

## **DESIGN SERVICES AGREEMENT**

**THIS AGREEMENT** is entered into between the **CITY AND COUNTY OF DENVER** (the "City"), a municipal corporation of the State of Colorado, and **Wood Environment & Infrastructure Solutions, Inc.,** the "Design Consultant"), a Nevada corporation registered to do business in Colorado, whose address is 1105 Lakewood Parkway, Alpharetta, Georgia, 30009.

### **SECTION 1 – ENGAGEMENT**

**1.01 Engagement.** The City engages the Design Consultant to furnish professional design services for the Project as set forth in this Agreement. The Design Consultant accepts such engagement upon, subject to and in accordance with the terms, conditions and provisions of this Agreement.

**1.02 Line of Authority for Contract Administration.** The City's Executive Director of Public Works ("Director" or "Manager") is the City's representative responsible for authorizing and approving the work performed under this Agreement. The Director hereby designates the City Engineer as the Director's authorized representative for the purpose of designating a Project Manager, for the purpose of issuing a written Notice to Proceed and for purposes of administering, coordinating and finally approving the work performed by the Design Consultant under this Agreement. The Project Manager shall be responsible for the day-to-day administration, coordination and approval of work performed by the Design Consultant, except for approvals which are specifically identified in this Agreement as requiring the Director's approval. The Director expressly reserves the right to designate another authorized representative to perform on the Director's behalf by written notice to the Design Consultant.

**1.03 Independent Contractor.** The Design Consultant is an independent contractor retained to perform professional or technical services for limited periods of time. Neither the Design Consultant nor any of its employees are employees or officers of the City under Chapter 18 of the Denver Revised Municipal Code, or for any purpose whatsoever.

**1.04 Scope of Design Consultant's Authority.** The Design Consultant shall have no authority to act on behalf of the City other than as expressly provided in this Agreement. The Design Consultant is not authorized to act as a general agent for or to undertake, direct or modify any contracts on behalf of the City. The Design Consultant lacks any authority to bind the City on any contractual matters. Final approval of all contractual matters that purport to obligate the City must be executed by the City in accordance with the City's Charter and the D.R.M.C.

### **SECTION 2 – DESIGN CONSULTANT'S SERVICES**

**2.01 General.** The Design Consultant shall provide professional design services for the Project in accordance with the terms and conditions of this Agreement. The Design Consultant's basic services shall consist of all of those services described in this Agreement and in **Exhibit A**.

**2.02 Professional Responsibility.**

(a) All of the work performed by the Design Consultant under this Agreement shall be performed in accordance with the standards of care, skill and diligence provided by

competent professionals who perform work of a nature similar to the Work described in this Agreement.

(b) The Design Consultant agrees to strictly conform to and be bound by written standards, criteria, budgetary considerations and memoranda of policy furnished to it by the City and further agrees to design each project in compliance with applicable laws, statutes, codes, ordinances, rules and regulations, and industry standards.

(c) All professional services, plans and specifications and other work, or deliverables provided under this Agreement for the Project shall be adequate and sufficient for the proper construction of the Project and its intended purpose.

(d) All drawings, specifications and other products shall be prepared so the Project, when constructed in accordance with such drawings and specifications, is in compliance with all applicable laws, statutes, codes, ordinances, and rules and regulations of the City, the State and the Federal government.

(e) Any design changes required by changes in such applicable laws, statutes, codes, ordinances or rules and regulations of the City, the state or the federal government, which are enacted after the City's acceptance of Construction Documents, defined herein, will be outside the scope of the Design Consultant's basic services and basic fee, and will be compensated for approval as an additional service, subject to the additional services budget for that project.

(f) The Design Consultant shall prepare the plans, specifications and other materials for the Project in a format that complies with all City requirements as well as all state and federal requirements for the Project. No funds will be paid to the Design Consultant for the preparation of contract documents in a form other than that considered usual and customary by the Department of Public Works. It shall be the responsibility of the Design Consultant to contact the reviewing agencies and determine the acceptable format for the final documents. No documents will be considered final until approved by the City, even though any responsible federal and state agencies have approved such documents.

(g) The City reserves the right to proceed with the construction of the Project using either the City's standard general contractor bidding approach, on call contractors or using construction management techniques. The Design Consultant agrees to organize its Contract Documents for either construction technique and to coordinate the construction documents into selected bid packages, as appropriate. The City will notify the Design Consultant prior to the completion of the Design Development Design Phase which method will be used and the amount of work or the limits of construction to be included in the proposed bid package(s).

(h) The reports, studies, drawings and specifications and other products prepared by the Design Consultant under this Agreement, when submitted by the Design Consultant to the Director and the user agency for any identified phase of the Project, must represent a thorough study and competent solution for the project as per usual and customary professional standards and shall reflect all architectural and engineering skills applicable to that phase of the project.

(i) The responsibilities and obligations of the Design Consultant under this Agreement shall not be relieved or affected in any respect by the presence on the site of any agent, consultant or subconsultant, or an employee of the City.

(j) The Design Consultant shall provide all professional services required by the City in defending all claims against the City, which relate in any way to alleged default hereunder, errors or omissions of the Design Consultant or its subconsultants, without additional compensation.

### **2.03 Program and Budget.**

(a) The Design Consultant agrees to review the City's program and budget for the Project and further agrees, unless it has timely notified the City that the Project cannot be accomplished within such budget, to accomplish the Project within the intent of the program and established budget. Should the Design Consultant determine that The Project cannot be accomplished within the established budget, the Design Consultant shall immediately notify the City, in writing, so that the project scope or project budget can be reviewed and modified if necessary.

(b) The term "Project Construction Cost" shall mean the estimated cost to the City of actually constructing the Project, but such cost shall not include any Design Consultant's or special consultant's fees or reimbursements or the cost of equipment installed by the City under separate contract, unless the Design Consultant is required by the City to prepare drawings and specifications for such equipment. The initial Project Construction Cost has been provided to the Design Consultant.

(c) The Design Consultant agrees to design the Project within the estimated Project Construction Cost for the Project. Should all responsive bids or proposal received for the Project work provided for in the design exceed such cost, the Design Consultant agrees to redesign the Project at no additional cost to City and, in a manner acceptable to the City.

### **2.04 Coordination and Cooperation.**

(a) The Design Consultant agrees to perform under this Agreement in such a manner and at such times that the City or any Contractor who has work to perform, or contracts to execute, can do so without unreasonable delay.

(b) Coordination with the City and other involved agencies shall be a continuing work item through all phases of each assigned project. Such coordination shall consist of regular progress and review meetings with the City, work sessions with the City's Public Works, and other user agencies or as otherwise directed by the City. Such coordination may also include field and office reviews of plans and documents as required during the development of the design for any specific project. The Design Consultant shall document all such conferences and distribute notes to the City.

### **2.05 Personnel Assignments.**

(a) The key professional personnel identified in **Exhibit B** will be assigned by the Design Consultant or its subconsultants to perform the services required under this Agreement, as appropriate.

(b) The Design Consultant's services shall be diligently performed by the regular professional and technical staff of the Design Consultant. In the event the Design Consultant does not have as part of its regular staff certain professional consultants, then such consulting services shall be performed, with City approval, by practicing professional consultants outside of the employ of the Design Consultant.

(c) The Design Consultant agrees, at all times during the term of this Agreement, to maintain on its payroll or to have access to through outside subconsultants, professional design personnel and technicians in sufficient strength to meet the requirements of the City. Such personnel and technicians shall be of the classifications referenced in **Exhibit B**. The hourly rates specified therein include all costs except those specifically referenced as reimbursables in the appropriate hourly rate schedule.

(d) Prior to designating an outside professional to perform subconsultant work, the Design Consultant shall submit the name of such subconsultant, together with a resume of training and experience in work of like character and magnitude of the project being contemplated, to the City and receive prior approval in writing.

(e) It is the intent of the Parties hereto that all key professional personnel be engaged to perform their specialty for all such services required by this Agreement and that the Design Consultant's and the subconsultant's key professional personnel be retained for the life of this Agreement to the extent practicable and to the extent that such services maximize the quality of work performed hereunder.

(f) If the Design Consultant or a subconsultant decides to replace any of its key professional personnel, the Design Consultant shall notify the Director in writing of the desired change. No such changes shall be made until replacement personnel are recommended by the Design Consultant and approved in writing by the Director, which approval shall not be unreasonably withheld.

(g) If, during the term of this Agreement, the Director determines that the performance of approved key personnel or a subconsultant is not acceptable, she shall notify the Design Consultant and give the Design Consultant the time which the Director considers reasonable to correct such performance. Thereafter, she may require the Design Consultant to reassign or replace such key personnel. If the Director notifies the Design Consultant that certain of its key personnel or a subconsultant should be replaced, Design Consultant will use its best efforts to replace such key personnel or a subconsultant within ten (10) days from the date of the Director's notice.

(h) Neither the Design Consultant nor any subconsultant shall have other interests which conflict with the interests of the City, including being connected with the sale or promotion of equipment or material which may be used on a project to which they may be assigned, and the Design Consultant shall make written inquiry of all of its subconsultants concerning the existence of a potential for such conflict. In unusual circumstances, and with full disclosure to the City of such conflict of interest, the City, in its sole discretion, may grant a written waiver for the particular consultant or subconsultant.

(i) Actions taken by the City under this Article shall not relieve the Design Consultant of its responsibility for contractual or professional deficiencies, errors or omissions.

(j) The Design Consultant shall submit to the Director a list of any additional key professional personnel who will perform work under this Agreement within thirty (30) days after this Agreement has been executed, together with complete resumes and other information describing their ability to perform the tasks which may be assigned. Such additional personnel must be recommended by the Design Consultant and approved by the Director before they are assigned to a specific project.

(k) The Director shall respond to the Design Consultant's written notice regarding replacement of key professional personnel within fifteen (15) days after the Director receives the list of changes. If the Director or his designated representative does not respond within that time, the changes shall be deemed to be approved.

**2.06 Basic Services – General.**

(a) These services shall be diligently performed by the regular professional and technical staff of the Design Consultant. In the event the Design Consultant does not have as part of its regular staff certain professional consultants, then such consulting services shall be performed, with City approval, by practicing professional consultants outside of the employ of the Design Consultant.

(b) Prior to designating an outside professional to perform work or services under this Agreement, the Design Consultant shall submit the name of such professional, together with a resume of training and experience in work of like character and magnitude as the project being contemplated, to the City and receive prior approval in writing.

(c) All professional consultants and subconsultants must be retained for the life of the Project to the extent practicable, except that acceptable replacements may be substituted with prior written approval from the City as set out in Section 2.05.

(d) The Design Consultant's basic services for the Project shall consist of the phases described below and shall include, but not be limited to, architectural, structural, mechanical, civil and electrical engineering services appropriate to each Project for each phase.

(e) The Design Consultant shall obtain written authorization from the City before proceeding with each phase.

(f) Nothing in this Agreement shall be construed as placing any obligation on the City to proceed with any phase beyond the latest phase authorized in writing by City.

(g) The responsibilities and obligations of the Design Consultant under this Agreement shall not be relieved or affected in any respect by the presence on the site of any agent, consultant, subconsultant, or employee of the City.

**2.07 Basic Services - Phase Specific.** In the interest of tracking progress towards completion of all work items necessary to complete the Project specified herein, the required Basic Services tasks which must be performed on each Project have been separated into phases. As applicable for the Project, the Design Consultant shall satisfactorily complete all work necessary to complete each phase as specifically set out in **Exhibit A**.

**2.08 Additional Services.**

(a) If the Design Consultant performs services in addition to its Basic Services, as a result of material changes in the Project or due to other circumstances beyond the Design Consultant's control, and if such services (1) are pre-approved in writing; (2) will not cause the total compensation payable to the Design Consultant to exceed the Maximum Contract Amount; and (3) are not occasioned by any neglect, breach or default of the Design Consultant, then the Design Consultant will be reimbursed its pre-approved cost for performance of such service(s).

(b) Before providing any such services, the Design Consultant first shall file with the City, and secure the City's written approval of, a complete description of the proposed services including an estimate of the maximum cost of any and all such services, on the basis set out in **Exhibits A and B**, of rates per hour, per day, or other basis of cost. Such description shall also include a statement from the Design Consultant that the maximum cost of such services will not cause the total amount payable to the Design Consultant under this Agreement to exceed the maximum contract amount. In no event shall any form of authorization or pre-approval of additional services be deemed valid or binding upon either the City or the Design Consultant if the maximum cost of such services would cause the aggregate amount payable under this Agreement to exceed the maximum contract amount. Payment for additional services shall not, in any event, exceed the cost estimated by the Design Consultant and approved in writing by the City.

(c) The cost of such additional service shall be deemed to be the lesser of the estimated maximum cost or:

(1) The actual time card cost of all design personnel including principal designer's time at the rates as set out in **Exhibit B**;

(2) The actual cost to the Design Consultant for other necessary outside services, such as structural, mechanical or electrical engineering performed by independent consultants; and

(3) The Design Consultant's actual reproduction cost for drawings.

(d) The Design Consultant shall maintain an accurate and acceptable cost accounting as to all such additional expenses and shall make available to the City all records, canceled checks and other disbursement media to substantiate any and all requests for payment for additional services.

(e) Payment to the Design Consultant for such additional services shall not, in any event, exceed the maximum additional services amount set forth in Section 3.

## **2.09 Surveying and Testing.**

(a) The Design Consultant shall obtain all necessary surveying, tests and reports to properly design and administer the construction of each project, including, but not limited to, soils and hazardous materials testing. The Design Consultant shall be responsible for the accuracy, adequacy and content of such tests, surveying and reports.

(b) The Design Consultant and its appropriate subconsultant shall review all survey and test results reports and shall follow the recommendation of the soils engineer or other subconsultant unless, in the exercise of appropriate professional judgment, the Design Consultant or appropriate subconsultant discovers, or should in the exercise of professional judgment discover, factors indicating the report or results are not reliable.

(c) If any such inadequacy or any inconsistency, based upon such exercise of professional judgment, is noted the Design Consultant and/or its appropriate subconsultant shall report such inconsistency or inadequacy promptly to the City and require such inadequacy or inconsistency to be addressed by the soils engineer, testing laboratory or land surveyor before any further use is put to the data.

(d) The Design Consultant shall require all surveying, engineering and testing entities it selects to carry and maintain Comprehensive Auto Liability and Property Damage Insurance, General Commercial Liability and Property Damage Insurance and Professional Errors and Omissions coverage as required by the City's Office of Risk Management which will adequately protect the interests of the City and third parties from the acts and omissions of the testing entity.

(e) The amount of surveying or testing, the cost, and the types of reports required must be approved by the Director prior to the Design Consultant actually ordering any such work to be accomplished. Such approvals by the City shall be for purposes of compensation only and shall not relieve the Design Consultant of any responsibility for determining the scope and amount of surveying and testing necessary for the design of the project.

(f) It is understood and agreed that this Agreement does not include the investigation, sampling, testing, planning, abatement design, and remediation management of asbestos or other hazardous waste material. Should the presence of asbestos or other hazardous waste material be known to exist on a specific project or if the Design Consultant shall observe the presence of asbestos or hazardous waste material on any project site during its performance of services under this Agreement, the Design Consultant shall notify the City in writing immediately.

(g) Payment to the Design Consultant for such surveying, testing, and abatement shall not exceed the surveying and testing budget set forth in the project specific proposal for each project.

## **2.10 Compliance with M/WBE Requirements.**

(a) This Agreement is subject to Article III, Divisions 1 and 3 of Chapter 28, Denver Revised Municipal Code (D.R.M.C.), designated as Sections 28-31 to 28-36 and 28-52 to 28-90 D.R.M.C. (the "M/WBE Ordinance") and any Rules or Regulations promulgated pursuant thereto. The Design Consultant identified in its Proposal MBE and/or WBE firms with which it intends to subcontract under this Agreement, with a total participation level by such firms of **32%**.

(b) Under § 28-72 D.R.M.C., the Design Consultant has an ongoing, affirmative obligation to maintain for the duration of this Agreement, at a minimum, compliance with its originally achieved level of MBE and WBE participation upon which this Agreement was awarded, unless the City initiates a material alteration to the scope of work affecting MBEs or WBEs performing on this Agreement through change order, contract amendment, force account, or as otherwise described in § 28-73 D.R.M.C. The Design Consultant acknowledges that:

(1) It must establish and maintain records and submit regular reports, as required, which will allow the City to assess progress in achieving the M/WBE participation goal.

(2) If change orders or any other contract modifications are issued under the Agreement, the Design Consultant shall have a continuing obligation to immediately inform DSBO in writing of any agreed upon increase or decrease in the scope of work of such

contract, upon any of the bases discussed in § 28-73, D.R.M.C., regardless of whether such increase or decrease in scope of work has been reduced to writing at the time of notification.

(3) If change orders or other contract modifications are issued under the contract, that include an increase in scope of work of this Agreement, whether by amendment, change order, force account or otherwise which increases the dollar value of the contract, whether or not such change is within the scope of work designated for performance by an M/WBE at the time of contract award, such change orders or contract modification shall be immediately submitted to DSBO for notification purposes. Those amendments, change orders, force accounts or other contract modifications that involve a changed scope of work that cannot be performed by existing project subconsultants or by the Design Consultant shall be subject to a goal for M/WBEs equal to the original goal on the contract which was included in the proposal. The Design Consultant shall satisfy such goal with respect to such changed scope of work by soliciting new M/WBEs in accordance with § 28-73, D.R.M.C., as applicable, or the Design Consultant must show each element of modified good faith set out in § 28-75(c) D.R.M.C. The Design Consultant shall supply to the director the documentation described in § 28-75-(c) D.R.M.C. with respect to the increased dollar value of the contract.

(4) Failure to comply with these provisions may subject the Design Consultant to sanctions set forth in the M/WBE Ordinance. Should any questions arise regarding specific circumstances, the Design Consultant must consult the M/WBE Ordinance or contact the Project's designated DSBO representative at (720) 913-1999

### **SECTION 3 – COMPENSATION, PAYMENT, AND FUNDING**

The City shall compensate the Design Consultant for its service performed and expenses incurred under this Agreement as follows.

**3.01 Fee for basic services.** The City agrees to pay the Design Consultant, as full compensation for its basic services rendered hereunder, a fee not to exceed **FIVE HUNDRED NINETY TWO THOUSAND, THREE HUNDRED NINETY FIVE DOLLARS AND ZERO CENTS (\$592,395.00)**, in accordance with the billing rates and project budget stated in **Exhibits A and B**. The amounts budgeted for phases may be increased or decreased, and the amounts allocated for services and expenses adjusted, upon written approval of the Director or his designee, and subject to the Maximum Contract Amount stated in this Section 3.

