

**CITY OF GREELEY  
INVITATION FOR BID**

**LINCOLN PARK REPLACEMENT OF ELECTRICAL PANELS**

**BID #FA19-07-065  
DUE AUGUST 8, 2019 BEFORE 10:00 A.M.**



Serving Our  
Community  
It's A Tradition

*The Office of Purchasing is a service division  
established to build effective partnerships through efficient and responsive  
procurement processes to obtain high quality  
goods and services for the best value.*

**SECTION 00110**  
**BID #FA19-07-065**  
INVITATION FOR BID

The City of Greeley, Colorado is requesting **sealed** bids for Lincoln Park Replacement of Electrical Panels **before August 8, 2019 before 10:00 a.m.** at the Public Works Building, 1001 9<sup>th</sup> Avenue, Greeley, Colorado 80631 at which time and place all bids will be publicly opened and read aloud. No late, faxed or electronic bids will be accepted.

The City of Greeley disseminates all bids and requests for proposals through the Rocky Mountain E-Purchasing System site. Go to <http://www.RockyMountainBidSystem.com>, then "Bid Opportunities" and then select "The City of Greeley". Bids submitted to the City of Greeley must include Sections 00120, 00130, 00140 and 00160. Addenda must be acknowledged in Section 00120 of the bidding documents. Bidders failing to acknowledge any and all addenda may be considered non-responsive.

A pre-bid meeting will be held on July 25, 2019 at 10:00 am at the Public Works Building, 1001 9<sup>th</sup> Avenue, 1st Floor Conference Room, Greeley, Colorado. All prospective bidders are encouraged to attend.

Each bid shall be accompanied, in a separate sealed envelope, by a certified check drawn on a bank which is insured by the Federal Deposit Insurance corporation or a bidder's bond executed by a surety company authorized to do business in Colorado, made payable to the City of Greeley, Colorado, in an amount not less than five percent (5%) of the proposal sum as security that the successful bidder will enter into a contract to construct this project in accordance with the plans and specifications, and give bonds in the sum as hereafter provided. Checks accompanying bids not accepted will be returned.

The successful responsive and responsible bidder will be required to furnish a satisfactory performance bond and payment bond in the amount of the contract sum.

No bid shall be withdrawn after the opening on the bids without the consent of the City of Greeley, Colorado, for a period of sixty (60) days after the scheduled time of the receiving the bids.

The City of Greeley retains the right to reject any and all bids and to waive any informality as deemed in the best interest of the city.

Questions pertaining to the project may be directed to Dale Blehm at 970-350-9253.

Adela R. Gain  
Greeley Website – July 17, 2019

**Replace Electrical Panels  
Lincoln Park @ 805 9th avenue  
Greeley, Colorado**

**Bid Form - 00130**

**City Of Greeley**

Bid Item	Description		Unit	Unit Cost	Total Cost
1	Milbank Control Cabinets per Drawings				
1	Material and labor for Installation per specs.				

Lump Sum Grand Total \_\_\_\_\_

**TOTAL PROPOSAL** **dollars**

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Total Proposal (Written Out)

Company Name: \_\_\_\_\_

Address \_\_\_\_\_

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

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

Email: \_\_\_\_\_

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

## **COOPERATIVE PURCHASING STATEMENT**

The City of Greeley encourages and participates in cooperative purchasing endeavors undertaken by or on behalf of other governmental jurisdictions. To the extent, other governmental jurisdictions are legally able to participate in cooperative purchasing endeavors; the City of Greeley supports such cooperative activities. Further, it is a specific requirement of this proposal or Request for Proposal that pricing offered herein to the City of Greeley may be offered by the vendor to any other governmental jurisdiction purchasing the same products. The vendor(s) must deal directly with any governmental agency concerning the placement of purchase orders, contractual disputes, invoicing, and payment. The City of Greeley shall not be liable for any costs or damages incurred by any other entity.

## SECTION 00140

### BID BOND

KNOW ALL MEN BY THESE PRESENT, that we, the undersigned \_\_\_\_\_ as Principal, and \_\_\_\_\_ as Surety, are hereby held and firmly bound unto the City of Greeley, Colorado, as Owner, in the penal sum of \_\_\_\_\_ for the Payment of which, well and truly to be made, we hereby jointly and severally bind ourselves, successors, and assigns.

THE CONDITION of this obligation is such that whereas the Principal has submitted to the City of Greeley, Colorado, the accompanying bid and hereby made a part hereof to enter into a Contract Agreement for the construction of City of Greeley Project,

#### **LINCOLN PARK REPLACEMENT OF ELECTRICAL PANELS – FA19-07-065**

WHEREAS, the Owner, as condition for receiving said bid, requires that the Principal to deposit with the Owner as Bid Guaranty equal to five percent (5%) of the amount of said bid.

NOW, THEREFORE,

(a) If said bid shall be rejected; or in the alternate,

(b) If said bid shall be accepted and the Principal shall execute and deliver a Contract Agreement (properly completed in accordance with said bid) and shall furnish a Performance and Payment Bond upon the forms prescribed by the Owner for the faithful performance of said Agreement; and shall in all other respects perform the agreement created by the acceptance of said bid;

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

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

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

PRINCIPAL

SURETY

Name: \_\_\_\_\_

Address: \_\_\_\_\_

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

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

In-Fact:  
(Seal)

(Seal)

NOTE: Surety Companies executing bonds must be authorized to transact business in the State of Colorado and be accepted to the Owner.



# SECTION 00210

## NOTICE OF AWARD

DATE:

TO:

Re: **LINCOLN PARK REPLACEMENT OF ELECTRICAL PANELS – FA19-07-0653**

Dear Contractor:

The City of Greeley, Colorado (hereinafter called "the Owner") has considered the bids submitted for referenced work in response to its Invitation for Bids. You are hereby notified that your bid has been accepted for items and prices stated in the Bid Schedule in the amount of \$\_\_\_\_\_. You are required to execute the Contract Agreement, provide the necessary insurance certificates, the Performance and Payment Bonds within ten (10) days from the date of this Notice. If you fail to execute said Contract Agreement and furnish the necessary insurance certificates and bonds within the time allotted from this date, the Owner will be entitled to consider your rights arising out of the Owner's acceptance of your bid as abandoned and to demand payment of bid guaranty as damages. The Owner will be entitled to such other rights as may be granted by law. You are required to return an acknowledged copy of this Notice of Award and enclosures to Purchasing.

CITY OF GREELEY, COLORADO

By: Joel Hemesath

Title: Director of Public Works

ACKNOWLEDGMENT: Receipt of the foregoing Notice of Award accompanied with a Performance and Payment Bond form and a signed copy of the Contract Document is hereby acknowledged this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

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

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

## SECTION 00310

### CONTRACT

THIS AGREEMENT made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between the City of Greeley, Colorado, and under the laws of the state of Colorado, party of the first part, termed in the Contract Documents as the "Owner" and \_\_\_\_\_ party of the second part, termed in the Contract Documents as "Contractor."

WITNESSETH: In consideration of monetary compensation to be paid by the Owner to the Contractor at the time and in the manner hereinafter provided, the said Contractor has agreed, and does hereby agree, to furnish all labor, tools, equipment and material and to pay for all such items and to construct in every detail, to wit:

**PROJECT: LINCOLN PARK REPLACEMENT OF ELECTRICAL PANELS – FA19-07-065**

at the price bid on the Proposal Form of \$ \_\_\_\_\_ all to the satisfaction and under the general supervision of the Project Manager for the City of Greeley, Colorado.

The Contract Documents consist of this Agreement, the Conditions of the Contract (General, Supplementary and other Conditions), the Drawings, the Specifications, all Addenda issued prior to and all Modifications issued after execution of this Agreement. These form the Contract, and all are as fully a part of the Contract as if attached to this Agreement or repeated herein.

The Project Manager named herein shall interpret and construe the Contract Documents, reconciling any apparent or alleged conflicts and inconsistencies therein; and all of the work and all details thereof shall be subject to the approval and determination of the Project Manager as to whether or not the work is in accordance with Contract Documents. Said City Project Manager shall be the final arbiter and shall determine any and all questions that may arise concerning the Contract Documents, the performance of the work, the workmanship, quality of materials and the acceptability of the completed project. The decision of the Project Manager on all questions shall be final, conclusive and binding.

AND FOR SAID CONSIDERATION IT IS FURTHER PARTICULARLY AGREED BETWEEN THE PARTIES TO THIS AGREEMENT.

1. That construction and installation of the above enumerated work for the Owner shall be completed and ready for use in accordance with the time of completion described in the Bid form of this Contract. That the above enumerated work shall begin within ten (10) days of the official "Notice to Proceed". (Contract shall become void if work is not started at specified time.)

2. That said work and materials for the project covered by the Contract Documents shall be completely installed and delivered to the Owner, within the time above stated, clear and free from any and all liens, claims, and demands of any kind.
3. The full compensation to be paid the Contractor by the Owner pursuant to the terms of this Contract shall be payable as provided in the Contract Documents.
4. This Contract consists of the following component parts, all of which are as fully a part of the Contract as herein set out verbatim, or if not attached, as if hereto attached:

- Section 00110: Invitation for Bid
- Section 00120: Bid Proposal
- Section 00130: Bid Schedule
- Section 00140: Bid Bond
- Section 00160: Pre-bid meeting
- Section 00210: Notice of Award
- Section 00310: Contract
- Section 00320: Performance Bond
- Section 00330: Payment Bond
- Section 00340: Certificate of Insurance
- Section 00350: Lien Waiver Release
- Section 00360: Debarment/Suspension Certification Statement
- Section 00410: Notice to Proceed
- Section 00420: Project Manager Notification
- Section 00430: Certificate of Substantial Completion
- Section 00440: Final Completion
- Section 00510: General Conditions of the Contract
- Section 00520: Subcontractors List
- Section 00620: Special Provisions

Addenda Number \_\_\_\_\_ Inclusive

Any modifications, including change orders, duly delivered after execution of this Agreement.

**IN WITNESS WHEREOF**, the parties have caused this instrument to be executed as of the day and year first above written.

City of Greeley, Colorado

Contractor\_\_\_\_\_

Approved as to Substance

\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
City Manager-Roy Otto

\_\_\_\_\_  
Printed Name

Reviewed as to Legal Form  
OFFICE OF THE CITY ATTORNEY

\_\_\_\_\_  
Title

By: \_\_\_\_\_  
City Attorney-Doug Marek

Certification of Contract  
Funds Availability

\_\_\_\_\_  
Director of Finance-Renee Wheeler

**SECTION 00320**

PERFORMANCE BOND

Bond No. \_\_\_\_\_

KNOWN ALL MEN BY THESE PRESENTS: that

(Firm) \_\_\_\_\_

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

(an Individual), (a Partnership), (a Corporation), hereinafter referred to as "the Principal", and

(Firm) \_\_\_\_\_

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

hereinafter referred to as "the Surety", are held and firmly bound unto the CITY OF GREELEY, 1000 10th Street, Greeley, CO. 80631, a Municipal Corporation, hereinafter referred to as "the Owner" in the penal sum of \_\_\_\_\_ in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, successors and assigns, jointly and severally, firmly by these present.

THE CONDITIONS OF THIS OBLIGATION are such that whereas the Principal entered into a certain Contract Agreement with the Owner, dated the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_, a copy of which is hereto attached and made a part hereof for the performance of City of Greeley Project,

**LINCOLN PARK REPLACEMENT OF ELECTRICAL PANELS – FA19-07-065**

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

PROVIDED, FURTHER, that the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract Agreement or to the work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation on this bond; and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract Agreement or to the work or to the specifications.

IN WITNESS WHEREOF, this instrument is executed this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

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

IN PRESENCE OF:

PRINCIPAL

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

\_\_\_\_\_

\_\_\_\_\_  
(Corporate Seal)

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

IN PRESENCE OF:

OTHER PARTNERS

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

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

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

IN PRESENCE OF:

SURETY

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

\_\_\_\_\_  
(Attorney-in-Fact)

\_\_\_\_\_

\_\_\_\_\_  
(SURETY SEAL)

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

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

IMPORTANT: Surety Company must be authorized to transact business in the State of Colorado and be acceptable to the Owner.

**SECTION 00330**

PAYMENT BOND

Bond No. \_\_\_\_\_

KNOWN ALL MEN BY THESE PRESENT: that

(Firm) \_\_\_\_\_

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

(an Individual), (a Partnership), (a Corporation), hereinafter referred to as "the Principal", and

(Firm) \_\_\_\_\_

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

hereinafter referred to as "the Surety", are held and firmly bound unto the CITY OF GREELEY, 1000 10th Street, Greeley, Co. 80631, a Municipal Corporation, hereinafter referred to as "the Owner", in the penal sum of

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

THE CONDITIONS OF THIS OBLIGATION are such that whereas the Principal entered into a certain Contract Agreement with the Owner, dated the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_, a copy of which is hereto attached and made a part hereof for the performance of

**LINCOLN PARK REPLACEMENT OF ELECTRICAL PANELS – FA19-07-065**

NOW, THEREFORE, if the Principal shall make payment to all persons, firms, subcontractors and corporations furnishing materials for or performing labor in the prosecution of the work provided for in such Contract Agreement, and any equipment and tools, consumed, rented or used in connection with the construction of such work and all insurance premiums on said work, and for all labor, performed in such work whether by subcontractor or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract Agreement or to the work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligation on this bond; and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract Agreement or to the work or to the specifications.

IN WITNESS WHEREOF, this instrument is executed this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

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

IN PRESENCE OF:

PRINCIPAL

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

\_\_\_\_\_

\_\_\_\_\_  
(Corporate Seal)

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

IN PRESENCE OF:

OTHER PARTNERS

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

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

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

IN PRESENCE OF:

SURETY

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

\_\_\_\_\_  
(Attorney-in-Fact)

\_\_\_\_\_

\_\_\_\_\_  
(SURETY SEAL)

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

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

IMPORTANT: Surety Company must be authorized to transact business in the State of Colorado and be acceptable to the Owner.



## SECTION 00350

### LIEN WAIVER RELEASE

TO: City of Greeley, Colorado (hereinafter referred to as "the OWNER".)

FROM: (hereinafter referred to as "the CONTRACTOR")

PROJECT: **LINCOLN PARK REPLACEMENT OF ELECTRICAL PANELS – FA19-07-065**

1. The CONTRACTOR does hereby release all Mechanic's Liens Rights, Miller Act Claim (40 USCA 270), Stop Notice, Equitable Liens and Labor and Material Bond Rights resulting from labor and/or materials, subcontract work, equipment or other work, rents, services or supplies heretofore furnished in and for the construction, design, improvement, alteration, additions to or repair of the above described project.
2. This release is given for and in consideration of the sum of \$            and other good and valuable consideration. If no dollar consideration is herein recited, it is acknowledged that other adequate consideration has been received by the CONTRACTOR for this release.
3. In further consideration of the payment made or to be made as above set forth, and to induce the OWNER to make said payment, the CONTRACTOR agrees to defend and hold harmless the OWNER, employees, agents and assigns from any claim or claims hereinafter made by the CONTRACTOR and/or its material suppliers, subcontractors or employees, servants, agents or assigns of such persons against the project. The CONTRACTOR agrees to indemnify or reimburse all persons so relying upon this release for any and all sums, including attorney's fees and costs, which may be incurred as the result of any such claims.
4. It is acknowledged that the designation of the above project constitutes an adequate description of the property and improvements for which the CONTRACTOR has received consideration for this release.
5. It is further warranted and represented that all such claims against the CONTRACTOR or the CONTRACTOR's subcontractors and/or material suppliers have been paid or that arrangements, satisfactory to the OWNER and CONTRACTOR, have been made for such payments.
6. It is acknowledged that this release is for the benefit of and may be relied upon by the OWNER, the CONTRACTOR, and construction lender and the principal and surety on any labor and material bond for the project.



**SECTION 00360**  
**LINCOLN PARK REPLACEMENT OF ELECTRICAL PANELS – FA19-07-065**  
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 \_\_\_\_\_

**SECTION 00410**

NOTICE TO PROCEED

Month , 20

TO: NAME

PROJECT: **LINCOLN PARK REPLACEMENT OF ELECTRICAL PANELS – FA19-07-065**

To Whom It May Concern:

You are hereby notified to commence work on the above-referenced project in accordance with the Contract Agreement dated Month , 20 .

You are to complete this project by Month , 20

CITY OF GREELEY, COLORADO

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

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

\_\_\_\_\_  
Signature

## **SECTION 00420**

### **PROJECT MANAGER NOTIFICATION**

\_\_\_\_\_, 20\_\_\_\_

TO:

**PROJECT: LINCOLN PARK REPLACEMENT OF ELECTRICAL PANELS – FA19-07-065**

The Owner hereby designates Dale Blehm as its Project Manager and authorizes this individual, under the authority of the Director of Public Works to make all necessary and proper decisions with reference to the project. Contract interpretations, change orders and other requests for clarification or instruction shall be directed to the Project Manager. The Director of Public Works shall be authorized to bind the Owner with respect to any decision made in accordance with the contract document.

## **SECTION 00430**

### **CERTIFICATE OF SUBSTANTIAL COMPLETION**

**TO: CONTRACTOR**

**PROJECT: LINCOLN PARK REPLACEMENT OF ELECTRICAL PANELS – FA19-07-065**

Project or designated portion shall include: Describe Scope.

The work performed under this contract has been reviewed and found to be substantially complete. The Date of Substantial Completion of the Project or portion thereof designated above is hereby established as Month , 20 .

The date of commencement of applicable warranties required by the Contract Documents is stipulated in Section 00440 - Certificate of Final Acceptance.

#### **DEFINITION OF DATE OF SUBSTANTIAL COMPLETION**

The Date of Substantial Completion of the Work or designated portion thereof is the date certified by the Project Manager when construction is sufficiently complete, in accordance with the Contract Documents, so the Owner can occupy or utilize the Work or designated portion thereof for the use for which it is intended, as expressed in the Contract Documents.

A list of items to be completed or corrected, prepared by the Contractor and verified and amended by the Project Manager is attached hereto. The failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents. The date of commencement of warranties for items on the attached list is as stipulated in Section 00440 – Certificate of Final Acceptance.

The Owner shall operate and maintain the Work or portion of the Work described above from the Date of Substantial Completion and be responsible for all costs associated with the completed work excluding cost related to warrantee work.

The Contractor will complete or correct the Work on the list of items attached hereto within  
days from the above Date of Substantial Completion.

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Contractor

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Owner

(Note--Owner's and Contractor's legal and insurance counsel should review and determine insurance requirements and coverage; Contractor shall secure consent of surety company, if any.)

# SECTION 00440

## CERTIFICATE OF FINAL ACCEPTANCE

TO: **CONTRACTOR**

PROJECT NAME: **LINCOLN PARK REPLACEMENT OF ELECTRICAL PANELS – FA19-07-065**

The work performed under this contract has been reviewed and found to meet the definition of final acceptance. This Certificate of Final Acceptance applies to the whole of the work.

The Date of Final Acceptance of the Project designated above is hereby established as: Month \_\_\_\_\_, 20\_\_\_\_ at 2:00 pm. This date is also the date of commencement of applicable warranties associated with the Project described above and as required by the Contract Documents.

### DEFINITION OF DATE OF FINAL ACCEPTANCE

The Date of Final Acceptance of the Work is the date certified by the City of Greeley's Project Manager when the work is 100% complete, in accordance with the Contract Documents, as amended by change order(s), or as amended below:

Amendment to the Certificate of Final Completion (if any): Describe Amendments.

The Contractor and/or the City Of Greeley shall define any claims or requests for additional compensation above (or as attachments to this document).

Final Acceptance shall not be achieved until the Contractor provides the City Of Greeley with all contract specified Contractor and Sub-contractor close out documents including final lien waivers, releases, insurances, manuals, training, test results, warranties, and other documents required by the Contract Documents, as amended.

Upon issuance of the Certificate of Final Acceptance the Contractor may submit an application for payment requesting final payment for the entire Work. Liquidated damages (if any) will be assessed at this time.

Contractor's acceptance of the final payment shall constitute a waiver by the Contractor of all claims arising out of or relating to the Work; except as noted under 'Amendment to the Certificate of Final Acceptance' above.

Agreed:

\_\_\_\_\_, 20\_\_\_\_      \_\_\_\_\_, 20\_\_\_\_  
Contractor's Representative      DATE      Project Manager (COG)      DATE

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## SECTION 00510

### CITY OF GREELEY GENERAL CONDITIONS OF THE CONTRACT FOR CONSTRUCTION (REVISED NOVEMBER 2016)

#### ARTICLE 1 DEFINITIONS

- 1.1 **Bidder:** An architect, engineer, individual, firm, partnership, corporation or combination thereof, submitting a Bid for the Work.
- 1.2 **Change Notice:** A document issued to the Contractor specifying a proposed change to the Contract Documents. Unless otherwise expressly stated on the face of the Change Notice, a Change Notice is a proposal which may result in a Change Order.
- 1.3 **Change Order:** A document issued to the Contractor modifying the Contract.
- 1.4 **Construction Contract:** The Contract Documents, including the Contract for construction (hereinafter "the contract") executed by the Contractor and the Owner covering the performance of the Work including the furnishing of labor, superintendence, materials, tools and equipment as indicated in the Contract Documents.
- 1.5 **Contract Documents:** Documents applicable to and specific to the construction of an individual Project, including the Contract and all other documents executed by the Contractor and Owner covering the performance of the work including but not limited to Specifications, Insurance Requirements, Contract Drawings, Conditions of the Contract (General and Supplementary), Owner-Contractor Agreement, all Addenda, all change orders issued after execution of the Contract, Performance and Payment Bonds, and any other special provisions.
- 1.6 **Contract Drawings(Project Drawings):** Contract drawings, The plans, to include but not limited to plans, profiles, typical cross sections, general cross-sections, elevations, schedules, schematics, notes and details which show locations, character, dimensions, and details of the Work.
- 1.7 **Contractor:** The individual, firm, partnership, or corporation, or combination thereof, private, municipal, or public, including joint ventures, which, as an independent contractor, has entered into a contract with the Owner, who is referred to throughout the Contract Documents by singular number and masculine gender.
- 1.8 **Days:** Unless otherwise designated, days mean calendar days.
- 1.9 **Extra Work:** Work not provided for in the Contract as awarded but found to be essential to the satisfactory completion of the Contract, within its intended scope. Reimbursement for extra work is governed by Article 28, CHANGES, or Article 31, CONTRACTOR PROPOSALS.

- 1.10           **Field Order:** A written order issued to a contractor by the Owner, or Project Manager, effecting a minor change or clarification with instructions to perform work not included in the contract. The work will eventually become a Change Order. A field Order is an expedient process used in an emergency or need situation that in many cases does not involve an adjustment to the contract sum or an extension of the contract sum or an extension of the contract time.
- 1.11           **Final Acceptance:** The formal written acceptance by the Owner of the completed Work.
- 1.12           **Force Account:** A method of payment, other than lump sum or unit price, for Work ordered by Change Order or by written notice from the Owner. Reimbursement for force account work is governed by Article 36, FORCE ACCOUNT WORK.
- 1.13           **Furnishing:** Manufacturing, fabricating and delivering to the site of the Work materials, plant, power, tools, patterns, supplies, appliances, vehicles and conveyances necessary or required for the completion of the Work.
- 1.14           **General Conditions (GC):** A section of the Contract Documents which specifies, in general, the contractual conditions.
- 1.15           **General Terms:** Directed, required, permitted, ordered, designated, selected, prescribed or words of like import shall be understood to mean the direction, requirement, permission, order, designation, selection or prescription of the Project Manager. Approved, satisfactory, equal, necessary or words of like import shall be understood to mean approved by, acceptable to, satisfactory to, equal, necessary in the opinion of the Project Manager.
- 1.16           **Indicated:** A term meaning as shown on the Contract Drawings, or as specified and detailed in the Contract Documents.
- 1.17           **Installation, Install, or Installing:** Completely assembling, erecting and connecting material, parts, components, appliances, supplies and related equipment specified or required for the completion of the Work.
- 1.18           **Limit of Work:** Boundary within which the Work, excepting utility and drainage work in Public Right Of Way and Easements, is to be performed.
- 1.19           **Notice to Proceed:** Written notice from the Owner to the Contractor to proceed with the Work.
- 1.20           **Notice of Termination:** Written notice from the Owner to the Contractor to stop work under the Contract on the date and to the extent specified in the Notice of Termination.
- 1.21           **Owner:** The City of Greeley.
- 1.22           **Permanent Drainage Easement:** Area required to construct and maintain permanent drainage facilities for retention, release, and passage of surface water.
- 1.23           **Permanent Utility Easement:** Area required to construct and maintain utility facilities.

- 1.24           **Project:** That specific portion of the Work indicated in the Contract Documents.
- 1.25           **Project Manager:** The Owner's designated representative. The Project Manager has the authority to delegate portions of his responsibilities to others.
- 1.26           **Provide:** In reference to work to be performed by the Contractor, provide means furnish and install completely in place.
- 1.27           **Punch List:** Work determined to be incomplete or unacceptable at time of inspection for substantial completion.
- 1.28           **Samples:** Physical examples which illustrate materials, equipment, fixtures and workmanship which establish standards by which the Work will be judged.
- 1.29           **Schedule:** Acceptable schedules are BAR or GANTT Chart or CPM schedule.
- 1.30           **Shop Drawings:** Documents furnished by the Contractor to illustrate specific portions of the Work. Shop Drawings include drawings, diagrams, illustrations, schedules, charts, brochures, tables and other data describing fabrication and installation of specific portions of the Work.
- 1.31           **Specifications:** A document applicable to construction contracts containing the Technical Provisions.
- 1.32           **Subcontractor:** Any person, firm or corporation, other than the employees of the Contractor, who contracts with the Contractor to furnish labor, material or labor and materials, under this Contract.
- 1.33           **Special Provisions:** Provisions especially applicable to this Contract which invoke, modify and supplement the General Conditions which are included in the Contract Documents.
- 1.34           **Substantial Completion:** The state in the progress of Work when the Work, or a designated portion thereof, is sufficiently complete in accordance with the Contract Documents, so that Owner may access, occupy, use, and enjoy the Project, or designated portion thereof, for its intended purpose. Substantial Completion shall not occur until a temporary or permanent Certificate of Occupancy is issued and only minor punch list items remain for such Work.
- 1.35           **Technical Provisions:** Those provisions which specify the materials and execution of construction for work entering into the project.
- 1.36           **Work:** The construction, labor, materials, equipment, and contractual requirements as indicated in the Contract Documents, including alterations, amendments, or extensions thereto made by authorized changes.
- 1.37           **Work Site:** The area enclosed by the Limit of Work indicated in the Project Drawings and boundaries of local streets and public easements in which the Contractor is to perform work under the Contract. It shall also include areas obtained by the Contractor for use in connection with the Contract, when contiguous to the Limit of Work.

