

# **16<sup>th</sup> Street Bridge Rehabilitation**



## **PROJECT MANUAL**

**CITY OF RIFLE  
202 RAILROAD AVENUE  
RIFLE, COLORADO 81650**

**December 2019**

## **Project Directory**

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# Table of Contents

Project Title Page .....	1
Project Directory .....	2
Table of Contents .....	3
List of Drawing Sheets.....	7
ADVERTISEMENT FOR BIDS .....	8
Instructions to Bidders .....	10
1.0 Defined Terms .....	10
2.0 Copies of Bidding Documents .....	10
3.0 Qualifications of Bidders .....	10
4.0 Examination of Contract Documents and Site .....	10
5.0 Interpretations and Addenda .....	11
6.0 Conditions of Work.....	11
7.0 Substitute or “Or-Equal” Items .....	11
8.0 Subcontracts.....	11
9.0 Bid Form .....	11
10.0 Submission of Bids .....	12
11.0 Modification and Withdrawal of Bids.....	12
12.0 Bids to Remain Subject to Acceptance .....	12
13.0 Award of Contract.....	12
14.0 Laws and Regulations .....	13
15.0 Complete Prices .....	13
16.0 Permits and Fees .....	13
17.0 Authorities.....	13
18.0 Subsurface Investigations .....	14
19.0 Completion of Work .....	14
20.0 Bid Bond .....	14
21.0 Payment Bond.....	14
22.0 Performance Bond.....	14
23.0 Work By Illegal Aliens Prohibited.....	14
24.0 Local Contractor Preference .....	15
25.0 Scopes of Bids.....	15

Required Bid Documents ..... 17

- BID FORM ..... 18
- LIST OF MATERIALS SUPPLIERS / SUBCONTRACTORS..... 22
- Bid Schedule ..... 23
- BID BOND ..... 26
- CONTRACTOR’S LICENSING STATEMENT FORM ..... 27

AGREEMENT ..... 28

Contingency Allowances ..... 30

Preliminary Construction Schedule ..... 30

Certificate of Insurance ..... 31

Performance Bond Form ..... 31

Payment Bond Form ..... 33

00 51 00 Notice of Award..... 34

NOTICE TO PROCEED ..... 35

General Conditions ..... 36

- PWM Section 2.1. ADDITIONAL INSTRUCTIONS, MODIFICATIONS AND DETAIL DRAWINGS..... 36
- PWM Section 2.2. EXECUTION, CORRELATION, INTENT, INTERPRETATION AND FURNISHING OF CONTRACT DOCUMENTS ..... 36
- PWM Section 2.3. SCHEDULES, REPORTS AND RECORDS ..... 36
- PWM Section 2.4. DRAWINGS, SPECIFICATIONS, CONFLICTS AND DISCREPANCIES ..... 36
- PWM Section 2.5. SHOP DRAWINGS AND MATERIAL SAMPLES ..... 37
- PWM Section 2.6. MATERIALS, SERVICES, AND FACILITIES..... 37
- PWM Section 2.7. INSPECTION AND TESTING..... 37
- PWM Section 2.8. SUBSTITUTIONS ..... 38
- PWM Section 2.9. PATENTS..... 38
- PWM Section 2.10. SURVEYS..... 38
- PWM Section 2.11. LICENSES, PERMITS, AND REGULATIONS ..... 38
- PWM Section 2.12. PROTECTION OF WORK, EMPLOYEES, PUBLIC AND PROPERTY ..... 38
- PWM Section 2.13. EMERGENCIES ..... 39
- PWM Section 2.14. LAWS, ORDINANCES, RULES, REGULATIONS, AND ORDERS ..... 39
- PWM Section 2.15. SUPERVISION AND DISCIPLINE BY CONTRACTOR ..... 39
- PWM Section 2.16. CHANGES IN THE WORK ..... 39
- PWM Section 2.17. CHANGES IN CONTRACT PRICE ..... 40
- PWM Section 2.18. CHANGES IN CONTRACT TIME..... 41

PWM Section 2.19. TIME FOR COMPLETION AND LIQUIDATED DAMAGES .....	42
PWM Section 2.20. CORRECTION OF WORK .....	42
PWM Section 2.21. SUBSURFACE CONDITIONS .....	43
PWM Section 2.22. SUSPENSION, DELAY OR INTERRUPTION OF WORK.....	43
PWM Section 2.23. OWNER'S RIGHT TO TERMINATE OR ABANDON WORK .....	43
PWM Section 2.24. CONTRACTOR'S RIGHT TO TERMINATE OR STOP WORK .....	44
PWM Section 2.25. SUBCONTRACTING.....	44
PWM Section 2.26. CONTRACT SECURITY .....	44
PWM Section 2.27. PARTIAL COMPLETION AND OCCUPANCY .....	44
PWM Section 2.28. MEASUREMENT OF QUANTITIES FOR PAYMENT .....	45
PWM Section 2.29. SCOPE OF PAYMENT .....	45
PWM Section 2.30. PARTIAL PAYMENT AND CERTIFIED TAX REPORTS .....	45
PWM Section 2.31. FINAL PAYMENT REQUEST, ACCEPTANCE AND RELEASE.....	46
PWM Section 2.32. INSURANCE .....	46
PWM Section 2.33. SEPARATE CONTRACTS .....	48
PWM Section 2.34. HOUSEKEEPING AND CLEANUP.....	48
PWM Section 2.35. ASSIGNMENT .....	48
PWM Section 2.36. INDEMNIFICATION .....	48
PWM Section 2.37. ENGINEER'S STATUS AND DECISIONS.....	48
PWM Section 2.38. LAND, RIGHTS-OF-WAY, EASEMENTS AND ENCROACHMENTS.....	49
PWM Section 2.39. GUARANTY AND WARRANTY .....	49
PWM Section 2.40. TAXES .....	49
PWM Section 2.41. DESIGNING AND PERFORMING WORK WITHOUT A CONTRACT AGREEMENT .....	49
PWM Section 2.42. CLOSEOUT .....	50
PWM Section 2.43. RIGHTS AND REMEDIES .....	51
Supplementary General Conditions .....	52
1.00 GENERAL.....	52
2.00 INSURANCE.....	52
3.00 TAX EXEMPTION. ....	53
4.00 FINAL PAYMENT.....	53
5.00 COMPLETION TIME. ....	53
6.00 OWNER'S REPRESENTATIVE.....	53
7.00 SAFETY REQUIREMENTS.....	54

8.00 LAWS AND ORDINANCES.....	54
9.00 WAIVER.....	54
10.00 PROTECTION OF PUBLIC UTILITIES AND OTHER ADJOINING PROPERTY.....	54
11.00 PROJECT PHOTOGRAPHS/VIDEOS.....	54
12.00 DAMAGE TO CONSTRUCTION.....	54
13.00 PRE-CONSTRUCTION CONFERENCE.....	55
14.00 BIDDER EXPERIENCE.....	55
16.00 PERFORMANCE AND PAYMENT BONDS.....	55
17.00 WARRANTY INSPECTION.....	55
18.00 SOILS INVESTIGATION.....	55
19.00 JOB SITE RESTRICTIONS.....	55
20.00 ARBITRATION.....	56
21.00 PAYMENT RETAINAGE.....	56
22.00 REFERENCE TO OWNER.....	56
23.00 NOTIFICATION TO ADJACENT PROPERTY OWNERS.....	56
24.00 DRAWING ACCURACY AND EXISTING UTILITIES.....	56
25.00 ABBREVIATIONS.....	57
26.00 PERMITS AND EASEMENTS.....	57
27.00 SUBSTITUTION OF MATERIALS.....	57
28.00 CONTROLLED AREA OF WORK.....	58
29.00 INTERPRETATION OF ESTIMATED QUANTITIES.....	58
30.00 TEMPORARY FACILITIES.....	58
31.00 CLEAN-UP.....	58
32.00 MEASUREMENTS AND PAYMENT.....	58
33.00 SUBMITTALS.....	58
34.00 COMMUNICATION.....	58
35.00 PROJECT SIGN.....	59
Technical Specifications.....	60
Submittal Schedule.....	60
TRAFFIC CONTROL.....	60
I General.....	60
II Products.....	61
III Execution.....	61

Concrete .....	62
I General.....	62
II Products .....	62
III Execution .....	66
Metal Decking.....	73
I General.....	73
II Products .....	74
III Execution .....	74
Fluid-Applied Waterproofing .....	74
I General.....	74
II Products .....	74
III Execution .....	75
Crack Fill .....	75
I General.....	75
II Products .....	76
III Execution .....	76
Paint .....	77
I General.....	77
II Products .....	78
III Execution .....	78
Plumbing Downspouts .....	78
I General.....	78
II Products .....	78
III Execution .....	78

## List of Drawing Sheets

- C-1 General
- C-2 Beam Rehabilitation
- C-3 Details
- R1- Existing Conditions
- R2-Existing Conditions
- S-1 Deck Section

## ADVERTISEMENT FOR BIDS

Separate sealed BIDS for the construction of the **16<sup>th</sup> Street Bridge Maintenance 2020** will be received at the **Council Chambers, Rifle City Hall, 202 Railroad Avenue, Rifle, CO.** until 2:00pm, on January 31<sup>st</sup>, 2019, at which time they will be publicly opened and read aloud.

This project consists of traffic control, setup/takedown/maintenance of construction fence, removal and replacement of concrete slab on deck, removal and replacement of concrete slab on grade, waterproofing of metal decking, installation of 6" diameter PVC drain extensions, removal of rust using mechanical methods and pressurized water, and painting of steel using zinc epoxy primer.

The construction fencing is required around all stored material but is not required if bidder does not use the owner supplied laydown area. Traffic control consists of a safe pedestrian detour that shall remain all hours that the pedestrian decks are closed as well as a one lane with flaggers for removal and placement of the concrete slabs on deck. Traffic control plans for both shall be submitted and approved by the City of Rifle prior to commencement of work.

Removal of the concrete slabs on deck includes removal and replacement of concrete, concrete reinforcement and decking. Methods shall be taken to prevent any debris from falling into the waters below. Debris protection shall be paid as a lump sum in a line item separate from removal and disposal. Removal of slabs on grade includes all removal and disposal of concrete in a manner that does not damage the adjacent surfaces. It should be noted that the slabs on grade contain a thickened edge and some may contain dowels to the abutments.

With the slab on deck removed the girders below shall be cleaned until free from loose rust and debris. All girders below the drive surface shall be cleaned with pressurized water and no mechanical methods (3280 SF of girders), all girders below the pedestrian decks shall be cleaned by hand chipping, scraping, sanding, and or wire brushing prior to cleaning with pressurized water (2330 sf), the top flanges and protruding steel columns, pour stops, and fillers shall be cleaned to a near white finish in preparation for zinc epoxy (360 sf). The abutments shall also be cleaned with hand tools and pressurized water until free of loose debris. Contractor shall supply water, tools and equipment necessary for cleaning.

All ten existing deck drains shall be extended with 6" PVC to a minimum of 1" below the bottom of beams. The PVC shall be supported with a clamp and galvanized unistrut. The PVC shall be coupled to the existing drain using a rubber banded coupling.

All concrete shall have mix designs submitted and approved by the City of Rifle. Slabs on deck shall be on Vulcraft 2" VLI decking. Decking shall be waterproofed prior to placement of concrete. All Beam flanges below the decking shall receive zinc epoxy primer that must be fully cured prior to placement of decking. All concrete shall be 4500 psi exterior mix with 1.5lbs of fiber per cy. Placement of concrete includes all dowling, forming, pouring, finishing, protection, and reinforcement. Subgrades below slabs on grade shall be scarified, moisturized, and compacted prior to concrete placement.

A Bid Bond in the amount of 5% of bid price is required, and a Performance and a Payment Bond, each in the amount of 100% of bid, will be required. Bid Award will be the February 19th Council Meeting. Time of Commencement of the Work is anticipated to be no later than May 4<sup>th</sup>, 2020, with completion by September 30<sup>th</sup>, 2020.

**A PREFERENCE FOR LOCAL CONTRACTORS WILL BE APPLIED BY THE OWNER WHEN SELECTING A CONTRACTOR.**

Convene at City Hall on **January 7<sup>th</sup>, 2020, at 10:00 PM (MST)** for a MANDATORY pre-bid meeting.

**Digital copies of the Contract Documents may be downloaded from the City website at <http://www.rifleco.org/216/Projects-Out-To-Bid> for free. Contact Craig Spaulding, [cspaulding@rifleco.org](mailto:cspaulding@rifleco.org), 970-665-6556 for questions or issues with downloading the documentation.**

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# Instructions to Bidders

## 1.0 Defined Terms

Terms used in these Instructions to Bidders, which are defined in the General Conditions of the City of Rifle Public Works Manual, have the meaning assigned to them in the General Conditions. The term “Bidder” means one who submits a Bid directly to Owner, as distinct from a sub-bidder, who submits a Bid to a Bidder. The term “Successful Bidder” means the lowest, qualified, responsible and responsive Bidder to whom Owner (on the basis of Owner’s evaluation as hereinafter provided) makes an award. The term “Bidding Documents” includes the Advertisement for Bids, Instructions to Bidders, the Bid Form, and the Contract Documents (including all Addenda issued prior to receipt of Bids).

## 2.0 Copies of Bidding Documents

2.1 Complete sets of Bidding Documents must be used in preparing Bids; neither Owner nor Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents. The City of Rifle Public Works Manual, Part I-General Conditions, Part II-Construction Materials and Methods and Part III Minimum Design Standards, shall be followed unless otherwise specified herein. In case of conflict, follow the Supplementary General Conditions section 25, Precedence of Contract Documents. Copies of the Public Works Manual are available on Rifle’s web site [www.rifleco.org](http://www.rifleco.org).

2.2 Owner and Engineer, in making copies of Bidding Documents available on the above terms, do so only for the purpose of obtaining Bids on the work and do not confer a license or grant for any other use.

## 3.0 Qualifications of Bidders

The Owner may make such investigations as he deems necessary to determine the ability of the Bidder to perform the work, and to demonstrate qualifications to perform the Work. Each Bidder must be prepared to submit within five days of Owner's request written evidence of the types set forth in the Supplementary Conditions, such as financial data, previous experience and evidence of authority to conduct business in the jurisdiction where the Project is located. Each Bid must contain evidence of Bidder's qualification to do business in the state where the Project is located or covenant to obtain such qualification prior to award of the contract. 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 Contract and to complete the work contemplated therein.

## 4.0 Examination of Contract Documents and Site

4.1 It is the responsibility of each Bidder before submitting a Bid, to (a) examine the Contract Documents thoroughly, (b) visit the site to become familiar with local conditions that may affect cost, progress, performance or furnishing of the work, (c) consider federal, state and local laws and regulations that may affect cost, progress, performance or furnishing of the work, (d) study and carefully correlate Bidder’s observations with the Contract Documents, and (e) notify Engineer of all conflicts, errors or discrepancies in the Contract Documents.

4.2 Information and data reflected in the Contract documents with respect to Underground Facilities at or contiguous to the site are based upon information and data furnished to Owner and Engineer by owners of such underground facilities or other, and Owner does not assume responsibility for the accuracy or completeness thereof unless it is expressly provided otherwise in the Supplementary Conditions.

4.3 Before submitting a Bid, each Bidder will, at Bidder’s own expense, make or obtain any additional examinations, investigations, explorations, tests, and studies and obtain any additional information and data which pertain to the physical conditions (surface, subsurface and Underground Facilities) at or contiguous to the site or otherwise which may affect cost, progress, performance or furnishing of the work and which Bidder deems necessary to determine its Bid for performing and furnishing the work in accordance with the time, price and other terms and conditions of the Contract Documents.

4.4 On request, in advance, Owner will provide each Bidder access to the site to conduct such explorations and tests as each

Bidder deems necessary for submission of a Bid. Bidder shall fill and patch all holes, clean up, and restore the site to its former condition upon completion of such exploration.

4.5 The lands upon which the work is to be performed, rights-of-way, and easements for access thereto and other lands designated for use by Contractor in performing the work, are identified in the Contract Documents. All additional lands, and access thereto, required for temporary construction facilities or storage of materials and equipment, are to be provided by Contractor.

4.6 The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article 4, that without exception the Bid is premised upon performing and furnishing the work required by the Contract Documents and such means, methods, techniques, sequences or procedures of construction as may be indicated in or required by the Contract Documents, and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions of performance and furnishing of the work.

## **5.0 Interpretations and Addenda**

5.1 All questions about the meaning or intent of the Contract Documents are to be directed to Engineer. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by Engineer as having received the Bidding Documents. Questions received less than five (5) days prior to the date of opening of Bids may not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

5.2 Addenda may also be issued to modify the Bidding Documents as deemed advisable by Owner or Engineer.

## **6.0 Conditions of Work**

Each Bidder must inform himself fully of the conditions relating to the construction of the project and the employment of labor thereon. Failure to do so will not relieve a successful Bidder of his obligation to furnish all material and labor necessary to carry out the provisions of his Contract. Insofar as possible, the Contractor, in carrying out his work, must employ such methods or means as will not cause any interruption of or interference with the work of any other Contractor or danger to the public.

## **7.0 Substitute or “Or-Equal” Items**

The Contract, if awarded, will be on the basis of materials and equipment described in the drawings or specified in the specifications, without consideration of possible substitute or “or-equal” items. Whenever it is indicated in the drawings or specified in the Specifications that substitute or “or-equal” items of materials or equipment may be furnished or used by Contractor if acceptable to Engineer, application for such acceptance will not be considered by Engineer until after the effective date of the Agreement. The procedure for submission of any such application by Contractor and consideration by Engineer is set forth in the General Conditions and may be supplemented by the Supplementary Conditions.

## **8.0 Subcontracts**

The Bidder is specifically advised that any person, firm, or other party to whom it is proposed to award a subcontract under this Contract must be acceptable to the Owner. The bidder shall submit, with their bid, a completed list of subcontractors they propose to use on this contract.

## **9.0 Bid Form**

9.1 The Bid Form is included with the Bidding Documents; additional copies may be obtained from City Hall of Rifle, 202 Railroad Avenue, Rifle, Colorado.

9.2 All blanks on the Bid Form must be completed in ink, by typewriter, or electronically and printed. NOTE: The

spreadsheet is offered for your convenience only. The contractor is responsible for use and confirmation of any formulae or calculations therein. The submittal may be on the pdf. All tracking of project progress will be through that spreadsheet.

9.3 Bids by corporations must be executed in the corporate name by the president or a vice-president (or other corporate officer accompanied by evidence of authority to sign) and the corporate seal must be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation must be shown below the signature.

9.4 Bids by partnerships must be executed in the partnership name and signed by a partner, whose title must appear under the signature and the official address of the partnership must be shown below the signature.

9.5 All names must be typed or printed below the signature.

9.6 The Bid shall contain an acknowledgment of receipt of all Addenda (the numbers of which must be filled in on the Bid Form).

9.7 The address, email, and telephone number for communications regarding the Bid must be shown.

## **10.0 Submission of Bids**

Bids shall be submitted at the time and place indicated in the Invitation to Bid and shall be enclosed in an opaque sealed envelope, marked with the project title (and, if applicable, the designated portion of the project for which the Bid is submitted) and name and address of the Bidder and accompanied by the required documents. If the Bid is sent through the mail or other delivery system, the sealed envelope shall be enclosed in a separate envelope with the notation "BID ENCLOSED" on the face of it. Any submission received after the advertised Bid Opening shall be returned unopened to the sender.

## **11.0 Modification and Withdrawal of Bids**

11.1 Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the opening of Bids.

11.2 If, within twenty-four (24) hours after Bids are opened, any Bidder files a duly signed, written notice with Owner and Engineer and promptly thereafter demonstrates to the reasonable satisfaction of Owner and Engineer that there was a material and substantial mistake in the presentation of its Bid, that Bidder may withdraw its Bid.

## **12.0 Bids to Remain Subject to Acceptance**

All Bids will remain subject to acceptance for sixty (60) days after the day of the Bid opening, but Owner may, in its sole discretion, release any Bid prior to that date.

