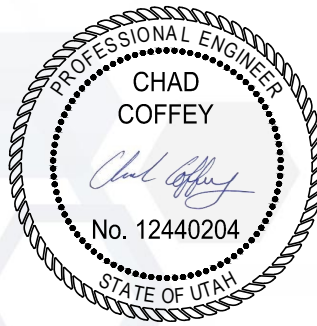




HILDALE CITY INNOVATION CENTER WATERLINE EXTENSION

PROJECT MANUAL



02/27/2025

PUBLISH DATE
FOR BIDDING ONLY

Project #: (2412-024)

Prepared by:



**Jones & DeMille
Engineering**

www.jonesanddemille.com
1.800.748.5275

DOCUMENT 00 01 10
TABLE OF CONTENTS

NUMBER	TITLE
PROCUREMENT AND CONTRACTING REQUIREMENTS GROUP	
Division 00 - Procurement and Contracting Requirements	
Introductory Information	
00 01 10	Table of Contents
Procurement Requirements	
00 11 13	Advertisement for Bids
00 21 13	Instructions to Bidders
00 41 15	Bid Form
00 43 13.11	Bid Bond (Penal Sum Form)
00 45 13	Bidder's Qualifications
00 45 14	Qualifications Statement
Contracting Requirements	
00 51 00	Notice of Award
00 52 15	Contract for Construction of a Small Project
00 55 00	Notice to Proceed
00 61 13.13	Performance Bond Form
00 61 13.16	Payment Bond Form
00 61 29	Warranty Bond Form
00 62 76.11	Contractor's Application for Payment Form
00 63 36	Field Order Form
00 63 49	Work Change Directive Form
00 63 63	Change Order Form
00 65 16	Certificate of Substantial Completion Form
00 65 19.21	Notice of Acceptability of Work
SPECIFICATIONS GROUP	
<u>GENERAL REQUIREMENTS SUBGROUP (Division 01)</u>	
Division 01 - General Requirements	
01 10 00	Summary
01 20 00	Price and Payment Procedures
01 22 19	Unit Price Measurement and Payment
01 26 00A	Contract Modification Process
01 30 00	Administrative Requirements
01 31 13A	Coordination
01 31 19A	Preconstruction Conference
01 32 16A	Progress Schedule
01 33 00	Submittal Procedures
01 42 19A	References
01 43 00A	Quality Assurance
01 55 26A	Traffic Control
01 57 00A	Temporary Controls
01 70 00	Execution and Closeout Requirements
01 71 13A	Mobilization and Demobilization
01 74 13A	Progress Cleaning
01 78 23A	Operation and Maintenance Data

01 78 39A Project Record Documents
01 78 50A Closeout Procedures

FACILITY CONSTRUCTION SUBGROUP (Division 02 to 19)

Division 02 - Existing Conditions

02 32 19 Exploratory Excavations
02 41 13A Selective Site Demolition

Division 03 to 19 – Not Used

FACILITY SERVICES SUBGROUP (Division 20 to 29) – Not Used

SITE AND INFRASTRUCTURE SUBGROUP (Division 30 to 39)

Division 30 – Not Used

Division 31 – Earthwork

31 05 10A Boundary Markers and Survey Monuments
31 11 00A Site Clearing
31 23 16A Excavation
31 23 26A Compaction

Division 32 – Not Used

Division 33 – Utilities

33 05 07A Polyvinyl Chloride Pipe
33 05 20A Backfilling Trenches
33 08 00A Commissioning of Water Utilities
33 11 00A Water Distribution and Transmission
33 12 16A Water Valves
33 12 19A Hydrants
33 12 33A Water Meter
33 13 00A Disinfection
33 14 12 Water Utility System

Division 34 to 39 – Not Used

PROCESS EQUIPMENT SUBGROUP (Division 40 to 49) – Not Used

DRAWINGS

SHEET NUMBER	TITLE
C-1.1	COVER SHEET
C-4.1	UTILITY PLAN
C-5.1	DETAILS

PLAN EXHIBITS

1A SCHEDULES

DOCUMENT 00 11 13
ADVERTISEMENT FOR BIDS

Hildale City, 320 East Newel Avenue, Hildale, Utah 84784

General Notice:

Hildale City (Owner) is requesting Bids for the construction of the following Project: Innovation Center Waterline Extension.

Bids for the construction of the Project will be received at the Hildale City Offices located at 320 Newel Ave. Hildale, UT 84784 until **Friday, March 21, 2025 at 10:00 am** local time. At that time, the Bids received will be publicly opened and read.

The Project includes the following Work: Installation of approximately 2,640 feet of 8-inch PVC waterline along with valving, fittings, hydrants and services. Bids will be received for single contract.

Owner anticipates that the Project's total bid price will be approximately \$270,740. The Project has an expected duration of 35 days for Base bid 1. One (1) day will be added to the project duration for Alternative 1 and 28 days will be added for Alternative 2.

Obtaining Bidding Documents:

Information and Bidding Documents for the Project can be found at the following designated websites: <https://www.hildalecity.com> and <https://www.tocc.us/>.

The designated website will be updated with addenda, plan holders list, reports, and other information relevant to submitting a Bid for the Project. Official notifications, addenda, and other Bidding Documents will be offered through the designated website.

The Issuing Office for the Bidding Documents is: Jones & DeMille Engineering, Inc., 1664 S. Dixie Dr. Suite G102, St. George, Utah 84770.

Neither Owner nor Engineer will be responsible for full or partial sets of Bidding Documents, including addenda, if any, obtained from sources other than the designated website and the Issuing Office.

Questions shall be submitted to Chad Coffey and Helen Duckworth by March 17th, 2025 by 12:00 PM Mountain Time. Email questions to chad.c@jonesanddemille.com and helen.d@campbelldesign.us.

Pre-bid Conference:

A mandatory pre-bid conference for the Project will be held on **Tuesday, March 11, 2025 at 10:00 am** local time at **Hildale City 320 Newel Avenue Hildale, Utah 84784** Bids will not be accepted from Bidders that do not attend the mandatory pre-bid conference.

Instructions to Bidders:

For further requirements regarding bid submittal, qualifications, procedures, and contract award, refer to the Instructions to Bidders that are included in the Bidding Documents. The Owner may reject any or all bids submitted.

Issued by:

Owner: Hildale City

By: Jerry Postema

Title: Utility Director

Date: February 28, 2025

DOCUMENT 00 21 13

INSTRUCTIONS TO BIDDERS

ARTICLE 1 - DEFINED TERMS

1.01 Terms used in these Instructions to Bidders have the meanings indicated in the Contract Documents. Additional terms used in these Instructions to Bidders have the meanings indicated below:

A. *Issuing Office* – The office from which the Bidding Documents are to be issued.

ARTICLE 2 – COPIES OF BIDDING DOCUMENTS

2.01 Complete sets of the Bidding Documents may be obtained from the Issuing Office in the number and format stated in the advertisement or invitation to bid.

2.02 Complete sets of Bidding Documents shall be used in preparing Bids; neither Owner nor Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

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

ARTICLE 3 – QUALIFICATIONS OF BIDDERS

3.01 Bidder is to submit the following information with its Bid to demonstrate Bidder's qualifications to perform the Work:

A. Written evidence establishing its qualifications such as financial data, previous experience, present commitments, and other information as indicated in Document 00 45 13 – Bidder's Qualifications.

B. A written statement that Bidder is authorized to do business in the state where the Project is located, or a written certification that Bidder will obtain such authority prior to the Effective Date of the Contract.

C. Bidder's state or other contractor license number.

D. Subcontractor and supplier qualifications information.

3.02 A Bidder's failure to submit required qualification information within the times indicated may disqualify Bidder from receiving an award of the Contract.

3.03 No requirement in this Article 3 to submit information will prejudice the right of Owner to seek additional pertinent information regarding Bidder's qualifications.

ARTICLE 4 – SITE AND OTHER AREAS; EXISTING SITE CONDITIONS; EXAMINATION OF SITE

4.01 *Site and Other Areas*

A. The Site is identified in the Bidding Documents. By definition, the Site includes rights-of-way, easements, and other lands furnished by Owner for the use of the Contractor. Any additional lands required for temporary construction facilities, construction equipment, or storage of materials and equipment, and any access needed for such additional lands, are to be obtained and paid for by Contractor.

4.02 *Existing Site Conditions*

1. No reports of explorations or tests of subsurface conditions at or adjacent to the Site, or drawings of physical conditions relating to existing surface or subsurface structures at the Site, are known to Owner.
 2. No reports or drawings related to Hazardous Environmental Conditions at the Site are known to Owner.
- B. Underground Facilities: Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or contiguous to the Site are set forth in the Contract Documents and are based upon information and data furnished to Owner and Engineer by owners of such Underground Facilities, including Owner, or others.

4.03 *Site Visit and Testing by Bidders*

- A. Bidder shall conduct the required Site visit during normal working hours, and shall not disturb any ongoing operations at the Site.
- B. Bidder is not required to conduct any subsurface testing, or exhaustive investigations of Site conditions.
- C. On request, and to the extent Owner has control over the Site, and schedule permitting, the Owner will provide Bidder access to the Site to conduct such additional examinations, investigations, explorations, tests, and studies as Bidder deems necessary for preparing and submitting a successful Bid. Owner will not have any obligation to grant such access if doing so is not practical because of existing operations, security or safety concerns, or restraints on Owner's authority regarding the Site.
- D. Bidder shall comply with all applicable Laws and Regulations regarding excavation and location of utilities, obtain all permits, and comply with all terms and conditions established by Owner or by property owners or other entities controlling the Site with respect to schedule, access, existing operations, security, liability insurance, and applicable safety programs.
- E. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies.

ARTICLE 5 – PRE-BID CONFERENCE

- 5.02 A mandatory pre-bid conference will be held at the time and location stated in the invitation or advertisement to bid. Representatives of Owner and Engineer will be present to discuss the Project. Bidders are required to attend and participate in the conference. Only Bids from those Bidders who participate in the mandatory pre-bid conference will be considered. Engineer will transmit to all prospective Bidders of record such Addenda as Engineer considers necessary in response to questions arising at the conference. Oral statements may not be relied upon and will not be binding or legally effective.
- 5.03 Information presented at the pre-Bid conference does not alter the Contract Documents. Owner or Engineer will issue Addenda to make any changes to the Contract Documents that result from discussions at the pre-Bid conference. Information presented, and statements made at the pre-bid conference will not be binding or legally effective unless incorporated in an Addendum.

ARTICLE 6 – INTERPRETATIONS AND ADDENDA

- 6.01 All questions about the meaning or intent of the Bidding Documents are to be submitted to Engineer in writing. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda delivered to all parties recorded as having received the Bidding Documents. Questions received less than seven days prior to the date for opening of Bids may not be answered. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
- 6.02 Addenda may be issued to clarify, correct, supplement, or change the Bidding Documents.

ARTICLE 7 – BID SECURITY

- 7.01 A Bid must be accompanied by Bid security made payable to Owner in an amount of 5 percent of Bidder's maximum Bid price (determined by adding the base bid and all alternates) and in the form of a certified check, bank money order, or a Bid bond (on the form included in the Bidding Documents) issued by a surety licensed and authorized to issue bonds in the jurisdiction in which the Project is located.
- 7.02 The Bid security of the apparent Successful Bidder will be retained until Owner awards the contract to such Bidder, and such Bidder has executed the Contract Documents, furnished the required contract security, and met the other conditions of the Notice of Award, whereupon the Bid security will be released. If the Successful Bidder fails to execute and deliver the Contract Documents and furnish the required contract security within 14 days after the Notice of Award, Owner may consider Bidder to be in default, annul the Notice of Award, and the Bid security of that Bidder will be forfeited. Such forfeiture shall be Owner's exclusive remedy if Bidder defaults.
- 7.03 The Bid security of other Bidders that Owner believes to have a reasonable chance of receiving the award may be retained by Owner until thirty days after the Bid opening, whereupon Bid security furnished by such Bidders will be released or destroyed.
- 7.04 Bid security of other Bidders that Owner believes do not have a reasonable chance of receiving the award will be released or destroyed within seven days after the Bid opening.

ARTICLE 8 – SUBSTITUTE AND "OR-EQUAL" ITEMS

- 8.01 The Contract for the Work, as awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents, and those "or-equal" or substitute or materials and equipment subsequently approved by Engineer prior to the submittal of Bids and identified by Addendum. No item of material or equipment will be considered by Engineer as an "or-equal" or substitute unless written request for approval has been submitted by Bidder and has been received by Engineer at least 15 days prior to the date for receipt of Bids. Each such request shall include sufficient information to allow Engineer to determine if proposed material or equipment is acceptable. The burden of proof of the merit of the proposed item is upon Bidder. Engineer's decision of approval or disapproval of a proposed item will be final. If Engineer approves any such proposed item, such approval will be set forth in an Addendum issued to all prospective Bidders. Bidders shall not rely upon approvals made in any other manner.
- 8.02 All prices that Bidder sets forth in its Bid shall be based on the presumption that the Contractor will furnish the materials and equipment specified or described in the Bidding Documents, as supplemented by Addenda. Any assumptions regarding the possibility of post-Bid approvals of "or-equal" or substitution requests are made at Bidder's sole risk.

ARTICLE 9 – BASIS OF BID

9.01 Unit Price

- A. Bidders shall submit a Bid on a unit price basis for each item of Work listed in the Contract Form.
- B. The “Bid Price” (sometimes referred to as the extended price) for each unit price Bid item will be the product of the “Estimated Quantity” (which Owner or its representative has set forth in the Contract Form) for the item and the corresponding “Bid Unit Price” offered by the Bidder. The total of all unit price Bid items will be the sum of these “Bid Prices”; such total will be used by Owner for Bid comparison purposes. The final quantities and Contract Price will be determined based on actual quantities used for the Work.
- C. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

ARTICLE 10 – SUBMITTAL OF BID

- 10.01 An unbound copy of the Bid Form is to be completed and submitted with the Bid security and the other documents required to be submitted under the terms of the Bid Form.
- 10.02 A Bid shall be received no later than the date and time prescribed and at the place indicated in the advertisement or invitation to bid and shall be enclosed in a plainly marked package with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted), the name and address of Bidder, and shall be accompanied by the other required documents.
 - A. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate package plainly marked on the outside with the notation “BID ENCLOSED.” A mailed Bid shall be addressed to Hildale City, 320 Newel Ave. Hildale, UT 84780
- 10.03 Bids received after the date and time prescribed for the opening of bids or not submitted at the correct location or in the designated manner, will not be accepted and will be returned to the Bidder unopened.

ARTICLE 11 – MODIFICATION AND WITHDRAWAL OF BID

- 11.01 A Bid may be withdrawn by an appropriate document duly executed in the same manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids. Upon receipt of such notice, the unopened Bid will be returned to the Bidder.
- 11.02 If a Bidder wishes to modify its Bid prior to Bid opening, Bidder must withdraw its initial Bid in the manner specified in the Paragraph above and submit a new Bid prior to the date and time for the opening of Bids.
- 11.03 If within 24 hours after Bids are opened any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid, that Bidder will be disqualified from further bidding on the Work.

ARTICLE 12 – OPENING OF BIDS

- 12.01 Bids will be opened at the time and place indicated in the advertisement or invitation to bid and, unless obviously non-responsive, read aloud publicly. An abstract of the amounts of the base Bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

ARTICLE 13 – BIDS TO REMAIN SUBJECT TO ACCEPTANCE

- 13.01 All Bids will remain subject to acceptance for the period of time stated in the Bid Form, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

ARTICLE 14 – EVALUATION OF BIDS AND AWARD OF CONTRACT

- 14.01 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner will reject the Bid of any Bidder that Owner finds, after reasonable inquiry and evaluation, to not be responsible. If Bidder purports to add terms or conditions to its Bid, takes exception to any provision of the Bidding Documents, or attempts to alter the contents of the Contract Documents for purposes of the Bid, then the Owner will reject the Bid as nonresponsive; provided that Owner also reserves the right to waive all minor informalities not involving price, time, or changes in the Work.
- 14.02 If Owner awards the contract for the Work, such award shall be to the responsible Bidder submitting the lowest responsive Bid.
- 14.03 Evaluation of Bids
- A. In evaluating Bids, Owner will consider whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices, and other data, as may be requested in the Contract Form or prior to the Notice of Award.
 - B. For the determination of the apparent low Bidder when unit price bids are submitted, Bids will be compared on the basis of the total of the products of the estimated quantity of each item and unit price Bid for that item, together with any lump sum items.
 - C. The project has been divided into separate schedules for convenience of keeping track of the Work items. Only one contract will be awarded.
- 14.04 In evaluating whether a Bidder is responsible, Owner will consider the qualifications of the Bidder and may consider the qualifications and experience of Subcontractors and Suppliers proposed for those portions of the Work for which the identity of Subcontractors and Suppliers must be submitted as provided in the Bidding Documents.
- A. In order to be considered qualified for the Project, the Bidder shall meet the requirements indicated in Document 00 45 13 – Bidder's Qualifications. Submit attachments to Document 00 45 13 – Bidder's Qualifications with Bid to document qualifications.
- 14.05 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders and any proposed Subcontractors or Suppliers.

ARTICLE 15 – SIGNING OF CONTRACT

- 15.01 When Owner issues a Notice of Award to the Successful Bidder, it shall be accompanied by the unexecuted Contract Documents. Within 14 days thereafter, Successful Bidder shall execute and deliver the required bonds, insurance and other required documentation to Owner. Within ten days thereafter, Owner shall deliver one fully executed counterpart of the Contract to Successful Bidder, together with four printed and one portable document format (PDF) electronic copies of the Contract Documents.
- 15.02 The effective date of the Contract will be the date indicated on the Contract.
- 15.03 It is intended that the Contract Time will commence to run as soon as possible after the Contract Documents have been executed. The Contractor, Owner and Engineer will determine a mutually agreed upon date for the Contract Times to commence to run and that date will be indicated on the Notice to Proceed issued by the Owner.

END OF DOCUMENT

DOCUMENT 00 41 15
BID FORM
Innovation Center Waterline Extension
2412-024

ARTICLE 1 – BID RECIPIENT

- 1.01 This Bid is submitted to: Hildale City 320 Newel Ave, Hildale, Utah
- 1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 – BIDDER’S ACKNOWLEDGEMENTS

- 2.01 Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the Bid opening, or for such longer period of time that Bidder may agree to in writing upon request of Owner.

ARTICLE 3 – BIDDER’S REPRESENTATIONSS

- 3.01 In submitting this Bid, Bidder represents that:

Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda:

<u>Addendum No.</u>	<u>Addendum, Date</u>
_____	_____
_____	_____
_____	_____
_____	_____

- A. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- B. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
- C. Bidder has carefully studied all reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the Bidding Documents.
- D. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder’s safety precautions and programs.

- E. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- F. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- G. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents and confirms that the written resolution thereof by Engineer is acceptable to Bidder.
- H. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.
- I. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

ARTICLE 4 – BIDDER’S CERTIFICATION

4.01 Bidder certifies that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph 4.01.D:
 - 1. “corrupt practice” means the offering, giving, receiving, or soliciting of any thing of value likely to influence the action of a public official in the bidding process;
 - 2. “fraudulent practice” means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of Owner, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive Owner of the benefits of free and open competition;
 - 3. “collusive practice” means a scheme or arrangement between two or more Bidders, with or without the knowledge of Owner, a purpose of which is to establish bid prices at artificial, non-competitive levels; and
 - 4. “coercive practice” means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.

