

TOOELE CITY CORPORATION

Bidding and Contract Documents

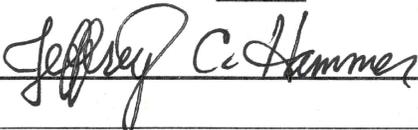
FOR

**400 West
Landscape Improvement Project**

October 2019

**NORTH TOOELE CITY
SPECIAL SERVICE DISTRICT**

APPROVED THIS 9th DAY OF OCT., 2019.



Jeffrey C. Hammer



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INTRODUCTORY INFORMATION



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TOOELE CITY CORPORATION

BIDDING AND CONTRACT DOCUMENTS

for

400 West Landscape Improvement Project

October 2019

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BIDDING REQUIREMENTS



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INVITATION TO BID
Tooele City
90 North Main
Tooele City, Utah 84074

Notice is hereby given that Tooele City Corporation (OWNER) will accept bids for the 400 West Landscape Improvement Project, described in general as:

Work of this Construction Contract comprises installation of approximately 65,000 s.f. of new irrigation system and sod, together with approximately 78 trees within the existing 400 West right-of-way.

Separate sealed bids will be received by the OWNER in Room 227, of the Tooele City Municipal Offices located at 90 North Main, Tooele, Utah 84074 until 3:00 PM on Monday October 28, 2019, and then at said office publicly opened and read aloud.

Project Specifications will be issued in digital format (PDF), and may be obtained by contacting Tooele City Parks Department, 90 North Main, Tooele, Utah 84074 beginning on Thursday October 10, 2019 during office hours from 8:00 a.m. to 5:00 p.m. by calling (435) 843-2140. All Bidders must register with the City in order to be considered for Award of Bid.

Bid security in the amount of 5% of the base bid will be required to accompany bids.

Prospective BIDDERS are encouraged to attend a pre-bid conference which will be held at the Project Location, 1500 North 400 West, at 3:00 PM on October 21, 2019. The object of the conference is to acquaint BIDDERS with the site conditions, specifications, and to answer any questions which BIDDERS may have concerning the project.

All communication relative to the Project shall be directed to Darwin Cook, Parks and Recreation Director, prior to the opening of bids at:

TOOELE CITY CORPORATION
90 North Main
Tooele, Utah 84074
Telephone: (435) 843-2140
Darwin Cook, Parks and Recreation Director
email: darwinc@tooelecity.org

The OWNER reserves the right to reject any or all bids; or to accept or reject the whole or any part of any bid; to award schedules separately or together to contractors, or to waive any informality or technicality in any bid in the best interest of the City. Only bids giving a firm quotation properly signed will be accepted.

END OF DOCUMENT

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DOCUMENT 00 21 13

INSTRUCTIONS TO BIDDERS

PART 1 GENERAL

1.1 DESCRIPTION OF THE WORK

- A. The Work to be performed consists of furnishing and installing the equipment, facilities, services, and appurtenances thereto as included in the Contract Documents. A general description of the Work is set forth in the Invitation to Bid (Document 00 11 16).
- B. General Conditions: as published in Document 00 72 00 in the 2017 Edition of the Manual of Standard Specifications by the Utah Chapter of the American Public Works Association.

1.2 BIDDER SELECTIONS CRITERIA

- A. Evaluation of Bids shall be based in part upon location of office, availability of work crew and equipment, general pipeline experience, and direct experience with Tooele City Corporation.

1.3 COPIES OF BID DOCUMENTS

- A. Bidders must use complete sets of Bid Documents in preparing Bids. OWNER maintains a complete set on file at the address set forth in the Notice to Bidders, and bidders may review the file copy upon request during regular business hours. Bidders are solely responsible for verifying whether their sets of Bid Documents are complete.
- B. Bid Documents are made available to bidders only for the purpose of obtaining Bids on the Work. No license or grant for any other use is given.
- C. Bidding Document copyrights for this project will remain with the OWNER.
- D. All provisions of the 2017 edition of the Manual of Standard Specifications and Manual of Standard Plans published by the Utah Chapter of the American Public Works Association that are applicable to the Work are hereby made a part of the Contract Documents by reference. The publications may be purchased separately from the Utah technology Transfer Center, Utah State University 8205 Old Main Hill, Logan UT 84322-8205. Tooele City supplemental Plans are available on line at the following link:

<http://tooelecity.org/city-departments/engineering/city-standards/>

1.4 PRE-BID CONFERENCE

- A. If a pre-bid conference is held, the time, place and nature of the conference will be stated in the Notice to Bidders. Representatives of OWNER and ENGINEER will be present to discuss the Project. The OWNER shall not be bound by any statements, representations, conclusions, or assumptions made by any party, whether oral or written, except for written statements that are issued in an Addendum by the ENGINEER to all prospective bidders.

1.5 PHYSICAL CONDITIONS

- A. **In General:** Prior to submitting a Bid, each Bidder is responsible for reviewing all available explorations, tests and data concerning surface conditions, subsurface conditions and Underground Facilities at or contiguous to the site, or otherwise, which may affect cost, progress, performance or furnishing of the Work in accordance with the time, price and other terms and conditions of the Contract Documents.
- B. **Surface and Subsurface Conditions:** Provisions concerning surface and subsurface conditions, if any, are set forth in a document titled Geotechnical Data. The document provides the identification of:
1. those reports of explorations and tests of subsurface conditions at the site which have been utilized in preparing the Contract Documents; and,
 2. those drawings of physical conditions in or relating to existing surface and subsurface structures (except Underground Facilities) which are at or contiguous to the site which have been utilized in preparing the Contract Documents.
- C. **Underground Facilities:** Information and data indicated in the Contract Documents regarding Underground Facilities at or contiguous to the site is based upon information and data furnished to OWNER and ENGINEER by owners of such Underground Facilities and their agents. The OWNER does not assume responsibility for the accuracy or completeness thereof other than as provided in the General Conditions or unless expressly provided in the Modifications to General Conditions (Document 00 73 10).
- D. **Additional Explorations and Tests:** If feasible as determined by OWNER, the OWNER will provide each Bidder access to the site to conduct any explorations and tests as each Bidder deems necessary for submission of a Bid. Bidder shall obtain permits, fill all holes, clean up and restore the site to its former condition upon completion of such explorations. By requesting such an exploration or test, Bidder agrees to release, indemnify, defend, and save the OWNER harmless from all costs damages and liabilities of any kind whatsoever, including reasonable attorneys' fees, that may arise in connection with or as a result of the performance of such explorations or tests.

1.6 COMPENSATION AND QUANTITIES

- A. **In General:** The bid price for any lump sum or unit price contract includes all labor, materials, and incidental work to fully complete the Work in a satisfactory manner under the terms of the Contract Documents. Bidders are responsible for informing themselves of the character of the Work to be performed.
- B. **Lump Sum Work:** If the Work is to be paid for on a lump sum basis, the lump sum will be the only sum paid.
- C. **Unit Price Work:** If any portion of the Work is to be paid for on a unit price basis, payment will cover only work actually performed and materials actually supplied at the unit prices bid and on the terms set forth in the Contract Documents, irrespective of any quantity approximations in the Bid Documents. Any quantity approximations in the Bid Documents are stated as a basis for determining bids, and they do not fix the amount of Work to be done or materials to be furnished. Stated quantities are estimates for the purpose of doing the class of work required. Actual quantities will vary. The OWNER may deviate in either direction from any indicated quantities. The Bidder shall have no claim for any variation in quantity, except to the extent permitted in the General Conditions.

1.7 EXAMINATION OF SITE AND CONTRACT DOCUMENTS

- A. **In General:** The OWNER shall not be bound by any statements, representations, conclusions, or assumptions made by any party, whether oral or written, except for written statements that are issued in an Addendum.
- B. **Access:** The Contract Documents designate the site for performance of the Work. Bidder is responsible to investigate the site and understand all access requirements. All additional off site lands and access thereto required for temporary construction facilities or storage of materials and equipment are to be provided by Bidder.
- C. **Bidder's Obligations:** In addition to Bidder's other responsibilities and obligations in connection with submitting a Bid, it is the responsibility of the Bidder before submitting a Bid, to:
 - 1. Examine the Contract Documents thoroughly;
 - 2. Visit the site to become familiar with local conditions that may affect cost, progress, performance or furnishing of the Work;
 - 3. Investigate all applicable construction and labor conditions, quantities, and the character of the Work as they affect cost, progress, performance, or furnishing of the Work;
 - 4. Consider federal, state and local Laws and Regulations that may affect cost, progress, performance or furnishing of the Work;

5. Study and carefully correlate Bidder's observations with the Contract Documents;
6. Attend any pre-bid conference, which shall be mandatory if so designated in the Notice to Bidders;
7. Review all available explorations and data concerning surface and subsurface conditions as set forth in Section 1.4 above; and,
8. Identify and notify ENGINEER in writing in the manner set forth in article 2.1 below of all specific conflicts, omissions, errors, or discrepancies in the Contract Documents, or if Bidder doubts their meanings.

The failure or omission of any Bidder to take any of the foregoing actions shall not in any way relieve Bidder of its Bid, or its obligation to furnish all material, equipment, labor and services necessary to carry out the provisions of the Contract Documents and to complete the contemplated Work for the consideration set forth in its Bid. Submission of a Bid shall constitute prima facie evidence of compliance with these instructions.

- D. **Deviations from the Terms of the Contract Documents:** OWNER will not accept any deviations whatsoever from the printed terms of the Agreement and the Contract Documents, except by Addendum or Change Order.

1.8 EFFECT OF SUBMITTING A BID.

- A. Bidders are responsible to carefully examine the Contract Documents, visit the site, and fully inform themselves so as to include in the Bid a sum to cover the cost of all items. Bidder's failure or omission to receive or examine any form, instrument, addendum or other document, visit the site and become acquainted with existing conditions, or attend any pre-Bid Conference, shall in no way relieve Bidder from any obligations with respect to Bidder's Bid or the Construction Contract.
- B. By submitting a Bid, Bidder represents that Bidder has complied with all requirements of the Bid Documents; that the Bid is premised on properly performing and furnishing the Work required by the Contract Documents within the times specified; that the Bidder is informed of the conditions to be encountered and the character, quality and quantities of the Work; and that the Bidder believes the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
- C. Submission of a Bid constitutes a promise that the Bidder will enter the Contract Documents in the form presented in the Contract Documents. Bidders should carefully examine all Contract Documents, including the required Bonds and insurance to be provided by the Bidder.

1. The Performance Bond is a guarantee of faithful performance of the requirements of the Contract Documents, including all applicable warranties. The Payment Bond is a guarantee of payment of all labor, materials, or supplies used directly or indirectly in the prosecution of the Work provided in the Construction Documents.
 2. The sum of the Performance Bond and the Payment Bond shall be increased or decreased during the course of the Work in the event that Contract Modifications, Change Orders or Addenda increase or decrease the total contract price. The sum of each bond shall be in an amount equal to the completed contract price at the completion of the Work.
 3. OWNER does not provide any release of Performance Bonds or Payment Bonds. The bonds are in effect throughout all periods during which a suit may be brought under the provisions of applicable law.
- D. By submitting a Bid, Bidder represents that the matters stated therein are true and correct.

PART 2 BIDDING PROCEDURES

2.1 INTERPRETATIONS AND ADDENDA

- A. All requests for interpretation of the Contract Documents shall be made in writing and delivered to the ENGINEER no later than five (5) calendar days prior to opening of Bids. In the ENGINEER's discretion, ENGINEER will send the written interpretation to all persons receiving a set of Bid Documents in the form of an Addendum. If the ENGINEER does not respond to a Bidder's request for interpretation, the Bidder shall comply with the intent and terms of the Contract Documents.
- B. No oral interpretations shall be made to any Bidder. The OWNER shall not be responsible for or bound by any statements, interpretations, explanations, representations, conclusions or assumptions made by any party, whether oral or written, except for written statements that are issued in an Addendum by the ENGINEER to all prospective bidders.
- C. Each statement made in an Addendum is part of the Contract Documents at the location designated in the Addendum. A statement issued in an Addendum shall have the effect of modifying a portion of the Bid Documents when the statement in the Addendum specifies a particular section, paragraph or text and states that it is to be so modified. Only the specified section, paragraph or text shall be so modified, and all other portions of the Bid Documents shall remain in effect.
- D. Bidders shall sign to acknowledge their receipt of all Addenda issued. Bidders shall also acknowledge receipt of all Addenda in the space provided in the Bid.

- E. Except to postpone the Bid opening, no Addenda shall be issued within 48 hours of the Bid opening.

2.2 EQUIPMENT AND MATERIAL OPTIONS PRIOR TO BID OPENING

- A. If a Bidder or Supplier wishes to supply a product other than that identified in the Contract Documents, said Bidder or Supplier shall submit a written request for approval to the ENGINEER at least seven (7) calendar days prior to the date set for opening of bids.
- B. The procedure for submission of any such product option shall be as set forth in Article 6.4 of the General Conditions. It is the sole responsibility of the Bidder or Supplier to submit complete descriptive and technical information so that ENGINEER can make a proper appraisal.
- C. ENGINEER's failure to act upon such a request within five (5) days after receipt shall be deemed a denial thereof.
- D. Any such approval is at the sole discretion of the ENGINEER and will be in the form of an Addendum issued to all Bidder's holding Bid Documents indicating that the additional equipment or materials are approved as equal to those specified for the Project.
- E. The Construction Contract, if awarded, will be on the basis of materials and equipment specified in the Drawings and Specifications and any changes permitted in any Addenda.

2.3 BID SECURITY

- A. **Amount of Bid Security:** A Bid Security must accompany each Bid. The total amount of the Bid on which Bid security is to be based shall be the sum of all items of the Bid constituting the maximum amount of the possible award to the Bidder. The Bid Security amount must equal at least five (5) percent of the total amount of the Bid.
- B. **Form of Bid Security:** The Bid Security may be in the form of a certified check, cashier's check, cash, or Bid Bond. No other form of Bid Security will be accepted. A Bid Bond must be issued by a licensed Utah agency on behalf of a surety company licensed to do business in the State of Utah. A cashier's check must be drawn on a bank doing business in the State of Utah and made payable to OWNER. If a cashier's check is used in lieu of a Bid Bond, or if the Bid Bond does not specifically so provide, a certificate from an approved surety company guaranteeing execution of performance and payment bonds in the full amount of the bid must accompany the bid.
- C. **Purpose of Submission.** By submitting a Bid Bond Bidder assures OWNER it will take all steps necessary to properly execute the Contract Documents.

- D. **Return of Bid Security:** OWNER will return Bid securities to Bidder within seven (7) days after award of the Construction Contract. Bid Bonds and cashier's checks of all Bidders will be held until the Construction Contract is awarded or all bids have been rejected. The liability of OWNER in regards to the checks shall be limited only to the return of the checks.
- E. **Default:** In the event of failure or refusal of the Bidder to enter into the Construction Contract and the delivery to the OWNER a Performance Bond, Payment Bond and any other Bonds or documents required by the Contract Documents after Notice of Intent to Award by the OWNER, the Bidder forfeits the sum of the Bid Bond or cashier's check as liquidated damages to the OWNER.

2.4 COMPLETING BID DOCUMENTS

- A. The General Conditions identify all forms comprising the Bid Documents. Additional copies may be obtained from the ENGINEER. The Bidder shall make no stipulations or alterations on the Bid forms. The Bidder must use and execute only the Bid form and Bid Schedules bound in the Contract Documents. Bidder shall complete and submit all forms included in the Bid Form, Document 00 41 00.
- B. The Bidder must fill in all items in the Bid form in ink or by typewriter. If applicable, furnish both the unit and total costs for each item. The total Bid price is the full price for the performance of all Work under the Contract Documents. Bidder shall initial in ink any corrections, interlineations, alterations, or erasures made by the Bidder on Bidder's entries in the Bid Documents.
- C. Any work or material which is specified in the Contract Documents or which is necessary because of the nature of the Work, but which is not listed separately in the Bid Schedule shall not be measured or paid for separately. The cost of such work or material shall be considered as included in the Contract Price.
- D. Bids by corporations must be executed in the corporate name by a corporate officer authorized to sign, and must be properly attested to as an official act of the corporation. At the OWNER's request, authority to sign shall be submitted.
- E. Bids by partnerships or joint ventures must be executed in the partnership or joint venture name and signed by a partner or joint venture whose title and official address must be shown. If a partnership or joint venture is the low bidder, the partnership or joint venture must also submit evidence to the OWNER of the responsibility of the partnership or joint venture as a bidder in the manner directed by the ENGINEER.
- F. Where the Bidder is wholly owned subsidiary of another company, the Bid must so state, and the owner or parent corporation also must agree to sign and be bound with the Bidder.

- G. All names must be typed or printed under or near the signature. Signatures shall be in longhand.
- H. The Bid shall contain an acknowledgment of receipt of all Addenda. The Addenda numbers must be filled in on the Bid form.
- I. The Bidder's address, telephone number, and facsimile number for communications regarding the Bid must be shown on the first page of the Bid form.
- J. The divisions and sections of the specifications, and the identifications of any Drawings, shall not control Bidder in dividing the Work among subcontractors or suppliers, or delineating the Work to be performed by any specific trade.
- K. The base Bid and alternates shall include all Work required to be performed by the Contract Documents.

2.5 CONFLICT OF INTEREST, SUBCONTRACTORS

- A. Conflict of interest pertaining to Subcontractors is described in paragraph 6.5H of the General Conditions.
- B. Bidder shall not subcontract more than 75 percent of the dollar value of the total contemplated Work (exclusive of the supply of materials and equipment to be incorporated in the Work) without OWNER's prior written approval.

2.6 SUBMISSION OF BIDS

- A. Bids shall be submitted at the time and place indicated in the Invitation to Bid and should be enclosed in an opaque sealed envelope, marked with the Construction Contract name and number, the name and address of the Bidder, and the date and the opening time for Bids. If the Bid is sent through the mail or other delivery system the sealed envelope should be enclosed in a separate envelope with the notation "BID ENCLOSED" on the face of it. It is the sole responsibility of the Bidder to deliver the Bid before the scheduled time.
- B. Bidder will make no recapitulations, stipulations, alterations, alternate submissions, or modifications in any manner to any of the Contract Documents.
- C. Bidder must submit a Bid by completing all of the Bid Form documents, which are:
 - 1. The Bid portion of the Bid Form which is included in these Contract Documents, which shall be in the form of a lump sum, or in the form of unit pricing pursuant to the Bid Schedule, as called for in the Bid Form.
 - 2. The Bid Security.

- D. Alternate bids, other than those called for in the Bid form, will not be considered.
- E. No oral, telegraphic, telephonic, facsimile or modified bids will be considered.

2.7 MODIFICATION AND WITHDRAWAL OF BIDS

- A. At any time prior to the opening of Bids, Bids may be modified or withdrawn if a written notice of modification or withdrawal is signed by Bidder and delivered to the place where Bids are to be submitted. Bid Security will be returned upon proper withdrawal of a Bid prior to the time for Bid opening.
- B. Within 24 hours after Bids are opened, any Bidder may file written notice with OWNER that there was a substantial mistake made in the preparation of its Bid. Bidder must thereafter promptly demonstrate Bidder's mistake. The OWNER has sole discretion to determine whether to permit any modification or withdrawal or the return of any Bid Security.
- C. When it appears a mistake has been made, or when the OWNER desires an assurance of any matter, the OWNER may request a Bidder to confirm the Bid in writing.

2.8 OPENING OF BIDS

- A. Bids will be opened and read aloud publicly unless obviously non-responsive. An abstract of the amounts of the base schedule of prices and any alternate schedules will be made available for review after the opening of Bids.
- B. Any Bids received after the time specified in the Invitation to Bid will be returned unopened.

2.9 BIDS SUBJECT TO ACCEPTANCE FOR 45 DAYS

- A. All bids remain subject to acceptance for 45 days after the day of the Bid opening. OWNER may, in its sole discretion, release any Bid and return the Bid security prior to that date.

PART 3 EVALUATION AND AWARD

3.1 SUBMITTALS REQUIRED FOR EVALUATION

- A. The Bidder must submit the following at the time of bid:
 - 1. **Document 0041 00 - Bid (with accompanying 5% bid bond)**
 - 2. **Document 00 43 00 - Bid Schedule**
 - 3. **Document 00 43 38 - Bidder Status Report**
 - 4. **Document 00 43 36 - Proposed Subcontractor Form**
 - 5. **Document 00 45 37 - Employment Verification System Affidavit**

6. **Document 00 45 38 - Utah Retirement Systems Post-Employment / Post Retirement Restrictions ACT Certification & Release**
7. **Company Resume** Identifying:
 - A. Location of office;
 - B. Experience with Tooele City Corporation;
 - C. Chronological list of "in progress" and "completed" construction work done by Bidder during the last three (3) years; including project name, address, owner, contract name, and current telephone number; and,
 - D. Owned and rented equipment which is to be used to do the Work.

3.2 EVALUATION OF BIDDER'S QUALIFICATIONS

- A. Evaluation of Bids shall be based in part upon location of office, availability of work crew and equipment, general pipeline experience, and direct experience with Tooele City Corporation.
- B. Within seven (7) calendar days of ENGINEER's request, a Bidder, whose Bid is under consideration for award shall submit to the ENGINEER the following information for the Bidder. ENGINEER may request like information on Bidder's Subcontractors, Bidder's Suppliers or any other information the ENGINEER may require.
 1. A current financial statement for the Work (as provided to bonding company);
 2. A chronological list of "in progress" and "completed" construction work done by Bidder during the last three (3) years; including project name, address, owner, contract name, and current telephone number;
 3. Present construction commitments other than items listed in paragraph 2 above;
 4. Proposed organizational structure such as firm ownership, project manager, progress scheduler, and superintendent for the Work of this Project;
 5. Owned and rented equipment which is to be used to do the Work;
 6. Investigations, arbitration, litigation or claims which are pending, threatened, settled or otherwise disposed of within the last three (3) years;
 7. Evidence of ability to perform and complete the Work in a manner and within the time limit specified. As a minimum, identify specific experience on projects similar to the Work in physical size, cost, and commercial nature. If the work experiences of the project manager and superintendent designated to construct this project are different than that of the company, provide resumes of their work history. Include their actual project titles and indicate their actual responsibilities on each given project;

8. All matters consistent with federal, state and local Laws and Regulations;
and
 9. Such other data as may be called by the ENGINEER.
- C. If Bidder believes any information should be held confidential for business reasons, Bidder must submit a written claim of business confidentiality for that particular information and include a specific statement of the reasons supporting the claim pursuant to Utah Code Ann. § 63-2-308.
- D. Untimely response or failure to provide the requested information by Bidder will release OWNER of any obligation to further consider the Bidder's Bid.

3.3 EVALUATION OF BIDS

- A. OWNER reserves the right: to reject any and all Bids or any part thereof; to waive any informalities in the Bid Schedule and elsewhere; to negotiate and agree to contract terms with the successful Bidder; to disregard non-conforming, non-responsive, unbalanced or conditional Bids; and to withhold the award for any reason deemed in the best interests of the OWNER.
- B. OWNER reserves the right to reject any Bid if OWNER believes that it would not be in the best interest of the Project or the OWNER and which does not meet the criteria outlined in paragraph 1.2, above. Without limitation, such rejection may be because the Bid is not responsive, the Bid does not meet the criteria outlined in paragraph 2.1, or the Bidder is unqualified or of doubtful ability or the Bid or Bidder fails to meet any other pertinent standard or criteria established by OWNER.
- C. If the OWNER intends to make an award to a Bidder, a Notice of Intent to Award will be issued.
- D. OWNER may consider all information which OWNER believes is relevant when evaluating a Bid, including, without limitation:
1. The qualifications and experience of the Bidder and of the Subcontractors, Suppliers, and other persons and organizations proposed (whether or not the Bid otherwise complies with the prescribed requirements).
 2. Such alternates, unit prices and other data, as may be requested in the Bid Form, Bid Schedule, or written requests issued prior to OWNER's Notice of Intent to Award the Construction Contract.
 3. Operating costs, maintenance requirements, performance data, and guarantees of ability to provide the required materials and equipment.
 4. Corporate organization and capacity for any party.

5. Ability to perform and complete the Work in the manner and within the time specified.
 6. Pending litigation.
 7. The amount of the Bid.
 8. Proper licensing to do the Work in compliance with licensing laws of the State of Utah for contractors and subcontractors.
 9. All other relevant matters, consistent with OWNER's procurement code and administrative rules, OWNER's ordinances and program policies.
- F. To establish qualifications of Bidder, OWNER may request such data indicated in the Bid Documents, conduct such investigations as OWNER deems appropriate, and consider any other information (whether obtained from the Bid, the Bidder, or any other source).
- G. If the Construction Contract is to be awarded, it will be awarded to the most responsive qualified, and responsible Bidder as determined by the OWNER. Alternates may be accepted depending upon availability of OWNER's funds and as determined by the OWNER. Accepted alternates will be considered in determining the most responsive, qualified, and responsible Bidder.
- H. Bid Schedules will be evaluated as follows:
1. Discrepancies in the multiplication of quantities of Work items and unit prices will be resolved in favor of the unit prices. OWNER may correct Bid Schedule calculation errors accordingly.
 2. Prices written out in words shall govern over prices written out in numbers.
 3. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.
 4. Bids shall not contain any recapitulations of or changes in the work to be done.
- I. The OWNER, in the OWNER's sole discretion, shall make determinations as to disqualification of Bidders or rejection of Bids. Such matters may include, without limitation, submission of more than one Bid by the Bidder (whether under the same or different names); evidence of collusion among Bidders; other commitments of Bidder which, in the OWNER's sole judgment, might hinder the Work; previous defaults, Bid irregularities when not waived in the best interests of the OWNER, delays or poor performance by Bidder on any project; official action against Bidder; and any other cause which, in the OWNER's sole discretion and judgment, is sufficient to justify disqualification of a Bidder or rejection of a Bid.

3.4 ADJUSTMENTS TO THE COST OF THE WORK AFTER OPENING OF BIDS

- A. The Contract Price identified in the Agreement represents the cost of the work which is to be paid by the OWNER to the CONTRACTOR.
- B. Adjustments to the Contract Price which are agreed to between the OWNER and the successful Bidder shall be effected by signing an Agreement Supplement.

3.5 SUBSTITUTIONS

- A. The Construction Contract, if awarded, will be on the basis of materials and equipment described in the Drawings, Specifications and any Addenda.
- B. After the Effective Date of the Construction Contract, the procedure for submitting an application for substitution is set forth in Article 6.4 of the General Conditions.

3.6 SUBMITTALS REQUIRED FOR AWARD OF CONTRACT

- A. **Performance and Payment Bonds:** The OWNER's requirements as to performance and payment Bonds are as set forth in the Modifications to General Conditions (Document 00 73 10). Specific requirements are set forth in the Performance Bond (Document 00 61 13) and the Payment Bond (Document 00 61 14).
 - 1. The form of the Bonds should be carefully examined by the Bidder.
 - 2. When the successful Bidder delivers the executed Construction Contract to OWNER, it must be accompanied by the required Performance and Payment Bonds.
- B. **Other Information:** When a determination has been made to award the Construction Contract, Bidder is required, prior to the award or after the award, or both, to furnish such other information as the ENGINEER requests.

3.7 SIGNING OF AGREEMENT

- A. Within 10 days after OWNER gives Notice of Intent to Award the Construction Contract to the successful Bidder, the Bidder shall pick up, sign and return to OWNER, the required number of copies of the Construction Contract , bonds and insurance. A minimum of three (3) originals will be signed and returned to the OWNER. One executed original will be returned to the Bidder. Bidder shall comply with all execution requirements.
- B. All of Bidder's executions and submittals must be delivered to the OWNER before OWNER will execute the Construction Contract. The Construction Contract will not be deemed awarded and shall not be binding on the OWNER until it has been approved and executed by the OWNER, and a fully executed

copy is formally delivered to the CONTRACTOR. The OWNER reserves the right to rescind its Notice of Intent to Award without liability, except for the return of Bidder's Bid Security, at any time before the Construction Contract has been fully executed by all parties and delivered to the CONTRACTOR.

- C. Transfers, delegations or assignments of interests in the Contract Documents are prohibited, unless prior written authorization is received from the OWNER.
- D. At the time of Bidding, and the signing of the Agreement, and at all times during the Work, Bidder shall be properly licensed to do the Work and shall be in compliance with the license laws of the State of Utah and Tooele City. The Bidder shall also require all Subcontractors to do the same.
- E. If a Bidder fails to fully and properly execute the Construction Contract and provide all submittals required therewith within ten (10) days after the date of the Notice of Intent to Award, the OWNER may elect to rescind the Notice of Intent to Award, and the OWNER shall be entitled to the full amount of Bidder's Bid Security, not as a penalty, but in liquidation of and compensation for damages sustained. In the OWNER's sole discretion, a Notice of Intent to Award may then be provided to another bidder whose Bid is most advantageous to the OWNER, price and other factors considered.

END OF DOCUMENT

DOCUMENT 00 41 00

BID

PART 1 GENERAL

1.1 BID PROPOSAL

- A. After having personally and carefully examined all conditions surrounding the Work and the Contract Documents, the undersigned proposes to furnish all labor, equipment, tools and machinery and to furnish and deliver all materials not specifically mentioned as being furnished by the OWNER, which is required in and about the construction of the Construction Contract known as

400 West Landscape Improvement Project

- B. The undersigned proposes to complete the Work for the price or prices listed in the Bid Schedule (Document 00 43 00) and understands that quantities for Unit Price Work are not guaranteed.
- C. The undersigned proposes to furnish bonds with the Contract, signed by a surety company satisfactory to the OWNER, in an amount equal to the Contract amount conditioned to insure compliance with all requirements of the Contract Documents.
- D. The undersigned encloses a certified check, cashier's check, cash, or a Bid Bond for _____ Dollars (\$ _____) which is (five (5) percent of the Bid amount) payable to the OWNER, as a guarantee of good faith, and which it is agreed will be forfeited to the OWNER as liquidated damages in the event of the failure of the undersigned to enter into a contract and furnish satisfactory bonds to the OWNER.
- E. The undersigned proposes to execute the attached contract within ten (10) days after the Notice of Intention to Award, and to begin work within ten (10) days after being notified to do so by the OWNER.
- F. If OWNER finds it necessary to further define the Work, Contract Price, Contract Time or some other portion of the Construction Contract, after Bid opening, the Bidder promises to execute an Agreement Supplement prior to or concurrent with the execution of the Agreement, if the Agreement Supplement is acceptable to the Bidder.
- G. It is understood that the OWNER has the right to reject this proposal or to accept it at the prices listed in the Bid Schedule.

- H. It is understood that the OWNER reserves the right to award all schedules of the project to a single BIDDER, or to separate BIDDERS as in the best interest of the OWNER.

PART 2 EXECUTION

2.1 BIDDER

- A. The Bidder is as follows

Name: _____

Address: _____

Telephone number: _____

Facsimile number: _____

Tax identification number: _____

- B. Bidder holds license number _____, issued on the _____ day of _____, _____, by the Utah State Department of Commerce, Division of Occupational and Professional Licensing. Bidder is licensed to practice as a _____ Contractor. License renewal date is the _____ day of _____.

- C. The undersigned hereby acknowledges receipt of the following Addenda.

(list Addenda numbers here)

2.2 BIDDER'S SUBSCRIPTION

A. Date: _____

B. Bidder's Signature: _____

C. Please print Bidder's name here: _____

D. Title: _____

END OF DOCUMENT

**DOCUMENT 00 43 00
BID SCHEDULE**

PART 1 GENERAL

1.1 DOCUMENT INCLUDES

- A. Price schedules.
- B. Measurement and Payment provisions.

1.2 CONSTRUCTION CONTRACT

The Construction Contract is known as:

400 West Landscape Improvement Project

1.3 REFERENCES

- A. APWA Document 01 11 00: Payment Procedures.
- B. Document 00 52 00: Agreement.
- C. APWA Document 01 25 00: Product Options and Substitutions.

1.4 SCHEDULE TO BE ADDED TO THE AGREEMENT

- A. This document will be added to the Agreement by reference.

PART 2 PRICE SCHEDULES

2.1 BID SCHEDULE

400 West Landscape Improvement Project, Complete \$ _____

PART 3 MEASUREMENT AND PAYMENT

3.1 400 West Landscape Improvement Project, Complete.

- A. **METHOD OF MEASUREMENT.** 400 West Landscape Improvement Project, shall not be measured.

- B. **BASIS OF PAYMENT.** Payment for the 400 West Landscape Improvement Project will be made at the contract lump sum bid price as listed in the bidder's proposal and shall be considered complete compensation for all labor, equipment, and materials, necessary to provide a fully functioning irrigation system and landscaping and shown on the plans and as described in these specifications.

3.2 Bidder's Subscription

The BIDDER acknowledges that he/she has examined the site and submits this bid in good faith for completion of the project as shown

A. Date: _____

B. Bidder's Signature: _____

C. Please print Bidder's name here: _____

D. Title: _____

END OF DOCUMENT

SECTION 00 45 37

EMPLOYMENT STATUS VERIFICATION AFFIDAVIT

STATE OF UTAH

COUNTY OF _____

BEFORE ME, the undersigned authority, personally came and appeared, _____, (Affiant) who after being duly sworn, deposed and said that he/she is the fully authorized _____ of _____ (Entity), the party who submitted a bid to Tooele City Corporation for the **400 West Landscape Improvement Project**, state the following:

1. Entity is registered with, and participates in a status verification system to verify that all employees in the State of Utah are legal citizens of the United States, or are legal aliens in accordance with State and Federal Law; and,
2. Entity shall continue, during the term of the contract, to utilize a status verification system to verify the legal status of all new employees in the State of Utah; and,
3. Entity shall require all subcontractors to submit to the Entity a sworn affidavit verifying compliance with statements (1) and (2), above.

Signature of Affiant: _____

Sworn to and Subscribed Before Me on this _____ Day of _____, 2019.

NOTARY PUBLIC

END OF DOCUMENT

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UTAH RETIREMENT SYSTEMS
POST-EMPLOYMENT/POST-RETIREMENT
RESTRICTIONS ACT CERTIFICATION & RELEASE

Tooele City is a Utah Retirement System (URS) participating agency. As a participating agency, post-retirement employment/vendor/contractor rules apply. Post-retirement employment means returning to work either on our payroll or as a vendor/contractor for a URS participating employer following your retirement date with the Utah Retirement Systems. Different standards apply depending on whether you return to work within one year or after one year from your retirement date with URS.

You must separate from employment (including part-time and vendor/contractor arrangements) with any participating employer for one year following your retirement date with URS, unless eligible exclusions apply.

You are responsible for understanding post-retirement employment rules and ensuring there is no violation of such rules by providing services to Tooele City Corporation. **If you have any questions, call the URS office at 801-366-7770 or 800-695-4877 before you begin any work for or provide any services to Tooele City.**

CHECK APPLICABLE BOX:

- Contractor (a sole proprietor) certifies that he or she is NOT a Utah State Retirement Systems (URS) retiree and acknowledges that should he/she retire from the URS system in the future, he/she assumes all responsibility for compliance with post-retirement reemployment restrictions, notifications, and/or penalties that may occur at any time in the future..
- Contractor (on behalf of a partnership, LLC, company, or corporation) certifies that NO officer or principal is a Utah State Retirement Systems (URS) retiree and acknowledges that should he/she retire from the URS system in the future, he/she assumes all responsibility for compliance with post-retirement reemployment restrictions, notifications, and/or penalties that may occur at any time in the future...
- Contractor certifies that following contractor(s), officer(s) or principal(s) of the business ARE Utah State Retirement Systems (URS) retiree(s). Contractor further certifies that the URS office has been properly notified of post-retirement reemployment of such individuals. Contractor assumes all responsibility for compliance with post-retirement reemployment restrictions, notifications, and or/penalties that may occur at any time in the future if found to be in violation. URS Retirees:

Name: _____ Social Security Number: _____

Name: _____ Social Security Number: _____

[State law requires that the City, through Human Resources, provide such information to URS.]

As a condition of doing business with Tooele City, you hereby accept responsibility and waive all claims of joint liability against Tooele City for any violations of the URS post-retirement re-employment/vendor/contractor rules.

Contractor's Signature

Date

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CONTRACTING REQUIREMENTS



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AGREEMENT

PART 1 GENERAL

1.1 CONTRACTOR

A. Name: _____

B. Address: _____

C. Telephone number: _____

D. Facsimile number: _____

1.2 OWNER

A. The name of the OWNER is Tooele City Corporation

1.3 CONSTRUCTION CONTRACT

A. The Construction Contract is known as

400 West Landscape Improvement Project

1.4 ENGINEER

A. Paul Hansen Associates, L.L.C. is the OWNER's representative and agent for this Construction Contract who has the rights, authority and duties assigned to the ENGINEER in the Contract Documents.

PART 2 TIME AND MONEY CONSIDERATIONS

2.1 CONTRACT PRICE

A. The Contract Price includes the cost of the Work specified in the Contract Documents, plus the cost of all bonds, insurance, permits, fees, and all charges, expenses or assessments of whatever kind or character.

B. The Schedules of Prices awarded from the Bid Schedule are as follows.

1. Base Bid.

2. _____

3. _____

- C. An Agreement Supplement [] is, [] is not attached to this Agreement.
- D. Based upon the above awarded schedules and the Agreement Supplement (if any), the Contract Price awarded is: _____ Dollars

2.2 CONTRACT TIME

- A. The Work shall be fully completed by May 1, 2020.
- B. Any time specified in work sequences in the Summary of Work shall be a part of the Contract Time. _____

2.3 PUNCH LIST TIME

- A. The Work will be complete and ready for final payment within 5 days after the date CONTRACTOR receives ENGINEER's Final Inspection Punch List unless exemptions of specific items are granted by ENGINEER in writing or an exception has been specified in the Contract Documents.
- B. Permitting the CONTRACTOR to continue and finish the Work or any part of the Work after the time fixed for its completion, or after the date to which the time for completion may have been extended, whether or not a new completion date is established, shall in no way operate as a waiver on the part of the OWNER of any of OWNER's rights under this Agreement.

2.4 LIQUIDATED DAMAGES

- A. Time is the essence of the Contract Documents. CONTRACTOR agrees that OWNER will suffer damage or financial loss if the Work is not completed on time or within any time extensions allowed in accordance with Part 12 of the General Conditions. CONTRACTOR and OWNER agree that proof of the exact amount of any such damage or loss is difficult to determine. Accordingly, instead of requiring any such proof of damage or specific financial loss for late completion, CONTRACTOR agrees to pay the following sums to the OWNER as liquidated damages and not as a penalty.

1. **Late Contract Time Completion:**

Five Hundred dollars and 00 cents (\$ 200.00) for each day or part thereof that expires after the Contract Time until the Work is accepted as Substantially Complete as provided in Article 14.5 of the General Conditions.

2. **Late Punch List Time Completion:** 50% of the amount specified for Late Contract Time Completion for each day or part thereof if the Work remains incomplete after the Punch List Time. The Punch List shall be considered delivered on the date it is transmitted by facsimile, hand delivery or received by the CONTRACTOR by certified mail.

3. **Interruption of Public Services:** No interruption of public services shall be caused by CONTRACTOR, its agents or employees, without the ENGINEER's prior written approval. OWNER and CONTRACTOR agree that in the event OWNER suffers damages from such interruption, the amount of liquidated damages stipulated below shall not be deemed to be a limitation upon OWNER's right to recover the full amount of such damages.

Five Hundred dollars and 00 cents (\$ 200.00) for each day or part thereof of any utility interruption caused by the CONTRACTOR without the ENGINEER's prior written authorization.

