock at which time bids will be publicly opened and read aloud.

Questions about this bid shall be referred to Kirby Hollums, Buyer II, 303- 235-2885, or by email, khollums@ci.wheatridge.co.us

1.2 Bid Documents are available on the Rocky Mountain E-Purchasing System (a division of BidNet) at www.rockymountainbidsystem.com (800-835-4603 option #2) and the City website at www.ci.wheatridge.co.us.

The City does not assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of bidding documents.

The City in making copies of the bidding documents available on the terms in this Project Manual does so only for the purpose of obtaining bids on the work and does not confer a license of grant for use.

1.3 Two (2) copies of the Project Document/Proposal must be submitted and signed. Single copies of the original bid bond will be accepted. All blank spaces for prices must be filled in, in ink or typewritten, and the Proposal Form must be fully completed and executed when submitted. In the case of discrepancies, the unit price shall govern the extension and subsequent total. No alteration in bid prices by erasures, deletions or strike-outs, will be acceptable unless each alteration is signed or initialed by the Bidder. A conditional or qualified Bid will not be accepted.

The Project Documents contain an affidavit certifying that the Bidder has not participated in any collusion or taken any action in restraint of free competitive bidding. This form must be signed and submitted with the Bid.

Names of all subcontractors and the amounts of their subcontract work shall be provided on the List of Subcontractors, as provided in this bid. If none, state “none”.

1.4 Bids may be mailed or delivered in person, but must be in a sealed envelope. The envelope should bear on the outside the name of the project for which the Bid is submitted. No bids will be accepted after the date and time established above, except by written addendum.

1.5 Each Bid must be accompanied by a Bid Bond payable to the City for five percent (5%) of the total amount of the Bid. A certified check or cashier's check payable to the City of Wheat Ridge may be used in lieu of a Bid Bond. Securities may not be substituted for Bid Bonds.

Attorneys-in-Fact who sign Bid Bonds must file with each Bond a certified and effective dated copy of their Power of Attorney.

Surety companies executing bid and performance bonds must appear on the Treasury Departments most current list (Circular 570 as amended) and be authorized to transact business in the State of Colorado.

1.6 A bidder may withdraw or revise a proposal after it has been deposited with the City. Withdrawal of bids may be made either in writing or in person; however, any bid withdrawn for purpose of revision must be re-deposited with the City before the time set for opening of bids. Bids may not be withdrawn after the time set for opening of bids.

1.7 The City assumes no responsibility for late deliveries of mail on behalf of the United States Post Office. Only sealed bids received by the Purchasing & Contracting Division will be accepted. Bids submitted by telephone, facsimile machine, or by other electronic means are not acceptable.

In the event of a situation severe enough to cause the City Council to close its offices for any reason, the Purchasing Agent has the prerogative of rescheduling the bid opening time and date. No bidder will be considered above all other bidders by having met the bid opening time and date requirements to the exclusion of those who were unable to present their bid due to the closing of City offices.

1.8 Issuance of this Request for Bid does not commit The City of Wheat Ridge to award any contract or to procure or contract for any equipment, materials, or services. The City further reserves the right to waive informalities or irregularities, and the right to accept or reject any and all bids, including but not limited to, any bid which does not meet bonding requirements, or bids which do not furnish the quality, or offer the availability of materials, equipment or services as required by the specifications, description or scope of services, or bids
from bidders who lack experience or financial responsibility, or bids which are not to form, or to award bids to the lowest and most responsive and responsible bidder, or to require new bids.

No award will be made to any person, firm, or corporation that is in arrears upon any obligation to the City.

1.9 The City of Wheat Ridge is exempt from City, County, State and Federal Sales/Excise Taxes. Certificates will be issued upon request.

2.0 BID DOCUMENTS

2.1 The Contract Documents consist of the Contract Bid Documents including construction specifications, if any. The Contract Bid Documents contain the provisions required for the bidding and construction of the Project. The Owner shall provide to Bidders, prior to Bidding, all information that is pertinent to, and delineates and describes, the Work. This may occur on the plans or on a separate document.

2.2 Each Bidder is responsible for inspecting the site and for reading and being thoroughly familiar with the Contract Documents, including Addenda. The failure or omission of any Bidder to do any of the foregoing shall in no way relieve any Bidder from any obligation in respect to his Bid. After Bids have been submitted, the Bidder shall not assert that there was a misunderstanding concerning the quantities of Work or of nature of the Work to be done or any materials specified for the Work.

2.3 If it should appear to a Bidder that the work to be done or matters relative thereto are not sufficiently described or explained in the Contract Documents or that the Contract Documents are not definite and clear, the Bidder may make written inquiry regarding same to the Purchasing Agent at least five (5) working days or a designated date set by the Purchasing Agent, before the scheduled closing time for filing Bids. Then, if in the judgment of the Purchasing Agent, additional, information or interpretation is necessary, such information will be supplied in the form of an Addendum, and will be delivered to all individuals, firms and corporations who have received the Contract Documents. Such Addendum shall have the same binding effect as though contained in the main body of the Contract Documents. Oral instructions or information concerning the contract documents or the project given out by officers, employees or agents of the owner to prospective bidders shall not bind the owner. If no request is made in the five working days or the designated time, Bidder waives right to any conflict in the Contract Documents.

2.4 All applicable laws, ordinances and the rules and regulations of all authorities having jurisdiction over construction of the Project shall apply to the Contract throughout. Further, the Bidder agrees to abide by the following federal requirements: Executive Order No. 11246 as amended, including specifically the provisions of the Equal Opportunity Clause, the Immigration Reform and Contract Act of 1986 and the Americans with Disabilities Act of 1991.

As a recipient of Federal funds, subject to United States Department of Transportation Title VI Regulations at 49 CFR Part 21 the Civil Rights Act of 1964, the City of Wheat Ridge, and its responsible agents, contractors and consultants assure that no person shall on the grounds of race, color, or national origin be excluded from participation in the opportunity to bid, or be discriminated against in consideration of award of this project. Disadvantaged business enterprises will be afforded full opportunity to submit bids in response to all invitations subject to the Regulations. The United States has a right to seek judicial enforcement with regard to any matter arising under Title VI, 49 CFR Part 21 and assurances.

2.5 Bidder must complete and submit the Contractor Qualification Form provided with the bid document. Failure to complete this form and submit with bid may result in the disqualification of the contractor. The City’s acceptance of this bid shall be based on information provided by the contractor in this form. Bid amount and qualification shall be evaluated subsequent to bid opening to determine the successful bidder. The City does not pre-qualify contractors.

3.0 CONTRACT AWARD

3.1 The Owner may make such investigations as deemed necessary to determine the ability of the Bidder and Subcontractors to perform the Work, and the Bidder shall furnish to the Owner all such information and data for this purpose as the Owner may request. The Owner reserves the right to reject any Bid if the evidence submitted, or investigation fails to satisfy the Owner that such Bidder or any Subcontractor is properly qualified to carry out the obligations of the Agreement. If the owner rejects any Subcontractor as unqualified, the Bidder may substitute another Subcontractor for approval by the Owner but no change to the Bid Price will be allowed.

3.2 The Award of Contract, is anticipated, within 60 calendar days after the opening of bids to the lowest most responsive, responsible qualified bidder whose bid complies with all the requirements of this request for bids. Evaluation and award will only include the alternate if the base bid and the alternate price combined are within
the advertised cost range. If more than one alternate, the order or the selection of the alternates for award is at the discretion of the City. Award is in the best interest of the City.

3.3 The successful bidder shall be notified of the recommendation for award and to provide two (2) signed agreements, insurance and bonds. A Performance Bond and Payment Bond, each in the amount of 100 percent (100%) of the Contract Price, with a corporate surety approved by the Owner, will be required for the faithful performance of the Contract. Securities may not be substituted for Payment or Performance Bonds. Attorneys-in-Fact who sign Payment and Performance Bonds must file with each Bond a certified and effective dated copy of their Power of Attorney.

3.4 The successful bidder shall return the two copies of the executed Agreement and one acceptable Performance and Payment Bonds by a designated date. In case the Bidder fails to comply by the designated date or if the Bidder fails to provide acceptable bonds, the Owner may, at its option, consider the Bidder in default, in which case the Bid Bond accompanying the Proposal (Bid) shall become the property of the Owner.

3.5 The Owner, within 14 calendar days of receipt of the requirement stated in 3.3 above, shall execute the Agreement and issue the Notice to Proceed at a pre-construction meeting with the Contractor. If the Owner cannot issue the Notice to Proceed within such time period, the time period will be extended by mutual agreement between the Owner and Contractor. If the Notice to Proceed has not been issued within the 14 calendar day period or within the period mutually agreed upon, the Contractor may terminate the Agreement, by Written Notice, without further liability on the part of either party.

3.6 Upon receiving notice of award, the Contractor may obtain from the City three sets of documents at no cost. Additional sets of drawings and specifications may be purchased on a cash sale basis from the City. The Contractor and the Owner will agree on the date that Work will commence which shall be within 14 calendar days of the date of the Notice to Proceed, unless a time extension is approved by the Owner.

3.7 Section 2-3 (a) – (e) of the City’s Code of Laws is presented below:

(a) Fiscal year. Fiscal year for the city shall commence on January 1 and end on December 31.

(b) Budget contains appropriations. The city council shall annually adopt a budget in a manner consistent with the provisions of Chapter X of the Home Rule Charter of the City of Wheat Ridge. Upon the annual adoption by the city council of each fiscal year’s budget, levels of authorized expenditures from the funds indicated within the annual budget itself and/or the adopting resolution shall constitute the appropriation of the amounts specified therein for the purposes specified therein. During the course of each fiscal year, approval by the city council of contracts for goods or services, and/or approval of bids for the provision of specified goods or services, shall likewise constitute appropriations of the amounts specified therein for the purposes specified therein.

(c) No contract to exceed appropriation. During each and any fiscal year, no contract entered into by or on behalf of the city shall expend or contract to expend any money, or incur any liability, nor shall any contract be entered into nor any bid be awarded by or on behalf of the city which, by its terms, involves the expenditure of money for any of the purposes for which provision is made either in the adopted budget or adopting resolution shall constitute the appropriation of the amounts specified therein for the purposes specified therein.

(d) Amendments and authorized expenditures. Nothing contained herein shall preclude the city council from adopting a supplemental appropriation in a manner consistent with the provisions of Section 10.12 of the Home Rule Charter of the city. Further, nothing contained in this section shall prevent the making of contracts for governmental services or for capital outlay for a period exceeding one (1) year if such contracts are otherwise allowed by the Home Rule Charter of the city; provided, however, any contract so made shall be executory only for the amounts agreed to be paid for such services to be rendered in succeeding fiscal years.

(e) Notice to parties contracting with the city. All persons contracting with, or selling goods or services to, the city are hereby placed upon notice of the provisions of this section. The provisions of this section shall become a part of the Merit System Personnel Rules and Regulations of the City of Wheat Ridge; shall be referred to specifically in all public works bid documents and contracts; and shall be incorporated into, and specially noted within, all other contracts entered into by or on behalf of the city wherein city funds are used to pay for said contract.
3.8 Section 2-4 of the City Code of Laws is presented below:

(a) The city may, by contract, require the contractor awarded a public works contract to waive, release or extinguish its rights to recover costs or damages, or obtain an equitable adjustment, for delays in performing such contract if such delay is caused, in whole or in part, by acts or omissions of the city or its agents, if the contract provides that an extension of time for completion of the work is the contractor's remedy for such delay. Such a clause is valid and enforceable, any provision of state law to the contrary notwithstanding.

(b) The city council, by this ordinance (Ordinance No. 812), declares its local contracting powers to be a matter of purely local concern, and further specifically intends to supersede, pursuant to its powers under Article XX of the Colorado Constitution, the provisions of Sections 24-91-101 and 24-91-103.5, C.R.S., insofar as they conflict with the provisions of this section of the Code of Laws of the City of Wheat Ridge, Colorado.

4.0 ANTICIPATED PROJECT SCHEDULE

<table>
<thead>
<tr>
<th>Item</th>
<th>Date/Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITB Issued</td>
<td>January 13 and January 20, 2020</td>
</tr>
<tr>
<td>Deadline for Questions</td>
<td>January 27, 2020 by 3:00 PM</td>
</tr>
<tr>
<td>Final Addendum Issued</td>
<td>January 31, 2020</td>
</tr>
<tr>
<td>Bid Due Date and Time</td>
<td>February 6, 2020 at 2:00 PM our clock</td>
</tr>
<tr>
<td>Council Action Form Due</td>
<td>February 14, 2020</td>
</tr>
<tr>
<td>City Council Meeting to Approve Award</td>
<td>February 24, 2020</td>
</tr>
<tr>
<td>Project Start Date</td>
<td>By March 31, 2020</td>
</tr>
<tr>
<td>Completion Date</td>
<td>By August 31st, 2020</td>
</tr>
</tbody>
</table>
1. DEFINITIONS:

"City" (also sometimes referred to as "Owner") means the City of Wheat Ridge, Colorado. The City is represented by employees who will assume Project administration, oversight, and inspection responsibilities as further defined in the Contract, the General and Special provisions, and the current edition of CDOT Standard Specifications for Road and Bridge Construction. At the time of the preconstruction meeting, or when requested by the Contractor, the City shall provide an official list of City representatives and their titles as applies to the Project.

"Contractor" means the person, partnership, firm or corporation responsible for the physical accomplishment of the project.

"Subcontractor" means only those having a direct contract with the Contractor and includes one who furnished materials worked to a special design according to the plans or specifications for the work under the Contract, but does not include one who merely furnishes material not so worked.

"Notice" means written demand, instruction or order duly served. Written notice shall be deemed to have been duly served if delivered in person to the Contractor, or if delivered in person or sent by registered mail to the address given in the Contract and shall have been duly served upon the City if delivered to the City Clerk of the City of Wheat Ridge, Municipal Building, Wheat Ridge, Colorado, either in person or by registered mail.

"Work" means performance of the Contractor or Subcontractor including labor and materials and all services incidental thereto.

"Cost" means all charges and expenditures of every kind applicable to the accomplishment of the work.

"Final Completion" means when all items are one hundred percent (100%) complete and when all known defective work has been corrected as certified by the City Representative.

"Substantial Completion Date" is the date on which the City Representative certifies the readiness of the work for beneficial occupancy or use, and is the date for terminating liability for liquidated damages and for determining incentive payments due for early completion.

2. MATERIALS, SERVICES, AND FACILITIES:

The Contractor shall and will, in good workmanlike manner, do and perform all work and furnish and pay for all labor, superintendence, material, utilities, machinery, equipment, tools, transportation, facilities, temporary construction of every nature and all other services and facilities of every nature, except as herein otherwise expressly specified, necessary or proper to perform and complete all the work, within the time stated, in accordance with the plans, drawings and specifications covered by the Contract, and any and all supplemental plans, drawings and specifications. He shall furnish, erect, maintain and remove such construction plant and such temporary works as may be required. It will be the responsibility of the Contractor to locate/negotiate a staging area. The City will not provide a staging area on City owned property. Any work necessary to be performed after regular working hours, on Saturdays, Sundays, or Legal Holidays, shall be performed without additional expense to the City.

3. CONTRACTOR’S TITLE TO MATERIALS:

No materials or supplies for the work shall be purchased by the Contractor or by any Subcontractor subject to any chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller. The Contractor warrants that he has good title to all materials and supplies used by him in the work, free from all liens, claims or encumbrances.

4. OBSERVATION AND TESTING:

All work performed and all workmanship, equipment and materials used in the construction shall be subject to Observation, examination and test, at any and all times during construction.

5. WEATHER CONDITIONS:

In the event of temporary suspension of work, or during inclement weather or whenever the City shall direct, the Contractor will, and will cause his Subcontractors to, protect carefully his and their work and materials against damage or injury from weather. If, in the opinion of the City, any work or materials shall have been damaged or injured by reason of failure on the part of the Contractor or any of his Subcontractors to so protect his work, such materials shall be removed and replaced at the expense of the Contractor.
6. **EMERGENCY - PROTECTION OF LIFE AND PROPERTY:**

In case of an emergency which threatens loss of injury or property, and/or safety of life, the Contractor is hereby permitted to act at his own discretion and in a diligent manner without prior instructions from the City to prevent the threatened loss or injury. He shall notify the City immediately thereafter. Any claim for compensation by the Contractor due to such extra work shall be promptly submitted in writing to the City for approval. The amount of any reimbursement claimed by the Contractor shall be determined in the manner provided in Article 9 of this Contract.

7. **REPORTS, RECORDS, AND DATA:**

The Contractor shall submit to the City such schedule of quantities and costs, progress schedules, payrolls, reports, estimates, records and other data as may be requested concerning work performed or to be performed under this Contract.

8. **SUPERINTENDENCE BY CONTRACTOR:**

At the site of the work, the Contractor shall employ a construction superintendent or foreman who shall have full authority to act for the Contractor. It is understood that such Representative shall be acceptable to the City and shall be one who can be continued in that capacity for the particular job involved unless he ceases to be on the Contractor's payroll. All directions given to such Representative in the Contractor's absence shall be as binding as if given to the Contractor.

9. **CHANGES IN THE WORK:**

The City may, at any time, by written order and without notice to the sureties, require the performance of extra work or make changes by altering, adding to, or deducting from the work. The amount of compensation to be paid to the Contractor shall be adjusted accordingly without invalidating the Contract and in accordance with whichever of the following plans the City elects: (1) a price agreed upon, (2) a price based on unit prices of the Contract; or (3) a price determined by adding fifteen percent (15%) to the reasonable cost of the extra work, addition, alteration, or deduction; provided however, that no additions to the Contract Price shall be agreed upon by, or shall be binding upon the City if the effect of said price increase is to increase the Contract amount beyond the amount of money appropriated by the City Council, as specified in Section 2-3 of the Code of Laws of the City of Wheat Ridge.

In giving instructions, the City may authorize minor changes in the work, not involving extra cost and not inconsistent with the purpose of the project. Otherwise, except in an emergency endangering life or property, no extra work or change shall be made unless in pursuance of a written approved Change Order or RFI response by the City.

10. **TIME EXTENSIONS:**

The Contractor shall, within seven (7) days from the beginning of any delay, notify the City, in writing, of the causes thereof and the City shall ascertain the facts, the extent of the delay and notify the Contractor of the decision in the matter.

The completion time shall be extended when delay in completion of the work by the Contractor is due to unforeseeable causes beyond his control and without his fault or negligence, including, but not restricted to, acts of God or the public enemy, acts or neglect of the City, acts of neglect of any other contractor, fires, floods, epidemics, quarantine restrictions, strikes, riots, civil commotions or freight embargoes. The time of completion of his work shall be extended by such time as shall be fixed by the City.

No such extension of time shall be deemed a waiver by the City of its right to terminate the Contract for abandonment or delay by the Contractor as herein provided or relieve the Contractor from full responsibility for performance of his obligations hereunder. The City's liability for delay shall be limited pursuant to the provisions of Section 2-4 of the Code of Laws of the City of Wheat Ridge and shall be limited to granting a time extension to the Contractor.

11. **DEFECTIVE WORK:**

The observation of the work by the City shall not relieve the Contractor of any of his obligations to fulfill his Contract as herein prescribed, and defective work shall be made good, and unsuitable materials may be rejected, notwithstanding that such work and material have been previously overlooked by City representative(s) and accepted or estimated for payment or paid for. If the work or any part thereof shall be found defective or at any time before the final acceptance of the whole work, or the final payment therefore, the Contractor shall forthwith make good such defect in a manner satisfactory to the City and if any material brought upon the ground for use in the work, or selected for the same, shall be condemned by the City as unsuitable, the Contractor shall forthwith remove such materials from the vicinity of the work and shall replace, at his own expense, damaged or unsuitable materials with the new materials of satisfactory quality.
Neither the foregoing nor any provision of these Contract Documents, nor any special guarantee time limit, shall be held to limit the Contractor’s liability for defects to less than the legal limit of liability in accordance with the law of the place of the construction.

The Contractor shall pay the City all expenses, losses, and damages as determined by the City incurred in consequence of any defect, omission, or mistake of the Contractor or his employees or the making good thereof.

12. UNEXPECTED UNDERGROUND STRUCTURES; CHANGE OF CONDITIONS:

Should the Contractor encounter underground structures at the site materially differing from those shown on the Plans or indicated in the Specifications, he shall immediately give notice to the City of such conditions before they are disturbed. The City will thereupon promptly investigate the conditions, and if it is determined that they materially differ from those shown on the Plans, may authorize changes to be made to the Plan and/or Specifications as may be necessary.

It is understood and agreed that the Contractor has considered in his bid all of the permanent and temporary utility appurtenances in their present or relocated position as shown on the plans and that additional compensation will not be allowed except for any unreasonable delays, or damage sustained by him due to any interference from the said utility appurtenances. Unreasonable delays shall constitute delays caused by a complete shutdown of all operations. It is understood that utilities are not owned, operated or controlled or subject to control by the City of Wheat Ridge. Relocations of facilities owned by said utilities are not a matter over which the City has control. The Contractor shall adjust his schedule in anticipation of such delays so that work in other areas may be completed away from the area of utility conflict.

The locations of all utilities shown on the Project plans should be considered approximate. It is therefore the responsibility of the Contractor to notify the appropriate utility and obtain more precise locations. No compensation will be made to the Contractor for any damage, delay or additional cost incurred as a result of failure to obtain utility locations.

Information on the Plans in the Contract Documents referring to the existence of utilities or other underground structures is not guaranteed to be correct or to be a complete representation of all existing data. Every effort has been made, however, to make this information complete and accurate on the basis of all data and information which could be procured by the City. The Contractor shall make his own examination and shall draw his own conclusions as to the underground facilities which will be encountered, and he shall have no claim for damages of any kind on account of any errors, inaccuracies or omission that may be found.

There shall be no adjustment in Contract Price based on changed site conditions. The Contractor is required hereby to make an on-site inspection and investigation, which includes determination of location of utilities and said and other natural conditions. Representations regarding site and soil conditions and utility locations are based on the best information available to the Owner and final determination as to both site and soil conditions and utility locations is left to the Contractor, without recourse to the City. The City shall allow reasonable and necessary access to the site to Contractor and his representatives to make such determination and site review.

13. CLAIMS FOR EXTRA COSTS:

No claim for extra work or cost shall be allowed unless the same was done in pursuance of written order of the City, as provided for in Article 9, and the claim was presented prior to the issuance of the final payment. When work is performed under the "reasonable cost" method as outlined in Article 9 of the General Conditions, the Contractor shall furnish satisfactory bills, payrolls and vouchers covering all items of cost, and when requested by the City, give the City access to accounts relating thereto.

No adjustments will be allowed for fuel cost of asphalt cement.

14. RIGHT OF CITY TO TERMINATE CONTRACT:

If (1) the Contractor or any of his Subcontractors shall be adjudged bankrupt or (2) if he shall make a general assignment for the benefit of his creditors or (3) if a receiver shall be appointed of his property, or (4) if the work to be done under this Contract shall be abandoned, or (5) if this Contract or any part hereof shall be sublet, without the previous written consent of the City, or (6) if the Contract or any claim thereunder shall be assigned by the Contractor otherwise than as herein specified, or (7) at any time the City shall certify in writing that the rate of progress of the work or any part thereof is unsatisfactory or (8) that the work or any part thereof is unnecessarily or unreasonably delayed, or (9) that the Contractor, his subcontractors, agents or employees have violated any of the provisions of this Contract, or of the plans and specifications, or construction schedule, the City shall notify Contractor and the Surety, and shall be entitled immediately to terminate the Contract. The Surety shall have the right to take over and perform the Contract, provided, however, that if the Surety does not commence performance thereof within ten (10) days from the date of the mailing to such Surety of notice of termination, the City may take over the work and prosecute the
same to completion by contract or by force account for the account and at the expense of the Contractor, and the
Contractor and his Surety shall be liable to the City for any excess cost occasioned the City thereby, and in such
event the City may take possession of and utilize in completing the work, such materials, machinery, appliances and
plant as may be on the site of the work and necessary therefore. The Contractor, by signing this Contract, gives to
the City in the event of default, right to use such aforesaid articles to the full extent which they could be used by the
Contractor. The City shall not be liable to the Contractor for trespass or conversion.

All expenses charged under this article shall be deducted and paid for by the City out of money then due due to become
due the Contractor under this Contract or any part thereof, and in such account the City shall not be held to obtain the
lowest figures for the work of completing the Contract or any part thereof or for insuring its proper completion, but all
sums actually paid hereafter shall be charged to the Contractor and his Surety. In case the expenses so charged are
less than the sum which would have been payable under this Contract if the same had been completed by the
Contractor, the City shall be entitled to retain the difference and in case such expenses shall exceed the said sum, the
Contractor and his Surety shall pay the amount of the excess to the City upon completion of the work without further
demand being made therefore.

15. CONSTRUCTION SCHEDULE:
Before any work is begun, the Contractor shall provide to the City a written schedule detailing the order and manner of
doing the work. Before the first partial payment is made, the Contractor shall deliver to the City an estimated
construction progress schedule in form satisfactory to the City, showing the proposed dates of commencement and
completion of each of the various subdivisions of work required under the Contract. The Contractor shall provide an
updated schedule every two weeks.

16. PAYMENTS TO THE CONTRACTOR:
During the course of construction, the Contractor shall request payment of work actually performed during the
preceding month. The City will once each month make a progress payment to the Contractor on the basis of an
evaluation of the claim by the City as to amount of work done and that the City has received full value thereof. In
accordance with House Bill 11-1115, the City shall retain five percent (5%) of the value of the completed work.
Retainage shall be held until final completion and acceptance of all work, as part security for the fulfillment of the
Contract by the Contractor. The amount of the progress payments shall be the balance not retained as aforesaid, after
deducting all previous payments and all other sums to be kept or retained under the provisions of this Contract. The
Contractor shall have no right to either terminate the Contract or to claim damages if he considers partial payments
inadequate.

17. CERTIFICATE OF COMPLETION:
Upon completion of all work whatsoever required including completion of all known defective work, the City shall file a
written certificate with the Contractor as to the entire amount of work performed and compensation earned by the
Contractor including Extra Work and compensation therefore, and including the date of completion.