## **13.0 Award of Contract**

13.1 Owner reserves the right to reject any and all Bids, to waive any and all informalities, and to negotiate Contract terms with the Successful Bidder, and the right to disregard all nonconforming, non-responsible, unbalanced or conditional Bids. Also, Owner reserves the right to reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the project to make an award to that Bidder, whether because the bid is not responsible or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by Owner.

13.2 In evaluation of Bids, Owner will consider the qualifications of the Bidders, whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award.

13.3 Owner may consider the qualifications and experience of subcontractors, suppliers and other persons and organizations

proposed for those portions of the work as to which the identity or subcontractors, suppliers, and other persons and organizations may be submitted as provided in the Supplementary Conditions. Owner also may consider the operating costs, maintenance requirements, performance data and guarantees of major items of materials and equipment proposed for incorporation in the work when such data is required to be submitted prior to the Notice of Award.

13.4 Owner may conduct such investigations as Owner deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications and financial ability of Bidders, proposed subcontractors, suppliers and other persons and organizations to perform and furnish the work in accordance with the Contract Documents to Owner's satisfaction within the prescribed time.

13.5 If the Contract is to be awarded, it will be awarded to the lowest Bidder whose evaluation by Owner indicates to Owner that the award will be in the best interests of the Project.

13.6 Section 2.26 of the General Conditions of the City of Rifle's Public Works Manual and section 16.00 of the Supplementary Conditions set forth Owner's requirements as to performance and other Bonds. When the Successful Bidder delivers the executed Agreement to Owner, it shall be accompanied by the required Contract Security.

13.7 If the Contract is to be awarded, Owner will give the successful Bidder a Notice of Award within sixty (60) days after the date of the Bid opening.

#### **14.0 Laws and Regulations**

The Bidders' attention is directed to the fact that all applicable State laws, municipal ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the Project shall apply to the Contract throughout, and they will be deemed to be included in the Contract the same as though herein written out in full.

#### **15.0 Complete Prices**

All lump sum, alternate, and unit prices must include all required General Conditions line items necessary to complete the work, including, but not limited to the following (as required): all permits, insurance, and taxes (except as specified in Article 3.0 of the Supplementary General Conditions); supervision; layout and survey as needed; protection of all surrounding materials; lifting/hoisting; equipment and personnel; off-site management and administrative assistance; trash disposal to a separate dumpster; miscellaneous equipment; mobilization; as-built drawings; fuel, watchmen, flagmen, and site security; scheduling; small tools; drawings and printing expenses and mailing costs.

15.1 On bid items to be paid as lump sum that may extend beyond a single pay estimate, a schedule of values shall be submitted to OWNER a minimum of 10 days prior to commencement of work. Adequate detail shall be given to allow a value to be placed on work completed during any given pay estimate.

#### **16.0 Permits and Fees**

Bids shall include all sales tax (except as specified in Article 3.0 of the Supplementary General Conditions) and all other applicable taxes and fees related directly to the construction of this project. Fees for permits and inspections directly related to this construction will be paid by the BIDDER; however, no tap fees or access charges for this or subsequent work will be the responsibility of the BIDDER. City has Tax Exemption, a copy of which will be provided to the Contractor. Contractor and all subcontractors shall hold a current license to perform work in Rifle, Garfield County, and the State of Colorado.

#### **17.0 Authorities**

Technical Specifications included herein supplement the Standard Specifications and take precedence. Work shall be completed as per these specifications and accepted by the Owner or proper agencies having jurisdiction before final payment is requested of the Owner.

## **18.0 Subsurface Investigations**

Geotechnical reports, if available, are included in the appendix of the Project Manual. Contractor use of such reports shall be in accordance with section 18.00 "Soils Investigation", of the Supplemental General Conditions.

## **19.0 Completion of Work**

Work shall be completed as per the City of Rifle Public Works Manual (and as modified by these specifications) and accepted by the Owner or proper agencies having jurisdiction before final payment is requested of the Owner.

\*\*Contractor shall provide a daily estimate of progress to the Public Works Director or City representative to verify quantities and that we shall stay within the contracted price. The City shall not pay for work above the contract price.

## **20.0 Bid Bond**

Bid security shall be made payable to the Owner in the amount of 5% of the bidder's maximum bid price in the form of a certified check or a bid bond, using the form herein, issued by a surety meeting the requirements of the Supplementary General Conditions. The bid security of the successful bidder will be retained until such bidder has executed the agreement and furnished the required contract security whereupon it will be returned; if the successful bidder fails to execute and deliver the agreement and furnish the required contract security within ten (10) days of the Notice of Award, the Owner may annul Notice of award and the bid security of that bidder will be forfeited. Owner will return bid bonds or checks of unsuccessful bidder within or by 60 days after the bid submittal date.

## **21.0 Payment Bond**

Payment Bond form is found in Agreement Documents section of this package.

## **22.0 Performance Bond**

Performance Bond form is found in Agreement Documents section of this package.

## **23.0 Work By Illegal Aliens Prohibited**

Work By Illegal Aliens Prohibited. Pursuant to Section 8-17.50191, C.R.S., *et. Seq.*,

Contractor warrants, represents, acknowledges, and agrees that:

1. Contractor does not knowingly employ or contract with an illegal alien.
2. Contractor shall not knowingly employ or contract with an illegal alien to perform works or enter into a contract with a subcontractor that fails to certify to Contractor that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this Agreement.
3. Contractor has participated in or attempted to participate in the basic pilot employment verification program created in Public Law 208, 104th Congress, as amended, and expanded in Public Law 156, 108th Congress, as amended, administered by the Department of Homeland Security (hereinafter, "Basic Pilot Program") in order to verify that Contractor does not employ illegal aliens. If Contractor is not accepted into the Basic Pilot Program prior to entering into this Agreement, Contractor shall forthwith apply to participate in the Basic Pilot Program and shall submit to the City written verification of such application within five (5) days of the date of this Agreement. Contractor shall continue to apply to participate in the Basic Pilot Program, and shall verify such application to the City in writing, every three (3) months until Contractor is accepted or this Agreement is completed, whichever occurs first. This Paragraph 3 shall be null and void if the Basic Pilot Program is discontinued.
4. Contractor shall not use the Basic Pilot Program procedures to undertake pre-employment screening of job applicants

while this Agreement is being performed.

5. If Contractor obtains actual knowledge that a subcontractor performing work under this Agreement knowingly employs or contracts with an illegal alien, Contractor shall be required to:

- (a) notify the subcontractor and the City within three (3) days that Contractor has actual knowledge that the subcontractor is employing or contracting with an illegal alien; and
- (b) terminate the subcontract with the subcontractor if within three (3) days of receiving the notice required pursuant to this subparagraph the subcontractor does not stop employing or contracting with the illegal alien; except that Contractor shall not terminate the contract with the subcontractor if during such three (3) days the subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with an illegal alien.

6. Contractor shall comply with any reasonable request be the Colorado Department of Labor and Employment (“Department”) made in the course of an investigation that the Department is undertaking pursuant to the authority established in subsection 8-17.5-102(5), C.R.S.

7. Contractor violates this Addendum; the City may terminate this Agreement for breach of contract. If this Agreement is so terminated, Contractor shall be liable for actual and consequential damages to the City arising out of said violation.

## **24.0 Local Contractor Preference**

Primary and secondary preference will be given to contractors when determining the lowest responsible bidder for work on this project. Local contractors, who have a principle place of business, are 1) for primary preference, within the City of Rifle or within 3 miles of the City Limits and 2) for secondary preference, outside of the three mile limit but within Garfield County.

For projects of \$5,000 or more in value, to determine the lowest bidder, an amount equal to the percentage shown below will be deducted from the total price proposed for the work. The contract however, will be awarded for the total bid price proposed.

Contract Amount	Primary Preference	Secondary Preference
\$5,000 to \$25,000	6% discount	3% discount
\$25,001 to \$100,000	5% discount	2.5% discount
\$100,001 or above	4% discount	2% discount

## **25.0 Scopes of Bids**

4.7 **General Scope of Project:** This project consists of traffic control, setup/takedown/maintenance of construction fence, removal and replacement of concrete slab on deck, removal and replacement of concrete slab on grade, waterproofing of metal decking, and installation of 6” diameter PVC drain extensions, removal of rust using mechanical methods and pressurized water, and painting of steel using zinc epoxy.

The construction fencing is required around all stored material but is not required if bidder does not use the owner supplied laydown area. Traffic control consists of a safe pedestrian detour that shall remain all hours that the pedestrian decks are closed and a one lane with flaggers for removal and placement of the concrete slabs on deck. Traffic control plans for both shall be submitted and approved by the City of Rifle prior to commencement of work.

Removal of the concrete slabs on deck includes removal and replacement of concrete, concrete reinforcement and decking. Methods shall be taken to prevent any of the debris from falling into the waters below. Debris protection shall be paid as a lump sum in a line item separate from removal and disposal. Removal of slabs on grade includes all removal and disposal of concrete in a manner that does not damage the adjacent surfaces. It should be noted that the slabs on grade contain a thickened edge and some may contain dowels to the abutments.

With the slab on deck removed the girders below shall be cleaned until free from loose rust and debris. All girders below the drive surface shall be cleaned with pressurized water and no mechanical methods (3280 SF of girders), all girders below the pedestrian decks shall be cleaned by hand chipping, scraping, sanding, and or wire brushing prior to cleaning with pressurized water, the top flanges and protruding steel columns, pour stops, and fillers shall be cleaned to a near white finish in preparation for zinc epoxy. The abutments shall also be cleaned with hand tools and pressurized water until free of loose debris. Contractor to supply water and all necessary tools and equipment for cleaning.

All concrete shall have mix designs submitted and approved by the City of Rifle. Slabs on deck shall be on Vulcraft 2" VLI decking. Decking shall be waterproofed prior to placement of concrete. All Beam flanges below the decking shall receive zinc epoxy primer that must be fully cured prior to placement of decking. All concrete shall be 4500 psi exterior mix with 1.5lbs of fiber per cy. Placement of concrete includes all dowling, forming, pouring, finishing, protection, and reinforcement. Subgrades below slabs on grade shall be scarified, moisturized, and compacted prior to concrete placement.

**END OF INSTRUCTIONS TO BIDDERS**



## **Required Bid Documents**

Bids shall be submitted at the time and place indicated in the Invitation to Bid and shall be enclosed in an opaque sealed envelope, marked with the project title (and, if applicable, the designated portion of the project for which the Bid is submitted) and name and address of the Bidder and accompanied by the required documents. If the Bid is sent through the mail or other delivery system, the sealed envelope shall be enclosed in a separate envelope with the notation "BID ENCLOSED" on the face of it. Any submission received after the advertised Bid Opening shall be returned unopened to the sender. Required Bid Documents are in the Bid Submittal Checklist Below

- \_\_\_\_\_ **Bid Form**
- \_\_\_\_\_ **List of Materials Suppliers/ Subcontractors**
- \_\_\_\_\_ **Contractor's License**
- \_\_\_\_\_ **Bid Schedule**
- \_\_\_\_\_ **Bid Bond**

**CITY OF RIFLE**

**BID FORM**

**FOR CONSTRUCTION OF:  
16<sup>th</sup> Street Bridge Rehabilitation**

DATE: \_\_\_\_\_

**OWNER:** City of Rifle  
202 Railroad Avenue  
Rifle CO 81650  
Attn: Craig Spaulding

**BIDDER:** Name of Bidder \_\_\_\_\_

Address of Bidder \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Phone Number \_\_\_\_\_

Email Address \_\_\_\_\_

Contact Name \_\_\_\_\_

THE UNDERSIGNED BIDDER, having familiarized himself with the Work required by the Contract Documents, the site and conditions where the Work is to be performed, local labor conditions, and all laws, regulations, and other factors affecting performance of the Work, and having satisfied himself of the expense and difficulties attending performance of the Work,

HEREBY PROPOSES and agrees, if this Bid is accepted, to enter into Agreement with the Owner to perform all work, including the assumption of all obligations, duties, and responsibilities necessary to the successful completion of the contract and the furnishing of all materials and equipment required to be incorporated in and form a permanent part of the Work; tools, equipment, supplies, transportation, facilities, labor, superintendence, and services required to perform the Work; and bonds, insurance, submittals; and all fees as indicated or specified in the Contract Documents to be performed or furnished by BIDDER for the amount identified and detailed in the BID SCHEDULE and further totaled below ("Bid Proposal Amount"):

\_\_\_\_\_ Dollars(\$ \_\_\_\_\_)  
(written) (numeric)

**CITY OF RIFLE  
BID FORM page2**

**DOCUMENTS AND ADDENDA:**

The BIDDER submits that he has carefully examined the site of the proposed work and the existing conditions, as well as the drawings and specifications. Also, he has thoroughly reviewed the proposal form, Instructions to Bidders, General Conditions, Supplementary Conditions, General Requirements, and the Specifications and Drawings, and acknowledges that the following addenda covering revisions to the drawings and/or specifications, and the cost, if any, of such revisions has been included in the Total Bid Price.

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

**CHANGES TO THE WORK:**

BIDDER agrees to perform all the WORK for the Total Base Bid price identified in the "Bid Proposal Amount." If circumstances arise during construction of this project which dictate a change in quantity, then the pricing for that particular portion of the job will be adjusted up or down with the BIDDER'S Schedule of Values (as included in the Contract Documents) to the revised quantity required by the construction circumstances of these plans. Final payment will be based upon count or measurement of items in place upon completion of the project at the units of measure and unit prices, with the exception of lump sum items.

For changes not covered by a contract unit price, BIDDER proposes that all such changes ordered to the work which increases the Scope of Work shall be priced in advance of the work and such unit prices will be approved by the Owner prior to commencement of work.

**PERFORMANCE AND LABOR & MATERIAL PAYMENT BONDS:**

By signing and submitting this Bid Proposal, the BIDDER certifies that upon demand, Performance and Labor & Material Payment Bonds can be furnished in amounts sufficient to cover the total proposed cost of work.

**TIME OF COMMENCEMENT, COMPLETION, AND DAMAGES:**

The BIDDER agrees that, if awarded the Contract, the Work will be substantially complete, ready for occupancy by Owner, according to the schedule submitted by BIDDER of within the indicated construction durations specified within the Contract Documents except for delays caused by Acts of God, neglect of the Owner or the

**CITY OF RIFLE**  
**BID FORM page 3**

Representative of the Owner or other causes beyond the BIDDER'S control, and allows for no time due to labor disputes or strikes. Weather (unless severe) is not considered as an excuse for delay of the work.

Time is expressly declared to be of the essence in completion of the Work covered by the Contract Documents. Where additional time is allowed under the Agreement for the Completion of the work, the new time limits shall be of the essence of the Agreement.

**GENERAL AGREEMENTS:**

The BIDDER agrees to the following:

The BIDDER has had an opportunity to examine the Site of the work and has examined the Contract Documents therefore.

The BIDDER has carefully prepared the bid proposal upon the basis thereof and has carefully examined and checked the Bid Proposal and the materials, equipment and labor required thereunder, the cost thereof, and figures therefore, and hereby states that the amount or amounts set forth in the Bid Proposal is, or are, correct and that no mistake or error has occurred in the Bid Proposal or in the BIDDER's computations upon which the Bid Proposal is based and the BIDDER agrees that no claim for reformation, modification, rescission or correction of the Bid Proposal will be made after the scheduled closing time for the receipt of Bid Proposals.

The BIDDER understands that the Owner reserves the right to reject any or all Bids for any or no reason and to waive any informality in the bidding.

The BIDDER understands that this Bid shall not be withdrawn for a period of 60 calendar days after the scheduled closing time for receiving bids.

The BIDDER understands that unless a bid item is included on the "Bid Schedule", no separate payment shall be made for items required to complete the work in accordance with the contract. If included on the bid schedule, then work under the item will be paid at the unit or units given and shall include all necessary work complete and in place.

In preparing the Bid Proposal, the BIDDER has verified and is reasonably assured of the availability of all labor, materials, and products in this document.

The BIDDER has carefully reviewed the Bid Documents in their entirety and has agreed to meet these requirements.

**CITY OF RIFLE  
BID FORM page 4**

DOCUMENT EXECUTION:

DATED This \_\_\_\_\_ day of \_\_\_\_\_, 2020

\_\_\_\_\_  
(Name of Firm)

\_\_\_\_\_  
(Street Address)

\_\_\_\_\_  
(City, State, Zip)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Printed Signature)

\_\_\_\_\_  
(Title)

Please check as appropriate:

\_\_\_\_\_ An individual

\_\_\_\_\_ A Partnership Between:

\_\_\_\_\_ A Corporation organized under the laws of the State of \_\_\_\_\_

**END OF BID FORM**

**LIST OF MATERIALS SUPPLIERS / SUBCONTRACTORS**

Provide the name of the materials supplier or subcontractor included in your base bid price. Any changes in the providers listed below can be made only with the approval of the Owner. Any amount of work greater than 10% of the amount bid shall be considered as a subcontractor/Materials Supplier.

<b>Name of Subcontractor Provided</b>	<b>Work Item Performed or Value</b>	<b>% of /Materials Supplier</b>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

**CITY OF RIFLE**

## Bid Schedule

Item	Description	Unit	Quantity	Unit Cost	Total Cost
1	<b>Mobilization</b> includes erosion/dust control per CDOT M Stds/Rifle Public Works Manual & de-mobilization, per Lump Sum	LS	1	\$ _____	\$ _____
2	<b>Owners Contingency</b>	Dol	1	\$ 6,500	\$ 6,500
3	<b>Construction Fencing</b> , to include all fees set up, maintenance, and takedown of construction fencing around designated laydown area not to exceed 2 months, per month	Month	2	\$ _____	\$ _____
4	<b>Pedestrian Traffic Control</b> , includes development of MHT; placement and maintenance of traffic control devices not to exceed 8 weeks; per week	Week	8	\$ _____	\$ _____
5	<b>One Lane Vehicular Traffic Control</b> , includes development of MHT; placement and maintenance of traffic control devices not to exceed 8 days; per day	Day	8	\$ _____	\$ _____
6	<b>Protection of Stream from debris</b> , includes set up, maintenance and cleanup of temporary materials below bridge to catch debris during construction activities per Lump Sum	LS	9	\$ _____	\$ _____
7	<b>Removal of Slab on Grade</b> , removal/disposal of concrete of varied thickness and thickened edge, Includes all cutting. Includes all adjoining Material such as rebar, mesh, crack fill, etc. per Sq. Yard	SY	13	\$ _____	\$ _____
8	<b>Removal of Slab on Deck</b> , removal/disposal of concrete and decking of varied thickness and thickened edge, Includes all cutting. Includes all adjoining Material such as rebar, mesh, crack fill, etc. per Sq. Yard	SY	70	\$ _____	\$ _____
9	<b>Beam Cleaning and Rust Removal below drive surface</b> , use water jetting standards WJ4, Surface shall have all loose rust, loose mill scale, and loose coatings uniformly removed, per Sq Foot	SF	3280	\$ _____	\$ _____

Item	Description	Unit	Quantity	Unit Cost	Total Cost
10	<b>Beam Cleaning and Rust Removal below pedestrian decks</b> , Removes all loose mill scale, loose rust, loose paint, and other loose detrimental foreign matter by hand chipping, scraping, sanding, and wire brushing. Followed with cleaning per WJ-4 water jetting standards per Sq. Foot	SF	2330	\$ _____	\$ _____
11	<b>Beam Cleaning and Rust Removal for Epoxy substrate SSPC-SP10</b> , Steel to be near white per surface preparation standards, When viewed without magnification shall be free of all visible oil, grease, dust, dirt, mill scale, rust, coating, oxides, corrosion products and other foreign matter of at least 95% of each unit area. Staining shall be limited to no more than 5 percent of each unit area, and may consist of light shadows, slight streaks, or minor discolorations caused by stains of rust, stains of mill scale, or stains of previously applied coatings. Unit area shall be approximately 3 in. x 3 in. (9 sq. in.). per Sq. Foot	SF	360	\$ _____	\$ _____
12	<b>Clean Abutments</b> use hand tools and water jetting standards WJ4, Surface shall have all loose rust, loose mill scale, and loose coatings uniformly removed per Lump Sum	LS	2	\$ _____	\$ _____
13	<b>Material and Installation of 2" VLI Vulcraft Composite Deck</b> , includes shop drawings procurement, lifting/handling, cutting, field measuring, installation per Sq. Foot	SF	615	\$ _____	\$ _____
14	<b>Liquid Applied Waterproofing</b> , Includes material and labor for surface prep, primer as specified by manufacturer, protection of adjacent objects, drainage wick, and fluid applied waterproofing per Sq. Foot	SF	615	\$ _____	\$ _____
15	<b>Epoxy Paint</b> , Includes material and labor for any surface prep not included by D5 but required by manufacturer, primer as specified by manufacturer, protection of adjacent objects per Sq. Foot	SF	500	\$ _____	\$ _____



Item	Description	Unit	Quantity	Unit Cost	Total Cost
16	<b>6" Dia Drain Extensions, Supports, Clamps, and Couplers</b> material and labor to extend drains per plans and specifications per Unit	EA	10	\$ _____	\$ _____
17	<b>Sidewalk on Deck (4")</b> , 4,500 PSI Exterior mix with 1.5 lbs fiber, complete and in place with coarse broom finish. Includes all doweling, forming, pour, finish; per Sq. Yard	SY	70	\$ _____	\$ _____
18	<b>Subgrade preparation</b> , scarification, Moisture conditioning, compaction to Specification; per Sq. Yard	SY	13	\$ _____	\$ _____
19	<b>Sidewalk on Grade (4") with Thickened edge</b> 4,500 PSI Exterior mix with 1.5 lbs fiber, complete and in place with coarse broom finish. Includes all doweling, forming, pour, finish; per Sq. Yard	SY	13	\$ _____	\$ _____

**TOTAL BID PRICE** \_\_\_\_\_

**Total Bid Price in Words** \_\_\_\_\_

**BID BOND**

**KNOW ALL MEN BY THESE PRESENTS, that we, the undersigned,** \_\_\_\_\_

\_\_\_\_\_

**as Principal, and** \_\_\_\_\_

**held and firmly bound unto** \_\_\_\_\_

**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 RIFLE, COLORADO**, a certain BID, attached hereto and hereby made a part hereof to enter into a contract in writing, for the 16<sup>th</sup> Street Rehabilitation Project Manual

NOW, THEREFORE,

[a] If said Bid shall be rejected, or

[b] 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 said Bid) and shall furnish a Bond for his faithful performance of said contract, and for the payment of 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 any 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** (L.S.)