- C. **Survey Monuments:** No land survey monument shall be disturbed or moved until ENGINEER has been properly notified and the ENGINEER's surveyor has referenced the survey monument for resetting. The parties agree that upon such an unauthorized disturbance it is difficult to determine the damages from such a disturbance, and the parties agree that CONTRACTOR will pay as liquidated damages the sum of (\$500.00) to cover such damage and expense.
- D. **Deduct Damages from Moneys Owed CONTRACTOR:** OWNER shall be entitled to deduct and retain liquidated damages out of any money which may be due or become due the CONTRACTOR. To the extent that the liquidated damages exceed any amounts that would otherwise be due the CONTRACTOR, the CONTRACTOR shall be liable for such amounts and shall return such excess to the OWNER.

PART 3 EXECUTION

3.1 EFFECTIVE DATE

- A. OWNER and CONTRACTOR execute this Agreement and declare it in effect as of the _____ day of _____, 2019.

3.2 CONTRACTOR'S SUBSCRIPTION AND ACKNOWLEDGMENT

- A. CONTRACTOR's signature: _____
- B. Please print name here: _____
- C. Title: _____
- D. CONTRACTOR's Utah license number: _____

Acknowledgment

State of _____)
) ss.
County of _____)

The foregoing instrument was acknowledged before me this _____ day of _____, 2019.

by _____
(person acknowledging and title or representative capacity, if any).

Notary's signature

Residing at

My commission expires:

Notary's seal

3.3 OWNER'S SUBSCRIPTION AND ACKNOWLEDGMENT

- A. OWNER's signature: _____
- B. Please print name here: _____
- C. Title: _____

ATTEST:

Michelle Y. Pitt
Tooele City Recorder

S E A L

APPROVED AS TO FORM

Roger Evans Baker
Tooele City Attorney

END OF DOCUMENT

**DOCUMENT 00 61 13
PERFORMANCE BOND**

PART 1 GENERAL

1.1 BOND

A. Number: _____.

B. Amount: _____ dollars (\$ _____).

1.2 SURETY

A. Name: _____

B. Address: _____

C. Telephone number: _____

D. Facsimile number: _____

1.3 CONTRACTOR

A. Name: _____

B. Address: _____

C. Telephone number: _____

D. Facsimile number: _____

1.4 OWNER

A. Tooele City Corporation

1.5 CONSTRUCTION CONTRACT

A. The Construction Contract is known as:

400 West Landscape Improvement Project

1.6 DEFINED TERMS

- A. Terms used in this Performance Bond, which are defined in Article 1.1 of the General Conditions, will have the meanings indicated in the General Conditions.

PART 2 COVENANTS

2.1 SURETY'S AND CONTRACTOR'S RELATIONSHIP

- A. Surety as surety, and CONTRACTOR as principal, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the OWNER as obligee, for the performance of the Construction Contract, whether awarded or about to be awarded.

2.2 NOTICE

- A. Notice to the Surety, the OWNER or the CONTRACTOR shall be sent by certified mail, facsimile, or hand delivered to the address shown on this Bond agreement.
- B. Notices shall be effective on the date on which such notice was sent.
- C. Notice may be sent by facsimile. Facsimile notice shall be effective on the date of transmission provided that a confirmation establishing the successful transmission of the notice is sent by first-class mail, postage prepaid, along with a copy of the notice transmitted, no later than twenty-four (24) hours after the facsimile notice is transmitted.
- D. If any notice requires a period of less than seven (7) days for response, the notice shall be sent by facsimile.
- E. If the time for response to any notice expires on a Saturday, Sunday or a legal holiday in the State of Utah, the time shall be extended to the next working day.

2.3 PROCEDURE TO INVOKE SURETY'S OBLIGATION

- A. If the CONTRACTOR fails to perform or to comply with the terms of the Construction Contract, and such failure to perform or to comply has not been waived by the OWNER, the OWNER may notify the CONTRACTOR and the Surety, at their addresses described above, that the OWNER is considering declaring the CONTRACTOR in default.
- B. Before declaring the default, the OWNER shall request and attempt to arrange a conference with the CONTRACTOR and the Surety to be held at a time and place required by the OWNER to discuss methods of performing the Work.
- C. If the CONTRACTOR does not attend the conference or agree to cure any deficiencies in the CONTRACTOR's performance of the Work to the

satisfaction of the OWNER, the OWNER may declare the CONTRACTOR in default and formally terminate the CONTRACTOR's right to complete the Work. Such default shall not be declared earlier than 10 days after the CONTRACTOR and the Surety have received notice as provided in article 2.2.

- D. If the Contract with the CONTRACTOR is terminated, the OWNER agrees to pay the unpaid Balance of the Contract Price to the Surety for completion of the Work in accordance with the terms of the Construction Contract or to a contractor selected by the Surety to perform the Work in accordance with the terms of the Construction Contract.

2.4 SURETY'S OPTIONS AT CONTRACTOR TERMINATION

- A. Surety Completes the Work: The Surety may undertake to perform and complete the Work itself, through its agents or through independent contractors.
- B. Surety Obtains Bids or Proposals: The Surety may obtain bids or negotiated proposals from qualified contractors acceptable to the OWNER for a contract for performance and completion of the Work.
 - 1. Such bids or proposals shall be prepared by the Surety for execution by the OWNER and the completion contractor selected.
 - 2. Surety shall secure the contract with Performance and Payment Bonds executed by a qualified surety equivalent to this Performance Bond and the Payment Bond (Document 00 61 14); and
 - 3. Surety shall pay to the OWNER the amount of damages as described in paragraph 2.6 in excess of the balance of the Contract Price incurred by the OWNER resulting from the CONTRACTOR's default.
- C. Surety to Pay OWNER: Surety may determine the amount not to exceed the amount of this bond specified in paragraph 1.1B, for which Surety believes it may be liable to pay, and tender payment therefor to the OWNER. OWNER has sole discretion to accept payment. If the OWNER refuses the payment tendered, or the Surety has denied liability in whole or in part, without further notice the OWNER shall be entitled to enforce any remedy available to the OWNER.

2.5 PROCEDURE FOR OWNER TO DECLARE SURETY IN DEFAULT

- A. The OWNER may declare the Surety to be in default upon the following procedures.
 - 1. The OWNER shall issue an additional written notice to the Surety, after declaring the CONTRACTOR in default as provided in Article 2.3, demanding that the Surety perform its obligations under this Bond.

2. Surety shall respond to the OWNER within 15 days after receipt of the OWNER's additional notice, either denying the claim or accepting liability and exercising its' options under Article 2.4.

2.6 SURETY'S OBLIGATIONS

- A. After the OWNER has terminated the CONTRACTOR's right to complete the Construction Contract, and if the Surety elects to complete the Construction Contract as provided in Article 2.4, then the responsibilities of the Surety to the OWNER shall not be greater than those of the CONTRACTOR under the Construction Contract, and the responsibilities of the OWNER to the Surety shall not be greater than those of the OWNER under the Construction Contract.
- B. To the limit of the amount of this Bond, but subject to commitment by the OWNER to pay all valid and proper payments made to or on behalf of the CONTRACTOR under the Construction Contract, the Surety is obligated, without duplication, for:
 1. the responsibilities of the CONTRACTOR for correction of Defective Work and completion of the Construction Contract;
 2. design professional and delay costs resulting from the CONTRACTOR's default, and resulting from the actions or failure to act of the Surety under article 2.4; and
 3. liquidated damages which are or may become due for any reason.

2.7 UNRELATED OBLIGATIONS OF THE CONTRACTOR

- A. The Surety and the OWNER shall not be liable to others for obligations of the CONTRACTOR that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or changed on account of any such unrelated obligations.
- B. No right of action shall accrue on this Bond to any person or entity other than the OWNER or its heirs, executors, administrators, or successors.

2.8 SURETY WAIVES NOTICE OF ANY CHANGE

- A. Surety hereby waives notice of any change, including changes of Contract Time, Contract Price and scope of Work, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

2.9 VENUE

- A. Any suit or action commenced by OWNER under this Bond shall be for action in a court of competent jurisdiction in the State of Utah.

PART 3 EXECUTION

3.1 EFFECTIVE DATE

A. Surety and CONTRACTOR execute this Bond agreement and declare it to be in effect as of the _____ day of _____, 20__.

3.2 CONTRACTOR'S SUBSCRIPTION AND ACKNOWLEDGMENT

A. Type of organization:

(corporation, partnership, individual, etc.)

B. If CONTRACTOR is a corporation, attach a corporate resolution evidencing CONTRACTOR's authority to sign.

C. CONTRACTOR's signature: _____

D. Please print name here: _____

E. Title: _____

F. **Corporate Acknowledgment:** In the County of _____, State of _____, on the _____ day of _____, _____, personally appeared before me _____ and _____, who, being by me duly sworn did say that they are the _____, and _____, of _____, a _____ corporation, and that the foregoing instrument was signed in behalf of said corporation by authority of a resolution of its board of directors; and said persons acknowledged to me that said corporation executed the same.

Notary Public signature

Notary Public seal

G. **Partnership Acknowledgement:** In the County of _____, State of _____, on the _____ day of _____, _____, personally appeared before me _____ who, being by me duly sworn on oath did say that _____ is a partner in _____ partnership and that the foregoing instrument was signed pursuant to authorization of the partnership.

Notary Public signature

Notary Public seal

H. **Assumed Name Acknowledgement:** In the County of _____, State of _____, on the _____ day of _____, _____, personally appeared before me _____ who, being by me duly sworn did say that the foregoing instrument was signed with proper authority on behalf of _____ dba _____.

Notary Public signature

Notary Public seal

I. **Individual Acknowledgment:** In the County of _____, State of _____, on the _____ day of _____, _____, personally appeared before me _____, the signer of the foregoing instrument, who duly acknowledged to me that he/she executed the same.

Notary Public signature

Notary Public seal

3.3 SURETY'S SUBSCRIPTION AND ACKNOWLEDGMENT

- A. Attach evidence of Surety's corporate authority to sign.
- B. Surety's signature: _____
- C. Please print name here: _____
- D. Title: _____

E. **Acknowledgment:** In the County of _____, State of _____, on the _____ day of _____, _____, before me, the undersigned notary, personally appeared _____, who proved to me his/her identity through documentary evidence in the form of a

_____ to be the person whose name is signed as the authorized Surety and acknowledged to me that this document was signed voluntarily for its stated purpose.

Notary Public signature

Notary Public seal

END OF DOCUMENT

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DOCUMENT 00 61 14

PAYMENT BOND

PART 1 GENERAL

1.1 BOND

A. Number: _____.

B. Amount: _____

_____ dollars (\$_____).

1.2 SURETY

A. Name: _____

B. Address: _____

C. Telephone number: _____

D. Facsimile number: _____

1.3 CONTRACTOR

A. Name: _____

B. Address: _____

C. Telephone number: _____

D. Facsimile number: _____

1.4 OWNER

A. Tooele City Corporation

1.5 CONSTRUCTION CONTRACT

A. The Construction Contract is known as:

400 West Landscape Improvement Project

1.6 DEFINED TERMS

A. Terms used in this Payment Bond which are defined in article 1.1 of the General Conditions will have the meanings indicated in the General Conditions.

PART 2 COVENANTS

2.1 SURETY'S AND CONTRACTOR'S RELATIONSHIP

- A. Surety as surety, and CONTRACTOR as principal, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the OWNER as obligee, for the performance of the Construction Contract, whether awarded or about to be awarded.
- B. If CONTRACTOR performs the Construction Contract, the Surety and the CONTRACTOR shall have no obligation under this Bond.

2.2 NOTICE

- A. Notice to the Surety, the OWNER or the CONTRACTOR shall be sent by certified mail, facsimile, or hand delivered to the address shown on this Bond agreement.
- B. Notices sent as required by paragraph 2.2A shall be effective on the date on which such notice was sent.
- C. Notice may be sent by facsimile. Facsimile notice shall be effective on the date of transmission provided that a confirmation establishing the successful transmission of the notice is sent by first-class mail, postage prepaid, along with a copy of the notice transmitted, no later than twenty-four (24) hours after the facsimile notice is transmitted.
- D. If any notice requires a period of less than seven (7) days for response, the notice shall be sent by facsimile.
- E. If the time for response to any notice expires on a Saturday, Sunday or a legal holiday in the State of Utah, the time shall be extended to the next working day.

2.3 CONDITIONS OF SURETY'S LIABILITY

- A. With respect to the OWNER, this Bond agreement shall be null and void if the CONTRACTOR promptly takes the following actions:
1. promptly makes payment, directly or indirectly, for all sums due Claimants, and
 2. defends, indemnifies and saves harmless the OWNER from all claims, demands, Liens or suits by any person or entity who furnished labor, materials or equipment for use in the performance of the Work, provided the OWNER has tendered defense of such claims, demands, liens or suits to the CONTRACTOR and the Surety.

2.4 PROCEDURE TO INVOKE SURETY'S OBLIGATION

- A. **Concerning Claimants who have a Direct Contract with the CONTRACTOR:** The Surety shall have no obligation to Claimants under this Bond who are employed by or have a direct contract with the CONTRACTOR until Claimants have given notice to the Surety at the address shown on this Bond agreement and sent a copy, or notice thereof, to the OWNER, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.
- B. **Concerning Claimant who does not have a Direct Contract with the CONTRACTOR:** The Surety shall have no obligation to Claimant under this Bond who does not have a direct contract with the CONTRACTOR until Claimant takes the following actions.
1. The Claimant shall furnish written notice to the CONTRACTOR and send a copy, or notice thereof, to the OWNER, within 90 days after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials were furnished or supplied or for whom the labor was done or performed.
 2. The Claimant shall have either received a rejection in whole or in part from the CONTRACTOR, or not received within 15 days of furnishing the above notice any communication from the CONTRACTOR by which the CONTRACTOR has indicated the claim will be paid directly or indirectly.
 3. Not having been paid within the above 15 days, the Claimant shall have sent a written notice to the Surety at the address described on this Bond agreement and sent a copy, or notice thereof, to the OWNER stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to the CONTRACTOR.

2.5 SURETY'S OPTION TO SETTLE CLAIMS

- A. When the Claimant has satisfied the conditions of article 2.4, the Surety shall promptly and at the Surety's expense take the following actions.
 - 1. Send an answer to the Claimant, with a copy to the OWNER, within 45 days after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
 - 2. Pay or arrange for payment of any undisputed amounts.

2.6 SURETY'S OBLIGATION

- A. Surety's total obligations under this bond shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

2.7 USE OF FUNDS

- A. Amounts owed by OWNER to CONTRACTOR under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, against the Performance Bond (Document 00 61 13). By the CONTRACTOR furnishing and the OWNER accepting this Bond, they agree that all funds earned by the CONTRACTOR in the performance of the Work are dedicated as follows:
 - 1. The OWNER has first priority to use the funds for the completion of the Work.
 - 2. The CONTRACTOR and the Surety have second priority to use the funds to satisfy the obligations of the CONTRACTOR and the Surety under this Bond.

2.8 UNRELATED OBLIGATIONS OF THE CONTRACTOR

- A. The Surety and the OWNER shall not be liable to Claimants or others for obligations of the CONTRACTOR that are unrelated to the Construction Contract.
- B. The OWNER shall not be liable for payment of any damages, costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.

2.9 SURETY WAIVES NOTICE OF ANY CHANGE

- A. Surety hereby waives notice of any change to the Construction Contract including changes of Contract Time, Contract Price, and scope of Work, or to related subcontracts, purchase orders or other obligations.

2.10 VENUE

- A. Any suit or action commenced by a Claimant under this Bond shall be for action in a court of competent jurisdiction in the State of Utah.

2.11 COPIES OF THIS BOND

- A. Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the CONTRACTOR or OWNER shall promptly furnish a copy of this Bond or shall permit a copy to be made.

PART 3 EXECUTION

3.1 EFFECTIVE DATE

- A. Surety and CONTRACTOR executed this Bond agreement and declared it to be in effect as of the _____ day of _____, 20__.

3.2 CONTRACTOR'S SUBSCRIPTION AND ACKNOWLEDGMENT

- A. Type of organization:

_____ (corporation, partnership, individual, etc.)

- B. If CONTRACTOR is a corporation, attach a corporate resolution evidencing CONTRACTOR's authority to sign.

- C. CONTRACTOR's signature: _____

- D. Please print name here: _____

- E. Title: _____

- F. **Corporate Acknowledgment:** In the County of _____, State of _____, on the _____ day of _____, _____, personally appeared before me _____ and _____, who, being by me duly sworn did say that they are the _____, and _____, of _____, a _____ corporation, and that the foregoing instrument was signed in behalf of said corporation by authority of a resolution of its board of directors; and said persons acknowledged to me that said corporation executed the same.

Notary Public signature

Notary Public seal

G. **Partnership Acknowledgment:** In the County of _____, State of _____, on the _____ day of _____, _____, personally appeared before me _____ who, being by me duly sworn on oath did say that _____ is a partner in _____ partnership and that the foregoing instrument was signed pursuant to authorization of the partnership.

Notary Public signature

Notary Public seal

I. **Assumed Name Acknowledgment:** In the County of _____, State of _____, on the _____ day of _____, _____, personally appeared before me _____ who, being by me duly sworn did say that the foregoing instrument was signed with proper authority on behalf of _____ dba _____.

Notary Public signature

Notary Public seal

J. **Individual Acknowledgment:** In the County of _____, State of _____, on the _____ day of _____, _____, personally appeared before me _____, the signer of the foregoing instrument, who duly acknowledged to me that he/she executed the same.

Notary Public signature

Notary Public seal

3.3 SURETY'S SUBSCRIPTION AND ACKNOWLEDGMENT

- A. Attach evidence of Surety's corporate authority to sign.
- B. Surety's signature: _____
- C. Please print name here: _____
- D. Title: _____

E. **Acknowledgment:** In the County of _____,

_____, State of _____,

_____, on the _____ day of _____,

_____, before me, the undersigned notary, personally appeared

_____, who proved to me his/her identity through documentary evidence in the form of a

_____ to be the person whose name is signed as the authorized Surety and acknowledged to me that this document was signed voluntarily for its stated purpose.

Notary Public signature

Notary Public seal

END OF DOCUMENT

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CONDITIONS OF THE CONTRACT

DOCUMENT 00 72 00
GENERAL CONDITIONS
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END OF INDEX

DOCUMENT 00 72 00
GENERAL CONDITIONS

PART 1 GENERAL

1.1 DEFINED TERMS

- A. Wherever used in these General Conditions or in the other Contract Documents the following terms have the meanings indicated which are applicable to both the singular and plural thereof.
1. **Addenda:** Written or graphic instruments issued before the opening of Bids which clarify, correct or change the Contract Documents.
 2. **Agreement:** A written instrument which is part of the Contract Documents, and which when signed by the OWNER and CONTRACTOR, establishes the Contract Price, the Contract Time, the Punch List Time, the identity of the ENGINEER and other matters pertaining to the Construction Contract.
 3. **Agreement Supplement:** A written instrument executed by OWNER and Bidder in the time period between the opening of Bids and the signing of the Agreement which clarifies, corrects or changes the Contract Documents.
 4. **Application for Payment:** The form accepted by ENGINEER which is to be used by CONTRACTOR in requesting progress or final payments and which is to include such supporting documentation required by the Contract Documents.
 5. **Asbestos:** Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
 6. **Bid:** The offer of the Bidder submitted on the prescribed form setting forth the price for the Work to be performed.
 7. **Bid Documents:** The documents defined in the Bid, together with all Addenda and supplements issued before the Effective Date of the Agreement.
 8. **Bid Security:** Bid bond, cashier's check, or cash. Amount equal to a minimum of five (5) percent of the Bid price.
 9. **Bidder:** Any person, firm, joint venture or corporation submitting a Bid directly to the OWNER, as distinct from a sub bidder who submits a bid to a Bidder.
 10. **Bonds:** Bid, performance and payment Bonds, cash, cashier's or certified bank check and other instruments of security.

11. **Change Order:** A written instrument prepared by the ENGINEER signed by CONTRACTOR and OWNER on or after the Effective Date of the Construction Contract, which authorizes an addition, deletion, or revision in the Work, or an adjustment in the Contract Price, Contract Time or both.
12. **Claimant:** An individual or entity having a direct contract with the CONTRACTOR or with a Subcontractor or Supplier of the CONTRACTOR to furnish labor, materials, supplies or equipment for use in the performance of the Work. The intent of this definition shall be to include without limitation in the terms "labor, materials, supplies or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Work, architectural and engineering services required for performance of the work of the CONTRACTOR and the CONTRACTOR's Subcontractors, and all other items for which a claim may be asserted where the labor, materials, supplies or equipment were furnished.
13. **Construction Contract:** The entire and integrated compact between the OWNER and CONTRACTOR memorialized in the Contract Documents concerning the Work to be performed which supersedes prior negotiations, representations or agreements, either written or oral.
14. **Contract Documents:** The Bid Documents, Agreement, Agreement Supplement, General Conditions, Supplementary Conditions, Specifications, Standard Specifications, Drawings, Standard Plans together with all Modifications issued pursuant to article 3.3 herein after the Effective Date of the Construction Contract.
15. **Contract Price:** The total money payable by OWNER to the CONTRACTOR under the Contract Documents as stated in the Agreement and subject to the provisions of Paragraph 11.7A herein in the case of Unit Price Work.
16. **Contract Time:** The number of consecutive calendar days or the date specified in the Agreement for Substantial Completion of the Work.
17. **CONTRACTOR:** The person, firm or corporation named as such in the Agreement.
18. **Cost of the Work:** The sum of all costs necessarily incurred and paid by CONTRACTOR in the proper performance of the Work (refer to article 11.4).
19. **Day:** Any 24 hour period measured from mid-night to the next mid-night.
20. **Defective:** An adjective which when modifying the word "work" refers to work that is unsatisfactory, faulty or deficient, or does not conform to the Contract Documents, or does not meet the requirements of any Inspection, reference standard, test or approval referred to in the Contract Documents, or has been damaged before ENGINEER's Final Inspection (unless responsibility for the protection thereof has been assumed by OWNER at Substantial Completion in accordance with Paragraph 14.5A or 14.6B).
21. **Drawings:** The graphic and pictorial portions of the Contract

Documents prepared or approved by ENGINEER, showing the design, location and dimensions of the Work, and generally include, the plan, elevations, sections, details, schedules and diagrams. Drawings are also known as Plans.

22. **Effective Date of the Construction Contract:** The date indicated in the Agreement on which the Construction Contract becomes effective. If no such date is indicated, it means the date on which the Construction Contract is signed and delivered by the last of the two parties to sign and deliver.
23. **ENGINEER:** The person, firm or corporation designated in the Agreement as the OWNER's representative and agent for the Construction Contract, acting within the scope of the particular duties entrusted to such a person, firm or corporation. The person may be a licensed architect, licensed landscape architect, licensed engineer, licensed land surveyor or other individual.
24. **Final Inspection:** An Inspection of the Work (or agreed to portion), conducted by ENGINEER, after Work (or agreed to portion) is Substantially Complete.
25. **General Requirements:** Sections of Division 1 of the Standard Specifications and Specifications.
26. **Hazardous Waste:** The term hazardous waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
27. **Inspection:** The term "inspection" or its derivatives means a review of the Project, including but not limited to a visual review of the work completed to date. It does not include or imply an exhaustive or detailed review of the Work, nor does it create a duty on the part of the ENGINEER or OWNER to detect latent defects.
28. **Laws and Regulations; Laws or Regulations:** Any federal, state, county, city, or local jurisdiction's laws, rules, regulations, ordinances, codes and orders.
29. **Lien:** A charge, security interest or encumbrances upon materials or equipment.
30. **Lump Sum Work:** Work to be paid for on the basis of a stipulated price.
31. **Major Unit Price Item of Work:** Any item of Unit Price Work which has a total value greater than five (5) percent of the initial Contract Price.
32. **Milestone:** A principal event specified in the Contract Documents relating to an intermediate completion date or time before Substantial Completion of the Work.
33. **Modification:** Any Addendum, Agreement Supplement, Change Order, or Work Directive Change.
34. **Notice of Intent to Award:** The written notice by OWNER to the apparent successful Bidder stating that on compliance by the apparent successful Bidder with the conditions precedent enumerated therein, within the time specified, OWNER will sign and deliver the

Construction Contract.

35. **Notice to Proceed:** A written notice given by OWNER to CONTRACTOR fixing the date on which the Contract Time will commence and on which CONTRACTOR shall start to perform CONTRACTOR's obligations under the Contract Documents.
36. **OWNER:** The public body or authority, corporation, association or firm with whom CONTRACTOR has entered into the Agreement and for whom the Work is to be provided.
37. **Partial Utilization:** Placing a portion of the Work in service for the purpose for which it is intended (or a related purpose) before reaching Substantial Completion for all the Work.
38. **PCBs:** Polychlorinated biphenyl.
39. **Petroleum:** Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 deg. Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Wastes and crude oils.
40. **Plans:** Drawings.
41. **Project:** The total construction of which the Work to be provided under the Contract Documents may be the whole, or a part.
42. **Project Manual:** The bound documentary package prepared for bidding and constructing the Work.
43. **Punch List:** The list of unacceptable, incorrectly accomplished, damaged or unfinished work items compiled by ENGINEER at Final Inspection.
44. **Punch List Time:** The number of Days specified in the Agreement for the completion of the Final Inspection Punch List Work.
45. **Radioactive Material:** Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.
46. **Regular Working Hours:** Computation of regular working hours shall be based upon a 40 hour work week.
47. **Resident Project Representative:** The representative of ENGINEER assigned to the site or any part thereof.
48. **Shop Drawings:** All Drawings, diagrams, illustrations, schedules and other data prepared by or for CONTRACTOR to illustrate some portion of the Work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams and other information prepared by Suppliers and submitted by CONTRACTOR to illustrate material or equipment for some portion of the Work.
49. **Specifications:** Those portions of the Contract Documents consisting of written requirements for materials, equipment, construction systems, standards and workmanship as applied to the Work and certain administrative details applicable thereto. Bidding requirements, contract forms, and Conditions of the Contract are **not** Specifications.

50. **Standard Plans:** The graphical and text displays contained in the Manual of Standard Plans published by the Utah LTAP Center, Utah State University, Logan UT.
51. **Standard Specifications:** The specifications contained in this manual following these General Conditions.
52. **Subcontractor:** An individual, Supplier, firm or corporation having a contract with CONTRACTOR or with any other Subcontractor for the performance of a part of the Work.
53. **Substantial Completion:** A point in time when, in the opinion of the ENGINEER as evidenced by ENGINEER's written notice, the Work (or a specified part thereof) has progressed to where it is sufficiently complete, and only occasional construction personnel and equipment are required for correcting unfinished or Defective Work. The remaining work will not interfere with the Work area's intended use or occupancy. The terms "substantially complete" and "substantially completed" as applied to any work refer to substantial completion thereof.
54. **Supplementary Conditions:** The part of the Contract Documents that amends or supplements these general conditions.
55. **Supplier:** A manufacturer, fabricator, distributor, material producer or vendor who provides products to CONTRACTOR or Subcontractors.
56. **Underground Facilities:** All pipelines, conduits, ducts, cables, wires, access chambers, Vaults, tanks, tunnels or other such facilities or attachments, and any encasements containing such facilities which have been installed underground to furnish any of the following services or materials; electricity, gases, steam, liquid Petroleum products, telephone or other communication, cable television, sewage and drainage removal, traffic or other control systems or water.
57. **Unit Price Work:** Work to be paid for on the basis of unit prices.
58. **Work:** The construction and services required to be furnished under the Contract Documents which may be the whole or part of the Project. Work is the result of performing services, furnishing labor and furnishing and incorporating materials and equipment into the construction, as required by the Contract Documents.
59. **Work Completion:** The Work and all contractual obligations under the Contract Documents have been fulfilled and when final payment is due in accordance with Paragraph 14.9A.

60. **Work Directive Change:** A written directive to CONTRACTOR, issued on or after the Effective Date of the Construction Contract, prepared by the ENGINEER and signed by the OWNER, ordering an addition, deletion or revision in the Work as provided in article 10.1, or responding to differing or unforeseen physical conditions under which the Work is to be performed as provided in article 4.2 or 4.3 or to emergencies under article 6.13. A Work directive change requires agreement by the OWNER and the ENGINEER and may or may not be agreed to by the CONTRACTOR.

PART 2 PRELIMINARY MATTERS

2.1 DELIVERY OF BONDS AND INSURANCE

- A. When CONTRACTOR delivers the executed Agreement to OWNER, CONTRACTOR shall also deliver required Bonds and insurance certificates.

2.2 COPIES OF DOCUMENTS

- A. OWNER shall furnish to CONTRACTOR the number of copies of the Contract Documents as are reasonably necessary for the execution of the Work (up to 10 copies) unless additional copies are provided for in the Specifications. Additional copies will be furnished, upon request, at the cost of reproduction.

2.3 COMMENCEMENT OF CONTRACT TIME - NOTICE TO PROCEED

- A. **Contract Time:** Time is the essence of the contract. Unless indicated otherwise in the Bid Documents, addendum, or in a Change Order, in no event will the Contract Time commence later than the 74th Day after the Day of Bid opening or the 30th Day after the Effective Date of the Construction Contract, whichever date is earlier.
- B. **Notice to Proceed:** A Notice to Proceed may be given at any time, even within 30 Days after the Effective Date of the Construction Contract.

2.4 STARTING THE WORK

- A. CONTRACTOR shall start to perform work on the date when the time for the Contract Time commences. No work shall be done at the site before that date.

2.5 BEFORE STARTING CONSTRUCTION

- A. **In General:** Before starting each part of the Work, CONTRACTOR shall carefully study and compare the Contract Documents and check and verify pertinent figures shown thereon and all applicable field measurements. CONTRACTOR shall promptly report in writing to ENGINEER any conflict, error or discrepancy that CONTRACTOR may discover and shall obtain a written interpretation or clarifications from ENGINEER before proceeding with any work affected thereby.
- B. **Submittals:** Within 10 Days after the Effective Date of the Construction Contract, CONTRACTOR shall submit to ENGINEER, in reasonable detail and form acceptable to ENGINEER, copies of the following

documents.

1. **Preliminary Progress Schedule:** The preliminary progress schedule shall show starting and completion dates for each construction sequence and:
 - a. submittal dates and dates required for approved submittals for Shop Drawings, product data and samples;
 - b. decision dates for products specified by allowances, selection of finishes and critical material or equipment release orders;
 - c. product procurement and delivery dates;
 - d. holiday cleanup preparations, And
 - e. specific dates for all special Inspections required before any utilities "turn-on" including temporary power.
 2. **Preliminary Shop Drawing Schedule:** A supplemental schedule to the preliminary progress schedule shall show all Shop Drawing submissions required for the Work.
 3. **Preliminary Schedule of Values:** The preliminary schedule of values (for Lump Sum Work), which includes provisions set forth in quantities and prices of items aggregating the Contract Price, shall subdivide the Work into component parts in sufficient detail to serve as the basis for progress payments during construction. Such prices will include an appropriate amount of overhead and profit applicable to each item of work. Bond expense shall not be prorated, but shall be shown as a separate item.
 4. **Mobilization Program:** The site mobilization program shall allow for field office and trailer locations, material storage locations, power requirements for trailers, if any, and sanitary facilities.
 5. **Permits:** The listing of, and photocopies of permits that the CONTRACTOR is required to purchase and maintain in accordance with article 6.7.
 6. **Quality Control Program:** The written program for the control of product quality and workmanship.
 7. **Safety and Protection Plan:** The safety and protection plan shall comply with article 6.12.
- C. **Field Office:** When specified, the CONTRACTOR shall establish and maintain a field office in such a location that ENGINEER may always contact CONTRACTOR for transmittal of Plans, instructions and dissemination of Project information. Unless waived by ENGINEER, CONTRACTOR shall provide and maintain a telephone and facsimile machine in the field office during work performance.

2.6 PRECONSTRUCTION CONFERENCE

- A. Within 20 Days after the Contract Time starts to run, but before starting any work, CONTRACTOR shall attend a conference with ENGINEER and others:
 1. To discuss the schedules referred to in Paragraph 2.5B;
 2. To discuss procedures for handling Shop Drawings and other

- submittals;
3. To discuss procedures for processing applications for payment;
 4. To establish a working understanding among the parties as to the Work;
 5. To review or discuss other items deemed necessary by ENGINEER or CONTRACTOR, and
 6. To designate the name of the individual who shall be CONTRACTOR's resident superintendent at all times while work is in progress. When the CONTRACTOR is comprised of two (2) or more persons, firms, partnerships or corporations functioning on a joint venture basis, before starting the Work, CONTRACTOR shall designate in writing the name of a representative who shall have the authority to represent and act for the joint venture persons, firms, partnerships or corporations at all times while the Work is in progress.

2.7 FINALIZING SCHEDULES

- A. At least 10 Days before submission of the first Application for Payment, CONTRACTOR shall attend a conference with ENGINEER and others as appropriate to finalize the schedules submitted in accordance with Paragraph 2.5B.
 1. **Progress Schedule:** The finalized progress schedule must be acceptable to ENGINEER as providing an orderly progression of the Work to completion within the Contract Time. The critical path must be fully defined. Acceptance will neither impose on ENGINEER responsibility for the progress or scheduling of the Work nor release nor relieve the CONTRACTOR from full responsibility therefore.
 2. **Schedule of Shop Drawings:** The finalized schedule of Shop Drawings submissions must be acceptable to ENGINEER as providing a workable arrangement for processing the submissions.
 3. **Schedule of Values:** The finalized schedule of values shall conform to the requirements of Articles 11.4 and 11.5 and must be acceptable to ENGINEER in form and substance.

2.8 COMMUNICATIONS FACILITATING CONTRACT ADMINISTRATION

- A. Except as otherwise provided in the Contract Documents, or when direct communications have been specially authorized, the OWNER and CONTRACTOR shall communicate through the ENGINEER.
- B. Communication by and with ENGINEER's consultants shall be through the ENGINEER.
- C. Communications by and with Subcontractors and Suppliers shall be through the CONTRACTOR.
- D. Communications by and with separate contractors shall be through the ENGINEER.

PART 3 CONTRACT DOCUMENTS, INTENT, AMENDING, REUSE

3.1 INTENT

- A. **In general:** It is the intent of the Contract Documents to describe a functionally complete Project to be constructed in accordance with the Contract Documents.
- B. **Contract Documents are Complementary:** The Contract Documents are complementary; what is required by one document or provisions thereof is binding as if required by all the documents or provisions thereof.
- C. **Incidental Work:** Any work, materials or equipment that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result will be supplied by CONTRACTOR at no additional cost to the OWNER whether or not specifically referenced.
- D. **Technical or Trade Words:** When words which have a well-known technical or trade meaning are used to describe the Work, materials or equipment, such words shall be interpreted in accordance with that meaning.

3.2 RESOLVING DISCREPANCIES

- A. **References:** Reference to manuals or codes of any technical society, organization or association, or to the Laws or Regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest manual, code or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Construction Contract, if there were no Bids), except as may be otherwise specifically stated.
- B. **Duties of CONTRACTOR or ENGINEER Not Changed:** No provision of any referenced manual or code (whether or not specifically incorporated by reference in the Contract Documents) shall be effective to change the duties and responsibilities of CONTRACTOR or ENGINEER from those set forth in the Contract Documents, nor shall it be effective to assign to ENGINEER, or any of ENGINEER's consultants, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of Paragraphs 9.9C or 9.9D.
- C. **Conflict, Error, Discrepancy, Omission in Contract Documents:** If, during the performance of the Work, CONTRACTOR finds or identifies a conflict, error, discrepancy, or omission in the Contract Documents, CONTRACTOR shall so report to ENGINEER in writing at once. Before proceeding with work affected thereby CONTRACTOR shall obtain a written interpretation or clarification from ENGINEER as provided in Article 9.4.
 - 1. **Dimensions on Drawings:** In the event of any discrepancy between the measured dimensions on any Drawing and the written dimensions shown thereon, the written dimensions shall be taken as correct.
 - 2. **Detail Drawings:** Detail Drawings, regardless of trade or item of work, shall prevail over general Drawings.
 - 3. **Work shown on the Drawings:** Any part of the Work which is not mentioned in the Bid Documents or Specifications, but which is shown on the Drawings, shall be furnished and installed by CONTRACTOR as if fully described in the Bid Documents or

Specifications and at no additional cost the OWNER.

4. **Irreconcilable Conflict:** Only in case of irreconcilable conflict between provisions within the Contract Document or between Contract Documents, the intent of the Contract Documents shall be interpreted in accordance within the following priorities.
 - a. A particular Modification shall govern over all Contract Documents or Modifications issued before said particular Modification.
 - b. These General Conditions shall govern over all Contract Documents except the Agreement, Agreement Supplement, Supplementary Conditions, Addenda and Modifications.
 - c. The Specifications shall govern over Drawings, Standard Specifications, and Standard Plans.
 - d. The Drawings shall govern over the Standard Specifications and Standard Plans.
5. **Notification Still Required:** The priority provisions of Paragraph 3.2C4 above shall not relieve CONTRACTOR of notifying OWNER of such an irreconcilable conflict.
- D. **Capitalization:** Terms capitalized in these General Conditions include those which are (1) specifically defined, (2) the title of numbered Articles and identified references, and (3) the title of referenced documents. If any terms are capitalized which do not fit within these categories, the capitalization shall be ignored.
- E. **Headings:** Any headings preceding the text of paragraphs in a Contract Document are inserted solely for convenience of reference and shall not affect its meaning, content or effect or be referred to in any interpretation thereof.

3.3 AMENDING AND SUPPLEMENTING CONTRACT DOCUMENTS

- A. The Contract Documents may be amended on or after the Effective Date of the Construction Contract to provide for additions, deletions and revisions in the Work or to modify the terms and conditions thereof in one or more of the following ways:
 1. A Work Directive Change (Paragraph 10.1B); or
 2. A Change Order (Paragraph 10.1C).
- B. As indicated in Articles 11.2 and 12.1, Contract Price and Contract Time may only be changed by a Change Order.
- C. The requirements of the Contract Documents may be supplemented and minor variations and deviations in the Work may be authorized, in one or more of the following ways:
 1. ENGINEER's review of a Shop Drawing or sample (pursuant to Paragraphs 6.14F and 6.14G); or
 2. ENGINEER's written interpretation or clarification (pursuant to Article 9.4).

3.4 REUSE OF DOCUMENTS

- A. Neither CONTRACTOR nor any Subcontractor or Supplier or other

person or organization performing or furnishing any of the Work under a direct or indirect contract with OWNER shall have or acquire any title to or ownership rights in any of the Drawings, Specifications or other documents (or copies of any thereof) prepared by or for ENGINEER, And they shall not reuse any of them on extensions of the Project or any other project without written consent of OWNER.

3.5 INTERPRETATION AND VENUE

- A. The Contract Documents will be construed in accordance with the laws of the State of Utah. Any court action arising from the Construction Contract shall be brought in an appropriate federal or state court with appropriate jurisdiction in which the OWNER resides.