18. FINAL PAYMENT:
After the filing of the Certificate of Completion, the City shall pay to the Contractor in accordance with applicable
Colorado laws (Article 38, Chapter 26, Section 101 Et. Seq. Colorado Revised Statutes) and C.R.S. 38-26-107
(2012), upon authorization of funds disbursement by the City Council the amount therein stated, less all prior
payments and advances whatsoever, to or for the Account of the Contractor. All prior estimates and payments
including those relating to extra work shall be subject to correction by this payment.

19. PAYMENT WITHHELD:
The City, as a result of subsequent discovered evidence, may withhold or nullify the whole or a part of any payment to
such extent as may be necessary to protect the City from loss on account of:

(a) Defective work not remedied.
(b) Claims filed or reasonable evidence indicating probable filing of claim.
(c) Failure of the Contractor to make payments properly to Subcontractor or for material or labor, or to comply
with laws relative thereto.
(d) A reasonable doubt that the Contract can be completed for the balance then unpaid.
(e) Damage to another Contractor.
(f) Damage to the real or personal property of another and failure to repair or replace the same.

When the grounds for withholding payment have been corrected to the satisfaction of the City, the City shall proceed
to process any amounts due.
20. **FINAL PAYMENT TO TERMINATE LIABILITY OF CITY:**

The acceptance by the Contractor of the last payment made as aforesaid under the provisions of Article 19 shall operate as and shall be a release to the City, its officers, or agents from all claims and liability to the Contractor, his vendors, laborers or Subcontractors for anything done or furnished for, relating to, or for any act or neglect of the City or of any persons relating to, or affecting the work, except the claim against the City for the remainder, if any there be, of the amounts kept or retained as provided in Article 17, 19 and 20 of these. Said acceptance shall also operate as a general release of the City by the Contractor.

21. **EFFECT OF CERTIFICATION AND PAYMENT:**

Neither the certification nor payment made to the Contractor, not partial or entire use or occupancy of the work by the City shall be an acceptance of any work or materials not in accordance with the Contract. The making and acceptance of the final payment shall constitute a bar of all claims by the Contractor, except those previously made in writing and still unsettled.

22. **GENERAL WARRANTY:**

The Contractor shall guarantee the work against defective materials or workmanship for a period of one (1) year from the final completion date. Upon discovery of any defects including any damage to other work resulting, repair and replacement that is required, in the opinion of the City, shall be done immediately by the Contractor at the Contractor's expense. Should the Contractor fail to repair such defective material and/or workmanship, or to make replacement within five (5) days after written notice by the City, it is agreed that the City shall make such repairs and replacements and the actual cost of the required labor and materials shall be chargeable to and payable by the Contractor.

23. **INSURANCE:**

The Contractor shall maintain general liability and property damage insurance (the “Liability Policy”) to protect the Contractor and the City from any and all claims for damages including but not limited to claims for property damage and bodily injury, including death, which may arise from operations under this Contract, including the operations of subcontractors. The Liability Policy shall state that it is the primary insurance for such claims and shall not contain any “excess” or “other insurance” clauses which limit its application as the primary coverage for those claims. The Contractor shall be individually liable for any and all defects in the Liability Policy. The Liability Policy shall not be terminated or cancelled prior to the completion of this Contract without at least 45 days prior written notice to the City.

For bodily injury $500,000 each person/ $500,000 each accident/ $500,000 each disease
For property damage $1,000,000 for each occurrence
For automobile liability $1,000,000 combined single limit

In lieu of the foregoing, a single limit public liability policy for personal injury, property and/or vehicle damage will be accepted in the amount of $2,000,000.00.

Such insurance shall be without prejudice to coverage otherwise existing, and shall name as additional insured, the City of Wheat Ridge, its officers and employees.

Notwithstanding the naming of additional insured, the said policy shall protect each insured in the same manner as though a separate policy had been issued to each, but nothing herein shall operate to increase the insurer's liability as set forth elsewhere in the policy beyond the amount or amounts for which the insurer would have been liable if only one person or interest had been named as insured. A certificate evidencing such insurance, together with the proper endorsement, shall be filed, subject to approval as to the adequacy of protection.

Fire and Standard Extended Coverage Insurance -- The Contractor shall insure the work for 100 percent (100%) of the replacement value thereof for the life of the Contract against all loss or damage covered by the Standard Extended Coverage Insurance endorsement, including theft, vandalism, and malicious mischief, with an insurance company or companies acceptable to the City. The amount of the insurance may vary with the extent of the work completed but shall at all times be at least equal to the replaceable value of the amount paid for the work and materials installed and delivered plus the replaceable value of the work or materials furnished or delivered, but not yet paid for by the City. The insurance policy or policies shall be held jointly in the name of the City and Contractor as their respective interest may appear.

The issue, if any, shall be made adjustable with and payable to the City as a trustee for whom it may concern. Any payments made under such policy shall insure to the benefit of the City to the extent of balance for replacement of the loss suffered. The policy of insurance shall provide that it shall not be terminated or be canceled prior to the completion of this Contract. The Contractor shall be responsible for all damage to the work under construction, whether from fire, water, high winds or other cause during construction and until final completion and acceptance, even though partial payments or progress payments have been made under the Contract.
Workers' Compensation Insurance -- The Contractor shall provide workers’ compensation insurance coverage for all persons employed on the work to be done under the Contract and assure that all workers will receive the compensation for compensable injuries.

Certificates of Insurance shall be attached to the executed Contract Documents and shall become a part of the Contract. These Certificates shall include a provision that thirty (30) days prior to insurance cancellation, written notice shall be given to the City of Wheat Ridge.

Indemnification of City -- Contractor hereby indemnifies and agrees to hold the City and its representatives and agents harmless for and on account of any act or omission in the completion and execution of the project specified herein, which indemnification shall extend to and include any damage of whatever sort or description, suffered by any person or entity, and shall include compensatory, punitive or special damages; and Contractor agrees to defend City hereunder, at Contractor's sole expense and if he fails to do so, to thereafter indemnify City, in addition to the above indemnification, for all court costs and attorney fees incurred in any defense required to be undertaken by the City.

Notwithstanding the foregoing, nothing contained herein shall be deemed a waiver by the City of any of the protections afforded the City by virtue of the provisions of the Colorado Governmental Immunity Act (Colo. Rev. Stat. 24-10-101).

24. RESPONSIBILITY FOR WORK; PRIORITY OF DOCUMENTS:

   a) Debts and claims: The Contractor shall pay all debts for labor and materials contracted for by him on account of the work herein contemplated. The Contractor shall assume the defense of, and indemnify and save harmless, the City and its officers and agents, from all claims relating to labor and materials furnished for the work; to infringement or alleged infringement of invention patents and patent rights used in, or in connection with the work or however originating from any of the work under this Contractor from conditions created thereby; to injuries to any persons or corporation caused by the acts or negligence of the Contractor or any of his agents or employees, or of any Subcontractor or any agents or employees of any Subcontractors, in doing the work or in consequence of any improper materials, implements or labor used therein; and shall fully reimburse and repay to the City all outlay and expense which the City may incur by reason of his failure to do so. The Contractor shall satisfy all suits and claims against the City arising from the violation of any law, ordinance, regulation, order, or decree on the part of the Contractor or any of his agents or employees, or any Subcontractor, or agent or employees of any Subcontractor; shall fully indemnify and save harmless the City against and from all cost, loss, and damage which the City may suffer by reason of his failure to do so; and shall fully reimburse and repay to the City all outlay and expense which the City may incur in making good any such default. The Contractor shall fully complete the work required to be done under this Contract, free from all liens and claims of any kind whatsoever.

   b) Plans and Specifications: It shall be the duty of the Contractor to carefully study and compare all drawings, specifications and instructions, visit the project site and acquaint himself with all conditions, and call to the attention of the City any discrepancy, error, omission or inconsistency that may exist in the plans or specifications, or between the plans and specifications, or any conflict between existing conditions and requirements of the plans and specifications. The execution or work in accordance with the plans, specifications or other instructions will be considered as evidence that the Contractor is thoroughly familiar with the true intent of the plans, specifications or other instructions. Change orders will not be issued to cover any cost, loss, or expense for additional labor or material required to rectify any discrepancies discovered or reported to the City after the execution of the work, unless the discrepancies are errors in structural, mechanical or electrical design as determined by the City.

   c) Priority of Documents: In case of discrepancy or inconsistency in the terms or conditions of any documents, the Contract Documents shall have the following order of priority such that a statement appearing in the document with the higher priority shall control any inconsistent statement in a document of lower priority. (The following are listed from the highest priority to the lowest priority):

      1. The Agreement
      2. Drawings and any notes appearing on the drawings
      5. General Provisions of the Contract for construction.
25. CARE AND PROTECTION OF PROPERTY:

The Contractor expressly undertakes at his own expense:

To assume full responsibility for the preservation of all public and private property, and use every precaution necessary to prevent damage thereto. If any direct or indirect damage is done to public or private property or on account of any act, omission, neglect or misconduct in the execution of the work on the part of the Contractor, such property shall be restored by the Contractor, at his expense, to a condition similar or equal to that existing before the damage was done, or he shall make good the damage in another manner acceptable to the City. No representations are made by or on behalf of the City concerning the conditions, locations or state of repair or existing sewers, drains, water mains and other underground structures;

To store his apparatus, materials, supplies, and equipment in such orderly fashion at the site of the work as will not unduly interfere with the progress of his work or the work on any other Contractor;

To provide suitable storage facilities for all materials which are liable to injury or exposure to weather, theft, breakage, or otherwise;

To place upon the work or any part thereof only such loads as are consistent with the safety of that portion of the work;

To clean up frequently all refuse, rubbish, scrap materials, and debris caused by his operations, to the end that at all times the site of the work shall present a neat, orderly and workmanlike appearance;

To fully and completely remove all utility markings generated by or as a result of the project from public rights-of-way utilizing a method that is least destructive to the existing improvements, and which method has been approved by the City. Should the contractor propose to remove the markings with pressure washing, all pressure washing runoff and residue shall be contained and collected in accordance with Best Management Practices and Wheat Ridge Ordinance Chapter 20, Storm Water Quality and Control. Removal of all markings shall occur no later than twenty (20) days after completion of work.

To remove all surplus material, false-work, temporary structures, including foundations thereof, plant of any description and debris of every nature resulting from his operations, and to put the site in a neat, orderly condition before final payment;

To affect all cutting, fitting or patching of his work required to make the same to conform to the Plans and Specifications and, except with the consent of the City, not to cut or otherwise alter the work of any other Contractor. The Contractor shall not, except after written consent from proper parties enter or occupy with men, tools, materials or equipment, any privately owned land except on easements provided herein.

26. LANDS FOR WORK AND RIGHT-OF-WAY:

The City will provide land, right-of-way and easements for all work specified in the Contract.

27. NO DAMAGES FOR CERTAIN DELAYS:

The City may delay the commencement of the work, or any part thereof, if the City shall deem it for the best interest of the City to do so. The Contractor shall have no claim for damages on account of such delay, but he shall be entitled to so much additional time in which to complete the whole or any portion of the work required under this Contract as the City shall certify in writing to be just. The Contractor shall have no claim for damages on account of any delay on the part of another Contractor. Contractor expressly acknowledges and accepts the provisions of Section 2-4 of the Code of Laws of the City of Wheat Ridge as controlling this Project.

28. REQUIRED PROVISIONS DEEMED INSERTED:

Each and every provision of law and clause required by law to be inserted in this Contract shall be deemed to be inserted herein, and the Contract shall be read and enforced as though it were included herein, and if through mistake or otherwise, any such provision is not inserted, or if not correctly inserted, then upon the applications of either party, the Contract shall forthwith be physically amended to make such insertion.

29. PROTECTION OF LIVES AND HEALTH:

The Contractor shall take all necessary precautions for the safety of employees of the work, and shall comply with all applicable provisions of Federal, State, and Municipal safety laws and building codes to prevent accidents or injury to persons on, about or adjacent to the premises where the work is being performed. He shall erect and properly maintain at all times, as required by the conditions and progress of the work, all necessary safeguards for the protection of workmen and the public and shall post danger signs warning against the hazards created by the construction such as protruding nails, hod hoists, well holes, elevator hatchways, scaffolding, window openings, stairways, and failing materials.
The Contractor shall comply with the Department of Labor Safety and Health Regulations for construction promulgated under the Occupational Safety and Health Act of 1970 (PL-91-596) and under Section 107 of the Contract Work Hours and Safety Standards Act (PL-19-54).

30. WAGE RATES:

The attention of the bidder is called to the requirements and provisions of all applicable laws and any amendments thereof or additions thereto as to the employment of labor, and to the schedule of any minimum wage rates established in compliance with such laws. If, after the award of the Contract, it becomes necessary to employ any person in a trade or occupation not classified in the wage determinations, such person shall be paid at not less than such rate as shall be determined by the officials administering the laws mentioned above.

The Contract is subject to the applicable provisions of the Contract Work Hours Standards Act. Public Law 87-581, 87th Congress. No Contractor or Subcontractor contracting for any part of the contract work shall require or permit any laborer or mechanic to be employed on such work in excess of eight (8) hours in any calendar day or in excess of forty (40) hours in any work week unless such laborer or mechanic received compensation at a rate not less than one and one-half times his basic rate of pay for all hours worked in excess of eight (8) hours in any calendar day or in excess of forty (40) hours in such work week, as the case may be.

31. EMPLOYMENT OF LABOR:

The Contractor and each of his Subcontractors shall hire qualified workers for the project who are citizens of the United States or legal resident aliens with first preference being given, insofar as practicable, to those having served in the armed forces of the United States and having been honorably discharged or released from active duty therein.

The Contractor shall employ only competent persons to do the work, and whenever requested in writing by the City Representative, the Contractor shall discharge any person who commits trespass or is, in the opinion of the City Representative, disorderly, dangerous, unfaithful, insubordinate, incompetent or otherwise unsatisfactory.

32. SANITARY PRECAUTIONS:

Sanitary conveniences for the use of all persons employed on the work, properly screened from public observation, shall be provided in sufficient numbers in such manner and at such points as shall be approved. The contents shall be removed and disposed of in a satisfactory manner as the occasion requires. The Contractor shall rigorously prohibit the committal of nuisances within, on, or about the work. Any employees found violating these provisions shall be discharged and not again employed on the work without the written consent of the City Representative.

The Contractor shall supply sufficient drinking water from approved sources to all of his employees.

The sanitary convenience specified above shall be the obligation and responsibility of the General Contractor until the completion of the work. The facilities shall be made available to all other Contractors and Subcontractors.

33. SALES AND USE TAXES:

Do not include sales or use taxes in your bid. House Bill 1451 provides that Contractors shall make application with the Colorado State Department of Revenue for a tax exempt number which will be issued for the duration of the project. This tax exempt number is for State taxes only. The City of Wheat Ridge will issue its own tax exempt number for local sales tax purposes. An affidavit must be signed by the General Contractor for such project before the City tax exempt number can be issued. Please be advised that a supplier is allowed by Colorado law (C.R.S. 39-26-703 (1) to disallow any exemption because the seller is ultimately responsible for the tax. When a supplier exercises this right, please seek a refund of sales taxes paid from the appropriate jurisdiction (city or state).

35. BUSINESS LICENSE:

A business license is required for all Contractors performing work in the City prior to beginning work. Please contact the City Sales Tax Division to obtain a license.
CITY OF WHEAT RIDGE
SOLICITATION # ITB-20-04

BID DUE DATE: THURSDAY, FEBRUARY 6th, 2020 BY 2:00 PM OUR CLOCK

REBID BRIDGE REPAIR PROJECT
WEST 44TH AVE OVER CLEAR CREEK
B-01-19

SEALED BIDS MUST BE MAILED OR DELIVERED TO:

City of Wheat Ridge Municipal Building
Attention: Kirby Hollums
7500 West 29th Avenue, Purchasing & Contracting Division
Wheat Ridge, CO 80033
303-235-2885

IMPORTANT: PLEASE READ ENTIRE DOCUMENT
Per the attached specifications, terms and conditions.

FEIN/SSN (Required)__________________________ Federal I.D. Number

COMPANY NAME______________________________

ADDRESS____________________________________

CITY/STATE/ZIP______________________________

PHONE__________________________ EMAIL______________________________

TYPED/PRINTED NAME________________________________

AUTHORIZED SIGNATURE__________________________________________
This is required. Must be in ink.

TITLE__________________________________________

ACKNOWLEDGE ADDENDAS, MUST INITIAL NUMBER OF ADDENDA________
(Bidder is responsible for following up on all addendums)

DO YOU ACCEPT VISA OR ACH FOR PAYMENT? WHICH IS THE PREFERRED METHOD_______

Do not contact the requesting department.

Signature acknowledges that Bidder: has read the bid documents thoroughly before submitting a bid, will fulfill the obligations in accordance to the scope of work or specifications, terms, and conditions, and is submitting without collusion with any other individual or firm. Do not submit more than one bid from your firm or both bids will be disqualified. Submit bid with authorized signature.

Point of Contact: Kirby Hollums, Buyer II, khollums@ci.wheatridge.co.us, or phone 303-235-2885. Do not contact the requesting department.

Bidder must complete and SUBMIT this Bidder Acknowledgement Form with bid/proposal or will be considered Non-Responsive and/or Non-Responsible and therefore disqualified from bidding.
IMPORTANT: THIS FORM MUST BE COMPLETED AND SUBMITTED WITH YOUR BID

CONTRACTOR’S QUALIFICATION FORM
Your Bid Will Not Be Processed If Incomplete

SECTION I - IDENTIFICATION

1. Identification of Applicant Firm

A. Exact Legal Name of Applicant Firm __________________________ DUNS # __________________________

B. Street Address __________________________ City __________________________ State __________________________ Zip Code __________________________

C. (Mailing Address, if different from above) __________________________

D. Primary Company Telephone No. __________________________ Fax No. __________________________

E. Applicant Firm’s Contact Person for Public Works Office follow-up:

<table>
<thead>
<tr>
<th>Print or Type Name</th>
<th>Position</th>
<th>Telephone Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>__________________</td>
<td></td>
<td>__________________</td>
</tr>
</tbody>
</table>

F. Has the Applicant Firm changed its address or has the Firm or its Owner(s) operated under any other name(s) including other DBAs in the past five years? If yes, explain fully on a separate sheet of paper.

☐ No ☐ Yes

G. Type of business organization: __________________________

YEAR organization established: __________ NUMBER of current full time employees: __________

☐ Sole Proprietor ☐ Corporation – [Date and State of Incorporation] __________

☐ Limited Partnership ☐ General Partnership [Date and State of Partnership filing] __________

☐ Limited Liability Company ☐ Limited Liability Partnership [Date and State of filing] __________

☐ Other (describe) __________

Type of service(s) to be provided to the City of Wheat Ridge:

☐ General Contractor ☐ Concrete Flatwork

☐ Storm Sewer ☐ Concrete Structures

☐ Traffic Signals ☐ Slurry Seal

☐ Grading ☐ Fog Seal

☐ Asphalt Paving ☐ Crack Sealing

☐ Concrete Paving ☐ Landscaping

☐ Signing ☐ Striping

☐ Traffic Control ☐ Other (describe) __________________________
SECTION II - OWNERSHIP/MANAGEMENT, PROJECT MANAGEMENT, SUPERVISORS, AND RELATED ENTITIES

1. Owners
List Owners of Applicant Firm.

<table>
<thead>
<tr>
<th>Full Legal Name</th>
<th>Title</th>
<th>Years of Related Experience</th>
<th>% Of Ownership</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[Use additional sheets if necessary]

2. Project Management Team, Supervisors and Employees Who Will Be Working Directly On the Project(s).
List the full names of the primary employees of the proposed Project Team.

<table>
<thead>
<tr>
<th>Full Legal Name</th>
<th>Present Position</th>
<th>Years of Related Experience</th>
<th>% of Time Devoted to Project</th>
<th>Professional Licenses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

[Use additional sheets if necessary]

3. Resume
Attach resumes of the Project Management Team showing the last five years of employment in this field. Resumes must be comprehensive and include of Firms worked for and dates of employment. (RESUMES are not required from Materials Suppliers (Vendors).

4. Contractor’s License(s)
The awarded Contractor must obtain or have a current City of Wheat Ridge Municipal Contractor’s License within 7 days of Council approval of bid award.
SECTION III - CONTRACTING HISTORY

1. Contracting History

A. List the applicant Firm’s six largest contracts in the last three years.

1. Company Name_________________________ Contact Name_________________________
   Street Address______________________________________________________________
   City_________________________ State_____ Zip Code__________________________
   Phone No:_____________________ Fax No:__________________________
   Contract Name & Number__________________________
   Contract Amount__________________________ Start/Completion Dates _____________
   Description of Work ________________________________
   Prime or Subcontractor__________________________

2. Company Name_________________________ Contact Name_________________________
   Street Address______________________________________________________________
   City_________________________ State_____ Zip Code__________________________
   Phone No:_____________________ Fax No:__________________________
   Contract Name & Number__________________________
   Contract Amount__________________________ Start/Completion Dates _____________
   Description of Work ________________________________
   Prime or Subcontractor__________________________

3. Company Name_________________________ Contact Name_________________________
   Street Address______________________________________________________________
   City_________________________ State_____ Zip Code__________________________
   Phone No:_____________________ Fax No:__________________________
   Contract Name & Number__________________________
   Contract Amount__________________________ Start/Completion Dates _____________
   Description of Work ________________________________
   Prime or Subcontractor__________________________
SECTION III - CONTRACTING HISTORY – (Continued)

4. Company Name_________________________ Contact Name_________________________
   Street Address______________________________________________________________
   City_________________________ State____ Zip Code__________________________
   Phone No:_________________________ Fax No:______________________________
   Contract Name & Number____________________________________________________
   Contract Amount_________________________ Start/Completion Dates _____________
   Description of Work ________________________________
   Prime or Subcontractor______________________________________________________

5. Company Name_________________________ Contact Name_________________________
   Street Address______________________________________________________________
   City_________________________ State____ Zip Code__________________________
   Phone No:_________________________ Fax No:______________________________
   Contract Name & Number____________________________________________________
   Contract Amount_________________________ Start/Completion Dates _____________
   Description of Work ________________________________
   Prime or Subcontractor______________________________________________________

6. Company Name_________________________ Contact Name_________________________
   Street Address______________________________________________________________
   City_________________________ State____ Zip Code__________________________
   Phone No:_________________________ Fax No:______________________________
   Contract Name & Number____________________________________________________
   Contract Amount_________________________ Start/Completion Dates _____________
   Description of Work ________________________________
   Prime or Subcontractor______________________________________________________
SECTION III - CONTRACTING HISTORY – (Continued)

In the past five years has the Applicant Firm or any Affiliate been the subject of any of the following actions?

A. Been suspended, debarred, disqualified, or otherwise declared ineligible to bid?
   - No
   - Yes

B. Failed to complete a contract for a commercial, private owner or Government agency?
   - No
   - Yes

C. Been denied a low-bid contract in spite of being the low bidder?
   - No
   - Yes

D. Had a contract terminated for any reason, including default?
   - No
   - Yes

E. Had liquidated damages assessed against it during or after completion of a contract?
   - No
   - Yes

If "Yes" to Sections IV, V or VI, provide details including a brief summary of cause(s) of action, indicate if Applicant Firm, Owner or Affiliate Firms were plaintiffs (P) or defendants (D); define charges explicitly, by what authority, court or jurisdiction, etc. Complete details are required!

NOTE: For Sections IV and V below, the definition of an "investigation" includes: an appearance before a grand jury by representatives of the Firm; any oral or written inquiry or review of the Firm's documents by a governmental or law enforcement agency or investigative agency; or questioning of employees concerning the general operation or a specific project or activities of the Firm.