ARTICLE 5 – BASIS OF BID

- 5.01 Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

UNIT PRICE BID

BASE BID					
Item No.	Item Description	Unit	Estimated Quantity	Bid Unit Price	Bid Price
1-1	Mobilization	L.S.	1	XXX	
1-2	Traffic Control	L.S.	1	XXX	
1-3	Exploratory Excavation	HR	20		
1-4	Install 8" Diameter C-900, DR 18 Waterline	L.F.	1740		
1-5	Install 8" Gate Valve	Each	8		
1-6	Furnish and Install 8" Gate Valve	Each	2		
1-7	Install 6" Gate Valve	Each	1		
1-8	Furnish and Install 6" Gate Valve	Each	3		
1-9	Install Fire Hydrant	Each	1		
1-10	Connect to Existing 6" Waterline	Each	1		
1-11	Furnish and Install 2" Service Connection	Each	1		
1-12	Furnish and Install 2" Service Line	L.F.	20		
1-13	Furnish and Install Service Meter	Each	1		
1-14	Furnish and Install 8" Fire Suppression Line Connection	Each	1		
Base Bid - Subtotal					
ALTERNATE BID 1					
2-0	Furnish and Install Fire Hydrant	Each	3		
Alternate Bid 1 - Subtotal					
ALTERNATE BID 2					
3-1	Furnish and Install 8" Diameter C-900, DR 18 Waterline	L.F.	900		
3-2	Furnish and Install 8" Gate Valve	Each	7		
3-3	Furnish and Install 6" Gate Valve	Each	2		
3-4	Furnish and Install Fire Hydrant	Each	2		
3-5	Connect to Existing 2" Waterline	Each	2		
3-6	Connect to Existing 10" Waterline	Each	1		
Alternate Bid 2 - Subtotal					
Total Bid Price					

Bidder acknowledges that (1) each Bid Unit Price includes an amount considered by Bidder to be adequate to cover Contractor's overhead and profit for each separately identified item, and (2) estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all unit price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

ARTICLE 6 – TIME OF COMPLETION

- 6.01 Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment on or before the dates or within the number of calendar days indicated in the Agreement.
- 6.02 Bidder accepts the provisions of the Agreement as to liquidated damages.

ARTICLE 7 – ATTACHMENTS TO THIS BID

- 7.01 The following documents are submitted with and made a condition of this Bid:
- A. Required Bid security.
 - B. List of Proposed Subcontractors.
 - C. Evidence of authority to do business in the state of the Project; or a written covenant to obtain such authority within the time for acceptance of Bids.
 - D. Contractor's license number as evidence of Bidder's State Contractor's License or a covenant by Bidder to obtain said license within the time for acceptance of Bids.
 - E. Required Bidder qualification information as indicated in Article 3 of the Instructions to Bidders.

ARTICLE 8 – DEFINED TERMS

- 8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders and the Contract.

ARTICLE 9 – BID SUBMITTAL

BIDDER: *[Indicate correct name of bidding entity]*

By:

[Signature]

[Printed name]

(If Bidder is a corporation, a limited liability company, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest:

[Signature]

[Printed name]

Title:

Submittal Date:

Address for giving notices:

Telephone Number:

Fax Number:

Contact Name and e-mail address:

Bidder's License No.:

DOCUMENT 00 43 13.11
BID BOND (PENAL SUM FORM)

Bidder Name: Address <i>(principal place of business)</i> :	Surety Name: Address <i>(principal place of business)</i> :
Owner Name: Hildale City Address <i>(principal place of business)</i> : 320 Newel Avenue, Hildale, Utah 84784	Bid Project <i>(name and location)</i> : Innovation Center Waterline Extension Hildale, Utah 84784 Bid Due Date: March 21, 2025
Bond Penal Sum: Date of Bond:	
Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth in this Bid Bond, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.	
Bidder	Surety
_____ <i>(Full formal name of Bidder)</i>	_____ <i>(Full formal name of Surety) (corporate seal)</i>
By: _____ <i>(Signature)</i>	By: _____ <i>(Signature) (Attach Power of Attorney)</i>
Name: _____ <i>(Printed or typed)</i>	Name: _____ <i>(Printed or typed)</i>
Title: _____	Title: _____
Attest: _____ <i>(Signature)</i>	Attest: _____ <i>(Signature)</i>
Name: _____ <i>(Printed or typed)</i>	Name: _____ <i>(Printed or typed)</i>
Title: _____	Title: _____
<i>Notes: (1) Note: Addresses are to be used for giving any required notice. (2) Provide execution by any additional parties, such as joint venturers, if necessary.</i>	

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond will be Owner's sole and exclusive remedy upon default of Bidder.
2. Default of Bidder occurs upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.
3. This obligation will be null and void if:
 - 3.1. Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
 - 3.2. All Bids are rejected by Owner, or
 - 3.3. Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions does not in the aggregate exceed 120 days from the Bid due date without Surety's written consent.
6. No suit or action will be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety, and in no case later than one year after the Bid due date.
7. Any suit or action under this Bond will be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
8. Notices required hereunder must be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Postal Service registered or certified mail, return receipt requested, postage pre-paid, and will be deemed to be effective upon receipt by the party concerned.
9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.
10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond will be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute governs and the remainder of this Bond that is not in conflict therewith continues in full force and effect.
11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

DOCUMENT 00 45 13
BIDDER'S QUALIFICATIONS

1.1 SUMMARY

- A. The Owner intends to award the Contract for the Work described by the Contract Documents to a sufficiently experienced, responsible, financially capable and qualified Bidder in consideration of all factors judged to be in the best interest of the Owner.
- B. To be considered for Award, Bidders must complete and submit an accurate Bidder's Qualifications Statement along with the Bid using the form attached to this Document as Exhibit A.
- C. Minimum bidder qualifications requirements are specified herein.
- D. The Owner and Engineer will evaluate the submitted Bidder's Qualifications Statement using their best judgment, as well as other information as may be discovered by the Owner or Engineer pertaining to the Bidder's qualifications to determine if Bidder meets the minimum qualification requirements.

1.2 BIDDER ACKNOWLEDGEMENT

- A. In the event a Bidder challenges the Award decision made by the Owner, or any recommendation made by the Engineer, and the Owner's decision is upheld upon review by an appropriate review agency or court, the protesting Bidder shall be liable for all costs and expenses incurred by the Owner and Engineer, including attorney's fees, as well as the costs and expenses associated with any delay in Contract Award. Furthermore, Owner or Engineer will not be liable to Bidder for costs or damages of any kind, including consequential damages related to Engineer's recommendation or Owner's decisions regarding Bidder's Qualifications.
- B. Bidder's submission of a Bid for this Contract shall indicate Bidder's acceptance of the foregoing provision.

1.3 MINIMUM QUALIFICATIONS

- A. To be considered qualified, Bidder must submit satisfactory responses prior to Award, all items listed in paragraph B and C below.
- B. General Requirements:

1. Construction experience with demonstrated excellence and quality in the construction of similar culinary waterline projects.
 2. Respondent and sub-contractor(s) companies are headquartered or have a significant regional business office located in the State of Utah, and are registered to conduct business in the State of Utah.
 3. That firm has the resources, including personnel and equipment to manage, perform and finally complete the Work in the identified Contract Time.
 4. Project organization structure.
 5. Key personnel experience.
- C. Specifically, in addition to the general requirements noted above, the following minimum Bidder qualification requirements are required to be considered for Contract Award.
1. Experience successfully constructing at least two (2) similar culinary waterline projects within the last ten (10) years.
- D. The determination of what constitutes a similar project will be at the sole discretion of the Engineer based on their professional judgment. In general, the term “similar” as used above describes culinary waterline project experience with similar contract dollar value and/or a similar level of complexity.
- E. The term successful as used above refers to satisfactory completion or significant progress of at least 85 percent towards completion of a project in accordance with the project’s Contract Documents, with quality work, in a timely fashion and without excessive and unjustified claims and or Change Orders. References and opinions of the owner and engineer for reference projects, or any project completed or currently in progress by Bidder will also be considered when determining if the project was successfully completed or in the process of being successfully completed.
- F. Complete the certification form attached to this Document as Exhibit B.

1.4 ATTACHMENTS

- A. Attachments:
1. Exhibit A – Bidder’s Qualifications Statement, consisting of 7 pages.
 2. Exhibit B – Certification of Bidder’s Experience and Qualifications, consisting of one page.

END OF DOCUMENT

EXHIBIT A
BIDDER'S QUALIFICATIONS STATEMENT

The undersigned certifies under oath the truth and correctness of all statements and of all answers to questions made hereinafter.

SUBMITTED TO: _____

SUBMITTED BY: _____

CHECK ONE: _____ Corporation
 _____ Partnership
 _____ Individual
 _____ Joint Venture
 _____ Other _____

1. How many years has your organization been in business as a General Contractor? _____

2. How many years has your organization been in business under its present business name? _____

3. If a Corporation, answer the following:

a. Date of Incorporation _____

b. State of Incorporation _____

c. President _____

d. Vice President(s) _____

e. Secretary _____

f. Treasurer _____

4. If a Partnership, answer the following:

a. Date of Organization _____

b. Type of Partnership _____

c. Name and Address of all partners: _____

5. If other than a Corporation or Partnership, describe the organization and name principals:

6. What percent of work do you normally perform with your own forces: _____

List trades:

7. Have you ever failed to complete any work awarded to you? If so, indicated when, where and why.

8. Has any officer or partner of your organization ever been an officer or partner of another organization that failed to complete a construction contract? _____

If so, what were the circumstances?

9. Project references and performance information:

List and provide company Project References and performance information for at least 2 similar culinary waterline projects. List the project references below and provide additional information by completing a Project Reference Form at the end of this Exhibit for each listed reference project.

Project Name and Location	Owner	Engineer	Contract Value	Year Completed

10. Name of bonding and insurance companies, and name and address of agents:

Name of Company	Name of Agent	Address of Agent	Maximum Bonding Capacity

11. The undersigned agrees to furnish, upon request by the Owner, within 48 hours after bid proposal opening, a current Statement of Financial Conditions, including the Contractor's latest regular dated financial statement of balance sheet which must contain the following items:

Current assets: Cash, joint venture accounts, accounts receivable, notes receivable, accrued interest on notes, deposits, and materials, and prepaid expenses, next fixed assets and other assets.

Current liabilities: Accounts payable, notes payable, accrued interest on notes, provision for income taxes, advances received from owners, accrued salaries, accrued payroll taxes, other liabilities, and capital (capital stock, authorized and outstanding shares par values, earned surplus).

Date of statement of balance sheet: _____

Name of firm preparing statement: _____

By (Agent and Capacity): _____

12. Dated at _____, this

_____ day of _____ 20 _____.
 (Day) (Month) (Year)

Name of Organization: _____

By: _____

Title: _____

13. NOTARIZATION:

State of: _____

County of: _____

I, _____ being duly sworn deposes and say that (he/she) is the
_____ of _____ Contractor(s)
and that the answers to the foregoing questions and all statements and information contained on
attachments herein contained are true and correct.

Subscribed and sworn before me this

_____ day of _____ 20____.
(Day) (Month) (Year)

Notary Public: _____

My commission expires: _____

SIMILAR PROJECT REFERENCE FORM
(Complete for at least 2 projects)

Project No: _____

Project Name and Location: _____

Bid Amount: _____

Final Contract Amount: _____ Year Completed: _____

Contract Completion Time: _____ Days

Dollar Amount and Number of Change Orders: _____

Actual Completion Time: _____ Days

Description of Work:

General Overview: _____

New Facility or Retrofit/ Expansion? _____

Culinary waterline size: _____

Total culinary waterline length
installed: _____

Other Information? (Attach as needed) _____

Names Key Contractor Personnel:

Project Manager _____

Project Engineer _____

Superintendent _____

Are all of these persons still employed by your organization _____

If no, name those employee(s) not currently employed _____

Name and phone number of currently employed individual at your organization who is familiar with this Project. _____

Name, Address, and Telephone Number of Owner (including name and telephone number of contact person):

Name, Address, and Telephone Number of Engineer if applicable (including name and telephone number of contact person):

Name, Address, and Telephone Number of Construction Manager employed by Owner

Amount and number of claims resulting in arbitration or litigation:

Amount of Settlement: _____

Further Information of Claims: _____

(Repeat for other projects)

END OF DOCUMENT

EXHIBIT B
CERTIFICATION OF BIDDER'S EXPERIENCE AND QUALIFICATIONS

The undersigned Bidder certifies that Bidder is, and shall be, throughout the period of the contract, licensed by the State of Utah to do the type of work required under terms of the contract documents. Bidder further certifies that Bidder is skilled and regularly engaged in the general class and type of work called for in the Contract Documents. The Bidder warrants that Bidder is competent, knowledgeable and has special skills on the nature, extent and inherent conditions of the work to be performed.

Bidder further acknowledges that there are certain peculiar and inherent conditions existent in the construction of the particular facilities which may create, during the construction program, unusual or peculiar unsafe conditions hazardous to persons and property. Bidder expressly acknowledges that Bidder is aware of such peculiar risks and that Bidder has the skill and experience to foresee and to adopt protective measures to adequately and safely perform the construction work with respect to such hazards.

Signed this _____ day of _____, 20_____.

Name of Bidder

Contractor's License No.

Signature of Bidder

Title of Signator

END OF DOCUMENT

DOCUMENT 00 45 14
QUALIFICATIONS STATEMENT

ARTICLE 1—GENERAL INFORMATION

1.01 Provide contact information for the Business:

Legal Name of Business:			
Corporate Office			
Name:		Phone number:	
Title:		Email address:	
Business address of corporate office:			
Local Office			
Name:		Phone number:	
Title:		Email address:	
Business address of local office:			

1.02 Provide information on the Business's organizational structure:

Form of Business:	<input type="checkbox"/> Sole Proprietorship <input type="checkbox"/> Partnership <input type="checkbox"/> Corporation		
<input type="checkbox"/> Limited Liability Company <input type="checkbox"/> Joint Venture comprised of the following companies:			
1.			
2.			
3.			
Provide a separate Qualification Statement for each Joint Venturer.			
Date Business was formed:		State in which Business was formed:	
Is this Business authorized to operate in the Project location?		<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Pending	

1.03 Identify all businesses that own Business in whole or in part (25% or greater), or that are wholly or partly (25% or greater) owned by Business:

Name of business:		Affiliation:	
Address:			
Name of business:		Affiliation:	
Address:			
Name of business:		Affiliation:	
Address:			

- 1.04 Provide information regarding the Business's officers, partners, and limits of authority.

Name:		Title:	
Authorized to sign contracts: <input type="checkbox"/> Yes <input type="checkbox"/> No		Limit of Authority:	\$
Name:		Title:	
Authorized to sign contracts: <input type="checkbox"/> Yes <input type="checkbox"/> No		Limit of Authority:	\$
Name:		Title:	
Authorized to sign contracts: <input type="checkbox"/> Yes <input type="checkbox"/> No		Limit of Authority:	\$
Name:		Title:	

ARTICLE 2—LICENSING

- 2.01 Provide information regarding licensure for Business:

Name of License:			
Licensing Agency:			
License No:		Expiration Date:	
Name of License:			
Licensing Agency:			
License No:		Expiration Date:	

ARTICLE 3—DIVERSE BUSINESS CERTIFICATIONS

- 3.01 Provide information regarding Business's Diverse Business Certification, if any. Provide evidence of current certification.

Certification	Certifying Agency	Certification Date
<input type="checkbox"/> Disadvantaged Business Enterprise		
<input type="checkbox"/> Minority Business Enterprise		
<input type="checkbox"/> Woman-Owned Business Enterprise		
<input type="checkbox"/> Small Business Enterprise		
<input type="checkbox"/> Disabled Business Enterprise		
<input type="checkbox"/> Veteran-Owned Business Enterprise		
<input type="checkbox"/> Service-Disabled Veteran-Owned Business		
<input type="checkbox"/> HUBZone Business (Historically Underutilized) Business		
<input type="checkbox"/> Other		
<input type="checkbox"/> None		

ARTICLE 4—SAFETY

4.01 Provide information regarding Business's safety organization and safety performance.

Name of Business's Safety Officer:		
Safety Certifications		
Certification Name	Issuing Agency	Expiration

4.02 Provide Worker's Compensation Insurance Experience Modification Rate (EMR), Total Recordable Frequency Rate (TRFR) for incidents, and Total Number of Recorded Manhours (MH) for the last 3 years and the EMR, TRFR, and MH history for the last 3 years of any proposed Subcontractor(s) that will provide Work valued at 10% or more of the Contract Price. Provide documentation of the EMR history for Business and Subcontractor(s).

Year									
Company	EMR	TRFR	MH	EMR	TRFR	MH	EMR	TRFR	MH

ARTICLE 5—FINANCIAL

5.01 Provide information regarding the Business's financial stability. Provide the most recent audited financial statement, and if such audited financial statement is not current, also provide the most current financial statement.

Financial Institution:		
Business address:		
Date of Business's most recent financial statement:		<input type="checkbox"/> Attached
Date of Business's most recent audited financial statement:		<input type="checkbox"/> Attached
Financial indicators from the most recent financial statement		
Contractor's Current Ratio (Current Assets ÷ Current Liabilities)		
Contractor's Quick Ratio ((Cash and Cash Equivalents + Accounts Receivable + Short Term Investments) ÷ Current Liabilities)		

ARTICLE 6—SURETY INFORMATION

- 6.01 Provide information regarding the surety company that will issue required bonds on behalf of the Business, including but not limited to performance and payment bonds.

Surety Name:			
Surety is a corporation organized and existing under the laws of the state of:			
Is surety authorized to provide surety bonds in the Project location?	<input type="checkbox"/> Yes <input type="checkbox"/> No		
Is surety listed in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" published in Department Circular 570 (as amended) by the Bureau of the Fiscal Service, U.S. Department of the Treasury? <input type="checkbox"/> Yes <input type="checkbox"/> No			
Mailing Address (principal place of business):			
Physical Address (principal place of business):			
Phone (main):		Phone (claims):	

ARTICLE 7—INSURANCE

- 7.01 Provide information regarding Business's insurance company(s), including but not limited to its Commercial General Liability carrier. Provide information for each provider.

Name of insurance provider, and type of policy (CLE, auto, etc.):			
Insurance Provider		Type of Policy (Coverage Provided)	
Are providers licensed or authorized to issue policies in the Project location?		<input type="checkbox"/> Yes <input type="checkbox"/> No	
Does provider have an A.M. Best Rating of A-VII or better?		<input type="checkbox"/> Yes <input type="checkbox"/> No	
Mailing Address (principal place of business):			
Physical Address (principal place of business):			
Phone (main):		Phone (claims):	

ARTICLE 8—CONSTRUCTION EXPERIENCE

8.01 Provide information that will identify the overall size and capacity of the Business.

Average number of current full-time employees:	
Estimate of revenue for the current year:	
Estimate of revenue for the previous year:	

8.02 Provide information regarding the Business's previous contracting experience.

Years of experience with projects like the proposed project:				
As a general contractor:		As a joint venturer:		
Has Business, or a predecessor in interest, or an affiliate identified in Paragraph 1.03:				
Been disqualified as a bidder by any local, state, or federal agency within the last 5 years? <input type="checkbox"/> Yes <input type="checkbox"/> No				
Been barred from contracting by any local, state, or federal agency within the last 5 years? <input type="checkbox"/> Yes <input type="checkbox"/> No				
Been released from a bid in the past 5 years? <input type="checkbox"/> Yes <input type="checkbox"/> No				
Defaulted on a project or failed to complete any contract awarded to it? <input type="checkbox"/> Yes <input type="checkbox"/> No				
Refused to construct or refused to provide materials defined in the contract documents or in a change order? <input type="checkbox"/> Yes <input type="checkbox"/> No				
Been a party to any currently pending litigation or arbitration? <input type="checkbox"/> Yes <input type="checkbox"/> No				
Provide full details in a separate attachment if the response to any of these questions is Yes.				

8.03 List all projects currently under contract in Schedule A and provide indicated information.

8.04 List a minimum of three and a maximum of six projects completed in the last 5 years in Schedule B and provide indicated information to demonstrate the Business's experience with projects similar in type and cost of construction.

8.05 In Schedule C, provide information on key individuals whom Business intends to assign to the Project. Provide resumes for those individuals included in Schedule C. Key individuals include the Project Manager, Project Superintendent, Quality Manager, and Safety Manager. Resumes may be provided for Business's key leaders as well.

ARTICLE 9—REQUIRED ATTACHMENTS

9.01 Provide the following information with the Statement of Qualifications:

- A. If Business is a Joint Venture, separate Qualifications Statements for each Joint Venturer, as required in Paragraph 1.02.
- B. Diverse Business Certifications if required by Paragraph 3.01.
- C. Certification of Business's safety performance if required by Paragraph 4.02.
- D. Financial statements as required by Paragraph 5.01.
- E. Attachments providing additional information as required by Paragraph 8.02.

- F. Schedule A (Current Projects) as required by Paragraph 8.03.
- G. Schedule B (Previous Experience with Similar Projects) as required by Paragraph 8.04.
- H. Schedule C (Key Individuals) and resumes for the key individuals listed, as required by Paragraph 8.05.
- I. Additional items as pertinent.