PART 4 AVAILABILITY OF LANDS, SUBSURFACE AND PHYSICAL CONDITIONS; REFERENCE POINTS

4.1 AVAILABILITY OF LANDS

- A. OWNER shall furnish the lands upon which the Work is to be performed, right-of-ways and easements for access thereto, and such other lands which are designated for the use of CONTRACTOR in the Contract Documents. Easements for permanent structures or permanent changes in existing facilities will be obtained and paid for by OWNER unless otherwise provided in the Contract Documents. In the event of OWNER's delay in furnishing these lands, right-of-ways or easements, if CONTRACTOR believes that any delay entitles CONTRACTOR to an increase in the Contract Price or an extension of the Contract Time, CONTRACTOR may make a claim therefore as provided in Parts 11 and 12 hereof. CONTRACTOR shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.2 PHYSICAL CONDITIONS - GENERAL

- A. **Explorations and Reports:** Reference, when applicable, is made to geotechnical data in the Bid Documents for identification of those reports of explorations and tests of subsurface conditions at the site that have been utilized by ENGINEER in preparation of the Contract Documents. CONTRACTOR may rely upon the accuracy of the technical data contained in such reports at the locations and the indicated depths where the data was obtained, but not upon the other information, interpretations or opinions contained therein or for the completeness thereof, expressed or implied. Except as indicated in the immediately preceding sentence and in Paragraph 4.2C, CONTRACTOR shall have full responsibility with respect to subsurface conditions at the site.
- B. **Existing Structures:** Reference, when applicable, is made to the Supplementary Conditions for identification of those drawings of physical conditions in or relating to existing surface and subsurface structures (except Underground Facilities referred to in article 4.3) which are at or contiguous to the site that have been utilized in preparing the Contract Documents. CONTRACTOR may rely upon the accuracy of the technical data contained in such drawings, but not upon the completeness thereof for

CONTRACTOR's purposes. Except as indicated in the immediately preceding sentence and in Paragraph 4.2C, CONTRACTOR shall have full responsibility with respect to physical conditions in or relating to such structures.

- C. **Differing Site Conditions:** If CONTRACTOR believes that any technical data on which CONTRACTOR is entitled to rely as provided in Paragraphs 4.2A and 4.2B is inaccurate, or any physical condition uncovered or revealed at the site differs materially from that indicated in the Contract Documents, or unknown physical conditions exist at the site which are of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Construction Contract, CONTRACTOR shall immediately notify ENGINEER in writing before performing any work in connection therewith. Failure by the CONTRACTOR to give notice about the inaccuracy or difference, and the performance of any work in connection with said differing site conditions (except in an emergency as permitted by article 6.13), shall bar the CONTRACTOR from making any claim for additional compensation in connection therewith.
1. **ENGINEER's Review:** ENGINEER will review the alleged or claimed differing conditions and determine if it is necessary to obtain additional explorations or tests with respect thereto.
 2. **Possible Document Change:** If the ENGINEER concludes that there is a material error in the Contract Documents, or that a change in the Contract Documents is required, a Change Order will be issued as provided in Part 10 to reflect and document the consequences of the inaccuracy or difference.
 3. **Possible Price and Time Adjustments:** For such possible document change an increase or decrease in the Contract Price or an extension or shortening of the Contract Time, or any combination thereof, may be allowable to the extent the ENGINEER determines that they are attributable to any such inaccuracy. If ENGINEER and CONTRACTOR are unable to agree as to the amount or length thereof, a claim may be made therefore as provided in Parts 11 and 12.
- D. **Hazardous Substances:** Neither OWNER nor ENGINEER are aware of any hazardous substances which may be encountered in performance of the Work except as may be specifically disclosed elsewhere in the Contract Documents. Neither OWNER nor ENGINEER have specifically inspected the site to determine any such presence except as disclosed in the Contract Documents.

4.3 PHYSICAL CONDITIONS - UNDERGROUND FACILITIES

- A. **Shown or Indicated:** The information shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the site is based on information and data furnished to OWNER or ENGINEER by the owners of such Underground Facilities or by others. OWNER shall not be responsible for the accuracy or completeness of any such information.
1. **One-call Center:** The CONTRACTOR shall have full responsibility for reviewing and verifying all such information, with the one-call center (Blue Stake location center) or other utility coordination service

- a minimum of two (2) working Days before any excavation to locate all Underground Facilities shown or indicated in the Contract Documents. The CONTRACTOR shall have full responsibility for any damages to Underground Facilities or costs resulting from the damage to such facilities, in those instances where the CONTRACTOR did not dependently locate and verify the location of such facilities.
2. **Tolerances:** The information presented is considered accurate to within three (3) feet vertical and four (4) feet horizontal on each side of the utility location shown on the Drawings. Should a utility so shown not be within said tolerances, said utility shall be handled as outlined in Paragraph 4.3B below.
 3. **Coordination:** The CONTRACTOR shall coordinate the Work with the owners of such Underground Facilities during construction and shall be responsible for the safety and protection thereof as provided in article 6.12.
 4. **Costs:** If work is performed within the above referenced tolerances, the cost of all of the above including repair of any damages therein resulting from performance of the Work will be considered as having been included in the Contract Price and no additional compensation will be allowed therefore.
- B. **Not Shown or Indicated:** If an Underground Facility is uncovered or revealed at or contiguous to the site which was not shown or indicated in the Contract Documents and which CONTRACTOR could not reasonably have been expected to be aware of, CONTRACTOR shall, promptly after becoming aware thereof and before performing any work affected thereby (except in an emergency as permitted by article 6.13), identify the owner of such Underground Facility and give written notice thereof to that owner and to ENGINEER.
1. **ENGINEER to Modify Contract Documents:** ENGINEER will promptly review the Underground Facility to determine the extent to which the Contract Documents should be modified to reflect and document the consequences of the existence of the Underground Facility, and the Contract Documents will be amended or supplemented to the extent necessary.
 2. **Safety and Protection:** During such time, CONTRACTOR shall be responsible for the safety and protection of such Underground Facility as provided in article 6.12.
 3. **Contract Price or Contract Time Adjustment:** CONTRACTOR may be allowed an increase in the Contract Price or an extension of the Contract Time, or both, to the extent that they are attributable to the existence of any Underground Facility that was not shown or indicated in the Contract Documents, or that was not identified by the CONTRACTOR where such identification could have been made through a reasonably prudent investigation by the CONTRACTOR.
 4. **Claims:** If the parties are unable to agree as to the Contract Price or Contract Time adjustments, CONTRACTOR may make a claim therefore as provided in Parts 11 and 12.

4.4 REFERENCE POINTS AND MONUMENTS

- A. OWNER shall provide land surveys to establish reference points for construction which in ENGINEER's judgment are necessary to enable CONTRACTOR to proceed with the Work. CONTRACTOR shall be responsible for laying out the Work, shall protect and preserve the established reference points and shall make no changes or relocations without the prior written permission of OWNER. CONTRACTOR shall report to ENGINEER whenever any reference point is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points by professionally qualified personnel.
- B. CONTRACTOR shall not disturb any survey monuments found on the line of the improvements until ordered by the ENGINEER. No survey monument shall be disturbed or moved until ENGINEER has been notified and ENGINEER has referenced the survey monument for resetting.

4.5 ASBESTOS, PCBs, PETROLEUM, HAZARDOUS WASTE OR RADIOACTIVE MATERIAL

- A. Neither OWNER nor ENGINEER are aware of any hazardous substances which may be encountered in performing work except as may be specifically disclosed elsewhere in the Contract Documents. Neither OWNER nor ENGINEER has specifically inspected the site to determine any such presence except as disclosed in the Contract Documents. The provisions of articles 4.2 and 4.3 shall not apply to Asbestos, PCBs, Petroleum, Hazardous Waste or Radioactive Material uncovered or revealed at the site.

PART 5 BONDS AND INSURANCE

5.1 PERFORMANCE, PAYMENT AND OTHER BONDS

- A. Reference is made to the Supplementary Conditions for identification of Bonds that may be or are required for the Work.

5.2 INSURANCE

- A. Reference is made to the Supplementary Conditions for identification of the insurance policies required for the Work.

PART 6 CONTRACTOR'S RESPONSIBILITIES

6.1 CONTROL OF THE WORK

- A. **Means, Methods, Techniques, Sequences, Procedures of Construction:** CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences and procedures of construction. CONTRACTOR shall be responsible to ensure that the completed work complies with the Contract Documents. CONTRACTOR shall supervise, direct and control the Work competently and efficiently. CONTRACTOR shall devote such

attention thereto and applying such skill and expertise as necessary to perform work in accordance with the Contract Documents.

- B. **Resident Superintendent:** CONTRACTOR shall designate in writing and keep on site at all times during progress of the Work, a competent resident superintendent. The superintendent shall not be replaced without written notice to ENGINEER except under extraordinary circumstances. The superintendent shall have authority to act on behalf of CONTRACTOR.
- C. **Communications:** All communications given to the resident superintendent by ENGINEER shall be as binding as if given to CONTRACTOR. If CONTRACTOR's resident superintendent is not present on site or on any part of the Work, ENGINEER may give communications to an employee of the CONTRACTOR or to the CONTRACTOR's Subcontractor or Suppliers who may have charge of the particular portion of the Work in reference to which the communications are given. Without being contrary to the provisions of Paragraphs 9.9C or 9.9D, such communications shall be considered given by the ENGINEER to the CONTRACTOR when confirmed in writing and delivered to the CONTRACTOR's resident superintendent.
- D. **CONTRACTOR not agent of OWNER:** ENGINEER's right to enforce provisions of the Contract Documents shall not make the CONTRACTOR, nor the CONTRACTOR's agents, employees, Subcontractors, or Suppliers, agents of the OWNER. The liability of the CONTRACTOR for all damages to persons or to public or private property, arising from CONTRACTOR's execution of the Work, shall not be diminished because of ENGINEER's enforcement of the Contract Documents.

6.2 LABOR, MATERIALS AND EQUIPMENT

- A. **Personnel and Discipline:** CONTRACTOR shall provide competent, qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. CONTRACTOR shall at all times maintain good discipline and order at the site. If any Subcontractor or employee of the CONTRACTOR shall appear to ENGINEER to be incompetent or to act in a disorderly or disobedient manner, the person shall be immediately removed from the Project upon the request of the ENGINEER, and such person shall not be employed again on the Work.
- B. **Regular Working hours:** Except in connection with the safety or protection of persons or the Work or property at the site or adjacent thereto, and except as otherwise indicated in the Contract Documents, all Work at the site shall be performed during Regular Working hours.
- C. **Overtime:** If CONTRACTOR permits overtime work or the performance of work on Saturday, Sunday or any legal holiday CONTRACTOR shall do so at no increase to the Contract Price and shall give prior written notice to ENGINEER.
- D. **Temporary Facilities:** Unless otherwise specified in the Contract Document (e.g. OWNER-supplied materials, etc.), CONTRACTOR shall furnish and assume full responsibility for all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary

facilities and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up, completion or suspension of the Work.

- E. **Materials and Equipment:** All materials and equipment shall be applied installed, connected, erected, used, cleaned and conditioned in accordance with instructions of the applicable Supplier, except as otherwise provided in the Contract Documents; but no provision of any such instructions shall be effective to assign to OWNER, ENGINEER, or any of OWNER's representatives, consultants, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of Paragraphs 9.9C or 9.9D. All warranties and guarantees specifically called for by the Specifications shall expressly run to the benefit of OWNER.
1. **Adequate, Safe and Suitable Equipment:** The CONTRACTOR shall provide adequate, safe and suitable equipment to meet the work requirements, and when ordered by the ENGINEER, shall remove unsuitable equipment from the Work site.
 2. **Operating Construction Equipment on Site:** No construction equipment or machinery shall be operated upon paved streets, sidewalks, landscaped areas or prepared roadway shoulders which may be injurious to said areas.
 3. **Quality, New:** All materials and equipment to be installed in the Work shall be of good quality and new, except as otherwise provided in the Contract Documents. If required by ENGINEER, CONTRACTOR shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment.
 4. **Certificate of Compliance:** The ENGINEER may permit the use of certain materials or assembly before sampling and testing if accompanied with a certificate of compliance stating that materials involved comply in all respects with the requirements of the Contract Documents subject to the following conditions:
 - a. the form of a certificate of compliance and its disposition shall be as directed by the ENGINEER;
 - b. the certificate shall be signed by the manufacturer of the materials or the manufacturer of the assembled material;
 - c. the certificate must be furnished with each material or assembly of material delivered to the Work site and the material or assembly of material so certified must be clearly identified in the certificate;
 - d. all materials used on the basis of a certificate of compliance may be contested at any time;
 - e. the fact that material is used on the basis of a certificate of compliance shall not relieve CONTRACTOR from the responsibility of incorporating material in the Work which conforms to requirements of the Contract Documents and any such material not conforming to such compliance, whether or not in place, shall be removed and replaced at no additional cost to

the OWNER, and

- f. OWNER reserves the right to refuse to permit the use of material on the basis of a certificate of compliance.

6.3 ADJUSTING PROGRESS SCHEDULE

- A. **Changes:** CONTRACTOR shall submit to ENGINEER adjustments in the progress schedule which reflect the impact thereon of changes to the Work.
 1. Proposed adjustments in the progress schedule that will not change the Contract Time or Milestones will conform generally to the progress schedule then in effect and additionally will comply with any provisions of Paragraph 2.5. Such submittal must be accepted by ENGINEER before the adjusted schedule becomes effective.
 2. Proposed adjustments in the progress schedule that will change the Contract Time or Milestones shall be submitted in accordance with the requirements of article 12.1. Such adjustments may only be made by a Change Order in accordance with article 3.3.
- B. **Float Time:** Any float time used in the progress schedule shall not be owned solely by OWNER or CONTRACTOR.
 1. Float time shall be allocated and used in the best interests of the Work.
 2. CONTRACTOR's schedules shall reflect CONTRACTOR's use of float time and specify the reason for CONTRACTOR's use.
 3. The progress schedule shall reflect OWNER's use of float time.
 4. OWNER shall notify CONTRACTOR of OWNER's claim to use any float time and shall specify the reason for such use.

6.4 SUBSTITUTES OR "OR-EQUAL" ITEMS

- A. **Proprietary Item or Particular Supplier:** Whenever materials or equipment are specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, such naming is intended to establish the type, function, and quality required. Unless the Specification or description contains or is followed by words reading that no Substitution is permitted, material and equipment of other Suppliers may be accepted by ENGINEER. Review and acceptance of the "or equal" substitute item may, in ENGINEER's sole discretion, be accomplished without compliance with some or all of the following requirements for acceptance of proposed substitute items:
 1. Requests for review of substitute items of material and equipment will not be accepted by ENGINEER from anyone other than CONTRACTOR;
 2. CONTRACTOR shall first make written application to ENGINEER for acceptance of proposed substitute item of material or equipment;
 3. CONTRACTOR shall certify that the proposed substitute will function and achieve the results called for by the general design, be similar in substance to that specified, and be suited to the same use as that specified;
 4. the application shall state that the evaluation and acceptance of the

- proposed substitute will not prejudice CONTRACTOR's achievement of Substantial Completion on time, whether or not acceptance of the substitute for use in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with OWNER for work on the Project) to adapt the design to the proposed substitute and whether or not incorporation or use of the substitute in connection with the Work is subject to payment of any license fee or royalty;
5. All variations of the proposed substitute from that specified will be identified in the application and the nature and extent of available maintenance, repair and replacement service will be indicated;
 6. the application will also contain an itemized estimate of all costs or credits that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of separate contractors affected by the resulting change, all of which will be considered by ENGINEER in evaluating the proposed substitute;
 7. all data to be provided by CONTRACTOR in support of any substitute item or proposed substitute item will be at CONTRACTOR's expense, And
 8. ENGINEER may require CONTRACTOR to furnish at CONTRACTOR's expense additional data which ENGINEER determines to be necessary to evaluate the proposed substitute item.
- B. **Substitute Construction Methods or Procedures:** If a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Contract Documents, CONTRACTOR may furnish or utilize a substitute means, method, sequence, technique or procedure of construction acceptable to ENGINEER, if CONTRACTOR submits sufficient information to allow ENGINEER, in ENGINEER's sole discretion, to determine that the substitute proposed is equivalent to that indicated or required by the Contract Documents. The procedure for review by ENGINEER will be similar to that provided in Paragraph 6.4A as applied by ENGINEER and as supplemented in Section 01 25 00 of the General Requirements in the Standard Specifications.
- C. **Time Required for Review of Substitute:** Proposed substitutes shall be made in ample time to permit review and written approval without delaying the Work. ENGINEER will be the sole judge of acceptability, and no substitute will be ordered, installed or utilized without ENGINEER's prior written acceptance which will be evidenced by either a Change Order or an approved Shop Drawing.
- D. **Special Performance Guarantee:** OWNER may require CONTRACTOR to furnish at CONTRACTOR's expense a special performance guarantee or other surety with respect to any substitute.
- E. **OWNER's Costs:** CONTRACTOR shall reimburse OWNER for all charges or expenses incurred by OWNER regarding any request for Substitution per this Part whether or not such request is approved.
- F. **No Extra Time for Review:** CONTRACTOR's request to use substitute materials and equipment or methods per this article and ENGINEER's review of such request shall not extend the Contract Time.

6.5 SUBCONTRACTORS, SUPPLIERS AND OTHERS

- A. **General:** CONTRACTOR shall not employ any Subcontractor, Supplier or other person or organization (including those acceptable to OWNER as indicated in Paragraph 6.5B), whether initially or as a substitute, against whom OWNER may have reasonable objection. CONTRACTOR shall not be required to employ any Subcontractor, Supplier or other person or organization to furnish or perform any work against whom CONTRACTOR has reasonable objection.
- B. **Adjustment for Substitution of Subcontractor, Suppliers and Other Person:** If any Subcontractor, Supplier or other person or organization, which was identified by CONTRACTOR before the Effective Date of the Construction Contract, is to be replaced by the CONTRACTOR, or on request of the OWNER on the basis of reasonable investigation, CONTRACTOR shall propose in writing to the OWNER an acceptable Subcontractor, Supplier or other person or organization substitute. If OWNER's request is based upon Defective Work or CONTRACTOR's failure to comply with the Contract Documents, the Contract Price shall remain unchanged, otherwise, the Contract Price will be adjusted by the difference in the cost occasioned by such replacement and an appropriate Change Order signed. No acceptance by OWNER of any Subcontractor, Supplier or other person or organization shall constitute a waiver of any right of OWNER or ENGINEER to reject Defective Work or any other right under the Contract Documents or under Law or Regulations.
- C. **OWNER - CONTRACTOR - Subcontractor Relationships:** CONTRACTOR shall be fully responsible to OWNER for all acts and omissions of Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect contract with CONTRACTOR just as CONTRACTOR is responsible for acts and omissions of CONTRACTOR's own agent or employee. Nothing in the Contract Documents shall create any contractual relationship between OWNER and any such Subcontractor, Supplier or other person or organization, nor shall it create any obligation on the part of OWNER to pay or to see to the payment of any moneys due any such Subcontractor, Supplier or other person or organization except as may otherwise be required by Laws and Regulations.
- D. **Responsibility for Subcontractor Licensing:** Proper licensing under state or local Law and Regulations to perform the work of a subcontract shall be the responsibility of the CONTRACTOR and the Subcontractor or Subcontractors involved. OWNER does not assume any responsibility for the terms and conditions of the contract between CONTRACTOR and Subcontractor. OWNER's requirement that CONTRACTOR submit a Subcontractor and Supplier report shall not be construed as an assumption by OWNER of any responsibility for said licensing requirements or terms and conditions of subcontracts.
- E. **Contract Documents Do Not Subdivide the Work:** The Divisions and Sections of the Specifications and the identifications of any Drawings shall not control CONTRACTOR in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- F. **Subcontractor Agreements:** All work performed for CONTRACTOR by

a Subcontractor will be pursuant to an appropriate written agreement between CONTRACTOR and the Subcontractor which specifically binds the Subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of OWNER. If requested by OWNER, CONTRACTOR shall provide copies of such agreements to OWNER.

- G. **Subcontractor or Supplier Default:** When any part of the Work has been subcontracted and is not being prosecuted in a manner satisfactory to ENGINEER, CONTRACTOR shall cause such failure to be corrected as required by the Construction Contract. In such a case, no additional compensation will be paid to CONTRACTOR for completing the part of the Work.
- H. **Conflict of Interest, Subcontractors:** No agency or company which is or has been under contract to the OWNER to provide design, design reviews, soil testing, material testing, surveying and any other such functions associated with the design phase of the Work shall be used as a Subcontractor by the CONTRACTOR.

6.6 PATENT FEES AND ROYALTIES

- A. **In General:** CONTRACTOR shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product or device is specified in the Contract Documents for use in the performance of the Work and if to the actual knowledge of OWNER its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by OWNER in the Contract Documents.

6.7 PERMITS

- A. **In General:** Unless otherwise provided in the Supplementary Conditions, CONTRACTOR shall obtain and pay for all permits, licenses and Inspections. The CONTRACTOR shall, without additional cost to the OWNER, give all notices and pay all necessary fees (including Plan check fees) in connection with the performance of the Construction Contract. CONTRACTOR shall furnish a copy of permits and licenses (except permanent easements) to the ENGINEER before CONTRACTOR commencing Work there-under.
- B. **Governmental Charges and Inspection Fees:** CONTRACTOR shall pay all governmental charges and Inspection fees necessary for the prosecution of the Work, which are applicable at the time of opening of Bids, or if there are no Bids, on the Effective Date of the Construction Contract.
- C. **Utility Connection Fees and Plant Investment Fees:** CONTRACTOR shall pay all charges of utility owners for connections to the Work, and OWNER shall pay all charges of such utility owners for capital costs related thereto such as plant investment fees.
- D. **Temporary Utilities:** CONTRACTOR shall make all arrangements for electricity, sewer, gas and telephone from the appropriate utility companies. All utility lines will be on the surface of the ground, underground or placed on temporary poles and shall conform to the

appropriate load requirements. No pole shall be erected without approval of the ENGINEER. Relocation of temporary utilities shall be paid for by the CONTRACTOR at no additional cost to the OWNER.

- E. **Uniform Building Code:** CONTRACTOR shall arrange for all necessary Inspections required by the appropriate governmental authority(ies). Before final payment is issued, CONTRACTOR shall deliver to the ENGINEER copies of all certificates of Inspection.
- F. **Waterworks Connections:** If CONTRACTOR desires to use OWNER's water, it shall first contact ENGINEER and make arrangements therefore. CONTRACTOR shall pay all necessary charges, and usage costs.
- G. **Utah Pollutant Discharge Elimination System (UPDES) Permit:** An UPDES permit shall be secured by CONTRACTOR, at CONTRACTOR's sole expense, if the construction site requires such a permit under Utah Water Quality Act, Title 19, Chapter 5, Utah Code Annotated 1953, as amended. The agency responsible for verifying permit requirement is the State of Utah Department of Environmental Quality, Division of Water Quality.

6.8 LAWS AND REGULATIONS

- A. CONTRACTOR shall give all notices and comply with all Laws and Regulations applicable to furnishing and performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, OWNER shall not be responsible for monitoring CONTRACTOR's compliance with any Laws and Regulations nor the compliance of any of CONTRACTOR's agents, employees, Subcontractors, or Suppliers.
- B. If CONTRACTOR observes that the Specifications or Drawings are at variance with any Laws or Regulations, CONTRACTOR shall give ENGINEER prompt written notice thereof, and any necessary changes will be authorized by one of the methods indicated in Paragraph 3.3A. If CONTRACTOR performs any work knowing or having reason to know that it is contrary to such Laws or Regulations, and without such notice to ENGINEER, CONTRACTOR shall bear all costs arising therefrom.

6.9 TAXES

- A. Except for OWNER-supplied material, CONTRACTOR shall pay all sales, consumer, use and other similar taxes which are required to be paid during the performance of the Work in accordance with applicable Laws and Regulations.

6.10 USE OF PREMISES

- A. **Use of Premises, Damage:** CONTRACTOR shall confine construction equipment, the storage of materials and equipment and the operations of workers to the Project site and land and areas identified in and permitted by the Contract Documents and other land and areas permitted by Laws and Regulations, right-of-ways, permits and easements, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment. CONTRACTOR shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any such land or areas contiguous thereto, resulting from the performance of the Work.

- B. **Clean Work Site:** During the progress of the Work, CONTRACTOR shall keep the premises free from accumulations of waste materials, rubbish and other debris resulting from the Work. At the completion of each portion of the Work CONTRACTOR shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery, and surplus materials, and shall leave the site clean and ready for occupancy by OWNER.
- C. **Restoration of Property, Clean Neighborhood, Costs:** CONTRACTOR shall restore to original condition all property not designated for alteration by the Contract Documents. Failure by CONTRACTOR to repair damage or disturbance or to maintain the job site, adjacent areas and haul routes in a clean and neat condition in accordance with Contract Documents will result in OWNER, after reasonable notice to CONTRACTOR, providing the equipment and labor necessary to clean up the said areas and charging the costs thereof to CONTRACTOR. "Cleanliness" requires removal of rocks, dirt, and spillage.
- D. **Load Safety:** CONTRACTOR shall not load or permit any part of any structure at the Work site to be loaded in any manner that will endanger the structure. CONTRACTOR shall not subject any part of the Work or adjacent property to stresses or pressures that will endanger either of them.
- E. **CONTRACTOR to Indemnify, Save OWNER Harmless:**
CONTRACTOR shall assume full responsibility for any damage to:
1. the Project site, land and areas identified in and permitted by the Contract Documents and Laws and Regulations, rights-of way, permits, easements, And
 2. other property which may be damaged by CONTRACTOR, Subcontractors or Suppliers during the performance of the Work such as walls, utilities, streets, ways, sidewalks, curbs gutters and property of third parties including other governmental agencies.

Should any claims be made against OWNER by any owner or occupant of any land or area damaged by CONTRACTOR, Subcontractors or Suppliers during performance of the Work, CONTRACTOR shall promptly attempt to resolve the claim. CONTRACTOR shall indemnify and save OWNER harmless from and against all claims, damages, losses and expenses (including, but not limited to fees of engineers, architects, attorneys and other professionals and court costs arising directly, indirectly or consequentially out of a claim brought by any such other party against OWNER arising out of CONTRACTOR's performance of the Work.

6.11 RECORD DOCUMENTS

- A. CONTRACTOR shall maintain in a safe place at the Work site one record copy of all Contract Documents and written interpretations and clarifications (issued pursuant to article 9.4) in good order and annotated to show all changes made during construction. These Record Documents, together with all acceptable Samples and a counterpart of all reviewed Shop Drawings, shall be available to ENGINEER for reference. Upon completion of the Work, these Record Documents, Samples and Shop Drawings shall be delivered to ENGINEER for OWNER.

- B. **CONTRACTOR** shall maintain thorough records of all transactions and shall give the **OWNER** and other agencies required by Law or Regulation, access to and the right to examine all records, books, papers, or documents to all operations funded in whole or in part under the Construction Contract for a period of three (3) years following Work Completion.

6.12 SAFETY AND PROTECTION

- A. **In General:** **CONTRACTOR** shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work.
- B. **Protection Against Damage, Injury, Loss:**
1. **CONTRACTOR's Responsibility:** **CONTRACTOR** shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
 - a. all employees on the Work and other persons and organizations who may be affected thereby;
 - b. all work and materials and equipment to be incorporated therein, whether in storage on or off the site except as otherwise specifically directed by **OWNER**, e.g. **OWNER**-supplied materials, builder's risk insurance, etc., And
 - c. other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, Pavements, roadways, curbs, gutters, structures, utilities and Underground Facilities not designated for removal, relocation or replacement in the course of construction.
 2. **Risk:** Except as provided above, until Substantial Completion or as indicated in other Contract Documents, **CONTRACTOR** shall have the charge and care of the Work and materials and shall bear the risk of damage, injury or loss to any part thereof by any acts of God or the elements or from any other cause. Except as provided above, **OWNER**, its officers, employees and agents and the **ENGINEER** shall not be answerable nor accountable in any manner for any damage or loss that may occur to the Work or any part thereof; for any material or equipment used in performing the Work; for property damage, personal injury, or death; or for damage to adjoining property from any cause whatsoever during the progress of the Work or at any time before Substantial Completion.
- C. **Repairs by CONTRACTOR:** All damage, injury or loss to any property referred to in Paragraph 6.12B.1.b or 6.12B.1.c above, caused directly or indirectly, in whole or in part, by **CONTRACTOR**, any Subcontractor, Supplier or any other person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, shall be remedied by **CONTRACTOR** at no additional cost to the **OWNER**.
- D. **Safety, Warnings:** **CONTRACTOR** shall comply with all applicable Laws and Regulations of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss. **CONTRACTOR** shall erect and maintain, as required by existing conditions and performance of the Work, reasonable safeguards for safety, and protection, including posting danger signs and other warning against

- hazards, and promulgating and giving notice of safety regulations.
- E. **Notification:** CONTRACTOR shall notify owners of adjacent property, Underground Facilities and separate utilities when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation and replacement of their property.
- F. **Temporary Repairs by OWNER:** When not performed by CONTRACTOR within the time requested by ENGINEER, OWNER may make or cause to be made such temporary repairs as are necessary to restore to service any damaged facility. The cost of such repairs shall be borne by the CONTRACTOR and, if paid by OWNER, may be deducted from any monies due or to become due the CONTRACTOR.
- G. **Safety Representative:** CONTRACTOR shall designate a responsible representative at the site whose duty shall be the prevention of accidents. This person shall be CONTRACTOR's resident superintendent unless designated otherwise in writing by CONTRACTOR.
- H. **Hazard Communications Standards (Employee Right to Know):** During performance of the Work, CONTRACTOR shall be subject to federal regulations outlined in 29 CFR 1910.1200 entitled Hazard Communication Standard. CONTRACTOR shall be solely responsible for any and all violations of the hazard communication standard resulting from the negligent or intentional acts or omission or commission of officers, employees, representatives, agents, servant, Subcontractors, Suppliers, successors and assigns of CONTRACTOR. CONTRACTOR and Subcontractor personnel required under the terms of the Contract Documents to work with or in close proximity to hazardous materials and Hazardous Wastes shall have completed and be current with the personal training required by Occupational Health and Safety Administration (OSHA) regulations as outlined in 29 CFR 1910.1200. CONTRACTOR and Subcontractor personnel required under the terms of the Contract Documents to work with hazardous materials or Hazardous Wastes, or perform services in an area identified as a hazardous material or Hazardous Waste remediation site, shall have completed and be current with the OSHA Hazardous Waste Operations and Emergency Response (HAZWOPER) training program as outlined in 29 CFR 1910.120.
- I. **Encountering Hazardous Substances:** In the event the CONTRACTOR encounters on the site substance reasonably believed to be Asbestos or polychlorinated biphenyl (PCB) or any other Hazardous Waste or substance which may endanger the health of those persons performing the Work or being on the site, which has not been rendered harmless, the CONTRACTOR shall immediately stop work in the area affected and immediately report the condition to the ENGINEER and OWNER, and confirm the report immediately in writing. The OWNER shall retain a special consultant qualified to investigate, evaluate and mitigate any potentially hazardous substances. The work in the affected area shall be resumed in the absence of Asbestos, polychlorinated biphenyl (PCB) or said Hazardous Waste or substance, or when it has been rendered harmless according to the federal and state health standards. Except to the extent provided otherwise in the Contract Documents, the CONTRACTOR shall not be required to perform, without consent, any work relating to Asbestos, polychlorinated biphenyl (PCB) or any other Hazardous Waste substance.

In the event of OWNER's delay in investigating, evaluating and mitigating any potentially hazardous substances, if CONTRACTOR believes that any delay entitles CONTRACTOR to an increase in the Contract Price or an extension of the Contract Time, CONTRACTOR may make a claim therefor as provided in Parts 11 and 12 hereof.

- J. **Using Hazardous Substances:** When use or storage of explosives or other hazardous substances or construction equipment or unusual methods are necessary for execution of the Work, the CONTRACTOR shall notify OWNER in writing of where and when such will be used and shall exercise utmost care and carry on such activities under supervision of properly qualified personnel.
- K. **Cost to Protect or Repair in Contract Price:** The full cost of furnishing all labor, materials, tools equipment and incidentals and for doing all the work involved in protecting or repairing property and for insuring against risk of loss or damage shall be deemed included in the Contract Price and no additional compensation shall be allowed therefore.

6.13 EMERGENCIES

- A. **CONTRACTOR to Act:** In emergencies affecting the safety or protection of persons, the Work or property at the site or adjacent thereto, CONTRACTOR, without special instruction or authorization from ENGINEER, shall prevent threatened damage, injury or loss.
- B. **Written Notice:** CONTRACTOR shall give ENGINEER prompt written notice if CONTRACTOR believes that any significant changes in the Work or variations from the Contract Documents have been caused by responding to such an emergency.
- C. **Change Order:** If ENGINEER determines that a change in the Contract Documents is required because of the action taken in response to an emergency, a Change Order will be issued to document the consequences of such actions.

6.14 SHOP DRAWINGS AND SAMPLES

- A. **Not Contract Document:** Shop Drawings, product data, Samples and similar submittals are not Contract Documents. The purpose of their submittal is to demonstrate, for those portions of the Work for which submittals are required, the way the CONTRACTOR proposes to conform to the information given and the design concept expressed by the Contract Documents.
- B. **Shop Drawings:** CONTRACTOR shall submit Shop Drawing to ENGINEER for review and acceptance in accordance with the accepted schedule for submissions (see Paragraph 2.7A), or for other appropriate action if so indicated in the Supplementary Conditions.
 1. Before submission, CONTRACTOR shall check and verify all field measurements and comply with applicable procedures specified in the General Requirements.
 2. All submissions will be identified as ENGINEER may require, and will bear a stamp or specific written indication that CONTRACTOR has satisfied CONTRACTOR's responsibilities under the Contract Documents with respect to CONTRACTOR's review of the

- submission, including those of CONTRACTOR's Subcontractors.
3. The data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials and similar data to enable ENGINEER to review the information as required.
- C. **Samples:** CONTRACTOR shall also submit to ENGINEER for review with such promptness as to cause no delay in work, all Samples required by the Contract Documents.
1. all samples, whether supplied by CONTRACTOR, or CONTRACTOR's Subcontractors, or CONTRACTOR's Suppliers shall be checked by the CONTRACTOR. Such samples shall be accompanied by a specific written annotation indicating that CONTRACTOR has satisfied CONTRACTOR's responsibilities under the Contract Documents with respect to CONTRACTOR's review of the sample.
 2. all submissions will be identified clearly as to material and Supplier.
 3. pertinent data such as catalog numbers and the use for which intended shall be indicated.
- D. **Verifications:** Before submission of each Shop Drawing or sample, CONTRACTOR shall have determined and verified the following.
1. all field measurements, quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers and similar information with respect thereto;
 2. all materials with respect to intended use, fabrication, shipping, handling, storage, assembly and installation pertaining to the performance of the Work, And
 3. all information relative to CONTRACTOR's sole responsibilities in respect of means, methods, techniques, sequences and procedures of construction and safety precautions and programs incident thereto.
- E. **Notice of Variance:** At the time of each submission, CONTRACTOR shall give ENGINEER specific written notice of each variation that the Shop Drawings or samples may have from the requirements of the Contract Documents. In addition, CONTRACTOR shall cause a specific notation to be made on each Shop Drawing submitted to ENGINEER for review and approval of each such variation. CONTRACTOR shall direct specific attention in writing to CONTRACTOR's or other's revisions other than the corrections called for by ENGINEER on previous submittals.
- F. **Review by ENGINEER:** ENGINEER will review with reasonable promptness Shop Drawings and samples. ENGINEER's review will be only for conformance with the design concept of the Project and for compliance with the information given in the Contract Documents. ENGINEER's review shall not extend to means, methods, techniques, sequences or procedures of construction (except where a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Contract Documents) or to safety precautions or programs incident thereto. The review of a separate item as such will not indicate approval of the assembly in which the item functions. CONTRACTOR

shall make corrections required by ENGINEER, and shall return the required number of corrected copies of Shop Drawings and submit as required new samples for review.

- G. **Accuracy of Dimensions, Errors and Omissions:** ENGINEER's review of Shop Drawings or samples shall not relieve CONTRACTOR from responsibility for accuracy of dimensions and details or any variation from the requirements of the Contract Documents unless CONTRACTOR has in writing called ENGINEER's attention to each such variation at the time of submission, as required by Paragraph 6.14E, and ENGINEER has reviewed each such variation and given specific written notation thereof incorporated in or accompanying the Shop Drawing or sample submittal. Such review by ENGINEER will not relieve CONTRACTOR from responsibility for errors or omissions in the Shop Drawings or from responsibility for having complied with the provisions of Paragraph 6.14D above.
- H. **Distribution of Drawings:** The CONTRACTOR shall furnish prints of final Shop Drawings, erection drawings, equipment layouts, and other data to CONTRACTOR's Subcontractors and Suppliers for the proper coordination of their work. CONTRACTOR shall keep 1 complete set of the approved documents with the Record Documents on the premises at all times.
- I. **Compensation:** Full compensation for furnishing all Shop Drawings and samples shall be considered as included in the prices paid for the items of work to which such drawings relate and no additional compensation will be allowed therefor.
- J. **Work Performed Before ENGINEER's Review:** Where a Shop Drawing or sample is required by the Specifications, any related work performed by CONTRACTOR, before ENGINEER's review of the pertinent submission will be at CONTRACTOR's sole risk of non-acceptance. Correction of non-acceptable work shall be at CONTRACTOR's expense.
- K. **Rejection:** No extra contract time shall be given for rejection of Shop Drawings or samples.
- L. **Certificate of Compliance:** The ENGINEER may permit the use of certain materials or assembly before sampling and testing if accompanied with a certificate of compliance stating that materials involved comply in all respects with the requirements of the Contract Documents. The certificate shall be signed by the manufacturer of the materials or the manufacturer of the assembled material. The certificate of compliance must be furnished with each line of material delivered to the Work and the line so certified must be clearly identified in the certificate. All materials used on the basis of a certificate of compliance may be contested by ENGINEER at any time. The fact that material is used on the basis of a certificate of compliance shall not relieve CONTRACTOR from the responsibility of incorporating material in the Work that conforms to requirements of the Contract Documents and any material not conforming, whether or not in place, shall be removed and replaced at the CONTRACTOR's expense. OWNER reserves the right to refuse to permit the use of material on the basis of a certificate of compliance. The form of

a certificate of compliance and its disposition shall be as ordered by the ENGINEER.

6.15 CONTINUING THE WORK

- A. **During Disputes or Disagreements:** CONTRACTOR shall carry on the Work and adhere to the progress schedule during all disputes or disagreements with OWNER. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by article 15.3 or as CONTRACTOR and OWNER may otherwise agree in writing.
- B. **No Damage for Delay:** CONTRACTOR shall not be entitled to any claim against OWNER due to hindrance or delays from any cause whatsoever except if caused solely by OWNER. CONTRACTOR's sole and exclusive remedy for any delay shall be limited to a claim for an extension of the Contract Time as provided in Part 12.

6.16 CONTRACTOR'S GENERAL WARRANTY AND GUARANTEE

- A. **Defects or Damage Exclusion:** CONTRACTOR warrants and guarantees to OWNER that all work will be in accordance with the Contract Documents and will not be defective. CONTRACTOR's warranty and guarantee hereunder excludes defects or damage caused by:
1. abuse, modification or improper maintenance or operation by persons other than CONTRACTOR, Subcontractors or Suppliers; or
 2. normal wear and tear under normal usage.
- B. **CONTRACTOR's Continuing Obligation:** CONTRACTOR's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of work that is not in accordance with the Contract Documents or a release of CONTRACTOR's obligation to perform work in accordance with the Contract Documents:
1. observations by ENGINEER;
 2. recommendation of any progress or final payment by ENGINEER;
 3. the issuance of a certificate of Substantial Completion or any payment by OWNER to CONTRACTOR under the Contract Documents;
 4. use or occupancy of the Work or any part thereof by OWNER;
 5. any acceptance by OWNER or any failure to do so;
 6. any review and approval of a Shop Drawing, sample or product data submittal or the issuance of a notice of acceptability by ENGINEER;
 7. any Inspection, test or approval by others; or
 8. any correction of Defective Work by OWNER.
- C. **Acceptance is Not a Waiver of OWNER's Rights:** OWNER's acceptance of Defective Work shall not release or relieve CONTRACTOR from warranty and guarantee provisions of this article.
- D. **Survival of Obligations:** All representations, indemnifications, warranties and guarantees made in, required by or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion and

acceptance of the Work and termination or completion of the Agreement.