## **ARTICLE 2 INTERPRETATION**

- 2.1 The documents comprising the Contract Documents are complementary and indicate the construction and completion of the Work. Anything mentioned in the Contract Specifications and not shown on the Contract Drawings, or shown on the Contract Drawings and not mentioned in the Contract Specifications, shall be of like effect as if shown or mentioned in both.
- 2.2 Where "as indicated", "as detailed", or words of similar import are used, it shall be understood that the reference is made to the specifications or drawings accompanying this Contract unless stated otherwise.
- 2.3 References to Articles or Sections include sub articles or subsections under the Article Reference (for example, a reference to Article 2 is also a reference to 2.1 through 2.9, and references to paragraphs similarly include references to subparagraphs).
- 2.4 Referenced Standards: Material and workmanship specified by the number, symbol, or title of a referenced standard shall comply with the latest edition or revision thereof and amendments and supplements thereto in effect on the date of the Invitation to Bid except where a particular issue is indicated.
- 2.5 Precedence of Contract Documents: Except as provided by Paragraph 2.1 of this Article, the Construction Contract governs over other Contract Documents, except that a Change Order governs over the Contract and previously issued Change Orders. The Contract Conditions govern over the General Conditions.
- 2.6 Explanations: Should it appear that the Work to be done or any of the matters relative thereto are not sufficiently detailed or explained in the Contract Documents, the Contractor shall apply to the Owner for such explanation provided as part of the Contract. Disputes over questions of fact which are not settled by agreement shall be decided by Owner. Such decision thereon will be final, subject to remedies under Article 35, DISPUTES.
- 2.7 Should there be any conflict, detailed instructions govern over general instructions, detail drawings have precedence over small scale drawings, and dimensions have precedence over scale.
- 2.8 Omissions and Misdescriptions: The Contractor shall carefully study and compare all drawings, specifications, Contract Documents and other instructions; shall verify all dimensions on the Contract Drawings before laying out the Work; shall notify the Project Manager of all errors, inconsistencies or omissions which he may discover; and obtain specific instructions in writing before proceeding with the Work. The Contractor shall not take advantage of apparent errors or omissions which may be found in the Contract Documents, but the Project Manager shall be entitled to make such corrections therein and interpretations thereof as he may deem necessary for the fulfillment of their intent. The Contractor shall be responsible for all errors in construction which could have been avoided by such examination and notification, subject to remedies under Article 35, Disputes.

**ARTICLE 3  
ENTITY OF CONTRACTOR**

3.1 If the Contractor hereunder is comprised of more than one legal entity, each such entity shall be jointly and severally liable hereunder.

**ARTICLE 4  
LIABILITY AND INDEMNIFICATION**

4.1 It is agreed that the Contractor assumes responsibility and liability for damages, loss or injury of any kind or nature whatever to persons or property caused by or resulting from or in connection with any act, action, neglect, omission, or failure to act when under a duty to act on the part of the Contractor or any of his officers, agents, employees, or subcontractors in his or their performance of the Work. The Contractor shall indemnify and hold harmless the Government, the State, the Owner and the Project Manager and their members, officers, agents, or employees from claims, losses, damages, charges, costs, or expenses, including attorney's fees, whether direct or indirect, to which they or any of them may be put or subjected to by reason of any such loss or injury.

**ARTICLE 5  
PROTECTION OF EXISTING VEGETATION, STRUCTURES, UTILITIES,  
AND IMPROVEMENTS AND LAND SURVEY MONUMENTS**

5.1 A Contractor shall preserve and protect existing vegetation such as trees, shrubs, and grass on or adjacent to the work site which are not indicated to be removed and which do not unreasonably interfere with the construction work and he shall replace in kind any vegetation, shrubs and grass damaged by him at his own expense.

5.2 The Contractor shall protect from damage all utilities, structures, or improvements on or near the site of the Work and shall repair or restore any damage to such utilities, structures, or improvements resulting from failure to comply with the requirements of the Contract or the failure to exercise reasonable care in the performance of the Work. If the Contractor fails or refuses to repair any such damage promptly, the Owner may have the necessary work performed and charge the cost thereof to the Contractor.

5.3 All land survey monuments shall be protected from any damage by any work and/or shall be replaced by a licensed land surveyor licensed in the state of Colorado at the contractor's expense before final acceptance is issued.

**ARTICLE 6  
CONTRACTUAL RELATIONSHIPS**

6.1 No contractual relationship will be recognized under the Contract other than the contractual relationship between the Owner and the Contractor.

## **ARTICLE 7 ASSIGNMENT**

7.1 The performance of the Work under the Contract shall not be assigned except upon written consent of the Owner. Consent will not be given to any proposed assignment which would relieve the Contractor or his surety of their responsibilities under the Contract. The Contractor shall not assign any monies due or to become due to him under the Contract without the previous written consent of the Owner.

## **ARTICLE 8 SUBCONTRACTORS**

8.1 Unless otherwise required by the Contract Documents or the Bidding Documents, the Contractor, as soon as practicable after the award of the Contract, not to exceed 3 days, shall furnish to the Owner and the Project Manager, in writing the names of the subcontractors, persons or entities (including those who are to furnish materials or equipment fabricated to a special design) proposed for each of the principal portions of the Work. The Project Manager will promptly reply to the Contractor in writing whether or not the Owner or the Project Manager, after due investigation, has reasonable objection to any such proposed person or entity. Failure of the Owner or Project Manager to reply promptly shall constitute notice of no reasonable objections.

## **ARTICLE 9 CONDITIONS AFFECTING THE WORK**

9.1 The Contractor shall be responsible for taking steps reasonably necessary to ascertain the nature and location of the Work, and the general and local conditions which can affect the Work or the cost thereof. Failure by the Contractor to do so will not relieve him from responsibility for successfully performing work without additional expense to the Owner. The Owner will not be responsible for any understanding or representations concerning conditions, unless such understanding or representations are expressly stated in the Contract.

## **ARTICLE 10 GRATUITIES AND CONFLICTS OF INTEREST**

10.1 The Owner may, by written notice to the Contractor terminate the right of the Contractor to proceed under this Contract if it is found that gratuities (in the form of entertainment, gifts, or otherwise) were offered or given by the Contractor, or any agent or representative of the Contractor or any director, officer or employee of the Owner or its Project Manager with a view toward securing a contract or securing favorable treatment with respect to the awarding or amending, or the making of any determinations with respect to the performance of such contract. The Owner's determination shall be final subject only to judicial review.

10.2 In the event this Contract is terminated for any reason, the Owner shall be entitled to pursue the same remedies against the Contractor as it could pursue in the event of a breach of the Contract by the Contractor.

10.3 No member, officer or employee of the Owner or of a local public body during his tenure or for one year thereafter shall have any interest, direct or indirect, in this Contract or the proceeds thereof. "Local public body" means the State, any political subdivision of the State, or any agency of the State or any political subdivision thereof.

10.4 The rights and remedies of the Owner provided in this article are not exclusive and are in addition to any other rights and remedies provided by law or under the Contract.

## **ARTICLE 11 WARRANTY OF WORK**

11.1 Except where longer periods of warranty are indicated for certain items, the Contractor warrants work under the Contract to be free from faulty materials and workmanship for a period of not less than two years from date of Final Acceptance, which two year period shall be covered by the Performance Bond and Payment Bond as specified in this Contract. The Contractor shall immediately remedy, repair, or replace, without cost to the Owner and to the entire satisfaction of the Owner, defects, damages, or imperfections due to faulty materials or workmanship appearing in said work within said period of not less than two years. Remedied work shall carry the same warranty as the original work starting with the date of acceptance of the replacement or repair. Payment to the Contractor will not relieve him of any obligation under this Contract.

11.2 The Contractor, at no additional expense to the Owner, shall also remedy damage to equipment, the site, or the building or the contents thereof which is the result of any failure or defect in the Work, and restore any work damaged in fulfilling the requirements of the Contract. Should the Contractor fail to remedy any such failure or defect within a reasonable time but no longer than ten (10) days after receipt of notice thereof, the Owner will have the right to replace, repair, or otherwise remedy such failure or defect at the Contractor's expense.

11.3 Subcontractors', manufacturers', and suppliers' warranties and guarantees, expressed or implied, respecting any part of the Work and any material used therein shall be deemed obtained and shall be enforced by the Contractor for the Benefit of the Owner without the necessity of separate transfer or assignment thereof.

11.4 The rights and remedies of the Owner provided in this Article are in addition to and do not limit any rights and remedies afforded by the Contract or by law.

## **ARTICLE 12 MATERIAL**

12.1 Unless otherwise indicated in this Contract, equipment, material and products incorporated in the Work covered by this Contract shall be new and of the grade specified in the Contract for the purpose intended. Unless otherwise specifically indicated, reference to equipment, material, product or patented process by trade names, make, or catalog number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition, and the Contractor may, at his option, use any equipment, material, article, or process which is equivalent to that named, subject to the requirements of Paragraph 12.2 of this Article.

12.2 Within the scope of his authority, the Project Manager shall be the sole judge of the quality and suitability of proposed alternative equipment, material, article or process. The burden of proving the quality and suitability of the alternative shall be upon the Contractor. Information required by the Project Manager in judging an alternative shall be submitted for approval by the Contractor at the Contractor's expense prior to installation.

12.3 Where use of an alternative material involves redesign of or changes to other parts of the Work, the cost and the time required to affect such redesign or change will be considered in evaluating the suitability of the alternative material. Redesign and changes in other parts of the Work shall be at the Contractor's expense.

12.4 No action relating to the approval of alternative materials will be taken by the Project Manager until the request for substitution is made in writing by the Contractor accompanied by complete data as to the quality and suitability of the materials proposed. Such request shall be made in ample time to permit approval without delaying the Work.

12.5 Disposal of material outside the Work Site: The Contractor shall make his own arrangements for legally disposing of waste and excess materials outside the Work Site and he shall pay costs therefore.

12.6 Property rights in materials: The Contractor shall have no property right in materials after they have been attached or affixed to the Work or the soil, or after payment has been made by the Owner to the Contractor for materials delivered to the site of the Work, or stored subject to or under the control of the Owner as provided in Article 24, PROGRESS PAYMENTS.

### **ARTICLE 13 WORKMANSHIP AND UNAUTHORIZED WORK**

13.1 Work under this Contract shall be performed in a skillful and workmanlike manner. The Project Manager may, in writing, require the Contractor to remove from the work any employee the Project Manager determines incompetent, careless or otherwise objectionable.

13.2 Unauthorized work: Work performed beyond the lines and grades shown on the Contract Drawings, approved Working and Shop Drawings and Extra work done without written authorization, will be considered as unauthorized work, and the Contractor will receive no compensation therefore. If required by the Owner, unauthorized work shall be remedied, removed, or replaced by the Contractor at the Contractor's expense. Upon failure of the Contractor to remedy, remove or replace unauthorized work, the Owner may take courses of action set out in Paragraph 15.3 of Article 15, INSPECTION.

### **ARTICLE 14 SUPERINTENDENCE BY CONTRACTOR**

14.1 The Contractor shall give his personal superintendence to the Work or have a competent foreman or superintendent, hereinafter designated his authorized representative, satisfactory to the Owner, on the Work Site at all times during progress, with authority to act for him. There shall be provided at all times, a reasonable method of communication directly to the Contractor if the Owner experiences any problems or difficulties with the Superintendent.

## **ARTICLE 15 INSPECTION/TESTING**

15.1 Work (which term includes but is not restricted to materials, workmanship and manufacture and fabrication of components) will be subject to inspection and test by the Project Manager at all reasonable times and at all places prior to acceptance. Such inspection and test is for the sole benefit of the Owner and shall not relieve the Contractor of the responsibility of providing quality control measures to assure that the Work strictly complies with the Contract Documents. No inspection or test by the Project Manager shall be construed as constituting or implying acceptance. Inspection or test shall not relieve the Contractor of responsibility for damage to or loss of the material prior to acceptance, nor in any way affect the continuing rights of the Owner after acceptance of the completed Work.

15.2 The Contractor shall, at his own expense, replace any material or correct any workmanship found not to conform to the contract requirements, unless the Owner consents in writing to accept such material or workmanship with an appropriate adjustment in contract price. The Contractor shall promptly segregate and remove rejected material from the premises at his own expense.

15.3 If the Contractor does not promptly replace rejected material or correct the rejected workmanship, the Owner (1) may, by separate contract or otherwise, replace such material or correct such workmanship and charge the cost thereof to the Contractor, or (2) may terminate the Contractor's right to proceed in accordance with Article 38, TERMINATION FOR DEFAULT-- DAMAGES FOR DELAY--TIME EXTENSIONS.

15.4 The Contractor shall give the Project Manager ample notification of inspections and tests, and the Project Manager will perform, except as otherwise specifically provided, said inspections and tests in such manner as not to unnecessarily delay the work. The Owner will have the right to charge to the Contractor any additional cost of inspection or test or when reinspection or retest is necessitated by prior rejection.

15.5 Should it be considered necessary, before acceptance of the entire work, to make an examination of work already completed by removing or tearing out same, the Contractor shall on request promptly furnish all necessary facilities, labor and material therefore. If such work is found to be defective or nonconforming in any material respect, due to the fault of the Contractor or his subcontractors, he shall defray the expenses of such examination and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the Contract, an equitable adjustment will be made in the contract price to compensate the Contractor for the additional services involved in such examination and reconstruction. If completion for the work has been delayed thereby, he will, in addition, be granted an equitable extension of time.

15.6 The Project Manager shall have access to the work during its construction. Work done and materials provided will be subject to the Project Manager's on-site and off-site inspection and approval. When work is to be performed during hours other than during his normal schedule, the Contractor shall so advise the Project Manager not less than 24 hours in advance. The Contractor shall provide access to the work for authorized representatives of the Owner.

15.7 The Project Manager's inspection and approval of work or materials shall not relieve the Contractor of any of his obligations to fulfill the requirements of the Contract Documents. Work and materials not meeting the requirements of the Contract shall not be incorporated in the Work. Unsuitable or substandard work or materials may be rejected by the Project Manager, notwithstanding that such work or materials may have been previously inspected by the Project Manager, or that payment therefore has been included in a progress payment.

## **ARTICLE 16 PERMITS AND COMPLIANCE WITH LAWS**

16.1 The Contractor shall without additional expense to the Owner be responsible for obtaining necessary licenses and permits and for complying with applicable Federal, State, County and Municipal laws, codes and regulations in connection with the commencement of the work. The Contractor is required to supply the Project Manager with complete and final copies of license and permits including final inspection documentation. The Contractor shall be required to obtain permits at his own expense. The Contractor shall protect, indemnify and hold harmless the Owner and the Project Manager and their members, officers, agents and employees against claims and liabilities arising from or based on the violation of requirements of law or permits whether by the Contractor, his employees, agents or subcontractors.

## **ARTICLE 17 RIGHTS IN LAND IMPROVEMENT**

17.1 The Contractor shall make no arrangements with any person to permit occupancy or use of any land, structure or building within the work site for any purpose whatsoever, either with or without compensation, in conflict with any agreement between the Owner and any owner, former owner or tenant of such land, structure or building. The Contractor shall not occupy Owner property outside the work site without obtaining prior written approval from the Owner.

## **ARTICLE 18 DAMAGE TO THE WORK AND RESPONSIBILITY FOR MATERIALS**

18.1 The Contractor shall be responsible for materials delivered and work performed until completion and final acceptance of the entire construction thereof.

18.2 The Contractor shall bear the risk of injury, loss or damage to any and all parts of the work for whatever cause, whether arising from the execution or from the non-execution of work. The Contractor shall rebuild, repair or restore work and materials which have been damaged or destroyed from any cause before completion and acceptance of the work and shall bear the expense thereof. The Contractor shall provide security and drainage and erect temporary structures as necessary to protect the work and materials from damage.

18.3 The Contractor shall be responsible for materials not delivered to the site for which any progress payment has been made to the same extent as if the materials were so delivered.

## **ARTICLE 19 EMERGENCIES**

19.1 In an emergency affecting the safety of life, the work, or adjacent property, the Contractor shall notify the Project Manager as early as possible that an emergency exists. In the meantime, without special instruction from the Project Manager as to the manner of dealing with the emergency, the Contractor shall act at his own discretion to prevent such threatened loss or injury. As emergency work proceeds, the Project Manager may issue instruction, which the Contractor shall follow. The amount of compensation to which Contractor is entitled on account of emergency work will be determined in accordance with Article 28, CHANGES.

## **ARTICLE 20 NOTICE TO PROCEED**

20.1 The Owner will issue a Notice to Proceed to the Contractor within 15 days after the Contractor has executed the Contract and has delivered the specified bonds and Certificates of Insurance as required by the Owner. Except as specifically authorized in writing by the Owner, the Contractor is not authorized to perform work under the Contract until the effective date of the Notice to Proceed. Within 10 days after the effective date of such Notice to Proceed, the Contractor shall commence work and shall diligently prosecute the Work to completion within the time limits specified. These time periods may be modified by mutual written agreement of both the Owner and Contractor.

## **ARTICLE 21 PROGRESS SCHEDULE AND REQUIREMENTS FOR MAINTAINING PROGRESS**

21.1 The Contractor shall, at the pre-construction meeting, prepare and submit to the Project Manager for approval a practicable schedule, showing the order in which the Contractor proposes to carry on the work, the date on which he will start the several salient features (including procurement of materials, plant and equipment) and the contemplated dates for completing the same. The schedule shall be in the form of a progress chart of suitable scale to indicate appropriately the percentage of work scheduled for completion at any time. The Contractor shall update the chart with the actual progress monthly or at such intervals as directed by the Project Manager, and shall immediately deliver three copies thereof. If the Contractor fails to submit a progress schedule within the time herein prescribed, the Project Manager may withhold approval of progress payment estimates until such time as the Contractor submits the required progress schedule.

21.2 The Contractor shall prosecute the work in accordance with the latest approved Progress Schedule. In the event, that the progress of items along the critical path is delayed, the Contractor shall revise his planning to include additional forces, equipment, shifts or hours as necessary to meet the time or times of completion specified in this Contract. Additional costs resulting therefrom will be borne by the Contractor. The Contractor shall make such changes when his progress at any check period does not meet at least one of the following two tests:

21.2.1 The percentage of dollar value of completed work with respect to the total amount of the Contract is within ten percentage points of the percentage of the Contract time elapsed, or;

21.2.2 The percentage of dollar value of completed work is within ten percentage points of the dollar value which should have been performed according to the Contractors own network analysis previously approved by the Project Manager.

21.3 Failure of the Contractor to comply with the requirements under this provision will be grounds for determination that the Contractor is not prosecuting the work with such diligence as will ensure completion within the time of completion specified in this Contract. Upon such determination, the Owner may terminate the Contractor's right to proceed with the work, or any separate part thereof, in accordance with Article 38, TERMINATION FOR DEFAULT--DAMAGES FOR DELAY--TIME EXTENSIONS of these General Conditions.

## **ARTICLE 22 SUSPENSION OF WORK**

22.1 The Owner reserves the right to suspend, delay or interrupt execution of the whole or any part of the work for such period of time as he may determine to be appropriate for his convenience.

22.2 If the performance of all or any part of the work is, for an unreasonable period of time, suspended, delayed, or interrupted by an act of the Owner in the administration of this Contract or by his failure to act within the time specified in this Contract (or if no time is specified, within a reasonable time), an adjustment shall be made for any increase in the cost of performance of this Contract (excluding profit) necessarily caused by such unreasonable suspension, delay, or interruption and the contract modified in writing accordingly. However, no adjustment shall be made under this clause for any suspension, delay, or interruption to the extent (1) that performance would have been so suspended, delayed or interrupted by any other cause, including the fault or negligence of the Contractor or (2) for which an equitable adjustment is provided for or excluded under any other provision of this Contract.

22.3 No claim under this clause shall be allowed (1) for any costs incurred more than 20 days before the Contractor shall have notified the Owner in writing of the act of failure to act involved (but this requirement shall not apply as to a claim resulting from a suspension order), and (2) unless the claim, in an amount stated is asserted in writing as soon as practicable after the termination of such suspension, delay, or interruption, but not later than the date of final payment under the Contract.

## **ARTICLE 23 FINAL INSPECTION AND ACCEPTANCE**

23.1 Final inspection: When the Contractor notifies the Project Manager in writing that the work has been completed, the Owner will make the final inspection for the purpose of ascertaining that the work has been completed in accordance with the requirements of the Contract Documents.

23.2 Acceptance of the work: When the Owner has made the final inspection and has determined that the work has been completed in accordance with the Contract Documents, the Owner will accept the work. Immediately upon and after Final Acceptance, the Contractor will be relieved of the duty of maintaining and protecting the work as a whole. The Contractor will be relieved of his responsibility for injury to persons or property or damage to the work which occurs after Final Acceptance, except that the Contractor will not be relieved of his responsibility for injury to persons or property arising from his duties and obligations under Article 4, LIABILITY AND INDEMNIFICATION.

23.3 Final Acceptance shall be final and conclusive, and no further performance of work shall be required except with regards to latent defects, fraud or such gross mistakes as may amount to fraud, or with regard to the Owner's rights under any warranty or guarantee. All punch list items must be completed and building permits provided to Owner before final acceptance is issued.

23.4 Date of Substantial Completion for all Work shall be within the number of calendar days bid by the Contractor on the Bid proposal.

23.5 Date of Final Completion shall be the date specified on the Certificate of Final Completion.

## **ARTICLE 24 PROGRESS PAYMENTS**

24.1 The Owner will make progress payments monthly as the work proceeds, on estimates approved by the Project Manager. Payment will be made within 15 days after progress estimates are approved by the Project Manager and Department Head. On request of the Project Manager, the Contractor shall furnish a detailed estimate of the total contract price each showing the amount included therein for each principal category of the work, to provide a basis for determining the amount of progress payments. In the preparation of estimates, the Owner, at its sole discretion, may authorize material delivered on the site and preparatory work done to be taken into consideration which is to be submitted at the pre-construction meeting.

24.2 In making such progress payments, five percent of the estimated amount will be retained until Final Acceptance of the Contract work; in addition, the Owner shall retain from all Progress payments an amount equal to all statutory claims filed against the Contractor. Also, whenever the work is substantially complete, the Owner if it considers the amount retained to be in excess of the amount adequate for its protection, may release to the Contractor all or a portion of such excess amount. Substantial completion as used in this Paragraph 24.2 shall mean the following: Substantial completion of the work or a portion thereof shall be when, as determined by both the Project Manager and the Owner, the construction is sufficiently completed in accordance with the Contract Documents and any modification thereto as provided in the Contract to permit the Owner to occupy the work or a portion of the work for the use which it is intended.

24.3 Material and work covered by progress payments shall become the sole property of the Owner. This provision shall not be construed as relieving the Contractor from the sole responsibility for material and work upon which payments have been made, the restoration of damaged work or as waiving the right of the Owner to require the fulfillment of the terms of the Contract.

## **ARTICLE 25 PAYMENT TO SUBCONTRACTORS**

25.1 The Contractor shall pay all subcontractors for and on account of work performed by such subcontractors in accordance with the terms of their respective subcontract. Prior to final payment an unconditional lien waiver release form will be required by the Owner.

## **ARTICLE 26 PAYMENT OF TAXES**

26.1 The price or prices for the work will include full compensation for taxes that the Contractor is or may be required to pay. The Contractor shall bear the risk of any added or increased taxes occurring during the prosecution of the work. A change in taxes shall under no circumstances entitle the Contractor to an adjustment under the Contract.

26.2 The Contractor's attention is directed to the fact that this project is exempt from payment of City of Greeley Sales and Use taxes, and such taxes must not be included in the amount of bid.

26.3 The Contractor shall pay all sales and use taxes required to be paid, shall maintain such records in respect of his work, which shall be separate and distinct from all other records maintained by the Contractor and shall be available for inspection by the Owner at any and all reasonable times, and shall furnish the Owner with such data, as may be necessary to enable the Owner to obtain any refunds of such taxes which may be available to the Owner under the laws, ordinances, rules or regulations applicable to such taxes. The Contractor shall require each of his subcontractors to pay all sales and use taxes required to be paid and to maintain such records and furnish the Contractor with such data as may be necessary to enable the Owner to obtain a refund of the taxes paid by such subcontractors.

## **ARTICLE 27 FINAL PAYMENT**

27.1 After the Work has been accepted by the Owner, subject to the provisions of Article 11, WARRANTY OF WORK and Article 23, FINAL INSPECTION AND ACCEPTANCE of these General Conditions, a final payment due the Contractor under this Contract shall be paid upon the presentation of properly executed voucher and after the Contractor shall have furnished the Owner with a release of all claims against the Owner arising by virtue of this Contract, other than claims in stated amounts as may be specifically excepted by the Contractor from the operation of the release. If the Contractor's claim to amounts payable under the contract has been assigned under the assignment of Claims Act of 1940, as amended (31 U.S.C. 203, 41 U.S.C. 15), a release may also be required of the assignee.

27.2 If any mechanic's or material man's lien or notice of claim of such lien is filed or recorded against the project for labor, materials, supplies or equipment claimed to have been furnished to or incorporated into the Work, or for other alleged contribution thereto, the Owner will have the right to retain from payments otherwise due the Contractor, in addition to other amounts properly withheld under this Article or under other provisions of the Contract, an amount equal to such lien or liens claimed.

27.3 Further, the Owner will have the right to retain from final payment an amount equal to all liquidated damages claimed by the Owner.

27.4 Retainages held by the Owner for any state or federal statutory claim arising out of the project will be held by the Owner in addition to all retainages held under the provisions of the Contract.