**3.02 Reimbursable Expenses.** Except for those reimbursable expenses specifically identified in **Exhibit A**, or approved in writing by the City as reasonably related to or necessary for the Design Consultant's services, all other expenses shall be included in the Design Consultant's fee and will not be reimbursed hereunder. The maximum amount to be paid for all reimbursable expenses under this Agreement is **ZERO (\$0,.00)** unless an additional amount is approved by the Director or his designee in writing, subject to the Maximum Contract Amount stated herein. Unless this Agreement is amended in writing according to its terms to increase the Maximum Contract Amount, any increase in the maximum amount of reimbursable expenses will reduce the Design Consultant's maximum fee amount accordingly.

**3.03. Additional Services.** If pre-approved additional services are performed by the Design Consultant, the City agrees to pay the Design Consultant for such additional services in accordance with Section 2.08. The maximum amount to be paid by the City for all additional services under this contract is **SIX THOUSAND DOLLAR AND ZERO CENTS (\$6,000.00)**.



**3.04 Invoicing and Payment.** The City will make monthly progress payments for all services performed under this Agreement based upon the Design Consultant's monthly invoices. Such invoices shall be in a form acceptable to the City and shall include detail of the time worked by the Design Consultant's own personnel, billings from subcontractors, and all other information necessary to assess the Design Consultant's progress. Invoices shall be accompanied by documentation of expenses for which reimbursement is sought, and all other supporting documentation required by the City. The City's Prompt Payment Ordinance, §§ 20-107 to 20-118, D.R.M.C., applies to invoicing and payment under this Agreement. Final Payment to the Design Consultant shall not be made until after the Project is accepted, and all certificates of completion, record drawings and reproducible copies are delivered to the City, and the Agreement is otherwise fully performed by the Design Consultant. The City may, at the discretion of the Director, withhold reasonable amounts from billing and the entirety of the final payment until all such requirements are performed to the satisfaction of the Director. However, no deductions shall be made from the Design Consultant's compensation on account of penalty, liquidated damages or other sums withheld from payments to contractor(s).

**3.05 Maximum Contract Amount.**

(a) Notwithstanding any other provision of the Agreement, the City's maximum payment obligation will not exceed **FIVE HUNDRED AND NINETY EIGHT THOUSAND THREE HUNDRED NINETY FIVE DOLLARS AND ZERO CENTS (\$598,395.00)** (the "Maximum Contract Amount"). The City is not obligated to execute an Agreement or any amendments for any further services, including any services performed by Design Consultant beyond that specifically described in **Exhibit A**. Any services performed beyond those set forth therein are performed at Design Consultant's risk and without authorization under the Agreement.

(b) The City's payment obligation, whether direct or contingent, extends only to funds appropriated annually by the Denver City Council, paid into the Treasury of the City, and encumbered for the purpose of the Agreement. The City does not by the Agreement irrevocably pledge present cash reserves for payment or performance in future fiscal years, and the Agreement does not and is not intended to create a multiple-fiscal year direct or indirect debt or financial obligation of the City.

(c) The Design Consultant understands and agrees that the provision of any services by the Design Consultant, which would cause the total amount payable to the Design Consultant to exceed the amount of previously appropriated and encumbered funds, is strictly prohibited. In the event the continuation of services by the Design Consultant would cause the amount payable to the Design Consultant to exceed such amounts, the Design Consultant agrees to give to the Project Director at least two (2) weeks notice of the exhaustion of available funds. In the event additional funds are not made available within such two (2) week period, the Design Consultant agrees to stop providing services until such time as additional funds are appropriated and encumbered for the purposes of the this Agreement, and amounts which remain available for payment to the Design Consultant

**SECTION 4 – TERM AND TERMINATION**

**4.01 Term.**

The Agreement will commence on execution of this Agreement and expire, unless sooner

terminated, upon final completion of the Project.

#### **4.02 Termination.**

(a) Nothing herein shall be construed as giving the Design Consultant the right to perform the services contemplated under this Agreement beyond the time when its services become unsatisfactory to the Director.

(b) The Director may terminate this Agreement for cause at any time if the Design Consultant's services become unsatisfactory, in the sole discretion of the Director. The City shall have the sole discretion to permit the Design Consultant to remedy the cause of a contemplated termination for cause without waiving the City's right to terminate the Agreement.

(c) In the event of a termination for cause, or in the event the Design Consultant becomes unable to serve under this Agreement, the City may take over work to be done under this Agreement and prosecute the work to the completion by contract or otherwise, and the Design Consultant shall be liable to City for all reasonable cost in excess of what the City would have paid the Design Consultant had there been no termination for cause.

(d) The City may, for convenience, cancel and terminate this Agreement by giving not less than thirty (30) days' prior written notice to the Design Consultant, which notice shall state the date of cancellation and termination.

(e) If the Design Consultant's services are terminated, postponed or revised, or if the Design Consultant shall be discharged before all the work and services contemplated have been completed, or if the project is, for any reason, stopped or discontinued, the Design Consultant shall be paid only for the portion of work or services which has been satisfactorily completed at the time of such dismissal, termination, cancellation, postponement, revision or stoppage.

(f) All drawings, specifications, and other documents relating to the design or administration of work completed or partially completed shall be delivered by the Design Consultant to the City in the event of any dismissal, termination, cancellation, postponement, revision or stoppage.

(g) In the event of any dismissal, termination, cancellation, postponement, revision or stoppage, the Design Consultant shall cooperate in all respects with the City. Such cooperation shall include, but not be limited to, delivery of drawings, specifications, and other documents referred to herein, and assisting the City during a transition to another Design Consultant, if applicable.

### **SECTION 5 – GENERAL PROVISIONS**

#### **5.01 City's Responsibilities.**

(a) The City shall provide available information regarding its requirements for each project, including related budgetary information, and shall cooperate fully with the Design Consultant at all times. However, the City does not guarantee the accuracy of any such information and assumes no liability therefore. The Design Consultant shall notify City in writing of any information or requirements provided by the City which the Design Consultant believes to be inaccurate or inappropriate to the design or construction of the project.

(b) If the City observes or otherwise becomes aware of any fault or defect in the project or non-conformance with Contract Documents, it shall give prompt notice thereof to Design Consultant.

**5.02 Ownership of Documents.**

(a) The City shall have title and all intellectual and other property rights, in and to all phased and final Design documents, and all data used in the development of the same, including the results of any tests, surveys or inspections at the Project site, and all photographs, drawings, drafts, studies, estimates, reports, models, notes and any other materials or work products, whether in electronic or hard copy format, created by the Design Consultant pursuant to this Agreement, in preliminary and final forms and on any media whatsoever (collectively, the "Documents"), whether the Project for which the Documents were created is executed or not. The Design Consultant shall identify and disclose, as requested, all such Documents to the City.

(b) To the extent permitted by the U.S. Copyright Act, 17 USC § 101 *et seq.*, as the same may be amended from time to time, the Documents are a "work made for hire," and all ownership of copyright in the Documents shall vest in the City at the time the Documents are created. To the extent that the Documents are not a "work made for hire," the Design Consultant hereby assigns and transfers all right, title and interest in and to the Documents to the City, as of the time of the creation of the Documents, including the right to secure copyright, patent, trademark, and other intellectual property rights throughout the world and to have and to hold such copyright, patent, trademark, and other intellectual property rights in perpetuity.

(c) The Design Consultant shall provide (and cause its employees and subcontractors to provide) all assistance reasonably requested in securing for the City's benefit any patent, copyright, trademark, service mark, license, right or other evidence of ownership of such Documents, and shall provide full information regarding the Documents and execute all appropriate documentation in applying for or otherwise registering, in the City's name, all rights to such Documents.

(d) The Design Consultant agrees to allow the City to review any of the procedures used in performing the work and services hereunder, and to make available for inspection the field notes and other documents used in the preparation for and performance of any of the services performed hereunder.

(e) The Design Consultant shall be permitted to retain reproducible copies of all of the Documents for the information and reference, and the originals of all of the Documents, including all CAD disks, shall be delivered to the City promptly upon completion thereof, or if authorized by the City's Project Manager, upon termination or expiration of this Agreement.

**5.03 Taxes and Licenses.** The Design Consultant shall promptly pay, when they are due, all taxes, excises, license fees and permit fees of whatever nature applicable to the work and services which it performs under this Agreement, and shall take out and keep current all required municipal, county, state or federal licenses required to perform its services under this Agreement. The Design Consultant shall furnish the Director, upon request, duplicate receipts or other satisfactory evidence showing or certifying to the proper payment of all required licenses and/or registrations and taxes. The Design Consultant shall promptly pay all owed bills, debts and obligations it incurs performing work under this Agreement and shall not allow any lien, verified claim, mortgage, judgment or execution to be filed against land, facilities or improvements

owned or beneficially owned by the City as a result of such bills, debts or obligations.

**5.04 Design Consultant's Records.** Records of the Design Consultant's direct personnel, consultant and reimbursable expenses pertaining to this Project and records of accounts between the City and the Design Consultant shall be kept on a generally recognized accounting basis. The Design Consultant agrees that any duly authorized representative of the City, including the City Auditor, shall, until the expiration of three (3) years after the final payment under this Agreement, have access to and the right to examine any books, documents, papers and records of the Design Consultant, involving transactions related to this Agreement.

**5.05 Assignment and Subcontracting.** The City is not obligated or liable under this Agreement to any party other than the Design Consultant named herein. The Design Consultant understands and agrees that it shall not assign or subcontract with respect to any of its rights, benefits, obligations or duties under this Agreement except upon prior written consent and approval of the City to such assignment or subcontracting. Any attempt by the Design Consultant to assign or subcontract its rights hereunder without such prior written consent of the City shall, at the option of the City, automatically terminate this Agreement and all rights of the Design Consultant hereunder. Such consent may be granted or denied at the sole and absolute discretion of the City. In the event any such subcontracting shall occur, with the City's approval, such action shall not be construed to create any contractual relationship between the City and such subcontractor, and the Design Consultant named herein shall in any and all events be and remain responsible to the City according to the terms of this Agreement.

**5.06 No Discrimination in Employment.** In connection with the performance of work under this Agreement, the Consultant may not refuse to hire, discharge, promote or demote, or discriminate in matters of compensation against any person otherwise qualified, solely because of race, color, religion, national origin, gender, age, military status, sexual orientation, gender identity or gender expression, marital status, or physical or mental disability. The Consultant shall insert the foregoing provision in all subcontracts.

**5.07 Insurance.**

(a) **General Conditions:** Consultant agrees to secure, at or before the time of execution of this Agreement, the following insurance covering all operations, goods or services provided pursuant to this Agreement. Consultant shall keep the required insurance coverage in force at all times during the term of the Agreement, or any extension thereof, during any warranty period, and for eight (8) years after termination of the Agreement. The required insurance shall be underwritten by an insurer licensed or authorized to do business in Colorado and rated by A.M. Best Company as "A-"VIII or better. Each policy shall contain a valid provision or endorsement requiring notification to the City in the event any of the required policies be canceled or non-renewed before the expiration date thereof. Such written notice shall be sent to the parties identified in the Notices section of this Agreement. Such notice shall reference the City contract number listed on the signature page of this Agreement. Said notice shall be sent thirty (30) days prior to such cancellation or non-renewal unless due to non-payment of premiums for which notice shall be sent ten (10) days prior. If such written notice is unavailable from the insurer, Consultant shall provide written notice of cancellation, non-renewal and any reduction in coverage to the parties identified in the Notices section by certified mail, return receipt requested within three (3) business days of such notice by its insurer(s) and referencing the City's contract number. If any policy is in excess of a deductible or self-insured

retention, the City must be notified by the Consultant. Consultant shall be responsible for the payment of any deductible or self-insured retention. The insurance coverages specified in this Agreement are the minimum requirements, and these requirements do not lessen or limit the liability of the Consultant. The Consultant shall maintain, at its own expense, any additional kinds or amounts of insurance that it may deem necessary to cover its obligations and liabilities under this Agreement.

(b) **Proof of Insurance:** Consultant shall provide a copy of this Agreement to its insurance agent or broker. Consultant may not commence services or work relating to the Agreement prior to placement of coverages required under this Agreement. Consultant certifies that the certificate of insurance attached as Exhibit C, preferably an ACORD certificate, complies with all insurance requirements of this Agreement. The City requests that the City's contract number be referenced on the Certificate. The City's acceptance of a certificate of insurance or other proof of insurance that does not comply with all insurance requirements set forth in this Agreement shall not act as a waiver of Consultant's breach of this Agreement or of any of the City's rights or remedies under this Agreement. The City's Risk Management Office may

(c) **Additional Insureds:** For Commercial General Liability, Auto Liability and Excess Liability/Umbrella (if required), Consultant and subcontractor's insurer(s) shall include the City and County of Denver, its elected and appointed officials, employees and volunteers as additional insured.

(d) **Waiver of Subrogation:** For all coverages required under this Agreement, Consultant's insurer shall waive subrogation rights against the City.

(e) **Subcontractors and Subconsultants:** All subcontractors and subconsultants (including independent contractors, suppliers or other entities providing goods or services required by this Agreement) shall be subject to all of the requirements herein and shall procure and maintain the same coverages required of the Consultant. Consultant shall include all such subconsultants as additional insured under its policies (with the exception of Workers' Compensation) or shall ensure that all such subcontractors and subconsultants maintain the required coverages. Consultant agrees to provide proof of insurance for all such subcontractors and subconsultants upon request by the City.

(f) **Workers' Compensation/Employer's Liability Insurance:** Consultant shall maintain the coverage as required by statute for each work location and shall maintain Employer's Liability insurance with limits of \$100,000 per occurrence for each bodily injury claim, \$100,000 per occurrence for each bodily injury caused by disease claim, and \$500,000 aggregate for all bodily injuries caused by disease claims. Consultant expressly represents to the City, as a material representation upon which the City is relying in entering into this Agreement, that none of the Consultant's officers or employees who may be eligible under any statute or law to reject Workers' Compensation Insurance shall effect such rejection during any part of the term of this Agreement, and that any such rejections previously effected, have been revoked as of the date Consultant executes this Agreement.

(g) **Commercial General Liability:** Consultant shall maintain a Commercial General Liability insurance policy with limits of \$1,000,000 for each occurrence, \$1,000,000 for each personal and advertising injury claim, \$2,000,000 products and completed operations aggregate, and \$2,000,000 policy aggregate.

(h) **Business Automobile Liability:** Consultant shall maintain Business Automobile Liability with limits of \$1,000,000 combined single limit applicable to all owned, hired and non-owned vehicles used in performing services under this Agreement.

(i) **Professional Liability (Errors & Omissions):** Consultant shall maintain limits of \$1,000,000 per claim and \$1,000,000 policy aggregate limit.

(j) **Additional Provisions:**

(a) For Commercial General Liability, the policy must provide the following:

(i) That this Agreement is an Insured Contract under the policy;

(ii) Defense costs are outside the limits of liability;

(iii) A severability of interests or separation of insureds provision (no insured vs. insured exclusion); and

(iv) A provision that coverage is primary and non-contributory with other coverage or self-insurance maintained by the City.

(b) For claims-made coverage:

(i) The retroactive date must be on or before the contract date or the first date when any goods or services were provided to the City, whichever is earlier

(c) Consultant shall advise the City in the event any general aggregate or other aggregate limits are reduced below the required per occurrence limits. At their own expense, and where such general aggregate or other aggregate limits have been reduced below the required per occurrence limit, the Consultant will procure such per occurrence limits and furnish a new certificate of insurance showing such coverage is in force.

**5.08 Defense & Indemnification.**

(a) To the fullest extent permitted by law, the Consultant agrees to defend, indemnify, reimburse and hold harmless City, its appointed and elected officials, agents and employees for, from and against all liabilities, claims, judgments, suits or demands for damages to persons or property arising out of, resulting from, or related to the work performed under this Agreement that are attributable to the negligence or fault of the Consultant or the Consultant's agents, representatives, subcontractors, or suppliers ("Claims"). This indemnity shall be interpreted in the broadest possible manner consistent with the applicable law to indemnify the City.

(b) Consultant's obligation to defend and indemnify may be determined after Consultant's liability or fault has been determined by adjudication, alternative dispute resolution, or otherwise resolved by mutual agreement between the parties. Consultant's duty to defend and indemnify City shall relate back to the time written notice of the Claim is first provided to City regardless of whether suit has been filed and even if Consultant is not named as a Defendant.

(c) Consultant will defend any and all Claims which may be brought or threatened against City and will pay on behalf of City any expenses incurred by reason of such Claims including, but not limited to, court costs and attorney fees incurred in defending and investigating such Claims or seeking to enforce this indemnity obligation. Such payments on behalf

of City shall be in addition to any other legal remedies available to City and shall not be considered City's exclusive remedy.

(d) Insurance coverage requirements specified in this Agreement shall in no way lessen or limit the liability of the Consultant under the terms of this indemnification obligation. The Consultant shall obtain, at its own expense, any additional insurance that it deems necessary for the City's protection.

(e) This defense and indemnification obligation shall survive the expiration or termination of this Agreement.

**5.09 Colorado Governmental Immunity Act.** The parties hereto understand and agree that the City is relying upon, and has not waived, the monetary limitations (presently \$150,000 per person, \$600,000 per occurrence) and all other rights, immunities and protection provided by the Colorado Governmental Immunity Act, C.R.S. § 24-10-101, *et seq.*

**5.10 Contract Documents; Order of Precedence.** This Agreement consists of Sections 1 through 5, which precede the signature page, and the following attachment, which is incorporated herein and made a part hereof by reference:

Exhibit A	Scope of Work/Rates
Exhibit B	Key Personnel
Exhibit C	ACORD Certificate of Insurance

In the event of an irreconcilable conflict between a provision of Sections 1 through 5 and the listed attachments, or between provisions of any attachments, such that it is impossible to give effect to both, the order of precedence to determine which provision shall control to resolve such conflict, is as follows:

- Sections 1 through 5
- Exhibit A
- Exhibit B
- Exhibit C

**5.11 When Rights and Remedies Not Waived.** In no event shall any payment by the City constitute a waiver of any breach of covenant or default which may then exist on the part of the Design Consultant. No assent, expressed or implied, to any breach of the Agreement shall be held to be a waiver of any later or other breach.