6.17 INDEMNIFICATION

- A. **Indemnification of OWNER:** CONTRACTOR shall indemnify defend and hold harmless OWNER and ENGINEER, and their agents, officials and employees from and against any and all claims, damages, losses and expenses, direct, indirect or consequential (including, but not limited to fees and charges of engineers, architects, attorneys and other professionals and court costs) arising out of or resulting from the negligent acts or omissions in performance of the Work by CONTRACTOR, any Subcontractor, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, regardless of whether or not the claim, damage, loss, etc. arising from the act or omission is caused in part by a party indemnified hereunder or arises by or is imposed by Law and Regulations regardless of the negligence of any such party.
- B. **Indemnification Not Limited:** In any claims against OWNER or ENGINEER or any of their agents, officials or employees by any employees of CONTRACTOR, any Subcontractor, any person or organization directly or indirectly employed by any of them to perform or furnish any of the Work or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.17A shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for CONTRACTOR or any such Subcontractor or other person or organization under worker' compensations acts, disability benefit acts or other employee benefit acts.
- C. **Liability of ENGINEER, etc.:** The obligations of CONTRACTOR under Paragraph 6.17A shall not extend to the liability of ENGINEER, OWNER's consultants, agents or employees arising out of the preparation or approval of maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications.
- D. **CONTRACTOR to Hold OWNER Harmless:** CONTRACTOR shall assume the OWNER's defense, and hold OWNER harmless from any claims directly or indirectly arising from CONTRACTOR's use or alleged use of patented or trademarked materials, design, equipment, devices, product or processes on or incorporated in the Work, whether or not such claims are ultimately successful. In the event of such claims:
1. OWNER shall promptly notify CONTRACTOR and CONTRACTOR shall defend against such claims, in OWNER's name, but at CONTRACTOR's expense;
 2. OWNER shall have the right to be represented by counsel, but such representations shall be at the OWNER's own expense, and
 3. at the request and expense of CONTRACTOR, the OWNER shall actively cooperate and assist CONTRACTOR to the fullest reasonable extent in the defense of any such proceedings.

In the event that CONTRACTOR shall fail to defend against any such claims, the OWNER may, in addition to any other legal remedies which the OWNER might have, defend such suit and be reimbursed by CONTRACTOR for all reasonable expenses (including attorney's fees and

costs) incurred by the OWNER in this connection, and CONTRACTOR shall pay all damages and costs awarded or otherwise suffered by OWNER in any such claim against OWNER.

6.18 HAZARDOUS WASTE GENERATION

- A. **In General:** The CONTRACTOR shall be responsible for ensuring that all services the CONTRACTOR and its Subcontractors are required to provide under the terms of the Contract Documents are performed in accordance with applicable federal, state, and local environmental regulations and within generally accepted professional performance standards for the services to be provided.
- B. **Hazardous Wastes Generated by CONTRACTOR:** The CONTRACTOR shall be responsible for the interim handling, evaluation, and disposal of any hazardous materials and Hazardous Wastes generated by the CONTRACTOR or any of its Subcontractors during the performance of any services under the terms of the Contract Documents, and shall ensure that handling, evaluation, and final disposal of all hazardous materials and Hazardous Wastes are performed in accordance with the requirements outlined in 40 CFR Parts 261 and 262 and Utah Administrative Code R-450-5.
1. The CONTRACTOR shall notify the ENGINEER immediately upon discovery that the CONTRACTOR or its Subcontractors has generated a Hazardous Waste material. If the Hazardous Waste material was generated as the result of a hazardous material spill, the CONTRACTOR shall be responsible for completing spill reporting requirements for all applicable environmental regulatory programs.
 2. The CONTRACTOR shall also provide the ENGINEER with documentation within eight (8) hours of the discovery indicating:
 - a. the date of waste generation;
 - b. specific waste classification or characterization;
 - c. waste quantity;
 - d. waste profile and acceptance identifying the intended disposal facility, And
 - e. copies of all "Uniform Hazardous Waste Manifest" documenting off-site transportation and disposal activities.
 3. CONTRACTOR shall contain hazardous material and protect workers and the public from exposure.
- C. **Hazardous Wastes Generated by OWNER:** The CONTRACTOR shall ensure that any services the CONTRACTOR or its Subcontractors perform under the terms of the Contract Documents that involve the interim handling, evaluation, and disposal of any hazardous materials and Hazardous Waste generated by, or the responsibility of the OWNER, shall be performed in accordance with the requirements outlined in 40 CFR Parts 261 and 262 and Utah Administrative Code R-450-5.
1. The CONTRACTOR shall also provide the ENGINEER with documentation indicating:
 - a. the date of waste generation;

- b. specific waste classification or characterization;
 - c. waste quantity;
 - d. waste profile and acceptance identifying the intended disposal facility,
 - e. copies of all Uniform Hazardous Waste Manifest documenting off-site transportation and disposal activities.
2. If handling of Hazardous Wastes generated by OWNER is not indicated in the Contract Documents, such cost of handling shall be determined as indicated in article 11.3.
- D. **Final Disposal of Hazardous Materials and Hazardous Wastes:** CONTRACTOR shall be responsible for ensuring that all hazardous materials and Hazardous Wastes, identified as subject to the provisions of Paragraphs 6.18A, B and C above, regardless of generator, be submitted to a facility or facilities permitted and qualified to recycle, process, or perform final disposal as required for the type of hazardous material or Hazardous Waste being submitted.
- E. **Documentation:** CONTRACTOR shall provide OWNER with documentation of appropriate disposal.

PART 7 OTHER WORK

7.1 RELATED WORK AT SITE

- A. **Owners of Utilities and Franchises to Enter Upon the Premises:** The right is reserved to the owners of utilities and franchises to enter upon the premises for the purposes of making repairs or changes of their property that may become necessary by the Work.
- B. **Separate Work:** OWNER may perform other work related to the Project at the site by OWNER's own forces, or let other direct contracts therefor which shall contain General Conditions similar to these, or have other work performed by utility owners. If the fact that such other work is to be performed was not noted in the Contract Documents, written notice thereof will be given to CONTRACTOR before starting any such other work. If CONTRACTOR believes that such performance will involve additional expense to CONTRACTOR or requires additional time and the parties are unable to agree as to the extent thereof, CONTRACTOR may make a claim therefor as provided in Parts 11 and 12.
- C. **Access to Site:** CONTRACTOR shall coordinate all phases of the Work and afford each utility owner and other contractor who is a party to such a contract (or OWNER, if OWNER is performing the additional work with OWNER's employees) proper and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such work, and shall properly connect and coordinate the Work with theirs.
- D. **Cutting, Fitting and Patching:** CONTRACTOR shall do all cutting, fitting and patching of the Work that may be required to make its several parts come together properly and integrate with such other work. CONTRACTOR shall not endanger any work of others by cutting, excavating or otherwise altering their work and will only cut or alter their work with the written consent of ENGINEER and the others whose work will be affected.
- E. **Delays Caused by Other Work, Defects or Deficiencies in Other Work:** If the proper execution or results of any part of CONTRACTOR' work depends upon work performed by others under this Part 7, CONTRACTOR shall inspect and promptly report to ENGINEER in writing any delays, defects or deficiencies in such work that render it unavailable or unsuitable for such proper execution and results. CONTRACTOR's failure so to report will constitute an acceptance of the other work as fit and proper for integration with CONTRACTOR's work except for latent or non-apparent defects and deficiencies in the other work.

7.2 COORDINATION

- A. **Coordinating Agent, Identified in Supplementary Conditions:** If OWNER contracts with others for the performance of other work on the Project at the site, the person or organization who will have authority and responsibility for coordination of the activities among the various prime contractors will be identified in the Supplementary Conditions. The

specific matters to be covered by such authority and responsibility will be itemized, and the extent of such authority and responsibilities will be provided in the Supplementary Conditions. If not otherwise provided in the Supplementary Conditions, OWNER shall have sole authority and responsibility in respect of such coordination.

- B. **Ceasing Work Temporarily:** If other contractors under separate OWNER contracts are unable to join their work in a manner acceptable to all, ENGINEER will decide if CONTRACTOR or other contractors shall cease work temporarily. Should CONTRACTOR be adversely affected by the work of other contractors, additional compensation or Project completion time will be granted provided the delays or interference are not the results of the CONTRACTOR's own actions or inactions. The OWNER also reserves the right to deduct from sums of money due the CONTRACTOR for all costs incurred by the OWNER which are the result of the CONTRACTOR not properly coordinating work.

7.3 UTILITY REARRANGEMENTS

- A. Should CONTRACTOR desire a rearrangement made in any utility facility for CONTRACTOR's convenience in order to facilitate construction operations, which is in addition to or different from the arrangements indicated on the Drawings or in the Specifications, CONTRACTOR shall make such arrangements as are necessary with the utility and bear all expenses in connection therewith.

7.4 WORK DONE BEYOND THE SITE

- A. Any work done beyond the limits shown on the Drawings or established in writing by ENGINEER, will be considered as unauthorized and no payment will be made therefor.

PART 8 OWNER'S RESPONSIBILITIES

8.1 OWNER'S RESPONSIBILITIES

- A. **Communications:** OWNER shall issue all communications to CONTRACTOR through ENGINEER as per article 2.8.
- B. **Tests and Observations:** OWNER's responsibility in respect of certain Inspections, tests and observations is set forth in article 13.3.
- C. **Work Suspension:** In connection with OWNER's right to stop work or suspend work, see article 15.1. article 15.2 deals with OWNER's right to terminate services of CONTRACTOR under certain circumstances.
- D. **Furnishing Data:** OWNER shall promptly furnish the data required of OWNER under the Contract Documents.
- E. **Prompt Payment:** OWNER shall promptly make payments to CONTRACTOR after they are due as provided in Paragraphs 14.4 and 14.9.

PART 9 ENGINEER'S STATUS DURING CONSTRUCTION

9.1 OWNER'S REPRESENTATIVE

- A. **General:** ENGINEER will be OWNER's representative and agent during the Contract Time, until final payment is due and, with the OWNER's concurrence, from time to time during the correction period described in article 13.7.
- B. **Limitations:** ENGINEER shall have the authority to act on behalf of the OWNER only to the extent provided in the Contract Documents.
- C. **Changing Representative:** ENGINEER may be changed by the OWNER upon written notice to the CONTRACTOR.

9.2 PROJECT REPRESENTATIVE

- A. ENGINEER may furnish a Resident Project Representative and such other assistants as ENGINEER deems necessary to observe that the materials to be furnished and the work done strictly conforms to the Contract Documents.

9.3 AUTHORITY AND DUTIES OF RESIDENT PROJECT REPRESENTATIVE

- A. **General:** The Resident Project Representative:
 - 1. shall be permitted to observe all work done and all material furnished. Such observation may extend to all or any part of the Work and to the preparation, fabrication, or manufacture of the materials to be used;
 - 2. is not authorized to revoke, alter, or waive any requirement of the Contract Documents;
 - 3. is authorized to call the attention of CONTRACTOR to any Failure of the Work or materials to conform to the Contract Documents;
 - 4. shall have authority to reject materials and suspend all or any part of the Work until any question at issue can be referred to and decided by the ENGINEER, And
 - 5. shall in no case act or be considered as CONTRACTOR's foreman or perform duties for CONTRACTOR.
- B. **Limitations:** Any advice that the Resident Project Representative may give the CONTRACTOR, other than set forth in Paragraph 9.3A above, shall not be binding upon the ENGINEER or OWNER. Nor shall such advice release or relieve CONTRACTOR of compliance with the Contract Documents.
- C. **Suspension of Work:** If Work is to be suspended; the Resident Project Representative shall issue a written order giving the reason for shutting down the Work. In the absence of such written order, CONTRACTOR shall not deem the Work to be suspended. After placing the order in the hands of the CONTRACTOR's agent in charge at the site, any work done thereafter may not be accepted, at ENGINEER's discretion.

9.4 CLARIFICATIONS AND INTERPRETATIONS

- A. Should it appear that the Work or any of the matters relative thereto are not sufficiently detailed or explained in the Contract Documents, the CONTRACTOR shall request the ENGINEER to provide such further

explanations as may be necessary for CONTRACTOR. ENGINEER will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Contract Documents (in the form of drawings or otherwise) as ENGINEER may determine necessary. These shall be consistent with or reasonably inferable from the overall intent of the Contract Documents. CONTRACTOR shall conform to such explanations as part of the Work.

- B. Any order or instruction given to the CONTRACTOR by the ENGINEER shall either be given or confirmed in writing. However, the ENGINEER's failure to put such an order or instruction in writing shall not relieve the CONTRACTOR of CONTRACTOR's responsibility to comply with the terms and conditions of the Contract Documents.
- C. If CONTRACTOR disputes ENGINEER's explanation or interpretation of the requirements of the Contract Documents, CONTRACTOR may request dispute resolution as specified in Part 16.

9.5 AUTHORIZED VARIATIONS IN WORK

- A. ENGINEER may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Time and are consistent with the overall intent of the Contract Documents. These may be accomplished by a Work Directive Change. If CONTRACTOR believes that an increase in the Contract Price or an extension of the Contract Time is justified, and the OWNER and the CONTRACTOR are unable to agree as to the amount or extent thereof, CONTRACTOR may make a claim therefore as provided in Part 11 or 12.

9.6 REJECTING DEFECTIVE WORK

- A. ENGINEER has the authority to reject work which ENGINEER believes to be defective or that ENGINEER believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. ENGINEER also has the authority to require special Inspection or testing of the work, whether or not the work is fabricated, installed or completed. The failure of the ENGINEER to reject such work shall not release or relieve CONTRACTOR from conformance to the Contract Document requirements.

9.7 NOTICE OF INTENTION TO APPEAL

- A. ENGINEER will determine the actual quantities and classifications of Unit Price Work performed by CONTRACTOR and will review with CONTRACTOR any preliminary determinations on such matters before rendering a written decision. ENGINEER's written decisions will be final and binding upon CONTRACTOR, unless, within 10 Days after the receipt of any such decision CONTRACTOR delivers to ENGINEER written notice of intention to appeal such a decision. Such an appeal may be taken in accordance with the provisions of Part 16 of these General Conditions and applicable Laws and Regulations, but during any such appeal, CONTRACTOR shall carry on the work and adhere to the progress schedule as provided in article 6.15.

9.8 DECISIONS ON DISPUTES

- A. **Interpretation of Contract Documents:** ENGINEER will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. Claims or disputes concerning a question of fact or other matters relating to the acceptability of the Work, the interpretation of the requirements of the Contract Documents pertaining to the performance and furnishing of the Work or claims under Part 11 and 12 in respect of changes in the Contract Price or Contract Time will be referred initially to ENGINEER in writing with a request for a formal decision in accordance with this paragraph. ENGINEER will render decision in writing within three (3) Days of submission of the request for decision. Failure by ENGINEER to respond within said time shall be deemed a denial of CONTRACTOR's request for relief.
- B. **Time for Notice of Dispute:** CONTRACTOR shall submit written notice of each claim or dispute to ENGINEER promptly after occurrence of the event(s) giving rise thereto, but in no case shall said notice be delivered later than 30 Days after said occurrence. Failure to submit said notice within said 30 Days shall be deemed a waiver thereof by CONTRACTOR. CONTRACTOR shall also submit all written supporting data to ENGINEER within 60 Days after said occurrence unless ENGINEER allows an additional period of time.
- C. **Effect of ENGINEER's Decision:** ENGINEER's decision concerning such claim or dispute (except any which have been waived by the making or acceptance of final payment as provided in Paragraph 14.9) will be the final expression of OWNER's position on said claim or dispute. Further, said decision shall be a condition precedent to any exercise by OWNER or CONTRACTOR of any rights or remedies as either may have under the Contract Documents or by law in respect of any such claim or dispute. ENGINEER's decision as to any allowable deviations shall be final and binding on CONTRACTOR.

9.9 LIMITATIONS ON ENGINEER'S RESPONSIBILITIES

- A. **ENGINEER Not CONTRACTOR's Agent:** Neither ENGINEER, ENGINEER's representative or OWNER shall act nor be considered as the CONTRACTOR's, Subcontractor's, Supplier's or surety's superintendent, foreman or part of their work force in any manner or form nor shall they perform work or duties of the CONTRACTOR.
- B. **Evaluate the Work for Contract Compliance:** Whenever in the Contract Documents the terms "as ordered", "as directed", "as required", "as allowed", "as approved", or terms of like effect or import are used, or the adjectives "reasonable", "suitable", "acceptable", "proper" or "satisfactory" or adjectives of like effect or import are used to describe a requirement, direction, review or judgment of ENGINEER as to the Work, it is intended that such requirement, direction, review or judgment will be solely to evaluate the Work for compliance with Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective does not assign to ENGINEER or OWNER any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of Paragraphs 9.9C or 9.9D. Neither ENGINEER's taking

or failing to take such actions or make any such reviews shall release or relieve the CONTRACTOR from CONTRACTOR's responsibility to comply with the Contract Document requirements.

- C. **Not Responsible for CONTRACTOR's Construction Operations:** Neither the ENGINEER nor the OWNER will be responsible for CONTRACTOR's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto. ENGINEER and OWNER will not be responsible for CONTRACTOR's failure to perform or furnish the Work in accordance with the Contract Documents. Any advice which ENGINEER may give the CONTRACTOR, other than as set forth in Paragraph 9.3A above, shall not be binding in any way upon the ENGINEER or the OWNER. Such instruction or statement shall not release or relieve the CONTRACTOR from compliance with all of the terms and conditions of the Contract Documents.
- D. **Not Responsible for CONTRACTOR's Acts or Omissions:** ENGINEER and OWNER will not be responsible for the acts or omissions of CONTRACTOR or of any Subcontractor, any Supplier, or of any other person or organization performing or furnishing any of the Work.
- E. **Intimidation of ENGINEER:** ENGINEER or ENGINEER's representatives shall at all times be free to perform ENGINEER's duties without any intimidation. At ENGINEER's request, the CONTRACTOR shall remove from the Work site any employee causing such intimidation. Failure to do so shall be sufficient reason for ENGINEER to recommend to OWNER and for the OWNER's cancellation or termination of the Construction Contract.

PART 10 CHANGES IN THE WORK

10.1 ADDITIONS, DELETIONS, REVISIONS

- A. **Modifications:** Without invalidating the Construction Contract and without notice to any surety, OWNER may, at any time or from time to time, order additions, deletions or revisions in the Work. These will be authorized by a Work Directive Change or a Change Order.
- B. **Work Directive Change:** Work Directive Changes shall be issued by the ENGINEER. If the Contract Price or Contract Time are affected by a Work Directive Change, the Work specified in the Work Directive Change shall be incorporated in a subsequently issued Change Order following negotiations by the CONTRACTOR and ENGINEER as to its effect on the Contract Price and Contract Time. During disputes or disagreements with the OWNER or ENGINEER regarding a Work Directive Change, the CONTRACTOR shall promptly proceed with the Work described in the Work Directive Change as indicated in article 6.15.
- C. **Change Order:** OWNER, and CONTRACTOR shall execute appropriate Change Orders covering changes in the Work, Contract Price or Contract Time which are agreed to by the parties.
- D. **Drawings:** Drawings accompanying Work Directive Changes and Change

Orders shall be deemed a part of such documents.

- E. **Payment:** It is understood and agreed by the OWNER and CONTRACTOR that no money will be paid to the CONTRACTOR for any new or additional labor, materials or equipment furnished, unless a Change Order for such has been made in writing and executed by the OWNER and CONTRACTOR.

10.2 WORK NOT REQUIRED BY CONTRACT DOCUMENTS

- A. CONTRACTOR shall not be entitled to an increase in the Contract Price or an extension of the Contract Time with respect to any work performed that is not required by the Contract Documents as amended, modified and supplemented as provided in article 3.3 except in the case of an emergency as provided in article 6.13 and except in the case of uncovering work as provided in paragraph 13.5B.

10.3 NOTICE TO SURETY

- A. If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to Contract Price or Contract Time) is required by the provisions of any Bond to be given to a surety, the giving of any such notice will be CONTRACTOR's responsibility, and the amount of each applicable Bond will be adjusted accordingly.

PART 11 CHANGE OF CONTRACT PRICE

11.1 CONTRACT PRICE

- A. The Contract Price constitutes the total compensation (subject to authorized adjustments) payable to CONTRACTOR for performing the Work. All duties, responsibilities and obligations assigned to or undertaken by CONTRACTOR shall be at CONTRACTOR's expense without change in the Contract Price.

11.2 CONTRACT PRICE ADJUSTMENT

- A. **In General:** The Contract Price may only be changed by Change Order. No claim for an adjustment on the Contract Price will be considered or paid if not submitted in accordance with the requirements of this article 11.2.
- B. **Written Notice:** Any claim for an increase or decrease in the Contract Price shall be based on written notice. Notice shall be promptly delivered by the party making the claim to the other party (but in no event later than 30 Days) after the occurrence of the event giving rise to the claim. The notice shall state the general nature of the claim.
- C. **Deadline for Claim Submittal:** A complete detailed statement of the amount and nature of the claim, with all necessary supporting data shall be delivered within 60 Days after such occurrence. ENGINEER may allow an additional period of time to ascertain more accurate data in support of the claim.
- D. **Notice Required:** Failure to submit the notice, and detailed statement referenced above shall bar Claimant from pursuing said claim in any other

forum, judicial or administrative.

- E. **Acknowledgement:** The notice shall be accompanied by Claimant's written statement that the amount claimed covers all known cost amounts (direct, indirect and consequential costs, including without limitation, delay costs, third party costs, lost profits and any other costs) to which the Claimant is entitled as a result of the occurrence of said event.
- F. **All Claims Determined by ENGINEER:** All claims for adjustment in the Contract Price shall be determined by ENGINEER in accordance with Paragraph 9.8A if OWNER and CONTRACTOR cannot otherwise agree.

11.3 DETERMINING CONTRACT PRICE ADJUSTMENT

- A. The value of any work covered by a Change Order or of any claim for an increase or decrease in the Contract Price shall be determined by ENGINEER in one of the following ways:
 - 1. **Unit Prices:** Where the Work involved is covered by unit prices contained in the Contract Documents, the Contract Price change will be recalculated by application of unit prices to the quantities of the items involved (subject to the provisions of article 11.7).
 - 2. **Lump Sum Price:**
 - a. **Contract Price Increases:** The CONTRACTOR and OWNER may mutually accept a stipulated sum (which may include an allowance for overhead and profit not necessarily in accordance with article 11.5).
 - b. **Contract Price Decreases:** The amount of credit to be allowed by CONTRACTOR to OWNER for any change which results in a net decrease in the Contract Price will be the net amount of the decrease plus a deduction in CONTRACTOR's fee. The deduction in the CONTRACTOR's fee shall be 10 percent of the net amount of the decrease.
 - 3. **Force Account (Cost of the Work plus CONTRACTOR's Fee):** If the cost of Unit Price Work cannot be calculated or the cost of Lump Sum Work cannot be agreed to, Contract Price adjustment shall be calculated on the basis of the Cost of the Work (determined as provided in article 11.4) plus a CONTRACTOR's Fee for overhead and profit (determined as provided in article 11.5).

11.4 COST OF THE WORK

- A. **Cost of the Work Includes:** Except as otherwise agreed to in writing with OWNER, the Cost of the Work (1) shall be in amounts no higher than those prevailing in the locality of the Project, (2) shall not include any of the costs itemized in Paragraph 11.4B, and (3) shall include only the following items:
 - 1. **Certified payroll costs:** Certified payroll costs for employees in the direct employ of CONTRACTOR in the performance of the Work under schedules of job classifications agreed upon by OWNER and CONTRACTOR. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include salaries and wages plus the cost of fringe benefits, which shall include social security contributions,

unemployment, excise and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. Such employees shall include superintendents and foremen at the site. These expenses of performing work after Regular Working hours, on Saturday, Sunday or legal holidays, shall be included in the above only to the extent such work was authorized by OWNER.

2. **Cost of all materials and equipment:** Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to CONTRACTOR unless OWNER deposits funds with CONTRACTOR with which to make payments, in which case the cash discounts shall accrue to OWNER. All trade discounts, rebates and refunds and all returns from sale of surplus materials and equipment shall accrue to OWNER, and CONTRACTOR shall make provisions so that they may be obtained.
3. **Payments made by CONTRACTOR to Subcontractors:** If required by ENGINEER, CONTRACTOR shall obtain competitive bids from Subcontractors acceptable to CONTRACTOR and shall deliver such bids to ENGINEER who will then determine, which bids will be accepted. If a subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work Plus a Fee, the Subcontractor's Cost of the Work shall be determined in the same manner as CONTRACTOR's Cost of the Work. All subcontracts shall be subject to the other provisions of the Contract Documents insofar as applicable.
4. **Costs of Special Consultants:** Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors and accountants) employed for services specifically related to the Work.
5. **Supplemental Costs:** Supplemental costs include the following:
 - a. **Expenses of Employees:** The proportion of necessary transportation, travel and subsistence expenses of CONTRACTOR's employees reasonably incurred in discharge of duties connected with the Work, except the following:
 - 1) costs for commute between residence and the work site;
 - 2) meals taken at locations within commuting distance of the work site, and
 - 3) clothing.
 - b. **Consumable Products and Equipment:** Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office and temporary facilities at the site and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less the difference in market value, of items used but not consumed which remain the property of CONTRACTOR.
 - c. **Depreciation:** Cost, less the difference in market value, of items

- used but not consumed which remain the property of CONTRACTOR.
- d. **Rentals:** Rentals of all construction equipment and machinery and the parts thereof, whether rented from CONTRACTOR or others, in accordance with rental agreements approved by ENGINEER, and the costs of transportation, loading, unloading, installation, dismantling and removal thereof all in accordance with terms of said rental agreements. The rental of any such equipment, machinery or parts shall cease when the use thereof is no longer necessary for the Work.
 - e. **Sales, Consumer, Use or Similar Taxes:** Sales, consumer, use or similar taxes related to the Work, and for which CONTRACTOR is liable, imposed by Laws and Regulations.
 - f. **Royalty Payments, Fees for Permits and Licenses, Deposits:** Royalty payments, fees for permits and licenses, and deposits lost for causes other than negligence of CONTRACTOR, any Subcontractor or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable.
 - g. **The Cost of Utilities:** The cost of utilities, fuel and sanitary facilities at the site in connection with the Work.
 - h. **Minor Expenses:** Minor expenses such as telegrams, long distance telephone calls, telephone service at the site, express delivery and similar petty cash items in connection with the Work.
 - i. **Additional Bonds and Insurance:** Cost of premiums for additional Bonds and insurance required solely because of changes in the Work and premiums for property insurance coverage.
- B. **Cost of Work Does Not Include:** The term Cost of the Work shall not include overhead or general expense costs including, but not limited to, the following:
1. **Payroll Costs and Other Compensation:** Payroll costs and other compensation of CONTRACTOR's officers, employees and other personnel employed by CONTRACTOR whether at the site or in CONTRACTOR's principal or a branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.4A.1. or specifically covered by Paragraph 11.4A.4.
 2. **Principal and Branch Offices:** Expenses of CONTRACTOR's principal and branch offices other than CONTRACTOR's office at the site.
 3. **Capital Expenses:** Any part of CONTRACTOR's capital expenses, including interest on CONTRACTOR's capital employed for the Work and charges against CONTRACTOR for delinquent payments.
 4. **General Bonds and General Insurance:** Cost of premiums for Bonds and insurance not directly related to the Work, whether or not CONTRACTOR is required by the Contract Documents to purchase

and maintain the same (except for the cost of premiums covered by Paragraph 11.4A.5.i. above).

5. **Negligence:** Costs due to the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of Defective Work, disposal of materials or equipment wrongly supplied and making good any damage to property or payments for personal injury or death.
 6. **Other Expenses:** Other overhead or general expense cost of any kind and the costs of any item not specifically and expressly included in Paragraph 11.4A.
 7. **Dispute Costs:** Cost of court fees, attorneys or experts retained for presenting evidence pertaining to any dispute with OWNER and ENGINEER concerning CONTRACTOR's cost of work.
- C. **Documentation Supporting Cost of the Work:** Whenever the cost of any work is to be determined, CONTRACTOR will submit in form acceptable to ENGINEER an itemized cost breakdown together with supporting data.
1. Reports by Subcontractors or others shall be submitted through the CONTRACTOR. In the event of irreconcilable disagreement, pertinent notes shall be entered on the daily reports by each party to explain points which cannot be resolved immediately.
 2. For work covered by force account at the close of each working Day, the CONTRACTOR shall submit such daily report to the ENGINEER together with applicable delivery tickets listing all labor, materials and equipment involving the force account work for that Day. Failure to submit the daily report by the close of the next working Day will waive any rights for that Day. The report shall be signed by CONTRACTOR and ENGINEER.

11.5 CONTRACTOR'S FEE

- A. **Allowable Fee:** The CONTRACTOR's fee allowed for overhead and profit shall be determined as follows:
1. A mutually acceptable fixed fee; or,
 2. If no acceptable fixed fee can be agreed upon, a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. For costs incurred under Paragraphs 11.4A.1. and 11.4A.2., the CONTRACTOR's fee shall be 15 percent;
 - b. For costs incurred under Paragraph 11.4A.3., the CONTRACTOR's Fee shall be five (5) percent.
 - c. If a subcontract is on the basis of Cost of the Work Plus a Fee, and no fixed fee is agreed upon, the maximum allowable to the Subcontractor who actually performs or furnishes work, at whatever tier, will be paid a fee of 15 percent of the costs incurred by such Subcontractor under Paragraphs 11.4A.1. and 11.4A.2. and that any higher tier Subcontractor and CONTRACTOR will each be paid a fee of five (5) percent of the amount paid to the next lower tier Subcontractor.

- d. No fee shall be payable on the basis of costs itemized under Paragraphs 11.4A.4., 11.4A.5. and 11.4B.
- B. **Adjustment to CONTRACTOR's Fee:** When both additions and credits are involved in any one change, the adjustment in CONTRACTOR's fee shall be computed on the basis of the net change in accordance with Paragraphs 11.5A.2.a through 11.5A.2.c, inclusive.
- C. **Allowable Credit:** The amount of credit to be allowed by CONTRACTOR to OWNER for any change which results in a net decrease in cost will be the amount of the actual decrease plus a deduction in CONTRACTOR's fee by an amount equal to the equivalent amount authorized under Paragraph 11.5A above.

11.6 CASH ALLOWANCES

- A. **In General:** Cash allowances, if indicated in the Contract Documents, are provided for the payment of fees or the purchase and installation of products, the cost of which is to be determined upon performance of the Work. It is understood that CONTRACTOR has included in the Contract Price all allowances so named in the Contract Documents. CONTRACTOR shall cause the Work so covered to be done for such sums within the limit of the allowances as may be acceptable to ENGINEER.
- B. **Allowances Include:** CONTRACTOR agrees:
 1. that the allowances include the cost to CONTRACTOR (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the site, and all applicable taxes, And
 2. CONTRACTOR's costs for unloading and handling on the site, labor, installation costs, overhead, profit and other expenses contemplated for the allowances have been included in the Contract Price and not in the allowances. No demand for additional payment on account of any thereof will be valid.
- C. **Allowances Payment:** Before final payment, an appropriate Change Order shall be issued to reflect actual amounts due the CONTRACTOR on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.7 UNIT PRICE WORK

- A. **Contract Price:**
 1. **Initial Contract Price:** Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, the Contract Price shall initially include, for all Unit Price Work, an amount equal to the sum of the established unit prices for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement. The estimated quantities of items of Unit Price Work are not guaranteed. They are solely for the purpose of comparing Bids and determining an initial Contract Price.
 2. **Actual Contract Price:** The actual Contract Price shall be established when CONTRACTOR accepts final payment from OWNER. Determinations of the actual quantities and classifications of Unit Price Work performed by CONTRACTOR will be made by

ENGINEER in accordance with article 9.7.

- B. **Overhead and Profit:** Each unit price will be deemed to include an amount considered by CONTRACTOR to be adequate to cover CONTRACTOR's overhead and profit for each separately identified item and no additional payment for overhead or profit will be claimed or paid.
- C. **Quantity of Unit Price Work:** An increase in the quantity of any Unit Price Work which does not involve any basic change in the nature or conditions of the work will be paid for at the unit prices. Where Work alterations increase, diminish or eliminate any of the Unit Price Work, CONTRACTOR shall be paid for the work actually done and materials supplied at the Unit Prices. Unit Prices that have not been set as stated in Paragraph 11.7B above shall be adjusted to comply with said paragraph before payment for such changes is made.
- D. **Adjusting Contract Price:** If a claim is made to the ENGINEER, which states the quantity of an item of Unit Price Work performed by the CONTRACTOR differs materially and significantly from the estimated quantity of such item indicated in the Agreement, and if CONTRACTOR or OWNER believes that an increase or a decrease of expenses as a result thereof has occurred, CONTRACTOR or OWNER may claim for an increase or decrease in the Contract Price if:
 - 1. there is an enlargement or reduction of the Work under the original Contract Documents by more than 25 percent; or
 - 2. there is an increase or decrease of more than 25 percent of the initial Contract Price; or
 - 3. there is an increase or decrease of more than 25 percent in the quantity of a Major Unit Price Item of Work.

Notwithstanding the foregoing, the OWNER and the CONTRACTOR shall be entitled to claim a cost increase or decrease only for that portion of the Cost of the Work which exceeds 25 percent.

- E. **Adding Unit Price Work to the Contract Documents:** If new, additional, or unforeseen work or material is required which, due to the nature or conditions or the Work, or locations, does not conform to the quantities and classifications of Unit Price Work provided for in the Contract Documents, then such work or material will be considered as additional work. The work shall be executed by the CONTRACTOR, in the manner and under the quantities and classifications of Unit Price Work set forth in a Change Order which will be entered into between the OWNER and the CONTRACTOR.

11.8 **FORCE ACCOUNT WORK (COST OF THE WORK PLUS CONTRACTOR'S FEE)**

- A. **In General:** When Contract Price adjustments cannot be agreed upon in advance of additional work requested by ENGINEER, OWNER may require CONTRACTOR to do such work on a force account basis.
- B. **Determining Contract Price Adjustment:** The value of the force account work shall be determined in accordance with Paragraph 11.3A.3.
- C. **OWNER Furnished Materials:** OWNER reserves the right to furnish part or all materials or equipment and CONTRACTOR shall have no claim

for profit on the cost of such material or equipment so furnished.

PART 12 CHANGE OF CONTRACT TIME

12.1 CONTRACT TIME ADJUSTMENT

- A. **In General:** The Contract Time or Milestones may only be changed by a Change Order. No claim for an adjustment in the Contract Time or Milestones will be valid if not submitted in accordance with requirements of this article 12.1.
- B. **Preliminary Written Notice:** Except for delays due to weather, any claim for an extension or shortening of the Contract Time shall be based on a preliminary written notice delivered by the party making the claim to the other party promptly (but in no event later than 15 Days) after the occurrence of the event giving rise to the claim and stating the general nature of the claim.
- C. **Deadline for Submitting Claim Data Notice:** Final notice of the extent of the claim with supporting data shall be delivered within 60 Days after such occurrence. ENGINEER may allow an additional period of time to ascertain more accurate data in support of the claim.
- D. **Acknowledgement:** The final notice shall be accompanied by CONTRACTOR's written statement that the amount claimed is the entire adjustment to which the CONTRACTOR has reason to believe the CONTRACTOR is entitled as a result of the occurrence of said event.
- E. **No Time for Lack of Submittal:** No time extensions will be allowed in the progress of the Work attributable to CONTRACTOR's failure to make submittals required by article 2.5.
- F. **All Claims Determined by ENGINEER:** All claims for adjustment in the Contract Time shall be determined by ENGINEER in accordance with Paragraph 9.8A if OWNER and CONTRACTOR cannot otherwise agree.

12.2 DELAY NOT CAUSED BY CONTRACTOR

- A. Delays caused by war, public enemy or acts of God shall be considered just cause for OWNER to grant time extensions.
- B. CONTRACTOR shall be granted time extensions for which liquidated damages will not be claimed when the delay is determined to be caused by the OWNER, or other contractors or utility companies working at OWNER's request, except when such delays are the result of CONTRACTOR's own lack of project coordination or work effort.

12.3 DELAYS RELATED TO WEATHER

- A. Delay related to weather shall only be reviewed or considered by ENGINEER after 90 percent or more of the Contract Time has been expended.
- B. In requesting weather time CONTRACTOR shall:
 - 1. Submit all weather data to ENGINEER, and
 - 2. Provide a written explanation of how weather prevented work on an item on the progress schedule's critical path.

- C. The OWNER shall grant additional time for weather delays if OWNER finds:
1. Both the amount and length of inclement weather were excessive or unexpectedly severe for the time and season the work was scheduled to be performed;
 2. The inclement weather prevented work pursuant to a scheduled critical path item of work. If the CONTRACTOR's progress schedule during the inclement weather does not show the anticipated critical path, ENGINEER will judge which activities were critical, And
 3. Appropriate measures were taken by the CONTRACTOR to mitigate the effects of inclement weather.
- D. No time will be granted if the work claimed to have been delayed would not have been on the critical path except for earlier delays caused by CONTRACTOR.
- E. No time extensions will be granted for weather delay outside of the Contract Time period or the Punch List Time period.

PART 13 TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.1 NOTICE OF DEFECTS

- A. Prompt notice of all Defective Work of which OWNER or ENGINEER have actual knowledge will be given to CONTRACTOR. All Defective Work, whether or not in place, may be rejected, corrected or accepted as provided in this Part 13.

13.2 ACCESS TO WORK

- A. ENGINEER and ENGINEER's representatives, other representatives of OWNER, testing agencies and governmental agencies with jurisdictional interests will have access to the Work at reasonable times for their observation, inspecting and testing. CONTRACTOR shall provide proper and safe conditions for such access and advise them of CONTRACTOR's site safety procedures and programs so that they may comply therewith as applicable.

13.3 TESTS AND INSPECTIONS

A. In General:

1. **Determining Contract Compliance and Acceptance:** Testing, or work for determining contract compliance shall be performed by CONTRACTOR. OWNER anticipates performing tests and Inspections or having tests and Inspections performed as part of its acceptance procedure.
2. **CONTRACTOR Furnish Labor:** CONTRACTOR shall furnish, at no additional cost to the OWNER, such labor as may be required to enable a thorough Inspection and culling of all materials.
3. **CONTRACTOR Furnish Samples:** Upon ENGINEER's request, CONTRACTOR shall furnish to ENGINEER such samples of

materials as proposed to be used, in sufficient amounts as required to make proper tests.

4. **Notice, 24 hours:** CONTRACTOR shall give ENGINEER at least 24 hours notice of readiness of the work for all required observations, tests and Inspections.

B. Inspections, Tests and Retests:

1. If ENGINEER determines that material or equipment fails the contract requirements, ENGINEER may reject such material or equipment, or accept such as Defective Work in accordance with article 13.8.
2. Inspection and testing of materials and equipment made by ENGINEER shall not release or relieve CONTRACTOR from compliance with the Contract Documents.
3. Any re-Inspection and retesting of work or materials rejected by ENGINEER after the initial testing or Inspection shall be at CONTRACTOR's expense until a retest meets the requirements of the Contract Documents.