## **ARTICLE 28 CHANGES**

28.1 The Owner may, at any time, without notice to the sureties, by written notice or order designated or indicated to be a Change Notice or Change Order, make any change in the work within the general scope of the Contract in accordance with all of the Owner's processes and procedures whether or not set forth herein, including but not limited to changes:

28.1.1 In the Contract (including drawings and designs);

28.1.2 In the method or manner of performance of the work;

28.1.3 In Owner furnished facilities, equipment, materials, services, or site; or

28.1.4 Directing acceleration in performance of the work.

28.2 Any other order (which terms as used in Paragraph 28.2 of this Article shall include direction, instruction, interpretation, or determination) from the Project Manager, which causes any change, shall be treated as a Change Notice under this Article provided that the Contractor gives the Project Manager written notice stating the date, circumstances and source of the order, and that the Contractor regards the order as a Change Notice. The Contractor shall notify the Project Manager when he receives direction, instruction, interpretation or determination from any source which may cause any change in the work. Such notification shall be given to the Project Manager before the Contractor acts on said direction, instruction, interpretation or determination.

28.3 Except as herein provided, no order, statement, or conduct of the Architect/ Project Manager or any other person shall be treated as a change under this Article or entitle the Contractor to an equitable adjustment hereunder.

28.4 If any change under this Article causes an increase or decrease in the Contractor's cost of, or the time required for, the performance of any part of the Work under this Contract, whether or not changed by an order, an equitable adjustment will be made and the Contract modified accordingly by a written Change Order; provided, however, that except for claims based on errors in the Contract Documents, no claim for change under Paragraph 28.2 of this Article will be allowed for costs incurred more than 20 days before the Contractor gives written notice as herein required; and provided that in the case of errors in the Contract Documents for which the Owner is responsible, the adjustment will include increased cost, reasonably incurred by the Contractor in attempting to comply with such errors in the Contract Documents. No claim shall be made for the type of errors in the Contract Documents which are set forth in Article 2, INTERPRETATION.

28.5 If the Contractor intends to assert a claim for an equitable adjustment under this Article, he shall, within 30 days after receipt of a written Change Order under Paragraph 28.1 of this Article or the furnishing of a written notice under Paragraph 28.2 of this Article, submit to the Project Manager a written statement setting forth the general nature and monetary extent of such claim, unless this period is extended in writing by the Owner. The statement of claim hereunder may be included in the notice under Paragraph 28.2 of this Article.

28.6 No claim by the Contractor for an equitable adjustment hereunder will be allowed unless asserted as described in Paragraphs 28.4 and 28.5 above.

28.7 Payment will not be made under the provisions of this Article for such work or materials which are so required to be done or furnished in or about or for the performance of the Work and which are not mentioned, specified or indicated or otherwise provided for in this Contract or in the Contract Documents so far as such work or materials may be, in the opinion of the Project Manager, susceptible of classification under or reasonably inferred to be included in the Bid Items of the Bid Form.

28.8 In case the Contractor is ordered to perform work under this Article for which payments are not determined under Paragraph 28.7 of this Article, which in the opinion of the Owner it is impracticable to have performed by the Contractor's own employees, the Contractor will, subject to the approval of the Owner, be paid the actual cost to him of such work and, in addition thereto, a negotiated amount to cover the Contractor's superintendence, administration and other overhead expenses. The terms and conditions of any subcontract which the Contractor may propose to enter into in connection with work under the provision of this Article shall be subject to the written approval of the Project Manager before such subcontract is made. The contractor shall be responsible for the work of the subcontractors and shall be liable therefore as if he had performed the work directly.

28.9 In cases other than those described in Paragraphs 28.7 and 28.8 above, the Owner and the Contractor (on his own behalf and on behalf of his subcontractors) shall endeavor to negotiate a reasonable contract price and line adjustment in a Change Order on terms appropriate to the changed work. The Contractor will be required to submit a sufficiently detailed price proposal supported with sufficient documentation that (1) the Owner can determine that the proposal reflects all impacts on the Contract from work additions, deletions and modifications shown in the Change Notice being priced, (2) the proposed prices are set out in such a way that their reasonableness can be evaluated against prices based on adequate price competition, bid unit prices, established catalog or market prices of commercial items sold in substantial quantities to the general public, prices set by law or regulation, recognized published price lists and indices, independently developed cost estimates and other appropriate price comparisons, and (3) contract provisions relating to Contract changes costing over \$100,000.00 are complied with. If any prices or other aspects are conditional, such as on firm orders being made by a certain date or the occurrence or nonoccurrence of an event, the Contractor shall identify these aspects in his proposal. A negotiated Change Order shall set out prices, scheduling requirements, time extensions and all costs of any nature arising out of the issuance of a Change Notice except for those cost and time aspects explicitly reserved on the face of the Change Order. Except for these explicit reservations, the execution of a Change Order by both parties will be deemed accord and satisfaction of all claims of any nature arising from the issuance of the Change Notice negotiated.

28.10 In the event the Contractor and the Owner are unable to agree upon the Contractor's entitlement to an equitable adjustment or upon the amount thereof, or in the event that it is in the best interest of the Owner to have the Work proceed pending negotiation of amount of an equitable adjustment, the Owner may direct the Contractor to perform the Work in accordance with the Owner order, direction, instruction, interpretation, or determination, with any Contract price adjustments and progress payments for the Work to be determined on a Force Account basis in accordance with Article 36. The Contractor shall continue diligently to perform the Contract in accordance with the Owner's order, direction, instruction, interpretation, or determination during negotiations with respect to the Contractor's entitlement to an equitable adjustment hereunder or to the amount of any Contract price adjustment or time extension. The Contractor and the Owner may agree on certain aspects of an equitable adjustment and take those aspects out of operation of Force Account provisions. In the

event a mutually agreeable equitable adjustment cannot be made, the Contractor shall continue diligently to perform the orders as he proceeds with his remedies under Article 35, DISPUTES, and shall continue to receive compensation on a Force Account basis.

28.11 For contract changes, the Owner, State and Government or their representative shall have the audit and inspection rights as described below:

28.11.1 Where the agreed payment method for any contract changes is to be by cost reimbursement, time and material, labor hours or any combination thereof, the Contractor shall maintain and the Owner or its representatives shall have the right to examine books, records, documents and other evidence and accounting principles and practices sufficient to reflect properly all direct and indirect costs of whatever nature claimed to have been incurred and anticipated to be incurred for the performance of the contract changes under this sub article.

28.11.2 Contract changes exceeding \$100,000.00 in cost: For submitted cost and pricing data in connection with pricing a contract modification referred to in this sub article, unless such pricing is based on bid unit prices, adequate price competition, established catalog or market prices of commercial items sold in substantial quantities to the public, or prices set by law or regulation, the Owner or his representatives and the Comptroller General of the United States and his representatives who are employees of the United States shall have the right to examine all books, records, documents and other data of the Contractor related to the negotiation of or performance under the contract Change Orders for the purpose of evaluating the accuracy, completeness and currency of the cost or pricing data submitted. The right of examination shall extend to all documents necessary to permit adequate evaluation of the cost or pricing data submitted, along with the computations and projections used therein.

28.11.3 Contract changes exceeding \$10,000.00 but not \$100,000.00 in cost: The Owner or his representatives prior to the execution of any contract Change Order in this sub article or for a period of twelve months after execution shall, unless such pricing is based on bid unit prices, adequate price competition, established catalog of market prices or commercial items sold in substantial quantities to the public, or prices set by law or regulation, have the right to examine all books, records, documents, and other data of the Contractor relating to the negotiation and contract Change Order for the purpose of evaluating the accuracy, completeness, and currency of the data is submitted upon which negotiation is or has been based. To the extent the examination reveals inaccurate, incomplete or noncurrent data, the Project Manager may renegotiate the contract Change Order price based on such data.

28.11.4 Contract changes of less than \$10,000.00 in cost: The Owner may require from the Contractor appropriate documentation to support the prices being negotiated for contract changes under this sub article, and may refuse to complete negotiations until satisfactory documentation is submitted.

28.11.5 Availability: The materials described in Paragraphs 28.11.1 and 28.11.2 above shall be available at the office of the Contractor at all reasonable times for inspection, audit or reproduction until three years from the date of final payment under this Contract and for records which relate to Article 35, DISPUTES, or litigations or the settlement of claims arising out of the negotiation or the performance of contract changes over 100,000.00, records shall be made available until such litigations or claims have been resolved.

28.11.6 The Contractor shall insert a clause containing all the provisions in this Paragraph 28.11, including this subparagraph 28.11.6, in all subcontracts hereunder except altered as necessary for proper identification of the contracting parties and Owner.

28.11.7 For the purposes of Paragraph 28.11 of this Article, costs shall include liquidated damages which would be assessed if extension(s) of time were not granted by contract Change Order.

28.11.8 The requirements of this audits and records article are in addition to other audit, inspection and record keeping provisions elsewhere in the Contract Documents.

28.12 Changes involving aggregate increases and decreases in excess of \$100,000.00 shall be subject to the following:

28.12.1 A change involves aggregate increases and decreases in excess of \$100,000.00 if the total value of work affected, without regard to the arithmetic sign, exceeds this amount; for example, a change order adding work in the amount of \$75,000.00 and deleting work in the amount of \$50,000.00 will be considered to involve aggregate increases and decreases of \$125,000.00.

28.12.2 The Contractor shall submit in support of all items not based upon unit prices or lump sum prices contained in the Contract or upon the established prices at which commercial items are sold in substantial quantities to the public, statements by his vendors that the prices charged the Contractor are not greater than the prices charged by the respective vendors to their most favored customers for the same items in similar quantities.

28.12.3 Price reductions for Defective Cost or Pricing Data--Pricing Adjustments: If any price, including profit and fee, negotiated in connection with any price adjustment was increased by any significant sums because:

28.12.3.1 The Contractor furnished cost or pricing data which were not complete, accurate, and current as certified in the Contractor's Certificate of Current Cost or Pricing Data;

28.12.3.2 A subcontractor, pursuant to Paragraph 28.13 of this Article entitled Subcontractor Cost or Pricing Data--Pricing Adjustments or any subcontract provision therein required, furnished costs or pricing data which were not complete, accurate, and current as certified in the Subcontractor's Certificate of Current Cost or Pricing Data;

28.12.3.3 The subcontractor or his prospective subcontractor furnished cost or pricing data which were required to be complete, accurate, and current and to be submitted to support a subcontract cost estimate furnished by the Contractor but which were not complete, accurate, and current as of the date certified in the Contractor's Certificate of Current Cost or Pricing Data; or

28.12.3.4 The Contractor or a subcontractor or his prospective subcontractor furnished any data, not within subparagraphs 28.12.3.1, 28.12.3.2, or 28.12.3.3 above, which were not complete, accurate, and current as submitted, the price shall be reduced accordingly and the Contract shall be modified in writing as may be necessary to reflect such reduction. Any reduction in the Contract Price due to defective subcontract data of a prospective subcontractor, when the subcontract was not subsequently awarded to such subcontractor, will be limited to the amount (plus applicable overhead

and profit markup) by which the actual subcontract, or actual cost to the Contractor if there was no subcontract, was less than the prospective subcontract cost estimate submitted by the Contractor, provided the actual subcontract price was not affected by defective cost or pricing data.

**28.13 Subcontract Cost of Pricing Data-- Pricing Adjustment:**

28.13.1 When negotiating a change involving increases or decreases in excess of \$100,000.00, the Contractor shall require subcontractors hereunder to submit cost or pricing data under the following circumstances. Prior to award of any cost-reimbursement type, incentive or price redeterminable subcontract;

28.13.1.2 Prior to the award of any subcontract the price of which is expected to exceed \$100,000.00;

28.13.1.3 Prior to the pricing of any subcontract change modifications for which the price is expected to exceed \$100,000.00, except in the case of 28.13.1.2 and 28.13.1.3 where the price is based on adequate price competition, established catalog or market prices, commercial items sold in substantial quantities to the general public, or prices set by law or regulation.

28.13.2 The Contractor shall require subcontractors to certify to the best of their knowledge and belief that the cost and pricing data submitted under subparagraph 28.13.1 of this Article are accurate, complete, and current as of the date of execution, which date shall be as close as possible to the date of agreement on the negotiated price of the contract Change Order.

28.13.3 The Contractor shall insert the substance of Paragraph 28.13 of this Article, including this subparagraph 28.13.3, in each subcontract hereunder which exceeds \$100,000.00.

**ARTICLE 29  
PERFORMANCE BOND AND LABOR AND MATERIAL PAYMENT BOND**

29.1 The Contractor shall furnish a Performance Bond in the amount equal to one hundred percent (100%) of the Contract Sum as security for the faithful performance of this Contract and also a Labor and Material Payment Bond in an amount not less than one hundred percent (100%) of the Contract Sum or in a penal sum not less than that prescribed by State, or local law, as security for the payment of all persons performing labor on the Project under this Contract and furnishing materials in connection with this Contract. The Performance Bond and the Labor and Material Payment Bond may be in one or in separate instruments in accordance with local law and shall be delivered to the Owner not later than the date of execution of the Contract.

29.2 Performance Bonds, Labor and Material Payment Bonds and other such sureties shall provide that the surety and the Contractor are both jointly and severally liable and obligated under respective Bond or other surety agreement and shall incorporate acknowledge of applicable provisions of state law into all documents furnished in connection with the project.

**ARTICLE 30  
DIFFERING SITE CONDITIONS**

30.1 The Contractor shall within 10 days of actual or constructive notice of a differing site condition, promptly, and before such conditions are disturbed, notify the Project Manager in writing of: (1) subsurface or latent physical conditions at the site differing materially from those indicated in

the Contract Documents, or (2) unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract. The Project Manager will promptly investigate the conditions, and if such conditions materially differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performance of any part of the work under the Contract, whether or not changed as a result of such conditions, an equitable adjustment may be made subject to Owner's approval and the Contract modified in writing accordingly.

30.2 No claim of the Contractor under this Article will be allowed unless the Contractor has given the notice required in Paragraph 30.1 of this Article.

30.3 No claim by the Contractor for an equitable adjustment hereunder will be allowed if asserted after final payment under this Contract.

### **ARTICLE 31 CONTRACTOR PROPOSALS**

31.1 The Contractor may at any time submit to the Project Manager for his review proposed modifications to the Contract Documents, supported by a cost/price proposal. Upon acceptance of the proposed modifications by the Owner, a Change Order will be issued. Denial of the proposed modification will neither provide the Contractor with any basis for claim for damages nor release the Contractor from contractual responsibilities. An equitable adjustment in the form of a contract price reduction will be made if the change results in a reduction of the cost of performance and the Contractor will not be entitled to share in said savings unless the proposal is made under Paragraph 31.2 of this Article. Except as provided in Paragraph 31.2 of this Article, the Contractor will not be compensated for any direct, incidental or collateral benefits or savings the Owner receives as a result of the proposal.

31.2 Value Engineering Change Proposals: The Contractor may submit to the Project Manager one or more cost reduction proposals for changing the Contract requirements. The Proposals shall be based upon a sound study made by the Contractor indicating that the proposal:

31.2.1 Will result in a net reduction in the Total Contract amount;

31.2.2 Will not impair any essential function or characteristic of the Work such as safety, service life, reliability, economy of operation, ease of maintenance and necessary standardized features.

31.2.3 Will not require an unacceptable extension of the contract completion time; and

31.2.4 Will require a change in the Contract Documents and such change is not already under consideration by the Owner.

31.3 The Owner may accept in whole or in part any proposal submitted pursuant to the previous Paragraph 31.2 by issuing a Change Order which will identify the proposal on which it is based. The Change Order will provide for an equitable adjustment in the Contract Price and will revise any other affected provisions of the Contract Documents. The equitable adjustment in the Contract price will be established by determining the net savings resulting from the accepted change. The net savings resulting from the change will be shared between the Contractor and the Owner on the basis of 50 percent for the Contractor and 50 percent for the Owner and will be limited to this

contract for any one Value Engineering Change Proposal. Net savings will be determined by deducting from the estimated gross savings, the Contractor's costs of developing and implementing the proposal (including any amount attributable to a subcontractor) and the estimated amount of increased costs to the Owner resulting from the change, such as evaluation, implementation, inspection, related items, and the Owner-furnished material. Estimated gross savings will include Contractor's labor, material, equipment, overhead, profit and bond. The Contract price will be reduced by the sum of the Owner's costs and share of the net savings. For the purpose of this Article, the applicable provisions of Article 28, CHANGES, shall be used to determine the equitable adjustment to the Contract price.

31.4 The Owner will not be liable for delay in acting upon, or for failure to act upon, any proposal submitted pursuant to Paragraph 31.2 of this Article. The decision of the Owner as to the Acceptance or rejection of any such proposal under the Contract will be final. The submission of a proposal by the Contractor will not in itself affect the rights or obligations of either party under the Contract.

31.5 The Contractor shall have the right to withdraw part or all of any proposal he may make under Paragraph 31.2 of this Article at any time prior to acceptance by the Owner. Such withdrawal shall be made in writing to the Project Manager. Each such proposal shall remain valid for a period of 60 days from the date submitted. If the Contractor wishes to withdraw the proposal prior to the expiration of the 60-day period, he will be liable for the cost incurred by the Owner in reviewing the proposal.

31.6 The Contractor shall specifically identify any proposals under Paragraph 31.2 of this Article with the heading "Value Engineering Change Proposal", or the proposal will be considered as made under Paragraph 31.1 of this Article.

31.7 The Contractor, in connection with each proposal he makes for a Contract Change Notice under this Article shall furnish the following information:

31.7.1 a description of the difference between the existing Contract requirement and the proposed change, and the comparative advantages and disadvantages of each, justification when a function or characteristic of an item is being altered, and the effect of the change on the performance of the end item;

31.7.2 an analysis and itemization of the requirements of the Contract which must be changed if the Value Engineering Change Proposal is accepted and a recommendation as to how to make each such change (e.g., a suggested specification revision);

31.7.3 a separate detailed cost estimate for both the existing Contract requirement and the proposed change to provide an estimate of the reduction in costs, if any, that will result from acceptance of the Value Engineering Change Proposal taking into account the costs of development and implementation by the Contractor;

31.7.4 a prediction of any effects the proposed change would have on collateral costs to the Owner such Government-furnished property costs, costs of related items, and costs of maintenance and operation;

31.7.5 a statement of the time by which a contract modification accepting the Value Engineering Change Proposal must be issued so as to obtain the maximum cost reduction, noting any effect on the contract completion time or delivery schedule; and

31.7.6 identification of any previous submission of the Value Engineering Change Proposal to the Owner, including the dates submitted, the numbers of contracts involved, and the previous actions by the Owner, if known.

## **ARTICLE 32 EXTENSION OF TIME**

32.1 In addition to the provisions stated in Article 38, the Contractor will be granted an extension of time and will not be assessed liquidated damages for any portion of the delay in completion of the Work, performed under the latest approved progress schedule, arising from acts of God, war, fires, floods, epidemics, quarantine restrictions, freight embargoes, or weather more severe than the norm, provided that the aforesaid causes were not foreseeable and did not result from the fault or negligence of the Contractor, and provided further that the Contractor has taken reasonable precautions to prevent further delays owing to such causes, and has notified the Project Manager in writing of the cause or causes of delay within five days from the beginning of any such delay. Within 15 days after the end of the delay, the Contractor shall furnish the Project Manager with detailed information concerning the circumstances of the delay, the number of days actually delayed, the appropriate Contract Document references, and the measures to be taken to prevent or minimize the delay. Failure to submit such information will be sufficient cause for denying the delay claims. The Owner will ascertain the facts and the extent of the delay, and its findings thereon will be final and conclusive to provisions under Article 35, DISPUTES. The extension of time granted for these reasons shall not be the basis for additional compensation for any costs incurred during the time of delay.

32.1.1 Every effort shall be made by the Contractor to complete the project within the "Contract Time". The "Contract Time" anticipates "Normal" weather and climate. The Contractor's schedule must anticipate normal adverse weather delays on all weather dependent activities. The following specifies the procedure for determining time extensions for unusually severe weather. Listed below are the anticipated numbers of calendar days lost to normal adverse weather for each month.

### Monthly Anticipated Calendar Days Lost to Adverse Weather Conditions

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
(7)	(4)	(4)	(4)	(6)	(3)	(4)	(2)	(3)	(3)	(2)	(5)

The above schedule of anticipated adverse weather days will constitute the base line for monthly (or portion thereof) weather time evaluations. It is assumed that the work will be carried out Mondays through Fridays (holidays excepted) unless and approved construction schedule or written authorization from the Owner indicates otherwise.

An actual adverse weather day must prevent work for 50 percent or more of the Contractor's workday. When the Contractor anticipates documenting a weather day, he/she shall first notify the Project Manager or his/her designee observing the construction to determine whether or not work can proceed or if work is delayed due to adverse weather or the effects thereof. If in agreement, the Contractor shall formally request a weather day in writing to the Owner's Project Manager or his/her designee. The Contractor shall also notify the Owner's Project Manager in writing or his/her

designee of any disagreement as to whether or not work could have proceeded on a given date within 2 calendar days of that date. The final decision regarding an adverse weather day will be made by the Project Manager or his/her designee.

The number of workdays delayed due to adverse weather or the effects thereof will then be converted to Calendar Days. Weekends and holidays will only count as calendar day delays if a workday delayed due to adverse weather is counted before and after the weekend/holiday. The number of calendar days of delay due to adverse weather or the impact thereof will then be compared to the monthly adverse weather schedule above. The Contract time period will then be increased by change order for the number of calendar days that are in excess of the above schedule and a new Contract Completion day and date will be set.

32.1.2 An extension of time will not be granted for a delay caused by a shortage of materials, except Owner-furnished materials, unless the Contractor furnishes to the Project Manager documentary proof that he has diligently made every effort to obtain such materials from every known source within reasonable reach of the Work. The Contractor shall also submit proof that the inability to obtain such materials when originally planned did in fact cause a delay in final completion of the Work which could not be compensated for by revising the sequence of his operations. Only the physical shortage of material will be considered under these provisions as a cause for extension of time. No consideration will be given to any claim that material could not be obtained at reasonable, practical, or economical costs, unless it is shown to satisfaction of the Project Manager that such material could have been obtained only at exorbitant prices, entirely inconsistent with current rates taking into account the quantities involved and the usual practices in obtaining such quantities.

32.2 A Change Order will be furnished to the Contractor within a reasonable period of time after approval of a request for extension of time, specifying the number of days allowed, if any, and the new date for completion of the Work or specified portions of the Work.

32.3 See also Article 38, TERMINATION FOR DEFAULT--DAMAGES FOR DELAY--TIME EXTENSIONS.

### **ARTICLE 33 NOTICE OF POTENTIAL CLAIM**

33.1 The Contractor will not be entitled to additional compensation otherwise payable for an act or failure to act by the Owner, the happening of any event or occurrence, or any other cause, unless he shall have given the Project Manager a written notice of potential claim therefore as specified in this Article.

33.2 The written notice of potential claim shall set forth the reasons for which the Contractor believes additional compensation will or may be due, the nature of the costs involved, and insofar as possible, the amount of the potential claim. If based on an act or failure to act by the Owner, such notice shall be given to the Project Manager prior to the time that the Contractor has started performance of work giving rise to the potential claim for additional compensation. Notice shall be given within five days after the happening of the event or occurrence giving rise to the potential claim.

33.3 It is the intention of this Article that differences between the parties arising under and by virtue of the contract shall be brought to the attention of the Project Manager at the earliest possible time in order that such matters may be settled, if possible, or other appropriate action promptly taken.

33.4 The notice requirements of this Article are in addition to those required in other Articles of the General Conditions.

### **ARTICLE 34 SUBMITTAL OF CLAIMS**

34.1 Claims filed by the Contractor shall contain sufficient detail to enable the Owner to ascertain the basis and amount of said claims. The Owner will review and evaluate the Contractor's claims. It will be the responsibility of the Contractor to furnish when requested by the Project Manager such further information and details as may be required to determine the facts or contention involved in his claims. Failure to submit such information and details will be sufficient cause for denying the Contractor's claims.

34.2 Each claim the Contractor may make for equitable adjustment on account of delay for any cause shall be accompanied by a progress schedule reflecting the effects of the delay and proposals to minimize these effects. If no progress schedule has been submitted to the Project Manager reflecting conditions prior to the delay for which relief is sought, then a progress schedule so reflecting these conditions shall be prepared and submitted with the claim.

34.3 Depending upon the grounds for relief and the nature of relief sought, additional submittals and conditions upon submitting claims may be required elsewhere in these General Conditions.

34.4 In no event shall claims be made after final payment is made under Article 27, FINAL PAYMENT, of these General Conditions.

34.5 Inasmuch as notice of potential claim requirements of Article 33, NOTICE OF POTENTIAL CLAIM, are intended to enable the Project Manager to investigate while facts are fresh and to take action to minimize or avoid a claim which might be filed thereafter, the Contractor's failure to make the required notice on time is likely to disadvantage the Owner. Therefore no claim for which a notice of potential claim is required will be considered unless the Contractor has complied with the notice of Article 33, NOTICE OF POTENTIAL CLAIM.

### **ARTICLE 35 DISPUTES**

35.1 General: Notwithstanding any other provisions of this Contract, disputes and disagreements by and between the Owner and the Contractor shall be resolved through progressive, sequential process of negotiation, mediation, and in certain cases, arbitration. For contracts which are for \$250,000 or less, amounts in dispute which are less than \$10,000 shall not progress beyond negotiation and shall ultimately be decided by the Owner if not by mutual agreement. For contracts which are for more than \$250,000, amounts in dispute which are less than \$25,000 should not progress beyond negotiation. For all contracts, amounts in dispute greater than those amounts set forth above, but less than \$100,000 shall be resolved through a sequential process of negotiation, mediation, and binding arbitration. Amounts in dispute which are \$100,000 or more shall be resolved through a sequential process of negotiation, mediation, and thence either arbitration or litigation.

35.2 Negotiation: In the event of disputes, unsettled claims, questions or disagreements between the contractor and the City relating to or arising out of the provisions of this Contract, the representatives of those parties shall meet promptly in recognition of mutual interests and in a good

faith effort to resolve the dispute. Either the Contractor or the City shall arrange for this meeting at a time and place within the City of Greeley, mutually acceptable to both parties, within fifteen (15) days of notification of the dispute, unsettled claim, question, or disagreement between the parties. Seven (7) days prior to the meeting, the initiating party shall deliver to the other party, a written and complete summary of the evidence and arguments substantiating its claim. If the parties do not reach a solution within thirty (30) days after said initial meeting, then upon notice of either party to the other, the dispute, claim, question, or difference, may be referred to a mediator pursuant to Section 35.3. The parties can extend the negotiation period by mutual written agreement.