This Statement of Qualifications is offered by:

Business:

(typed or printed name of organization)

By:

(individual's signature)

Name:

(typed or printed)

Title:

(typed or printed)

Date:

(date signed)

(If Business is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest:

(individual's signature)

Name:

(typed or printed)

Title:

(typed or printed)

Address for giving notices:

Designated Representative:

Name:

(typed or printed)

Title:

(typed or printed)

Address:

Phone:

Email:

DOCUMENT 00 45 14A
QUALIFICATIONS STATEMENT

Schedule A—Current Projects

Name of Organization					
Project Owner			Project Name		
General Description of Project					
Project Cost			Date Project		
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					
Construction Manager					

Project Owner			Project Name		
General Description of Project					
Project Cost			Date Project		
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					
Construction Manager					

Project Owner			Project Name		
General Description of Project					
Project Cost			Date Project		
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					
Construction Manager					

DOCUMENT 00 45 14B
QUALIFICATIONS STATEMENT

Schedule B—Previous Experience with Similar Projects

Name of Organization					
Project Owner			Project Name		
General Description of Project					
Project Cost			Date Project		
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					
Construction Manager					

Project Owner			Project Name		
General Description of Project					
Project Cost			Date Project		
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					
Construction Manager					

Project Owner			Project Name		
General Description of Project					
Project Cost			Date Project		
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					
Construction Manager					

DOCUMENT 00 45 14B
QUALIFICATIONS STATEMENT

Schedule B—Previous Experience with Similar Projects

Name of Organization					
Project Owner			Project Name		
General Description of Project					
Project Cost			Date Project		
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					
Construction Manager					

Project Owner			Project Name		
General Description of Project					
Project Cost			Date Project		
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					
Construction Manager					

Project Owner			Project Name		
General Description of Project					
Project Cost			Date Project		
Key Project Personnel	Project Manager	Project Superintendent	Safety Manager	Quality Control Manager	
Name					
Reference Contact Information (listing names indicates approval to contacting the names individuals as a reference)					
	Name	Title/Position	Organization	Telephone	Email
Owner					
Designer					
Construction Manager					

DOCUMENT 00 45 14C
QUALIFICATIONS STATEMENT

Schedule C—Key Individuals

Project Manager			
Name of individual			
Years of experience as project manager			
Years of experience with this organization			
Number of similar projects as project manager			
Number of similar projects in other positions			
Current Project Assignments			
Name of assignment		Percent of time used for this project	Estimated project completion date
Reference Contact Information (listing names indicates approval to contact named individuals as a reference)			
Name		Name	
Title/Position		Title/Position	
Organization		Organization	
Telephone		Telephone	
Email		Email	
Project		Project	
Candidate's role on project		Candidate's role on project	
Project Superintendent			
Name of individual			
Years of experience as project superintendent			
Years of experience with this organization			
Number of similar projects as project superintendent			
Number of similar projects in other positions			
Current Project Assignments			
Name of assignment		Percent of time used for this project	Estimated project completion date
Reference Contact Information (listing names indicates approval to contact named individuals as a reference)			
Name		Name	
Title/Position		Title/Position	
Organization		Organization	
Telephone		Telephone	
Email		Email	
Project		Project	
Candidate's role on project		Candidate's role on project	

Safety Manager			
Name of individual			
Years of experience as project manager			
Years of experience with this organization			
Number of similar projects as project manager			
Number of similar projects in other positions			
Current Project Assignments			
Name of assignment		Percent of time used for this project	Estimated project completion date
Reference Contact Information (listing names indicates approval to contact named individuals as a reference)			
Name		Name	
Title/Position		Title/Position	
Organization		Organization	
Telephone		Telephone	
Email		Email	
Project		Project	
Candidate's role on project		Candidate's role on project	
Quality Control Manager			
Name of individual			
Years of experience as project superintendent			
Years of experience with this organization			
Number of similar projects as project superintendent			
Number of similar projects in other positions			
Current Project Assignments			
Name of assignment		Percent of time used for this project	Estimated project completion date
Reference Contact Information (listing names indicates approval to contact named individuals as a reference)			
Name		Name	
Title/Position		Title/Position	
Organization		Organization	
Telephone		Telephone	
Email		Email	
Project		Project	
Candidate's role on project		Candidate's role on project	

DOCUMENT 00 51 00
NOTICE OF AWARD

Date of Issuance:

Owner: Hildale City

Owner's Contract No.:

Engineer: Jones & DeMille Engineering

Engineer's Project No.: 2412-024

Project:

Contract Name:

Bidder:

Bidder's Address:

TO BIDDER:

You are notified that Owner has accepted your Bid for the above Contract, and that you are the Successful Bidder and are awarded a Contract for the following:

[Describe Work, alternates, or sections of Work awarded]

The Contract Price of the awarded Contract is: \$ *[Note if subject to unit prices, or cost-plus.]*

Contract Documents will be made available to Bidder.

You must comply with the following conditions precedent within 14 days of the date of receipt of this Notice of Award:

1. Deliver performance and payment bonds.
2. Deliver insurance documentation.

Failure to comply with these conditions within the time specified will entitle Owner to consider you in default, annul this Notice of Award, and declare your Bid security forfeited.

Within ten days after you comply with the above conditions, Owner will return to you one fully executed counterpart of the Contract, together with any additional copies of the Contract Documents.

Owner: Hildale City

Authorized Signature

By: _____

Title: _____

DOCUMENT 00 52 15
CONTRACT FOR CONSTRUCTION OF A SMALL PROJECT

Prepared by



Issued and Published Jointly by



CONTRACT FOR CONSTRUCTION OF A SMALL PROJECT

This Contract is by and between _____ (Owner) and
_____ (Contractor).

Owner and Contractor hereby agree as follows:

ARTICLE 1 - THE WORK

1.01 Work

- A. Work includes all labor, materials, equipment, services, and documentation necessary to construct the Project defined herein. The Work may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.
- B. The Contractor shall complete all Work as specified or indicated in the Contract Documents. The Project is generally described as follows:
 - 1. Innovation Center Waterline Extension, which includes Installation of approximately 2,560 feet of 8-inch PVC waterline along with valving, fittings, hydrants and services
 - 2. The Site of the Work includes property, easements, and designated work areas described in greater detail in the Contract Documents but generally located along Newel Avenue from Redwood Street (1200 West) to Boxelder Street (1400 West) and along Cottonwood Street (1300 West) from Newel Avenue to approximately 200 feet north of Jessop Avenue (1000 North).

ARTICLE 2 - CONTRACT DOCUMENTS

2.01 Intent of Contract Documents

- A. It is the intent of the Contract Documents to describe a functionally complete project. The Contract Documents do not indicate or describe all of the Work required to complete the Project. Additional details required for the correct installation of selected products are to be provided by the Contractor and coordinated with the Owner and Engineer. This Contract supersedes prior negotiations, representations, and agreements, whether written or oral. The Contract Documents are complementary; what is required by one part of the Contract Documents is as binding as if required by other parts of the Contract Documents.
- B. Owner has adopted the Manual of Standard Specifications and Manual of Standard Plans (2017 Edition) prepared by the Utah Chapter of the American Public Works Association (APWA), including amendments, hereto referenced as APWA Standards. Complete work in accordance with APWA Standards. In the event of conflicting requirements between APWA Standards or project drawings and specifications, the stricter requirement shall apply.
- C. During the performance of the Work and until final payment, Contractor and Owner shall submit all matters in question concerning the requirements of the Contract Documents, or relating to the acceptability of the Work under the Contract Documents to the Engineer. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work thereunder.

- D. Engineer will render a written clarification, interpretation, or decision on the issue submitted, or initiate a modification to the Contract Documents.
- E. Contractor, and its subcontractors and suppliers, shall not have or acquire any title to or ownership rights to any of the Drawings, Specifications, or other documents (including copies or electronic media editions) prepared by Engineer or its consultants.

2.02 Contract Documents Defined

NOTES TO USER: *If any of the items listed are not to be included as Contract Documents, remove such item from the list and renumber the remaining items as necessary.*

- A. The Contract Documents consist of the following documents:
 - 1. This Contract.
 - 2. Performance bond.
 - 3. Payment bond.
 - 4. Specifications listed in the Table of Contents.
 - 5. Drawings as listed on the Drawing Sheet Index.
 - 6. Addenda.
 - 7. Exhibits to this Contract (enumerated as follows):
 - a. Exhibit 1 – Contractor’s Bid.
 - 8. The following which may be delivered or issued on or after the Effective Date of the Contract:
 - a. Work Change Directives (EJCDC C-940).
 - b. Change Orders (EJCDC C-941).
 - c. Field Orders.

ARTICLE 3 - ENGINEER

3.01 Engineer

- A. The Engineer for this Project is Jones & DeMille Engineering, Inc.

ARTICLE 4 - CONTRACT TIMES

4.01 Contract Times

- A. The Work will be substantially completed within 35 days for the Base Bid after the date when the Contract Times commence to run, as indicated in the Notice to Proceed:
 - 1. For Alternative 1, 1 day will be added to the substantial completion date.
 - 2. For Alternative 2, 28 days be added to the substantial completion date.
- B. The project will be completed and ready for final payment within 7 days after the date of substantial completion.

4.02 Liquidated Damages

- A. Contractor and Owner recognize that time is of the essence in the performance of the Contract, and that Owner will incur damages if Contractor does not complete the Work according to the requirements of Paragraph 4.01. Because such damages for delay would be difficult and costly to determine, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):
 - 1. Substantial Completion: Contractor shall pay Owner \$1,000 for each day that expires after the time (as duly adjusted pursuant to the Contract) specified above for Substantial Completion, until the Work is substantially complete.
 - 2. Completion of Remaining Work: After Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner \$1,000 for each day that expires after such time until the Work is completed and ready for final payment.

4.03 Delays in Contractor's Progress

- A. If Owner, Engineer, or anyone for whom Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then Contractor shall be entitled to an equitable adjustment in the Contract Times and Contract Price. Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times.
- B. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for delay, disruption, or interference caused by or within the control of Contractor or their subcontractors or suppliers.
- C. If Contractor's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of Owner, Contractor, and those for which they are responsible, then Contractor shall be entitled to an equitable adjustment in Contract Times.
- D. Contractor shall not be entitled to an adjustment in Contract Price or Contract Times for any delay, disruption, or interference if such delay is concurrent with a delay, disruption, or interference caused by or within the control of Contractor or Contractor's subcontractors or suppliers.

4.04 Progress Schedules

- A. Contractor shall develop a progress schedule and submit to the Engineer for review and comment before starting Work on the Site. The Contractor shall modify the schedule in accordance with the comments provided by the Engineer.
- B. The Contractor shall update and submit the progress schedule to the Engineer each month. The Owner may withhold payment if the Contractor fails to submit the schedule.

ARTICLE 5 - CONTRACT PRICE

5.01 Payment

- A. Owner shall pay Contractor in accordance with the Contract Documents at the unit prices for each unit of Work completed at the unit prices stated in the Contractor's Bid, attached here

to as an exhibit. Payment will be made in an amount equal to the total of all extended prices for actual Work completed. The extended price is determined by multiplying the unit price times the actual quantity of that Work item completed. Actual quantities installed will be determined by the Engineer.

ARTICLE 6 - BONDS AND INSURANCE

6.01 Bonds

- A. Before starting Work, Contractor shall furnish a performance bond and a payment bond from surety companies that are duly licensed or authorized to issue bonds in the required amounts in the jurisdiction in which the Project is located. Each bond shall be in an amount equal to the Contract Price, as security for the faithful performance and payment of all of Contractor's obligations under the Contract. These bonds shall remain in effect until the completion of the correction period specified in Paragraph 7.12 but, in any case, not less than one year after the date when final payment becomes due.

6.02 Insurance

- A. Before starting Work, Contractor shall furnish evidence of insurance from companies that are duly licensed or authorized in the jurisdiction in which the Project is located with a minimum AM Best rating of A-VII or better. Contractor shall provide insurance in accordance with the following:

1. Contractor shall provide coverage for not less than the following amounts, or greater where required by Laws and Regulations:

a. Workers' Compensation:

State:		Statutory
Employer's Liability:		
Bodily Injury, each Accident	\$	500,000
Bodily Injury By Disease, each Employee	\$	500,000
Bodily Injury/Disease Aggregate	\$	500,000

b. Commercial General Liability:

General Aggregate	\$	2,000,000
Products - Completed Operations Aggregate	\$	1,000,000
Personal and Advertising Injury	\$	1,000,000
Each Occurrence (Bodily Injury and Property Damage)	\$	1,000,000

c. Automobile Liability herein:

Bodily Injury:		
Each Person	\$	1,000,000
Each Accident	\$	1,000,000

Property Damage:

Each Accident \$ 1,000,000

d. Excess or Umbrella Liability:

Per Occurrence \$ 1,000,000

General Aggregate \$ 1,000,000

e. Contractor's Pollution Liability:

Each Occurrence \$ 1,000,000

General Aggregate \$ 1,000,000

- B. All insurance policies required to be purchased and maintained will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least 10 days prior written notice has been given to the insured and additional insured.
- C. Automobile liability insurance provided by Contractor shall provide coverage against claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance, or use of any motor vehicle. The automobile liability policy shall be written on an occurrence basis.
- D. Contractor's commercial general liability policy shall be written on a 1996 or later ISO commercial general liability occurrence form and include the following coverages and endorsements:
1. Products and completed operations coverage maintained for three years after final payment;
 2. Blanket contractual liability coverage to the extent permitted by law;
 3. Broad form property damage coverage; and
 4. Severability of interest; underground, explosion, and collapse coverage; personal injury coverage.
- E. The Contractor's commercial general liability and automobile liability, umbrella or excess, and pollution liability policies shall include and list Owner and Engineer and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each as additional insureds; and the insurance afforded to these additional insureds shall provide primary coverage for all claims covered thereby (including as applicable those arising from both ongoing and completed operations) on a non-contributory basis.
1. Additional insured endorsements will include both ongoing operations and products and completed operations coverage through ISO Endorsements CG 20 10 10 01 and CG 20 37 10 01 (together). If Contractor demonstrates to Owner that the specified ISO endorsements are not commercially available, then Contractor may satisfy this requirement by providing equivalent endorsements.
 2. Contractor shall provide ISO Endorsement CG 20 32 07 04, "Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured" or its equivalent for design professional additional insureds.

- F. Umbrella or excess liability insurance shall be written over the underlying employer's liability, commercial general liability, and automobile liability insurance. Subject to industry-standard exclusions, the coverage afforded shall be procured on a "follow the form" basis as to each of the underlying policies. Contractor may demonstrate to Owner that Contractor has met the combined limits of insurance (underlying policy plus applicable umbrella) specified for employer's liability, commercial general liability, and automobile liability through the primary policies alone, or through combinations of the primary insurance policies and an umbrella or excess liability policy.
- G. The Contractor shall provide property insurance covering physical loss or damage during construction to structures, materials, fixtures, and equipment, including those materials, fixtures, or equipment in storage or transit.
- H. If Contractor has failed to obtain and maintain required insurance, Owner may exclude the Contractor from the Site, impose an appropriate set-off against payment, and exercise Owner's termination rights under Article 15.

ARTICLE 7 - CONTRACTOR'S RESPONSIBILITIES

7.01 Supervision and Superintendence

- A. Contractor shall supervise and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. Contractor shall be solely responsible for the means, methods, techniques, sequences, safety, and procedures of construction.
- B. Contractor shall assign a competent resident superintendent who is to be present at all times during the execution of the Work. This resident superintendent shall not be replaced without written notice to and approval by the Owner and Engineer except under extraordinary circumstances.
- C. Contractor shall at all times maintain good discipline and order at the Site.
- D. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours, Monday through Friday.

7.02 Other Work at the Site

- A. In addition to and apart from the Work of the Contractor, other work may occur at or adjacent to the Site. Contractor shall take reasonable and customary measures to avoid damaging, delaying, disrupting, or interfering with the work of Owner, any other contractor, or any utility owner performing other work at or adjacent to the Site.

7.03 Services, Materials, and Equipment

- A. Unless otherwise specified in the Contract Documents, Contractor shall provide and assume full responsibility for all services, 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 performance, testing, start up, and completion of the Work, whether or not such items are specifically called for in the Contract Documents.

- B. All materials and equipment incorporated into the Work shall be new, of good quality and shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable supplier, except as otherwise may be provided in the Contract Documents.

7.04 Subcontractors and Suppliers

- A. Contractor may retain subcontractors and suppliers for the performance of parts of the Work. Such subcontractors and suppliers must be acceptable to Owner.
- B. The Contractor shall not award work valued more than 50 percent of the Contract Price to Subcontractor(s), without prior written approval of the Owner.

7.05 Quality Management

- A. Contractor is fully responsible for the managing quality to ensure Work is completed in accordance with the Contract Documents.

7.06 Licenses, Fees and Permits

- A. Contractor shall pay all license fees and royalties and assume all costs incident to performing 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.
- B. Contractor shall obtain and pay for all construction permits and licenses unless otherwise provided in the Contract Documents.

7.07 Laws and Regulations; Taxes

- A. Contractor shall give all notices required by and shall comply with all local, state, and federal Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither Owner nor Engineer shall be responsible for monitoring Contractor's compliance with any Laws or Regulations.
- B. Contractor shall bear all resulting costs and losses, and shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages if Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations.
- C. Contractor shall pay all applicable sales, consumer, use, and other similar taxes Contractor is required to pay in accordance with Laws and Regulations.
- D. When employing workers in construction of public works by the state or any county or municipality or by persons contracting with the state or any county or municipality, preferences shall be given citizens of the United States, or those having declared their intention of becoming citizens. This provision is in accordance with Utah Code Section 34-30-1.
- E. In accordance with the State of Utah law, the Contractor shall register and participate in the State of Utah Status Verification System to verify the work eligibility status of the Contractor's new employees that are employed in the State of Utah.

7.08 Record Documents

- A. Contractor shall maintain one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and

clarifications, and approved shop drawings in a safe place at the Site. Contractor shall annotate them to show changes made during construction. Contractor shall deliver these record documents to Engineer upon completion of the Work.

7.09 Safety and Protection

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work.
- B. Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury, or loss to:
 - 1. All persons on the Site or who may be affected by the Work;
 - 2. All the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 - 3. Other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, other work in progress, utilities, and underground facilities not designated for removal, relocation, or replacement in the course of construction.
- C. All damage, injury, or loss to any property caused, directly or indirectly, in whole or in part, by Contractor, or anyone for whose acts the Contractor may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Contract Documents or to the acts or omissions of Owner or Engineer and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor).
- D. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with Laws or Regulations.
- E. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor shall act to prevent threatened damage, injury, or loss. 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 thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

7.10 Shop Drawings, Samples, and Other Submittals

- A. Contractor shall review and coordinate the shop drawing and samples with the requirements of the Work and the Contract Documents and shall verify all related field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information.
- B. Each submittal shall bear a stamp or specific written certification that Contractor has satisfied Contractor's obligations under the Contract Documents with respect to Contractor's review of that submittal, and that Contractor approves the submittal.
- C. With each submittal, Contractor shall give Engineer specific written notice, in a communication separate from the submittal, of any variations that the shop drawing or sample may have from the requirements of the Contract Documents.
- D. Engineer will provide timely review of shop drawings and samples.

- E. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions or programs.
- F. Engineer's review and approval of a separate item does not indicate approval of the assembly in which the item functions.
- G. 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 and approval. Contractor shall direct specific attention in writing to revisions other than the corrections called for by Engineer on previous submittals.
- H. Shop drawings are not Contract Documents.

7.11 Warranties and Guarantees

- A. Contractor warrants and guarantees to Owner that all Work will be in accordance with the Contract Documents and will not be defective. Engineer and its officers, directors, members, partners, employees, agents, consultants, and subcontractors shall be entitled to rely on Contractor's warranty and guarantee.

7.12 Correction Period

- A. If within one year after the date of substantial completion, any Work is found to be defective, or if the repair of any damages to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas used by Contractor as permitted by Laws and Regulations, is found to be defective, then Contractor shall promptly and without cost to Owner, correct such defective Work.

7.13 Indemnification

- A. To the fullest extent permitted by Laws and Regulations, and in addition to any other obligations of Contractor under the Contract or otherwise, Contractor shall indemnify and hold harmless Owner and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only to the extent caused by any negligent act or omission of Contractor, any subcontractor, any supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts they may be liable.

ARTICLE 8 - OWNER'S RESPONSIBILITIES

8.01 Owner's Responsibilities

- A. Except as otherwise provided in the Contract Documents, Owner shall issue all communications to Contractor through Engineer.
- B. Owner shall make payments to Contractor as provided in this Contract.
- C. Owner shall provide Site and easements required to construct the Project.