\_\_\_\_\_  
**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.**

**CONTRACTOR'S LICENSING STATEMENT FORM**

The undersigned is licensed in accordance with the laws of Colorado providing for the registration of Contractors: License Number \_\_\_\_\_; Class \_\_\_\_\_.

Name of Contractor's Firm \_\_\_\_\_

Business Address and Telephone Number \_\_\_\_\_

\_\_\_\_\_  
Name of Individual Owner (print) \_\_\_\_\_

Signature of Owner \_\_\_\_\_

**OR**

Signature, Title, and Address of members signing on behalf of the partnership:

Name \_\_\_\_\_ Title \_\_\_\_\_

Address \_\_\_\_\_

Name \_\_\_\_\_ Title \_\_\_\_\_

Address \_\_\_\_\_

Name \_\_\_\_\_ Title \_\_\_\_\_

Address \_\_\_\_\_

**OR**

Corporation organized under the laws of the State of \_\_\_\_\_

\_\_\_\_\_  
Signature of President of Corporation

\_\_\_\_\_  
Signature of Secretary of Corporation

(Place Seal Here)

# AGREEMENT

THIS AGREEMENT, made this \_\_\_\_\_ day of \_\_\_\_\_, 2020, by and between, CITY OF RIFLE hereinafter called "OWNER", and \_\_\_\_\_ doing business as a Corporation, hereinafter called "CONTRACTOR".

WITNESSETH: That for and in consideration of the payments and agreements hereinafter mentioned:

1. The CONTRACTOR will commence and complete the construction of  
\_\_\_\_\_  
16<sup>th</sup> Street Bridge Rehabilitation 2019
2. The CONTRACTOR will furnish all of the material, supplies, tools, equipment, labor and other service necessary for the construction and completion of the WORK described herein.
3. The CONTRACTOR will commence the work required by the CONTRACT DOCUMENTS within **14** calendar days after the date of the NOTICE TO PROCEED and will complete the same by **as indicated in the contract documents**, unless the period for completion is extended otherwise by the CONTRACT DOCUMENTS.
4. The Contractor agrees to perform all of the Work described in the CONTRACT DOCUMENTS and comply with the terms therein for the sum of (\$ \_\_\_\_\_ ) dollars or as shown in the BID SCHEDULE.
5. The term "CONTRACT DOCUMENTS" means and includes the following:
  - A. ADVERTISEMENT FOR BID
  - B. INSTRUCTIONS TO BIDDERS
  - C. BID
  - D. BID BOND
  - E. AGREEMENT
  - F. GENERAL CONDITIONS (CITY OF RIFLE PUBLIC WORKS MANUAL)
  - G. SUPPLEMENTARY GENERAL CONDITIONS
  - H. PAYMENT BOND
  - I. PERFORMANCE BOND
  - J. NOTICE OF AWARD
  - K. NOTICE TO PROCEED
  - L. List of Drawing Sheets
    - C-1 General
    - C-2 Beam Rehabilitation
    - C-3 Details
    - R1- Existing Conditions
    - R2-Existing Conditions
    - S-1 Deck Section
  - M. TYPICAL SPECIFICATIONS noted in the City Public Works Manual and CDOT Specifications.
  - N. Technical Specifications
  - O. ADDENDA: No. \_\_\_\_\_, dated \_\_\_\_, 2020.

**CITY OF RIFLE  
AGREEMENT**

6. 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.
7. 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 triplicate, each of which shall be deemed an original on the date first above written.

**CITY OF RIFLE**

OWNER: \_\_\_\_\_

BY: \_\_\_\_\_

NAME: \_\_\_\_\_

TITLE: \_\_\_\_\_

(SEAL)

ATTEST (OWNER): \_\_\_\_\_

(Please Type)

NAME: \_\_\_\_\_

TITLE: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_

BY: \_\_\_\_\_

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

(SEAL)

ATTEST (CONTRACTOR): \_\_\_\_\_

(Please type)

NAME: \_\_\_\_\_

TITLE: \_\_\_\_\_



# Certificate of Insurance

Certificates of Insurance from the contractor and subcontractor's insurance carriers shall name both the City of Rifle and CDOT as additional insured parties. Submission of Certificates of Insurance shall be provided prior to commencing any work.

## Performance Bond Form

KNOW ALL MEN BY THESE PRESENTS that

\_\_\_\_\_  
Name of Contractor

\_\_\_\_\_  
Address of Contractor

a \_\_\_\_\_  
Corporation, Partnership or Individual

Hereinafter called Principal, and \_\_\_\_\_  
Name of Surety

\_\_\_\_\_  
Address of Surety

Hereinafter called Surety, are held and firmly bound unto \_\_\_\_\_

\_\_\_\_\_  
Name of Owner

\_\_\_\_\_  
Address of Owner

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 \_\_\_\_\_, \_\_\_\_\_, a copy of which is hereto attached and made a part hereof for the construction of:

\_\_\_\_\_  
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 guaranty period, and if he shall satisfy all claims and demands incurred under such contract, and shall full 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.

**PEFORMANCE BOND**

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 terms of the contract or to the WORK to be performed hereunder or the SPECIFICATIONS accompanying the same shall in any way 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.

IN WITNESS WHEREOF, this instrument is executed in \_\_\_\_\_  
(number of copies)  
counterparts, each one of which shall be deemed an original, this \_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

\_\_\_\_\_  
Principal (signature)

By \_\_\_\_\_  
Type/print

\_\_\_\_\_

Address

ATTEST:

\_\_\_\_\_  
\_\_\_\_\_  
(Principal) Secretary

(SEAL)

\_\_\_\_\_  
Witness as to Principal  
\_\_\_\_\_  
\_\_\_\_\_  
Address

SURETY: \_\_\_\_\_

By: \_\_\_\_\_  
Attorney-in-Fact

\_\_\_\_\_  
Address

ATTEST:

\_\_\_\_\_  
Witness as to Surety  
\_\_\_\_\_  
\_\_\_\_\_  
Address

**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 where the WORK is located.**



# Payment Bond Form

The following additional provision shall constitute an amendment to Payment Bond No. \_\_\_\_\_.

PROVIDED, FURTHER, that the Principal and Surety, for value received, shall indemnify and save harmless the Owner to the extent of any payments required to be made by the Principal under the terms of the Contract. Subcontractors, material men, mechanics, and others shall have the right of action for amounts lawfully due them from the Principal or Subcontractor directly against the Principal and Surety of this bond. In the event the Principal or his Subcontractor fails to duly pay for any labor, materials, team hire, sustenance, provisions, pro-vendor, or other supplies used or consumed by such Principal or his Subcontractor in performance of the Work contracted be done, the Surety shall pay the same in an amount not exceeding the sum specified in the bond, together with interest, at the rate of eight percent (8%) per annum.

IN WITNESS WHEREOF, this Amendment is executed in four counterparts, each one of which shall be deemed an original, this \_\_\_\_ day of \_\_\_\_\_.

\_\_\_\_\_  
Principal

ATTEST:

\_\_\_\_\_  
(Principal) Secretary By: \_\_\_\_\_

\_\_\_\_\_  
(Address)

Witness as to Principal

(Witness as to Principal)

\_\_\_\_\_  
\_\_\_\_\_  
(Address)

By: \_\_\_\_\_  
Attorney-in-Fact

Surety

\_\_\_\_\_  
Address

ATTEST:

\_\_\_\_\_

Address \_\_\_\_\_

# Notice of Award

Dated \_\_\_\_\_

TO: \_\_\_\_\_  
Bidder

OWNER'S PROJECT NO. \_\_\_\_\_

PROJECT: \_\_\_\_\_

CONTRACT FOR: \_\_\_\_\_

\*\*\*\*\*  
\*\*\*\*\*

You are notified that your Bid dated \_\_\_\_\_ for the above Contract has been considered. You are the apparent successful Bidder and have been awarded a contract for \_\_\_\_\_

Contract Price of your Contract is \_\_\_\_\_ Dollars ( \_\_\_\_\_ ).

Three copies of each of the proposed Contract Documents (except Drawings) accompany this Notice of Award.

You must comply with the following conditions precedent within fifteen days of the date of this Notice of Award, that is by \_\_\_\_\_

1. You must deliver to the OWNER three fully executed counterparts of the Agreement, including all the Contract Documents, Performance and Payment Bonds. Each of the Contract Documents must bear your signature on the cover.
2. You must deliver with the executed Agreement the Contract Security (Bonds)
3. You must deliver with the executed Agreement, c Failure to comply with these conditions within the time specified will entitle OWNER to consider your bid abandoned, to annul this Notice of Award and to declare your Bid Security forfeited. Within ten days after you comply with those conditions, OWNER will return to you one fully signed counterpart of the Agreement with the Contract Documents attached.

\_\_\_\_\_  
Owner

By: \_\_\_\_\_  
Authorized Signature

\_\_\_\_\_

**CITY OF RIFLE**

**NOTICE TO PROCEED**

To: \_\_\_\_\_ Date: \_\_\_\_\_  
Project: \_\_\_\_\_

You are hereby notified to commence WORK in accordance with the Agreement  
dated \_\_\_\_\_, 2019, on or before \_\_\_\_\_, 2019.

By: \_\_\_\_\_  
Owner

Title: \_\_\_\_\_

ACCEPTANCE OF NOTICE Receipt of the above NOTICE TO PROCEED is hereby acknowledged

By \_\_\_\_\_

this the \_\_\_\_\_ day of \_\_\_\_\_, 2017 .

By: \_\_\_\_\_

Title: \_\_\_\_\_

## **General Conditions**

### **PWM Section 2.1. ADDITIONAL INSTRUCTIONS, MODIFICATIONS AND DETAIL DRAWINGS**

The engineer may, during the duration of the contract agreement and in accordance with Sections 2-16, 2-17, and 2-18 of these General Conditions, furnish the contractor written instructions, modifications or detail drawings necessary to illustrate changes in the work.

The additional written instructions and detailed drawings thus supplied shall become a part of the contract documents, without invalidating the contract agreement, and the contractor shall perform the work as modified or altered.

### **PWM Section 2.2. EXECUTION, CORRELATION, INTENT, INTERPRETATION AND FURNISHING OF CONTRACT DOCUMENTS**

The contract documents shall be executed in triplicate by the owner and contractor.

By executing the contract agreement the contractor represents that he has visited the sight of the work, familiarized himself with the locale, subsurface and site conditions under which the work is to be performed, and correlated his observations with the available information included with and required by the contract documents.

The contract documents are complementary and what is required by any one shall be as binding as if required by all. The intention of the documents is to include all labor, materials, equipment and incidentals necessary for the proper execution and completion of the work. It is not intended that work not covered under any heading, section, class or trade of the specifications shall be supplied unless it is required elsewhere in the contract documents or is reasonably inferable there from as being necessary to produce the intended results. Words, which have well known technical or trade meanings, are used herein in accordance with such recognized meanings. Well-known technical standards are used herein in accordance with the latest edition and revisions thereof.

Written interpretations necessary for the proper execution or progress of the work, in the form of drawings or other wise, will be issued with reasonable promptness by the engineer and in accordance with any approved schedule, upon written request from the contractor. Such interpretations shall be consistent with and reasonably inferable from the contract documents and may be effected by field order.

Unless otherwise provided in the contract documents, the contractor will be furnished, free of charge, three (3) copies of drawings and specifications necessary for the execution of the work. All drawings and specifications thus furnished shall not be reused on any other project.

### **PWM Section 2.3. SCHEDULES, REPORTS AND RECORDS**

The contractor shall submit to the owner such schedule of quantities and costs, progress schedules, payrolls, reports, estimates, records and other data as the owner may request concerning work performed or to be performed.

Prior to the first partial payment estimate the contractor shall submit to the engineer schedules indicating:

- A. Partial payments that he anticipates he will earn during the course of the work.
- B. The order in which he proposes to carry on the work, including dates at which he will start the various parts of the work, estimated date of completion of each part; and as applicable:
  - 1. The dates at which special detailed drawings will be required from the engineer.
  - 2. The date that the contractor will submit shop drawings to the engineer.
  - 3. Respective dates that manufacturing will begin, the testing and the installation of materials, supplies and equipment.

Schedules submitted by the contractor shall reflect:

- C. The timely and orderly completion of:
  - 1. Specific portions of the work as called for in the Special Conditions.
  - 2. The work in accordance with allowed contract time.
- D. The inability to perform work on Saturdays, Sundays, holidays or between the hours of 7:00 p.m. and 7:00 a.m. on any working day, without written permission from the engineer.
- E. The safety, adequacy and efficiency of his plant equipment, tools, labor and methods of performing the work.
- F. The availability of materials, equipment and incidentals to be incorporated in the work.
- G. Maintenance and control of traffic.

### **PWM Section 2.4. DRAWINGS, SPECIFICATIONS, CONFLICTS AND DISCREPANCIES**

The intent of the drawings and specifications is that the contractor shall furnish all labor, materials, tools, equipment, incidentals and transportation necessary for the proper execution of the work in accordance with the contract documents to complete the project in an acceptable manner, ready for use, occupancy or operation by the owner.

In case of conflict between the drawings and specifications, the specifications shall govern. Figured dimensions on drawings shall govern over scale dimensions, detailed drawings shall govern over General Drawings and Special Conditions shall govern over Standard Specifications. Any discrepancies between the drawings and specifications and site conditions; or any inconsistencies, errors, omissions or ambiguities in the drawings or specifications; or any errors or omissions in the layout as given by survey points and instructions shall be immediately reported to the engineer, in writing, who shall promptly verify and correct such inconsistencies or ambiguities in writing. Work performed by the contractor after such discovery, until authorized or corrected by the engineer, shall be done at the contractor's risk.

## **PWM Section 2.5. SHOP DRAWINGS AND MATERIAL SAMPLES**

The contractor shall provide shop drawings, in triplicate, as may be necessary for the prosecution of the work (i.e. vault piping, electrical systems, reinforcing, non-detailed items, etc.) as required by the contract documents. The engineer shall promptly review all shop drawings. The engineer's approval of any shop drawing shall not release the contractor from responsibility for deviations from the contract documents. The approval of any shop drawing, which substantially deviates, from the requirement of the contract documents shall be evidenced by a Change Order.

When submitted for the engineer's review, shop drawings shall bear the contractor's certification that he has reviewed, calculated non-detailed dimensions, checked and approved the shop drawings and that they are in conformance with the requirements of the contract documents.

Portions of the work requiring a shop drawing or material sample submission shall not begin until the shop drawing or submission has been approved by the engineer. A copy of each approved shop drawing and each approved material sample shall be kept in good order by the contractor at the site and shall be available to the engineer.

## **PWM Section 2.6. MATERIALS, SERVICES, AND FACILITIES**

It is understood that, except as otherwise specifically stated in the contract documents, the contractor shall provide and pay for all materials, labor, tools, equipment, water, light, power, transportation, supervision, temporary construction of any nature, and all other services and facilities of any nature whatsoever necessary to execute, complete and deliver the work within the specified time.

Materials and equipment shall be so stored as to insure the preservation of their quality and fitness for the work. Stored materials and equipment to be incorporated in the work shall be located so as to facilitate prompt inspection.

Manufactured articles, materials and equipment shall be fabricated, furnished, applied, installed, connected, erected, used, cleaned and conditioned as directed by the manufacturer or in accordance with the latest revision to or edition of well known technical standards (i.e. ASTM, AWWA, Colorado Department of Transportation, etc.) referred to in the Specifications or Special Conditions.

Materials, supplies and equipment shall be in accordance with samples submitted by the contractor and approved by the engineer.

Materials, supplies or equipment to be incorporated into the work shall not be purchased by the contractor or the subcontractor subject to a chattel mortgage or under a conditional sale contract or other agreement by which an interest is retained by the seller.

## **PWM Section 2.7. INSPECTION AND TESTING**

All materials and equipment used in the construction of the project shall be subject to adequate inspection and testing in accordance with generally accepted standards and as required by the contract documents.

The owner shall provide technical personnel, acting under the supervision of the engineer, for the inspection and testing of the work in progress to ascertain that the completed work complies in all respects with the requirements of the contract documents.

If the contract documents, laws, ordinances, rules, regulations or orders of any public authority having jurisdiction require any work to specifically be inspected, tested, or approved by someone other than the contractor, the contractor will give the engineer timely notice of readiness. The contractor will then furnish the engineer the required certificates of inspection, testing or approval.

Neither observations by the engineer nor inspections, tests or approvals by any person shall relieve the contractor from his obligations to perform the work in accordance with the requirements of the contract documents.

The engineer and his representative will at all times have access to the work whenever it is in preparation or in progress. In addition, authorized representatives and agents of any participating federal or state agency shall be permitted to inspect all work, materials, payrolls, records of personnel, invoices of materials, and other relevant data and records. The contractor will provide proper facilities for such access and observation of the work and also for any inspection thereof.

If any work is covered contrary to instructions or without approval or consent from the engineer, it must if required by the engineer, be uncovered for his examination and properly restored at the contractor's expense.

If any work has been covered which the engineer has not specifically requested to observe prior to its being covered, or if the engineer considers it necessary or advisable that covered work be inspected or tested by others, the contractor, at the engineer's request, will uncover, expose or otherwise make available for observation, inspection or testing as the engineer may require, that portion of the work in question, furnishing all necessary labor, materials, tools and equipment. If it is found that such work is defective, the contractor will bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction. If, however, such work is not found to be defective, the contractor will be allowed an increase in the contract price or an extension of the contract time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction and an appropriate Change Order shall be issued.