C. Costs of Inspections Assessable to:

1. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) to specifically be inspected, tested or approved, CONTRACTOR shall assume full responsibility therefore, pay all costs in connection therewith and furnish ENGINEER the required certificates of Inspection, testing or approval.
2. CONTRACTOR shall be responsible for and shall pay all costs in connection with any Inspection or testing required in connection with OWNER's or ENGINEER's acceptance of a Supplier of materials or equipment proposed to be incorporated in the Work, or of materials or equipment submitted for approval before CONTRACTOR's purchase thereof for incorporation in the Work. Adequate facilities shall be furnished free of charge to make the necessary Inspection. ENGINEER assumes no obligation to observe materials at the source of supply nor does such Inspection assure conformance to the Contract Documents.
3. The cost of all Inspections, tests and approvals in addition to the above which are required by the Contract Documents shall be paid by OWNER (unless otherwise specified in the Supplementary Conditions).

13.4 DEFECTIVE WORK

- A. Any work or materials not in accordance with the Contract Documents that may be discovered before Work Completion shall be corrected at no additional cost to the OWNER. Failure on the part of ENGINEER to discover, condemn or reject materials or work shall not be construed to imply acceptance of the same should their noncompliance become evident before or after Work Completion. It is expressly understood that nothing in this paragraph waives any of the OWNER's rights under the guarantee provision of this Part 13.
- B. Work may be judged defective by ENGINEER regardless of cause, except when such defect or Failures are the result of ENGINEER's design

deficiencies, acts of God, misuse by OWNER, or due to vandalism.

- C. CONTRACTOR shall immediately remove all rejected materials and equipment from the premises and to such a point distant therefrom as ENGINEER may require.

13.5 UNCOVERING WORK

- A. If any work is covered contrary to ENGINEER's written request, it must, if requested by ENGINEER, be uncovered for ENGINEER's observation and be recovered at CONTRACTOR's expense.
- B. If ENGINEER considers it necessary or advisable that covered work be observed by ENGINEER or inspected or tested by others, CONTRACTOR, at ENGINEER's request, shall uncover, expose or otherwise make available for observation, Inspection or testing as ENGINEER may require, that portion of the Work in question. CONTRACTOR shall furnish all necessary labor, material and equipment.
1. If it is found that such work is defective, CONTRACTOR shall bear all direct, indirect and consequential costs of such uncovering, exposure, observation, Inspection and testing and of satisfactory reconstruction, including, but not limited to, fees and charges of engineers, architects, and other professionals. If OWNER accepts such Defective Work, OWNER shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, OWNER may make a claim therefor as provided in Part 11 of these General Conditions.
 2. If such work is not found to be defective, CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to such uncovering, exposure, observation, Inspection, testing and reconstruction. If the parties are unable to agree as to the amount or extent thereof, CONTRACTOR may make a claim therefore as provided in Parts 11 and 12.

13.6 CORRECTION OR REMOVAL OF DEFECTIVE WORK BY CONTRACTOR

- A. If required by ENGINEER, CONTRACTOR shall promptly, as directed, either correct all Defective Work, whether or not fabricated, installed or completed, or, if the work has been rejected by ENGINEER, remove it from the site and replace it with non-Defective Work. No rejected material, the defects of which have been subsequently corrected, shall be used in the Work unless approval in writing has been given by the ENGINEER. CONTRACTOR shall bear all direct, indirect and consequential costs of such correction or removal (including but not limited to fees and charges of OWNER, engineers, architects, and other professionals) made necessary thereby.

13.7 CORRECTION PERIOD

- A. If any portion of the Work is found to be defective within 1 year after the date of Substantial Completion, CONTRACTOR shall correct it or replace it with non-Defective Work. The one year correction period may be superseded by such longer period of time as prescribed in the Contract Documents or by special guarantee terms required by the Contract

Documents.

- B. If CONTRACTOR fails to correct Defective Work within 15 Days after rejection or notice by OWNER or ENGINEER, or in an emergency where notice and delay would cause serious risk of loss or damage, OWNER may have the Defective Work corrected or removed and replaced. The CONTRACTOR and CONTRACTOR's surety shall be liable for and pay for all direct, indirect and consequential costs of such correction or removal and replacement by OWNER (including but not limited to fees and charges of engineers, architects, and other professionals).
- C. In circumstances where a portion of the Work or a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that work or item may start from an earlier date if so provided in the Contract Documents or by Change Order.
- D. If material or equipment fails during the one year correction period or during its warranty or guarantee period and is therefore repaired or replaced by CONTRACTOR, the one year correction period or the warranty or guarantee period shall be extended by the CONTRACTOR for such repair or replacement from the date of such repair or replacement for a length of time equal to the original one year correction period or warranty or guarantee period.

13.8 ACCEPTANCE OF DEFECTIVE WORK

- A. **Acceptance is OWNER's Choice:** OWNER may accept Defective Work instead of requiring correction or removal and replacement. CONTRACTOR shall bear all direct, indirect and consequential costs attributable to ENGINEER's evaluation of and determination to accept such Defective Work (such costs to be approved by ENGINEER as to reasonableness and may include, but are not limited to, fees and charges of engineers, architects, and other professionals).
- B. **Decrease in Contract Price:** If acceptance of Defective Work occurs before final payment, a Change Order will be issued in the case of Lump Sum Work, or in the case of Unit Price Work, the quantities will be adjusted accordingly. Any necessary revisions in the Contract Documents with respect to the Work will be described and the OWNER shall be entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, OWNER may make a claim therefore as provided in Part 11.
- C. **Acceptance is Not a Waiver of OWNER's Rights:** OWNER's acceptance of Defective Work shall not release or relieve CONTRACTOR from warranty and guarantee provisions of this Part 13.

13.9 OWNER MAY CORRECT DEFECTIVE WORK

- A. **OWNER may correct and remedy any Work deficiency:**
 - 1. if CONTRACTOR fails after 15 Days' written notice of ENGINEER to proceed to correct Defective Work or to remove and replace rejected work as required by ENGINEER in accordance with article 13.6; or
 - 2. if CONTRACTOR fails to perform work in accordance with the

- Contract Documents; or
3. if CONTRACTOR fails to comply with any other provision of the Contract Documents.
- B. **OWNER to Expedite Work:** In exercising the rights and remedies under this paragraph, OWNER shall proceed expeditiously. To the extent necessary to complete corrective and remedial action, OWNER may:
1. exclude CONTRACTOR from all or part of the site;
 2. take possession of all or part of the Work, and suspend CONTRACTOR's services related thereto;
 3. take possession of CONTRACTOR's tools, appliances, construction equipment and machinery at the site, And
 4. incorporate in the Work all materials and equipment stored at the site or for which OWNER has paid CONTRACTOR but which are stored elsewhere.
- C. **CONTRACTOR to Allow Access:** CONTRACTOR shall allow OWNER, OWNER's representatives, agents and employees such access to the site as may be necessary to enable OWNER to exercise the rights and remedies under this article.
- D. **Direct, Indirect and Consequential Costs:** All direct, indirect and consequential costs of OWNER in exercising such rights and remedies will be charged against CONTRACTOR in an amount determined to be reasonable by ENGINEER. A Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work and the OWNER shall be entitled to an appropriate decrease in the Contract Price. Such direct, indirect and consequential costs will include but not be limited to fees and charges of engineers, architects, and other professionals, all court costs and all costs of repair and replacement of work of others destroyed or damaged by correction, removal or replacement of CONTRACTOR's Defective Work.
- E. **CONTRACTOR Can Appeal:** CONTRACTOR may appeal OWNER's claim in accordance with the dispute resolution process established in the Agreement.
- F. **Contract Time Extension:** CONTRACTOR shall not be allowed an extension of the Contract Time because of any delay in performance of the Work attributable to the exercise by OWNER of OWNER's rights and remedies.

PART 14 PAYMENTS TO CONTRACTOR AND COMPLETION

14.1 BASIS FOR PROGRESS PAYMENTS

- A. **Lump Sum Work:** The schedule of values (as defined in Paragraph 2.5B.3. and established as provided in article 2.7) will serve as the basis for progress payments and will be incorporated into an Application for Payment form acceptable to ENGINEER.
- B. **Unit Price Work:** Progress payments will be based on the number of

units completed.

14.2 APPLICATION FOR PROGRESS PAYMENTS

- A. **Once a Month:** Progress payments shall not be processed more often than once a month.
- B. **Contents of Applications:** To request payment, CONTRACTOR shall submit to ENGINEER a signed Application for Payment which accurately reflects the Work completed as of the date of the Application and which is accompanied by such supporting documentation as is required by the Contract Documents.
 - 1. Such application may include requests for payment on account of changes in the Work which have been properly authorized by Work Directive Changes but not yet included in a Change Order, if such request does not exceed the current Contract Price.
 - 2. Such applications may not include requests for payment of amounts the CONTRACTOR does not intend to pay to a Subcontractor or Supplier because of dispute or other reason.
- C. **Materials and Equipment Supplied but Not Installed:** Payment may be made for materials and equipment not incorporated in the Work but delivered and suitably stored at the site or at another location agreed to in writing if the CONTRACTOR satisfies the following requirements:
 - 1. a bill of sale, invoice or other documentation shall be attached to the Application warranting that OWNER has received the materials and equipment free and clear of all Liens,
 - 2. evidence shall be provided which indicates the materials and equipment are covered by appropriate property insurance and other arrangements to protect OWNER's interest therein, and
 - 3. all documentation shall be satisfactory to the ENGINEER.
- D. **Withholding of Payment:** The OWNER reserves the right to withhold the first and all subsequent partial payments due the CONTRACTOR until submittals listed in Paragraph 2.5B are submitted in a form acceptable to the ENGINEER.
- E. **Retainage:** The amount of retainage (if any) with respect to progress payments will be as stipulated in the Agreement or Supplementary Conditions.

14.3 CONTRACTOR'S WARRANTY OF TITLE

- A. CONTRACTOR warrants and guarantees that title to all Work, materials and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to OWNER no later than the time of payment free and clear of all Liens or other claims.

14.4 REVIEW OF APPLICATIONS FOR PROGRESS PAYMENT

- A. **Submittal:** ENGINEER will, within 10 Days after receipt of each Application for Payment, either process the Application or return the Application to CONTRACTOR indicating reasons for refusing to approve payment. In the latter case, CONTRACTOR may make the necessary corrections and resubmit the Application. Within 30 Days after presentation of an approved Application for Payment, the amount

approved will (subject to the provisions of Paragraph 14.4C) be paid by OWNER to CONTRACTOR.

- B. **ENGINEER May Reject Submission:** ENGINEER may refuse to approve the whole or any part of any payment if, in ENGINEER's opinion:
1. the Work is unsafe or inaccessible and therefore ENGINEER cannot determine if the Work is acceptable;
 2. the Work is defective, or completed Work has been damaged requiring correction or replacement;
 3. the OWNER has been required to correct Defective Work or complete Work in accordance with article 13.9;
 4. the ENGINEER has actual knowledge of the occurrence of any of the events enumerated in article 15.2; or
 5. subsequently discovered evidence, or the results of subsequent tests, nullify any payments previously made.
- C. **OWNER May Reject Submission:** OWNER may refuse to make payment of the full amount because:
1. claims have been made against the OWNER on account of CONTRACTOR's performance or furnishing of the Work;
 2. Liens or claims have been filed in connection with the Work and remain unsatisfied more than 45 Days;
 3. there are other items (e.g. pay reductions for Defective Work) entitling OWNER to an off-set against the amount recommended, and OWNER has given CONTRACTOR written notice stating the reasons for such action;
 4. the OWNER does not have in its possession an accurate updated construction progress schedule; or
 5. subsequently discovered evidence, or the results of subsequent tests, nullify any payments previously made to the extent necessary, in ENGINEER's opinion, to protect OWNER from loss.

14.5 SUBSTANTIAL COMPLETION

- A. **CONTRACTOR to Certify Work is Substantially Complete:** When CONTRACTOR considers the Work (or portion thereof) ready for its intended use, CONTRACTOR shall certify in writing to ENGINEER that the Work (or portion thereof) has been completed in accordance with the Contract Documents. CONTRACTOR shall include in such written certification a list of any items not finished.
- B. **ENGINEER to Review CONTRACTOR's Certification:** Within five (5) Days after ENGINEER receives CONTRACTOR certification and list of Work items not finished, ENGINEER will issue written notice either agreeing the Work is Substantially Complete or stating reasons why the Work is not Substantially Complete.
- C. **Final Inspection:** If Substantially Complete, ENGINEER shall within a reasonable time, schedule a Final Inspection preparatory to writing the Final Inspection Punch List.
- D. **OWNER's Rights:** OWNER shall have the right to exclude

CONTRACTOR from the Work after the date of Substantial Completion, but OWNER shall allow CONTRACTOR reasonable access to complete or correct items on the Final Inspection Punch List.

14.6 PARTIAL UTILIZATION

- A. **In General:** No occupancy or separate operation of part of the Work will be accomplished before execution of a Change Order between OWNER and CONTRACTOR which fully describes the liability between OWNER and CONTRACTOR in respect of property insurance.
- B. **Part of the Work is Substantially Complete:** Any finished part of the Work may be used by the OWNER before Substantial Completion of all of the Work if:
1. the part of the Work has specifically been identified in the Contract Documents; or
 2. the ENGINEER and the CONTRACTOR agree the finished parts constitutes a completed separately functioning and usable part of the Work which can be used without significantly interfering with CONTRACTOR's performance of the remainder of the Work;
 3. the OWNER requests in writing that the OWNER is to be permitted to use any such part of the Work, and
 4. the CONTRACTOR agrees any finished part of the Work may be used by the OWNER before Substantial Completion of all of the Work. CONTRACTOR will certify in writing to OWNER that said part of the Work is ready for its intended use and is Substantially Complete.
- C. **Part of the Work is Not Substantially Complete:** Any unfinished part of the Work may be used by the OWNER before Substantial Completion of all of the Work if:
1. the OWNER has requested in writing that it is to be permitted to take over operation of any part of the Work although it is not Substantially Complete;
 2. the CONTRACTOR and the ENGINEER has made an Inspection of that part of the Work to determine its status of completion and they have prepared a list of the items remaining to be completed or corrected thereon before final payment;
 3. the CONTRACTOR does not object to OWNER taking over that part of the Work which is not ready for separate operation by OWNER;
 4. the ENGINEER has prepared and delivered to the CONTRACTOR a list of items to be completed or corrected;
 5. the ENGINEER has prepared written recommendation as to the division of responsibilities pending final payment between OWNER and CONTRACTOR with respect to security, operation, safety, maintenance, utilities, insurance, warranties and guarantees for that part of the Work, which will become binding upon OWNER and CONTRACTOR at the time when OWNER takes over such operation (unless they shall have otherwise agreed in writing), And
 6. during such operation and before Substantial Completion of such part

of the Work, OWNER shall allow CONTRACTOR reasonable access to complete or correct items on the list provided by the ENGINEER and to complete other related work.

- D. **CONTRACTOR to Have Access:** During OWNER's occupancy and operation within said part of the Work, OWNER shall allow CONTRACTOR access to complete or correct items on the above-referenced list and to complete other related work.

14.7 FINAL INSPECTION

- A. When ENGINEER agrees the Work (or portion of the Work) is Substantially Complete, ENGINEER will make Final Inspection. ENGINEER will prepare a Final Inspection Punch List and will deliver such list to CONTRACTOR in writing.
- B. Except for hidden or latent defects, damage due to Punch List rework, fraud, gross mistakes amounting to fraud, or work required by the Contract Documents, the list shall be considered complete and final.
- C. Delivery of the Final Inspection Punch List or accomplishment of the Work thereon by CONTRACTOR does not relinquish any of the OWNER's rights under the CONTRACTOR's warranty and guarantee.

14.8 FINAL APPLICATION FOR PAYMENT

- A. **In General:** After CONTRACTOR has completed all Punch List Work to the satisfaction of ENGINEER and after ENGINEER has indicated that the Work is acceptable (subject to the provisions of article 14.10), CONTRACTOR may follow the procedures for progress payments and make application for final payment.
- B. **Submittals Required for Final Payment:** Final payment (including any remaining retained money) shall not become due until CONTRACTOR submits all documentation called for in the Contract Documents and the following:
1. an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the OWNER or the OWNER's property might be responsible or encumbered, have been paid or otherwise satisfied;
 2. a current or additional certificate evidencing that insurance required by the Contract Documents, which is to remain in force after final payment, is currently in effect and will not be canceled or allowed to expire until OWNER has been given at least 30 Days prior written notice, by certified mail, return receipt requested;
 3. a written statement that the CONTRACTOR knows of no substantial reason that the insurance will not be renewable to cover the period required by the Contract Documents;
 4. if previously requested by CONTRACTOR's surety, consent of surety to final payment;
 5. a certificate of occupancy if required by Law, Regulation or Contract Documents;
 6. all maintenance and operating instructions, schedules, guarantees, Bonds, certificates of Inspection, marked up Record Documents

(article 6.11) and other documents required by the Contract Documents: and

7. if required by the OWNER, other data establishing payment or satisfaction of obligations, such as receipts, releases and waivers of Liens, claims, security interests or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the OWNER. If a Subcontractor refuses to furnish a release or waiver required by the OWNER, the CONTRACTOR shall furnish a bond satisfactory to the OWNER to indemnify the OWNER against such claim. If such claims remain unsatisfied after payments are made, CONTRACTOR shall refund to the OWNER all money that the OWNER may be compelled to pay in discharging such Liens or claims, including all costs and reasonable fees and charges.

14.9 FINAL PAYMENT AND ACCEPTANCE

- A. **ENGINEER'S Determinations:** ENGINEER shall review CONTRACTOR's final Application for Payment and, based upon ENGINEER's observation of the Work during construction and Final Inspection, submission by CONTRACTOR of all required documentation and determination of CONTRACTOR's compliance with the Contract Documents, either forward the application to OWNER for payment or return it to CONTRACTOR.
- B. **Work Has Been Completed:** When forwarding the application to OWNER, ENGINEER shall state in writing that the Work is acceptable, subject to the provisions of article 14.10.
- C. **Work Has Not Been Completed:** If the Work has not been completed, ENGINEER will return the Application to CONTRACTOR, indicating in writing the reasons for refusing to recommend final payment. CONTRACTOR shall make the necessary corrections and resubmit the Application. Unless indicated otherwise in the Contract Documents, and subject to provisions of Paragraph 14.4B, 40 Days after presentation to ENGINEER of the Application and accompanying documentation, and with ENGINEER's recommendation and notice of acceptability, the amount requested by CONTRACTOR and confirmed by ENGINEER will become due and owing by OWNER to CONTRACTOR.
- D. **Delays not CONTRACTOR's fault:** If after Substantially Completion of the Work, final completion is materially delayed through no fault of CONTRACTOR, or by issuance of Change Orders affecting final completion, CONTRACTOR may submit final Application for Payment as stated above. Upon ENGINEER's recommendation, OWNER may, without terminating the Construction Contract, make payment of the balance due for that portion of the Work fully completed and accepted. Such payment shall be deemed a final payment, except that it shall not constitute a waiver of claims.

14.10 WAIVER OF CLAIMS

- A. The making and acceptance of final payment constitutes:
 1. a waiver of all claims by OWNER against CONTRACTOR, except from unsettled Liens, claims from Defective Work appearing after Final Inspection pursuant to article 14.7 or from failure to comply

with the Contract Documents or the terms of any special guarantees specified therein. Further, however, it will not constitute a waiver by OWNER of any rights in respect of CONTRACTOR's continuing obligations under the Contract Documents or of claims which have been specifically reserved by the OWNER, And

2. a waiver of all claims by CONTRACTOR under the Contract Documents except those previously made in writing and still unsettled, or remaining in dispute after processing as required by article 9.8.

PART 15 SUSPENSION OF WORK AND TERMINATION

15.1 OWNER MAY SUSPEND WORK

- A. **Notice:** By written notice to the CONTRACTOR, the OWNER shall have the authority to suspend the Work or any portion thereof) for a period of not more than 160 Days upon the occurrence of any one or more of the following events:
 1. if the Work is defective;
 2. if CONTRACTOR fails to supply sufficient skilled workers or suitable materials or equipment;
 3. if CONTRACTOR fails to furnish or perform the Work in such a way that the completed Work will conform to the Contract Documents; or
 4. the occurrence of unsuitable weather or other such conditions ENGINEER considers unfavorable for suitable prosecution of the Work.
- B. **Suspension Shall Not Benefit CONTRACTOR:** This right of OWNER to stop the Work shall not give rise to any duty on the part of OWNER or ENGINEER to exercise this right for the benefit of CONTRACTOR or any other party.
- C. **Safe, Secure and Smooth Site:** If Work is suspended by the OWNER, the CONTRACTOR shall do work necessary to provide a safe and secure site. If pedestrian or vehicular access is required, a smooth and unobstructed passageway shall be provided through the construction site. In the event the CONTRACTOR fails to perform this work, the OWNER may perform such work and the cost thereof will be deducted from money due or to become due the CONTRACTOR.
- D. **Contract Time During Suspension:** If a suspension of Work is ordered by OWNER or ENGINEER because the CONTRACTOR refuses or fails to comply with the Contract Documents, the Days on which the suspension order is in effect shall be considered as part of the Contract Time. Such suspension of Work shall not release or relieve the CONTRACTOR from the CONTRACTOR's responsibilities set forth in the Contract Documents.
- E. **Resumption of the Work:** The suspended Work shall be resumed on the date fixed by ENGINEER, which date shall be the earlier of 120 Days after the issuance of the suspension order or the date all of the conditions cited in the order are satisfied.

- F. **Work Suspension Claims:** Except as listed below, CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, if CONTRACTOR makes an approved claim as provided for in Parts 11 and 12.
1. Any work done during the suspension of the Work will not be accepted and paid for unless approved in writing by the ENGINEER.
 2. There shall be no claim against or liability on the part of the OWNER and ENGINEER for failure on the part of the CONTRACTOR to comply with the Contract Documents.

15.2 OWNER MAY TERMINATE

- A. **Notice, and Reason Therefore:** OWNER may terminate the services of the CONTRACTOR and exclude the CONTRACTOR from the site after giving CONTRACTOR and the surety 10 Days written notice. Such termination by OWNER may result from the occurrence of any one or more of the following events:
1. if a petition is filed against CONTRACTOR under any chapter of the bankruptcy code as now or hereafter in effect at the time of filing, or if a petition is filed seeking any such equivalent or similar relief against CONTRACTOR under any other federal or state law in effect at the time relating to bankruptcy or insolvency, and if such involuntary petition remains unsatisfied for more than 30 Days;
 2. if CONTRACTOR makes a general assignment for the benefit of creditors;
 3. if a trustee, receiver, custodian or agent of CONTRACTOR is appointed under applicable law or under contract, whose appointment or authority to take charge of property of CONTRACTOR is for the purpose of enforcing a Lien against such property or for the purpose of general administration of such property for the benefit of CONTRACTOR's creditors;
 4. if CONTRACTOR admits in writing an inability to pay its debts generally as they become due;
 5. if CONTRACTOR fails to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the progress schedule established under Paragraph 2.7A.1. as revised from time to time);
 6. if CONTRACTOR disregards Laws or Regulations of any public body having jurisdiction;
 7. if CONTRACTOR disregards the authority of ENGINEER; or
 8. if CONTRACTOR otherwise violates in any substantial way any provisions of the Contract Documents.
- B. **Completion of Work by Others:** OWNER may, to the extent permitted by Laws and Regulations, either allow the surety to complete the Work or take possession of the Work and of all CONTRACTOR'S tools, appliances, construction equipment and machinery at the site and use the same to complete the Work (without liability to CONTRACTOR for trespass or conversion). OWNER may incorporate in the Work all

materials and equipment stored at the site or for which OWNER has paid CONTRACTOR but which are stored elsewhere, and finish the Work as ENGINEER may deem expedient. CONTRACTOR shall cooperate in any way necessary to allow the Work to be completed.

C. Adjustment to Cost of the Work:

1. Upon terminating the services of the CONTRACTOR, the CONTRACTOR shall not be entitled to receive any further payment until the Work is finished. Final payment to CONTRACTOR or CONTRACTOR reimbursement to the OWNER shall be as follows:
 - a. if the unpaid balance of the Contract Price exceeds the direct, indirect and consequential costs of completing the Work (including but not limited to fees and charges of engineers, architects, and other professionals), such excess will be paid to CONTRACTOR, And
 - b. if the direct, indirect and consequential costs of completing the Work exceed the unpaid balance, CONTRACTOR and the surety shall be liable to pay the OWNER for such costs exceeding the unpaid balance.
2. Such direct, indirect and consequential costs incurred by the OWNER to complete the Work will be incorporated in a Change Order. To secure such a Change Order, when exercising any rights or remedies under this paragraph ENGINEER shall not be required to obtain the lowest price for the Work to be performed.

D. Waiver of Any Default: Waiver of any default shall not be deemed to be a waiver of any subsequent default. Waiver of breach of any provision of the Contract Documents shall not be construed to be a Modification of the Contract Documents, unless stated to be such in a Change Order, signed by OWNER.

E. Termination will Not Affect Any Right or Remedies: Where CONTRACTOR's services have been so terminated by OWNER, the termination will not affect any rights or remedies of OWNER against CONTRACTOR then existing or which may thereafter accrue. Any retention or payment of moneys due CONTRACTOR by OWNER will not release CONTRACTOR from liability.

F. Termination for OWNER's Convenience: Upon 10 Days' written notice to CONTRACTOR, OWNER may, without cause and without prejudice to any other right or remedy, elect to abandon the Work and terminate the Construction Contract. In such case, CONTRACTOR shall be paid for all work executed and any expense sustained plus reasonable termination expenses, which will include, but is not limited to, direct, indirect and consequential costs. Anticipated profit upon terminated work shall not be included as part of CONTRACTOR's termination costs.

15.3 TERMINATION OF WORK BY CONTRACTOR

A. In General: If the Work is stopped for a period of more than 120 Days through no act or fault of the CONTRACTOR or CONTRACTOR's agents or employees or any other persons performing portions of the Work under

contract with any of the above, the CONTRACTOR may terminate the Construction Contract in accordance with 15.3B herein below for any of the following reasons:

1. the OWNER has persistently failed to fulfill fundamental OWNER's obligations under the Contract Documents with respect to matters important to the progress of the Work;
 2. issuance of an order of a court or other public authority having jurisdiction, except that where the CONTRACTOR has standing, the CONTRACTOR must cooperate in efforts to stay or appeal such order;
 3. an act of government, such as a declaration of national emergency, making necessary materials unavailable; or
 4. unavoidable casualties or other similar causes as acts of God or of the public enemy, acts of the state or federal government in either their sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather which materially interfere with CONTRACTOR's ability to complete the Work, but in every case the failure to perform must be beyond the control and without the fault or negligence of the CONTRACTOR or anyone for whom the CONTRACTOR may be liable.
- B. **Notice:** If one of the reasons for termination in 15.3A still exists after the CONTRACTOR gives an additional 10 Days written notice to the ENGINEER, the CONTRACTOR may terminate the Construction Contract and recover from the OWNER payment for Work executed and for proven loss with respect to materials, equipment, tools, construction equipment and machinery, including reasonable overhead. Anticipated profit on Work not performed shall not be allowed.
- C. **Continuing the Work:** The provisions of 15.3A and 15.3B shall not release or relieve the CONTRACTOR from CONTRACTOR's obligation under article 6.15 to carry on the Work in accordance with the progress schedule and without delay during disputes and disagreements with the OWNER.

PART 16 DISPUTE RESOLUTION

16.1 APPEALS PROCESS

- A. Any written decision rendered by ENGINEER pursuant to Paragraph 9.8A may be appealed by CONTRACTOR. Such appeal may be taken from any such decision in accordance with any provisions provided in the Agreement or Supplementary Conditions concerning dispute resolution and with applicable Laws and Regulations.
- B. During any such appeal, OWNER may issue a Work Directive Change requiring the CONTRACTOR to perform such disputed Work and to continue the Work as provided in article 6.15.
- C. No demand for dispute resolution of any claim, dispute or other matter that is required to be referred to ENGINEER initially for decision in accordance with Paragraph 9.8A will be made until (a) the ENGINEER

- has rendered a written decision or (b) by the 31st Day after the claim, dispute or other matter was presented to the ENGINEER.
- D. No demand for dispute resolution of any claim dispute or other matter will be made later than 30 Days after the date on which ENGINEER has rendered a written decision in respect thereof in accordance with Paragraph 9.8, And the failure to demand dispute resolution within said 30 Days' period will result in ENGINEER's decision being final and binding upon OWNER and CONTRACTOR.
 - E. If the ENGINEER renders a decision after dispute proceedings have been initiated, such decision may be entered as evidence but will not supersede the dispute resolution proceedings, except where the decision is acceptable to the parties concerned.
 - F. No demand for dispute resolution of any written decision of ENGINEER rendered in accordance with Paragraph 9.8 will be made later than 10 Days after the party making such demand has delivered written notice of intention to appeal as provided in Paragraph 9.7.
 - G. Notice of the demand for dispute resolution will be filed in writing with the ENGINEER. The demand for dispute resolution will be made within the 30 Day or 10 Day period specified in Paragraph 16.1C and 16.1F as applicable, and in all other cases within a reasonable time after the claim, dispute or other matter in question has arisen, and in no event shall any such demand be made after the date when institution of legal or equitable proceedings based on such claim, dispute or other matter in question would be barred by the applicable statute of limitations.

PART 17 MISCELLANEOUS

17.1 GIVING NOTICE

- A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly received if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or it is received by registered or certified mail, postage prepaid or by facsimile.
- B. Notices sent as required by Paragraph 17.1A shall be effective on the date on which such notice was sent.
- C. Facsimile notice shall be effective on the date of transmission provided that a confirmation establishing the successful transmission of the notice is sent by first-class mail, postage prepaid, along with a copy of the notice transmitted, no later than 24 hours after the facsimile notice is transmitted.
- D. If any notice requires a period of less than seven (7) Days for response, the notice shall be sent by facsimile.
- E. Sureties shall receive notice at the business addresses shown on the Bonds.
- F. CONTRACTOR shall receive notice at the business address shown on the Agreement.

17.2 COMPUTATION OF TIME

- A. When any period of time is referred to in the Contract Documents by Days, it will be computed to exclude the first and include the last Day of such period. If the last Day of any such period falls on a Saturday or Sunday or on a Day made a legal holiday by Laws or Regulations, such Day will be omitted from the computation.

17.3 NOTICE OF CLAIM TIME LIMITS

- A. Should OWNER or CONTRACTOR suffer injury or damage to person or property because of any error, omission or act of the other party or of any of the other party's employees or agents or others for whose acts the other party is legally liable, claim will be made in writing to the other party within a reasonable time of the first observance of such injury or damage. The provisions of this paragraph shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitations or repose.

17.4 CUMULATIVE REMEDIES

- A. The duties, obligations, rights and remedies imposed by these General Conditions are in addition to any right and remedies available to OWNER and CONTRACTOR under available Laws or Regulations, special warranty or special guarantee. All representations, warranties and guarantees made in the Contract Documents will survive final payment and termination or completion of the Construction Contract.

END OF DOCUMENT

**DOCUMENT 00 73 10
MODIFICATIONS TO GENERAL CONDITIONS
(Supplementary Conditions)**

This document changes provisions specified in the General Conditions (Document 00 73 10) in the Manual of Standard Specifications.

Add the following paragraphs to article 2.2 (page 20).

2.2 COPIES OF DOCUMENTS

- B. OWNER shall not furnish to CONTRACTOR published Contract Documents which include the Manual of Standard Plans and the Manual of Standard Specifications. Such documents shall be purchased separately by the CONTRACTOR.
- C. Copies of all Contract Documents including the Manual of Standard Plans and the Manual of Standard Specifications shall be provided on site by the CONTRACTOR.

Modify paragraph 2.5C of the General Conditions (page 21) to read as follows.

2.5 BEFORE STARTING CONSTRUCTION

- C. Field Office: An on-site field office is not required. However, CONTRACTOR shall provide and maintain a telephone and facsimile machine during the entire duration of the work performance such that ENGINEER may always contact CONTRACTOR for transmittal of plans, instructions and dissemination of project information.

Modify Article 5.1 (page 28) to read as follows.

5.1 PERFORMANCE, PAYMENT AND OTHER BONDS

- A. Prior to OWNER executing the Agreement, CONTRACTOR shall file with the OWNER a good and sufficient performance Bond and a payment Bond, each in the sum of not less than 100 percent of the Contract Price.

The Bonds shall be executed by the CONTRACTOR and secured by a company duly and regularly authorized to do a general surety business in the State of Utah and either (i) named in the current U.S. Treasury Department's listing of approved sureties (Department Circular 570) (as amended) with an underwriting limitation equal to or greater than the Contract Price which the Bond guarantees, or (ii) with a current "A-" rating or better in A.M. Best Co., Inc's. Best Insurance Reports, Property and Casualty Edition.

The Performance Bond shall guarantee the faithful performance of the Construction Contract by the CONTRACTOR and the payment Bond shall guarantee the payment of labor and materials. The Bonds shall inure by their terms to the benefit of the OWNER. Neither this nor any other provision requiring a performance Bond shall be construed to create any rights in any third party Claimant as against the OWNER for performance of the Work under the Construction Contract.

- D. If the surety on any Bond furnished by CONTRACTOR is subject to any proceeding under the Bankruptcy Code (Title 11, United States Code) or becomes insolvent or its right to do business is terminated in the State of Utah or it ceases to meet the requirements of this Article, CONTRACTOR shall, within 15 days thereafter, substitute another Bond and surety, both of which must be acceptable to OWNER.

Modify Article 5.2 (page 28) to read as follows.

5.2 INSURANCE

- A. **In General:** All policies of insurance provided shall be issued by insurance companies qualified to do business in the State of Utah and listed on the U.S. Treasury Department's current listing of approved sureties (Department of Circular 570) (as amended), or having a general policy holder's rating of not less than "A-" in the most current available A.M. Best Co, Inc.'s, Best Insurance Report. **Except in the case of worker's compensation insurance, the City, their Engineer and Agents of the City shall be included as additional named insureds in all insurance policies.** CONTRACTOR shall furnish copies of certificates of insurance concurrent with or prior to the signing of the Agreement. The certificates shall name the OWNER as the certificate holder and as an additional insured (except in the case of workers compensation insurance). If requested, CONTRACTOR shall also furnish copies of the insurance policies secured for the Work.
- B. **Worker's Compensation Insurance:** In addition to other required insurance, the CONTRACTOR shall obtain and maintain during the life of the Construction Contract worker's compensation insurance as required by Laws and Regulations for all of CONTRACTOR's employees employed at the site of the Work, and in case any Work is subcontracted, the CONTRACTOR shall require the Subcontractor similarly to provide worker's compensation insurance for all of the latter's employees, unless such employees are covered by protection as required by Laws and Regulations.
- C. **Public Liability and Property Damage Insurance:** CONTRACTOR shall secure and maintain during the life of the Construction Contract and at all times thereafter when CONTRACTOR may be correcting, removing or replacing Defective Work, a comprehensive general public liability and property damage insurance policy. The policy shall protect the CONTRACTOR, the OWNER, the ENGINEER, and any Subcontractor performing work covered by the

Construction Contract from claims for damages for personal injury, including accidental death, and from claims for property damage which may arise from CONTRACTOR's operations under this Construction Contract, whether such operations be by the CONTRACTOR itself or by any Subcontractor or by anyone directly or indirectly employed by either of them. Unless specified otherwise in the Supplementary Conditions, the minimum amounts of such insurance shall be \$1,000,000 for each occurrence, and \$2,000,000 general aggregate and \$2,000,000 products/completed operations aggregate.

- D. **Automotive Public Liability Insurance:** Whenever CONTRACTOR or any Subcontractor shall use and operate owned, hired, or non-owned automobiles, trucks or other vehicles on public streets and highways in complying with the terms and conditions of the Construction Contract, CONTRACTOR or each Subcontractor shall carry automobile public liability insurance with limits not less than \$1,000,000.00 per occurrence.
- E. **Insurance Non-cancelable for 30 Days:** Each policy of insurance provided pursuant to the Contract Documents shall be absolutely non-cancelable for a period of not less than 30 days after notice of cancellation and shall contain the following provision or one substantially the same as the following:
- "This policy shall not be subject to cancellation, change, or reduction of coverage by the other party or parties hereto, unless notice, as defined herein, is sent to the OWNER, with a copy to the ENGINEER and the OWNER's attorney."
- F. **Builder's Risk:** CONTRACTOR agrees to and assumes the risk of loss for any damage or loss to the Work and Project by any means or occurrence until Substantial Completion. CONTRACTOR further agrees to obtain builder's risk or course of construction insurance in the total amount of the Contract Price.

END OF DOCUMENT

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SPECIFICATIONS



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DOCUMENT 32 84 00

UNDERGROUND IRRIGATION SYSTEM

PART 1 GENERAL

1.01 SUMMARY OF PROJECT

- A. Work to be done on Project shall:
1. Include all labor, materials, equipment, tools and transportation.
 2. Perform all operations, in connection with and reasonably incidental to; the complete installation of the irrigation system, landscaping and trees
 3. Follow direction as shown on the plan sheets, legend, notes, details, specifications (the Construction Documents, hereafter referred to as CD's).
- B. Items of work specifically included are:
1. Procurement of all applicable licenses and permits.
 2. Payment of any fees for connection to water source and power source
 3. Coordination of location of underground utilities, by contacting local services: 'Blue Stakes' or 'Call Before You Dig'.
 4. Sleeving necessary for irrigation pipe and wire.
 5. Provision for and connection of the electrical power supply to the irrigation control system.
 6. One year warranty of all irrigation components and all labor required to install.
 7. Sixty (60) day maintenance period of irrigation system and components.
 8. All paving, turf and landscaped areas shall be restored to current or better condition following irrigation installation.
 9. All disturbed areas shall receive irrigation unless specifically indicated on CD's.
 10. Revise, repair, and/or restore existing irrigation system to continue operation of existing components and to accommodate new construction. All plant material on the Project shall be irrigated unless specifically indicated on CD's.
 11. Contractor shall note that location or routing of irrigation components on CD's is approximate. Piping, sleeving and/or other components may be shown schematically on CD's for graphic clarity and to demonstrate component groupings and separations. All irrigation components shall be placed in landscaped areas, with the exception of pipe and wire in sleeving under hard-scaped areas.

1.02 DEFINITIONS

- A. **Construction Documents:** All documents provided to Contractor for proper installation of irrigation system; including plan sheets, legend, notes, details, specifications and supplemental plan issues or addenda. Referred to in this section by the acronym **CD's**.
- B. **Contract:** For the purposes of the irrigation section of the specification, (Section 32 84 00) this term refers to the Contract, Sub-Contract, or portion of the Contract dealing only with the irrigation system.
- C. **Contractor:** For the purposes of the irrigation section of the specification this term refers to the specific contractor or sub-contractor responsible for installation of the irrigation system for this project.
- D. **GPM:** Acronym for Gallons per Minute.

- E. **Isolation Valve:** A manual valve located on the main line that when shut off, will remove constant pressure to a specific section of the main line and corresponding downstream irrigation components.
- F. **Line Valve:** A manual valve located on the main line that when shut off, restricts flow in the main line. More than one line valve must be shut off to isolate a section of main line and corresponding downstream irrigation components.
- G. **Lateral Line Piping:** Circuit piping downstream of remote control valve (RCV) providing water to sprinkler heads, bubblers, or drip components. For Schedule 40PVC piped zones, under pressure only when RCV activated and opened.
- H. **Line Voltage Wiring:** Wiring used to convey power to electrically operated equipment on the Project, such as 120 VAC, 240 VAC, or 480 3PH VAC.
- I. **Low Voltage Wiring:** Wiring used to convey power to irrigation system components, such as RCV's, master valve, flow meter, decoders, etc. An example would be: 14 AWG PE UL RCV control wire.
- J. **Main Line Piping:** Piping downstream of Point of Connection (POC).
- K. **Owner's Approved Representative.** This individual designated by Owner who is authorized to make decisions on behalf of the Owner. This individual is authorized by the Owner to direct actions of the Contractor. This individual shall have detailed involvement in the project and be on Project site at regular intervals.
- L. **POC:** Acronym for Point of Connection. The physical location of the water source for this Project, and the actual components installed connecting to the water source. May require Contractor to provide additional saddles, valves, nipples, fittings, spools etc. to provide water to the Project.
- M. **Static Pressure:** Pressure measured at the POC, with no flow taking place within the system.
- N. **Water Supply:** Potable, and/or Non-Potable, and/or Effluent piping and components, furnished and installed by trades or contractors other than the irrigation contractor; to provide irrigation water to this Project upstream of (prior to) the POC.