**5.12 Governing Law; Venue.** This Agreement shall be construed and enforced in accordance with the laws of the State of Colorado, the Charter and Revised Municipal Code of the City and County of Denver, and the ordinances, regulations and Executive Orders enacted or promulgated pursuant to the Charter and Code, including any amendments. The Charter and Revised Municipal Code of the City and County of Denver, as the same may be amended from time to time, are hereby expressly incorporated into this Agreement. Venue for any action arising hereunder shall be in the City and County of Denver, Colorado.

**5.13. Conflict of Interest.**

(a) The parties agree that no employee of the City shall have any personal or beneficial interest in the services or property described herein, and the Design Consultant further agrees not to hire or contract for services with any employee or officer of the City which would

be in violation of the Revised Municipal Code Chapter 2, Article IV, Code of Ethics or Denver City Charter provisions 1.2.9 and 1.2.12.

(b) The Design Consultant agrees that it will not engage in any transaction, activity or conduct that would result in a conflict of interest under this Agreement. The Design Consultant represents that it has disclosed any and all current or potential conflicts of interest. A conflict of interest shall include transactions, activities or conduct that would affect the judgment, actions or work of the Design Consultant by placing the Design Consultant's own interests, or the interests of any party with whom the Design Consultant has a contractual arrangement, in conflict with those of the City. The City, in its sole discretion, shall determine the existence of a conflict of interest and may terminate this Agreement in the event such a conflict exists after it has given the Design Consultant written notice which describes the conflict. The Design Consultant shall have thirty (30) days after the notice is received to eliminate or cure the conflict of interest in a manner that is acceptable to the City.

**5.14 No Third Party Beneficiaries.** Enforcement of the terms and conditions of this Agreement, and all rights of action relating to such enforcement, shall be strictly reserved to the City and the Design Consultant, and nothing contained in this Agreement shall give or allow any claim or right of action by any other or third person under this Agreement. It is the express intention of the parties that any person other than the City or the Design Consultant receiving services or benefits under this Agreement shall be deemed to be an incidental beneficiary only.

**5.15 Time is of the Essence.** The parties agree that in the performance of the terms, conditions and requirements of this Agreement by the Design Consultant, time is of the essence.

**5.16 Taxes, Charges and Penalties.** The City and County of Denver shall not be liable for the payment of taxes, late charges, or penalties of any nature except as provided in the City's Prompt Payment Ordinance.

**5.17 Proprietary or Confidential Information.**

(a) City Information: The Design Consultant acknowledges and accepts that, in performance of its work under the terms of this Agreement, the Design Consultant may have access to Proprietary Data or confidential information which may be owned or controlled by the City and that the disclosure of such data or information may be damaging to the City or third parties. As such, the Design Consultant agrees that all information provided or otherwise disclosed by the City to the Design Consultant be held in confidence and used only in the performance of its obligations under this Agreement. The Design Consultant shall exercise the same standard of care to protect such information as a reasonably prudent Design Consultant would to protect its own proprietary or confidential data. "Proprietary Data" shall mean geographic materials or Geographic Information Systems ("GIS") data owned by the City and County of Denver including but not limited to maps, computer programs, aerial photography, methodologies, software, diagnostics and documents; or any other materials or information which may be designated or marked "Proprietary" or "Confidential" and provided to or made available to the Design Consultant by the City. Such Proprietary Data may be in hardcopy, printed, digital or electronic format.

(b) Design Consultant's Information: The parties understand that all the material provided or produced under this Agreement may be subject to the Colorado Open Records Act, C.R.S. 24-72-201, et seq., and that in the event of a request to the City for disclosure of such information, the City shall advise the Design Consultant of such request in order to give the Design



Consultant the opportunity to object to the disclosure of any of its proprietary or confidential material. In the event of the filing of a lawsuit to compel such disclosure, the City will tender all such material to the court for judicial determination of the issue of disclosure and the Design Consultant agrees to intervene in such lawsuit to protect and assert its claims of privilege and against disclosure of such material or waive the same. The Design Consultant further agrees to defend, indemnify and save and hold harmless the City, its officers, agents and employees, from any claim, damages, expense, loss or costs arising out of the Design Consultant's intervention to protect and assert its claim of privilege against disclosure under this Article including, but not limited to, prompt reimbursement to the City of all reasonable attorney fees, costs and damages that the City may incur directly or may be ordered to pay by such court.

**5.18 Use, Possession or Sale of Alcohol or Drugs.** The Design Consultant, its officers, agents, and employees shall cooperate and comply with the provisions of Executive Order 94 and Attachment A thereto concerning the use, possession or sale of alcohol or drugs. Violation of these provisions or refusal to cooperate with implementation of the policy can result in the City's barring the Design Consultant from City facilities or participating in City operations.

**5.19 No Employment of Illegal Aliens to Perform Work Under the Agreement.**

(a) This Agreement is subject to Division 5 of Article IV of Chapter 20 of the Denver Revised Municipal Code, and any amendments (the "Certification Ordinance").

(b) The Consultant certifies that:

(1) At the time of its execution of this Agreement, it does not knowingly employ or contract with an illegal alien who will perform work under this Agreement.

(2) It will participate in the E-Verify Program, as defined in § 8-17.5-101(3.7), C.R.S., to confirm the employment eligibility of all employees who are newly hired for employment to perform work under this Agreement.

(c) The Consultant also agrees and represents that:

(1) It shall not knowingly employ or contract with an illegal alien to perform work under the Agreement.

(2) It shall not enter into a contract with a subconsultant or subcontractor that fails to certify to the Consultant that it shall not knowingly employ or contract with an illegal alien to perform work under the Agreement.

(3) It has confirmed the employment eligibility of all employees who are newly hired for employment to perform work under this Agreement, through participation in the E-Verify Program.

(4) It is prohibited from using the E-Verify Program procedures to undertake pre-employment screening of job applicants while performing its obligations under the Agreement, and that otherwise requires the Consultant to comply with any and all federal requirements related to use of the E-Verify Program including, by way of example, all program requirements related to employee notification and preservation of employee rights.

(5) If it obtains actual knowledge that a subconsultant or subcontractor performing work under the Agreement knowingly employs or contracts with an illegal alien, it will notify such subconsultant or subcontractor and the City within three (3) days. The Consultant will also then terminate such subconsultant or subcontractor if within three (3) days after such notice the subconsultant or subcontractor does not stop employing or contracting with the illegal alien, unless during such three-day period the subconsultant or subcontractor provides

information to establish that the subconsultant or subcontractor has not knowingly employed or contracted with an illegal alien.

(6) It will comply with any reasonable request made in the course of an investigation by the Colorado Department of Labor and Employment under authority of § 8-17.5-102(5), C.R.S., or the City Auditor, under authority of D.R.M.C. 20-90.3.

(d) The Consultant is liable for any violations as provided in the Certification Ordinance. If Consultant violates any provision of this section or the Certification Ordinance, the City may terminate this Agreement for a breach of the Agreement. If the Agreement is so terminated, the Consultant shall be liable for actual and consequential damages to the City. Any such termination of a contract due to a violation of this section or the Certification Ordinance may also, at the discretion of the City, constitute grounds for disqualifying Consultant from submitting bids or proposals for future contracts with the City.

**5.20 Disputes.** All disputes between the City and Design Consultant regarding this Agreement shall be resolved by administrative hearing pursuant to the procedure established by D.R.M.C. § 56-106(b), *et seq.* For the purposes of that procedure, the City official rendering a final determination shall be the Director.

**5.21 Waiver of C.R.S. 13-20-802, et seq.** The Design Consultant specifically waives all the provisions of Chapter 8 of Article 20 of Title 13, Colorado Revised Statutes (also designated C.R.S. 13-20-802 *et seq.*) relating to design defects in the Project under this Agreement.

**5.22 Survival of Certain Contract Provisions.** The parties understand and agree that all terms and conditions of this Agreement, together with the exhibits and attachments hereto, which, by reasonable implication, contemplate continued performance or compliance beyond the termination of this Agreement, (by expiration of the term or otherwise), shall survive such termination and shall continue to be enforceable as provided herein. Without limiting the generality of the foregoing, the Design Consultant's obligations for the provision of insurance and to indemnify the City shall survive for a period equal to any and all relevant statutes of limitation, plus the time necessary to fully resolve any claims, matters, or actions begun within that period."

**5.23 Advertising And Public Disclosure.** The Design Consultant shall not include any reference to this Agreement or to services performed pursuant to this Agreement in any of its advertising or public relations materials without first obtaining the written approval of the Director, which will not be unreasonably withheld. Any oral presentation or written materials related to services performed under this Agreement shall include only services that have been accepted by the City. The Director shall be notified in advance of the date and time of any such presentation. Nothing in this provision shall preclude the transmittal of any information to officials of the City, including without limitation the Mayor, the Director, City Council or the Auditor.

**5.24 Legal Authority.** Design Consultant represents and warrants that it possesses the legal authority, pursuant to any proper, appropriate and official motion, resolution or action passed or taken, to enter into this Agreement. Each person signing and executing this Agreement on behalf of Design Consultant represents and warrants that he has been fully authorized by Consultant to execute this Agreement on behalf of Design Consultant and to validly and legally bind Design Consultant to all the terms, performances and provisions of this Agreement. The

City shall have the right, in its sole discretion, to either temporarily suspend or permanently terminate this Agreement if there is a dispute as to the legal authority of either Design Consultant or the person signing the Agreement to enter into this Agreement.

**5.25 Notices.** Notices, bills, invoices or reports required by this Agreement shall be sufficiently delivered if sent in the United States mail, postage prepaid, to the Parties at the following addresses:

to the City: Executive Director of Public Works  
201 West Colfax Avenue, Dept. 608  
Denver, Colorado 80202

to the Design Consultant: Wood Environment & Infrastructure Solutions,  
Inc.2000 South Colorado Blvd., Suite 2-1000  
Denver, CO 80222

The addresses may be changed by the Parties by written notice.

**5.26 Severability.** It is understood and agreed by the parties hereto that, if any part, term, or provision of this Agreement, except for the provisions of this Agreement requiring prior appropriation and limiting the total amount to be paid by the City, is by the courts held to be illegal or in conflict with any law of the State of Colorado, the validity of the remaining portions or provisions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the Agreement did not contain the particular part, term or provision held to be invalid.

**5.27 Agreement as Complete Integration-Amendments.** This Agreement is intended as the complete integration of all understandings between the parties. No prior or contemporaneous addition, deletion or other amendment shall have any force or effect, unless embodied herein in writing. No subsequent novation, renewal, addition, deletion or other amendment hereto shall have any force or effect unless embodied in a written amendatory or other agreement executed by the parties and signed by the signatories to the original Agreement. This Agreement and any amendments shall be binding upon the parties, their successors and assigns.

**5.28 Electronic Signatures and Electronic Records.** Design Consultant consents to the use of electronic signatures by the City. The Agreement, and any other documents requiring a signature hereunder, may be signed electronically by the City in the manner specified by the City. The Parties agree not to deny the legal effect or enforceability of the Agreement solely because it is in electronic form or because an electronic record was used in its formation. The Parties agree not to object to the admissibility of the Agreement in the form of an electronic record, or a paper copy of an electronic document, or a paper copy of a document bearing an electronic signature, on the ground that it is an electronic record or electronic signature or that it is not in its original form or is not an original.

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Exhibits  
A through C

Exhibit A

## Scope of Work – 14<sup>th</sup> Avenue Bridge Replacement over Cherry Creek

### Project Description and Overview

The project consists of the design for the removal and replacement of the existing bridge, which carries 14th Avenue over Cherry Creek. This bridge serves as an important transportation link for eastbound traffic into downtown, as well as a dedicated bike lane for commuter bike traffic into downtown. The Cherry Creek Bike Trail runs underneath the bridge and serves as a regional bike corridor. At 61 years old, the existing structure has exceeded its service life and is showing signs of deterioration. Built in 1956, this 95-ft 6-in long, two-span bridge is a rigid frame with monolithic concrete girders and deck. The bridge has a 6-in concrete deck with a 2-in asphalt overlay. The bridge is also functionally obsolete. Continued spalls and delamination on the south face of the exterior girder also heighten the urgency to replace this structure.

Anticipated tasks include the following:

#### Task 1 - Project Management

Support City and County of Denver's Project Team with the management of this project.

##### Task Description

- Coordinate project tasks, including project meetings, with the City and County of Denver's (CCD) Public Works Project Manager, and other CCD personnel and departments as required.
- Review sub-consultant invoices; prepare and submit monthly invoices and progress reports. Invoices must meet the City's format and requirements.
- Develop and maintain a project schedule in Microsoft Office Project; update monthly and include with monthly invoice.
- Manage and coordinate work efforts of the Consultant Team.
- Prepare and submit a QA/QC plan and provide assurance the plan is being followed.

#### Task 2 – Survey

See proposal from 105 West in Attachment 1.

#### Task 2A – Right of Way Documents

REMOVED FROM SCOPE

#### Task 2B – Support for Right of Way Acquisition Team

REMOVED FROM SCOPE

#### Task 3 - Geotechnical Investigations and Analysis

See proposal from Rocksol in Attachment 1.

#### Task 4 – Evaluate and Incorporate Environmental Impacts

See proposal from Pinyon Environmental, Inc. in Attachment 1.

## Task 5 – Hydraulic Analysis, Drainage, and Permitting

Perform necessary hydraulic analysis of the creek to set the low chord elevation of the bridge and to determine impacts to water surface elevation and floodplain boundaries caused by the new construction. This task also includes performing scour analysis to ensure that the new installation is scour resistant. Drainage/hydraulic issues on the approach roadways, trails, and adjacent areas are also included if caused by a detrimental impact from the project.

### Task Description

- Conduct detailed hydraulic analysis of the river as necessary to ensure, to the maximum extent practicable, that a minimum of three feet of freeboard (100-yr WSEL to Low Chord) is obtained. If three feet of freeboard cannot be achieved due to physical constraints, as much freeboard as possible must be provided and the project must then be designed and constructed to minimize potential debris impacts to the bridge, and damage/impacts caused by flooding that could occur as a result of debris blockage must be minimized as well. If three feet of freeboard cannot be achieved, a report must be submitted to detail the efforts made to achieve the freeboard. The considerations include, but are not limited to: structural design that accounts for debris raft in accordance with AASHTO Bridge Design Specifications, design of bridge to withstand uplift and overtopping, and bridge design that facilitates passage of debris approaching low chord of the bridge (e.g., tapered upstream face, etc...). The latest Flood Hazard Area Delineation (FHAD) hydraulic model from UDFCD shall be used for freeboard calculations.
- Provide a full FEMA no-rise analyses. If the bridge is designed as a no-rise bridge, a CLOMR may not be required. The no-rise analyses must use FEMA effective hydrology and hydraulic models. No-rise analysis shall utilize latest FHAD model as basis for comparing existing and proposed conditions. This scope of work does not include a CLOMR task.
- Coordinate with USACE Dam Operations regarding annual Cherry Creek Dam flush activities, as appropriate.
- Perform drainage design in accordance with the City and County of Denver Storm Drainage Design & Technical Criteria Manual, including any requirements for permanent water quality, if needed. The Project must comply with Denver's MS-4 Permit.
- Perform scour analysis and ensure that new installation is scour resistant for general scour issues and for 100-yr and 500-yr scour analyses.
- It is anticipated that construction will be scheduled such that work in the river channel will occur in low flow season only. However, if this should change for any reason, significant provisions requiring additional hydraulic analysis will have to be made to ensure that no property impacts occur during construction in the event of a 100-yr flood in high flow season, and special considerations including worker safety and level of protection/diversion/in-river BMP's.
- Develop 30%, 60%, 90%, and final bid plans, technical specifications, drainage reports, drainage quantity tabulations, and cost estimates for river and drainage design elements and removals.
- Obtain CCD Sewer Use and Drainage Permit for floodplain use.
- Conduct/Attend coordination meetings with CCD, UDFCD, and others as needed.
- Obtain 404 permit and ESA compliance.

- Obtain CCD Construction Activities Stormwater Discharge Permit (CASDP) due to work in and adjacent to waterway.
- Obtain design and construction approvals from UDFCD for eligible items under their Maintenance Eligibility Program (MEP).

## **Task 6 – Structural/Bridge Engineering**

Perform the design, detailing, specifications, and quantity and cost estimates of and for the new bridge, retaining walls, and all other minor structures as required. This task assumes the full closure of 14<sup>th</sup> Avenue during construction, no traffic analysis or phasing required..

### **Task Description**

- Produce a Structure Selection Report for the new bridge. The report shall include existing structure data, project site plan, roadway vertical and horizontal alignments and cross sections of the structure, an evaluation of standard bridge construction methods and accelerated bridge construction techniques, utilities on and near the site, hydraulics (including 500-year high water elevation, scour, and channel erosion protection), preliminary geology information and structure foundation types, and architectural requirements.
  - A preliminary analysis will be conducted to determine the structure type, based on full closure of 14<sup>th</sup> Avenue.
  - Initial meeting with decision makers for hydraulic concerns, including freeboard. Wood and the CCD project manager will attend.
  - Wood and subconsultants will develop preliminary concepts for replacement and develop a matrix that delineates pros and cons of each option. Qualitative order of magnitude cost descriptions will be provided.
  - A follow-up meeting with decision makers and stakeholders will be held to select the final alternative.
  - The CCD project manager will follow-up with any decision makers that were not in attendance at the meeting to receive concurrence on the preferred alternative.
  - The CCD project manager will notify Wood that the CCD approves the preferred alternative and more detailed design work can begin. After this point, major changes to the preferred alternative are not anticipated.
- Perform the structural analysis, design, and detailing of the new bridge, retaining walls, and other minor structures associated with the project. Design shall be in accordance with AASHTO, CDOT, and CCD requirements. Provide design calculations, detail notes, and computer outputs.
- Coordinate and develop aesthetic enhancement details, as required, on the bridge and retaining walls.
- Conduct independent design checks for the bridge and retaining walls.
- Develop 30%, 60%, 90%, and final bid plans with accompanying quantities and estimate. Technical specifications will be submitted with the 90% and final bid plans.
- Provide LRFD Bridge Ratings in accordance with the CDOT Bridge Rating Manual and the AASHTO Manual for Bridge Evaluation. The AASHTOWare Bridge Rating software shall be used.
- Assume attendance at the following meetings: one for project kickoff, two for structure selection report, and one each for the 30%, 60%, 90%, and final set reviews.