35.3 Mediation: If the dispute, claim, question, or difference is not resolved by negotiation within thirty (30) days after the initial meeting between the parties or within the extended period agreed upon, the parties agree to next request that the American Arbitration Association provide a mediator to assist the Owner and Contractor in resolving the dispute, claim, question, or difference. The rules of mediation shall be the Construction Industry Mediation Rules of the American Arbitration Association. A different mediation/dispute resolution agency may be selected for mediation upon the mutual written agreement between the parties. The dispute resolution agency shall select a qualified mediator who shall have a background in construction. The selected mediator may be rejected by the parties only for bias. The mediator shall have thirty (30) days from the time of appointment to meet with the parties and sixty (60) days from the time of the appointment to resolve the dispute unless the parties mutually consent to an extension of the sixty day deadline. All reasonable fees, costs, and expenses of the mediator, the mediator's association and the mediation agency, shall be borne equally by the parties. Each party shall bear the expense of its own counsel, experts, witnesses, and preparation and presentation of proofs at mediation.

The Contractor shall not cause a delay of work during mediation proceedings except by mutual agreement. All mediation proceedings shall be conducted in the City of Greeley, unless an alternate location is agreed upon in writing by the Owner and the Contractor.

**Amounts in dispute which are less than \$10,000 shall not progress beyond mediation.**

35.4 Litigation prerequisites: The procedures enumerated in Sections 35.2 and 35.3 shall be a prerequisite to the filing of any litigation between the parties to the Contract. Failure of the Contractor to follow the provisions of Section 35.2 and Section 35.3 shall be a complete defense, and grounds for immediate dismissal of any litigation filed prior to Contractor engaging in negotiation and mediation with the City of Greeley as provided above. Litigation may be filed only if the amount in dispute is \$100,000 or more. In the event litigation is filed by and between the parties after mediation, venue and jurisdiction of any and all suits and causes of action in connection with this Contract shall lie exclusively in Weld County, Colorado.

35.5 Arbitration: After mediation, instead of litigation, any remaining unresolved controversy or claim arising out of or relating to this Contract or the performance or breach thereof, may be settled by arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association. For amounts in dispute which are \$100,000 or more, arbitration shall be engaged only upon mutual written agreement by the Owner and the Contractor, and the written agreement shall specify whether the arbitration shall be binding or nonbinding; however, amounts in dispute which are less than \$100,000 shall necessarily be settled by binding arbitration. The sole arbitrator shall be appointed by the Arbitration Association, unless a different arbitrator or dispute resolution agency is mutually agreed upon. The award of the arbitrator shall be accompanied by a reasoned opinion, and shall include findings of fact and conclusions. All fees and expenses of

the arbitration, including the expense of each party's counsel, experts, witnesses, and preparation and presentation of proofs, shall be borne by the party against whom arbitration judgment is made.

35.6 Litigation: Each party shall bear its own litigation fees and expenses, including the expense of its counsel, experts, witnesses, and preparation and presentation of proofs, regardless of the prevailing party.

### **ARTICLE 36 FORCE ACCOUNT WORK**

36.1 This Article shall become operative upon failure of the Contractor and the Owner to arrive at an amount of compensation under Article 28, CHANGES. In the event that no equitable adjustment is arrived at either by mutual agreement or pursuant to the Article 35, DISPUTES, the compensation paid hereunder will be the total compensation.

36.2 Work Performed by or for Contractor: The Contractor will be paid for labor, materials, and equipment as hereinafter provided, except where agreement has been reached to pay in accordance with Paragraph 36.3 of this Article. The following percentages, as full compensation for profit, overhead and small tools, will be added to the totals computed as provided in subparagraphs 36.2.1 through 36.2.3 of this Article.

Labor	25 percent
Materials	20 percent
Equipment	10 percent

Labor, materials, and equipment shall be furnished by the Contractor or by a subcontractor. When work paid on a force account basis is performed by forces other than the Contractor's, the Contractor shall reach agreement with such other forces as to the distribution of the payment made by the Owner for such work and, except as specified herein, no additional payment therefore will be made by the Owner by reason of performance of work by a subcontractor or by others. In addition to the markups, if any, for labor, equipment, and materials, for subcontracted work, the Contractor may add an additional five percent markup. The cost of subcontracted work will be the actual cost to the contractor for work performed by a subcontractor as computed in accordance with this Paragraph 36.2 and its subparagraphs 36.2.1, 36.2.2, and 36.2.3.

36.2.1 Labor: The cost of labor used in performing the work, whether the employer is the Contractor or a subcontractor, will be the sum as determined on the basis of the following three subparagraphs:

36.2.1.1 The gross actual wages, including income tax withholdings but not including employer payments to or on behalf of workmen for health and welfare, pension, vacation, insurance and similar purposes.

36.2.1.2 To the gross actual wages, as defined in the previous subparagraph,

36.2.1.1, will be added a percentage based upon current State and Federal laws and applicable labor contracts concerning payments made to or on behalf of workmen other than actual wages, which percentage will constitute full compensation for all payments imposed by State and Federal laws and for all other payments made to or on behalf of the workmen, other than actual wages as defined in the previous subparagraph 36.2.1.1 and the subsistence and travel allowance as specified

in the following subparagraphs 36.2.1.3. The Contractor shall compute a separate percentage for each craft, or a composite percentage for all crafts, if so approved by the Owner. Computed percentages shall be submitted to the Project Manager for approval by the Owner.

36.2.1.3 Subsistence and travel allowance paid to workmen as required by established agreements.

36.2.1.4 The charges for labor shall include all classifications up to but not including foremen, and when authorized by the Owner, shall include foremen engaged in the actual and direct performance of the work. Labor charges shall not include charges for assistant superintendents, office personnel, timekeepers, and maintenance mechanics, unless authorized by the Owner in advance of the start of work.

36.2.2 Materials: The cost of materials required for the accomplishment of the work will be delivered cost to the purchaser, whether contractor or subcontractor, from the supplier thereof, except as the following are applicable:

36.2.2.1 If a cash or trade discount by the actual supplier is offered or available to the Contractor, it shall be credited to the Owner notwithstanding the fact that such discount may not have been taken.

36.2.2.2 If materials are procured by the Contractor by a method which is not a direct purchase from and a direct purchase from and a direct billing by the actual supplier, the cost of such materials will be deemed to be the price paid to the actual supplier, as determined by the Owner. No additional markup for supplier work will be allowed except to the extent of actual cost to the Contractor in handling the material, not to exceed five percent of the price paid to actual supplier.

36.2.2.3 If the materials are obtained from a supply or source owned wholly or in part by the Contractor, payment therefore will not exceed the price paid for similar materials furnished from said source on Contract Items or the current wholesale price for such materials delivered to the work site, whichever price is lower.

36.2.2.4 If the cost of the materials is, in the opinion of Owner, excessive, then the cost of such materials will be deemed to be the lowest current wholesale price at which such materials are available in the quantities concerned, delivered to the job site, less discounts as provided in subparagraph 36.2.2.1 of this Article.

36.2.2.5 If the Contractor does not furnish satisfactory evidence of the cost of such materials from the actual supplier thereof, the cost will be determined in accordance with subparagraph 36.2.2.4 of this Article.

36.2.2.6 The Contractor shall have no claims for costs and profit on Owner-furnished materials.

36.2.3 Equipment: The Contractor will be paid for the use of contractor-owned or rented equipment at the rental rates shown in the Colorado State Department of Highways Construction Equipment Rental Rate Schedule, except as modified below, which edition shall be the latest edition in effect at the time of commencement of the Force Account work. For equipment used in excess of eight hours per day, the rental rate shall be 60 percent of the listed hourly rate. If it is deemed

necessary by the Contractor to use equipment not listed in the C.D.O.H. Construction Equipment Rental Rate Schedule, the Contractor shall furnish the necessary cost data and paid invoices to the Project Manager for his use in establishment of such rental rate.

36.2.3.1 The rates paid as above provided will include the cost of fuel, oil, lubricants, supplies, small tools, necessary attachments, repairs and maintenance, depreciation, storage, insurance and incidentals.

36.2.3.2 Equipment operators will be paid for as stipulated in subparagraph 36.2.1 of this Article.

36.2.3.3 Equipment shall be in good working condition and suitable for the purpose for which the equipment is to be used.

36.2.3.4 Unless otherwise specified, manufacturer-approved modifications shall be used to classify equipment for the determination of applicable rental rates. Equipment which has no direct power unit shall be powered by a unit of at least the minimum rating recommended by the manufacturer of that equipment.

36.2.3.5 Individual pieces of equipment or tools having a net individual value of \$300 or less, whether or not consumed by use, will be considered to be small tools and no payment will be made therefore.

36.2.3.6 Compensation will not be allowed while equipment is inoperative due to breakdown. Except as specified in paragraph 36.2.3.7 of this Article, time will be computed in half and full hours. In computing the time for use of equipment, less than 30 minutes shall be considered one half hour.

36.2.3.7 Equipment at the Work Site: The time to be paid for use of equipment on the work site will be the time the equipment is in operation on the force account work being performed. The time will include the time required to move the equipment to location of the force account work and return it to the original location or to another location requiring no more time than that required to return it to its original location. Moving time will not be paid for if the equipment is used at the site of the force account work on other than such force account work. Loading and transporting costs will be allowed, in lieu of moving time, when the equipment is moved by means other than its own power. No payment for loading and transporting will be made if the equipment is used at the site of the force account work on other than such force account work.

36.3 Special Items of Work: If the Owner and the Contractor, by agreement, determine that (a) an item of force account work does not represent a significant portion of the total Contract price, and (b) such items of work cannot be performed by the forces of the Contractor or the forces of any of his subcontractors, and (c) it is not in accordance with the established practice of the industry involved to keep the records which the procedure outlined in Paragraph 36.2 of this Article would require, charges for such special force account work items may be made on the basis of invoices for such work without complete itemization of labor, materials, and equipment rental costs. To such invoiced price, less a credit to the Owner for any cash or trade discount offered or available, will be added five percent of the discounted price, in lieu of the percentages provided in Paragraph 36.2 of this Article. In no event will the price paid exceed the current fair market value of such work plus five percent.

36.4 Records: The Contractor shall maintain his records to provide a clear distinction between the direct costs of work paid for on a force account basis and costs of other operations.

36.4.1 The Contractor shall prepare and furnish to the Project Manager, on the following work day, report sheets in duplicate of each day's work paid for on a force account basis. The daily report sheets shall itemize the materials used and shall cover the direct cost of labor and the charges for equipment, whether furnished by the Contractor, subcontractor, or other forces, except for charges described in Paragraph 36.3 of this Article. The daily report sheets shall provide names or identifications and classifications of workmen and the hourly rate of pay and hours worked. In addition, a report of the size, type and identification number of equipment and hours operated shall be furnished to the Project Manager. Daily report sheets shall be signed by the Contractor or his authorized agent.

36.4.2 Material changes shall be substantiated by valid copies of vendor's invoices or conformed copies, certified true by the Contractor. Such invoices shall be submitted with the daily report sheets. Should the vendor's invoices not be submitted within 20 days after the date of delivery of the material or 15 days after acceptance of the work, whichever comes first, the Owner reserves the right to establish the cost of such materials at the lower current wholesale prices at which such materials are available in the quantities concerned delivered to the location of the work, less any discounts provided in subparagraph 36.2.1. of this Article.

36.4.3 The Project Manager will compare his records with the daily report sheets furnished by the Contractor, make any necessary adjustment and compile the costs of work paid for on a force account basis on daily force account work report forms. When these daily reports are agreed upon and signed by the Project Manager, they shall become the basis of payment for the work performed, but shall not preclude subsequent adjustment based on a later audit.

36.4.4 The Contractor's original cost records pertaining to work paid for on a force account basis shall be retained and shall be open to inspection and audit as required by Article 28, CHANGES, and any other provisions of the Contract.

36.5 If, in the Project Manager's opinion, the Contractor or any of his subcontractors, in performing Force Account work, is not making efficient use of labor, material or equipment or is proceeding in a manner which makes Force Account work unnecessarily more expensive to the Owner, the Project Manager may, in whole or part, direct the Contractor in the deployment of labor, material and equipment. By way of illustration, inefficiency may arise in the following ways: (1) the timing of the work, (2) the use of unnecessary labor or equipment, (3) the use of a higher percentage of apprentices than in non-force account work, (4) failure to procure materials at the lowest price, or (5) using materials of quality higher than necessary.

## **ARTICLE 37 TERMINATION FOR CONVENIENCE OF THE OWNER**

37.1 The performance of Work under this contract may be terminated by the Owner in accordance with this Article in whole, or from time to time in part, whenever such termination is in the best interest of the Owner. Such termination shall be effected by delivery to the Contractor of a Notice of Termination specifying the extent to which performance of work under the Contract is terminated, and the date upon which such termination becomes effective.

37.2 After receipt of a Notice of Termination, and except as otherwise directed by the Owner, the Contractor shall:

37.2.1 Stop work under the Contract on the date and to the extent specified in the Notice of Termination.

37.2.2 Place no further orders or subcontracts for materials, services or facilities, except as may be necessary for completion of such portion of the work under the Contract as is not terminated;

37.2.3 Terminate all orders and subcontracts to the extent that they relate to the performance of work terminated by the Notice of Termination;

37.2.4 Assign to the Owner in the manner, at the times, and to the extent directed by it, all of the rights, title and interest of the Contractor under the orders and subcontracts so terminated, in which case the Owner will have the right, in its discretion, to settle or pay any or all claims arising out of the termination of such orders and subcontracts;

37.2.5 Settle outstanding liabilities and claims arising out of such termination of orders and subcontracts, with the approval or ratification of the Owner to the extent it may require, which approval or ratification shall be final for the purposes of this Article;

37.2.6 Transfer title and deliver to the Owner in the manner, at the times, and to the extent, if any directed by it, (a) the fabricated or unfabricated parts, work in process, completed work, supplies and other material procured as part of, or acquired in connection with the performance of, the work terminated by the Notice of Termination, and (b) the completed or partially completed plans, drawings, information, and other property, which, if the Contract had been completed, would have been required to be furnished to the Owner;

37.2.7 Use his best efforts to sell, in the manner, at the times, to the extent, and at the price or prices direction or authorized by the Owner, property of the types referred to in (37.2.5) above; provided, however, that the Contractor (a) shall not be required to extend credit to any purchaser and (b) may acquire any such property under the conditions prescribed by and at a price or prices approved by the Owner; provided further that the proceeds of any such transfer or disposition will be applied in reduction of any payments to be made by the Owner to the contractor under this Contract or will otherwise be credited to the price or cost of the work covered by this Contract or paid in such other manner as the Owner may direct;

37.2.8 Complete performance of each part of the work as shall not have been terminated by the Notice of Termination; and

37.2.9 Take such action as may be necessary, or as the Project Manager may direct, for the protection and preservation of the property related to this Contract which is in the possession of the Contractor and in which the Owner has or may acquire an interest.

37.3 After receipt of a Notice of Termination, the Contractor shall submit to the Project Manager his termination claim, in the form and with certification prescribed by the Owner. Such claims shall be submitted promptly but in no event later than the earliest of the following: (1) one year from the effective date of termination or (2) thirty days after the remainder of the project has been accepted by the owner.

37.4 Subject to the provision of Paragraph 37.3, the contractor and the Owner may agree upon the whole or any part of the amount or amounts to be paid to the Contractor by reason of the total or partial termination of work pursuant to this Article, which amount or amounts may include an allowance for profit on work done; provided that such agreed amount or amounts, exclusive of settlement costs, shall not exceed the total contract price as reduced by the amount of payments otherwise made and as further reduced by the Contract price of work terminated. The Contract will be amended accordingly, and the Contractor will be paid the agreed amount.

37.5 In the event of failure of the Contractor and the Owner to agree, as provided in Paragraph 37.4, upon the whole amount to be paid the Contractor by reason of the termination of work pursuant to this Article, the Owner will pay the Contractor the amounts determined by the Owner as follows, but without duplication of any amounts agreed upon in accordance with Paragraph 37.4;

37.5.1 With respect to contract work performed prior to the effective date of the Notice of Termination, the total (without duplication of any items) of:

37.5.1.1 The cost of such work;

37.5.1.2 The cost of settling and paying claims arising out of the termination of work under subcontracts or orders as provided in subparagraph 37.2.5 above, exclusive of the amounts paid or payable on account of supplies or materials delivered or services furnished by the subcontractor prior to the effective date of the Notice of Termination of work under this Contract, which amounts shall be included in the cost on account of which payment is made under 37.5.1 above.

37.5.1.3 A sum, as profit on 37.5.1.1 above, determined by the Owner to be fair and reasonable; provided, however, that if it appears that the Contractor would have sustained a loss on the entire Contract had it been completed, no profit shall be included or allowed under this subparagraph 37.5.1.3 and an appropriate adjustment shall be made by reducing the amount of the settlement to reflect the indicated rate of loss.

37.5.2 The reasonable cost of the preservation and property incurred pursuant to subparagraph 37.2.9 and any other reasonable cost incidental to termination of work under this Contract, including expense incidental to the determination of the amount due to the Contractor as the result of the termination of work under this Contract.

37.5.3 The total sum to be paid to the contractor under paragraph 37.5.1 above will not exceed the total contract price as reduced by the amount of payments otherwise made and as further reduced by the Contract price of the work terminated.

37.6 In arriving at the amount due the Contractor under this Article, there will be deducted (1) any claim which the Owner may have against the Contractor in connection with this Contract, (2) the agreed price for, or the proceeds of sale, of materials, supplies or other things acquired by the contractor or sold, pursuant to the provisions of this Article, and not otherwise recovered by or credited to the Owner and (3) the full amount of any statutory or other claim against the Contractor filed with the Owner.

37.7 Unless otherwise provided for in this Contract, or by applicable statute, the Contractor, from the effective date of termination and for a period of three years after final settlement under this Contract, shall preserve and make available to the Owner at all reasonable times at the office of the Contractor but without direct charge to the Owner, all his books, records, documents, electronic/digital media and other evidence bearing on the costs and expenses of the Contractor under this Contract and related to the work terminated hereunder, or to the extent approved by the Owner, or other authentic reproductions thereof.

37.8 The Contractor shall insert in all subcontracts that the subcontractor shall stop work on the date of and to the extent specified in a Notice of Termination from the Owner and shall require that any tier subcontractors insert the same provision in any tier subcontracts.

37.9 Under no circumstances is the Contractor entitled to anticipatory, unearned profits or consequential damages as a result of a termination or partial termination under this Article.

### **ARTICLE 38 TERMINATION FOR DEFAULT**

38.1 If, in the opinion of the Owner, the Contractor has failed to prosecute work, the Owner will notify the Contractor. The Contractor will then have 5 days to remedy the failure to prosecute work or to obtain the Owner's authorization for the delay or an extension of time as set forth in Article 32.

38.2 If the Contractor refuses or fails after reasonable notice as set forth above to prosecute Work, or any separable part thereof, with such diligence as will insure its completion within the time specified in this Contract, or refuses or fails to complete said Work within such time, the Owner may, by written notice to the Contractor, terminate for default his right to proceed with the Work or such part of the Work as to which there has been unauthorized delay. In such event the Owner may take over the work and prosecute the same to completion, by Contractor or otherwise, and may take possession of and utilize in completing the Work such materials, appliances, and plant as may be on the Work Site and necessary therefore. Whether or not the Contractor's right to proceed with the Work is terminated, he and his sureties shall be liable for any damage to the Owner resulting from his refusal or failure to complete the Work in the specified time.

38.3 If the Owner so terminates the Contractor's right to proceed, the resulting damage will consist of liquidated damages until such time as may be required for final completion of the Work together with any increased costs incurred by the Owner in completing the Work as further set forth in Article 41.

38.4 If, after Notice of Termination of the Contractor's right to proceed under the provisions of this Article, it is determined for any reason that the Contractor was not in default under the provisions of this Article or that the Contractor was entitled to an extension of time under Article 32,

EXTENSION OF TIME, the rights and obligations of the parties shall be the same as if the Notice of Termination had been issued pursuant to Article 37, TERMINATION FOR CONVENIENCE OF THE OWNER.

38.5 The right to terminate for default and any other rights and remedies of the Owner provided in this clause are in addition to any other rights and remedies provided by law or under this Contract.

### **ARTICLE 39 TERMINATION OF RIGHT TO PROCEED FOR CERTAIN DEFAULTS**

39.1 In addition to the Owner's right to terminate for default under other Articles of this Contract, the Owner will have the right to terminate the Contractor's performance of work in whole or in part for default for any of the following reasons:

39.1.1 The Contractor's or subcontractor's performance of work is in violation of the terms of the Contract.

39.1.2 The Contractor or subcontractor has violated an authorized order or requirement of the Owner.

39.1.3 Abandonment of Contract.

39.1.4 Assignment or subcontracting of the Contract or any work under the Contract without approval of the Owner.

39.1.5 Bankruptcy or appointment of a receiver for the Contractor's property.

39.1.6 Performance of the Contractor in bad faith.

39.1.7 Contractor allowing any final judgment to stand against him for a period of 48 hours (excluding weekends and legal holidays).

39.2 If, in the opinion of the Owner, the Contractor is in default of the Contract, the Owner will notify the Contractor. If the Contractor fails to remedy or commence to remedy the default within five days after receipt of such notice, the Owner may terminate the Contractor's right to proceed with the Work or that portion of the Work which the Owner determines is most directly affected by the default.

39.3 If, after Notice of Termination of Contractor's right to proceed under this Article it is determined for any reason Contractor was not in default, the rights and obligations of the parties shall be the same as if the Notice of Termination had been issued pursuant to Article 37, TERMINATION FOR CONVENIENCE OF THE OWNER.

### **ARTICLE 40 RIGHTS AND OBLIGATIONS OF PARTIES AT TERMINATION FOR DEFAULTS**

40.1 This Article shall apply to terminations for defaults covered in Article 15, 38, and 39 of these General Conditions.

- 40.2 On receipt of a Notice of Termination from the Owner, the Contractor shall:
- 40.2.1 Stop all work under the Contract on the date and to the extent specified in the Notice of Termination.
- 40.2.2 Place no further orders or subcontracts for materials, equipment or services except as they relate to the performance of work covered by the Notice of Termination.
- 40.2.3 Cancel or terminate all orders or subcontracts to the extent that they relate to the performance of work covered by the Notice of Termination.
- 40.2.4 Comply with all other requirements of the Owner as may be specified in the Notice of Termination.
- 40.3 Upon the Owner termination of the Contractor's right to proceed with the Work because of the Contractor's default under the Contract, the Owner will have the right to complete the Work by whatever means and method it deems advisable. The Owner shall have the right to take possession of and use any or all the Contractor's materials, plat, tools, equipment and property of any kind provided by or on behalf of the Contractor for the purpose of the Work, or a portion of them, without being responsible to the Contractor for fair wear and tear. The Contractor shall have no rights in such property during their use by the Owner. The Owner will not be required to obtain the lowest prices for completing the Work but shall make such expenditures as, in the Owner's sole judgment, best accomplish such completion.
- 40.4 The expense of completing the Work, together with a reasonable charge for engineering, managerial and administrative services, as certified by the Owner, will be charged to the Contractor and the expense so charged will be deducted by the Owner out of such monies as may be due or may at any time thereafter become due to the Contractor. In case such expense is in excess of the sum which otherwise would have been payable to the Contractor under the Contract, the Contractor or his surety shall promptly pay the amount of such excess to the Owner upon notice from the Owner of the excess so due. The Owner may, in its sole discretion, withhold all or any part of any progress payments otherwise due the Contractor until completion and final settlement of the Work covered by the Notice of Termination of Contractor's right to proceed.
- 40.5 The Contractor shall insert in all subcontracts that the subcontractor will stop work on the date of or to the extent specified in a Notice of Termination from the Owner and shall require the subcontractors to insert the same provision in any tier subcontracts.
- 40.6 The Contractor shall immediately upon receipt communicate any Notice of Termination issued by the Owner to the affected subcontractors and suppliers at any tier.
- 40.7 Rights of Surety: The Surety on the Performance Bond provided for in this Contract shall not be entitled to take over the Contractor's performance of work in case of termination under this Article, except with the consent of the Owner.

## **ARTICLE 41 LIQUIDATED DAMAGES**

41.1 Time is of the essence of the Contract. In the event the Contractor fails to achieve Substantial Completion of the Work within the Contract Time, or fails to meet any other time requirement or the time limit set forth in the Contract, after due allowance for any extension or extensions of time made in accordance with the Contract, the Contractor shall pay to the Owner as fixed, agreed and liquidated damages, pursuant to the clause of the Contract entitled TERMINATION FOR DEFAULT—DAMAGES FOR DELAY—TIME EXTENSIONS, the sum of \$500.00 for each calendar day of delay unless otherwise stated in the Special Provisions. Such liquidated damages shall be assessed for each and every day that the Contractor shall be in default. The Owner shall have the right to deduct said liquidated damages from any amount due or that may become due the Contractor, or to collect such liquidated damages from the Contractor or its surety.

41.2 Liquidated damages in the amount stipulated do not include any sums of money to reimburse the City for actual damages which may be incurred between Substantial Completion and Final Completion because of the Contractor's failure to achieve Final Completion within the Contract Time. For such delay in Final Completion, the Contractor shall reimburse the City, as a mitigation of City damages and not as a penalty, those administrative costs incurred by the City as a result of such failure.

41.3 Liquidated damages in the amounts stipulated do not include any sums of money to reimburse the City for extra costs which the City may become obligated to pay on other contracts which were delayed or extended because of the Contractor's failure to complete the Work within the Contract Time. Should the City incur additional costs because of delays or extensions to other contracts resulting from the Contractor's failure of timely performance, the City will assess these extra costs against the Contractor, and these assessments will be in addition to the stipulated liquidated damages.

41.4 The City reserves all of its rights to actual damages from the Contractor for injury or loss suffered by the City from actions or omissions of the Contractor, including but not limited to any other breach or default of the Contract, outside of the scope of the above sections.

