CITY OF GREELEY
Purchasing

Request for Proposal
RFP #FA-19-373-1

Traffic Signal Upgrades, Emergency Maintenance, and Installation for

TRAFFIC DIVISION/ PUBLIC WORKS
REQUEST FOR PROPOSALS (RFP)
RFP #FA19-373-1

Procurement Contact: Adela Gain
Email Address: Adela.gain@greeleygov.com
Telephone Number: 970-350-9792

Proposals must be received no later than:
April 11, 2019, before 3:00 p.m. local time
Proposals received after this date and time will not be considered for award.

The City only accepts proposals in hard copy format and does NOT accept proposals submitted via fax or email. Proposals are to be submitted in a sealed package with the following on the outside of the envelope:

Company Name
RFP Title: Traffic Signal Upgrades, Emergency Maintenance and Installation
RFP Number: FA19-373-1
Due Date and Time: April 11, 2019 before 3:00 pm

Package must include:
• 2 Hard Copies and One (1) complete copy of Proposal on a flash drive

Deliver proposals to:
City of Greeley
Public Works
1001 9th Avenue
Greeley, Colorado 80631

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<th>Schedule of Events (subject to change)</th>
<th>All times are given in local Colorado time</th>
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<td>March 7, 2019</td>
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<td>Pre-Proposal Conference include date/time and location</td>
<td>March 25, 2019 at 10:00 am, Public Works Building, 1001 9th Avenue, 1st floor</td>
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<td>April 11, 2019 before 3:00 pm</td>
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SECTION I. BACKGROUND, OVERVIEW, AND GOALS

A. Overview

The City of Greeley is requesting proposals from qualified firms to perform traffic signal upgrades, emergency maintenance, and signal installation services for projects costing up to $50,000. Work shall be performed to current Traffic Signal Standards as outlined in the scope of services. The City of Greeley's Traffic Services Division maintains 117 signalized intersections, including 49 intersections for the Colorado Department of Transportation (CDOT).

It is the intent of the City to award this bid for the 2019 year, with options for two (2) annual renewals.

SECTION II. STATEMENT OF WORK

A. Scope of Services

The City of Greeley is requesting proposals from qualified firms to perform traffic signal upgrades, emergency maintenance, and signal installation services for projects costing up to $50,000. This includes the installation of various materials and equipment to install, repair or upgrade traffic signal installations at various locations in the City. Various materials shall be supplied as noted in the standard specifications for the specific work item.

Contractor must perform work in accordance with the following provisions:

Standard Specifications for Road and Bridge Construction (current edition), Colorado Department of Transportation, and all amendments and revisions pertaining thereto.


These specifications, the plans, any special provisions, and all supplemental documents are essential parts of a contract and a requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for the complete work. In case of a discrepancy, figured dimensions shall govern over scaled dimensions; plans shall govern over standard specifications; and special provisions shall govern over plans and standard specifications.

Work will be performed on an as-needed basis. The City does not guarantee that any work will be requested.

Proposal Submittal Requirements

Qualified Vendors interested in performing the work described in this request for proposals must submit a complete proposal which addresses all elements of this RFP. Proposals shall not exceed 20 double-sided pages (40 single-sided), excluding cover pages, dividers and Proposal Acknowledgement Form (See page 12 of RFP). Responses must include all items listed below.

1. Scope of Work – Provide a description of the project scope and objectives based on your understanding of the City’s request for proposals. Include the proposed approach and methods for conducting the scope of work.
2. Assigned Personnel – Provide a list of key personnel who will be involved, their roles and availability to administer these services. Include specific staff resumes, experience and documentation showing that all required qualifications are met. Provide the names and responsibilities of any subcontractors/subconsultants who will be involved in the program.

3. Firm Capability – Provide information regarding the experience and qualifications of the firm and staff proposed to perform traffic signal upgrades, emergency maintenance, and signal installation services. Provide three (3) examples of your firm’s experience in providing traffic signal upgrades, emergency maintenance, and signal installation services. Each example must include a brief description of the services provided. Include the name and address of each referenced company/agency as well as the name, title and phone number of the referenced contact person.

4. Proposed Schedule – Provide time table to perform emergency traffic signal work as well as traffic signal upgrades and signal installations following award of the contract.

5. Rates/Fees
   a. Provide a cost for traffic signal upgrades, emergency maintenance, and signal installation per the City of Greeley Traffic Signal Specifications (Exhibit 6) and in accordance with the Basis of Payment (Exhibit 7).

B. Period of Award
   The completion date of providing the required product and services will be specified for each project.

If the City desires to extend the contract, no later than thirty (30) days prior to expiration, the City’s Purchasing Contact may send a notice in writing to the vendor requesting firm pricing for the next twelve-month period. After the City evaluates the firm pricing proposal from the vendor, it will determine whether to extend the contract. All awards and extensions are subject to annual appropriation of funds. The provisions of the foregoing paragraphs with respect to extensions of the terms of the contract shall be null and void if the contract has been terminated or revoked during the initial term or any extension thereof. All decisions to extend the contract are at the option of the City.

C. Minimum Mandatory Qualifications of Offeror

Contractor personnel must be competent in the construction and wiring techniques required for traffic signal installation, have adequate knowledge and have experience in the operation of traffic signal controllers. An IMSA Level II Traffic Signal Field Technician is required for any work within a controller cabinet and required to be on job-site at all times to supervise construction. Contractor shall provide the City a copy of the individual’s certification prior to the start of work.

SECTION III. ADMINISTRATIVE INFORMATION

A. Issuing Office:
The City’s contact name listed herein is to be the sole point of contact concerning this RFP. Offerors shall not directly contact other personnel regarding matters concerning this RFP or to arrange meetings related to such.

B. Official Means of Communication:
All official communication from the City to offerors will be via postings on an electronic solicitation notification system, the Rocky Mountain Bid System (www.rockymountainbidsystem.com). The
Purchasing Contact will post notices that will include, but not be limited to, proposal document, addenda, award announcement, etc. It is incumbent upon offerors to carefully and regularly monitor the Rocky Mountain Bid System for any such postings.

C. Inquiries:
Prospective offerors may make written inquiries by e-mail before the written inquiry deadline concerning this RFP to obtain clarification of requirements. There will be opportunity to make inquiries during the pre-proposal conference, if any. No inquiries will be accepted after the deadline. Inquiries regarding this RFP (be sure to reference RFP number) should be referred to:

E-Mail: adela.gain@greeleygov.com
Subject Line: RFP #FA19-373-1

Response to offerors’ inquiries will be published as addenda on the Rocky Mountain Bid System in a timely manner. Offerors cannot rely on any other statements that clarify or alter any specification or other term or condition of the RFP.

Should any interested offeror, sales representative, or manufacturer find any part of the listed specifications, terms and conditions to be discrepant, incomplete, or otherwise questionable in any respect, it shall be the responsibility of the concerned party to notify the Purchasing Contact of such matters immediately upon discovery.

D. Insurance: (Exhibit 4)
The successful contractor will be required to provide a Certificate of Insurance or other proof of insurance naming the City of Greeley as “additional insured”. Coverage must include COMMERCIAL GENERAL LIABILITY coverage with minimum limits of $2,000,000, and WORKER’S COMPENSATION coverage with limits in accordance with State of Colorado requirements.

COMPREHENSIVE AUTOMOBILE LIABILITY with minimum limits for bodily injury and property damage coverage of at least $1,000,000, plus an additional amount adequate to pay related attorneys' fees and defense costs, for each of Consultant's owned, hired or non-owned vehicles assigned to or used in performance of this Agreement.

The City shall be named as additional Insured for General and Auto Liability Insurance.

Awarded offeror must present the City with proof of PROFESSIONAL LIABILITY COVERAGE with a minimum limit of $1,000,000.

E. Modification or Withdrawal of Proposals:
Proposals may be modified or withdrawn by the offeror prior to the established due date and time.

F. Minor Informalities:
Minor informalities are matters of form rather than substance evident from the response or insignificant mistakes that can be waived or corrected without prejudice to other vendors. The Manager may waive such informalities or allow the vendor to correct them depending on which is in the best interest of the City.

G. Responsibility Determination:
The City will make awards only to responsible vendors. The City reserves the right to assess offeror responsibility at any time in this RFP process and may not make a responsibility determination for every offeror.

H. **Acceptance of RFP Terms:**
A proposal submitted in response to this RFP shall constitute a binding offer. The autographic signature of a person who is legally authorized to execute contractual obligations on behalf of the offeror shall indicate acknowledgment of this condition. A submission in response to this RFP acknowledges acceptance by the offeror of all terms and conditions as set forth herein. An offeror shall identify clearly and thoroughly any variations between its proposal and the RFP in the cover letter. Failure to do so shall be deemed a waiver of any rights to subsequently modify the terms of performance, except as outlined or specified in the RFP.

I. **Protested Solicitations and Awards:**
Right to protest. Any actual or prospective bidder, offeror or contractor who is aggrieved in connection with the solicitation or award of a contract must protest in writing to the City Manager as a prerequisite to seeking judicial relief. Protestors are urged to seek informal resolution of their complaints initially with the Purchasing Manager. A protest shall be submitted within ten (10) calendar days after such aggrieved person knows or should have known of the facts giving rise thereto. A protest with respect to an invitation for bids or request for proposals shall be submitted in writing prior to the opening of bids or the closing date of proposals, unless the aggrieved person did not know and should not have known of the facts giving rise to such protests prior to bid opening or the closing date for proposals.

1. Stay of procurement during protests. In the event of a timely protest under Subsection (A) of this Section, the Purchasing Manager shall not proceed further with the solicitation or award of the contract until all administrative and judicial remedies have been exhausted or until the City Manager makes a written determination on the record that the award of a contract without delay is necessary to protect substantial interest of the City. (Ord. 75, 1984 §2 (part))

J. **Confidential/Proprietary Information:**
All proposals will be confidential until a contract is awarded and fully executed. At that time, all proposals and documents pertaining to the proposals will be open for public inspection, except for the material that is proprietary or confidential. However, requests for confidentiality can be submitted to the Purchasing Contact provided that the submission is in accordance with the following procedures. This remains the sole responsibility of the offeror. The Purchasing Contact will make no attempt to cure any information that is found to be at a variance with this procedure. The offeror may not be given an opportunity to cure any variances after proposal opening. **Neither a proposal in its entirety, nor proposal price information will be considered confidential/proprietary.** Questions regarding the application of this procedure must be directed to the Purchasing Contact listed in this RFP.

K. **Acceptance of Proposal Content:**
The contents of the proposal (including persons specified to implement the project) of the successful contractor shall become contractual obligations into the contract award. Failure of the successful offeror to perform in accordance with these obligations may result in cancellation of the award and such offeror may be removed from future solicitations.

L. **RFP Cancellation:**
The City reserves the right to cancel this RFP at any time, without penalty.
M. **Negotiation of Award:**
In the event only one (1) responsive proposal is received by the City, the City reserves the right to negotiate the award for the services with the offeror submitting the proposal in lieu of accepting the proposal as is.