## **PWM Section 2.8. SUBSTITUTIONS**

Whenever a material, article or piece of equipment is identified on the drawings or specifications by reference to brand name or catalog number, it shall be understood that this is referenced for the purpose of defining the performance or other salient requirements and that other products of equal capacities, quality and function shall be considered. The contractor may request, in writing, the substitution of a material, article, or piece of equipment of equal substance and function for those referred to in the contract documents by reference to brand name or catalog number, and if, in the opinion of the engineer, such material, article, or piece of equipment is of equal substance and function to that specified, the engineer may approve its substitution and use by the contractor. Any cost differential shall be deductible from the contract price and the contract documents shall be appropriately modified by Change Order. The contractor warrants that if substitutes are approved, no major changes in the function or general design of the project will result. Incidental changes or extra component parts required to accommodate the substitute will be made by the contractor without a change in the contract price or contract time.

## **PWM Section 2.9. PATENTS**

The contractor shall pay all applicable royalties and license fees. He shall defend all suits or claims for infringement of any patent rights and save the owner harmless from loss on account thereof, except that the owner shall be responsible for any such loss when a particular process, design, or the product of a particular manufacturer or manufacturers is specified by the owner; notwithstanding anything above to the contrary, if the contractor has reason to believe that the design, process or product specified is an infringement of a patent, he shall be responsible for such loss unless he promptly gives such information, in writing, to the engineer.

## **PWM Section 2.10. SURVEYS**

The owner shall furnish, at no cost to the contractor, field electronic horizontal and vertical control data at only two control points at each site of the work at the owner's choice of location of control points. From the information provided by the owner, the contractor shall be required to make all detail surveys needed for construction such as slope stakes, batter boards, stakes for pile locations and other working points, lines, elevations and cut sheets.

The contractor shall carefully preserve benchmarks, reference points and stakes and, in case of willful or careless destruction, he shall be charged with the resulting expense and shall be responsible for any mistakes that may be caused by their unnecessary loss or disturbance.

The contractor shall notify the engineer, in writing, forty-eight hours in advance, of the time and place at which he will require lines and grades in order to perform the Work or obtain measurements for record and payment.

## **PWM Section 2.11. LICENSES, PERMITS, AND REGULATIONS**

All contractors and subcontractors performing work on the project shall have a current City of Rifle Municipal or Building Contractor's License, whichever is applicable to their trade. Permits and licenses of a temporary nature necessary for the prosecution of the work shall be secured and paid for by the contractor. Permits, licenses, and easements for permanent structures or permanent changes in existing facilities shall be secured and paid for by the owner, unless otherwise specified. The contractor shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the work as drawn and specified. If the contractor observes that the Contract Documents are at variance therewith, he shall promptly notify the engineer in writing, and any necessary changes shall be adjusted as provided in the Contract Documents for changes in the work.

## **PWM Section 2.12. PROTECTION OF WORK, EMPLOYEES, PUBLIC AND PROPERTY**

The contractor will be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the work. He will take all necessary precautions for the safety of, and will provide the necessary

protection to prevent damage, injury or loss to all employees on the Work and the public who may be affected thereby, all the work and all the materials or equipment to be incorporated therein, whether in storage on or off the site, and other property at the site or adjacent thereto, including pedestrian and vehicular traffic, trees, shrubs, lawns, fences, walks, pavements, roadways, structures and utilities, shown or not shown on the plans which are not designated for removal, relocation or replacement in the course of construction.

The contractor will comply with all applicable laws, ordinances, rules, regulations and order of any private or public body having jurisdiction. He will notify owners and users of adjacent utilities when prosecution of the work may affect them. He shall keep adjacent highways, streets and private access open to traffic and free of dirt and litter resulting from handling operations. He shall take reasonable precautions to protect private property adjacent to the project from such nuisances as dust, dirt, rock and excessive noise. The contractor shall remedy all damage, injury or loss to any property caused, directly or indirectly, in whole or in part, by the contractor, any subcontractor or anyone directly or indirectly employed by any of them or anyone for whose acts any of them be liable, except such as may be due to errors in the Contract Documents, or caused by agents or employees of the owner.

### **PWM Section 2.13. EMERGENCIES**

In emergencies affecting the safety of life or the work or property at the site or adjacent thereto, the contractor, without special instruction or authorization from the engineer or owner, shall act to prevent threatened damage, injury or loss. He will give the engineer prompt written notice of any significant changes in the Work or deviations from the Contract Documents caused thereby, and a Change Order shall thereupon be issued covering the changes and deviations involved, except when the emergency is attributed to acts of the contractor in performing the Work.

### **PWM Section 2.14. LAWS, ORDINANCES, RULES, REGULATIONS, AND ORDERS**

The contractor shall keep himself fully informed of, and shall comply with all applicable laws, ordinances, rules, regulations and orders of the city, county, state, federal or public bodies having jurisdiction affecting the work. He shall provide, erect and maintain all necessary, police, watchmen, flagmen, firemen, shoring, signing, traffic devices, barricades and sanitary facilities, as required by the conditions and progress of the work, and all other necessary safeguards for safety and protection, as set forth by the United States Department of Labor, Occupational Safety and Health Administration.

The contractor must conform to the rules and regulations of the Industrial Commission of Colorado. Prior to starting excavation the contractor shall obtain from the Commission and file with the engineer a copy of his "Notice of Intent to Excavate."

The contractor shall comply with the requirements of CRS § 8-17-101 (1985 Supp.) by employing not less than 80 percent Colorado residents in the several classifications of skilled and common labor employed on the project.

The contractor shall be an equal opportunity employer and adhere specifically to all the City of Rifle resolutions and ordinances pertaining thereto.

The contractor shall protect and indemnify the owner and its agents against any claim or liability arising from or based on the violations of such ordinances, regulations, or laws, caused by the negligent actions of the contractor, his agents or employees.

### **PWM Section 2.15. SUPERVISION AND DISCIPLINE BY CONTRACTOR**

The contractor will supervise and direct the work. He will be solely responsible for the means, methods, techniques, sequences and procedures of construction. The contractor will employ and maintain on the work a qualified supervisor or superintendent who shall have been designated in writing by the contractor as the contractor's representative at the site. The supervisor shall have full authority to act on behalf of the contractor and all communications given to the supervisor shall be as binding as if given to the contractor. The supervisor shall be present on the site at all times as required to perform adequate supervision and coordination of the work.

The contractor shall at all times enforce strict discipline and good order among his employees and shall avoid employing on the project anyone unskilled in the work assigned.

### **PWM Section 2.16. CHANGES IN THE WORK**

At any time during the progress of the work, the owner, through its city manager, may order alterations or changes in the plans, specifications, character or quantity of work, without invalidating the contract agreement. When the total arithmetic dollar value of all such changes, both additive and deductive, does not exceed 25 percent of the contract price, bid unit or lump sum prices, where applicable, shall be used. Should the dollar value of the changes exceed 25 percent of the contract price, the value of the changes over 25 percent shall be based on negotiated unit or lump sum prices, where applicable.

The engineer, also, may at any time, by issuing a Field Order, make changes in the details of the work, the contractor shall proceed with the performance of any changes in the work so ordered by the engineer unless the contractor believes that such Field Order entitles him to a change in contract price or time, or both, in which event he shall give the engineer written notice thereof within fifteen days after the receipt of the ordered change, and the contractor shall not execute such changes pending the receipt of an executed Change Order or further instruction from the owner.

## **PWM Section 2.17. CHANGES IN CONTRACT PRICE**

The contract price may be changed only by a Change Order. The value of any work covered by a Change Order or of any claim for increase or decrease in the contract price shall be determined by one or more of the following methods in the order of precedence listed below.

- A. Contract Unit Prices. If a change is ordered in an item of work covered by a contract unit or lump sum price, then an adjustment in the contract price will be made based upon the increase or decrease in quantity of the contract unit or lump sum price.
- B. Agreed Prices. Adjustments in contract price for changes ordered that are not covered by contract unit or lump sum price or exceed the limitation in Section 2.16, will be determined by agreement between contractor and owner. If unable to reach agreement, the owner may direct the contractor to proceed on the basis of extra work in accordance with Paragraph C.
- C. Extra Work. When the price for extra work cannot be agreed upon, the owner will pay for the extra work based on the accumulation of costs as provided herein below.
  1. Daily Reports by Contractor. At the close of each working day, the contractor shall submit a daily report to the engineer, together with applicable delivery tickets, listing all labor, materials, and equipment for that day, and for other services and expenditures when authorized. An attempt shall be made to reconcile the report daily, and it shall be signed by the engineer and the contractor. In the event of disagreement, pertinent notes shall be entered by each party to explain points which cannot be resolved immediately. Each party shall retain a signed copy of the report. Reports by subcontractors or others shall be submitted through the contractor.
    - a. Labor. The report shall show the names of workers, classifications, and hours worked.
    - b. Material. The report shall describe and list quantities of materials used.
    - c. Equipment. The report shall show type of equipment, size and hours of operation, including loading and transport, if applicable.
    - d. Other Services and Expenditures. Other services and expenditures shall be described in such detail as the engineer may require.
  2. Basis for Establishing Costs.
    - a. Labor. The costs of labor will be the actual cost for wages for each craft or type of workers at the time the extra work is done, plus employer payments of payroll taxes and insurance, health and welfare, pension, vacation, and other direct costs resulting from federal, state or local laws, as well as assessments or benefits required by lawful collective bargaining agreements. The use of a labor classification which would increase the extra work cost will not be permitted unless the contractor establishes the necessity for such additional costs. Labor costs for equipment operators and helpers shall be reported only when such costs are not included in the invoice for equipment rental.
    - b. Materials. The cost of materials, or equipment to be incorporated in the work, shall be at invoice or lowest current price at which such materials are locally available and delivered to the job site in the quantities involved, plus freight and delivery.  
The owner reserves the right to approve materials and sources of supply, or to supply materials to the contractor if necessary for the progress of the extra work. No markup shall be applied to any material provided by the owner.
    - c. Tool and Equipment Rental. No payment will be made for the use of tools which have a replacement value of \$400 or less.  
Regardless of ownership, the rates to be used in determining equipment rental costs shall not exceed rates approved or authorized by the Colorado Department of Transportation at the time the extra work is performed. (Dataquest-Rental Rate Blue Book)  
The rental rates paid shall include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance and all incidentals.



Necessary loading and transportation costs for equipment used in performing the extra work shall be included.

If equipment is used intermittently and, when not in use, could be returned to its rental source at less expense to the owner than holding it at the work site, it shall be returned, unless the contractor elects to keep it at the work site at no expense to the owner.

The reported rental time for equipment already at the job site shall be the duration of its use on the extra work, commencing at the time it is first put into actual operation on the extra work.

d. Other Items. The owner may authorize other items, which may be required on the extra work. Such items include labor, services, material and equipment which are different in their nature from those required for the work and which are of a type not ordinarily available from the contractor or any of the subcontractors.

Invoices covering all such items in detail shall be submitted with the request for payment.

e. Invoices. Vendors' invoices for material, equipment rental, and other expenditures, shall be submitted with the request for payment. If the request for payment is not substantiated by invoices or other documentation, the engineer may establish the cost of the item involved at the lowest price which was current at the time of the report.

### 3. Markup.

a. Work by Contractor. The following percentage shall be added to the contractor's costs and shall constitute the markup for all overhead and profits:

Labor (1.32 x certified payroll) 15

Materials 15

Equipment Rental 15

Other Items and Expenditures 15

To the sum of the costs and markups provided for in this subsection, one percent shall be added as compensation for bond and liability insurance.

b. Work by Subcontractor. When all or any part of the extra work is performed by a subcontractor, the markup established herein shall be applied to the subcontractor's actual cost of such work, to which a markup of five percent on the subcontracted portion of the extra work may be added by the contractor.

4. Any other cause which, in the opinion of the engineer, entitles the contractor to additional time, including but not restricted to acts of the public enemy, acts of any government in either its sovereign or any applicable contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes and unforeseeable severe abnormal weather.

## **PWM Section 2.18. CHANGES IN CONTRACT TIME**

The contract time may be changed only by a Change Order. The contractor shall notify the engineer promptly and in writing of any occurrence or conditions which, in the contractor's opinion, entitle him to an extension or reduction in contract time. Such notice shall be submitted in ample time to permit full investigation and evaluation of the contractor's claim. Failure to provide such notice shall constitute a waiver by the contractor of any claim. The engineer shall acknowledge the contractor's notice within seven days of its receipt.

Changes in contract time for the completion of the work shall be stipulated by Change Order:

A. When changes in the work occur.

B. When work is suspended by the owner.

C. For unforeseeable causes beyond the control and without the fault or negligence of the contractor, his subcontractor or supplier and which were not the result of their fault or negligence.

D. When delays in the progress of the work caused by:

1. Any act or neglect of the owner, his employees or agents.

2. Other contractors employed by the owner.

3. Any delay in furnishing of drawings, information or return of shop drawings by the engineer.

4. Any other cause which, in the opinion of the engineer, entitles the contractor to additional time, including but not restricted to acts of the public enemy, acts of any government in either its sovereign or any applicable contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes and unforeseeable severe abnormal weather.

## **PWM Section 2.19. TIME FOR COMPLETION AND LIQUIDATED DAMAGES**

The date of beginning and the time for completion of the work are essential conditions of the contract documents and the work embraced shall be commenced on the date specified in the Notice to Proceed.

The contractor will proceed with the work at such rate of progress to insure full completion within the contract time. It is expressly understood and agreed, by and between the contractor and the owner, that the contract time for the completion of the work described herein is a reasonable time, taking into consideration the average climatic and economic conditions and other factors prevailing in the locality of the work.

A daily charge will be made against the contractor for each working day, including free time, that any work shall remain uncompleted after elapse of contract time. This daily charge, determined by the original contract amount for the project from the table herein below, will be deducted from any money due the contractor. This deduction will not be considered a penalty but as liquidated damages.

The schedule of liquidated damages set forth below is an amount, agreed to by the contractor and the City of Rifle, as reasonably representing additional construction engineering costs incurred by the City if the contractor fails to complete performance within the contract time.

The schedule of liquidated damages will be:

Original Contract Amount Daily Charge

From To and

More than Including

\$ 0 \$ 25,000 \$ 270

25,000 50,000 465

50,000 100,000 540

100,000 500,000 950

500,000 1,000,000 1,250

1,000,000 2,000,000 1,400

2,000,000 4,000,000 1,750

4,000,000 8,000,000 1,970

8,000,000 10,000,000 2,050

Over \$10,000,000 - daily charge will increase by \$100 increments for each \$2,000,000 over \$10,000,000.

Permitting the contractor to continue and finish the work or any part thereof after elapse of contract time will not operate as a waiver on the part of the City of any of its rights under the contract.

Any deduction assessed as liquidated damages under this section shall not relieve the contractor from liability for any damages or costs resulting from delays to other contractors on the project or other projects caused by a failure of the assessed contractor to complete the work according to contract times.

The contractor shall not be charged with liquidated damages or any excess cost when the delay in completion of the work is due to the following and the contractor has promptly given written notice of such delay to the owner or engineer.

A. To any preference, priority or allocation order duly issued by the owner.

B. To unforeseeable causes beyond the control and without the fault or negligence of the contractor, including but not restricted to, acts of God, or of the public enemy, acts of the owner, acts of another contractor in the performance of a contract with the owner, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes and unforeseeable severe abnormal weather.

The owner shall have the right to deduct the amount of liquidated damages from any monies due or to become due to the contractor, or to sue for and recover compensation for damages for non-performance of the work, from the contractor and his surety, as stipulated in the contract documents.

## **PWM Section 2.20. CORRECTION OF WORK**

The contractor shall promptly remove from the premises all material and work condemned by the engineer for failing to comply with the contract documents, whether incorporated in the construction or not, and the contractor shall promptly replace and re-execute the work in accordance with the contract documents and without expense to the owner and shall bear the expense of making good all work and material of other contractors destroyed or damaged by such removal or replacement.

All removal and replacement Work shall be done at the contractor's expense. If the contractor does not take action to remove such condemned work and materials within ten days after receipt of written notice, the owner may remove such work and store the materials at the expense of the contractor.

### **PWM Section 2.21. SUBSURFACE CONDITIONS**

The contractor shall promptly, and before such conditions are disturbed, except in the event of an emergency, which jeopardizes the safety of the project and/or persons thereon, notify the owner in writing of:

- A. Subsurface or latent physical conditions at the site differing materially from those indicated in the contract documents.
- B. Previously unknown physical or other conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in the contract documents.

The engineer shall promptly investigate the conditions, and if he finds that such conditions do so materially differ and cause an increase or decrease in the cost of, or in the time required for, performance of the work, an equitable adjustment shall be made and the contract documents shall be modified by a Change Order. Any claim of the contractor for adjustment hereunder shall not be all wed unless he has given the required written notice; provided that the engineer may, if he determines the facts so justify, consider and adjust any such claims asserted before the date of final payment.

### **PWM Section 2.22. SUSPENSION, DELAY OR INTERRUPTION OF WORK**

The owner may, at any time and without cause, suspend the work or any portion thereof for a period of not more than ninety calendar days or such further time as agreed upon by the contractor, by written notice to the contractor and the engineer which notice shall fix the date on which work shall be resumed. The contractor will resume that work on the date so fixed. The contractor will be allowed an increase in the contract price or an extension of the contract time, or both, directly attributable to any suspension.

If the performance of all or any portion of the work is suspended, delayed or interrupted as a result of a failure of the owner or engineer to act within the time specified in the contract documents, or if no time is specified, within a reasonable time, an adjustment in the contract price or an extension of the contract time, or both, shall be made by Change Order to compensate the contractor for the costs and delays necessarily caused by the failure of the owner or engineer.

### **PWM Section 2.23. OWNER'S RIGHT TO TERMINATE OR ABANDON WORK**

If the contractor is adjudged bankrupt or insolvent, or if he makes a general assignment for the benefit of his creditors, or if a trustee or receiver is appointed for the contractor or for any of his property, or if he files a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or applicable laws, or if he repeatedly fails to supply sufficient skilled workmen or suitable materials or equipment, or if he repeatedly fails to make prompt payments to subcontractors or for labor, materials or equipment or if he disregards laws, ordinances, rules, regulations or orders of any public body having jurisdiction of the work or if he disregards the authority of the engineer, or if he otherwise violates any provision of the contract documents, then the owner may, without prejudice to any other right or remedy and after giving the contractor and his surety a minimum of ten days from delivery of a written notice, terminate the services of the contractor and take possession of the project and of all materials, equipment, tools, construction equipment and machinery thereon owned by the contractor, and finish the work by whatever method he may deem expedient. In such case the contractor shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the contract price exceeds the direct and indirect costs of completing the project, including compensation for additional professional services, such excess shall be paid to the contractor. If such costs exceed such unpaid balance, the contractor will pay the difference to the owner. Such costs incurred by the owner will be determined by the engineer and incorporated in a Change Order.

Where the contractor's services have been so terminated by the owner, said termination shall not affect any right of the owner against the contractor then existing or which may thereafter accrue. Any retention or payment of monies by the owner due the contractor will not release the contractor from compliance with the contract documents.

After ten calendar days from delivery of a written notice to the contractor, the owner may, without cause and without prejudice to any other right or remedy, elect to abandon the project and terminate the contract. In such case, the contractor shall promptly remove all of his equipment, temporary facilities and supplies from the premise, clean up the project and contiguous properties. Otherwise, the owner shall perform such housekeeping at the expense of the

contractor. However, the contractor shall be paid for all work executed and any expense sustained plus reasonable profits as a result of such action by the owner.

#### **PWM Section 2.24. CONTRACTOR'S RIGHT TO TERMINATE OR STOP WORK**

If, through no act or fault of the contractor, the work is suspended for a period of more than ninety calendar days by the owner or under an order of court or other public authority, or the engineer fails to act on any request for payment within thirty calendar days after it is submitted, or the owner fails to pay the contractor substantially the sum approved by the engineer within thirty calendar days of its approval and presentation, then the contractor may, after ten calendar days from delivery of a written notice to the owner and the engineer, terminate the contract and recover from the owner payment for all work executed and all expenses sustained. In addition and in lieu of terminating the contract, if the engineer has failed to act on a request for payment or if the owner has failed to make any payment as aforesaid, the contractor may upon ten calendar days notice to the owner and the engineer stop the work until he has been paid all amounts then due, in which event and upon resumption of the work, Change Orders shall be issued for adjusting the contract price or extending the contract time, or both, to compensate for the costs and delays attributable to the stoppage of the work.