1.03 ELIGIBILITY TO BID

- A. Contractor shall be prepared to submit documentation supporting their Experience and Qualifications to the General Contractor and the Owner's Approved Representative within 48 hours of bid date.
- B. Failure to meet the minimum requirements for Experience and Qualifications may result in elimination of the Contractor's bid or his ability to work on this Project.
- C. Failure to provide supporting documents within 48 hours of bid may result in elimination of the Contractor's bid or his ability to work on this Project.
- D. Requirements for documentation of Certifications are also listed below in the same Section. Contractor shall not be required to submit documentation of Certification at Bid date, but at date indicated

1.04 PROJECT CONDITIONS

- A. Contractor shall accept Project site in 'as-is' condition.
- B. Emergency Interruption of water service.
 - 1. In the event irrigation installation requires emergency shut-down of the municipal water system, Project site or development water system, or Project's irrigation system. Contractor shall be responsible to notify Owners Approved Representative and City immediately. Contractor shall make every effort to restore service in a timely manner.
- C. Planned Interruption of water service
 - 1. In the event irrigation installation require shut-down of municipal water system(s), Contractor shall be responsible to coordinate with and receive

approval from the Owners Approved Representative and City. Contractor shall be responsible for notification of any affected properties as directed by the City. In no case shall notification be less than 48 hours in advance of shut down, nor shall the shut down extend beyond 8 hours.

2. In the event irrigation installation require shut-down of Project site water system(s), Contractor shall be responsible to coordinate with and receive approval from Owners Approved Representative, and City if necessary. Contractor shall be responsible for notification of any affected parties or other trades as directed by the Owners Approved Representative.
 3. In the event irrigation installation require shut-down of existing Project irrigation system, Contractor shall be responsible to coordinate with and receive approval from Owners Approved Representative. Contractor shall be responsible to restore operation of existing irrigation systems within 48 hours.
 4. Contractor shall be responsible for continuous provision of irrigation water maintaining all existing or new plant material on Project in a healthy condition during term of this project.
- D. Contractor shall maintain Project work area in a safe condition, and provide flagging, taping, barricades, trench covering, shoring and or fencing necessary to maintain safety.

1.05 PERFORMANCE REQUIREMENTS

- A. Minimum pressure and minimum flow required:
1. Irrigation CD's expect that the POC has available a minimum static pressure of 60 PSI and is a minimum flow capable to safely and efficiently operate irrigation system as designed. Minimum design requirements are listed in plan legend.
 2. Contractor shall perform independent static/working pressure and volume test within 48 hours of commencement of work, and provide written results to Owners Approved Representative.
- B. Responsibility for coverage:
1. Irrigation system basic design intent shall be to provide 100% coverage of sprinklers (also known as double coverage or head-to-head coverage.)
 2. Contractor shall have authority to make minor adjustments to actual placement of sprinkler heads or irrigation components vs. locations shown on plan, in order to best achieve full coverage indicated above, without significant overspray on hardscapes, buildings or other project features.
 3. Contractor shall notify Owners Approved Representative in writing of: potential discrepancies or weaknesses due to field conditions in implementing irrigation CD's.
- C. Layout of Components
1. During layout and staking, consult with Owners Approved Representative to verify proper placement of major irrigation components.
 2. Contractor shall not proceed with implementation of CD's without Owners Approved Representative's approval.
 3. Contractor shall have authority to make minor adjustments to pipe routing or equipment locations due to conflicts with site utilities or other obstructions.
 4. Design intent for irrigation heads and lateral piping, is to achieve rectangular spacing of approximately 19' X 19' spacing, adjusting and adapting as required for trees, and other existing obstructions.

1.06 SEQUENCING

- A. Contractor shall contact local utility locator service at least 48 hours prior to commencement of work on the Project, and as often as needed during progress of the Project to maintain Project safety and protection of site utilities.
- B. Contractor shall familiarize himself with site utilities and hazards prior to commencement of work.
- C. Contractor shall coordinate this work with other work by other trades on Project as well as other landscape tasks on Project.
- D. Install sleeving prior to installation of concrete flat work, paving or other permanent site elements as needed.
- E. Irrigation system Point of Connection components: backflow prevention and pressure regulation devices shall be installed, and will be operational prior to all downstream components.
- F. All main lines shall be thoroughly flushed of all debris prior to installation of Remote Control Valves.
- G. All lateral lines shall be thoroughly flushed of all debris prior to installation of any sprinkler heads.

1.07 REFERENCE DOCUMENTS

- A. The following references apply to this project, the Contractor shall be responsible to be familiar with, refer to, and implement these references in completion of this project:
 - 1. ASTM – American Society for Testing Materials.
 - 2. Irrigation Association: Turf and Landscape Irrigation Best Management Practices (BMPs).
 - 3. American Society of Irrigation Consultants (ASIC) 'ASIC Guideline 100-2002 (January 2, 2002) For Earth Grounding Electronic Equipment in Irrigation Systems.
 - 4. Utah Irrigation Professionals document: Minimum Standards for Landscape Design and Construction.
 - 5. Any City codes, ordinances and/or any standards, details and specifications for irrigation applicable agency may have.
 - 6. Applicable industry codes, ordinances or standards such as (but not limited to) UBC or NEC.

1.08 SUBMITTALS

- A. Contractor shall follow format and requirements as set forth in Submittals section of this specification document for materials submittals.
- B. Contractor shall provide submittal for irrigation equipment and materials prior to ordering or taking delivery of any products.
- C. Equipment or materials purchased or installed prior to receiving written submittal approval is at risk of rejection by Owners Approved Representative. Use of materials other than those approved in writing is at risk of rejection by Owners Approved Representative. Contractor shall be liable for removal or replacement of any or all non-approved products at his own expense.

- D. Contractor shall provide Owners Approved Representative with 2 copies of Operations and Maintenance manual, containing:
1. Copy of approved submittal products
 2. Detailed written instruction for Spring Start-up and Winterization.
 3. Site map showing Controller zones, each zone distinguished by a different color.
 4. Table showing typical Controller program schedule for worst case day.
 5. Copy of control system certification if required for this Project.
 6. Copy of water audit results if audit is required for this Project.
 - a. Copy of water audit certification when Project has met required criteria.

1.09 EXPERIENCE

- A. Contractor shall provide an Experience resume or document; in PDF format, indicating:
1. That Contractor is licensed to perform landscape and irrigation construction in the State of Utah where this Project resides.
 2. That Contractor is bondable and insured for the work to be performed.
 3. That Contractor has been installing sprinkler systems on commercial projects for the last five consecutive years.

1.10 QUALIFICATIONS

- A. Contractor shall provide a Qualifications resume or document; in PDF format indicating:
1. That Contractor currently employs both skilled and unskilled workers in sufficient quantities to complete project within time limits indicated by Contract.
 2. A list of employees to be assigned to this project and their irrigation experience.
 3. That Contractor possesses proper power equipment of appropriate size and quantity to complete project within time limits indicated by Contract.
 4. Contractor shall include a listing of the supplier(s) where irrigation related material will be purchased for this Project.
 5. Person on project site, in charge (Project Foreman, Superintendent, Supervisor, Manager--etc.) of daily irrigation field construction operations:
 - a. Has at least five consecutive years of commercial irrigation experience.
 - b. That this person is able to communicate with Owners Approved Representative. Is fluent in reading, writing and speaking English.
 - c. That this person is able to communicate rapidly and effectively with his staff in any languages used within his staff.
 - d. Is a Certified Irrigation Contractor (CIC) in good standing as set forth by the Irrigation Association. This person shall be on the project site at least 75% of each working day.
 6. Contractor's CIC shall be a regular full-time employee of the Contractor firm, or a sub-contractor to Contractor, where subcontractor's firm provides all irrigation installation for the Project and meets all listed requirements for Experience, Qualifications and Certifications.

7. Contractor shall not engage a CIC as a consultant or representative to oversee Contractor's staff install of the Project irrigation system (i.e. the Contractor shall not 'rent' a CIC or CIC's license).

1.11 QUALITY ASSURANCE

A. Inspection Scheduling

1. Contractor shall expect a minimum of five irrigation inspections under the direction of the Owners Approved Representative.
 - a. Main Line pipe and wire
 - b. Main Line pressure test
 - c. Progress inspection
 - d. Final inspection
 - e. Completed 'Punch List' inspection
2. Owners Approved Representative at his discretion will perform routine inspections of progress of work.

B. Main Line Piping

1. Main line pipe shall not be buried until approved by Owners Approved Representative. Pipe buried prior to approval shall be excavated and exposed for Owners Approved Representative's review.
2. Main line pipe shall be installed with a loop with a minimum of three (3) isolation valves.
3. Main Line shall not be buried until approved by Owners Approved Representative. Pipe buried prior to approval shall be excavated and exposed for Owners Approved Representative's review.
4. Upon completion of main line pipe or sections thereof, Contractor shall isolate and pressurize to 120 PSI for two hours.
5. Contractor shall provide Owners Approved Representative with 48 hours request prior to testing date and time.

C. Grounding Resistance Testing

1. Pedestal Controllers shall be tested by Licensed Electrical Contractor and show resistance of 10 Ohms or less.
2. Grounding not in compliance shall be corrected by Contractor at his expense.
3. Specific grounding requirements for Central Control systems shall be met by Contractor or corrected at his expense.

D. Project Record Copy

1. Maintain on Project site, one copy of all CD's clearly marked 'Project Record Copy'. Mark any deviation in material installation on CD's. Maintain and update sheets at least weekly.
2. Project Record Copy shall be available to Owners Approved Representative on demand.

E. Regulatory Requirements.

1. Contractor shall comply with all plumbing requirements which direct work to be done by a licensed plumber.
2. Contractor shall comply with all electrical requirements which direct work to be done by a licensed electrician.
3. All work and materials shall be according to any and all rules, regulations or codes, whether they are local, state or national requirements.

4. CD's may not be construed or interpreted to permit work or materials not conforming to the above codes.
- F. Adequate Water Supply
1. Water supply to this Project is or shall be installed by trades other than the Irrigation Contractor. Connection to this supply at the POC shall be by this Contractor. Contractor shall be responsible to verify that proper connection exists, and is of adequate size and pressure.
 2. Notify Owners Approved Representative verbally immediately and in writing within 48 hours of problems encountered with water supply.
- G. Workmanship and Materials
1. It is the intent of the Irrigation CD's that all material required shall be of the highest quality available and meeting the requirements specified.
 2. All work shall be performed in accordance with the best standards of practice relating to this trade.

1.12 PROJECT MATERIALS

- A. Owner shall not provide materials for Project.
- B. Contractor shall not remove materials purchased for this Project from this site.
- C. Contractor shall not store or co-mingle materials for this Project with materials for other Projects on this site.
- D. Delivery, Storage and Handling
1. All materials shall be protected from contamination, damage, theft, vandalism and prolonged exposure to sunlight.
 2. All material stored on project site shall be neatly organized in a compact arrangement, and this storage shall not disrupt project owner or other trades on Project site.
 3. Project materials shall be handled by Contractor with care necessary to prevent damage or breaking.
 4. Damaged or blemished materials attributed to Contractor shall be replaced with new, at Contractors expense.
- E. If this Project qualifies for manufacturer rebate, credit or incentive programs; Contractor shall provide Owners Approved Representative with documents in PDF format from distributor and/or manufacturer indicating required information of product purchased and/or dollar value which qualify for corresponding program. Documents shall be delivered to Owners Approved Representative within 14 days of purchase of products.

1.13 EXTRA MATERIALS

- A. Furnish the following items to Owners Approved Representative:
1. One (1) 30" gas cock key (also referred to as sprinkler or meter key) for manual drains.
 2. One (1) 5-6' key for stop & waste valve.
 3. Two (2) keys for each automatic controller.
 4. Two (2) quick coupler keys with hose swivels attached.
 5. One (1) quick coupler valve.
 6. One (1) of each size or type of remote control valve used on Project.

7. Five (5) of each sprinkler head and each nozzle used on Project.
8. Two (2) of each type of specialty screwdriver/key/wrench/tool (used to adjust arc, radius, change nozzle etc.) for each type of sprinkler.

1.14 WARRANTY

- A. Contractor shall provide one-year Warranty for Project. Warranty shall cover all material, workmanship and labor.
- B. Warranty period begins upon date of acceptance by Owners Approved Representative that Project is substantially complete.
- C. Warranty shall include filling and/or repairing depressions, replacing turf or other plantings due to settlement of irrigation trenches or irrigation system components, and adjustment of valve boxes, sprinkler heads and all other irrigation components which have settled from proper finish grade.
- D. Warranty shall include the replacement of any trees and sod that died within the warranty period

1.15 ADDITIONAL SERVICES

- A. Winterization:
 1. Contractor shall winterize entire irrigation system installed under this Contract prior to the first winter following installation; prior to hard frost--but no later than November 15th, unless directed otherwise by Owners Approved Representative in writing.
 2. Winterize entire system via 'blow-out' method, using compressed air.
 - a. Compressor shall be industrial type, capable of evacuating water from all main line and lateral line pipe, with a minimum capacity of 175 CFM.
 - b. Compressor shall be mechanically regulated to not more than 60 PSI.
- B. Spring Start-up:
 1. Contractor shall start up entire irrigation system the Spring following installation; prior to plant need--but following danger of damaging frost, yet no later than April 1st.
 2. Contractor shall energize entire main line pipe, all RCV's, and check for correct program installation and operation of Controller, each RCV and each quick coupler valve.
- C. As-built documents: Prior to final inspection, prepare and submit to Owners Approved Representative As-built drawings.
 1. Show field dimensioned locations of sleeving, POC, mainline piping, wiring runs not in main line pipe trench, and valves/valve boxes.
 2. Dimensions are to be taken from permanent site features or finished hardscapes.

1.16 OWNER'S INSTRUCTION

- A. After system is installed, inspected, and approved; Contractor shall instruct Owners Approved Representative or other Owners Approved Representative designated individuals in complete operation and maintenance procedures of irrigation system. Coordinate instruction with references to previously submitted Operation and Maintenance manual.

PART 2 PRODUCTS

2.01 GENERAL NOTES

- A. Contractor shall use products as specified by CD's.

2.02 POWER SOURCE

- A. Power source for irrigation equipment shall not be included in the irrigation Contractor's portion of this Contract.

2.03 CENTRAL CONTROL SYSTEM

- A. A Central Control SYSTEM is NOT included in this Project.

2.04 CONTROLLER

- A. Manufacturer and model shall be as listed on plan legend.
- B. Contractor shall connect control wires and power wires to controller.
- C. Controller shall be wall mounted in lockable steel pedestal cabinet.
- D. Exterior controllers shall use rigid galvanized steel electrical sweep elbows for all in-ground wiring.
- E. PVC pipe, conduit sweeps, and fittings shall not be used for any controller wiring.

2.05 POWER WIRE

- A. Direct bury wire for field located wall or pedestal mounted controllers:
 - 1. All power cables shall be Paige Wire, type Tray Cable.
 - 2. Wire shall be Paige Wire specification number P7266D for 10 AWG and smaller.
 - 3. Wire shall be Paige Wire specification number P7267D for 8 AWG and larger.
 - 4. 120 VAC wires shall be 3 conductor (hot, neutral and ground)
 - 5. 240 VAC cables where service is provided to controller only, shall be 3 conductor (2 hot and 1 ground)
 - 6. 240 VAC cables where service is provided to controller and other 120 VAC equipment (such as a convenience outlet) shall be 4 conductor (2 hot, 1 neutral and 1 ground)
- B. Conventional wiring for wall mounted controllers:
 - 1. Power wire or cable for conventionally wired wall mount or conduit-fed pedestal mount shall be according to local and NEC codes.

2.06 CONTROL WIRE

- A. Decoder Cable shall be Paige Electric specification number P7354D, Jacketed, twisted pair, 12AWG. No substitutions.
- B. Decoder to Solenoid cable, (used on zones with RCV's and conventional heads) shall be Paige Electric specification number P7351D – Rev1. No substitutions.
- C. Jacketed Decoder Cable, shall use two separate and distinct colors for the A and B controller.
- D. NO SUBSTITUTIONS ALLOWED.

2.07 WIRE CONNECTORS

- A. RCV wire splicing connectors and Decoder wire splicing connectors shall be Paige P7364D, Paige part number 270670 or 270671 (3M model 'DBR/Y-6').
- B. No substitutions allowed.

2.08 POINT OF CONNECTION

- A. Precise or specific products required of Contractor for installation of the POC are unknown. Contractor shall be prepared for a variety of POC conditions including:
 - 1. Tapping, Saddling, Pac-Joint connection, extension, flared end connectors.
- B. Stop & Waste Valve
 - 1. POC's with connection sizes 2"
 - 2. Mueller Oriseal H-10288 2"

2.09 BACKFLOW PREVENTION (RPZ)

- A. Manufacturer Wilkins or Conbraco RPZ
- B. Provide galvanized unions on both sides of the RPZ for seasonal removal.
- C. RPZ Enclosure Cage with concrete mounting pad, with two keys

2.10 MASTER VALVE

- A. Manufacturer and model shall be as listed on plan legend.

2.11 SLEEVING PIPE

- A. Minimum sleeve size shall be 2" pipe.
- B. Sleeving 2" through 4" shall be Schedule 40 PVC pipe. Sleeving 6" and larger shall be C900 PVC pipe. Sleeving 14" and larger shall be C905 PVC Pipe.
- C. Sleeving for wiring shall be Schedule 40 PVC gray electrical conduit. No white, blue or green pipe may be used to sleeve any type of wiring.
- D. Sleeves shall typically be two nominal sizes larger than the pipe to be placed within them. Sleeve material and sizes shall be according to the following

SLEEVING TABLE

INTERIOR PIPE	SLEEVE PIPE	INTERIOR PIPE	SLEEVE PIPE
3/4"	2"	4"	8"
1"	2"	6"	10"
1-1/4"	2-1/2"	8"	12"
1-1/2"	3"	10"	14"
2"	4"		
3"	6"		

2.12 MAIN LINE PIPE

- A. Pipe 2" Schedule 40 PVC

2.13 MAIN LINE FITTINGS

- A. All main line fittings Schedule 80
- B. Ductile iron fittings shall be manufactured by Leemco or Owners Approved Representative approved equal.

2.14 MANUAL CONTROL VALVES

- A. Line or isolation valves 3" and larger shall be:
 - 1. Leemco ductile iron resilient wedge push on w 2" square operating nut.
 - 2. Leemco ductile iron resilient wedge flanged with 2" square operating nut.
 - 3. Leemco ductile iron resilient wedge Mechanical Joint (MJ) with 2" square operating nut.
- B. Line or isolation valves 2-1/2" and smaller shall be:
 - 1. Matco Norca model 503 bronze gate valve OR
 - 2. Milwaukee model 105 bronze gate valve OR
 - 3. Hammond model IB645 bronze gate valve
- C. Isolation valves for RCV Manifolds (1" through 2-1/2") shall be:
 - 1. Matco Norca model 759 brass ball valve OR
 - 2. Apollo 77C-10X-01 bronze ball valve OR
 - 3. Apollo 94A-10X-01 brass ball valve.
- D. Drain Valves shall be:
 - 1. 3/4" Mueller Oriseal model H-10288.
 - 2. 3/4" Cambridge Brass model 263NL-F3F3.

2.15 BLOWOUT QUICK COUPLER VALVE

- A. 1" Quick Coupler installed after the RPZ valve and prior to the first zone valve, and at end of each mainline.
- B. Swing joint for 1" quick coupler valves shall be Lasco model 13S-212 factory assembled swing joint.
- C. Quick coupler swing joint RA-TSJ shall be accepted.

2.16 REMOTE CONTROL VALVE

- A. Manufacturer and model shall be as listed on plan legend.
- B. Action machine unions on each side of the valve.
- C. Contractor shall submit for approval; remote control valve and all components necessary to complete installation of valve.

2.17 VALVE BOXES

- A. Carson Industries Specification Grade valve boxes (no Rounds) shall be used on this project unless otherwise indicated. 4" of 3/4" gravel in the bottom of each valve box.

2.18 LATERAL LINE PIPE

- A. All lateral piping shall be new, Schedule 40 PVC, solvent weld bell end, Sized as indicated on plans.

2.19 LATERAL LINE FITTINGS

- A. All lateral line fittings shall be same type as lateral line pipe.

2.20 ROTARY NOZZLE SPRAY HEAD SPRINKLER

- A. Manufacturer and model shall be Rainbird 5000 RA-PLPCR, 4.5gpm Rainbird Blue nozzle 5.0 3/4" inlet NPT.
- B. All small rotor sprinklers shall be on a swing joint assembly composed of 12" of swing pipe, two 1/2" spiral barb elbows, 12" swing pipe, one M412-005 1/2" marlex street elbow.
- C. Contractor shall submit for approval of all spray heads, rotary nozzles, swing pipe, spiral barb elbow, and marlex street elbows.

2.21 SPRAY HEAD SPRINKLER

- A. Manufacturer and model shall be as listed on plan legend.
- B. Nozzles for spray heads shall be as listed on plan legend.
 - 1. Nozzles shall be fixed spray type whenever possible, adjustable arc nozzles shall be used only when a fixed spray model is not available.
- C. All spray heads shall be on a swing joint assembly composed of: 12" of swing pipe, two 1/2" spiral barb elbows, 12" swing pipe, one M412-005 1/2" marlex street elbow.
- D. Contractor shall submit for approval: spray heads, spray head nozzles, and swing joint assembly components.

2.22 DRIP COMPONENTS

- A. Drip components shall be manufacturer and model as listed on plan legend or details.

2.23 GLUE AND PRIMER

- A. Sprinkler pipe glue shall be IPS Weld-On model 711.
- B. Sprinkler pipe primer shall be IPS Weld-On model P-70.
- C. No substitutions allowed.

PART 3 EXECUTION

3.01 GENERAL NOTES

- A. Contractor shall repair or replace work damaged by irrigation system installation.
- B. If damaged work is new, Contractor shall engage original installer of that work to perform repairs.
- C. The existing landscape of this Project shall remain in place. Contractor shall protect existing plant material and work around existing plant material as necessary.
- D. Plant material deemed damaged by Owners Approved Representative shall be replaced at Contractor's expense.
- E. Contractor shall route pipe, wire and other irrigation elements around outside of tree canopy drip line to minimize damage to tree roots.
- F. Contractor shall not cut existing tree roots larger than 2" to install this Project.

- G. Coordination of trench and valve locations shall be laid out with Owners Approved Representative prior to any excavation occurring.
- H. Contractor shall have no part of existing irrigation system used by other parts of Project landscape without water for more than 48 hours.

3.02 POWER SOURCE

- A. Power supply to irrigation controller (Meter base with load center) shall not be included in the irrigation portion of this Project. Power supply is existing and shall be designated by the Owners Approved Representative. Controller power wire from load center(s) to Controller shall be a part of this Contract.
- B. Locate Controllers in general location shown on Construction drawings. Coordinate power supply and breaker allocation with Owners Approved Representative. Contractor shall be responsible for all power connections to Controllers, whether they are wall mount or pedestal mount. Contractor shall coordinate with electrical or other Project trades as needed to facilitate installation of power to controllers.

3.03 CONTROLLER (Information only if current controller is not used)

- A. All grounding shall be as directed by controller manufacturer and ASIC guidelines, not to exceed a resistance reading of 10 OHMs.
- B. Locate controllers in protected, inconspicuous place when possible.
- C. Coordinate location of pedestal controllers with Owners Approved Representative to minimize visibility.
- D. Coordinate location of wall mount controllers with building or electrical Contractor to facilitate electrical service and future maintenance needs. Wall mount shall be securely fastened to surface. If exterior mounted, wall mount controllers shall have electrical service wire and field control wire in separate, appropriate sized weatherproof electrical conduit, PVC pipe shall not be used.
- E. Coordinate with Owners Approved Representative and Electrician to ensure that no conflicts exist with interference with high voltage electrical equipment in service area which would affect Maxicom operation. Relocate if necessary.
- F. Wire under hardscape surfaces shall be placed continuously in conduit.
- G. Pedestal controllers shall be placed upon VIT-Strong Box Quick Pad as per manufacturer's recommendations.
- H. Controllers shall be oriented such that Owner's Representative maintenance personnel may access easily and perform field system tests efficiently.
- I. Place Standard valve box at base of controller or nearby to allow for three to five feet of slack field control wire to be placed at each controller.
- J. This Contractor shall provide conduit access if needed for Electrical contractor. Electrical supply and installation, as well as hook-up to controller shall be by this Contractor.

3.04 CONTROL WIRE

- A. Spare wire shall be looped within each valve box of the grouping it is to service.
- B. A minimum of 24" of additional wire shall be left at each valve, each splice box and at each controller.

3.05 WIRE CONNECTORS

- A. Wire splices shall be installed accordingly:
- B. Wires shall be stripped with appropriate pliers or device.
- A. Wires shall be twisted together tightly via linesman or other similar pliers and cut flush.
- B. Wires shall then be fluxed and soldered.
- C. Wire nut shall then be installed.
- D. Twisted, soldered, wire nut assembly shall then be installed in waterproof grease tube.
- E. Wire splicing between controller and valves shall be avoided if at all possible.
- A. Any and all wire splices shall be contained within a valve box.
- B. Splices within a valve box that contains no control valves shall be stamped 'WIRE SPLICE' or 'WS' on box lid.

3.06 SLEEVING PIPE

- A. Sleeves shall be extended 6" minimum beyond walk or edge of pavement.
- B. Wire or cable shall not be installed in the same sleeve as piping, but shall be installed in separate sleeves.
- C. Sleeve ends on sleeve sizes 4" and larger shall be capped with corresponding sized PVC slip cap, pressure fit, until used, to prevent contamination.
- D. Sleeve ends on sleeve sizes 3" and smaller may be thoroughly taped to prevent contamination.
- E. Sleeves shall be installed at appropriate depths for main line pipe or lateral pipe
- F. Contractor shall be responsible to protect existing underground utilities and components.
- G. Sleeve all piping and wiring that pass under paving or hardscape features.
- H. Sleeves shall be positioned relative to structures or obstructions to allow for pipe or wire within them to be removed if necessary.

3.07 MAIN LINE / LATERAL LINE PIPE

- A. All ductile iron fittings having change of direction shall have proper concrete thrust block installed.
- B. Pulling of pipe shall not be permitted on this project.
- C. Over excavate trenches both in width and depth. Ensure base of trench is rock or debris free to protect pipe and wire. Grade trench base to ensure flat, even support of piping. Backfill with clean soil or import material.
- D. Contractor shall backfill no less than 2" around entire pipe with clean, rock free fill.
- E. Main line piping and fittings shall not be backfilled until Owners Approved Representative has inspected and pipe has passed pressure testing. Perform balance of backfill operation to eliminate any settling.
- F. Place irrigation pipe and other elements at uniform grades. Automatic drains shall not be installed on this Project. Manual drains shall only be installed at POC where designated on Construction Drawings.
- G. Install pipe to allow for expansion and contraction as recommended by pipe manufacturer.
- H. Install main line pipes with a minimum 12" of cover, lateral line pipes with a minimum 12" of cover.

- I. Drawings show diagrammatic or conceptual location of piping—Contractor shall install piping to: minimize change of direction, avoid placement under large trees or large shrubs, avoid placement under hardscape features.
- J. Plastic pipe shall be cut squarely. Burrs shall be removed, spigot ends of pipes 3” and larger shall be beveled.
- K. Pipe shall not be glued unless ambient temperature is at least 50 degrees F. Pipe shall not be glued in rainy conditions unless properly tented.
- L. All solvent weld joints shall be assembled using IPS 711 glue and P70 primer according to manufacturer’s specification, no exceptions.
- M. Glued main line pipe shall cure a minimum of 24 hours prior to being energized. Lateral lines shall cure a minimum of 2 hours prior to being energized and shall not remain under constant pressure unless cured for 24 hours.
- N. All threaded joints shall be wrapped with Teflon tape or paste unless directed by product manufacturer or sealing by o-ring.
- O. All main line pipe, lateral line pipe and other irrigation elements shall be bedded and backfilled with clean soil, free of rocks 1” and larger.
- P. Contractor shall furnish and install additional backfill material as necessary due to rocky conditions.
- Q. Trenches and other elements shall be compacted and/or water settled to eliminate settling.
- R. Debris from trenching operations un-usable for fill shall be removed from project and disposed of properly by Contractor.
- S. Maximum acceptable flow through piping shall be 5.0 FPS maximum flow through piping shall be:

1”	13 GPM
1-1/4”	22 GPM
1-1/2”	30 GPM
2”	50 GPM
2-1/2”	75 GPM

3.08 VALVE BOXES

- A. All valve boxes shall have valve number or identification branded in lid via headed steel or brass branding irons, minimum 2” tall.
- B. Valves shall list Controller ID and station number (X00)
- C. Wire splice boxes shall list (WS)
- D. Stop & Waste shall list (S&W)
- E. Ball Valves shall list (BV)
- F. Quick couplers shall list (QC)
- G. Master Valve shall list (MV)
- H. Flow meter shall list (FM)

3.09 MANUAL CONTROL VALVE

- A. For 3” and larger valves, place sleeve of 6” or larger pipe over top of valve vertically and then extend to grade. Place 10” round valve box over sleeve at grade. See detail for additional information.
- B. Isolation valves 2-1/2” and smaller shall be contained in a Carson Standard size valve box. Valves shall be installed with S/80 PVC TOE Nipples one both sides of valve.

3.10 QUICK COUPLER VALVE

- A. Quick coupler valves shall be placed with manifold groups and protected by manifold isolation valves.
- B. Top of quick coupler valve cover shall allow for complete installation of valve box lid, but also allow for insertion and operation of key.
- C. Base of quick coupler valve and top of quick coupler swing joint shall be encased in $\frac{3}{4}$ " - gravel.
- D. Contractor shall place quick coupler valves by coordinating with the Owners Approved Representative.

3.11 REMOTE CONTROL VALVE

- A. Contractor shall place remote control valves in groups as practical to economize on quantity of manifold isolation valves.
- B. Remote control valves shall be located separately and individually in separate control boxes.
 - 1. Flows through 1" valves shall be 1-22 GPM.
 - 2. Flows through 1-1/2" valves shall be 23-50 GPM.
 - 3. Flows through 2" valves shall be 51 through 75 GPM
 - 4. Flows through 3" valves shall be 76 GPM through 200 GPM.
- C. Valves shall be located in boxes with ample space surrounding them to allow access for maintenance and repair.
- D. Where practical, group remote control valves in close proximity, and protect each grouping with a manifold isolation valve as shown in details. Manifold Main Line (or Sub-Main Line) and all manifold components and isolation valves shall be at least as large as the largest diameter lateral served by the respective manifold.
- E. Valve boxes shall be set over valves so that all parts of the valve can be reached for service. Valve box and lid shall be set to be flush with finished grade.
- F. Only one remote control valve may be installed in a Carson 1419124 box.
- G. Place a minimum of 4" of $\frac{3}{4}$ " washed gravel beneath valve box for drainage.
- H. Bottom of remote control valve shall be a minimum of 2" above gravel.
- I. See remote control valve manifold detail for more information.

3.12 SYSTEM ADJUSTMENT

- A. Sprinkler heads shall be adjusted to proper height when installed.
- B. Changes in grade or adjustment of head height after installation shall be considered a part of the original contract and at Contractor's expense.
- C. Adjust all sprinkler heads for arc, radius, proper trim and distribution to cover all landscaped areas that are to be irrigated. Adjust sprinklers so they do not water buildings, structures, or other hardscape features.
- D. Adjust run times of stations to meet needs of plant material the station services.
- E. No sprinkler shall be located closer than 6" to walls, fences, or buildings.
- F. Heads adjacent to walks, curbs, or paths shall be located at grade and 2" away from hardscape.
- G. Control valves shall be opened and fully flush lateral line pipe and swing joints prior to installation of sprinklers.
- H. Spray heads shall be installed and flushed again prior to installation of nozzles.
- I. Contractor shall be responsible for adjustment if necessary due to grade changes during landscape construction.

3.13 CLEANUP

- A. Contractor shall clean all work areas daily, leaving areas accessible to the public in a 'broom clean' condition.
- B. Open trenches and or hazards shall be protected by chain link fence, snow fencing, or caution tape as directed by the Owners Approved Representative.
- C. Contractor shall coordinate with Owners Approved Representative for periodic as well as final cleanliness inspection.
- D. Upon project completion, Contractor shall remove all excess material, construction debris, packing, etc. attributable to his work.
- E. Completed project shall be left in a 'broom clean' condition.

END OF SECTION

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PLANTINGS

PART 1 GENERAL

1.01 SUMMARY

- A. Section includes:
 - 1. Trees, shrubs, perennials, vines, and groundcover requirements.
 - 2. Bedding, topsoil, and temporary support.
- B. The work to be performed under this section shall consist of furnishing all materials, labor, and plants necessary for the proper planting of all trees, shrubs, perennials, vines, and ground covers of the kind and sizes specified at the prescribed locations, and otherwise in accordance with the drawings and specifications or as directed by the Landscape Architect.
- C. Related sections:
 - 1. Section 32 84 00 Underground Irrigation Systems

1.02 REFERENCES

- A. ANN: American Associations of Nurserymen, Inc.
- B. ANSI Z60.1: American Standard for Nursery Stock.
- C. FS O-F-241: Fertilizers, Mixed Commercial.

1.03 QUALITY ASSURANCE

- A. Perform work in conformity with applicable requirements of AAN.
- B. Obtain nursery stock and other plant materials from approved sources prior to order and delivery.
- C. Provide plants that are declared free of disease and insect pests.

1.04 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Exercise care in digging, transporting, handling, and packing of all plants.
- B. Handle plants so roots are protected at all times. If delivery is in open vehicles, cover entire load without causing overheating.
- C. Deliver plant material immediately prior to placement. Keep plant material moist.
- D. Protect root balls from sun and wind by covering with soil or other suitable material if not planted immediately on delivery.
- E. Store fertilizer in a weatherproof location such that its effectiveness will not be impaired.

1.05 ACCEPTANCE

- A. Plants shall be accepted if the ball of earth surrounding roots (root ball) has not been cracked or broken.
- B. Plants shall be accepted if burlap, staves, and ropes required in connection with transplanting are installed and still intact upon delivery.
- C. Heeled in stock from cold storage shall not be accepted.

1.06 SAMPLES

- A. Samples of the materials listed below shall be submitted to the Owner's Approved Representative for inspection and approval prior to the beginning of work under this contract.
- B. Delivery of materials may begin only after samples have been approved. All materials furnished for the work shall conform in every respect to the approved samples. Any non-conforming materials will be rejected.

PART 2 PRODUCTS

2.01 GENERAL

- A. The planting plan is diagrammatic, and all plant locations are approximate. Plant symbols take precedence over plant quantities shown on the plans and in the plant material schedule. The Contractor shall verify all plant quantities and notify the Owner's Approved Representative of any discrepancies between the quantities and the symbols shown.
- B. Provide plants of normal growth and uniform height, according to species, with straight canes and well developed leaders, roots, and tops.
- C. Provide plants of sizes indicated. The size stated in each case shall be interpreted to mean dimensions of plant as it stands in its mature position in the nursery without straightening of any branches or leaders.
- D. Provide legible labels attached to all plants, specimens, bundles,
- E. boxes, bales, or other containers indicating botanical genus, species, and size of each.
- F. Plants cut back from larger sizes to meet specifications shall be rejected.
- G. Balled and bur lapped deciduous shrubs may be acceptable in lieu of container growth deciduous shrubs only if there is a significant shortage of container grown stock.

2.02 PLANTS

- A. All plants shall comply with federal and state laws requiring inspection for plant disease and infestations.
- B. Any inspection certificates required by law shall accompany each delivery of plants and such certificate shall be filed with the City. All plants shall be subject to inspection and approval at the place of growth or upon delivery to the site for their quality, size, species, and variety. Such approval shall not impair the right of inspection and rejection at the site or during progress of work for size and condition of the plants, latent defects, or injuries. Any and all rejected plants shall be removed immediately from the premises by the Contractor. The Contractor shall make all replacements at his expense should he fail to comply in full with any of the specifications. Necessary replacements will be made as soon as weather conditions permit and all such plants replaced shall conform to all specifications herein.
- C. Names and Grades:
 - 1. Plant names shall conform to the nomenclature of "Standard Plant Names" or "Bailey's Encyclopedia of Horticulture." When a name is not found in either reference, consult the accepted name used in the nursery trade. All plants shall be tagged by the nursery with the proper identification labels to insure the correct varieties of plants.

2. Size and grading standards shall conform to those of the American Association of Nurserymen, Inc., as published in "American Standard for Nursery Stock", 1959 Edition, with all current revisions unless otherwise specified.
 3. The caliper of trees shall be measured six (6) inches above the surface of the ground.
 4. Measurements on all trees and shrubs shall be taken with the branches in a normal position. Height and spread dimensions specified refer to the main body of the plant and not from branch or root tip to tip. No trees which have had their leaders cut or so damaged that cutting is necessary, will be accepted.
- D. No substitution of size, grade, variety or any species shall be permitted except by written permission of the City.
- E. Plant Size:
1. All plants shall conform to the size, age, and condition as specified in the plant list shown on the drawings. Undersized plant material shall not be approved.
 2. No additional compensation shall be due the Contractor if larger than specified plant material is provided.
 3. Due to the large size of the trees and evergreens being specified, only balled and bur lapped or container stock shall be accepted. No bare root stock shall be accepted.
- F. Plant List:
1. Plants lists indicate minimum size requirements only. Plant materials shall be equal to or greater in size than those specified.
 2. Any discrepancies between plant lists and plans shall be immediately brought to the attention of the City.
 3. In all cases the Contractor shall be held responsible for all plant materials indicated on the plans unless otherwise directed in writing by the City.
 4. Each bidder shall investigate sources of supply and satisfy himself that he can supply all of the plants mentioned in the planting lists in size, variety, and quantity noted and specified before submitted his bid. Failure to take this precaution will not relieve the successful bidder from his responsibility as Contractor to furnish and install all plant material in strict accordance with the contract requirements without additional expense to the owner.
- G. Sod shall be Kentucky Blue Grass Mix Variety, or as specified on the Plans.
- H. All plants shall be fresh and vigorous, of normal habit and growth, and free of disease, insects and insect eggs and insect larvae, weeds and weed seed. No heeled-in plants from cold storage shall be accepted except on approval by the Owner's Approved Representative prior to installation.

2.03 TREE STAKES & TIES

- A. Tree stakes shall be three (3) inch by three (3) inch by eight (8) foot wood stakes used as indicated on the plans. Steel stakes may be used if approved by the Owner's Approved Representative and reclaimed after one year.
- B. Tree stake ties shall be manufactured of virgin flexible vinyl meetings ASTM-D412 standards for tensile and elongation strength. The material shall be black in color for ultraviolet resistance. Hose and wire shall not be used.

2.04 TOPSOIL

- A. All planting areas shall receive either a minimum of six (6) inches of stockpiled or imported topsoil in turf areas and six (6) inches in planting beds unless otherwise approved by the City.

