



CITY COUNCIL MEETING AGENDA

May 01, 2024 at 7:00 PM

Amity City Hall – 109 Maddox Avenue Amity, Oregon

Zoom Meeting:

us02web.zoom.us/j/87234864153?pwd=RGJpdXZZYlJOdk1RN3NheUdlcVUrUT09

1. CALL TO ORDER
2. FLAG SALUTE
3. COUNCIL ROLL CALL
4. CONSENT AGENDA

In order to make more efficient use of meeting time, resolutions, minutes, bills, and other items which are routine in nature and for which no debate is anticipated, shall be placed on the Consent Agenda. Any item placed on the Consent Agenda may be removed at the request of any council member prior to the time a vote is taken. All remaining items of the Consent Agenda are then disposed of in a single motion to adopt the Consent Agenda. If there are any dissenting votes, each item on the Consent Agenda is then voted on individually by a roll call vote.

- a. Budget vs. Actual
- b. Minutes – 04-03-24 Regular Meeting
- c. Minutes – 04-17-24 Work Session

5. CITIZEN COMMENTS/QUESTIONS

*An opportunity to present items not on the regular agenda. Please state your name and address and limit your comments to **three (3) minutes**.*

6. COMMUNITY PARTNER/COMMITTEE UPDATES
7. OLD BUSINESS
8. NEW BUSINESS

In order to make more efficient use of meeting time, all presentations must be 15 minutes or less. Exceptions may be granted on a case-by-case basis by the Mayor.

- a. ARPA Waterlines Contract Award

- b. YCSO Contract
- c. Planning Commission Application
- d. MWVCOG Planning and Attorney Services Contract

9. DEPARTMENT REPORTS

- a. City Administrator Report by Nathan Frarck
- b. City Recorder Report by Natasha Johnson
- c. Public Works Report by Greg Binks
- d. Library Report by Anne Jenkins
- e. City Engineer Billing Report
- f. City Attorney Billing Report
- g. Planning Billing Report by COG

10. BUSINESS FROM THE MAYOR AND CITY COUNCILORS

- a. Comments for the Good of the Order/Public Safety and Finance – Council President Dyche
- b. Comments for the Good of the Order/Community Engagement – Councilor Bojorquez
- c. Comments for the Good of the Order/Infrastructure – Councilor McArthur
- d. Comments for the Good of the Order/City Services – Councilor Shields
- e. Comments for the Good of the Order/Parks – Councilor Thompson
- f. Comments for the Good of the Order – Vacant
- g. Mayor’s Report and Final Comments Rachel King

11. ADJOURNMENT

Accommodation of physical impairments: In order to accommodate persons with physical impairments, please notify the City Administrator’s office of any special physical or language accommodations you may need as far in advance of the meeting as possible and no later than 48 hours prior to the meeting. To request these arrangements, please contact Natasha Johnson, City Recorder, at 503-835-3711

CITY OF AMITY

Budget vs. Actuals: Budget_FY24 - FY24 P&L

July 2023 - June 2024

	TOTAL		
	ACTUAL	BUDGET	OVER BUDGET
Income			
20 4000 General Fund Revenue	841,897.01	891,150.00	-49,252.99
30 4300 Street Fund Revenue	134,768.65	505,000.00	-370,231.35
40 4401 Water Fund Revenue	8,429,625.42	10,316,500.00	-1,886,874.58
50 4500 Sewer Revenue	584,754.49	594,500.00	-9,745.51
75 4000 Governmental SDC Revenue	107,702.91	41,355.00	66,347.91
76 4100 Enterprise SDC Revenue		64,795.00	-64,795.00
Total Income	\$10,098,748.48	\$12,413,300.00	\$ -2,314,551.52
GROSS PROFIT	\$10,098,748.48	\$12,413,300.00	\$ -2,314,551.52
Expenses			
20 5000 General Fund Expense	612,974.55	848,135.00	-235,160.45
29 5000 Payroll & Admin Expense	0.00	0.00	0.00
29 5008 Payroll & Admin Expense	0.75		0.75
29 5408 Payroll & Admin Expense	2.06		2.06
30 5000 Street Expense	113,267.34	504,943.00	-391,675.66
40 5000 Water Expense	11,280,335.81	15,532,405.00	-4,252,069.19
50 5000 Sewer Expense	442,716.26	598,214.00	-155,497.74
75 5000 Governmental SDC Expense		118,800.00	-118,800.00
Payroll Expenses	50.00		50.00
Total Expenses	\$12,449,346.77	\$17,602,497.00	\$ -5,153,150.23
NET OPERATING INCOME	\$ -2,350,598.29	\$ -5,189,197.00	\$2,838,598.71
Other Income	\$0.00	\$7,646,783.00	\$ -7,646,783.00
Other Expenses	\$0.00	\$2,457,586.00	\$ -2,457,586.00
NET OTHER INCOME	\$0.00	\$5,189,197.00	\$ -5,189,197.00
NET INCOME	\$ -2,350,598.29	\$0.00	\$ -2,350,598.29

Regular Meeting of the
Council April 3, 2024

Minutes

REGULAR MEETING OF THE COUNCIL
CITY OF AMITY, OR
Minutes

The Regular Meeting of the City of Amity City Council was held at 7:00 p.m. on Wednesday, April 3, 2024, in the Council Chambers, City Hall, 109 Maddox, Amity, Oregon.

Councilors Present

Councilor April Dyche, Councilor Sandy McArthur, Councilor Caleb Shields, Councilor Alice Thompson and Mayor Rachel King

Councilors Present via Zoom

None

Councilors Absent

Councilor Melissa Bojorquez

Staff Present

City Administrator Nathan Frarck and City Recorder Natasha Johnson

CONSENT AGENDA:

Councilor Dyche moved to approve the Consent Agenda. Councilor McArthur seconded and with no discussion motion passed 4-0.

CITIZEN COMMENTS:

- A. Yamhill County Sheriff's Report: YCSO deputy Samerdyke was present at the meeting. He updated regarding changes happening in the YCSO office and will be getting a new Sergeant, as Deputy Lavish is going to be Sergeant for Detectives. Councilor Shields asked regarding suspicious calls. Deputy Samerdyke explained what the calls mean. Mayor King asked to keep Administrator Frarck updated with the changes. There were no further comments or questions for YCSO.
- B. DIG Report: E. Rainey from DIG gave update regarding Daffodil Festival. They had a good turnout this year. Mayor King thanked them, and everyone involved. There were no comments or questions for DIG.
- C. Citizen Comments: Citizen's Jim Adkisson, Zachary Orlando Graham and Amir Rosenfeld (via zoom) all made remarks pertaining to their personal views regarding national diversity, equitable justice, and needed nationwide changes to immigration policy.

OLD BUSINESS:

- A. None

EXECUTIVE SESSION:

Mayor King closed the public hearing and read the executive session script.

Council met in Executive Session ORS 192.660 (2)(e) to conduct deliberations with persons you have designated to negotiate real property transactions: a potential purchase of real property and potential acquisition of easements and right of way.

Mayor King opened the public hearing back up.

NEW BUSINESS:

- A. **Real Property Transaction:** Administrator Frarck went over background regarding real property transaction and authorized specific individuals to negotiate the price and terms for the purchase of the property at 413 S. Trade. Councilor Dyche made a motion to authorize Administrator Frarck and Mayor King to negotiate the price and terms of the purchase and bring the agreement back for council approval. Councilor McArthur seconded the motion and with no discussion the motion passed 4-0.
- B. **Repealing Ordinance 664:** Administrator Frarck went over background regarding passing Ordinance 682 which repeals Ordinance 664. Councilor Thompson made a motion to adopt Ordinance No. 682, an ordinance repealing Ordinance No. 664. Councilor McArthur seconded the motion and with no discussion the motion passed 4-0.
- C. **Historic Preservation Application:** Administrator Frarck went over background regarding Historic Preservation Application and appointing Amity Historic Landmarks Committee Member. Applicant A. Aschim introduced himself to the Council. Councilor Dyche made a motion to appoint Allen Aschim to the Historic Landmarks Committee with a term expiring on December 31, 2025. Councilor Thompson seconded and with no discussion the motion passed 4-0.
- D. **Comprehensive Plan Update/Periodic Review Contract Award:** Administrator Frarck went over background regarding awarding the contract to Healthy Sustainable Communities. The city only received one proposal. Councilor Thompson made a motion to authorize Administrator Frarck to issue an intent to award the contract for the Amity Comprehensive Plan Update/Periodic review project to Healthy Sustainable Communities. Councilor Thompson seconded the motion and with no discussion the motion passed 4-0.
- E. **2024 Slurry Seals Contract Award:** Mayor King went over background regarding Slurry Seals Award and awarding the contract to Pave Northwest. The city received five bids. Councilor Dyche made a motion to award the contract for the 2024 Slurry Seals project to Pave Northwest. Councilor McArthur seconded the motion and with no discussion the motion passed 4-0.

DEPARTMENT REPORTS:

City Administrator Report: Administrator Frarck submitted his report. He updated the council regarding the wastewater emergency that happened yesterday. Mayor King asked regarding if it is listed in the priority 1 list from cities wastewater facility plan study and if not, city should get it listed in the priority 1. He explained public works reported the wastewater spill to DEQ. There were no further comments or questions for the City Administrator.

City Recorder/Treasurer Report: Recorder Johnson submitted her report and added a donation request for Amity Youth Sports. The council were all in agreement to donate \$50 to baseball and football season. There were no further comments or questions for City Recorder.

Public Works Report: Public Work Superintendent submitted his report and was not present at the meeting. There were no comments or questions for Public Works.

Library Report: Librarian Jenkins submitted her report and was not present at the meeting. There were no comments or questions for the library.

City Engineer Billing Report: Billing report submitted. There were no comments or questions regarding billing.

City Attorney/Planner Billing Report: Billing report submitted. Mayor King asked Administrator Frarck to reach out regarding legal services invoices. There were no further comments or questions regarding billing.

BUSINESS FROM THE MAYOR & CITY COUNCILORS:

Councilor President April Dyche Comments: Councilor Dyche asked for clarification on time for the special council meeting instead of work session. The council all agreed to have a special council meeting in lieu of work session and to keep the time to 5:30. here were no comments for Councilor Dyche.

Councilor Sandy McArthur Comments: Councilor McArthur had nothing to report. There were no comments for Councilor McArthur.

Councilor Bojorquez Comments: Councilor Bojorquez was not present at the meeting. There were no comments for Councilor Bojorquez.

Councilor Shields Comments: Councilor Shields had nothing to report. There were no comments for Councilor Shields.

Councilor Thompson Comments: Councilor Thompson asked for an update regarding the complaint with the park host. He explained public works went and talked to the park host and he is going to replace the hose and trying to figure out a solution regarding the noise. Mayor King suggested how to check the noise level. Councilor Shields suggested wireless headphones. Mayor King let the council know when complaints are sent to council she always follows up with complainant. There were no comments for Councilor Thompson.

Mayor King Comments: Mayor King reminded citizens that there is still a vacancy on council. She updated the council regarding the complaint that was filed and included in the packet that this is an ongoing complaint regarding this issue. Her personal recommendation is to not approve temporary camping permit if they file one.

She asked for RSVP from council regarding the upcoming tour of the water plant on Friday. She updated regarding HB 4134 hasn't been officially signed by the Governor, but the formal signing and ceremonial signing will be coming up and council are all invited to attend the ceremonial signing. There were no comments for Mayor King.

Councilor Thompson made a motion to adjourn the meeting at 9:16pm. Councilor McArthur seconded and with no discussion motion passed 4-0.

Approved by the City May 1, 2024

Rachel King, Mayor

Attest:

Natasha Johnson, City Recorder

CITY OF AMITY, OR

Minutes

A Work Session Meeting was held at 5:30 p.m. on Wednesday April 17, 2024 in the Council Chambers, City Hall, 109 Maddox, Amity, Oregon.

Councilors Present

Melissa Bojorquez, April Dyche, Sandy McArthur, Caleb Shields and Mayor Rachel King.

Councilors Present via Zoom

None

Councilors Absent

Alice Thompson

Staff Present

Administrator Nathan Frarck and City Recorder Natasha Johnson

1. CITIZEN COMMENTS/QUESTIONS:

Citizen L. Engel let council know not able to look at agenda on the new website. Administrator Frarck will start updating the meetings.

2. CITY ADMINISTRATOR COMMENTS:

He updated the council regarding the water plant property line and the neighboring property. He would like to exercise the right to terminate the right to farm on the city property from neighboring property and fence off the area if funding allows. The agreement does allow to terminate the right. Mayor King let the council know that there is no farming currently happening on that portion of the property and the city is currently using the property. Council was all in consensus to terminate the right to farm if not currently being utilized for farming. Administrator Frarck will notify the neighboring property owner in writing.

He discussed regarding 407 N. Trade and the rental agreement for rent increases went only through 2023. He would recommend extending the rate increase over the next few years by 10%. Mayor King would like an executive session where they look over the rental agreement. The council is ok with raising the rate 10% this year.

3. TOPICS OF DISCUSSION:

- a. Comprehensive Plan Update Contract Award: Administrator Frarck went over background regarding Comprehensive Plan update grant and awarding the contract. The city received one proposal. Mayor King asked for clarification regarding the price being \$59,500. Administrator Frarck explained the cost breakdown and does equal \$59,500. Councilor Dyche made a motion to award the contract for the Amity Comprehensive Plan Update/Periodic Review project to Healthy Sustainable Communities. Councilor Bojorquez seconded the motion and with no discussion the motion passed 4-0.

- b. Ordinance No. 682, Repeal of Ordinance no. 664: Mayor King explained the ordinance procedure wasn't done correctly at the last meeting and didn't complete the first reading of Ordinance No. 682. Councilor Bojorquez made a motion to call for the first reading of Ordinance No. 682, an ordinance repealing Ordinance No. 664. Councilor McArthur seconded the motion and with no discussion the motion passed 4-0. Administrator Frarck did the first reading of Ordinance 682. Councilor Bojorquez made a motion to approve Ordinance No. 682, an ordinance repealing Ordinance No. 664. Councilor Dyche seconded the motion and with no discussion the motion passed 4-0. Councilor Dyche made a motion to call for a second reading of Ordinance No. 682, by title only. Councilor Shields seconded the motion and with no discussion the motion passed 4-0. Councilor Dyche made a motion to adopt Ordinance No. 682, an Ordinance repealing ordinance No. 664. Councilor McArthur seconded the motion and with no discussion the motion passed 4-0.

- c. Resolution No. 2024-02, a Resolution of Need for Easement Acquisition: Councilor Shields recused himself from the discussion. Administrator Frarck went over background regarding easement acquisition and resolution of need. Councilor Bojorquez made a motion to adopt Resolution 2024-02, a resolution of the need for waterline easements as presented. Councilor Dyche seconded the motion and with no discussion the motion passed 3-0.

- d. Resolution No. 2024-03, Establishing a Public Comment Period: Mayor King went over background regarding setting public comment period. Councilor McArthur would like to see an actual person on zoom screen and not a blank screen. Mayor King explained what the guidelines would be. Councilor Bojorquez is concerned about section 5. Mayor King explained the county gives deadline of 5pm the day before meeting. Councilor Bojorquez and Councilor Shields are both worried this would prevent citizens from commenting on zoom. Mayor King suggested strike 5 and still work on trying to figure out a way to change the way share virtually but not have it in written policy and see what will work better. Councilor Bojorquez made a motion to approve Resolution 2024-03 striking section 5 establishing a public comment period. Councilor Shields seconded the motion and with no discussion the motion passed 4-0.

4. OPEN FORUM & DISCUSSION FROM THE MAYOR & CITY COUNCILORS:

- a. Mayor Comments – Rachel King updated council regarding she and the Mayor of Lafayette are co-hosting a mayor’s meeting and the main topic of discussion is how they handle public comments.

She updated regarding the clean up day and went really well. She updated regarding the county dinner and to send rsvp to City Recorder Johnson by May 7th.

- b. Finance – Councilor Dyche updated regarding Amity Community Day. They officially set the date to Saturday July 27, 2024. She went over the tentative schedule and is looking for volunteers. They are keeping the Amity Day name this year and having a name the event contest. The council is all in consensus to move ahead with the date. When the event gets closer, they might need room in the budget for some funding. There were no further comments.
- c. Infrastructure - Councilor McArthur had nothing to report. There were no comments.
- d. Community Engagement – Councilor Thompson had nothing to report. There were no further comments.
- e. Public Safety –Councilor Dyche had nothing to report. There were no comments.
- f. Parks – Councilor Thompson was not present at the meeting. There were no comments.
- g. City Services – Councilors Shields had nothing to report. There were no comments.

Mayor King adjourned the meeting at 6:25 p.m.

Approved by City Council April 3, 2024

Rachel King, Mayor

Attest:

Natasha Johnson, City Recorder



CITY OF AMITY

109 Maddox Avenue
P.O. Box 159
Amity, OR 97101
Ph: (503) 835-3711

AGENDA ITEM

Subject: ARPA Waterlines Bid Award
Date: May 1, 2024
Origin: Nathan Frarck, City Administrator
Action Requested: Award the ARPA Waterlines Contract.

Background:
The City of Amity worked with Keller Associates to put together bid and contract documents for the ARPA Waterlines project to replace waterlines going to the reservoir and along Goucher Street. Near the end of March, the City published an Invitation to Bid on QuestCDN and in the Daily Journal of Commerce. The City of Amity and Payse Smity from Keller Associates also hosted an optional pre-bid meeting on Thursday, April 11th to review the designed alignment for the waterlines. The bids were due by 2:00pm on April 25, 2024, at which time a public bid opening was held and the bids were reviewed.

Because the bids will be opened and reviewed after the time of writing this, a separate summary evaluation and tabulation of bids (Exhibit B) will be sent to Council/added to the packet by the end of the day on Friday April 26th. The contract documents are attached as Exhibit C.

The City of Amity received \$2 Million dollars from the State of Oregon for this project and the deadline to spend that funding and complete the associated project is December 31, 2024. Awarding the contract and moving forward quickly is essential as the chosen contractor needs as much time as possible to complete the project. Following Council’s award, City staff will issue a notice of intent to award (Exhibit A) providing any concerned parties with an opportunity to submit a formal protest.

Exhibits:
Exhibit A – Notice of Intent to Award Template
Exhibit B – Bid Tabulation and evaluation (added after)
Exhibit C – Bid Documents (available separately due to size)

Recommendation:
I move to award the contract for the ARPA Waterlines project to _____.



CITY OF AMITY
 ARPA WATER PIPELINE REPLACEMENT
 4/25/2024 14:00
 Bid Opening

#	Contractor	(2) Addenda Acknowledged	Signed	Bonded	Total Bid Price	Rank
1	RSG Excavating	Yes	Yes	Yes	\$ 1,207,732.00	2
2	Swofford Excavating	Yes	Yes	Yes	\$ 1,604,932.96	5
3	Strider Construction	Yes	Yes	Yes	\$ 1,701,010.00	7
4	ORR Inc.	Yes	Yes	Yes	\$ 1,446,256.00	3
5	M.L. Houck Construction Co.	Yes	Yes	Yes	\$ 1,105,000.00	1
6	Turney Excavating	Yes	Yes	Yes	\$ 1,537,181.00	4
7	Northcore USA	Yes	Yes	Yes	\$ 1,667,300.00	6
8						
9						
10						

CONTRACT DOCUMENTS & SPECIFICATIONS

CITY OF AMITY ARPA WATER PIPELINE REPLACEMENTS

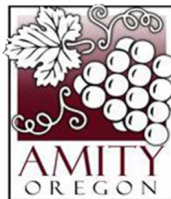
DRAFT MARCH 2024
KELLER PROJECT NO. 215108-021

PREPARED BY:



245 COMMERCIAL ST. SE, STE 210
SALEM, OR 97301
(503) 364-2002

PREPARED FOR:



109 MADDOX AVENUE
P.O. BOX 159
AMITY, OR 97101
(503) 835-3711

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00 42 00	Bid Schedule of Prices
00 43 36	First-Tier Subcontractors Disclosure Form
00 43 38	Resident Bidder Status Form
00 43 93	Bid Submittal Checklist
00 45 19	Non-Collusion Affidavit

CONTRACT FORMS

C-520	Agreement
C-610	Performance Bond
C-615	Payment Bond

CONDITIONS OF THE CONTRACT

C-700	Standard General Conditions
00 73 00	Supplementary General Conditions
Exhibit B	CSFRF Insurance Requirements

CONSTRUCTION FORMS

C-510	Notice of Award
C-550	Notice to Proceed
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APPENDICES

- Appendix A Owner Furnished Items

DRAWINGS (Bound separately)

BIDDING DOCUMENTS

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SECTION C-111 – ADVERTISEMENT FOR BIDS

**CITY OF AMITY, OREGON
ARPA WATER PIPELINE REPLACEMENTS
WATER SYSTEM ID#: 41-00041**

Sealed Bids for the construction of the City of Amity Water Pipeline Replacements will be received by Nathan Frarck, City Administrator at the **Amity City Hall, 109 Maddox Avenue, Amity, Oregon 97101**, until the **BID CLOSING** at **2:00 PM** local time on **THURSDAY, APRIL 25, 2024**, at which time the Bids received will be publicly opened and read. No bids will be received after the **BID CLOSING** time.

The project includes construction of approximately 1,500 feet of 12-inch PVC waterline on private property to replace an existing waterline serving the City's reservoir near Rice Lane; installation of approximately 700 feet of owner-furnished 12-inch HDPE pipe along private property, and installation of 2,100 feet of 8-inch PVC waterline within public right-of-way along Goucher Street. The project includes one auger bore drainage crossing, water service connections, valves, hydrants, pressure testing, disinfection and connections. Work performed within public rights-of-way is specified as Schedule A. Work performed within private property will occur within public utility easements that are in the process of being finalized, which are specified as Schedule B work items.

Compensation for this work will be paid on a unit price and lump sum basis. Bids will be received for a single, prime Contract. Bids shall be on a unit price and lump sum basis.

A non-mandatory public pre-bid conference will be held **at the project site** at **3:00 PM on Thursday, April 11th, 2024**. Representatives of Keller Associates and the City will be present to discuss the project.

The Bidder may schedule a site walk through on an individual basis by contacting Gary Mathis, Public Works Superintendent, City of Amity, 503-835-4181. The scheduling of an individual site walk through is subject to the availability of the Public Works Superintendent and will not be allowed within 3 days of the bid closing.

The Bidder shall be aware that this project will be funded in whole or in part by the American Rescue Plan Act (ARPA). The Contractor shall comply with the requirements herein for this funding source.

The Contractor must comply with the minimum rates for wages for laborers and mechanics as determined by the Secretary of Labor in accordance with the provisions of Oregon BOLI minimum wages as described in the Contract Documents.

The Issuing Office for the Bidding Documents is: Keller Associates, 245 Commercial Street SE, Ste. 210, Salem, OR 97301. The contact person is Peter Olsen, PE who can be reached at 503-364-2002 or polsen@kellerassociates.com. Prospective Bidders may examine the Bidding Documents at the Issuing Office on Mondays through Fridays between the hours of 8 AM and 5 PM and may obtain copies of the Bidding Documents from the Issuing Office as described below. Bidding Documents also may be examined online at the **DJC Oregon plan room**.

Complete digital project bidding documents are available from Quest CDN. The digital documents cost \$15.00. To download online, go to www.kellerassociates.com and click on the *Current Projects Bidding* tab which redirects to the Quest CDN website which hosts projects advertised by Keller Associates. Select the project name, a new window will appear, then select *Download Project PDF*. For assistance in

free membership registration, downloading, and working with this digital project information, please contact QuestCDN.com at (952) 233-1632 or email to info@questcdn.com.

Bidding Documents may also be obtained from the Issuing Office during the hours indicated above. Bidding Documents are available on compact disc (as portable document format (PDF) files) for a non-refundable charge of \$15.00. Alternatively, printed Bidding Documents may be obtained from the Issuing Office either via in-person pick-up or via mail, upon Issuing Office's receipt of payment for the Bidding Documents. The non-refundable cost of printed Bidding Documents is \$250.00 per set, payable to "Keller Associates, Inc.". Upon Issuing Office's receipt of payment, printed Bidding Documents will be sent via the prospective Bidder's delivery method of choice; the shipping charge will depend on the shipping method chosen. The date that the Bidding Documents are transmitted by the Issuing Office will be considered the prospective Bidder's date of receipt of the Bidding Documents. Partial sets of Bidding Documents will not be available from the Issuing Office. 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 Issuing Office.

Each bid must contain a statement as to whether or not the bidder is a resident bidder as defined in ORS 279A.120. Each bid must also contain a statement as to whether the bidder is registered with the Oregon Construction Contractors Board. No bid will be submitted or considered unless the bidder is registered with the Construction Contractors Board, as required by ORS 701.035.ET.SEQ. No bid will be considered unless the First-Tier Subcontractor Disclosure form is submitted with the bid as described in OAR 137-049-0360.