#### **PWM Section 2.25. SUBCONTRACTING**

The contractor may utilize the services of subcontractors on those parts of the work which, under normal contracting practices, are performed by specialty subcontractors.

The contractor shall not award work to subcontractor(s), in excess of fifty percent of the total contract price, without prior written approval of the owner.

The contractor shall be fully responsible to the owner for the acts and omissions of his subcontractors, and of persons either directly or indirectly employed by them, as he is for the acts and omissions of persons directly employed by him. The contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the work to bind subcontractors to the contractor by the terms of the contract documents insofar as applicable to the work of subcontractors and to give the contractor the same power as regards terminating any subcontract that the owner may exercise over the contractor under any provision of the contract documents.

Nothing contained in this contract shall create any contractual relation between any subcontractor and the owner.

#### **PWM Section 2.26. CONTRACT SECURITY**

The contractor shall, within seven calendar days after the receipt of the Notice of Award, furnish the owner with a Performance and Payment Bond in the penal sum of the total contract price, conditioned upon the performance by the contractor of all Change Orders, undertakings, covenants, terms, conditions and agreements of the contract documents, and upon the prompt payment by the contractor to all persons supplying labor, equipment and materials in the prosecution of the work provided by the contract documents. Such bond shall be executed by the contractor and a corporate bonding company licensed to transact such business in the State of Colorado and listed in the most recent revision of "Surety Companies Acceptable on Federal Bonds" as published in the U.S. Treasury Department Circular No. 570. The expense of the bond shall be borne by the contractor. If at any time a surety on any such Bond is declared a bankrupt or loses its right to do business in the State of Colorado, or is disapproved by the owner, the contractor shall, within ten calendar days after notice from the owner to do so, substitute an acceptable bond (or bonds) in such form and sum and signed by such other surety or sureties as may be satisfactory to the owner. The premiums on such bond shall be paid by the contractor. No further partial payments shall be deemed due nor shall be made until the new surety or sureties shall have furnished an acceptable bond to the owner.

#### **PWM Section 2.27. PARTIAL COMPLETION AND OCCUPANCY**

At any time during the performance of the work that a portion of the permanent construction has been satisfactorily completed, in accordance with the contract documents, which is not required for the operation of the contractor but is needed or required by the owner, the engineer shall issue to the contractor a written notice of partial completion, and thereupon or at any time thereafter, the owner may take over, occupy, operate and use that portion of the construction therein described.

The notification of partial completion shall in no way be construed to constitute an extension in contract time for the completion of all the work or as a waiver of the right of the owner to require the fulfillment of all the terms of the contract documents. If such prior use should cause an increase in the cost of, or in the time required for, performance of the Work, as determined by the engineer, an equitable adjustment to the contractor shall be made and the contract documents modified by a Change Order.

## **PWM Section 2.28. MEASUREMENT OF QUANTITIES FOR PAYMENT**

Measurement for pay items in the contract shall be as defined in the Measurement and Payment Section of the City of Rifle Standard Specifications for Design and Construction or as modified in the Special Conditions. The methods of measurement and computation to be used in determination of quantities; of work performed, of materials to be furnished and/or installed; will be those methods generally recognized as conforming to good engineering practice.

Sundry items, which are incident to or required in the construction of the work, but are not included as items in the Bid Schedule, shall be considered an integral part of the work to be performed. All labor, materials, etc., required for such items shall be furnished and installed, and the costs shall be included in the applicable contract unit price or lump sum amount bid.

## **PWM Section 2.29. SCOPE OF PAYMENT**

Payment to the contractor will be made only for the actual quantities of contract items constructed and installed in accordance with the plans and specifications.

Payment made at the contract unit price or lump sum amount bid shall be full compensation for furnishing all labor, materials, equipment, appurtenances, taxes, insurance, permits and incidentals necessary to complete the work as shown on the plans and as required by the Specifications. Each item, fixture, piece of equipment, etc., shall be complete in place, operational and accepted.

No additional payment, over the amount bid, will be made for related work to any item unless specifically called for in the contract. Neither will payment be made for materials wasted, rejected or placed outside of plan limit lines.

## **PWM Section 2.30. PARTIAL PAYMENT AND CERTIFIED TAX REPORTS**

The engineer, on or about the twenty-fifth day of the month in which work on the project is performed, shall prepare for contractor's approval, a partial payment estimate of the work performed and materials placed in accordance with the contract documents.

Not more than eighty (80) percent of the cost of materials and equipment delivered and suitably stored at or near the project site, but not incorporated in the work may be included in an estimate; provided however, the contractor furnishes invoices and supportive data establishing title in the name of the owner, to the engineer.

The amount to be retained from partial payments will be ten percent of the value of completed work, exclusive of mobilization and payment for materials on hand. When the retainment on contracts exceeding \$80,000 in value has reached five percent of the amount of the contract, no further retainment will be made. Amount of retainment will be held until such time as final payment is made with the following provision: When ninety-seven and one-half percent of the work has been completed, the engineer may, at his discretion and The amount to be retained from partial payments will be ten percent of the value of completed work, exclusive of mobilization and payment for materials on hand. When fifty percent of the work required by contracts exceeding \$150,000. has been performed, no further retainment will be made if in the opinion of the City, satisfactory progress is being made on the work. Amount of retainment will be held until such time as final payment is made with the following provision: When ninety-seven and one-half percent of the work has been completed, the engineer may, at his discretion and with the consent of the Surety, reduce the retained amount to twice the value of the work remaining to be done. Any amount retained under this provision shall be subject to the requirements of Colorado Revised Statute § 24-91-103.

Earnings so retained on contracts exceeding \$150,000. in value may be withdrawn by the contractor provided the contractor provides the City with an irrevocable letter of credit in a form and from a financial institution acceptable to the owner. Any amounts so retained by the owner under this provision shall be subject to Colorado Revised Statute. § 24-91-105.

The contractor upon receipt of each partial payment estimate shall either indicate his approval by signing and returning a copy to the engineer, or return the estimate unsigned and indicate in writing his reason for refusing payment.

The owner, within fifteen- (15) days of presentation to the engineer of an approved partial payment estimate, shall pay the contractor the amount due thereon.

Upon receipt from the contractor of an approved designated semifinal estimate, as prepared by the engineer:

- A. The contractor shall, in writing, request the engineer to make a semifinal inspection in preparation for final acceptance of the work by the owner.
- B. The contractor shall prepare and furnish the engineer certified city and county sales and use tax reports covering the equipment and materials incorporated in the work.

The engineer, upon receipt of written request for semifinal inspection, shall promptly make said inspection of the work and issue to the contractor a written notice advising him of any deficiencies, corrective measures or clean up that he must complete prior to preparation of the final payment request.

All work covered by partial payment made shall thereupon become the sole property of the owner, but this provision shall not be construed as relieving the contractor of the sole responsibility for the care and protection of the work upon which payments have been made or the restoration of any damaged work, or as a waiver of the right of the owner to require the fulfillment of all terms of the contract documents.

### **PWM Section 2.31. FINAL PAYMENT REQUEST, ACCEPTANCE AND RELEASE**

Upon completion of the work, cleanup of the project site, the engineer's receipt from the contractor in triplicate of certified tax receipts, the engineer, within ten calendar days thereafter shall:

- A. Prepare a final payment request, for contractor's approval, showing the total value of the work completed in accordance with the contract documents and as modified by any Change Orders, less the value of:
  1. Partial payments previously made by the owner to the contractor.
  2. Retention of any claims, on file with the owner, against the contractor
  3. Estimated costs of completing any incomplete or unsatisfactory items of the work.
  4. Payments advanced by the owner, to subcontractors, material and equipment suppliers or others which are known by the contractor to have been made but not previously accounted for.
  5. Liquidated damages not previously paid to the owner by the contractor.
- B. Advise the owner and contractor by written notice that:
  1. The work has been inspected and accepted by him under the conditions of the contract documents.
  2. The work, effective the date of the notice, is placed under warranty, at the contractor's expense, for a period of one year.
  3. The entire balance shown on the final payment request, as prepared by the engineer, is due and payable within thirty calendar days from date of approval thereof by the contractor.

Upon approving the final payment request, as prepared by the engineer, the contractor by such act, indemnifies and saves the owner and his agents harmless from all claims growing out of the lawful demands of subcontractors, laborers, workmen, mechanics, material men and furnishers of machinery and parts thereof, equipment, tools, and all supplies incurred in the furtherance of the performance of the work. The contractor shall, at the owner's request, furnish satisfactory evidence that all obligations of the nature designated above have been paid, discharged or waived. If the contractor fails to do so, the owner may, after having notified the contractor, either pay unpaid bills or withhold from the contractor's unpaid compensation a sum of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged, in accordance with the terms of the contract documents, but in no event shall the provisions of this sentence be construed to impose any obligations upon the owner to either the contractor, his surety, or any third party. In paying any unpaid bills of the contractor, any payment so made by the owner shall be considered as a payment made under the contract documents by the owner to the contractor and the owner shall not be liable to the contractor for any such payments made in good faith.

The acceptance by the contractor of final payment shall be and shall operate as a release to the owner of all claims and all liability to the contractor other than claims in stated amounts as may be specifically excepted by the contractor for all things done or furnished in connection with this work and for every act and neglect of the owner and others relating to or arising out of this work. Any payment, however, final or otherwise, shall not release the contractor or his sureties from the warranty period or any other obligations under the contract documents or the Performance and Payment Bond.

In the event the owner fails to make final payment as herein provided, there shall be added daily interest at the rate of six percent per annum, commencing on the first day after said payment is due and continuing until the payment is delivered or mailed to the contractor.

### **PWM Section 2.32. INSURANCE**

The contractor shall at its own expense keep in full force and effect during the term of this contract insurance as follows:

The contractor shall secure and maintain statutory workmen's compensation.

The contractor agrees to secure, at his own cost, a policy or policies of insurance sufficient to insure against the liability assumed by the contractor pursuant to the provisions of paragraph 2.36 of these General Conditions. The contractor's insurer must be rated "B+" or better, according to Best's Key Rating Guide and must be admitted to do business in the State of Colorado. The contractor shall provide the owner with a certificate of insurance from a properly qualified representative of the insurer, that any policy purchased pursuant to this contract complies with the conditions required by this contract. The certificate of insurance must show current name and address of the insured(s) named in the policy. The contractor shall not commence any work under this contract, and shall not allow any subcontractor or

any officer, employee, or agent of the contractor or any subcontractor to commence any work under this contract, until any such certification has been received and approved by the owner.

The contractor shall not be relieved of any liability assumed pursuant to the foregoing paragraph by reason of its failure to secure insurance as required by this contract or by reason of its failure to secure insurance in sufficient amounts, of sufficient durations, or of sufficient types to cover such liability. The required policy shall meet the following conditions:

A. The policy limits shall be as follows:

1. The limit for an injury to one person in any single occurrence shall be no less than \$1,000,000, and the limit for an injury to two or more persons in any single occurrence shall be no less than \$2,000,000. Costs of defense shall not be included within such limits or, if they are so included, the minimum limits shall be \$1,000,000 combined single limits.

2. The general aggregate limit shall be unlimited or at least \$2,000,000.

B. The policy shall include the owner as an additional insured. The parties hereto understand and agree that the owner is relying on and does not waive or intend to waive by this contract, any provision hereof, including the provisions of this paragraph, the monetary limitations (presently \$1,000,000 per person and \$2,000,000 per occurrence) or any other rights, immunities, and protections provided by the Colorado Governmental Immunity Act,  C.R.S. 24-10-101, et seq., as from time to time amended, or otherwise available to the owner.

C. The insurer shall give the owner notification of any cancellation or termination by refusal to renew the policy or any change in coverage of the policy in the manner provided by law. If no such notification is provided by law, the insurer shall give the owner at least thirty (30) days prior written notification of any cancellation or termination by refusal to renew the policy or of any change in coverage of the policy, unless cancellation or termination is for non-payment of premium, in which case, the industry standard of ten (10) days prior written notification shall apply.

D. The contractor shall be solely responsible for any deductible losses under the policy.

E. If the policy is a claims made policy, the policy shall provide the contractor the right to purchase, upon cancellation or termination by refusal to renew the policy, an extended reporting period of not less than two years. The contractor agrees to purchase such an extended reporting period should the policy be cancelled or terminated.

F. If the policy is a claims made policy, the policy shall give the owner the right to purchase the extended reporting period described in paragraph E above if the contractor fails to purchase such an extended reporting period as required by this contract. The owner's exercise of such right shall not relieve the contractor of any liability for its failure to purchase such an extended reporting period as required by this contract.

G. If the policy is a claims made policy, the retroactive date of any renewal of such policy shall be no later than the date this contract is signed by the parties hereto.

H. If the contractor purchases a subsequent claims made policy in place of any prior policy, the retroactive date of such subsequent policy shall be no later than the date the contract is signed by the parties hereto.

The contractor shall secure and maintain, at his own expense, if applicable or called for in the Special Conditions, the following insurance coverage:

Fire, extended coverage and vandalism insurance on the project to the full insurable value thereof for the benefit of the owner, the contractor and subcontractors.

"All Risk" type builder's risk insurance for work to be performed. Unless otherwise authorized by the owner, the amount shall not be less than the contract price totaled in the Bid Proposal. The policy shall cover not less than the losses due to fire, explosion, hail, lightning, vandalism, malicious mischief, wind, collapse, riot, aircraft and smoke during the contract time and until the work is accepted by the owner. The policy shall name as the insured the contractor, the owner and their designated agents.

Special Comprehensive General Bodily Injury and Property Damage for the period of time that work being performed is encroaching on property owned or controlled by individuals, partnerships or corporations such as irrigation companies and railroads, state or federal agencies, and to limits set forth in their permit. The policy shall be issued to the permittee and name as the insured the contractor, the owner and their designated agents.

The contractor must comply with the owner's requirements for filing certificates of insurance, as determined by the Risk Management Division. A certificate of insurance acceptable to the Risk Management Division must be provided at the time the contract is executed by the parties hereto unless both parties arrange otherwise.

The contractor is responsible for submitting certificate(s) of insurance, subject to the insurance requirements described above, for all subcontractors. All certificates of insurance are subject to periodic verification and approval by the owner.

### **PWM Section 2.33. SEPARATE CONTRACTS**

The owner reserves the right to let other contracts in connection with this project, or contiguous thereto. The contractor shall afford other contractors, utility companies or owner's forces reasonable opportunity for the introduction and storage of their materials and the execution of their work, and shall properly connect and coordinate his work with theirs. If the proper execution or results of any part of the contractor's work depends upon the work of any other contractor, the contractor shall inspect and promptly report to the engineer any defects in such work that render it unsuitable for such proper execution and results.

If the performance of additional work by other contractors, utility companies or the owner is not noted in the contract documents prior to the execution of the contract, written notice thereof shall be given to the contractor by the engineer, prior to starting any such additional work. If the contractor believes that the performance of such additional work by the owner or others entitles him to a change in contract price or time, or both, he may, by written notice to the engineer, request a Change Order as provided under Changes in the Work.

### **PWM Section 2.34. HOUSEKEEPING AND CLEANUP**

At all times during the progress of the work the contractor, at his expense, shall maintain the site, storage yard, adjacent properties, both public and private, policed and free of litter or trash. All material and equipment to be incorporated in the work shall be stored in a neat appearing manner and protected from damage or the elements until accepted in accordance with the contract documents.

Prior to final payment, the contractor, at his expense, shall remove from the project site and from contiguous private and public property, all temporary structures, equipment, rubbish and waste materials resulting from his operations. He shall clean up, police around and over all facilities that the owner will acquire maintenance thereof.

Disposal areas for waste material, from the contractor's operation, shall be those areas that comply in every way with local ordinances and are approved by the engineer.

### **PWM Section 2.35. ASSIGNMENT**

Neither the contractor nor the owner shall sell, transfer, sublet as a whole, or otherwise dispose of the contract or any portion thereof without the written consent of the other and its surety; nor shall the contractor assign any monies due or to become due to him thereunder, except to a bank or financial institution acceptable to the owner.

### **PWM Section 2.36. INDEMNIFICATION**

The contractor agrees to indemnify and hold harmless the owner, its officers, employees, insurers, and self-insurance pool, from and against all liability, claims and demands on account of personal injuries, including without limitation worker compensation claims and death claims, or property loss or damage, or any other loss of any kind whatsoever, which arises out of or are in any manner connected with this contract, whether or not such injury, loss, or damage is caused by, or is claimed to be caused by, the act, omission, negligence or other fault of the contractor, any employees of the contractor, or any other person or entity; or by accident; or by any other cause. Nothing herein is intended to constitute a covenant, promise, or agreement to indemnify and hold harmless the owner from any liability or damages directly caused by or attributable to the owner's own negligence. The contractor agrees to investigate, handle, respond to, provide defense for, and defend against, any liability, claims, or demands arising from, connected with, or related to the contract at the sole expense of the contractor regardless of whether the liability, claim, or demand is related to the owner's own negligence and the contractor further agrees to bear all other costs and expenses, related thereto, including court costs and attorney fees, whether or not the claim or claims alleged are groundless, false, or fraudulent. Nothing herein is intended to be, or may be construed as, a waiver or the immunities, protections, or limitations on damages provided to The City of Rifle by the Colorado Governmental Immunity Act, C.R.S. § 24-10-101 through 24-10-120, as it may from time to time be amended.

### **PWM Section 2.37. ENGINEER'S STATUS AND DECISIONS**

The engineer shall act as the owner's representative during the construction period. He shall decide questions which arise in the execution of the work. He shall perform technical inspections in the field, in laboratories, at factories, at sources of supply and wherever he feels the necessity to determine the quality and acceptability of material and equipment furnished and work performed. He shall reject all material, equipment and work which fails to conform to the specifications. He shall stop the performance of the work whenever such stoppage may be necessary to insure the proper execution of the contract documents. He shall determine the quantity of work to be paid for and prepare all partial payments, estimates and the final payment request for submittal to the owner after obtaining the contractor's approval thereof.



The engineer will not be responsible for the construction means, controls, techniques, sequences, procedures or construction safety.

The engineer shall, within a reasonable time after presentation, make decisions by written notice on all claims of the owner or the contractor on all matters relating to the execution and progress of the work or the interpretation of the contract documents.

### **PWM Section 2.38. LAND, RIGHTS-OF-WAY, EASEMENTS AND ENCROACHMENTS**

Prior to issuance of Notice to Proceed, the owner shall obtain all land and rights-of-way necessary for carrying out and for the completion of the work to be performed pursuant to the contract documents, unless otherwise stated in the Special Conditions or mutually agreed to.

The owner shall indicate on the drawings or provide to the contractor information which delineates and describes the lands owned, rights-of-way and easements acquired, and encroachments over lands upon which the work is to be performed.

Delays in furnishing land for the work by the owner may be deemed proper cause for a change in the contract price, contract time, or both.

The contractor shall provide, at his own expense and without liability to the owner, any additional land and access thereto that the contractor may desire for temporary construction facilities, or for storage of materials and equipment.

### **PWM Section 2.39. GUARANTY AND WARRANTY**

The contractor shall guarantee all material and equipment incorporated in, and warrant all workmanship on, the project for a period of one year from the date of written notice of acceptance of the project or portions thereof. The contractor shall within forty-eight hours after notification from the owner, subsequently verified by written notice, make all needed repairs and corrections which develop or result from defective workmanship, materials or equipment.

In the event the contractor should fail to make such repairs, adjustments, or performs other necessary work required to correct any deficiencies, the owner may do so and charge the contractor the cost thereby incurred. The Performance and Payment Bond shall remain in full force and effect through the guarantee and warranty period.

### **PWM Section 2.40. TAXES**

The contractor will pay all applicable sales, use and other similar taxes required by the laws of the State of Colorado. When taxes are due, the developers, other responsible parties, and/or their subcontractors, prior to requesting final warranty on their project shall furnish the engineer, in triplicate on the City form, certified receipts of sales, use and other similar taxes, required by law, paid on all materials and equipment incorporated in or used in the performance of the work.