## **ARTICLE 42 USE AND POSSESSION PRIOR TO COMPLETION**

42.1 The Owner shall have the right to take possession of or use any completed or partially completed parts of the Work. Such possession or use will not be deemed an acceptance of Work not completed in accordance with the Contract. While the Owner is in such possession, the Contractor, notwithstanding the provisions of Article 18, DAMAGE TO WORK AND RESPONSIBILITIES FOR MATERIALS, will be relieved of the responsibility for loss or damage to the work other than that resulting from the Contractor's fault or negligence or breach of warranty. If such prior possession or use by the Owner delays the progress of the Work or causes additional expense to the Contractor, an equitable adjustment in the Contract price or the time of completion will be made, and the Contract will be modified in writing accordingly.

**ARTICLE 43**  
**RIGHTS IN SHOP DRAWINGS AND WORKING DRAWINGS**

43.1 Shop Drawings and Working Drawings, submitted to the Project Manager by the Contractor, subcontractor or any lower tier subcontractor pursuant to the Work, may be duplicated by the Owner and the Owner may use and disclose, in any manner and for any purpose, Shop Drawings and Working Drawings delivered under this Contract.

43.2 This Article, including this Paragraph 43.2, shall be included in all subcontracts hereunder at all tiers.

**ARTICLE 44**  
**PATENT AND COPYRIGHT**

44.1 The Contractor shall warrant that the materials, equipment or devices used on or incorporated in the Work shall be delivered free of any rightful claim of any third party for infringement of any United States patent or copyright. If notified promptly in writing and given authority, information and assistance, the Contractor shall defend, or may settle, at his expense, any suit or proceeding against the Owner or the Project Manager based on a claimed patent or copyright infringement which would result in a breach of his warranty. The Contractor shall pay all damages and costs awarded therein against the Owner or the Project Manager due to such breach. If any use of materials, equipment or devices is held to constitute an infringement and such use is enjoined, the Contractor shall, at his expense and option, either procure for the Owner the right to continue using said materials, equipment or devices, or replace same with noninfringing materials, equipment or devices, or modify same so it becomes noninfringing. The Contractor shall report to the Owner promptly and in reasonable written detail, each notice or claim of patent or copyright infringement based on the performance of this Contract of which the Contractor has knowledge. In the event of any claim or suit against the Owner on account of any alleged patent or copyright infringement arising out of the performance of this Contract or out of the use of any supplies furnished or work or services performed hereunder, the Contractor shall furnish to the Owner when requested by the Owner, all evidence and information in possession of the Contractor pertaining to such suit or claim. Such evidence and information shall be furnished at the expense of the Owner except where the Contractor has agreed to indemnify the Owner. This clause shall be included in all subcontracts.

**ARTICLE 45**  
**HISTORICAL, SCIENTIFIC AND ARCHAEOLOGICAL DISCOVERIES**

45.1 All articles of historical, scientific or archaeological interest uncovered by the Contractor during progress of the Work shall be preserved in accordance with applicable law and reported immediately to the Project Manager. Further operations of the Contractor with respect to the find, including disposition of the articles, will be decided by the Owner in accordance with applicable law.

**ARTICLE 46**  
**SUBSTITUTIONS**

46.1 Where reference is made to one or more proprietary products but restrictive descriptive material of only one manufacturer is used, it is understood that the products of other manufacturers will be accepted, provided they equal or exceed the standards set forth in the plans and

specifications and are compatible with the intent and purpose of the design, subject to the written approval of the Owner and the Project Manager. If the descriptive material is not restrictive, the products of other manufacturers specified will be accepted without prior approval provided they are compatible with the intent and purpose of the design.

46.2 The Contractor may propose the substitutions of any material as a supplement to his bid with the monetary amount, additive or deductive as may be the case, clearly stated. Manufacturer's information, catalog numbers, and complete descriptive information shall be included with the proposed substitution. This shall be completely apart and separate from the base bid quotation and shall be solely for the information of the Owner, and the use of such proposed substitutions shall be strictly at the decision of the Owner. If substitution is accepted by the Owner, the Contract sum shall be adjusted from the base bid either up or down as indicated on the supplementary list.

## **ARTICLE 47 INSURANCE**

### 47.1 General

47.1.1 The Contractor shall provide from insurance companies, acceptable to the Owner, the insurance coverage designated hereinafter and pay all costs. The Contractor also indemnifies the Owner as further described in Article 4.

47.1.2 Before commencing work under this Agreement, the Contractor shall furnish the Owner with certificates of insurance specified herein showing the type, amount, class of operations covered, effective dates, and date of expiration of policies. Furthermore, each such certificate shall contain a valid provision or endorsement that the policy may not be cancelled, terminated, changed or modified without first giving ten (10) days written notice to the Owner, which notice must be sent registered mail, return receipt requested, to the Project Manager.

47.1.3 In case of the breach of any provision of this Article, the Owner, at his option, may take out and maintain, at the expense of the Contractor, such insurance as the Owner may deem proper at the Contractor's expense and may deduct the cost of such insurance from any monies which may be due or become due the Contractor under this Agreement.

47.1.4 The Contractor shall either: (1) require each of his subcontractors to procure and maintain during the life of his subcontract, subcontractors' comprehensive General Liability, Automobile Liability and Property Damage Liability Insurance of the type and in the same amounts as specified in this subparagraph, or (2) insure the activity of his subcontractors in his own policy.

47.1.5 Co-Insurance: The Contractor herein agrees to name the Owner as an insured party on all liability insurance policies provided for by this Article 47, INSURANCE.

47.1.6 No insurance shall be cancelled or otherwise voided during the Contract period, without at least 10 days prior written notice to the Owner, nor shall any insurance be invalidated should the insured waive any or all right of recovery against any party.

47.1.7 Liability insurance may be arranged by Comprehensive General Liability and Comprehensive Automobile Liability policies for the full limits required; or by a combination of underlying Comprehensive Liability policies for lesser limits with the remaining limits provided by an Excess or Umbrella Liability policy.

47.1.8 The Owner shall purchase and maintain such boiler and machinery insurance as may be required by the Contract Documents or by law. This insurance shall include the interest of the Owner, the Contractor, Subcontractors and Sub-subcontractors in the Work.

47.1.9 Any loss insured under Article 47 is to be adjusted with the Owner and made payable to the Owner as trustee for the insured, as their interests may appear, subject to the requirements of any applicable mortgage clause. The Contractor shall pay each subcontractor a just share of any insurance monies received by the Contractor, and by appropriate share of any insurance monies received by the Contractor, and by appropriate agreement, written where legally required for validity, shall require each subcontractor to make payments to his subcontractors in similar manner.

47.1.10 If the Contractor requests in writing that insurance for risks other than those described in this Article or other special hazards be included in the Owner's property insurance policy, the Owner shall, if possible, include such insurance, and the cost thereof shall be charged to the Contractor by appropriate Change Order.

47.1.11 The Owner as trustee shall have power to adjust and settle any loss with the insurers.

47.1.12 If the Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion thereof, such occupancy or use shall not commence prior to a time mutually agreed to by the Owner and Contractor and to which the insurance company or companies providing the property insurance have consented by endorsement to the policy or policies. This insurance shall not be cancelled or lapsed on account of such partial occupancy or use. Consent of the Contractor and of the insurance company or companies to such occupancy or use shall not be unreasonably withheld.

47.2 Workmen's Compensation and Employer's Liability Insurance:

47.2.1 The Contractor shall provide coverage and amounts as required by the Workmen's Compensation Act of the State of Colorado.

47.2.2 The Contractor shall provide Employer's Liability Insurance in an amount not less than \$100,000 for each occurrence.

47.2.3 The Contractor shall require any subcontractor to provide Workmen's Compensation and Employer's Liability Insurance in the same amounts for all of the subcontractor's employees to be engaged in work under this Agreement.

47.3 General Liability

47.3.1 General Liability Insurance shall be on a Comprehensive General Liability form and shall provide coverage for the following: Premises and Operations, Owners and Contractors Protective, Elevators, Independent Contractors, Products and Completed Operations, Contractual, Personal Injury, and Broad Form Property Damage; "XCU" exclusions must be deleted.

47.3.2 Minimum requirements for Comprehensive General Liability are: bodily injury, \$1,000,000.00 each person, \$2,000,000.00 each occurrence; property damage, \$1,000,000.00 each occurrence.

47.4 Automobile Liability

47.4.1 Comprehensive Automobile Liability Insurance shall include coverage for all owned motor vehicles and hired and non-owned motor vehicles.

47.4.2 Minimum requirements for Comprehensive Automobile Insurance are: bodily injury, \$1,000,000.00 each person, \$2,000,000.00 each occurrence; property damage, \$1,000,000.00 each occurrence.

47.5 Property Insurance:

47.5.1 The Owner may require the Contractor to purchase and maintain "Builder's Risk" Property Insurance for all work at the site to the full insurable value thereof. The Owner and the Project Manager shall be named as co-insured.

## **ARTICLE 48 UNCOVERING AND CORRECTION OF WORK**

48.1 During construction, whenever materials requiring inspection in place by the Project Manager and the Owner to be permanently covered up, it shall be Contractor's responsibility to notify the Project Manager at least 24 hours in advance of commencement of such covering operation. In the event of failure by Contractor to give such notification, Contractor shall, at his own expense, uncover such portions of work as required by the Project Manager or the Owner, and reinstall such covering after satisfactory inspection and correction of any and all deficiencies.

## **ARTICLE 49 EQUAL OPPORTUNITY**

49.1 The Contractor agrees to comply with the letter and spirit of the Colorado Anti-discrimination Act of 1957, as amended, and other applicable laws respecting discrimination and unfair employment practices (24-34-402, CRS 1973, as amended). The Contractor shall be responsible for any discriminatory or unfair employment practices of his subcontractors. Neither the Contractor nor any subcontractor will discriminate against any employee or applicant for employment because of race, creed, color, national origin, sex, religion, ancestry, mental or physical handicap, or age. Contractor shall take affirmative action to insure that applicants are employed, and that employees are treated during employment without regard to their race, creed, color, national origin, sex, religion, ancestry, mental or physical handicap, or age. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment, or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the policies of non-discrimination.

49.2 Contractor and all subcontractors shall, in all solicitations or advertisement for employees placed by them or on their behalf, state that qualified applicants will receive consideration for employment without regard to race, creed, color, national origin, sex, religion, ancestry, mental or physical handicap, or age.

## **ARTICLE 50 CLAIMS**

50.1 The Contractor shall not assert any claim arising out of any act or omission by any officer, agent or employee of the Owner in the execution or performance of this Contract against such officer, agent or employee in his or her individual or official capacities.

50.2 The Contractor shall require each Separate Contract Design Professional or Contractor to agree in his Contract not to make any claim against the Owner, its officers, agents or employees, by reason of such Contract with the contractor.

50.3 Nothing in this Contract shall be construed to give any person other than the Owner and the Contractor any legal or equitable right, remedy or claim under this Contract; and it shall be held to be for the sole and exclusive benefit of the Owner and the Contractor.

## **ARTICLE 51 NOTICES**

51.1 Except as otherwise provided herein, any notice, approval, acceptance, request, bill, demand or statement hereunder from either party to the other shall be in writing and shall be deemed to have been given when either delivered personally or deposited in a U.S. mailbox in a postage-prepaid envelope, addressed to the other party via certified mail. Notices to the Owner shall be addressed to the Project Manager by name. Either party may at any time change such address by delivering or mailing, as aforesaid, to the other party a notice stating the change and the changed address.

## **ARTICLE 52 LEGAL INSERTIONS, ERRORS, INCONSISTENCIES, OR DISCREPANCIES IN CONTRACT**

52.1 It is the intent and understanding of the parties to this Contract that each and every provision of law required to be inserted in this Contract shall be and is inserted herein. Furthermore, it is hereby stipulated that every such provision is deemed to be inserted herein, and if through mistakes or otherwise, any such provision is not inserted in correct form, then this Contract shall upon application of either party, be amended by such insertion so as to comply strictly with the law and without prejudice to the right of either party.

52.2 If this Contract contains any errors, inconsistencies, ambiguities, or discrepancies, including typographical errors, the Contractor shall request a clarification of same by writing to the Project Manager whose decision shall be binding upon the parties.

**ARTICLE 53  
CAPTIONS OR HEAD NOTES**

53.1 The captions or head notes on articles or sections of this Agreement, and marginal notes are intended for convenience and reference purposes only and in no way define, limit or describe the scope or intent hereof, or of this Agreement not in any way affect this Agreement.

**ARTICLE 54  
EFFECTIVE AND BINDING**

54.1 This Contract shall not become effective or binding upon the Owner unless it has been authorized and executed in accordance with the ordinances of the City of Greeley.

**ARTICLE 55  
CONTRACTOR**

55.1 All personnel assigned to the Project by the Contractor shall be required to cooperate fully with personnel of the Owner and if in the sole discretion of the Owner the Contractor's personnel fails so to cooperate, the Contractor shall relieve them of their duties on the Project when required by the Owner.

55.2 Within seven (7) consecutive calendar days after date of written notice to commence work, the Contractor shall designate in writing one person who, on his behalf, shall be responsible for coordinating all of the services to be rendered by the Contractor hereunder. Such designee shall be subject to the approval of the Owner. Any change to the approved designee shall be proposed in writing seven (7) days in advance and subject to Owner approval.

55.3 The Contractor shall engage, at his sole expense, all engineers, architects, cost estimators, lawyers, experts and Contractors as may be required for the proper performance of the Contract. The Contractor shall be responsible for the performance of the work of all architects, engineers, cost estimators, lawyers, experts and Contractors so engaged by him, including maintenance of schedules, correlation of their work and resolution of all difference between them. It is understood that all architects, engineers, cost estimators, lawyers, experts and Contractors are employees of the Contractor and not of the Owner, and the Contractor alone is responsible for their work.

55.4 All drawings, tracings, specifications, digital media/electronic files and other material prepared and furnished under and for this Contract shall become the property of the Owner upon substantial completion and/or their acceptance by the Owner and/or upon termination of the services of the Contractor. Such documents shall be promptly delivered to the Owner upon demand and thereafter may be used by the Owner in whole or in part or in modified form, for those purposes it may deem advisable without further employment of, or payment of additional compensation to, the Contractor.

55.5 The Contractor shall not, without the prior written approval of the Owner, specify for the project, or necessarily imply the required use of any article, product, material, fixture or form of construction, the use of which is covered by a patent, or which is otherwise exclusively controlled by a particular firm or group of firms.

55.6 Should any claim be made or any action brought against the Owner relating to the design and satisfactory operation of the Project herein, the Contractor shall diligently render to the Owner without additional compensation any and all assistance which may be requested by the Owner.

55.7 The Owner's Project Manager's decision shall be final and binding upon the Contractor as to all matters arising in connection with or relating to this Contract. The Project Manager shall determine the amount, quality, acceptability and fitness of the work being performed hereunder and shall determine all matters relative to the fulfillment of this Contract on the part of the Contractor and such determination shall be final and binding on the Contractor. Acceptance by the Owner of any document hereunder and all supporting documents shall not relieve the Contractor of sole responsibility for work performed under this contract, including, but not limited to, the final design of the Project, including the plans, specifications and all supporting documents, except as to any feature thereof which the Owner had specifically directed in writing to be included over the written objection of the Contractor. In case any question shall arise, the decision of the Owner's Project Manager, who is hereby accepted by the Contractor as the arbiter, shall be a condition precedent to the right of the Contractor to receive any money under this Contract.

## **ARTICLE 56 APPEALS**

56.1 Except as otherwise provided in this Contract, any dispute concerning a question of fact arising under this Contract which is not disposed of by Agreement shall be decided by the Project Manager, who shall reduce his decision to writing and mail or otherwise furnish a copy thereof to the Contractor. The decision of the Project Manager shall be final and conclusive unless, within fifteen (15) days from the date of receipt of such copy, the Contractor mails or otherwise furnishes to the Project Manager a written notice of appeal.

56.2 In the event a decision of the Project Manager is the subject of an appeal, such dispute may be settled by appropriate legal proceeding, or, if the parties mutually agree, through arbitration or administrative process. Pending any binding arbitative or administrative decision, appeal, or judgment referred to in this section or the settlement of any dispute arising under this Contract, the Contractor shall proceed diligently with the performance of this Contract.

56.3 Venue and jurisdiction of any suit, right, or cause of action arising under or in connection with this Contract shall lie exclusively in Weld County, Colorado.

## **ARTICLE 57 PROHIBITED INTEREST**

57.1 No member, officer or employee of the City of Greeley shall have any financial or pecuniary interest, direct or indirect, in this Contract or the proceeds thereof.

**ARTICLE 58  
FINDINGS CONFIDENTIAL**

58.1 Any reports, information, data, etc., available to or prepared or assembled by Contractor under this Contract shall not be made available to any individual or organization by Contractor without consent in writing from the Owner subject to applicable law.

**ARTICLE 59  
GENERAL PROVISIONS**

59.1 Services and work performed by Contractor under this Contract shall conform to reasonable and normal professional standards known and accepted within the community.

59.2 No reports, graphics or other material produced directly or indirectly for the Owner under this Contract shall be the subject of an application for copyright or trademark by or on behalf of Contractor.

59.3 The laws of the State of Colorado and applicable Federal, state and local laws, regulations and guidelines shall govern hereunder.

59.4 The headings of the articles, clauses, and paragraphs of this Contract are inserted for reference purposes only and are not restrictive as to content.

59.5 This Contract and any subsequent amendment shall be deemed an original having identical legal effect, and all of which together constitute one and the same instrument.

59.6 Nothing contained herein shall be deemed to give any third party any claim or right of action against the Owner which does not otherwise exist without regard to this Contract.

59.7 Where a number of days is specified in this Contract it shall mean calendar days unless otherwise specified.

59.8 This Contract shall not be assigned, in whole or in part, without the written consent of the Project Manager and Contractor.

59.9 The Owner certifies the following;

A. An amount of money equal to or greater than the Contract amount has been appropriated and budgeted for the Project which this Contract concerns.

B. No Change Order which requires additional compensable work to be performed by the Contractor will be issued by the Owner unless an amount of money has been appropriated and budgeted sufficient to compensate the Contractor for such additional compensable work unless such work is covered under the remedy-granting provisions of this Contract.

C. As used in this paragraph, "remedy granting provision" shall mean any clause of this Contract which permits additional compensation in the event of a specific contingency or event occurs. This term shall include, but not be limited to, change clauses, differing site conditions clauses, variation in quantities clauses, and termination for convenience clauses.

**ARTICLE 60  
CONTRACTOR ACCEPTANCE**

60.1 The acceptance by the Contractor, his successors or assigns of any payment made on the final acceptance of the Project under this Contract or of any final payment due on termination of this Contract, shall constitute a full and complete release of the Owner from any and all claims, demands and causes of action whatsoever which the Contractor, his successors or assigns have or may have against the Owner under the provisions of this Contract.

60.2 No action shall be maintained by the Contractor, its successors or assigns, against the Owner on any claims based upon or arising out of this Contract or out of anything done in connection with this Contract unless such action shall be commenced within 180 days after the date of filing of the voucher for final payment hereunder in the office of the Finance Director, or within 180 days of the termination of this Contract.

**ARTICLE 61  
SUCCESSORS AND ASSIGNS**

61.1 The Contractor binds itself, its partners, successors, assigns and legal representatives to the other party to this Contract and to the partners, successors, assigns and legal representatives of such other party with respect of all covenants of this Agreement. The Contractor shall not transfer, assign, or subcontract any interest in this Agreement.

**ARTICLE 62  
SEVERABILITY CLAUSE**

62.1 If any provision of this Agreement is subsequently declared by legislative or judicial authority to be unlawful, unenforceable, or not in accordance with applicable laws, statutes, and regulations of the United States of America and the State of Colorado, all other provisions of this Agreement shall remain in full force and effect.

**ARTICLE 63**

63.1 This Agreement represents the entire and integrated Agreement between the Owner and the Contractor and supersedes all prior negotiations, representations or agreements, either written or oral. This Agreement may be amended only by written instrument signed by both Owner and Contractor.

**ARTICLE 64**

64.1 In accordance with C.R.S. §8-17-101, all parties contracting with the City of Greeley on public works projects shall employ Colorado labor to perform the work to the extent of not less than eighty percent (80%) of each type or class of labor in the several classifications of skilled and common labor employed on this project.

**ARTICLE 65**

65.1 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.



SECTION 520  
SUBCONTRACTORS/MATERIALS SUPPLIERS AND RELATED DATA

Firm Name: \_\_\_\_\_ City Contractors License # \_\_\_\_\_  
Primary Contractor \_\_\_\_\_

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

For each Subcontractor and/or Materials Suppliers to be utilized, please provide the following information  
(use additional sheets as necessary):

Phone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_  
Proposed work and percentage of total work to be assigned \_\_\_\_\_  
Percentage: \_\_\_\_\_ %

Firm Name: \_\_\_\_\_ City Contractors License # \_\_\_\_\_  
Address: \_\_\_\_\_  
Phone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_  
Proposed work and percentage of total work to be assigned \_\_\_\_\_  
Percentage: \_\_\_\_\_ %

Firm Name: \_\_\_\_\_ City Contractors License # \_\_\_\_\_  
Address: \_\_\_\_\_  
Phone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_  
Proposed work and percentage of total work to be assigned \_\_\_\_\_  
Percentage: \_\_\_\_\_ %

Firm Name: \_\_\_\_\_ City Contractors License # \_\_\_\_\_  
Address: \_\_\_\_\_  
Phone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_  
Proposed work and percentage of total work to be assigned \_\_\_\_\_  
Percentage: \_\_\_\_\_ %

Firm Name: \_\_\_\_\_ City Contractors License # \_\_\_\_\_  
Address: \_\_\_\_\_  
Phone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_  
Proposed work and percentage of total work to be assigned \_\_\_\_\_  
Percentage: \_\_\_\_\_ %

If the Primary Contractor adds any Subcontractors or Materials Suppliers during the duration of the project, the Primary Contractor will supply the City with an updated form before the Subcontractor or Materials Supplier will be allowed to work on the project.

## **SECTION 00620**

### **SPECIAL PROVISIONS Replace Electrical Panels in Lincoln Park Greeley, Colorado**

#### **DESCRIPTION OF THE PROJECT:**

**The intent of this project is replace two Electrical Panels that feed the sub-panels in the Lincoln Park. These panels are located in the park and all sub-panels throughout the park. Install Two Milbank Special Design Electrical Equipment Enclosures. Enclosures will provide power to the existing sub-panel with the park.**

#### **LOCATION OF WORK:**

All work is located at **Lincoln Park at 805 9<sup>th</sup> Avenue.**

#### **SPECIFICATIONS:**

This project subject to the following specifications: See attached Specifications and Drawings provided by RJ McNutt & Associates @ 970/330-3266

1. Construction on project can start after August 26, 2019.
2. Work hours are 7:00 AM to 5:00 pm, unless coordinated with Parks Division
3. Restroom facilities will not be supplied, Contractor will be responsible for Restrooms.
4. All Electrical equipment must be available before starting the project.
5. Parking will be available on the west of Lincoln Park.
6. Contractor must obtain all necessary permits.
7. All electrical power shutdown of electrical power for this project during construction period shall completed by a licensed electrical contractor.
8. **Contact person for Facilities Division. (Dale Blehm 970/539-6230) for issues during project.**
9. Pre-bid meeting and walk-through is highly recommended in order to bid this project.
10. All work must be completed including other trades by completion date November 8, 2019
11. All work areas shall be cleaned up at the end each workday.

**PERMITS:**

The Contractor must be licensed with City of Greeley. Contractor will obtain necessary permits for work in public park. City will waive permit fees.

**CONTRACT TIME, LIQUIDATED DAMAGES, DELAYS:**

Work shall be completed within ninety (90) days, calendar days of the Notice to Proceed. The Notice to Proceed will be issued after a meeting with the selected contractor, and that contractor has an opportunity to schedule this work.

Liquidated damages will be withheld from the final payment to the Contractor for each day that the project's substantial completion is delayed beyond the contract completion date (90 calendar days plus any additional time allowed by the City per change orders).

Liquidated damage amount will be \$500.00 per calendar day.

Liquidated damages are based on additional costs to the City of Greeley for delay of project completion and are not a "late penalty".

Additional time will be allowed for formal seasonal "bad weather" days. The Contractor shall provide documentation of weather history as described below when submitting requests for additional time for severe weather. An actual adverse weather day must prevent work for 50 percent or more of the CONTRACTOR'S workday, delay work critical to the timely completion of the project, and must be documented by the CONTRACTOR. The OWNER'S representative observing the construction shall determine on a daily basis whether or not work can proceed or if work is delayed due to adverse weather or the effects thereof. The CONTRACTOR shall notify the OWNER'S representative in writing of any disagreement as to whether or not work can proceed on a given date, within two (2) calendar days of that date. The OWNER'S representative will use the above written notification in determining the number of working days for which work was delayed during each month.

While extensions of time shall be granted for "unusually severe" weather or climate conditions, no monetary compensations shall be made by the OWNER for any costs to the CONTRACTOR arising out of such delays. The CONTRACTOR shall comply with the portions of these contract documents relating to his project schedule and amendments thereto which result from "unusual severe" weather condition.

**. Work Hours:**

The Contractor is limited to working between 7.00 am to 5:00 pm or per-determined after hours. The work must be coordinated with Dale Blehm @ 970/539-6230 Project Manager with Facilities Division or Eric Bloomer with Parks @ 350-9394

**MEASUREMENT AND PAYMENTS:**

This contract is a for Lump sum price for construction etc. No additional payment for work not described in these documents will be allowed, whether a bid item exists or not. The Contractor shall include the costs of all incidentals of construction, labor, equipment, and materials in the appropriate bid item.

**FINAL CLEAN UP:**

At the completion of the contract and prior to submittal of final pay request, the Contractor shall clean up all construction material and debris. The Contractor shall notify the City when final cleanup is ready for inspection.

**POST CONSTRUCTION INSPECTION AND WARRANTY:**

Please see General conditions 501 article 11

.