Contractors must be qualified in accordance with the applicable parts of ORS 279 in order to enter into a contract with the City of Amity for public work in Oregon. To document qualifications, bidders shall submit a completely executed "Supplementary Instructions to Bidders" package as per Specification Section 00 22 13 – Supplementary Instructions to Bidders. The City will investigate and determine the qualifications of the Bidders as part of its evaluation of the bids.

Bid security shall be furnished in accordance with the Instructions to Bidders. The successful bidder will be required to furnish to the Owner a performance bond and a payment bond each equal to one hundred percent (100%) of the amount of the bid. The successful bidder and all subcontractors will be required to furnish to the Oregon Construction Contractors Board a public works bond in the amount of **five percent (5%)** of Bidder's maximum Bid price (determined by adding the base bid and all alternates), unless exempt under ORS 279C.

Owner reserves the right to reject any and all bids, to waive any irregularities, and to accept the bid deemed in the best interests of Owner. Owner may reject any bid not in compliance with all prescribed public bidding procedures and requirements and may reject for good cause any or all bids upon a finding of the agency, if it is in the public interest to do so.

Owner: City of Amity, Oregon
By: Rachel King
Title: Mayor
Date of initial advertisement: 3/28/24

CITY OF AMITY
ARPA WATER PIPELINE REPLACEMENTS

Section 8, Item a.

215108-021

+ + END OF ADVERTISEMENT FOR BIDS + +

Section C-200 - INSTRUCTIONS TO BIDDERS

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ARTICLE 1 – DEFINED TERMS

- 1.01 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:
- A. Bidder – one who submits a Bid directly to Owner as distinct from a sub-bidder, who submits a bid to a Bidder.
 - B. Issuing Office – the office from which the Bidding Documents are to be issued (Keller Associates, Inc., 245 Commercial Street SE, Suite 210, Salem, Oregon 97301).
 - C. Successful Bidder – the lowest, responsible Bidder to whom Owner (on the basis of Owner's evaluation as hereinafter provided) makes an award.
 - D. First-Tier Subcontractor – an individual, firm or corporation having a direct contract with the Contractor for furnishing labor or furnishing labor and materials in connection with the performance of a part of the Work.
 - E. Engineer – Keller Associates, Inc., 245 Commercial St. SE #210, Salem, OR 97301, Telephone: (503) 364-2002.

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 To demonstrate Bidder's qualifications to perform the Work, Bidder shall submit with the bid (a) written evidence establishing its qualifications such as financial data, previous experience, and present commitments, and (b) the following additional information:
- A. Evidence of Bidder's authority to do business in the state where the Project is located.
 - B. Subcontractor and Supplier qualification information; coordinate with provisions of Article 12 of these Instructions, "Subcontractors, Suppliers, and Others."
 - C. Section 00 22 13 – Supplementary Instructions to Bidders.
- 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.

3.04 Bidder is advised to carefully review those portions of the Bid Form requiring Bidder's representations and certifications.

ARTICLE 4 – SITE AND OTHER AREAS; EXISTING SITE CONDITIONS; EXAMINATION OF SITE; OWNER'S SAFETY PROGRAM; OTHER WORK AT THE 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*

A. Subsurface and Physical Conditions; Hazardous Environmental Conditions

1. The Supplementary Conditions identify:

- a. those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site.
- b. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities).
- c. reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site.
- d. Technical Data contained in such reports and drawings.

2. Owner will make copies of reports and drawings referenced above available to any Bidder on request. These reports and drawings are not part of the Contract Documents, but the Technical Data contained therein upon whose accuracy Bidder is entitled to rely, as provided in the General Conditions, has been identified and established in the Supplementary Conditions. Bidder is responsible for any interpretation or conclusion Bidder draws from any Technical Data or any other data, interpretations, opinions, or information contained in such reports or shown or indicated in such drawings.

3. If the Supplementary Conditions do not identify Technical Data, the default definition of Technical Data set forth in Article 1 of the General Conditions will apply.

B. Adequacy of Data: Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, other physical conditions, and Underground Facilities, and possible changes in the Bidding Documents due to differing or unanticipated subsurface or physical conditions appear in Paragraphs 5.03, 5.04, and 5.05 of the General Conditions. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to a Hazardous Environmental Condition at the Site, if any, and possible changes in the Contract Documents due to any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be within the scope of the Work, appear in Paragraph 5.06 of the General Conditions.

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 and pay for 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.

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.

4.04 *Owner's Safety Program*

- A. Site visits and work at the Site may be governed by an Owner safety program. As the General Conditions indicate, if an Owner safety program exists, it will be noted in the Supplementary Conditions.

4.05 *Other Work at the Site*

- A. Reference is made to Article 8 of the Supplementary Conditions for the identification of the general nature of other work of which Owner is aware (if any) that is to be performed at the Site by Owner or others (such as utilities and other prime contractors) and relates to the Work contemplated by these Bidding Documents. If Owner is party to a written contract for such other work, then on request, Owner will provide to each Bidder access to examine such contracts (other than portions thereof related to price and other confidential matters), if any.

ARTICLE 5 – BIDDER'S REPRESENTATIONS

5.01 It is the responsibility of each Bidder before submitting a Bid to:

- A. examine and carefully study the Bidding Documents, and any data and reference items identified in the Bidding Documents;
- B. visit the Site, conduct a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfy itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;
- C. become familiar with and satisfy itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work; **including but not limited to ARPA and Coronavirus State Fiscal Recovery Funds (CSFRF), and insurance requirements defined in Exhibit B of the Agreement.**

- D. carefully study all: (1) 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 Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings;
- E. consider 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 the 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;
- F. agree, based on the information and observations referred to in the preceding paragraph, that at the time of submitting its Bid no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its 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;
- G. become aware of the general nature of the work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents;
- H. promptly give Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by Engineer is acceptable to Bidder;
- I. determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work; and
- J. agree that the submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, 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 6 – PRE-BID CONFERENCE

- 6.01 A 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 encouraged to attend and participate in the conference. 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.

ARTICLE 7 – INTERPRETATIONS AND ADDENDA

- 7.01 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.

7.02 Addenda may be issued to clarify, correct, supplement, or change the Bidding Documents.

ARTICLE 8 – BID SECURITY

8.01 A Bid must be accompanied by Bid security made payable to Owner in an amount of **five percent (5%)** 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 meeting the requirements of Paragraphs 6.01 and 6.02 of the General Conditions.

8.02 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 15 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.

8.03 The Bid security of other Bidders that Owner believes to have a reasonable chance of receiving the award may be retained by Owner until the earlier of seven days after the Effective Date of the Contract or 61 days after the Bid opening, whereupon Bid security furnished by such Bidders will be released.

8.04 Bid security of other Bidders that Owner believes do not have a reasonable chance of receiving the award will be released within seven days after the Bid opening.

ARTICLE 9 – CONTRACT TIMES

9.01 The number of days within which, or the dates by which, the Work is to be substantially completed and ready for final payment are set forth in the Agreement.

ARTICLE 10 – LIQUIDATED DAMAGES

10.01 Provisions for liquidated damages, if any, for failure to timely attain a Milestone, Substantial Completion, or completion of the Work in readiness for final payment, are set forth in the Agreement.

ARTICLE 11 – SUBSTITUTE AND “OR-EQUAL” ITEMS

11.01 The Contract for the Work, as awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration during the bidding and Contract award process of possible substitute or “or-equal” items. In cases in which the Contract allows the Contractor to request that Engineer authorize the use of a substitute or “or-equal” item of material or equipment, application for such acceptance may not be made to and will not be considered by Engineer until after the Effective Date of the Contract.

- 11.01 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 comply with the requirements of Paragraphs 7.04 and 7.05 of the General Conditions. 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.
- 11.02 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 12 – SUBCONTRACTORS, SUPPLIERS, AND OTHERS

- 12.01 The Bidder shall submit to Owner a list of the Subcontractors or Suppliers proposed for the Work **as instructed per Specification Section 00 22 13 – Supplementary Instructions to Bidders.**
- If Owner or Engineer, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier, individual, or entity, Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit an acceptable substitute, in which case apparent Successful Bidder shall submit a substitute, Bidder’s Bid price will be increased (or decreased) by the difference in cost occasioned by such substitution, and Owner may consider such price adjustment in evaluating Bids and making the Contract award.
- 12.02 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers, or other individuals or entities. Declining to make requested substitutions will constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which Owner or Engineer makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner and Engineer subject to subsequent revocation of such acceptance as provided in Paragraph 7.06 of the General Conditions.
- 12.03 Bidders are required to disclose information about certain first-tier subcontractors when the contract value for a Public Improvement is estimated by the Owner to be greater than \$100,000 (see ORS 279C.370). Specifically, when the contract amount of a first-tier subcontractor furnishing labor or labor and materials would be greater than or equal to: (i) 5% of the project Bid, but at least \$15,000; or (ii) \$350,000 regardless of the percentage, the Bidder must disclose the following information about that subcontract either in its Bid submission, or within two hours after Bid Closing:
- A. The Subcontractor's name;
 - B. The category of Work that the Subcontractor would be performing, and
 - C. The dollar value of the Subcontract. If the Bidder will not be using any subcontractors that are subject to the above disclosure requirements, the Bidder is required to indicate "NONE" on the accompanying form.

- D. The Contracting Agency must reject a bid if the Bidder fails to submit the Disclosure form with this information by the stated deadline. The Disclosure Form is enclosed with the bidding documents.
- 12.04 **Submission.** A Bidder shall submit the first-tier subcontractor disclosure form required by this rule in its Bid submission.
- 12.05 **Responsiveness.** Compliance with the disclosure and submittal requirements of ORS 279C.370 and this rule is a matter of Responsiveness. Bids that are submitted by Bid Closing, but for which the disclosure submittal has not been made, are not Responsive and shall not be considered for Contract Award.
- 12.06 **Contractor shall not be required to employ any Subcontractor, Supplier, individual, or entity against whom Contractor has a reasonable objection.**
- 12.07 **The Contractor shall not award work to Subcontractor(s) in excess of the limits stated in SC7.06A.**

ARTICLE 13 – PREPARATION OF BID

- 13.01 The Bid Form is included with the Bidding Documents.
 - A. All blanks on the Bid Form shall be typed or completed in ink and the Bid Form signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid Form. A Bid price shall be indicated for each section, Bid item, alternate, adjustment unit price item, and unit price item listed therein.
- 13.02 A Bid by a corporation shall be executed in the corporate name by a corporate officer (whose title must appear under the signature), accompanied by evidence of authority to sign. The corporate address and state of incorporation shall be shown.
- 13.03 A Bid by a limited liability company shall be executed in the name of the firm by a member or other authorized person and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm shall be shown.
- 13.04 A Bid by an individual shall show the Bidder’s name and official address.
- 13.05 A Bid by a joint venture shall be executed by an authorized representative of each joint venturer in the manner indicated on the Bid Form. The official address of the joint venture shall be shown.
- 13.06 All names shall be printed in ink below the signatures.
- 13.07 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid Form.
- 13.08 Postal and e-mail addresses and telephone number for communications regarding the Bid shall be shown.
- 13.09 The Bid shall contain evidence of Bidder’s authority and qualification to do business in the state where the Project is located, or Bidder shall covenant in writing to obtain such authority and qualification prior to award of the Contract and attach such covenant to the Bid. Bidder’s state contractor license number, if any, shall also be shown on the Bid Form.

NOTE(S) TO USER:

See Note to User 5, Paragraph 3.01.

ARTICLE 14 – BASIS OF BID

14.01 *Lump Sum*

- A. Bidders shall submit a Bid on a lump sum basis as set forth in the Bid Form.

14.02 *Unit Price*

- A. Bidders shall submit a Bid on a unit price basis for each item of Work listed in the unit price section of the Bid 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 Bid 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 in accordance with Paragraph 13.03 of the General Conditions.
- 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 15 – SUBMITTAL OF BID

15.01 The Contactor is to submit one hard copy of the Bid Form, the Bid Bond Form, and the other documents required to be submitted under the terms of Article 7 of the Bid Form.

15.02 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 Bid security and other required documents. 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 the person identified to receive bids in the Invitation to Bid.

15.03 Bids received after the date and time prescribed for the opening of bids, or not submitted at the correct location, will not be accepted and will be returned to the Bidder unopened.

ARTICLE 16 – MODIFICATION AND WITHDRAWAL OF BID

16.01 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.

16.02 If a Bidder wishes to modify its Bid prior to Bid opening, Bidder must withdraw its initial Bid in the manner specified in Paragraph 16.01 and submit a new Bid prior to the date and time for the opening of Bids.

16.03 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 17 – OPENING OF BIDS

17.01 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 18 – BIDS TO REMAIN SUBJECT TO ACCEPTANCE

18.01 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. At the option of the Owner, and upon mutual written agreement of the Owner and one or more Bidders and their respective sureties, the time that a Bid remains subject to acceptance may be extended.

ARTICLE 19 – EVALUATION OF BIDS AND AWARD OF CONTRACT

19.01 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.

19.02 If Owner awards the contract for the Work, such award shall be to the responsible Bidder submitting the lowest responsive Bid.

19.03 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 Bid 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.

ARTICLE 20 – BONDS AND INSURANCE

20.01 Article 6 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth Owner’s requirements as to performance and payment bonds and insurance. When the Successful Bidder delivers the Agreement (executed by Successful Bidder) to Owner, it shall be accompanied by required bonds and insurance documentation.

ARTICLE 21 – SIGNING OF AGREEMENT

21.01 When Owner issues a Notice of Award to the Successful Bidder, it shall be accompanied by the unexecuted counterparts of the Agreement along with the other Contract Documents as

identified in the Agreement. Within 15 days thereafter, Successful Bidder shall execute and deliver the required number of counterparts of the Agreement (and any bonds and insurance documentation required to be delivered by the Contract Documents) to Owner. Within ten days thereafter, Owner shall deliver one fully executed counterpart of the Agreement to Successful Bidder, together with printed and electronic copies of the Contract Documents as stated in Paragraph 2.02 of the General Conditions.

ARTICLE 22 – PREVAILING WAGE RATES

- 22.01 **State wage rates do apply to this Contract. Refer to the Supplemental Conditions in these specifications for additional information regarding prevailing wage rates for this project.**
- 22.02 In accordance with ORS 279C.520, the employee shall be paid at least time and a half pay for daily, weekly, weekend, and holiday overtime. An employer must give notice in writing to employees who work on a public contract, either at the time of hire or before commencement of Work on the contract, or by posting a notice in a location frequented by employees, of the number of hours per day and days per week that the employees may be required to Work.
- 22.03 In accordance with 279C.530, the Contractor shall promptly make payment for medical services that the Contractor has agreed to pay for and all moneys and sums that the Contractor collected or deducted from the wages of employees under any law, contract or agreement for the purpose of providing or paying for the services.

ARTICLE 23 – BIDDER STATUS

- 23.01 Each Bid must identify whether the Bidder is a resident Bidder, as defined in ORS279A.120. To the greatest extent possible, the Contractor shall utilize local labor and businesses.
 - A. A Non-Resident Bidder awarded a contract with a price exceeding \$10,000 under provisions of ORS Chapter 279A.120, shall promptly report to the Department of Revenue on forms to be provided by the Oregon Department of Revenue the total Bid, terms of payment, length of contract and such other information as may be required before final payment can be received on a public contract. Final payment shall not be made until this provision has been accomplished.
- 23.02 No Bid for this public improvement contract will be received or considered by the Owner unless the Bidder is licensed with the Construction Contractors Board as required by ORS 670.600.

Section C-410 BID FORM

Contract Identification and Number:

**City of Amity, Oregon
ARPA Water Pipeline Replacements
Project No. 215108-021
Water System ID#: 41-00041**

Project Identification/Description:

Base Bid: The project includes construction of approximately 1,500 feet of 12-inch ductile-iron waterline on private property to replace an existing waterline serving the City's reservoir near Rice Lane; approximately 2,900 feet of 10- and 8-inch waterline within public right-of-way and private property near Goucher Street; and associated water service connections, valves, hydrants, pressure testing, disinfection and connections. Work performed within public rights-of-way is specified as Schedule A. Work performed within private property will occur within public utility easements that are in the process of being finalized, which are specified as Schedule B work items.

Compensation for this work will be paid on a unit price and lump sum basis.

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ARTICLE 1 – BID RECIPIENT

1.01 This Bid is submitted to:

Amity City Hall
109 Maddox Avenue
Amity, Oregon 97101

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 REPRESENTATIONS

3.01 In submitting this Bid, Bidder represents that:

A. 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>
_____	_____
_____	_____
_____	_____
_____	_____

B. 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.

C. Bidder is familiar with and has satisfied itself as to all Laws and Regulations that may affect cost, progress, and performance of the Work.

D. Bidder has carefully studied all: (1) 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 Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.

- E. 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.
- F. 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.
- G. 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.
- H. 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.
- I. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.
- J. 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.
- E. Bidder agrees to be bound by and will comply with and further agrees that the provisions required by ORS 279C.800 to 279C.870 relating to prevailing wage rates shall be included in this contract.
- F. Bidder agrees that if awarded the contract, he/she will furnish to the Owner, within ten (10) days after receiving from the Owner Notice of Award, a signed Agreement, such Bonds and certificates of insurance as are required by Owner, and evidence of five percent (5%) of Bidder's maximum Bid price (determined by adding the base bid and all alternates) public works bond filed by Bidder with the Oregon Construction Contractors Board.
- G. Bidder agrees that a completed First-Tier Subcontractor Disclosure Form is included with this bid submission. Bidder agrees that substitution of First-Tier Subcontractors will be made only in accordance with the provisions of ORS 279C.585.
- H. Bidder agrees that a completed Resident Bidder Status Form is included with the bid submission.

ARTICLE 5 – BASIS OF BID

- 5.01 Bidder will complete the Work in accordance with the Contract Documents for the price(s) indicated in the Bid Schedule of Prices submitted with the bid:
 - A. 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.
 - B. Unit prices have been computed in accordance with 13.03.B of the General Conditions.

Total of Lump Sum and Unit Price Bids = Total Bid Price \$ _____

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 in accordance with Paragraph 15.06 of the General Conditions 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. Bid Schedule of Prices;
- C. Non-Collusion Affidavit Form;
- D. First-Tier Subcontractor Disclosure Form;
- E. Resident Bidder Status Form;
- F. Contractor’s License No.: _____.

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, the General Conditions, and the Supplementary Conditions.

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.: _____

(where applicable)

SECTION 00 40 00 - BID SCHEDULE OF PRICES

NO.	DESCRIPTION	ESTIMATED QUANTITY	UNIT	BID UNIT PRICE	BID PRICE
GENERAL					
1	Mobilization, Demobilization, Bonds, Permits & Insurance	1	LS	\$ _____	\$ _____
2	Temporary Work-zone Traffic Control	1	LS	\$ _____	\$ _____
3	Erosion Control	1	LS	\$ _____	\$ _____
4	Construction Surveying	1	LS	\$ _____	\$ _____
PIPELINES					
5	8-inch C900 PVC Pipeline, Fittings, Complete	2,240	LF	\$ _____	\$ _____
6	12-inch C900 PVC Pipeline, Fittings, Complete	1,500	LF	\$ _____	\$ _____
7	12-inch HDPE Installation, Fittings, Complete	700	LF	\$ _____	\$ _____
SURFACE RESTORATION					
8	AC Pavement Street Restoration	290	TON	\$ _____	\$ _____
9	Turf/grass Surface Restoration	1,420	LF	\$ _____	\$ _____
10	Gravel Surface Restoration	1,020	LF	\$ _____	\$ _____
CONNECTIONS & GATE VALVES					
11	Rice Lane Waterline Connection (C-101)	1	LS	\$ _____	\$ _____
12	Reservoir Waterline Connection (C-104)	1	LS	\$ _____	\$ _____
13	Goucher Waterline at Oak Ave. (C-201)	1	LS	\$ _____	\$ _____
14	Goucher Waterline at 4-inch Connection (C-202)	1	LS	\$ _____	\$ _____
15	Goucher Waterline at Maple Ct. (C-203)	1	LS	\$ _____	\$ _____
16	Goucher Waterline at Barney Alley (C-205)	1	LS	\$ _____	\$ _____
17	Goucher Waterline at Church Ave. (C-206)	1	LS	\$ _____	\$ _____
18	Goucher Waterline at Nursery St. (C-207)	1	LS	\$ _____	\$ _____
PIPELINE APPURTENANCES					
19	New Fire Hydrant Assembly	2	EA	\$ _____	\$ _____
20	Air Release Valve Assembly	3	EA	\$ _____	\$ _____
21	Existing Water Service Reconnections- Rice Ln	1	LS	\$ _____	\$ _____
22	Existing Water Service Reconnections- Goucher St.	44	EA	\$ _____	\$ _____
23	Auger Bore Crossing	1	LS	\$ _____	\$ _____
24	Vegetation & Tree Removal and Disposal	1	LS	\$ _____	\$ _____
25	Trench Overexcavation	150	LF per FT	\$ _____	\$ _____

TOTAL BID PRICE: _____

TOTAL BID PRICE, in words: _____

SECTION C-430 BID BOND (Penal Sum Form)

Any singular reference to Bidder, Surety, Owner or other party shall be considered plural where applicable.

BIDDER (Name and Address):

SURETY (Name, and Address of Principal Place of Business):

OWNER (Name and Address):

BID

Bid Due Date:

Description (Project Name— Include Location):

BOND

Bond Number:

Date:

Penal sum _____ \$ _____

(Words)

(Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Bid Bond to be duly executed by an authorized officer, agent, or representative.

BIDDER

SURETY

(Seal) _____ (Seal)

Bidder's Name and Corporate Seal

Surety's Name and Corporate Seal

By: _____

Signature

By: _____

Signature (Attach Power of Attorney)

Print Name

Print Name

Title

Title

Attest: _____

Signature

Attest: _____

Signature

Title

Title

Note: Addresses are to be used for giving any required notice.

Provide execution by any additional parties, such as joint venturers, if necessary.

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 shall be Owner's sole and exclusive remedy upon default of Bidder.
2. Default of Bidder shall occur 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 shall 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 shall not in the aggregate exceed 120 days from the Bid due date without Surety's written consent.
6. No suit or action shall 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 shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
8. Notices required hereunder shall 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 Registered or Certified Mail, return receipt requested, postage pre-paid, and shall 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 shall 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 shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.
11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

SECTION 00 43 36 – FIRST-TIER SUBCONTRACTORS DISCLOSURE FORM

(OAR 137-049-0360 First-Tier Subcontractor Disclosure Form)

PROJECT NAME **ARPA Water Pipeline Replacements**
 BID CLOSING: Date: Time: **2:00 PM**

Deliver Form to: City of Amity, 109 Maddox Avenue, Amity, Oregon 97101

Person Designated to Receive Form: Nathan Frarck, City Administrator Phone: (503) 835-3711

Form Submitted By (Bidder Name): _____

Contact Name: _____ Phone #: _____

Is the bid total greater than \$100,000? YES NO (If NO, bidder is not required to provide 1st tier subcontractor information below).

Bids which are submitted by Bid Closing, but for which a separate and sealed Disclosure has not been submitted within 2 working hours, will be considered Non-Responsive and will not be considered for award.

If bid total is greater than \$100,000, list below the Name, Address, and Category of work of each 1st tier subcontractor that will be furnishing labor or labor and materials that are required to be disclosed. Enter 'NONE' if there are no subcontractors that need to be disclosed. (IF NEEDED ATTACH ADDITIONAL SHEETS).

1 st Tier Subcontractor Name	Subcontract Dollar Value	Category or Categories of Work Each Subcontractor will be Performing	**Subcontractor CCB #
None (strike out "None" if listing subs)			

The above listed first-tier subcontractor(s) are providing labor or labor and materials with a Dollar Value equal to or greater than:

- a) 5% of the total Contract Price, but at least \$15,000 (including all alternates). If the Dollar Value is less than \$15,000 do not list the subcontractor above; or
- b) \$350,000 regardless of the percentage of the total Contract Price.

***Per ORS 701.005(5)(a), ORS 701.021(1) and ORS 701.026(1), any contractor or subcontractor must be licensed through the Oregon Construction Contractor Board (CCB) in order to "undertake, offer to undertake or submit a bid to do work" in the State of Oregon. Contractor registration "at the time the offer is made" is a matter of bid responsiveness under OAR 137-049-0230(1).

INSTRUCTIONS FOR FIRST-TIER SUBCONTRACTOR DISCLOSURE

In addition, when the contract value for a Public Improvement is greater than \$100,000, bidders are required to disclose information about certain first-tier subcontractors (see ORS 279C.370(3)). Specifically, when the contract amount of a first-tier subcontractor is greater than or equal to: (i) 5% of the project bid, but at least \$15,000, or (ii) \$350,000 regardless of the percentage, the Bidder must disclose the following information about that subcontract within two (2) hours of bid closing:

- The subcontractor's name, and
- The dollar value of each subcontract, and
- The category or categories of work that each subcontractor will be performing

If the Bidder will not be using any subcontractors that are subject to the above disclosure requirements, the Bidder is required to indicate "NONE" on the First Tier Subcontractor Disclosure Form.