Notwithstanding the above, the contractor shall obtain from the Colorado Department of Revenue a Certification of Exemption indicating, where applicable, that the contractor's purchase of construction or building materials is for use in the building, erection, alteration or repair of public works owned and used by the City of Rifle, in its governmental capacity. The contractor shall file with the engineer a certified copy of the Certification of Exemption, prior to commencing Work.

Where a project is exempt from such tax, the amount of such tax shall not be included in any bid proposal submitted to the City.

### **PWM Section 2.41. DESIGNING AND PERFORMING WORK WITHOUT A CONTRACT AGREEMENT**

All property owners, individuals, partnerships or corporations which engage in the subdividing or improving of land, or in the design or construction of the Work, ultimately to be maintained, operated, occupied or owned by the City of Rifle, other than those directly contracting with the City, shall adhere to this Public Works Manual, Design and Construction of Public Improvements to which these General Conditions are a part.

No portion of the work shall be performed until the engineer has approved the drawings pertaining there to, and then only by a contractor that is licensed and bonded to the City of Rifle.

Those who are responsible for, or cause the work to be performed, and those who actually perform the work, will be considered, for purposes of these General Conditions and Standard Specifications, as having executed a contract agreement, as contractor, with the City of Rifle as owner, even though no agreement exists. As such, they shall comply with all the technical and performance provisions of these Specifications, be subject to inspection and the directives of the engineer.

## **PWM Section 2.42. CLOSEOUT**

To close out a project or development, several items need to be taken into account by the Contractor, Engineer and by the Owner. Several of these items may have been initiated prior to or during the work.

The Contractor of the work shall notify the Engineer and the Owner in writing that he has reached "Substantial Completion" and include a list of work yet to be completed or corrected. If requested by the Engineer, closeout of areas or portions of work may be allowed by the Owner.

The Engineer, along with the Owner's representative, shall inspect the work to determine if it is substantially complete. If it is substantially complete, a "Certificate of Substantial Completion" will be issued by the Engineer along with a "Punch List" of items to be completed or corrected, to the Contractor and the Owner.

The Contractor shall complete and/or correct the items listed on the punch list, or any other item that becomes known, and again notifies the Engineer and Owner in writing that the work is ready for final inspection. At this time, the Contractor may submit his application for final payment to the Engineer.

The Engineer along with the Owner's representative will make a final inspection. If the work is found acceptable and complete to the satisfaction of the Owner, a meeting will be scheduled to finalize all other items due. Should the Contractor fail to complete and/or correct all punch list items required by the Owner, the Contractor shall pay for additional "Final Inspections" by the Engineer at the Engineer's current rates. If the Contractor has any question with regard to any items found on the punch list, he shall request clarification from the Engineer prior to final inspection. Prior to release of final payment, a meeting (referred to in the previous paragraph) shall be held to collect from the Contractor and/or the Engineer, for the Owner, the following items:

1. Outside Inspection Certificates, as applicable,
  2. Materials Certificates of Compliance,
  3. Equipment and Material guarantees,
  4. Contractors one-year (or longer, if required) guarantee or warranty using Owner forms,
  5. Operation & Maintenance Manuals and Parts list, as applicable,
  6. Receipts for Materials delivered to the Owner,
  7. Miscellaneous Keys, Tools, etc.
  8. Final Application for Payment,
  9. Consent of Surety to Final Payment,
  10. Contractor's Affidavit of Release of Liens,
  11. Project Record Drawings (As-Builts),
  12. Quitclaim deed from developer conveying any interest it has in the public improvements to the Owner using Owner format,
  13. Bill of Sale conveying all public improvements to the Owner free and clear of liens and encumbrances using Owner format,
1. Final Payment Amount,
  2. Contractor acknowledgement of Date of Warranty, and
  3. All other documentation.

And the Owner will provide to the Engineer:

1. Public Works Director Certification that the work has been constructed in conformance with the plans and specifications.
2. A letter informing the financier to release the Letter of Credit.

Inspection certificates shall be submitted (Number 1, in the list above) from any State or Other governing body having jurisdiction, such as State electrical certification that the work is in strict conformance with applicable codes.

The Contractor shall remedy any defects due to faulty materials or workmanship and pay for damage to other work resulting there from, for a period of one year (or longer, if required) in accordance with Section 2.39 herein. A written warranty based on the provisions of Section 2.39 shall be provided to the Owner, dated as agreed with the Owner, properly signed and notarized and addressed to the Owner.

All keys to doors, panels or switches, special tools required for equipment and spare parts or supplies, as applicable, shall be accounted for and turned over to the Owner.

The Owner, will initiate action to advertise in the local newspaper regarding final payment to the Contractor and determining the date for payment.

Project Record Drawings (As-Builts) shall consist of one blackline copy of the completed project work with changes clearly marked and clouded and a CD-ROM. The CD-ROM disk shall include the marked up sheets in individual PDF format files and the electronic line work in the latest AutoCad drawing format. The electronic line work should be supplied such that all improvements are located on the Rifle grid i.e. UTM Z13 in metric (meter) scale. All drawings (electronic and hardcopy) should be clearly and neatly marked "RECORD DRAWING" in ½" block letters in the lower right quadrant of the sheet.

Item 14, above, shall be broken down into 1) cost of water system per individual street (including pipe, fittings, valves, services, hydrants, etc.), 2) sewer system (including pipe, services, manholes, etc.) per individual street, 3) storm drain and culvert system per individual street (including pipe, inlets, boxes, flared ends, manholes, etc.) and 4) individual street costs (including signals, signs, striping, asphalt, road base, curb, gutter sidewalk, grading, etc.).

### **PWM Section 2.43. RIGHTS AND REMEDIES**

The duties and obligations imposed by the Contract Documents and the rights and remedies available there under shall be in addition to and not as a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law, including but not limited to tort remedies. The Contractor agrees that the economic loss rule as set forth in the Town of Alma v. Azco Construction, Inc., 10 p.3d 1256 (Colo. 2000) shall not serve as a limitation on the Owner's right to pursue tort remedies in addition to other remedies it may have against the Contractor. Such rights and remedies shall survive the acceptance of the Work or any termination of the Contract Documents. Contractor further specifically waives all provisions of Chapter 8 of Article 20 of Title 13, Colorado Revised Statutes, regarding defects in the Work under the Contract. In the event any portion of this provision is deemed un-enforceable by a court of competent jurisdiction, the remaining portions of this provision shall survive.

# Supplementary General Conditions

## 1.00 GENERAL

These Supplementary General Conditions amend or supplement the Standard General Conditions of the Construction Contract and other provisions of the Contract Documents as indicated below. All provisions, which are not so amended or supplemented, remain in full force and effect.

## 2.00 INSURANCE

The Contractor shall provide and maintain adequate Workmen's Compensation Insurance for all labor on the Work under this Contract. Protection under said policies shall extend to the Owner and Contractor. Certifications of such insurance shall be filed with the Owner prior to commencement of operations. Proof of carriage of insurance by subcontractors shall also be furnished.

2.01 Unless otherwise provided in these Supplementary General Conditions, Contractor shall purchase and maintain property insurance upon the Work at the site to the full insurable value thereof (subject to such deductible amounts as may be provided in these Supplementary General Conditions or required by Law). This insurance shall include the interests of Owner, Contractor and Subcontractor in the Work, shall insure against the perils of fire and extended coverage, shall include "all risk" insurance for physical loss and damage including theft, vandalism and malicious mischief, collapse and water damage, and such other perils as may be provided in these Supplementary General Conditions, and shall include damages, losses and expenses arising out of, or resulting from, insured loss or incurred in the repair or replacement of any insured property (including fees and charges of engineers, architects, attorneys and other professionals). If not covered under the "all risk" insurance, or otherwise provided in these Supplementary Conditions, Contractor shall purchase and maintain similar property insurance on portions of the Work stored on or off the site or in transit when such portions of the Work are to be included in an *Application for Payment*. Such coverage shall be provided until the issuance of a certificate of substantial completion. The policies of insurance required to be purchased and maintained by Contractor in accordance with section 2.32 of the Rifle Public Works Manual shall contain a provision that the coverage afforded will not be canceled or materially changed until at least thirty (30) days prior written notice has been given to Owner.

2.02 All equipment shall be covered under the insurance requirements of the Contractor as stated under 2.01 above.

### 2.03 Coverage Required (minimum):

#### A. General Liability

##### 1. Limits

- |    |                   |  |
|----|-------------------|--|
| a. | Bodily Injury -   | \$1,000,000 each person<br>\$2,000,000 each occurrence |
| b. | Property Damage - | \$1,000,000 each occurrence<br>\$2,000,000 aggregate   |

##### 2. Coverages

- |                                     |                                      |
|-------------------------------------|--------------------------------------|
| <input checked="" type="checkbox"/> | Comprehensive Form                   |
| <input type="checkbox"/>            | Premises-Operations Explosion        |
| <input type="checkbox"/>            | Collapse Hazard                      |
| <input type="checkbox"/>            | Underground Hazard                   |
| <input checked="" type="checkbox"/> | Products/Completed Operations Hazard |
| <input checked="" type="checkbox"/> | Contractual Insurance                |
| <input checked="" type="checkbox"/> | Broad Form Property Damage           |
| <input checked="" type="checkbox"/> | Independent Contractors              |
| <input checked="" type="checkbox"/> | Personal Injury                      |

#### B. Automobile Liability

##### 1. Limits

- |    |                   |                           |
|----|-------------------|---------------------------|
| a. | Bodily Injury -   | \$250,000 each person     |
| b. | Property Damage - | \$500,000 each occurrence |
| c. | Combined -        | \$600,000 each occurrence |

##### 2. Coverages

- |                                     |                    |
|-------------------------------------|--------------------|
| <input checked="" type="checkbox"/> | Comprehensive Form |
| <input checked="" type="checkbox"/> | Owned              |
| <input checked="" type="checkbox"/> | Hired              |
| <input checked="" type="checkbox"/> | Non-Owned          |

2.05 Certificates of Insurance from the contractor and subcontractor’s insurance carriers shall name both the City of Rifle and CDOT as additional insured parties. Submission of Certificates of Insurance shall be provided prior to commencing any work.

**3.00 TAX EXEMPTION.**

Owner's tax-exempt number, when applicable, to be used as part of this project, will be provided to the successful bidder. The successful bidder shall then apply for sales tax exemption before working on a City Project. See [www.revenue.state.co.us/PDF/dr0172.pdf](http://www.revenue.state.co.us/PDF/dr0172.pdf). Subcontractors shall be provided copies of the contractors sales tax exemption certificate to avoid paying taxes when purchasing materials to be incorporated in the City project. Therefore, these taxes should not be included in the cost for performing the work.

**4.00 FINAL PAYMENT.**

Lien waivers from all prime Contractors and Subcontractors to be provided prior to issuance of final payment.

**5.00 COMPLETION TIME.**

<b>16th Street Bridge Rehabilitation 2019</b>		Dec-19	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20
Bid Advertisement	26-Dec-19										
Mandatory Bid Meeting	7-Jan-20										
Bids Due	31-Jan-20										
Contract Award	19-Feb-20										
Signed Agreement Documents	4-Mar-20										
Submittals Due	3-Apr-20										
Material Acquisition	1-May-20										
Construction Completion	31-Jul-20										

**6.00 OWNER'S REPRESENTATIVE.**

Unless provided for otherwise in writing by the Owner, any on-site Inspector or Representative of the Owner shall not have the authority to render any binding decisions nor make any binding judgments to the Contractor pertaining to any work which may change the Contract price or time of completion, or to the quality of Work, or to the manner in which the Work is being performed. The Representative of the Owner shall serve as a means of communication between the Owner and the Contractor and shall monitor the Work for the Owner. Any communication given to the Representative of the Owner by the Contractor shall be considered as being given to the Owner.

## **7.00 SAFETY REQUIREMENTS.**

Nothing in the Contract Documents shall be construed as relieving the Contractor from protecting all property and persons or from strictly adhering to all applicable local, state and federal safety requirements. Where there is a conflict between the Contract Documents and any applicable safety requirement, the safety requirement shall take precedence.

## **8.00 LAWS AND ORDINANCES.**

The Contractor shall at all times observe and comply with all federal, state and local laws, ordinances and regulations which in any manner affect the contract or Work, and shall indemnify and save harmless the Owner and the Owner's agent against any claim arising from the violations of any such laws, ordinances and regulations, whether by the Contractor or his employees.

If the Contractor performs any Work knowing it to be contrary to such laws, ordinances, rules or regulations, and without notice to the Engineer, he shall bear all costs arising there from.

## **9.00 WAIVER.**

It is expressly understood and agreed that any waiver granted by the Engineer or Owner of any term, provision or covenant of this Contract shall not constitute a precedent nor breach of the same or any other terms, provisions or covenants of this Contract. Neither the acceptance of the Work by the Owner nor the payment of all or part of the sum due the Contractor hereunder, shall constitute a waiver by the Owner of any claim which the Owner may have against the Contractor or otherwise.

## **10.00 PROTECTION OF PUBLIC UTILITIES AND OTHER ADJOINING PROPERTY.**

The Contractor shall take all reasonable precautions for the safety of, and shall provide all reasonable protection to prevent damage, injury, or loss to other property at the site or adjacent thereto, and he shall be liable for any and all claims for such damage on account of his failure to fully provide such protection.

The Contractor shall notify all public utility companies at least forty-eight (48) hours prior to commencement of any Work in the vicinity of the utilities. No Work shall commence until the utilities have been located and staked by the utility company or written consent to proceed has been given by the Owner. If utility service must be interrupted, the Contractor shall notify the head of local administrative services (i.e., City Manager, Mayor, and City Clerk), as applicable, and utility users affected by the interruption of service at least twenty-four (24) hours prior to interruption. Notice shall consist of publication in a local newspaper and/or announcement on local radio or television stations as determined by the Owner.

## **11.00 PROJECT PHOTOGRAPHS/VIDEOS**

It is the Contractor's responsibility to take a sufficient number of pre-construction photographs/videos to resolve any disputes, which may arise regarding the conditions prior to and subsequent to construction. The Contractor shall provide copies of the pre-construction photographs/videos to the Owner prior to the start of work. Any potential problems should be identified at that time.

Progress and record photographs/videos shall be provided by the Contractor as appropriate to resolve any disputes and to completely document the work performed as a supplement to the Record Drawings. In general, the photographs/videos should be sufficient to show that all work was properly completed in accordance with the plans and specifications.

## **12.00 DAMAGE TO CONSTRUCTION.**

The Contractor shall safeguard, until all work embraced by this Contract is formally accepted, all construction, both complete and incomplete, against damage and destruction, and should damage result, he will be required to reconstruct or repair it at his expense in a

manner conforming to the Plans and Specifications, reconstruction shall be in a manner suitable to the Engineer.

### **13.00 PRE-CONSTRUCTION CONFERENCE.**

A pre-construction conference shall be held within fifteen (15) days after the *Notice To Proceed*, at the Owner's place of business. The purpose of such meeting shall be to explain as required to the Contractor, the requirements of the Contract Documents, the procedures to be used in the administration of the Contract, the requirements of any funding Agencies, and to discuss any item of concern to the Work. The Contractor, Owner and Engineer, or authorized representative of each, shall be required to attend such meeting as a condition of the Contract.

### **14.00 BIDDER EXPERIENCE.**

Upon request, bidder to provide documentation of relevant experience with reference to a minimum of three (3) projects of similar scope and size. Statement shall include equipment and manpower available for utilization on project. Supervisory personnel for project shall be provided. Qualification information shall be submitted as stated in section 3.0 of the "Instructions to Bidders".

### **16.00 PERFORMANCE AND PAYMENT BONDS.**

Payment and Performance Bonds are required (section 2.26 of the general conditions and Agreement Documents section of the Project Manual).

### **17.00 WARRANTY INSPECTION.**

At the Owner's discretion, a warranty inspection will be held during the sixty (60) calendar days prior to the expiration of the two-year warranty period. Contractor agrees to provide an authorized representative at such inspection to represent Contractor's interests. All defects identified during the inspection shall be corrected at Contractor's expense at direction of Owner in a timely manner. Corrective work shall be commenced within ten (10) calendar days after written notice to Contractor.

### **18.00 SOILS INVESTIGATION**

Where available, applicable portions of subsurface soils investigations are included as an attachment to these Specifications). Contractor may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not made a part of the Contract Documents. Except for such reliance on such "technical data," CONTRACTOR may not rely upon or make any claim against OWNER, ENGINEER or any of ENGINEER'S Consultants with respect to: the completeness of such reports and drawings for CONTRACTOR'S purposes, including, but not limited to, any aspect of the means, methods, techniques, sequences and procedures of construction and programs incident thereto, or other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings, or any CONTRACTOR interpretation of or conclusion drawn from any "technical data" or any such data, interpretations, opinions or information. Contractor shall perform such investigations as he may deem necessary to determine his bid.

### **19.00 JOB SITE RESTRICTIONS.**

19.01 Salvage. All materials to be removed from the project site or demolished on site shall be disposed of by the Contractor off the project site within five days.

19.02 Staging Area. Staging may utilize right of way if the contractor provides adequate warning cones, reflectors, etc. Contractor takes sole responsibility for leaving any equipment or materials in the City right of way.

19.03. Disposal Area. Owner's property is not available for a Contractor disposal area.

19.04 Working Hours. Work will normally be permitted after 7:00 a.m. and before 5:00 p.m. Monday through Friday. Other work hours must be approved by Engineer in writing. Work may be permitted on Saturday with 48 hours prior notification given to the Owner's representative.

## **20.00 ARBITRATION.**

Anything in the General Conditions of the Contract Documents not withstanding the choice to submit any dispute to binding arbitration shall be solely that of the Owner and no other party to this Contract shall have the right to submit any controversy to binding arbitration.

## **21.00 PAYMENT RETAINAGE.**

Retainage on Pay Estimates shall be five (5) percent.

## **22.00 REFERENCE TO OWNER.**

The City of Rifle will be the Owner of this project and will be referred to as Owner in the Agreement.

## **23.00 NOTIFICATION TO ADJACENT PROPERTY OWNERS.**

Contractor shall provide constant communication with adjacent property owners to schedule and discuss impacts the contractor's work will have on their access and utility service.

Access to property owners adjacent to the work site shall be open at all times unless other arrangements are made a minimum of twenty-four (24) hours in advance.

## **24.00 DRAWING ACCURACY AND EXISTING UTILITIES.**

Contractor shall provide constant communication with adjacent property owners to schedule and discuss impacts the contractor's work will have on their access and utility service.

As such, information relating to locations, sizes, or elevation of existing facilities should be considered only approximate. It shall be the responsibility of the Contractor to contact the appropriate representatives of utility companies, or utility locate companies, a minimum of 48 hours prior to the commencement of Work which might affect utility installations and to secure from such representatives information as to accurate location, size and type of such installations. The Contractor shall assume all responsibility for protection, repair and relocation of all such items encountered. Should repair or replacement be required, work shall be performed according to the requirements of the respective utility company.



## 25.00 ABBREVIATIONS.

Whenever the following abbreviations are used in these Specifications or on the Drawings, they shall be construed the same as the respective expressions represented:

AASHO or	
AASHTO	American Association of State Highway Officials
ACI	American Concrete Institute
AISC	American Institute of Steel Construction
ANSI	American National Standards Institute, Inc.
AWWA	American Water Works Association
CDOT	Colorado Department of Transportation
CDPHE	Colorado Department of Public Health & Environment
CRSI	Concrete Reinforcing Steel Institute
CS	Commercial Standard, U.S. Department of Commerce
FED. SPEC.	Federal Specifications
NEC	National Electric Code
NEMA	National Electrical Manufacturers Association
OSHA	Occupations Safety and Health Act (Federal and/or State)
SSPC	Steel Structures Painting Council
UBC	Uniform Building Code
UL	Underwriters Laboratories, Inc.

25.01 Standard Specifications Reference. Where reference is made in these Specifications to other Standard Specifications, it is the intent that the latest available revisions of the CDOT Standard Specifications referenced be used. All portions of the CDOT Standard Specifications referenced shall be considered a part of these Specifications unless specifically superseded herein.

In case of conflict between the drawings and specifications, the specifications shall govern. Figured dimensions on drawings shall govern over scale dimensions, detailed drawings shall govern over General Drawings and Special Conditions shall govern over Standard Specifications.