- B. Chemical Characteristics:
 1. Acidity and alkalinity range: pH 5.5 to 7.7
 2. Soluble Salts: Less than 2.0 mmhos/cm.
 3. Sodium Absorption Ratio (SAR): less than 3.0
 4. Nitrogen (NO₃N): 48 ppm minimum
 5. Phosphorus (P): 11 ppm minimum
 6. Potash (K): 130 ppm minimum
 7. Iron (Fe): 5.0 ppm minimum
- C. Physical Characteristics:
 1. Fertile, loose, friable.
 2. Free of stones, lumps, clods of hard earth, plants or their roots, sticks, and other extraneous matter. The topsoil shall contain no noxious weeds nor their seeds. It shall not be used for planting operations while in a frozen or muddy condition.
- D. Composition:

Material	Percent
Sand	15 - 60
Silt	10 - 70
Clay	5 - 30
Organic Matter	2 - 5

1. All topsoil used on this project (stockpiled or import) shall be clean and free from stone fragments greater than (2) mm and less than 5% (by volume)

2.05 MULCH

- A. Shredded bark mulch shall be used as a top dressing for all planting beds unless specified otherwise.
- B. Shredded bark mulch shall conform to the following criteria:
 1. Bark pieces shall not exceed two (2) inches when passed through a screen of that size.
 2. Large chunks of bark or wood shall not be mixed in with the mulch.
 3. The bark mulch shall be primarily from coniferous trees.
- C. Where used, the shredded bark mulch shall be place to a depth of four (4) inches on top of the topsoil, with no more than one (1) inch mulch placed on top of the root ball.
- D. Other mulches may be used only as specified on the drawings or in the planting notes and details.

2.06 FERTILIZER

- A. Commercial fertilizer shall be uniform in composition, dry, and free flowing. Deliver fertilizer mixed as specified in bulk or bag, showing weight analysis, formula, and manufacturer's name.
- B. A 16-16-16 balanced fertilizer shall be used. Any exceptions to this formula shall be based on horticultural recommendations resulting from a site-specific soils test, and must be approved prior to application by the City.

2.07 MOW STRIP

- A. Where turf areas are separated from planting beds or trees, a concrete mow strip shall be used. No other edging materials may be used unless specifically noted on the plans and approved by the City.
- B. The mow strip shall be constructed using concrete having a compressive strength rating of four thousand pounds per square inch (4,000 psi) or greater, and a maximum slump of four (4) inches.
- C. A three eighth (3/8) inch diameter rebar (#3) shall be placed continuously in the center of the mow strip to provide support and help prevent differential settling of the mow strip after cracking. Overlap joints a minimum of twelve (12) inches.

PART 3 EXECUTION

3.01 GENERAL

- A. Site Visit: The Contractor shall visit and inspect the site. He shall take into consideration known and reasonably inferable conditions affecting work. Failure to visit the site will not relieve the Contractor of furnishing materials and performing the work required.
- B. The Contractor shall clean, remove and dispose offsite all debris (including, but not limited to trash, concrete, masonry, asphalt, metals, wood, etc.), trees and other vegetation not shown as being protected, and surplus soils from all work areas.
- C. The site shall be graded and prepared sufficient to allow for placement of 6" minimum topsoil, sod and all other vegetation.
- D. Prior to any planting operations, the irrigation system shall be fully operational and all planting areas shall be thoroughly moistened.
- E. Where weeds or other undesirable vegetation are present in planting areas, the Contractor shall apply a contact herbicide a minimum of ten (10) days prior to commencement of any planting or irrigation work. Apply herbicide per manufacturer's recommendations. The poisoned vegetation shall be allowed to completely die back, including the roots, before proceeding with the work. Dead vegetation shall then be removed from the site and disposed of in a legal manner.
- F. The Contractor shall conform to the following requirements with regard to existing vegetation:
 - 1. The Contractor shall be fully responsible for any damage to existing trees or shrubs. He shall use all reasonable means to protect and preserve plants on the project not designated for demolition.
 - 2. No pruning, thinning, or cutting of existing vegetation shall be allowed unless written permission is given by the City.
 - 3. The Contractor shall replace any trees or existing shrubs damaged by him or his sub-contractors with like kind and size.

3.02 PLANTING SEASONS

- A. All new plant installation shall be completed between April 15 and October 1. If planting must be done after October 1 or before April 15, the Contractor shall obtain specific approval to do so from the Owner's Approved Representative prior to beginning any planting operations.
- B. No planting shall be done in frozen soil or during unfavorable weather conditions, subject to the approval of the City.

3.03 TOPSOIL

- A. Prior to delivery of the imported topsoil to the site, the Contractor shall provide to the City:
 - 1. The name and location of the topsoil source;
 - 2. A 5 gallon container of the proposed topsoil.
- B. The Contractor shall verify that the proposed topsoil meets the topsoil specifications, and is capable of supporting healthy plant growth.
- C. The following procedure shall be followed in placing all topsoil:
 - 1. All areas to receive topsoil which have a slope of less than ten (10) percent shall be cross-rippled to a depth of four (4) to six (6) inches.
 - 2. The subgrade material shall be rough graded to plus or minus one tenth (± 0.1) foot of the final rough grade, which will allow the Contractor to achieve final finished grade through the placement of the topsoil.
 - 3. The subgrade shall be prepared in such manner as to allow for the placement of 6" minimum topsoil and sod adjacent to all curb and gutter, sidewalk, fences and connections to existing landscaping.
 - 4. The surface of the subgrade shall be scarified to a depth of two (2) inches to provide a transition zone between the subgrade and the topsoil. Place the topsoil on the subgrade and fine grade to the final finished grade and topsoil depths as indicated on the drawings and in these specifications.
 - 5. Any required soil amendments (i.e. mulch, organic matter, etc.) shall be placed directly on the topsoil at the required rates and spread evenly over the planting area. The amendments shall then be thoroughly blended into the topsoil to a depth of four (4) inches. Where only a dry, granular fertilizer is to be added, it may be applied to the surface and raked in during the fine grading procedures.
- D. The Contractor shall maintain a minimum of two (2) percent drainage away from all buildings, structures, and walls. Finished grades shall be smoothed to eliminate puddling or standing water.
- E. All finished grades shall be a minimum of two (2) percent unless otherwise approved by the Owner's Approved Representative prior to installation of any plant materials.

3.04 PLANT CONDITION

- A. All precautions customary in commercial landscape installation practice shall be taken in preparing plants for planting. Workmanship that fails to meet these minimum standards shall be rejected. All balled and bur lapped plants shall have firm and natural balls of earth around their roots. No plant shall be planted if the root ball is cracked or broken, either before or during the process of planting. Loose, broken or manufactured root balls shall be rejected.
- B. All plants materials in five (5) gallon containers or larger shall have been established in that container for a period of not less than six (6) months and not more than two (2) years. Plant material shall not be root bound. They shall exhibit sound, healthy, and vigorous growth and be free from diseases and pests.
- C. The Contractor shall have the Owner's Approved Representative approve plant material size and quality prior to installation. Any plants which are not true to form, appear stressed or unhealthy, are infested with pests, infected with disease, or are undersized for their containers shall be rejected.
- D. All plant material shall be planted as soon upon arrival on the premises as possible. If planting cannot be done immediately, the roots shall be protected from the sun and kept in a moist condition until the time of planting. Such protection may be provided

by laying the plants on the north side of the building and covering the roots with wet straw.

- E. If it is anticipated that planting will not be done for more than twenty-four (24) hours after the arrival of plants upon the premises, the bare root and ball and burlap stock shall be heeled-in on the north side of a building and all roots completely covered with dirt which shall be wetted down frequently. Care will be taken in the handling of all ball and burlap materials so that the earth around the roots is disturbed as little as possible.

3.05 PLACEMENT OF PLANTS

- A. Plants shall be generally located as indicated by the drawing. The Contractor shall stake out the location of all plants and planting areas with identified plant stakes, and no excavation shall commence until such locations have been approved by the City.
- B. In the event that underground construction work or obstructions are encountered during excavation of the plant holes, alternate locations will be assigned and approved by the City.
- C. Except for turf and groundcovers, plants shall not be placed within twelve (12) inches of sprinkler heads.
- D. The Contractor must locate and stake any sprinkling head or valve box within 10' feet of proposed tree location, and must establish the direction of the lateral or main irrigation line that serves the staked sprinkler head or valve box. This procedure will help eliminate hitting underground irrigation pipes.

3.06 PLANT INSTALLATION

- A. All concrete work, sprinkling systems, and finished grading shall be completed and approved by the Owner's Approved Representative before any planting of the specified plant materials is begun.
- B. No tree planting shall be initiated until sprinkling system is complete and tested. However, tree planting shall precede lawn planting.
- C. Each plant will be placed in an individual plant pit. The sharing of pits shall not be allowed.
- D. All trees and shrubs shall be planted in pits as detailed in the planting details contained herein or as noted on the drawings. Tree and shrub pits shall be circular in outline, with a diameter at least three (3) times the diameter of the root ball of each plant to be installed. They shall be one to two and one half (1 - 2 ½) inches shallower than the root ball depth. When the plant is properly placed in the plant pit, the root collar shall be approximately one (1) inch above finished grade. All trees shall be planted with the root collar two (2) to three (3) inches above finished grade. The sides of the plant pit shall be roughened, and not smooth or sculpted. E. Plant backfill mix shall be one hundred (100) percent native site soil.
- E. For container grown plants, remove the container and place the plant vertically in the plant pit, directly on undisturbed soil. The root crown or collar shall be at or just above the finished grade.
- F. For balled and bur lapped plants, place the plant vertically in the center of the pit, with the root ball resting on undisturbed soil. Cut and remove the wire basket and burlap or other wrapping material from the root ball. This may be done with the root ball in the pit. Any burlap or wire pieces underneath the root ball may be left in place if they cannot be removed. Do not fold the burlap over, but cut away as much as possible without disturbing the root ball. No burlap shall be pulled from under the

- root ball. Backfill the bottom one third (1/3) of the pit as the wire and burlap are removed. In all cases, maintain the integrity of the root ball.
- G. Specified backfill material shall be carefully and firmly worked and tamped under and around the root ball to fill all voids. When backfilled and compacted to two thirds (2/3) the depth of the pit, thoroughly water with a hose to completely soak the roots and remove any air pockets.
 - H. The plant pit shall then be completely backfilled with the specified backfill mix and tamped well. A shallow watering basin or rain cup shall be formed around each plant. This basin will be equal in diameter to that of the original planting pit.
 - I. Monitor all plants to insure that no settling occurs. Pits which settle shall be immediately filled with additional soil mixture at no additional expense to the City.
 - J. After planting, the following operations shall be performed:
 - 1. Stake and mulch all trees per installation details.
 - 2. Remove all nursery stakes ties, and tags from all plants. Prune and remove any dead, damaged, or broken branches. Maintain side growth on all trees.

3.07 STAKING

- A. All trees, including evergreen trees, shall be staked.
- B. Staking shall be performed as follows:
 - 1. Two (2) 2"x 2" wood stakes, eight (8) feet in length, shall be used to support each tree planted under this contract unless otherwise indicated.
 - 2. Tree ties shall conform to the staking detail shown on the planting detail sheet.
 - 3. Each stake will be located adjacent to the rootball, on opposing sides, to provide maximum support to the trunk. Do not penetrate the rootball with the stake.
 - 4. The stakes will be driven into the pit bottom after the tree has been placed in the pit, but before backfilling begins so as to avoid damage to the roots.
- C. Stakes and ties shall be removed after one (1) full growing season from the time the tree was installed.

3.08 WATERING

- A. All plants shall be thoroughly watered immediately after planting. This shall mean full and thorough saturation of all backfill in the pits and beds during the same day of planting. Water shall be applied only by open end hose at very low pressure to avoid air pockets, injury to the plant, or washing away of backfill. When installed, watered, and fully settled, the plants shall be vertical.
- B. Subsequent watering shall be provided by the site's irrigation system. The Contractor shall insure that all plants, especially trees, receive sufficient water to maintain healthy growth and vigor. Overwatering shall be avoided, and prolonged saturation of the soil around the trees shall be eliminated by appropriately controlling the irrigation circuit which provides water to that area.

3.09 MULCHING

- A. Shredded bark mulch shall be placed to a depth of three (3) inches on top of the topsoil in all planting beds and over tree planting pits.
- B. The finished grade of the bark mulch shall be as follows:
 - 1. Two (2) inches below the surface or finished grade of any paving, mow strips, or walks adjacent to the planting area.
 - 2. At adjacent finished grade of the turf surrounding tree planting pits.

- C. In tree pits, the bark shall be kept six (6) inches away from the base of the tree.
- D. Just prior to placement of the mulch, the Contractor shall treat the mulched areas with a pre-emergent herbicide according to the manufacturer's recommendations.

3.10 SOD INSTALLATION

- A. All turf shall be sod unless otherwise approved in writing by the Owner's Approved Representative prior to installation.
- B. Sod shall be obtained only from approved sources. The sod shall have been mowed regularly and carefully maintained from planting to harvest.
- C. The sod shall be free of grassy and broad-leaf weeds, contain no bare or burned spots, and be clean and strongly rooted. It shall be of the varieties noted on the plans and notes.
- D. The sod shall be cut using approved methods and equipment. It shall be cut in pieces not exceeding one (1) square yard, with a minimum of one (1) inch and maximum one and one half (1 ½) inch thickness.
- E. The Contractor shall notify the Owner's Approved Representative of the source of the sod prior to placement. The sod shall be stripped and delivered to the site not more than twenty four (24) hours prior to laying. The sod shall be maintained in a moist and healthy condition to encourage immediate growth.
- F. The following procedure shall be followed when installing the sod:
 - 1. Lay the sod on smooth, moist topsoil, working off planks if required.
 - 2. Rake the topsoil to loosen and level prior to placing each course of sod.
 - 3. Lay strips perpendicular to the direction of the slope. Strips shall be parallel to each other, with their end seams staggered. The sod shall be neither stretched nor overlapped, and all joints shall be butted tightly together.
 - 4. Roll the sod immediately after placing and thoroughly water with a fine spray to a depth sufficient that the underside of the new sod and the soil immediately below the sod are thoroughly wet.
 - 5. On slopes two (2) horizontal to one (1) vertical or steeper, lay the sod perpendicular to the slope and secure every row with wooden pegs at two (2) feet maximum on center. Drive the pegs flush with the soil portion of the sod.

3.11 CLEAN UP

- A. Throughout the course of planting, excess and waste materials as well as excavated subsoil shall be continuously and promptly removed. All areas shall be kept clear and all reasonable precautions taken to avoid damage to existing structures, plants, and grass.
- B. When planting has been completed in an area, it shall be thoroughly cleaned of all debris, rubbish, subsoil, and waste materials. These shall be removed from the property and disposed of legally. All planting tools shall also be put away.
- C. The ground surface shall be left in a condition satisfactory to the City.

3.12 AS-BUILT DOCUMENTS

- A. The Contractor shall keep a record of all departures from the working drawings that occur during construction. These changes shall be shown on a clean set of prints, and the prints kept on the job site at all times for review.
- B. As a part of his observation work, the Owner's Approved Representative shall review the as-built drawings regularly to verify that changes are being recorded. At the conclusion of the work, the Contractor shall present the drawings to the Owner's

Approved Representative and they shall become part of the permanent record of the project.

3.13 MAINTENANCE

- A. Substantial Completion:
1. At substantial completion of all planting work outlined in these plans, the Contractor shall contact the Owner's Approved Representative to arrange for a walk through to verify that all aspects of the work have been completed. Work must be fully completed (except for final clean-up) according to all plans, notes, and specifications and exhibit professional workmanship. Substantial completion shall be defined as the complete installation of all plant materials, staking, mulching, and other work on the project in its entirety. Substantial completion shall not be given on designated portions of a project.
 2. Notice by the Contractor shall be given, in writing, at least three (3) days in advance to the Owner's Approved Representative so that proper scheduling can be made for those who are to attend.
 3. At the appointed time, an inspection of all plant materials, including staking and mulching, shall be made.
 4. A list of uncompleted items (punch list) shall be generated by the Owner's Approved Representative and distributed to the Contractor and other involved parties within three (3) days of the substantial completion inspection. Each item on the punch list shall be corrected before the project will be approved and accepted by the City. The Contractor will be back charged for time spent by the City and any consultants who have been brought to the site for a final inspection when the project is not ready for said inspection.
- B. Maintenance/Establishment Period:
1. The maintenance/establishment period shall begin one (1) day after the substantial completion inspection. The Contractor shall complete all punch list items during this period, as well as maintain and operate the entire irrigation system.
 2. The Contractor shall maintain all plantings until the turf is fully established. The turf shall be considered fully established when grass stands come in uniform and thick, with no bare or thin spots, and roots have begun to spread and knit together. No weeds shall be allowed in the grass. This shall be a minimum period of sixty (60) days. The maintenance work required shall include but not be limited to the following:
 - a. Appropriate watering of all plant materials.
 - b. Weeding and removal of all weeds from groundcover and planting areas.
 - c. Replacement of any dead, dying, or damaged trees, shrubs, perennials, or groundcover.
 - d. Filling and replanting of any low areas which may cause standing water.
 - e. Adjusting or sprinkler head heights and watering patterns.
 - f. Filling and re-compaction of eroded areas, along with any required sod replacement or plant replanting.
 - g. The grass shall be mowed when the blades reach three (3) inches tall and maintained to a minimum height of two (2) inches. No more than one third (1/3) of the blade shall be removed per cutting. The cutting frequency shall be once every five (5) to seven (7) days depending upon grass height and growth rate.
 - h. Weekly removal of all trash, litter, clippings, and all foreign debris.

- i. At thirty (30) days after planting, a balanced fertilizer (16-16-16) shall be applied to the grass areas at a rate of one half (½) pound of nitrogen per one thousand (1,000) square feet.
 - j. At intervals of thirty (30) days after the first application of fertilizer to the grass, apply a balanced fertilizer (16-16-16) at a rate of one half (½) pound of nitrogen per one thousand (1,000) square feet until the grass is established.
- 3. Final Acceptance:
 - a. A final inspection shall be held prior to the end of the maintenance period to insure that all punch list items have been completed and the entire project is ready for acceptance by the City.
 - b. Upon satisfaction that the Contractor has completed all punch list items, the irrigation system is fully and completely functional, and the required As-Built drawings, mylars and maintenance manuals have been submitted, the City shall accept the project.
 - c. An official letter of final acceptance shall be prepared and issued to the Contractor, designer, and the City. Upon final acceptance of the project by the City, the City shall assume full responsibility for the project, and the guarantee period shall begin.

3.14 GUARANTEE

- A. Upon final acceptance of the project as being properly installed, the Contractor shall guarantee the plant materials as follows:
 - 1. All shrubs and groundcovers shall be guaranteed by the Contractor as to growth and health for a period of sixty (60) days after completion of the maintenance period and final acceptance.
 - 2. All trees shall be guaranteed by the Contractor to live and grow in an acceptable upright position for a period of one (1) year after completion of the maintenance period and final acceptance.
- B. The Contractor shall, within fifteen (15) days after receiving written notification by the City, remove and replace all guaranteed plant materials which die or become unhealthy or appear to be in a badly impaired condition at any time during the guarantee period. Any plants that settle below or rise above the desired finished grade shall also be reset to the proper grade.
- C. All replacements shall be plants of the same kind, size, and quality as originally specified in the "plant list" and they shall be furnished, planted, staked, and maintained as specified herein at no additional cost.
- D. The Contractor will not be responsible for plants destroyed or lost due to occupancy of the project, vandalism on the part of others, or improper maintenance or lack thereof.
- E. At the conclusion of the guarantee period and prior to final inspection of the plant materials by the City, the Contractor shall remove all tree stakes.
 - 1. Stakes shall be removed by first cutting the ties securing the tree to stakes and secondly pulling stakes or guys out of the ground.
 - 2. Stakes shall not be broken off above, at, or below ground levels but removed completely.
- F. At the conclusion of the guarantee period a final inspection of all planting included in this contract shall be made by the City. At that time any plant found to be unhealthy, broken, damaged, or otherwise in an impaired condition shall be noted. Plants so noted shall be removed immediately from the site by the Contractor and replaced by

Contractor, as specified under this section, with plants of like kind and size in the manner previously specified for the original planting without extra compensation.

END OF SECTION

DRAWINGS

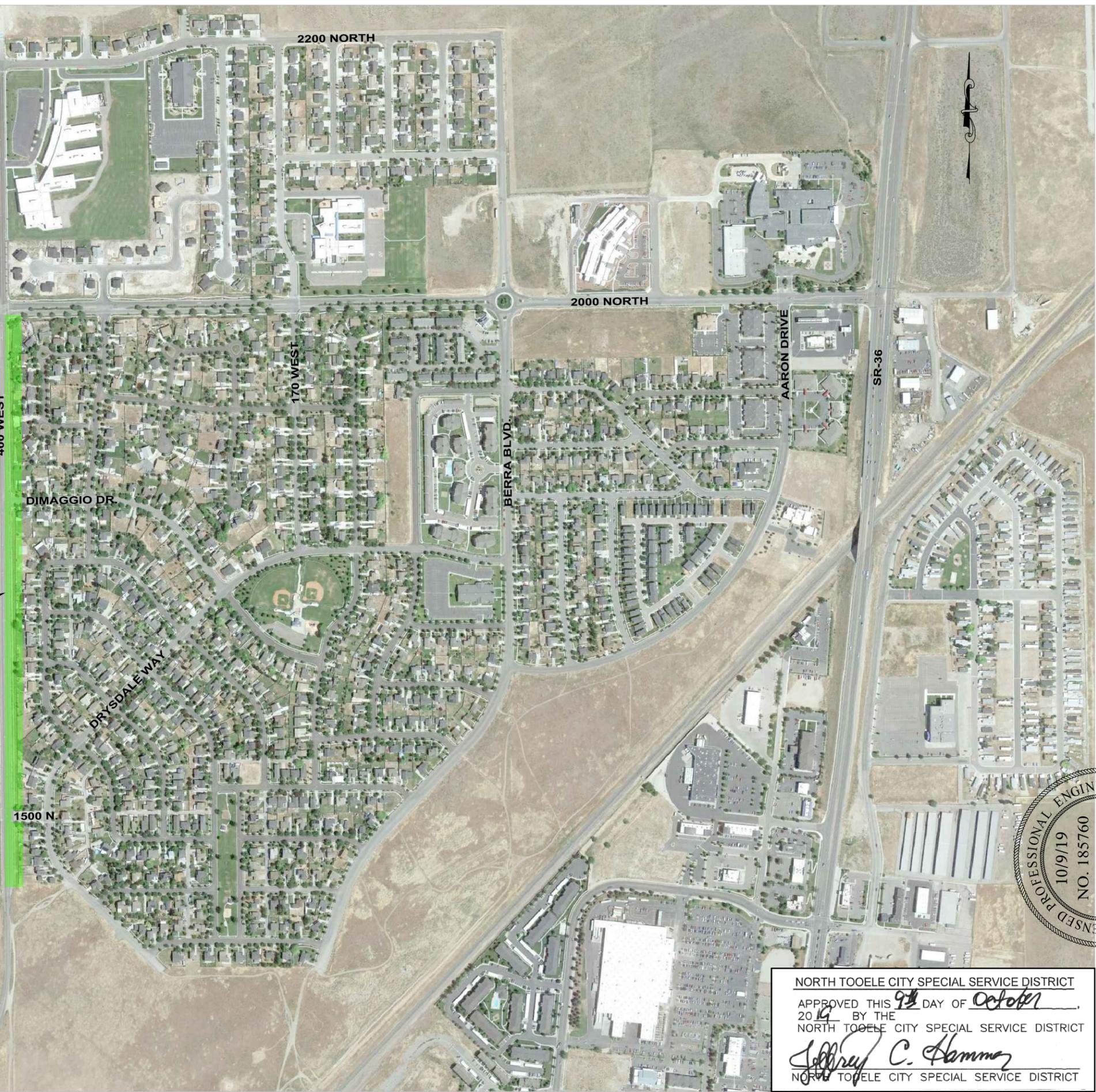


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GENERAL NOTES

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING BLUE STAKES.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES, INCLUDING WATER LINES, IRRIGATION DRAIN LINES, TELEPHONE CABLES, POWER LINES, GAS LINES, AND ANY OTHER OBSTRUCTION DURING THE COURSE OF CONSTRUCTION AND INSTALLATION OF THE LANDSCAPING. SAID UTILITIES SHALL BE RESTORED TO A CONDITION AT LEAST EQUAL TO THEIR ORIGINAL CONDITION.
3. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT ALL EXISTING IMPROVEMENTS DURING CONSTRUCTION AND SHALL REPLACE OR RESTORE ANY IMPROVEMENTS DAMAGED AS A RESULT OF THE CONSTRUCTION ACTIVITY AS DIRECTED BY THE CITY.
4. CONTACT TOOELE CITY AT LEAST 72 HOURS IN ADVANCE OF ALL WATER SHUTDOWNS.
5. CONTRACTOR SHALL GENERATE RECORD DRAWINGS AND PROVIDE A COMPLETE SET TO CITY UPON COMPLETION OF WORK.

PROJECT AREA



TOOELE CITY CORPORATION

TOOELE CITY PUBLIC WORKS
400 WEST LANDSCAPE

NO.	DATE	REVISIONS
4		
3		
2		
1		

FILE: 400 WEST LANDSCAPE_2019.dwg

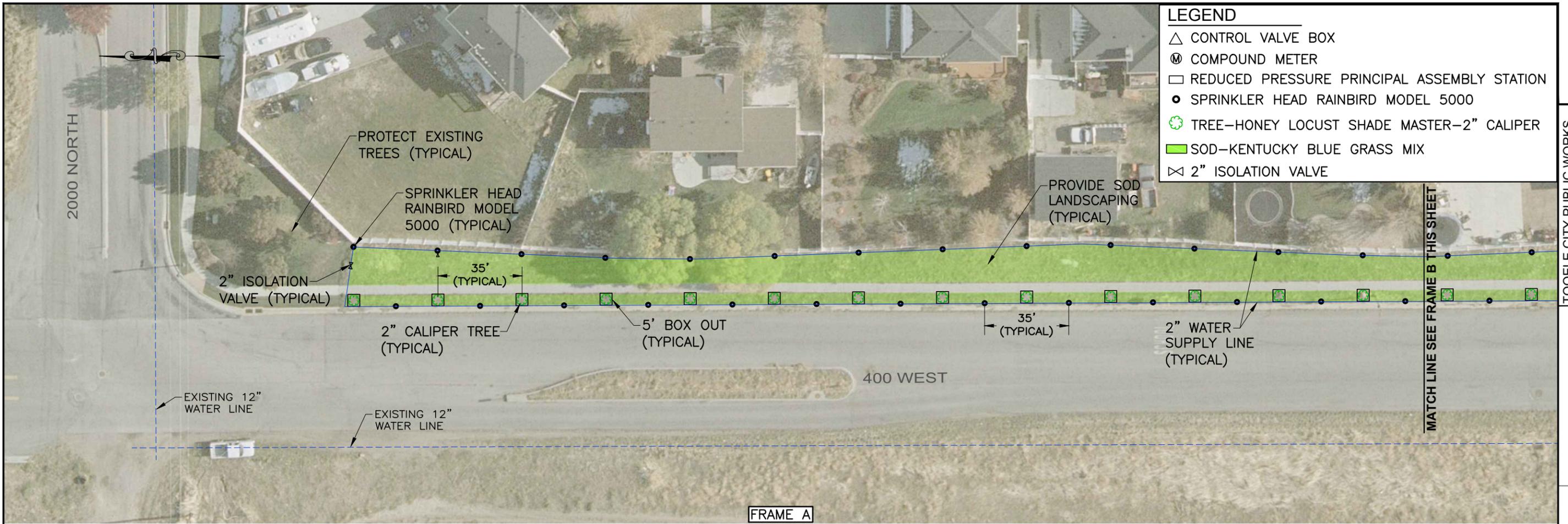
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CONFIRM SCALE
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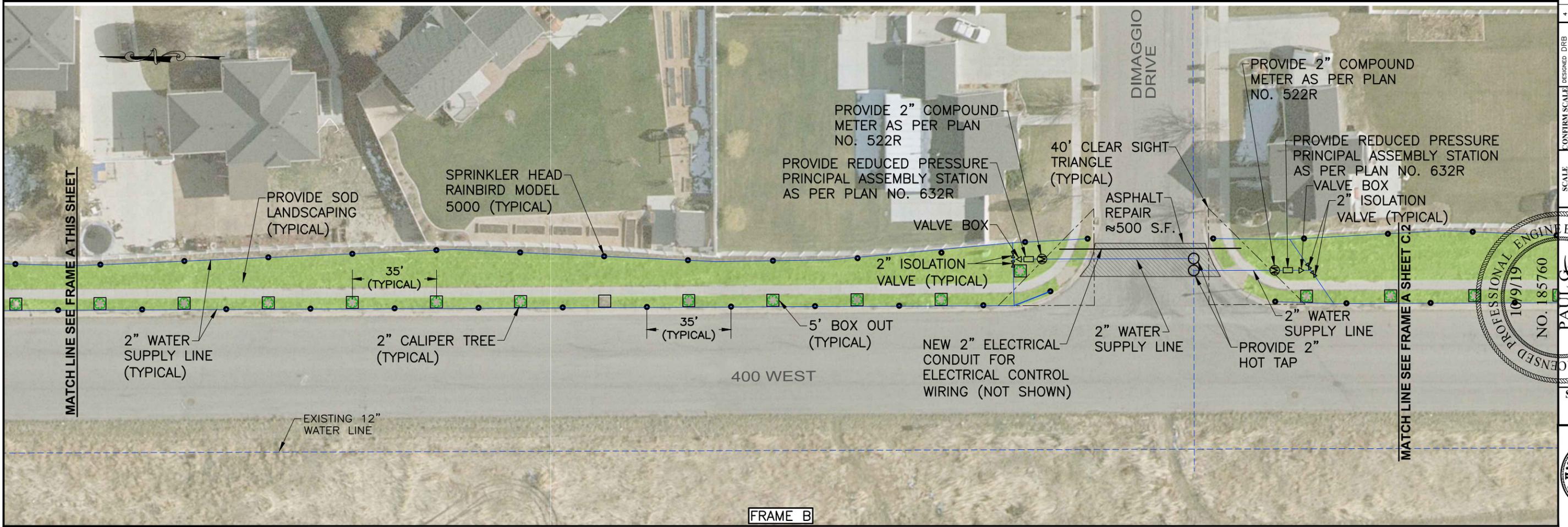
SHEET NO. G.1



NORTH TOOELE CITY SPECIAL SERVICE DISTRICT
APPROVED THIS 9th DAY OF October, 2019 BY THE
NORTH TOOELE CITY SPECIAL SERVICE DISTRICT
Jeffrey C. Hamman
NORTH TOOELE CITY SPECIAL SERVICE DISTRICT



FRAME A



FRAME B

LEGEND

- △ CONTROL VALVE BOX
- ⊙ COMPOUND METER
- REDUCED PRESSURE PRINCIPAL ASSEMBLY STATION
- SPRINKLER HEAD RAINBIRD MODEL 5000
- 🌳 TREE-HONEY LOCUST SHADE MASTER-2" CALIPER
- 🌱 SOD-KENTUCKY BLUE GRASS MIX
- ⊗ 2" ISOLATION VALVE

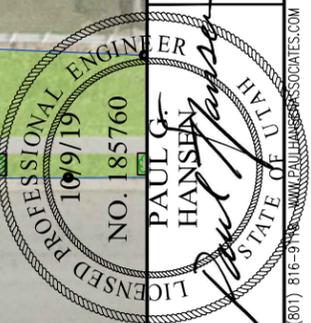
TOOELE CITY CORPORATION

TOOELE CITY PUBLIC WORKS
400 WEST LANDSCAPE
LANDSCAPE PLAN

NO.	DATE	REVISIONS
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2	2019	
3		
4		

FILE: 400 WEST LANDSCAPE_2019.dwg

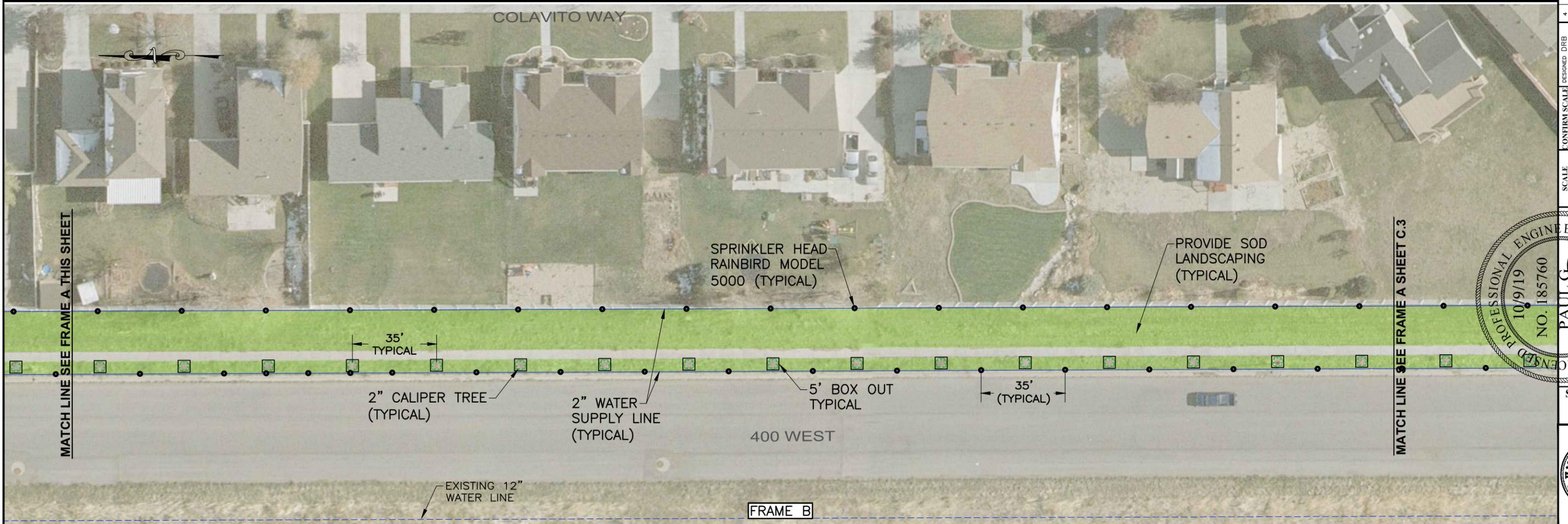
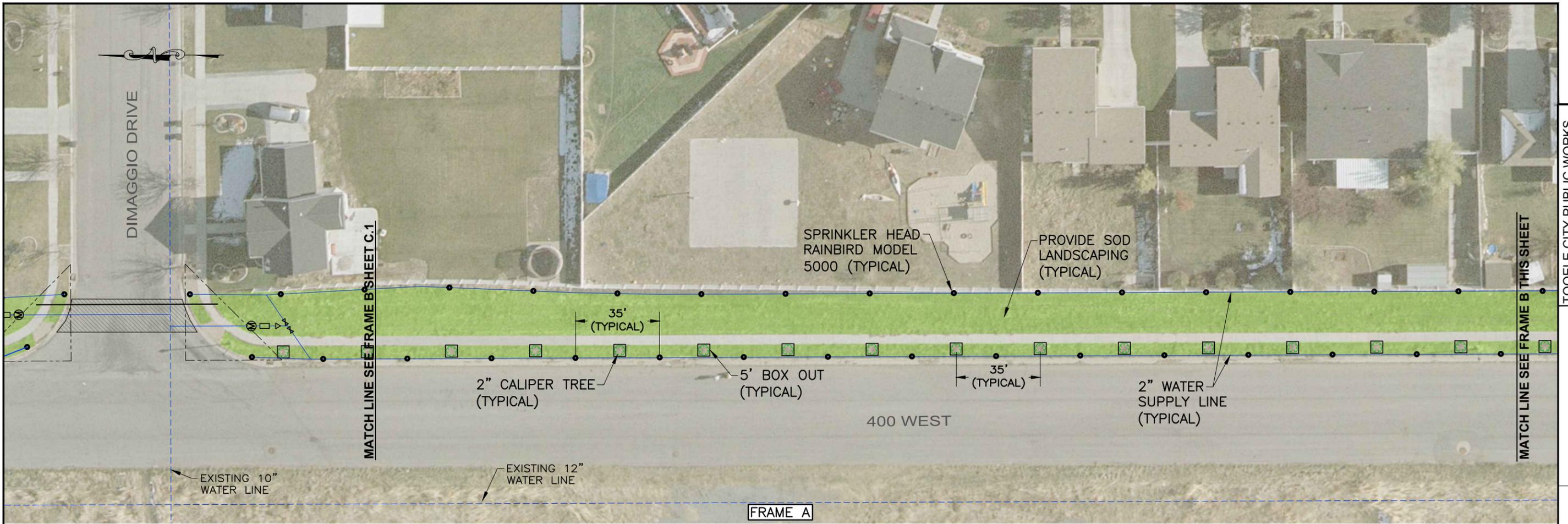
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SCALE	3
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CONFIRM SCALE	1