SECTION IV - CIVIL ACTIONS

1. Violations Of Civil Law
   In the past five years has Applicant Firm, any of its Owners, or any Affiliate been the subject of an investigation of any alleged violation of a civil antitrust law, or other federal, state or local civil law?
   - No
   - Yes

2. Lawsuits With Public Agencies
   At the present time is, or during the past five years has the Applicant Firm, any of its Owners, or any Affiliate been a plaintiff or defendant in any lawsuit regarding services or goods provided to the City of Wheat Ridge or to a public agency?
   - No
   - Yes

3. Bankruptcy
   During the past five years, has the Applicant Firm or any Affiliate filed for bankruptcy or reorganization under the bankruptcy laws?
   - No
   - Yes

4. Judgments, Liens And Claims
   During the past five years, has the Applicant Firm been the subject of a judgment, lien or claim of $10,000 or more by a subcontractor or supplier?
   - No
   - Yes

5. Tax Liens
   During the past five years, has the Applicant Firm been the subject of a tax lien by federal, state or any other tax authority?
   - No
   - Yes

SECTION V - COMPLIANCE WITH LAWS AND OTHER REGULATIONS

1. Criminal
   In the past five years has the Applicant Firm, any of its Owners, or Affiliates:
   A. Been the subject of an investigation involving any alleged violation of criminal law?
      - No
      - Yes
B. Been arrested, indicted or named as an unindicted co-conspirator in any indictment or other accusatory instrument?
   [ ] No  [ ] Yes
C. Been convicted, after trial or by plea, of any felony under state or federal law?
   [ ] No  [ ] Yes
D. Been convicted of any misdemeanor involving business-related crimes?
   [ ] No  [ ] Yes
E. Entered a plea of nolo contendere to a charge of embezzlement, theft, forgery, bribery, falsification or destruction of records, receiving stolen property, or a violation of any antitrust laws?
   [ ] No  [ ] Yes
F. Entered into a consent decree?
   [ ] No  [ ] Yes
G. Been granted immunity from prosecution for any business-related conduct constituting a crime under state or federal law?
   [ ] No  [ ] Yes
H. Taken the Fifth Amendment in testimony on any business-related crime?
   [ ] No  [ ] Yes
I. Paid a fine or settlement to resolve any criminal or civil violations or allegations involving a business activity?
   [ ] No  [ ] Yes
J. Do any Owners in Applicant Firm have any felony charges pending against them that were filed either before, during, or after their employment with the Applicant Firm?
   [ ] No  [ ] Yes

1. Regulatory Compliance
   In the past five years, has Applicant Firm, any of its Owners, or Affiliates been cited for:
   A. A violation of any labor law or regulation, including prevailing wage rates and fair labor practices?
      [ ] No  [ ] Yes
   B. An OSHA violation?
      [ ] No  [ ] Yes
   C. A violation of federal, state or local environmental laws or regulations?
      [ ] No  [ ] Yes
   D. Any other administrative, statutory or regulatory violations?
      [ ] No  [ ] Yes

SECTION VI - ETHICS

1. False Statements, Bribes, Collusion
   In the past five years has the Applicant Firm, any of its Owners, or Affiliates:
   A. Filed with a government body (including City of Wheat Ridge) or submitted to a government employee (including City of Wheat Ridge employee) any form of document known by the Applicant Firm, any of its Owners, or by the person submitting the document, to contain false information?
      [ ] No  [ ] Yes
   B. Created or maintained false business records?
      [ ] No  [ ] Yes
   C. Given, or offered to give, money or any other benefit to a public official or employee with intent to influence that person regarding any of their official acts, duties or decisions?
      [ ] No  [ ] Yes
   D. Given, or offered to give, money or other benefit to an official or employee of a private business with intent to induce that official or employee to engage in unethcal or illegal business activities (including but not limited to improper gratuities, and/or violations of lobbying regulations)?
      [ ] No  [ ] Yes
E. Agreed with another to bid below prevailing market rate?
   □ No          □ Yes

F. Agreed with another to submit identical or complimentary bids or otherwise not to bid competitively?
   □ No          □ Yes

G. Agreed with another not to submit competitive bids in another’s territory established either by geography or customers?
   □ No          □ Yes

H. Agreed with another to take turns in obtaining contracts by pre-determining which Firm shall submit the lowest bid?
   □ No          □ Yes

2. Conflict Of Interest

A. Does the Applicant Firm, any of its Owners or Project Team Members have any existing relationships that could be construed as either personal or organizational conflicts of interest, or which would give rise to a conflict if Applicant Firm should be a recipient of a contract with the City of Wheat Ridge?
   □ No          □ Yes

B. Has any Owner or Project Team member of Applicant Firm ever (if yes explain fully):
   1. Been an employee of the City of Wheat Ridge, or served as a Member of Wheat Ridge City Council?
      □ No          □ Yes
   2. Been related by blood or marriage to a City of Wheat Ridge employee or Council Member?
      □ No          □ Yes

SECTION VII - ADDITIONAL DOCUMENTATION REQUIRED

Additional document copies to be submitted with this application:

   Letter of Reference from your Firm’s Surety, which states current available aggregate and single project bonding capacity (This Application will not be processed without this letter)

   Certification of all IMSA certified personnel, if applying for traffic signal project(s). A minimum of two full time employees must be certified at Level II or higher.
## LIST OF SUBCONTRACTORS AND AMOUNT

**ITB-20-04**

**B-01-19**

Important: This form must be submitted and completed. If you are not using sub-contractors, state “None”. Failure to submit a completed form will result in a non-responsive bid.

Contractor’s organization shall perform work amounting to 50% or more of the total contract cost.

**COMPANY SUBMITTING BID**

<table>
<thead>
<tr>
<th>NAME</th>
<th>TYPE OF WORK</th>
<th>AMOUNT</th>
<th>% OF WORK</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**MUST BE COMPLETED AND SUBMITTED WITH YOUR BID**
Title VI of the Civil Rights Act of 1964 prohibits discrimination of the basis of race, color or national origin by any entity receiving federal financial assistance.

The City of Wheat Ridge is a recipient of Federal financial assistance and as such, it, as well as all of its responsible agents, contractors and consultants, is required by the United States Department of Transportation Title VI Regulations at 49 CFR Part 21 (the Regulations) to assure nondiscrimination. The City of Wheat Ridge assures that no person shall be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination on the grounds of race, color, or national origin under any program or activity conducted by the City.

All bidders are hereby notified that the City of Wheat Ridge will affirmatively ensure that disadvantaged business enterprises will be afforded full opportunity to submit bids in response to all invitations and will not be discriminated against on the grounds of race, color or national origin in consideration for an award. This applies to all solicitations for bids for work or material subject to the Regulations, and for all proposals for negotiated agreements.

The bidder, whose name and signature appear below, certifies and agrees as follows:

1. The bidder shall comply with the provisions of Title VI of the Civil Rights Act of 1964.

2. The bidder assures the City of Wheat Ridge that disadvantaged business enterprises are afforded full opportunity to submit bids as sub-contractors or sub-consultants and will not be discriminated against on the grounds of race, color or national origin in consideration for award.

3. The bidder shall comply with all reasonable requests made in the course of an investigation of Title VI, the Regulations and this assurance by the Colorado Department of Transportation, the US Department of Transportation or the City of Wheat Ridge, as a sub-recipient of Federal financial assistance.

4. The bidder agrees that the United States has a right to seek judicial enforcement with regard to any matter arising under Title VI, the Regulations and this assurance.

FIRM: __________________________________________________________

(Print full legal name of company)

AUTHORIZED SIGNATURE: __________________________________________

Printed Name and Title: ____________________________________________

Date Certified and Agreed: _________________________________________

Attestation: (A corporate attestation is required) Place corporate seal below:

BY: ____________________________

Corporate Secretary or Equivalent

Bidder must complete and SUBMIT this form with bid/proposal or will be considered Non-Responsive and/or Non-Responsible and therefore disqualified from bidding.
The Vendor, whose name and signature appear below, certifies and agrees as follows:

1. The Vendor shall comply with the provisions of CRS 8-17.5-101 et seq.
2. The Vendor shall not knowingly employ or contract with an illegal alien to perform work under this purchase order or enter into a contract with a subcontractor that knowingly employs or contracts with an illegal alien.
3. The Vendor represents, warrants, and agrees that it (i) has verified that it does not employ any illegal aliens, through participation in the Basic Pilot Employment Verification Program administered by the Social Security Administration and Department of Homeland Security, or (ii) otherwise shall comply with the requirements of CRS 8-17.5-102(2)(b)(i).
4. The Vendor shall comply with all reasonable requests made in the course of an investigation by the Colorado Department of Labor and Employment. If the Vendor fails to comply with any requirement of this provision or CRS 8-17.5-101 et seq., the City may terminate the above referenced purchase order for breach and the Vendor shall be liable for actual and consequential damages to the City of Wheat Ridge.

CERTIFIED and AGREED to this ___________ day of ____________________, 2020

BID NUMBER:__________________________________________________________

FIRM:______________________________________________________________
(Print Full Legal Name)

Authorized Signature:______________________________________________

Print Name:__________________________________________________________

Print Title:_________________________ Date:__________________________

Attestation: (A corporate attestation is required.)

BY: ___________________________________________ Place corporate seal here, if applicable

Corporate Secretary or Equivalent

Bidder must complete and SUBMIT this form with bid/proposal or will be considered Non-Responsive and/or Non-Responsible and therefore disqualified from bidding.
COMPANY SUBMITTING BID: ____________________________________________

STATE OF: __________________________________________________________

COUNTY OF: _________________________________________________________

_________________________________________________________ of lawful age, being duly sworn, on oath says that (s)he is the agent authorized by the Bidder to submit the attached bid. Affidavit further states that the Bidder has not been a party of any collusion among Bidders in restraint of freedom of competition by agreement to bid at a fixed price or to refrain from bidding; or any Federal, State or Municipal official or employees as to quantity, quality, or price in the prospective Contract, or any other items of said prospective Contract; or in any discussions between bidders and any Federal, State or Municipal official concerning exchange of money or other thing of value for special consideration in the letting of a Contract.

NAME: ______________________________________________________________

TITLE: ______________________________________________________________

Subscribed and sworn to before me this _______________ day of ________________, 2020

__________________________
NOTARY PUBLIC SIGNATURE

My Commission Expires:
Effective January 1, 2014, the Keep Jobs in Colorado Act requires that Colorado labor be employed to perform at least 80% of the work on a public works project, as defined in C.R.S. 8-19-102(2).

References
Keep Jobs in Colorado Act - 8-17-101, et.seq., C.R.S.
Definition of Public Projects - 8-19-102, C.R.S.
Construction Bidding for Public Projects – 24-92-102, C.R.S.
House Bill 13-1292, Keep Jobs in Colorado Act

The Vendor, whose name and signature appear below, certifies and agrees as follows:
1. The Vendor shall comply with the provisions of House Bill 13-1291 and CRS 8-17-101 et seq.
2. The Vendor represents, warrants, and agrees that it (i) Colorado labor will be employed to perform at least 80% of the work on a public works project, or (ii) otherwise, shall comply with the notification requirements and/or waiver request of CRS 8-17-101 et seq.
3. The Vendor shall comply with all reasonable requests made in the course of an investigation by the Colorado Department of Labor and Employment. If the Vendor fails to comply with any requirement of this Act or CRS 8-17-101 et seq., the City may terminate the above referenced purchase order for breach and the Vendor shall be liable for actual and consequential damages to the City of Wheat Ridge.

CERTIFIED and AGREED to this _____ day of ____________________________, 20___

BID NUMBER: ____________________________________________

FIRM: __________________________________________________________
(Print Full Legal Name)

AUTHORIZED SIGNATURE: ____________________________________________

Print Name: __________________________________________________________

Print Title: ___________________________ Date: ___________________________

Attestation: (A corporate attestation is required.)

BY: ___________________________ Corporate Secretary or Equivalent

Place corporate seal here, if applicable

Bidder must complete and SUBMIT this form with bid/proposal or will be considered Non-Responsive and/or Non-Responsible and therefore disqualified from bidding.
This is the Proposal (Bid) of ______________________________ (hereinafter called "BIDDER") or organized and existing under the laws of the State of ______________________ doing business as a ______________________________ (Insert "a corporation", "a partnership", or "an individual" as applicable.)

To the CITY OF WHEAT RIDGE (hereinafter called "Owner").

The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Contract Bid Documents, to complete all Work as specified or indicated in the Contract Bid Documents for the Contract Sum and within the Contract time indicated in accordance with the Contract Bid Documents.

Bidder accepts all of the terms and conditions of the Instructions to Bidders. The Bid will remain open for sixty days after the day of Bid opening. Bidder will sign the Agreement and submit any documents required by the Contract documents within seven (7) calendar days after notification or the designated date.

By submission of this Bid, each Bidder certifies, and in the case of a joint Bid, each party thereto certifies as to his own organization, that this Bid has been arrived at independently without consultation, or communication with any competitor. Every bid submitted to the City shall contain a statement certifying that the Bidder has not participated in any collusion or taken any action in restraint of free competitive bidding. This statement shall be in the form of an affidavit provided by the City and included in the Bid Proposal. The Bidders proposal will be rejected if it does not contain the completed Non-collusion Affidavit.

Bidder agrees to abide by the following federal requirements:


United States Department of Transportation Title VI Regulations at 49 CFR Part 21 the Civil Rights Act of 1964, assuring that no person shall on the grounds of race, color, or national origin be excluded from participation in the opportunity to bid, or be discriminated against in consideration of award of this project.

Bidder hereby agrees to commence Work under this contract on or before a date to be specified in the Notice to Proceed and to fully complete the Project within 120 working days.

The Notice to Proceed shall be issued within fourteen (14) days of the execution of the Agreement by the Owner. Should there be reason why the Notice to Proceed cannot be issued within such period, the time may be extended by mutual agreement between the Owner and Contractor. If the Notice to Proceed has not been issued within the period mutually agreed upon, the Contractor may terminate the Agreement without further liability on the part of either party.

The Owner may make such investigations as he deems necessary to determine the ability of the Bidder to perform the Work, and the Bidder shall furnish to the Owner all such information and data for this purpose as the Owner may request. The Owner reserves the right to reject any Bid if the evidence submitted by, or investigation of, such Bidder fails to satisfy the Owner that such Bidder is properly qualified to carry out the obligations of the Agreement.

Bidder has examined the site and locality where the Work is to be performed, the legal requirements (federal, state and local laws, ordinances, rules and regulations) and the conditions affecting cost, progress, or performance of the Work and has made such independent investigation as Bidder deems necessary.

Bidder will complete the Work for all accepted bid items.
PROPOSAL FORM, CONTINUED
ITB-20-04
PRICING SCHEDULE

Provide all materials, labor, and equipment to complete the work as per the specifications. It is the Owner’s intent to award a single contract to the lowest qualified bidder.

Project: Rebid Bridge Repair Project West 44th Ave over Clear Creek, B-01-19

<table>
<thead>
<tr>
<th>Company Name</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Authorized Signature</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Printed Name</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>License No.</th>
<th>Type</th>
<th>Expiration Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ATTEST:

<table>
<thead>
<tr>
<th>Printed Name</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Signature</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(SEAL)
(If bid is by corporation)
ADDENDA
Bidder acknowledges receipt of the following Addenda:

---

**BID SCHEDULE**

<table>
<thead>
<tr>
<th>COMPANY SUBMITTING BID</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITB-20-04</td>
</tr>
<tr>
<td>B-01-19</td>
</tr>
</tbody>
</table>

Bidder agrees to perform all the work described in the Contract Documents for the following unit prices or lump sums.

**BASE BID – Rebid Bridge Repair Project West 44th Ave over Clear Creek**

<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>PAY ITEM</th>
<th>ESTIMATED QUANTITY</th>
<th>UNIT</th>
<th>UNIT PRICE</th>
<th>EXTENSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>201</td>
<td>Clearing and Grubbing</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>202A</td>
<td>Removal of Asphalt Mat</td>
<td>95</td>
<td>SY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>202B</td>
<td>Removal of Portions of Present Structure (Class 3)</td>
<td>81</td>
<td>SY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>202C</td>
<td>Removal of Portions of Present Structure</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>206</td>
<td>Structure Excavation</td>
<td>13</td>
<td>CY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>208A</td>
<td>Aggregate Bag</td>
<td>70</td>
<td>LF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>208B</td>
<td>Concrete Washout Structure</td>
<td>1</td>
<td>EA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>304</td>
<td>Aggregate Base Course (Class 6)</td>
<td>14</td>
<td>CY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>403</td>
<td>Hot Mix Asphalt (SX)(75)(PG-64-22)</td>
<td>31</td>
<td>Ton</td>
<td></td>
<td></td>
</tr>
<tr>
<td>411</td>
<td>Emulsified Asphalt (Slow-Setting)</td>
<td>16</td>
<td>Gal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>515</td>
<td>Waterproofing (Membrane)</td>
<td>74</td>
<td>SY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>518</td>
<td>Bridge Expansion Devise (0-4 Inch)</td>
<td>136.08</td>
<td>LF</td>
<td></td>
<td></td>
</tr>
<tr>
<td>601A</td>
<td>Concrete Class DT (Deck Topping)</td>
<td>56</td>
<td>CY</td>
<td></td>
<td></td>
</tr>
<tr>
<td>601B</td>
<td>Galvanic Anodes</td>
<td>495</td>
<td>EA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>602</td>
<td>Reinforcing Steel (Epoxy Coated)</td>
<td>11,730</td>
<td>LB</td>
<td></td>
<td></td>
</tr>
<tr>
<td>614</td>
<td>Variable Message Sign</td>
<td>2</td>
<td>EA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>620</td>
<td>Sanitary Facility</td>
<td>1</td>
<td>EA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>626</td>
<td>Mobilization</td>
<td>1</td>
<td>LS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SUBTOTAL THIS PAGE**

$__________________________
<table>
<thead>
<tr>
<th>ITEM NO.</th>
<th>PAY ITEM</th>
<th>ESTIMATED QUANTITY</th>
<th>UNIT</th>
<th>UNIT PRICE</th>
<th>EXTENSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>627</td>
<td>Pavement Marking Paint</td>
<td>25</td>
<td>Gal</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>630A</td>
<td>Flagging</td>
<td>160</td>
<td>HR</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>630B</td>
<td>Barrier (Temporary)</td>
<td>406</td>
<td>LF</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>630C</td>
<td>Construction Traffic Sign (Panel Size A)</td>
<td>16</td>
<td>EA</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>630D</td>
<td>Drum Channelizing Devise</td>
<td>75</td>
<td>EA</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>630E</td>
<td>Traffic Cones</td>
<td>20</td>
<td>EA</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>630F</td>
<td>Impact Attenuator (Temporary)</td>
<td>2</td>
<td>EA</td>
<td>$_________</td>
<td>$_________</td>
</tr>
<tr>
<td>620</td>
<td>Material Sampling and Testing</td>
<td>1</td>
<td>LS</td>
<td>$_________</td>
<td>$_________</td>
</tr>
</tbody>
</table>

SUBTOTAL THIS PAGE

TOTAL AMOUNT OF BID

WRITTEN OUT AMOUNT OF BID
BID BOND FORM

KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned,

______________________________
(name and address of Contractor)

as Principal, and

______________________________
(name and address of surety)

as Surety, are hereby held and firmly bound unto the City of Wheat Ridge as Owner in the penal sum of

______________________________

for the payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, successors, and assigns.

Signed this __________________________ day of __________________________, 2020.

The condition of the above obligation is such that whereas the Principal has submitted to the City of Wheat Ridge a certain BID, attached hereto and hereby made a part hereof, to enter a contract in writing for the Project titled ITB-20-04, REBID BRIDGE REPAIR PROJECT WEST 44TH AVE OVER CLEAR CREEK, B-01-19

NOW, THEREFORE,

1. If said Bid shall be rejected or,

2. If said Bid shall be accepted and the Principal shall execute and deliver a contract in the Form of Contract attached hereto (properly completed in accordance with the said Bid) and shall furnish a Bond for his faithful performance of said Contract, and for the payment for all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform the agreement created by the acceptance of said Bid.

Then this obligation shall be void, otherwise the same shall remain in force and effect; it being expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its Bond shall be in no way impaired or affected by an extension of the time within which the Owner may accept such Bid; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

______________________________
(Principal/Contractor)

______________________________
(Surety)

By: ________________________________

IMPORTANT: Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the project is located.
CITY OF WHEAT RIDGE
ITB-20-04
REBID BRIDGE REPAIR PROJECT
WEST 44TH AVE OVER CLEAR CREEK
B-01-19
SAMPLE AGREEMENT

THIS AGREEMENT, made this ______________ day of ___________________ 2020 by and between the City of Wheat Ridge, Colorado, hereinafter called "Owner" and________________________, doing business as an individual, whose business address is________________________________________, hereinafter called "Contractor".

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned the parties agree as follows:

1. The Contractor agrees to furnish all materials, supplies, tools, equipment, labor and other services necessary to complete the construction of the Project titled, ITB-20-04, REBID BRIDGE REPAIR PROJECT WEST 44TH AVE OVER CLEAR CREEK, B-01-19 in accordance with the Contract Bid Documents.

2. The Contractor agrees to perform all the Work described in the Contract Bid Documents and comply with the terms therein for the Total Contract amount of

$__________________________ Dollars

which includes any alternates.

3. The Contractor agrees to commence the Work required by the Contract Documents within Fourteen (14) calendar days after the date of the Notice to Proceed and to complete the same within 120 working days after the date of the Notice to Proceed unless the time for completion is extended otherwise by written changes to the Contract Bid Documents.

4. The term "CONTRACT BID DOCUMENTS" means and includes the following:

A. Advertisement for Bid
B. Information for Bidders
C. General Provisions
D. Bidder Acknowledgement Form
E. Contractor Qualification Form
F. List of Subcontractors and Amount
G. Non-Discrimination Assurance Form
H. Illegal Alien Compliance Form
I. Non-Collusion Affidavit
J. Keep Jobs in Colorado Form
K. Proposal Form
L. Pricing Schedule
M. Bid Bond Form
N. Agreement
O. Payment Bond
P. Performance Bond
Q. Notice to Proceed
R. Final Receipt
S. Project Specifications
T. Addenda
U. Drawings/Exhibits

5. The Owner will pay to the Contractor in the manner and at such times as set forth in the General Conditions, such amounts as required by the Contract Documents.

6. Section 2-3 (a) – (e) of the City's Code of Laws is presented below:

(a) Fiscal year. Fiscal year for the city shall commence on January 1 and end on December 31.

(b) Budget contains appropriations. The city council shall annually adopt a budget in a manner consistent with the provisions of Chapter X of the Home Rule Charter of the City of Wheat Ridge. Upon the annual adoption by the city council of each fiscal year’s budget, levels of authorized expenditures from the funds indicated within the annual budget itself and/or the adopting resolution shall constitute the appropriation of the amounts specified therein for the purposes specified therein. During the course of each fiscal year, approval by the city council of contracts for goods or services, and/or approval of bids for the provision of specified goods or services, shall likewise constitute appropriations of the amounts specified therein for the purposes specified therein.

(c) No contract to exceed appropriation. During each and any fiscal year, no contract entered into by or on behalf of the city shall expend or contract to expend any money, or incur any liability, nor shall any contract be entered into nor any bid be awarded by or on behalf of the city which, by its
terms, involves the expenditure of money for any of the purposes for which provision is made either in the adopted budget or adopting resolution, including any legally authorized amendments thereto, in excess of the amount appropriated in the budget or the approved contract or bid award. Any contract or bid award, either verbal or written, made in violation of the provisions of this section shall be void as to the city and no city monies from any source whatsoever shall be paid thereon.

(d) Amendments and authorized expenditures. Nothing contained herein shall preclude the city council from adopting a supplemental appropriation in a manner consistent with the provisions of Section 10.12 of the Home Rule Charter of the city. Further, nothing contained in this section shall prevent the making of contracts for governmental services or for capital outlay for a period exceeding one (1) year if such contracts are otherwise allowed by the Home Rule Charter of the city; provided, however, any contract so made shall be executory only for the amounts agreed to be paid for such services to be rendered in succeeding fiscal years.

(e) Notice to parties contracting with the city. All persons contracting with, or selling goods or services to, the city are hereby placed upon notice of the provisions of this section. The provisions of this section shall become a part of the Merit System Personnel Rules and Regulations of the City of Wheat Ridge; shall be referred to specifically in all public works bid documents and contracts; and shall be incorporated into, and specially noted within, all other contracts entered into by or on behalf of the city wherein city funds are used to pay for said contract.

7. Section 2-4 of the City Code of Laws is presented below:

(a) The city may, by contract, require the contractor awarded a public works contract to waive, release or extinguish its rights to recover costs or damages, or obtain an equitable adjustment, for delays in performing such contract if such delay is caused, in whole or in part, by acts or omissions of the city or its agents, if the contract provides that an extension of time for completion of the work is the contractor's remedy for such delay. Such a clause is valid and enforceable, any provision of state law to the contrary notwithstanding.

(b) The city council, by this ordinance (Ordinance No. 812), declares its local contracting powers to be a matter of purely local concern, and further specifically intends to supersede, pursuant to its powers under Article XX of the Colorado Constitution, the provisions of Sections 24-91-101 and 24-91-103.5, C.R.S., insofar as they conflict with the provisions of this section of the Code of Laws of the City of Wheat Ridge, Colorado.

8. Any notice or communication given pursuant to this Agreement to the City shall be made in writing:

<table>
<thead>
<tr>
<th>City Contact:</th>
<th>Contractor Contact:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name:</td>
<td>Name:</td>
</tr>
<tr>
<td>Address:</td>
<td>Address:</td>
</tr>
<tr>
<td>E-mail:</td>
<td>Fax:</td>
</tr>
<tr>
<td>Phone:</td>
<td>Phone:</td>
</tr>
<tr>
<td>Fax:</td>
<td>Fax:</td>
</tr>
</tbody>
</table>

9. The Contractor agrees to abide by the requirements under EXECUTIVE ORDER NO. 11246 as amended, including specifically the provisions governed by the Equal Opportunity Commission and also to abide by the requirements of the IMMIGRATION REFORM AND CONTRACT ACT OF 1986 and the requirements of the AMERICANS WITH DISABILITIES Act of 1991; and the United States Department of Transportation Title VI Regulations at 49 CFR Part 21 requirements under the Civil Rights Act of 1964, assuring that no person shall on the grounds of race, color, or national origin be excluded from participation in the opportunity to bid, or be discriminated against in consideration of award of this project.

10. In accordance with CRS Title 24, Article 91, Section 103.6, Paragraph 2, Subparagraph a, the City of Wheat Ridge hereby states that funds have been appropriated for this Project in an amount equal to or in excess of the Original Contract Amount.

11. Illegal Aliens – Public Contracts for Services. CRS 8-17.5-101 and Public Law 208, 104th Congress, as amended and expanded in Public Law 156, 108th Congress, as amended:
The Contractor certifies that he/she shall comply with the provisions of CRS 8-17.5-101 et seq. The Contractor shall not knowingly employ or contract with an illegal alien to perform work under this contract or enter into a contract with a subcontractor that knowingly employs or contracts with an illegal alien. The Contractor represents, warrants, and agrees that it (i) has verified that it does not employ any illegal aliens, through participation in the Basic Pilot Employment Verification Program administered by the Social Security Administration and Department of Homeland Security, or (ii) otherwise will comply with the requirements of CRS 8-17.5-101 (2)(b)(I). The Contractor shall comply with all reasonable requests made in the course of an investigation by the CO Department of Labor and Employment. If the Contractor fails to comply with any requirement of this provision or CRS 8-17.5-101 et seq., the City may terminate this contract for breach and the Contractor shall be liable for actual and consequential damages to the City.

12. This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement in two (2) copies, each of which shall be deemed an original on the date first above written.

ATTEST:

OWNER

CITY OF WHEAT RIDGE
7500 WEST 29TH AVENUE
WHEAT RIDGE, CO 80033
303-234-5900

DATE

BUD STARKER, MAYOR

(Seal)

APPROVED AS TO FORM:

CONTRACTOR

GERALD DAHL, CITY ATTORNEY

COMPANY NAME

ADDRESS

AUTHORIZED SIGNATURE

PRINT NAME

NAME

TITLE

DATE

DATE

ATTEST TO CONTRACTOR:
PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: that

(Name of Contractor)

(Address of Contractor)

A _______________________________ hereinafter called "PRINCIPAL", and

(Name of Surety)

(Address of Surety)

hereinafter called "Surety", are held and firmly bound unto the City of Wheat Ridge, 7500 West 29th Avenue, Wheat Ridge, Colorado 80033, hereinafter called "Owner", in the penal sum of _______________________________ dollars

($ _______________________________ ) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the Owner, dated the __________ day of __________, 2020, a copy of which is hereto attached and made a part hereof for the Project titled, ITB-20-04, REBID BRIDGE REPAIR PROJECT WEST 44TH AVE OVER CLEAR CREEK, B-01-19.

NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firms, Subcontractors and corporations furnishing materials for or performing labor in the prosecution of the Work provided for in such contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such Work, and all insurance premiums on said WORK, and for all labor performed in such work whether by Subcontractor or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the Work to be performed or the Specifications accompanying the same shall in any wise affect its obligation on this Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the Work or to the Specifications.

*Insert "a corporation", "a partnership", or "an individual" as applicable.
IN WITNESS WHEREOF, this instrument is executed in one part, each of which shall be deemed an original, this the ______________________ day of _________________________, 2020

ATTEST:

CORPORATE SECRETARY

ADDRESS

(SEAL)

ATTEST:

SURETY

ADDRESS

(SEAL)

Note: Date of Bond must not be prior to date of Contract. If Contractor is partnership, all partners should execute bond.

IMPORTANT: Surety companies executing bonds must appear on the Treasury Department's most current list (Circular 570, as amended) and be authorized to transact business in the State of Colorado.
PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: that

(Name of Contractor)  

(Address of Contractor)  

A ________________________________ hereinafter called "PRINCIPAL", and

(Name of Surety)  

(Address of Surety)  

hereinafter called "Surety", are held and firmly bound unto the City of Wheat Ridge, 7500 West 29th Avenue, Wheat Ridge, Colorado 80033, hereinafter called "Owner", in the penal sum of ________________________________ dollars ($________________________) in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the Owner, dated the ______ day of ______, 2020, a copy of which is hereto attached and made a part hereof for the Project titled, ITB-20-04, REBID BRIDGE REPAIR PROJECT WEST 44TH AVE OVER CLEAR CREEK, B-01-19.

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said Contract during the original term thereof, and any extensions thereof which may be granted by the Owner, with or without notice to the Surety and during the one year guarantee period, and if he shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the Owner from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the Owner all outlay and expense which the Owner may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the Work to be performed or the Specifications accompanying the same shall in any wise affect its obligation on this Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the Work or to the Specifications.

PROVIDED, FURTHER, that no final settlement between the Owner and the Contractor shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

*Insert "a corporation", "a partnership", or "an individual" as applicable.
IN WITNESS WHEREOF, this instrument is executed in one part, each of which shall be deemed an original, this the
__________________________ day of ____________________________ 2020

ATTEST:

CORPORATE SECRETARY

ADDRESS

(SEAL)

ATTEST:

SURETY

ADDRESS

(SEAL)

PRINCIPAL

ADDRESS

BY

SURETY

ADDRESS

BY (ATTORNEY IN FACT)

Note: Date of Bond must not be prior to date of Contract. If Contractor is partnership, all partners should execute
bond.

IMPORTANT: Surety companies executing bonds must appear on the Treasury Department's most current list
(Circular 570, as amended) and be authorized to transact business in the State of Colorado.
NOTICE TO PROCEED

TO: ________________________________

FROM: CITY OF WHEAT RIDGE, CO

RE: ITB-20-04, REBID BRIDGE REPAIR PROJECT WEST 44TH AVE OVER CLEAR CREEK, B-01-19

You are hereby notified to commence Work in accordance with the Agreement dated ____________, 2020, on or before ________________, 2020, and you are to complete the work within 120 working days. The date of completion of all work is ____________, 2020.

Dated this __________________________ day of __________________________ 2020.

By: _______________________________________

Title: Field Supervisor

* * * * * * * * * * * * * * * * * * * * * * * * * * * * *

RECEIPT OF NOTICE

Receipt of the above Notice to Proceed is hereby acknowledged by

_________________________________________ on this ________________ of ________________, 2020.

Printed Name______________________________________________________________

Signature_______________________________________________________________

Title______________________________________________________________
FINAL RECEIPT

DATE: ______________________

TO: ______________________________________
   (Contractor)

__________________________________________________________
   (Address)

FROM: CITY OF WHEAT RIDGE, CO

RE:      ITB-20-04, REBID BRIDGE REPAIR PROJECT WEST 44TH AVE OVER CLEAR CREEK, B-01-19

Received this date, of the Owner, as full and final payment of the cost of the improvements provided for in the Project Contract Documents, the amount of $______________ in cash, being the remainder of the full amount accruing to the undersigned by virtue of said contract.

Said cash also covers and includes full payment for the cost of all extra work and material furnished by the undersigned in the construction of said improvements, and all incidentals thereto.

The undersigned hereby releases said Owner from all claims whatsoever which may develop from said contract.

These presents are to certify that all persons doing work upon or furnishing materials for said improvements under the foregoing contract have been paid in full.

Printed Name ______________________________________________

Signature __________________________________________________

Title _______________________________________________________

Date _______________________________________________________

CDOT STANDARD SPECIFICATIONS

All work required for the project shall be in accordance with the latest edition of the COLORADO DEPARTMENT OF TRANSPORTATION (CDOT), Standard Specifications for Road and Bridge Construction, 2019 Edition, unless modified by these Specifications.

CDOT STANDARD SPECIAL PROVISIONS

The CDOT Standard Specifications are modified with the following CDOT Standard Special Provisions.

REVISION OF SECTION 103
COLORADO RESIDENT BID PREFERENCE

Section 103 of the Standard Specifications is hereby revised for this project as follows:

Subsection 103.01 shall include the following:

(a) Colorado Resident Bid Preference. A resident bidder shall be allowed a preference against a nonresident bidder from a state or foreign country equal to the preference given or required by the state or foreign country in which the nonresident bidder is a resident.

Resident bidder means:

(1) A person, partnership, corporation, or joint venture which is authorized to transact business in Colorado and which maintains its principal place of business in Colorado: or,

(2) A person, partnership, corporation, or joint venture which is authorized to transact business in Colorado, which maintains a place of business in Colorado, and which has paid Colorado unemployment compensation taxes in at least seventy-five percent of the eight quarters immediately prior to bidding on a construction contract for a public project.

To determine the resident bid preference status of a bidder, the bidder shall submit a completed Form 604 with the proposal. Failure to submit the residency Form with the proposal will be justification for and may result in the rejection of the proposal and forfeiture of the proposal guaranty.

The proposals will be treated as follows:

(1) All proposals will be checked for accuracy by the Department.

(2) The dollar amount of the checked proposal from nonresident bidders will be adjusted by a percentage equal to the percentage preference given or required by the state or foreign country of the bidder’s residency. If the state or foreign country does not give or require a residency preference, no adjustment in the proposal dollar amount will be made.

(3) Adjusted proposals from nonresident bidders will then be compared to proposals from resident bidders, and the bidder with the lowest total will be considered the apparent low bidder.

(4) Should a nonresident bidder be the apparent low bidder, in accordance with paragraph (3) above, an award will be made on the basis of the original proposal, not the adjusted proposal.

(5) The Department will proceed with its normal award procedure.

REVISION OF SECTION 106
BUY AMERICA REQUIREMENTS
NON-FEDERAL AID

Section 106 of the Standard Specifications is hereby revised for this project as follows:

Delete subsection 106.11(a) and replace it with the following:

(a) Federal Buy America requirements for iron and steel do not apply to this project.
Sections 107 and 208 of the Standard Specifications are hereby revised for this project as follows:

In subsection 107.25(b) 6 delete the second paragraph and replace it with the following:

The Contractor shall record the location of potential pollutants on the plans. Descriptions of the potential pollutants shall be submitted for approval.

Delete subsection 107.25 (c) and replace with the following:

A Colorado Discharge Permit System Storm water Construction Permit (CDPS-SCP) is not required for this project.

The Engineer will coordinate with CDOT Maintenance and the Region Water Pollution Control Manager prior to initiating partial or final acceptance of the storm water construction work, including soil conditioning and seeding for permanent stabilization. Unsatisfactory and incomplete erosion control work will be identified in this walkthrough, and will be summarized by the Engineer in a punch list.

In subsection 208.01 delete the third paragraph and replace with the following:

When a provision of Section 208 or an order by the Engineer requires that an action be immediate or taken immediately, it shall be understood that the Contractor shall at once begin effecting completion of the action and pursue it to completion, as approved.

In subsection 208.03, delete the first and second paragraphs.

Delete subsection 208.03 (b) and replace with the following:

(b) *Erosion and Sediment Control Activities*. The erosion and sediment control activities shall be included in the weekly meeting update. The project schedule shall specifically indicate the sequence of clearing and grubbing, earthwork operations, and construction of temporary and permanent erosion control features and stabilization. The project schedule shall include erosion and sediment control work for haul roads, borrow pits, storage and asphalt or concrete batch sites, and all areas within the project limits. If during construction the Contractor proposes changes which would affect the Contract's BMPs, the Contractor shall propose revised BMPs to the Engineer for approval in writing.

In subsection 208.03, delete (c), (d) and (e) and replace with the following:

(c) *SWMP Administrator*. The Contractor shall assign to the project an individual to serve in the capacity of SWMP Administrator. These duties may be assumed by the Superintendent. The SWMP Administrator shall have working knowledge and experience in construction and have satisfactorily completed the Transportation Erosion Control Supervisor Certification (TECS) training provided by the Department. Proof that this requirement has been met shall be submitted to the Engineer prior to start of work. The SWMP Administrator shall:

1. Ensure the Method Statement for Containing Pollutant Byproducts is implemented.
2. Review the construction site for compliance with CDOT specifications and the SWMP.
3. Follow all storm water requirements and inspections for other applicable State and local agencies unless a waiver or other agreement has been made.
4. Immediately report to the Contractor and Engineer the following instances of noncompliance:
   
   (i) Noncompliance which may endanger health or the environment.
   (ii) Spills or discharge of hazardous substance or oil which may cause pollution of waters of the State.
   (iii) Discharge of storm water which may cause an exceedance of a water quality standard.
   (iv) Discharge of pollutants that have occurred on site.
(d) **Documentation Available on the Project.** The SWMP Administrator shall provide the following Contract documents and references. They shall be made available for reference in one location on the project during construction. The documents shall be kept in a single notebook:

1. SWMP Plan Sheets – Notes, tabulation, sequence of major activities, area of disturbance, existing soil data, existing vegetation percent cover, potential pollutant sources, receiving water, non-storm water discharges, and environmental impacts.
2. SWMP Site Maps (if included in the original Contract) - Construction site boundaries ground surface disturbance, limits of cut and fill, flow arrows, structural BMPs, non-structural BMPs, springs, streams, wetlands, and surface water. Also included on the map are the protection of trees, shrubs, and cultural resources.
3. BMP Details not in Standard Plans M-208-1, M-216-1 and M-615-1.
4. Spill Response Plan – Reports of reportable spills submitted to CDPHE.
5. List and Evaluation of Potential Pollutants – List of potential pollutants as described in subsection 107.25 and approved Method Statement for Containing Pollutant Byproducts.
6. All Project Environmental Permits—All Project environmental permits and associated applications and certifications, including, Senate Bill 40, USACE 404, dewatering and all other permits applicable to the project, including any separate CDPS-SCP obtained by the Contractor for staging area on private property, asphalt or concrete plant, etc.
7. Form 105 and all other correspondence related to water quality which are issued by the Engineer for Contractor’s lack of compliance.

The Contractor shall incorporate the documents and reports and have Items 1-7 available for the first working day of the project. None of these documents are required to be updated during the course of the project.

(e) **Weekly Meetings.** The Contractor shall conduct weekly meetings with the Engineer to discuss the following:

1. Requirements of the SWMP.
2. Problems that may have arisen in implementing the site specific SWMP or maintaining BMPs.
3. Unresolved issues from inspections and concerns from last inspection
4. BMPs that are to be installed, removed, modified, or maintained.
5. Planned activities that will affect storm water in order to proactively phase BMPs.
6. Recalcitrant inspection findings.

Delete the third paragraph in subsection 208.04 and replace with the following:

New inlets and culverts shall be protected during their construction. Appropriate protection of each culvert and inlet shall be installed immediately after installation of the culvert or inlet. When riprap is called for at the outlet of a culvert, it shall be installed within 24 hours of completion of each pipe. The Contractor shall remove sediment, millings, debris, and other pollutants from within the newly constructed drainage system prior to use, at the Contractor’s expense. All removed sediment shall be disposed of in accordance with all applicable regulations.

Delete the first paragraph in subsection 208.04 (f) and replace with the following:

(f) **Maintenance.** Erosion and sediment control practices and other protective measures identified in the SWMP as BMPs for storm water pollution prevention shall be maintained in effective operating condition until final acceptance of the project. BMPs shall be continuously maintained in accordance with good engineering, hydrologic and pollution control practices, including removal of collected sediment when silt depth is 50 percent or more of the height of the erosion control device. When possible, the Contractor shall use equipment with an operator rather than labor alone to remove the sediment.

Delete the first paragraph in subsection 208.06, first paragraph, delete the first sentence.

In subsection 208.07, second paragraph, delete the second sentence.

In subsection 208.08, delete the first paragraph and replace with the following:

**208.08 Limits of Disturbance.** The Contractor shall limit construction activities to those areas within the limits of disturbance shown on the plans and cross-sections. Construction activities, in addition to the Contract work, shall include the on-site parking of vehicles or equipment, on-site staging, on-site batch plants, haul roads or work access, and all other action which would disturb existing conditions. Off road staging areas must be pre-approved by the Engineer, unless otherwise designated in the Contract. Construction activities beyond the limits of disturbance due to Contractor negligence shall be restored to the original condition by the Contractor at the Contractor’s expense.
In subsection 208.09, delete the first and second paragraph and replace with the following:

**208.09 Failure to Perform Erosion Control.** Failure to implement the Storm water Management Plan is a violation of the Colorado Water Quality Control Act. Penalties may be assessed to the Contractor by the appropriate agencies. Penalties will be assessed by the Department as liquidated damages for failure to meet the contract documents. All fines assessed to the Department for the Contractor’s failure to implement the SWMP will be deducted from monies due the Contractor.

The Contractor will be subject to liquidated damages for incidents of failure to perform erosion control as required by the Contract. Liquidated damages will be applied for failure to comply with these specifications, including the following:

1. Failure of the Contractor to implement necessary actions required by the Engineer as required by subsection 208.03(b) and (c)
2. Failure to construct or implement erosion control or spill containment measures required by the Contract, or failure to construct or implement them in accordance with the Contractor's schedule.
3. Failure to stabilize disturbed areas as required by subsections 208.04(e) and 208.08.
4. Failure to replace or perform maintenance on an erosion control feature after notice from the Engineer to replace or perform maintenance as required by subsection 208.04(f).
5. Failure to remove and dispose of sediment from BMPs as required.
6. Failure to install and properly utilize a concrete washout structure for containing washout from concrete placement operations.
7. Failure to perform permanent stabilization as required by subsection 208.04(e).
8. Failure to prevent discharges not composed entirely of storm water from leaving the construction site.
9. Failure to provide the survey of Permanent Water Quality BMPs when required on the project in accordance with subsection 208.10.

In subsection 208.09, delete the 10th paragraph, and replace with the following:

If the Contractor’s corrective action plan and schedule are not submitted and approved within 96 hours of the initial notice, the Engineer will issue a Stop Work Order and have an on-site meeting with the Superintendent, SWMP Administrator, and the Superintendent’s supervisor. This meeting will also be attended by the Resident Engineer, the Region Water Pollution Control Manager, and the Region Program Engineer. This meeting will identify and document needed corrective actions and a schedule for completion. If after the meeting, the unacceptable work is not remedied within the schedule as agreed to in the meeting, the Engineer will take action to effect compliance with the Contract and these specifications by utilizing CDOT Maintenance personnel or other non-Contractor forces and deduct the cost from any monies due or to become due to the Contractor pursuant to subsection 105.17. Delays due to these Stop Work Orders shall be considered non-excusable. The Stop Work Order shall be in place until the project is in compliance.

In subsection 208.10, delete (c) and replace with the following:

(c) **Locations of Temporary BMPs.** The Engineer will identify locations where modification, cleaning or removal of temporary BMPs are required, and will provide these in writing to the Contractor.

In subsection 208.11, delete the first paragraph.

In subsection 208.12, delete the third, fourth and fifth paragraphs and replace with the following:

SWMP Administrator duties on projects having less than one acre of total disturbed area will not be measured and paid for separately but shall be included in the work. The Erosion Control Management Pay Item will not apply to this project.
REVISION OF SECTION 109
ASPHALT CEMENT COST ADJUSTMENT
(ASPHALT CEMENT PAID SEPARATELY)

Section 109 of the Standard Specifications is hereby revised for this project as follows:

Delete subsection 109.06(j) and replace it with the following:

(j) Asphalt Cement Cost Adjustments. Contract cost adjustments will be made to reflect increases or decreases in the monthly average price of asphalt cement from the average price for the month preceding the month in which bids were received for the Contract. These cost adjustments are not a change to the Contract unit prices bid.

1. Cost adjustments will be based on the asphalt cement price index established by the Department and calculated as shown below. The index will be the average for the month of the daily Hardisty WCS spot price. This will be calculated by applying the monthly Hardisty WCS differential (as published on http://www.fhr.com/refining/crude_oil.aspx) from the West Texas Intermediate (WTI) daily spot price (as published on http://www.up.com/customers/surcharge/wni/prices/index.htm). The daily prices and the average index number for the month will be posted as soon as they are available on the CDOT website at:


2. Cost adjustments will be made on a monthly basis subject to the following conditions:

A. Adjustment will be based on the pay quantities on the monthly partial pay estimate for the following pay item when measured by the ton:

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>411</td>
<td>Asphalt Cement (*)</td>
<td>Ton</td>
</tr>
</tbody>
</table>

*Asphalt cement used with HMA (Patching) is not subject to asphalt cost adjustment.

B. A cost adjustment will be made only when the asphalt cement price index varies by more than 5 percent from the asphalt cement price index at the time of bid, and only for that portion of the variance in excess of 5 percent. Cost adjustments may be either positive or negative dollar amounts.

C. Asphalt cement price adjustments will not be made for any partial estimate falling wholly after the expiration of contract time.

D. Adjustment formula:

EP greater than BP:

\[ \text{ACCA} = (\text{EP} - 1.05 \times \text{BP}) \times \text{Q} \]

EP less than BP:

\[ \text{ACCA} = (\text{EP} - 0.95 \times \text{BP}) \times \text{Q} \]

Where:

\[ \text{BP} = \text{Average Asphalt Cement price index for the calendar month prior to the calendar month in which bids are opened.} \]

\[ \text{EP} = \text{Average Asphalt Cement price index for the calendar month prior to the calendar month in which the partial estimate pay period ends.} \]

\[ \text{ACCA} = \text{Asphalt Cement Cost Adjustment.} \]

\[ \text{Q} = \text{Increased pay quantity for 411 item shown above on the monthly partial pay estimate in Tons.} \]
Example: Bids are opened on July 16. The BP will be the average of the daily postings for June 1 through June 30. For an estimate cut-off date selected by the Contractor at the Pre-Construction Conference of the 20th of the month a February estimate will include HMA quantities measured from the 21st of January through the 20th of February, and the EP index used to calculate ACCA will be the average of the daily postings for January 1 through January 31 as established by CDOT)

E. Cost adjustments will not be made for the quantity of any item that is left in place at no pay or for material removed and replaced at the Contractor’s expense.

F. Cost adjustments will not be made to items of work added to the Contract by Change Order after the award of the Contract.

G. The asphalt cement cost adjustment will be the sum of the individual adjustments for each of the pay items shown above. No adjustment will be made for asphalt cement costs on items other than those shown above.

H. Asphalt cement cost adjustments resulting in an increased payment to the Contractor will be paid for under the planned force account item: Asphalt Cement Cost Adjustment. Asphalt cement cost adjustments resulting in a decreased payment to the Contractor will be deducted from monies owed the Contractor.

REVISION OF SECTION 601
STRUCTURAL CONCRETE

Section 601 of the Standard Specifications is hereby revised for this project as follows:
Delete subsections 601.01 thru 601.07 and replace with the following:
601.01 This work consists of furnishing and placing hydraulic cement concrete in accordance with these specifications and in conformity with the lines, grades and dimensions as shown on the plans or established. This work includes preparing concrete surfaces designated in the Contract and applying an approved colored Structural Concrete Coating to them.

601.02 Classification. The classes of concrete shown in Table 601-1 shall be used when specified in the Contract.

<table>
<thead>
<tr>
<th>Concrete Class</th>
<th>Required Field Compressive Strength (psi)</th>
<th>Air Content: % Range (Total)</th>
<th>Slump</th>
<th>Maximum Water/Cementitious Material Ratio:</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>4500 at 28 days</td>
<td>5 - 8</td>
<td>+/- 2’’ of Form 1373 Slump</td>
<td>w/cm on Form 1373</td>
</tr>
<tr>
<td>BZ</td>
<td>4000 at 28 days</td>
<td>N/A1</td>
<td>6” – 9”</td>
<td>w/cm on Form 1373</td>
</tr>
<tr>
<td>D</td>
<td>4500 at 28 days</td>
<td>5 – 8</td>
<td>+/- 2’’ of Form 1373 Slump</td>
<td>w/cm on Form 1373</td>
</tr>
<tr>
<td>DT</td>
<td>4500 at 28 days</td>
<td>5 – 8</td>
<td>+/- 2’’ of Form 1373 Slump</td>
<td>w/cm on Form 1373</td>
</tr>
<tr>
<td>G</td>
<td>4500 at 28 days</td>
<td>5 – 8</td>
<td>+/- 2’’ of Form 1373 Slump</td>
<td>w/cm on Form 1373</td>
</tr>
<tr>
<td>PS (Girders)</td>
<td>8500 at 28 days</td>
<td>N/A1</td>
<td>9” maximum</td>
<td>0.45</td>
</tr>
<tr>
<td>PS (Deck Panels)</td>
<td>6000 at 28 days</td>
<td>N/A1</td>
<td>9” maximum</td>
<td>0.45</td>
</tr>
<tr>
<td>P</td>
<td>4500 at 28 days</td>
<td>4 – 8</td>
<td>+/- 2’’ of Form 1373 Slump</td>
<td>w/cm on Form 1373</td>
</tr>
<tr>
<td>S35</td>
<td>5000 at 28 days</td>
<td>5 – 8</td>
<td>+/- 2’’ of Form 1373 Slump</td>
<td>w/cm on Form 1373</td>
</tr>
<tr>
<td>S40</td>
<td>5800 at 28 days</td>
<td>5 – 8</td>
<td>+/- 2’’ of Form 1373 Slump</td>
<td>w/cm on Form 1373</td>
</tr>
<tr>
<td>S50</td>
<td>7250 at 28 days</td>
<td>5 – 8</td>
<td>+/- 2’’ of Form 1373 Slump</td>
<td>w/cm on Form 1373</td>
</tr>
<tr>
<td>Shotcrete</td>
<td>4500 at 28 days</td>
<td>7-10^3</td>
<td>N/A</td>
<td>0.45</td>
</tr>
</tbody>
</table>

1 5 - 8% when specified
Slump shall be a maximum of 9.0 inches for all classes of concrete. Concrete may have a slump above 9.0 inches when designed as Self Consolidating Concrete (SCC). The requirements for slump flow, blocking assessment, and segregation shall apply.

Prior to pumping for wet process.

Class B concrete is an air entrained concrete for general use. Class D, G or P concrete may be substituted for Class B concrete. Additional requirements are:

1. The coarse aggregate shall have a nominal maximum size of 1½ inches or smaller.
2. Class B Concrete for Slope and Ditch Paving shall be macro-fiber reinforced.

Class BZ concrete is concrete for drilled shafts. Additional requirements are:

1. Entrained air is not required unless specified in the Contract. When entrained air is specified in the Contract, the air content shall be 5 to 8 percent.
2. Slump shall be a minimum of 6 inches and a maximum of 9 inches. A minimum slump of 6 inches shall be maintained during the anticipated pour period. The use of retarders and hydration stabilizers are allowed to extend the slump life of the concrete. When the Contractor elects to use SCC, the slump requirement for Class BZ Concrete does not apply.
3. The coarse aggregate size shall be AASHTO M43 size #8 unless otherwise approved by the Engineer.
4. The mix shall either have a permeability not exceeding 2,500 coulombs at an age of not more than 56 days when tested in accordance with ASTM C1202, or have a surface resistivity of at least 12 kΩ-cm at 28 days using AASHTO T358.
5. The unrestrained shrinkage shall not exceed 0.050 percent at 28 days when tested by CP-L 4103.

Class D concrete is a denser general use concrete. Class G may be substituted for Class D concrete. Additional requirements are:

1. The mix shall either have a permeability not exceeding 2,500 coulombs at an age of not more than 56 days when tested in accordance with ASTM C1202, or have a surface resistivity of at least 12 kΩ-cm at 28 days using AASHTO T358.
2. The unrestrained shrinkage shall not exceed 0.050 percent at 28 days when tested by CP-L 4103.
3. The mix may use an optimized gradation (OG) with a nominal maximum aggregate size of at least ¾ inch.
4. The mix shall have a nominal maximum aggregate size of at least ¾ inch if an OG is not used.
5. When used in slip forming, an edge slump less than 6 mm (0.25 in.) and less than 30 percent surface voids (ranking of 2 or less) is required. The box test is described in CP 63.
6. Class D Concrete for sidewalks on bridge decks and bridge rail shall be macro-fiber reinforced.

Class DT concrete is used for bridge deck resurfacing. Additional requirements are:

1. The concrete mix shall consist of a minimum 50 percent AASHTO M 43 size No. 7 or No. 8 coarse aggregate by weight of total aggregate.
2. The mix shall either have a permeability not exceeding 2,500 coulombs at an age of not more than 56 days when tested in accordance with ASTM C1202, or have a surface resistivity of at least 12 kΩ-cm at 28 days using AASHTO T358.
3. The unrestrained shrinkage shall not exceed 0.050 percent at 28 days when tested by CP-L 4103.