## Task 7 – Roadway and Trail Design

AASHTO methodologies, City and County of Denver Transportation Standards and Details, CDOT standards, the MUTCD, and AASHTO's Roadside Design Guide, Parks and Recreation standards for trails, and all ADA compliance requirements will be used as primary design criteria and guidelines. CAD work will be completed in AutoCAD using the City and County of Denver workspace. Design models will be prepared using Civil 3D. This task assumes the full closure of 14<sup>th</sup> Avenue during construction.

- Conceptual Roadway and Trail Design: The conceptual design can be developed using existing LIDAR data and aerial imagery, so it can proceed concurrently with the survey.
  - Establish design criteria for the permanent and detour roadway and bike path.
  - For purposes of the conceptual design, assume that the final configuration will be conceptually the same as existing (roadway, sidewalk, and trail widths and location, signalized intersection, etc.), and no impacts to the intersections with Speer Blvd, so the focus of the conceptual design will be to evaluate detour options for the roadways and trail. We will conceptually develop the following design options, in sufficient detail to confirm their feasibility and to understand impacts:
    - Coordinate with Apex to develop the roadway construction detour
    - Coordinate with Apex and Alta to develop the bike path detour
    - Review Apex's design and drawings
  - Write a memo to CCD summarizing findings and recommendations.
- 30% Roadway and Trail Design: After we select the preferred design options and once we receive topographic survey, we will develop the roadway and trail designs, including detours, to a 30% level.
  - Develop the horizontal and vertical alignment of 14<sup>th</sup> Avenue
  - Evaluate the roadside for hazards and design mitigation as required
  - Develop the roadway design model in Civil 3D
  - Assume only minor impacts to the intersections with Speer Blvd. The final intersections will remain in their current configurations. Lane closures on Speer may be necessary during construction of the 14<sup>th</sup> Avenue Bridge.
  - Develop roadway detour plan and trail detour plan.
  - The 30% Plan Set will show the intended concept for replacement of the bridge, including the roadway and trail during construction. The 30% plan set will include the following:
    - Title sheet
    - General notes and standard symbols sheet
    - Typical sections
    - Detour plan and profile (roadway and trail, as appropriate for the concept selected) – by Apex. Wood will review.
    - 14<sup>th</sup> Avenue plan and profile
    - Bridge general layout and section
    - Utility plans showing existing utilities and potential conflicts.
    - Cross sections
- 60% Roadway and Trail Design: We will further develop the roadway design.
  - Address the 30% review comments
  - Finalize the design details, typical sections, and plans
  - Finalize the roadside design

- Finalize the Civil 3D model
- Develop a detailed grading plan
- Design proposed right of way and temporary easement lines. Coordinate with Surveyor for right of way plans.
- Finalize the traffic control plans, including the trail detour – by Apex. Wood will review
- Develop the final signing and striping plan
- Develop the water quality / erosion control design
- The 60% Plan Set will show the design and details. The quantity tabulations will not be included. Most, but not all, of the plan labels as required in the ERA CPEP Review Submittal Checklist will be included. The 60% plan set will include the following sheets:
  - Title sheet
  - General notes and standard symbols sheet
  - Survey control
  - Demolition / removals plans
  - Typical sections
  - Detour plan and profile
  - Roadway plan and profile
  - Intersection details
  - Grading plans
  - Bridge plans
  - Engineering Geology
  - Utility plans showing existing utilities, conflicts, and potential relocation concepts.
  - Drainage plans
  - Erosion control / Water quality plans
  - Signage and striping plans
  - Lighting plans
  - Landscape plans
  - Cross sections
- 90% Roadway and Trail Design: We will finalize the roadway design.
  - Address the 60% comments
  - Finalize the design details and plans
  - Prepare quantity tabulations for all construction bid items
  - Prepare specifications. Assume CDOT format
  - The 90% Plan Set will be final, pending CCD comments, and will include everything required in the ERA CPEP Review Submittal Checklist. The 90% plan set will include the following sheets:
    - Title sheet
    - General notes and standard symbols sheet
    - Summary of quantities
    - Quantity tabulations
    - Survey control
    - Demolition / removals plans
    - Typical sections
    - Detour plan and profile
    - Roadway plan and profile
    - Intersection details
    - Grading plans
    - Bridge plans

- Engineering Geology
  - Utility plans showing existing utilities, conflicts, and potential relocation concepts.
  - Drainage plans
  - Erosion control / Water quality plans, including tabulation
  - Signage and striping plans, including tabulations
  - Lighting plans and tabulations
  - Landscape plans and tabulations
  - Traffic control tabulation – by Apex. Wood will review.
  - Cross sections
  - Specifications
- Final Roadway and Trail Design: We will address the 90% review comments.

See proposal from Alta in Attachment 1.  
See proposal from Apex in Attachment 1.

### **Task 8 - Construction Detours and Construction Traffic Control**

See proposal from Apex in Attachment 1.

### **Task 9 – Electrical and Lighting Analysis & Design**

See proposal from Clanton & Associates in Attachment 1.

### **Task 10 - Utility Coordination**

See proposal from Goodbee & Associates in Attachment 1.

### **Task 11 - Utility Design**

See proposal from Goodbee & Associates in Attachment 1.

### **Task 12 - Erosion Control Analysis & Design**

#### Task Description

- Develop 30%, 60%, 90%, and final bid plans with accompanying quantities and estimate for construction and permanent erosion control. Technical specifications will be submitted with the 90% and final bid plans.
- Provide assistance to CCD in obtaining miscellaneous permits from CCD departments and outside entities with regard to construction.

### **Task 13 - Public Outreach and Information**

Support City and County of Denver's public outreach efforts for the project. It is expected that one public meeting may be necessary to inform interested parties of the project.

#### Task Description

- Participate in one public meeting after 30% design is complete. This meeting is meant to be informative and not to solicit feedback.
- Prepare a Public Communication Contact List.
- The CCD will secure a location for the public meeting.
- The CCD will advertise for the public meeting in local newspapers.
- Send invitations to adjacent property owners, business owners, neighborhood associations, adjacent projects/developments, Mayor's Bicycle Advisory Committee, and Mayor's Pedestrian Advisory Committee.
- Develop a formal PowerPoint presentation, display boards

### **Task 14 - Multi Agency Involvement & Coordination, Stakeholder Coordination**

This task is in support of the City and County of Denver's coordination efforts with other Denver agencies and with outside agencies and stakeholders related to the project.

#### Task Description

- Coordinate the design and obtain concurrence with CCD Agencies/ Departments, Urban Drainage and Flood Control District, Mayor's Bicycle Advisory Committee, Mayor's Pedestrian Advisory Committee, Denver Water Department, CDPHE, DRCOG, adjacent projects/developments, neighborhood groups, and others.
- Coordinate with project stakeholders.
- Conduct/Attend coordination meetings with coordinating agencies.
- Submittals to affected agencies will be coordinated with CCD.
- Assume 5 face-to-face meetings and 5 conference calls will be required.

### **Task 15 – Design Progress / Coordination Meetings**

This task covers project management coordination meetings, consultant team coordination meetings, and miscellaneous meetings with CCD staff and outside entities.

#### Task Description

- Attend project management meetings.
- Attend consultant team coordination meetings.
- Attend outside agency coordination meetings as described in other tasks and as required.
- Organize, facilitate, and attend pertinent meetings including, but not limited to, scoping, resource-specific meetings, and 30%, 60%, 90%, and final review meetings, and associated comment resolution meetings.
- Prepare agendas, exhibits, and handouts, conduct meetings, and write minutes for above mentioned meetings. Minutes will be completed and distributed within seven calendar days of the meetings.

## **Task 16 – Additional Services**

This task provides an allowance for unanticipated items or additional services as approved by CCD's Project Manager.

### **Miscellaneous Requirements**

- Plans and Specifications will follow CDOT format.
- Development of topographic data will follow CCD CAD Standards.
- Electronic files will be transmitted to CCD in AutoCAD format upon completion of the project.
- All documents will be provided in a pdf format in addition to the file created by the original program.
- Plan and Specification packages will be submitted in accordance with Denver Public Works Engineering, Regulatory & Analytics Office requirements, and CDOT's final PS&E checklist.

Exhibit B

14th Avenue Bridge Replacement Over Cherry Creek

City and County of Denver

Prepared by Wood

2-Aug-18

Fee Summary

Tasks	Fee	Comments
Task 1 Project Management	\$ 22,356	
Task 2 Survey	\$ 926	
Task 2A Right of Way Documents	\$ -	
Task 2B Support for Right of Way Acquisition	\$ -	
Task 3 Geotechnical Investigations and Analysis	\$ 926	
Task 4 Evaluate and Incorporate Environmental Impacts	\$ 926	
Task 5 Hydraulic Analysis, Drainage, and Permitting	\$ 29,323	
Task 6 Structural/Bridge Engineering	\$ 158,582	
Task 7 Roadway and Trail Design	\$ 89,931	
Task 8 Construction Detours and Construction Traffic Control	\$ 926	
Task 9 Electrical and Lighting Analysis and Design	\$ 926	
Task 10 Utility Coordination	\$ -	
Task 11 Utility Design	\$ 926	
Task 12 Erosion Control Analysis and Design	\$ 4,759	
Task 13 Public Outreach and Information	\$ 7,824	
Task 14 Multi-Agency Involvement & Coordination, Stakeholder Coordination	\$ 7,484	
Task 15 Design Progress / Coordination Meetings	\$ 9,223	
Task 16 Additional Services	\$ 6,000	Allowance
<b>Total Wood Labor Cost</b>	<b>\$ 341,038</b>	
<b>Direct Expenses</b>	<b>\$ -</b>	
<b>Subconsultants</b>		
105 West	\$ 38,740	Task 2 - Survey
Clanton & Associates, Inc.	\$ 20,316	Task 9 - Electrical and Lighting Analysis and Design
Goodbee & Associates, Inc.	\$ 65,560	Tasks 10 and 11 - Utility Coordination and Design
Rocksol	\$ 34,584	Task 3 - Geotechnical Investigations and Analysis
Apex Design	\$ 45,120	Taks 8 - Construction Detours and Construction Traffic Control
Pinyon Environmental, Inc.	\$ 42,886	Task 4 - Environmental Impacts and Historic Structures
Alta Planning + Design, Inc.	\$ 10,151	Task 7 - Pedestrian / Bike Trail Design
<b>Total Subconsultants</b>	<b>\$ 257,357</b>	
<b>Total Estimated Cost</b>	<b>\$ 598,395</b>	
3.01 Fee for Basic Services	\$ 592,395	
3.02 Reimbursable Expenses	\$ -	
3.03 Additional Services	\$ 6,000	
3.05 Maximum Contract Amount	\$ 598,395	

**14th Avenue Bridge Replacement Over Cherry Creek  
Subconsultants**

<b>Subconsultants</b>	<b>Sub Cost</b>	<b>Mark Up</b>	<b>Marked Up Sub Cost</b>
105 West	\$ 38,740	1.00	\$ 38,740
Clanton & Associates, Inc.	\$ 20,316	1.00	\$ 20,316
Goodbee & Associates, Inc.	\$ 65,560	1.00	\$ 65,560
Rocksol	\$ 34,584	1.00	\$ 34,584
Apex Design	\$ 45,120	1.00	\$ 45,120
Pinyon Environmental, Inc.	\$ 42,886	1.00	\$ 42,886
Alta Planning + Design, Inc.	\$ 10,151	1.00	\$ 10,151
		1.00	\$ -
		1.00	\$ -
		1.00	\$ -
		1.00	\$ -
		1.00	\$ -
		1.00	\$ -
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		1.00	\$ -
		1.00	\$ -
		1.00	\$ -
		1.00	\$ -
		1.00	\$ -
		1.00	\$ -
		1.00	\$ -
<b>Total Subconsultant's Costs</b>			\$ 257,357



**14th Avenue Bridge Replacement Over Cherry Creek  
Wood Labor Rates**

<b>Labor Category</b>	<b>Direct Rate</b>	<b>Multiplier</b>	<b>Rate/Hr</b>
Principal	\$ 71.43	2.80	\$ 200.00
Senior Associate	\$ 67.86	2.80	\$ 190.00
Associate	\$ 55.36	2.80	\$ 155.00
Senior 2	\$ 53.93	2.80	\$ 151.00
Senior 1	\$ 49.64	2.80	\$ 139.00
Technical Professional 3	\$ 42.14	2.80	\$ 118.00
Technical Professional 2	\$ 38.57	2.80	\$ 108.00
Technical Professional 1	\$ 30.00	2.80	\$ 84.00
Technician 5	\$ 35.36	2.80	\$ 99.00
Technician 4	\$ 31.79	2.80	\$ 89.00
Technician 3	\$ 24.64	2.80	\$ 69.00
Technician 2	\$ 21.79	2.80	\$ 61.00
Technician 1	\$ 19.64	2.80	\$ 55.00
Administrative 2	\$ 31.07	2.80	\$ 87.00
Administrative 1	\$ 20.00	2.80	\$ 56.00





**14th Avenue Bridge Replacement Over Cherry Creek  
Task 3 Geotechnical Investigations and Analysis**

Deliverables & Subtasks	Principal	Senior Associate	Associate	Technical Professional 3	Technician 5	Technician 4	Administrative 2	Subtotal Labor
	Connors	Jung	Wierema, Barr, Loranger	Pilger, Babonas	Bowman	Huson, Crater, Liljestrand, O'Malley	Scaravelli	
								\$ -
Review of Subconsultant Deliverables		2	2	2				\$ 926
								\$ -
								\$ -
								\$ -
								\$ -
								\$ -
								\$ -
								\$ -
								\$ -
								\$ -
<b>Total Hours</b>	0	2	2	2	0	0	0	6
<b>Loaded Labor Rate</b>	\$ 200.00	\$ 190.00	\$ 155.00	\$ 118.00	\$ 99.00	\$ 89.00	\$ 87.00	
<b>Labor Cost (w/o fixed fee)</b>	\$ -	\$ 380	\$ 310	\$ 236	\$ -	\$ -	\$ -	
<b>Total Labor Cost (w/o fixed fee)</b>								\$ 926
<b>Total Task Cost</b>								\$ 926

**14th Avenue Bridge Replacement Over Cherry Creek  
Task 4 Evaluate and Incorporate Environmental Impacts**

Deliverables & Subtasks	Principal	Senior Associate	Associate	Technical Professional 3	Technician 5	Technician 4	Administrative 2	Subtotal Labor
	Connors	Jung	Wierema, Barr, Loranger	Pilger, Babonas	Bowman	Huson, Crater, Liljestrand, O'Malley	Scaravelli	
Review of Subconsultant Deliverables		2	2	2				\$ -
								\$ -
								\$ -
								\$ -
								\$ -
								\$ -
								\$ -
								\$ -
								\$ -
								\$ -
								\$ -
								\$ -
								\$ -
								\$ -
								\$ -
								\$ -
Total Hours	0	2	2	2	0	0	0	6
Loaded Labor Rate	\$ 200.00	\$ 190.00	\$ 155.00	\$ 118.00	\$ 99.00	\$ 89.00	\$ 87.00	
Labor Cost (w/o fixed fee)	\$ -	\$ 380	\$ 310	\$ 236	\$ -	\$ -	\$ -	
Total Labor Cost (w/o fixed fee)								\$ 926
								\$ 926

**14th Avenue Bridge Replacement Over Cherry Creek  
Task 5 Hydraulic Analysis, Drainage, and Permitting**

Deliverables & Subtasks	Principal	Senior Associate	Associate	Technical Professional 3	Technician 5	Technician 4	Administrative 2	Subtotal Labor
	Connors	Jung	Wierema, Barr, Loranger	Pilger, Babonas	Bowman	Huson, Crater, Liljestrand, O'Malley	Scaravelli	
Hydraulic Modeling								\$ -
Effective Model						4		\$ 356
Corrected Effective						10		\$ 890
Existing Conditions						10		\$ 890
Alternatives Analysis			4			40		\$ 4,180
Proposed Conditions			4			20		\$ 2,400
Design								\$ -
Scour Analysis and Countermeasure Design			2			20		\$ 2,090
Roadside Drainage Design			2			20		\$ 2,090
Reporting								\$ -
30% H&H Report			2			30		\$ 2,980
60% H&H Report			2			20		\$ 2,090
90% H&H Report			2			10		\$ 1,200
Final H&H Report			2			10		\$ 1,200
No-Rise Certification			2			20		\$ 2,090
Plans								\$ -
Structure Selection Report			1			2		\$ 333
30% Bridge Design Drawings			2			20		\$ 2,090
60% Bridge Design Drawings			1			12		\$ 1,223
90% Bridge Design Drawings			1			6		\$ 689
Address Comments			1			4		\$ 511
Final Bridge Design Drawings			1			4		\$ 511
Quantities						2		\$ 178
Permits			2			4		\$ 666
Specifications								\$ -
90% Design			1			2		\$ 333
Final			1			2		\$ 333
								\$ -
<b>Total Hours</b>	0	0	33	0	0	272	0	305
<b>Loaded Labor Rate</b>	\$ 200.00	\$ 190.00	\$ 155.00	\$ 118.00	\$ 99.00	\$ 89.00	\$ 87.00	
<b>Labor Cost (w/o fixed fee)</b>	\$ -	\$ -	\$ 5,115	\$ -	\$ -	\$ 24,208	\$ -	
<b>Total Labor Cost (w/o fixed fee)</b>								\$ 29,323
<b>Total Task Cost</b>								\$ 29,323