N. **Contract: (Exhibit 2)**
A sample copy of the contract award the City will use to contract for the services specified in this RFP is included as Exhibit 2 for your review. The attached contract is only a sample and is not to be completed at this time.

O. **RFP Response/ Material Ownership:**
All material submitted regarding this RFP becomes the property of the City of Greeley, unless otherwise noted in the RFP.

P. **Incurring Costs:**
The City is not liable for any cost incurred prior to issuance of a legally executed contract and/or a purchase order.

Q. **Utilization of Award by Other Agencies:**
The City of Greeley reserves the right to allow other State and local governmental agencies, political subdivisions, and/or school districts to utilize the resulting award under all terms and conditions specified and upon agreement by all parties. Usage by any other entity shall not have a negative impact on the City of Greeley in the current term or in any future terms.

R. **Non-Discrimination:**
The offeror shall comply with all applicable state and federal laws, rules and regulations involving non-discrimination on the basis of race, color, religion, national origin, age or sex.

S. **News Releases:**
Neither the City, nor the offeror, shall make news releases pertaining to this RFP prior to execution of the contract without prior written approval of the other party. Written consent on the City's behalf is provided by the Public Information Office.

T. **Certification of Independent Price Determination:**
1. By submission of this proposal each offeror certifies, and in the case of a joint proposal each party, thereto certifies as to its own organization, that in connection with this procurement:
   a) The prices in this proposal have been arrived at independently, without consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other offeror or with any competitor;
   b) Unless otherwise required by law, the prices which have been quoted in this proposal have not been knowingly disclosed by the offeror and will not knowingly be disclosed by the offeror prior to opening, directly or indirectly to any other offeror or to any competitor; and
   c) No attempt has been made or will be made by the offeror to induce any other person or firm to submit or not to submit a proposal for the purpose of restricting competition.

2. Each person signing the Request for Proposal form of this proposal certifies that:
   a) He/she is the person in the offeror's organization responsible within that organization for the decision as to the prices being offered herein and that he/she has not participated, and will not participate, in any action contrary to (1.a) through (1.c) above; or
b) He/she is not the person in the offeror's organization responsible within that organization for the decision as to the prices being offered herein but that he/she has been authorized in writing to act as agent for the persons responsible for such decision in certifying that such persons have not participated, and will not participate, in any action contrary to (1.a) through (1.c) above, and as their agent does hereby so certify; and he/she has not participated, and will not participate, in any action contrary to (1.a) through (1.c) above.

2. A proposal will not be considered for award where (1.a), (1.c), or (2.) above has been deleted or modified. Where (1.b) above has been deleted or modified, the proposal will not be considered for award unless the offeror furnishes with the proposal a signed statement which sets forth in detail the circumstances of the disclosure and the City's Purchasing Manager, or designee, determines that such disclosure was not made for the purpose of restricting competition.

3. The Contract Documents may be executed in two or more counterparts, each of which shall be deemed an original but all of which together shall constitute one and the same document. The Contract Documents, including all component parts set forth above, may be executed and delivered by electronic signature by any of the parties and all parties consent to the use of electronic signatures.

U. Taxes:
The City of Greeley is exempt from all federal excise taxes and all Colorado State and local government sales and use taxes. Where applicable, contractor will be responsible for payment of use taxes.

V. Assignment and Delegation:
Neither party to any resulting contract may assign or delegate any portion of the agreement without the prior written consent of the other party.

W. Availability of Funds:
Financial obligations of the City of Greeley payable after the current fiscal year are contingent upon funds for that purpose being appropriated, budgeted and otherwise made available. In the event funds are not appropriated, any resulting contract will become null and void without penalty to the City.

X. Standard of Conduct:
The successful firm shall be responsible for maintaining satisfactory standards of employees' competency, conduct, courtesy, appearance, honesty, and integrity, and shall be responsible for taking such disciplinary action with respect to any employee as may be necessary.

The City may request the successful firm to immediately remove from this assignment any employee found unfit to perform duties due to one or more of the following reasons:

1. Neglect of duty.
2. Disorderly conduct, use of abusive or offensive language, quarreling, intimidation by words or actions or fighting.
3. Theft, vandalism, immoral conduct or any other criminal action.
4. Selling, consuming, possessing, or being under the influence of intoxicants, including alcohol, or illegal substances while on assignment for the City.
Agents and employees of Contractor or Consultant working in City facilities shall present a clean and neat appearance. Prior to performing any work for the City, the Contractor or Consultant shall require each of their employees to wear ID badges or uniforms identifying: the Contractor or Consultant by name, the first name of their employee and a photograph of their employee if using an ID badge. Their employee shall wear or attach the ID badge to the outer garments at all times.

Y. **Damages for Breach of Contract:**
In addition to any other legal or equitable remedy the City may be entitled to for a breach of this Contract, if the City terminates this Contract, in whole or in part, due to Contractor’s breach of any provision of this Contract, Contractor shall be liable for actual and consequential damages to the City.

Z. **Other Statutes:**
1. The signatory hereto avers that he/she is familiar with Colorado Revised Statutes, 18-8-301, et seq. (Bribery and Corrupt Influence) and 18-8-401, et seq. (Abuse of Public Office) as amended, and that no violation such provisions is present.
2. The signatory hereto avers that to his/her knowledge, no City of Greeley employee has any personal or beneficial interest whatsoever in the service or property described herein. See CRS 24-18-201 and CRS 24-50-507.

**SECTION IV. PROPOSAL SUBMISSION**

Following are the response requirements for this RFP. All specific response items represent the minimum information to be submitted. Deletions or incomplete responses in terms of content or aberrations in form may, at the City’s discretion, render the proposal non-responsive.

**Offerors shall submit in a sealed package:**
- 2 Hard Copies and One (1) complete copy of Proposal on a flash drive

To facilitate the evaluation, offeror shall submit and organize all responses in the same order as listed in Section V. Proposals that are determined to be at a variance with this requirement may not be accepted. The City only accepts proposals in hard copy format and does not accept proposals submitted via fax or email.

Late proposals will not be accepted. It is the responsibility of the offeror to ensure that the proposal is received at the City of Greeley’s Purchasing Division on or before the proposal due date and time.

The outside of the package will include the following information:
- Company Name
- RFP Number
- RFP Title
- Due Date and Time

**SECTION V. RESPONSE FORMAT**

The following items are to be included in your proposal, in the order listed. Deviation from this may render your proposal non-responsive.
A. **Cover Letter.** Include a cover letter introducing your company, summarizing your qualifications, and detailing any exceptions to this RFP (please note that significant exceptions may make your proposal non-responsive). This letter should also provide principal contact information for this RFP, including address, telephone number, fax number, e-mail, and website (if applicable).

B. **Use of Subcontractors/Partners.** There may be areas for use of subcontractors or partners in this project. If you are utilizing this approach, your proposal must list the subcontractors/partners, their area(s) of expertise, and include all other applicable information herein requested for each subcontractor/partner. Please keep in mind that the City will contract solely with your company, therefore subcontractors/partners remain your sole responsibility.

C. **Minimum Mandatory Qualifications.** Include an itemized description of how your company meets each of the minimum mandatory qualifications outlined in Section II, C. Failure to meet or exceed these requirements will disqualify your response.

D. **Company Information**
   1. Provide the following information as listed: Company Name, Address, Phone Number, and Names of Principals.
   2. Identify the year in which your company was established and began providing services.
   3. Describe any pending plans to sell or merge your company.
   4. Provide a comprehensive listing of all the services you provide.

E. **Evaluation Criterion #1 - e.g., Company and Personnel Qualifications**
   1. Describe your customer service philosophy.
   2. Provide information from at least three accounts of similar scope. Include, at a minimum, the following information: 1) company name, 2) contact name, 3) phone number, 4) fax number, 5) email address, 6) brief description of project scope and value, 7) status of project. The City reserves the right to contact the references provided in your proposal as well as other references without prior notification to you.
   3. List the number of people that you can commit to working on this project and the amount of time each is expected to spend on the project. (List any discipline you would like to see - examples for a design services might be - design of HVAC, mechanical systems, electrical systems, architectural, structural, geotechnical, etc.)
   4. Provide the names and resumes of the key personnel that will be performing the proposed services, including the primary project manager.
   5. List the names of the subcontractors you expect to use, the services to be provided by the subcontractors and the amount of time that each is expected to spend on the project. Also, include the names and resumes of the key subcontractor personnel who will be working on the project.
   6. Provide a specific timeline or schedule for the work. (Spell out mile marks if needed. Example: including development of preliminary design & cost estimates, meetings with City staff, completion of final design, cost estimates and bidding documents.) Show milestones and completion dates on the schedule.
   7. Describe the methods and timeline of communication your firm will use with the City’s project manager, other involved City staff, and other interested parties.

**Evaluation Criterion #2 - e.g., Approach to Scope of Work**
   1. Describe any project approaches or ideas that you would apply to this project and that you feel would enhance the quality of your services.
2. Describe how the team will handle quality control, specifically how design issues would be monitored and resolved, plans checked and cross-referenced and bid documents ensured to be complete, accurate, and coordinated with subcontractors.

**Evaluation Criterion #3 - e.g., Value/Cost of Efforts**

1. Provide a cost for the consulting services broken down per task listed under the *Fee Proposal (Exhibit 5)*. This cost shall include all reimbursable expenses required including subcontractor’s cost to complete the work. These rates will be considered valid throughout the project.

**F. Proposal Acknowledgement: (Exhibit 1)**

Include this form as provided in Exhibit 1.

**SECTION VI. EVALUATION AND AWARD**

**A. Proposal Evaluation**

All proposals submitted in response to this RFP will be evaluated by a committee in accordance with the criteria described below. Total scores will be tabulated, and the highest ranked firm will enter into negotiations.

If the City requests presentations by short-listed offerors, committee members may revise their initial scores based upon additional information and clarification received in this phase.

In preparing responses, offerors should describe in great detail how they propose to meet the specifications as detailed in the previous sections. Specific factors will be applied to proposal information to assist the City in selecting the most qualified offeror for this contract. Following is the evaluation criteria that will be used. Criteria will be assigned a points value.

1. Approach to Scope of Work (15 Points)
2. Qualifications of Assigned Personnel to the Project (15 Points)
3. Firms Capability to Perform Work (15 Points)
4. Proposed Schedule (15 Points)
5. Fee Proposal (40 points)

A presentation and/or demonstration may be requested by short-listed offerors prior to award. However, a presentation/demonstration may not be required, and therefore, complete information should be submitted with your proposal.

**B. Determination of Responsibility of the Offeror**

The City of Greeley awards contracts to responsible vendors only. The City reserves the right to make its offeror responsibility determination at any time in this RFP process and may not make a responsibility determination for every offeror.