SHEET NO. **C.1**



SANDY, UT/PH tel (801) 816-9119 fax (801) 816-9118 WWW.PAULHANSENASSOCIATES.COM



REVISIONS	
NO.	DATE

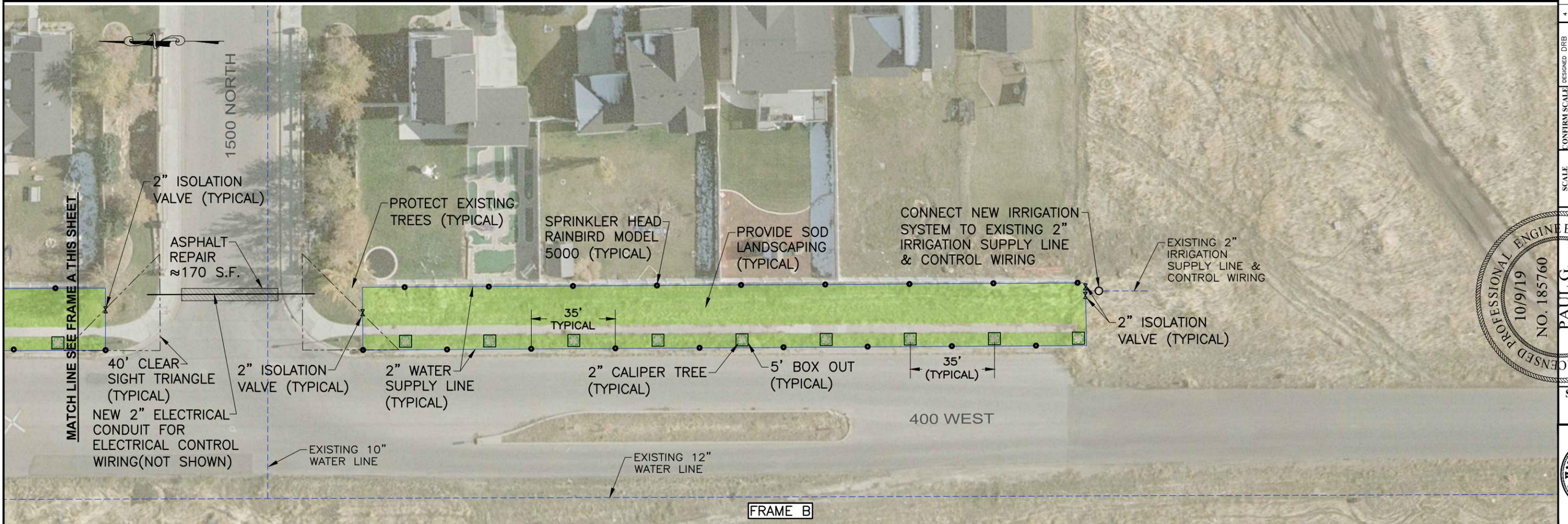
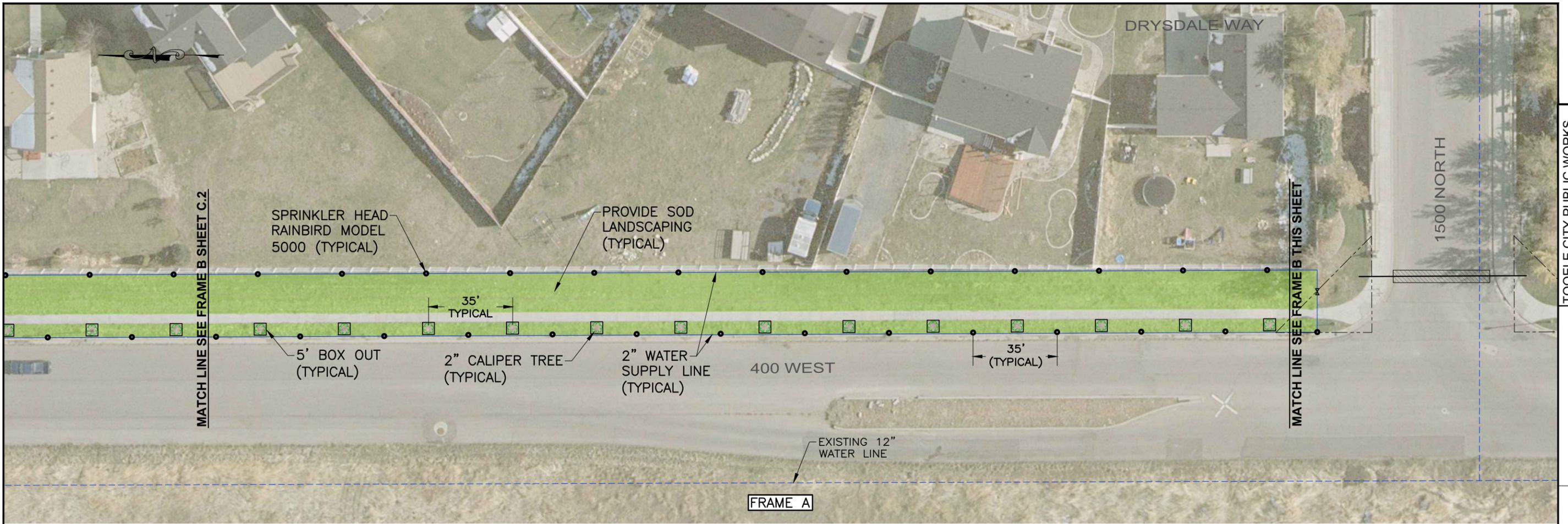
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DRAWN DRB	3
CHECKED PCH	2
DATE SEPT 2019	1
FILE	LANDSCAPE_2019.dwg

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PROFESSIONAL ENGINEER
10/9/19
NO. 185760
PAUL G. HANSHAN
STATE OF UTAH
LICENSED PROFESSIONAL ENGINEER

SHEET NO. C.2





TOOELE CITY CORPORATION

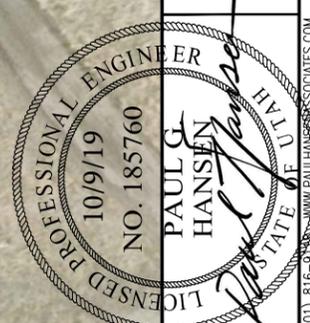
TOOELE CITY PUBLIC WORKS
400 WEST LANDSCAPE

LANDSCAPE PLAN

REVISIONS	
NO.	DATE
1	DATE SEPT 2019
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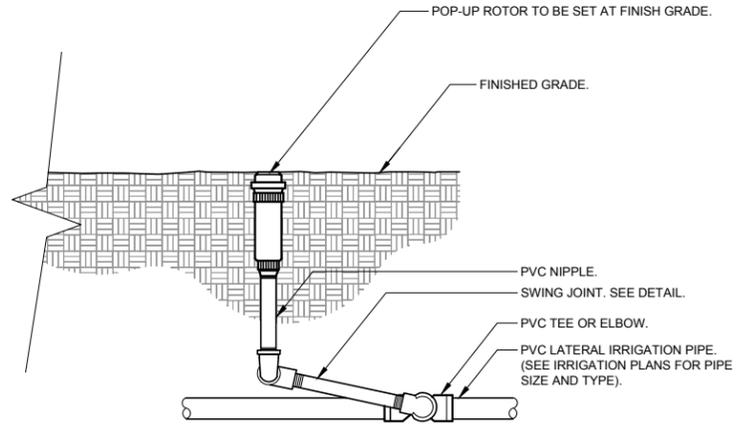
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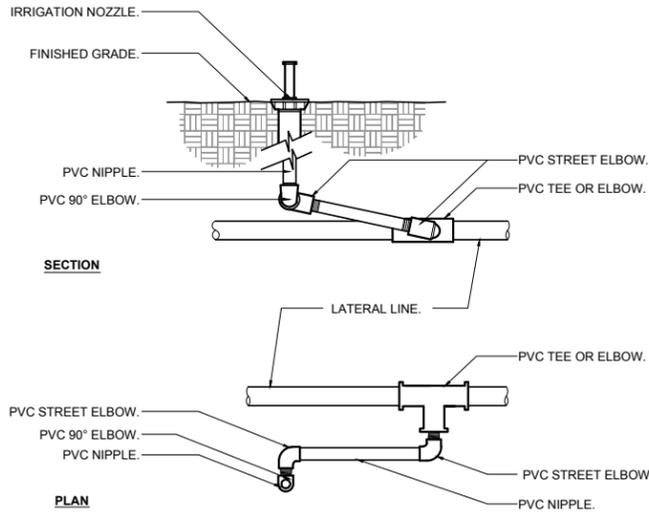


SANDY, UTAH tel (801) 816-9119 fax (801) 816-9118 WWW.PAULGHANSENASSOCIATES.COM



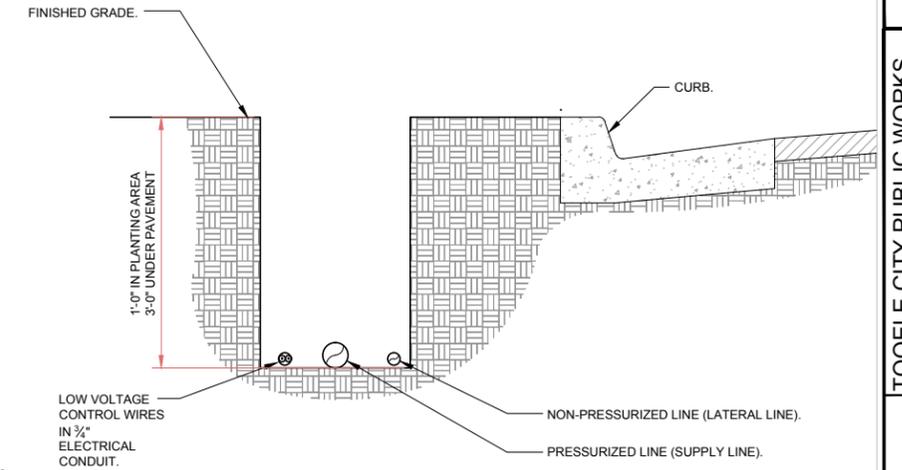
- NOTES:
- 1- ALL THREADED CONNECTION POINTS SHALL BE INSTALLED USING TEFLON TAPE.
 - 2- CONTRACTOR SHALL COMPACT SOIL AROUND ROTOR AND RISER PRIOR TO PLANTING, PLUGGING, SEEDING, OR LAYING OF SOD.
 - 3- ALL PVC PIPE 2" OR LESS SHALL BE SCH. 40. ALL PIPE FITTING SHALL BE SCH. 80.

A ROTOR SPRAYHEAD - RAINBIRD MODEL 5000
NOT TO SCALE



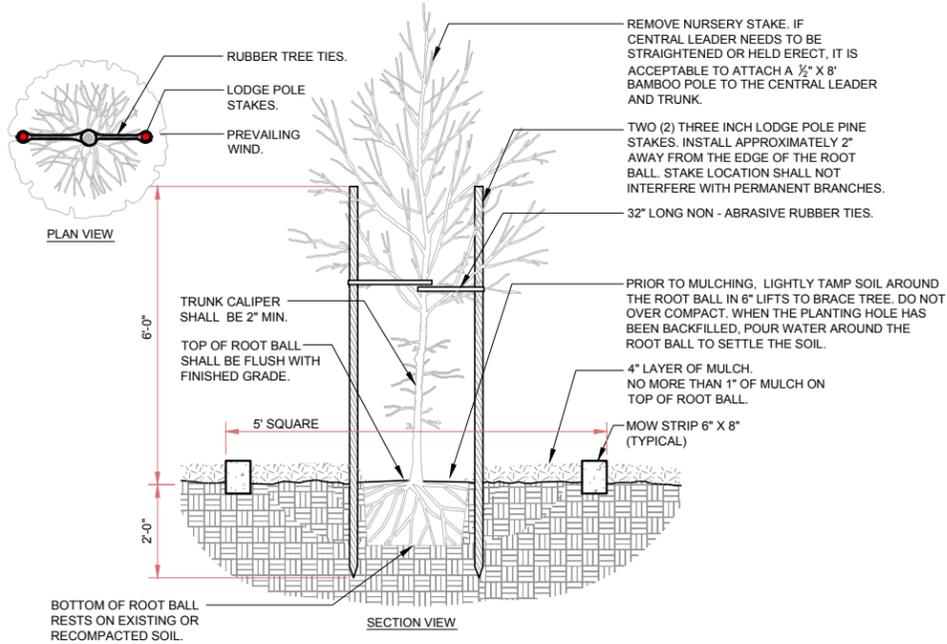
- NOTE:
- 1- ALL THREADED CONNECTIONS FROM SHALL BE MADE USING TEFLON TAPE.
 - 2- HUNTER SWING JOINTS OR APPROVED EQUAL SHALL BE USED PER APPROVAL BY THE OWNER'S REPRESENTATIVE.
 - 3- ALL PVC PIPE 2" OR LESS SHALL BE SCH. 40. ALL PIPE FITTING SHALL BE SCH. 80.

B SWING JOINT
NOT TO SCALE

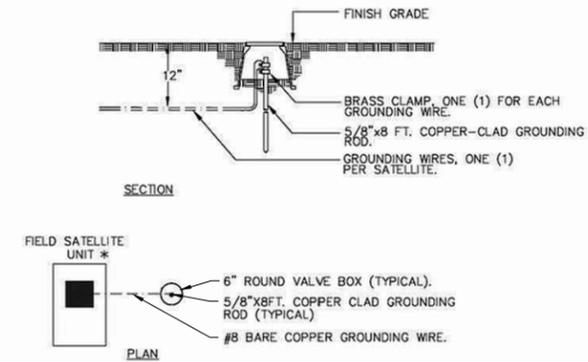


- NOTES:
- 1- SEE IRRIGATION LEGEND FOR MAINLINE AND LATERAL LINE PIPE SIZE AND TYPE.
 - 2- 2-WIRE IRRIGATION WIRE SHALL BE INSTALLED IN 3/4" SCH. 40 PVC ELECTRICAL CONDUIT.

C IRRIGATION TRENCHING
NOT TO SCALE



D TREE PLANTING & STAKING - LODGE POLES (2)
NOT TO SCALE



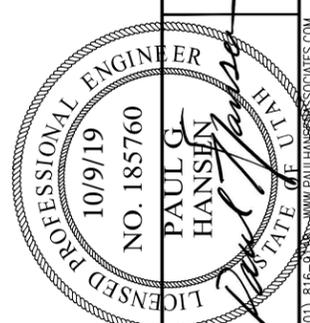
NOTE: GROUNDING ROD DETAIL SHALL SUPPLEMENT MANUFACTURER'S FIELD UNIT GROUNDING RECOMMENDATIONS.

FIELD UNIT GROUNDING
NTS

E

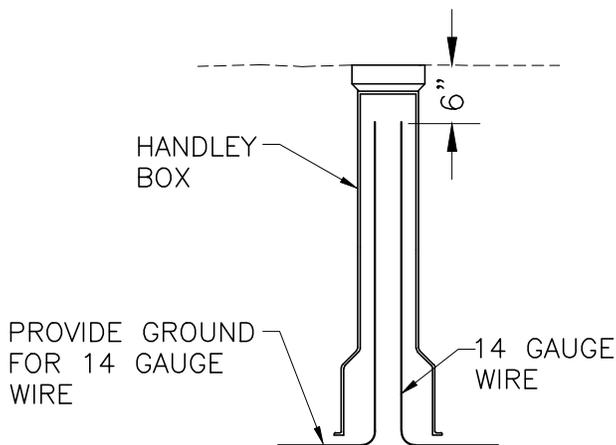
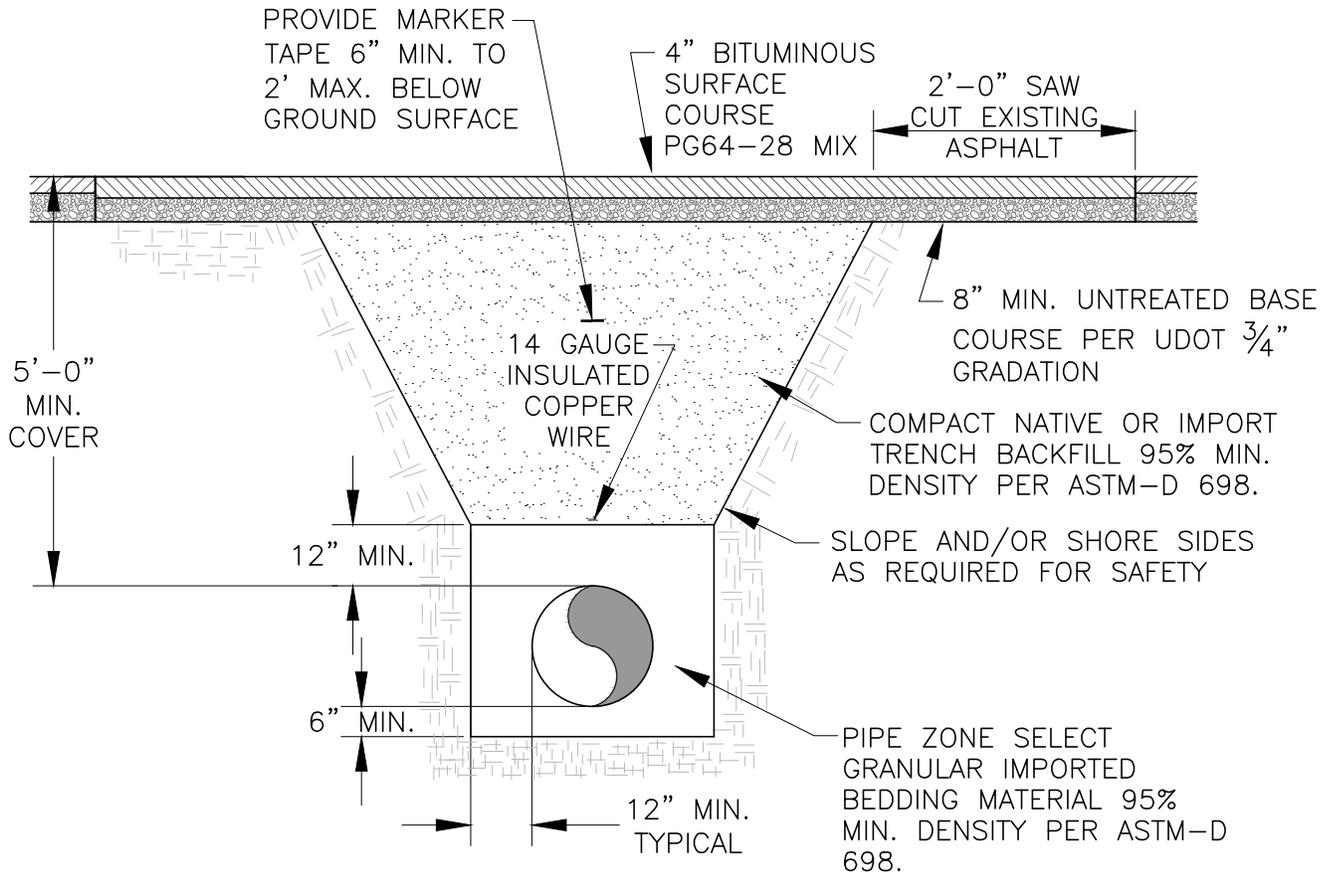
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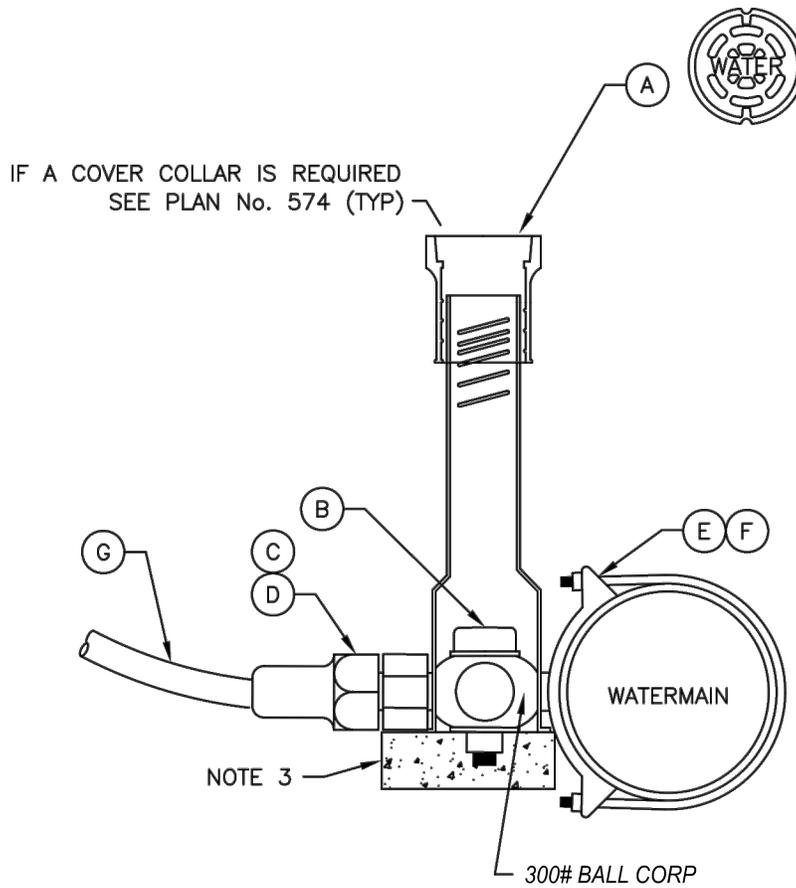




PROVIDE HANDLEY BOX (OR APPROVED EQUAL) FOR TRACER WIRE, WHERE VALVE BOX SPACING EXCEEDS 400'. TRACER WIRE SHALL BE CHECKED FOR CONTINUITY PRIOR TO ACCEPTANCE.

INSULATED COPPER WIRE
AT HANDLEY BOX

**TYPICAL TRENCH
DETAIL**

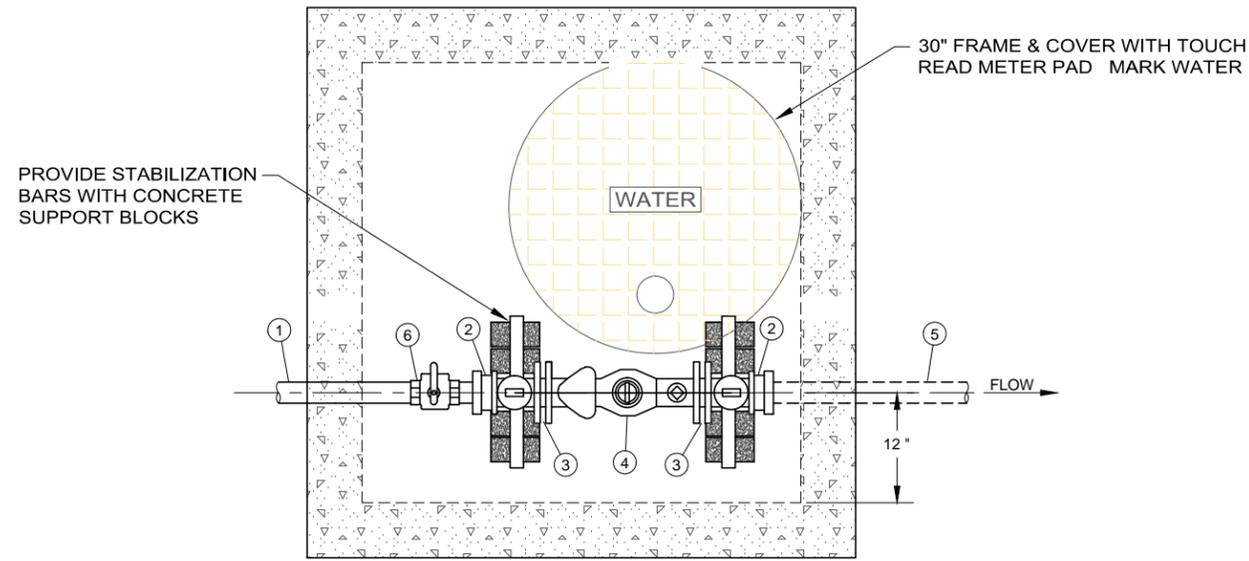


SECTION

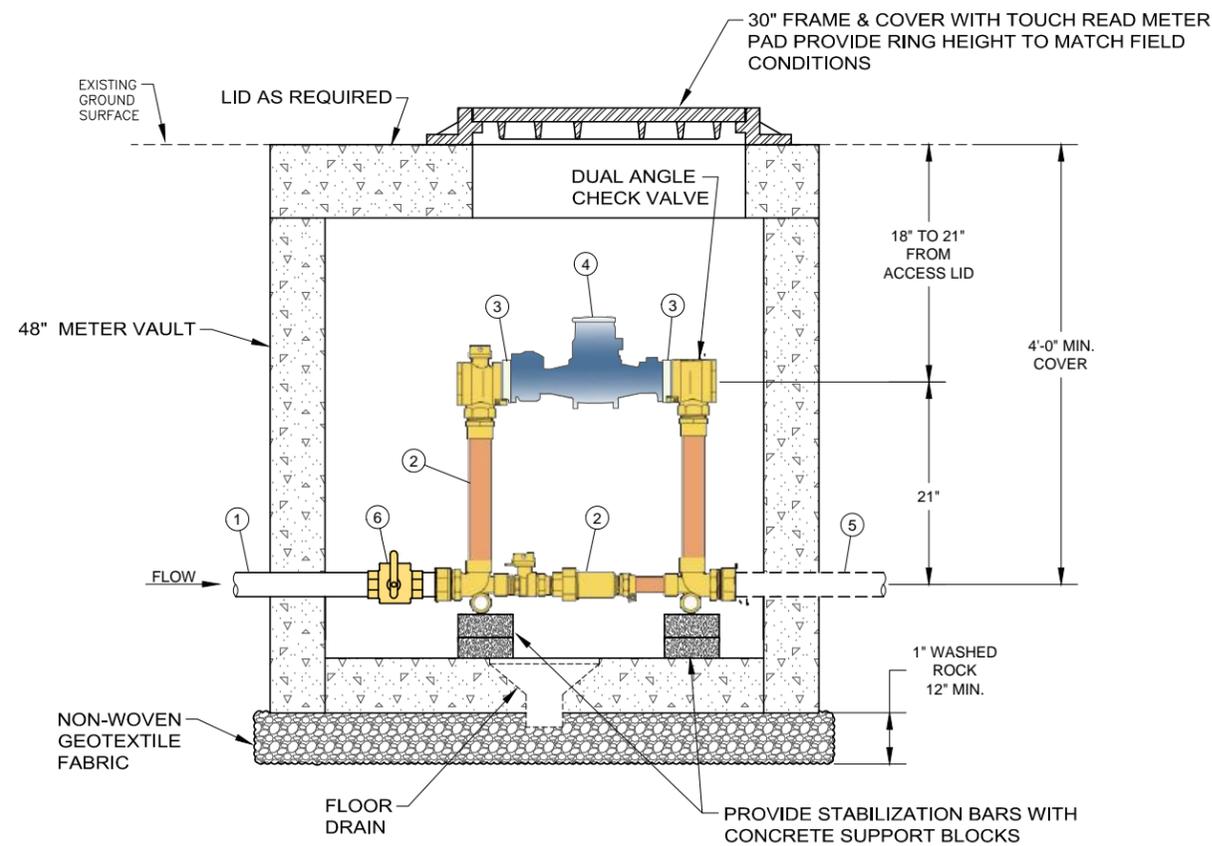
LEGEND			
No.	*	ITEM	DESCRIPTION
(A)		VALVE BOX WITH LID	2 PIECE CAST IRON
(B)		CORPORATION STOP	BRASS (SEE NOTE)
(C)		COPPER ADAPTER	
(D)		COMPRESSION FITTING	COPPER
(E)		SERVICE SADDLE CLAMP	D.I., A.C., C.I.
(F)		SERVICE SADDLE CLAMP	PVC
(G)		COPPER PIPE (SERVICE LINE)	TYPE K (SOFT)

* FURNISHED BY UTILITY AGENCY

NOTE: MUELLER 300 BALL TYPE CORPORATION VALVE WITH AWWA TAPER MUELLER "CC" THREAD (OR APPROVED EQUAL)



PLAN



SECTION

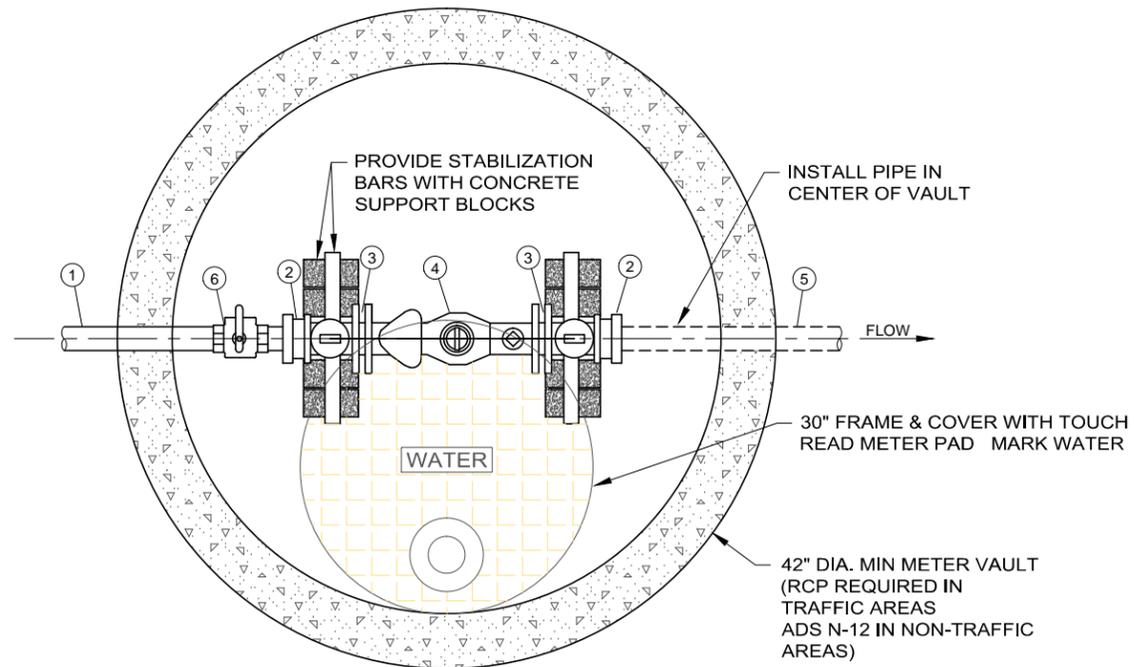
METER VAULT VALVE AND FITTING SCHEDULE

NO.	DESCRIPTION	SIZE	JOINT
1.	ASTM D2737 CTS HDPE POLY PIPE (BLUE) W/TRACER WIRE	1.5" OR 2"	COMP.
2.	FORD SERIES 70 COPPER SETTER (H=21"), WITH BALL VALVE INLET & ASSE APPROVED ANGLE DUAL CHECK VALVE OUTLET AND STANDARD BYPASS & CARTRIDGE DUAL CHECK VALVE	1.5" OR 2"	FLG
3.	METER ADAPTOR (AS REQUIRED)	1.5" OR 2"	FLG
4.	COMPOUND METER (SENSUS OMNI C2 RADIO READ FURNISHED & INSTALLED BY CITY)	1.5" OR 2"	FLG
5.	OUTLET LINE AS PER PLAN	1.5" OR 2"	-
6.	BRASS BALL VALVE (MUELLER 300 BALL)	1.5" OR 2"	-

NOTE: PROVIDE GRIP JOINT FOR COPPER OR PLASTIC TUBE AS NEEDED.

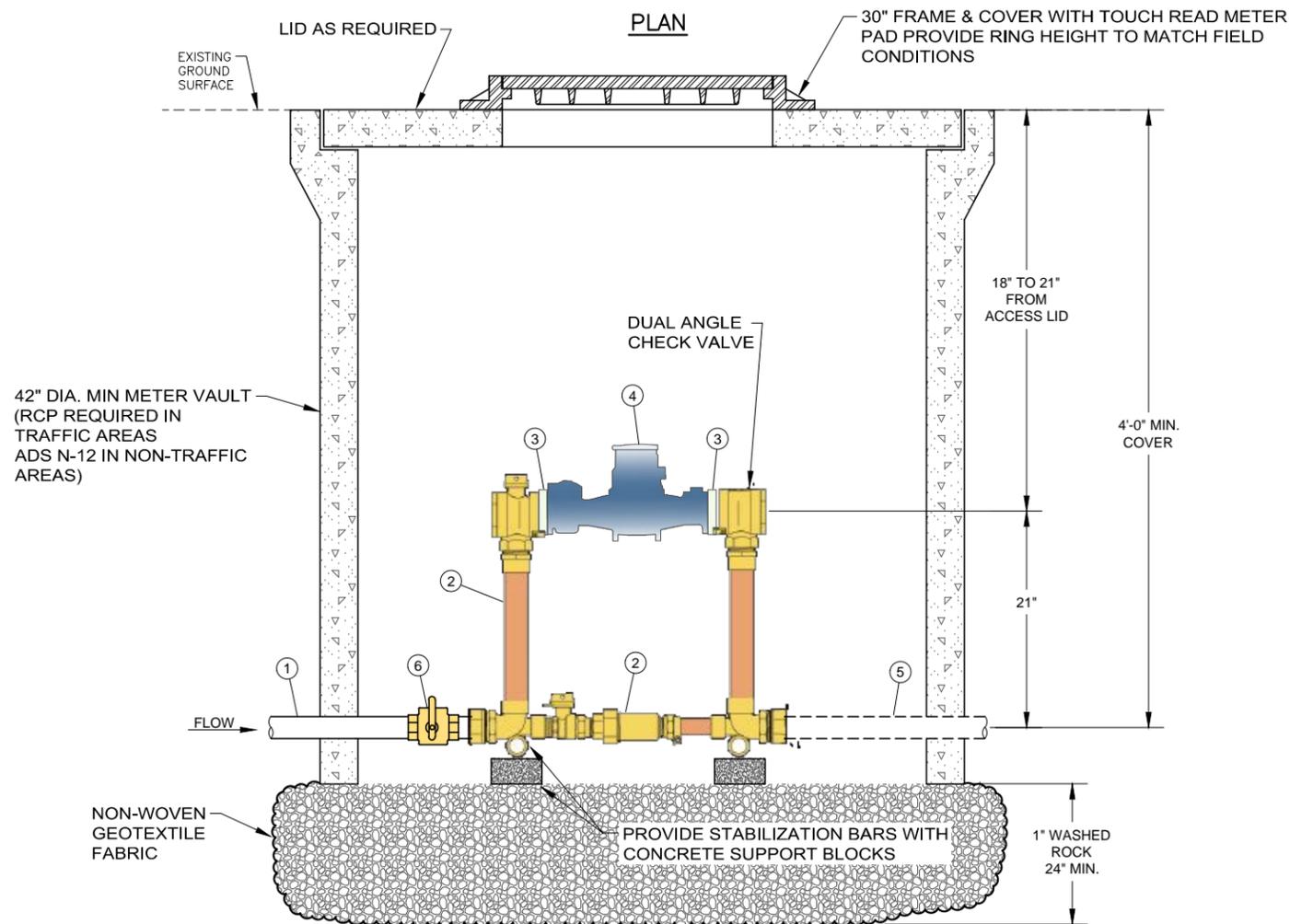
NOTES:

1. CONTRACTOR SHALL RESTORE ALL SURFACE IMPROVEMENTS TO PRE-CONSTRUCTION CONDITION WHERE REQUIRED.
2. CONTRACTOR SHALL PROVIDE ANY ADDITIONAL PIPE & FITTINGS AS NECESSARY.



METER VAULT VALVE AND FITTING SCHEDULE			
NO.	DESCRIPTION	SIZE	JOINT
1.	1 1/2" (POLYETHYLENE PIPE) - 2" (POLYETHYLENE PIPE)	1.5" OR 2"	COMP.
2.	FORD SERIES 70 COPPER SETTER (H=21"), WITH BALL VALVE INLET & ASSE APPROVED ANGLE DUAL CHECK VALVE OUTLET AND STANDARD BYPASS & CARTRIDGE DUAL CHECK VALVE	1.5" OR 2"	FLG
3.	METER ADAPTOR (AS REQUIRED)	1.5" OR 2"	FLG
	COMPOUND METER (SENSUS OMNI C ² RADIO READ FURNISHED & INSTALLED BY CITY)	1.5" OR 2"	FLG
5.	OUTLET LINE AS PER PLAN	1.5" OR 2"	-
6.	BRASS BALL VALVE (MUELLER 300 BALL)	1.5" OR 2"	-

NOTE: PROVIDE GRIP JOINT FOR COPPER OR PLASTIC TUBE AS NEEDED.



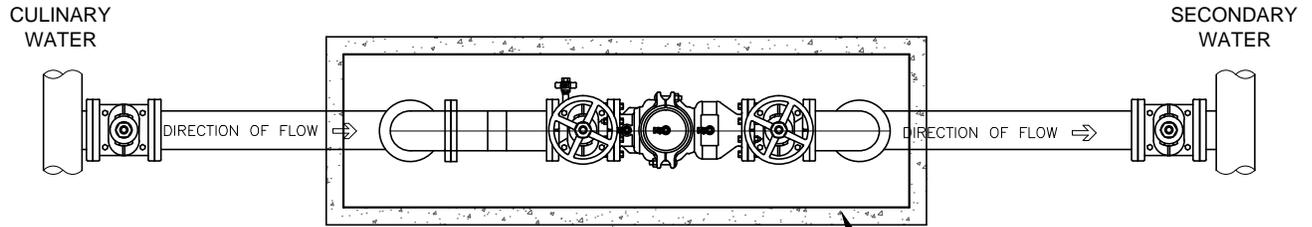
NOTE: PROVIDE ANY ADDITIONAL PIPE & FITTINGS AS NECESSARY.

NOTES:

1. FOR EXISTING LINE, CONTRACTOR SHALL POTHOLE EXISTING PIPE TO VERIFY DEPTH & SHALL ADJUST BOX DEPTH ACCORDINGLY.
2. CONTRACTOR SHALL RESTORE ALL SURFACE IMPROVEMENTS TO PRE-CONSTRUCTION CONDITION WHERE REQUIRED.

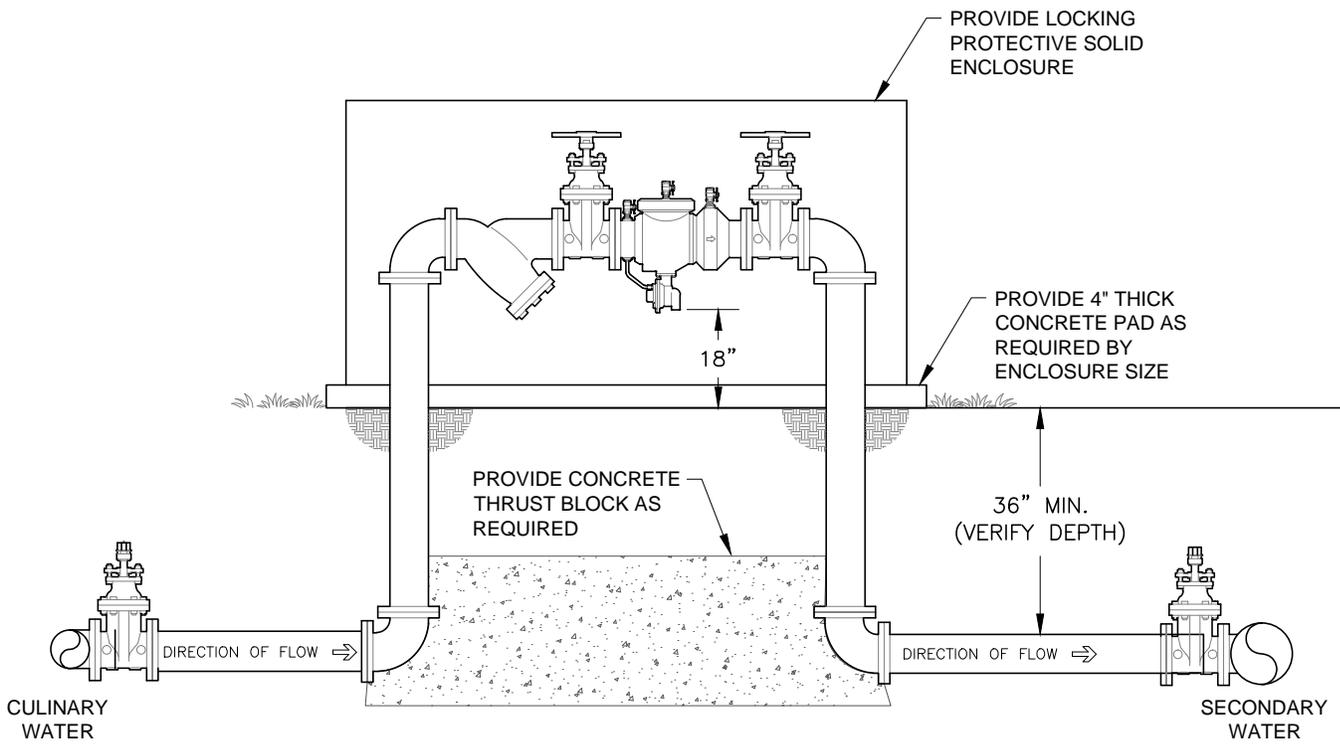
SECTION

1.5" OR 2" COMPOUND METER - ALTERNATE NO. 2



PROVIDE 4" THICK
CONCRETE PAD AS
REQUIRED BY
ENCLOSURE SIZE

PROVIDE LOCKING
PROTECTIVE SOLID
ENCLOSURE



PROVIDE LOCKING
PROTECTIVE SOLID
ENCLOSURE

PROVIDE 4" THICK
CONCRETE PAD AS
REQUIRED BY
ENCLOSURE SIZE

PROVIDE CONCRETE
THRUST BLOCK AS
REQUIRED

36" MIN.
(VERIFY DEPTH)

WILKINS MODEL 375, FEBCO LF860
(OR APPROVED EQUAL)
REDUCED PRESSURE PRINCIPLE
ASSEMBLY