**14th Avenue Bridge Replacement Over Cherry Creek  
Task 6 Structural/Bridge Engineering**

Deliverables & Subtasks	Principal	Senior Associate	Associate	Technical Professional 3	Technician 5	Technician 4	Administrative 2	Subtotal Labor
Superstructure Details								\$ -
QC		4	24					\$ 4,480
Quantities and Estimate			4	24				\$ 3,452
								\$ -
90% Design								\$ -
Foundation and Substructure								\$ -
Design				20				\$ 2,360
Independent Design Check			56					\$ 8,680
								\$ -
Retaining Wall								\$ -
Design				12				\$ 1,416
Independent Design Check			4					\$ 620
								\$ -
Superstructure								\$ -
Design				32				\$ 3,776
Independent Design Check			56					\$ 8,680
								\$ -
Load Rating and Check			10	32				\$ 5,326
Prepare plans (below list is representative only):				24		80		\$ 9,952
General Information								\$ -
Summary of Quantities								\$ -
General Layout								\$ -
Typical Section								\$ -
Construction Layout								\$ -
Foundation Layout and Details								\$ -
Abutment Details								\$ -
Framing Plan								\$ -
Superstructure Details								\$ -
Bearing Details								\$ -
Expansion Device Details								\$ -
Bridge Deck Elevations								\$ -
QC		8	36					\$ 7,100
Quantities and Estimate			8	24				\$ 4,072
Specifications			24	24				\$ 6,552
								\$ -
Final Plans								\$ -
Prepare plans - address 90% comments				24				\$ 2,832
Specifications			2	4				\$ 782
QC		2	8					\$ 1,620
Quantities and Estimate			4	8				\$ 1,564
								\$ -
<b>Total Hours</b>	<b>0</b>	<b>42</b>	<b>342</b>	<b>640</b>	<b>0</b>	<b>248</b>	<b>0</b>	<b>1272</b>
<b>Loaded Labor Rate</b>	<b>\$ 200.00</b>	<b>\$ 190.00</b>	<b>\$ 155.00</b>	<b>\$ 118.00</b>	<b>\$ 99.00</b>	<b>\$ 89.00</b>	<b>\$ 87.00</b>	
<b>Labor Cost (w/o fixed fee)</b>	<b>\$ -</b>	<b>\$ 7,980</b>	<b>\$ 53,010</b>	<b>\$ 75,520</b>	<b>\$ -</b>	<b>\$ 22,072</b>	<b>\$ -</b>	
<b>Total Labor Cost (w/o fixed fee)</b>								<b>\$ 158,582</b>
<b>Total Task Cost</b>								<b>\$ 158,582</b>





**14th Avenue Bridge Replacement Over Cherry Creek  
Task 7 Roadway and Trail Design**

Deliverables & Subtasks	Principal	Senior Associate	Associate	Technical Professional 3	Technician 5	Technician 4	Administrative 2	Subtotal Labor
Signage and striping plans			1		4			\$ 551
Lighting plans - See lighting sub								\$ -
Landscape plans - See landscape sub								\$ -
Cross Sections					8	8		\$ 1,504
60% cost estimate		2	2		8	20		\$ 3,262
QC Review			8		20	16		\$ 4,644
								\$ -
90% Roadway and Trail Design								\$ -
Address 60% comments			4		16	40		\$ 5,764
Finalize design details			2		8	24		\$ 3,238
Calculate quantities			2		16	16		\$ 3,318
Prepare specifications		8	4					\$ 2,140
Prepare sheets:								\$ -
Title sheet								\$ -
General notes, Standard symbols			0.5			0.5		\$ 122
Summary of quantities			1			4		\$ 511
Miscellaneous tabulations (earthwork, concrete, pvmt, etc)			1		8	16		\$ 2,371
Survey control diagram - Survey sub. Time here is for review								\$ -
Demolition / removal plans								\$ -
Typical sections								\$ -
Detour plan and profile. By Apex. Wood review								\$ -
14th Ave plan and profile								\$ -
Intersection details								\$ -
Grading plans								\$ -
Bridge plans - See bridge tab for costs								\$ -
Engineering Geology - See geotech								\$ -
Utility plans - See Goodbee. Time here is for review			1					\$ 155
Drainage plans - See H&H tab								\$ -
Signage and striping plans, tabulation			1		2			\$ 353
Lighting plans - See lighting sub								\$ -
Landscape plans - See landscape sub								\$ -
Cross Sections			2			8		\$ 1,022
90% cost estimate		2				4		\$ 736
QC Review			8		16	20		\$ 4,604
								\$ -
Final Roadway and Trail								\$ -
Address 90% comments			8		32	40		\$ 7,968
Update specifications		4	4					\$ 1,380
								\$ -
								\$ -
								\$ -
								\$ -
<b>Total Hours</b>	<b>0</b>	<b>21</b>	<b>118.5</b>	<b>0</b>	<b>247</b>	<b>484.5</b>	<b>0</b>	<b>871</b>
<b>Loaded Labor Rate</b>	\$ 200.00	\$ 190.00	\$ 155.00	\$ 118.00	\$ 99.00	\$ 89.00	\$ 87.00	
<b>Labor Cost (w/o fixed fee)</b>	\$ -	\$ 3,990	\$ 18,368	\$ -	\$ 24,453	\$ 43,121	\$ -	
<b>Total Labor Cost (w/o fixed fee)</b>								\$ 89,931
<b>Total Task Cost</b>								\$ 89,931

**14th Avenue Bridge Replacement Over Cherry Creek  
Task 8 Construction Detours and Construction Traffic Control**

Deliverables & Subtasks	Principal	Senior Associate	Associate	Technical Professional 3	Technician 5	Technician 4	Administrative 2	Subtotal Labor
	Connors	Jung	Wierema, Barr, Loranger	Pilger, Babonas	Bowman	Huson, Crater, Liljestrand, O'Malley	Scaravelli	
Review of Subconsultant Deliverables		2	2	2				\$ -
								\$ -
								\$ -
								\$ -
								\$ -
								\$ -
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								\$ -
								\$ -
								\$ -
Total Hours	0	2	2	2	0	0	0	6
Labor Cost (w/o fixed fee)	\$ 200.00	\$ 190.00	\$ 155.00	\$ 118.00	\$ 99.00	\$ 89.00	\$ 87.00	
Labor Cost (w/o fixed fee)	\$ -	\$ 380	\$ 310	\$ 236	\$ -	\$ -	\$ -	
Total Labor Cost (w/o fixed fee)								\$ 926
Total Task Cost								<b>\$ 926</b>

**14th Avenue Bridge Replacement Over Cherry Creek  
Task 9 Electrical and Lighting Analysis and Design**

Deliverables & Subtasks	Principal	Senior Associate	Associate	Technical Professional 3	Technician 5	Technician 4	Administrative 2	Subtotal Labor
	Connors	Jung	Wierema, Barr, Loranger	Pilger, Babonas	Bowman	Huson, Crater, Liljestrand, O'Malley	Scaravelli	
Review of Subconsultant Deliverables		2	2	2				\$ -
								\$ -
								\$ -
								\$ -
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								\$ -
								\$ -
								\$ -
<b>Total Hours</b>	0	2	2	2	0	0	0	6
Loaded Labor Rate	\$ 200.00	\$ 190.00	\$ 155.00	\$ 118.00	\$ 99.00	\$ 89.00	\$ 87.00	
Labor Cost (w/o fixed fee)	\$ -	\$ 380	\$ 310	\$ 236	\$ -	\$ -	\$ -	
Total Labor Cost (w/o fixed fee)								\$ 926
								\$ 926

**14th Avenue Bridge Replacement Over Cherry Creek  
Task 11 Utiliy Design**

Deliverables & Subtasks	Principal	Senior Associate	Associate	Technical Professional 3	Technician 5	Technician 4	Administrative 2	Subtotal Labor
	Connors	Jung	Wierema, Barr, Loranger	Pilger, Babonas	Bowman	Huson, Crater, Liljestrand, O'Malley	Scaravelli	
								\$ -
Review of Subconsultant Deliverables		2	2	2				\$ 926
								\$ -
								\$ -
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								\$ -
								\$ -
								\$ -
<b>Total Hours</b>	0	2	2	2	0	0	0	6
<b>Loaded Labor Rate</b>	\$ 200.00	\$ 190.00	\$ 155.00	\$ 118.00	\$ 99.00	\$ 89.00	\$ 87.00	
<b>Labor Cost (w/o fixed fee)</b>	\$ -	\$ 380	\$ 310	\$ 236	\$ -	\$ -	\$ -	
<b>Total Labor Cost (w/o fixed fee)</b>								\$ 926
<b>Total Task Cost</b>								\$ 926











**14th Avenue Bridge Replacement Over Cherry Creek**

**Task 16 Additional Services**

Deliverables & Subtasks	Principal	Senior Associate	Associate	Technical Professional 3	Technician 5	Technician 4	Administrative 2	Subtotal Labor
	Connors	Jung	Wierema, Barr, Loranger	Pilger, Babonas	Bowman	Huson, Crater, Liljestrand, O'Malley	Scaravelli	
								\$ -
Unanticipated items or additional services as approved by CCD's Project Manager								\$ -
								\$ -
								\$ -
								\$ -
								\$ -
								\$ -
								\$ -
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<b>Total Hours</b>	0	0	0	0	0	0	0	0
<b>Loaded Labor Rate</b>	\$ 200.00	\$ 190.00	\$ 155.00	\$ 118.00	\$ 99.00	\$ 89.00	\$ 87.00	
<b>Labor Cost (w/o fixed fee)</b>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
<b>Total Labor Cost (w/o fixed fee)</b>								\$ 6,105
<b>Total Task Cost</b>								<b>\$ 6,105</b>

# Attachment 1



4201 E. Yale Ave., STE 230  
Denver, CO 80222  
Phone 303-859-4491  
www.105westinc.com

April 26, 2018  
REV June 7, 2018

Mr. Eric Pilger  
Senior Engineer  
wood.  
2000 S. Colorado Blvd., Suite 2-1000  
Denver, CO 80222

**RE: Professional Surveying Services – 14<sup>th</sup> Avenue over Cherry Creek  
City and County of Denver, Colorado**

Dear Eric,

105 West, Inc., (105 West) appreciates the opportunity to offer our proposal providing professional surveying services for the above-mentioned project. The below scope is an estimate based on our conversations and follow up emails for this pursuit. Terms, conditions, and costs could change should further details emerge upon project award.

***SCOPE OF SERVICES***

Task A – Meetings/ Mobilization

105 West will attend meetings with the appropriate agencies. 105 West anticipates attending two (2) project team meetings with Wood and/or City and County of Denver Personnel. As part of this task 105 West will develop work plans, mobilize staff and keep the Consultant Manager updated relative to the survey team’s progress or any concerns.

<i>Director of Survey/Mapping</i>	<i>4 hours</i>
<i>Project Surveyor</i>	<i>8 hours</i>

Task B – Permits

105 West will apply for the right-of-way permits from the City and County of Denver in order to perform survey work within the project rights-of-way. It is our understanding that all topographic survey work will take place within the public right-of-way.

<i>Director of Survey/Mapping</i>	<i>2 hours</i>
<i>Project Surveyor</i>	<i>3 hours</i>

Task C - Survey Control

105 West will establish horizontal and vertical (NAVD 88) control monuments based on the City and County of Denver’s horizontal and vertical datum. 105 West anticipates setting up to ten (10) semi-permanent control points to be used for surveying purposes. A project control diagram identifying “working control points”, suitable for insertion into the plan set, will be provided as part of this task.

<i>Project Surveyor</i>	<i>4 hours</i>
<i>Survey Technician</i>	<i>20 hours</i>
<i>Party Chief</i>	<i>12 hours</i>
<i>Instrument Operator</i>	<i>12 hours</i>

#### Task D – Topographic Survey

105 West will obtain, by field methods, visible planimetric features and topography at a one-foot (1') contour interval for the limits as shown on the attached Exhibit A. The topographic survey will include the existing edge of pavement, existing edge of traveled surface, centerline, curb/gutter, striping, sidewalks, traffic signals, culverts, fences, structures, walls, edge of creek, bridge abutments, bridge low girders, bridge deck, and surface utility evidence. **Field personnel of 105 West, are strictly forbidden to enter any manhole or subsurface access to obtain invert elevations, pipe diameters, or directions of flow. Invert measurements must be obtained from outside of the manhole or invert.** All work will be provided in AutoCAD. For the protection of our field crews, traffic control will be provided by Legacy Traffic Management.

<i>Project Surveyor</i>	<i>16 hours</i>
<i>Survey Technician</i>	<i>32 hours</i>
<i>Party Chief</i>	<i>80 hours</i>
<i>Instrument Operator</i>	<i>80 hours</i>
<i>Legacy Traffic Management</i>	<i>\$2,000</i>

#### Task E - Underground Utility Survey

It is our understanding that a utility locating firm, under separate contract, will mark the existing utilities within the project limits as shown on the attached Exhibit A. Once the utilities have been marked and the utility locate sketches have been provided to our crews, 105 West will survey the paint mark locations.

<i>Project Surveyor</i>	<i>4 hours</i>
<i>Survey Technician</i>	<i>8 hours</i>
<i>Party Chief</i>	<i>16 hours</i>
<i>Instrument Man</i>	<i>16 hours</i>

#### Task F – Hydraulic Cross Section Survey

105 West will provide up to four (4) hydraulic cross sections of the Cherry Creek Channel as shown on the attached Exhibit B. As part of each cross section, 105 West will survey the top of bank, grade breaks, toe of embankment slope, edge of water, and approximate low point of creek. All work will be provided in AutoCAD.

<i>Project Surveyor</i>	<i>2 hours</i>
<i>Survey Technician</i>	<i>8 hours</i>
<i>Party Chief</i>	<i>16 hours</i>
<i>Instrument Man</i>	<i>16 hours</i>

#### Task G – Preliminary Ownership/Right-of-Way Map

In order to determine right-of-way limits of the project area as shown on the attached Exhibit A, 105 West will obtain subdivision plats, land surveys and vesting deed information for up to six (6) privately owned parcels adjoining the project right-of-way limits. Based on this information, 105 West will survey the necessary aliquot land corners, existing range points, and offset crosses associated with the adjoining parcel deeds and prepare a preliminary ownership/right-of-way map based on record information.

<i>Director of Survey/Mapping</i>	<i>4 hours</i>
<i>Project Surveyor</i>	<i>8 hours</i>

<i>Survey Technician</i>	<i>40 hours</i>
<i>Party Chief</i>	<i>16 hours</i>
<i>Instrument Operator</i>	<i>16 hours</i>

Task H – Utility Pothole Survey

105 West will survey up to ten (10) utility pothole locations and their associated “one-call” utility markings once the drillers are done with their work and 105 West has been provided copies of the utility pothole logs. For the purpose of this proposal, 105 West has assumed all potholes will be completed and pothole logs for all ten (10) potholes will be provided to us prior to mobilizing for this task.

<i>Project Surveyor</i>	<i>4 hours</i>
<i>Survey Technician</i>	<i>8 hours</i>
<i>Party Chief</i>	<i>10 hours</i>
<i>Instrument Operator</i>	<i>10 hours</i>

Task I – Geotechnical Borehole Survey

105 West will field survey up to four (4) geotechnical boreholes and their associated “one-call” underground utility paint marks once they have been drilled by the geotechnical consultant and borehole logs have been provided. For the purpose of this proposal we have assumed that all geotechnical borings will be available for survey at the same time.

<i>Project Surveyor</i>	<i>2 hours</i>
<i>Survey Technician</i>	<i>4 hours</i>
<i>Party Chief</i>	<i>4 hours</i>
<i>Instrument Man</i>	<i>4 hours</i>

**FEES**

For the professional services described herein, 105 West, Inc., proposes to be compensated at cost not-to-exceed fee of **\$38,740**. Our fee breakdown is as follows:

Task A – Meetings/ Mobilization.....	\$1,300
Task B – Permits/Right-of-Entry Forms .....	\$550
Task C – Survey Control .....	\$3,620
Task D – Topographic Survey.....	\$14,960
<b>Legacy Traffic Management</b> .....	\$2,000
Task E – Underground Utility Survey .....	\$3,200
Task F – Hydraulic Cross Section Survey.....	\$3,000
Task G – Preliminary Ownership/Right-of-Way Map .....	\$6,660
Task H – Utility Pothole Survey .....	\$2,390
Task I – Geotechnical Borehole Survey .....	\$1,060

**EXCLUSIONS**

Excluded from this proposal are as follows:

- Utilization of a subconsultant to provide utility locating services.
- Monumentation of existing or proposed ROW/Easements.
- CCD Survey Control Perpetuation of Range Points and creation of associated Survey Control Perpetuation Diagram

***SCHEDULE***

Upon your written notice to proceed, we are prepared to commence work immediately. We anticipate completing Tasks A-D and F and G within eight (8) weeks (weather permitting). The remaining Tasks E and H are at the schedule discretion of others.

Thank you for the opportunity to provide our services to you. Please contact us if you have any questions.