To determine disclosure requirements, it is recommended that the Bidder disclose subcontract information for any subcontractor as follows:

- (1) Determine the lowest possible contract price. That will be the base bid amount (exclusive of any options that can only be exercised after contract award, if any).
- (2) Provide the required disclosure information for any first-tier subcontractor whose potential contract services (subcontractor base bid amount, exclusive of any options that can only be exercised after contract award, if any) are greater than or equal to:
 - (i) 5% of that lowest contract price, but at least \$15,000, or
 - (ii) \$350,000 regardless of the percentage.

Total all possible work for each subcontractor in making this determination (ie. if a subcontractor will provide \$15,000 worth of labor or labor and materials in one category of work and \$40,000 on another category of work, then the potential amount of subcontractor's labor or labor and materials is \$55,000. Assuming that \$55,000 exceeds 5% of the lowest contract price, provide the disclosure for both the \$15,000 and the \$40,000).

SUBMISSION. This form must be submitted at the location and in the manner described. This disclosure form shall be submitted either in the same envelope as the bid, or within two working hours of the bid closing per OAR 137-049-0360. This form shall not be faxed, and it is the responsibility of the Bidder to submit this Disclosure Form and any additional sheets, if required.

RESPONSIVENESS. Compliance with the disclosure and submittal requirements outlined herein and in ORS 279C.370(3) is a matter of Responsiveness. As required by OAR 137-049-360(5), bids that are submitted by Bid Closing, but for which the Disclosure has not been submitted, will be considered Non-Responsive and will not be considered for Contract award.

SECTION 00 43 38 – RESIDENT BIDDER STATUS FORM

OAR 137-049-0390 states "In determining the lowest responsive Bid, the State must add a percentage increase to the Bid of a nonresident Bidder equal to the percentage, if any, of the preference given to that Bidder in the state in which the Bidder resides."

"Resident Bidder" means a Bidder that has paid unemployment taxes or income taxes in this state during the 12 calendar months immediately preceding submission of the Bid, has a business address in this State, and has stated in the Bid whether the Bidder is a "resident Bidder".(OAR 137-046-0110)

"Non-resident Bidder" means a Bidder who is not a "resident Bidder" as defined above. (OAR 137-046-0110)

- a. Check one: Bidder is a () Resident Bidder
() Non-resident Bidder

b. If a Resident Bidder, enter your Oregon business address: _____

c. If a Non-resident Bidder, enter state of residency: _____

FOREIGN CONTRACTOR: If the amount of the Contract exceeds ten thousand dollars (\$10,000), and if Contractor is not domiciled in or registered to do business in the State, Contractor shall promptly provide to the Oregon Department of Revenue all information required by that Department relative to the Contract. AGENCY shall be entitled to withhold final payment under the Contract until Contractor has met this requirement.

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SECTION 00 43 93 – BID SUBMITTAL CHECKLIST

Bidder’s attention is called to the following. Any required forms must be executed in full as required.

BID FORM

Each Bidder shall complete all sheets in the Bid Form.

BID BOND (PENAL SUM) FORM

This form is to be executed by the Bidder and their Surety. The amount of cash, certified check or Bid bond shall not be less than 5% of the Bid.

FIRST-TIER SUBCONTRACTORS DISCLOSURE FORM

Each Bidder shall complete this form to be submitted with Bid.

RESIDENT BIDDER STATUS FORM

Each Bidder shall complete this form to be submitted with Bid.

NON-COLLUSION AFFIDAVIT FORM

Each Bidder shall complete this form to be submitted with Bid.

The following forms are to be executed after the Contract is awarded:

CONTRACT FORMS (C-510, C-520, C-550)

This is the contract to be executed by the successful Bidder.

PERFORMANCE AND PAYMENT BOND SECTIONS (C-610 AND C-615)

To be executed by the successful Bidder and their surety company prior to the execution of the contract by the Agency.

PREVAILING WAGE

See Supplemental General conditions.

CERTIFICATE OF INSURANCE

To be executed by the successful Bidder and their insurance company prior to the execution of the contract by the Agency.

- End of Bid Submittal Checklist -

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SECTION 00 45 19 – NON-COLLUSION AFFIDAVIT

NON-COLLUSION AFFIDAVIT CERTIFICATE

State of _____)

ss

County of _____)

The undersigned, being duly sworn, deposes and says that the person, firm, association, copartnership, or corporation herein named has not either directly or indirectly entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in the preparation and submission of a proposal to the Owner for consideration in the award of a contract on the improvements described as follows:

City of Amity
ARPA Water Pipeline Replacements
Project No. 215108-021
Water System ID#: 41-00041

Firm Name

Authorized Member

Sworn to before me, this _____ day of _____, 2022

Notary Public

in and for the State of _____

END OF SECTION

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CONTRACT FORMS

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**SECTION C-520 – AGREEMENT
BETWEEN OWNER AND CONTRACTOR
FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)**

THIS AGREEMENT is by and between City of Amity, Oregon (“Owner”) and
_____ (“Contractor”).

Owner and Contractor hereby agree as follows:

ARTICLE 1 – WORK

1.01 Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

- A. The project includes construction of approximately 1,500 feet of 12-inch PVC waterline on private property to replace an existing waterline serving the City’s reservoir near Rice Lane; installation of approximately 700 feet of owner-furnished 12-inch HDPE pipe along private property, and installation of 2,100 feet of 8-inch PVC waterline within public right-of-way along Goucher Street. The project includes one auger bore drainage crossing, water service connections, valves, hydrants, pressure testing, disinfection and connections. Work performed within public rights-of-way is specified as Schedule A. Work performed within private property will occur within public utility easements that are in the process of being finalized, which are specified as Schedule B work items. The limits of Schedules A and B are shown in the drawings and defined in Section 01 35 13-Special Project Procedures.

ARTICLE 2 – THE PROJECT

2.01 The Project, of which the Work under the Contract Documents is a part, is generally described as follows: City of Amity, Oregon ARPA Water Pipeline Replacements.

ARTICLE 3 – ENGINEER

- 3.01 The Project has been designed by Keller Associates.
- 3.02 The Owner has retained Keller Associates (“Engineer”) to act as Owner’s representative, assume all duties and responsibilities, and have the rights and authority assigned to Engineer in the Contract Documents in connection with the completion of the Work in accordance with the Contract Documents.

ARTICLE 4 – CONTRACT TIMES

- 4.01 *Time of the Essence*
 - A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 *Contract Times: Dates*

- A. The Work will be substantially completed on or before December 1, 2024, and completed and ready for final payment in accordance with Paragraph 15.06 of the General Conditions on or before December 15, 2024.
- B. Funds for this project are entirely sourced from the Coronavirus State and Local Fiscal Recovery Funds program (CSFRF). This funding source has a completion deadline of December, 31, 2024.

4.03 *Liquidated Damages*

- A. Contractor and Owner recognize that time is of the essence as stated in Paragraph 4.01 above and that Owner will suffer financial and other losses if the Work is not completed and Milestones not achieved within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with the Contract. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, Owner and Contractor agree that as liquidated damages for delay (but not as a penalty):
 - 1. Substantial Completion: Contractor shall pay Owner \$1,000.00 for each day that expires after the time (as duly adjusted pursuant to the Contract) specified in Paragraph 4.02.A 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 Time (as duly adjusted pursuant to the Contract) for completion and readiness for final payment, Contractor shall pay Owner \$1,000.00 for each day that expires after such time until the Work is completed and ready for final payment.
 - 3. Liquidated damages for failing to timely attain Substantial Completion and final completion are additive and will be imposed concurrently.

4.04 *Special Damages*

- A. In addition to the amount provided for liquidated damages, Contractor shall reimburse Owner (1) for any fines or penalties imposed on Owner as a direct result of the Contractor's failure to attain Substantial Completion according to the Contract Times, and (2) for the actual costs reasonably incurred by Owner for engineering, construction observation, inspection, and administrative services needed after the time specified in Paragraph 4.02 for Substantial Completion (as duly adjusted pursuant to the Contract), until the Work is substantially complete.
- B. After Contractor achieves Substantial Completion, if Contractor shall neglect, refuse, or fail to complete the remaining Work within the Contract Times, Contractor shall reimburse Owner for the actual costs reasonably incurred by Owner for engineering, construction observation, inspection, and administrative services needed after the time specified in Paragraph 4.02 for Work to be completed and ready for final payment (as duly adjusted pursuant to the Contract), until the Work is completed and ready for final payment.

ARTICLE 5 – CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents the amounts that follow, subject to adjustment under the Contract:

- A. For all Work, at the prices stated in Contractor’s Bid, attached hereto as an exhibit.

ARTICLE 6 – PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

- A. Contractor shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by Engineer as provided in the General Conditions.

6.02 *Progress Payments; Retainage*

- A. Owner shall make progress payments on account of the Contract Price on the basis of Contractor’s Applications for Payment on or about the 25th day of each month during performance of the Work as provided in Paragraph 6.02.A.1 below, provided that such Applications for Payment have been submitted in a timely manner and otherwise meet the requirements of the Contract. All such payments will be measured by the Schedule of Values established as provided in the General Conditions (and in the case of Unit Price Work based on the number of units completed) or, in the event there is no Schedule of Values, as provided elsewhere in the Contract.

- 1. Prior to Substantial Completion, progress payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as Owner may withhold, including but not limited to liquidated damages, in accordance with the Contract
 - a. 95 percent of Work completed (with the balance being retainage); and
 - b. 95 percent of cost of materials and equipment not incorporated in the Work (with the balance being retainage).

- B. Upon Substantial Completion **of the entire construction to be provided under the Contract Documents**, Owner shall pay an amount sufficient to increase total payments to Contractor to 100 percent of the Work completed, less such amounts set off by Owner pursuant to Paragraph 15.01.E of the General Conditions, and less 200 percent of Engineer’s estimate of the value of Work to be completed or corrected as shown on the punch list of items to be completed or corrected prior to final payment.

6.03 *Final Payment*

- A. Upon final completion and acceptance of the Work in accordance with Paragraph 15.06 of the General Conditions, Owner shall pay the remainder of the Contract Price as recommended by Engineer as provided in said Paragraph 15.06.

ARTICLE 7 – INTEREST

7.01 All amounts not paid when due shall bear interest at the rate of six (6) percent per annum.

ARTICLE 8 – CONTRACTOR’S REPRESENTATIONS

- 8.01 In order to induce Owner to enter into this Contract, Contractor makes the following representations:
- A. Contractor has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents.
 - B. Contractor has visited the Site, conducted a thorough, alert 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.
 - C. Contractor is familiar with and is satisfied as to all Laws and Regulations that may affect cost, progress, and performance of the Work.
 - D. Contractor has carefully studied all: (1) 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 Supplementary Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the Supplementary Conditions, especially with respect to Technical Data in such reports and drawings.
 - E. 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 (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor; and (3) Contractor’s safety precautions and programs.
 - F. 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.
 - G. 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.
 - H. 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.
 - I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.
 - J. Contractor’s entry into this Contract constitutes an incontrovertible representation by Contractor that without exception all prices in the Agreement are premised upon performing and furnishing the Work required by the Contract Documents.

ARTICLE 9 – CONTRACT DOCUMENTS

9.01 *Contents*

- A. The Contract Documents consist of the following:
1. This Agreement (pages 1 to ___, inclusive).
 2. Performance bond (pages ___ to ___, inclusive).
 3. Payment bond (pages ___ to ___, inclusive).
 4. General Conditions (pages ___ to ___, inclusive).
 5. Supplementary Conditions (pages ___ to ___, inclusive).
 6. Specifications as listed in the table of contents of the Project Manual.
 7. Drawings (not attached but incorporated by reference) consisting of ___ sheets with each sheet bearing the following general title: **City of Amity, ARPA Water Pipeline Replacements.**
 8. Addenda (numbers ___ to ___, inclusive).
 9. Exhibits to this Agreement (enumerated as follows):
 - a. Contractor’s Bid and Bid Schedule of Prices (pages ___ to ___, inclusive).
 - b. Section 00 42 00 - Bid Schedule of Prices (pages ___ to ___, inclusive).
 10. The following which may be delivered or issued on or after the Effective Date of the Contract and are not attached hereto:
 - a. Notice to Proceed.
 - b. Work Change Directives.
 - c. Change Orders.
 - d. Field Orders.
- B. The documents listed in Paragraph 9.01.A are attached to this Agreement (except as expressly noted otherwise above).
- C. There are no Contract Documents other than those listed above in this Article 9.
- D. The Contract Documents may only be amended, modified, or supplemented as provided in the General Conditions.

ARTICLE 10 – MISCELLANEOUS

10.01 *Terms*

- A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

10.02 *Assignment of Contract*

- A. Unless expressly agreed to elsewhere in the Contract, no assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation,

money that may become due and money that is due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.03 *Successors and Assigns*

- A. Owner and Contractor each binds itself, its successors, assigns, and legal representatives to the other party hereto, its successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.04 *Severability*

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon Owner and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

10.05 *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. For the purposes of this Paragraph 10.05:
 - 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 or in the Contract execution;
 - 2. "fraudulent practice" means an intentional misrepresentation of facts made (a) to influence the bidding process or the execution of the Contract to the detriment of Owner, (b) to establish Bid or Contract 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.

10.06 *Other Provisions*

- A. Owner stipulates that if the General Conditions that are made a part of this Contract are based on EJCDC® C-700, Standard General Conditions for the Construction Contract, published by the Engineers Joint Contract Documents Committee®, and if Owner is the party that has furnished said General Conditions, then Owner has plainly shown all modifications to the standard wording of such published document to the Contractor, through a process such as highlighting or "track changes" (redline/strikeout), or in the Supplementary Conditions.

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

This Agreement 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 Agreement.)

C-610 - PERFORMANCE BOND

CONTRACTOR (name and address):

SURETY (name and address of principal place of business):

OWNER (name and address):

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description (name and location): City of Amity, ARPA Water Pipeline Replacements

BOND

Bond Number:

Date (not earlier than the Effective Date of the Agreement of the Construction Contract):

Amount:

Modifications to this Bond Form: None See Paragraph 16

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

Contractor's Name and Corporate Seal (seal)

Surety's Name and Corporate Seal (seal)

By: _____
Signature

By: _____
Signature (attach power of attorney)

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

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 shall 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 shall 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 shall 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 shall 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 shall 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 shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. 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 shall not be reduced or set off on account of any such unrelated obligations. No right of action shall 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 may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall 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 shall be applicable.

12. Notice to the Surety, the Owner, or the Contractor shall 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 shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall 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 shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

16. Modifications to this Bond are as follows

SECTION C-615 - PAYMENT BOND

CONTRACTOR *(name and address):*

SURETY *(name and address of principal place of business):*

OWNER *(name and address):*

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description *(name and location):* **City of Amity, ARPA Water Pipeline Replacements**

BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract):*

Amount:

Modifications to this Bond Form: None See Paragraph 18

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

_____ *(seal)*
Contractor's Name and Corporate Seal

_____ *(seal)*
Surety's Name and Corporate Seal

By: _____
Signature

By: _____
Signature *(attach power of attorney)*

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

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 shall 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 shall 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 shall 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 shall 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 shall 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 shall 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 satisfy 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 shall 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 shall be applicable.

13. Notice and Claims to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall 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 shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall 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:
 1. The name of the Claimant;
 2. The name of the person for whom the labor was done, or materials or equipment furnished;
 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;
 4. A brief description of the labor, materials, or equipment furnished;
 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;
 6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;

7. The total amount of previous payments received by the Claimant; and
 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 shall be 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 shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.
 18. Modifications to this Bond are as follows:

CONDITIONS OF THE CONTRACT

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This document has important legal consequences; consultation with an attorney is encouraged with respect to its use or modification. This document should be adapted to the particular circumstances of the contemplated Project and the controlling Laws and Regulations.

SECTION C-700 – STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

Prepared by



Issued and Published Jointly by



These General Conditions have been prepared for use with the Agreement Between Owner and Contractor for Construction Contract (EJCDC® C-520, Stipulated Sum, or C-525, Cost-Plus, 2013 Editions). Their provisions are interrelated and a change in one may necessitate a change in the other.

To prepare supplementary conditions that are coordinated with the General Conditions, use EJCDC's Guide to the Preparation of Supplementary Conditions (EJCDC® C-800, 2013 Edition). The full EJCDC Construction series of documents is discussed in the Commentary on the 2013 EJCDC Construction Documents (EJCDC® C-001, 2013 Edition).

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STANDARD GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

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ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents, a term printed with initial capital letters, including the term's singular and plural forms, will have the meaning indicated in the definitions below. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda*—Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
 2. *Agreement*—The written instrument, executed by Owner and Contractor, that sets forth the Contract Price and Contract Times, identifies the parties and the Engineer, and designates the specific items that are Contract Documents.
 3. *Application for Payment*—The form acceptable to Engineer which is to be used by Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 4. *Bid*—The offer of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 5. *Bidder*—An individual or entity that submits a Bid to Owner.
 6. *Bidding Documents*—The Bidding Requirements, the proposed Contract Documents, and all Addenda.
 7. *Bidding Requirements*—The advertisement or invitation to bid, Instructions to Bidders, Bid Bond or other Bid security, if any, the Bid Form, and the Bid with any attachments.
 8. *Change Order*—A document which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, or other revision to the Contract, issued on or after the Effective Date of the Contract.
 9. *Change Proposal*—A written request by Contractor, duly submitted in compliance with the procedural requirements set forth herein, seeking an adjustment in Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; challenging a set-off against payments due; or seeking other relief with respect to the terms of the Contract.
 10. *Claim*—(a) A demand or assertion by Owner directly to Contractor, duly submitted in compliance with the procedural requirements set forth herein: seeking an adjustment of Contract Price or Contract Times, or both; contesting an initial decision by Engineer concerning the requirements of the Contract Documents or the acceptability of Work under the Contract Documents; contesting Engineer's decision regarding a Change Proposal; seeking resolution of a contractual issue that Engineer has declined to address; or seeking other relief with respect to the terms of the Contract; or (b) a

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demand or assertion by Contractor directly to Owner, duly submitted in compliance with the procedural requirements set forth herein, contesting Engineer's decision regarding a Change Proposal; or seeking resolution of a contractual issue that Engineer has declined to address. A demand for money or services by a third party is not a Claim.

11. *Constituent of Concern*—Asbestos, petroleum, radioactive materials, polychlorinated biphenyls (PCBs), hazardous waste, and any substance, product, waste, or other material of any nature whatsoever that is or becomes listed, regulated, or addressed pursuant to (a) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. §§9601 et seq. ("CERCLA"); (b) the Hazardous Materials Transportation Act, 49 U.S.C. §§5501 et seq.; (c) the Resource Conservation and Recovery Act, 42 U.S.C. §§6901 et seq. ("RCRA"); (d) the Toxic Substances Control Act, 15 U.S.C. §§2601 et seq.; (e) the Clean Water Act, 33 U.S.C. §§1251 et seq.; (f) the Clean Air Act, 42 U.S.C. §§7401 et seq.; or (g) any other federal, state, or local statute, law, rule, regulation, ordinance, resolution, code, order, or decree regulating, relating to, or imposing liability or standards of conduct concerning, any hazardous, toxic, or dangerous waste, substance, or material.
12. *Contract*—The entire and integrated written contract between the Owner and Contractor concerning the Work.
13. *Contract Documents*—Those items so designated in the Agreement, and which together comprise the Contract.
14. *Contract Price*—The money that Owner has agreed to pay Contractor for completion of the Work in accordance with the Contract Documents. .
15. *Contract Times*—The number of days or the dates by which Contractor shall: (a) achieve Milestones, if any; (b) achieve Substantial Completion; and (c) complete the Work.
16. *Contractor*—The individual or entity with which Owner has contracted for performance of the Work.
17. *Cost of the Work*—See Paragraph 13.01 for definition.
18. *Drawings*—The part of the Contract that graphically shows the scope, extent, and character of the Work to be performed by Contractor.
19. *Effective Date of the Contract*—The date, indicated in the Agreement, on which the Contract becomes effective.
20. *Engineer*—The individual or entity named as such in the Agreement.
21. *Field Order*—A written order issued by Engineer which requires minor changes in the Work but does not change the Contract Price or the Contract Times.
22. *Hazardous Environmental Condition*—The presence at the Site of Constituents of Concern in such quantities or circumstances that may present a danger to persons or property exposed thereto. The presence at the Site of materials that are necessary for the execution of the Work, or that are to be incorporated in the Work, and that are controlled and contained pursuant to industry practices, Laws and Regulations, and the requirements of the Contract, does not establish a Hazardous Environmental Condition.

23. *Laws and Regulations; Laws or Regulations*—Any and all applicable laws, statutes, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
24. *Liens*—Charges, security interests, or encumbrances upon Contract-related funds, real property, or personal property.
25. *Milestone*—A principal event in the performance of the Work that the Contract requires Contractor to achieve by an intermediate completion date or by a time prior to Substantial Completion of all the Work.
26. *Notice of Award*—The written notice by Owner to a Bidder of Owner’s acceptance of the Bid.
27. *Notice to Proceed*—A written notice by Owner to Contractor fixing the date on which the Contract Times will commence to run and on which Contractor shall start to perform the Work.
28. *Owner*—The individual or entity with which Contractor has contracted regarding the Work, and which has agreed to pay Contractor for the performance of the Work, pursuant to the terms of the Contract.
29. *Progress Schedule*—A schedule, prepared and maintained by Contractor, describing the sequence and duration of the activities comprising the Contractor’s plan to accomplish the Work within the Contract Times.
30. *Project*—The total undertaking to be accomplished for Owner by engineers, contractors, and others, including planning, study, design, construction, testing, commissioning, and start-up, and of which the Work to be performed under the Contract Documents is a part.
31. *Project Manual*—The written documents prepared for, or made available for, procuring and constructing the Work, including but not limited to the Bidding Documents or other construction procurement documents, geotechnical and existing conditions information, the Agreement, bond forms, General Conditions, Supplementary Conditions, and Specifications. The contents of the Project Manual may be bound in one or more volumes.
32. *Resident Project Representative*—The authorized representative of Engineer assigned to assist Engineer at the Site. As used herein, the term Resident Project Representative or “RPR” includes any assistants or field staff of Resident Project Representative.
33. *Samples*—Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and that establish the standards by which such portion of the Work will be judged.
34. *Schedule of Submittals*—A schedule, prepared and maintained by Contractor, of required submittals and the time requirements for Engineer’s review of the submittals and the performance of related construction activities.
35. *Schedule of Values*—A schedule, prepared and maintained by Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing Contractor’s Applications for Payment.

36. *Shop Drawings*—All drawings, diagrams, illustrations, schedules, and other data or information that are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work. Shop Drawings, whether approved or not, are not Drawings and are not Contract Documents.
37. *Site*—Lands or areas indicated in the Contract Documents as being furnished by Owner upon which the Work is to be performed, including rights-of-way and easements, and such other lands furnished by Owner which are designated for the use of Contractor.
38. *Specifications*—The part of the Contract that consists of written requirements for materials, equipment, systems, standards, and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable to the Work.
39. *Subcontractor*—An individual or entity having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work.
40. *Substantial Completion*—The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.
41. *Successful Bidder*—The Bidder whose Bid the Owner accepts, and to which the Owner makes an award of contract, subject to stated conditions.
42. *Supplementary Conditions*—The part of the Contract that amends or supplements these General Conditions.
43. *Supplier*—A manufacturer, fabricator, supplier, distributor, materialman, or vendor having a direct contract with Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by Contractor or a Subcontractor.
44. *Technical Data*—Those items expressly identified as Technical Data in the Supplementary Conditions, with respect to either (a) subsurface conditions at the Site, or physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities) or (b) Hazardous Environmental Conditions at the Site. If no such express identifications of Technical Data have been made with respect to conditions at the Site, then the data contained in boring logs, recorded measurements of subsurface water levels, laboratory test results, and other factual, objective information regarding conditions at the Site that are set forth in any geotechnical or environmental report prepared for the Project and made available to Contractor are hereby defined as Technical Data with respect to conditions at the Site under Paragraphs 5.03, 5.04, and 5.06.
45. *Underground Facilities*—All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including but not limited to those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, fiber optic transmissions, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.

46. *Unit Price Work*—Work to be paid for on the basis of unit prices.
47. *Work*—The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction; furnishing, installing, and incorporating all materials and equipment into such construction; and may include related services such as testing, start-up, and commissioning, all as required by the Contract Documents.
48. *Work Change Directive*—A written directive to Contractor issued on or after the Effective Date of the Contract, signed by Owner and recommended by Engineer, ordering an addition, deletion, or revision in the Work.