Any discrepancies between the drawings and specifications and site conditions; or any inconsistencies, errors, omissions or ambiguities in the drawings or specifications; or any errors or omissions in the layout as given by survey points and instructions shall be immediately reported to the engineer, in writing, who shall promptly verify and correct such inconsistencies or ambiguities in writing. Work performed by the contractor after such discovery, until authorized or corrected by the engineer, shall be done at the contractor's risk.

## 26.00 PERMITS AND EASEMENTS.

The Contractor shall be responsible for securing any and all access rights he may require for construction convenience with private individuals and landowners. The Contractor shall provide the Engineer evidence of agreements for such access rights. All other permits required should be secured prior to commencement of Work at the Contractor's own expense.

The successful Contractor will be required to obtain a City of Rifle Contractor's license for construction operation. Proof of insurance shall be required.

## 27.00 SUBSTITUTION OF MATERIALS.

At no time shall materials be substituted for those shown on the Drawings or called for in the Specifications unless written approval is obtained from the Engineer in writing prior to construction. Any deviation from the Drawings and Specifications shall be accompanied by a written directive of the Engineer or his representatives. (See Article 6, General Conditions).

## **28.00 CONTROLLED AREA OF WORK.**

The Contractor shall confine all the construction work and all related activities to the public roadways, utility easements, or construction areas designated by the Engineer. Access and egress to the work area shall be minimized to specific points.

## **29.00 INTERPRETATION OF ESTIMATED QUANTITIES.**

Bidders are cautioned that the estimated quantities in the Bid Schedule are approximate only and are prepared for the comparison of bids. The basic of payment will be actual quantities of work performed and accepted or as stated in the Measurement and Payment section of each specification section. Prior to mobilization the contractor shall present their verification of quantities and final work plan for all aspects of work.

## **30.00 TEMPORARY FACILITIES.**

The Contractor, at his expense, shall provide all necessary temporary facilities for his own convenience or to meet local, state, or federal requirements, including, but not limited to, potable water, sanitary waste facilities, power, telephone, etc. (See Article 6, General Conditions).

## **31.00 CLEAN-UP.**

The Contractor will be responsible for immediately cleaning the job site during and after construction. A continuing effort shall be made through the duration of the contract to keep all areas clean and free of all rubbish, removed vegetation, construction waste, employee waste, debris and other objectionable materials generated from the project. All materials as part of this work shall be disposed off site in an acceptable manner. Final clean-up must be approved and accepted by the Owner before the contract may be considered complete.

## **32.00 MEASUREMENTS AND PAYMENT.**

Payment for work done shall be as defined in *Bid Schedule*. Payment shall be complete compensation for the work unit completed and shall consist of furnishing and installing all materials, plant, equipment, labor and other items related to the work unless otherwise specified. All incidentals not specifically mentioned, but required to complete the Work, shall be paid for as part of the Work unit they are related to. All bid items shall be measured and paid in accordance with the appropriate section of the Colorado Department of Transportation Standard Specifications for Road and Bridge Construction unless revised by the Standard or Project Special Provisions.

## **33.00 SUBMITTALS.**

The Contractor shall submit submittal data, as defined in the General Requirements. Submittals shall be required on all items of the submittal schedule contained in the Technical Specifications. At a minimum, the Engineer will retain Two (2) sets, and the Owner One (1) and the approved or rejected copy returned to the contractor.

## **34.00 COMMUNICATION.**

Project will demand the need for communication with properties impacted by work performed. The Contractor shall notify, twenty-four (24) hours in advance of work, all property owners that may be affected by his work. This notification shall include times and duration of access or traffic interruptions. Anticipated interruptions shall be discussed with the City representatives daily.

The purpose of public notification is to reasonably inform the public of the work and to allow the public to schedule activities that may be impacted by the work. Owner, through its Representative, may stop work not consistent with the schedules prepared by the Contractor, which in the opinion of the Owner causes unreasonable hardship to the public.

Contractor shall designate an Information Coordinator who shall be on site during all work hours and shall be responsible for:

1. Preparing a weekly work schedule that includes planned type of work and areas of affected by work. Once schedule is confirmed, the City shall prepare door hangars for the Contractor to distribute the week prior.
2. Communication with adjacent properties of any change to traffic control that may affect their access via written notice for residents. The Contractor is responsible for any follow-up communications with residents after the initial door hangars are provided.
3. Communication with the media or by other means as appropriate, planned/scheduled changes in traffic control and other items that will affect the public traveling through the site. Also communicate with emergency services as to location of work and impacts.
4. Coordinate performed work to be consistent with weekly work schedule.

### **35.00 PROJECT SIGN.**

A standard traffic sign (Orange Diamond, for example) with “Thank you CONTRACTOR, Phone number” shall be placed at a noticeable location in the neighborhood. The Contractor may, if they so choose, place a sign during active construction for their company contact pending approval by City Staff.

**End of Section**

## Technical Specifications

These Technical Specifications supplement the specifications provided in the City Of Rifle Public Works Manual. All provisions, which are not so amended or supplemented, remain in full force and effect.

### Submittal Schedule

Submittals on the items below must be accepted by the City Of Rifle prior to commencement of work.

- \_\_\_\_\_Traffic Control Plans for Pedestrian Bypass
- \_\_\_\_\_Traffic Control Plans for One Lane Traffic on Bridge if required by Contractor
- \_\_\_\_\_Traffic Control Plans for Closure on Bridge if required by Contractor
- \_\_\_\_\_Concrete Mix Design
- \_\_\_\_\_Deck Product Data
- \_\_\_\_\_Deck Shop Drawings
- \_\_\_\_\_Fluid Applied Deck Waterproofing Product Data
- \_\_\_\_\_Hot Applied Asphalt Crack Fill Product Data
- \_\_\_\_\_Epoxy Zinc Primer Product Data
- \_\_\_\_\_Plumbing Downspout Product Data

## TRAFFIC CONTROL

### I General

#### Submittal Requirements

The Contractor shall prepare a Transportation Management Plan for each portion of the project. The portions of the project requiring separate traffic control plans are:

- The removal, preparation, and placement of the concrete decks that require the closure of one bridge lane
- The closure and detour of pedestrian traffic while pedestrian bridges are under construction

The Contractor shall manage the work zone impacts of the Project in accordance with the Transportation Management Plan (TMP). The TMP shall consist of the Traffic Control Plan (TCP), and Public Information (PI) requirements. The TCP addresses traffic safety and control through the work zone and the PI component requirements shall address communication with the public and concerned stakeholders. The initial TMP shall be submitted at the Pre-construction Conference. The Contractor's superintendent shall implement the TMP.

- (a) Traffic Control Plan. The Contractor shall control traffic in accordance with the Traffic Control Plan (TCP), as shown in the Contract. To implement the TCP, the Contractor shall develop and submit a Method for Handling Traffic (MHT) for each different phase of construction which shows the Contractor's proposed construction phasing and proposed traffic control devices consistent with the TCP. If at any time the Contractor desires to change the MHT, it shall be considered a different phase requiring a new MHT.

Any major revisions to the TCP as determined by the Engineer must be authorized by a contract modification order.

Each proposed MHT shall be approved in writing by the Engineer before the corresponding phase of construction will be allowed to begin. The initial MHT shall be submitted at the Pre-construction Conference.

The proposed MHT shall include as a minimum the following:

(1) A detailed diagram which shows the location of all traffic control devices, including advance construction signs and speed limit signs; method, length and time duration for lane closures; and location of flaggers and time duration of the flagging operation. Lane closures shall be kept to a minimum in both length and duration, and cause a minimum of interference to the traveling public, consistent with the work being performed.

(2) A tabulation of all traffic control devices shown in the detailed diagram including, but not limited to: construction signs; vertical panels; vertical panels with light; Type 1 and Type 2 barricades; Type 3 barricades; cones, drum channelizing devices; concrete barrier (temporary); advance warning flashing or sequencing arrow panels. Traffic control devices may be used for more than one operation or phase. However, all devices required for any particular phase must be detailed and tabulated for each phase.

Traffic cone spacing shall be determined as required by the standard plans calculations based on current speed limits. Cone spacing shall not exceed 120 feet. Cones shall be placed a distance of 2 miles on the centerline. The distance and spacing may be adjusted, depending on traffic conditions and terrain, as determined by the Engineer.

(3) A plan for maintaining and controlling pedestrian, bicycle, and other non-vehicular traffic.

(4) A plan for emergency vehicle access.

## **II Products**

Traffic Control Devices shall conform with Section 630 of the CDOT 2019 Standard Specifications

## **III Execution**

The Contractor shall designate an individual, other than the superintendent, to be the Traffic Control Supervisor. The Traffic Control Supervisor shall be certified as a worksite traffic supervisor by either the American Traffic Safety Services Association (ATSSA) or the Colorado Contractors Association (CCA), and shall have a current Department flaggers certificate. A copy of the Traffic Control Supervisor's certifications shall be provided to the Engineer at the Pre-construction Conference. The Contractor's Superintendent and all others serving in a similar supervisory capacity shall have completed a CDOT-approved two-day Traffic Control Supervisor training as offered by the CCA. The one-day ATSSA Traffic Control Technician (TCT) training along with the two-day ATSSA Traffic Control Supervisor training will serve as an alternate. If the alternate is chosen, the Contractor shall provide written evidence that at least an 80 percent score was achieved in both of the two training classes. The certifications of completion or certifications of achievement for all appropriate staff shall be submitted to the Engineer at the Preconstruction Conference.

The Traffic Control Supervisor's duties shall include:

- (1) Preparing, revising, and implementing each required Method of Handling Traffic in accordance with the Traffic Control Plan.
- (2) Directly supervising project flaggers.
- (3) Coordinating all traffic control operations, including those of subcontractors and suppliers.
- (4) Coordinating project activities with appropriate police and fire control agencies.

(6) Inspecting traffic control devices on every calendar day that traffic control devices are in use, masked, or turned away from traffic.

These inspections shall include at least one night inspection per week. The TCS or another representative who is certified as a worksite traffic supervisor shall perform these inspections.

(7) Insuring that traffic control devices are functioning as required.

(8) Overseeing all requirements covered by the Contract which contribute to the convenience, safety and orderly movement of traffic. Have an up-to-date copy of the MUTCD and applicable standards and specifications available at all times on the project.

(9) Attending all project scheduling meetings.

(10) Supervising the cleaning and maintenance of all traffic control devices.

A certified worksite traffic supervisor shall be responsible for Traffic Control Management (TCM) on a 24-hour-per-day basis. The TCS shall be on the work site at all times when Traffic Control Management (TCM) is performed and shall be on call at all times.

## Concrete

### I General

PWM 0.0.1. Submittals- Deliver to City all the materials, mix designs and other materials contractor proposed to use on the project which require testing, with request for acceptance.

PWM 0.0.2. Storage Facilities - Provide and maintain adequate facilities on the site for safe storage and proper curing of concrete test cylinder for the first 24 hours, as required by ASTM C-31.

PWM 0.0.3. Defective Concrete - If concrete is found defective from testing, placing, curing or for other causes, and if the contractor is so directed, he must remove the concrete at no cost to the City.

### II Products

Materials that are to be incorporated in the structure shall conform to the minimum standards hereinafter referred to, unless otherwise approved.

PWM 0.0.1. Cement

A. Portland Cement, conforming to the requirements of ASTM C-150 Type I or II.

B. Chemcomp, expansive shrinkage compensating cement, as manufactured by Texas Industries, Inc., or equal product licensed by and conforming to the requirements of the Chemical Prestressed Concrete Corp. (CPCC).

PWM0.0.2. Admixtures

A. Air Entraining Agent conforming to the requirements of ASTM C-260, Protex R03300-3, or approved equal.

B. Water Reducing Agent conforming to the requirements of ASTM C-494, Master Builders Pozzololith, or approved equal. No accelerators or admixtures containing chlorides will be permitted.

- C. Retarding Agent conforming to the requirements of ASTM C-494, Type B, Master Builders MB-HC, or approved equal. If Type D is used, adjust mixture of water reducing agent.

Lignin type retarders will not be permitted.

- D. Fibrous Concrete Reinforcement: 1.5 lbs/cy of 100% virgin polypropylene fibrillated fibers, as manufactured by Fibermesh Co., Chattanooga, Tennessee, or approved equal, shall be plant batched into the mix when called for in the special conditions.

PWM0.0.3. Water - Potable, nonalkaline water devoid of salts and other injurious elements for concrete mixing shall be used.

PWM0.0.4. Aggregates

- A. General: All fine and course aggregates shall conform to the following specifications:

Concrete Aggregates	ASTM C-33
Unit Weight of Aggregates	ASTM C-29
Organic Impurities Colormetric	ASTM C-40
Soundness of Aggregate by Sodium Sulfate	ASTM C-88
Sieve Analysis	ASTM C-29

- B. Gradation: Fine and course aggregates are regarded as separate ingredients and each shall be well graded between the limits as shown in the following chart:

**Percentage Passing Designated Sieves  
and Nominal Size Designation**

<u>Sieve Size</u>	<u>COURSE</u>			<u>FINE</u>	
	#467	#57 <u>1 1/2" to #4</u>	#67 <u>1" to #4</u>	AASHO-M6 <u>3/4" to #4</u>	<u>#4 to #100</u>
2"	100				
1 1/2"	95-100	100			
1"		95-100	100		
3/4"	35- 70		90-100		
1/2"		25- 60			
3/8"	10- 30		20- 55	100	
# 4	0- 5	0- 10	0- 10	95-100	
# 16		0- 5	0- 5	45- 80	
# 50				10- 30	
#100				2- 10	

PWM0.0.5. Reinforcing Steel

- A. Bar steel shall be round bars conforming to ASTM A-615, Grade 60, except #5 or smaller bars may be Grade 40 or 60 as shown on drawings, and deformed in accordance with the requirements of ASTM A-305.
- B. Welded Wire Fabric shall be electrically welded wire fabric, cold-drawn wire, conforming to ASTM A-185.
- C. Epoxy-coated reinforcing bars and/or welded wire fabric shall be epoxy coated by electrostatic spray methods meeting the requirements of AASHTO M-284. The coating material shall be a light colored powdered epoxy resin which will highlight rusting of untreated bar area.
- D. Dowels for Slabs on Grade at joints where indicated shall be hot rolled merchant bars conforming to ASTM A-151, C-1020.
- E. Miscellaneous Reinforcement not covered above must conform with the requirements of ACI-315 and ACI-318.

PWM0.0.6. Joint Materials

- A. Non-extruding and resilient non-bituminous type conforming to ASTM D-1752 or resin-impregnated fiberboard having the Physical requirements of ASTM D-1752, in widths shown or 3/8" where not shown, shall be used where joint sealers are indicated. Materials shall be Darasel-U fiberboard filler as manufactured by W.R. Grace & Co. or equal. Filler material containing asphalt or tar will not be allowed.
- B. Non-extruding and resilient bituminous type conforming to ASTM D-1751 shall be used for concrete paving and structural construction where joint sealers are not called for.
- C. Portland cement concrete pavement joints shall be sealed in accordance with the Colorado Department of Transportation (CDOT) Specifications.

PWM0.0.7. Curing Compounds - Curing compounds where allowed shall conform to ASTM C-309.

**PWM0.1. PROPORTIONING INGREDIENTS**

Concrete ingredients shall be proportioned so as to provide concrete which is workable and homogeneous, yet when hardened it will provide the required strength, durability, resistance to deterioration, abrasion, watertightness, appearance and other specified properties.

PWM0.1.1. Class "A" Concrete - Concrete shall have a maximum allowable water cement ratio of 0.50 by weight. The fine aggregate shall be between 34% and 38% by volume of the total aggregates and the end product shall have a minimum 28 day compressive strength of 3500 psi when tested in accordance with ASTM C-31.



0.1.2. Construction - Application for the various combination of aggregate size, in combination with allowable air content and slump range, for the different classes of concrete are as shown below.

Nominal Max. Size Coarse Ag.	Air Content Range	Vib. Slump Range	Min. Cement Content	Concrete	Typical Application
In.	% by. Vol.	In.	Sks./CY	Class	
3/4"	5-8	2-3	6.6	A	Bridge Deck
	5-8	1-3	6.0	A	Structural Slabs on Grade; Reinforced Columns, Footings, Beams and Walls

0.1.3. Mix Designs

A. Designs employing the same ingredients proposed for use and used successfully on a previous project under similar conditions to those anticipated on this project may be used, Provided the contractor requests and obtains City approval on the following, all of which must be certified to by the supplier:

1. Concrete mix designs conforming to these specifications.
2. ID sets of 7 and 28 day concrete strength tests made during the last 6 months on concrete conforming to the design in (1) above.
3. Curve showing relationship of 7 and 28 day strengths in (2) above.
4. Reports of compliance tests of fine and course aggregates made during the last six (6) months.

OR

B. The contractor shall employ, at his expense an acceptable independent laboratory to design, proportion and select ingredients from the supplier's sources that will produce a concrete mix conforming to the requirements of these specifications, while providing proper placability, durability, strength and other required physical properties for the proposed application

### III Execution

#### PWM0.2. FORM WORK

Provide all forms, shores, cores, molds and similar items in sufficient quantity and quality to properly execute the work.

Lumber or plywood contact surfaces must be free from knots, warps, breaks, or other defects likely to cause irregular surfaces. Metal forms must be free from irregularities, dents and sags and suitable for concrete exposed to view in finished areas.

Do not reuse forms if there is any evidence of surface wear or tear which would impair the quality of the finish. Thoroughly clean and relubricate forms for reuse.

PWM0.2.1. Tolerances - Construct forms so as to insure that concrete surfaces will conform to tolerances of Section 203.1 ACI 347.

PWM 0.2.2. Preparation of Form Surfaces - Make forms sufficiently tight to prevent leakage of grout or cement paste. Seal wood surfaces against absorption of moisture from the concrete with an acceptable oil, sealer, or factory applied nonabsorptive liner.

Coat forms to prevent bond with concrete prior to placing of the reinforcing steel. Do not allow coating material to stand in puddles in forms nor to come in contact with concrete against which fresh concrete will be placed.

PWM 0.2.3. Removal of Forms

- A. Form work that supports weight of concrete must remain in place until concrete has reached its specified 28 day strength, unless otherwise specified or permitted.
- B. Form work not supporting weight of concrete may be removed as soon as the concrete has hardened sufficiently to resist damage from removal operations.
- C. Whenever the form work is removed during the curing period, the exposed concrete shall be immediately cured by one of the methods herein specified.

**PWM 0.3. FABRICATION AND PLACEMENT OF EMBEDDED REINFORCEMENT**

PWM 0.3.1. Fabrication Tolerance

- A. Sheared length and bends,  $\pm 1$ ".
- B. Depth of truss bars, stirrups, ties and spirals,  $\pm 1/2$ ".

PWM 0.3.2. Placement Tolerance

- A. Concrete cover to formed surface, minimum spacing between bars, top bars in slabs or beams and members to 8 inches deep,  $\pm 1/4$ ".
- B. Members between 8" to 24" deep,  $\pm 1/2$ ".
- C. Members more than 24" deep,  $\pm 1$ ".
- D. Crosswise of members spaced evenly within 2".
- E. Lengthwise of members,  $\pm 2$ ".

Movement of bars more than one diameter or in excess of above tolerances, to facilitate installation of embedded items, must be approved by the project engineer.

PWM 0.3.3. Reinforcement Placement - Support and wire together all reinforcing bars to prevent displacement from external loading prior to and during concrete placement. On ground where necessary supporting concrete blocks may be used, otherwise use concrete, metal, plastic or other satisfactory bar chairs and spacers. Templets will be required for all column dowels.

Epoxy coated reinforcing bars and welded wire fabric shall be tied with epoxy coated tie wire that will not damage or cut the coating. Bars shall be placed on plastic supports or steel supports fully coated with plastic or epoxy. Care shall be taken to prevent coated bars from coming into contact with other steel items. The contractor shall repair all damaged coating prior to concrete placement.

Provide adequate support for welded wire fabric during placing of concrete to insure proper position of the fabric in the slab.

At time of concrete placement all steel is to be free from loose, flaky rust, mud, oil or other coatings that may destroy or reduce bond.