Class G concrete is a low shrinkage macrofiber-reinforced concrete. Additional requirements are:

1. The concrete mix shall include approved macro or hybrid polyolefin fibers at a minimum dosage of 4 lbs/cy or the minimum dosage specified on the Department’s Approved Product List (APL), whichever is greater.
2. Shrinkage reducing admixtures may be incorporated into the mix.
3. The unrestrained shrinkage shall not exceed 0.030 percent at 28 days when tested by CP-L 4103.
4. The mix shall either have a permeability not exceeding 2,500 coulombs at an age of not more than 56 days when tested in accordance with ASTM C1202, or have a surface resistivity of at least 12 kΩ-cm at 28 days using AASHTO T358.
5. The mix may use an OG with a nominal maximum aggregate size of at least ¾ inch. The mix shall have a nominal maximum aggregate size of ¾ inch if an OG is not used.
6. An expansive cement additive may be added to an ASTM C150 Type I/II cement and fly ash to produce an ASTM C845 Type K cement. The proportion of the expansive cement additive will be determined by testing the cementitious material blend in accordance with ASTM C806. The blended material shall have an expansion of
0.04 to 0.10 percent at 7 days when tested in accordance with ASTM C806. When an expansive cement is used, the w/cm ratio shall be 0.45 to 0.55 and the expansion of the laboratory trial mix shall be 0.05 to 0.09 percent at 7 days when tested in accordance with ASTM C878.

**Class P** concrete is used in pavements. Additional requirements are:

1. The Required Field Flexural Strength shall be 650 psi.
2. The concrete mix shall consist of a minimum 55 percent AASHTO M 43 sizes No. 57, No. 6, No. 67, No. 357, or No. 467 coarse aggregate by weight of total aggregate.
3. The mix may use an OG with a nominal maximum aggregate size of at least \( \frac{3}{4} \) inch.
4. ASTM C150 Type III and ASTM C1157 Type HE cements may be used for early opening.
5. The mix shall either have a permeability not exceeding 2,500 coulombs at an age of not more than 56 days when tested in accordance with ASTM C1202, or have a surface resistivity of at least 12 kΩ-cm at 28 days using AASHTO T358.
6. The unrestrained shrinkage shall not exceed 0.050 percent at 28 days when tested by CP-L 4103.
7. When concrete is to be placed using a paver, an edge slump less than 6 mm (0.25 in.) and less than 30 percent surface voids (ranking of 2 or less) is required. The box test is described in CP 63.
8. A minimum of 20 percent Class F fly ash or 30 percent Slag cement by weight shall be used to replace any ASTM C150 cement, any ASTM C1157 cement, or ASTM C595 Type IL cement. ASTM C595 Type IT(MS), IT(HS), IP(MS) or IP(HS) cements may be used without cement substitutions. Class C fly ash may be used if the calcium oxychloride is determined to be less than 15 g CaOXY/100 g cementitious paste as determined in accordance with AASHTO T 365 for Class 0 Sulfate Exposure.

**Class PS** Class PS concrete is used for pre-stressed concrete members. Requirements for Class PS concrete are specified in subsection 618.11. ASTM C150 Type III and ASTM C1157 Type HE cements may be used.

**Class S35, S40, and S50** concretes are dense high strength concretes. Additional requirements are:

1. The concrete mix shall be made with AASHTO M 43 sizes No. 57, No. 6, No. 67, No. 7 or No. 8 coarse aggregate.
2. When placed in a bridge deck, the mix shall have a nominal maximum aggregate size of at least \( \frac{3}{4} \) inch.
3. The mixes may use an OG with a nominal maximum aggregate size of at least \( \frac{3}{4} \) inch.
4. For S35 and S40 concretes, the unrestrained shrinkage shall not exceed 0.050 percent at 28 days when tested by CP-L 4103.
5. For S50 concretes, the unrestrained shrinkage shall not exceed 0.040 percent at 28 days when tested by CP-L 4103.
6. For S35 and S40 concretes, the mix shall either have a permeability not exceeding 2,000 coulombs at an age of not more than 56 days when tested in accordance with ASTM C1202, or have a surface resistivity of at least 14 kΩ-cm at 28 days using AASHTO T358.
7. For S50 concrete, the mix shall either have a permeability not exceeding 1,500 coulombs at an age of not more than 56 days when tested in accordance with ASTM C1202, or have a surface resistivity of at least 18 kΩ-cm at 28 days using AASHTO T358.

**Class Shotcrete** concrete is used for shotcrete applications. Additional requirements are:

1. The required air content prior to the pump for wet process applications shall be 7–10 percent.
2. Additional requirements are listed in subsection 641.02.

The Contractor may design Class B, Class BZ, Class D, Class G, Class PS, Class S35, Class S40, and Class S50 concrete to be Self Consolating Concrete (SCC) with the following requirements:

1. SCC shall have a slump flow of 20 to 26 inches when tested in accordance with ASTM C1611 using an inverted slump cone.
2. SCC shall have a maximum blocking assessment of 2.0 inches when tested in accordance with ASTM C1621.
3. SCC shall have a maximum static segregation of 10 percent when tested in accordance with ASTM C1610.
MATERIALS

601.03 Materials shall meet the requirements specified in the following subsections:

<table>
<thead>
<tr>
<th>Material</th>
<th>Subsection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fine Aggregate</td>
<td>703.01</td>
</tr>
<tr>
<td>Coarse Aggregate</td>
<td>703.02</td>
</tr>
<tr>
<td>Portland Cement</td>
<td>701.01</td>
</tr>
<tr>
<td>Fly Ash</td>
<td>701.02</td>
</tr>
<tr>
<td>Silica Fume</td>
<td>701.03</td>
</tr>
<tr>
<td>Water</td>
<td>712.01</td>
</tr>
<tr>
<td>Air Entraining Admixtures</td>
<td>711.02</td>
</tr>
<tr>
<td>Pigments and Admixtures</td>
<td>711.03</td>
</tr>
<tr>
<td>Curing Materials</td>
<td>711.01</td>
</tr>
<tr>
<td>Preformed Joint Material</td>
<td>705.01</td>
</tr>
<tr>
<td>Reinforcing Steel</td>
<td>709.01</td>
</tr>
<tr>
<td>Bearing Materials</td>
<td>705.06</td>
</tr>
<tr>
<td>Epoxy</td>
<td>712.10</td>
</tr>
<tr>
<td>Structural Concrete Coating</td>
<td>708.08</td>
</tr>
<tr>
<td>High-reactivity Pozzolans</td>
<td>701.04</td>
</tr>
<tr>
<td>Slag Cement</td>
<td>701.05</td>
</tr>
</tbody>
</table>

Pozzolans shall consist of fly ash, silica fume, and high-reactivity pozzolan.

Pre-stressing steel shall meet the requirements of subsection 714.01 except as noted on the plans.

Calcium Chloride shall not be used in reinforced concrete. Calcium Chloride shall be used in non-reinforced concrete only when specified.

Where Fiber-Reinforced Concrete is specified or designated on the plans, the concrete mix shall include approved polyolefin fibers. Unless otherwise specified, a minimum of 1.5 pounds or the manufacturer’s recommended dose per cubic yard of polyolefin fiber reinforcement shall be evenly distributed into the mix. Mixing shall be as recommended by the manufacturer such that the fibers do not ball up. Polyolefin fibers shall meet the requirements of ASTM C1116 and ASTM D7508.

Where Macro Fiber-Reinforced Concrete is specified or designated on the plans, the concrete mix shall include approved macro or hybrid polyolefin fibers at a minimum dosage of 4 lb/cy or the minimum dosage specified on the APL, whichever is greater. The dosage of the fiber may be reduced if trial mix data shows a minimum residual strength of 150 psi as determined in accordance with ASTM C1609 using a load support apparatus compliant with the requirements of ASTM C1812, “Standard Practice for Design of Journal Bearing Supports to be Used in Fiber Reinforced Concrete Beam Tests.” Mixing shall be as recommended by the manufacturer such that the fibers are evenly distributed in the mix and do not ball up. Macro or hybrid polyolefin fibers shall meet the requirements of ASTM C1116 and ASTM D7508.

601.04 Sulfate Resistance. The Contractor shall provide protection against sulfate attack on concrete structures and pavements by providing concrete manufactured according to the requirements of the specified Sulfate Exposure Class. The sulfate exposure class for all concrete except Class PS shall be Class 2 unless otherwise specified on the plans. The sulfate exposure class for Class PS shall be Class 0. The requirements for a higher sulfate exposure class may be used for lower sulfate exposure classes.

The Contractor may request to test the soil and water at a structure location to change the sulfate exposure class. Testing and sampling of the location shall be at a frequency approved by the Engineer, in consultation with the Region Materials Engineer. If the Contractor provided test reports that show another class of exposure exists at a structure location, the Engineer may accept a concrete mix for that location at the changed sulfate exposure class.

Cementitious material requirements for each Sulfate Exposure Class are as follows:

Class 0 requires that the concrete have a maximum Water/Cementitious Material Ratio of 0.45 and one of the following:

1. ASTM C150 Type I, II, III or V
2. ASTM C595 Type IL, IP, IP(MS), IP(HS) or IT
3. ASTM C1157 Type GU, HE, MS or HS
Class 1 requires that the concrete have a maximum Water/Cementitious Material Ratio of 0.45 and one of the following:

1. ASTM C150 Type II or V
2. ASTM C595 Type IP(MS) or IP(HS)
3. ASTM C1157 Type MS or HS
4. ASTM C150 Type III. Type III shall have no more than 8 percent C3A.
5. ASTM C595 Type IL(MS), IL(HS), IT(MS) or (HS)

Class 2 requires that the concrete have a maximum Water/Cementitious Material Ratio of 0.45 and one of the following:

1. ASTM C150 Type V with a maximum of a 20 percent substitution of Class F fly ash or slag cement by weight
2. ASTM C150 Type II or III with a minimum of a 20 percent substitution of Class F fly ash or slag cement by weight. The Type II or III cement shall have no more than 0.040 percent expansion at 14 days when tested according to ASTM C452.
3. ASTM C1157 Type HS
4. ASTM C150 Type II, III, or V plus High-Reactivity Pozzolan where the blend has less than 0.05 percent expansion at 6 months or 0.10 percent expansion at 12 months when tested according to ASTM C1012
5. ASTM C1157 Type HE or MS plus Class F fly ash, slag cement, or High-Reactivity Pozzolan where the blend has less than 0.05 percent expansion at 6 months or 0.10 percent expansion at 12 months when tested according to ASTM C1012.
6. A blend of portland cement meeting ASTM C150 Type II or III with a minimum of 20 percent Class F fly ash or slag cement by weight, where the blend has less than 0.05 percent expansion at 6 months or 0.10 percent expansion at 12 months when tested according to ASTM C1012.
7. ASTM C595 Type IP(HS), IL(HS) or IT(HS). Class F fly ash, slag cement, or High-Reactivity Pozzolan may be substituted for Type IL cement.
8. ASTM C595 Type IL(MS) or IT(MS) plus Class F fly ash, slag cement, or High-Reactivity Pozzolan where the blend has less than 0.05 percent expansion at 6 months or 0.10 percent expansion at 12 months when tested according to ASTM C1012.

Class 3 requires that the concrete have a maximum Water/Cementitious Material Ratio of 0.40 and one of the following:

1. A blend of portland cement meeting ASTM C150 Type II, III, or V with a minimum of a 20 percent substitution of Class F fly ash or slag cement by weight, where the blend has less than 0.10 percent expansion at 18 months when tested according to ASTM C1012.
2. ASTM C150 Type III and ASTM C1157 Type HE cements may only be used in Class P or PS Concrete when approved by the Engineer.
3. Class C fly ash shall not be substituted for cement when Class 1, 2, or 3 sulfate resistance/exposure class is specified.

The maximum Water/Cementitious Material Ratio may be exceeded when an expansive cement additive is used. When fly ash or high-reactivity pozzolan is used to enhance sulfate resistance, it shall be used in a proportion greater than or equal to the proportion tested in accordance to ASTM C1012, shall be the same source, and shall have a

\[ R = \frac{CaO - 5}{Fe_2O_3} \]
calcium oxide content no more than 2.0 percent greater than the fly ash or high-reactivity pozzolan tested according to ASTM C1012. ASTM C1012 test results are acceptable for up to two years from the completion date of the test.

Table 601-2

<table>
<thead>
<tr>
<th>Water-Soluble Sulfate (SO₄) in Dry Soil, (%)</th>
<th>Sulfate (SO₄) in Water, ppm</th>
<th>Sulfate Exposure Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00 to 0.10</td>
<td>0 to 150</td>
<td>Class 0</td>
</tr>
<tr>
<td>0.11 to 0.20</td>
<td>151 to 1,500</td>
<td>Class 1</td>
</tr>
<tr>
<td>0.21 to 2.00</td>
<td>1,501 to 10,000</td>
<td>Class 2</td>
</tr>
<tr>
<td>2.01 or greater</td>
<td>10,001 or greater</td>
<td>Class 3</td>
</tr>
</tbody>
</table>

CONSTRUCTION REQUIREMENTS

601.05 Mix Design Submittal Requirements. The Contractor shall submit a Concrete mix design for each class of concrete being placed on the project. Concrete shall not be placed on the project before the Concrete mix design has been approved by the Engineer. The Concrete mix design will be reviewed following the procedures of CP 62. The Concrete mix design will not be approved when the laboratory trial mix data or aggregate data are the results from tests performed more than two years in the past. The concrete mix design shall show the weights and sources of all ingredients including cements, pozzolans, aggregates, fibers, pigments, water, additives and the water to cementitious material ratio (w/cm). When determining the w/cm, the weight of cementitious material (cm) shall be the sum of the weights of the cement, slag cement, fly ash, silica fume, and high-reactivity pozzolan. Water from dosages of admixtures greater than 10 ounces per 100 pounds of cementitious materials shall be included in the calculation of w/cm.

The laboratory trial mix data shall include results of the following:

1. AASHTO T 119 (ASTM C143) Slump of Hydraulic Cement Concrete, except when the concrete is SCC
2. AASHTO T 121 (ASTM C138) Weight per Cubic Foot, Yield, and Air Content (Gravimetric) of Concrete
3. AASHTO T 152 (ASTM C231) Air Content of Freshly Mixed Concrete by the Pressure Method
4. ASTM C39 Compressive Strength of Cylindrical Concrete Specimens shall be performed with at least two specimens at 7 days and three specimens at 28 days.
5. Class P concrete shall include AASHTO T97 (ASTM C78) Flexural Strength of Concrete (Using Simple Beam with Third-Point Loading). At least two specimens will be tested at 7 days and four specimens at 28 days. The lab trial mix shall produce a flexural strength at 28 days of at least 650 psi.
6. Concrete with an OG shall indicate the gradation of the blended aggregates. Optimized gradations shall be developed by an approved mix design technique such as Tarantula Curve, Shilstone, or KU mix.
8. SCC concrete shall include ASTM C1621 Standard Test Method for Passing Ability of Self-Consolidating Concrete by J-Ring.
10. When concrete is to be placed using a paver, the edge slump and surface voids shall be reported in accordance with CP 63.

Prior to placement of accelerated Class P Concrete, the Contractor shall provide the Engineer a report of maturity relationships in accordance with CP 69.

Except for Class PS concrete, the laboratory trial mix must produce an average compressive strength of at least the required field compressive strength specified in Table 601-1. For Class PS concrete, the laboratory trial mix must produce an average compressive strength at least 115 percent of the required field compressive strength specified in Table 601-1.

When entrained air is specified in the Contract for Class BZ concrete, the trial mix shall be run with the required air content.

The laboratory trial mix shall have a relative yield of 0.99 to 1.02.

Aggregate data shall include the results of the following:
(1) AASHTO T 11 (ASTM C117) Materials Finer Than 75 um (No. 200) Sieve in Mineral Aggregates by Washing
(2) AASHTO T 19 (ASTM C29) Unit Weight and Voids in Aggregate
(3) AASHTO T 21 (ASTM C40) Organic Impurities in Fine Aggregate for Concrete
(4) AASHTO T 27 (ASTM C136) Sieve Analysis of Fine and Coarse Aggregates
(5) AASHTO T 84 (ASTM C128) Specific Gravity and Absorption of Fine Aggregate
(6) AASHTO T 85 (ASTM C127) Specific Gravity and Absorption of Coarse Aggregate
(7) AASHTO T 96 (ASTM C131) Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
(8) AASHTO T 104 (ASTM C88) Soundness of Aggregate by Use of Sodium Sulfate or Magnesium Sulfate
(9) CP 37 Plastic Fines in Graded Aggregates and Soils by use of the Sand Equivalent Test
(10) ASTM C535 Resistance to Degradation of Large-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine
(11) ASTM C1260 Determining the Potential Alkali Reactivity of Aggregates (Accelerated Mortar-Bar Method). When an aggregate source is known to be reactive, ASTM C1567 results may be submitted in lieu of ASTM C1260 results.

Aggregate tested by ASTM C1260 with an expansion of 0.10 percent or more, or that is known to be reactive, shall not be used unless mitigative measures are included in the mix design.

Mitigative measures shall be tested using ASTM C1567 and exhibit an expansion less than 0.10 percent by one of the following methods:

(1) Combined Aggregates. The mix design sources of aggregates, cement and mitigative measures shall be tested. The proportions of aggregates, cement and mitigative measures shall be those used in the mix design.

(2) Individual Aggregates. Each source and size of individual aggregates shall be tested. The source of cement and mitigative measures shall be those used in the mix design. The highest level of mitigative measures for any individual aggregate shall be the minimum used in the mix design.

For all concrete mix designs with ASTM C150 and ASTM C595 Type IL cements, the total substitution of cement shall not exceed 50 percent by weight of total cementitious material.
For all concrete mix designs with ASTM C595 Type IP, IP(MS), IP(HS), or IT cements: fly ash or high-reactivity pozzolan shall not be substituted for cement.
For all concrete mix designs with ASTM C595 IT cements, slag cement shall not be substituted for cement.
For all concrete mix designs with ASTM C595 Type IP, IP(MS), IP(HS) cements, when slag cement is substituted for cement, the total substitution of cement shall not exceed 50 percent by weight of total cementitious material.
For all concrete mix designs with ASTM C1157 cements, the total pozzolan content including pozzolan in cement shall not exceed 30 percent by weight of the cementitious material content. Up to a maximum of 30 percent slag cement by weight of total cementitious material may be substituted for cement.
The Contractor shall submit a new Concrete Mix Design Report meeting the above requirements when a change occurs in the source, type, or proportions of cement, slag cement, fly ash, high-reactivity pozzolan, silica fume, or aggregate. Adjustments to aggregate weights may be made to adjust yield if the combined gradation remains constant (+/-1 percent) or within the optimized band.
When a change occurs in the source or type of approved admixtures or the addition of approved accelerating, retarding or hydration stabilizing admixtures to existing mix designs, the Contractor shall submit a letter stamped by the Concrete Mix Design Engineer approving the changes to the existing mix design. The change shall be approved by the Engineer prior to use.
Unless otherwise permitted by the Engineer, the product of only one type of hydraulic cement from one source of any one brand shall be used in a concrete mix design.
Approval of the concrete mix design by the Engineer does not constitute acceptance of the concrete. Acceptance will be based solely on the test results of concrete placed on the project.
Once approved for a project, the mix design may be used for the duration of the project.

601.06 Batching Measuring and batching of materials shall be done in accordance with AASHTO M 157 (ASTM C94).
The Contractor shall furnish a batch ticket (delivery ticket) with each load for all classes of concrete. Concrete delivered without a batch ticket containing complete information as specified shall be rejected. The Contractor shall collect and complete the batch ticket at the placement site and deliver all batch tickets to the Engineer on a daily basis. The Engineer shall have access to the batch tickets at any time during the placement. The following information shall be provided on each batch ticket:
(1) Supplier's name and date
(2) Truck number
(3) CDOT Project number and location
(4) Concrete class designation and item number
(5) Cubic yards batched
(6) Time batched
The Contractor shall add the following information to the batch ticket at the placement site:

1. Gallons of water added by truck operator, the time the water was added, and the quantity of concrete in the truck each time water is added
2. Number of revolutions of drum at mixing speed (for truck mixed concrete)
3. Discharge time
4. Location of batch in placement
5. Water to cementitious material ratio

Electronic tickets are allowed as long as CDOT has access to the batch ticket and the batch ticket can be downloaded and saved by the Engineer in PDF format before placement, at any time during placement, and until the project is accepted.

(a) **Hydraulic Cement, Fly Ash, High-Reactivity Pozzolan, Slag Cement and Silica Fume.** All cementitious material shall be measured by mass. Supplementary cementitious materials may be weighed cumulatively with cement. Cement and other cementitious material shall be weighed on a scale and in a weigh hopper, which is separate and distinct from those used for other materials. When the quantity of cementitious material exceeds 30 percent of the full capacity of the scale, the quantity of cement and the cumulative quantity of cement plus supplementary cementitious material shall be within ±1 percent of the required mass. For small batches to a minimum of 1 cubic yard, the quantity of cement and the quantity of cement plus supplementary cementitious material used shall not be less than the required amount or more than 4 percent in excess. A fraction of a bag of cement shall not be used unless weighed.

(b) **Water.** Mixing water shall consist of water added to the batch, ice added to the batch, water occurring as surface moisture on the aggregates, and water introduced in the form of admixtures. The added water shall be measured by mass or volume to an accuracy of 1 percent of the required total mixing water. Added ice shall be measured by weight. In the case of truck mixers, wash water retained in the drum for use in the next batch of concrete shall be accurately measured or shall be discharged prior to loading the next batch of concrete. Total water (including any wash water) shall be measured or weighed to an accuracy of ±3 percent.

(c) **Aggregates.** Aggregates from different sources and of different gradings shall not be stockpiled together. Aggregate shall be handled from stockpiles or other sources to the batching plant in such manner as to secure a uniform grading of the material. Aggregates that have become segregated, or mixed with earth or foreign material, shall not be used. All aggregates produced or handled by hydraulic methods, and washed aggregates, shall be stockpiled or binned for draining at least 12 hours before being batched. Rail shipment requiring more than 12 hours will be accepted as adequate binning only if the car bodies permit free drainage. In case the aggregates contain high or non-uniform moisture content, storage or stockpile period in excess of 12 hours may be required. Aggregate shall be measured by mass. The quantity of aggregate used in any batch of concrete as indicated by the scale shall be within ±2 percent of the required mass when weighed in individual weigh batchers. In a cumulative aggregate weigh batcher, the cumulative mass after each successive weighing shall be within ±1 percent of the required cumulative amount when the scale is used in excess of 30 percent of its capacity. For cumulative mass for less than 30 percent of scale capacity, the tolerance shall be ±0.3 percent of scale capacity or ±3 percent of the required cumulative mass, whichever is less.

(d) **Bins and Scales.** The batching plant may include bins, weighing hoppers, and scales for the fine aggregate and for each size of coarse aggregate. A bin, hopper, and scale for cementitious material shall be included. A single weighing hopper with an accumulative scale will be permitted, provided a separate scale is used for weighing cementitious material.

**Scales shall meet the requirements of subsection 109.01.**

**601.07 Mixing.** Mixing of materials shall be done in accordance with AASHTO M 157 (ASTM C94). Concrete shall be mixed in stationary mixers, in a central-mix plant, in truck mixers, or in self-contained mobile mixers. Mixing time shall be measured from the time all materials, except water, are in the drum.

Admixtures listed in the mix design, or admixtures approved in accordance with subsection 601.04, and water may be added at the project.

(a) **Mixing General.** Concrete shall be deposited in place within 90 minutes after batching when concrete is delivered in truck mixers or agitating trucks, and within 60 minutes when delivered in non-agitating trucks.

The 90 minute time limit for mixer or agitating trucks may be extended to 120 minutes if:

1. No water is added after 90 minutes.
2. The concrete temperature prior to placement is less than 90 °F.
The 90 minute time limit for mixer or agitating trucks may be extended to 180 minutes if:

1. No water is added after 90 minutes.
2. The concrete temperature prior to placement is less than 90 °F.
3. The approved concrete mix contains an approved retarding admixture.

The 90 minute time limit for mixer or agitating trucks may be extended longer than 180 minutes if:

1. An Extended Set Control Admixture (ESCA) is added at the time of batching. Procedures and doses shall be in accordance with manufacturer’s recommendations. The ESCA shall be on the approved products list.
2. The concrete temperature prior to placement is less than 90 °F.
3. Each load of concrete shall be sampled and tested by the Contractor for air content according to CP 61.
4. The Department will cast three additional acceptance cylinders. If the acceptance cylinders tested at 28 days do not meet design strength, the additional cylinders will be tested at 56 days for acceptance.

(b) Central-Mixed Concrete. Concrete that is mixed completely in a stationary mixer and transported to the point of delivery either in a truck agitator or a truck mixer operating at agitating speed, or in non-agitating equipment approved by the Engineer, shall conform to the following:

1. The mixing time shall be counted from the time all the solid materials are in the drum.
2. The batch shall be so charged into the mixer so that some water will enter in advance of the cement and aggregate.
3. All water shall be in the drum by the end of the first one fourth of the specified mixing time.
4. The volume of concrete mixed per batch may exceed the mixer's nominal capacity, as shown on the manufacturer’s standard rating plate on the mixer, by up to 10 percent provided concrete test data for strength, segregation, and uniform consistency are satisfactory, and provided spillage of concrete does not occur.
5. Where no mixer uniformity tests are made, the acceptable mixing time for mixers having capacities of 1 cubic yard or less shall be not less than 1 minute. For mixers of greater capacity, this minimum shall be increased 15 seconds for each cubic yard or fraction thereof of additional capacity. Uniformity testing shall be in accordance with AASHTO M157 (ASTM C94).