1.02 *Terminology*

- A. The words and terms discussed in the following paragraphs are not defined but, when used in the Bidding Requirements or Contract Documents, have the indicated meaning.
- B. *Intent of Certain Terms or Adjectives*:
 1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of professional judgment by Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of Engineer as to the Work. It is intended that such exercise of professional judgment, action, or determination will be solely to evaluate, in general, the Work for compliance with the information in the Contract Documents and with the design concept of the Project as a functioning whole as shown or indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to Engineer any duty or authority to supervise or direct the performance of the Work, or any duty or authority to undertake responsibility contrary to the provisions of Article 10 or any other provision of the Contract Documents.
- C. *Day*:
 1. The word “day” means a calendar day of 24 hours measured from midnight to the next midnight.
- D. *Defective*:
 1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - a. does not conform to the Contract Documents; or
 - b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
 - c. has been damaged prior to Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner at Substantial Completion in accordance with Paragraph 15.03 or 15.04).

- E. *Furnish, Install, Perform, Provide:*
1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
 2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
 3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
 4. If the Contract Documents establish an obligation of Contractor with respect to specific services, materials, or equipment, but do not expressly use any of the four words “furnish,” “install,” “perform,” or “provide,” then Contractor shall furnish and install said services, materials, or equipment complete and ready for intended use.
- F. Unless stated otherwise in the Contract Documents, words or phrases that have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 *Delivery of Bonds and Evidence of Insurance*

- A. *Bonds:* When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner such bonds as Contractor may be required to furnish.
- B. *Evidence of Contractor’s Insurance:* When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract), the certificates and other evidence of insurance required to be provided by Contractor in accordance with Article 6.
- C. *Evidence of Owner’s Insurance:* After receipt of the executed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor, with copies to each named insured and additional insured (as identified in the Supplementary Conditions or otherwise), the certificates and other evidence of insurance required to be provided by Owner under Article 6.

2.02 *Copies of Documents*

- A. Owner shall furnish to Contractor four printed copies of the Contract (including one fully executed counterpart of the Agreement), and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.
- B. Owner shall maintain and safeguard at least one original printed record version of the Contract, including Drawings and Specifications signed and sealed by Engineer and other design professionals. Owner shall make such original printed record version of the Contract

available to Contractor for review. Owner may delegate the responsibilities under this provision to Engineer.

2.03 *Before Starting Construction*

- A. *Preliminary Schedules:* Within 10 days after the Effective Date of the Contract (or as otherwise specifically required by the Contract Documents), Contractor shall submit to Engineer for timely review:
1. a preliminary Progress Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any Milestones specified in the Contract;
 2. a preliminary Schedule of Submittals; and
 3. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.04 *Preconstruction Conference; Designation of Authorized Representatives*

- A. Before any Work at the Site is started, a conference attended by Owner, Contractor, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.03.A, procedures for handling Shop Drawings, Samples, and other submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.
- B. At this conference Owner and Contractor each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

2.05 *Initial Acceptance of Schedules*

- A. At least 10 days before submission of the first Application for Payment a conference, attended by Contractor, Engineer, and others as appropriate, will be held to review for acceptability to Engineer as provided below the schedules submitted in accordance with Paragraph 2.03.A. Contractor shall have an additional 10 days to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to Contractor until acceptable schedules are submitted to Engineer.
1. The Progress Schedule will be acceptable to Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work, nor interfere with or relieve Contractor from Contractor's full responsibility therefor.
 2. Contractor's Schedule of Submittals will be acceptable to Engineer if it provides a workable arrangement for reviewing and processing the required submittals.

3. Contractor's Schedule of Values will be acceptable to Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to the component parts of the Work.

2.06 *Electronic Transmittals*

- A. Except as otherwise stated elsewhere in the Contract, the Owner, Engineer, and Contractor may transmit, and shall accept, Project-related correspondence, text, data, documents, drawings, information, and graphics, including but not limited to Shop Drawings and other submittals, in electronic media or digital format, either directly, or through access to a secure Project website.
- B. If the Contract does not establish protocols for electronic or digital transmittals, then Owner, Engineer, and Contractor shall jointly develop such protocols.
- C. When transmitting items in electronic media or digital format, the transmitting party makes no representations as to long term compatibility, usability, or readability of the items resulting from the recipient's use of software application packages, operating systems, or computer hardware differing from those used in the drafting or transmittal of the items, or from those established in applicable transmittal protocols.

ARTICLE 3 – DOCUMENTS: INTENT, REQUIREMENTS, REUSE

3.01 *Intent*

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract Documents.
- C. Unless otherwise stated in the Contract Documents, if there is a discrepancy between the electronic or digital versions of the Contract Documents (including any printed copies derived from such electronic or digital versions) and the printed record version, the printed record version shall govern.
- D. The Contract supersedes prior negotiations, representations, and agreements, whether written or oral.
- E. Engineer will issue clarifications and interpretations of the Contract Documents as provided herein.

3.02 *Reference Standards*

- A. Standards Specifications, Codes, Laws and Regulations
 1. Reference in the Contract Documents to standard specifications, manuals, reference standards, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard specification, manual, reference standard, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Contract if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.

2. No provision of any such standard specification, manual, reference standard, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees, from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to Owner, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the part of the Contract Documents prepared by or for Engineer.

3.03 *Reporting and Resolving Discrepancies*

A. *Reporting Discrepancies:*

1. *Contractor's Verification of Figures and Field Measurements:* Before undertaking each part of the Work, Contractor shall carefully study the Contract Documents, and check and verify pertinent figures and dimensions therein, particularly with respect to applicable field measurements. Contractor shall promptly report in writing to Engineer any conflict, error, ambiguity, or discrepancy that Contractor discovers, or has actual knowledge of, and shall not proceed with any Work affected thereby until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.
2. *Contractor's Review of Contract Documents:* If, before or during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents, or between the Contract Documents and (a) any applicable Law or Regulation, (b) actual field conditions, (c) any standard specification, manual, reference standard, or code, or (d) any instruction of any Supplier, then Contractor shall promptly report it to Engineer in writing. Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 7.15) until the conflict, error, ambiguity, or discrepancy is resolved, by a clarification or interpretation by Engineer, or by an amendment or supplement to the Contract Documents issued pursuant to Paragraph 11.01.
3. Contractor shall not be liable to Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless Contractor had actual knowledge thereof.

B. *Resolving Discrepancies:*

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the part of the Contract Documents prepared by or for Engineer shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between such provisions of the Contract Documents and:
 - a. the provisions of any standard specification, manual, reference standard, or code, or the instruction of any Supplier (whether or not specifically incorporated by reference as a Contract Document); or

- b. the provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 *Requirements of the Contract Documents*

- A. During the performance of the Work and until final payment, Contractor and Owner shall submit to the Engineer all matters in question concerning the requirements of the Contract Documents (sometimes referred to as requests for information or interpretation—RFIs), or relating to the acceptability of the Work under the Contract Documents, as soon as possible after such matters arise. Engineer will be the initial interpreter of the requirements of the Contract Documents, and judge of the acceptability of the Work thereunder.
- B. Engineer will, with reasonable promptness, render a written clarification, interpretation, or decision on the issue submitted, or initiate an amendment or supplement to the Contract Documents. Engineer’s written clarification, interpretation, or decision will be final and binding on Contractor, unless it appeals by submitting a Change Proposal, and on Owner, unless it appeals by filing a Claim.
- C. If a submitted matter in question concerns terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work under the Contract Documents, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, then Engineer will promptly give written notice to Owner and Contractor that Engineer is unable to provide a decision or interpretation. If Owner and Contractor are unable to agree on resolution of such a matter in question, either party may pursue resolution as provided in Article 12.

3.05 *Reuse of Documents*

- A. Contractor and its Subcontractors and Suppliers shall not:
 - 1. have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of Owner and Engineer and specific written verification or adaptation by Engineer; or
 - 2. have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without Owner’s express written consent, or violate any copyrights pertaining to such Contract Documents.
- B. The prohibitions of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude Contractor from retaining copies of the Contract Documents for record purposes.

ARTICLE 4 – COMMENCEMENT AND PROGRESS OF THE WORK

4.01 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Contract or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the

Contract. In no event will the Contract Times commence to run later than the sixtieth day after the day of Bid opening or the thirtieth day after the Effective Date of the Contract, whichever date is earlier.

4.02 *Starting the Work*

- A. Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to such date.

4.03 *Reference Points*

- A. Owner shall provide engineering surveys to establish reference points for construction which in Engineer's judgment are necessary to enable Contractor to proceed with the Work. Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of Owner. Contractor shall report to Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.04 *Progress Schedule*

- A. Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.05 as it may be adjusted from time to time as provided below.
 - 1. Contractor shall submit to Engineer for acceptance (to the extent indicated in Paragraph 2.05) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times.
 - 2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 11.
- B. Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as permitted by Paragraph 16.04, or as Owner and Contractor may otherwise agree in writing.

4.05 *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. Delay, disruption, and interference attributable to and within the control of a Subcontractor or Supplier shall be deemed to be within the control of Contractor.
- 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. Contractor's entitlement to an adjustment of the Contract Times is

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conditioned on such adjustment being essential to Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be Contractor's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include but are not limited to the following:

1. severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
 2. abnormal weather conditions;
 3. acts or failures to act of utility owners (other than those performing other work at or adjacent to the Site by arrangement with the Owner, as contemplated in Article 8); and
 4. acts of war or terrorism.
- D. Delays, disruption, and interference to the performance or progress of the Work resulting from the existence of a differing subsurface or physical condition, an Underground Facility that was not shown or indicated by the Contract Documents, or not shown or indicated with reasonable accuracy, and those resulting from Hazardous Environmental Conditions, are governed by Article 5.
- E. Paragraph 8.03 governs delays, disruption, and interference to the performance or progress of the Work resulting from the performance of certain other work at or adjacent to the Site.
- F. 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.
- G. Contractor must submit any Change Proposal seeking an adjustment in Contract Price or Contract Times under this paragraph within 30 days of the commencement of the delaying, disrupting, or interfering event.

ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

5.01 *Availability of Lands*

- A. Owner shall furnish the Site. Owner shall notify Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which Contractor must comply in performing the Work.
- B. Upon reasonable written request, Owner shall furnish Contractor with a current statement of record legal title and legal description of the lands upon which permanent improvements are to be made and Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.02 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas:*

1. Contractor shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Site, adjacent areas that Contractor has arranged to use through construction easements or otherwise, and other adjacent areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and such other adjacent areas with construction equipment or other materials or equipment. Contractor shall assume full responsibility for (a) damage to the Site; (b) damage to any such other adjacent areas used for Contractor's operations; (c) damage to any other adjacent land or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the Contractor or those for which Contractor is responsible.
 2. If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible, Contractor shall (a) take immediate corrective or remedial action as required by Paragraph 7.12, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or at law; and (c) to the fullest extent permitted by Laws and Regulations, 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 any such claim, and against all 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 any claim or action, legal or equitable, brought by any such owner or occupant against Owner, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, Contractor's performance of the Work, or because of other actions or conduct of the Contractor or those for which Contractor is responsible.
- B. *Removal of Debris During Performance of the Work:* During the progress of the Work the Contractor shall keep the Site and other adjacent areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.
- C. *Cleaning:* Prior to Substantial Completion of the Work Contractor shall clean the Site and the Work and make it ready for utilization by Owner. At the completion of the Work Contractor shall remove from the Site and adjacent areas all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.
- D. *Loading of Structures:* Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent structures or land to stresses or pressures that will endanger them.

5.03 *Subsurface and Physical Conditions*

- A. *Reports and Drawings:* The Supplementary Conditions identify:
1. those reports known to Owner of explorations and tests of subsurface conditions at or adjacent to the Site;
 2. those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except Underground Facilities); and
 3. Technical Data contained in such reports and drawings.
- B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely upon the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, with respect to:
1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
 2. other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
 3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions, or information.

5.04 *Differing Subsurface or Physical Conditions*

- A. *Notice by Contractor:* If Contractor believes that any subsurface or physical condition that is uncovered or revealed at the Site either:
1. is of such a nature as to establish that any Technical Data on which Contractor is entitled to rely as provided in Paragraph 5.03 is materially inaccurate; or
 2. is of such a nature as to require a change in the Drawings or Specifications; or
 3. differs materially from that shown or indicated in the Contract Documents; or
 4. 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 as required by Paragraph 7.15), 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. *Engineer's Review:* After receipt of written notice as required by the preceding paragraph, Engineer will promptly review the subsurface or physical condition in question; determine the necessity of Owner's obtaining additional exploration or tests with respect to the condition; conclude whether the condition falls within any one or more of the differing site condition categories in Paragraph 5.04.A above; obtain any pertinent cost or schedule information from Contractor; 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 advise Owner in writing of Engineer's findings, conclusions, and recommendations.
- C. *Owner's Statement to Contractor Regarding Site Condition:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) 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.
- D. *Possible Price and Times Adjustments:*
 - 1. Contractor shall be entitled to an equitable adjustment in Contract Price or Contract Times, or both, to the extent that the existence of a differing subsurface or physical condition, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. such condition must fall within any one or more of the categories described in Paragraph 5.04.A;
 - b. with respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03; and,
 - c. 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.
 - 2. Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times with respect to a subsurface or physical condition if:
 - a. Contractor knew of the existence of such condition at the time Contractor made a commitment to Owner with respect to Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise; or
 - b. the existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for Contractor prior to Contractor's making such commitment; or
 - c. Contractor failed to give the written notice as required by Paragraph 5.04.A.
 - 3. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.

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4. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the subsurface or physical condition in question.

5.05 *Underground Facilities*

- A. *Contractor's Responsibilities:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or adjacent to the Site is based on information and data furnished to Owner or Engineer by the owners of such Underground Facilities, including Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:
 1. Owner and Engineer do not warrant or guarantee the accuracy or completeness of any such information or data provided by others; and
 2. the cost of all of the following will be included in the Contract Price, and Contractor shall have full responsibility for:
 - a. reviewing and checking all information and data regarding existing Underground Facilities at the Site;
 - b. locating all Underground Facilities shown or indicated in the Contract Documents as being at the Site;
 - c. coordination of the Work with the owners (including Owner) of such Underground Facilities, during construction; and
 - d. the safety and protection of all existing Underground Facilities at the Site, and repairing any damage thereto resulting from the Work.
- B. *Notice by Contractor:* If Contractor believes that an Underground Facility that is uncovered or revealed at the Site was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 7.15), identify the owner of such Underground Facility and give written notice to that owner and to Owner and Engineer.
- C. *Engineer's Review:* Engineer will promptly review the Underground Facility and conclude whether such Underground Facility was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy; obtain any pertinent cost or schedule information from Contractor; prepare recommendations to Owner regarding the Contractor's resumption of Work in connection with the Underground Facility in question; determine the extent, if any, to which a change is required in the Drawings or Specifications to reflect and document the consequences of the existence or location of the Underground Facility; and advise Owner in writing of Engineer's findings, conclusions, and recommendations. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
- D. *Owner's Statement to Contractor Regarding Underground Facility:* After receipt of Engineer's written findings, conclusions, and recommendations, Owner shall issue a written statement to Contractor (with a copy to Engineer) regarding the Underground Facility in question, addressing the resumption of Work in connection with such Underground Facility, indicating

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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.

E. *Possible Price and Times Adjustments:*

1. Contractor shall be entitled to an equitable adjustment in the Contract Price or Contract Times, or both, to the extent that any existing Underground Facility at the Site that was not shown or indicated in the Contract Documents, or was not shown or indicated with reasonable accuracy, or any related delay, disruption, or interference, causes an increase or decrease in Contractor's cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated the existence or actual location of the Underground Facility in question;
 - b. With respect to Work that is paid for on a unit price basis, any adjustment in Contract Price will be subject to the provisions of Paragraph 13.03;
 - c. 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; and
 - d. Contractor gave the notice required in Paragraph 5.05.B.
2. If Owner and Contractor agree regarding Contractor's entitlement to and the amount or extent of any adjustment in the Contract Price or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.
3. Contractor may submit a Change Proposal regarding its entitlement to or the amount or extent of any adjustment in the Contract Price or Contract Times, or both, no later than 30 days after Owner's issuance of the Owner's written statement to Contractor regarding the Underground Facility in question.

5.06 *Hazardous Environmental Conditions at Site*

A. *Reports and Drawings:* The Supplementary Conditions identify:

1. those reports and drawings known to Owner relating to Hazardous Environmental Conditions that have been identified at or adjacent to the Site; and
2. Technical Data contained in such reports and drawings.

B. *Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the accuracy of the Technical Data expressly identified in the Supplementary Conditions with respect to such reports and drawings, but such reports and drawings are not Contract Documents. If no such express identification has been made, then Contractor may rely on the accuracy of the Technical Data (as defined in Article 1) contained in any geotechnical or environmental report prepared for the Project and made available to Contractor. Except for such reliance on Technical Data, Contractor may not rely upon or make any claim against Owner or Engineer, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:

1. the completeness of such reports and drawings for Contractor's purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and

- procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
 3. any Contractor interpretation of or conclusion drawn from any Technical Data or any such other data, interpretations, opinions or information.
- C. Contractor shall not be responsible for removing or remediating any Hazardous Environmental Condition encountered, uncovered, or revealed at the Site unless such removal or remediation is expressly identified in the Contract Documents to be within the scope of the Work.
- D. Contractor shall be responsible for controlling, containing, and duly removing all Constituents of Concern brought to the Site by Contractor, Subcontractors, Suppliers, or anyone else for whom Contractor is responsible, and for any associated costs; and for the costs of removing and remediating any Hazardous Environmental Condition created by the presence of any such Constituents of Concern.
- E. If Contractor encounters, uncovers, or reveals a Hazardous Environmental Condition whose removal or remediation is not expressly identified in the Contract Documents as being within the scope of the Work, or if Contractor or anyone for whom Contractor is responsible creates a Hazardous Environmental Condition, then Contractor shall immediately: (1) secure or otherwise isolate such condition; (2) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 7.15); and (3) notify Owner and Engineer (and promptly thereafter confirm such notice in writing). Owner shall promptly consult with Engineer concerning the necessity for Owner to retain a qualified expert to evaluate such condition or take corrective action, if any. Promptly after consulting with Engineer, Owner shall take such actions as are necessary to permit Owner to timely obtain required permits and provide Contractor the written notice required by Paragraph 5.06.F. If Contractor or anyone for whom Contractor is responsible created the Hazardous Environmental Condition in question, then Owner may remove and remediate the Hazardous Environmental Condition, and impose a set-off against payments to account for the associated costs.
- F. Contractor shall not resume Work in connection with such Hazardous Environmental Condition or in any affected area until after Owner has obtained any required permits related thereto, and delivered written notice to Contractor either (1) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work, or (2) specifying any special conditions under which such Work may be resumed safely.
- G. If Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which Work is agreed to be resumed by Contractor, then within 30 days of Owner's written notice regarding the resumption of Work, Contractor may submit a Change Proposal, or Owner may impose a set-off.
- H. If after receipt of such written notice Contractor does not agree to resume such Work based on a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work, following the contractual change procedures in

Article 11. Owner may have such deleted portion of the Work performed by Owner's own forces or others in accordance with Article 8.

- I. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, Subcontractors, 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 a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition (1) was not shown or indicated in the Drawings, Specifications, or other Contract Documents, identified as Technical Data entitled to limited reliance pursuant to Paragraph 5.06.B, or identified in the Contract Documents to be included within the scope of the Work, and (2) was not created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.H shall obligate Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- J. To the fullest extent permitted by Laws and Regulations, 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 failure to control, contain, or remove a Constituent of Concern brought to the Site by Contractor or by anyone for whom Contractor is responsible, or to a Hazardous Environmental Condition created by Contractor or by anyone for whom Contractor is responsible. Nothing in this Paragraph 5.06.J shall obligate Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- K. The provisions of Paragraphs 5.03, 5.04, and 5.05 do not apply to the presence of Constituents of Concern or to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 6 – BONDS AND INSURANCE

6.01 *Performance, Payment, and Other Bonds*

- A. Contractor shall furnish a performance bond and a payment bond, each in an amount at least 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 one year after the date when final payment becomes due or until completion of the correction period specified in Paragraph 15.08, whichever is later, except as provided otherwise by Laws or Regulations, the Supplementary Conditions, or other specific provisions of the Contract. Contractor shall also furnish such other bonds as are required by the Supplementary Conditions or other specific provisions of the Contract.
- B. All bonds shall be in the form prescribed by the Contract except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (as amended and supplemented) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. A bond

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signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual's authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.

- C. Contractor shall obtain the required bonds from surety companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds in the required amounts.
- D. If the surety on a bond furnished by Contractor is declared bankrupt or becomes insolvent, or its right to do business is terminated in any state or jurisdiction where any part of the Project is located, or the surety ceases to meet the requirements above, then Contractor shall promptly notify Owner and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the bond and surety requirements above.
- E. If Contractor has failed to obtain a required bond, Owner may exclude the Contractor from the Site and exercise Owner's termination rights under Article 16.
- F. Upon request, Owner shall provide a copy of the payment bond to any Subcontractor, Supplier, or other person or entity claiming to have furnished labor or materials used in the performance of the Work.

6.02 *Insurance—General Provisions*

- A. Owner and Contractor shall obtain and maintain insurance as required in this Article and in the Supplementary Conditions.
- B. All insurance required by the Contract to be purchased and maintained by Owner or Contractor shall be obtained from insurance companies that are duly licensed or authorized, in the state or jurisdiction in which the Project is located, to issue insurance policies for the required limits and coverages. Unless a different standard is indicated in the Supplementary Conditions, all companies that provide insurance policies required under this Contract shall have an A.M. Best rating of A-VII or better.
- C. Contractor shall deliver to Owner, with copies to each named insured and additional insured (as identified in this Article, in the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Contractor has obtained and is maintaining the policies, coverages, and endorsements required by the Contract. Upon request by Owner or any other insured, Contractor shall also furnish other evidence of such required insurance, including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.
- D. Owner shall deliver to Contractor, with copies to each named insured and additional insured (as identified in this Article, the Supplementary Conditions, or elsewhere in the Contract), certificates of insurance establishing that Owner has obtained and is maintaining the policies, coverages, and endorsements required of Owner by the Contract (if any). Upon request by Contractor or any other insured, Owner shall also provide other evidence of such required insurance (if any), including but not limited to copies of policies and endorsements, and documentation of applicable self-insured retentions and deductibles. Owner may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.

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- E. Failure of Owner or Contractor to demand such certificates or other evidence of the other party's full compliance with these insurance requirements, or failure of Owner or Contractor to identify a deficiency in compliance from the evidence provided, shall not be construed as a waiver of the other party's obligation to obtain and maintain such insurance.
- F. If either party does not purchase or maintain all of the insurance required of such party by the Contract, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage.
- G. 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 16.
- H. Without prejudice to any other right or remedy, if a party has failed to obtain required insurance, the other party may elect to obtain equivalent insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and the Contract Price shall be adjusted accordingly.
- I. Owner does not represent that insurance coverage and limits established in this Contract necessarily will be adequate to protect Contractor or Contractor's interests.
- J. The insurance and insurance limits required herein shall not be deemed as a limitation on Contractor's liability under the indemnities granted to Owner and other individuals and entities in the Contract.

6.03 *Contractor's Insurance*

- A. *Workers' Compensation:* Contractor shall purchase and maintain workers' compensation and employer's liability insurance for:
 - 1. claims under workers' compensation, disability benefits, and other similar employee benefit acts.
 - 2. United States Longshoreman and Harbor Workers' Compensation Act and Jones Act coverage (if applicable).
 - 3. claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees (by stop-gap endorsement in monopolist worker's compensation states).
 - 4. Foreign voluntary worker compensation (if applicable).
- B. *Commercial General Liability—Claims Covered:* Contractor shall purchase and maintain commercial general liability insurance, covering all operations by or on behalf of Contractor, on an occurrence basis, against:
 - 1. claims for damages because of bodily injury, sickness or disease, or death of any person other than Contractor's employees.
 - 2. claims for damages insured by reasonably available personal injury liability coverage.
 - 3. claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting therefrom.