Sincerely,

105 West, Incorporated



Robert C. Maestas, PLS

Director of Surveying and Mapping Services

**Fee Schedule**

TASK / DELIVERABLE		105 West Staff					105 West Totals			TOTALS	
		Director of Survey/Mapping	Project Surveyor	Survey Technician	Survey Party Chief @ \$75/Hr + Survey Instrument Operator @ \$50/hr = Survey Crew (2-Man)		Professional Service Hours	Professional Service Fee	105 West's Other Direct Costs and Subconsultants	Professional Service Fee and Other Direct Costs	
		\$125	\$100	\$80	\$135						
<b>SCOPE OF WORK</b>	<b>Morrison Road at W. Walsh Place</b>										
	Activity 1 - Survey & Mapping										
	Task A - Meetings/Mobilization	4	8				12	\$ 1,300	\$ 1,300		
	Task B - Permits	2	3				5	\$ 550	\$ 550		
	Task C - Survey Control		4	20	12		36	\$ 3,620	\$ -	\$ 3,620	
	Task D - Topographic Survey		16	32	80		128	\$ 14,960	\$ 2,000	\$ 16,960	
	Task E - Underground Utility Survey		4	8	16		28	\$ 3,200		\$ 3,200	
	Task F - Hydraulic Cross Section Survey		2	8	16		26	\$ 3,000		\$ 3,000	
	Task G - Preliminary Ownership/Right-of-Way Map	4	8	40	16		68	\$ 6,660		\$ 6,660	
	Task H - Utility Pothole Survey		4	8	10		22	\$ 2,390		\$ 2,390	
Task I - Geotechnical Borehole Survey		2	4	4		10	\$ 1,060		\$ 1,060		
										\$ 38,740	
<b>TOTALS</b>		10	51	120	154	0	0	335	\$ 36,740	\$ 2,000	\$ 38,740

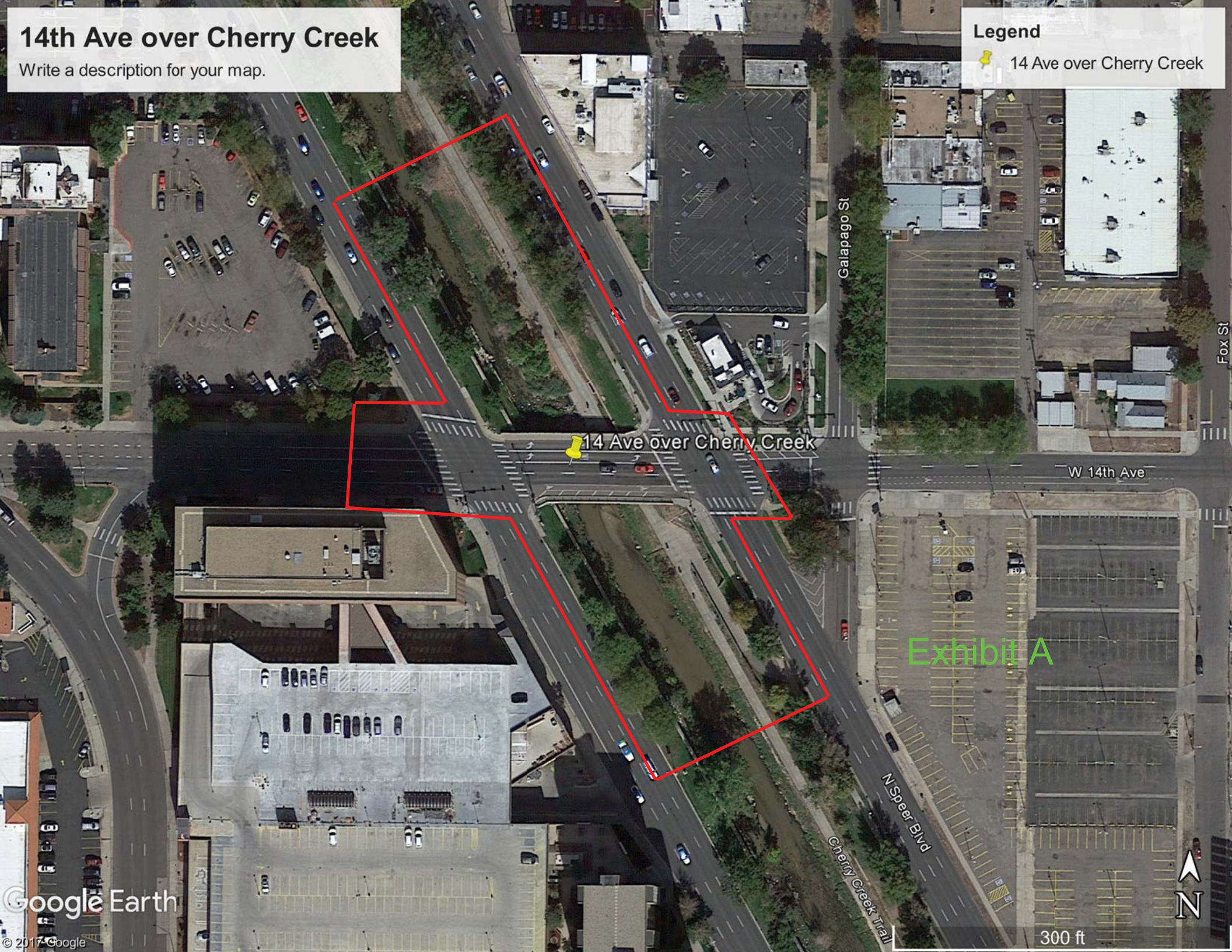


# 14th Ave over Cherry Creek

Write a description for your map.

## Legend

 14 Ave over Cherry Creek




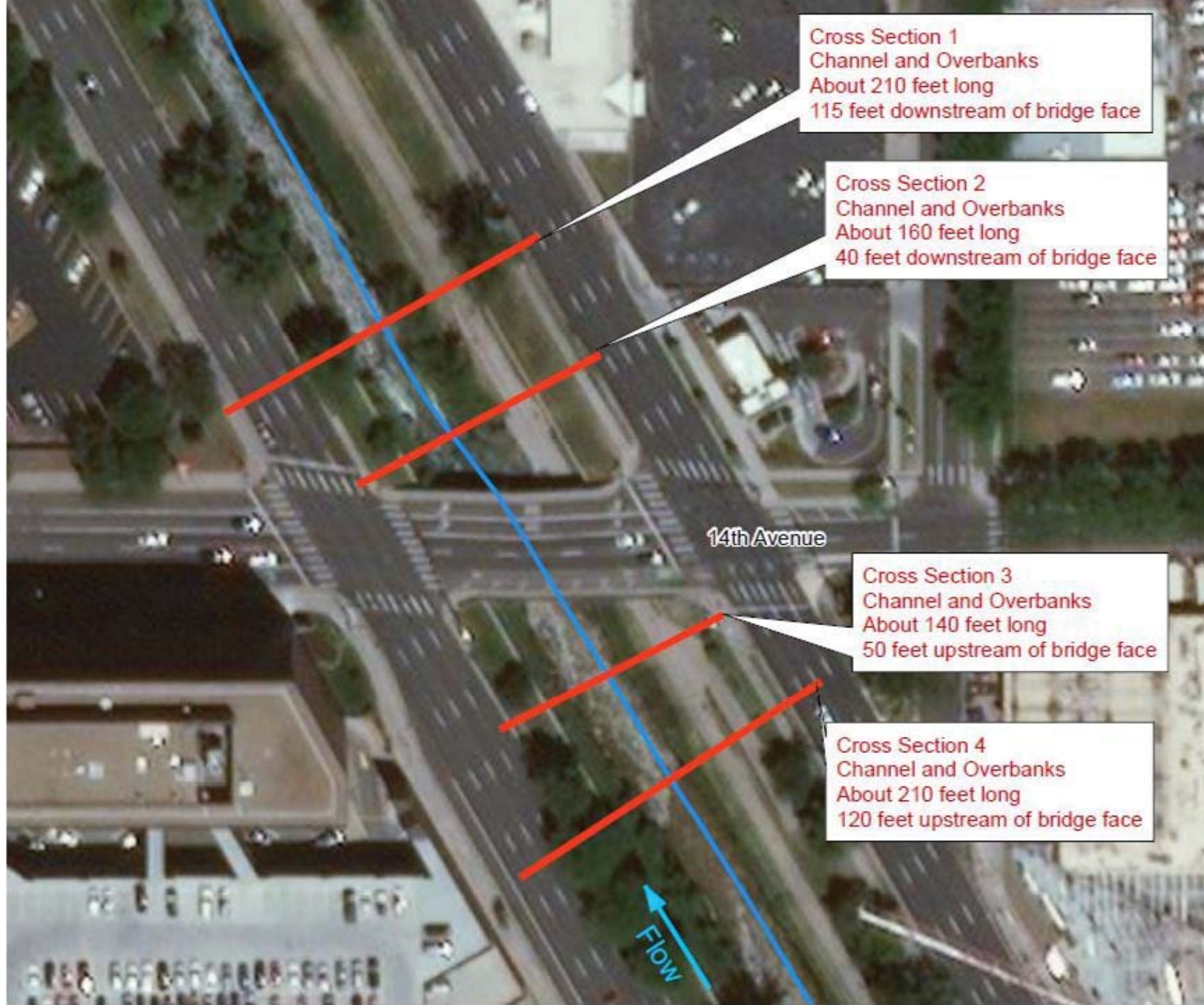
 14 Ave over Cherry Creek

Exhibit A

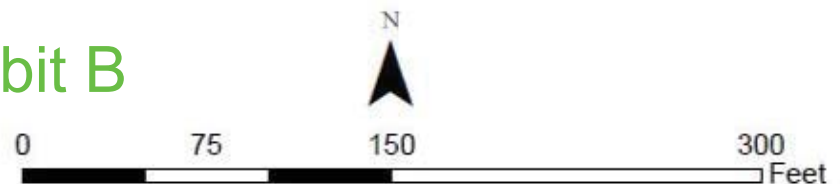






**Survey Cross Sections**  
14th Avenue Bridge Replacement

**Exhibit B**



June 8, 2018

Eric Pilger  
**AMEC Foster Wheeler**  
2000 S. Colorado Blvd, Suite 2-1000  
Denver, CO 80222  
303.630.0785 | [eric.pilger@woodplc.com](mailto:eric.pilger@woodplc.com)

Re: 14<sup>th</sup> Ave over Cherry Creek Bridge  
Lighting and Electrical Design Consulting Proposal

Clanton and Associates proposes to undertake the lighting design and electrical engineering for the 14<sup>th</sup> Ave over Cherry Creek Bridge in Denver, CO.

Estimated labor:	\$ 19,816
Estimated expenses:	\$ 500
<b>Total Fee (labor and expenses):</b>	<b>\$ 20,316</b>

The scope of work includes:

Final design of pedestrian and street lighting within the project limits. This includes street lighting on 14<sup>th</sup> Avenue and pedestrian lighting under the bridge. Prepare electrical and lighting design within project limits with the following information shown on the plan sheets:

1. Final design layouts will include:
  - a. Circuit type and voltage of power source
  - b. Luminaire type and lumen output
  - c. Light standard type (per CCD Street Lighting Design Guidelines)
  - d. Foundation details (per CCD Street Lighting Design Guidelines)
  - e. Size and location of electrical conduit
  - f. Location of power source(s)/ lighting control center(s)
  - g. Location of conduit
  - h. Size of wiring and conduit
2. Coordinate electrical utility design in associate with Utility Consultant (Task 10 and 11).
3. Develop 30%, 60%, 90%, and final bid plans, technical specifications, quantities, and cost estimate for all elements as listed below.
4. Attend electrical and lighting design coordination meetings with CCD and appropriate utility agencies.

Design services shall include the following:

<b>Preliminary Design (30%)</b>	<b>\$ 6,408</b>
<ul style="list-style-type: none"><li>• Kickoff meeting</li><li>• Site visit to observe existing lighting conditions</li><li>• Establish basis of design</li><li>• Preliminary lighting design</li><li>• Luminaire selection</li></ul>	

- Preliminary lighting calculations
- Preliminary electrical design
- Utility coordination
- Opinion of Probable Cost
- Up to one (1) submittal (30% set)
- Up to one (1) design meeting
- Attendance at 30% Review meeting in Denver
- Attendance at Utility Coordination meeting in Denver

**Final Design (60% and 90%)** **\$ 11,360**

- Incorporate comments from 30% Review
- Final lighting layout
- Final lighting details
- Luminaire schedule
- Final electrical design
  - Panel schedules
  - One line diagrams
  - Lighting Control Centers, including short circuit calculations and feeder sizing
  - Circuiting and conduit, including voltage drop calculations and conduit sizing
  - Electrical details
- Final specifications
- Tabulation of Approximate Quantities
- Opinion of Probable Cost
- Up to two (2) submittals (90% and 100% sets)
- Revise plans per 90% Review comments
- Up to two (2) design meetings
- Attendance at 90% & 100% Review meetings in Denver
- Utility coordination
- Attendance at two (2) Utility Coordination meetings in Denver

**Final Bid Set** **\$ 2,048**

- Incorporate comments from 100% review
- Final specification revisions
- Up to one (1) submittal (Bid Set)
- Up to one (1) design meeting

This scope of work is based upon normal project progress and within the time schedule agreed upon, without major redesign or change order work. Additional fees will be required if project timing is extended or project is put on hold and restarted at later date. If the project timing exceeds one year, additional services rates may increase.

Specific exclusions from this scope are as follows:

- Construction administration and/or services during construction
- Structural engineering
- Any development, design, or detailing of custom luminaires
- Equipment procurement
- Commissioning

Client will supply Clanton and Associates with review materials and backgrounds in AutoCAD or Micro Station format. Reimbursable expenses shall include printing costs, overnight delivery and travel expenses associated with the project and shall be charged in addition to the compensation for professional services. Payment for services is expected within 30 days of invoice unless other arrangements are made in writing.

Additional services shall be charged at the following hourly rates:

Title	Hourly Rates
President	\$260
Principal	\$190
Senior Engineer II	\$170
Senior Engineer I	\$130
Engineer II	\$120
Engineer I	\$100
Senior Designer II	\$150
Senior Designer I	\$130
Designer II	\$110
Designer I	\$95
Production Manager	\$150
Senior CADD Technician	\$100
CADD Technician	\$75
Intern	\$80
Office Manager	\$70

This agreement is valid for 60 days.

  
\_\_\_\_\_  
CLANTON & ASSOCIATES

6/8/2018  
\_\_\_\_\_  
DATE

\_\_\_\_\_  
Wood

\_\_\_\_\_  
DATE

**14th over Cherry Creek - Utility Coordination and Design**

Scope and Fee Estimate  
7/13/2018

Task	Description of Activities /Assumptions	Principal	PM III	PM II	Designer III		Administrator		Total Hrs.	Total Cost (2018 Rate Sheet)
		\$185/hr	\$150/hr	\$135/hr	\$115/hr		\$110/hr			
Project Mgmt.	Project Meetings (assume kick off and 2 internal design team meetings)		6						6	\$900
	Monthly progress reports and invoicing. Assume 12 months.		10				12		22	\$2,820
Task 10- Utility Coordination	One-on-One utility company meetings - schedule, facilitate and prepare minutes for up to 12 meetings over 3 days.		32		4				36	\$5,260
	Obtain and review easements, license agreements, and relocation agreements from utility owners. Note that others (ROW team) will provide recorded utility easements as part of title search		4						4	\$600
	Conduct utility relocation resolution meetings - schedule, facilitate and prepare minutes for two days of meetings		24						24	\$3,600
	Utility Project Special Provision: Prepare utility special provision describing work to be done by Contractor and each utility owner.	2	8						10	\$1,570
	Utility Agreements: Prepare Xcel work request for work to be done on Xcel facilities. Prepare draft clearance letters to be signed by utility owners. Send clearance letters to utility owners for signature.	2	24						26	\$3,970
	Obtain estimates of probable cost for utility relocations at cost to the project		8						8	\$1,200
Task 11 - Utility Design	Data Collection: Run UNCC database search to identify utility owners with facilities in project area. Contact utility owners to confirm presence of facilities in project area and obtain contact information and key maps. Prepare utility contact list. Assume 12 utility owners.		4		12				16	\$1,980
	Private Utility Locates/Designating: Hire private locator to mark utilities. Check locate sketch with key maps. Follow up with locator/utility owner regarding discrepancies. Field check locate sketch. Coordinate with surveyor to have locates surveyed. Field verify utility survey file.		8		6				14	\$1,890
	Utility Test Holes (potholing): Prepare preliminary test hole plan with input from client. Hire contractor to test hole 10 locations over 2 days. Coordinate with contractor during test holes. Field verify test hole logs with field markings. Coordinate with project surveyor to have test holes surveyed (survey not included in GA's SOW). Update existing utility CAD file with test hole survey data. Prepare test hole table.		12		6				18	\$2,490
	Identify preliminary utility conflicts. Prepare summary table		16	2					18	\$2,670
	30% Utility Plans: Prepare utility plans showing existing utilities. Distribute utility plans to utility owners. Attend 30% meeting.		16	2	20				38	\$4,970
	60% Utility Plans: Prepare utility plans showing existing utilities and potholes and proposed improvements and relocations. Calculate quantities for tabulation sheet. Distribute utility plans to utility owners. Attend 60% meeting.		16	2	18				36	\$4,740
	90% Utility Plans: Prepare utility plans showing existing utilities and potholes and proposed improvements and relocations. Calculate quantities for tabulation sheet. Distribute utility plans to utility owners. Attend 90% meeting.		6	2	16				24	\$3,010
	Final PS&E: Provide final utility spec and utility plans.		4	2	8				14	\$1,790
Task 16 - Additional Services	Provide support on unanticipated items and additional services as directed by Wood and approved by CCD's Project Manager		30	24	24				78	\$10,500
<b>TOTAL LABOR</b>		<b>4</b>	<b>228</b>	<b>34</b>	<b>114</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>392</b>	<b>\$53,960</b>

Item	# of Units	Units	Unit Price	Subtotal
Mileage -NA				
Private Utility Designation (locator)	2	days	\$1,200	\$2,400
Utility test holes (potholing) contractor	2	days	\$1,850	\$3,700
Permanent restoration - fill all holes in pavement with hot mix asphalt or concrete	1	LS	\$2,700	\$2,700
Permanent restoration - sidewalk panel replacement (assume none)	0	LS	\$1,500	\$0
Traffic control during potholing	2	days	\$1,400	\$2,800
<b>TOTAL ODCs</b>				<b>\$11,600</b>

**TOTAL ESTIMATE = \$65,560**

**Assumptions and Exclusions:**

- Goodbee will provide utility coordination and design for the 14th Avenue Bridge Replacement over Cherry Creek.
- Assume a 12 month period of performance.
- CAD work in AutoCAD. Utility plans assume 5 sheets including general notes (1), pothole log (1), and utility plans (3) at 1" = 50'. Assume stand alone Denver Water plans not required.
- Private utility designator (locator), utility test holes, and traffic control costs are estimates only. Bid for actual costs to be obtained following NTP. Survey will be provided by others to incorporate utility locate and test hole markings.



## RockSol Scope – 14<sup>th</sup> Avenue Bridge Replacement over Cherry Creek

### Task 3 - Geotechnical Investigations and Analysis

Perform the subsurface investigation and analysis for the purposes of final bridge and wall structural foundation recommendations, roadway and structural fill recommendations, pavement design for bridge approach roadways, paths, rip-rap or other items in the river. The task also includes providing boring log plan sheets and materials related project specifications. Perform final pavement and temporary pavement design, including roadway, sidewalk, or paths. Coordinate with environmental subconsultant regarding the environmental sampling to be performed. Install monitoring wells as directed by the environmental subconsultant. Coordinate with environmental consultant and CCD to provide storage locations for waste drums. Depending on findings of the environmental evaluation, perform additional design assistance as required to address any existing non-hazardous or hazardous materials removal or remediation.

#### Task Description

- Obtain soil samples for soil categorization and geotechnical analysis from a total of three soil borings.
- Two soil borings will be drilled at Speer Blvd street level, with one near each bridge abutment to assist with the geotechnical recommendations needed for the bridge and retaining wall design. Information from previous boreholes, including those from existing plans and those performed at nearby crossings, will be used to supplement our recommendations. The two abutment soil borings will extend about five feet into bedrock and will be completed as monitor wells for use by the environmental consultant. An additional soil borehole will be drilled adjacent to the pedestrian/bike trail with a limited access drill rig to identify/characterize surficial soils and depth to bedrock at the potential mid-span pier location. The mid-span borehole will extend up to 5 feet into bedrock.
- Provide traffic control during geotechnical field activities.
- Perform subsurface investigation and applicable laboratory tests in support of providing final design recommendations for the project features listed above.
- Provide design parameters for all features listed above. This includes the use of deep or shallow foundations and soil nails. Finalize and provide design recommendations in a Report sealed by a Colorado Registered Professional Engineer. The report shall include recommendations for type, size, and tip (bottom) elevation of the required foundation. Specify if pre-drilling, pile tip, casing, dewatering, etc., are needed for foundation construction.
- Incorporate final geotechnical recommendations into an engineering geology plan sheet using base files provided by WoodPLC.
- Assist in writing project special provisions.
- Conduct/Attend coordination meetings with CCD. Assume one kickoff meeting and two design review meetings.
- Permitting for the monitoring well construction will be performed by the Project environmental consultant.
- Perform final pavement and temporary pavement design, including roadway, sidewalk, or paths.