- D. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, unless stated elsewhere in the Contract Documents, Owner shall have sole authority and responsibility for such coordination.
- E. The Owner shall be responsible for performing inspections and tests required by applicable codes.
- F. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.
- G. While at the Site, Owner's employees and representatives shall comply with the specific applicable requirements of Contractor's safety programs of which Owner has been informed.
- H. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 9 - ENGINEER'S STATUS DURING CONSTRUCTION

9.01 Engineer's Status

- A. Engineer will be Owner's representative during construction. The duties and responsibilities and the limitations of authority of Engineer as Owner's representative during construction are set forth in this Contract.
- B. Neither Engineer's authority or responsibility under this Article 9 or under any other provision of the Contract, nor any decision made by Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by Engineer, shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by Engineer to Contractor, any subcontractor, any supplier, any other individual or entity, or to any surety for or employee or agent of any of them.
- C. Engineer will make visits to the Site at intervals appropriate to the various stages of construction. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work.
- D. Engineer has the authority to reject Work if Contractor fails to perform Work in accordance with the Contract Documents.
- E. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work.
- F. Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work. Engineer will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

ARTICLE 10 - CHANGES IN THE WORK

10.01 Authority to Change the Work

- A. Without invalidating the 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.

10.02 Change Orders

- A. Owner and Contractor shall execute appropriate Change Orders covering:
 - 1. Changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive;
 - 2. Changes in the Work which are: (a) ordered by Owner or (b) agreed to by the parties or (c) resulting from the Engineer's decision, subject to the need for Engineer's recommendation if the change in the Work involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters; and
 - 3. Changes in the Contract Price or Contract Times or other changes which embody the substance of any final binding results under Article 12.
- B. If the provisions of any bond require notice to be given to a surety 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 Times), the giving of any such notice will be Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

10.03 Changes to Unit Price Work

- A. The unit price of an item of Unit Price Work shall be subject to reevaluation and adjustment under the following conditions:
 - 1. If the extended price of a particular item of Unit Price Work amounts to 5 percent or more of the Contract Price (based on estimated quantities at the time of Contract formation) and the variation in the quantity of that particular item of Unit Price Work actually furnished or performed by Contractor differs by more than 25 percent from the estimated quantity of such item indicated in the Bid Form; and
 - 2. If there is no corresponding adjustment with respect to any other item of Work; and
 - 3. If Contractor believes that Contractor has incurred additional expense as a result thereof, Contractor may submit a Change Proposal, or if Owner believes that the quantity variation entitles Owner to an adjustment in the unit price, Owner may make a Claim, seeking an adjustment in the Contract Price.

ARTICLE 11 - DIFFERING SUBSURFACE OR PHYSICAL CONDITIONS

11.01 Differing Conditions Process

- A. If Contractor believes that any subsurface or physical condition including but not limited to utilities or other underground facilities that are uncovered or revealed at the Site either differs materially from that shown or indicated in the Contract Documents or is of an unusual nature, and differs materially from conditions ordinarily encountered and generally

recognized as inherent in Work of the character provided for in the Contract Documents then Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency), notify Owner and Engineer in writing about such condition. Contractor shall not further disturb such condition or perform any Work in connection therewith (except with respect to an emergency) until receipt of a written statement permitting Contractor to do so.

- B. After receipt of written notice, Engineer will promptly:
 - 1. Review the subsurface or physical condition in question;
 - 2. Determine necessity for Owner obtaining additional exploration or tests with respect to the condition;
 - 3. Determine whether the condition falls within the differing site condition as stated herein;
 - 4. Obtain any pertinent cost or schedule information from Contractor;
 - 5. Prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the subsurface or physical condition in question and the need for any change in the Drawings or Specifications; and
 - 6. Advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- C. After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor regarding the subsurface or physical condition in question, addressing the resumption of Work in connection with such condition, indicating whether any change in the Drawings or Specifications will be made, and adopting or rejecting Engineer's written findings, conclusions, and recommendations, in whole or in part.

ARTICLE 12 - CLAIMS AND DISPUTE RESOLUTION

12.01 Claims Process

- A. The party submitting a claim shall deliver it directly to the other party to the Contract and the Engineer promptly (but in no event later than 10 days) after the start of the event giving rise thereto.
- B. The party receiving a claim shall review it thoroughly, giving full consideration to its merits. The two parties shall seek to resolve the claim through the exchange of information and direct negotiations. All actions taken on a claim shall be stated in writing and submitted to the other party.
- C. If efforts to resolve a claim are not successful, the party receiving the claim may deny it by giving written notice of denial to the other party. If the receiving party does not take action on the claim within 45 days, the claim is deemed denied.
- D. If the dispute is not resolved to the satisfaction of the parties, Owner or Contractor shall give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction unless the Owner and Contractor both agree to an alternative dispute resolution process.

ARTICLE 13 - TESTS AND INSPECTIONS; CORRECTION OF DEFECTIVE WORK

13.01 Tests and Inspections

- A. Owner and Engineer will have access to the Site and the Work at reasonable times for their observation, inspection, and testing. Contractor shall provide them proper and safe conditions for such access.
- B. Contractor shall give Engineer timely notice of readiness of the Work for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- C. If any Work that is to be inspected, tested, or approved is covered by Contractor without written concurrence of Engineer, Contractor shall, if requested by Engineer, uncover such Work for observation. Such uncovering shall be at Contractor's expense.

13.02 Defective Work

- A. Contractor shall ensure that the Work is not defective.
- B. Engineer has the authority to determine whether Work is defective, and to reject defective Work.
- C. Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.
- D. The Contractor shall promptly correct all such defective Work.
- E. When correcting defective Work, Contractor shall take no action that would void or otherwise impair Owner's special warranty and guarantee, if any, on said Work.
- F. If the Work is defective or Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, then Owner may order Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated.

ARTICLE 14 - PAYMENTS TO CONTRACTOR

14.01 Progress Payments

- A. The Contractor shall prepare a schedule of values that will serve as the basis for progress payments. The schedule of values will be in a form of application for payment acceptable to Engineer. The unit price breakdown submitted with the bid will be used for unit price work. Break lump sum items into units that will allow for measurement of Work in progress.

14.02 Applications for Payments:

- A. Contractor shall submit an application for payment in a form acceptable to the Engineer, no more frequently than monthly, to Engineer. Applications for payment will be prepared and signed by Contractor. Contractor shall provide supporting documentation required by the Contract Documents. Payment will be paid for Work completed as of the date of the application for payment.
- B. Beginning with the second application for payment, each application shall include an affidavit of Contractor stating that all previous progress payments received on account of the Work

have been applied on account to discharge Contractor's legitimate obligations associated with prior applications for payment.

14.03 Retainage

- A. The Owner shall retain 5 percent of each progress payment until the Work is substantially complete.

14.04 Review of Applications

- A. Within 10 days after receipt of each application for payment, the Engineer will either indicate in writing a recommendation for payment and present the application for payment to Owner or return the application for payment to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. The Contractor will make the necessary corrections and resubmit the application for payment.
- B. Engineer will recommend reductions in payment (set-offs) which, in the opinion of the Engineer, are necessary to protect Owner from loss because the Work is defective and requires correction or replacement.
- C. The Owner is entitled to impose set-offs against payment based on any claims that have been made against Owner on account of Contractor's conduct in the performance of the Work, incurred costs, losses, or damages on account of Contractor's conduct in the performance of the Work, or liquidated damages that have accrued as a result of Contractor's failure to complete the Work.

14.05 Contractor's Warranty of Title

- A. Contractor warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to Owner free and clear of (1) all liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than seven days after the time of payment by Owner.

14.06 Substantial Completion

- A. The Contractor shall notify Owner and Engineer in writing that the Work is substantially complete and request the Engineer issue a certificate of substantial completion when Contractor considers the Work ready for its intended use. Contractor shall at the same time submit to Owner and Engineer an initial draft of punch list items to be completed or corrected before final payment.
- B. Engineer will make an inspection of the Work with the Owner and Contractor to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor and Owner in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete or upon resolution of all reasons for non-issuance of a certificate identified in 14.06.B, Engineer will deliver to Owner a certificate of substantial completion which shall fix the date of substantial completion and include a punch list of items to be completed or corrected before final payment.

14.07 Final Inspection

- A. Upon written notice from Contractor that the entire Work is complete, Engineer will promptly make a final inspection with Owner and Contractor and will notify Contractor in writing of all particulars in which this inspection reveals that the Work, or agreed portion

thereof, is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.08 Final Payment

- A. Contractor may make application for final payment after Contractor has satisfactorily completed all Work defined in the Contract, including providing all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents and other documents.
- B. The final application for payment shall be accompanied (except as previously delivered) by:
 - 1. All documentation called for in the Contract Documents;
 - 2. Consent of the surety to final payment;
 - 3. Satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to Owner free and clear of any liens or other title defects, or will so pass upon final payment;
 - 4. A list of all disputes that Contractor believes are unsettled; and
 - 5. Complete and legally effective releases or waivers (satisfactory to Owner) of all lien rights arising out of the Work, and of liens filed in connection with the Work.
- C. The Work is complete (subject to surviving obligations) when it is ready for final payment as established by the Engineer's written recommendation of final payment.

14.09 Waiver of Claims

- A. The making of final payment will not constitute a waiver by Owner of claims or rights against Contractor.
- B. The acceptance of final payment by Contractor will constitute a waiver by Contractor of all claims and rights against Owner other than those pending matters that have been duly submitted.

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

15.01 Owner May Suspend Work

- A. At any time and without cause, Owner may suspend the Work or any portion thereof for a period of not more than 60 consecutive days by written notice to Contractor and Engineer. Such notice will fix the date on which Work will be resumed. Contractor shall resume the Work on the date so fixed. Contractor shall be entitled to an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension.

15.02 Owner May Terminate for Cause

- A. Contractor's failure to perform the Work in accordance with the Contract Documents or other failure to comply with a material term of the Contract Documents will constitute a default by Contractor and justify termination for cause.

- B. If Contractor defaults in its obligations, then after giving Contractor and any surety ten days written notice that Owner is considering a declaration that Contractor is in default and termination of the Contract, Owner may proceed to:
 - 1. Declare Contractor to be in default, and give Contractor and any surety notice that the Contract is terminated; and
 - 2. Enforce the rights available to Owner under any applicable performance bond.
- C. Owner may not proceed with termination of the Contract under Paragraph 15.02.B if Contractor within seven days of receipt of notice of intent to terminate begins to correct its failure to perform and proceeds diligently to cure such failure.
- D. Subject to the terms and operation of any applicable performance bond, if Owner has terminated the Contract for cause, Owner may exclude Contractor from the Site, take possession of the Work, 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 complete the Work as Owner may deem expedient.
- E. In the case of a termination for cause, if the cost to complete the Work, including related claims, costs, losses, and damages, exceeds the unpaid contract balance, Contractor shall pay the difference to Owner.

15.03 Owner May Terminate for Convenience

- A. Upon seven days written notice to Contractor, Owner may, without cause and without prejudice to any other right or remedy of Owner, terminate the Contract. In such case, Contractor shall be paid for, without duplication of any items:
 - 1. Completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 - 2. Expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses; and
 - 3. Other reasonable expenses directly attributable to termination, including costs incurred to prepare a termination for convenience cost proposal.
- B. Contractor shall not be paid on account of loss of anticipated overhead, profits, or revenue, or other economic loss arising out of or resulting from such termination.

15.04 Contractor May Stop Work or Terminate

- A. If, through no act or fault of Contractor, (1) the Work is suspended for more than 90 consecutive days by Owner or under an order of court or other public authority, or (2) Owner fails for 30 days to pay Contractor any sum finally determined to be due, then Contractor may, upon seven days written notice to Owner, and provided Owner does not remedy such suspension or failure within that time, either stop the Work until payment is received, or terminate the Contract and recover payment from the Owner.

ARTICLE 16 - CONTRACTOR'S REPRESENTATIONS

16.01 Contractor Representations

- A. Contractor makes the following representations when entering into this Contract:
1. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.
 2. Contractor has visited the Site, conducted a thorough visual examination of the Site and adjacent areas, and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
 3. Contractor is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
 4. Contractor has considered the information known to Contractor itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Contract Documents; and the Site-related reports and drawings identified in the Contract Documents, with respect to the effect of such information, observations, and documents on:
 - a. The cost, progress, and performance of the Work;
 - b. The means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and
 - c. Contractor's safety precautions and programs.
 5. Based on the information and observations referred to in the preceding paragraph, Contractor agrees that no further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract.
 6. Contractor is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
 7. Contractor has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Contractor has discovered in the Contract Documents, and the written resolution thereof by Engineer is acceptable to Contractor.
 8. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
 9. Contractor's entry into this Contract constitutes an incontrovertible representation by Contractor that, without exception, all prices in the Contract are premised upon performing and furnishing the Work required by the Contract Documents.

ARTICLE 17 - MISCELLANEOUS

17.01 Cumulative Remedies

- A. The duties and obligations imposed by this Contract and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise

imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.02 Limitation of Damages

- A. Neither Owner, Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to Contractor for any claims, costs, losses, or damages sustained by Contractor on or in connection with any other project or anticipated project.

17.03 No Waiver

- A. A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Contract.

17.04 Survival of Obligations

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of Contractor.

17.05 Contractor's Certifications

- A. Contractor certifies that it has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for or in executing the Contract.

17.06 Controlling Law

- A. This Contract is to be governed by the law of the state in which the Project is located.

(Remainder of page intentionally left blank.)

IN WITNESS WHEREOF, Owner and Contractor have signed this Contract.

This Contract will be effective on _____ (which is the Effective Date of the Contract).

OWNER:

CONTRACTOR:

By: _____

By: _____

Title: _____

Title: _____

(If Contractor is a corporation, a partnership, or a joint venture, attach evidence of authority to sign.)

Attest: _____

Attest: _____

Title: _____

Title: _____

Address for giving notices:

Address for giving notices:

License No.: _____
(where applicable)

(If Owner is a corporation, attach evidence of authority to sign. If Owner is a public body, attach evidence of authority to sign and resolution or other documents authorizing execution of this Contract.)

DOCUMENT 00 55 00
NOTICE TO PROCEED

Owner: Hildale City Owner's Project No.: _____
Engineer: Jones & DeMille Engineering, Inc. Engineer's Project No.: (2412-024)
Contractor: _____ Contractor's Project No.: _____
Project: Hilldale City Innovation Center Waterline Extension
Contract Name: _____
Effective Date of Contract: _____

Owner hereby notifies Contractor that the Contract Times under the above Contract will commence to run on **[date]**.

On that date, Contractor shall start performing its obligations under the Contract Documents. No Work will be done at the Site prior to such date.

In accordance with the Agreement:

The number of days to achieve Substantial Completion is **[number of days, from Agreement]** from the date stated above for the commencement of the Contract Times, resulting in a date for Substantial Completion of **[date, calculated from commencement date above]**; and the number of days to achieve readiness for final payment is **[number of days, from Agreement]** from the commencement date of the Contract Times, resulting in a date for readiness for final payment of **[date, calculated from commencement date above]**.

Before starting any Work at the Site, Contractor must comply with the following:

Owner: Hildale City
By *(signature)*: _____
Name *(printed)*: _____
Title: _____
Date Issued: _____
Copy: Engineer

DOCUMENT 00 61 13.13
PERFORMANCE BOND FORM

Contractor Name: [Full formal name of Contractor] Address <i>(principal place of business)</i> : [Address of Contractor's principal place of business]	Surety Name: Address <i>(principal place of business)</i> :
Owner Name: Hildale City Mailing address <i>(principal place of business)</i> : 320 Newel Avenue, Hildale, Utah 84784	Contract Description: Waterline Extension Hildale City Innovation Center Waterline Extension Contract Price: [Amount from Contract] Effective Date of Contract: [Date from Contract]
Bond Bond Amount: Date of Bond: <i>(Date of Bond cannot be earlier than Effective Date of Contract)</i> Modifications to this Bond form: <input type="checkbox"/> None <input type="checkbox"/> See Paragraph 16	
Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth in this Performance Bond, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.	
Contractor as Principal	Surety
<i>(Full formal name of Contractor)</i>	<i>(Full formal name of Surety) (corporate seal)</i>
By: _____	By: _____
<i>(Signature)</i>	<i>(Signature)(Attach Power of Attorney)</i>
Name: _____	Name: _____
<i>(Printed or typed)</i>	<i>(Printed or typed)</i>
Title: _____	Title: _____
Attest: _____	Attest: _____
<i>(Signature)</i>	<i>(Signature)</i>
Name: _____	Name: _____
<i>(Printed or typed)</i>	<i>(Printed or typed)</i>
Title: _____	Title: _____
<i>Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party is considered plural where applicable.</i>	

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.
2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond will arise after:
 - 3.1. The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice may indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 will be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement does not waive the Owner's right, if any, subsequently to declare a Contractor Default;
 - 3.2. The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and
 - 3.3. The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.
4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 does not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.
5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:
 - 5.1. Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;
 - 5.2. Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;
 - 5.3. Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or
 - 5.4. Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

- 5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or
 - 5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.
- 6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment, 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.
- 7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner will not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety will not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:
 - 7.1. the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;
 - 7.2. additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and
 - 7.3. liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.
- 8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.
- 9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price will not be reduced or set off on account of any such unrelated obligations. No right of action will accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.
- 10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
- 11. Any proceeding, legal or equitable, under this Bond must be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and must be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit will be applicable.
- 12. Notice to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown on the page on which their signature appears.
- 13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement will be deemed deleted therefrom and provisions conforming to such

statutory or other legal requirement will be deemed incorporated herein. When so furnished, the intent is that this Bond will be construed as a statutory bond and not as a common law bond.

14. Definitions

- 14.1. *Balance of the Contract Price*—The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.
 - 14.2. *Construction Contract*—The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.
 - 14.3. *Contractor Default*—Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.
 - 14.4. *Owner Default*—Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.
 - 14.5. *Contract Documents*—All the documents that comprise the agreement between the Owner and Contractor.
15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.
16. Modifications to this Bond are as follows: None

DOCUMENT 00 61 13.16
PAYMENT BOND FORM

Contractor Name: [Full formal name of Contractor] Address <i>(principal place of business)</i> : [Address of Contractor's principal place of business]	Surety Name: Address <i>(principal place of business)</i> :
Owner Name: Hildale City Mailing address <i>(principal place of business)</i> : 320 Newel Avenue, Hildale, Utah 84784	Contract Description: <i>Waterline Extension</i> Hildale City Innovation Center Waterline Extension Contract Price: [Amount, from Contract] Effective Date of Contract: [Date, from Contract]
Bond Bond Amount: Date of Bond: <i>(Date of Bond cannot be earlier than Effective Date of Contract)</i> Modifications to this Bond form: <input type="checkbox"/> None <input type="checkbox"/> See Paragraph 18	
Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth in this Payment Bond, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.	
Contractor as Principal	Surety
<i>(Full formal name of Contractor)</i>	<i>(Full formal name of Surety) (corporate seal)</i>
By: _____ <div style="text-align: center;"><i>(Signature)</i></div>	By: _____ <div style="text-align: center;"><i>(Signature)(Attach Power of Attorney)</i></div>
Name: _____ <div style="text-align: center;"><i>(Printed or typed)</i></div>	Name: _____ <div style="text-align: center;"><i>(Printed or typed)</i></div>
Title: _____	Title: _____
Attest: _____ <div style="text-align: center;"><i>(Signature)</i></div>	Attest: _____ <div style="text-align: center;"><i>(Signature)</i></div>
Name: _____ <div style="text-align: center;"><i>(Printed or typed)</i></div>	Name: _____ <div style="text-align: center;"><i>(Printed or typed)</i></div>
Title: _____	Title: _____
<i>Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party is considered plural where applicable.</i>	

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.
2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond will arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.
4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.
5. The Surety's obligations to a Claimant under this Bond will arise after the following:
 - 5.1. Claimants who do not have a direct contract with the Contractor
 - 5.1.1. have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
 - 5.1.2. have sent a Claim to the Surety (at the address described in Paragraph 13).
 - 5.2. Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).
6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.
7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:
 - 7.1. Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
 - 7.2. Pay or arrange for payment of any undisputed amounts.
 - 7.3. The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 will not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

8. The Surety's total obligation will not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond will be credited for any payments made in good faith by the Surety.
9. Amounts owed by the Owner to the Contractor under the Construction Contract will be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfying obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.
11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
12. No suit or action will be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit will be applicable.
13. Notice and Claims to the Surety, the Owner, or the Contractor must be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, will be sufficient compliance as of the date received.
14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement will be deemed deleted here from and provisions conforming to such statutory or other legal requirement will be deemed incorporated herein. When so furnished, the intent is that this Bond will be construed as a statutory bond and not as a common law bond.
15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.
16. Definitions
 - 16.1. *Claim*—A written statement by the Claimant including at a minimum:
 - 16.1.1. The name of the Claimant;
 - 16.1.2. The name of the person for whom the labor was done, or materials or equipment furnished;
 - 16.1.3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
 - 16.1.4. A brief description of the labor, materials, or equipment furnished;

- 16.1.5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
 - 16.1.6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
 - 16.1.7. The total amount of previous payments received by the Claimant; and
 - 16.1.8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.
- 16.2. *Claimant*—An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond is to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, 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 mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.
- 16.3. *Construction Contract*—The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.
- 16.4. *Owner Default*—Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.
- 16.5. *Contract Documents*—All the documents that comprise the agreement between the Owner and Contractor.
17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond will be deemed to be Subcontractor and the term Owner will be deemed to be Contractor.
18. Modifications to this Bond are as follows: None

Contractor's Application for Payment

Owner: _____ Engineer: _____ Contractor: _____ Project: _____ Contract: _____	Owner's Project No.: _____ Engineer's Project No.: _____ Contractor's Project No.: _____
Application No.: _____ Application Date: _____	
Application Period: From _____ to _____	

1. Original Contract Price	\$	-
2. Net change by Change Orders	\$	-
3. Current Contract Price (Line 1 + Line 2)	\$	-
4. Total Work completed and materials stored to date (Sum of Column G Lump Sum Total and Column J Unit Price Total)	\$	-
5. Retainage		
a. _____ X \$ - Work Completed	\$	-
b. _____ X \$ - Stored Materials	\$	-
c. Total Retainage (Line 5.a + Line 5.b)	\$	-
6. Amount eligible to date (Line 4 - Line 5.c)	\$	-
7. Less previous payments (Line 6 from prior application)		
8. Amount due this application	\$	-
9. Balance to finish, including retainage (Line 3 - Line 4)	\$	-

Contractor's Certification
 The undersigned Contractor certifies, to the best of its knowledge, the following:
 (1) All previous progress payments received from Owner on account of Work done under the Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with the Work covered by prior Applications for Payment;
 (2) Title to all Work, materials and equipment incorporated in said Work, or otherwise listed in or covered by this Application for Payment, will pass to Owner at time of payment free and clear of all liens, security interests, and encumbrances (except such as are covered by a bond acceptable to Owner indemnifying Owner against any such liens, security interest, or encumbrances); and
 (3) All the Work covered by this Application for Payment is in accordance with the Contract Documents and is not defective.