(c) Truck Mixing. Truck mixed concrete shall conform with one of the following:

1. Concrete that is completely mixed in a truck mixer shall be mixed 70 to 100 revolutions at the mixing speed to produce uniform concrete. Concrete uniformity tests shall be made in accordance with AASHTO M157 (ASTM C94). Additional revolutions of the mixer beyond the number found to produce the required uniformity of concrete shall be at a designated agitating speed.
2. For concrete that is partially mixed in a stationary mixer, and then mixed completely in a truck mixer (shrink mixed concrete), the time of partial mixing shall be the minimum required to intermingle the ingredients. After transfer to a truck mixer, it shall be mixed at a speed to produce uniform concrete. Concrete uniformity tests shall be made in accordance with AASHTO M157 (ASTM C94). Additional revolutions of the mixer beyond the number found to produce the required uniformity of concrete shall be at a designated agitating speed.
3. Concrete mixed entirely in a stationary mixer and delivered to the job in a truck mixer shall be remixed for a minimum of 20 revolutions of the mixing drum at mixing speed at the job site prior to discharge.

When water is added at the delivery site to control the consistency of the concrete, the concrete shall be mixed for at least 30 revolutions of the mixer drum at mixing speed for each addition of water before discharge. These revolutions are in addition to the minimum revolutions required for mixing at the delivery site. The added water shall not cause the w/cm ratio to exceed the approved mix design w/cm ratio. Water from all sources shall be documented by the Contractor on the delivery slip for each load of concrete.

The Contractor shall provide a Concrete Truck Mixer Certification. This certification shall show the various pick-up and throw-over configurations and wear marks so that the wear on the blades can be checked. Blades shall be replaced when any part or section is worn 1 inch or more below the original height of the manufacturer’s design. A copy of the manufacturer’s design, showing the dimensions and arrangement of blades, shall be available to the Engineer at all times.

The Contractor shall furnish a water-measuring device in good working condition, mounted on each transit mix truck, for measuring the water added to the mix after the truck has left the charging plant. Each measuring device shall be equipped with an easy-to-read gauge. Water shall be measured to an accuracy of ±3 percent.

(d) Self Contained Mobile Mixer. Proportioning and mixing equipment shall be of the self-contained, mobile, continuous mixing type in accordance with ASTM C685 and subject to the following:

1. The mixer shall be self-propelled and capable of carrying sufficient unmixed dry, bulk cementitious materials, fine aggregate, coarse aggregate, admixtures, and water to produce on the site at least 6 cubic yards of concrete. The mixer shall have one bin for each size aggregate.
(2) The mixer shall be capable of positive measurement of cementitious materials being introduced into the mix. A recording meter visible at all times and equipped with a ticket printout shall indicate the quantity of total concrete mix.

(3) The mixer shall provide positive control of the flow of water into the mixing chamber. Water flow shall be indicated by flow meter and be readily adjustable to provide for minor variations in the aggregate moisture.

(4) The mixer shall be capable of calibration to automatically proportion and blend all components of indicated composition on a continuous or intermittent basis as required by the finishing operation, and shall discharge mixed material through a conventional chute directly in front of the finishing machine.

(5) The Contractor shall perform calibration tests according to the equipment manufacturer's recommendations at the beginning of each project, and when there is a change in the mix design proportions or source of materials. The Engineer may require a calibration test or yield check when a change in the characteristics of the mixture is observed. The tolerances in proportioning the various ingredients shall be according to ASTM C685.

Subsection 601.09(h) shall include the following:
When ESCAs are used, the removal of forms, supports and housing, and the discontinuance of heating and curing may begin when the concrete is found to have the required compressive strength.

In subsection 601.12(g) delete the fifth paragraph and replace with the following:
When concrete is placed by pumping, the pumping equipment shall be thoroughly cleaned prior to concrete placement. Excess form release agent shall be removed from the hopper. The pump shall be primed at the Contractor's expense by pumping and discarding enough concrete to produce a uniform mix exiting the pump. At least 0.25 cubic yards of concrete shall be pumped and discarded to prime the pump. Water or admixtures shall not be added directly into the concrete pump hopper after placement has commenced. If water or admixtures are added to the concrete pump hopper, all concrete in the concrete pump hopper and the line shall be discarded and the pump shall be re-primed at the Contractor's expense.

In subsection 601.15 delete the second paragraph and replace with the following:
A Pre-placement Conference shall be held at a time mutually agreed upon before the initial placement of bridge deck concrete. Representatives of the ready mix producer and the Contractor shall meet with the Engineer to discuss the following topics:
Delete subsection 601.15(a) and replace with the following:
(a) Surface Preparation. Tops of girders, precast deck panels, pier caps, and abutments that will come into contact with bridge deck concrete shall be heated to raise the temperature above 35 °F prior to concrete placement. The proposed preheating method is subject to approval by the Engineer.

Delete subsection 601.15(b).
In subsection 601.15(c) delete paragraphs 3 through 8.
In subsection 601.16 delete paragraphs 1 to 3 and replace with the following:
The minimum curing period shall be 120 hours.
The concrete surface shall be kept moist at all times by fogging with an approved atomizing nozzle or applying a monomolecular film coating to retard evaporation until the curing material is in place.
Concrete bridge decks, including bridge curbs and bridge sidewalks, shall be cured as follows:
Delete subsection 601.16(e).
Delete subsection 601.17 and replace with the following:
601.17 Acceptance and Pay Factors. These provisions apply to all concrete. The Contractor shall sample concrete for both Process Control (PC) and Owner Acceptance (OA) in accordance with CP 61. The Engineer will witness the sampling and take possession of the OA samples at a mutually agreed upon location. The Contractor shall be responsible for Process Control (PC) testing for concrete. PC testing shall be performed at least once per day and then once per 50 cubic yards for concrete slump, unit weight, and concrete temperature. If the produced concrete does not have a relative yield of 0.99 to 1.02 for two consecutive yield determinations, concrete production shall cease and the Contractor shall present a plan to correct the relative yield to the Engineer.

When ESCAs are used, the removal of forms, supports and housing, and the discontinuance of heating and curing may begin when the concrete is found to have the required compressive strength.
is less than 11 millimeters when tested using ASTM C1712 Test Method for Static Segregation Resistance of Self-Consolidating Concrete. If a load of concrete has a slump flow greater than 26 inches and a depth of penetration less than 11 millimeters, the next load shall be tested for slump flow and block testing to establish a new slump flow target.

When SCC is used, subsection 601.17(b) does not apply. When SCC is used, the test methods for fabricating specimens in accordance with subsections 601.17(a) and 601.17(c) acceptance shall be modified to use ASTM C1758, Practice for Fabricating Test Specimens with SCC, for filling the test specimens with concrete.

(a) **Air Content.** The first three batches at the beginning of each day’s production shall be tested by the Contractor’s PC and CDOT’s OA for air content. When the PC and OA air content measurements differ by more than 0.5 percent, both the PC and OA air meters shall be checked in accordance with ASTM C231. When air content is below the specified limit, it may be adjusted in accordance with subsection 601.08. Successive batches shall be tested by the Contractor’s PC and witnessed by the Engineer until three consecutive batches are within specified limits. After the first three batches, CDOT will follow the random minimum testing schedule. After the first three batches, the Contractor shall perform PC testing at a frequency of one random sample per 50 cubic yards. Air content shall not be adjusted after a CDOT OA test.

At any time during the placement of the concrete, when an OA test on a batch deviates from the minimum or maximum percent of total air content specified, the batch that deviates from the specified air content by 1 percent or less may be accepted at a reduced price using Table 601-3. Portions of loads incorporated into structures prior to determining test results which indicate rejection as the correct course of action shall be subject to acceptance at reduced price, no payment, or removal as determined by the Engineer.

(b) **Slump.** Except for Class BZ concrete, the slump of the delivered concrete shall be the slump of the approved concrete mix design plus or minus 2.0 inches. The maximum slump shall be 9.0 inches. Slump acceptance, but not rejection, may be visually determined by the Engineer. Any batch that exceeds the slump of the approved concrete mix design by more than 2.0 inches will be retested. If the mix design slump is exceeded by more than 2.0 inches a second time, that load will be rejected. If the slump is greater than 2 inches lower than the approved concrete mix design, the load may be adjusted by adding a water reducer or by adding water (if the w/cm allows) and retested.

Portions of loads incorporated into structures prior to determining test results which indicate rejection as the correct course of action shall be subject to reduced payment or removal as determined by the Engineer.

(c) **Strength (When Specified).** The concrete will be considered acceptable when the running average of three consecutive strength tests per mix design for an individual structure is equal to or greater than the specified strength and no single test falls below the specified strength by more than 500 psi. A test is defined as the average strength of three test cylinders cast in plastic molds from a single sample of concrete and cured under standard laboratory conditions prior to testing. If the compressive strength of any one test cylinder differs from the average by more than 10 percent that compressive strength will be deleted and the average strength will be determined using the compressive strength of the remaining two test cylinders.

When the average of three consecutive strength tests is below the specified strength, the individual low tests will be used to determine the pay factor in accordance with Table 601-3. If less than three strength tests are available the individual low tests, if any, will be used to determine the pay factor in accordance with Table 601-3. The pay factor will be applied to the quantity of concrete represented by the individual low test. For concrete having a specified strength of less than 4500 psi, when the compressive strength test is below the specified strength by more than 500 psi, the concrete represented will be rejected. For concrete having specified strength of 4500 psi or greater, when the compressive strength test is below the specified strength by more than 500 psi but not more than 1000 psi, the concrete represented will be evaluated by the Department for removal, corrective action, or acceptance at a reduced price. All costs of the evaluation shall be at the Contractor’s expense. When the compressive strength test is below the specified strength by more than 1000 psi, the concrete represented will be rejected.

The Contractor may take cores at its own expense and in accordance with Colorado Procedure 65 within 10 working days of being notified of a price reduction or up to 45 days after placement, whichever is later, to provide an alternative determination of strength. Price reduction for strength will be based on the 28 day compressive strength of acceptance cylinders or corresponding cores strength, whichever is greater. If the core compressive strength is at least 90 percent of the specified field compressive strength, the concrete represented by the cores will be accepted with no price reduction.

The Engineer may use cores to determine acceptance or rejection of a part of the structure instead of acceptance cylinders. The Engineer will notify the Contractor in writing that CDOT will core the structure. The location of the coring will be directed by the Engineer. Coring and testing will be performed at the expense of the Department regardless of the result. Cores will be taken and tested in accordance with AASHTO T24 between 28 days and 45 days.
days after concrete placement. Cores will be a minimum of 4 inches in diameter, unless otherwise approved by the Engineer. A minimum of three cores in a two square foot area will be obtained for locations of the structure that are suspect. If the compressive strength of any one core differs from the average by more than 10 percent that compressive strength will be deleted and the average strength will be determined using the compressive strength of the remaining two cores. If the compressive strength of more than one core differs from the average by more than 10 percent, the average strength will be determined using all three compressive strengths of the cores. If the average core compressive strength is greater than or equal to 85 percent of the specified 28 day compressive strength, the concrete represented by the cores will be accepted. If the average core compressive strength is less than 85 percent of the specified 28 day compressive strength, the structure will be evaluated by the Department according to subsection 105.03 for removal and replacement. Pay factors will not be based on cores taken by the Engineer. If the concrete represented by the cores is accepted, all costs associated with the repair of the core holes, including preparation and submittal of the repair method, will be measured and paid for separately.

After the Department performs additional core testing as described above, the Contractor may make one request that the structure be cored by the Contractor, tested and re-evaluated by the Department within 45 days after concrete placement. Coring and testing costs will be at the expense of the Contractor regardless of the result. Cores shall be taken at the same area of the structure as those obtained by the Engineer. The Engineer will approve the location of the cores prior to the Contractor coring the structure. All costs associated with the repair of these core holes, including preparation and submittal of the repair method, will not be measured and paid for separately, but shall be included in the work.

If the concrete in the structure is found to be sufficient resulting time delays will be considered excusable. If the concrete in the structure is still found to be deficient, resulting time delays will be considered non-excusable for this evaluation. Compensation for time delays will be evaluated by the Engineer in accordance with subsection 108.08.

The Contractor shall submit a proposed repair method for the core holes for approval prior to coring. The method shall use an approved non-shrink concrete patching material with a minimum compressive strength of 4500 psi. The Contractor shall submit the manufacturer’s recommendations along with the repair method. The Engineer will review and approve the proposed methodology prior to patching.

The Engineer will distribute electronically to the concrete supplier all compressive strength Owner Acceptance (OA) data for the concrete supplied to the project. The Engineer will distribute the OA compressive strength data within two business days of the 7 day and 28 day compressive strength testing. The data will include the compressive strength and batch ticket number at a minimum. The Contractor shall not have a valid dispute or claim as a result of any action or inaction by the Department related to the distribution of test results.

(d) **Pay Factors.** The pay factor for concrete which is allowed to remain in place at a reduced price shall be determined according to Table 601-3 and shall be applied to the unit price bid for the Item.

If deviations occur in air content and strength within the same batch, the pay factor for the batch shall be the product of the individual pay factors.

<table>
<thead>
<tr>
<th>Deviations From Specified Air (Percent)</th>
<th>Pay Factor (Percent)</th>
<th>Below Specified Strength (psi) [&lt; 4500 psi Concrete]</th>
<th>Pay Factor (Percent)</th>
<th>Below Specified Strength (psi) [≥ 4500 psi Concrete]</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0 – 0.2</td>
<td>98</td>
<td>1 – 100</td>
<td>98</td>
<td>1 – 100</td>
</tr>
<tr>
<td>0.3 – 0.4</td>
<td>96</td>
<td>101 – 200</td>
<td>96</td>
<td>101 – 200</td>
</tr>
<tr>
<td>0.5 – 0.6</td>
<td>92</td>
<td>201 – 300</td>
<td>92</td>
<td>201 – 300</td>
</tr>
<tr>
<td>0.7 – 0.8</td>
<td>84</td>
<td>301 – 400</td>
<td>84</td>
<td>301 – 400</td>
</tr>
<tr>
<td>0.9 – 1.0</td>
<td>75</td>
<td>401 – 500</td>
<td>75</td>
<td>401 – 500</td>
</tr>
<tr>
<td>Over 1.0</td>
<td>Reject</td>
<td>Over 500</td>
<td>Reject</td>
<td></td>
</tr>
</tbody>
</table>

Concrete represented by out-of-spec tests will only be priced reduced with the lowest pay factor, not for each pay factor.

<table>
<thead>
<tr>
<th>Pay Factor (Percent)</th>
<th>Compressive Strength Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>65</td>
<td>501 – 600</td>
</tr>
<tr>
<td>54</td>
<td>601 – 700</td>
</tr>
<tr>
<td>42</td>
<td>701 – 800</td>
</tr>
<tr>
<td>29</td>
<td>801 – 900</td>
</tr>
<tr>
<td>15</td>
<td>901 – 1000</td>
</tr>
<tr>
<td>Reject</td>
<td>Over 1000</td>
</tr>
</tbody>
</table>
(e) **Bonding of Bridge Deck Overlay.** After the curing period for Class DT concrete has elapsed, the overlay shall be “sounded” by the Contractor in accordance with ASTM D4580 Standard Practice for Measuring Delamination in Concrete Bridge Decks by Sounding to determine if the Class DT concrete has bonded to the bridge deck. In areas where the Class DT concrete has not bonded to the bridge deck, it shall be removed and replaced at the Contractor’s expense.

(f) **Maturity Meter Strength.** When maturity meters are specified for determining strength for removing forms, removing false work, backfilling against structures, or loading the structure, the Contractor shall provide the Engineer a report of maturity relationships in accordance with CP 69 prior to placement of concrete. If a maturity meter fails, is tampered with, destroyed, or was not placed, the following shall apply:

The minimum curing time or waiting time for removing forms, removing false work, backfilling against structures, or loading the structure shall be 28 days. The Contractor may choose at his own expense to core the structure represented by the maturity meter. Cores shall be obtained and tested according to CP 65. Cores shall be a minimum of 4 inches in diameter. A minimum of three cores in a two square foot area shall be obtained. If the compressive strength of any one core differs from the average by more than 10 percent that compressive strength will be deleted and the average strength will be determined using the compressive strength of the remaining two cores. If the compressive strength of more than one core differs from the average by more than 10 percent, the average strength will be determined using all three compressive strengths of the cores. The average compressive strength of the cores shall achieve the specified compressive strength of the structure. A structure may be cored only once.

(g) **Water to Cementitious Material Content (w/cm) Ratio.** The maximum w/cm ratio is the ratio that was used in the laboratory trial mix for the Concrete mix design. The w/cm ratio shall be determined for each batch of concrete by the Contractor and provided to the Engineer for approval prior to placement. If an adjustment to the mix is made after the Engineer’s approval, the w/cm ratio shall be determined and submitted to the Engineer prior to the continuation of placement. Concrete that is placed without the Engineer’s approval shall be removed and replaced at the Contractor’s expense.

---

**REVISION OF SECTION 630**

**BARRIER (TEMPORARY)**

Section 630 of the Standard Specifications is hereby revised for this project as follows:

Delete subsection 630.08 and replace with the following:

**630.08 Temporary Barrier.** Temporary Barrier shall comply with the crash test requirements contained in NCHRP Report 350 (for devices manufactured prior to 2020) or MASH (acceptable for all temporary barrier). Retroreflectorization is required on all temporary barrier according to Standard Plans S-612-1 and M-606-14, and shall meet material qualities in accordance with Section 713. All barrier types shall be designed to accommodate appropriate end treatments, transitions and delineation devices. Previously damaged barrier shall not be installed and barrier damaged after installation shall be removed and replaced, or repaired (for minor damage not affecting design intent) per manufacturer.

(a) **Concrete Barrier.** Temporary concrete barrier shall conform to precast Type 7 Concrete Barrier as detailed in Standard Plan M-606-14.

(b) **Non-Concrete Barrier.** Temporary non-concrete barrier shall be on the Department’s Approved Product List. If used, metal barrier shall be made of galvanized steel. All non-concrete barrier types shall be designed to allow for proper drainage runoff. Barrier shall be installed and maintained according to manufacturer requirements, and include all necessary components for installation. Product specific documentation pertaining to installation, maintenance, repair, removal, and inspection shall be provided by the Contractor prior to installation.

In subsection 630.17 delete the third paragraph and replace with the following:

Traffic channelizing devices consisting of vertical panels, traffic cones, or drums will be measured by the unit. Barrier (Temporary) will be measured by the linear foot. Barricades will be measured by the number used. Barricade warning lights shall be furnished as a part of this item when required by the Traffic Control Plan (TCP). Advance Warning Flashing or Sequencing Arrow Panels will be measured by the unit according to size.
In subsection 630.18 delete the following:

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concrete Barrier (Temporary)</td>
<td>Linear Foot</td>
</tr>
</tbody>
</table>

Subsection 630.18 shall include the following:

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barrier (Temporary)</td>
<td>Linear Foot</td>
</tr>
</tbody>
</table>

### CITY SPECIAL PROVISIONS

The CDOT Standard Specifications, Standard Special Provisions, Project Special Provisions are modified with the following City Special Provisions.

Revised 11/2019

### REVISION OF SECTION 101

#### DEFINITIONS AND TERMS

Section 101 of the CDOT Standard Specifications is hereby revised for this project as follows:

Delete subsection 101.09 and replace with the following:

**101.09 Public Works Director.** The Public Works Director for the City, or his duly authorized representative, is responsible for public works activities within the City. The Public Works Director is responsible for final decisions relating to Contractor claims for contract modification orders, additional compensation, or extensions of contract time. All references to “CDOT Resident Engineer” shall be replaced by “Public Works Director”.

In subsection 101.16 delete the first paragraph and replace with the following:

The written agreement between the City and the Contractor setting forth the obligations of the parties for the performance of the work and the basis of payment.

Delete subsection 101.19 and replace with the following:

**101.19 Payment Bond.** The security executed by the Contractor and Surety or Sureties and furnished to the Department to guarantee payment of all legal debts of the Contractor pertaining to the Construction of the project. All references to “Contract Payment Bond” shall be replaced by “Payment Bond”.

Delete subsection 101.20 and replace with the following:

**101.20 Performance Bond.** The security executed by the Contractor and Surety or Sureties and furnished to the Department to guarantee completion of the work in accordance with the Contract. All references to “Contract Performance Bond” shall be replaced by “Performance Bond”.

Delete subsection 101.22 and replace with the following:

**101.22 Contractor.** The individual, firm, or corporation contracting with the City for performance of prescribed work.

Delete subsection 101.22 and replace with the following:

**101.22 Day.** See subsection 101.08.

Delete subsection 101.28 and replace with the following:

**101.28 Department.** Department of Public Works. A department with the City.

Delete subsection 101.29 and replace with the following:

**101.29 Engineer.** The Field Supervisor of the Department acting directly or through an authorized representative, who is responsible for engineering and administrative supervision of the project. For the purpose of these specifications, the Engineer is responsible for initial decisions relating to Contractor claims for additional compensation or additional time. The Engineer or Director are the City representatives who may approve modifications to Contract documents or drawings.
Delete subsection 101.36 and replace with the following:

**101.36 Holidays.** Holidays recognized by the City are:

- New Year’s Day
- Martin Luther King, Jr. Day (observed)
- Presidents’ Day
- Memorial Day
- Independence Day
- Labor Day
- Veterans’ Day
- Thanksgiving Day
- Day after Thanksgiving Day
- Christmas Day

Additional legal holidays, when designated by the Governor or the President of the United States, may also be recognized by the City.

Delete subsection 101.48 and replace with the following:

**101.48 Preconstruction Conference.** A meeting of City project personnel, Contractor project personnel, and other stakeholders held prior to the beginning of construction at which topics pertinent to the successful prosecution of the work are discussed.

Delete subsection 101.51 and replace with the following:

**101.51 Project Engineer.** The Engineer’s duly authorized representative who may be a City employee or an employee of a consulting engineer (consultant) under contract to the City as defined below:

(a) *City Project Engineer.* The City employee who is the Engineer’s duly authorized representative. The City Project Engineer is in direct charge of the work and is responsible for the administration and satisfactory completion of the project under contract.

(b) *Consultant Project Engineer.* The consultant employee under the responsible charge of the consultant’s Professional Engineer who is in direct charge of the work and is responsible for the administration and satisfactory completion of the project. The Consultant Project Engineer’s duties are delegated by the Engineer in accordance with the scope of work in the consultant’s contract with the City. The Consultant Project Engineer is not authorized to sign or approve Contract Modification Orders.

Delete subsection 101.56 and replace with the following:

**101.56 Bid Bond.** The security required to be submitted with each proposal to guarantee that the bidder will enter into the Contract if the proposal is accepted. All references to “Proposal Guaranty” shall be replaced by “Bid Bond”.

Delete subsection 101.58 and replace with the following:

**101.58 Region Transportation Director.** All references to “Region Transportation Director” shall be replaced by “Public Works Director”.

Delete subsection 101.59 and replace with the following:

**101.59 Right of Way.** A general term denoting land, property, or interest therein, usually in a strip, acquired for or devoted to a highway, street, alley, or other access.

In subsection 101.72, delete the 2nd sentence and replace with the following:

Special provisions fall within one of the three following categories and take precedence as specified in subsection 105.09:

(c) City Special Provisions. Additions and revisions to the Standard and Supplemental Specifications specific to the City project.

In subsection 101.72, add the following paragraph:

(a) *Standard Specifications:* The Colorado Department of Transportation’s book (including errata) titled *Standard Specifications for Road and Bridge Construction.* The book is divided into three parts namely:

In subsection 101.95, replace all references to CDOT with the City.
Add subsections 101.96 – 101.104 as follows:

**101.96 Approved Equal.** A product, component or process whose use in or on a particular project is specified as a standard for comparison purposes only. The “equal” product, component or process shall be the same or better than that named in function, performance, reliability, quality, and general configuration. Determination of equality in reference to the project design requirements will be made by the Engineer. It is the responsibility of the supplier to provide all necessary information for determining equality.

**101.97 Easement.** The right to use a defined area of property for a specific purpose or purposes as set forth in a document which has been made a part of the Contract Documents.

**101.98 Lump Sum.** A method of payment providing for one all-inclusive cost for the work or for a particular portion of the work; including any incidental costs necessary to perform that item of work.

**101.99 Notification of Award.** A written notification of acceptance of the bid from the City to the successful bidder.

**101.100 Utility.** Tracks, overhead or underground wires, pipelines, conduits, pipes, ducts or structures, owned, operated or maintained in or across a public right-of-way or easement.

### REVISION OF SECTION 102

**BIDDING REQUIREMENTS AND CONDITIONS**

Subsection 102 of the CDOT Standard Specifications is hereby revised for this project as follows:

Delete subsection 102.01 and replace with the following:

**102.01 Prequalification of Bidders.** The City does not prequalify bidders. Each Contractor is required to complete the Contractors Qualification Form included in the Bid Package.

In subsection 102.02, delete the first sentence and replace with the following:

The City will publish bidding opportunities to prospective bidders on the Rocky Mountain E-Purchasing System (a division of BidNet) at [www.rockymountainbidsystem.com](http://www.rockymountainbidsystem.com) (800-835-4603 option #2) and the City website at [www.ci.wheatridge.co.us](http://www.ci.wheatridge.co.us).

In subsection 102.02, delete the second paragraph.

Delete subsection 102.04 and replace with the following:

**102.04 Interpretation of Plans and Specifications.** If it should appear to a Bidder that the work to be done or matters relative thereto are not sufficiently described or explained in the Contract Documents or that the Contract Documents are not definite and clear, the Bidder may make written inquiry regarding same to the City Purchasing Agent before the Deadline for Questions specified in the advertisement for bids.

Then, if in the judgment of the City, additional information or interpretation is necessary, such information will be supplied in the form of an addendum. Each addendum will be delivered where possible by posting to the City website, RMEPS, or electronic mail (email) to all individuals, firms and corporations who have acknowledged receipt of Bid Document Sets. Such addendum shall have the same binding effect as though contained in the main body of the Contract Documents. Oral instructions or information concerning the contract documents or the project given out by officers, employees, or agents of the City to prospective bidders shall not bind the City. If no request is made before the Deadline for Questions, Bidder waives right to any conflict in the Contract Documents.