The City of Greeley’s Municipal Code defines a “Responsible Offeror” as one who has “the capability in all respects to perform fully the contract requirements, and the tenacity, perseverance, experience, integrity, reliability, capacity, facilities, equipment, and credit which will assure good faith performance.” The City reserves the right to request information as it deems necessary to determine an offeror’s responsibility. If the
offeror fails to supply the requested information, the City shall base the determination of responsibility upon any available information or may find the offeror non-responsible if such failure is unreasonable.
The offeror hereby acknowledges receipt of addenda numbers _____ through _____.

Falsifying this information is cause to deem your proposal nonresponsive and therefore ineligible for consideration. In addition, falsification of this information is cause to cancel a contract awarded based on one or both of the above preferences.

By signing below, you agree to all terms & conditions in this RFP, except where expressly described in your cover letter.

________________________________________
Original Signature by Authorized Officer/Agent

________________________________________
Type or printed name of person signing

________________________________________
Company Name

________________________________________
Title

________________________________________
Phone Number

________________________________________
Vendor Mailing Address

________________________________________
Fax Number

________________________________________
City, State, Zip

________________________________________
Proposal Valid Until (at least for 90 days)

________________________________________
E-Mail Address

________________________________________
Website Address

**Project Manager:**

________________________________________
Name (Printed)

________________________________________
Phone Number

________________________________________
Vendor Mailing Address

________________________________________
Fax Number

________________________________________
City, State, Zip

________________________________________
Email Address
EXHIBIT 2
SAMPLE CONTRACT
CONTRACT FOR CONSULTING/PROFESSIONAL SERVICES
BID TITLE AND NUMBER

This Contract is made as of _____________________, by and between the City of Greeley, Greeley, Colorado, hereinafter referred to as the CITY, and Vendor Name authorized to do business in the State of Colorado, hereinafter referred to as the CONSULTANT, whose address is Vendor Address.

In consideration of the mutual promises contained herein, the CITY and the CONSULTANT agree as follows:

ARTICLE 1 - SERVICES

The CONSULTANT’S responsibility under this Contract is to provide professional/consultation services in the area of Summary of Services Providing.

More specifically, the scope of services is attached. The services of the CONSULTANT shall be under the direction of the Project Manager who has been designated by the Director of Name of Department to act as the CITY’S representative during the performance of this Contract.

ARTICLE 2 - SCHEDULE

The CONSULTANT shall commence services upon execution of the Contract and complete all services on or before Completion Date, in conjunction with the attached schedule.

ARTICLE 3 - PAYMENTS TO CONSULTANT

A. The CITY shall pay to the CONSULTANT for services satisfactorily performed, based on sum not to exceed Bid Amount, which includes all direct charges, indirect charges, and reimbursable expenses stated in the attached document. The CONSULTANT will bill the CITY on a monthly basis or as otherwise provided for services rendered toward the completion of the Scope of Work. The amounts billed shall represent the sum of billable time (including overhead and profit) for labor hours expended plus any other allowable costs and expenses for services stated in the attached document. The CONSULTANT shall track expenditures and inform the CITY of any possible cost overrun prior to completing work that would overrun the maximum contract sum. The CITY may choose to increase the budget for the work using a mutually acceptable contract amendment or it may choose not to increase the budget and terminate the work accordingly.

B. Invoices received from the CONSULTANT pursuant to this Contract will be reviewed and approved by the Project Manager, indicating that services have been rendered in conformity with the Contract and then will be sent to the Finance Department for payment.

ARTICLE 4 - TRUTH-IN-NEGOTIATION CERTIFICATE

Signature of this Contract by the CONSULTANT shall act as the execution of a truth-in-negotiation certificate certifying that the wage rates and costs used to determine the compensation provided for in this contract are accurate, complete, and current as of the date of this Contract.

The said rates and costs shall be adjusted to exclude any significant sums should the CITY determine that the rates and costs were increased due to inaccurate, incomplete, or non-current wage rates or due to inaccurate representations of fees paid to outside consultants. The CITY shall exercise its rights under this “Certificate” within one (1) year following final payment.
ARTICLE 5 - TERMINATION

This Contract may be terminated by the CONSULTANT upon 30 days' prior written notice to the CITY in the event of substantial failure by the CITY to perform in accordance with the terms of this Contract through no fault of the CONSULTANT. It may also be terminated by the CITY, with or without cause, immediately upon written notice to the CONSULTANT. Unless the CONSULTANT is in breach of this Contract, the CONSULTANT shall be paid for services rendered to the CITY’S satisfaction through the date of termination. After receipt of a Termination Notice and except as otherwise directed by the CITY the CONSULTANT shall:

A. Stop work on the date and to the extent specified.

B. Terminate and settle all orders and subcontracts relating to the performance of the terminated work.

C. Transfer all work in process, completed work, and other material related to the terminated work to the CITY.

D. Continue and complete all parts of the work that have not been terminated.

The CONSULTANT shall be paid for services actually rendered to the date of termination.

ARTICLE 6 - PERSONNEL

The CONSULTANT represents that it has, or will, secure at its own expense all necessary personnel required to perform the services under this Contract. Such personnel shall not be employees of or have any contractual relationship with the CITY.

All of the services required hereinunder shall be performed by the CONSULTANT or under its supervision, and all personnel engaged in performing the services shall be fully qualified and if required, authorized or permitted under state and local law to perform such services.

Any changes or substitutions in the CONSULTANT’S key personnel, as may be listed in the proposal for the work, must be made known to the CITY’S representative and written approval granted by the CITY before said changes or substitutions can become effective.

The CONSULTANT declares that all services shall be performed by skilled and competent personnel to the level of care and skill ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions.

ARTICLE 7 – SUB-CONSULTANT

The CITY reserves the right to accept the use of a sub-consultant or to reject the selection of a particular sub-consultant and to inspect all facilities of any sub-consultants in order to make a determination as to the capability of the sub-consultant to perform properly under this Contract. The CONSULTANT is encouraged to seek minority and women business enterprises for participation in subcontracting opportunities.

If a sub-consultant fails to perform or make progress, as required by this Contract, and it is necessary to replace the sub-consultant to complete the work in a timely fashion, the CONSULTANT shall promptly do so, subject to acceptance of the new sub-consultant by the CITY.

ARTICLE 8 - FEDERAL AND STATE TAX

The CITY is exempt from payment of Colorado State Sales and Use Taxes. The CITY will sign an exemption certificate submitted by the CONSULTANT. The CONSULTANT shall not be exempted from paying sales tax to their suppliers for materials used to fulfill contractual obligations with the CITY, nor is the CONSULTANT authorized to use the CITY’S tax exemption number in securing such materials.
The CONSULTANT shall be responsible for payment of his/her own FICA and Social Security benefits with respect to this Contract.

ARTICLE 9 - AVAILABILITY OF FUNDS

When funds are not appropriated or otherwise made available to support continuation of performance in a subsequent fiscal period, the contract may be cancelled and the CITY shall reimburse the CONSULTANT for expenses incurred during the contract period.

ARTICLE 10 - INSURANCE

A. The CONSULTANT shall not commence work under this Agreement until he/she has obtained all insurance required under this paragraph and such insurance has been approved by the CITY.

B. All insurance policies shall be issued by companies authorized to do business under the laws of the State of Colorado. The CONSULTANT shall furnish Certificates of Insurance to the CITY prior to the commencement of operations. The Certificates shall clearly indicate that the CONSULTANT has obtained insurance of the type, amount, and classification as required for strict compliance with this paragraph and that no material change or cancellation of the insurance shall be effective without ten (10) days prior written notice to the CITY. Compliance with the foregoing requirements shall not relieve the CONSULTANT of its liability and obligations under this Contract.

C. The CONSULTANT shall maintain, during the life of this Contract, professional liability insurance (errors and omissions) in the amount of $1,000,000 per occurrence to protect the CONSULTANT of claims for damages for negligent acts, errors or omissions in the performance of professional services under this Contract, whether such acts, errors or omissions be by the CONSULTANT or by anyone directly employed by or contracting with the CONSULTANT.

D. The CONSULTANT shall maintain, during the life of this Contract, comprehensive automobile liability insurance in the amounts of $1,000,000 combined single limit bodily injury and $50,000 property damage to protect the CONSULTANT from claims for damages for bodily injury, including wrongful death, as well as from claims for property damage, which may arise from the ownership, use, or maintenance of owned and non-owned automobiles, including rented automobiles whether such operations by the CONSULTANT or by any directly or indirectly employed by the CONSULTANT.

E. The CONSULTANT shall maintain, during the life of this Contract, adequate Workmen's Compensation Insurance and Employer's Liability Insurance in at least such amounts as are required by law for all of its employees performing work for the CITY pursuant to this Contract.

F. All insurance, other than Workmen's Compensation and Professional Liability, is to be maintained by the CONSULTANT shall specifically include the CITY as an "Additional Insured".

ARTICLE 11 - INDEMNIFICATION

The CONSULTANT shall indemnify and save harmless and defend the CITY, its agents, servants, and employees from and against any and all claims, liability, losses, and/or cause of action which may arise from any negligent act or omission of the CONSULTANT, its agents, servants, or employees in the performance of services under this Contract.

ARTICLE 12 - SUCCESSORS AND ASSIGNS

The CITY and the CONSULTANT each binds itself and its partners, successors, executors, administrators, and assigns to the other party of this Contract and to the partners, successors, executors, administrators, and assigns of such other party, in respect to all covenants of this Contract. Except as above, neither the CITY nor the CONSULTANT shall assign, sublet, convey, or transfer its interest on this Contract without the written consent of the other. Nothing herein shall be
construed as creating any personal liability on the part of any officer of agent of the CITY which may be party hereto, nor shall it be construed as giving any rights or benefits hereunder to anyone other than the CITY and the CONSULTANT.

ARTICLE 13 - REMEDIES

This Contract shall be governed by the laws of the State of Colorado. Any and all legal action necessary to enforce the Contract will be held in Weld County and the contract will be interpreted according to the laws of Colorado. No remedy herein conferred upon any party is intended to be exclusive of any other remedy, and each and every other remedy given hereunder or now or hereafter existing at law or in equity or by statute or otherwise. No single or partial exercise by any party of any right, power, or remedy hereunder shall preclude any other or further exercise thereof.

In any action brought by either party for the enforcement of the obligations of the other party, the prevailing party shall be entitled to recover reasonable attorney's fees.

ARTICLE 14 - COLORADO LAW

The Colorado Law shall prevail as the basis for contractual obligations between the CONSULTANT and the CITY for any terms and conditions not specifically stated in this Contract.

ARTICLE 15 - CONFLICT OF INTEREST

The CONSULTANT represents that it presently has no interest and shall acquire no interest, either direct or indirect, which would conflict in any manner with the performance of services required hereunder, as provided for in Colorado Statutes and ordinances of the City of Greeley. The CONSULTANT further represents that no person having any interest shall be employed for said performance.