Contractor: _____	
Signature: _____	Date: _____

Recommended by Engineer By: _____ Title: _____ Date: _____	Approved by Owner By: _____ Title: _____ Date: _____
Approved by Funding Agency By: _____ Title: _____ Date: _____	By: _____ Title: _____ Date: _____

Contractor's Application for Payment

Owner's Project No.: _____
 Engineer's Project No.: _____
 Contractor's Project No.: _____

[illegible]

Progress Estimate - Lump Sum Work

Contractor's Application for Payment

Owner: Engineer: Contractor: Project: Contract:						Owner's Project No.: Engineer's Project No.: Contractor's Project No.:		
<div>Application No.: Application Period: From to Application Date:</div>								
A	B	C	D	E	F	G	H	I
			Work Completed					
			(D + E) From Previous Application (\$)	This Period (\$)				
Item No.	Description	Scheduled Value (\$)			Materials Currently Stored (not in D or E) (\$)	Work Completed and Materials Stored to Date (D + E + F) (\$)	% of Scheduled Value (G / C) (%)	Balance to Finish (C - G) (\$)
Change Orders								
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
						-		-
Change Order Totals		\$ -	\$ -	\$ -	\$ -	\$ -		\$ -
Original Contract and Change Orders								
Project Totals		\$ -	\$ -	\$ -	\$ -	\$ -		\$ -

Contractor's Application for Payment

[illegible]

Contractor's Application for Payment

[illegible]

Stored Materials Summary	Contractor's Application for Payment
--------------------------	--------------------------------------

Owner:		Owner's Project No.:	
Engineer:		Engineer's Project No.:	
Contractor:		Contractor's Project No.:	
Project:			
Contract:			

Application No.: _____ Application Period: From _____ to _____ Application Date: _____

A	B	C	D	E	F	G	H	I	J	K	L	M
Item No. (Lump Sum Tab) or Bid Item No. (Unit Price Tab)	Supplier Invoice No.	Submittal No. (with Specification Section No.)	Description of Materials or Equipment Stored	Storage Location	Application No. When Materials Placed in Storage	Materials Stored			Incorporated in Work			Materials Remaining in Storage (I-L) (\$)
						Previous Amount Stored (\$)	Amount Stored this Period (\$)	Amount Stored to Date (G+H) (\$)	Amount Previously Incorporated in the Work (\$)	Amount Incorporated in the Work this Period (\$)	Total Amount Incorporated in the Work (J+K) (\$)	
								-			-	-
								-			-	-
								-			-	-
								-			-	-
								-			-	-
								-			-	-
								-			-	-
								-			-	-
								-			-	-
								-			-	-
								-			-	-
								-			-	-
								-			-	-
								-			-	-
								-			-	-
								-			-	-
								-			-	-
								-			-	-
								-			-	-
					Totals	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Field Order No. _____

Date of Issuance:

Effective Date:

Owner:

Owner's Contract No.:

Contractor:

Contractor's Project No.:

Engineer: Jones & DeMille Engineering

Engineer's Project No.: 2412-024

Project:

Contract Name:

Contractor is hereby directed to promptly execute this Field Order, issued in accordance with the Contract Documents, for minor changes in the Work without changes in Contract Price or Contract Times. If Contractor considers that a change in Contract Price or Contract Times is required, submit a Change Proposal before proceeding with this Work.

Reference:

Specification(s)

Drawing(s) / Detail(s)

Description:

Attachments:

ISSUED:

RECEIVED:

By:

Engineer (Authorized Signature)

By:

Contractor (Authorized Signature)

Title:

Title:

Date:

Date:

Copy to: Owner

DOCUMENT 00 63 49
WORK CHANGE DIRECTIVE NO.: [Number]

Owner:	Hildale City	Owner's Project No.:	
Engineer:	Jones & DeMille Engineering, Inc.	Engineer's Project No.:	(2412-024)
Contractor:		Contractor's Project No.:	
Project:	Innovation Center Waterline Extension		
Contract Name:			
Date Issued:		Effective Date of Work Change Directive:	

Contractor is directed to proceed promptly with the following change(s):

Description:

[Description of the change to the Work]

Attachments:

[List documents related to the change to the Work]

Purpose for the Work Change Directive:

[Describe the purpose for the change to the Work]

Directive to proceed promptly with the Work described herein, prior to agreeing to change in Contract Price and Contract Time, is issued due to:

Notes to User—Check one or both of the following

☐ Non-agreement on pricing of proposed change. ☐ Necessity to proceed for schedule or other reasons.

Estimated Change in Contract Price and Contract Times (non-binding, preliminary):

Contract Price: \$ _____ **[increase] [decrease] [not yet estimated].**

Contract Time: _____ days **[increase] [decrease] [not yet estimated].**

Basis of estimated change in Contract Price:

☐ Lump Sum ☐ Unit Price ☐ Cost of the Work ☐ Other

Recommended by Engineer	Authorized by Owner
By: _____	_____
Title: _____	_____
Date: _____	_____

DOCUMENT 00 63 63
CHANGE ORDER NO.: [Number]

Owner: Hildale City Owner's Project No.:
Engineer: Jones & DeMille Engineering, Inc. Engineer's Project No.: (2412-024)
Contractor: Contractor's Project No.:
Project: Innovation Center Waterline Extension
Contract Name:
Date Issued: Effective Date of Change Order:

The Contract is modified as follows upon execution of this Change Order:

Description:

[Description of the change]

Attachments:

[List documents related to the change]

Change in Contract Price	Change in Contract Times [State Contract Times as either a specific date or number of days]
Original Contract Price: \$ _____	Original Contract Times: Substantial Completion: _____ Ready for final payment: _____
[Increase] [Decrease] from previously approved Change Orders No. 1 to No. [Number of previous Change Order] : \$ _____	[Increase] [Decrease] from previously approved Change Orders No.1 to No. [Number of previous Change Order] : Substantial Completion: _____ Ready for final payment: _____
Contract Price prior to this Change Order: \$ _____	Contract Times prior to this Change Order: Substantial Completion: _____ Ready for final payment: _____
[Increase] [Decrease] this Change Order: \$ _____	[Increase] [Decrease] this Change Order: Substantial Completion: _____ Ready for final payment: _____
Contract Price incorporating this Change Order: \$ _____	Contract Times with all approved Change Orders: Substantial Completion: _____ Ready for final payment: _____

Recommended by Engineer (if required)	Authorized by Owner
By: _____	_____
Title: _____	_____
Date: _____	_____
<u>Accepted by Contractor</u>	<u>Approved by Funding Agency (if applicable)</u>
By: _____	_____
Title: _____	_____
Date: _____	_____

DOCUMENT 00 65 16
CERTIFICATE OF SUBSTANTIAL COMPLETION

Owner:	Owner's Contract No.:
Contractor:	Contractor's Project No.:
Engineer: Jones & DeMille Engineering	Engineer's Project No.: <u>2412-024</u>
Project:	Contract Name:

This [preliminary] [final] Certificate of Substantial Completion applies to:

☐ All Work ☐ The following specified portions of the Work:

Date of Substantial Completion

The Work to which this Certificate applies has been inspected by authorized representatives of Owner, Contractor, and Engineer, and found to be substantially complete. The Date of Substantial Completion of the Work or portion thereof designated above is hereby established, subject to the provisions of the Contract pertaining to Substantial Completion. The date of Substantial Completion in the final Certificate of Substantial Completion marks the commencement of the contractual correction period and applicable warranties required by the Contract.

A punch list of items to be completed or corrected is attached to this Certificate. This list may not be all-inclusive, and the failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract.

The responsibilities between Owner and Contractor for security, operation, safety, maintenance, heat, utilities, insurance, and warranties upon Owner's use or occupancy of the Work shall be as provided in the Contract, except as amended as follows: *[Note: Amendments of contractual responsibilities recorded in this Certificate should be the product of mutual agreement of Owner and Contractor.]*

Amendments to Owner's responsibilities: ☐ None
☐ As follows

Amendments to Contractor's responsibilities: ☐ None
☐ As follows:

The following documents are attached to and made a part of this Certificate: *[punch list; others]*

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents, nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract.

EXECUTED BY ENGINEER:		RECEIVED:		RECEIVED:	
By: _____	By: _____	By: _____	By: _____	By: _____	By: _____
(Authorized signature)		Owner (Authorized Signature)		Contractor (Authorized Signature)	
Title: _____	Title: _____	Title: _____	Title: _____	Title: _____	Title: _____
Date: _____	Date: _____	Date: _____	Date: _____	Date: _____	Date: _____

DOCUMENT 00 65 19.21
NOTICE OF ACCEPTABILITY OF WORK

Owner:	Owner's Project No.:
Engineer: Jones & DeMille Engineering, Inc.	Engineer's Project No.: <u>2412-024</u>
Contractor:	Contractor's Project No.:
Project:	
Contract Name:	
Notice Date:	Effective Date of the Construction Contract:

The Engineer hereby gives notice to the Owner and Contractor that Engineer recommends final payment to Contractor, and that the Work furnished and performed by Contractor under the Construction Contract is acceptable, expressly subject to the provisions of the Construction Contract's Contract Documents ("Contract Documents") and of the Agreement between Owner and Engineer for Professional Services dated **[date of professional services agreement]** ("Owner-Engineer Agreement"). This Notice of Acceptability of Work (Notice) is made expressly subject to the following terms and conditions to which all who receive and rely on said Notice agree:

1. This Notice has been prepared with the skill and care ordinarily used by members of the engineering profession practicing under similar conditions at the same time and in the same locality.
2. This Notice reflects and is an expression of the Engineer's professional opinion.
3. This Notice has been prepared to the best of Engineer's knowledge, information, and belief as of the Notice Date.
4. This Notice is based entirely on and expressly limited by the scope of services Engineer has been employed by Owner to perform or furnish during construction of the Project (including observation of the Contractor's Work) under the Owner-Engineer Agreement, and applies only to facts that are within Engineer's knowledge or could reasonably have been ascertained by Engineer as a result of carrying out the responsibilities specifically assigned to Engineer under such Owner-Engineer Agreement.
5. This Notice is not a guarantee or warranty of Contractor's performance under the Construction Contract, an acceptance of Work that is not in accordance with the Contract Documents, including but not limited to defective Work discovered after final inspection, nor an assumption of responsibility for any failure of Contractor to furnish and perform the Work thereunder in accordance with the Contract Documents, or to otherwise comply with the Contract Documents or the terms of any special guarantees specified therein.
6. This Notice does not relieve Contractor of any surviving obligations under the Construction Contract, and is subject to Owner's reservations of rights with respect to completion and final payment.

Engineer

By (signature): _____
Name (printed): _____
Title: _____

SECTION 01 10 00 SUMMARY

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Contract description.
 - 2. Work by Owner or others.
 - 3. Owner-furnished products.
 - 4. Contractor's use of Site.
 - 5. Future work.
 - 6. Work sequence.
 - 7. Owner occupancy.
 - 8. Specification conventions.
- B. Related Requirements:
 - 1. Section 01 33 00 – Submittal Procedures.

1.2 CONTRACT DESCRIPTION

- A. Work of Project includes construction of approximately 2,560 feet of 8-inch PVC culinary waterline.
- B. Perform Work of Contract under stipulated price Contract with Owner according to Conditions of Contract. Schedule 1 and Schedule 2 will be completed as a single contract.

1.3 WORK BY OWNER OR OTHERS

- A. Coordinate Work with utilities of Owner and public or private agencies.

1.4 OWNER-FURNISHED PRODUCTS

- A. Owner's Responsibilities:
 - 1. Arrange for and deliver Owner-reviewed Shop Drawings, Product Data, and Samples to Contractor.
 - 2. Arrange and pay for delivery to Site.
 - 3. Upon delivery, inspect products jointly with Contractor.
 - 4. Submit claims for transportation damage and replace damaged, defective, or deficient items.
 - 5. Arrange for manufacturers' warranties, inspections, and service.
- B. Contractor's Responsibilities:
 - 1. Review Owner-reviewed Shop Drawings, Product Data, and Samples. Respond promptly to Owner regarding any conflicts.
 - 2. Receive and unload products at Site; inspect for completeness or damage jointly with Owner.
 - 3. Handle, store, install, and finish products.
 - 4. Repair or replace items damaged after receipt.

C. Items furnished by Owner for installation by Contractor:

Item	Unit	Quantity
8" PVC C900 pipe	LF	1740
6" ductile Iron pipe	LF	40ft (2 sticks)
6" field lock gaskets	Each	1
12 gauge Blue tracer wire 60 mill coating	LF	1740
6" wide Blue water line buried below tape	LF	1740
8" bell spicket pvc joint restraint (Romac 611 or equal)	Each	30
8" PVC Restrained MJ bolt gasket kit	Each	20
8" MJ bolt gasket glan pk	Each	2
6" ductile restrained MJ bolt gasket kit	Each	2
8 " FL cross	Each	2
8" FL gasket bolt kit	Each	8
8' MJ X 6' FL tee	Each	1
6" FL gasket bolt kit	Each	1
8" FL X MJ valve	Each	8
6" FL X MJ valve	Each	1
5 foot bury fire hydrant	Each	1
8" MJ 45	Each	2
8" MJ plug	Each	2

1.5 CONTRACTOR'S USE OF SITE

- A. Limit use of Site to allow:
1. Owner occupancy.
 2. Work by Owner.
 3. Work by Others.
- B. Construction Operations: Limited to areas indicated on Drawings
1. Noisy and Disruptive Operations (such as Use of Jack Hammers and Other Noisy Equipment): Not allowed in close proximity to existing building during regular hours of operation. Coordinate and schedule such operations with Owner to minimize disruptions.
- C. Time Restrictions for Performing Work: Weekdays 7AM to 7PM. Work on holidays is not allowed unless granted approval from the City.
- D. Utility Outages and Shutdown:
1. Coordinate and schedule electrical and other utility outages with Owner.
 2. Outages: Allowed only at previously agreed upon times.

3. At least one week before scheduled outage, submit Outage Request Plan to Owner itemizing dates, times, and duration of each requested outage.
- E. Construction Plan: Before start of construction, submit three copies of construction plan regarding access to Work, use of Site, and utility outages for acceptance by Owner. After acceptance of plan, construction operations shall comply with accepted plan unless deviations are accepted by Owner in writing. Incorporate construction plan elements in construction schedule required in Section 01 33 00

1.6 FUTURE WORK

- A. Project is designed for concurrent Innovation Center.

1.7 WORK SEQUENCE

- A. Construct Work in stages order to accommodate Owner's occupancy requirements during construction period. Coordinate construction schedule and operations with Engineer and Owner:
 1. Stage1: Schedule as shown on Exhibit 1A.
 2. Stage 2: Schedule 2 as shown on Exhibit 1A.
- B. Sequencing of Construction Plan: Before start of construction, submit three copies of construction plan regarding phasing of new Work for acceptance by Owner. After acceptance of plan, construction sequencing shall comply with accepted plan unless deviations are accepted by Owner in writing. Incorporate construction plan elements in construction schedule required in Section 01 33 00.

1.8 OWNER OCCUPANCY

- A. Owner will occupy site during entire period of construction.
- B. Cooperate with Owner to minimize conflict and to facilitate Owner's operations.
- C. Schedule Work to accommodate Owner occupancy.

1.9 SPECIFICATION CONVENTIONS

- A. These Specifications are written in imperative mood and streamlined form. This imperative language is directed to Contractor unless specifically noted otherwise. The words "shall be" are included by inference where colon (:) is used within sentences or phrases.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

SECTION 01 20 00
PRICE AND PAYMENT PROCEDURES

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Schedule of Values.
 - 2. Application for Payment.
 - 3. Change procedures.
 - 4. Defect assessment.
 - 5. Unit prices.
 - 6. Allowances.
 - 7. Alternates.
- B. Related Requirements:
 - 1. Section 01 22 19 - Unit Price Measurement and Payment.

1.2 SCHEDULE OF VALUES

- A. Submit printed or electronic PDF file of Schedule of Values on Contractor's standard form.
- B. Submit Schedule of Values as required in General Conditions.
- C. Format: Use Table of Contents of this Project Manual. Identify each line item with number and title of major Specification Section. Also identify mobilization, bonds and insurance, and other related items.
- D. Include within each line item, direct proportional amount of Contractor's overhead and profit.
- E. Revise Schedule of Values to list approved Change Orders with each Application for Payment.

1.3 APPLICATION FOR PAYMENT

- A. Submit one copy of each Application for Payment on Contractor's standard form.
- B. Content and Format: Use Bid Schedule for listing items in Application for Payment.
- C. Submit updated Progress Schedule with each Application for Payment.
- D. Payment Period: Submit at monthly intervals as agreed upon at Preconstruction Meeting.

- E. Substantiating Data: When Engineer requires substantiating information, submit data justifying dollar amounts in question.

1.4 CHANGE PROCEDURES

- A. Submit name of individual who is authorized to receive change documents and is responsible for informing others in Contractor's employ or Subcontractors of changes to Work.
- B. Carefully study and compare Contract Documents before proceeding with fabrication and installation of Work. Promptly advise Engineer of any error, inconsistency, omission, or apparent discrepancy.
- C. Requests for Interpretation (RFI) and Clarifications: Allot time in construction scheduling for handling queries and clarifications.
- D. Use Contractor's standard form for requesting interpretations.
- E. Engineer may respond with direct answer on Request for Interpretation form, Field Order, or Work Change Directive.
- F. Substitutions are to be requested and reviewed by Engineer prior to submittal of bids as indicated in Instructions to Bidders.
- G. Execution of Change Orders: Engineer will issue Change Orders for signatures of parties as provided in General Conditions.
- H. Correlation of Contractor Submittals:
 - 1. Promptly revise Application for Payment forms to record each authorized Change Order as separate line item and adjust Contract Price.
 - 2. Promptly revise Progress Schedule to reflect change in Contract Time, revise sub-schedules to adjust times for other items of Work affected by change, and resubmit.
 - 3. Promptly enter changes in Record Documents.