**RockSol Consulting Group, Inc.**  
**Estimate for Geotechnical Engineering Services**  
**14th Avenue Bridge Replacement Over Cherry Creek**  
**Project Control No PWT2017-022**  
**Prepared May 8, 2018 (Revised June 11, 2018)**  
**RockSol Proposal No. 010.18.03**

***Geotechnical Scope: Geotechnical Investigation with 3 geotechnical boreholes to assist with design of the proposed 14th Avenue Bridge Replacement over Cherry Creek.***

<i>Labor</i>	<i>Hours</i>	<i>Rate/Hour</i>	<i>Total Estimated Fee</i>
Engineering Geologist (Note 1)	30	\$106.76	\$3,202.80
Senior Geotechnical Engineer (Note 2)	61	\$153.77	\$9,379.97
Engineering Tech II (Note 3)	56	\$73.16	\$4,096.96
Engineering Tech III (Note 4)	50	\$79.23	\$3,961.50
Lab Manager (Note 5)	6	\$124.37	\$746.22
Administration II	6	\$80.80	\$484.80
Administration II	6	\$57.53	\$345.18
Drafting	20	\$86.82	\$1,736.40
<b>Total Labor</b>			<b>\$23,953.83</b>

Note 1: Includes borehole location marking and utility locate/clearance coordination, geotechnical evaluation, and report preparation.

Note 2: Includes geotechnical report review, project management meeting attendance and assistance with project special provisions.

Note 3: Performs logging of RockSol boreholes and pavement cores, traffic control plan development and assists with geotechnical evaluation and report preparation.

Note 4: Performs RockSol in-house laboratory testing of samples obtained from geotechnical boreholes.

Note 5: Performs management and review of RockSol laboratory test results.

**Other Direct Costs**

Geotechnical Drilling (3 Boreholes to Depths Ranging from 10 feet to 25 feet using auger drilling methods with a Truck Mounted Drill Rig and a Limited Access Rig).	\$4,000.00
Monitor Well Material (Two wells to 25 feet)	\$1,600.00
Borehole Backfill and Pavement Patch Materials	\$250.00
Traffic Control	\$2,400.00
Outside Laboratory Testing (2 R-Values and Water Soluble Chlorides [4])	\$680.00
Pavement Coring	\$500.00
CCD ROW Permit	\$500.00
Private Utility Locator	\$700.00
<b>Total Other Direct Cost</b>	<b>\$10,630.00</b>

**Total for Geotechnical Tasks (Note 6) \$34,583.83**

Note 6: Geotechnical investigation does not include field survey of boreholes by RockSol. Field survey of geotechnical boreholes to be performed by project surveyor.



## **Apex Design Scope – 14<sup>th</sup> Avenue Bridge Replacement over Cherry Creek**

This task includes developing construction detours and traffic control plans for construction of the project as described in the overview. Detours and traffic control plans will be required for affected roadways, sidewalks, and bike paths. It is assumed that 14<sup>th</sup> Avenue will be closed during construction and no phasing analysis will be performed.

### **Task Description**

- Design detour and traffic control, including plans, signs, striping, and typical sections. Design drawings will be completed in AutoCAD per Denver standards. Access to adjacent properties shall be maintained continuously throughout the duration of construction. The detour of the Cherry Creek Trail shall be designed in such a way to provide a high ease-of-use/trail-like experience whenever possible. If an on-street detour is needed, it shall be designed to be amenable to trail users when possible.
- Traffic counts, assumed at the following eight intersections:
  - o 14<sup>th</sup> and Santa Fe
  - o 14<sup>th</sup> and SB Speer Blvd
  - o 14<sup>th</sup> and NB Speer Blvd
  - o 14<sup>th</sup> and Fox St
  - o Colfax and Santa Fe
  - o Colfax and SB Speer Blvd
  - o Colfax and NB Speer Blvd
  - o Colfax and Fox St
- Perform traffic analysis for a condition in which 14<sup>th</sup> is closed.
- Develop construction traffic control specification.
- Develop a schedule of construction traffic control items based on traffic control required for detours.
- Develop 30%, 60%, 90%, and final bid plans, technical specifications, quantities, and cost estimate for construction detour and traffic control.

### **Specific Exclusions:**

- Traffic signal timing (assumed to be adjusted by CCD, as necessary)
- Temporary pavement design, including roadway, sidewalk, or trails, will be designed by others.





Corporate Headquarters  
3222 South Vance Street, Suite 200, Lakewood, CO 80227  
T: 303.980.5200 F: 303.980.0089  
www.pinyon-env.com

June 7, 2018

Eric Pilger, PE  
WOOD  
2000 Colorado Blvd  
Denver, CO 80237

Subject: Proposal for Environmental Documentation to Support Environmental Clearances for 14<sup>th</sup> Avenue Bridge over Cherry Creek, City and County of Denver, Colorado

Dear Mr. Pilger,

Pinyon understands that the City and County of Denver (CCD) will remove and replace the existing 14<sup>th</sup> Avenue Bridge over Cherry Creek. Although the project likely will not use federal funding that would require a formal National Environmental Policy Act (NEPA) review, a similar level of due diligence is required by CCD to assess the types and magnitudes of any environmental hazards or concerns to identify appropriate avoidance, impacts, and mitigation measures. Although there is no federal funding currently identified, a US Army Corps of Engineers (USACE) Section 404 permit is likely to be required for the replacement of the bridge.

An initial action item will be to reach out to the CCD Environmental Project Manager to confirm this scope of work. If there are any substantive changes to this scope based on initial coordination, Pinyon will discuss those early to negotiate a change in scope or fee.

Pinyon assumes the field surveys for hazardous materials, cultural resources, biological resources, and wetlands would occur over one full day by a team of three people. If additional project elements are added, or if the scope of work/design elements change after the field surveys have been completed, then additional costs would be incurred in order to collect additional data that is pertinent to the revised study area and/or project design. WOOD will provide up to a scoping level of plans (e.g., 15% that encompasses the maximum project disturbance footprint) so that Pinyon, WOOD, and CCD may agree on the study area boundaries prior to any field work being completed. The project duration is assumed to be nine months; if the project duration is extended, a change order may be required.

The schedule may not allow for fieldwork to occur when vegetation is growing and can be speciated. Pinyon may be able to do off-season field surveys; however, if not all indicators are present the survey is likely more conservative than it would be during the growing season. Some deliverables are design-dependent as an impact evaluation is required, and may not be available until or after design plans have been finalized. After field work is completed, Pinyon will provide GIS or KML mapping of the relevant features to WOOD for confirmation that all areas of impact are within the study area and ultimately for impact assessment.

Details regarding Pinyon's estimated scope of work, assumptions, and deliverables are presented in Attachment A. Pinyon estimates the cost to complete this project, in accordance with the outlined services, will be approximately **\$42,885.95** (Attachment B). Pinyon will invoice on a time and materials basis, in accordance with our 2018 standard rates. The authorized amount will not be exceeded without prior approval.

Eric Pignier

WOOD

Page 2 of 11

To authorize the outlined scope of services, please issue a subconsultant agreement for review and execution. Should you have any questions or require additional information, please do not hesitate to call. Thank you for considering Pinyon for your environmental consulting needs.

Sincerely,

**PINYON ENVIRONMENTAL, INC.**



Kate Turner  
NEPA Specialist

Cc: File

File Location:

[\\PINYON10\Company2\Proposals\2018 Proposals\Transportation\CCD 14th Cherry Creek Bridge\WOOD\14thAveBridge\\_scope\\_fee.docx](\\PINYON10\Company2\Proposals\2018 Proposals\Transportation\CCD 14th Cherry Creek Bridge\WOOD\14thAveBridge_scope_fee.docx)

**Attachment A - Detailed Scope of Work**

*Note: The following tasks and assumptions were developed using Pinyon’s professional judgement, given the information presented in the Request for Proposals, and Pinyon’s knowledge of the area and environmental context. This scope, and associated fee, are preliminary and are subject to final scoping with CCD. Further, additional revision and/or refinement may be necessary as design advancement and design decisions are made.*

Task	Scope of Work Summary	Deliverables
General Project Management	<p>General project management, contract administration, invoicing, etc. Pinyon will attend two meetings in person, additional meetings and progress updates will be done via conference call or email. Project duration is assumed to be nine months.</p> <p>Scoping meeting (1)  Kick-off meeting (1)  FIR/FOR Meeting (via conference call/email)  Progress Reports (9)</p>	<ul style="list-style-type: none"> <li>• Monthly invoices</li> <li>• Progress reports</li> </ul>
Air Quality	<p>The proposed actions do not include addition of capacity and are exempt from further evaluation; therefore, no further analysis is required. General notes will be provided for emissions during construction.</p>	<ul style="list-style-type: none"> <li>• Documented in the Environmental Summary Memorandum</li> <li>• General notes for contractor</li> </ul>
Noise	<p>Capacity will not be added and there will not be a vertical change in profile of five feet or greater. A noise assessment is not required.</p>	<ul style="list-style-type: none"> <li>• Documented in the Environmental Summary Memorandum</li> </ul>

Task	Scope of Work Summary	Deliverables
Hazardous Materials	<p>An environmental screening was conducted for the project by Denver Department of Public Health and Environment (DDPHE) on February 23, 2018. Pinyon assumes part of the design will include geotechnical investigations and will coordinate with WOOD to ensure Pinyon’s sampling is conducted concurrent to geotechnical drilling. If the project does not require geotechnical work or if Pinyon is not able to take samples during the geotechnical investigation, this scope and fee should be revised.</p> <p>During geotechnical drilling, Pinyon will collect up to four representative soil samples to help evaluate material handling decisions, and to support a waste profile at the Denver-Arapahoe Disposal Site (DADS) per CCD and Waste Management requirements. The data will be submitted to the DDPHE who are assumed to submit and obtain an approved waste profile from DADS.</p> <p>During geotechnical drilling, two groundwater monitoring wells (one on the west side and one on the east side of Cherry Creek) will be installed (paid for under the geotechnical engineering and drilling task by others; the placement will be based on design decisions). Groundwater samples will be collected and analyzed for those parameters required to obtain a Remediation Activities Discharging to Surface Water (Remediation Discharge Permit) from the Colorado Department of Public Health and Environment (CDPHE) Water Quality Control Division (WQCD).</p> <p>Pinyon will coordinate the disposal of investigation-derived waste (IDW); however, CCD must provide a staging area for the waste drums pending analytical results and an approved waste profile from DADS. Alternatively, the drilling contractor may stage the drums (at their discretion) at an off-site location.</p> <p>A Materials Management Plan (MMP) will be prepared detailing the results of the soil and groundwater sampling. As part of this task, Pinyon will obtain, on behalf of CCD, a General Construction Dewatering or a Remediation Discharge Permit (whichever is applicable for future construction), that will be ultimately transferred to the Contractor.</p> <p>Pinyon will also complete lead-paint and asbestos sampling of the bridge structure.</p> <p>The Hazardous Materials tasks assumes one person in the field for three days.</p> <p>The results and recommendations will be documented in the Environmental Summary Memorandum and Pinyon will provide project specials for inclusion with the project plans and specifications.</p>	<ul style="list-style-type: none"> <li>• Lead Paint Sample Results</li> <li>• Asbestos Testing Results</li> <li>• Sampling Results documented in the Environmental Summary Memorandum</li> <li>• MMP</li> <li>• Revised 250 Spec for contractor</li> </ul>

Task	Scope of Work Summary	Deliverables
Wetlands/ Waters of the US	<p>Pinyon will complete wetland delineations in accordance with U.S. Army Corps of Engineers (USACE) where disturbances are expected (e.g., within the project footprint, and along presumed access/haul roads and staging areas). WOOD will provide these study areas prior to field surveys.</p> <p>Geographic Information System (GIS) data will be provided for incorporation into the project plans, and for impact analysis during advanced design. Pinyon assumes that WOOD will calculate wetland (if necessary) and waters of the US impacts using the provided GIS data.</p> <p>After impact analysis is completed, Pinyon will document the existing conditions regarding wetlands in the Environmental Summary Memorandum.</p> <p>The field survey will be completed by a one Pinyon biologist in a one-day period. Field survey for wetlands/waters of the US, noxious weeds, and threatened and endangered species to be completed concurrently; those fees are included with the wetland task.</p> <p>Impacts to Waters of the U.S., including wetlands, are presumed to be minimal, and it is assumed that impacts will be permitted under a Corps Nationwide Permit (likely a 3 Maintenance or 14 for Linear Transportation Project). Pinyon will draft a Preconstruction Notification to the USACE. An Individual Permit is assumed not required.</p> <p>Pinyon will document in the Environmental Summary Memorandum and provide project specials or environmental notes for contractor use during construction.</p>	<ul style="list-style-type: none"> <li>• Documented in the Environmental Summary Memorandum</li> <li>• GIS data files</li> <li>• Pre-Construction Notification to the USACE for Section 404 permit</li> <li>• General notes or Spec for contractor use</li> </ul>
Vegetation and Noxious Weeds	<p>List A and B noxious weeds to be mapped, as applicable; however, if the density of weeds is significant detailed mapping will be stopped, and recommendations regarding weed controls will be presented in the Environmental Summary Memorandum.</p> <p>Pinyon will not prepare an Integrated Noxious Weed Management Plan for the project. Pinyon will document in the Environmental Summary Memorandum as well as provide a revised 217 Spec for contractor use.</p>	<ul style="list-style-type: none"> <li>• Documented in the Environmental Summary Memorandum</li> <li>• Revised 217 Spec</li> </ul>
Fish and Wildlife, Threatened and Endangered Species	<p>Pinyon will evaluate habitat for federally listed and state-listed species, and document within the Environmental Summary Memorandum. Only a habitat assessment will be conducted; a species-specific survey is not included in this scope. Assumes a Biological Assessment will not be required. Given the urban nature of the project, Pinyon assumes that the impact assessment will reveal a <i>no effect</i> to federally listed and state-listed species. Therefore, coordination with the US Fish and Wildlife Service is not anticipated to be required.</p> <p>A survey for migratory birds within the prescribed buffer area per CPW guidelines will be conducted. Pinyon will document in the Environmental Summary Memorandum as well as provide a revised 240 Spec for contractor use.</p>	<ul style="list-style-type: none"> <li>• Documented in the Environmental Summary Memorandum</li> <li>• Revised 240 Spec</li> </ul>

Task	Scope of Work Summary	Deliverables
Historic Properties / Archeological Resources	<p>Pinyon will develop an Area of Potential Effects (APE), in coordination with the design team. Once the APE is established, Pinyon will evaluate historic and archeological resources within the APE.</p> <p>Pinyon’s architectural historian will research the Office of Archaeology and Historic Preservation (OAHP) COMPASS database, the CDOT Historic Bridge Inventory, topographic maps, and local assessor data for the presence of potential historic resources within the APE. There are several cultural resources likely to be impacted by the bridge replacement. The 14<sup>th</sup> Street Bridge (5DV.7094) was determined field not eligible in 2002 according to the initial OAHP COMPASS database search. The project is within the Speer Boulevard Historic District (5DV.5183) which is listed as a City of Denver Local Landmark. Additionally, Speer Boulevard (5DV.5330) is listed as a historic district on the National Register of Historic Places. For the cultural resource evaluation, Pinyon will prepare documentation in according with OAHP standards to meet the project needs.</p> <p>A Pinyon archeologist will conduct a pedestrian survey and limited resources report for the USACE’s review. It is assumed no archaeological resources will be found. If archaeological resources are found, this scope and fee will be revised.</p> <p>Pinyon assumes that there will not be any adverse effects to cultural resources; should a determination of adverse effect be reached, this scope will need to be revisited.</p>	<ul style="list-style-type: none"> <li>• Eligibility and Effects Letter</li> <li>• APE Map</li> <li>• Three Inventory Forms</li> <li>• Archaeological Limited Resources Report</li> <li>• Documented in Environmental Summary Memorandum</li> </ul>
Recreation/ Trails	<p>The Cherry Creek Trail runs under the 14<sup>th</sup> Avenue Bridge. There is no federal nexus so Section 4(f) and Section 6(f) are not applicable on this project. Pinyon will collaborate with the engineering team to identify a detour for the trail, should the project team determine that it is necessary.</p>	<ul style="list-style-type: none"> <li>• Documented in Environmental Summary Memorandum</li> </ul>
Paleontology	<p>Because the project is within an urban setting, a paleontology report may not be necessary.</p>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
Socio-Economic Resources	<p>As discussed in the scoping meeting, a socio-economic analysis is not required for the proposed actions.</p>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
Environmental Summary Memorandum	<p>Pinyon will provide an Environmental Summary Memorandum to concisely summarize each resource, the environmental concerns, and the overall environmental context for the project.</p>	<ul style="list-style-type: none"> <li>• Environmental Summary Memorandum</li> </ul>



<b>Task</b>	<b>Scope of Work Summary</b>	<b>Deliverables</b>
Mitigation Matrix for Contract Bid Documents:	Pinyon will provide a mitigation matrix that summaries recommended environmental mitigation measures to be used by the contractor during construction.	<ul style="list-style-type: none"><li data-bbox="1577 302 1812 329">• Mitigation Matrix</li></ul>