The CONSULTANT shall promptly notify the CITY in writing by certified mail of all potential conflicts of interest for any prospective business association, interest or other circumstance which may influence or appear to influence the CONSULTANT’S judgment or quality of services being provided hereunder. Such written notification shall identify the prospective business association, interest or circumstance, the nature of work that the CONSULTANT may undertake and request an opinion of the CITY as to whether the association, interest or circumstance would, in the opinion of the CITY, constitute a conflict of interest if entered into by the CONSULTANT. The CITY agrees to notify the CONSULTANT of its opinion by certified mail within 30 days of receipt of notification by the CONSULTANT. If, in the opinion of the CITY, the prospective business association, interest or circumstance would not constitute a conflict of interest by the CONSULTANT, the CITY shall so state in the notification and the CONSULTANT shall, at his/her option, enter into said association, of interest with respect to services provided to the CITY by the CONSULTANT under the terms of this Contract.

ARTICLE 16 - EXCUSABLE DELAYS

The CONSULTANT shall not be considered in default by reason of any failure in performance if such failure arises out of causes reasonably beyond the CONSULTANT’S control and without its fault or negligence. Such causes may include, but are not limited to: acts of God; the CITY’S omissive and commissive failures; natural or public health emergencies; labor disputes; freight embargoes; and severe weather conditions. If failure to perform is caused by the failure of the CONSULTANT’S sub-consultant(s) to perform or make progress, and if such failure arises out of causes reasonably beyond the control of the CONSULTANT and its sub-consultant(s) and is without the fault or negligence of either of them, the CONSULTANT shall not be deemed to be in default.

Upon the CONSULTANT’S request, the CITY shall consider the facts and extent of any failure to perform the work and, if the CONSULTANT’S failure to perform was without its fault or negligence, the Contract Schedule and/or any other affected provision of this Contract shall be revised accordingly; subject to the CITY’S rights to change, terminate, or stop any or all of the work at any time.
ARTICLE 17 - ARREARS

The CONSULTANT shall not pledge the CITY’S credit or make it a guarantor of payment or surety for any contract, debt, obligation, judgment, lien, or any form of indebtedness. The CONSULTANT further warrants and represents that it has no obligation or indebtedness that would impair its ability to fulfill the terms of this Contract.

ARTICLE 18 - DISCLOSURE AND OWNERSHIP OF DOCUMENTS

The CONSULTANT shall deliver to the CITY for approval and acceptance, and before being eligible for final payment of any amounts due, all documents and materials prepared by and for the CITY under this Contract.

All written and oral information not in the public domain or not previously known, and all information and data obtained, developed, or supplied by the CITY or at its expense will be kept confidential by the CONSULTANT and will not be disclosed to any other party, directly or indirectly, without the CITY’S prior written consent unless required by a lawful order. All drawings, maps, sketches, and other data developed, or purchased, under this Contract or at the CITY’S expense shall be and remain the CITY’S property and may be reproduced and reused at the discretion of the CITY. The CITY shall indemnify and hold CONSULTANT harmless for any claim or liability arising from any use or reuse of the documents for any purpose other than the project and scope of work for which they were prepared.

ARTICLE 19 – INDEPENDENT CONSULTANT RELATIONSHIP

The CONSULTANT is, and shall be, Om the performance of all work services and activities under this Contract, as Independent Consultant, and not an employee, agent, or servant of the CITY. All persons engaged in any of the work or services performed pursuant to this Contract shall at all times, and in all places, be subject to the CONSULTANT’S sole direction, supervision, and control. The CONSULTANT shall exercise control over the means and manner in which it and its employees perform the work, and in all respects the CONSULTANT’S relationship and the relationship of its employees to the CITY shall be that of an independent CONSULTANT and not as employees or agents of the CITY.

The CONSULTANT does not have the power or authority to bind the CITY in any promise, agreement, or representation other than specifically provided for in this agreement.

ARTICLE 20 - CONTINGENT FEES

The CONSULTANT warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the CONSULTANT to solicit or secure this Contract and that is has not paid or agreed to pay any person, company, corporation, individual, or firm, other than a bona fide employee working solely for the CONSULTANT, any fee, commission, percentage, gift, or any other consideration contingent upon or resulting from the award or making of this Contract.

ARTICLE 21 - ACCESS AND AUDITS

The CONSULTANT shall maintain adequate records to justify all charges, expenses, and costs incurred in performing the work for at least three (3) years after completion of this Contract. The CITY shall have access to such books, records, and documents as required in this section for the purpose of inspection or audit during normal business hours, at the CITY’S cost, upon five (5) days written notice.

ARTICLE 22 - NONDISCRIMINATION

The CONSULTANT declares and represents that all of its employees are treated equally during employment without regard to race, color, religion, physical handicap, sex, age, or national origin.

ARTICLE 23 - SURVIVAL
All covenants, agreements, representations, and warranties made herein, or otherwise made in writing by any party pursuant hereto, including but not limited to any representations made herein relating to disclosure or ownership of documents, shall survive the execution and delivery of this Contract and the consummation of the transactions contemplated hereby.

ARTICLE 24 - ENTIRETY OF CONTRACTUAL AGREEMENT

The CITY and the CONSULTANT agree that this Contract sets forth the entire agreement between the parties, and that there are no promises or understandings other than those stated herein. None of the provisions, terms, and conditions contained in this Contract may be added to, modified, superseded or otherwise altered, except by written instrument executed by the parties hereto.

ARTICLE 25 - ENFORCEMENT COSTS

If any legal action or other proceeding is brought for the enforcement of this Contract, or because of an alleged dispute, breach, default, or misrepresentation in connection with any provisions of this Contract, the successful or prevailing party or parties shall be entitled to recover reasonable attorney's fees, court costs, and all expenses (including taxes) even if not taxable as court costs (including, without limitation, all such fees, costs, and expenses incident to appeals), incurred in that action or proceeding, in addition to any other relief to which such party or parties may be entitled.

ARTICLE 26 - AUTHORITY TO PRACTICE

The CONSULTANT hereby represents and declares that it has and will continue to maintain all licenses and approvals required to conduct its business, and that it will at all times conduct its business activities in a reputable manner.

ARTICLE 27 - SEVERABILITY

If any term or provision of this Contract, or the application thereof to any person or circumstances shall, to any extent, be held invalid or unenforceable, the remainder of this Contract, or the application of such terms or provision, to person or circumstances other than those as to which it is held invalid or unenforceable, shall not be affected, and every other term and provision of this Contract shall be deemed valid and enforceable to the extent permitted by law.

ARTICLE 28 - AMENDMENTS AND MODIFICATION

No amendment and/or modifications of this Contract shall be valid unless in writing and signed by each of the parties.

The CITY reserves the right to make changes in the work, including alterations, reductions therein or additions thereto. Upon receipt by the CONSULTANT of the CITY'S notification of a contemplated change, the CONSULTANT shall (1) if requested by CITY, provide an estimate for the increase or decrease in cost due to the contemplated change, (2) notify the CITY of any estimated change in the completion date, and (3) advise the CITY in writing if the contemplated change shall effect the CONSULTANT'S ability to meet the completion dates or schedules of this Contract.

If the CITY so instructs in writing, the CONSULTANT shall suspend work on that portion of the Work affected by a contemplated change, pending the CITY'S decision to proceed with the change.

If the CITY elects to make the change, the CITY shall issue a Contract Amendment or Change Order and the CONSULTANT shall not commence work on any such change until such written amendment or change order has been issued and signed by each of the parties.

ARTICLE 29 - COMPLIANCE WITH C.R.S. § 8-17.5-101

A. By signing this Agreement, the CONSULTANT certifies that at the time of the Certification, it does not knowingly employ or contract with any Illegal alien who will perform work under this Contract.

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B. By signing this Agreement, the CONSULTANT certifies that it shall not knowingly employ or contract with any illegal aliens to perform work under this contract; nor enter into a contract with any sub-consultant that knowingly employs or contracts with an illegal alien to perform work under this contract.

C. CONSULTANT has confirmed the employment eligibility of all employees who are newly hired for employment to perform work under this public contract for services through participation in either the E-Verify program or the Colorado Department of Labor and Employment Program.

D. The CONSULTANT is prohibited from using the E-Verify program or the Department of Labor and Employment Program procedures to undertake pre-employment screening of job applicants while the public contract for services is being performed.

E. By signing this agreement the CONSULTANT affirmatively acknowledges that if the consultant obtains actual knowledge that a sub-consultant performing work under the public contract for services knowingly employs or contracts with an illegal alien, the consultant shall be required to:
   (i) notify the sub-consultant and the contracting state agency or political subdivision within three days that the consultant has actual knowledge that the sub-consultant is employing or contracting with an illegal alien; and
   (ii) terminate the subcontract with the sub-consultant if within three days of receiving the notice required pursuant to sub-subparagraph (i) of this subparagraph the sub-consultant does not stop employing or contracting with the illegal alien; except that the consultant shall not terminate the contract with the sub-consultant if during such three days the sub-consultant provides information to establish that the sub-consultant has not knowingly employed or contracted with an illegal alien.

F. The CONSULTANT shall comply with all reasonable requests made in the course of an investigation by the Colorado Department of Labor and Employment.

G. The CONSULTANT shall, within twenty days after hiring an employee who is newly hired for employment to perform work under this contract, affirm that the CONSULTANT has examined the legal work status of such employee, retained file copies of the Documents required by 8 U.S.C. § 1324(a) , and not altered or falsified the identification documents for such employees. The CONSULTANT shall provide a written notarized copy of the affirmation to the CITY.

H. If CONSULTANT violates any provision of this Contract pertaining to the duties imposed by Subsection 8-17.5-102, C.R.S. the CITY may terminate this Contract. If this Contract is so terminated, CONSULTANT shall be liable for actual and consequential damages to the CITY arising out of Consultant's violation of Subsection 8-17.5-102, C.R.S.

I. By signing this Agreement, the CONSULTANT certifies that it shall in all respects comply with the provisions of C.R.S. § 8-17.5-101, et seq.

ARTICLE 30 – ELECTRONIC SIGNATURES

The Contract Documents may be executed in two or more counterparts, each of which shall be deemed an original but all of which together shall constitute one and the same document. The Contract Documents, including all component parts set forth above, may be executed and delivered by electronic signature by any of the parties and all parties consent to the use of electronic signatures.
ARTICLE 31 - NOTICE

All notices required in this Contract shall be sent by certified mail, return receipt requested, and if sent to the CITY shall be mailed to:

City of Greeley
Project Representative Information
Scott Logan
1300 A Street, Suite H
Greeley, CO 80631
Ph: 970-350-9555
Email: scott.logan@greeleygov.com

and if sent to the CONSULTANT shall be mailed to:

Vendor Information
Ph:
Fax:
Email:
IN WITNESS WHEREOF, the parties have made and executed this Contract and have hereunto set his/her hand the day and year above written.