1.5 DEFECT ASSESSMENT

- A. Replace Work, or portions of Work, not conforming to specified requirements.
- B. If, in opinion of Engineer, it is not practical to remove and replace Work, Engineer will direct appropriate remedy or adjust payment.
 - 1. Defective Work may remain, but unit sum/price will be reduced up to 50 percent at discretion of Engineer.
 - 2. Defective Work will be partially repaired according to instructions of Engineer, and unit sum/price will be adjusted to new sum/price at discretion of Engineer.

3. Individual Specification Sections may modify these options or may identify specific formula or percentage sum/price reduction.
- C. Authority of Engineer to assess defects and identify payment adjustments is final.
- D. Nonpayment for Rejected Products: Payment will not be made for rejected products for any of the following reasons:
 1. Products wasted or disposed of in manner that is not acceptable.
 2. Products determined as unacceptable before or after placement.
 3. Products not completely unloaded from transporting vehicle.
 4. Products placed beyond lines and levels of the required Work.
 5. Products remaining on hand after completion of Work.
 6. Loading, hauling, and disposing of rejected products.

1.6 UNIT PRICES

- A. Authority: Measurement methods are delineated in Section 01 22 19.
- B. Measurement methods delineated in Section 01 22 19 complement criteria of this Section. In event of conflict, requirements of Section 01 22 19 governs.
- C. Engineer will take measurements and compute quantities accordingly. Provide assistance in taking measurements.
- D. Unit Quantities:
 1. Quantities and measurements indicated on Bid Form are for Contract purposes only.
 2. Actual quantities provided shall determine payment, except for unit price items noted as (Plan Quantity) on Bid Form.
 3. When actual Work requires more or fewer quantities than those quantities indicated, provide required quantities at contracted unit sum/prices.
- E. Payment Includes: Full compensation for required labor, products, tools, equipment, plant and facilities, transportation, services and incidentals; erection, application, or installation of item of the Work; overhead and profit.
- F. Final payment for Work governed by unit prices will be made on basis of actual measurements and quantities accepted by Engineer multiplied by unit sum/price for Work incorporated in or made necessary by Work.
- G. Measurement Devices:
 1. Weigh Scales: Inspected, tested, and certified by applicable State weights and measures department within past year.
 2. Platform Scales: Of sufficient size and capacity to accommodate conveying vehicle.

3. Metering Devices: Inspected, tested, and certified by applicable State department within past year.
- H. Measurement of Quantities:
1. Measurement by Weight: By scale weight and provide weigh tickets. Where weight measurements are indicated, concrete reinforcing steel, rolled or formed steel, or other metal shapes will be measured by handbook weights. Welded assemblies will be measured by handbook or scale weight. Unless indicated otherwise, measure weights in English tons (2,000 pounds).
 2. Measurement by Volume: Measured by cubic dimension using mean length, width, and height or thickness.
 3. Measurement by Area: Measured by square dimension using mean length and width or radius.
 4. Linear Measurement: Measured by linear dimension at item centerline or mean chord.
 5. Measurement by Unit: Measured by number of each unit of Work.
 6. Lump Sum: No measurement will be made.
- I. Measurement by Neat Line:
1. When indicated in individual Specification Section, unit price item will be measured by neat line.
 2. Neat line measurement will be calculated by area or volume of unit price item as indicated by dimensions shown on typical section or detail included on Drawings.
- J. When (Plan Quantity) is indicated on unit price item:
1. Accept estimated quantity on Bid Form as final quantity for which payment will be made, unless Engineer revises plan quantity through Change Order.
 2. Request adjustment to plan quantity on Bid Form if error is discovered in estimated quantity. Provide supporting documentation to verify error. Engineer will recalculate final quantity for payment.

PART 2 EXECUTION - Not Used

END OF SECTION

SECTION 01 22 19
UNIT PRICE MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
1. List of unit price bid items and referenced specification section.
 2. Basis of measurement for each unit price bid item.
 3. Basis of payment for each unit price bid item.
- B. Related Requirements:
1. Section 01 20 00 – Price and Payment Procedures.
 2. Section 01 33 00 – Submittal Procedures.
 3. Section 01 55 26A – Traffic Control.
 4. Section 01 71 13A – Mobilization and Demobilization.
 5. Section 02 32 19 – Exploratory Excavations.
 6. Section 33 14 12 – Water Utility System.

1.2 UNIT PRICES – MEASUREMENT AND PAYMENT

- A. Unit price bid items will be measured and paid in accordance with Table 1 and 2 below:

TABLE 1 MEASUREMENT AND PAYMENT – BASE BID		
ITEM NO.	DESCRIPTION	SECTION
1-1	Mobilization and Demobilization:	01 71 13A
	Basis of Measurement:	None – lump sum.
	Basis of Payment:	Includes mobilization to and from Project Site, field office, temporary utilities, temporary facilities, project signage, traffic control, removal, restoration of site, cleanup, and incidental work. Payments will be made in accordance with table included in Section 01 71 13A.
1-2	Traffic Control:	01 55 26A
	Basis of Measurement:	None - lump sum.
	Basis of Payment:	Includes traffic control plan, signs, barricades, barriers, other traffic control devices, flagging operations, pilot car operations, installation, maintenance, removal and incidental work. Payment will be based on percent complete of Contract.
1-3	Exploratory Excavation:	02 32 19
	Basis of Measurement:	By hour. Standby and mobilization time will not be measured.
	Basis of Payment:	Includes excavation, backfill, compaction, locating existing utilities by typical excavating methods, and incidental work.

TABLE 1 MEASUREMENT AND PAYMENT – BASE BID		
ITEM NO.	DESCRIPTION	SECTION
1-4	Install 8" Diameter C-900, DR 18 Waterline:	33 14 12
	Basis of Measurement:	By each unit for size indicated.
	Basis of Payment:	Includes excavation, pipe, fittings, connections, thrust restraint devices, bedding, backfill, compaction, cleaning, disinfection, bacteriological testing, and incidental work. Owner to furnish pipe, fittings, connections, and thrust restraint devices.
1-5	Install 8" Gate Valve:	33 14 12
	Basis of Measurement:	By each unit. Pipe will be measured separately.
	Basis of Payment:	Includes excavation, gate valve, fittings, valve box, valve key, collar, installation, cleaning, bedding, backfill, compaction, and incidental work. Owner to furnish gate valves, fittings and valve key.
1-6	Furnish and Install 8" Gate Valve:	33 14 12
	Basis of Measurement:	By each unit. Pipe will be measured separately.
	Basis of Payment:	Includes excavation, gate valve, fittings, valve box, valve key, collar, installation, cleaning, bedding, backfill, compaction, and incidental work.
1-7	Install 6" Gate Valve:	33 14 12
	Basis of Measurement:	By each unit.
	Basis of Payment:	Includes excavation, gate valve, fittings, valve box, valve key, collar, installation, cleaning, bedding, backfill, compaction, and incidental work. Owner to furnish gate valves, fittings and valve key.
1-8	Furnish and Install 6" Gate Valve:	33 14 12
	Basis of Measurement:	By each unit for size indicated.
	Basis of Payment:	Includes excavation, gate valve, fittings, valve box, valve key, collar, installation, cleaning, bedding, backfill, compaction, and incidental work.
1-9	Install Fire Hydrant:	33 14 12
	Basis of Measurement:	By linear foot for size indicated.
	Basis of Payment:	Includes excavation, fire hydrant, valve, fittings, installation, thrust restraint devices, cleaning, bedding, crushed rock, backfill, compaction, testing, hydrant wrenches, and incidental work. Owner to furnish fire hydrant, valve, fittings, and thrust restraint devices.
1-10	Connect to Existing 6" Waterline:	33 14 12
	Basis of Measurement:	By each unit for size indicated
	Basis of Payment:	Includes excavation, installation, pipe, fittings, bedding, backfill, testing, compaction and incidental work.
1-11	Furnish and Install 2" Service Connection:	33 14 12
	Basis of Measurement:	By each unit for size indicated.
	Basis of Payment:	Includes tapping main line, saddle, corporation stop, fittings, and incidental work.
1-12	Furnish and Install 2" Service Line:	34 14 12

TABLE 1 MEASUREMENT AND PAYMENT – BASE BID			
ITEM NO.	DESCRIPTION		SECTION
	Basis of Measurement:	By linear foot for size indicated.	
	Basis of Payment:	Includes pipe, fittings, bedding, excavation, augering or moling, backfill, compaction, connection as necessary, and incidental work.	
1-13	Furnish and Install Service Meter:		34 14 12
	Basis of Measurement:	By each unit for size indicated	
	Basis of Payment:	Includes excavation, setter, fittings, meter, barrel, ring and lid, bedding, backfill, compaction and incidental work.	
1-14	Furnish and Install 8" Fire Suppression Line Connection:		34 14 12
	Basis of Measurement:	By each unit for size indicated	
	Basis of Payment:	Includes tapping main line, saddle, corporation stop, fittings, and incidental work.	

TABLE 2 MEASUREMENT AND PAYMENT – BID ALTERNATE 1			
ITEM NO.	DESCRIPTION		SECTION
2-0	Furnish and Install Fire Hydrant:		33 14 12
	Basis of Measurement:	By linear foot for size indicated.	
	Basis of Payment:	Includes excavation, fire hydrant, valve, fittings, installation, thrust restraint devices, cleaning, bedding, crushed rock, backfill, compaction, testing, hydrant wrenches, and incidental work.	

TABLE 2 MEASUREMENT AND PAYMENT – BID ALTERNATE 2			
ITEM NO.	DESCRIPTION		SECTION
3-1	Furnish and Install 8" Diameter C-900, DR 18 Waterline:		33 14 12
	Basis of Measurement:	By each unit for size indicated.	
	Basis of Payment:	Includes excavation, pipe, fittings, connections, thrust restraint devices, bedding, backfill, compaction, cleaning, disinfection, bacteriological testing, and incidental work.	
3-2	Furnish and Install 8" Gate Valve:		33 14 12
	Basis of Measurement:	By each unit. Pipe will be measured separately.	
	Basis of Payment:	Includes excavation, gate valve, fittings, valve box, valve key, collar, installation, cleaning, bedding, backfill, compaction, and incidental work.	
3-3	Furnish and Install 6" Gate Valve:		33 14 12
	Basis of Measurement:	By each unit. Pipe will be measured separately.	
	Basis of Payment:	Includes excavation, gate valve, fittings, valve box, valve key, collar, installation, cleaning, bedding, backfill, compaction, and incidental work.	

3-4	Furnish and Install Fire Hydrant:		33 14 12
	Basis of Measurement:	By linear foot for size indicated.	
	Basis of Payment:	Includes excavation, fire hydrant, valve, fittings, installation, thrust restraint devices, cleaning, bedding, crushed rock, backfill, compaction, testing, hydrant wrenches, and incidental work.	
3-5	Connect to Existing 2" Waterline:		33 14 12
	Basis of Measurement:	By each unit for size indicated	
	Basis of Payment:	Includes excavation, installation, pipe, fittings, bedding, backfill, testing, compaction and incidental work.	
3-6	Connect to Existing 10" Waterline:		33 14 12
	Basis of Measurement:	By each unit for size indicated	
	Basis of Payment:	Includes excavation, installation, pipe, fittings, bedding, backfill, testing, compaction and incidental work.	

PART 2 PRODUCTS – Not Used

PART 3 EXECUTION – Not Used

END OF SECTION

SECTION 01 30 00
ADMINISTRATIVE REQUIREMENTS

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Coordination and project conditions.
 - 2. Preconstruction meeting.
 - 3. Progress meetings.
 - 4. Pre-installation meetings.
 - 5. Post-construction meeting.
 - 6. Alteration procedures.
- B. Related Requirements:
 - 1. Section 01 70 00 - Execution and Closeout Requirements.

1.2 COORDINATION AND PROJECT CONDITIONS

- A. Coordinate scheduling, submittals, and Work of various Sections of Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements.
- B. Verify that utility requirements and characteristics of operating equipment are compatible with building utilities. Coordinate Work of various Sections having interdependent responsibilities for installing, connecting to, and placing operating equipment in service.
- C. Coordination Drawings: Prepare, as required, to coordinate all portions of Work. Show relationship and integration of different construction elements that require coordination during fabrication or installation to fit in space provided or to function as intended. Indicate locations where space is limited for installation and access, and where sequencing and coordination of installations are important.
- D. Coordination Meetings: In addition to other meetings specified in this Section, hold coordination meetings with personnel and Subcontractors to ensure coordination of Work.
- E. In finished areas except as otherwise indicated, conceal pipes, ducts, and wiring within construction. Coordinate locations of fixtures and outlets with finish elements.
- F. Proceed with Work in timely manner to minimize delays and inconveniences.
- G. Coordinate types of equipment used with site conditions encountered.

- H. Provide written notification to Owner, residents, and businesses at least 24 hours in advance of water shut offs. Minimize time water is shut-off. If water will be shut-off more than 8 hours, then provide temporary service lines to residents and businesses.
- I. Provide written notification to residents and businesses at least 24 hours before blocking driveways. Do not block driveways for more than 8 consecutive hours. If driveway is for business access and no other access can be provided, then block driveway in half sections to maintain access to business at all times.

1.3 PRECONSTRUCTION MEETING

- A. Engineer will schedule and preside over meeting after bonds have been received and agreement has been signed by Contractor.
- B. Attendance Required: Engineer, Owner, Resident Project Representative, appropriate governmental agency representatives, appropriate major Subcontractors, job superintendent and other appropriate Contractor representatives.
- C. Minimum Agenda:
 - 1. General discussion of contract.
 - 2. Submission of list of Subcontractors, list of material suppliers, list of major construction equipment, schedule of values, and Progress Schedule.
 - 3. Designation of personnel representing parties in Contract, and Engineer.
 - 4. Communication procedures.
 - 5. Procedures and processing of requests for interpretations, field decisions, field orders, submittals, substitutions, Applications for Payments, proposal request, Change Orders, and Contract closeout procedures.
 - 6. Scheduling.
 - 7. Other items specific to Work.
- D. Engineer will prepare record of meeting and distribute copies to participants within two days after meeting.

1.4 PROGRESS MEETINGS

- A. Owner will schedule and administer meetings throughout progress of Work at maximum weekly intervals.
- B. Owner will make arrangements for meetings, prepare agenda with copies for participants, and preside over meetings.
- C. Attendance Required: Job superintendent, major Subcontractors and suppliers, Engineer, and Owner, as appropriate to agenda topics for each meeting.

- D. Minimum Agenda:
 - 1. Review minutes of previous meetings.
 - 2. Review of Work progress.
 - 3. Field observations, problems, and decisions.
 - 4. Identification of problems impeding planned progress.
 - 5. Review of submittal schedule and status of submittals.
 - 6. Review of off-Site fabrication and delivery schedules.
 - 7. Maintenance of Progress Schedule.
 - 8. Corrective measures to regain projected schedules.
 - 9. Planned progress during succeeding work period.
 - 10. Coordination of projected progress.
 - 11. Maintenance of quality and work standards.
 - 12. Effect of proposed changes on Progress Schedule and coordination.
 - 13. Other business relating to Work.
- E. Owner will prepare record of meeting and distribute copies to participants within two days after meeting.

1.5 POST-CONSTRUCTION MEETING

- A. Engineer will schedule and preside over meeting after substantial and final completion requirements have been met by contractor.
- B. Attendance Required: Engineer, Owner, Resident Project Representative, appropriate governmental agency representatives, appropriate major Subcontractors, job superintendent and other appropriate Contractor representatives.
- C. Minimum Agenda:
 - 1. Review of project dates.
 - 2. Review of each parties' responsibilities.
 - 3. Discussion on any additional contract items or items that deserve attention.
 - 4. Review of final items required to finish project.
 - 5. Review of important project warranties.
 - 6. Designation of post construction contact personnel.
 - 7. Review of warranty claim flow chart.
- D. Engineer will prepare record of meeting and distribute copies to participants within two days after meeting.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION – Not Used

END OF SECTION

SECTION 01 33 00
SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Definitions.
 - 2. Submittal schedule.
 - 3. Submittal procedures.
 - 4. Construction Progress Schedule.
 - 5. Product data.
 - 6. Shop Drawings.
 - 7. Samples.
 - 8. Closeout submittals.
 - 9. Test reports.
 - 10. Certificates.
 - 11. Manufacturer's instructions.
 - 12. Manufacturer's field reports.
 - 13. Contractor review.
 - 14. Engineer review.

1.2 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Engineer's, Owner's, or construction team's responsive action.
- B. Informational Submittals: Written and graphic information and physical Samples that do not require Engineer's responsive action. Submittals may be rejected for not complying with requirements.

1.3 SUBMITTAL SCHEDULE

- A. Engineer will create summary of submittals to indicate Submittals required for Project and provide electronic copy to Contractor in Microsoft Excel format. Use summary of submittals provided by Engineer to create Schedule of Submittals.
- B. Include following on Schedule of Submittals:
 - 1. Submit by Date: Date submittal will be delivered to Engineer.
 - 2. Review by Date: Date submittal will be reviewed by Engineer and returned to Contractor. Unless agreed otherwise in writing by Contractor and Engineer, will be 10 business days after date Submittal is delivered to Engineer.
- C. Submit Schedule of Submittals via Email within 10 business days of Notice of Award.

- D. If during progress of Work additional Submittals are identified, update Schedule of Submittals to include additional Submittals.
- E. Submittal dates are intended for scheduling purposes and may be adjusted as needed during progress of Work and as agreed upon by Contractor and Engineer.

1.4 SUBMITTAL PROCEDURES

- A. Unless indicated otherwise, provide submittals in electronic portable document format (PDF). Deliver to Engineer by email.
- B. For non-PDF Submittals, transmit each Submittal with transmittal or cover letter and deliver to Engineer at business address.
- C. Mark Submittals with submittal number indicated on Schedule of Submittals. Mark revised Submittals with original number and sequential alphabetic suffix.
- D. Identify: Project, Contractor, Subcontractor and supplier, pertinent Drawing and detail number, and specification section number appropriate to Submittal.
- E. Apply Contractor's stamp, signed or initialed, certifying that review, approval, verification of products required, field dimensions, adjacent construction Work, and coordination of information is according to requirements of Work and Contract Documents.
- F. Schedule Submittals to expedite Project, and coordinate submission of related items.
- G. For each Submittal for review, allow 10 business days, excluding delivery time to and from Contractor where applicable.
- H. Identify variations in Contract Documents and product or system limitations that may be detrimental to successful performance of completed Work.
- I. Allow space on Submittals for Contractor and Engineer review stamps.
- J. When revised for resubmission, identify changes made since previous submission.
- K. Distribute copies of reviewed Submittals as appropriate. Instruct parties to promptly report inability to comply with requirements.
- L. Submittals not requested will not be recognized nor processed.

- M. Incomplete Submittals: Engineer will not review. Provide complete Submittals for each required item. Delays resulting from incomplete Submittals are not responsibility of Engineer.

1.5 CONSTRUCTION PROGRESS SCHEDULE

- A. Submit construction Progress Schedule before or at Preconstruction Meeting.
- B. Revise and resubmit at least monthly with each Application for Payment.
- C. Show complete sequence of construction by activity, identifying Work of separate stages/phases and other logically grouped activities.

1.6 PRODUCT DATA

- A. Product Data:
 - 1. Action submittal.
 - 2. Submit to Engineer for review for assessing conformance with information given and design concept expressed in Contract Documents.
 - 3. Submit as PDF electronic files.
- B. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- C. Indicate product utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- D. After review, distribute copies according to submittal procedures.

1.7 SHOP DRAWINGS

- A. Shop Drawings:
 - 1. Action submittal.
 - 2. Submit to Engineer for assessing conformance with information given and design concept expressed in Contract Documents.
 - 3. Submit as PDF electronic files.
- B. Indicate special utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- C. When required by individual specification sections, provide Shop Drawings signed and sealed by professional engineer responsible for designing components shown on Shop Drawings.

1. Include signed and sealed calculations to support design.
 2. Submit Shop Drawings and calculations in form suitable for submission to and approval by authorities having jurisdiction.
 3. Make revisions and provide additional information when required by authorities having jurisdiction.
- D. After review, distribute copies according to submittal procedures.

1.8 SAMPLES

- A. Samples:
1. Action submittal.
 2. Submit to Engineer for assessing conformance with information given and design concept expressed in Contract Documents.
- B. Samples for Selection as Specified in Product Sections:
1. Submit to Engineer for aesthetic, color, and finish selection.
 2. Submit Samples of finishes, textures, and patterns for Engineer selection.
- C. Submit Samples to illustrate functional and aesthetic characteristics of products, with integral parts and attachment devices. Coordinate Sample submittals for interfacing work.
- D. Include identification on each Sample, with full Project information.
- E. Submit number of Samples specified in individual specification sections. If number of Samples is not specified, submit at least two Samples. Engineer will retain one Sample.
- F. Reviewed Samples that may be used in Work are indicated in individual specification sections.
- G. After review, produce copies and distribute according to submittal procedures.