**Attachment B - Detailed Cost Estimate**

<b>Project Management</b>				
<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Rate</b>	<b>Extension</b>
<b>Labor Rates</b>				
Project Manager I	36.0	hours	\$143.00	\$5,148.00
Administration	8.0	hours	\$68.00	\$544.00
<b>Task Subtotal</b>				<b>\$5,692.00</b>
<b>Cultural Resources</b>				
<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Rate</b>	<b>Extension</b>
<b>Labor Rates</b>				
Project Manager I	7.0	hours	\$143.00	\$1,001.00
Archaeologist/Historian	65.0	hours	\$109.00	\$7,085.00
Archaeologist/Historian I	15.0	hours	\$118.00	\$1,770.00
CAD/GIS Specialist I	10.0	hours	\$109.00	\$1,090.00
Executive Management	1.0	hour	\$205.00	\$205.00
<b>Equipment/Material Unit Rates</b>				
Database Report	1.0	lump sum	\$225.00	\$225.00
<b>Task Subtotal</b>				<b>\$11,376.00</b>
<b>Biological Resources (field visit: includes OHWM, TES, Noxious Weeds, MBTA)</b>				
<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Rate</b>	<b>Extension</b>
<b>Labor Rates</b>				
Project Manager I	2.0	hours	\$143.00	\$286.00
Field Engineer/Scientist	20.0	hours	\$98.00	\$1,960.00
CAD/GIS Specialist I	6.0	hours	\$109.00	\$654.00
Executive Management	1.0	hour	\$205.00	\$205.00
<b>Equipment/Material Unit Rates</b>				
Truck/Van Mileage	30.0	miles	\$0.57	\$16.95
GPS Mapper - day	1.0	days	\$225.00	\$225.00
Wetland Delineation - Day	1.0	day	\$50.00	\$50.00
<b>Task Subtotal</b>				<b>\$3,396.95</b>

<b>Pre-Construction Notification to Corps</b>				
<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Rate</b>	<b>Extension</b>
<b>Labor Rates</b>				
Project Manager I	2.0	hours	\$143.00	\$286.00
Scientist I	20.0	hours	\$109.00	\$2,180.00
CAD/GIS Specialist I	4.0	hours	\$109.00	\$436.00
Executive Management	1.0	hour	\$205.00	\$205.00
<b>Task Subtotal</b>				<b>\$3,107.00</b>
<b>Hazardous Materials</b>				
<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Rate</b>	<b>Extension</b>
<b>Labor Rates</b>				
Executive Management	2.0	hours	\$205.00	\$410.00
Project Manager I	6.0	hours	\$143.00	\$858.00
Engineer I	40.0	hours	\$115.00	\$4,600.00
Field Engineer/Scientist	24.0	hours	\$98.00	\$2,352.00
CAD/GIS Specialist I	6.0	hours	\$109.00	\$654.00
<b>Equipment/Material Unit Rates</b>				
Well Development	2.0	wells	\$55.00	\$110.00
Well Sampling	2.0	wells	\$67.00	\$134.00
Soil Boring	4.0	each	\$105.00	\$420.00
Asbestos Sampling	1.0	each	\$35.00	\$35.00
IDW Disposal (vendon TBD)	1.0	lump sum	\$750.00	\$750.00
<b>Laboratory Rates</b>				
Soil - Waste Characterization	4.0	samples	\$550.00	\$2,200.00
Water - Dewatering Parameters	2.0	samples	\$1,250.00	\$2,500.00
Asbestos Sample	5.0	samples	\$15.00	\$75.00
Lead Sample	5.0	samples	\$15.00	\$75.00
<b>Task Subtotal</b>				<b>\$15,173.00</b>

<b>Environmental Summary Memorandum</b>				
<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Rate</b>	<b>Extension</b>
<b>Labor Rates</b>				
Project Manager I	2.0	hours	\$143.00	\$286.00
Scientist II	15.0	hours	\$143.00	\$2,145.00
CAD/GIS Specialist I	2.0	hours	\$109.00	\$218.00
Executive Management	0.5	hour	\$205.00	\$102.50
<b>Task Subtotal</b>				<b>\$2,751.50</b>
<b>Mitigation Matrix</b>				
<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Rate</b>	<b>Extension</b>
<b>Labor Rates</b>				
Project Manager I	1.0	hour	\$143.00	\$143.00
Scientist II	8.0	hours	\$143.00	\$1,144.00
Executive Management	0.5	hour	\$205.00	\$102.50
<b>Task Subtotal</b>				<b>\$1,389.50</b>
<b>Project Total</b>				<b>\$42,885.95</b>

## **Alta Scope – 14<sup>th</sup> Avenue Bridge Replacement over Cherry Creek**

### **Task 8 - Construction Detours and Construction Traffic Control**

This task includes Alta acting in an advisory role to Wood for the creation of construction detours and traffic control plans for construction of the project as described in the overview. Detours and traffic control plans will be required for affected roadways, sidewalks, and bike paths. Alta will assist Wood with initial concepts followed by review of draft and final construction documents for the detour of the Cherry Creek Trail.

#### **Task Description**

- Up front Coordination with client and Wood prior to design to discuss detour and routing options
- Conceptual diagrams of detour routing
- Provide input on temporary striping and bike lane layout, and any potential separation materials if bikes are routed onto Speer Blvd.
- Review 30%, 60%, 90%, and final bid plans, technical specifications, quantities, and cost estimate for construction detour and traffic control.

### **Task 14 - Multi Agency Involvement & Coordination, Stakeholder Coordination**

This task is in support of Wood's coordination efforts with the City and County of Denver, other Denver agencies, and with outside agencies and stakeholders related to the project.

#### **Task Description**

- Coordinate with project stakeholders (up to five (5) meetings).
- Conduct/Attend up to three (3) coordination meetings with coordinating agencies.

**SCHEDULE OF FEES & CHARGES**

**Project Name**  
**ALTA PLANNING + DESIGN TEAM**

<b>CCD - 14th Ave Bridge Replacement - Cherry Creek</b> <i>prepared by Alta Planning + Design, -4/3/2018</i>	Alta Planning + Design					Task Hours	Reimbursable Expenses and Travel	Task Budget (Incl. Reim. Expenses)
	Principal-in-Charge/PM	Project Manager	Senior Engineer	Project Engineer	Project Coordinator			
	Joe Gilpin	Sam Piper	Tom Natwick, PE	Chloe Ward	Maggie Brown			
<b>TASK DESCRIPTION</b>								
	\$205	\$129	\$129	\$98	\$74			
<b>Task 8 - Construction Detours and Construction Traffic Control</b>						<b>45</b>	<b>\$50</b>	<b>\$5,851</b>
8.1: Concept Development with Wood	3	6		4	8	21		\$2,373
8.2: Review at 30%, 60%, 90% and Final Bid Plans	6	8	6	4		24	50	\$3,478
<b>Task 14 - Multi Agency Involvement &amp; Coordination, Stakeholder Coordination</b>						<b>36</b>		<b>\$4,300</b>
14.1: Project Stakeholder Meetings (5)		10		10		20		\$2,270
14.2: Coordinating Agency Meetings (3)	2	8		6		16		\$2,030
<b>Total Staff Hours</b>	11	32	6	24	8	45		
	<b>\$2,255</b>	<b>\$4,128</b>	<b>\$774</b>	<b>\$2,352</b>	<b>\$592</b>		<b>\$50</b>	<b>\$10,151.00</b>

**GENERAL NOTES:**

\* Hours and staff assignments can be adjusted by the consultant as needed to implement the tasks described during the course of the project.

Exhibit C



# CERTIFICATE OF LIABILITY INSURANCE

DATE(MM/DD/YYYY)  
09/06/2018

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

<b>PRODUCER</b> Aon Risk Services Southwest, Inc. Houston TX Office 5555 San Felipe Suite 1500 Houston TX 77056 USA	<b>CONTACT NAME:</b> PHONE (A/C. No. Ext): (866) 283-7122      FAX (A/C. No.): (800) 363-0105															
	<b>E-MAIL ADDRESS:</b>															
<b>INSURED</b> Wood Group USA, Inc. fka Amec Foster Wheeler 17325 Park Row Houston TX 77084 USA		<table border="1"> <thead> <tr> <th>INSURER(S) AFFORDING COVERAGE</th> <th>NAIC #</th> </tr> </thead> <tbody> <tr> <td>INSURER A: ACE American Insurance Company</td> <td>22667</td> </tr> <tr> <td>INSURER B: Agri General Insurance Company</td> <td>42757</td> </tr> <tr> <td>INSURER C: ACE Fire Underwriters Insurance Co.</td> <td>20702</td> </tr> <tr> <td>INSURER D: AIG Specialty Insurance Company</td> <td>26883</td> </tr> <tr> <td>INSURER E: Lloyd's Syndicate No. 2003</td> <td>AA1128003</td> </tr> <tr> <td>INSURER F:</td> <td></td> </tr> </tbody> </table>	INSURER(S) AFFORDING COVERAGE	NAIC #	INSURER A: ACE American Insurance Company	22667	INSURER B: Agri General Insurance Company	42757	INSURER C: ACE Fire Underwriters Insurance Co.	20702	INSURER D: AIG Specialty Insurance Company	26883	INSURER E: Lloyd's Syndicate No. 2003	AA1128003	INSURER F:	
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INSURER F:																

**COVERAGES**      **CERTIFICATE NUMBER: 570072935082**      **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS. **Limits shown are as requested**

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:			HDOG27874265	05/01/2018	01/31/2019	EACH OCCURRENCE \$1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$1,000,000 MED EXP (Any one person) \$5,000 PERSONAL & ADV INJURY \$2,000,000 GENERAL AGGREGATE \$2,000,000 PRODUCTS - COMP/OP AGG \$4,000,000
A	<input checked="" type="checkbox"/> AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS ONLY			ISA H25150132	05/01/2018	01/31/2019	COMBINED SINGLE LIMIT (Ea accident) \$1,000,000 BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)
	<input type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> DED <input type="checkbox"/> RETENTION						EACH OCCURRENCE AGGREGATE
A	<input checked="" type="checkbox"/> WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR / PARTNER / EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below			WLR64625196	05/01/2018	01/31/2019	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTHER E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE-EA EMPLOYEE \$1,000,000 E.L. DISEASE-POLICY LIMIT \$1,000,000
B	<input type="checkbox"/> ANY PROPRIETOR / PARTNER / EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below		N/A	WLR64625202	05/01/2018	01/31/2019	E.L. EACH ACCIDENT \$1,000,000 E.L. DISEASE-EA EMPLOYEE \$1,000,000 E.L. DISEASE-POLICY LIMIT \$1,000,000
E	Archit&Eng Prof			PSDEF1800726	07/01/2018	06/30/2019	Any One Claim \$1,000,000 Aggregate Limit \$1,000,000
	<b>DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)</b> SEE ATTACHED ADDENDUM FOR ADDITIONAL NAMED INSURED AMEC COMPANIES. RE: Project Description: 14th Avenue Bridge Replacement. The City and County of Denver, its elected and appointed officials, employees and volunteers are included as Additional Insured in accordance with the policy provisions of the General Liability and Automobile Liability policies. General Liability policy evidenced herein is Primary and Non-Contributory to other insurance available to an Additional Insured, but only in accordance with the policy's provisions. A waiver of Subrogation is granted in favor of certificate holder in accordance with the policy provisions of the General Liability, Automobile Liability and Workers' Compensation policies. Should General Liability, Automobile Liability, workers' Compensation and Professional Liability policies be cancelled before the expiration date						

**CERTIFICATE HOLDER****CANCELLATION**

City and County of Denver 201 W. Colfax Avenue, Dept. 614 Denver CO 80202 USA	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.  AUTHORIZED REPRESENTATIVE  <i>Aon Risk Services Southwest, Inc.</i>
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Holder Identifier :

Certificate No : 570072935082





# ADDITIONAL REMARKS SCHEDULE

AGENCY Aon Risk Services Southwest, Inc.		NAMED INSURED Wood Group USA, Inc.	
POLICY NUMBER See Certificate Number: 570072935082		EFFECTIVE DATE:	
CARRIER See Certificate Number: 570072935082	NAIC CODE		

**ADDITIONAL REMARKS**

**THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM, FORM NUMBER: ACORD 25 FORM TITLE: Certificate of Liability Insurance**

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER	
INSURER	
INSURER	
INSURER	

**ADDITIONAL POLICIES** If a policy below does not include limit information, refer to the corresponding policy on the ACORD certificate form for policy limits.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YYYY)	POLICY EXPIRATION DATE (MM/DD/YYYY)	LIMITS	
	WORKERS COMPENSATION							
C		N/A		RWCC64785825 Work Comp- WI	05/01/2018	01/31/2019		



# ADDITIONAL REMARKS SCHEDULE

AGENCY Aon Risk Services Southwest, Inc.		NAMED INSURED Wood Group USA, Inc.	
POLICY NUMBER See Certificate Number: 570072935082			
CARRIER See Certificate Number: 570072935082	NAIC CODE	EFFECTIVE DATE:	

**ADDITIONAL REMARKS**

**THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,**  
**FORM NUMBER:** ACORD 25 **FORM TITLE:** Certificate of Liability Insurance

Additional Description of Operations / Locations / Vehicles:  
 thereof, the policy provisions will govern how notice of cancellation may be delivered to certificate holders in accordance with the policy provisions.



# ADDITIONAL REMARKS SCHEDULE

AGENCY Aon Risk Services Southwest, Inc.		NAMED INSURED Wood Group USA, Inc.	
POLICY NUMBER See Certificate Number: 570072935082			
CARRIER See Certificate Number: 570072935082	NAIC CODE	EFFECTIVE DATE:	

**ADDITIONAL REMARKS**

**THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,  
FORM NUMBER:** ACORD 25 **FORM TITLE:** Certificate of Liability Insurance

Additional Named Insured & FKA

Named Insureds:

- AmeC Foster Wheeler
- AmeC Foster Wheeler E&I, Inc.
- AGRA Pipeline Professionals, Inc.
- AMEC AES
- AMEC Civil, LLC
- AMEC Construction Management, Inc.
- AMEC E&I, Inc.
- AmeC Foster Wheeler AES Inc. (formerly AMEC AES, Inc.)
- AMEC E&E, P.C.
- AMEC Earth and Environmental, Inc.
- AMEC Engineering and Consulting of Michigan, Inc.
- AMEC Environment & Infrastructure, Inc.
- AmeC Foster Wheeler USA Corporation
- AmeC Foster Wheeler Programs Inc.
- AmeC Foster Wheeler Constructors, Inc.
- AmeC Foster Wheeler Energia, S.L.U.
- AmeC Foster Wheeler E&C Services, Inc. (formerly AMEC E7C Services, Inc.)
- AmeC Foster Wheeler E&I, Inc.
- AmeC Foster Wheeler Industrial Power Company, Inc.
- AMEC Massachusetts, Inc.
- AmeC Foster Wheeler Martinez Inc.
- AmeC Foster Wheeler North America Corp
- AmeC Foster Wheeler Ventures, Inc. (formerly National Ventures, Inc.)
- AMEC NNC USA, Inc.
- AMEC Nuclear USA Inc.
- AMEC Offshore, Inc.
- AmeC Foster Wheeler Oil and Gas, Inc. (formerly AMEC Oil & Gas, Inc.)
- AMEC Paragon Inc.
- AMEC PLC
- AMEC Technologies, Inc.
- AmeC Foster Wheeler USA Corporation
- AMEC USA Holding, Inc.
- Foster Wheeler Intercontinental Corporation
- OEST Associates, Inc.
- AmeC Foster Wheeler Kamtech, Inc. (formerly AMEC Kamtech, Inc.)
- MACTEC Engineering and Consulting, P.C.
- North American Shared Services (NASS)
- QED International LLC
- Rider Hunt International USA, Inc.
- Terra Nova Technologies, Inc. (TNT)
- Oil & Gas US, Central & South America
  
- Wood Group USA, Inc.
- Wood Group Alaska, Inc.
- Wood Group PSN, Inc.
- Altablue, Inc.
- Cape Software, Inc.
- BMA Solutions, Inc.
- Global Performance, LLC
- John wood Group PLC
- RWG (Repair & Overhauls) USA, Inc.
- SgurrEnergy, Inc.
- Ingenious, Inc.
- Mustang Process and Industrial
- Mustang International, LP
- Mitchell's Oil Field Services, Inc.
- C.E.C. Controls Company, Inc.
- Wood Environment & Infrastructure Solutions Inc.
- Wood E&IS, Inc.



# ADDITIONAL REMARKS SCHEDULE

AGENCY Aon Risk Services Southwest, Inc.		NAMED INSURED Wood Group USA, Inc.	
POLICY NUMBER See Certificate Number: 570072935082			
CARRIER See Certificate Number: 570072935082	NAIC CODE	EFFECTIVE DATE:	

**ADDITIONAL REMARKS**

**THIS ADDITIONAL REMARKS FORM IS A SCHEDULE TO ACORD FORM,  
 FORM NUMBER: ACORD 25 FORM TITLE: Certificate of Liability Insurance**

Additional Named Insured & FKA

Formerly Known As:  
 AMEC Foster Wheeler Environment & Infrastructure, Inc.(formerly AMEC Environmernt & Infrastructure, Inc.)  
 Wood Group Mustang, Inc.  
 Wood Group Kenny, Inc.  
 Wood Group Management Services, Inc.  
 ODL, Inc.  
 Wood Group Production and Consulting Services, Inc.  
 Wood Group PSN Commissioning Services, Inc.  
 Wood Group PSN Lease Maintenance & Construction, LLC  
 DSI Deepwater Specialists, Inc.  
 Caliber Services, LP  
 Infinity Construction Services, LP  
 Infinity Maintenance Services, LP  
 United Electrical & Instrumentation, Ltd.  
 Brazos M&E, Ltd.  
 Elkhorn Holdings, Inc.  
 Elkhorn Construction, Inc.  
 Elkhorn Pipeline Services  
 HOAD  
 ProSafe  
 Dynamic Services

**Contract Control Number:** PWADM-201844276-00

**Contractor Name:** Wood Environment & Infrastructure Solutions, Inc.

IN WITNESS WHEREOF, the parties have set their hands and affixed their seals at Denver, Colorado as of

SEAL

**CITY AND COUNTY OF DENVER**

ATTEST:

By \_\_\_\_\_

\_\_\_\_\_

APPROVED AS TO FORM:

REGISTERED AND COUNTERSIGNED:

Attorney for the City and County of Denver

By \_\_\_\_\_

By \_\_\_\_\_

By \_\_\_\_\_



Contract Control Number: PWADM-201844276-00

Contractor Name: Wood Environment & Infrastructure Solutions, Inc.

By: Julia Jung

Name: JULIA JUNG  
(please print)

Title: BRIDGE GROUP MANAGER  
(please print)

ATTEST: [if required]

By: Stacey R. Scaravelli

Name: Stacey R. Scaravelli  
(please print)

Title: Transportation Project Controller  
(please print)