City of Greeley, Colorado

Approved as to Substance

____________________________
City Manager - Roy Otto

Reviewed as to Legal Form

OFFICE OF THE CITY ATTORNEY

By: _______________________
City Attorney - Doug Marek

Certification of Contract
Funds Availability

____________________________
Director of Finance - Victoria Runkle
## ACORD CERTIFICATE OF LIABILITY INSURANCE

**Client #: 12170**

**City of Greeley**

**1000 10th St**

**Greeley, CO 80631-3808**

---

**DATE (MM/DD/YYYY):**

**05/14/2013**

---

**THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFER 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 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).

**PRODUCER**

**ABC Insurance Company**

**P. O. Box 1234**

**Anywhere, USA**

---

**INSURED**

Sample Certificate

---

**COVERAGES**

**CERTIFICATE NUMBER:**

---

**DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)**

City of Greeley is named as Additional Insured on General Liability. Waiver of subrogation is included on Work Compensation. This insurance is primary and noncontributory to insurance policies held by the City.

---

**CERTIFICATE HOLDER**

City of Greeley

1000 10th St

Greeley, CO 80631-3808

---

**CANCELLATION**

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

---

**AUTHORISED REPRESENTATIVE**

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Debarment/Suspension Certification Statement

The proposer certifies that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from participation in this transaction by any Federal, State, County, Municipal or any other department or agency thereof. The proposer certifies that it will provide immediate written notice to the City if at any time the proposer learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstance.

DUNS # (Optional) _______________________________________________________

Name of Organization_____________________________________________________

Address_________________________________________________________________

Authorized Signature_____________________________________________________

Title___________________________________________________________________

Date___________________________________________________________________
EXHIBIT 5
Fee Proposal

PROPOSAL PRICE SCHEDULE
Provide all labor, material, and equipment to perform the Traffic Signal Pole Inspection Program in accordance with the specifications and provisions contained in this bid.

Work will be performed on an as-needed basis. The City does not guarantee that any work will be requested.

<table>
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<tr>
<th>Item</th>
<th>Description</th>
<th>Unit</th>
<th>Unit Price</th>
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<td>Install Pedestrian Signal Head Install</td>
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<td>Signal Head Remove</td>
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<td>48</td>
<td>Pedestrian Push Button Install</td>
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<td>49</td>
<td>Pedestrian Push Button Remove</td>
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<td>50</td>
<td>Pedestrian Instruction Sign Install</td>
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<tr>
<td>51</td>
<td>F/I Ped Push Button Lead-in 3 pair/18 gauge belden</td>
<td>L.F.</td>
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<tr>
<td>52</td>
<td>I/O Fiber Cable</td>
<td>L.F.</td>
<td>$</td>
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<tr>
<td>53</td>
<td>I Multiconductor (7 Cond.) Install Only</td>
<td>L.F.</td>
<td>$</td>
</tr>
<tr>
<td>54</td>
<td>I Multiconductor (19 or 21 Cond) Install Only</td>
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<td>55</td>
<td>Multiconductor (19 or 21 Cond) Remove and Install</td>
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<td>56</td>
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<td>57</td>
<td>F/I # 6 Cu. Std. Black and White Install Only</td>
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<td>58</td>
<td>Opticom Detector Install Only</td>
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<td>$</td>
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<td>59</td>
<td>F/I Opticom Lead-in Wire Install Only</td>
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<tr>
<td>60</td>
<td>I/O Video and Radar Detector Aerial Mount</td>
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<td>61</td>
<td>I/O Traffic Signal LED Indication</td>
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<td>62</td>
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<td>68</td>
<td>Install Mast Arm Pole foundation only. To include 14’ X 3’ Caisson</td>
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<tr>
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TOTAL BID $
EXHIBIT 6

CITY OF GREELEY STANDARD SPECIFICATIONS
FOR
TRAFFIC SIGNAL MATERIALS AND INSTALLATION

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TS-1  GENERAL

These specifications for the provision of traffic signal and lighting installations are intended to provide a set of minimum standards that shall be followed when work is done for the City of Greeley. These standards, plans, and any special provisions shall apply to all materials supplied, methods and procedures of work to be followed, and other general minimum requirements that shall be complied with before work is accepted by the City of Greeley.

The City of Greeley has adopted the following as part of these standard specifications:

**Standard Specifications for Road and Bridge Construction** (current edition), Colorado Department of Transportation, and all amendments and revisions pertaining thereto.


**Design Criteria and Standard Specifications** (current edition), City of Greeley.

The standard specifications outlined in this document are revisions and amendments to the Colorado Department of Transportation Standard Specifications for Road and Bridge Construction. In situations where there is a conflict or question of interpretation, these specifications and any special provisions will prevail.

These specifications, the plans, any special provisions, and all supplemental documents are essential parts of a contract and a requirement occurring in one is as binding as though occurring in all. They are intended to be complementary and to describe and provide for the complete work. In case of a discrepancy, figured dimensions shall govern over scaled dimensions; plans shall govern over standard specifications; and special provisions shall govern over plans and standard specifications.

TS-2  DEFINITIONS

CITY
The City of Greeley, Colorado.

CONTRACTOR
The person, partnership or corporation that has signed a contract to perform work for the City.

CABINET
A complete electrical or solid-state mechanism for controlling the operation of traffic control signals, including the timer controller, and all auxiliary apparatus mounted in the cabinet.

DETECTOR, MICROLOOP
A sealed probe buried beneath the roadway surface capable of actuating a detection unit when a vehicle passes within its magnetic field.

CITY ENGINEER
The City Engineer or his duly authorized representative.

GRC
Galvanized rigid conduit.

INSTALLATION, THE
The work completed, in place, and in operation.

LENS
A part of the optical unit that redirects the light coming from the reflector. It may be referred to as the redirecting cover glass or roundel.

PVC - (POLYVINYL CHLORIDE)
A strong, tough plastic based on resins made by the polymerization of Vinyl Chloride or co polymerization of Vinyl Chloride with minor amounts (not over 50 percent) of other unsaturated compounds, which is then fashioned into sheets, tubing pipe, conduit, containers, insulation, etc.

PEDESTRIAN PUSH-BUTTON ASSEMBLY
An assembly consisting of actuation ADA button, switch, housing or frame, and directional sign.

PHASE
A part of the total time cycle allocated to any traffic movements receiving the right-of-way simultaneously during one or more intervals.

SIGNAL HEAD
An assembly containing one or more signal faces, which may be, designated accordingly as one-way, two-way, three-way, four-way, etc. (a) Signal Section - An assembly containing a reflector, receptacle, lens, and door with the necessary enclosure and supporting parts; to be used with a light source for providing a single signal indication, which may be RED, YELLOW, GREEN OR ARROW, as necessary. (b) Signal Face - an assembly containing from one to five complete signal sections (normally red-yellow-green or arrows).

SIGNAL INDICATION
The illumination of a traffic signal lens or equivalent device or of a combination of several lenses or equivalent devices at the same time.

SUPERINTENDENT
The City Traffic Operations Manager or his duly authorized representative.

TRAFFIC SIGNAL
A power-operated traffic control device, not a sign, by which traffic is warned or is directed to take some specific action.

TS-3  SCOPE OF WORK

A. General
The work shall consist of the installation of materials and equipment to form complete and operational traffic signal and lighting installations at various locations in the City.

The installations shall be complete with all necessary accessories for proper operation. The disconnect devices; protective devices, and all other equipment shall be thoroughly coordinated to secure accordance with these specifications.

The contractor shall be responsible for all requests for locates from the start of the project and shall continue until the project is accepted as complete by the City of Greeley.

Traffic signal and lighting plans indicate the extent and general arrangement of the installation. If the Contractor deems any departures from the plans necessary, details of such departures and the reasons therefore shall be submitted immediately to the Superintendent for approval. No such departures shall be made prior to the written approval of the Superintendent.

Location of materials and equipment shall be as shown on the plans or as directed by the Superintendent.

A certified IMSA Level II Signal Field Technician shall do all work within controller cabinets. The successful bidder shall provide a list of qualified employees to the Superintendent.

Loop detector repair and maintenance shall begin a maximum of 48 hours after the City gives a verbal Notice to Proceed.

B. Materials to be furnished by the City
The agency will furnish the following items:

- Mast arms and mast arm attachment bolts.
• Signal heads, lamps, signal head mounting brackets, nipples, lock nuts, washers, banding blocks, and all other mounting hardware. Banding materials will not be provided by the agency, and shall be .75 inches wide.
• Cabinets, controllers and anchor bolts.
• Pedestrian push button assemblies and instructional signs.
• Pull boxes.
• Pedestal poles and anchor bolts.
• Multi Conductor and Service Wire.
• Video Detection Cables.

Materials will be furnished in a good and usable condition to the Contractor. Any materials not used on the job shall be returned to the agency in a good and usable condition.

C. Materials to be furnished by the Contractor

The Contractor shall supply materials except those listed above as “Materials to be Furnished by the Agency”.

Unless otherwise indicated on the plans, specified in the special provisions, or directed by the Superintendent, all materials shall be new. Where existing installations are to be modified, existing material shall be incorporated into the revised system, salvaged, or abandoned, as indicated on the plans, specified in the special provisions, or as directed by the Superintendent.

TS-4 CONTROL OF WORK

A. General

Work shall not be performed in the roadway before 8:00 a.m. or after 4:00 p.m., unless the Superintendent grants permission.

The Contractor shall notify property owners, and give them sufficient time to move their vehicles, before a driveway is blocked.

Electrical equipment shall conform to the standards of the National Electrical Manufacturers Association. Material and work shall conform to the applicable requirements of the National Electrical Code and any local ordinance, which may apply.

B. Traffic Control

When the Contractor's operations create a condition hazardous to traffic or the public, the Contractor shall take the necessary precautions and provide adequate means to protect those who pass through or over the work, at no expense to the City. The City of Greeley has an agreement with Northern Colorado Traffic Control, 1712 First Avenue, Greeley, Colorado, 970-356-6881, to provide traffic control services. If you are interested in using them, they will perform the service at the rates covered by the agreement. If the Contractor shall appear to be negligent in providing such warning or protective measures, the Superintendent may direct attention to the existence of a hazard, and the Contractor at no expense to the City shall install any measures required to protect the public.

Traffic control plans shall be submitted to the Superintendent for approval before work in the public right of way may begin.

Signal turn-on/turn-off and flashing entry/exit shall be done only at the on-site direction of the Superintendent.

C. Equipment List and Drawings

If the Contractor is supplying equipment to the project, he shall submit to the Superintendent for approval, within five days following notification of work to perform, a list of equipment and material, which he proposes to install. The list shall include all materials that are identified on the plans or in the specifications by the performance characteristics, or by other means when it is necessary or customary in the trade. The list shall be complete as to name of manufacturer, size, and catalog number of unit, and shall be supplemented by such other data as may be required, including detailed scale
drawings and wiring diagrams of any non-standard or special equipment and of any proposed deviation from the plans. If requested to do so, the Contractor shall submit for approval sample articles of the materials proposed for use.

The above data shall be submitted to the Superintendent (in as many copies or complete sets as required by the Superintendent) for checking, correction, and approval. Upon completion of checking, correction, or approval, the Superintendent will submit a letter of transmittal to the Contractor indicating acceptance or rejection of, or changes required for acceptance of, the above data.