**END OF SECTION 00620**

ELECTRICAL SPECIFICATION

TABLE OF CONTENTS

SECTION 26 00 10 .....GENERAL PROVISIONS

SECTION 26 01 00 .....BASIC MATERIALS AND METHODS

SECTION 26 04 00 .....ELECTRICAL SYSTEMS

SECTION 26 09 00 .....ELECTRICAL COMPLETION

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## **PART 1 - GENERAL**

### **1.1 CONDITIONS**

- A. All work under this Section shall be governed by project general conditions, along with all supplements and amendments thereto, as provided by Owner

### **1.2 SCOPE OF WORK**

- A. The work to be performed in accordance with this Specification consists of furnishing all materials, equipment, supplies and accessories and of performing all operations needed in connection with all electrical work required by the Drawings and Specifications for all power, and control systems. The work shall also include the performance and installation of such necessary work, and the providing of such necessary material and devices of a minor nature that are neither indicated on the Drawings nor specifically mentioned in the Specification, but which are necessary for the compliance with codes, and for the successful operation of the entire electrical system indicated on the Drawings, and/or described in the Specifications. The Contractor will be allowed no extra compensation because of this requirement.

### **1.3 GENERAL ELECTRICAL REQUIREMENTS**

- A. Materials: All electrical equipment and materials shall comply with the latest standards of National Electrical Manufacturer's Association (NEMA), Underwriter's Laboratories (U.L.), Institute of Electrical Electronic Engineers (IEEE), Insulated Power Cable Engineers' Association (IPCEA), American National Standards Institute (ANSI), American Society of Testing for Materials (ASTM), and National Bureau of Standards (NBS).
- B. All equipment, materials, and installation methods and procedures shall comply with all applicable state and local code requirements and ordinances, and the latest applicable requirements of OSHA and the National Electrical Code of the NFPA, as interpreted by the local inspection authority, and as approved by the Engineer. All equipment and materials shall also comply with all requirements of the utility and telephone companies.
- C. All minor items of electrical apparatus which are furnished with the various items of equipment, but which are neither detailed on the Drawings nor set forth in the Specifications, shall be considered a part of the electrical work.
- D. All electrical materials shall be new and shall not be installed if in a damaged condition.

### **1.4 CODES AND REGULATIONS**

- A. Comply with all applicable state and local codes, regulations and ordinances, and the latest applicable requirements of the National Electrical Code (NEC) of the NFPA, as interpreted by the local inspection authority who shall have final jurisdiction.

- B. Comply also with all OSHA requirements and directives.

#### 1.5 EXAMINATION OF PREMISES

- A. Examine the premises prior to bidding and become fully familiar with existing conditions.

#### 1.6 PERMITS

- A. Secure and pay for all permits, fees, taxes, licenses and inspections in connection with the electrical work.

#### 1.7 DRAWINGS AND SPECIFICATIONS

- A. Drawings are diagrammatic and indicate general arrangement of electrical work. Locations are approximate and shall be subject to minor modifications as directed by Owner and/or Engineer.
- B. Contractor shall be responsible for exact fitting of all materials, equipment, etc., in building. All dimensions shall be verified on the job.
- C. Refer to Drawings, Specifications and directives, as part of this set, and be responsible for all information contained therein as it affects the electrical work.
- D. Instructions such as "provide . . ." shall mean "Contractor shall be responsible for the furnishing and installing of new . . . , complete in every respect."

#### 1.13 REMODEL WORK

- A. "In as much as the remodeling and/or rehabilitation of existing facilities and equipment requires that certain assumptions be made regarding existing conditions, and because some of these assumptions may not be verifiable without expending addition all sums of money, or destroying otherwise adequate or serviceable portions of the installation. Electrical Contractor and Owner will hold harmless, indemnify and defend Design Professional from and against any and all claims arising out of the professional services provided under this agreement".
- B. Electrical Contractor shall attend site walk through scheduled prior to bid.
- C. Electrical Contractor shall remove all wiring devices, light fixtures, etc., which are indicated to be removed. In general, symbols which are dotted indicate devices which are existing and which are to remain. Symbols which are dotted and crosshatched are existing and which are to be removed. Devices which are to be removed may require reworking conduit and wiring in order to maintain service to other devices. If removed devices are on walls or ceilings which are to remain, blank coverplates are to be installed on outlet boxes.
- D. Where remodeling interferes with circuits in areas which are otherwise undisturbed, circuits shall be reworked as required.
- E. Existing devices and circuiting which are shown are indicated only for informational

purposes. Electrical Contractor shall visit the site and shall verify conditions as they exist and shall remove, relocate and/or rework any electrical equipment or circuits affected (whether indicated or not) due to removal or reworking of existing conditions.

- H. All equipment, fixtures, devices, etc., which are removed shall be delivered to Owner. All items which are removed and not wanted by Owner and which are not reused shall become the property of Electrical Contractor and shall be removed from site.
- I. The cost of cutting and patching necessary for the installation or removal of electrical work shall be included in the Electrical Contract..
- J. Electrical Contractor shall remove and replace conduit and wiring and do other work required by the installation of new equipment.
- K. Areas of Removal: Electrical Contractor shall check areas of demolition for electrical damage and physical damage. See damaged existing electrical equipment and device paragraph below. If existing electrical equipment and devices do not have electrical power, Electrical Contractor is responsible to provide power from electrical panels determined by Engineer.
- L. Damaged Existing Electrical Equipment and Services:
  - 1. Existing damaged equipment and devices that are to be reused shall be reported to Owner in writing. The equipment and devices will be evaluated by the design team as to their reuse status. Damaged equipment and devices not reported to Owner in writing shall be the responsibility of Electrical Contractor to replace with new equipment and devices.

## **PART 2 - PRODUCTS**

### **2.1 STANDARDS**

- A. All material shall be new and shall be listed by Underwriters Laboratories Incorporated (UL listed) for the purpose intended and shall bear the UL label.
- B. Damaged or defective materials shall be replaced. All materials shall comply with the latest NEMA standards.

## **PART 3 - EXECUTION**

### **3.1 SHOP DRAWINGS**

- A. Furnish Shop Drawings electronically as unsecured pdf files to Owner for the following:
  - 1. Distribution Equipment.
  - 2. Devices.
- B. All materials and equipment shall be approved prior to beginning work.
- C. Receipt within 30 days after award of contract.

- D. Shop Drawings, including:
  - 1. Catalog data specifically for equipment to be used.
  - 2. Maintenance data.
  - 3. See shop drawing requirements in General Provisions.
  - 4. Reviewed shop drawings will be returned to Contractor as pdf files.
  
- E. Electrical Contractor shall provide shop drawing approval stamps on all equipment supplied by them prior to Engineer's shop drawing approval. Electrical Contractor to check for conformance with the design of the project and compliance with the information given in the contract documents. Contractor is responsible for dimensions which shall be confirmed and correlated at the job site, fabrication process and techniques of construction.

### **3.2 RECORD DRAWINGS**

- A. Maintain a complete set of Electrical Drawings at the job site with all changes in the work marked thereon in a contrasting color. Keep the drawings current at all times, and present to Engineer upon completion of work.
  
- B. Electrical Contractor shall provide Owner at completion of project a complete set of Record drawings showing all changes in work marked thereon including all system wiring diagrams.

### **3.3 COORDINATION**

- A. Order the progress of the work so as to conform to the schedule and accommodate existing conditions. Coordinate all electrical installations and rough-ins as required.

### **3.4 WORKMANSHIP**

- A. Provide a competent foreman on the job at all times. All work shall be accomplished in a manner which is neat, workmanlike, of first quality, and compatible with good industrial practices and standards. Provide competent workmen who are skilled as electricians.

### **3.5 INSTALLATION**

- A. Install all equipment and materials in accordance with information as indicated on Drawings and in full accord with Manufacturer's recommendations.

### **3.6 CUTTING AND PATCHING**

- A. Provide all cutting, channeling, chasing, drilling, etc., operations as may be required for electrical work. In general, all such operations shall be held to a minimum.
  
- B. All patching and painting shall be done by Contractor.
  
- C. All work is to be carefully laid out in advance so as to minimize any disturbance

or damage to the structures or other equipment. Any damage done shall be the responsibility of the Contractor and such damage shall be repaired in a manner approved by the Owner.

### **3.7 CONSTRUCTION POWER AND LIGHTING**

- A. Provide construction power and lighting for construction as required. Energy costs, where reasonable and use of existing facilities is sufficient, will be paid by owner. All temporary facilities where required by contractor – shall be provided and paid for by contractor and shall be properly grounded, shall comply with NEC and OSHA requirements, and shall have ground fault protection.

### **3.8 TRENCHING AND BACKFILL**

- A. Be responsible for all trenching and backfill for electrical work. Be responsible for all new and existing buried utilities.
- B. Electrical Contractor shall locate all onsite and offsite utilities prior to any trenching or excavation done by any trade to locate utilities in areas where construction is to be performed.
- C. All trenching for buried cable or conduit shall be backfilled with selected material mechanically tamped into place along the sides of the conduit and up to a level six inches above the top of the conduit in lifts not to exceed six inches. The remaining backfill shall be consolidated by mechanical tamping in 6-inch layers. All trench compaction shall be to not less than 95 percent of the maximum dry density in accordance with ASTM D698 (Standard Proctor). Buried conduit shall have a minimum cover of 30-inches.
- D. Provide pullboxes and handholes as needed to accommodate existing conditions.

### **3.9 SECONDARY SERVICE**

- A. Power for distribution is available from the secondary side of a transformer supplied by the local utility company. Notify Engineer if characteristics or point of attachment are different than that shown on Drawings.
- B. Electrical Contractor shall coordinate all requirements and submit all necessary documentation required to by utility.

### **3.10 GUARANTEE:** Comply with Owner directives and guidelines.

- A. Guarantee all materials, labor, workmanship and successful operation of all equipment installed under this contract for a period of one year from date of final acceptance. Repair or replace, at no expense to Owner, all defects which may arise during this time due to inferior or defective materials, equipment, or workmanship.

### **3.11 SUBSTITUTIONS**

- A. Refer to Owner for requirements for purchasing and guarantees.
- B. Where substitutions alter the design, conduit, wiring or space requirements indicated on the Drawings, Contractor shall be responsible for all items of cost for the revised design and construction.

**3.12 DELIVERY AND STORAGE OF MATERIALS**

- A. Make provisions for delivery and safe storage of all materials and make the required arrangements with other Contractors on the job for the introduction into the building of equipment too large to pass through finished openings.
- B. Where materials are indicated to be furnished by others to Contractor for installation, these materials shall be checked and their delivery properly receipted. Assume full responsibility for the storage and safe keeping of said materials from time of delivery until final acceptance.

END OF SECTION 26 00 10

**PART 1 - GENERAL**

**1.1 STANDARDS**

- A. All materials shall be new, shall be UL listed for the purpose intended, and shall bear the UL label. Damaged or defective materials shall be replaced. All materials shall comply with latest NEMA standards.

**1.2 SUBSTITUTIONS**

- A. Refer to Owner for requirements for purchasing and guarantees.
- B. Where substitutions alter the design, conduit, wiring or space requirements indicated on the Drawings, Contractor shall be responsible for all items of cost for the revised design and construction.

**PART 2 - PRODUCTS**

**2.1 BRANCH CIRCUIT PANELBOARDS - GENERAL**

- A. Provide branch circuit distribution panelboards for all general lighting and power circuits where indicated. Panels shall be flush or surface mounted as indicated. Provide panels with main lugs only or with main breakers as indicated. Main breakers, where specified, shall be located at top (or bottom) center of panel, bolted to bus bars. Back connected branch circuit breakers are not acceptable as main breakers. Panels shall be of voltage, phase, number of wires, copper bus size as indicated. Provide number and size of full width, thermal-magnetic, bolted breakers as indicated. All breakers shall be quick-break, quick-make and shall have an internal trip-free mechanism; two and three pole breakers shall be internally "common trip" and shall have a common operating handle. All panels shall have a minimum width of 17 inches. All panels shall have hinge-in-door covers equipped with master keyed locks. All panels shall have copper ground busses. All two-section panels shall have matching trim sizes for each section.
- B. 120/208V or 120/240V panelboard shall have circuit breakers having a minimum IC rating of 22,000 AIC amps symmetrical.
- C. All terminals shall be rated for 75° C wiring.

**2.3 SAFETY SWITCHES**

- A. Provide fusible and non-fusible heavy-duty type disconnect switches where shown and required. Switches shall be horsepower rated, quick make, quick break.
- B. Each enclosure shall be NEMA type suitable for surrounding area and condition. Consult Mechanical Drawings and Specifications for their requirements.
- C. Switches shall be equipped with rejection clips for Class "R" current limiting fuses.

- D. All terminals shall be rated for 75° C wiring.

## **2.4 NAMEPLATES**

- A. Engraved composition, laminated plastic, 1" x 3" nameplates shall be provided for each circuit breaker, switch, starter, disconnect, etc. The plates shall have lettering or numbering as required and approved. Nameplates shall have ¼-inch high black letters with white background. Provide nameplates for all switches, circuit breakers and motor starters, and all individually mounted equipment. Nameplates shall be mounted with corrosion resistant screws and positioned on the front of door adjacent to circuit breaker, or switch, so as to be clearly visible (double back tape not acceptable). The legend on the strips shall be so composed as to clearly indicate the equipment served by the protective devices.
- B. Nametags: Instrumentation, control equipment requiring electrical or signal cables. Provide phenolic black nametags, engraved to white core, 1/2" to 3/16" lettering, attach to equipment using double back tape. Engrave nametag as to process. Refer to Simplified Process Diagram. Submit nameplate schedule to engineer for review prior to installation of nametags.
- C. Label all mechanical equipment, safety switches, and starters, etc., with Phenolic nameplates. Nameplates and labels shall indicate the general areas and type of electrical load served by each circuit.
- D. Neatly label all Junction box coverplates as to their function. Use a permanent ink pen. Labeling shall be power, receptacles, etc.
- E. Install nameplates identifying phase and voltage per NEC 210.5.

## **2.5 CONDUCTORS**

- A. Provide a complete system of conductors for all raceway systems. All conductors shall be rated 600V, oil resistant, and shall be of a manufacturer subscribing to applicable IPCEA and NEMA standards and practices. Conductors shall be of sizes and types as indicated, and as required by NEC for specific uses. Where quantities of conductors in a raceway system are not specifically indicated, provide number as required to maintain function, control and number of circuits as indicated. All conductors shall be UL listed and approved, and shall conform to the following:
  1. Minimum wire size shall be #12 AWG except for control signal circuits which may be #14 AWG. All control wiring shall be stranded Cu U.O.N.
  2. Unless otherwise indicated, all wiring for branch circuits shall be copper #12 AWG in 3/4" conduit, protected by 20-ampere circuit breakers. See Voltage Drop.
  3. Voltage Drop: If distance from panel to first outlet is 75 feet or greater (for 120V circuits) or 150 feet or greater (for 277V circuits), #10 shall be installed from circuit breaker to every device in circuit.
  4. Receptacle and lighting wire sizes #10 AWG and smaller shall be solid type THWN/THHN, #8 AWG and larger shall be stranded, type THWN, #14 control wire shall be THWN stranded. All conductors shall be copper. The use of aluminum will not be allowed. All service conductors, feeders, and branch circuits shall be (factory) color coded in accordance with

- Article 210-5 of NEC for the entire length of the circuit.
5. The following color code prevails for all service, feeder and branch circuits:
    - a. Neutral – White for 120/240.
    - b. Ground - Green
    - c. Phase A – Black/Red for 120/240, Black for 120/208.
    - d. Phase B – Black/Red for 120/240, Red for 120/208.
    - e. Phase C – Black/Red for 120/240, Blue for 120/208.
    - f. Service Entrance Conductors Below Grade or Wet Locations - Type THWN/THHN or XHHW-2.
    - g. Branch and Feeder Conductors Below Grade or in Wet Locations UON - Type THWN/THHN.
    - h. Electrical contractor shall properly tape all existing conductors discovered to be improperly taped during this project.
  6. Wire and cable shall be of the proper size to fit under lug landings in accordance with U.L. listing. Where larger wire and cable is used for voltage drop etc., and will not fit under U.L. listings, the Contractor shall provide proper wire and cable size under lugs and either pigtail to larger wire and cable or use power tap blocks. Provide insulation value equal to the wire and cable being used.
  7. Motor and similar vibrating equipment, wiring for power shall be stranded.
  8. Aluminum conductors shall not be used on this project.
  9. All control wiring shall be marked corresponding to numbering system used in shop drawings at all conductor terminations, splices or marshalling panels. Both conductor marker and marked terminal blocks shall be used. Further identification using colored insulation shall be used to differentiate type of signals.
  10. Control Cable Markers (Field and Enclosure Wiring): Provide Permanent Heat Shrink Identification Sleeves, white with black markings, heat shrinkable. Cable markers shall correspond to cable diameter. Manufacturer Brady Perma Sleeve. Markers shall be on both ends of cable(s) on field wiring and internal enclosure wiring. Wire labels shall be heat shrunk prior to completion of project.
  11. Refer to Feeder Schedules on drawings.

## **2.6 FUSES**

- A. Provide sizes, classes and types of fuses as indicated for all fused safety switches. All fuses 0-600 amps shall have the Class "R" rejection feature (U.O.N. on drawings). Verify actual load current of all motors prior to ordering fuses and provide fuses of sizes as recommended by Manufacturer. Generally, motor fuses shall be the dual element type and shall be set at 110% of full load amps, or 125% where required for heavy duty usage or high ambient temperatures. Fuses shall be the power voltage rating to match circuit characteristics in which installed. Fuses indicated on Drawings are those of Bussmann Co., equal by Ferraz Shawmut or Littelfuse.

## **2.7 SPARE FUSES**

- A. Provide six spare fuses of each size and type installed. Place in a metal cabinet adjacent to main distribution equipment. Cabinet shall be wall mounted, shall

have a hinged door and latch, and shall be labeled "SPARE FUSES" on cover. Cabinet not shown on plans. Electrical Contractor to coordinate location with owner (not shown on drawings).

**2.8 CONDUITS**

- A. Provide complete raceway systems for all conductors. All raceways shall be of a manufacturer subscribing to applicable NEMA and U.L. standards, and shall bear the U.L. label. Raceways shall be of sizes as indicated and required. Where sizes are not specifically indicated, provide sizes in accordance with the requirements of NEC. Final connections to motors and other vibrating or rotating equipment shall be made in steel flexible liquid tight conduit.
  
- B. Provide the following types of raceways for the specific application or location indicated:
  - 1. Heavywall, Type II, Rigid, Schedule 40 (or 80)PVC.
    - a. For all wiring runs embedded in concrete.
    - b. For wiring runs buried underground, unless otherwise indicated.
    - c. Embedded in concrete block.
    - d. Shall be oil resistant
    - e. Provide expansion joints in accordance with manufacturer's recommendations.
    - f. Not permitted in exposed locations unless specifically called for on drawings.
  
  - 2. Rigid galvanized steel conduit (GRC).
    - a. Conduit exposed above grade exposed to the general public, in wet, dry and damp locations.
    - b. All sizes subject to abnormal conditions such as heat or cold.
    - c. Couplings, elbows, etc. shall be subject to the same requirements as conduit.
  
  - 3. Liquid tight flexible metal conduit.
    - a. For final connections to motors and other vibrating equipment.
    - b. Overall length of flexible conduit shall not exceed 3'-0".
    - c. Shall be oil resistant
    - d. Shall be steel flex with overall coating.
  
  - 5. Electrical Metallic Tubing (EMT) exposed to the general public.
    - a. Not Permitted
  
  - 6. Transitions from below grade (and in slab) to above grade shall be PVC below grade with PVC coated GRC elbows and risers to 1' AFG outdoors and 4" AFG indoors.

**2.11 DEVICES AND PLATES**

- A. Switches: Provide the following flush switch devices where indicated and required. Verify color with Owner prior to installation. Devices to be of rating required by NEC for load controlled. All devices to be Specification Grade, 120/277V, quiet type. All devices shall have screw-type terminals. Provide as shown or acceptable equal.

1. Devices:
  - a. 20 amp switches Leviton-1221-White
  - b. 3-way switches Leviton-1223-White
  - c. 4-way switches Leviton-1224-White
  - d. Pilot light Leviton-1221-PL  
(120V)-12217P(277V)
  - e. Weatherproof Hubbell-1281 W/1795
  - f. Key operated P&S 20 ACKL Series  
No Exceptions
  
- B. Thermal overload switches: Provide thermal overload switches for all single phase motors which are not furnished with built-in overload protection. Switches to be of size and number of poles as required and shall have suitable enclosures. Do not install on roof or exposed to weather. Provide Allen-Bradley Bul. 600 or acceptable equal. Size heater elements in accordance with Manufacturer's recommendations.
  
- C. Receptacles: Provide the following flush receptacle devices where indicated and required. Verify color with Owner prior to installation. All devices to be Specification Grade with screw type terminals. Provide as shown or acceptable equal.
  1. Devices:
    - a. 20-3W, grd. duplex-120V Hubbell-5362-White
    - b. 20A-3W,grd. single-120V Leviton-5261-White
    - c. WP - While in use Hubbell WP826
    - d. Ground Fault 20 amp Hubbell GFR-5352SG-White
  
- D. Equivalent devices: Equivalent wiring devices as manufactured by Slater, Arrow Hart, Hubbell, Daniel Woodhead, Eagle, or P & S may be used in lieu of Leviton devices indicated.
  
- E. Coverplates:
  1. Finished areas provide stainless steel.
  2. Provide steel in unfinished areas.

## **2.12 SUPPORTS AND HANGERS**

- A. Provide supports and hangers as necessary and as required to insure a quality and substantial installation. Support raceways, cabinets, boxes, etc., on approved types of trapeze hangers or wall brackets as manufactured by Unistrut or acceptable equal. Provide steel hanger rods securely fastened to or through the building structure for all trapezes, etc. Do not suspend from mechanical piping or ductwork. Perforated plumber's straps or wire will not be permitted. All supports, hangers, screws, bolts, etc., shall be stainless steel or hot dipped galvanized (electro galvanized not permitted).
  
- B. Obtain Owner's approval for the use of powder-powered fasteners and use only in locations as he may direct.
  
- C. Secure all raceway systems in building structure in a rigid and secure manner using approved type fasteners such as "Caddy Clips" or similar type of other manufacturer.

- D. Conduit hangers, clamps, light fixtures, supports, etc., shall be fastened to joists or beams only. Do not support from bottom of roof decking, mechanical ductwork or piping.

### **2.13 OUTLETS**

- A. Outlets shall be galvanized steel or zinc pressed steel outlet boxes for all locations except where otherwise indicated or where cast metal boxes are required by NEC. Boxes are to be 4" square or octagonal, depth as required. Provide plaster or tile rings for all flush outlets installed where wood, drywall tile plaster, etc., types of finishes are applied. All outlets for exterior application shall be cast, weatherproof type, with gasket and coverplate. Tile boxes of extra depth may be used for interior, dry applications where masonry block or brick walls constitute the finished wall surface. In any event, provide outlet boxes of proper type and design for the particular fixture or device to be installed. Boxes shall be as manufactured by Steel City or acceptable equal.
- B. Provide cast iron Type FS, FD in all surface mounted applications U.O.N.
- C. Provide cast/PVC coated iron Type FS, FD where PVC-coated conduit is specified.
- D. Pull Boxes: Provide pull boxes in raceway runs as required by NEC and job conditions. Install in accessible locations.
- E. In any event, provide outlets boxes of proper type and design for the particular fixture or device to be installed. Boxes shall be as manufactured by Appleton, Carlon or acceptable equal.

## **PART 3 - EXECUTION**

### **3.1 CONDUCTORS**

- A. Conductors shall be continuous from outlet to outlet or J-box. Splices shall be held to a minimum. Where necessary, splice in readily accessible pull box, J-box, or outlet box. The joint insulation value shall equal that of the conductor. Splices and connections shall be made in an approved manner.
- B. Install wiring in the raceway systems only after the conduit run has been completed and after such time as conduits have been thoroughly cleaned and dried.
- C. Enclose underground conductors in conduit schedule 40 (or 80) PVC. All secondary and exterior branch circuit conductors to be buried a minimum of 30 inches below finished grade. Provide 2 inches of sand fill (native fill can be used only where prior approved by Owner) above and below conduit and install electrical marker tape 6 inches above all runs. Concrete encase where required by code and as indicated on drawings.
- D. All wire and cable shall be factory color-coded.

- E. High Compression Termination: Provide high compression terminations for connecting smaller conductors to larger for voltage drop issues as shown on drawings. H-type compression tap connectors shall be for copper combinations, sized for correct conductor installation using 15 ton and 12 ton head tools per manufacturer UL listed. Manufacturer Thomas and Betts. Compression taps series 63100 with high compression tool. Provide shop drawings. Provide interlocking insulating hard covers and secure with tape sealant per manufacturer, UL listed. Manufacturer Thomas and Betts Series HTCX00 (H-Tap Insulating Hard Covers), and HSTS25 Series. Provide shop drawings.
- F. Terminations Exterior
  - 1. Terminations shall be silicone filled safety connectors. Connector body shall consist of color-coded shell of non-hygroscopic material, with ribs or wings for easy grip and vibration-absorbing retention fingers. Inside shall be a non-setting, non-conductive, fire-retardant silicone sealant that eliminates the possibility of corrosion and flashover. The connector shall have a plated, conical, square-wire spring to draw in conductors securely as torque is applied.
  - 2. Connectors shall be King Technology's Model King-1, 2, 3, 4, 5, 6, and/or 9 wire connectors for pressure-type locations or accepted equal.
- G. Provide cable wraps (nylon tie wraps) around branch circuit bundles and feeder bundles in all panelboards.

### **3.2 BRANCH CIRCUITS**

- A. Unless otherwise indicated on the Drawings, branch circuit homeruns shall be arranged as follows:
  - 1. For three-wire systems no more than three circuits shall be in a single conduit.
  - 2. For two-wire systems, no more than two circuits shall be in a single conduit. Additional circuits in a common conduit will be allowed provided wires are de-rated according to the NEC.
  - 3. Where homerun circuit numbers are shown on Drawings, such numbers shall be followed in connecting circuits to switchgear and to panelboards.
  - 4. Multiwire branch circuits not permitted, U.O.N. on drawings, provide dedicated neutral conductors.

### **3.3 CONDUITS**

- A. Slab On Grade U.O.N on drawings: Conduits shall not be located in slab or below slabs, but at least 6" below slab, such that saw cutting of floor will not damage conduits.
- B. Route all conduits either parallel or perpendicular to walls and structural members, always avoiding proximity to sources of heat such as flues, hot water lines, etc. Locate raceways so as not to endanger the strength of any structural members. Actual conduit runs are not necessarily indicated, but are to be installed in the most feasible manner compatible with building construction and work of other crafts. Outlets shown connected together must be wired on the same circuit.