Delete subsection 102.06 and replace with the following:

**102.06 Preparation of Proposal.** The bidder shall submit his proposal upon the forms supplied by the City. The bidder shall specify a unit price in words or figures, or both if required, for each pay item for which a quantity is given and shall also show the products to the respective unit prices and quantities written in figures in the column provided for that purpose and the total amount of the proposal obtained by adding the amounts of the separate items. All the words and figures shall be in ink or type. In case of a mathematical error, the unit price shall govern.

When an item in the proposal contains a choice to be made by the bidder, the bidder shall indicate his choice in accordance with the specifications for that particular item, and thereafter no further choice will be permitted.

The bidder’s proposal must be signed in ink by the individual, by one or more members of the partnership, by one or more officers of a corporation, or by an agent of the contractor legally qualified and acceptable to the City.

If the proposal is made by an individual, his name and address must be shown, by a partnership, the name and address of each partner must be shown, by a corporation, the name of the corporation and the business address of its corporate office must be shown.
In subsection 102.07 delete paragraphs (7) and (9)

In subsection 102.09, delete the last two sentences and replace with the following:

**The Bidder's Proposal will be rejected if it does not contain the completed Non-collusion Affidavit.**

Add subsections 102.11 – 102.14 as follows:

**102.11 Disqualification of Bidders.** Any of the following reasons may be considered as being sufficient for the disqualification of a bidder and the rejection of his proposal or proposals:

1. More than one proposal for the same work from an individual, firm, or corporation under the same or different name.
2. Evidence of collusion among Bidders. Participants in such collusion will not receive recognition as Bidders for any future work of the City until any such participant shall have been reinstated as a qualified Bidder.
3. If, during a Contract with the City, a Contractor or Subcontractor incurs liquidated damages as described in subsection 108.09, he shall be disqualified for a period of one (1) year from the date of final acceptance of that Contract.
4. Missing required documentation, certifications, license, or experience as required elsewhere in the project solicitation documents.

**102.12 Bid Prices.** Bidders must include, in their bid prices, the entire cost of each item of the work set forth in the proposal, and it is understood and agreed that there is included, in each lump sum or unit price bid, the entire cost of materials and labor incidental or necessary to the completion of that portion of the work covered, unless such work is expressly included in other lump sum or unit price bids in the proposal. Since the bid information cannot be guaranteed, the Contractor shall have assumed the risks attendant to successful performance of the work at the amount of the bid.

**102.13 City Contract Laws.** Section 2-3 (a) – (e) of the City's Code of Laws is presented below:

(a) **Fiscal year.** Fiscal year for the city shall commence on January 1 and end on December 31.

(b) **Budget contains appropriations.** The city council shall annually adopt a budget in a manner consistent with the provisions of Chapter X of the Home Rule Charter of the City of Wheat Ridge. Upon the annual adoption by the city council of each fiscal year's budget, levels of authorized expenditures from the funds indicated within the annual budget itself and/or the adopting resolution shall constitute the appropriation of the amounts specified therein for the purposes specified therein. During the course of each fiscal year, approval by the city council of contracts for goods or services, and/or approval of bids for the provision of specified goods or services, shall likewise constitute appropriations of the amounts specified therein for the purposes specified therein.

(c) **No contract to exceed appropriation.** During each and any fiscal year, no contract entered into by or on behalf of the city shall expend or contract to expend any money, or incur any liability, nor shall any contract be entered into nor any bid be awarded by or on behalf of the city which, by its terms, involves the expenditure of money for any of the purposes for which provision is made either in the adopted budget or adopting resolution, including any legally authorized amendments thereto, in excess of the amount appropriated in the budget or the approved contract or bid award. Any contract or bid award, either verbal or written, made in violation of the provisions of this section shall be void as to the city and no city monies from any source whatsoever shall be paid thereon.

(d) **Amendments and authorized expenditures.** Nothing contained herein shall preclude the city council from adopting a supplemental appropriation in a manner consistent with the provisions of Section 10.12 of the Home Rule Charter of the city. Further, nothing contained in this section shall prevent the making of contracts for governmental services or for capital outlay for a period exceeding one (1) year if such contracts are otherwise allowed by the Home Rule Charter of the city; provided, however, any contract so made shall be executory only for the amounts agreed to be paid for such services to be rendered in succeeding fiscal years.

(e) **Notice to parties contracting with the city.** All persons contracting with, or selling goods or services to, the city are hereby placed upon notice of the provisions of this section. The provisions of this section shall become a part of the Merit System Personnel Rules and Regulations of the City of Wheat Ridge; shall be referred to specifically in all public works bid documents and contracts; and shall be incorporated into, and specially noted within, all other contracts entered into by or on behalf of the city wherein city funds are used to pay for said contract.
Section 2-4 of the City Code of Laws is presented below:

(a) The city may, by contract, require the contractor awarded a public works contract to waive, release or extinguish its rights to recover costs or damages, or obtain an equitable adjustment, for delays in performing such contract if such delay is caused, in whole or in part, by acts or omissions of the city or its agents, if the contract provides that an extension of time for completion of the work is the contractor's remedy for such delay. Such a clause is valid and enforceable, any provision of state law to the contrary notwithstanding.

(b) The city council, by this ordinance (Ordinance No. 812), declares its local contracting powers to be a matter of purely local concern, and further specifically intends to supersede, pursuant to its powers under Article XX of the Colorado Constitution, the provisions of Sections 24-91-101 and 24-91-103.5, C.R.S., insofar as they conflict with the provisions of this section of the Code of Laws of the City of Wheat Ridge, Colorado.

REVISION OF SECTION 103
AWARD AND EXECUTION OF CONTRACT

Section 103 of the CDOT Standard Specifications is hereby revised for this project as follows:

Delete subsection 103.01 and replace with the following:

103.01 Consideration of Proposals. After the proposals are opened and read, they will be compared on the basis of the summation of the products of the approximate quantities shown in the bid schedule by the unit prices.

The City reserves the right to settle bid discrepancies that occur in the low Bidder's proposal at the time the Contract is awarded. Bid discrepancies will be settled with the understanding that the low Bidder waives any claims against the City because of Bidder's mistakes in the Bid Proposal.

In subsection 103.02 change the time of award from 30 calendar days to 60 calendar days.

Subsection 103.04 shall include the following:

Failure to execute the Contract and file acceptable bonds within 15 days after the date of award shall be just cause for the cancellation of the award and the forfeiture of the proposal guaranty which shall become the property of the City.

The City may elect to waive forfeiture of the proposal guaranty only if it is determined that the bidder has made a good faith remedial error and that no damages were sustained by the City as a result of the failure by the successful bidder to execute the Contract and file acceptable bonds within the time prescribed. Award may then be made to the next lowest responsible bidder, or the work may be re-advertised and constructed under Contract or otherwise as the City may decide.

Add subsections 103.05 – 103.06 as follows:

103.05 Cancellation of Award. The City reserves the right to cancel the award of any Contract at any time before the execution of said Contract by all parties without liability against the City.

103.06 Return of Proposal Guaranty. All proposal guaranties consisting of bid bonds will be retained by the City. All proposal guaranties in the form of certified checks or cashier checks will be treated as follows:

For the three lowest Bidders, the proposal guarantee will be held until the Contract is awarded to the successful bidder. Proposal guaranty will then be returned to the other Bidders. The proposal guaranty of the successful Bidder will be returned upon receipt of executed Contract and approved payment and performance bonds.

REVISION OF SECTION 104
SCOPE OF WORK

Section 104 of the CDOT Standard Specifications is hereby revised for this project as follows:

Subsection 104.04 shall include the following:

Lane widths during construction shall not be less than 10 ft and a minimum clearance of two feet shall be maintained between traffic and the construction work zone.

The Contractor will not be permitted to have construction equipment or materials in the lane(s) open to traffic at any time unless permitted by the Engineer.

The Contractor is cautioned that all personal vehicle and construction equipment parking will be prohibited where it conflicts with safety, access, or the flow of traffic.
REVISION OF SECTION 105
CONTROL OF WORK

Section 105 of the CDOT Standard Specifications is hereby revised for this project as follows:

In subsections 105.02 (b) 4 and 5. add the following:

Electronic submittals of the drawings are acceptable in lieu of the paper copies. The format of the electronic submittals must be printable in the format outlined in 1 – 3 above.

Subsection 105.02 (f) shall include the following:

1. All Contractors who construct public storm drainage systems, bike paths, sidewalks, streets, or other items within Public property to be maintained by the City must submit an “As Constructed” set of construction drawings for approval as a part of the City’s acceptance process. The initial submittal shall be one set of “red-lined” marked up prints, which should be delivered to the Inspector. Written City acceptance of the final As Constructed plan is a condition for final acceptance and release of retainage.

As Constructed plans for construction of irrigation systems within public property to be maintained by the City shall be submitted per subsection 623.25.

2. All As Constructed information shall be red-lined and shown on the original construction drawings. The As Constructed drawings shall clearly show any changes or variations from the approved design. Horizontal variations greater than 1.0 foot should be shown dimensionally or through plus stations. Horizontal variations greater than 10.0 feet should also show the graphic relocation of the object. For construction of public storm drainage systems, vertical elevation variations greater than 0.1 feet shall be provided for all shown design elevations. For construction of all remaining project features, vertical elevation variations greater than 0.25 feet shall be provided for all shown design elevations.

3. The As Constructed Certificate (shown below) shall be signed and sealed by a Colorado professional engineer or professional land surveyor and shall appear on the cover sheet of the As Constructed plan set. All sheets included in the Contract Drawings set must be submitted in the final As Constructed plan set.

AS CONSTRUCTED CERTIFICATE

I hereby certify that the information shown on this as constructed drawing is an accurate and complete representation of data established from field information obtained under the direction of a Professional Engineer or Professional Land Surveyor, and that the physical dimensions or elevations shown are as-built information and the facility was constructed according to the approved plans, except as otherwise noted hereon.

________________________________________ ______________________________
Name  License #

________________________________________ ______________________________
Title  Date

In subsection 105.03 delete and replace the first sentence of the seventh paragraph as follows:

Materials may be sampled and tested by the Department in accordance with the City’s Permit Testing and Inspection Requirements and CDOT’s Field Materials Manual.

Delete subsection 105.09 (a) and replace with the following:

(a) Special Provisions
1. City General Provisions
2. City Special Provisions

Subsection 105.09 shall include the following:

Any discrepancy or error discovered in the Drawings, Specifications, or during field construction shall be immediately called to the attention of the Engineer through submission of a “Request for Information” (RFI) document. Only the Engineer may authorize a modification to the contract documents via written response to an RFI. Neither the Inspector nor Project Engineer may authorize alterations, in-field changes, or modifications to the project, whether orally or written, unless said change is so minor in nature that grades, horizontal geometry, detail, or the original purpose and intent of the drawings are not altered. Concurrence by the Inspector, Project Engineer, or any other City...
representative in the field or on the daily inspection report does not constitute approval of any element of the project. The Contractor is solely responsible for constructing the project according to the contract documents.

Subsection 105.10 shall include the following:

Not furnishing a competent superintendence will be grounds for suspension of the Project until such superintendence is furnished by the Contractor. Contract time will continue in the event of a work suspension caused by lack of furnishing a project superintendence satisfactory to the City.

Subsection 105.16 shall include the following:

The Department will provide all inspection during construction. The Inspector will oversee the materials testing.

The Contractor shall keep the Inspector informed of future construction operations to facilitate scheduling of required inspections. The Contractor shall notify the Inspector 24 hours in advance of starting any construction operation that will require inspection. Failure of the Contractor to provide such notice shall relieve the City from any responsibility for extra costs or delays caused by such failure.

Inspection of the work or materials by the City or conversations made between the Contractor and the Inspector shall not relieve the Contractor of the obligation to fulfill the requirements of the Contract. Work and materials not meeting such requirements shall be made good and unsuitable work or materials may be rejected, notwithstanding that such work or materials have been previously inspected by the City or that payment thereof has been included in a progress estimate.

Inspection and acceptance of work pertaining to utilities not owned by the City shall be made by a representative of the owning utility. The Contractor shall obtain required permits and/or licenses and notify & schedule an inspection by the owning utility prior to commencing any work so that a representative may be made available to approve the work to be performed.

Subsection 105.21 (a) shall include the following:

The one year guarantee period for the portion or unit of the project partially accepted will not begin until completion of the entire project unless otherwise agreed to by the Engineer.

In subsections 105.22 and 105.24 change all references to “CDOT” to the “City” and remove all references to subsection 105.23.

Subsection 105.22 shall include the following:

In accordance with Section 2-4 of the City Code, as provided in subsection 102.13 of the City Special Provisions, the Contractor shall waive, release or extinguish its rights to recover costs or damages, or equitable adjustment, for delays in performing this contract if such delay is caused, in whole or in part, by acts or omissions of the City or its agents unless the Department accepts responsibility. An extension of time for completion of the work shall be the Contractor’s remedy for such delay.

The Contractor shall not be entitled to additional monetary compensation for delays caused by the failure of a utility company or special district to relocate its facilities in timely manner. An extension of time for completion of the work shall be the Contractor’s remedy for such delay. Relief from failure of utility companies to fulfill their responsibilities is discussed in subsection 105.11 of the Standard Specifications.

In subsection 105.22 (d) delete the last paragraph and replace with the following:

If these meetings do not result in a resolution or the participants mutually agree that they have reached an impasse, the Contractor may file a claim in accordance with subsection 105.24.

Delete subsection 105.23.

In subsection 105.24 change the reference to “City and County of Denver” and replace with “Jefferson County”:

In subsection 105.24 (c) delete the reference and address to “CDOT Audit Unit” and replace with “Department”:

Add subsections 105.25 and 105.26 as follows:

**105.25 Protection of Survey Markers.** Survey markers shall be protected as follows:

(a) *Permanent Survey Markers.* Should the Contractor believe that a survey monument, control point, or benchmark will be disturbed by construction activities, the Contractor shall notify the Engineer not less than seven days prior to starting work in order that the Engineer may take necessary measures to insure the preservation of survey monuments, stakes and bench marks. The Contractor shall notify the Engineer and bear the expense of replacing any that may be disturbed without permission. Replacement shall be done by a Registered Land Surveyor at no expense to the City.
When a change is made in the finished elevation of the pavement of any roadway in which a permanent survey monument is located, the monument cover or box shall be adjusted to the new grade.

(b) **Lot Stakes.** Unless otherwise directed by the Engineer or shown in the plans, the Contractor shall preserve existing survey stakes that mark property lines and corners. Any stakes that become lost or disturbed by his operations shall be replaced at the Contractor's expense by a registered land surveyor. Any lot corners marked on sidewalks that are designated for removal by the Contract Documents or the Engineer are not the responsibility of the Contractor for replacement.

**REVISION OF SECTION 106**

**CONTROL OF MATERIAL**

Section 106 of the CDOT Standard Specifications is hereby revised for this project as follows:

Delete subsection 106.01 and replace with the following:

**106.01 Source of Supply and Quality Requirements.** All materials used shall meet all quality requirements of the Contract. The Contractor shall notify the Engineer of the proposed sources of materials at least two weeks prior to delivery.

When alternative materials are permitted for an item in the Contract, the Contractor shall state at the Pre-construction Conference the material that will be furnished for that item.

In order to establish a basis of quality, certain processes, types of machinery and equipment, or kinds of materials may be specified either by description or process or by designating a manufacturer by name and referring to that brand or product designation, or by specifying a kind of material. It is not the intent of the specifications to exclude other processes, equipment or materials of equal value, utility or merit.

Whenever a process is designated, or a manufacturer's name, brand or item designation is given, or whenever a process or material covered by patent is designated or described, it shall be understood that the words "or approved equal" follow such name, designation, or description, whether in fact they do so or not.

If it is desirable to furnish items of equipment by manufacturers other than those specified, as a substitute after the contract is executed, the Contractor shall secure approval prior to placing a purchase order or furnishing the same.

If the proposal includes a list of equipment, materials, or articles for which the Contractor must name the manufacturer at the time of submission of the bid, no substitutions therefore will be permitted after a proposal has been accepted without the express consent of the Owner.

Failure to comply with the requirements of this subsection shall be grounds for withholding of progress payments.

Delete subsection 106.03 and replace with the following:

**106.03 Samples, Test, Cited Specifications.** Materials sampling and testing shall be performed at the expense of the Contractor. The Contractor shall employ an independent materials testing company to sample and test the materials or the finished product in accordance with the City Materials Testing Requirements, per Section 720 of the City Special Provisions. All materials sampling, testing and inspection shall be performed by certified field technicians who work under the supervision of a registered professional engineer in the State of Colorado practicing in this field.

Field technicians shall furnish copies of failed test results to the Engineer within two working days of completion and prior to the next phase of construction. On a weekly basis, the Contractor shall furnish the Engineer with copies of all test results taken that week and a cover letter, signed by the supervising registered professional engineer, which summarizes the results and addresses any failed tests or inconsistencies.

Unless otherwise designated, all specifications, standards or policies referenced in Section 720 shall be the latest edition as revised or updated by approved supplements published and issued prior to the date of the advertisement for bids.

Subsection 106.08 shall include the following:

The Contractor will not receive compensation for storage of topsoil or other materials generated on site that are stored either onsite or offsite for later disposal or inclusion into the Work.
REVISION OF SECTION 107
LEGAL RELATIONS AND RESPONSIBILITY TO PUBLIC

Section 107 of the CDOT Standard Specifications is hereby revised for this project as follows:

Subsection 107.12 shall include the following:

Property pins, right-of-way markers and other survey corners shall remain undisturbed until a method of preserving or perpetuating such markers is approved by City. Should any such markers be disturbed, destroyed or removed without obtaining said approval, the Contractor shall be assessed for any costs incurred in resurveying, resetting, and registering said markers.

In subsection 107.15 change all references to “Department” and CDOT” to the “City”.

Subsection 107.15 shall include the following:

Certificates of Insurance shall be attached to the executed Contract Documents and shall become a part of the contract. These certificates shall include a provision that thirty days prior to insurance cancellation, written notice shall be given to the City.

Add subsection 107.18 as follows:

107.18 Contractor’s Responsibility During Warranty. The Contractor shall, at his sole expense and cost, remedy any defects in the work, and pay for any damage to other work resulting therefrom, which shall appear within a period of one year from the date of final acceptance of work unless a longer period is specified. The City will give notice of defects with reasonable promptness upon their discovery.

In subsection 107.25, change all references to “CDOT” to “City”.

In subsection 107.25 (b) (2) change reference to Region Planning and Environmental Manager (RPEM) to “City Storm water Coordinator (CSC)”.

REVISION OF SECTION 108
PROSECUTION AND PROGRESS

Section 108 of the CDOT Standard Specifications is hereby revised for this project as follows:

In subsection 108.01 delete the second sentence and replace with the following:

Prior to beginning any work by subcontractor, the Contractor shall request permission from the Engineer.

In subsection 108.01 delete the sixth paragraph.

In subsection 108.02 delete the last sentence and replace with the following:

The Contractor shall commence work under the Contract within 14 calendar days of the date of the Notice to Proceed.

In subsection 108.03 change all references to “CDOT” to “City”

In subsection 108.03 (b) delete the first sentence and replace with the following:

The Contractor shall use Microsoft Project software to develop and manage a CPM Project Schedule to plan, schedule, and report the progress of the work.

In subsection 108.04 delete the first sentence and replace with the following:

The Contractor shall prepare a payment schedule which shall show the dollar amount of work the Contractor expects to be completed.

Delete subsection 108.04 (a) and replace with the following:

(a) Initial Payment Schedule. At the time of the Preconstruction meeting, the Contractor shall submit to the City a schedule of partial progress payments. This schedule will show the percentage of Work completed and the date and dollar amount of each anticipated progress payment.

In subsection 108.04 (b) delete the second, third, and fourth paragraph.

Subsection 108.05 shall include the following:

Working hours under this Contract shall be between 7:00 am and 5:00 pm. The Contractor shall not operate equipment before 7:00 am and shall schedule all work operations to be completed before 5:00 pm. Work after 5:00 pm will not be allowed except when required for circumstances beyond the Contractor’s control and when approved.
by the Engineer. Work between 5:00 pm and 6:00 pm on more than two consecutive working days will be charged as one-half working day. Work after 6:00 pm on any day will be charged as one-half working day.

Contractor operations in lanes open to traffic are not allowed between the hours of 6:30 am to 8:30 am and 3:30 pm to 6:30 pm, unless otherwise approved by the Engineer. These restrictions apply to temporary delays including ingress and egress of materials, etc.

Subsection 108.08 shall include the following:

An extension of time for completion of the work shall be the Contractor’s sole remedy for delays in performing this contract if such delay is caused, in whole or in part, by acts or omissions of the City or its agents unless the Department accepts responsibility.

An extension of time for completion of the work shall be the Contractor’s remedy for delays in performing this contract caused by the failure of a utility company or special district to relocate its facilities in timely manner. Relief from failure of utility companies to fulfill their responsibilities is discussed in subsection 105.11 of the Standard Specifications and the City Special Provisions.

In subsection 108.09, change all references for “calendar days” to “working days”

In subsection 108.10, change all references to “CDOT” to “City”.

REVISION OF SECTION 109
MEASUREMENT AND PAYMENT

In the twenty ninth paragraph of subsection 109.01 change “Department” to “CDOT”.

Delete subsection 109.04 (f) and replace with the following:

(f) The Contractor’s representative and the Inspector shall, on a daily basis, agree in writing on the quantities of labor, equipment and materials used for work, extra work, and/ or force account work.

Subsection 109.04 (h) shall include the following:

Time extension for force account work shall be allowed only if a controlling operation or critical path item of the project is interrupted. Time extension requests shall meet the requirements of subsection 108.08. Force account items shall be completed in a workmanlike manner so as not to cause undue delays.

In subsection 109.06 (a) delete the second sentence and replace with the following:

The amount to be retained will be 5 percent of the value of the completed work including change orders and contingency.

Delete subsection 109.06 (b) and replace with the following:

(b) Securities are not acceptable to the City in lieu of standard amount retained.

In subsection 109.06 (f) remove all references to CDOT Form No. 205.

Delete subsection 109.06(h) and replace with the following:

(g) Monthly Reporting. On a monthly basis, the Contractor shall submit a monthly payment report to the Engineer along with the project schedule updates, in accordance with subsections 108.03(g). Failure to submit a complete and accurate monthly payment report shall be grounds for the City to withhold subsequent payments or retainage from the Contractor.

Add subsection 109.08 as follows:

109.08 Final Guarantee. All work shall be and is guaranteed by the Contractor for a specified period of one year from and after the date of written final acceptance of all work by the City, unless a longer period is specified. All other current applicable State statutes shall apply.

If within the guarantee period, non-emergency repairs, changes, or replacements are required in connection with guaranteed work which, as determined by the City, is rendered necessary as the result of the use of materials, equipment or workmanship which are inferior, defective or not in accordance with the terms of the contract, the Contractor shall, within 14 calendar days from receipt of notice from the City, and without expense to the City:

(a) place in satisfactory condition, in every particular, all of such guaranteed work, correct all defects therein, or proceed with replacement of defective or unsatisfactory work where deemed necessary by the Engineer; and
(b) make good all damage to the building site, equipment or contents thereof which, in the opinion of the Engineer, is the result of the use of materials, equipment or workmanship which are inferior, defective, or not in accordance with the terms of the contract; and

(c) make good any work or material disturbed, or the equipment and contents of any building or structure on the site, in fulfilling any such guarantee.

In the case of emergency repairs, changes or replacements, the Contractor shall promptly upon receipt of notice from the city and without expense to the City, perform the necessary actions to remediate the situation.

Revised 11/2019

REVISION OF SECTION 201
CLEARING AND GRUBBING

Section 201 of the CDOT Standard Specifications is hereby revised for this project as follows:

In subsection 201.03 (a) change the Area basis from “acres” to “square yards”.

In subsection 201.04 change all references to “acres” to “square yards”.

Revised 11/2019

REVISION OF SECTION 202
REMOVAL OF STRUCTURES AND OBSTRUCTIONS

Section 202 of the CDOT Standard Specifications is hereby revised for this project as follows:

Subsection 202.02 shall include the following:

Areas within existing asphalt pavement that are designated for removal or patching shall be sawcut to the full depth of the asphalt or cut by a method approved by the Engineer which leaves a vertical face on the existing pavement and no deformation of the surface at the cut. Limits of cutting for patching shall be as directed by the Engineer.

All street cuts shall be in straight lines. Irregular shaped cuts with more than four (4) sides or cuts within existing patches shall not be allowed. Street cuts shall have no longitudinal joints within the wheel tracks.

Irrigation lines to be abandoned shall be adequately capped at the point of abandonment to prevent leaks or blowouts of the line that is to remain. The irrigation lines that are to be abandoned can remain in place unless removal is necessary to allow other work.

Subsection 202.03 shall include the following:

All inlet castings, manhole rings and covers and other metal items relating to structures to be removed shall remain the property of the City or the owning utility company. This material shall be reused on the project where possible or as directed by the Engineer. Material not reused on the project shall be delivered to the City or owning utility company unless arrangements have been made for it to be picked up by the City or owning utility company.

Subsection 202.07 shall include the following:

Concrete from curbs, gutters, sidewalks and pavements may not be used in fills unless crushed to meet the gradation requirements for Class 4 Aggregate Base Course.

Subsection 202.09 shall include the following:

Planers shall operate moving against traffic in areas being planed in order to ensure that trucks used in hauling removed materials will be able to arrive and depart with the flow of traffic.

Planing shall result in a surface acceptable to the Engineer. Acceptability shall be based upon the following criteria:

1. Free of surface ridges in excess of ⅛ inch.
2. Surface area free of excess surface fines.
3. All planed surfaces, especially wheel ruts, show scoring by planer teeth.
4. Specified cut depth attained at edges of roadway appurtenances and curb lips.

Vertical cuts adjacent to traffic lanes from rotomilling over 1” depth shall be delineated at 50 foot intervals immediately after removal operations.

The Contractor shall use caution when planing around manholes, water valve boxes, and other roadway appurtenances. Manholes, water valve boxes, and other similar structures shall either be adjusted to below the bottom of the cut prior to commencing planing operations or cut around using planing equipment. The maximum deviation between the top of the milled pavement and top of the manhole or water valve box shall be no more than ¾
inch in areas open to traffic. This condition may be achieved by placing a temporary wedge of asphalt around the structure. This temporary taper shall be removed prior to placement of new pavement.