The contractor shall supply “as-built drawings” to the Traffic Operation Superintendent upon completion of the work and prior to final payment.

D. Cooperation between Contractors
Street construction within the limits of the work may be under way by other Contractors during the period of the contract. The Contractor shall cooperate with any other Contractor under contract to the City or working under a utility agreement with the City. Coordination of work zone traffic control will be done by the City.

E. Coordination with Xcel Energy Company
Xcel Energy Company of Colorado crews will be installing street light fixtures in conjunction with the Contractor’s work. Xcel Energy Company may be installing street lighting conduits in the same trenches as the traffic signal conduits. The Contractor shall coordinate his or her work with Xcel Energy Company. All final service line connections shall be coordinated by the City and shall be made by Xcel Energy Company.

The contractor shall furnish and install a 12/2 UF with ground from Xcel Energy source to the end of the luminary arm.

TS-5 EXCAVATING AND BACKFILLING

A. Excavating
Blasting shall not be done within City limits.

When trenching, the trench shall be dug only as far in advance of the conduit as permitted by the Superintendent.

The trench bottom, regardless of whether it is existing, imported, or recompacted material, shall be shaped to provide a uniform and continuous bearing support for the conduit on solid and undisturbed material at every point between couplings. Couplings shall be provided for pipe. Excavations for conduit shall be two inches wider than the outside diameter of the conduit. Pipe shall not be installed in the trench until the subgrade preparation meets the above specifications, as determined by the Superintendent.

Surplus excavated material shall be removed and disposed of immediately by the Contractor. After each excavation is complete, the Contractor shall notify the Superintendent and under no circumstances shall any conduit or material be covered without inspection and approval.

B. Backfilling
Excavation in trenches shall be backfilled to the original ground surface or to such grades as specified or shown on the drawings. Backfilling shall begin as soon as practical after the pipe has been placed and shall be carried on as rapidly as is consistent with construction in the open trench work area.

Complete cleanup shall proceed directly behind the backfilling to facilitate the return to normal conditions. The Contractor shall have sufficient equipment on the job at all times to assure timely backfilling and cleanup.

Backfilling and compacting shall be done as thoroughly as possible to prevent after-settlement. Depositing of the backfill shall be done so the impact of falling material will not damage the conduit. Grading over and around the work shall be done as directed by the Superintendent.

Backfilling of the conduit trenches shall be done by placing aggregate base course material CDOT Specification, Class 6, tamping in lifts of not more than six inches, to the bottom surface of the structural roadway material. The remaining portion of the excavation shall be backfilled with the same type of material used to construct the existing roadway surface.

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Use of non-shrinking backfill material as outlined in City of Greeley Standards may be substituted for above.

When the trench excavation is within the right-of-ways of State or County highways, the backfilling of the trench, compaction of materials, sub-grade preparation, and surfacing shall be done in strict accordance with the requirements and specifications of the State or County Highway Department. Unless otherwise specified, this work shall be considered incidental to other portions of the contract.

The Contractor shall blade and compact the roadway after the trench has been backfilled, so it shall be passable to traffic at all times. The Contractor shall maintain the roadway in a condition acceptable to the Superintendent until final acceptance of the entire work by the City.

The Contractor shall remedy at no cost to the City any defects that appear in the backfill following completion and during the guarantee period.

C. Removing and Replacing Improvements
When a part of a square or slab of existing concrete sidewalk is broken or damaged, the entire square or slab shall be removed and the sidewalk reconstructed as specified above. The outline of areas to be removed in Portland Cement concrete shall be outlined and shall be cut to a minimum depth of 12" with an abrasive-type saw prior to removing the material. Cut for the remainder of the required depth may be made by any method satisfactory to the Engineer. Saw cuts shall be neat and true with no shattering or chipping of concrete adjacent to or outside of the removal area.

Cuts in existing bituminous pavement shall be saw cut or cut with a sharp-edged wheel roller.

Removed bituminous and concrete materials shall be hauled from the site and disposed of by and at the expense of the Contractor, at a suitable disposal site provided by the Contractor.

Trenches in the roadway shall be patched within five calendar days. The Contractor shall be responsible for maintaining trenches on a daily basis until the final patch is in place. In the event the Contractor cannot comply within the allotted time frame, the City may employ a secondary contractor to install the necessary patch, and back charge the original Contractor for patch installation.

TS-6 CONDUIT

A. General
Conductors shall be run in conduit except when run in metal poles. A nylon pull line shall be left in each conduit run for future pulling of wires. Conduit shall be rigid PVC or galvanized rigid steel conforming to the plans, standard specifications, and/or the special provisions.

Electrical conduits running to the control cabinet shall enter from the bottom of the cabinet unless otherwise noted on the plans. Conduit runs shown on the plans are tentative as to routing and may be changed as directed by the Superintendent to avoid underground obstructions. In the event of any change from the location shown on the plans, accurate records shall be kept for as-built drawings, and necessary details submitted to the Superintendent before final payment is made.

B. PVC conduit
PVC conduit shall be manufactured of high-impact PVC, and shall conform to industry standards and commercial standards No. CS-207-60. Each length of PVC conduit and back of the various PVC fittings (expansion joints, couplings, adapter, etc.) shall bear the label of Underwriter's Laboratories, Inc. The conduit shall be of the size or sizes shown on the plans or indicated in the special provisions. All PVC conduits shall be schedule 40, except under any travel way HDPE SDR 11 shall be used. PVC conduit shall be used only for underground installations. Conduit used above ground shall be GRC.

A #8 AWG stranded copper conductor shall run continuously in all PVC conduits used for traffic signal circuits. This wire is used for bonding and grounding purposes.

A nylon pull line of not less than 500 lb. tensile strength shall run continuously in all conduits. Bare copper conductor and nylon pull line shall be supplied by the Contractor and shall be incidental to conduit installation.
C. Galvanized Rigid conduit
Conduit and fittings shall be galvanized rigid steel and shall be uniformly and adequately zinc-coated by the hot-dipped process conforming to ASTM Designation A153. Joints shall be set up tight with squared ends. Fastenings shall be secured and of a type appropriate in design and dimensions for the particular application. Couplings, connectors, and fittings shall be approved types specifically designed and manufactured for the purpose. Fittings shall be installed to provide a good electrical grounding throughout the conduit system. Neither the interior nor the exterior of a six-inch sample cut from the center of a standard length of conduit, when tested in accordance with the applicable portion of ASTM Designation A239, shall show a fixed deposit of copper after four one-minute immersions in the standard copper sulphate solution. The interior of the rigid conduit shall have a galvanized coating. Each length shall bear the label of Underwriters' Laboratories, Inc., and shall conform to appropriate articles of the electrical code.

D. Conduit Installation
Conduit under railroad tracks shall not be less than 42 inches below the bottom of the tie or as specified by railroad code. It shall be the responsibility of the Contractor to obtain clearance from the railroad before any work is done within the railroad right-of-way. The minimum size of conduit to be used will be shown on the plans or as required on the wire layout sheets. Conduit smaller than 3/4-inch electrical trade size shall not be used, unless otherwise specified, except that grounding jumpers at service points may be enclosed in 2-inch conduit.

Conduit installed for future use shall terminate in a pull box, and each conduit end shall also be capped. Each pull box (other than water valves) shall have a minimum of 6" of 3/4" rock and 4" clearance from the top of the conduit to the bottom of the lid.

E. PVC conduit Installation
Bends in PVC conduit shall be made and conform to all appropriate sections of the National Electrical Code or local codes governing bending radius, and number of bends allowed as applicable for rigid conduit.

Conduit bends, except factory bends, shall have a radius of not less than six times the inside diameter of the conduit. When factory bends are not used, conduit shall be bent without crimping or flattening using the longest radius practicable.

In bending PVC conduit, the following methods may be used.

1. A water bending process may be used consisting of a water-filled steel pipe four feet long, heated to the temperature that will render the PVC conduit pliable in approximately 30 seconds after insertion in the pipe. The conduit may then be bent to the desired angle and held in an appropriate jig for a cooling period of approximately 20 seconds.

2. The Contractor may use other methods of bending PVC conduit if the preceding method is found unsuitable because of climactic conditions, but only after demonstrating the proposed method to the Superintendent and receiving his approval.

F. Termination of conduit
Galvanized rigid conduit terminations shall be fitted with insulating bushings to prevent chafing of wire on exposed edges. Threaded ends shall be protected with approved insulated metal ground bushings or insulated bushing material, and sealed by duct seal.

G. Pull Boxes
All pull boxes shall be polymer concrete type (or an approved equal) with the sizes as specified on the plans. Each pull box will have installed a 5/8" X 10' ground rod and all # 8 copper wires attached to the ground rod. All conduits shall enter the pull box from the bottom and sweep up. There shall be at least 4" clearance between the top of the conduit and the top of the box and no more than 6". Each box shall contain a minimum of 6" of ¾" rock.

TS-7 CONCRETE FOUNDATIONS

A. General
Foundations shall be as specified on the plans with concrete conforming to City of Greeley Class "BZ" mix requirements.
After pouring the concrete, the anchor bolts shall be raised and lowered individually to eliminate any air pockets, and to allow proper alignment of the anchor bolts in the concrete prior to the setting of the concrete.

If the Contractor proposes any deviations in the pouring of foundations, the City Engineer prior to pouring of the concrete shall approve the deviations.

B. Poles, Standards, and Pedestal Foundations

Poles, standards, and pedestals shall not be erected until the foundation concrete has set at least seven days. Foundations for high-strain poles shall set a minimum of ten days. Equipment shall be plumbed or raked as required and directed by the Superintendent.

Foundations for poles shall normally be flush-top and shall be located as shown on the plans or as directed by the Superintendent. The maximum distance behind the curb for pole locations is desired. In locations where the roadway is not curbed, the top of the foundations shall be six inches plus or minus one-quarter inch above the grade of the edge of the pavement. Where foundations are located in the sidewalk, the foundation shall be two inches above the surface of the sidewalk. Expansion material shall be placed between the foundation and the sidewalk, with the top of the expansion material level with the sidewalk surface.

Poles that are to be painted, shall be washed with approved solvent, a two-part primer coat applied with an approved primer (Macro Poxy 846) and two-part epoxy paint (Sherman Williams code B65ST304) Federal Green.

The provisions in the above paragraph are general descriptions for normal roadway conditions. In certain cases, special foundation requirements may be indicated on the plans or required by the City Engineer. For example: where heavy excavations, embankments, sloping (rip-rap) areas near the roadway, or unusual soil conditions are encountered.

C. Controller Foundations

Controller foundations shall as specified on the plans and when located in sidewalks, shall rise above the sidewalk surface as shown on the plans. If plans call for a concrete foundation, this concrete shall conform to City of Greeley Class "B" mix requirements. Foundations for traffic signal controller cabinets may also be constructed of strong polymer concrete and reinforced with a heavy-weave fiberglass.