- C. *Commercial General Liability—Form and Content:* Contractor’s commercial liability policy shall be written on a 1996 (or later) ISO commercial general liability form (occurrence form) and include the following coverages and endorsements:
1. Products and completed operations coverage:
 - a. Such insurance shall be maintained for three years after final payment.
 - b. Contractor shall furnish Owner and each other additional insured (as identified in the Supplementary Conditions or elsewhere in the Contract) evidence of continuation of such insurance at final payment and three years thereafter.
 2. Blanket contractual liability coverage, to the extent permitted by law, including but not limited to coverage of Contractor’s contractual indemnity obligations in Paragraph 7.18.
 3. Broad form property damage coverage.
 4. Severability of interest.
 5. Underground, explosion, and collapse coverage.
 6. Personal injury coverage.
 7. Additional insured endorsements that 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); or CG 20 10 07 04 and CG 20 37 07 04 (together); or their equivalent.
 8. For design professional additional insureds, ISO Endorsement CG 20 32 07 04, “Additional Insured—Engineers, Architects or Surveyors Not Engaged by the Named Insured” or its equivalent.
- D. *Automobile liability:* Contractor shall purchase and maintain automobile liability insurance 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.
- E. *Umbrella or excess liability:* Contractor shall purchase and maintain umbrella or excess liability insurance written over the underlying employer’s liability, commercial general liability, and automobile liability insurance described in the paragraphs above. Subject to industry-standard exclusions, the coverage afforded shall follow form as to each and every one of the underlying policies.
- F. *Contractor’s pollution liability insurance:* Contractor shall purchase and maintain a policy covering third-party injury and property damage claims, including clean-up costs, as a result of pollution conditions arising from Contractor’s operations and completed operations. This insurance shall be maintained for no less than three years after final completion.
- G. *Additional insureds:* The Contractor’s commercial general liability, automobile liability, umbrella or excess, and pollution liability policies shall include and list as additional insureds Owner and Engineer, and any individuals or entities identified in the Supplementary Conditions; include coverage for the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of all such 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. Contractor shall obtain all necessary endorsements to support these requirements.

- H. *Contractor's professional liability insurance:* If Contractor will provide or furnish professional services under this Contract, through a delegation of professional design services or otherwise, then Contractor shall be responsible for purchasing and maintaining applicable professional liability insurance. This insurance shall provide protection against claims arising out of performance of professional design or related services, and caused by a negligent error, omission, or act for which the insured party is legally liable. It shall be maintained throughout the duration of the Contract and for a minimum of two years after Substantial Completion. If such professional design services are performed by a Subcontractor, and not by Contractor itself, then the requirements of this paragraph may be satisfied through the purchasing and maintenance of such insurance by such Subcontractor.
- I. *General provisions:* The policies of insurance required by this Paragraph 6.03 shall:
 - 1. include at least the specific coverages provided in this Article.
 - 2. be written for not less than the limits of liability provided in this Article and in the Supplementary Conditions, or required by Laws or Regulations, whichever is greater.
 - 3. contain a provision or endorsement that the coverage afforded will not be canceled, materially changed, or renewal refused until at least 10 days prior written notice has been given to Contractor. Within three days of receipt of any such written notice, Contractor shall provide a copy of the notice to Owner, Engineer, and each other insured under the policy.
 - 4. remain in effect at least until final payment (and longer if expressly required in this Article) and at all times thereafter when Contractor may be correcting, removing, or replacing defective Work as a warranty or correction obligation, or otherwise, or returning to the Site to conduct other tasks arising from the Contract Documents.
 - 5. be appropriate for the Work being performed and provide protection from claims that may arise out of or result from Contractor's performance of the Work and Contractor's other obligations under the Contract Documents, whether it is to be performed by Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable.
- J. The coverage requirements for specific policies of insurance must be met by such policies, and not by reference to excess or umbrella insurance provided in other policies.

6.04 *Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by Contractor under Paragraph 6.03, Owner, at Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect Owner against claims which may arise from operations under the Contract Documents.
- B. Owner's liability policies, if any, operate separately and independently from policies required to be provided by Contractor, and Contractor cannot rely upon Owner's liability policies for any of Contractor's obligations to the Owner, Engineer, or third parties.

6.05 *Property Insurance*

- A. *Builder's Risk*: Unless otherwise provided in the Supplementary Conditions, Contractor shall purchase and maintain builder's risk insurance upon the Work on a completed value basis, in the amount of the full insurable replacement cost thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by Laws and Regulations). This insurance shall:
1. include the Owner and Contractor as named insureds, and all Subcontractors, and any individuals or entities required by the Supplementary Conditions to be insured under such builder's risk policy, as insureds or named insureds. For purposes of the remainder of this Paragraph 6.05, Paragraphs 6.06 and 6.07, and any corresponding Supplementary Conditions, the parties required to be insured shall collectively be referred to as "insureds."
 2. be written on a builder's risk "all risk" policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire; lightning; windstorm; riot; civil commotion; terrorism; vehicle impact; aircraft; smoke; theft; vandalism and malicious mischief; mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; flood; collapse; explosion; debris removal; demolition occasioned by enforcement of Laws and Regulations; water damage (other than that caused by flood); and such other perils or causes of loss as may be specifically required by the Supplementary Conditions. If insurance against mechanical breakdown, boiler explosion, and artificially generated electric current; earthquake; volcanic activity, and other earth movement; or flood, are not commercially available under builder's risk policies, by endorsement or otherwise, such insurance may be provided through other insurance policies acceptable to Owner and Contractor.
 3. cover, as insured property, at least the following: (a) the Work and all materials, supplies, machinery, apparatus, equipment, fixtures, and other property of a similar nature that are to be incorporated into or used in the preparation, fabrication, construction, erection, or completion of the Work, including Owner-furnished or assigned property; (b) spare parts inventory required within the scope of the Contract; and (c) temporary works which are not intended to form part of the permanent constructed Work but which are intended to provide working access to the Site, or to the Work under construction, or which are intended to provide temporary support for the Work under construction, including scaffolding, form work, fences, shoring, falsework, and temporary structures.
 4. cover expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects).
 5. extend to cover damage or loss to insured property while in temporary storage at the Site or in a storage location outside the Site (but not including property stored at the premises of a manufacturer or Supplier).
 6. extend to cover damage or loss to insured property while in transit.

7. allow for partial occupation or use of the Work by Owner, such that those portions of the Work that are not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
 8. allow for the waiver of the insurer's subrogation rights, as set forth below.
 9. provide primary coverage for all losses and damages caused by the perils or causes of loss covered.
 10. not include a co-insurance clause.
 11. include an exception for ensuing losses from physical damage or loss with respect to any defective workmanship, design, or materials exclusions.
 12. include performance/hot testing and start-up.
 13. be maintained in effect, subject to the provisions herein regarding Substantial Completion and partial occupancy or use of the Work by Owner, until the Work is complete.
- B. *Notice of Cancellation or Change:* All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with this Paragraph 6.05 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 purchasing policyholder. Within three days of receipt of any such written notice, the purchasing policyholder shall provide a copy of the notice to each other insured.
- C. *Deductibles:* The purchaser of any required builder's risk or property insurance shall pay for costs not covered because of the application of a policy deductible.
- D. *Partial Occupancy or Use by Owner:* If Owner will occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 15.04, then Owner (directly, if it is the purchaser of the builder's risk policy, or through Contractor) will provide notice of such occupancy or use to the builder's risk insurer. The builder's risk insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy; rather, those portions of the Work that are occupied or used by Owner may come off the builder's risk policy, while those portions of the Work not yet occupied or used by Owner shall remain covered by the builder's risk insurance.
- E. *Additional Insurance:* If Contractor elects to obtain other special insurance to be included in or supplement the builder's risk or property insurance policies provided under this Paragraph 6.05, it may do so at Contractor's expense.
- F. *Insurance of Other Property:* If the express insurance provisions of the Contract do not require or address the insurance of a property item or interest, such as tools, construction equipment, or other personal property owned by Contractor, a Subcontractor, or an employee of Contractor or a Subcontractor, then the entity or individual owning such property item will be responsible for deciding whether to insure it, and if so in what amount.

6.06 *Waiver of Rights*

- A. All policies purchased in accordance with Paragraph 6.05, expressly including the builder's risk policy, shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any insureds thereunder, or

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against Engineer or its consultants, or their officers, directors, members, partners, employees, agents, consultants, or subcontractors. Owner and Contractor waive all rights against each other and the respective officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Engineer, its consultants, all Subcontractors, all individuals or entities identified in the Supplementary Conditions as insureds, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, under such policies for losses and damages so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by Owner or Contractor as trustee or fiduciary, or otherwise payable under any policy so issued.

- B. Owner waives all rights against Contractor, Subcontractors, and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them, for:
 - 1. loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by Owner; and
 - 2. loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by Owner during partial occupancy or use pursuant to Paragraph 15.04, after Substantial Completion pursuant to Paragraph 15.03, or after final payment pursuant to Paragraph 15.06.
- C. Any insurance policy maintained by Owner covering any loss, damage or consequential loss referred to in Paragraph 6.06.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against Contractor, Subcontractors, or Engineer, or the officers, directors, members, partners, employees, agents, consultants, or subcontractors of each and any of them.
- D. Contractor shall be responsible for assuring that the agreement under which a Subcontractor performs a portion of the Work contains provisions whereby the Subcontractor waives all rights against Owner, Contractor, all individuals or entities identified in the Supplementary Conditions as insureds, the Engineer and its consultants, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them, for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by builder's risk insurance and any other property insurance applicable to the Work.

6.07 *Receipt and Application of Property Insurance Proceeds*

- A. Any insured loss under the builder's risk and other policies of insurance required by Paragraph 6.05 will be adjusted and settled with the named insured that purchased the policy. Such named insured shall act as fiduciary for the other insureds, and give notice to such other insureds that adjustment and settlement of a claim is in progress. Any other

insured may state its position regarding a claim for insured loss in writing within 15 days after notice of such claim.

- B. Proceeds for such insured losses may be made payable by the insurer either jointly to multiple insureds, or to the named insured that purchased the policy in its own right and as fiduciary for other insureds, subject to the requirements of any applicable mortgage clause. A named insured receiving insurance proceeds under the builder's risk and other policies of insurance required by Paragraph 6.05 shall distribute such proceeds in accordance with such agreement as the parties in interest may reach, or as otherwise required under the dispute resolution provisions of this Contract or applicable Laws and Regulations.
- C. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the money so received applied on account thereof, and the Work and the cost thereof covered by Change Order, if needed.

ARTICLE 7 – CONTRACTOR’S RESPONSIBILITIES

7.01 Supervision and Superintendence

- A. Contractor shall supervise, inspect, 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, and procedures of construction.
- B. At all times during the progress of the Work, Contractor shall assign a competent resident superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances.

7.02 Labor; Working Hours

- A. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. Contractor shall at all times maintain good discipline and order at the Site.
- B. 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. Contractor will not perform Work on a Saturday, Sunday, or any legal holiday. Contractor may perform Work outside regular working hours or on Saturdays, Sundays, or legal holidays only with Owner's written consent, which will not be unreasonably withheld.

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 of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of Owner. If

required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

- C. All materials and equipment 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 "Or Equals"

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the Contract Price has been based upon Contractor furnishing such item as specified. The specification or description of such an item is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or "or equal" item is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment, or items from other proposed suppliers under the circumstances described below.

- 1. If Engineer in its sole discretion determines that an item of material or equipment proposed by Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, Engineer shall deem it an "or equal" item. For the purposes of this paragraph, a proposed item of material or equipment will be considered functionally equal to an item so named if:

- a. in the exercise of reasonable judgment Engineer determines that:

- 1) it is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
- 2) it will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
- 3) it has a proven record of performance and availability of responsive service; and
- 4) it is not objectionable to Owner.

- b. Contractor certifies that, if approved and incorporated into the Work:

- 1) there will be no increase in cost to the Owner or increase in Contract Times; and
- 2) it will conform substantially to the detailed requirements of the item named in the Contract Documents.

- B. *Contractor's Expense:* Contractor shall provide all data in support of any proposed "or equal" item at Contractor's expense.

- C. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each "or-equal" request. Engineer may require Contractor to furnish additional data about the proposed "or-equal" item. Engineer will be the sole judge of acceptability. No "or-equal" item will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an "or-equal", which will be

evidenced by an approved Shop Drawing or other written communication. Engineer will advise Contractor in writing of any negative determination.

- D. *Effect of Engineer's Determination:* Neither approval nor denial of an "or-equal" request shall result in any change in Contract Price. The Engineer's denial of an "or-equal" request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents.
- E. *Treatment as a Substitution Request:* If Engineer determines that an item of material or equipment proposed by Contractor does not qualify as an "or-equal" item, Contractor may request that Engineer considered the proposed item as a substitute pursuant to Paragraph 7.05.

7.05 *Substitutes*

- A. Unless the specification or description of an item of material or equipment required to be furnished under the Contract Documents contains or is followed by words reading that no substitution is permitted, Contractor may request that Engineer authorize the use of other items of material or equipment under the circumstances described below. To the extent possible such requests shall be made before commencement of related construction at the Site.
 - 1. Contractor shall submit sufficient information as provided below to allow Engineer to determine if the item of material or equipment proposed is functionally equivalent to that named and an acceptable substitute therefor. Engineer will not accept requests for review of proposed substitute items of material or equipment from anyone other than Contractor.
 - 2. The requirements for review by Engineer will be as set forth in Paragraph 7.05.B, as supplemented by the Specifications, and as Engineer may decide is appropriate under the circumstances.
 - 3. Contractor shall make written application to Engineer for review of a proposed substitute item of material or equipment that Contractor seeks to furnish or use. The application:
 - a. shall certify that the proposed substitute item will:
 - 1) perform adequately the functions and achieve the results called for by the general design,
 - 2) be similar in substance to that specified, and
 - 3) be suited to the same use as that specified.
 - b. will state:
 - 1) the extent, if any, to which the use of the proposed substitute item will necessitate a change in Contract Times,
 - 2) whether use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with Owner for other work on the Project) to adapt the design to the proposed substitute item, and

- 3) whether incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty.
 - c. will identify:
 - 1) all variations of the proposed substitute item from that specified, and
 - 2) available engineering, sales, maintenance, repair, and replacement services.
 - d. shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including but not limited to changes in Contract Price, shared savings, costs of redesign, and claims of other contractors affected by any resulting change.
- B. *Engineer's Evaluation and Determination:* Engineer will be allowed a reasonable time to evaluate each substitute request, and to obtain comments and direction from Owner. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No substitute will be ordered, furnished, installed, or utilized until Engineer's review is complete and Engineer determines that the proposed item is an acceptable substitute. Engineer's determination will be evidenced by a Field Order or a proposed Change Order accounting for the substitution itself and all related impacts, including changes in Contract Price or Contract Times. Engineer will advise Contractor in writing of any negative determination.
- C. *Special Guarantee:* Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- D. *Reimbursement of Engineer's Cost:* Engineer will record Engineer's costs in evaluating a substitute proposed or submitted by Contractor. Whether or not Engineer approves a substitute so proposed or submitted by Contractor, Contractor shall reimburse Owner for the reasonable charges of Engineer for evaluating each such proposed substitute. Contractor shall also reimburse Owner for the reasonable charges of Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with Owner) resulting from the acceptance of each proposed substitute.
- E. *Contractor's Expense:* Contractor shall provide all data in support of any proposed substitute at Contractor's expense.
- F. *Effect of Engineer's Determination:* If Engineer approves the substitution request, Contractor shall execute the proposed Change Order and proceed with the substitution. The Engineer's denial of a substitution request shall be final and binding, and may not be reversed through an appeal under any provision of the Contract Documents. Contractor may challenge the scope of reimbursement costs imposed under Paragraph 7.05.D, by timely submittal of a Change Proposal.

7.06 *Concerning Subcontractors, Suppliers, and Others*

- 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. Contractor shall retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of designated parts of the Work if required by the Contract to do so.
- C. Subsequent to the submittal of Contractor's Bid or final negotiation of the terms of the Contract, Owner may not require Contractor to retain any Subcontractor, Supplier, or other

- individual or entity to furnish or perform any of the Work against which Contractor has reasonable objection.
- D. Prior to entry into any binding subcontract or purchase order, Contractor shall submit to Owner the identity of the proposed Subcontractor or Supplier (unless Owner has already deemed such proposed Subcontractor or Supplier acceptable, during the bidding process or otherwise). Such proposed Subcontractor or Supplier shall be deemed acceptable to Owner unless Owner raises a substantive, reasonable objection within five days.
 - E. Owner may require the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work. Owner also may require Contractor to retain specific replacements; provided, however, that Owner may not require a replacement to which Contractor has a reasonable objection. If Contractor has submitted the identity of certain Subcontractors, Suppliers, or other individuals or entities for acceptance by Owner, and Owner has accepted it (either in writing or by failing to make written objection thereto), then Owner may subsequently revoke the acceptance of any such Subcontractor, Supplier, or other individual or entity so identified solely on the basis of substantive, reasonable objection after due investigation. Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity.
 - F. If Owner requires the replacement of any Subcontractor, Supplier, or other individual or entity retained by Contractor to perform any part of the Work, then Contractor shall be entitled to an adjustment in Contract Price or Contract Times, or both, with respect to the replacement; and Contractor shall initiate a Change Proposal for such adjustment within 30 days of Owner's requirement of replacement.
 - G. No acceptance by Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of the right of Owner to the completion of the Work in accordance with the Contract Documents.
 - H. On a monthly basis Contractor shall submit to Engineer a complete list of all Subcontractors and Suppliers having a direct contract with Contractor, and of all other Subcontractors and Suppliers known to Contractor at the time of submittal.
 - I. Contractor shall be fully responsible to Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as Contractor is responsible for Contractor's own acts and omissions.
 - J. Contractor shall be solely responsible for scheduling and coordinating the work of Subcontractors, Suppliers, and all other individuals or entities performing or furnishing any of the Work.
 - K. Contractor shall restrict all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work from communicating with Engineer or Owner, except through Contractor or in case of an emergency, or as otherwise expressly allowed herein.
 - L. The divisions and sections of the Specifications and the identifications of any Drawings shall not control Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

- M. All Work performed for Contractor by a Subcontractor or Supplier shall be pursuant to an appropriate contractual agreement that specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of Owner and Engineer.
- N. Owner may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to Contractor on account of Work performed for Contractor by the particular Subcontractor or Supplier.
- O. Nothing in the Contract Documents:
 - 1. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier, or other individual or entity; nor
 - 2. shall create any obligation on the part of Owner or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.

7.07 *Patent Fees and Royalties*

- A. Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of Owner or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by Owner in the Contract Documents.
- B. To the fullest extent permitted by Laws and Regulations, Owner shall indemnify and hold harmless Contractor, and its officers, directors, members, partners, employees, agents, consultants, and subcontractors 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 any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device specified in the Contract Documents, but not identified as being subject to payment of any license fee or royalty to others required by patent rights or copyrights.
- C. To the fullest extent permitted by Laws and Regulations, 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 any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

7.08 *Permits*

- A. Unless otherwise provided in the Contract Documents, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of the submission of Contractor's Bid (or when Contractor became bound under a negotiated contract). Owner shall pay all charges of utility owners for connections for providing permanent service to the Work

7.09 *Taxes*

- A. Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

7.10 *Laws and Regulations*

- A. Contractor shall give all notices required by and shall comply with all 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. If Contractor performs any Work or takes any other action knowing or having reason to know that it is contrary to Laws or Regulations, 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 (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 such Work or other action. It shall not be Contractor's responsibility to make certain that the Work described in the Contract Documents is in accordance with Laws and Regulations, but this shall not relieve Contractor of Contractor's obligations under Paragraph 3.03.
- C. Owner or Contractor may give notice to the other party of any changes after the submission of Contractor's Bid (or after the date when Contractor became bound under a negotiated contract) in Laws or Regulations having an effect on the cost or time of performance of the Work, including but not limited to changes in Laws or Regulations having an effect on procuring permits and on sales, use, value-added, consumption, and other similar taxes. If Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in Contract Price or Contract Times resulting from such changes, then within 30 days of such notice Contractor may submit a Change Proposal, or Owner may initiate a Claim.

7.11 *Record Documents*

- A. Contractor shall maintain in a safe place at the Site one printed record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, written interpretations and clarifications, and approved Shop Drawings. Contractor shall keep such record documents in good order and annotate them to show changes made during construction. These record documents, together with all approved Samples, will be available to Engineer for reference. Upon completion of the Work, Contractor shall deliver these record documents to Engineer.

7.12 *Safety and Protection*

- A. Contractor shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. Such responsibility does not relieve Subcontractors of their responsibility for the safety of persons or property in the performance of their work, nor for compliance with applicable safety Laws and Regulations. 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.
- B. Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify Owner; the owners of adjacent property, Underground Facilities, and other utilities; and other contractors and utility owners performing work at or adjacent to the Site, when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or work in progress.
- C. Contractor shall comply with the applicable requirements of Owner's safety programs, if any. The Supplementary Conditions identify any Owner's safety programs that are applicable to the Work.
- D. Contractor shall inform Owner and Engineer of the specific requirements of Contractor's safety program with which Owner's and Engineer's employees and representatives must comply while at the Site.
- E. All damage, injury, or loss to any property referred to in Paragraph 7.12.A.2 or 7.12.A.3 caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by Contractor at its expense (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of Owner or Engineer or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
- F. Contractor's duties and responsibilities for safety and protection shall continue until such time as all the Work is completed and Engineer has issued a notice to Owner and Contractor in accordance with Paragraph 15.06.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

- G. Contractor's duties and responsibilities for safety and protection shall resume whenever Contractor or any Subcontractor or Supplier returns to the Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

7.13 *Safety Representative*

- A. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

7.14 *Hazard Communication Programs*

- A. 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.

7.15 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to 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.

7.16 *Shop Drawings, Samples, and Other Submittals*

- A. *Shop Drawing and Sample Submittal Requirements:*
 1. Before submitting a Shop Drawing or Sample, Contractor shall have:
 - a. reviewed and coordinated the Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents;
 - b. determined and verified all field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
 - c. determined and verified the suitability of all materials and equipment offered with respect to the indicated application, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
 - d. determined and verified all information relative to Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto.
 2. 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.
 3. With each submittal, Contractor shall give Engineer specific written notice of any variations that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be set forth in a written communication separate from the Shop Drawings or Sample submittal; and, in addition, in the case of Shop

Drawings by a specific notation made on each Shop Drawing submitted to Engineer for review and approval of each such variation.

- B. *Submittal Procedures for Shop Drawings and Samples:* Contractor shall submit Shop Drawings and Samples to Engineer for review and approval in accordance with the accepted Schedule of Submittals. Each submittal will be identified as Engineer may require.
1. *Shop Drawings:*
 - a. Contractor shall submit the number of copies required in the Specifications.
 - b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show Engineer the services, materials, and equipment Contractor proposes to provide and to enable Engineer to review the information for the limited purposes required by Paragraph 7.16.D.
 2. *Samples:*
 - a. Contractor shall submit the number of Samples required in the Specifications.
 - b. Contractor shall clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which intended and other data as Engineer may require to enable Engineer to review the submittal for the limited purposes required by Paragraph 7.16.D.
 3. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of Contractor.
- C. *Other Submittals:* Contractor shall submit other submittals to Engineer in accordance with the accepted Schedule of Submittals, and pursuant to the applicable terms of the Specifications.
- D. *Engineer's Review:*
1. Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to Engineer. Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
 2. Engineer's review and approval will not extend to means, methods, techniques, sequences, or procedures of construction or to safety precautions or programs incident thereto.
 3. Engineer's review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
 4. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for any variation from the requirements of the Contract Documents unless Contractor has complied with the requirements of Paragraph 7.16.A.3 and Engineer has given written approval of each such variation by specific written notation

thereof incorporated in or accompanying the Shop Drawing or Sample. Engineer will document any such approved variation from the requirements of the Contract Documents in a Field Order.

5. Engineer's review and approval of a Shop Drawing or Sample shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 7.16.A and B.
6. Engineer's review and approval of a Shop Drawing or Sample, or of a variation from the requirements of the Contract Documents, shall not, under any circumstances, change the Contract Times or Contract Price, unless such changes are included in a Change Order.
7. Neither Engineer's receipt, review, acceptance or approval of a Shop Drawing, Sample, or other submittal shall result in such item becoming a Contract Document.
8. Contractor shall perform the Work in compliance with the requirements and commitments set forth in approved Shop Drawings and Samples, subject to the provisions of Paragraph 7.16.D.4.

E. *Resubmittal Procedures:*

1. 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.
2. Contractor shall furnish required submittals with sufficient information and accuracy to obtain required approval of an item with no more than three submittals. Engineer will record Engineer's time for reviewing a fourth or subsequent submittal of a Shop Drawings, sample, or other item requiring approval, and Contractor shall be responsible for Engineer's charges to Owner for such time. Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges.
3. If Contractor requests a change of a previously approved submittal item, Contractor shall be responsible for Engineer's charges to Owner for its review time, and Owner may impose a set-off against payments due to Contractor to secure reimbursement for such charges, unless the need for such change is beyond the control of Contractor.

7.17 *Contractor's General Warranty and Guarantee*

- 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.
- B. Contractor's warranty and guarantee hereunder excludes defects or damage caused by:
 1. abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom Contractor is responsible; or
 2. normal wear and tear under normal usage.
- C. Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work

that is not in accordance with the Contract Documents or a release of Contractor's obligation to perform the Work in accordance with the Contract Documents:

1. observations by Engineer;
 2. recommendation by Engineer or payment by Owner of any progress or final payment;
 3. the issuance of a certificate of Substantial Completion by Engineer or any payment related thereto by Owner;
 4. use or occupancy of the Work or any part thereof by Owner;
 5. any review and approval of a Shop Drawing or Sample submittal;
 6. the issuance of a notice of acceptability by Engineer;
 7. any inspection, test, or approval by others; or
 8. any correction of defective Work by Owner.
- D. If the Contract requires the Contractor to accept the assignment of a contract entered into by Owner, then the specific warranties, guarantees, and correction obligations contained in the assigned contract shall govern with respect to Contractor's performance obligations to Owner for the Work described in the assigned contract.