Subsection 202.11 shall include the following:

Removal of existing asphalt pavement for patching, to include asphalt sawing or other approved methods of cutting existing asphalt pavement, will not be measured but shall be incidental to the pay item for HBP (Patching).

Asphalt sawing or other approved cutting methods shall be incidental to the pay items for Removal of Asphalt Mat, or pay items which include removal of asphalt pavement.

**Revision 11/2019**

**REVISION OF SECTION 206**

**EXCAVATION AND BACKFILL FOR STRUCTURES**

Section 206 of the CDOT Standard Specifications is hereby revised for this project as follows:

Add subsection 206.02 (d) as follows:

(d) Squeegee material, when approved for application by the Engineer, shall meet the following gradation:

<table>
<thead>
<tr>
<th>Sieve Designation</th>
<th>Percent by Weight Passing</th>
</tr>
</thead>
<tbody>
<tr>
<td>3/8 inch</td>
<td>100</td>
</tr>
<tr>
<td>No. 4</td>
<td>60-90</td>
</tr>
<tr>
<td>No. 8</td>
<td>0-45</td>
</tr>
<tr>
<td>No. 16</td>
<td>0-25</td>
</tr>
<tr>
<td>No. 50</td>
<td>0-6</td>
</tr>
<tr>
<td>No. 200</td>
<td>0-2</td>
</tr>
</tbody>
</table>

In subsection 206.03 delete the fourteenth paragraph and replace with the following:

Compaction of structure backfill (flow fill) will not be required except as necessary to ensure complete filling of any voids around structures and pipe.

Subsection 206.03 shall include the following:

Squeegee material shall only be used as bedding for reinforced concrete pipe. Compactive effort shall be used on squeegee material to consolidate the material around the pipe haunches.

Backfill and compaction shall be accomplished immediately upon completion of each item. Open trench length shall not exceed one hundred (100) feet during construction. During non-construction periods (evenings, weekends and holidays) all trenches shall be backfilled and compacted, excepting an area not exceeding 400 square feet as the daily pipe terminal, and structures not completed or to adequate strength. The Engineer may require backfilling of the pipe terminus if the terminus is located in an intersection or the remaining street width is inadequate to safely convey two-way traffic around the area of the terminus.

Delete subsection 206.06(c) and (d) and replace with the following:

(c) Excavation, bedding, backfill, compaction, disposal of surplus material, haul, water and all other required work for construction of pipe and structures will not be measured and paid for separately but shall be considered incidental to construction of the pipe and/or structure. Pipe and structures will not be considered for payment until all backfill is completed.

Add subsections 206.06 (d) – (f) as follows:

(d) Structure Backfill (Flow-fill) used at the direction of the Engineer will be measured in accordance with the lesser of that quantity calculated as shown in M-206-1 or the actual quantity used. Structure Backfill (Flow-fill) not required by the Contract Documents may be used at the Contractor's discretion but will not be measured and paid for.

(e) Structure Backfill (Class 1, 2, 3 or Flow-fill) will be paid according to the unit prices on the Bid Schedule only when the excavated material is unacceptable for backfill as determined by the Engineer.

(f) Structure Excavation will be paid according to the unit price on the Bid Schedule only when over-excavation is required for removal of unsuitable material and replacement by Structure Backfill (Class 1, 2, 3, or Flow-fill).
Subsection 206.09 shall include the following:

Bracing, shoring, sheeting, etc., shall be in accordance with all applicable State and Federal Occupational Safety and Health requirements. Shoring shall be removed as the work and backfilling operations progress unless ordered by the Engineer to be left in place.

The decision to brace, shore or sheet the excavation shall be entirely the Contractor's responsibility. However, if the Engineer is of the opinion that at any point the trench walls are not properly supported, he may order the placement of additional supports by and at the expense of the Contractor, and compliance with such order shall not relieve or release the Contractor from his responsibilities for the safety of the work.

Delete subsection 206.10 and replace with the following:

Shoring will not be measured and paid for separately, but shall be considered as incidental to construction and all costs incurred, except for materials ordered to be left in place, and will be considered to be included in the unit price bid for the construction of each section of sewer or associated structure.

Delete subsection 206.11 and replace with the following:

The Contractor will be paid for shoring ordered to be left in place on the basis of invoiced material only.

REVISION OF SECTION 208
EROSION CONTROL UNDER ONE ACRE OF DISTURBANCE

Section 208 of the CDOT Standard Specifications is hereby revised for this project as follows:

In subsection 208.03 change the following references:

All references to “CDOT” to “City”.

All references to “The Region Water Pollution Control Manager” to “City Storm water Coordinator (CSC)”.

All references to “BMP” to “control measures”.

All references to “Standard Plans M-208-1, M-216-1, and M-615-1” to “standard details”.

All references to “Form 105” to “Storm water Quality Photo Report”.

In the first paragraph of subsection 208.03(c) change the reference to “Department” to “CDOT”.

Subsection 208.04 (f) shall include the following:

Any sediment or debris which may have accumulated as a result of construction in any waterway, swale, storm water detention area, inlet structure, curb, pipe or any other system of conveyance of water shall be promptly removed by the Contractor to the satisfaction of the Engineer. This includes routine cleaning and maintenance of any BMP that prevents construction sediment from entering a City storm water collection system or directly into a waterway.

Add subsection 208.05 (u)

(u) Street Sweeping

The Contractor shall make every effort to ensure that sediment and construction debris does not leave the construction site and be deposited on surrounding streets. Recognizing that complete prevention of migrating soil and rock material may not be possible, the City has provided a reasonable allowance for Street Sweeping mobilizations. Each Street Sweeping unit shall consist of one mobilization and a minimum of 2 hours of Street Sweeping with a mechanized wet sweeping device designed to minimize dust while removing all evidence of construction activity from all surrounding streets. The time during each mobilization may be extended by request of the City, to ensure that all construction debris is removed from existing streets, at no additional cost or pay item charge to the City.

Should the City determine that additional Street Sweeping mobilizations are required during the course of the Project to remove construction debris from the project site or surrounding streets, the City shall notify the Contractor, and the Contractor shall provide these at no additional cost to the City.

All evidence of Construction debris on surrounding streets extending less than 50 feet beyond the Limits of Construction shall be promptly removed by the Contractor by sweeping at the end of each working day, at no additional cost to the City. Significant evidence of Construction debris extending beyond fifty (50) feet from the Limits of Construction shall be removed by the Contractor at the end of each work week, or the last working day before a weekend or holiday, whichever comes sooner. To perform this removal, the Contractor may utilize a Street Sweeping pay item, or remove the debris via conventional sweeping (in a manner to control dust), at no additional cost to the
City. Once the Contractor has exhausted his Street Sweeping pay item quantity, the Contractor shall regularly remove (per the requirements of this Section) Construction debris via Street Sweeping or other sweeping method designed to minimize dust (pressure washing or use of only water for purposes of cleaning is not acceptable) to the end of Construction Activity at no additional cost to the City.

Revised 11/2019

REVISION OF SECTION 304
AGGREGATE BASE COURSE

Section 304 of the CDOT Standard Specifications is hereby revised for this project as follows:

Subsection 304.02 shall include the following:

Approval of the aggregate as a source for the Class(es) of aggregate specified will be contingent on material meeting the appropriate gradation requirements and having a resistance value of at least 72 when tested the Hveem Stabilometer Method.

Recycled asphalt material shall generally meet the gradation requirements of Class 4 or 6 Aggregate Base Course. The maximum size aggregate (material) will be determined by the Engineer in the field.

Recycled Portland cement concrete or asphaltic concrete may be used in lieu of natural or processed natural aggregate if it is approved by the Engineer.

Aggregate material for Stabilization Material (Granular) shall generally meet the requirements of Aggregate Base Course Classes 4, 5 or 6. Stabilization material may be crusher waste, reclaimed asphalt, reclaimed concrete, pit run gravels or other Contractor supplied material (minus 4 inch) acceptable to the Engineer. This material shall be readily compactable with minimal effort and shall be clean and free from contaminating materials such as clay or clay lumps and organic matter. The material shall not be cross mixed with other types of materials such as milled asphalt, nonspecific gravel materials, rock, etc. Presence of contaminating materials, clay or clay lumps or organic matter will be grounds for rejection by the Engineer.

Aggregate Base Course (Class Crusher Fines) shall be stabilized, in accordance with the manufacturer’s recommendations, with a non-toxic, organic binder that is a colorless and odorless concentrated powder that binds the aggregate. The aggregate shall meet the following requirements:

| CRUSHER FINES (1/4" minus Aggregate Gradation) |
|-----------------|-----------------|
| Sieve Size      | Percentage passing by Weight |
| 3/8"            | 100              |
| #4              | 90 – 100         |
| #8              | 75 – 80          |
| #16             | 55 – 65          |
| #30             | 40 – 50          |
| #50             | 25 – 35          |
| #100            | 15 – 20          |
| #200            | 10 – 15          |

Subsection 304.04 shall include the following:

Aggregate material for Stabilization Material (Granular) shall be placed on a geogrid material in the bottom of the excavation. The geogrid material shall be placed accordance with manufacturer’s recommendation in the bottom of the over excavated area in the roadway to be stabilized. After placement of the geogrid material, the granular roadway stabilization material will be placed full depth. The Contractor shall minimize the amount of rubber tired equipment allowed on the stabilization material and shall preferentially use a small tracked dozer or loader to spread the granular material. After placement and rough shaping of the granular material, the surface may be shaped to final cross section with a maintainer. Water for compaction shall be sparingly applied as required. The use of vibratory equipment may be used as long as the subgrade does not show evidence of failure as evidenced by deflection of the aggregate surface.

Aggregate Base Course (Class Crusher Fines) shall be a placed in a compacted lift of 4 inch depth.
Subsection 304.07 shall include the following:

Stabilization Material (Granular) will be measured by the ton compacted in place and accepted by the Engineer.

Subsection 304.08 shall include the following:

The accepted quantities of Stabilization Material (Granular) will be paid for at the contract price bid per ton of material, as shown in the bid schedule.

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stabilization Material (Granular)</td>
<td>Ton</td>
</tr>
<tr>
<td>Recycled Concrete Pavement</td>
<td>Ton</td>
</tr>
<tr>
<td>Recycled Asphaltic Pavement</td>
<td>Ton</td>
</tr>
</tbody>
</table>

REVISION OF SECTION 403
HOT MIX ASPHALT

In Subsection 403.03, delete the second paragraph and replace with the following:

Areas to be patched back shall be saw cut, unless alternative methods of cutting which produce straight lines and vertical cuts are approved by the Engineer. Limits of cutting shall be as specified on the plans or as directed by the Engineer. Jagged edges are unacceptable and shall be replaced at the Contractors expense. Prior to placement of the patch, all exposed sides of the existing pavement shall be thoroughly coated with tack. Hot mix asphalt shall then be placed and compacted in succeeding layers not to exceed 3 inches in depth.

All materials excavated from the patch area shall become the property of the Contractor and hauled from the site.

Revised 11/2019

REVISION OF SECTION 601
STRUCTURAL CONCRETE

Section 601 of the CDOT Standard Specifications is hereby revised for this project as follows:

Subsection 601.19 shall include the following:

Backside footers will be measured by the linear foot of footer constructed in accordance with the plans or as directed by the Engineer.

Subsection 601.20 shall include the following:

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Backside Footer</td>
<td>Linear Foot</td>
</tr>
</tbody>
</table>

REVISION OF SECTION 601
GALVANIC ANODES

Section 601 of the Standard Specifications is hereby revised for this project to include the following:

DESCRIPTION

This work consists of furnishing and installing galvanic anodes, tying existing steel reinforcing mats for electrical continuity, and testing for electrical continuity in concrete repair locations as shown on the plans or as directed by the Engineer.

MATERIALS

Galvanic anodes shall be one of the following:

(1) “Galvashield XP2” as manufactured by Vector Corrosion Technologies,
1330 Bellaire Street
Broomfield, CO 80020
303-465-5806
Galvanic anodes shall be pre-manufactured and consist of a minimum of 100 grams of zinc conforming to ASTM B6 Special High Grade, cast around a pair of steel tie wires conforming to bright annealed ASTM A82.

At least 10 working days prior to the start of repair work, the Contractor shall submit documentation of the anode manufacturer’s approval of the patching materials compatibility with their anode system and any special treatment requirements and installation instructions. The Contractor shall contact the manufacturer of the anodes to gain a full understanding of any special treatments that will be required and the process to properly install the anodes. The concrete patching material shall be as shown on the plans or as approved by the Engineer. Any grout used for grout beds or encapsulation of anodes shall have compressive strength equivalent to the original deck concrete per as-built drawings.

CONSTRUCTION REQUIREMENTS

Anodes shall be installed the same day as preparation and cleaning of steel reinforcement to bright metal at the anode tie wire connection. The anode units, in cementitious patching material, shall be pre-wet to achieve a saturated surface dry condition, and the repair shall be completed while the anodes are in this condition.

Anodes used with patching material having resistivity greater than 15,000 Ohm-Centimeters (Ohm-cm) or not meeting compatibility requirements shall be specially treated and installed in accordance with manufacturer recommendations.

Galvanic anodes shall be installed in accordance with manufacturer’s recommendations. Anodes shall be placed in each patch, 18 to 24 inches apart on the perimeter, based on rebar spacing. A minimum of one anode shall be placed in each patch and may be placed in the middle of the patching material area if the spacing requirement cannot be met. Each anode shall have a minimum 1.5 inch top cover to the surface of the new concrete deck patch and a 1 inch minimum side and bottom clear cover.

Galvanic anodes shall be secured with anode tie wires as close as possible to the patch edge while achieving minimum cover requirements. The tie wires shall be wrapped around the cleaned reinforcing steel and twisted tight to allow little or no free movement.

Prior to placing new concrete, galvanic anodes shall be installed in accordance with the manufacturer’s recommendations and inspected for proper connection and continuity to reinforcing steel.

(a) Electrical Connection and Continuity.

Electrical connection and continuity between anode tie wire and reinforcing steel shall be confirmed by measuring DC resistance (ohm) or potential with a multi-meter. Electrical connection and continuity is acceptable if the DC resistance measured with a multimeter is less than 1 ohm or the DC potential is less than 1 mV.

All intersections of reinforcing steel shall provide electrical continuity. The Contractor shall confirm continuity of at least three intersections per repair area on each structure or as directed by the Engineer. Intersections with visible separation or lack of continuity shall be cleaned and/or tied with bare steel tie wire to achieve
continuity. Additional continuity testing will be required as directed by the Engineer. Electrical continuity within a repair area is acceptable if the DC resistance measured with a multimeter is less than 1 ohm or the potential is less than 1 mV.

The Contractor shall furnish the Department with a multimeter to independently check the electrical connection. The multimeter shall become the property of the Department.

METHOD OF MEASUREMENT

Galvanic Anodes will be measured as the actual quantity installed and accepted. The Contractor may stockpile material at their own risk. All unused galvanic anodes shall remain property of the Contractor. Wheat Ridge will not purchase leftover materials or pay any restocking fees.

REVISION OF SECTION 601
GALVANIC ANODES

BASIS OF PAYMENT

The accepted quantities of Galvanic Anodes will be paid for at the contract unit price.

Payment will be made under:

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Galvanic Anodes</td>
<td>Each</td>
</tr>
</tbody>
</table>

Payment for Galvanic Anodes will be full compensation for all labor, equipment, materials, and incidentals required to complete the item.

Electrical continuity tie wiring and testing will not be measured and paid for separately, but shall be included in the work.

The multimeter will not be measured and paid for separately, but shall be included in the work.

If additional anodes are required during construction, the additional anodes will be paid for at the original Contract unit price.

Any special treatment or installation of the anodes that is required by anode supplier due to the type of patching material used, including but not limited to, grout beds between substrate and anode, or grout encapsulation of the anodes, will not be measured and paid for separately, but shall be included in the work.

Revised 11/2019

REVISION OF SECTION 614
TRAFFIC CONTROL DEVICES

Section 614 of the CDOT Standard Specifications is hereby revised for this project as follows:

In subsection 614.13, delete the fourth, sixth, seventh, ninth, tenth, eleventh, twelfth, and thirteenth paragraph and replace with the following:

Traffic signs will be measured by unit including all materials included in the steel sign post and sign panel and other work necessary to complete the item.

Subsection 614.14 shall include the following:

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Variable Message Sign</td>
<td>Each</td>
</tr>
</tbody>
</table>
**REVISION OF SECTION 627**  
**PAVEMENT MARKING**  

Section 627 of the CDOT Standard Specifications is hereby revised for this project as follows:

Subsection 627.08 shall include the following:

Application of pre-formed plastic pavement marking materials shall be in accordance with the manufacturer’s specifications. Contractor shall submit manufacturer’s pavement surface preparation and application specifications, for each type of marking material, for approval by the Engineer.

Pre-formed plastic pavement marking materials shall be inlaid into fresh pavement when the pavement temperature is between 135 degrees and 150 degrees.

In subsection 627.12, in the second and third paragraphs, delete all references to “gallons” and replace with “linear feet”.

In subsection 627.12, in the fourth paragraph, delete all references to “square feet” and replace with "linear feet”.

In subsection 627.12 delete the sixth paragraph and replace with the following:

Pavement word and symbol markings, transverse and longitudinal crosswalk lines, and stop lines will not be measured, but shall be the number of symbols placed or the linear feet of marking, color and width as specified, placed.

In subsection 627.13, the pay units for the first nine pay items shall be changed to “linear feet”.

In subsection 627.13, the pay units for the last seven pay items shall be changed to “each”.

Subsection 627.13 shall include the following:

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preformed Pavement Marking (Handicap)</td>
<td>Each</td>
</tr>
<tr>
<td>Preformed Pavement Marking (Type – ____ SF)</td>
<td>Each</td>
</tr>
</tbody>
</table>

**REVISION OF SECTION 630**  
**CONSTRUCTION ZONE TRAFFIC CONTROL**

Section 630 of the CDOT Standard Specifications is hereby revised for this project as follows:

Subsection 630.10 shall include the following:

If the Contract Documents do not include a Traffic Control Plan (TCP), the Contractor shall submit a method for handling traffic (MHT). The MHT must utilize the Manual on Uniform Traffic Control Devices (MUTCD) or Standard Plans S-630-1 and S-630-2 for devices that are proposed. Approval of the MHT does not relieve the Contractor of traffic control liability specifically assigned to him under this Contract. A copy of the approved MHT shall be available at the project site at all times in order that Division personnel may verify compliance with the specified traffic control requirements.

The Contractor's MHT shall also include the following:

(1) The number of flag persons to be used.

(2) The number of authorized 24-hour days a traffic control supervisor will be required.

The Contractor shall erect and maintain warning lights, signs, barricades and sufficient safeguards around all excavations, embankments and obstructions.

Subsection 630.13 shall include the following:

The Contractor shall provide an inventory of all existing pavement marking to be disturbed to the Engineer prior to beginning work.

All warning and construction zone traffic control devices shall bear the name, address and phone number of the barricade company that owns them. The phone number shall be a 24 hour a day dispatched hot line in the event an emergency situation occurs where additional devices are needed or existing devices must be removed.
The Contractor shall install construction zone traffic control devices in locations where they do not block or impede sidewalks for pedestrians, disabled persons, bicyclists or other existing traffic control devices. A minimum four foot wide, unobstructed sidewalk area is to be maintained where possible. In the event that a minimum four foot wide sidewalk area with a minimum overhead clearance of 7 feet 6 inches cannot be maintained, a pedestrian/bicycle detour plan shall be submitted in conjunction with the traffic control plan.

All existing traffic control devices including traffic signals, signs, and pavement markings that are compatible with the construction zone traffic control shall remain visible and fully operational. If these devices are incompatible with the temporary construction, they shall be covered, relocated or removed.

Whenever the Contractor removes, obliterates or covers in any way, any pavement markings including lane lines and crosswalks, he shall replace them on a daily basis. Prior to opening affected areas to traffic, all pavement marking shall be placed in accordance with the Plans and Specifications or as directed by the Engineer.

The Contractor shall equip all vehicles operating within the moving lanes with flashing amber lights visible from all directions.

Subsection 630.17 shall include the following:

Signs, barricades, traffic channelizing devices, flashing beacons (portable), method of handling traffic, traffic control supervisor, flagging, and all other requirements of Subsection 630 are included in the pay item for Traffic Control Management unless they are identified in the Bid Schedule as separate pay items.

Subsection 630.18 shall include the following:

No payment will be made under Section 630 until the method of handling traffic (MHT) has been submitted and accepted.

<table>
<thead>
<tr>
<th>Pay Item</th>
<th>Pay Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traffic Control Management</td>
<td>Lump Sum</td>
</tr>
</tbody>
</table>

REVISION OF SECTION 713
TRAFFIC CONTROL MATERIALS

Section 713 of the CDOT Standard Specifications is hereby revised for this project as follows:

Subsection 713.13 shall include the following:

Pre-formed plastic pavement marking material shall be the following or equal:

<table>
<thead>
<tr>
<th>Surface</th>
<th>Brand</th>
<th>Series</th>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>Concrete</td>
<td>3M Stamark</td>
<td>A</td>
<td>420</td>
</tr>
<tr>
<td>Asphalt</td>
<td>3M Stamark</td>
<td>A</td>
<td>5730</td>
</tr>
</tbody>
</table>

SECTION 720
MATERIALS SAMPLING AND TESTING

Section 720 is hereby added for this project as follows:

DESCRIPTION

720.01 Materials sampling and testing shall be performed under the Contract by an independent materials testing company. This work shall include all necessary labor, equipment and material required for sampling and testing materials or finished products in accordance with the specifications of this section. Unless otherwise designated, all referenced specifications, standards or policies shall be the latest edition as revised or updated by approved supplements published and issued prior to the date of the advertisement for bids.
CONSTRUCTION REQUIREMENTS

720.02 All materials sampling and testing shall be performed by certified, experienced and qualified materials testing technicians who work under the supervision of a registered professional engineer in the State of Colorado, practicing in this field. At the request of the Engineer, the Contractor shall require the materials testing company to replace any technician who cannot satisfactorily perform the testing duties.

720.03 All materials sampling and testing equipment shall be serviceable and have been currently calibrated. At the request of the Engineer, the Contractor shall require the materials testing company to replace any testing equipment that is not satisfactory.

720.04 Retesting the density of subgrade and base course materials shall be required at the Contractor’s expense, if they are reworked or weather causes the materials to become wet, dry or frozen.

720.05 Materials testing technicians shall furnish copies of failed test results to the Engineer within two working days of completion of testing and prior to the next construction phase. On a weekly basis, the Contractor shall furnish the Engineer with copies of all test results taken during that week and a cover letter, signed by the supervising registered professional engineer, which summarizes the results and discusses any failed tests or inconsistencies.

720.06 The City materials testing requirements are provided in Table 720-1. All testing procedures, point of verification and central lab requirements shall be as specified in the Frequency Guide Schedule of the Colorado Department of Transportation Field Materials Manual. Without increasing the total number of tests or samples required, the Engineer or Inspector may change the test locations from the frequency spacing shown in Table 720-1. One test is required for any fraction of the specified frequency.
### Table 720-1

**City of Wheat Ridge Materials Testing Requirements**

<table>
<thead>
<tr>
<th>Type of Test</th>
<th>Frequency</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soil Survey (Classification), AASHTO M 145</td>
<td>1 per 500 feet of roadway or pipe trench</td>
<td>Surveys for roadway and trench may be combined</td>
</tr>
<tr>
<td>Moisture-Density Curve, AASHTO T 99</td>
<td>1 per on-site soil type 1 per import material source</td>
<td>AASHTO method determined by soil or materials type</td>
</tr>
<tr>
<td>Embankment in-place density, Colorado Procedures</td>
<td>1 per 250 feet per lane per 6 inch loose lift</td>
<td>Minimum density per soil classification, Section 203.07</td>
</tr>
<tr>
<td>Roadway subgrade in-place density, Colorado Procedures</td>
<td>1 per 250 feet per lane</td>
<td>Minimum density per soil classification, Section 203.07</td>
</tr>
<tr>
<td>Sidewalk subgrade in-place density, Colorado Procedures</td>
<td>1 per 250 feet of sidewalk</td>
<td>Minimum density per soil classification, Section 203.07</td>
</tr>
<tr>
<td>Pipe trench in-place density, Colorado Procedures</td>
<td>1 per 200 feet of trench per 18 inch vertical interval</td>
<td>Minimum density per soil classification, Section 203.07</td>
</tr>
<tr>
<td>Aggregate base course in-place density, Colorado Procedures</td>
<td>1 per 250 feet per lane</td>
<td>Minimum 95% of maximum density, T 180</td>
</tr>
<tr>
<td>Lime treated subgrade in-place density, Colorado Procedures</td>
<td>1 per 250 feet per lane</td>
<td>No less than 95% of standard dry density and optimum moisture, T99</td>
</tr>
<tr>
<td>Cement treated base in place density, Colorado Procedures</td>
<td>1 per 250 feet per lane</td>
<td>Density in accordance with contract documents, T 134</td>
</tr>
<tr>
<td>Hot Bituminous Pavement asphalt content and gradation</td>
<td>1 per 1000 tons</td>
<td>Within specifications of approved mix design: Binder PG 64-22</td>
</tr>
<tr>
<td>Hot Bituminous Pavement in-place density, Colorado Procedures</td>
<td>1 per 100 tons</td>
<td>92 - 96% of maximum density, T 209</td>
</tr>
<tr>
<td>Concrete compressive strength, AASHTO Procedures</td>
<td>1 set per 50 cubic yards</td>
<td>PCC pavement, structural concrete, sidewalks, and curbing</td>
</tr>
<tr>
<td>Concrete air content and slump, AASHTO Procedures</td>
<td>1 per 25 cubic yards</td>
<td>PCC pavement, structural concrete, sidewalks, and curbing</td>
</tr>
</tbody>
</table>

**BASIS OF PAYMENT**

**720.07** Payments for materials sampling and testing will be lump sum.