The foundation shall be caulked with an asphalt or silicon caulk, or "Rubberneck" sealant prior to placing the cabinet on the foundation.

TS-8 VEHICLE DETECTOR INSTALLATION

The vehicle detection system shall consist of the Autoscope Vision (AVISOP) VideoSensor detectors for all four approaches complete with the communication manager, I/O 24 Module, connecting cables, mounting brackets as well as other hardware/software (items listed below) for a complete system.

   Camera – Autoscope Vision (AVISION Video Sensor Part #1700-1172
   Autoscope Vision Communication Manager (AVCM) Part #A700-1166-01
   Autoscope Vision I/O 24 Module (AVI024) Part #222-1002-501
   Connecting Cable Comm Manager Y Cable (Connects AVCM to AVI024 and SDLC)
   10’ Mounting Bracket Part # AMBKTTM11

TS-9 CABLE AND CONDUCTORS

A. General

Cable and conductors shall be furnished by the Agency, and conform to the applicable I.M.S.A. Specifications and to these specifications.

Multi conductor cable shall be copper and conform to IMSA Specification 19-1.

The individual conductors in Multi conductor cable shall be 14 gauge stranded copper wire.
Detector "Home Run" or lead-in cable and pedestrian push-button lead-in cable shall be IMSA 50-2, #14 stranded, and shall have polyethylene outer insulation.

Multiple twisted pair cable (21 strands) may be used as detector "Home Run" cable, and each pair shall be individually twisted and shielded #16 stranded conductors, shall have polyethylene outer insulation, and shall conform to IMSA Specification 50-2. The outer insulation of each pair shall be colored white/black, red/black, and green/black or numbered one (1), two (2), and three (3).

Opticom emergency priority equipment shall be wired with 3M cable designed specifically for this type of equipment.

### B. Wiring Installation

**City of Greeley**

#### 19 – 21 Conductor Cable Wiring

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<tr>
<td>GREEN/WHT</td>
<td>GREEN ARROW</td>
</tr>
<tr>
<td>BLACK/WHT</td>
<td>DON’T WALK</td>
</tr>
<tr>
<td>BLUE/WHT</td>
<td>WALK</td>
</tr>
<tr>
<td>WHITE</td>
<td>SIGNAL NEUTRAL</td>
</tr>
<tr>
<td>WHITE/RED</td>
<td>PED NEUTRAL</td>
</tr>
<tr>
<td>ORANGE/GRN</td>
<td>SPARE/FYA</td>
</tr>
</tbody>
</table>

#### Cable Color (Tape) Codes

<table>
<thead>
<tr>
<th>NORTHBOUND</th>
<th>LEFT TURN</th>
<th>SOUTHBOUND</th>
<th>PEDESTRIAN</th>
<th>EASTBOUND</th>
<th>RIGHT TURN</th>
<th>WESTBOUND</th>
</tr>
</thead>
<tbody>
<tr>
<td>RED</td>
<td>WHITE</td>
<td>GREEN</td>
<td>YELLOW</td>
<td>ORANGE</td>
<td>GRAY</td>
<td>BLUE</td>
</tr>
</tbody>
</table>

Separate conduits for low voltage and high voltage conductors shall be provided in all signal installations. High voltage conductors shall be run in conduits separate from low voltage actuation lead-ins and telephone interconnect.

Separate Multi conductor cables shall be provided for each signal phase. Each mast arm mounted signal face shall be wired separately back to the pole base. The signal face farthest from the pole shall always be wired to accept a five-section signal face, whether that face is installed or not.

Unused conductors in each cable shall be folded back on the cable and securely taped.

Opticom lead-in cables shall not be spliced.

Connections to signal heads, pushbuttons, and traffic controllers shall be secured to the screw type terminals in the traffic signal heads, pedestrian pushbuttons, and the traffic controller. The connectors shall be of the spade tongue type and shall be affixed to the conductors using a tool designed specifically for the connection of the connectors to the conductors. Wire nuts shall be used for the connections at all handholes.

Sheath for detectors shall not be grounded.

The wiring for each mast arm mounted signal head shall be taped with the appropriate number of bands, color coded by direction, to indicate signal head number, with the head furthest from the pole being number one.

**Seven conductor cable wiring**
<table>
<thead>
<tr>
<th>CONDUCTOR COLOR</th>
<th>INDICATION</th>
<th>TAPE COLOR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Northbound through Vehicles:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green</td>
<td>Green</td>
<td>Red</td>
</tr>
<tr>
<td>Orange</td>
<td>Yellow</td>
<td>Red</td>
</tr>
<tr>
<td>Red</td>
<td>Red</td>
<td>Red</td>
</tr>
<tr>
<td><strong>Northbound Left Turns:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blue</td>
<td>Green Arrow</td>
<td>Red + White</td>
</tr>
<tr>
<td>White/Blk</td>
<td>Yellow Arrow</td>
<td>Red + White</td>
</tr>
<tr>
<td>Red</td>
<td>Red Arrow</td>
<td>Red + White</td>
</tr>
<tr>
<td><strong>Northbound Right Turns:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green</td>
<td>Green Arrow</td>
<td>Red + Gray</td>
</tr>
<tr>
<td>Orange</td>
<td>Yellow Arrow</td>
<td>Red + Gray</td>
</tr>
<tr>
<td>Red</td>
<td>Red Arrow</td>
<td>Red + Gray</td>
</tr>
<tr>
<td><strong>Northbound Pedestrians:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blue</td>
<td>Walk</td>
<td>Red + Yellow</td>
</tr>
<tr>
<td>Black</td>
<td>Don’t Walk</td>
<td>Red + Yellow</td>
</tr>
<tr>
<td><strong>Southbound through Vehicles:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green</td>
<td>Green</td>
<td>Red</td>
</tr>
<tr>
<td>Orange</td>
<td>Yellow</td>
<td>Red</td>
</tr>
<tr>
<td>Red</td>
<td>Red</td>
<td>Red</td>
</tr>
<tr>
<td><strong>Southbound Left Turns:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green</td>
<td>Green Arrow</td>
<td>Green + White</td>
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<td>Green + White</td>
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<tr>
<td>Red</td>
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<td>Green + White</td>
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<td></td>
</tr>
<tr>
<td>Green</td>
<td>Green Arrow</td>
<td>Green + Gray</td>
</tr>
<tr>
<td>Orange</td>
<td>Yellow Arrow</td>
<td>Green + Gray</td>
</tr>
<tr>
<td>Red</td>
<td>Red Arrow</td>
<td>Green + Gray</td>
</tr>
<tr>
<td><strong>Southbound Pedestrians:</strong></td>
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<td></td>
</tr>
<tr>
<td>Blue</td>
<td>Walk</td>
<td>Green + Yellow</td>
</tr>
<tr>
<td>Black</td>
<td>Don’t Walk</td>
<td>Green + Yellow</td>
</tr>
<tr>
<td><strong>Eastbound through Vehicles:</strong></td>
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<td></td>
</tr>
<tr>
<td>Green</td>
<td>Green</td>
<td>Orange</td>
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<tr>
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<td>Orange</td>
</tr>
<tr>
<td>Red</td>
<td>Red</td>
<td>Orange</td>
</tr>
<tr>
<td><strong>Eastbound Left Turns:</strong></td>
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<td></td>
</tr>
<tr>
<td>Green</td>
<td>Green Arrow</td>
<td>Orange + White</td>
</tr>
<tr>
<td>Orange</td>
<td>Yellow Arrow</td>
<td>Orange + White</td>
</tr>
<tr>
<td>Red</td>
<td>Red Arrow</td>
<td>Orange + White</td>
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<td><strong>Eastbound Right Turns:</strong></td>
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<td></td>
</tr>
<tr>
<td>Green</td>
<td>Green Arrow</td>
<td>Orange + Gray</td>
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<td>Orange + Gray</td>
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<td></td>
</tr>
<tr>
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<td>Walk</td>
<td>Orange + Yellow</td>
</tr>
<tr>
<td>Black</td>
<td>Don’t Walk</td>
<td>Orange + Yellow</td>
</tr>
<tr>
<td><strong>Westbound through Vehicles:</strong></td>
<td>Green</td>
<td>Orange</td>
</tr>
<tr>
<td>-------------------------------</td>
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</tr>
<tr>
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<tr>
<td>Red</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Westbound Left Turns:</strong></td>
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<td>Orange</td>
</tr>
<tr>
<td>Green Arrow</td>
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<td>Red Arrow</td>
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</tr>
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<td><strong>Westbound Right Turns:</strong></td>
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<tr>
<td>Red Arrow</td>
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</tr>
<tr>
<td><strong>Westbound Pedestrians:</strong></td>
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<tr>
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<td>Don’t Walk</td>
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<tr>
<td>Common Signal</td>
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<tr>
<td>Unused or Common Ped</td>
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</table>

Opticom lead-in shall be color coded Purple.

The Contractor shall install two single conductor #6 AWG wire from the controller to the service connection pull box or service pole, leaving three extra feet of wire in the pull box.

**TS-10 SERVICE SYSTEMS**

A. General
Service points shown on the plans are approximate only. The exact location will be determined in the field by the Contractor, the Superintendent, and Xcel Energy Company.

Xcel Energy Company will make the electrical service connections. The Contractor shall be responsible for coordinating the service connection with Xcel Energy Company.

B. Service Pole
Conduit shall be strapped to the pole with rigid two-hole straps with #8 or #9 12” wood screws, or as shown on the plans. Plumber's tape, wire nails, or other means of fastening conduit shall not be used. In locations where it is necessary, conduits, covers, and gaskets shall be furnished and installed by the Contractor.

Conduit used in the service installation above ground shall be GRC of the size specified on the plans or special provisions. In areas where the GRC is coupled to PVC conduit used for the underground portion of the service run, the joining of the two conduits shall take place 18 inches underground utilizing a GRC factory elbow.

The conduit shall be securely bonded to the service pole when deemed necessary by the Superintendent, and shall also be bonded in a like manner to the service pole ground system.
EXHIBIT 7

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

A. General
Separate Purchase Orders may be issued for individual work projects. All invoices by the Contractor for work done shall be itemized by work item and location, and shall reference the applicable Purchase Order.

Items listed as **Furnish and Install** shall mean that the Contractor shall furnish and install the item, and shall furnish all other materials, equipment, and labor to complete the item.

Items listed as **Remove** shall mean that the Contractor shall remove the item and return it to the City at the Municipal Service Center, 1300 A Street, and exercising care not to damage or lose the removed item. The Contractor shall furnish all materials, equipment, and labor to complete the item.

Items listed as **Reset** shall mean that the Contractor shall remove the item and install it in its relocated position. The Contractor shall furnish all other materials, equipment, and labor to complete the item.

Items listed as **Replace** shall mean that the Contractor shall remove the existing item and return it to the City at the Municipal Service Center, exercising care not to damage or lose the removed item. The Contractor shall install in its place a similar but different item, as shown in the plans. The Contractor shall furnish all other materials, equipment, and labor to complete the item.