1.9 CLOSEOUT SUBMITTALS

- A. Closeout Submittals: Comply with General Conditions and Section 01 70 00.
- B. Informational Submittal: Submit data for Engineer's knowledge as Contract administrator or for Owner.
- C. Submit information for assessing conformance with information given and design concept expressed in Contract Documents.
- D. Unless indicated otherwise, submit as PDF electronic files.

1.10 TEST REPORTS

- A. Informational Submittal: Submit reports for Engineer's knowledge as Contract administrator or for Owner.
- B. Submit test reports for information for assessing conformance with information given and design concept expressed in Contract Documents.
- C. Submit as PDF electronic files.

1.11 CERTIFICATES

- A. Informational Submittal: Submit certification by manufacturer, installation/application Subcontractor, or Contractor to Engineer.
- B. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
- C. Certificates may be recent or previous test results on material or product but must be acceptable to Engineer.
- D. Submit as PDF electronic files.

1.12 MANUFACTURER'S INSTRUCTIONS

- A. Informational Submittal: Submit manufacturer's installation instructions for Engineer's knowledge as Contract administrator or for Owner.
- B. Submit instructions for delivery, storage, assembly, installation, startup, adjusting, and finishing to Engineer.
- C. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.
- D. Submit as PDF electronic files.

1.13 MANUFACTURER'S FIELD REPORTS

- A. Informational Submittal: Submit reports for Engineer's knowledge as Contract administrator or for Owner.
- B. Submit report within 5 days of observation to Engineer for information.
- C. Submit reports for information for assessing conformance with information given and design concept expressed in Contract Documents.
- D. Submit as PDF electronic files.

1.14 CONTRACTOR REVIEW

- A. Review submittals for compliance with Contract Documents and approve submittals before transmitting to Engineer, otherwise submittal will be returned to Contractor.
- B. Contractor is responsible for:
 - 1. Determination and verification of materials including manufacturer's catalog numbers.
 - 2. Determination and verification of field measurements and field construction criteria.
 - 3. Checking and coordinating information in submittal with requirements of Work and of Contract Documents.
 - 4. Determination of accuracy and completeness of dimensions and quantities.
 - 5. Confirmation and coordination of dimensions and field conditions at Site.
 - 6. Construction means, techniques, sequences, and procedures.
 - 7. Safety precautions.
 - 8. Coordination and performance of Work of all trades.
- C. Stamp, sign or initial, and date each submittal to certify compliance with requirements of Contract Documents.
- D. Do not fabricate products or begin Work for which submittals are required until acceptance of submittals have been received from Engineer.

1.15 ENGINEER REVIEW

- A. Informational submittals and other similar data are for Engineer's information, do not require Engineer's responsive action, and will not be reviewed or returned with comment.
- B. Submittals made by Contractor that are not required by Contract Documents may be returned without action.
- C. Acceptance of Submittal does not authorize changes to Contract requirements unless accompanied by Change Order, Field Order, or Work Change Directive.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION - Not Used

END OF SECTION

SECTION 01 70 00
EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Section Includes:
 - 1. Field engineering.
 - 2. Closeout procedures.
 - 3. Starting of systems.
 - 4. Demonstration and instructions.
 - 5. Project record documents.
 - 6. Operation and maintenance data.
 - 7. Manual for materials and finishes.
 - 8. Manual for equipment and systems.
 - 9. Spare parts and maintenance products.
 - 10. Product warranties and product bonds.
 - 11. Examination.
 - 12. Preparation.
 - 13. Execution.
 - 14. Cutting and patching.
 - 15. Protecting installed construction.
 - 16. Final cleaning.
- B. Related Requirements:
 - 1. Section 01 33 00 – Submittal Procedures.
- C. Employ land surveyor registered in State of Utah.
- D. Locate and protect survey control and reference points prior to starting Site Work. Preserve permanent reference points during construction. Promptly notify Engineer of discrepancies discovered.
- E. Control datum for survey is indicated on Drawings.
- F. Provide field engineering services. Establish elevations, lines, and levels using recognized engineering survey practices. Provide minimum field engineering services as follows:
 - 1. Roadway/Parking Lot:
 - a. Excavation: Slope stakes at 100-foot stations on tangents and 50-foot stations as needed on curves.
 - b. Subgrade: Red heads at center line and each shoulder at 100-foot stations.
 - c. Top of Granular Borrow: Red head at center line and each shoulder at 100-foot stations.
 - d. Top of Untreated Base Course: Red heads at center line and each shoulder at 50-foot stations.

- e. If Contractor uses grade control, staking will be reduced to 200-foot stations and provide pavement line.
- 2. Other Site Improvements:
 - a. Excavation: Slope stakes at 100-foot stations on tangents and 50-foot stations as needed on curves.
 - b. Finish Grade: Red heads at 50-foot stations.
 - c. Curb and Gutter: Offset stakes with alignment and cut/fill to top back of curb at 50-foot stations.
- G. Prior to beginning Work, verify and establish floor elevations of existing facilities and elevations of existing improvements to ensure that new Work will match existing elevations, except where specifically detailed or indicated otherwise.
- H. Maintain complete and accurate log of control and survey Work as Work progresses.
- I. Promptly notify Engineer of loss or destruction of reference point or relocation required because of changes in grades or other reasons.
- J. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to Engineer.

1.2 CLOSEOUT PROCEDURES

- A. Prerequisites to Substantial Completion: Complete following items before requesting Certification of Substantial Completion, either for entire Work or for portions of Work:
 - 1. Complete facility startup, testing, adjusting, balancing of systems and equipment, demonstrations, and instructions to Owner's operating and maintenance personnel as specified in compliance with this Section.
 - 2. Conduct inspection to establish basis for request that Work is substantially complete. Create comprehensive list (initial punch list) indicating items to be completed or corrected, value of incomplete or nonconforming Work, reason for being incomplete, and date of anticipated completion for each item. Include copy of list with request for Certificate of Substantial Completion.
 - 3. Discontinue or change over and remove temporary facilities and services from Project Site, along with construction tools, mockups, and similar elements.
 - 4. Perform final cleaning according to this Section.
- B. Substantial Completion Inspection:
 - 1. When Contractor considers Work to be substantially complete, submit to Engineer and Owner:

- a. Written certificate that Work, or designated portion, is substantially complete.
 - b. List of items to be completed or corrected (initial punch list).
 2. After receipt of request for Substantial Completion, Engineer will schedule inspection with Owner and Contractor to determine whether Work or designated portion is substantially complete.
 3. When Engineer and Owner find that Work is substantially complete, Engineer will prepare Certificate of Substantial Completion accompanied by list of items to be completed or corrected (final punch list).
 4. After Work is substantially complete, Contractor shall:
 - a. Allow Owner occupancy of Project under provisions stated in Certificate of Substantial Completion.
 - b. Complete Work listed for completion or correction within time period stipulated.
- C. Prerequisites for Final Completion: Complete following items before requesting final acceptance and final payment.
 1. When Contractor considers Work to be complete, submit written certification that:
 - a. Work has been examined for compliance with Contract Documents.
 - b. Work has been completed according to Contract Documents.
 - c. Work is completed and ready for final inspection.
 2. Submittals: Submit final punch list indicating all items have been completed or corrected
 3. Perform final cleaning for Contractor-soiled areas according to this Section.
- D. Final Completion Inspection:
 1. After receipt of request for final inspection, Engineer will schedule final inspection with Owner and Contractor to determine whether Work or designated portion is complete.
 2. Should Engineer and Owner consider Work to be incomplete or defective:
 - a. Engineer will promptly notify Contractor in writing, listing incomplete or defective Work.
 - b. Contractor shall remedy stated deficiencies.
 - c. Repeat as necessary until Work passes Engineer's and Owner's inspection.

1.3 STARTING OF SYSTEMS

- A. Coordinate schedule for startup of various equipment and systems.
- B. Notify Engineer and Owner at least seven days prior to startup of each item.

- C. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for conditions which may cause damage.
- D. Verify that tests, meter readings, and electrical characteristics agree with those required by equipment or system manufacturer.
- E. Verify that wiring and support components for equipment are complete and tested.
- F. Execute startup under supervision of manufacturer's representative or Contractors' personnel according to manufacturer's instructions.
- G. When specified in individual Specification Sections, require manufacturer to provide authorized representative who will be present at Site to inspect, check, and approve equipment or system installation prior to startup and will supervise placing equipment or system in operation.

1.4 DEMONSTRATION AND INSTRUCTIONS

- A. Demonstrate operation and maintenance of products to Owner's personnel prior to Final Completion.
- B. For equipment or systems requiring seasonal operation, perform demonstration for each season.
- C. Use operation and maintenance manuals as basis for instruction. Review contents of manual with Owner's personnel in detail to explain all aspects of operation and maintenance.
- D. Demonstrate startup, operation, control, adjustment, troubleshooting, servicing, maintenance, and shutdown of each item of equipment at agreed time and location.
- E. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.
- F. Provide additional demonstrations and instructions for each item of equipment and system is specified in individual Specification Sections.

1.5 PROJECT RECORD DOCUMENTS

- A. Maintain on Site one set record documents as follows; record actual revisions to Work:
 - 1. Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Change Orders and other modifications to Contract.

5. Reviewed Shop Drawings, product data, and samples.
 6. Manufacturer's instruction for assembly, installation, and adjusting.
- B. Ensure entries are complete and accurate, enabling future reference by Owner.
- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress, not less than weekly.
- E. Specifications: Legibly mark and record, at each product Section, description of actual products installed, including the following:
1. Manufacturer's name and product model and number.
 2. Product substitutions or alternates used.
 3. Changes made by Addenda and modifications.
- F. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction as follows:
1. Include Contract modifications such as Addenda, supplementary instructions, change directives, field orders, minor changes in Work, and change orders.
 2. Include locations of concealed elements of Work.
 3. Identify depth of buried utility lines and provide dimensions showing distances from permanent facility components that are parallel to utilities.
 4. Dimension ends, corners, and junctions of buried utilities to permanent facility components using triangulation.
 5. Identify and locate existing buried or concealed items encountered during Project.
 6. Measured depths of foundations in relation to finish main floor datum.
 7. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 8. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of Work.
 9. Field changes of dimension and detail.
 10. Details not on original Drawings.
- G. Submit marked-up paper copy documents to Engineer with claim for final Application for Payment.

1.6 OPERATION AND MAINTENANCE DATA

- A. Submit data in PDF composite electronic indexed file and 3 hard copies bound in 8-1/2 by 11-inch text pages, three ring binders and with durable plastic covers.

- B. Prepare binder cover with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS," title of Project, and subject matter of binder when multiple binders are required.
- C. Internally subdivide binder contents with permanent page dividers, logically organized as described below; with tab titling clearly printed under reinforced laminated plastic tabs.
- D. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages. For large format drawings which cannot be reasonably folded or reduced in size, provide neat, clean, and organized set.
- E. Contents: Prepare table of contents for each volume, with each product or system description identified, typed on white paper, in three parts as follows:
 - 1. Part 1: Directory, listing names, addresses, and telephone numbers of Engineer, Contractor, Subcontractors, and major equipment suppliers.
 - 2. Part 2: Operation and maintenance instructions, arranged by system and subdivided by Specification Section. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers. Include information as follows:
 - a. Significant design criteria.
 - b. List of equipment.
 - c. Parts list for each component.
 - d. Operating instructions.
 - e. Maintenance instructions for equipment and systems.
 - f. Maintenance instructions for finishes, including recommended cleaning methods and materials, and special precautions identifying detrimental agents.
 - g. Safety precautions to be taken when operating and maintaining or working near equipment.
 - 3. Part 3: Project documents and certificates, including information as follows:
 - a. Shop Drawings and product data.
 - b. Air and water balance reports.
 - c. Certificates.
 - d. Photocopies of warranties and bonds.

1.7 MANUAL FOR MATERIALS AND FINISHES

- A. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. Engineer will review draft and return one copy with comments.

- B. For equipment or component parts of equipment put into service during construction and operated by Owner, submit documents within ten days after acceptance.
- C. Submit one copy of completed volumes before Substantial Completion. Draft copy be reviewed and returned after Substantial Completion, with Engineer comments. Revise content of document sets as required prior to final submission.
- D. Submit PDF composite electronic indexed file of final manual or two sets of hard copies of revised final volumes within ten days after final inspection.
- E. Building Products, Applied Materials, and Finishes: Include product data, with catalog number, size, composition, and color and texture designations. Include information for re-ordering custom-manufactured products.
- F. Instructions for Care and Maintenance: Include manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- G. Moisture Protection and Weather Exposed Products: Include product data listing applicable reference standards, chemical composition, and details of installation. Include recommendations for inspections, maintenance, and repair.
- H. Additional Requirements: As specified in individual product Specification Sections.
- I. Include listing in table of contents for design data, with tabbed fly sheet and space for insertion of data.

1.8 MANUAL FOR EQUIPMENT AND SYSTEMS

- A. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. Engineer will review draft and return one copy with comments.
- B. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit documents within ten days after acceptance.
- C. Submit one copy of completed volumes before Substantial Completion. Draft copy will be reviewed and returned after Substantial Completion, with Engineer comments. Revise content of document sets as required prior to final submission.

- D. Submit PDF composite electronic indexed file of final manual or two sets of hard copies of revised final volumes within ten days after final inspection.
- E. Each Item of Equipment and Each System: Include description of unit or system and component parts. Identify function, normal operating characteristics, and limiting conditions. Include performance curves, with engineering data and tests, and complete nomenclature and model number of replaceable parts.
- F. Panelboard Circuit Directories: Provide electrical service characteristics, controls, and communications; typed.
- G. Include color-coded wiring diagrams as installed.
- H. Operating Procedures: Include startup, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shutdown, and emergency instructions. Include summer, winter, and special operating instructions.
- I. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and troubleshooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- J. Include servicing and lubrication schedule and list of lubricants required.
- K. Include manufacturer's printed operation and maintenance instructions.
- L. Include sequence of operation by controls manufacturer.
- M. Include original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- N. Include control diagrams by controls manufacturer as installed.
- O. Include Contractor's coordination drawings with color-coded piping diagrams as installed.
- P. Include charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
- Q. Include list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
- R. Include test and balancing reports as specified.
- S. Additional Requirements: As specified in individual product Specification Sections.

- T. Include listing in table of contents for design data with tabbed dividers and space for insertion of data.

1.9 SPARE PARTS AND MAINTENANCE PRODUCTS

- A. Furnish spare parts, maintenance, and extra products in quantities specified in individual Specification Sections.
- B. Deliver to Project Site and place in location as directed by Owner; obtain receipt prior to final payment.

1.10 PRODUCT WARRANTIES AND PRODUCT BONDS

- A. Obtain warranties and bonds executed in duplicate by responsible Subcontractors, suppliers, and manufacturers.
- B. Execute and assemble transferable warranty documents and bonds from Subcontractors, suppliers, and manufacturers.
- C. Verify documents are in proper form, contain full information, and are notarized.
- D. Co-execute submittals when required.
- E. Include table of contents and assemble in three ring binder with durable plastic cover.
- F. Submit prior to final Application for Payment.
- G. Time of Submittals:
 - 1. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within ten days after acceptance.
 - 2. Make other submittals prior to final Application for Payment.
 - 3. For items of Work for which acceptance is delayed beyond Substantial Completion, submit within ten days after acceptance, listing date of acceptance as beginning of warranty or bond period.

PART 2 PRODUCTS - Not Used

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify that existing Site conditions and substrate surfaces are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.

- B. Verify that existing substrate is capable of structural support or attachment of new Work being applied or attached.
- C. Examine and verify specific conditions described in individual Specification Sections.
- D. Verify that utility services are available with correct characteristics and in correct locations.

3.2 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance according to manufacturer's instructions.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer-required or -recommended substrate primer, sealer, or conditioner prior to applying new material or substance in contact or bond.

3.3 EXECUTION

- A. Comply with manufacturer's installation instructions, performing each step-in sequence. Maintain one set of manufacturer's installation instructions at Project Site during installation and until completion of construction.
- B. When manufacturer's installation instructions conflict with Contract Documents, request clarification from Engineer before proceeding.
- C. Verify that field measurements are as indicated on approved Shop Drawings or as instructed by manufacturer.
- D. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.
 - 1. Secure Work true to line and level and within specified tolerances, or if not specified, industry-recognized tolerances.
 - 2. Physically separate products in place, provide electrical insulation, or provide protective coatings to prevent galvanic action or corrosion between dissimilar metals.
 - 3. Exposed Joints: Provide uniform joint width and arrange to obtain best visual effect. Refer questionable visual-effect choices to Engineer for final decision.
- E. Allow for expansion of materials and building/structure movement.
- F. Climatic Conditions and Project Status: Install each unit of Work under conditions to ensure best possible results in coordination with entire Project.

1. Isolate each unit of Work from incompatible Work as necessary to prevent deterioration.
 2. Coordinate enclosure of Work with required inspections and tests to minimize necessity of uncovering Work for those purposes.
- G. Mounting Heights: Where not indicated, mount individual units of Work at industry recognized standard mounting heights for particular application indicated.
1. Refer questionable mounting heights choices to Engineer for final decision.
 2. Accessible Elements and Space: Comply with applicable codes and regulations.
- H. Adjust operating products and equipment to ensure smooth and unhindered operation.
- I. Clean and perform maintenance on installed Work as frequently as necessary through remainder of construction period. Lubricate operable components as recommended by manufacturer.

3.4 PROTECTING INSTALLED CONSTRUCTION

- A. Protect installed Work and provide special protection where specified in individual Specification Sections.
- B. Provide temporary and removable protection for installed products. Control activity in immediate Work area to prevent damage.
- C. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- D. Use durable sheet materials to protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects.
- E. Prohibit traffic or storage upon waterproofed or roofed surfaces. When traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- F. Prohibit traffic from landscaped areas.

3.5 FINAL CLEANING

- A. Execute final cleaning prior to final Project assessment. Employ experienced personnel or professional cleaning firm.
- B. Clean equipment and fixtures to sanitary condition with appropriate cleaning materials.

- C. Clean furnishings and finishes in accordance with requirements set forth in associated Specification Sections.
- D. Clean or replace filters of operating equipment.
- E. Clean debris from roofs, gutters, downspouts, and drainage systems.
- F. Clean Site; sweep paved areas, rake clean landscaped surfaces.
- G. Remove waste and surplus materials, rubbish, and construction facilities from Site.

END OF SECTION

SECTION 02 32 19
EXPLORATORY EXCAVATIONS

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Excavating to locate existing utilities.
 - 2. Coordinating location of existing utilities with new utilities.
- B. Related Requirements:
 - 1. Section 33 14 12 – Water Utility System.

1.2 DEFINITIONS

- A. Exploratory Excavation: Excavation by conventional backhoe or trackhoe to locate existing utilities.
- B. Trenchless Exploratory Excavation: Excavation by vacuum using high velocity air stream to remove materials or other acceptable method to locate existing utilities. Use method that produces no more than one-to-two-foot square area of disturbance and as deep as necessary to expose buried utility.

1.3 SUBMITTALS

- A. Submit description of method and equipment to be used for trenchless exploratory excavation.

1.4 EXISTING CONDITIONS

- A. Verify field location of existing utilities and coordinate with location of new utilities prior to installation.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Bedding: Use bedding material as indicated below, unless utility company requires otherwise.
 - 1. Excavated material consisting of loam, sandy clay, sand, or gravel which is free from clods and rocks larger than 3/8-inch, frozen material, organic material, and debris.
 - 2. If excavated material is unsuitable for bedding, import bedding consisting of loam, sandy clay, sand, or gravel which is free from clods and rocks larger than 3/8-inch, frozen material, organic material, and debris.

- B. Backfill: Use excavated material or imported material as follows:
 - 1. Excavated Material: Material originating from trench which are free from rubbish, debris, organic material, frozen material, or other objectionable material.
 - a. May include rocks originating from trench and not exceeding 4 inches.
 - b. May include broken concrete and asphalt pavement originating from trench and not exceeding 4 inches.
 - 2. Imported Material: Imported soil with 4-inch maximum gradation and free from frozen material, organic material, debris, and other objectionable material.
- C. Tracer Wire and Locator Tape: Match existing materials or provide equal materials. Provide water tight connectors where necessary.
- D. Warning Tape: Match existing materials or provide equal materials.