Unless otherwise noted on the drawings, the steel shall be protected by concrete, after placement as follows:

- A. 3/4" for interior slabs.
- B. 1" for interior walls and formed exterior slabs.
- C. 1 1/2" for beams, columns and concrete exposed to the weather or in contact with the ground.
- D. 3" for concrete deposited against the ground.

Smooth dowels to join existing concrete to new concrete shall be epoxied into drilled holes and extend into the old concrete a distance of 24 diameters.

#### **PWM 0.4. JOINTS**

Provide joints only where shown unless otherwise specifically permitted by written authorization from the project engineer.

- PWM 0.4.1. Construction Joints - Continue all reinforcing steel and welded wire fabric across joints, unless otherwise indicated. Provide keys and inclined dowels as shown or as directed. Provide longitudinal keys at least 1 1/2" deep in all joints in walls and between walls and slabs.

Thoroughly clean surfaces and remove all laitance on the surface of joints before next placement.

When required or directed, obtain bond between hardened concrete and new concrete by:

- A. Use of an epoxy bond in accordance with the applicable provision of ACI Journal, Proceedings V59 #9, September, 1962, pp. 1121-1142.
- B. Use of an acceptable chemical retarder.
- C. By roughening surface of old concrete in an acceptable manner such as sandblasting.
- D. Provide a continuous water stop as specified.

PWM 0.4.2. Expansion Joints - Install filler in expansion joints 3/4" thick by 1/2" less than slab thickness. For floors place a 3/4" x 1/2" tapered wood strip over the joint filler, flush with the top of the slab and finish the edges with an edging tool. After the concrete has hardened remove the wood strip and seal the joint flush with the surface.

PWM 0.4.3. Control Joints - Joints shall be formed by use of acceptable sheet metal forms, or by insertion of hard-pressed fiberboard strips into the plastic concrete, or by sawing with carborundum or diamond-tipped blade after concrete has set. Joints shall be 1/4" wide and approximately 1/4 of the slab thickness in depth, unless otherwise indicated or directed.

When concrete is dry, clean out sawed or fiberboard joints and fill to wearing surface with joint sealer.

## **PWM 0.5. CONCRETE MIXING**

Concrete shall be mixed and transported to the job site in accordance with the requirements of ASTM C-94.

Delivery tickets for each batch delivered shall show the date, mix by number or sack content with maximum size aggregate, admixtures and amounts used per cubic yard, air content, slump and time of loading.

PWM 0.5.1. Agitating, Mix and Discharge - Concrete shall be continuously agitated from the time water is added and then mixed for 2 1/2 minutes just prior to discharge. The mix shall be discharged from the truck within one (1) hour after cement is batched, unless longer time is specifically authorized.

PWM 0.5.2. Water - Indiscriminate addition of water to increase slump is prohibited.

PWM 0.5.3. Admixtures

- A. Liquid admixtures shall be charged into the mixer by means of an approved metering device.
- B. Powder admixtures shall be weighed or measured by volume in accordance with manufacturer's recommendation.
- C. When two or more admixtures are to be incorporated in the mix, they shall be added separately during batching sequence.

PWM 0.5.4. Retempering - Mix concrete only in quantities for immediate use. Concrete which has been in the mixer 80 minutes or longer shall be discarded. Retempering of concrete will not be allowed.

Concrete arriving at the project with slump below that suitable for placing may have water added only if neither:

- A. The maximum permissible water-cement ratio has not been exceeded.
- B. Maximum slump has not been exceeded.

Any addition of water above that permitted by limitation on water-cement ratio must be accompanied by a quantity of cement sufficient to maintain proper cement ratio and a mixing time of 1 1/2 minutes. No such additions will be permitted unless specifically authorized in writing by a city representative.

**PWM 0.6. WEATHER**

PWM 0.6.1. Batch Temperature - As mixed temperature of concrete shall be maintained above 55 degrees F and below 80 degrees F, even though the mean temperature falls below 40 degrees F.

PWM 0.6.2. Protection - Provide adequate protection against rain, sleet, snow, cold and other weather conditions.

Protect exposed surfaces from rain water and from 40 degrees F and below temperatures with suitable covering, and equipment to maintain a minimum temperature of 50 degrees F for a period of 72 hours after the concrete has been placed.

**PWM 0.7. PLACING**

PWM 0.7.1. Preparation of Surfaces - Preparation for placing shall include, but is not limited to, form construction, setting of reinforcing steel and embedded items, securing and alignment of forms, cleaning thoroughly all surfaces that will be in contact with concrete and keeping them free of debris, ice, rust, scale, grease or other coatings during placement of the concrete.

PWM 0.7.2. Equipment and Labor - Assemble and provide sufficient labor and equipment for proper mixing, transporting, placement and protection of concrete until accepted by the City.

PWM 0.7.3. Conveying - Truck mixers, agitators, and non-agitating units, including their manner of operation, must conform to the applicable requirements of ASTM C-94. Aluminum tubing or pipe for conveying concrete will not be allowed.

Concrete shall be conveyed to place of final deposit by methods which will prevent segregation or loss of ingredients and insure the required quality of the concrete is obtained. A hopper or tremie will be required at the end of metal chutes having a slope greater than 1:2 or less than 1:3 vertical to horizontal; or chutes in excess of 20 feet in length.

Use of horizontal belt conveyors discharging into a hopper and pumping or pneumatic conveying equipment such that the loss in slump does not exceed 1 1/2" shall be subject to approval.

PWM 0.7.4. Depositing - Deposit concrete continuously, or in layers of such thickness that no concrete is deposited on concrete which is hardened sufficiently to cause formation of seams or planes of weakness within the section. Deposit concrete as nearly as practicable in its final position to avoid segregation due to rehandling or flowing.

Depositing of concrete in general shall conform with the applicable detailed recommendation of ACI 304.

PWM 0.7.5. Consolidation - Perform consolidation in conformance with applicable detailed recommendation of ACI 309.

Consolidate all concrete by internal and external vibrators, spading, rodding or forking so that concrete is thoroughly worked around reinforcement, embedded items and into form corners, eliminating all air or stone pockets which may cause honeycombing, pitting or planes of weakness. Thoroughly consolidate concrete in slabs and floors with vibrating bridge screeds, roller pipe screeds or other acceptable means. Only mechanical vibrators having a minimum frequency 7000 RPM and operated by competent workmen shall be employed.

Over vibration and transporting concrete within the form by vibration will not be allowed.

## **PWM 0.8. FINISHING**

0.8.6. Broom - Sidewalk slabs and other slabs so specified shall have a coarse traverse sawed texture obtained by drawing a broom across the surface immediately after floating.

**PWM 0.9. CURING**

Freshly deposited concrete shall be protected from premature drying and excessively hot or cold temperatures and maintained with minimal moisture loss at a relatively constant temperature for the time required for hydration of cement and proper hardening of the concrete.

PWM 0.9.1. Initial Curing - Immediately following finishing the contractor shall provide methods to keep the concrete continuously moist at least overnight unless otherwise specified by:

A0 Ponding or continuous sprinkling

B0 Absorptive mat or fabric kept continuously wet

C0 Sand or other covering kept continuously wet

D0 Steam vapor mist bath at a temperature not to exceed 150 degrees F.

E0 Curing compounds conforming to ASTM C-309 applied according to manufacturer's recommendations, providing the surface to be cured is not to be bonded to other cementitious materials.

PWM 0.9.2. Duration of Curing - Continue curing until the cumulative number of days, or fraction thereof, not necessarily consecutive, during which the air temperature in contact with the concrete is above 50 degrees F has totaled seven (7) days.

PWM 0.9.3. Cold Weather Curing - Curing shall conform to all applicable detail recommendations in ACI-306. Temperature of concrete shall be maintained between 50 degrees-70 degrees F for the required curing period when the mean daily atmospheric temperature is less than 40 degrees F. Sufficient equipment and materials required to comply with this specification shall be at the site prior to placing concrete.

PWM 0.9.4. Hot Weather Curing - Curing shall conform to all applicable detail recommendations, in ACI-305. As quickly as concrete hardening and finishing will allow, the contractor shall install such protective measures, such as, but not limited to, windbreaks, shading, fog spraying, sprinkling, ponding or wet covering as may be required.



PWM 0.9.5. Protection from Damage - Especially during the curing period and until the work is accepted, the contractor shall protect the concrete from damage by vehicular or mechanical equipment, foreign materials and by rain or by running water.

PWM 0.10. TESTING

Technical services performing routine preliminary testing of materials of proposed mix designs and resulting concrete for compliance with the specifications will be provided by the City, at no expense to the contractor.

PWM 0.10.1. Tests for Changes and Non-Compliance - Testing required because of changes in materials or proportions of the mix requested by the contractor, as well as any extra testing of concrete, field cured cylinder, or materials occasioned by failure to meet specification requirements, shall be at the contractor's expense.

PWM 0.10.2. Testing Provided by the City

A0 Test contractor's proposed material for compliance.

B0 Review and check test contractor's proposed mix design.

C0 Prepare and cure complete set of concrete cylinders, test and report results of 7 and 28 day compressive strength, in accordance with ASTM C-39, for each placement up to 50 cubic yards.

D0 Determine slump range of concrete as delivered in accordance with ASTM C-143.

E0 Determine air content of standard weight concrete with either ASTM method.

F0 Check batching and mixing operations.

## **Metal Decking**

### **I General**

This work consists of furnishing, fabricating, erecting, and painting structural steel in accordance with these specifications and to the dimensions, shapes, and design shown on the plans, and to the lines and grades established. Structural steel shall include galvanizing, bolting, welding, special and alloy steels, electrodes, and steel forgings.

When the term “main stress carrying members” or “main members” is used, it shall include: girder web and flange plates and splice plates; pier and abutment diaphragm web and flange plates and splice plates.

The latest edition of the AASHTO LRFD Bridge Design Specifications, with current interim specifications, will govern the design of steel bridges, unless otherwise noted on the plans. Welding and fabrication of steel structures shall conform to the Bridge Welding Code ANSI/AASHTO/ AWS D1.5, as amended by the contract documents. When AWS D1.5 is cited in the Standard Specifications, the reference shall be to the latest edition of the Bridge Welding Code.

**Required Specifications:** Product Data and Shop Drawings

## **II Products**

Acceptable Manufacturer: Vulcraft 2” VLI

B. Substitutions: Not permitted.

## **III Execution**

The Contractor shall furnish shop drawings in conformity with subsection 105.02 for all structural steel bid under this section. Shop drawings shall specifically identify each piece, the direction of rolling for plates where specific orientation is required, the location of all welded splices, and the location, the extent, and the criteria of nondestructive testing. Installation shall be in conformance of shop drawings and deck securement must be compatible with the waterproofing and painting systems

## **Fluid-Applied Waterproofing**

### **I General**

This work consists of furnishing and placing an approved waterproofing membrane over structural decking.

**Submittal Requirement:** Product Data and Installation Procedure

### **II Products**

Acceptable Manufacturer: Tremco Commercial Sealants & Waterproofing, which is located at: 3735 Green Rd.; Beachwood, OH 44122; Toll Free Tel: 800-321-7906; Tel: 216-292-5000; Fax: 216-766-5543; Email: request info; Web: [www.tremcosealants.com](http://www.tremcosealants.com)

B. Substitutions: Not permitted.

C. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

### **III Execution**

All waterproofing shall be installed per the Manufacturer's Installation instructions at or above the rates shown below:

1. Matacryl Primer CM @ 0.5kg/m<sup>2</sup> – 1 Gallon/80sqft
2. 120 Mils Matacryl LM Spray Membrane @ 4kg/m<sup>2</sup> – 1 Gallon/12sqf

### **Crack Fill**

#### **I General**

This work consists of furnishing and placing an approved hot poured joint and crack sealant in properly prepared cracks in asphalt pavements. Cracks with a width greater than 1/8 inch and less than 1 inch are to be filled with this material. MATERIALS Materials for hot poured joint and crack sealant shall meet the requirements of subsection 702.04. Using a mixture of different manufacturers' brands or different types of sealant is prohibited.

**Submittal Requirement:** Product Data

## II Products

**CDOT 702.04 Hot Poured Joint and Crack Sealant.** Hot poured material for filling joints and cracks shall conform to the requirements of ASTM D6690, Type II or Type IV. The concrete blocks used in the Bond Test shall be prepared in accordance with CP-L 4101. Sealant material shall be supplied pre-blended, pre-reacted, and prepackaged. If supplied in solid form the sealant material shall be cast in a plastic or other dissolvable liner having the capability of becoming part of the crack sealing liquid. The sealant shall be delivered in the manufacturer's original sealed container. Each container shall be legibly marked with the manufacturer's name, the trade name of the sealer, the manufacturer's batch or lot number, the application temperature range, the recommended application temperature, and the safe heating temperature. The sealant shall be listed in CDOT's Approved Products List prior to use. Approved Joint and Crack Sealant for this project is shown below:

Product Name	Manufacturers	Producer Supplier Code
# 3405 Regular (Batch # 80321G)	<a href="#">Right Pointe Company</a>	GEN120008
# 3405 Regular (Batch # 80322G)	<a href="#">Right Pointe Company</a>	GEN120008
# 3405 Regular (Batch # 80323G)	<a href="#">Right Pointe Company</a>	GEN120008
# 3405 Regular (Batch # 80324G)	<a href="#">Right Pointe Company</a>	GEN120008
# 3405 Regular (Batch #80850A)	<a href="#">Right Pointe Company</a>	GEN120008
# 3405 Regular (Batch #80851A)	<a href="#">Right Pointe Company</a>	GEN120008
# 3405 Regular (Batch #80852A)	<a href="#">Right Pointe Company</a>	GEN120008
# 3405 Regular (Batch #80853A)	<a href="#">Right Pointe Company</a>	GEN120008
# 3405 Regular (Batch #80854A)	<a href="#">Right Pointe Company</a>	GEN120008
# 3405 Regular (Batch #80855A)	<a href="#">Right Pointe Company</a>	GEN120008
# 3405 Regular (Batch #81230D)	<a href="#">Right Pointe Company</a>	GEN120008
# 3405 Regular (Batch #81231D)	<a href="#">Right Pointe Company</a>	GEN120008
# 3405 Regular (Batch #81232D)	<a href="#">Right Pointe Company</a>	GEN120008
# 3405 Regular (Batch #81233D)	<a href="#">Right Pointe Company</a>	GEN120008
# 3405 Regular (Batch #81234D)	<a href="#">Right Pointe Company</a>	GEN120008
# 3405 Regular (Batch #81235D)	<a href="#">Right Pointe Company</a>	GEN120008
#3405 Regular [Batch # 81599H]	<a href="#">Right Pointe Company</a>	GEN120008
#3405 Regular [Batch #82590F]	<a href="#">Right Pointe Company</a>	GEN120008
3405 Regular [Batch #81599H]	<a href="#">Right Pointe Company</a>	GEN120008
DEERY 102 (Batch #W20984)	<a href="#">Crafco Inc. [Sealant]</a>	GEN100186
DEERY 102 (Batch #W22235) [Sealant]	<a href="#">Crafco Inc. [Sealant]</a>	GEN100186
DEERY 102 (Batch #W22329)	<a href="#">Crafco Inc. [Sealant]</a>	GEN100186
DEERY 102 (Batch #W22373) [Sealant]	<a href="#">Crafco Inc. [Sealant]</a>	GEN100186
DEERY 102 [Batch W23125]	<a href="#">Crafco Inc. [Sealant]</a>	GEN100186
DEERY 102 [Batch W23226]	<a href="#">Crafco Inc. [Sealant]</a>	GEN100186
DEERY 102 [Batch W23259]	<a href="#">Crafco Inc. [Sealant]</a>	GEN100186
DEERY 102 [Batch W23528] [Sealant]	<a href="#">Crafco Inc. [Sealant]</a>	GEN100186
DEERY 102 [W23037]	<a href="#">Crafco Inc. [Sealant]</a>	GEN100186
Elastoflex 61 (Lot #1802024) [Sealant]	<a href="#">Maxwell Products, Inc. [Sealant]</a>	GEN100268
Elastoflex 61 [Lot #1802024]	<a href="#">Maxwell Products, Inc. [Sealant]</a>	GEN100268
ROADSAVER 221 (Batch W22559)	<a href="#">Crafco Inc. [Sealant]</a>	GEN100186
ROADSAVER 221 [Batch W23557]	<a href="#">Crafco Inc. [Sealant]</a>	GEN100186
RP 3405 [Batch # 80320G]	<a href="#">Right Pointe Company</a>	GEN120008
RoadSaver 221 (Batch #W22185) [Sealant]	<a href="#">Crafco Inc. [Sealant]</a>	GEN100186
RoadSaver 221 [Batch W22884]	<a href="#">Crafco Inc. [Sealant]</a>	GEN100186

## III Execution

Immediately before applying hot poured joint and crack sealant, the cracks shall be cleaned of loose and foreign matter to a depth approximately twice the crack width. Cleaning shall be performed using a hot compressed air lance. This lance shall be used to dry and warm the adjacent asphalt immediately prior to sealing. Direct flame dryers shall not be used. These Cracks shall be filled with hot poured joint and crack sealant flush

with the pavement surface. Immediately following the filling of the crack, excess sealant shall be leveled off at the wearing surface by squeegee, a shoe attached to the applicator wand, or other suitable means approved by the Engineer. The squeegeed material shall be centered on the cracks and shall not exceed 3 inches in width or 1/16 inch in depth. The sealant material shall be heated and applied according to the manufacturer's recommendations. The equipment for heating the material shall be an indirect heating type double boiler using oil or other heat transfer medium and shall be capable of constant agitation. The heating equipment shall be capable of controlling the sealant material temperature within the manufacturer's recommended temperature range and shall be equipped with a calibrated thermometer capable of  $\pm 5$  °F accuracy from 200 to 600 °F. This thermometer shall be located so the Engineer can safely check the temperature of the sealant material. Overheating of the sealant material will not be permitted. The face of the crack shall be surface dry and the air and pavement temperatures shall both be at least 40 °F and rising at the time of sealant application. Sealant material picked up or pulled out after being placed shall be replaced at the Contractor's expense. The Contractor shall have blotter material available on the project in the event it is required to prevent tracking or pulling. If required, blotter material shall be approved by the Engineer and placed at the Contractor's expense.

## **Paint**

### **I General**

This specification covers ready-mixed paints and coatings. Paints and coatings shall be manufactured eight weeks or less prior to delivery to the project. Each paint container shall be labeled with the name and address of the manufacturer, trade name or trademark, type of paint, number of gallons, batch number, and date of manufacture.

Paints shall be free of foreign material that is capable of clogging screens, valves, pumps, and other parts of the application equipment. Paint shall not contain the following:

- (1) Benzene.
- (2) Chlorinated solvents.
- (3) Ethylene glycol ethers.
- (4) Ethylene glycol acetates.
- (5) Lead.
- (6) Mercury.
- (7) Chromium.
- (8) Cadmium.
- (9) Petroleum products.

The Contractor shall obtain certification in writing from the manufacturer showing that the product is free of the materials described above and that it meets or exceeds the requirements of 29 CFR 1910.1200.

Paints shall not form a surface skin within 48 hours in three-quarter filled, tightly closed containers. Paint and coating pigments shall be lead free, and shall not thicken, become granular, or curdle in their containers.

Volatile Organic Compound (VOC) levels for paints and coatings shall comply with the most current EPA regulations. All product compositional proportions are specified by weight. Material Safety Data Sheets and manufacturer's recommended application instruction sheets representing each paint and coating shall be submitted to the Engineer for the project records prior to use.

Submittal Requirements: Product Data and Installation Procedures

## **II Products**

Acceptable Manufacturer: Cobraguard 235 HAR or Equivalent

Color: Red Oxide

## **III Execution**

All installation to be per manufacturer's recommendation

## **Plumbing Downspouts**

### **I General**

This work consists of the furnishing and installation of storm drain extensions including all couplers and supports

**Submittal Requirement:** Product Data

### **II Products**

Pipe-6" Schedule 40 PVC

Supports- All Unistrut must be galvanized and clamps must be compatible with both the support and pipe

Couplers-6" banded rubber coupler

### **III Execution**

All installation to be per manufacturer's recommendation