B. Trench, Backfill, and Restore
Trenching and backfilling shall not be paid for separately but included in the price of the conduit. Price and payment shall include all materials, equipment, and labor to remove and dispose of spoils and improvements, furnish and install backfill material, and replace and restore removed improvements

C. Trench and Backfill Only, No Restoration
Trenching and backfilling will be paid for at the contract unit price per linear foot, measured from end point to end point. Price and payment shall include all materials, equipment, and labor to remove and dispose of spoils and improvements, and furnish and install backfill material. Restoration in this instance shall be coordinated and done by agency crews, at agencies expense.

D. Bored or Pushed Conduit (Furnish and Install)
Bored or pushed conduit will be paid for at the contract unit price per linear foot, measured from end point to end point. Price and payment shall include furnishing and installing conduit as shown on the plans or as directed by the Superintendent.

E. Conduit (Furnish and Install)
Conduit installation will be paid for at the contract unit prices per linear foot. Prices and payment shall include furnishing and installing as shown on the plans or as directed by the Superintendent.

F. Pot Holing (Remove and Restore)
All potholes in concrete or asphalt shall be restored per MEGPEC Item 18.3.7 (special provision) that states Pot Holes “shall be filled with flow fill up to the bottom of the existing pavement. The rest of the hole shall be filled to within one quarter (1/4) inch of the finished grade with a non-shrink grout.” Other requirements for potholing work as specified in the City of Greeley’s Design Criteria and Construction Specifications shall apply.

G. Pull Box (Install)
Pull box installation will be paid for at the contract unit price per each. Price and payment shall include installation as shown on the plans or as directed by the Superintendent.

H. Pull Box (Remove)
Pull box removals will be paid for at the contract unit price per each. Price and payment shall include removing the pull box, backfilling the hole, and restoring the surface.

I. Pull Box (Reset)
Pull box resets will be paid for at the contract unit price per each. Price and payment shall include removing the pull box, adjusting the elevation, reinstalling the pull box, and restoring the surface.
J. Cabinet Foundation (Furnish and Install)
Cabinet foundations will be paid for at the contract unit price per each. Price and payment shall include forming the foundation, furnishing and placing the ground rod, placing the anchor bolts, and furnishing and pouring the concrete. Cabinet foundation may be of the fiberglass type at the discretion of the Superintendent.

K. Cabinet Foundation (Remove)
Cabinet foundation removals will be paid for at the contract unit price per each. Price and payment shall include removing the foundation and step pad, backfilling the hole, and restoring the surface.

L. Cabinet Step Pad (Furnish and Install)
Cabinet step pads will be paid for at the contract unit price per each. Price and payment shall include a concrete and/or a strong polymer concrete and reinforced pad with a heavy-weave.

M. Cabinet (Install)
Cabinet installations will be paid for at the contract unit price per each. Price and payment shall include mounting the cabinet on the base and making all connections to render the cabinet fully operable. The City shall furnish the cabinet complete with traffic signal operation equipment.

N. Cabinet (Remove)
Cabinet removals will be paid for at the contract unit price per each. Price and payment shall include removing the controller from its mounting, and removing all disconnect equipment at the service point.

O. Cabinet (Reset)
Cabinet resets will be paid for at the contract unit price per each. Price and payment shall include removing the controller from its existing foundation, removing the existing foundation and step pad, backfilling the hole, restoring the surface, furnishing and installing a replacement foundation, installing the controller on the replacement foundation, and making all connections to render the reset controller fully operable.

P. Mast Arm Pole or Combination Pole (Install)
Mast arm pole or combination mast arm and street light pole installations will be paid for at the contract unit price per each. Price and payment shall include installing either a precast or field-poured foundation in conformance with current City of Greeley Standards or Colorado Department of Transportation Standards, the traffic signal pole and associated mast arm as shown on the plans. The City will furnish the traffic signal poles for this project.

Q. Mast Arm Pole or Combination Pole (Remove)
Combination pole or mast arm pole removals will be paid for at the contract unit price per each. Price and payment shall include the following: remove the pole from the foundation, remove the foundation a minimum of two feet below grade, backfill the hole, and restore the surface.

R. Pedestal Pole (Install)
Pedestal pole installations will be paid for at the contract unit prices per each for each size listed. Prices and payment shall include furnishing and installing a concrete foundation with two 2-inch conduits, furnishing and installing the ground rod, and installing the pole.

S. Pedestal Pole (Remove)
Pedestal pole removals will be paid for at the contract unit price per each. Price and payment shall include removing the pole from the foundation, completely removing the foundation, backfilling the hole, and restoring the surface.

T. Strain Pole (Furnish and Install)
Strain pole installations will be paid for at the contract unit price per each. Price and payment shall include furnishing and installing either a precast or field-poured foundation in conformance with current Colorado Department of Transportation Standards, furnishing and installing the pole, and furnishing and installing stabilizing cable and all other materials to complete the installation.
U. Strain Pole (Remove)
Strain pole removals will be paid for at the contract unit price per each. Price and payment shall include removing all span wires, completely removing the strain pole from the ground without cutting, completely removing the concrete foundation from the pole and ground, backfilling the hole, and restoring the surface.

V. Span Wire for Strain Pole (Furnish and Install)
Span wire will be paid for at the contract unit price per linear foot. Price and payment shall include furnishing and installing span wire in conformance with current Colorado Department of Transportation Standards.

W. Mast Arm (Install)
Mast arm installations will be paid for at the contract unit prices per each for each size listed. Prices and payment shall include mounting each mast arm and any attached signage as shown on the plans. All signage shall be provided by the agency, and shall be mounted in place by the contractor at the time the mast arm becomes operational. A nylon pull rope shall run continuously from the mast arm end signal head to the hand hole.

X. Mast Arm (Remove)
Mast arm removals will be paid for at the contract unit price per each. Price and payment shall include the removal of any existing signage.

Y. Mast Arm (Reset)
Mast arm resets will be paid for at the contract unit price per each. Price and payment shall include making all connections to render the reset mast arm fully operable, and reattaching all signage.

Z. Traffic Signal Head (Install)
Traffic signal head installations will be paid for at the contract unit price per each. Price and payment shall include making sure all hardware in and out of the head is tight, assembling and attaching all mounting hardware, mounting the signal head as shown on the plans (including back plate), furnishing and installing the cable to the pole base hand hole, and all splices and connections to render the traffic signal head fully operable. Signal heads shall be mounted 18’ from the bottom of the signal head to pavement crown (left most head) when installed on the mast arm, the remaining heads on the arm to be level with this head. Skybrackets (part # SB59-SCK) will be used to mount the traffic heads to the mast arms. Side of pole signal heads to be 10’ from the bottom of the head to grade. Pedestrian signal heads to be 8’ from the bottom of the head to grade. Side of Pole Signals shall be mounted using 3/4” Band-it. Holes to facilitate wiring of signal and pedestrian heads are to be drilled and shall be a minimum of 3/4” in diameter. All holes will be deburred by filing with rat-tail file. Traffic signal heads shall be McCain traffic signal heads.

AA. Traffic Signal Head (Remove)
Traffic signal head removals will be paid for at the contract unit price per each.

BB. Pedestrian Push-button Assembly (Install)
Push-button assembly installations will be paid for at the contract unit price per each. Price and payment shall include mounting the push-button assembly and making all connections to render the pushbutton fully operable. Buttons shall be mounted 38” from the bottom of the base. Mounting of the assembly shall be by drilling and tapping 1/4” X 20 holes and the hole for wiring shall be drilled a minimum of 3/4” diameter. Pedestrian push buttons shall be Polara 2 wire iCCU Rack Mount Central Control Unit 330 type push buttons.

CC. Pedestrian Push-button Assembly (Remove)
Push-button assembly removals will be paid for at the contract unit price per each.

DD. Pedestrian Instructional Sign (Install)
Pedestrian instructional sign (R10-3e) shall not be paid for separately but included in the cost of the pedestrian push button. Price and payment shall include the following: drill and tap holes for 5/16" screws provided with the sign, and mount 9" x 12” sign, as shown on the plans.

EE. Pedestrian Push-button Lead-In Wire (Furnish and Install)
Pedestrian push-button lead-in wire will be paid for at the contract unit price per linear foot, measured from the termination at the push-button assembly to the controller termination. Price and payment shall include making all connections to render the item fully operable. All wiring shall be paid for as a lump sum under the Wiring item.

**FF. Fiber Cable (Install)**
Fiber Optic Cable will be paid for at the contract unit price per linear foot. Price and payment shall include installing the wire as shown on the plans or as directed by the Project Manager.

**GG. Multi Conductor (Install)**
Multi conductor will be paid for at the contract unit price per linear foot, measured from the controller to the final hand hole splice prior. (Multi conductor from the final hand hole splice to the signal head is included in signal head installation unit pricing.) Price and payment shall include making all connections to render the item fully operable.

**HH. Multi Conductor (Replace and Install)**
Multi conductor will be paid for at the contract unit price per linear foot, measured between two handholes located on both sides of the street. Price and payment shall include making all connections to render the item fully operable.

**II. Grounding and Bonding Wire (Install)**
# 8 AWG CU stranded wire will be paid for at the contract unit price per linear foot, measured from pull box to pull box and multiplied times the number of conduits. All wiring shall be paid for as a lump sum under the Wiring item.

**JJ. Service Entrance Wire (Furnish and Install)**
One each black and white # 6 AWG CU stranded will be paid for at the contract unit price per linear foot, measured from the Utility termination point to the cabinet.

**KK. Fire Preemption Unit and Timer (Install)**
Fire Preemption Unit and Timer installations will be paid for at the contract unit price per each. Price and payment shall include making all connections and configurations to render the item fully operable.

**LL. Fire Preemption Unit Lead-In Wire (Furnish and Install)**
Fire Preemption unit lead-in wire shall not be paid for separately but shall be included in the cost of the Fire Preemption Unit and Timer. Price and payment shall include furnishing and installing the wire and making all terminations necessary to make the Fire Preemption Unit fully operable. All fire preemption unit lead-in wire shall be continuous and unspliced.

**MM. LED Signal Indication (Install)**
LED signal indication will be paid for at the contract unit price per each. Price and payment shall include removing the incandescent lamp and reflector if necessary, and installing the LED assembly.

**NN. Intersection Detection System - Autoscope Vision and Radar Units (Install)**
Intersection detection system (Autoscope Vision) installations for four approaches will be paid for at the contract unit price per each. Price and payment shall include making all connections and configurations to render the item fully operable.

**OO. Detection Cabling (Install)**
Video detection cables will not be paid for separately but shall be included in the cost of the Intersection Detection System (Autoscope Vision). Price and payment shall include installing the wire as shown on the plans or as directed by the Superintendent.

**PP. Communication Radio (Install)**
Communication Radio installations will be paid for at the contract unit price per each. Price and payment shall include making all connections to render the item fully operable.