- C. Exercise all necessary precautions during the construction period to prevent entry or accumulation of moisture, dust, concrete, and all foreign matter into the raceway system. Prior to pulling in wire and cable, all conduit shall be cleared by pulling a stiff wire brush of same size as the conduit, through the conduit. This cleaning shall be such that it removes all foreign matter, including water, from the conduit. The boxes in which the conduit terminates shall be cleaned of concrete, mortar, or other foreign matter, and all threads in boxes shall be left clean and true upon completion of the work. All conduit installed for future use shall be sealed and shall be left with a suitable pull wire in place.
- D. Each circuit shall be extended from a rigid conduit termination to a motor in a flexible conduit, "Sealtite," or equal. Each circuit shall be installed so that conductors and terminal connections will not be damaged by machine vibration.
- E. All 45-degree and 90-degree bends in conduit 1¼-inch size and larger shall be made with standard conduit elbows. Conduits that are permitted to be bent shall be bent to not less than the same radius as factory conduit fittings. All bends to be made by the use of an approved bending tool. Cut all conduits square and ream all cuts to remove burrs. All bends shall be free from dents or flattened surfaces. Not more than the equivalent of four quarter bends shall be used in any run between terminals at cabinets, outlets, and junction or pull boxes. Boxes shall be located in accessible locations.
- F. Secure all raceway systems in building structure in a rigid and secure manner using approved type fasteners such as "Caddy Clips" or similar type of other manufacturer. The use of wire, plumber's straps, etc., will not be permitted. Locations and spacing of fasteners shall be as required by NEC.
- H. Use approved type couplings and connectors in all conduit runs and make all joints tight. Provide insulated bushings for all terminations. Provide expansion fittings and bonding conductors for all runs which cross expansion joints. Provide waterproof fittings for all runs in wet locations such as exposed to weather, buried in slabs, etc. Fittings shall be as manufactured by O.A., Tomic, Raco, Appleton, Steel City, Thomas and Betts.

### **3.5 PULL BOXES AND PULL BOX COVERS**

- A. Handholes and Boxes for Underground Wiring shall be sized and located as required for application (not necessarily shown on drawings). Provide with gasketed lid and bolted (stainless steel hardware) covers embossed electric. Box shall have 6 – 8" of pea grave installed below box. Box lid shall be flush with finished grade.
  - 1. Handholes and Pull Boxes in Driveway, Parking Lot, and Off-Roadway Locations, Subject to Occasional, Nondeliberate Loading by Heavy Vehicles: Polymer concrete, SCTE 77, Tier 15 structural load rating.

### **3.6 SURFACE MOUNTED RACEWAY**

**BASIC MATERIALS AND METHODS – SECTION 26 01 00**

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- A. Install in all locations where concealed raceway is impossible to install. Obtain Owner permission prior to beginning rough-in.
- B. Support using two hole straps. One hole not acceptable. Route raceway tight to ceiling and wall. Use approved 90 degree fittings.
- C. Paint all raceway, fittings, and J-boxes to match area installed upon.

END OF SECTION 26 01 00

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**PART 1 - GENERAL**

1.1 Furnish and install a complete electrical system as shown on Drawings and Specifications.

**1.2 SUMMARY**

A. This Section includes methods and materials for grounding systems and equipment.

**1.3 SUBMITTALS**

A. Product Data: For each type of product indicated.

B. Other Informational Submittals: Plans showing dimensioned as-built locations of grounding features.

C. Submittals shall comply with requirements indicated in Section 16010.3.1.

**PART 2 – PRODUCTS**

**2.1 CONDUCTORS**

A. Insulated Conductors: copper wire or cable insulated or 600V unless otherwise required by applicable Code or authorities having jurisdiction.

B. Bare Copper Conductors:

1. Solid Conductors: ASTM B 3.

2. Stranded Conductors: ASTM B 8.

3. Bonding Cable: 28 kcmil, 14 strand of No. 17 AWG conductor, 1/4 inch (6 mm) in diameter.

**2.2 CONNECTORS**

A. Listed and labeled by a NRTL acceptable to authorities having jurisdiction for applications in which used, and for specific types, sizes, and combinations of conductors and other items connected.

B. Bolted Connectors for Conductors and Pipes: Copper or copper alloy, bolted pressure-type, with at least two bolts.

1. Pipe Connectors: Clamp type, sized for pipe.

2. Flat Structural Steel: Burndy type QGFL, sized for conductor.

C. Welded connectors: Exothermic-welding kits of types recommended by kit manufacturer for materials being joined and installation conditions.

D. Grounding bushings shall be OZ/Gedney type BLG.

E. Grounding bushings are required on all feeders, both ends of all transitions.

**PART 3 - EXECUTION**

### **3.1 GROUNDING SYSTEM**

- A. Ground the entire electrical distribution system, including all raceways, outlets, fixtures, equipment, etc., in full accord with NEC.
- B. Provide separate grounding conductor in all raceways.
- C. Provide separate grounding jumper from the grounding screw of all receptacle devices to the metallic box in which mounted. Jumper may attach to box with a separate grounding screw or clip device. Jumpers may not be eliminated if approved self-grounding devices are used.
- D. Provide separate bonding conductor, bare copper, for runs of flexible conduit where required by NEC.
- E. All conductors used for grounding and bonding purposes shall be copper, insulated green, only.
- F. Provide a separate grounding jumper for all dielectric unions in fresh water system of same size as main service ground.
- G. Provide a 3/4" diameter by 10' Cu clad steel driven ground rod to the main distribution center in accordance with Article 250 of the NEC.
- H. All ground busses used in distribution equipment and panels shall be copper.
- I. Provide Grounding Bushing on both ends of all feeder conduits – both sides of all transitions.

### **3.2 INSTALLATION**

- A. Grounding Conductors: Route along shortest and straightest paths possible, unless otherwise indicated or required by Code. Avoid obstructing access or placing conductors where they may be subjected to strain, impact, or damage.
- B. Ground Rods: Drive rods until tops are 2 inches above finished floor or 2 inches below finished grade (in recessed ground well), unless otherwise indicated.
  - 1. Interconnect ground rods with grounding electrode conductor.
  - 2. Install outdoor ground rods in suitable recessed well with bolted cover; fill with gravel after connection is made.
  - 3. Ground rods must be installed in a location where they do not create a tripping hazard.

### **3.3 OWNER FURNISHED EQUIPMENT**

- A. Provide all power feeders and make complete final connections to all equipment. Equipment will be furnished and set by others. Provide all necessary raceways, outlets, disconnects, receptacles, cords, pigtails, etc., as required for complete connections of all equipment and related controls. All rough-in requirements

shall be verified with owner prior to beginning work. All dimensional data and electrical characteristics shall be verified from approved Shop Drawings. All final connections shall be accomplished per manufacturers' recommendations. All work shall be coordinated with equipment providers prior to beginning rough-in.

END OF SECTION 26 04 00

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**PART 1 - GENERAL**

**1.1 GENERAL**

- A. The entire electrical system shall be left in first-class workable operating condition and all work shall be complete.

**PART 2 - PRODUCTS**

**2.1 DIRECTORY CARDS**

- A. Provide labels and neatly typed directory cards for all panelboards and loadcenters. Directory cards shall indicate the general area and type of electrical load served by each circuit.

**PART 3 - EXECUTION**

**3.1 CLEAN UP**

- A. Remove all materials, scrap, etc., relative to the electrical installation and leave the premises in a clean, orderly condition. Any costs to Owner for clean-up of the site will be charged against Contractor.
- B. Clean all electrical equipment and materials of all foreign matter. Clean all light fixtures using only methods and materials as recommended by Manufacturer.

**3.2 TESTING**

- A. When the entire electrical systems have been completed, the Contractor shall test the wiring and shall notify the Engineer when such tests are to be performed. The Contractor will be required to furnish apparatus necessary for the testing and shall have the systems in proper condition for service with all circuits suitably identified and tagged. The systems shall be entirely free from unintentional grounds, short circuits, and other defects. After the motors, controls, and all other current consuming devices have been connected to the system, the Contractor shall again go over the systems and satisfy the Engineer as to their proper operation, including the proper rotation of all motors. The grounding system shall be installed and completely tested prior to testing the electrical systems.
- B. The Contractor shall be responsible and coordinate proper phase rotation connections made by the serving utility company prior to energizing main service equipment.

**3.3 ACCEPTANCE DEMONSTRATION**

- A. Upon completion of the work, at a time to be designated by Owner. Contractor shall demonstrate to Owner the operation of the entire electrical installation, including any and all special systems provided under this contract. Provide instruction manuals to owner for all equipment installed on project.

- B. A minimum of three (3) copies of Operations and Maintenance Manuals shall be provided. The information shall include “as-built” detailed wiring diagrams of all control devices and equipment furnished, as well as configuration data and instrument calibration data/parameters.

**3.4 TEMPORARY WIRING**

- A. Remove all temporary wiring, outlets, etc., complete.

**3.5 DRAWINGS**

- A. Deliver "Record" Drawings to Owner.

END OF SECTION 26 09 00



GENERAL CONSTRUCTION NOTES	
1.	THE ELECTRICAL CONTRACTOR SHALL VERIFY THAT ALL ELECTRICAL ITEMS TO REMAIN OR BE RELOCATED AND REUSED ARE IN WORKING ORDER PRIOR TO ANY DEMOLITION WORK. IF THE EXISTING MATERIAL IS FOUND TO BE INOPERABLE, CONTRACTOR SHALL INFORM THE OWNER. ONCE ANY DEMOLITION WORK HAS BEGUN, ANY INOPERABLE OR DAMAGED MATERIAL SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S EXPENSE.
2.	VERIFICATION OF EXISTING CONDITIONS. "IN AS MUCH AS THE REMODELING AND/OR REHABILITATION OF THE EXISTING EQUIPMENT REQUIRES THAT CERTAIN ASSUMPTIONS BE MADE REGARDING EXISTING CONDITIONS, AND BECAUSE SOME OF THESE ASSUMPTIONS MAY NOT BE VERIFIABLE WITHOUT DESTROYING OTHERWISE ADEQUATE OR SERVICEABLE PORTIONS OF THE EQUIPMENT, THE GENERAL CONTRACTOR AGREES THAT, EXCEPT FOR NEGLIGENCE ON THAT PART OF THE DESIGN PROFESSIONAL THE CONTRACTOR WILL HOLD HARMLESS, INDEMNIFY AND DEFEND THE DESIGN PROFESSIONAL FROM AND AGAINST ANY AND ALL CLAIMS ARISING OUT OF THE PROFESSIONAL SERVICES PROVIDED."
3.	ANY ELECTRICAL ITEMS SHOWN OR NOT SHOWN ON THE PLANS, OR WHERE CIRCUITS ARE REMOVED BY DEMOLITION, SHALL UPON COMPLETION OF REMODEL WORK BE LEFT IN WORKING CONDITION.
4.	ALL PHASES OF THE ELECTRICAL WORK SHALL BE COORDINATED WITH THE OWNER. WORK SHALL BE DONE IN A FASHION TO CAUSE AS LITTLE INCONVENIENCE AS POSSIBLE TO THE OWNER.
5.	ELECTRICAL DEVICES NOTED TO BE REMOVED SHALL BE REMOVED BACK TO A POINT WHERE EXISTING CONDUIT CAN BE ABANDONED IN CONCEALED SPACES. REMOVE ALL WIRING FROM ABANDONED CONDUIT.
6.	ELECTRICAL CONTRACTOR SHALL NOT DEFACE ANY AREAS WHERE REMODELING IS NOT BEING DONE.
7.	THE ELECTRICAL CONTRACTOR SHALL BE ON SITE DURING ALL ELECTRICAL INSPECTIONS. NO ADDITIONAL FEES OR OVERTIME WILL BE PAID FOR AFTER HOURS INSPECTIONS.
8.	RACEWAYS: ALL CONDUIT SHALL BE CONCEALED WHEREVER POSSIBLE.
9.	ROUTING OF EXISTING CONCEALED CONDUIT NOT KNOWN. LOCATION DETERMINED BY ELECTRICAL CONTRACTOR. ELECTRICAL CONTRACTOR SHALL RE-CIRCUIT AS NOTED UTILIZING ANY EXISTING CONDUIT. HE SHALL REMOVE EXISTING WIRE AND RE-PULL NEW. ALL NEW CONDUIT ADDED SHALL BE CONCEALED WHEREVER POSSIBLE.
10.	TERMINATING AND SPLICING: MAKE ALL JOINTS AND SPLICES IN BRANCH CIRCUIT WIRING WITH APPROVED SOLDERLESS TOOL APPLIED OR TWIST-ON CONNECTORS, IN THE VARIOUS BOXES, GUTTERS, AND SIMILAR LOCATIONS, BUT NOT IN RACEWAYS. LEAVE SUFFICIENT SLACK TO PERMIT TWO (2) OR MORE SPLICES OR JOINTS TO BE REMADE IN CASE OF FAULT.
11.	MC OR AC CONDUIT WILL NOT BE ALLOWED ON THIS PROJECT. ENT WILL NOT BE ALLOWED ON THIS PROJECT. FLEX CONDUIT OR FIXTURE WHIPS, LONGER THAN SIX FEET, WILL NOT BE ALLOWED ON THIS PROJECT. WIRE SPLICES IN CONDUIT BODIES ARE NOT ALLOWED ON THIS PROJECT.
12.	NM (ROMEX CABLE) WILL NOT BE ALLOWED ON THIS PROJECT.
13.	ALL ABOVE GRADE OUTLETS AND JUNCTION BOXES SHALL BE METAL. THE USE OF FIBER/NYLON OR PLASTIC BOXES SHALL NOT BE ALLOWED.
14.	ELECTRICAL CONTRACTOR SHALL RECEIVE, FROM SYSTEM SUPPLIERS, ALL WIRING DIAGRAMS FOR ALL EQUIPMENT. PRIOR TO ANY ROUGH-IN, TO ASSURE PROPER ELECTRICAL CHARACTERISTICS ARE PROVIDED. ELECTRICAL CONTRACTOR SHALL PROVIDE ARCHITECT WRITTEN NOTIFICATION PRIOR TO ROUGH-IN, THAT ALL WIRING DIAGRAMS HAVE BEEN RECEIVED AND REVIEWED FOR CORRECTNESS. ANY INCORRECT WIRING OR DEVICES INSTALLED BY ELECTRICAL CONTRACTOR WITHOUT WIRING DIAGRAMS SHALL BE CORRECTED AT ELECTRICAL CONTRACTOR'S EXPENSE.
15.	EXACT ELECTRICAL DEMOLITION REQUIREMENTS NOT SHOWN ON THE DRAWINGS. ELECTRICAL CONTRACTOR SHALL VISIT THE SITE PRIOR TO BIDDING TO DETERMINE EXACT DEMOLITION WORK TO BE DONE AND SHALL INCLUDE ALL DEMOLITION COSTS IN THEIR BID.
16.	PROVIDE BLANK COVER PLATES AND INSTALL THEM ON ALL UNUSED ROUGH-INS.
17.	INSTALL PIGTAIL AT ALL RECEPTACLES FOR FINAL CONNECTIONS.
18.	ELECTRICAL DRAWINGS ARE DIAGRAMMATIC ONLY. EXACT LOCATION OF ALL SYSTEMS AND EQUIPMENT SHALL BE FIELD VERIFIED AND COORDINATED WITH OTHER TRADES PRIOR TO ANY INSTALLATION.
19.	CALL UTILITY COMPANIES (POWER, GAS, WATER, SEWER, TELEPHONE, CABLE TV, ETC.) IN ADVANCE BEFORE TRENCHING FOR THE MARKING OF THEIR UNDERGROUND UTILITIES. ALSO CONTRACTOR SHALL LOCATE ALL ON-SITE UTILITIES SUCH AS SECONDARY SERVICE FEEDERS, UNDERGROUND ELECTRICAL BRANCH CIRCUITS, SPRINKLER LINES, ETC. PRIOR TO TRENCHING. ANY CUT OR DAMAGED UNDERGROUND UTILITIES SHALL BE REPAIRED OR REPLACED AT CONTRACTOR'S EXPENSE.
20.	ABOVE GRADE CONDUIT SHALL BE GRC, BELOW GRADE SHALL BE PVC. TRANSITIONS FROM BELOW GRADE TO ABOVE GRADE SHALL BE MADE USING PVC COATED GRC.
21.	ALL WIRING INCLUDING SPECIAL SYSTEMS/LOW VOLTAGE THAT IS IN AN EXPOSED CEILING AREA SHALL BE IN CONDUIT. ALL SPLICES SHALL BE IN J-BOXES.
22.	PHASE PROTECTION: ALL MOTORS USING 3 PHASE POWER AND ALL 3 PHASE AIR CONDITIONING UNITS SHALL HAVE PROTECTION FOR PHASE REVERSAL, LOSS OF PHASE OR PHASE UNBALANCE OF 10% VOLTAGE DROP OR GREATER ON ANY ONE PHASE. MANUFACTURED BY TIME MARK SERIES 2644.
23.	MULTI-WIRE BRANCH CIRCUITS ARE NOT PERMITTED U.O.N. ON DRAWINGS AS SUCH. WHERE THEY ARE INSTALLED THEY SHALL BE COMMON TRIP OR HAVE HANDLE TIES AS REQUIRED BY 2011 N.E.C.
24.	THESE DRAWINGS ARE SUBJECT TO AN APPROVAL OF THE BUILDING DEPARTMENT, FIRE MARSHAL, UTILITY COMPANY, AND OTHER AGENCIES AUTHORITY HAVING JURISDICTION (AHJ). BY THE ACT OF SUBMITTING A BID PROPOSAL FOR WORK, THE CONTRACTOR HAS REVIEWED THE PLANS THOROUGHLY AND ACCEPTS FULL RESPONSIBILITY OF PLAN CORRECTIONS AND ASSOCIATED CONSTRUCTION COSTS REQUIRED BY AHJ.

ELECTRICAL ABBREVIATIONS	
AC	ABOVE COUNTER
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMP. INTERRUPTING CAPACITY
AL	ALUMINUM
ANN	ANNUNCIATOR
ARCH	ARCHITECT
BFG	BELOW FINISHED GRADE
BKR	BREAKER
BTM	BOTTOM
BWE	BAKED WHITE ENAMEL
C	CONDUIT
CATV	CABLE TELEVISION
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CLG	CEILING
CP	CONTROL PANEL
CR	CONTROL RELAY
CT	CURRENT TRANSFORMER
CU	COPPER
DISC	DISCONNECT
DN	DOWN
DPDT	DOUBLE POLE DOUBLE THROW
DPST	DOUBLE POLE SINGLE THROW
EB	ELECTRONIC BALLAST
EC	ELECTRICAL CONTRACTOR
ELEC	ELECTRICAL
EM	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
E.O.L.	ELECTRICAL OVERLOAD
EWC	ELECTRICAL WATER COOLER
EXIST, EX, (E)	EXISTING
F	FUSED
FLA	FULL LOAD AMPERAGE
FLR	FLOOR
FLUOR	FLUORESCENT
FSP	DELUGE SYSTEM CONTROL PANEL
GC	GENERAL CONTRACTOR
GFI	GROUND FAULT INTERRUPTER
GRC	GALVANIZED RIGID CONDUIT
GRD	GROUND
GRP	GROUND FAULT PROTECTED RECEPTACLE
HOA	HAND-OFF-AUTO
HOR	HAND-OFF-REMOTE
IG	ISOLATED GROUND
J-BOX	JUNCTION BOX
LOC	LOCATION
LTG	LIGHTING
LTF	LIQUID TIGHT FLEXIBLE CONDUIT
LTS	LIGHTS
MC	MECHANICAL CONTRACTOR

MCB	MAIN CIRCUIT BREAKER
MCP	MOTOR CIRCUIT PROTECTOR
MCS	MOLDED CASE SWITCH
MDP	MAIN DISTRIBUTION PANEL
MECH	MECHANICAL
MH	MOUNTING HEIGHT
MLO	MAIN LUG ONLY
MTD	MOUNTED
(N)	NEW
NF	NON FUSED
N.T.S.	NOT TO SCALE
NL	NIGHT LIGHT
OCPP	OVER CURRENT PROTECTIVE DEVICE
PB	PUSH BUTTON
PC	PHOTO CELL
PH	PHASE
PNL	PANEL
PT	POTENTIAL TRANSFORMER
PWR	POWER
RECEPT, RCPT, REC	RECEPTACLE
RL	RELOCATE
RT	RAIN TIGHT, NEMA 3R
S/N	SOLID NEUTRAL
S/S	START/STOP
S-SW	SAFETY SWITCH
SCA	SHORT CIRCUIT AVAILABLE
SPC	SPACE
SPD	SURGE PROTECTION DEVICE (SPD)
SPDT	SINGLE POLE DOUBLE THROW
SPST	SINGLE POLE SINGLE THROW
SPR	SPARE
SW	SWITCH
T-STAT	THERMOSTAT
TBD	TO BE DETERMINED
TC	TIME CLOCK
TTB	TELEPHONE TERMINAL BACKBOARD
TYP	TYPICAL
U.O.N.	UNLESS OTHERWISE NOTED
UC	UNDER COUNTER
V	VOLTS
VA	VOLT-AMPERES
VAC	VOLTS-ALTERNATING CURRENT
VFD	VARIABLE FREQUENCY DRIVE
W	WATTS
W/	WITH
W/O	WITHOUT
WG	WIRE GUARD
WP	WEATHERPROOF
XFMR	TRANSFORMER

NOTE: THIS IS A COMPREHENSIVE LEGEND AND ABBREVIATIONS LIST AND ALL SYMBOLS SHOWN MAY NOT APPEAR ON DRAWINGS.

ELECTRICAL LEGEND	
	FLAG NOTE
	MECHANICAL EQUIPMENT SYMBOL
	SPECIAL EQUIPMENT SYMBOL
	INDICATES AIMING DIRECTION
	INDICATES EXISTING DEVICE TO REMAIN
	INDICATES EXISTING DEVICE TO BE REMOVED
	EXISTING CIRCUIT RUN TO REMAIN
	EXISTING CIRCUIT RUN TO BE REMOVED
	HOME RUN (PROVIDE DEDICATED NEUTRALS MULTI-WIRE BRANCH CIRCUITS NOT ALLOWED)
	A - PANEL DESIGNATION
	1,3,5 - CIRCUIT NUMBER, 6 CONDUCTORS U.O.N.
	TRANSFORMER
	WEATHERHEAD
	MAIN DISTRIBUTION PANEL
	SWITCH AND FUSE
	CIRCUIT BREAKER
	CT'S
	PT'S
	GROUND
	METER
	ELECTRICAL PANEL
	NOTE: ALL SWITCHES SHALL BE MOUNTED AT 48" AFF TO TOP OF BOX (U.O.N.)
	SINGLE POLE SWITCH, 20 AMP U.O.N.
	DOUBLE POLE SWITCH, 20 AMP U.O.N.
	3 - WAY SWITCH, 20 AMP U.O.N.
	SINGLE POLE SWITCH, 20 AMP U.O.N. 3 - THREE WAY, 0 - SWITCHING
	4 - WAY SWITCH, 20 AMP U.O.N.
	KEYED SWITCH, 20 AMP U.O.N.
	PILOT SWITCH, 20 AMP U.O.N. SWITCH ON, LIGHT ON
	SWITCH WITH THERMAL OVERLOAD, 20 AMP U.O.N.
	SWITCHED FUSED, 20 AMP U.O.N.
	SWITCH VARIABLE SPEED
	SWITCH LOW VOLTAGE
	DIMMER SWITCH AS NOTED, 20 AMP U.O.N.
	COMBINATION SWITCH/RECEPTACLE
	SINGLE RECEPTACLE, + 16" AFF TO BOTTOM OF BOX (U.O.N.)
	DUPLEX RECEPTACLE, + 16" AFF TO BOTTOM OF BOX (U.O.N.)
	DUPLEX RECEPTACLE, INDIVIDUAL GROUND FAULT RECEPTACLE
	DOUBLE DUPLEX RECEPTACLE, + 16" AFF TO BOTTOM OF BOX (U.O.N.)
	DUPLEX RECEPTACLE, SPLIT WIRED
	COMBINATION CCTV/CATV WITH DUPLEX RECEPTACLE, + 72" AFF TO BOTTOM OF BOX (U.O.N.)
	J-BOX: CEILING
	J-BOX: WALL
	PUSH BUTTON STATION
	MOTOR OUTLET AND CONNECTION
	MAGNETIC STARTER OR CONTACTOR
	DISCONNECT SWITCH
	F - FUSED

ELECTRICAL DRAWING INDEX	
E0	GENERAL CONSTRUCTION NOTES AND LEGEND
E1	NORTH ELECTRICAL ONE-LINE AND PANELS
E2	SOUTH ELECTRICAL ONE-LINE AND PANELS

**GREELEY LINCOLN PARK - CABINET REPLACEMENT**  
 GREELEY, COLORADO



JOB	19010
DATE	06/25/2019
DRAWN	CAD
CHECKED	TP

GENERAL CONSTRUCTION NOTES AND LEGEND

CITY OF GREELEY  
 BUILDING INSPECTION DEPARTMENT  
 REVIEWED AS TO  
 CONFORMANCE WITH THE 2017 NEC  
 DATE: July 10, 2019 BY: REE

E0



# GREELEY LINCOLN PARK - CABINET REPLACEMENT

GREELEY, COLORADO



JOB 19010  
DATE 06/25/2019  
DRAWN CAD  
CHECKED TP

NORTH ELECTRICAL ONE-LINE AND PANELS

E1

120/240 Voltage		Panel		Exist. PB1		Surface		Mountings	
1 Phase, 3 Wire		AIC		4		125AMCB		Mains	
NEMA 1 Enclosure Rating				100%		Neutral Rating		No Isolated Ground Bar	
Description	Load (kW)	BKR	CKT #	PH	CKT #	BKR	Load (kW)	Description	
Main	125/2	1	A	2	20/1			Sprinkler Controls	
	/2	3	B	4	20/1			Walk Way Ls Contact	
120V Contactor/Ctrl	15/1	5	A	6	40/1			Walk Way Lights	
Surge Arrester	30/2	7	B	8	40/1			Walk Way Lights	
	/2	9	A	10	20/1			GFI Rcpts	
Space		11	B	12				Space	
Space		13	A	14				Space	
Space		15	B	16				Space	
Space		17	A	18				Space	
Space		19	B	20				Space	
Space		21	A	22				Space	
Space		23	B	24				Space	