7.18 *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 any of them may be liable.
- B. In any and all claims against Owner or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) 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 any of them may be liable, the indemnification obligation under Paragraph 7.18.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- C. The indemnification obligations of Contractor under Paragraph 7.18.A shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:

1. the preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
2. giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

7.19 *Delegation of Professional Design Services*

- A. Contractor will not be required to provide professional design services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out Contractor's responsibilities for construction means, methods, techniques, sequences and procedures. Contractor shall not be required to provide professional services in violation of applicable Laws and Regulations.
- B. If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of Contractor by the Contract Documents, Owner and Engineer will specify all performance and design criteria that such services must satisfy. Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to Engineer.
- C. Owner and Engineer shall be entitled to rely upon the adequacy, accuracy, and completeness of the services, certifications, or approvals performed by such design professionals, provided Owner and Engineer have specified to Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this paragraph, Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 7.16.D.1.
- E. Contractor shall not be responsible for the adequacy of the performance or design criteria specified by Owner or Engineer.

ARTICLE 8 – OTHER WORK AT THE SITE

8.01 *Other Work*

- A. In addition to and apart from the Work under the Contract Documents, the Owner may perform other work at or adjacent to the Site. Such other work may be performed by Owner's employees, or through contracts between the Owner and third parties. Owner may also arrange to have third-party utility owners perform work on their utilities and facilities at or adjacent to the Site.
- B. If Owner performs other work at or adjacent to the Site with Owner's employees, or through contracts for such other work, then Owner shall give Contractor written notice thereof prior to starting any such other work. If Owner has advance information regarding the start of any utility work at or adjacent to the Site, Owner shall provide such information to Contractor.

- C. Contractor shall afford each other contractor that performs such other work, each utility owner performing other work, and Owner, if Owner is performing other work with Owner's employees, proper and safe access to the Site, and provide a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering such work; provided, however, that Contractor may cut or alter others' work with the written consent of Engineer and the others whose work will be affected.
- D. If the proper execution or results of any part of Contractor's Work depends upon work performed by others under this Article 8, Contractor shall inspect such other work and promptly report to Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of Contractor's Work. Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with Contractor's Work except for latent defects and deficiencies in such other work.

8.02 *Coordination*

- A. If Owner intends to contract with others for the performance of other work at or adjacent to the Site, to perform other work at or adjacent to the Site with Owner's employees, or to arrange to have utility owners perform work at or adjacent to the Site, the following will be set forth in the Supplementary Conditions or provided to Contractor prior to the start of any such other work:
 - 1. the identity of the individual or entity that will have authority and responsibility for coordination of the activities among the various contractors;
 - 2. an itemization of the specific matters to be covered by such authority and responsibility; and
 - 3. the extent of such authority and responsibilities.
- B. Unless otherwise provided in the Supplementary Conditions, Owner shall have sole authority and responsibility for such coordination.

8.03 *Legal Relationships*

- A. If, in the course of performing other work at or adjacent to the Site for Owner, the Owner's employees, any other contractor working for Owner, or any utility owner causes damage to the Work or to the property of Contractor or its Subcontractors, or delays, disrupts, interferes with, or increases the scope or cost of the performance of the Work, through actions or inaction, then Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. Contractor must submit any Change Proposal seeking an equitable adjustment in the Contract Price or the Contract Times under this paragraph within 30 days of the damaging, delaying, disrupting, or interfering event. The entitlement to, and extent of, any such equitable adjustment shall take into account information (if any) regarding such other work that was provided to Contractor in the Contract Documents prior to the submittal of the Bid or the final negotiation of the terms of the Contract. When applicable, any such equitable adjustment in Contract Price shall be conditioned on Contractor assigning to Owner all Contractor's rights against such other contractor or utility

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owner with respect to the damage, delay, disruption, or interference that is the subject of the adjustment. 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 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. If Contractor fails to take such measures and as a result damages, delays, disrupts, or interferes with the work of any such other contractor or utility owner, then Owner may impose a set-off against payments due to Contractor, and assign to such other contractor or utility owner the Owner's contractual rights against Contractor with respect to the breach of the obligations set forth in this paragraph.
- C. When Owner is performing other work at or adjacent to the Site with Owner's employees, Contractor shall be liable to Owner for damage to such other work, and for the reasonable direct delay, disruption, and interference costs incurred by Owner as a result of Contractor's failure to take reasonable and customary measures with respect to Owner's other work. In response to such damage, delay, disruption, or interference, Owner may impose a set-off against payments due to Contractor.
- D. If Contractor damages, delays, disrupts, or interferes with the work of any other contractor, or any utility owner performing other work at or adjacent to the Site, through Contractor's failure to take reasonable and customary measures to avoid such impacts, or if any claim arising out of Contractor's actions, inactions, or negligence in performance of the Work at or adjacent to the Site is made by any such other contractor or utility owner against Contractor, Owner, or Engineer, then Contractor shall (1) promptly attempt to settle the claim as to all parties through negotiations with such other contractor or utility owner, or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law, and (2) 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 any such claims, and against all 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 such damage, delay, disruption, or interference.

ARTICLE 9 – OWNER'S RESPONSIBILITIES

9.01 *Communications to Contractor*

- A. Except as otherwise provided in these General Conditions, Owner shall issue all communications to Contractor through Engineer.

9.02 *Replacement of Engineer*

- A. Owner may at its discretion appoint an engineer to replace Engineer, provided Contractor makes no reasonable objection to the replacement engineer. The replacement engineer's status under the Contract Documents shall be that of the former Engineer.

9.03 *Furnish Data*

- A. Owner shall promptly furnish the data required of Owner under the Contract Documents.

9.04 *Pay When Due*

- A. Owner shall make payments to Contractor when they are due as provided in the Agreement.

9.05 *Lands and Easements; Reports, Tests, and Drawings*

- A. Owner's duties with respect to providing lands and easements are set forth in Paragraph 5.01.
- B. Owner's duties with respect to providing engineering surveys to establish reference points are set forth in Paragraph 4.03.
- C. Article 5 refers to Owner's identifying and making available to Contractor copies of reports of explorations and tests of conditions at the Site, and drawings of physical conditions relating to existing surface or subsurface structures at the Site.

9.06 *Insurance*

- A. Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 6.

9.07 *Change Orders*

- A. Owner's responsibilities with respect to Change Orders are set forth in Article 11.

9.08 *Inspections, Tests, and Approvals*

- A. Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 14.02.B.

9.09 *Limitations on Owner's Responsibilities*

- A. 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 incident thereto, 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.

9.10 *Undisclosed Hazardous Environmental Condition*

- A. Owner's responsibility in respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 5.06.

9.11 *Evidence of Financial Arrangements*

- A. Upon request of Contractor, Owner shall furnish Contractor reasonable evidence that financial arrangements have been made to satisfy Owner's obligations under the Contract Documents (including obligations under proposed changes in the Work).

9.12 *Safety Programs*

- A. 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.
- B. Owner shall furnish copies of any applicable Owner safety programs to Contractor.

ARTICLE 10 – ENGINEER’S STATUS DURING CONSTRUCTION

10.01 *Owner’s Representative*

- A. Engineer will be Owner’s representative during the construction period. The duties and responsibilities and the limitations of authority of Engineer as Owner’s representative during construction are set forth in the Contract.

10.02 *Visits to Site*

- A. Engineer will make visits to the Site at intervals appropriate to the various stages of construction as Engineer deems necessary in order to observe as an experienced and qualified design professional the progress that has been made and the quality of the various aspects of Contractor’s executed Work. Based on information obtained during such visits and observations, Engineer, for the benefit of Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. Engineer will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. Engineer’s efforts will be directed toward providing for Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, Engineer will keep Owner informed of the progress of the Work and will endeavor to guard Owner against defective Work.
- B. Engineer’s visits and observations are subject to all the limitations on Engineer’s authority and responsibility set forth in Paragraph 10.08. Particularly, but without limitation, during or as a result of Engineer’s visits or observations of Contractor’s Work, 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 incident thereto, or for any failure of Contractor to comply with Laws and Regulations applicable to the performance of the Work.

10.03 *Project Representative*

- A. If Owner and Engineer have agreed that Engineer will furnish a Resident Project Representative to represent Engineer at the Site and assist Engineer in observing the progress and quality of the Work, then the authority and responsibilities of any such Resident Project Representative will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 10.08. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer’s consultant, agent, or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

10.04 *Rejecting Defective Work*

- A. Engineer has the authority to reject Work in accordance with Article 14.

10.05 *Shop Drawings, Change Orders and Payments*

- A. Engineer’s authority, and limitations thereof, as to Shop Drawings and Samples, are set forth in Paragraph 7.16.
- B. Engineer’s authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of professional design services, if any, are set forth in Paragraph 7.19.

- C. Engineer's authority as to Change Orders is set forth in Article 11.
- D. Engineer's authority as to Applications for Payment is set forth in Article 15.

10.06 *Determinations for Unit Price Work*

- A. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor as set forth in Paragraph 13.03.

10.07 *Decisions on Requirements of Contract Documents and Acceptability of Work*

- A. Engineer will render decisions regarding the requirements of the Contract Documents, and judge the acceptability of the Work, pursuant to the specific procedures set forth herein for initial interpretations, Change Proposals, and acceptance of the Work. In rendering such decisions and judgments, Engineer will not show partiality to Owner or Contractor, and will not be liable to Owner, Contractor, or others in connection with any proceedings, interpretations, decisions, or judgments conducted or rendered in good faith.

10.08 *Limitations on Engineer's Authority and Responsibilities*

- A. Neither Engineer's authority or responsibility under this Article 10 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.
- B. 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 incident thereto, 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.
- C. Engineer will not be responsible for the acts or omissions of Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.
- D. Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 15.06.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals, that the results certified indicate compliance with the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 10.08 shall also apply to the Resident Project Representative, if any.

10.09 *Compliance with Safety Program*

- A. While at the Site, Engineer's employees and representatives will comply with the specific applicable requirements of Owner's and Contractor's safety programs (if any) of which Engineer has been informed.

ARTICLE 11 – AMENDING THE CONTRACT DOCUMENTS; CHANGES IN THE WORK

11.01 Amending and Supplementing Contract Documents

- A. The Contract Documents may be amended or supplemented by a Change Order, a Work Change Directive, or a Field Order.
 - 1. *Change Orders:*
 - a. If an amendment or supplement to the Contract Documents includes a change in the Contract Price or the Contract Times, such amendment or supplement must be set forth in a Change Order. A Change Order also may be used to establish amendments and supplements of the Contract Documents that do not affect the Contract Price or Contract Times.
 - b. Owner and Contractor may amend those terms and conditions of the Contract Documents that do not involve (1) the performance or acceptability of the Work, (2) the design (as set forth in the Drawings, Specifications, or otherwise), or (3) other engineering or technical matters, without the recommendation of the Engineer. Such an amendment shall be set forth in a Change Order.
 - 2. *Work Change Directives:* A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the modification ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order, following negotiations by the parties as to the Work Change Directive's effect, if any, on the Contract Price and Contract Times; or, if negotiations are unsuccessful, by a determination under the terms of the Contract Documents governing adjustments, expressly including Paragraph 11.04 regarding change of Contract Price. Contractor must submit any Change Proposal seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 30 days after the completion of the Work set out in the Work Change Directive. Owner must submit any Claim seeking an adjustment of the Contract Price or the Contract Times, or both, no later than 60 days after issuance of the Work Change Directive.
 - 3. *Field Orders:* Engineer may authorize minor changes in the Work if the changes do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. Such changes will be accomplished by a Field Order and will be binding on Owner and also on Contractor, which shall perform the Work involved promptly. If Contractor believes that a Field Order justifies an adjustment in the Contract Price or Contract Times, or both, then before proceeding with the Work at issue, Contractor shall submit a Change Proposal as provided herein.

11.02 Owner-Authorized Changes in 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. Such changes shall be supported by Engineer's recommendation, to the extent the change involves the design (as set forth in the Drawings, Specifications, or otherwise), or other engineering or technical matters. Such changes may be accomplished by a Change Order, if Owner and Contractor have agreed as to the effect, if any, of the changes on Contract Times or Contract Price; or by a Work Change Directive. Upon receipt of any such document, Contractor shall promptly

proceed with the Work involved; or, in the case of a deletion in the Work, promptly cease construction activities with respect to such deleted Work. Added or revised Work shall be performed under the applicable conditions of the Contract Documents. Nothing in this paragraph shall obligate Contractor to undertake work that Contractor reasonably concludes cannot be performed in a manner consistent with Contractor's safety obligations under the Contract Documents or Laws and Regulations.

11.03 *Unauthorized Changes in the Work*

- A. Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents, as amended, modified, or supplemented, except in the case of an emergency as provided in Paragraph 7.15 or in the case of uncovering Work as provided in Paragraph 14.05.

11.04 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Price shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment of Contract Price shall comply with the provisions of Article 12.
- B. An adjustment in the Contract Price will be determined as follows:
 - 1. where the Work involved is covered by unit prices contained in the Contract Documents, then by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 13.03); or
 - 2. where the Work involved is not covered by unit prices contained in the Contract Documents, then by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 11.04.C.2); or
 - 3. where the Work involved is not covered by unit prices contained in the Contract Documents and the parties do not reach mutual agreement to a lump sum, then on the basis of the Cost of the Work (determined as provided in Paragraph 13.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 11.04.C).
- C. *Contractor's Fee*: When applicable, the Contractor's fee for overhead and profit shall be determined as follows:
 - 1. a mutually acceptable fixed fee; or
 - 2. if a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. for costs incurred under Paragraphs 13.01.B.1 and 13.01.B.2, the Contractor's fee shall be 15 percent;
 - b. for costs incurred under Paragraph 13.01.B.3, the Contractor's fee shall be five percent;
 - c. where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraphs 11.01.C.2.a and 11.01.C.2.b is that the Contractor's fee shall be based on: (1) a fee of 15 percent of the costs incurred under Paragraphs 13.01.A.1 and 13.01.A.2 by the Subcontractor that actually performs the Work, at whatever tier, and (2) with respect to Contractor itself and to any Subcontractors of a tier higher than that of the

Subcontractor that actually performs the Work, a fee of five percent of the amount (fee plus underlying costs incurred) attributable to the next lower tier Subcontractor; provided, however, that for any such subcontracted work the maximum total fee to be paid by Owner shall be no greater than 27 percent of the costs incurred by the Subcontractor that actually performs the work;

- d. no fee shall be payable on the basis of costs itemized under Paragraphs 13.01.B.4, 13.01.B.5, and 13.01.C;
- e. the amount of credit to be allowed by Contractor to Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in Contractor's fee by an amount equal to five percent of such net decrease; and
- f. when both additions and credits are involved in any one change, the adjustment in Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 11.04.C.2.a through 11.04.C.2.e, inclusive.

11.05 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Change Proposal for an adjustment in the Contract Times shall comply with the provisions of Paragraph 11.06. Any Claim for an adjustment in the Contract Times shall comply with the provisions of Article 12.
- B. An adjustment of the Contract Times shall be subject to the limitations set forth in Paragraph 4.05, concerning delays in Contractor's progress.

11.06 *Change Proposals*

- A. Contractor shall submit a Change Proposal to Engineer to request an adjustment in the Contract Times or Contract Price; appeal an initial decision by Engineer concerning the requirements of the Contract Documents or relating to the acceptability of the Work under the Contract Documents; contest a set-off against payment due; or seek other relief under the Contract. The Change Proposal shall specify any proposed change in Contract Times or Contract Price, or both, or other proposed relief, and explain the reason for the proposed change, with citations to any governing or applicable provisions of the Contract Documents.
 - 1. *Procedures:* Contractor shall submit each Change Proposal to Engineer promptly (but in no event later than 30 days) after the start of the event giving rise thereto, or after such initial decision. The Contractor shall submit supporting data, including the proposed change in Contract Price or Contract Time (if any), to the Engineer and Owner within 15 days after the submittal of the Change Proposal. The supporting data shall be accompanied by a written statement that the supporting data are accurate and complete, and that any requested time or price adjustment is the entire adjustment to which Contractor believes it is entitled as a result of said event. Engineer will advise Owner regarding the Change Proposal, and consider any comments or response from Owner regarding the Change Proposal.
 - 2. *Engineer's Action:* Engineer will review each Change Proposal and, within 30 days after receipt of the Contractor's supporting data, either deny the Change Proposal in whole, approve it in whole, or deny it in part and approve it in part. Such actions shall be in writing, with a copy provided to Owner and Contractor. If Engineer does not take action on the Change Proposal within 30 days, then either Owner or Contractor may at any

time thereafter submit a letter to the other party indicating that as a result of Engineer's inaction the Change Proposal is deemed denied, thereby commencing the time for appeal of the denial under Article 12.

3. *Binding Decision*: Engineer's decision will be final and binding upon Owner and Contractor, unless Owner or Contractor appeals the decision by filing a Claim under Article 12.
- B. *Resolution of Certain Change Proposals*: If the Change Proposal does not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters, then Engineer will notify the parties that the Engineer is unable to resolve the Change Proposal. For purposes of further resolution of such a Change Proposal, such notice shall be deemed a denial, and Contractor may choose to seek resolution under the terms of Article 12.

11.07 Execution of 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 Contract Price resulting from an Owner set-off, unless Contractor has duly contested such set-off;
 3. changes in the Work which are: (a) ordered by Owner pursuant to Paragraph 11.02, (b) required because of Owner's acceptance of defective Work under Paragraph 14.04 or Owner's correction of defective Work under Paragraph 14.07, or (c) agreed to by the parties, 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
 4. changes in the Contract Price or Contract Times, or other changes, which embody the substance of any final and binding results under Paragraph 11.06, or Article 12.
- B. If Owner or Contractor refuses to execute a Change Order that is required to be executed under the terms of this Paragraph 11.07, it shall be deemed to be of full force and effect, as if fully executed.

11.08 Notification to Surety

- A. 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.

ARTICLE 12 – CLAIMS

12.01 *Claims*

- A. *Claims Process*: The following disputes between Owner and Contractor shall be submitted to the Claims process set forth in this Article:
1. Appeals by Owner or Contractor of Engineer’s decisions regarding Change Proposals;
 2. Owner demands for adjustments in the Contract Price or Contract Times, or other relief under the Contract Documents; and
 3. Disputes that Engineer has been unable to address because they do not involve the design (as set forth in the Drawings, Specifications, or otherwise), the acceptability of the Work, or other engineering or technical matters.
- B. *Submittal of Claim*: The party submitting a Claim shall deliver it directly to the other party to the Contract promptly (but in no event later than 30 days) after the start of the event giving rise thereto; in the case of appeals regarding Change Proposals within 30 days of the decision under appeal. The party submitting the Claim shall also furnish a copy to the Engineer, for its information only. The responsibility to substantiate a Claim shall rest with the party making the Claim. In the case of a Claim by Contractor seeking an increase in the Contract Times or Contract Price, or both, Contractor shall certify that the Claim is made in good faith, that the supporting data are accurate and complete, and that to the best of Contractor’s knowledge and belief the amount of time or money requested accurately reflects the full amount to which Contractor is entitled.
- C. *Review and Resolution*: 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. The parties may extend the time for resolving the Claim by mutual agreement. All actions taken on a Claim shall be stated in writing and submitted to the other party, with a copy to Engineer.
- D. *Mediation*:
1. At any time after initiation of a Claim, Owner and Contractor may mutually agree to mediation of the underlying dispute. The agreement to mediate shall stay the Claim submittal and response process.
 2. If Owner and Contractor agree to mediation, then after 60 days from such agreement, either Owner or Contractor may unilaterally terminate the mediation process, and the Claim submittal and decision process shall resume as of the date of the termination. If the mediation proceeds but is unsuccessful in resolving the dispute, the Claim submittal and decision process shall resume as of the date of the conclusion of the mediation, as determined by the mediator.
 3. Owner and Contractor shall each pay one-half of the mediator’s fees and costs.
- E. *Partial Approval*: If the party receiving a Claim approves the Claim in part and denies it in part, such action shall be final and binding unless within 30 days of such action the other party invokes the procedure set forth in Article 17 for final resolution of disputes.
- F. *Denial of Claim*: 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 90 days, then either Owner or Contractor may at any time thereafter submit a letter to the other party indicating that as a result of the inaction, the Claim is deemed denied, thereby commencing the time for appeal of the denial. A denial of the Claim shall be final and binding unless within 30 days of the denial the other party invokes the procedure set forth in Article 17 for the final resolution of disputes.

- G. *Final and Binding Results:* If the parties reach a mutual agreement regarding a Claim, whether through approval of the Claim, direct negotiations, mediation, or otherwise; or if a Claim is approved in part and denied in part, or denied in full, and such actions become final and binding; then the results of the agreement or action on the Claim shall be incorporated in a Change Order to the extent they affect the Contract, including the Work, the Contract Times, or the Contract Price.

ARTICLE 13 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

13.01 Cost of the Work

- A. *Purposes for Determination of Cost of the Work:* The term Cost of the Work means the sum of all costs necessary for the proper performance of the Work at issue, as further defined below. The provisions of this Paragraph 13.01 are used for two distinct purposes:
1. To determine Cost of the Work when Cost of the Work is a component of the Contract Price, under cost-plus-fee, time-and-materials, or other cost-based terms; or
 2. To determine the value of a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price. When the value of any such adjustment is determined on the basis of Cost of the Work, Contractor is entitled only to those additional or incremental costs required because of the change in the Work or because of the event giving rise to the adjustment.
- B. *Costs Included:* Except as otherwise may be agreed to in writing by Owner, costs included in the Cost of the Work shall be in amounts no higher than those prevailing in the locality of the Project, shall not include any of the costs itemized in Paragraph 13.01.C, and shall include only the following items:
1. Payroll costs for employees in the direct employ of Contractor in the performance of the Work under schedules of job classifications agreed upon by Owner and Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time on the Work. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, and vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by Owner.
 2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to Contractor unless Owner deposits funds with Contractor with which to make payments, in which case the cash discounts shall accrue to Owner. All trade discounts, rebates, and refunds and returns

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from sale of surplus materials and equipment shall accrue to Owner, and Contractor shall make provisions so that they may be obtained.

3. Payments made by Contractor to Subcontractors for Work performed by Subcontractors. If required by Owner, Contractor shall obtain competitive bids from subcontractors acceptable to Owner and Contractor and shall deliver such bids to Owner, who will then determine, with the advice of Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as Contractor's Cost of the Work and fee as provided in this Paragraph 13.01.
4. Costs of special consultants (including but not limited to engineers, architects, testing laboratories, surveyors, attorneys, and accountants) employed for services specifically related to the Work.
5. Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of Contractor's employees incurred in discharge of duties connected with the Work.
 - b. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of Contractor.
 - c. Rentals of all construction equipment and machinery, and the parts thereof, whether rented from Contractor or others in accordance with rental agreements approved by Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
 - d. Sales, consumer, use, and other similar taxes related to the Work, and for which Contractor is liable, as imposed by Laws and Regulations.
 - e. Deposits lost for causes other than negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.
 - f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 6.05), provided such losses and damages have resulted from causes other than the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.

- g. The cost of utilities, fuel, and sanitary facilities at the Site.
 - h. Minor expenses such as communication service at the Site, express and courier services, and similar petty cash items in connection with the Work.
 - i. The costs of premiums for all bonds and insurance that Contractor is required by the Contract Documents to purchase and maintain.
- C. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:
- 1. Payroll costs and other compensation of Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by Contractor, whether at the Site or in Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 13.01.B.1 or specifically covered by Paragraph 13.01.B.4. The payroll costs and other compensation excluded here are to be considered administrative costs covered by the Contractor's fee.
 - 2. Expenses of Contractor's principal and branch offices other than Contractor's office at the Site.
 - 3. Any part of Contractor's capital expenses, including interest on Contractor's capital employed for the Work and charges against Contractor for delinquent payments.
 - 4. Costs due to the negligence of Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
 - 5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 13.01.B.
- D. *Contractor's Fee:* When the Work as a whole is performed on the basis of cost-plus, Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order, Change Proposal, Claim, set-off, or other adjustment in Contract Price is determined on the basis of Cost of the Work, Contractor's fee shall be determined as set forth in Paragraph 11.04.C.
- E. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to this Article 13, Contractor will establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to Engineer an itemized cost breakdown together with supporting data.