PART 3 EXECUTION

3.1 PREPARATION

- A. Identify location of new utility lines.
- B. Protect plant life, lawns, fences, existing structures, sidewalks, paving, curbs, and other features remaining.
- C. Protect bench marks and control points.
- D. Call Blue Stakes at 811 not less than two working days before performing Work. Request underground utilities to be located and marked within and surrounding construction areas.
- E. When working on shoulders or within roadway, place barricades, warning signs, and flag persons as needed to protect public and Work in accordance with Section 01 55 26 – Traffic Control.

3.2 EXCAVATION

- A. Where necessary use trenchless excavation methods to determine horizontal and vertical location of existing utilities.
- B. At other locations, use conventional, trenchless, or other acceptable methods to determine horizontal and vertical location of existing utilities.
- C. Use existing utility location information to determine best suitable location for new utilities. If there are conflicts with existing and new utility locations, notify Engineer.

3.3 BEDDING

- A. Place bedding at sides and over top of exposed utility line. Place bedding in layers not exceeding 6 inches compacted depth. Place bedding to total depth of 12 inches surrounding utility line.
- B. Compact bedding to 96 percent of maximum laboratory density.
- C. Maintain moisture content of bedding within plus or minus 2 percent of optimum.

3.4 BACKFILL

- A. When using excavated or imported materials, backfill trenches in accordance with Section 31 23 16.
- B. Grade surplus material to blend in with existing contours or remove surplus materials from site.
- C. Restore surface improvements to equal or better condition as existed prior to construction.
- D. Make roadway repairs or construct temporary gravel surface immediately after backfill is placed. Maintain temporary gravel surface until final surface is placed.

3.5 PROTECTION

- A. Protect existing utilities from damage or displacement. Repair or replace if damaged.
- B. Protect locating service wires, such as tracer wire. Repair or replace if damaged.
- C. Replace damaged or removed warning tape. If 3 feet or more of warning tape is damaged or removed, install new warning tape in excavated area.

END OF SECTION

SECTION 33 14 12
WATER UTILITY SYSTEM

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Section Includes:
 - 1. Pipe, fittings, valves, and accessories for culinary water lines.
 - 2. Service connections, pipe line, meters and accessories.
 - 3. Fire hydrants.
 - 4. Thrust restraint devices.
 - 5. Disinfection.
 - 6. Pressure testing.
- B. Related Requirements:
 - 1. Section 01 33 00 - Submittal Procedures.
 - 2. Section 31 23 16A Part 3.9 - Trenching.

1.2 REFERENCE STANDARDS

- A. ASTM International (ASTM):
 - 1. ASTM A48 – Standard Specification for Gray Iron Castings.
 - 2. ASTM B88 – Standard Specification for Seamless Copper Water Tube.
 - 3. ASTM C361 – Standard Specification for Reinforced Concrete Low-Head Pressure Pipe.
 - 4. ASTM C443 – Standard Specification for Joints for Concrete Pipe and Manholes, Using Rubber Gaskets.
 - 5. ASTM C478 – Standard Specification for Circular Precast Reinforced Concrete Manhole Sections.
 - 6. ASTM C923 – Standard Specification for Resilient Connectors between Reinforced Concrete Manhole Structures, Pipes, and Laterals.
 - 7. ASTM D2239 – Standard Specification for Polyethylene (PE) Plastic Pipe (SDR-PR) Based on Controlled Inside Diameter.
 - 8. ASTM D2241 – Standard Specification for Poly (Vinyl Chloride) (PVC) Pressure-Rated Pipe (SDR Series).
 - 9. ASTM D2737 – Standard Specification for Polyethylene (PE) Plastic Tubing.
 - 10. ASTM D2774 – Standard Practice for Underground Installation of Thermoplastic Pressure Piping.
 - 11. ASTM F477 – Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe.
 - 12. ASTM F2164 - Standard Practice for Field Leak Testing of Polyethylene (PE) and Crosslinked Polyethylene (PEX) Pressure Piping Systems Using Hydrostatic Pressure.

- B. American Water Works Association (AWWA):
1. AWWA C104 – Standard for Cement-Mortar Lining for Ductile-Iron Pipe and Fittings.
 2. AWWA C115 – Standard for Flanged Ductile-Iron Pipe with Ductile-Iron or Gray-Iron Threaded Flanges.
 3. AWWA C151 – Standard for Ductile-Iron Pipe, Centrifugally Cast.
 4. AWWA C153 – Standard for Ductile-Iron Compact Fittings for Water Service.
 5. AWWA C502 – Standard for Dry-Barrel Fire Hydrants.
 6. AWWA C504 – Standard for Rubber-Seated Butterfly Valves.
 7. AWWA C509 – Standard for Resilient-Seated Gate Valves for Water Supply Service.
 8. AWWA C600 – Standard for Installation of Ductile-Iron Mains and Their Appurtenances.
 9. AWWA C651 – Standard for Disinfecting Water Mains.
 10. AWWA C700 – Cold-Water Meters—Displacement Type, Metal Alloy Main Case.
 11. AWWA C800 – Standard for Underground Service Line Valves and Fittings.
 12. AWWA C900 – Standard for Polyvinyl Chloride (PVC) Pressure Pipe and Fabricated Fittings, 4 In. through 60 In. (100 mm through 1,500 mm).
 13. AWWA C901 – Standard for Polyethylene (PE) Pressure Pipe and Tubing, ½ In. (13 mm) - 3 In. (76 mm) for Water Service.
 14. AWWA C906 – Standard for Polyethylene (PE) Pressure Pipe and Fittings, 4 In. through 65 In. (100 mm through 1,650 mm), for Waterworks.
 15. AWWA M23 – PVC Pipe-Design and Installation.
 16. AWWA M55 – PE Pipe-Design and Installation.
- C. National Sanitation Foundation (NSF):
1. NSF-14 - Standard for Thermoplastic Materials, Pipe, Fittings, Valves, Traps and Joining Materials.
 2. NSF 61 – Drinking Water System Components – Health Effects.
- D. Plastics Pipe Institute (PPI):
1. Handbook of Polyethylene Pipe.

1.3 DEFINITIONS:

- A. Abandon existing lines: After new water main lines are ready for use, cut and plug existing water main lines that will no longer be used. Remove existing fittings such as valves, tees and crosses which are no longer required, and add piping as necessary to make repairs. Completely remove surface items, such as valve boxes. Do not leave abandoned lines under pressure. Abandoning lines is incidental to pipe work.

- B. Bedding: Fill placed under, beside, and directly over pipe to 12 inches above top of pipe, prior to subsequent backfill operations.

1.4 SYSTEM REQUIREMENTS

- A. Minimum Burial Depth: 4 feet for main lines, except 5 feet required within UDOT right-of-way.

1.5 SUBMITTALS

- A. Product Data: Provide data on pipe, pipe fittings, tap saddles, valves, ring and cover, corporation stops, service line, thrust restraint devices, tracer wire, splice capsules, pipe marker, fire hydrants, manholes, and accessories.
- B. Test Results: Submit one copy of each bacteriological test results.

1.6 QUALITY CONTROL

- A. All HDPE pipe fusion shall be performed by industry recognized certified fusion technician. Technician shall have minimum 2 years' experience in pipe fusing.
- B. Acquire all HDPE pipe and fittings from same manufacturer.

1.7 REGULATORY REQUIREMENTS

- A. Conform to requirements of Utah Department of Environmental Quality.
- B. For products in contact with water, provide products which are NSF-61 compliant for use in potable water systems. To permit field verification of NSF-61 certification, provide stamp, tag, or other appropriate marking on products delivered to site to indicate NSF compliance.

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Inspection: Accept materials on Site in manufacturer's original packaging and inspect for damage.
- B. Store materials according to manufacturer's recommendations.
- C. Lift pipe, fittings, fire hydrants, valves and accessories into position. Do not drop or drag products into trench.

PART 2 PRODUCTS

2.1 PIPE

- A. Use pipe type and size indicated on Drawings.

- B. Polyvinyl Chloride (PVC) Pipe 4 Inch Diameter and Larger:
 - 1. Size and Class: AWWA C900, ductile iron pipe size and pressure class 235 (DR 18).
 - 2. Joints: Bell and spigot with elastomeric gaskets in accordance with ASTM F477.
 - 3. Color: Blue.
 - 4. Certification: Be NSF 61 approved and bear NSF label.
 - 5. Fittings: AWWA C153, Class 350, ductile iron, compact fittings with mechanical joints and gaskets.
- C. Ductile Iron (DI) Pipe 4 Inch Diameter and Larger:
 - 1. Class: AWWA C151, pressure class 350 for pipes 4 inch to 12 inch, pressure class 250 for pipes 14 inch to 20 inch, and pressure class 200 for pipes 24 inch and larger.
 - 2. Special Thickness Class: AWWA C115, class 53 for flanged joint pipe.
 - 3. Joints: Bell and spigot unless noted otherwise as flanged. Provide gaskets.
 - 4. Interior Lining: AWWA C104, cement-mortar.
 - 5. Exterior Coating: 1 mil asphaltic.
 - 6. Certification: Be NSF 61 approved and bear NSF label.
 - 7. Fittings: AWWA C153, Class 350, ductile iron, compact fittings with mechanical joints and gaskets.
- D. Sleeve Coupling: Class 350, ductile iron, mechanical joints with gaskets, 12 inch minimum length. Manufactured by Tyler Pipe or equal.

2.2 VALVES

- A. Gate Valve: AWWA C509, iron body, bronze trim, non-rising stem with 2 inch square operator nut, single wedge, resilient seat. Rated for 200 pounds per square inch working pressure. Shall open by turning operator nut counter-clockwise. Provide hand wheel for valves located within structures.
- B. Valve Box and Cover: Cast iron, extension sleeve type, cast word WATER on cover.

2.3 MAIN LINE FLOW METER

- A. Water Meter: 4 inch mag meter capable of measuring flow in gallons per minute and totalizer in gallons. Powered with 120 volts AC. Flow and totalizer shall display with pump control system.

2.4 FIRE HYDRANTS

- A. Hydrant: AWWA C502, dry barrel type, with minimum 5.25 inch diameter valve seat opening, break-off flange at ground level, drip valve, 200 psi working pressure, 4.5 feet minimum burial depth to bottom of pipe. Shall open by turning pentagon operator nut counter-clockwise. Shall have 30 inch minimum height above finish grade.
- B. Hose and Steamer Connection: Two 2.5 inch hose nozzles and one 4.5 inch pumper nozzle with standard threads, caps, gaskets and attaching chains.
- C. Finish: Primer and two coats of red enamel.
- D. Acceptable Manufacturers:
 - 1. Guardian model by Kennedy Valve.
 - 2. Super Centurion model by Mueller Company.
 - 3. American AVK Company.
 - 4. No substitutes permitted.

2.5 SERVICES

- A. Tap Saddle: Nylon Coated Saddle with stainless steel strap. Manufactured by Romac Industries, Inc. or equal.
 - 1. Provide full support around circumference of pipe.
 - 2. Provide 2 inch minimum bearing area along pipe.
 - 3. Not have lugs which will dig into pipe.
 - 4. Not have U-bolt type strap.
- B. Corporation Stop: Bronze body, in accordance with AWWA C800. Provide standard iron pipe threads and compression fittings for polyethylene pipe with stainless steel insert stiffeners. Ford Ballcorp as manufactured by The Ford Meter Box Company, Inc. or equal.
- C. Service Line: High density polyethylene pipe, in accordance with NSF-14 and AWWA C901.
 - 1. Iron Pipe Size: ASTM D2239, ¾ and 1 inch services.
 - 2. Copper Tube Size: ASTM D2737, 1.5 and 2 inch services.
 - 3. Working Pressure: 200 pounds per square inch.
 - 4. Color: Blue.
- D. Fittings: Bronze, Mueller 110 compression fittings.
- E. Coppersetter: 18 inch height with ball valve inlet and dual check valve outlet. Manufactured by The Ford Meter Box Company, Inc. or equal.
 - 1. ¾ inch: Model VBHC73-18W.
 - 2. 1 Inch: Model VBHC74-18W.

- F. Meter Barrel: 18 inch diameter by 36 inch high, white, high density polyethylene with corrugated exterior and smooth interior. Provide larger sizes where indicated on Drawings.
- G. Meter Barrel Ring and Lid: Cast iron with WATER METER or WATER cast on lid.
- H. Meter: AWWA C700, displacement type magnetic drive cold water meter with bronze main case.

2.6 MANHOLES

- A. Manhole Sections: Reinforced precast concrete in accordance with ASTM C478.
 - 1. Precast reinforced concrete base, monolithic-poured with flat bottom and pipe openings as indicated on Drawings.
 - 2. Flat top section.
 - 3. Male/female ends.
 - 4. Watertight joints with pre-lubricated rubber gaskets conforming to ASTM C361 and C443 or mastic sealant.
 - 5. Inside diameter of 60 inches unless indicated otherwise on Drawings.
- B. Steps: Fiberglass or steel encased by copolymer polypropylene, placed at 12 inches on center vertically, set into manhole wall.
- C. Roof Scuttle: Manufactured by The Bilco Company, Model S-50; Syracuse Casting West, Model FTP-WT-SSAL; or equal. Holes are not permitted in roof scuttle.
 - 1. Material: Aluminum, 11 gauge, 1 inch glass fiber insulation.
 - 2. Seal: Weathertight with mechanically retained thermoplastic rubber gasket.
 - 3. Hardware: Type 316 stainless steel. Provide automatic hold-open arm.
 - 4. Locks: Concealed padlock hasp.
- D. Rubber Boot Couplers: Conform to ASTM C923 and have stainless steel pipe clamp.
- E. Bedding: Rock, well graded with ¼ inch minimum to 1 inch maximum size aggregate, 8" depth.

2.7 ACCESSORIES

- A. Thrust Restraint Devices: Use one of following:
 - 1. Restrained Joints:
 - a. Pipe: Bell and spigot joint restraint harness or clamp. Rated at pressure class of pipe or greater.

- b. Pipe Fittings: Mechanical joint with restrained follower gland. Rated at pressure class of pipe or greater. Megalug, or equal.
- B. Tracer Wire: 14/1 UF direct burial wire.
 - 1. Splices: 3M Company, Cat. No. MH14 BCX heat shrink butt splice or equal.
 - 2. Color: Blue.
- C. Piper Marker with Tracer Wire:
 - 1. Marker: Single piece 3.75 inch wide by 6 feet long. Constructed of durable, UV resistant, continuous glass fiber, thermosetting composite material. Capable of self-erecting and remain functional after impact by vehicle. Provide barb attachment at buried end for pullout resistance. Provide termination and access for 2 tracer wires.
 - 2. Marker Color: Blue.
 - 3. Decal: UV resistant with words CAUTION PRESSURE PIPELINE. Mount 2 inches below top of marker.
 - 4. Manufacturer: Carsonite International, model Trace-O-Flex or equal.
- D. Bedding:
 - 1. Excavated materials consisting of earth, loam, sandy clay, sand, and gravel which are free from clods of earth, rocks larger than 0.75-inch, frozen material, organic material and debris.
 - 2. If excavated material is unsuitable or insufficient for bedding after screening, import bedding consisting of pitrun gravel, crushed rock with sand, or sand, with 0.75-inch maximum size gradation.

PART 3 EXECUTION

3.1 PREPARATION

- A. Verify location, depth, material, and size of existing water lines.
- B. Excavate pipe trench in accordance with APWA Section 31 23 16 Part 3.9. Hand trim excavation for accurate placement of pipe.
- C. Remove large rocks or other hard matter which could damage pipe or impede installation.
- D. Remove water from trench.

3.2 INSTALLATION – PIPE

- A. Install pipe and fittings. Seal joints watertight. Route pipe in straight line.
- B. Place bedding material at sides of pipe and over pipe in layers not exceeding 6 inches compacted depth. Place bedding to minimum compacted thickness of 12 inches above top of pipe.

- C. If excavated material is unsuitable for bedding or trench bottom is unsuitable to support pipe, import granular bedding.
- D. Compact bedding to 96 percent of maximum laboratory density. Maintain moisture content of bedding material within plus or minus 2 percent of optimum to attain required compaction density.
- E. Install tracer wire continuous below spring line of pipe. Install tracer wire with new transmission, outlet and main lines. Connect tracer wire to pipe markers at 1,000 feet maximum intervals. Where there is existing tracer wire, connect new tracer wire to existing tracer wire. If splices are required, make watertight connection.
- F. Place restraining devices according to manufacturers' recommendations or concrete thrust blocks at any change of pipe direction and fittings. Use mechanical joint restraint devices on fittings for live tie-ins when there is not adequate time for concrete thrust blocks to cure.
- G. Backfill trench in accordance with APWA Section 31 23 16 Part 3.9.
- H. Install PVC pipe in accordance with ASTM D2774 and AWWA M23. Install HDPE pipe in accordance with ASTM D2774 and AWWA M55. Install ductile iron pipe in accordance with AWWA C600.

3.3 INSTALLATION – VALVES AND HYDRANTS

- A. Set valves on solid bearing. Center and plumb valve box over valve. Set box cover flush with finished grade.
- B. Set hydrants on solid bearing and plumb. Locate pumper nozzle perpendicular to and facing roadway. Install valve next to fire hydrant and place valve box to grade. Provide drainage rock around fire hydrant.
- C. Relocate existing fire hydrants as indicated on Drawings. Connect existing fire hydrants, which are to remain, to new main lines. If existing pipe to existing fire hydrant is smaller than 6 inch diameter, replace pipe and connection to main line.

3.4 INSTALLATION – SERVICES

- A. Install new service lines and fittings as needed to connect existing services to new water lines.
- B. If existing service line is in poor condition as determined by Engineer, install new service line to existing meter setter, yoke or equivalent. Install fittings as needed to make connections. Replace all galvanized steel service lines.
- C. If service line is replaced, install tracer wire with new service line.
- D. Where indicated on Drawings, install new service meter.

- E. If existing meter barrel is in poor condition as determined by Engineer, replace meter barrel. Re-use existing ring and lid.

3.5 MISCELLANEOUS IMPROVEMENTS

- A. Make other system modifications and improvements as indicated on Drawings.

3.6 WATER PIPING PRESSURE TEST

- A. Pressure test new main line piping, except HDPE pipe, as follows:
 - 1. Test water piping at pressure rating of pipe.
 - 2. Fill pipe with water and place under slight pressure for at least 48 hours.
 - 3. Bring pipe pressure to test pressure and maintain for 4 hours minimum.
 - 4. Provide accurate means for measuring quantity of water needed to maintain test pressure on pipe for test period.
 - 5. If volume of water added to pipe is 10 gallons per inch of pipe diameter per mile of pipe per 24 hours or less, pipe passes test.
 - 6. If pipe does not pass test, find source of leakage, repair or replace, and retest. Correct any visible leakage. Repeat until pipe passes test.
- B. For short lengths of pipe where full pressure test is not possible, place pipeline under operating pressure and verify there are no visible leaks. Repair or replace piping as necessary to correct visible leaks. Repeat until pipe passes test.

3.7 WATER PIPING DISINFECTION

- A. After completing pressure test, flush pipe to remove dirt or other foreign objects.
- B. Add liquid chlorine or liquid calcium hypochlorite to pipe to obtain 50 ppm concentration of chlorine. Maintain 25 ppm chlorine residual at end of 24 hours. Disinfect piping in accordance with Utah State Rules for Public Drinking Water Systems and AWWA C651.
- C. Flush chlorinated water from pipe. Dispose of chlorinated water in accordance with Utah Water Quality Board rules. See R317 of Utah Administrative Code.
- D. After flushing chlorinated water, sample and complete bacteriological testing.
 - 1. Frequency: For every 1,200 feet of new main piping, take two consecutive samples 24 hours apart. Use sterile sample bottles furnished by testing laboratory.
 - 2. Acceptance: Absence of coliform bacteria in two consecutive samples taken 24 hours apart.
 - 3. If necessary re-chlorinate until satisfactory bacteriological tests are obtained.
 - 4. Do not put piping into service until test results are satisfactory.
- E. If service lines are not disinfected with main line, flush service lines with chlorinated water prior to connecting and putting into use.

3.8 PROTECTION

- A. Protect pipe from damage or displacement.
- B. Prevent mud, silt, gravel, and other foreign materials from entering pipe and keep off joint surfaces.
- C. Install plug in pipe end when pipe laying is not in progress.

END OF SECTION