120/240 Voltage		Panel		Exist. PB2		Surface		Mountings	
1 Phase, 3 Wire		AIC		4		225AMCB		Mains	
NEMA 1 Enclosure Rating				100%		Neutral Rating		No Isolated Ground Bar	
Description	Load (kW)	BKR	CKT #	PH	CKT #	BKR	Load (kW)	Description	
PED #5	125/2	1	A	2	125/2			PED #8	
	/2	3	B	4	/2			PED #4	
PED #6	125/2	5	C	6	125/2			PED #1	
	/2	7	A	8	/2			PED #2	
PED #7	125/2	9	B	10	125/2			PED #9	
	/2	11	C	12	/2				
PED #3	125/2	13	A	14	125/2				
	/2	15	B	16	/2				
PED #9	100/2	17	C	18	100/2				
	/2	19	A	20	/2				
Used	20/1	21	B	22	50/2				
Space		23	C	24	/2				
Space		25	A	26	50/2				
Space		27	B	28	/2				
Space		29	C	30	100/2				
Space		31	A	32	/2				
Space		33	B	34	100/2				
Space		35	C	36	/2				
Space		37	A	38					
Space		39	B	40					
Space		41	C	42					

120/240 Voltage		Panel		NEW PB1		Surface		Mountings	
1 Phase, 3 Wire		AIC		22000 @ 240V		125AMCB		Mains	
NEMA 1 Enclosure Rating				100%		Neutral Rating		No Isolated Ground Bar	
Description	Load (kW)	BKR	CKT #	PH	CKT #	BKR	Load (kW)	Description	
SPACE		1	A	2	20/1			Sprinkler Controls	
SPACE		3	B	4	20/1			Walk Way Contact	
120V CONTACTOR/CTRL	15/1	5	A	6	40/1			Walk Way Lights	
SURGE ARRESTER	30/2	7	B	8	40/1			Walk Way Lights	
	/2	9	A	10	20/1			SPARE	
Space		11	B	12	20/1			SPARE	
Space		13	A	14	20/1			SPARE	
Space		15	B	16				Space	
Space		17	A	18				Space	
Space		19	B	20				Space	
Space		21	A	22				Space	
Space		23	B	24				Space	
Space		25	A	26				Space	
Space		27	B	28				Space	
Space		29	A	30				Space	

120/240 Voltage		Panel		NEW PB2		Surface		Mountings	
1 Phase, 3 Wire		AIC		22000 @ 240V		225AMCB		Mains	
NEMA 1 Enclosure Rating				100%		Neutral Rating		No Isolated Ground Bar	
Description	Load (kW)	BKR	CKT #	PH	CKT #	BKR	Load (kW)	Description	
PED #5	125/2	1	A	2	125/2			PED #8	
	/2	3	B	4	/2			PED #4	
PED #6	125/2	5	A	6	125/2			PED #1	
	/2	7	B	8	/2			PED #2	
PED #7	125/2	9	A	10	125/2			PED #9	
	/2	11	B	12	/2				
PED #3	125/2	13	A	14	125/2				
	/2	15	B	16	/2				
PED #9	100/2	17	A	18	100/2				
	/2	19	B	20	/2				
Used	20/1	21	A	22	50/2				
GFI RCPTS	20/1	23	B	24	/2				
SPARE	20/1	25	A	26	50/2				
SPARE	20/1	27	B	28	/2				
SPARE	20/1	29	A	30	100/2				
Space		31	B	32	/2				
Space		33	A	34	100/2				
Space		35	B	36	/2				
Space		37	A	38					
Space		39	B	40					
SPD	30/2	41	A	42					
	/2								

**SERIES RATING APPLICATION**

Where series rating combinations are permitted on the plans, the loadside circuit breakers supplied shall be tested and listed as a series combination with the line side feeder fuses per the plans. Panelboards with series rated loadside circuit breakers shall have a manufacturer's label stating the listing for the series combination interrupting rating for the loadside circuit breakers and the lineside fuse (or circuit breaker) combination, in compliance with NEC Section 240-86. This series rating shall be equal to or greater than the available short-circuit current.

Where series rated combinations are utilized, the electrical contractor shall affix field installed labels to the loadside circuit breaker panelboard and feeder switch/panelboard/switchboard, in compliance with NEC Section 110-22. As required in Section 110-22, the loadside panelboard/switchboard label shall be field marked with the short-circuit rating of the series combination, type circuit breaker for replacement, part number for the series rated lineside, feeder fuses and location/name of this fuse switch/panelboard/switchboard. The panel/switch with the lineside fuses (or circuit breaker) shall be field marked with short-circuit rating of the series combination, part number for fuse (or circuit breaker) replacement and the location/name of loadside, series rated panelboard/switchboard.

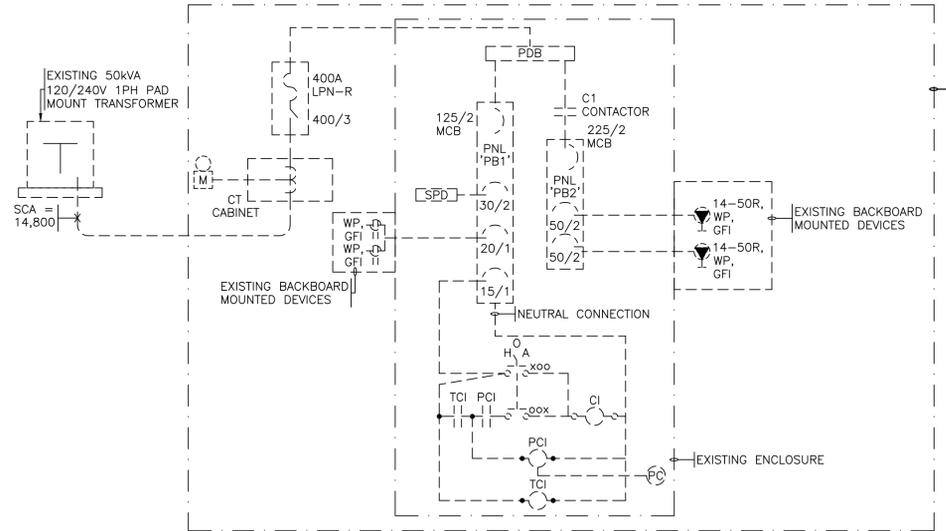
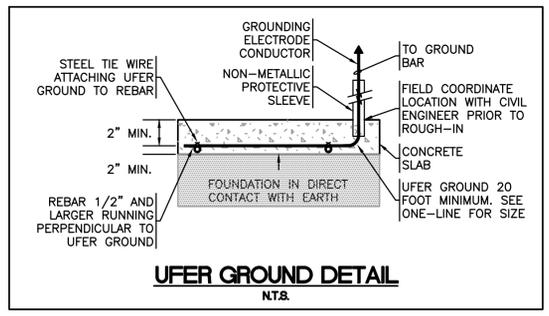
If the manufacturer/supplier/installer cannot supply tested and listed series rated combinations of the specified loadside circuit breakers with the specified line side fuses, it is their responsibility to provide loadside circuit breakers that have fully rated interrupting ratings equal to or greater than the short-circuit current available at the loadside circuit breakers.

**FEEDER SCHEDULE**

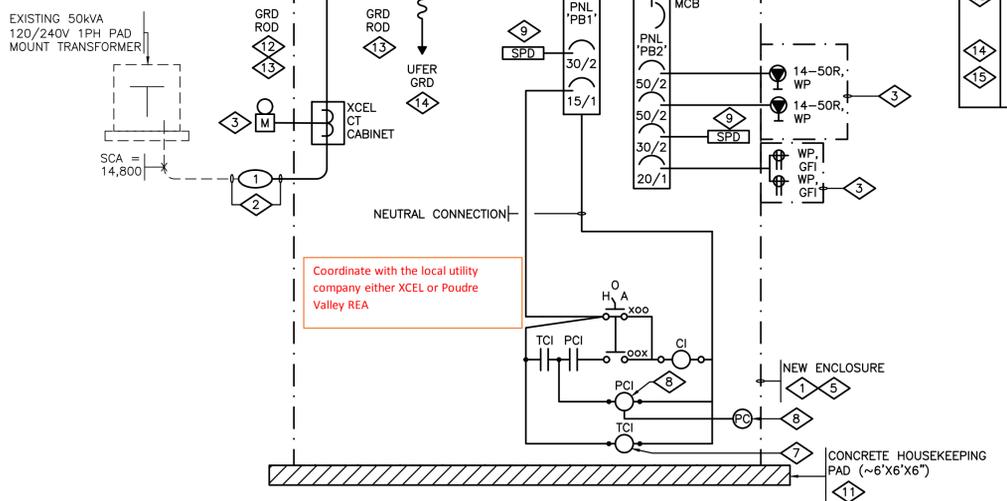
KEY	DESCRIPTION
1	2 RUNS[(4 #3/0 CU THWN) 2 1/2" C.]
2	(#4 CU GRD) 3/4" C.
3	(#1/0 CU GRD) 1" C.

NOTE:  
CONTRACTOR TO INCLUDE IN BID FOR CONNECTING EXISTING UNDERGROUND CIRCUITS  
(2) OPEN BOTTOM BOXES QUAZITE #PG3048BA24 AND  
(2) COVERS QUAZITE #PG3048HH0017 ANSI TIER 15, 22,500 LBS WITH ELECTRICAL MARKED ON LID.

- FLAG NOTES - THIS SHEET ONLY**
- ALL COMPONENTS SHOWN SHALL BE INSTALLED IN A MINT GREEN ALUMINUM NEMA 3R ENCLOSURE WITH PAD-LOCKING FLIP LATCHES. TO BE PROVIDED BY DELANDSHEER SALES: 303-202-2990.
  - REUSE EXISTING CONDUIT WHERE POSSIBLE. INSTALL NEW AS REQUIRED. INSTALL ALL NEW WIRING.
  - DEVICES TO BE MOUNTED ON NEW ENCLOSURE - ACCESSIBLE WITHOUT UNLOCKING DOORS. RECEPTACLES SHALL HAVE CAST WEATHERPROOF, WHILE IN-USE COVERPLATES.
  - REMOVE ALL DEVICES - ALL DEVICES NOT WANTED BY OWNER TO BE DISPOSED OF BY EC. CONTRACTOR TO COORDINATE WITH OWNER.
  - ALL EXISTING UNDERGROUND CONNECTIONS TO REMAIN - EC TO RECONNECT. DO NOT SPLICE WITHOUT PRIOR APPROVAL FROM OWNER.
  - LOADS TO BE SUPPLIED INTEGRAL TO ENCLOSURE, FACTORY WIRED.
  - TORK EW2201C, TO BE INTEGRAL TO ENCLOSURE.
  - PHOTOCELL SOCKET BY MANUFACTURER - EC TO PROVIDE PHOTOCELL (120V TORK OR APPROVED EQUAL).
  - SPD SHALL BE INTEGRAL TO ENCLOSURE - ASCO #510120SP13AWAJI.
  - EC SHALL REVIEW ALL EXISTING CONDITIONS PRIOR TO DEMOLITION OR ORDER OF NEW EQUIPMENT - NOTIFY ENGINEER OF ANY DISCREPANCIES OF EXISTING CONDITIONS/EQUIPMENT ACCORDINGLY.
  - CONCRETE PAD DESIGN BUILD BY CONTRACTOR. CONTRACTOR SHALL PROVIDE COLORADO PE STAMPED CONCRETE HOUSEKEEPING PAD DESIGN TO ACCOMMODATE EQUIPMENT. PAD SHALL EXTEND NO LESS THAN 6" BEYOND EDGE OF EQUIPMENT ON ALL SIDES.
  - 3/4" CU CLAD STEEL GROUND ROD - UL LISTED.
  - INSTALL IN TRAFFIC RATED QUAZITE TIER 15 RATED GROUND WELL. PROVIDE WITH "ELECTRIC" EMBOSSED LID AND STAINLESS STEEL SECURING HARDWARE.
  - INSTALL UFER GROUND IN NEW CONCRETE PAD.
  - TWO LOADS WITH SAME NAME, EC TO IDENTIFY AND RENAME CORRECTLY.



EXISTING NORTH ELECTRICAL ONE-LINE



REVISED NORTH ELECTRICAL ONE-LINE

Identify all electrical equipment per the NEC

CITY OF GREELEY  
BUILDING INSPECTION DEPARTMENT  
REVIEWED AS TO  
CONFORMANCE WITH THE 2017 NEC  
DATE: July 10, 2019 BY: REE



# GREELEY LINCOLN PARK - CABINET REPLACEMENT

GREELEY, COLORADO



JOB 19010  
DATE 06/25/2019  
DRAWN CAD  
CHECKED TP

SOUTH ELECTRICAL  
ONE-LINE AND PANELS

E2

120/240 Voltage		Panel		Exist. PB1		Surface		Mountings	
1 Phase, 3 Wire		AIC		10000 @ 240V		125A MCB		Mains	
NEMA 1 Enclosure Rating				100% Neutral Rating		No Isolated Ground Bar			
Description	Load (kW)	BKR	CKT #	PH	CKT #	BKR	Load (kW)	Description	
Main	125/2	1	A	2				Space	
	/2	3	B	4				Space	
Gazzebo	100/2	5	A	6				Space	
	/2	7	B	8				Space	
120V Contactor	15/1	9	A	10				Space	
Space		11	B	12				Space	
Space		13	A	14				Space	
Space		15	B	16	20**1			Fountain Recirc Pump	
Space		17	A	18	30**1			Fountain Main Pump	
Space		19	B	20				Space	
Space		21	A	22				Space	
Space		23	B	24				Space	

\*\*=GFI BREAKER.

120/240 Voltage		Panel		Exist. PB2		Surface		Mountings	
1 Phase, 3 Wire		AIC		10000 @ 240V		225A MCB		Mains	
NEMA 1 Enclosure Rating				100% Neutral Rating		No Isolated Ground Bar			
Description	Load (kW)	BKR	CKT #	PH	CKT #	BKR	Load (kW)	Description	
PED #4	125/2	1	A	2			125/2	PED #5	
	/2	3	B	4			/2		
PED #2	125/2	5	A	6			125/2	PED #6	
	/2	7	B	8			/2		
PED #7	125/2	9	A	10			20/1	Used	
	/2	11	B	12			50A Rcpt		
PED #1	125/2	13	A	14			/2		
	/2	15	B	16			50A Rcpt		
PED #3	125/2	17	A	18			/2		
	/2	19	B	20				Space	
Space		21	A	22				Space	
Space		23	B	24				Space	
Space		25	A	26				Space	
Space		27	B	28				Space	
Space		29	A	30				Space	
Space		31	B	32				Space	
Space		33	A	34				Space	
Space		35	B	36				Space	
Space		37	A	38				Space	
Space		39	B	40				Space	
Space		41	A	42				Space	

\*\*=GFI BREAKER.

120/240 Voltage		Panel		NEW PB1		Surface		Mountings	
1 Phase, 3 Wire		AIC		22000 @ 240V		125A MCB		Mains	
NEMA 1 Enclosure Rating				100% Neutral Rating		No Isolated Ground Bar			
Description	Load (kW)	BKR	CKT #	PH	CKT #	BKR	Load (kW)	Description	
SPACE		1	A	2			20/1	SPACE	
SPACE		3	B	4				SPACE	
Gazzebo	100/2	5	A	6				SPACE	
	/2	7	B	8				SPACE	
120V Contactor	15/1	9	A	10				SPACE	
SPARE	15/1	11	B	12				SPACE	
SPARE	20/1	13	A	14				SPACE	
SPARE	20/1	15	B	16	20**1			Fountain Recirc Pump	
SPARE	20/1	17	A	18	30**1			Fountain Main Pump	
Space		19	B	20				Space	
Space		21	A	22				Space	
Space		23	B	24				Space	
Space		25	A	26				Space	
Space		27	B	28				Space	
SPD	30/2	27	B	28				Space	
	/2	29	A	30				Space	

\*\*RECEPTACLES TO BE LOCATED ON EQUIPMENT ENCLOSURE (BY MANF.) ACCESSIBLE FROM EXTERIOR.  
\*\*=GFI BREAKER.

120/240 Voltage		Panel		NEW PB2		Surface		Mountings	
1 Phase, 3 Wire		AIC		22000 @ 240V		225A MCB		Mains	
NEMA 1 Enclosure Rating				100% Neutral Rating		No Isolated Ground Bar			
Description	Load (kW)	BKR	CKT #	PH	CKT #	BKR	Load (kW)	Description	
PED #4	125/2	1	A	2			125/2	PED #5	
	/2	3	B	4			/2		
PED #2	125/2	5	A	6			125/2	PED #6	
	/2	7	B	8			/2		
PED #7	125/2	9	A	10			20/1	Used	
	/2	11	B	12			50A Rcpt		
PED #1	125/2	13	A	14			/2		
	/2	15	B	16			50A Rcpt		
PED #3	125/2	17	A	18			/2		
	/2	19	B	20			15/1	SPARE	
Space		21	A	22				Space	
Space		23	B	24				Space	
Space		25	A	26				Space	
Space		27	B	28				Space	
Space		29	A	30				Space	
Space		31	B	32				Space	
Space		33	A	34				Space	
Space		35	B	36				Space	
Space		37	A	38				Space	
SPD	30/2	39	B	40				Space	
	/2	41	A	42				Space	

\*\*RECEPTACLES TO BE LOCATED ON EQUIPMENT ENCLOSURE (BY MANF.) ACCESSIBLE FROM EXTERIOR.

**SERIES RATING APPLICATION**

Where series rating combinations are permitted on the plans, the loadside circuit breakers supplied shall be tested and listed as a series combination with the line side feeder fuses per the plans. Panelboards with series rated loadside circuit breakers shall have a manufacturer's label stating the listing for the series combination interrupting rating for the loadside circuit breakers and the lineside fuse (or circuit breaker) combination, in compliance with NEC Section 240-86. This series rating shall be equal to or greater than the available short-circuit current.

Where series rated combinations are utilized, the electrical contractor shall affix field installed labels to the loadside circuit breaker panelboard and feeder switch/panelboard/switchboard, in compliance with NEC Section 110-22. As required in Section 110-22, the loadside panelboard/switchboard label shall be field marked with the short-circuit rating of the series combination, type circuit breaker for replacement, part number for the series rated lineside, feeder fuses and location/name of this fuse switch/panelboard/switchboard. The panel/switch with the lineside fuses (or circuit breaker) shall be field marked with short-circuit rating of the series combination, part number for fuse (or circuit breaker) replacement and the location/name of loadside, series rated panelboard/switchboard.

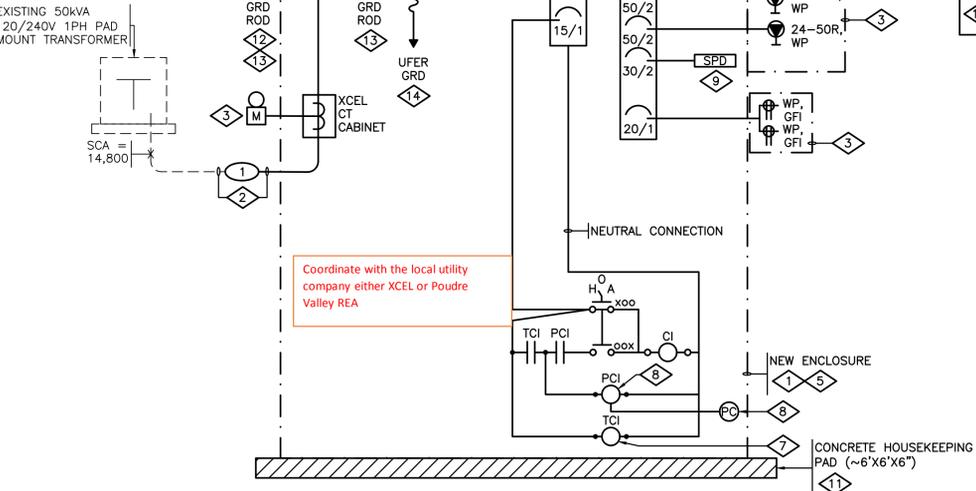
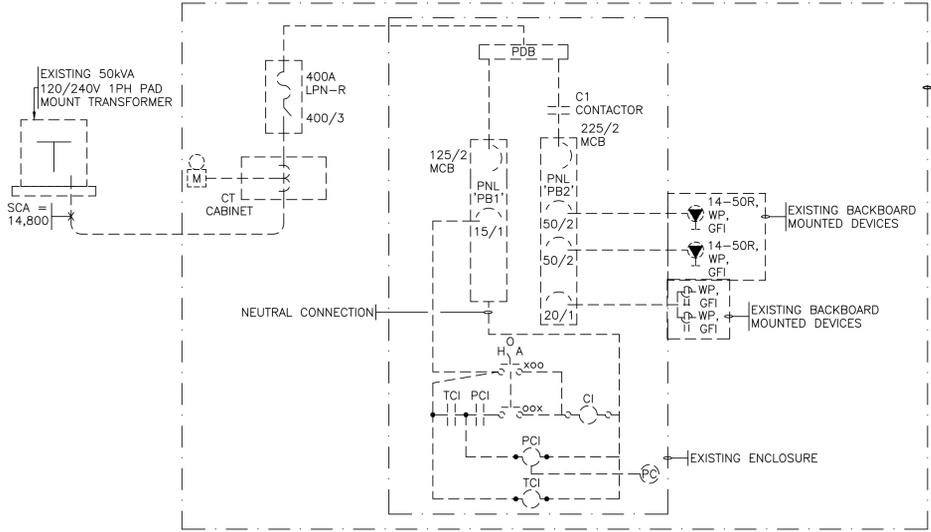
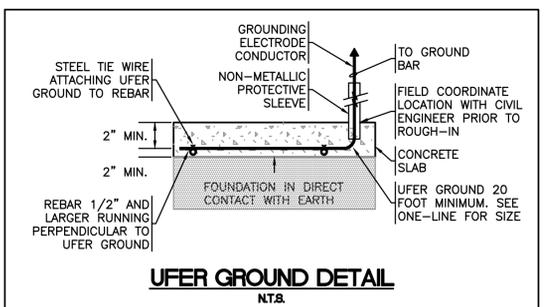
If the manufacturer/supplier/installer cannot supply tested and listed series rated combinations of the specified loadside circuit breakers with the specified line side fuses, it is their responsibility to provide loadside circuit breakers that have fully rated interrupting ratings equal to or greater than the short-circuit current available at the loadside circuit breakers.

**FEEDER SCHEDULE**

KEY	DESCRIPTION
1	2 RUNS[(4 #3/0 CU THWN) 2 1/2" C.]
2	(#4 CU GRD) 3/4" C.
3	(#1/0 CU GRD) 1" C.

**NOTE:**  
CONTRACTOR TO INCLUDE IN BID FOR CONNECTING EXISTING UNDERGROUND CIRCUITS  
(2) OPEN BOTTOM BOXES QUAZITE #PG3048BA24 AND  
(2) COVERS QUAZITE #PG3048HH00017 ANSI TIER 15, 22,500 LBS WITH ELECTRICAL MARKED ON LID.

- FLAG NOTES - THIS SHEET ONLY**
- ALL COMPONENTS SHOWN SHALL BE INSTALLED IN A MINT GREEN ALUMINUM NEMA 3R ENCLOSURE WITH PAD-LOCKING FLIP LATCHES. TO BE PROVIDED BY DELANDSHEER SALES: 303-202-2990.
  - REUSE EXISTING CONDUIT WHERE POSSIBLE. INSTALL NEW AS REQUIRED. INSTALL ALL NEW WIRING.
  - DEVICES TO BE MOUNTED ON NEW ENCLOSURE - ACCESSIBLE WITHOUT UNLOCKING DOORS.
  - REMOVE ALL DEVICES - ALL DEVICES NOT WANTED BY OWNER TO BE DISPOSED OF BY EC. CONTRACTOR TO COORDINATE WITH OWNER.
  - ALL EXISTING UNDERGROUND CONNECTIONS TO REMAIN - EC TO RECONNECT. DO NOT SPLICE WITHOUT PRIOR APPROVAL FROM OWNER.
  - LOADS TO BE SUPPLIED INTEGRAL TO ENCLOSURE, FACTORY WIRED.
  - TORK EW2201C, TO BE INTEGRAL TO ENCLOSURE.
  - PHOTOCELL SOCKET BY MANUFACTURER - EC TO PROVIDE PHOTOCELL (120V TORK OR APPROVED EQUAL).
  - SPD SHALL BE INTEGRAL TO ENCLOSURE - ASCO #510120SP13AWAJI.
  - EC SHALL REVIEW ALL EXISTING CONDITIONS PRIOR TO DEMOLITION OR ORDER OF NEW EQUIPMENT - NOTIFY ENGINEER OF ANY DISCREPANCIES OF EXISTING CONDITIONS/EQUIPMENT ACCORDINGLY.
  - CONCRETE PAD DESIGN BUILD BY CONTRACTOR. CONTRACTOR SHALL PROVIDE COLORADO PE STAMPED CONCRETE HOUSEKEEPING PAD DESIGN TO ACCOMMODATE EQUIPMENT. PAD SHALL EXTEND NO LESS THAN 6" BEYOND EDGE OF EQUIPMENT ON ALL SIDES.
  - 3/4" CU CLAD STEEL GROUND ROD - UL LISTED.
  - INSTALL IN TRAFFIC RATED QUAZITE TIER 15 RATED GROUND WELL. PROVIDE WITH "ELECTRIC" EMBOSSED LID AND STAINLESS STEEL SECURING HARDWARE.
  - INSTALL UFER GROUND IN NEW CONCRETE PAD.



Identify all electrical equipment per the NEC

Coordinate with the local utility company either XCEL or Poudre Valley REA

CITY OF GREELEY  
BUILDING INSPECTION DEPARTMENT  
REVIEWED AS TO  
CONFORMANCE WITH THE 2017 NEC  
DATE: July 10, 2019 BY: REG