13.02 *Allowances*

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

- B. *Cash Allowances:* Contractor agrees that:
 - 1. the cash allowances include the cost to Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
 - 2. Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.
- C. *Contingency Allowance:* Contractor agrees that a contingency allowance, if any, is for the sole use of Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by Engineer to reflect actual amounts due Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

13.03 *Unit Price Work*

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Payments to Contractor for Unit Price Work will be based on actual quantities.
- C. Each unit price will be deemed to include an amount considered by Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. Engineer will determine the actual quantities and classifications of Unit Price Work performed by Contractor. Engineer will review with Contractor the Engineer's preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). Engineer's written decision thereon will be final and binding (except as modified by Engineer to reflect changed factual conditions or more accurate data) upon Owner and Contractor, subject to the provisions of the following paragraph.
- E. Within 30 days of Engineer's written decision under the preceding paragraph, Contractor may submit a Change Proposal, or Owner may file a Claim, seeking an adjustment in the Contract Price if:
 - 1. the quantity of any item of Unit Price Work performed by Contractor differs materially and significantly from the estimated quantity of such item indicated in the Agreement;
 - 2. there is no corresponding adjustment with respect to any other item of Work; and
 - 3. Contractor believes that it is entitled to an increase in Contract Price as a result of having incurred additional expense or Owner believes that Owner is entitled to a decrease in Contract Price, and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 14 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

14.01 *Access to Work*

- A. Owner, Engineer, their consultants and other representatives and personnel of Owner, independent testing laboratories, and authorities having jurisdiction 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 and advise them of Contractor's safety procedures and programs so that they may comply therewith as applicable.

14.02 *Tests, Inspections, and Approvals*

- A. Contractor shall give Engineer timely notice of readiness of the Work (or specific parts thereof) for all required inspections and tests, and shall cooperate with inspection and testing personnel to facilitate required inspections and tests.
- B. Owner shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspections and tests expressly required by the Contract Documents to be furnished and paid for by Owner, except that costs incurred in connection with tests or inspections of covered Work shall be governed by the provisions of Paragraph 14.05.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish Engineer the required certificates of inspection or approval.
- D. Contractor shall be responsible for arranging, obtaining, and paying for all inspections and tests required:
 - 1. by the Contract Documents, unless the Contract Documents expressly allocate responsibility for a specific inspection or test to Owner;
 - 2. to attain Owner's and Engineer's acceptance of materials or equipment to be incorporated in the Work;
 - 3. by manufacturers of equipment furnished under the Contract Documents;
 - 4. for testing, adjusting, and balancing of mechanical, electrical, and other equipment to be incorporated into the Work; and
 - 5. for acceptance of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.

Such inspections and tests shall be performed by independent inspectors, testing laboratories, or other qualified individuals or entities acceptable to Owner and Engineer.

- E. If the Contract Documents require the Work (or part thereof) to be approved by Owner, Engineer, or another designated individual or entity, then Contractor shall assume full responsibility for arranging and obtaining such approvals.
- F. If any Work (or the work of others) 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 unless Contractor had given Engineer timely notice of Contractor's intention to cover the same and Engineer had not acted with reasonable promptness in response to such notice.

14.03 *Defective Work*

- A. *Contractor's Obligation:* It is Contractor's obligation to assure that the Work is not defective.
- B. *Engineer's Authority:* Engineer has the authority to determine whether Work is defective, and to reject defective Work.
- C. *Notice of Defects:* Prompt notice of all defective Work of which Owner or Engineer has actual knowledge will be given to Contractor.
- D. *Correction, or Removal and Replacement:* Promptly after receipt of written notice of defective Work, Contractor shall correct all such defective Work, whether or not fabricated, installed, or completed, or, if Engineer has rejected the defective Work, remove it from the Project and replace it with Work that is not defective.
- E. *Preservation of Warranties:* 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. *Costs and Damages:* In addition to its correction, removal, and replacement obligations with respect to defective Work, Contractor shall pay all claims, costs, losses, and damages arising out of or relating to defective Work, including but not limited to the cost of the inspection, testing, correction, removal, replacement, or reconstruction of such defective Work, fines levied against Owner by governmental authorities because the Work is defective, and the costs of repair or replacement of work of others resulting from defective Work. Prior to final payment, if Owner and Contractor are unable to agree as to the measure of such claims, costs, losses, and damages resulting from defective Work, then Owner may impose a reasonable set-off against payments due under Article 15.

14.04 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner prefers to accept it, Owner may do so (subject, if such acceptance occurs prior to final payment, to Engineer's confirmation that such acceptance is in general accord with the design intent and applicable engineering principles, and will not endanger public safety). Contractor shall pay all claims, costs, losses, and damages attributable to Owner's evaluation of and determination to accept such defective Work (such costs to be approved by Engineer as to reasonableness), and for the diminished value of the Work to the extent not otherwise paid by Contractor. If any such acceptance occurs prior to final payment, the necessary revisions in the Contract Documents with respect to the Work shall be incorporated in a Change Order. If the parties are unable to agree as to the decrease in the Contract Price, reflecting the diminished value of Work so accepted, then Owner may impose a reasonable set-off against payments due under Article 15. If the acceptance of defective Work occurs after final payment, Contractor shall pay an appropriate amount to Owner.

14.05 *Uncovering Work*

- A. Engineer has the authority to require special inspection or testing of the Work, whether or not the Work is fabricated, installed, or completed.

- B. If any Work is covered contrary to the written request of Engineer, then Contractor shall, if requested by Engineer, uncover such Work for Engineer's observation, and then replace the covering, all at Contractor's expense.
- C. If Engineer considers it necessary or advisable that covered Work be observed by Engineer or inspected or tested by others, then Contractor, at Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as Engineer may require, that portion of the Work in question, and provide all necessary labor, material, and equipment.
 - 1. If it is found that the uncovered Work is defective, Contractor shall be responsible for all claims, costs, losses, and damages arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and pending Contractor's full discharge of this responsibility the Owner shall be entitled to impose a reasonable set-off against payments due under Article 15.
 - 2. If the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, then Contractor may submit a Change Proposal within 30 days of the determination that the Work is not defective.

14.06 *Owner May Stop the Work*

- A. 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; however, this right of Owner to stop the Work shall not give rise to any duty on the part of Owner to exercise this right for the benefit of Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

14.07 *Owner May Correct Defective Work*

- A. If Contractor fails within a reasonable time after written notice from Engineer to correct defective Work, or to remove and replace rejected Work as required by Engineer, or if Contractor fails to perform the Work in accordance with the Contract Documents, or if Contractor fails to comply with any other provision of the Contract Documents, then Owner may, after seven days written notice to Contractor, correct or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 14.07, Owner shall proceed expeditiously. In connection with such corrective or remedial action, Owner may exclude Contractor from all or part of the Site, take possession of all or part of the Work and suspend Contractor's services related thereto, and incorporate in the Work all materials and equipment stored at the Site or for which Owner has paid Contractor but which are stored elsewhere. Contractor shall allow Owner, Owner's representatives, agents and employees, Owner's other contractors, and Engineer and Engineer's consultants access to the Site to enable Owner to exercise the rights and remedies under this paragraph.
- C. All claims, costs, losses, and damages incurred or sustained by Owner in exercising the rights and remedies under this Paragraph 14.07 will be charged against Contractor as set-offs

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against payments due under Article 15. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of Contractor's defective Work.

- D. Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by Owner of Owner's rights and remedies under this Paragraph 14.07.

ARTICLE 15 – PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

15.01 *Progress Payments*

A. *Basis for Progress Payments:* The Schedule of Values established as provided in Article 2 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to Engineer. Progress payments on account of Unit Price Work will be based on the number of units completed during the pay period, as determined under the provisions of Paragraph 13.03. Progress payments for cost-based Work will be based on Cost of the Work completed by Contractor during the pay period.

B. *Applications for Payments:*

1. At least 20 days before the date established in the Agreement for each progress payment (but not more often than once a month), Contractor shall submit to Engineer for review an Application for Payment filled out and signed by Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that Owner has received the materials and equipment free and clear of all Liens, and evidence that the materials and equipment are covered by appropriate property insurance, a warehouse bond, or other arrangements to protect Owner's interest therein, all of which must be satisfactory to Owner.
2. 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.
3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

C. *Review of Applications:*

1. Engineer will, within 10 days after receipt of each Application for Payment, including each resubmittal, either indicate in writing a recommendation of payment and present the Application to Owner, or return the Application to Contractor indicating in writing Engineer's reasons for refusing to recommend payment. In the latter case, Contractor may make the necessary corrections and resubmit the Application.
2. Engineer's recommendation of any payment requested in an Application for Payment will constitute a representation by Engineer to Owner, based on Engineer's observations of the executed Work as an experienced and qualified design professional, and on

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Engineer's review of the Application for Payment and the accompanying data and schedules, that to the best of Engineer's knowledge, information and belief:

- a. the Work has progressed to the point indicated;
 - b. the quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, the results of any subsequent tests called for in the Contract Documents, a final determination of quantities and classifications for Unit Price Work under Paragraph 13.03, and any other qualifications stated in the recommendation); and
 - c. the conditions precedent to Contractor's being entitled to such payment appear to have been fulfilled in so far as it is Engineer's responsibility to observe the Work.
3. By recommending any such payment Engineer will not thereby be deemed to have represented that:
- a. inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to Engineer in the Contract; or
 - b. there may not be other matters or issues between the parties that might entitle Contractor to be paid additionally by Owner or entitle Owner to withhold payment to Contractor.
4. Neither Engineer's review of Contractor's Work for the purposes of recommending payments nor Engineer's recommendation of any payment, including final payment, will impose responsibility on Engineer:
- a. to supervise, direct, or control the Work, or
 - b. for the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
 - c. for Contractor's failure to comply with Laws and Regulations applicable to Contractor's performance of the Work, or
 - d. to make any examination to ascertain how or for what purposes Contractor has used the money paid on account of the Contract Price, or
 - e. to determine that title to any of the Work, materials, or equipment has passed to Owner free and clear of any Liens.
5. Engineer may refuse to recommend the whole or any part of any payment if, in Engineer's opinion, it would be incorrect to make the representations to Owner stated in Paragraph 15.01.C.2.
6. Engineer will recommend reductions in payment (set-offs) necessary in Engineer's opinion to protect Owner from loss because:
- a. the Work is defective, requiring correction or replacement;
 - b. the Contract Price has been reduced by Change Orders;

- c. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible; or
 - e. Engineer has actual knowledge of the occurrence of any of the events that would constitute a default by Contractor and therefore justify termination for cause under the Contract Documents.
- D. *Payment Becomes Due:*
- 1. Ten days after presentation of the Application for Payment to Owner with Engineer's recommendation, the amount recommended (subject to any Owner set-offs) will become due, and when due will be paid by Owner to Contractor.
- E. *Reductions in Payment by Owner:*
- 1. In addition to any reductions in payment (set-offs) recommended by Engineer, Owner is entitled to impose a set-off against payment based on any of the following:
 - a. claims have been made against Owner on account of Contractor's conduct in the performance or furnishing of the Work, or Owner has incurred costs, losses, or damages on account of Contractor's conduct in the performance or furnishing of the Work, including but not limited to claims, costs, losses, or damages from workplace injuries, adjacent property damage, non-compliance with Laws and Regulations, and patent infringement;
 - b. Contractor has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Site;
 - c. Contractor has failed to provide and maintain required bonds or insurance;
 - d. Owner has been required to remove or remediate a Hazardous Environmental Condition for which Contractor is responsible;
 - e. Owner has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
 - f. the Work is defective, requiring correction or replacement;
 - g. Owner has been required to correct defective Work in accordance with Paragraph 14.07, or has accepted defective Work pursuant to Paragraph 14.04;
 - h. the Contract Price has been reduced by Change Orders;
 - i. an event that would constitute a default by Contractor and therefore justify a termination for cause has occurred;
 - j. liquidated damages have accrued as a result of Contractor's failure to achieve Milestones, Substantial Completion, or final completion of the Work;
 - k. Liens have been filed in connection with the Work, except where Contractor has delivered a specific bond satisfactory to Owner to secure the satisfaction and discharge of such Liens;

1. there are other items entitling Owner to a set off against the amount recommended.
2. If Owner imposes any set-off against payment, whether based on its own knowledge or on the written recommendations of Engineer, Owner will give Contractor immediate written notice (with a copy to Engineer) stating the reasons for such action and the specific amount of the reduction, and promptly pay Contractor any amount remaining after deduction of the amount so withheld. Owner shall promptly pay Contractor the amount so withheld, or any adjustment thereto agreed to by Owner and Contractor, if Contractor remedies the reasons for such action. The reduction imposed shall be binding on Contractor unless it duly submits a Change Proposal contesting the reduction.
3. Upon a subsequent determination that Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 15.01.C.1 and subject to interest as provided in the Agreement.

15.02 *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.

15.03 *Substantial Completion*

- A. When Contractor considers the entire Work ready for its intended use Contractor shall notify Owner and Engineer in writing that the entire Work is substantially complete and request that Engineer issue a certificate of Substantial Completion. 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. Promptly after Contractor's notification, Owner, Contractor, and Engineer shall make an inspection of the Work to determine the status of completion. If Engineer does not consider the Work substantially complete, Engineer will notify Contractor in writing giving the reasons therefor.
- C. If Engineer considers the Work substantially complete, Engineer will deliver to Owner a preliminary certificate of Substantial Completion which shall fix the date of Substantial Completion. Engineer shall attach to the certificate a punch list of items to be completed or corrected before final payment. Owner shall have seven days after receipt of the preliminary certificate during which to make written objection to Engineer as to any provisions of the certificate or attached punch list. If, after considering the objections to the provisions of the preliminary certificate, Engineer concludes that the Work is not substantially complete, Engineer will, within 14 days after submission of the preliminary certificate to Owner, notify Contractor in writing that the Work is not substantially complete, stating the reasons therefor. If Owner does not object to the provisions of the certificate, or if despite consideration of Owner's objections Engineer concludes that the Work is substantially complete, then Engineer will, within said 14 days, execute and deliver to Owner and Contractor a final certificate of Substantial Completion (with a revised punch list of items to be completed or corrected) reflecting such changes from the preliminary certificate as Engineer believes justified after consideration of any objections from Owner.

- D. At the time of receipt of the preliminary certificate of Substantial Completion, Owner and Contractor will confer regarding Owner's use or occupancy of the Work following Substantial Completion, review the builder's risk insurance policy with respect to the end of the builder's risk coverage, and confirm the transition to coverage of the Work under a permanent property insurance policy held by Owner. Unless Owner and Contractor agree otherwise in writing, Owner shall bear responsibility for security, operation, protection of the Work, property insurance, maintenance, heat, and utilities upon Owner's use or occupancy of the Work.
- E. After Substantial Completion the Contractor shall promptly begin work on the punch list of items to be completed or corrected prior to final payment. In appropriate cases Contractor may submit monthly Applications for Payment for completed punch list items, following the progress payment procedures set forth above.
- F. Owner shall have the right to exclude Contractor from the Site after the date of Substantial Completion subject to allowing Contractor reasonable access to remove its property and complete or correct items on the punch list.

15.04 *Partial Use or Occupancy*

- A. Prior to Substantial Completion of all the Work, Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which Owner, Engineer, and Contractor agree constitutes a separately functioning and usable part of the Work that can be used by Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions:
 - 1. At any time Owner may request in writing that Contractor permit Owner to use or occupy any such part of the Work that Owner believes to be substantially complete. If and when Contractor agrees that such part of the Work is substantially complete, Contractor, Owner, and Engineer will follow the procedures of Paragraph 15.03.A through E for that part of the Work.
 - 2. At any time Contractor may notify Owner and Engineer in writing that Contractor considers any such part of the Work substantially complete and request Engineer to issue a certificate of Substantial Completion for that part of the Work.
 - 3. Within a reasonable time after either such request, Owner, Contractor, and Engineer shall make an inspection of that part of the Work to determine its status of completion. If Engineer does not consider that part of the Work to be substantially complete, Engineer will notify Owner and Contractor in writing giving the reasons therefor. If Engineer considers that part of the Work to be substantially complete, the provisions of Paragraph 15.03 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.
 - 4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 6.05 regarding builder's risk or other property insurance.

15.05 *Final Inspection*

- A. Upon written notice from Contractor that the entire Work or an agreed portion thereof 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.

15.06 *Final Payment*

A. *Application for Payment:*

1. After Contractor has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents (as provided in Paragraph 7.11), and other documents, Contractor may make application for final payment.
2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. all documentation called for in the Contract Documents;
 - b. consent of the surety, if any, to final payment;
 - c. 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.
 - d. a list of all disputes that Contractor believes are unsettled; and
 - e. 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.
3. In lieu of the releases or waivers of Liens specified in Paragraph 15.06.A.2 and as approved by Owner, Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (a) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which Owner might in any way be responsible, or which might in any way result in liens or other burdens on Owner's property, have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, Contractor may furnish a bond or other collateral satisfactory to Owner to indemnify Owner against any Lien, or Owner at its option may issue joint checks payable to Contractor and specified Subcontractors and Suppliers.

B. *Engineer's Review of Application and Acceptance:*

1. If, on the basis of Engineer's observation of the Work during construction and final inspection, and Engineer's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, Engineer is satisfied that the Work has been completed and Contractor's other obligations under the Contract have been fulfilled, Engineer will, within ten days after receipt of the final Application for Payment, indicate in writing Engineer's recommendation of final payment and present the Application for Payment to Owner for payment. Such recommendation shall account for any set-offs against payment that are necessary in Engineer's opinion to protect Owner from loss for the reasons stated above with respect

to progress payments. At the same time Engineer will also give written notice to Owner and Contractor that the Work is acceptable, subject to the provisions of Paragraph 15.07. Otherwise, Engineer will return the Application for Payment to Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case Contractor shall make the necessary corrections and resubmit the Application for Payment.

- C. *Completion of Work*: 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.
- D. *Payment Becomes Due*: Thirty days after the presentation to Owner of the final Application for Payment and accompanying documentation, the amount recommended by Engineer (less any further sum Owner is entitled to set off against Engineer's recommendation, including but not limited to set-offs for liquidated damages and set-offs allowed under the provisions above with respect to progress payments) will become due and shall be paid by Owner to Contractor.

15.07 *Waiver of Claims*

- A. The making of final payment will not constitute a waiver by Owner of claims or rights against Contractor. Owner expressly reserves claims and rights arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 15.05, from Contractor's failure to comply with the Contract Documents or the terms of any special guarantees specified therein, from outstanding Claims by Owner, or from Contractor's continuing obligations under the Contract Documents.
- 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 or appealed under the provisions of Article 17.

15.08 *Correction Period*

- A. If within one year after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents, or by any specific provision of the Contract Documents), 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, without cost to Owner and in accordance with Owner's written instructions:
 - 1. correct the defective repairs to the Site or such other adjacent areas;
 - 2. correct such defective Work;
 - 3. if the defective Work has been rejected by Owner, remove it from the Project and replace it with Work that is not defective, and
 - 4. satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting therefrom.
- B. If Contractor does not promptly comply with the terms of Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced.

- Contractor shall pay 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 such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others).
- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
 - D. Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the correction period hereunder with respect to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.
 - E. Contractor's obligations under this paragraph are in addition to all other obligations and warranties. The provisions of this paragraph shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 16 – SUSPENSION OF WORK AND TERMINATION

16.01 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 90 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. Any Change Proposal seeking such adjustments shall be submitted no later than 30 days after the date fixed for resumption of Work.

16.02 Owner May Terminate for Cause

- A. The occurrence of any one or more of the following events will constitute a default by Contractor and justify termination for cause:
 - 1. Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule);
 - 2. Failure of Contractor to perform or otherwise to comply with a material term of the Contract Documents;
 - 3. Contractor's disregard of Laws or Regulations of any public body having jurisdiction; or
 - 4. Contractor's repeated disregard of the authority of Owner or Engineer.
- B. If one or more of the events identified in Paragraph 16.02.A occurs, 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. 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.
- D. Owner may not proceed with termination of the Contract under Paragraph 16.02.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.
- E. If Owner proceeds as provided in Paragraph 16.02.B, Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds the cost to complete the Work, including all related claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals) sustained by Owner, such excess will be paid to Contractor. If the cost to complete the Work including such related claims, costs, losses, and damages exceeds such unpaid balance, Contractor shall pay the difference to Owner. Such claims, costs, losses, and damages incurred by Owner will be reviewed by Engineer as to their reasonableness and, when so approved by Engineer, incorporated in a Change Order. When exercising any rights or remedies under this paragraph, Owner shall not be required to obtain the lowest price for the Work performed.
- F. Where Contractor's services have been so terminated by Owner, the termination will not affect any rights or remedies of Owner against Contractor then existing or which may thereafter accrue, or any rights or remedies of Owner against Contractor or any surety under any payment bond or performance bond. Any retention or payment of money due Contractor by Owner will not release Contractor from liability.
- G. If and to the extent that Contractor has provided a performance bond under the provisions of Paragraph 6.01.A, the provisions of that bond shall govern over any inconsistent provisions of Paragraphs 16.02.B and 16.02.D.

16.03 *Owner May Terminate For Convenience*

- A. Upon seven days written notice to Contractor and Engineer, 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.

16.04 *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) Engineer fails to act on any Application for Payment within 30 days after it is submitted, or (3) 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 Engineer, and provided Owner or Engineer do not remedy such suspension or failure within that time, terminate the contract and recover from Owner payment on the same terms as provided in Paragraph 16.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if Engineer has failed to act on an Application for Payment within 30 days after it is submitted, or Owner has failed for 30 days to pay Contractor any sum finally determined to be due, Contractor may, seven days after written notice to Owner and Engineer, stop the Work until payment is made of all such amounts due Contractor, including interest thereon. The provisions of this paragraph are not intended to preclude Contractor from submitting a Change Proposal for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to Contractor's stopping the Work as permitted by this paragraph.

ARTICLE 17 – FINAL RESOLUTION OF DISPUTES

17.01 *Methods and Procedures*

- A. *Disputes Subject to Final Resolution:* The following disputed matters are subject to final resolution under the provisions of this Article:
 - 1. A timely appeal of an approval in part and denial in part of a Claim, or of a denial in full; and
 - 2. Disputes between Owner and Contractor concerning the Work or obligations under the Contract Documents, and arising after final payment has been made.
- B. *Final Resolution of Disputes:* For any dispute subject to resolution under this Article, Owner or Contractor may:
 - 1. elect in writing to invoke the dispute resolution process provided for in the Supplementary Conditions; or
 - 2. agree with the other party to submit the dispute to another dispute resolution process; or
 - 3. if no dispute resolution process is provided for in the Supplementary Conditions or mutually agreed to, give written notice to the other party of the intent to submit the dispute to a court of competent jurisdiction.

ARTICLE 18 – MISCELLANEOUS

18.01 Giving Notice

- A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:
 - 1. delivered in person, by a commercial courier service or otherwise, to the individual or to a member of the firm or to an officer of the corporation for which it is intended; or
 - 2. delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the sender of the notice.

18.02 Computation of Times

- A. When any period of time is referred to in the Contract by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

18.03 Cumulative Remedies

- A. The duties and obligations imposed by these General Conditions 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.

18.04 Limitation of Damages

- A. With respect to any and all Change Proposals, Claims, disputes subject to final resolution, and other matters at issue, neither Owner nor 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.

18.05 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.

18.06 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.

18.07 Controlling Law

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

18.08 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

SECTION 00 73 00 - SUPPLEMENTARY GENERAL CONDITIONS

These Supplementary Conditions amend or supplement the Standard General Conditions of the Construction Contract, EJCDC® C-700 (2013 Edition). All provisions that are not so amended or supplemented remain in full force and effect.

The terms used in these Supplementary Conditions have the meanings stated in the General Conditions. Additional terms used in these Supplementary Conditions have the meanings stated below, which are applicable to both the singular and plural thereof.

The address system used in these Supplementary Conditions is the same as the address system used in the General Conditions, with the prefix "SC" added thereto.

ARTICLE 2 – PRELIMINARY MATTERS

SC-2.01 Delete Paragraphs 2.01 B. and C. in their entirety and insert the following in their place:

- B. Evidence of Contractor’s Insurance: When Contractor delivers the executed counterparts of the Agreement to Owner, Contractor shall also deliver to Owner copies of the policies of insurance (including all endorsements, and identification of applicable self-insured retentions and deductibles) required to be provided by Contractor in Article 6. Contractor may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.**
- C. Evidence of Owner’s Insurance: After receipt from Contractor of the executed counterparts of the Agreement and all required bonds and insurance documentation, Owner shall promptly deliver to Contractor copies of the policies of insurance to be provided by Owner under Article 6 (if any). Owner may block out (redact) any confidential premium or pricing information contained in any policy or endorsement furnished under this provision.**

ARTICLE 5 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; HAZARDOUS ENVIRONMENTAL CONDITIONS

SC 5.03 Delete Paragraphs 5.03.A and 5.03.B in their entirety and insert the following:

- A. 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.**

SC 5.06 Delete Paragraphs 5.06.A and 5.06.B in their entirety and insert the following:

- A. No reports or drawings related to Hazardous Environmental Conditions at the Site are known to Owner.**
- B. Not Used.**

ARTICLE 6 – BONDS AND INSURANCE

SC-6.02 Add the following paragraph immediately after Paragraph 6.02.B:

1. Contractor may obtain worker’s compensation insurance from an insurance company that has not been rated by A.M. Best, provided that such company (a) is domiciled in the state in which the project is located, (b) is certified or authorized as a worker’s compensation insurance provider by the appropriate state agency, and (c) has been accepted to provide worker’s compensation insurance for similar projects by the state within the last 12 months.

SC 6.03 Add the following new paragraph immediately after Paragraph 6.03.J:

K. The limits of liability for the insurance required by Paragraph 6.03 of the General Conditions shall provide coverage for not less than the following amounts or greater where required by Laws and Regulations:

1. Workers’ Compensation, and related coverages under Paragraphs 6.03.A.1 and A.2 of the General Conditions:

State:	Statutory
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Federal, if applicable (e.g., Longshoreman’s):	Statutory
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Jones Act coverage, if applicable:

Bodily injury by accident, each accident	\$ 1,000,000
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Bodily injury by disease, aggregate	\$ 1,000,000
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Employer’s Liability:

Bodily injury, each accident	\$ 1,000,000
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Bodily injury by disease, each employee	\$ 1,000,000
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Bodily injury/disease aggregate	\$ 1,000,000
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For work performed in monopolistic states, stop-gap liability coverage shall be endorsed to either the worker’s compensation or commercial general liability policy with a minimum limit of:

	\$ 2,000,000
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Foreign voluntary worker compensation	Statutory
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2. Contractor’s Commercial General Liability under Paragraphs 6.03.B and 6.03.C of the General Conditions:

General Aggregate	\$ 2,000,000
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Products - Completed Operations Aggregate	\$ 1,000,000
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- | | |
|--|---------------------|
| Personal and Advertising Injury | \$ 1,000,000 |
| Each Occurrence (Bodily Injury and Property Damage) | \$ 1,000,000 |
- 3. Automobile Liability under Paragraph 6.03.D. of the General Conditions:**
- Bodily Injury:**
- | | |
|---------------|--------------|
| Each person | \$ 1,000,000 |
| Each accident | \$ 1,000,000 |
- Property Damage:**
- | | |
|---------------|--------------|
| Each accident | \$ 1,000,000 |
|---------------|--------------|
- 4. Excess or Umbrella Liability:**
- | | |
|-------------------|--------------|
| Per Occurrence | \$ 5,000,000 |
| General Aggregate | \$ 5,000,000 |
- 5. Contractor's Pollution Liability:**
- | | |
|-------------------|--------------|
| Each Occurrence | \$ 2,000,000 |
| General Aggregate | \$ 2,000,000 |
- If box is checked, Contractor is not required to provide Contractor's Pollution Liability insurance under this Contract**
- 6. Additional Insureds: In addition to Owner and Engineer, include as additional insureds the following:**
- The City of Amity City Council, officers, agents, attorneys and employees.
- 7. Contractor's Professional Liability: Not Applicable**

ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

SC-7.02 Labor; Working Hours

Paragraph 7.02.B of the General Conditions restricts Contractor to working during "regular hours" Monday through Friday, and no work is permitted on "legal holidays."

- A. To provide details regarding the meaning of the terms "regular hours" and "legal holidays," consider specifically defining them by adding the following:

SC-7.02.B. Add the following new subparagraphs immediately after Paragraph 7.02.B:

1. **Regular working hours will be 7:00 AM to 7:00 PM**
2. **Owner's legal holidays are Easter, Memorial Day, Independence Day, Labor Day, Thanksgiving, Christmas Eve, Christmas.**

ARTICLE 10 – ENGINEER’S STATUS DURING CONSTRUCTION

SC-10.03 Add the following new paragraphs immediately after Paragraph 10.03.A:

- B. The Resident Project Representative (RPR) will be Engineer's representative at the Site, will act as directed by and under the supervision of Engineer, and will confer with Engineer regarding RPR's actions.**
1. **General: RPR's dealings in matters pertaining to the Work in general shall be with Engineer and Contractor. RPR's dealings with Subcontractors shall only be through or with the full knowledge and approval of Contractor. RPR shall generally communicate with Owner only with the knowledge of and under the direction of Engineer.**
 2. **Schedules: Review the progress schedule, schedule of Shop Drawing and Sample submittals, and Schedule of Values prepared by Contractor and consult with Engineer concerning acceptability.**
 3. **Conferences and Meetings: Attend meetings with Contractor, such as preconstruction conferences, progress meetings, job conferences, and other Project-related meetings, and prepare and circulate copies of minutes thereof.**
 4. **Liaison:**
 - a. **Serve as Engineer’s liaison with Contractor. Working principally through Contractor’s authorized representative or designee, assist in providing information regarding the provisions and intent of the Contract Documents.**
 - b. **Assist Engineer in serving as Owner’s liaison with Contractor when Contractor’s operations affect Owner’s on-Site operations.**
 - c. **Assist in obtaining from Owner additional details or information, when required for proper execution of the Work.**
 5. **Interpretation of Contract Documents: Report to Engineer when clarifications and interpretations of the Contract Documents are needed and transmit to Contractor clarifications and interpretations as issued by Engineer.**
 6. **Shop Drawings and Samples:**
 - a. **Record date of receipt of Samples and Contractor-approved Shop Drawings.**
 - b. **Receive Samples which are furnished at the Site by Contractor, and notify Engineer of availability of Samples for examination.**

- 11. Reports:**
 - a. Furnish to Engineer periodic reports as required of progress of the Work and of Contractor's compliance with the Progress Schedule and schedule of Shop Drawing and Sample submittals.**
 - b. Draft and recommend to Engineer proposed Change Orders, Work Change Directives, and Field Orders. Obtain backup material from Contractor.**
 - c. Immediately notify Engineer of the occurrence of any Site accidents, emergencies, acts of God endangering the Work, force majeure or delay events, damage to property by fire or other causes, or the discovery of any Constituent of Concern or Hazardous Environmental Condition.**
 - 12. Payment Requests: Review applications for payment with Contractor for compliance with the established procedure for their submission and forward with recommendations to Engineer, noting particularly the relationship of the payment requested to the Schedule of Values, Work completed, and materials and equipment delivered at the Site but not incorporated in the Work.**
 - 13. Certificates, Operation and Maintenance Manuals: During the course of the Work, verify that materials and equipment certificates, operation and maintenance manuals and other data required by the Contract Documents to be assembled and furnished by Contractor are applicable to the items actually installed and in accordance with the Contract Documents, and have these documents delivered to Engineer for review and forwarding to Owner prior to payment for that part of the Work.**
 - 14. Completion:**
 - a. Participate in Engineer's visits to the Site to determine Substantial Completion, assist in the determination of Substantial Completion and the preparation of a punch list of items to be completed or corrected.**
 - b. Participate in Engineer's final visit to the Site to determine completion of the Work, in the company of Owner and Contractor, and prepare a final punch list of items to be completed and deficiencies to be remedied.**
 - c. Observe whether all items on the final list have been completed or corrected and make recommendations to Engineer concerning acceptance and issuance of the notice of acceptability of the work.**
- C. The RPR shall not:**
- 1. Authorize any deviation from the Contract Documents or substitution of materials or equipment (including "or-equal" items).**
 - 2. Exceed limitations of Engineer's authority as set forth in the Contract Documents.**
 - 3. Undertake any of the responsibilities of Contractor, Subcontractors, or Suppliers.**

4. Advise on, issue directions relative to, or assume control over any aspect of the means, methods, techniques, sequences or procedures of Contractor's work.
5. Advise on, issue directions regarding, or assume control over security or safety practices, precautions, and programs in connection with the activities or operations of Owner or Contractor.
6. Participate in specialized field or laboratory tests or inspections conducted off-site by others except as specifically authorized by Engineer.
7. Accept Shop Drawing or Sample submittals from anyone other than Contractor.
8. Authorize Owner to occupy the Project in whole or in part.

ARTICLE 13 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

ARTICLE 14 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

SC-14.02.B Replace Paragraph 14.02.B with the following:

14.02.B Contractor shall retain and pay for the services of an independent inspector, testing laboratory, or other qualified individual or entity to perform all inspection and tests expressly required by the Contract Documents as identified in Paragraph 14.02.D.

ARTICLE 15 – PAYMENTS TO CONTRACTOR; SET-OFFS; COMPLETION; CORRECTION PERIOD

SC 15.03.B Add the following new subparagraph to Paragraph 15.03.B:

1. If some or all of the Work has been determined not to be at a point of Substantial Completion and will require re-inspection or re-testing by Engineer, the cost of such re-inspection or re-testing, including the cost of time, travel and living expenses, shall be paid by Contractor to Owner. If Contractor does not pay, or the parties are unable to agree as to the amount owed, then Owner may impose a reasonable set-off against payments due under Article 15.

ARTICLE 17 – FINAL RESOLUTION OF DISPUTES

SC-17.02 Add the following new paragraph immediately after Paragraph 17.01.

SC-17.02 Arbitration

- A. All matters subject to final resolution under this Article will be decided by arbitration in accordance with the rules of *[insert name of selected arbitration agency]*, subject to the conditions and limitations of this paragraph. This agreement to arbitrate and any other agreement or consent to arbitrate entered into will be specifically enforceable under the prevailing law of any court having jurisdiction.

- B. The demand for arbitration will be filed in writing with the other party to the Contract and with the selected arbitrator or arbitration provider, and a copy will be sent to Engineer for information. The demand for arbitration will be made within the specific time required in this Article, or if no specified time is applicable within a reasonable time after the matter in question has arisen, and in no event shall any such demand be made after the date when institution of legal or equitable proceedings based on such matter in question would be barred by the applicable statute of limitations. The demand for arbitration should include specific reference to Paragraph SC-17.02.D below.
- C. No arbitration arising out of or relating to the Contract shall include by consolidation, joinder, or in any other manner any other individual or entity (including Engineer, and Engineer's consultants and the officers, directors, partners, agents, employees or consultants of any of them) who is not a party to this Contract unless:
 - 1. the inclusion of such other individual or entity is necessary if complete relief is to be afforded among those who are already parties to the arbitration; and
 - 2. such other individual or entity is substantially involved in a question of law or fact which is common to those who are already parties to the arbitration and which will arise in such proceedings.
- D. The award rendered by the arbitrator(s) shall be consistent with the agreement of the parties, in writing, and include a concise breakdown of the award, and a written explanation of the award specifically citing the Contract provisions deemed applicable and relied on in making the award.
- E. The award will be final. Judgment may be entered upon it in any court having jurisdiction thereof, and it will not be subject to modification or appeal, subject to provisions of the Laws and Regulations relating to vacating or modifying an arbitral award.
- F. The fees and expenses of the arbitrators and any arbitration service shall be shared equally by Owner and Contractor.

SC-17.03 Add the following new paragraph immediately after Paragraph 17.02.

SC-17.03 Attorneys' Fees: For any matter subject to final resolution under this Article, the prevailing party shall be entitled to an award of its attorneys' fees incurred in the final resolution proceedings, in an equitable amount to be determined in the discretion of the court, arbitrator, arbitration panel, or other arbiter of the matter subject to final resolution, taking into account the parties' initial demand or defense positions in comparison with the final result.

EXHIBIT B – INSURANCE REQUIREMENTS

Recipient shall obtain at Recipient’s expense the insurance specified in this Exhibit B before performing under this Contract and shall maintain it in full force and at its own expense throughout the duration of this Contract, as required by any extended reporting period or continuous claims made coverage requirements, and all warranty periods that apply. Recipient shall obtain the following insurance from insurance companies or entities that are authorized to transact the business of insurance and issue coverage in the State of Oregon and that are acceptable to DAS. Coverage shall be primary and non-contributory with any other insurance and self-insurance, with the exception of Professional Liability and Workers’ Compensation. Recipient shall pay for all deductibles, self-insured retention and self-insurance, if any. Recipient shall require and ensure that each of its subcontractors complies with these requirements and maintains insurance policies with responsible insurers, insuring against liability, in the coverages and amounts identified below.

WORKERS’ COMPENSATION & EMPLOYERS’ LIABILITY

All employers, including Recipient, that employ subject workers, as defined in ORS 656.027, shall comply with ORS 656.017 and provide workers' compensation insurance coverage for those workers, unless they meet the requirement for an exemption under ORS 656.126(2). Recipient shall require and ensure that each of its subcontractors complies with these requirements. If Recipient is a subject employer, as defined in ORS 656.023, Recipient shall also obtain employers' liability insurance coverage with limits not less than \$500,000 each accident. If Recipient is an employer subject to any other state’s workers’ compensation law, Contactor shall provide workers’ compensation insurance coverage for its employees as required by applicable workers’ compensation laws including employers’ liability insurance coverage with limits not less than \$500,000 and shall require and ensure that each of its out-of-state subcontractors complies with these requirements.

As applicable, Recipient shall obtain coverage to discharge all responsibilities and liabilities that arise out of or relate to the Jones Act with limits of no less than \$5,000,000 and/or the Longshoremen’s and Harbor Workers’ Compensation Act.

COMMERCIAL GENERAL LIABILITY:

Required Not required

Commercial General Liability Insurance covering bodily injury and property damage in a form and with coverage that are satisfactory to the State. This insurance shall include personal and advertising injury liability, products and completed operations, contractual liability coverage for the indemnity provided under this contract, and have no limitation of coverage to designated premises, project or operation. Coverage shall be written on an occurrence basis in an amount of not less than \$1,000,000 per occurrence. Annual aggregate limit shall not be less than \$2,000,000.

AUTOMOBILE LIABILITY INSURANCE:

Required Not required

Automobile Liability Insurance covering Recipient’s business use including coverage for all owned, non-owned, or hired vehicles with a combined single limit of not less than \$1,000,000 for bodily injury and property damage. This coverage may be written in combination with the Commercial General Liability Insurance (with separate limits for Commercial General Liability and Automobile Liability). Use of personal automobile liability insurance coverage may be acceptable if evidence that the policy includes a business use endorsement is provided.

A. Automobile Liability Broadened Pollution Liability Coverage Endorsement

If Recipient is transporting any type of **hazardous materials** to implement the Project, then endorsements CA 99 48 or equivalent and MSC-90 (if Recipient is a regulated motor carrier) are required on the Automobile Liability insurance coverage.

PROFESSIONAL LIABILITY:

Required Not required

Professional Liability covering any damages caused by an error, omission or any negligent acts related to the services to be provided under this Contract by Recipient and Recipient’s subcontractors, agents, officers or employees in an amount not less than \$1,000,000 per claim. Annual aggregate limit shall not be less than \$2,000,000. If coverage is on a claims-made basis, then either an extended reporting period of not less than 24 months shall be included in the Professional Liability insurance coverage, or Recipient shall provide continuous claims made coverage as stated below.

POLLUTION LIABILITY:

Required Not required

Pollution Liability Insurance covering Recipient’s or appropriate subcontractor’s liability for bodily injury, property damage and environmental damage resulting from sudden accidental and gradual pollution and related cleanup costs incurred by Recipient, all arising out of the Project (including transportation risk) performed under this Contract is required. Combined single limit per occurrence shall not be less than \$1,000,000. Annual aggregate limit shall not be less than \$2,000,000.

An endorsement to the Commercial General Liability or Automobile Liability policy, covering Recipient’s or subcontractor’ liability for bodily injury, property damage and environmental damage resulting from sudden accidental and gradual pollution and related clean-up cost incurred by Recipient that arise from the Project (including transportation risk) performed by Recipient under this Contract is also acceptable.

EXCESS/UMBRELLA INSURANCE

Umbrella insurance coverage in the sum of \$2,000,000 shall be provided and will apply over all liability policies, without exception, including but not limited to Commercial General Liability, Automobile Liability, and Employers' Liability coverage. The amounts of insurance for the insurance required under this Contract, including this Excess/Umbrella insurance requirement, may be met by the Contractor obtaining coverage for the limits specified under each type of required insurance or by any combination of underlying, excess and umbrella limits so long as the total amount of insurance is not less than the limits specified for each type of required insurance added to the limit for this excess/umbrella insurance requirement.

ADDITIONAL INSURED:

All liability insurance, except for Workers’ Compensation, Professional Liability, and Network Security and Privacy Liability (if applicable), required under this Contract must include an additional insured endorsement specifying the State of Oregon, its officers, employees and agents as Additional Insureds, including additional insured status with respect to liability arising out of ongoing operations and completed operations, but only with respect to Recipient's activities to be performed under this Contract. Coverage shall be primary and non-contributory with any other insurance and self-insurance. The Additional Insured endorsement with respect to liability arising out of your ongoing operations must be on ISO Form CG 20 10 07 04 or equivalent and the Additional Insured endorsement with respect to completed operations must be on ISO form CG 20 37 07 04 or equivalent.

WAIVER OF SUBROGATION:

Recipient shall waive rights of subrogation which Recipient or any insurer of Recipient may acquire against the DAS or State of Oregon by virtue of the payment of any loss. Recipient will obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the DAS has received a waiver of subrogation endorsement from Recipient or Recipient’s insurer(s).

CONTINUOUS CLAIMS MADE COVERAGE:

If any of the required liability insurance is on a claims made basis and does not include an extended reporting period of at least 24 months, then Recipient shall maintain continuous claims made liability coverage, provided the effective date of the continuous claims made coverage is on or before the effective date of this Contract, for a minimum of 24 months following the later of:

- (i) Recipient's completion and DAS's acceptance of all Services required under the Contract, or
- (i) DAS or Recipient termination of this Contract, or
- (ii) The expiration of all warranty periods provided under this Contract.

CERTIFICATE(S) AND PROOF OF INSURANCE:

Upon request, Recipient shall provide to DAS Certificate(s) of Insurance for all required insurance before delivering any Goods and performing any Services required under this Contract. The Certificate(s) shall list the State of Oregon, its officers, employees and agents as a Certificate holder and as an endorsed Additional Insured. The Certificate(s) shall also include all required endorsements or copies of the applicable policy language effecting coverage required by this Contract. If excess/umbrella insurance is used to meet the minimum insurance requirement, the Certificate of Insurance must include a list of all policies that fall under the excess/umbrella insurance. As proof of insurance DAS has the right to request copies of insurance policies and endorsements relating to the insurance requirements in this Contract.

NOTICE OF CHANGE OR CANCELLATION:

Recipient or its insurer must provide at least 30 days' written notice to DAS before cancellation of, material change to, potential exhaustion of aggregate limits of, or non-renewal of the required insurance coverage(s).

INSURANCE REQUIREMENT REVIEW:

Recipient agrees to periodic review of insurance requirements by DAS under this Contract and to provide updated requirements as mutually agreed upon by Recipient and DAS.

STATE ACCEPTANCE:

All insurance providers are subject to DAS acceptance. If requested by DAS, Recipient shall provide complete copies of insurance policies, endorsements, self-insurance documents and related insurance documents to DAS's representatives responsible for verification of the insurance coverages required under this Exhibit B.

CONSTRUCTION FORMS

NOTICE OF AWARD

Date of Issuance:

Owner:

Owner's Contract No.:

Engineer:

Engineer's Project No.:

Project:

Contract Name:

Bidder:

Bidder's Address:

TO BIDDER:

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

_____ .
[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]*

[] unexecuted counterparts of the Agreement accompany this Notice of Award, and one copy of the Contract Documents accompanies this Notice of Award, or has been transmitted or made available to Bidder electronically. *[revise if multiple copies accompany the Notice of Award]*

a set of the Drawings will be delivered separately from the other Contract Documents.

You must comply with the following conditions precedent within 15 days of the date of receipt of this Notice of Award:

1. Deliver to Owner [_____] counterparts of the Agreement, fully executed by Bidder.
2. Deliver with the executed Agreement(s) the Contract security *[e.g., performance and payment bonds]* and insurance documentation as specified in the Instructions to Bidders and General Conditions, Articles 2 and 6.
3. Other conditions precedent (if any):

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 Agreement, together with any additional copies of the Contract Documents as indicated in Paragraph 2.02 of the General Conditions.

Owner:

Authorized Signature

By:

Title:

Copy: Engineer

NOTICE TO PROCEED

Owner:	Owner's Contract No.:
Contractor:	Contractor's Project No.:
Engineer:	Engineer's Project No.:
Project:	Contract Name:
	Effective Date of Contract:

TO CONTRACTOR:

Owner hereby notifies Contractor that the Contract Times under the above Contract will commence to run on [_____, 20__]. *[see Paragraph 4.01 of the General Conditions]*

On that date, Contractor shall start performing its obligations under the Contract Documents. No Work shall be done at the Site prior to such date. In accordance with the Agreement, [the date of Substantial Completion is _____, and the date of readiness for final payment is _____] *or* [the number of days to achieve Substantial Completion is _____, and the number of days to achieve readiness for final payment is _____].

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

[Note any access limitations, security procedures, or other restrictions]

Owner:

Authorized Signature

By:

Title:

Date Issued:

Copy: Engineer



Contractor's Application for Payment No.

	Application Period:	Application Date:
To (Owner):	From (Contractor):	Via (Engineer):
Project:	Contract:	
Owner's Contract No.:	Contractor's Project No.:	Engineer's Project No.:

**Application For Payment
Change Order Summary**

Approved Change Orders	Number	Additions	Deductions	
				1. ORIGINAL CONTRACT PRICE..... \$ _____
				2. Net change by Change Orders..... \$ _____
				3. Current Contract Price (Line 1 ± 2)..... \$ _____
				4. TOTAL COMPLETED AND STORED TO DATE (Column F total on Progress Estimates)..... \$ _____
				5. RETAINAGE:
				a. X _____ Work Completed..... \$ _____
				b. X _____ Stored Material..... \$ _____
				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, PLUS RETAINAGE (Column G total on Progress Estimates + Line 5.c above)..... \$ _____
TOTALS				
NET CHANGE BY CHANGE ORDERS				

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.

(4) By signing payment application and recommending payment, Contractor certifies they have reviewed documentation for all products and materials submitted for payment, and the certifications are sufficient to demonstrate compliance with Build America, Buy America Act requirements.

Contractor Signature

By: _____	Date: _____
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Payment of: \$ _____
(Line 8 or other - attach explanation of the other amount)

is recommended by: _____ (Engineer) _____ (Date)

Payment of: \$ _____
(Line 8 or other - attach explanation of the other amount)

is approved by: _____ (Owner) _____ (Date)

Approved by: _____ (Date)
Funding or Financing Entity (if applicable)



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CERTIFICATE OF SUBSTANTIAL COMPLETION

Owner:	Owner's Contract No.:
Contractor:	Contractor's Project No.:
Engineer:	Engineer's Project No.:
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; see Paragraph 15.03.D of the General Conditions.]*

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: _____ (Authorized signature)	By: _____ Owner (Authorized Signature)	By: _____ Contractor (Authorized Signature)
Title: _____	Title: _____	Title: _____
Date: _____	Date: _____	Date: _____

Change Order No. _____

Date of Issuance:	Effective Date:
Owner:	Owner's Contract No.:
Contractor:	Contractor's Project No.:
Engineer:	Engineer's Project No.:
Project:	Contract Name:

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

Description:

Attachments: *[List documents supporting change]*

CHANGE IN CONTRACT PRICE	CHANGE IN CONTRACT TIMES <i>[Note changes in Milestones if applicable]</i>
Original Contract Price: \$ _____	Original Contract Times: Substantial Completion: _____ Ready for Final Payment: _____ <div style="text-align: right;">days or dates</div>
[Increase] [Decrease] from previously approved Change Orders No. __ to No. __: \$ _____	[Increase] [Decrease] from previously approved Change Orders No. __ to No. __: Substantial Completion: _____ Ready for Final Payment: _____ <div style="text-align: right;">days</div>
Contract Price prior to this Change Order: \$ _____	Contract Times prior to this Change Order: Substantial Completion: _____ Ready for Final Payment: _____ <div style="text-align: right;">days or dates</div>
[Increase] [Decrease] of this Change Order: \$ _____	[Increase] [Decrease] of this Change Order: Substantial Completion: _____ Ready for Final Payment: _____ <div style="text-align: right;">days or dates</div>
Contract Price incorporating this Change Order: \$ _____	Contract Times with all approved Change Orders: Substantial Completion: _____ Ready for Final Payment: _____ <div style="text-align: right;">days or dates</div>

RECOMMENDED: By: _____ Engineer (if required) Title: _____ Date: _____ Approved by Funding Agency (if applicable) By: _____ Title: _____	ACCEPTED: By: _____ Owner (Authorized Signature) Title: _____ Date: _____ _____ Date: _____	ACCEPTED: By: _____ Contractor (Authorized Signature) Title: _____ Date: _____ _____
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Field Order No. _____

Date of Issuance: _____ Effective Date: _____
Owner: _____ Owner's Contract No.: _____
Contractor: _____ Contractor's Project No.: _____
Engineer: _____ Engineer's Project No.: _____
Project: _____ Contract Name: _____

Contractor is hereby directed to promptly execute this Field Order, issued in accordance with General Conditions Paragraph 11.01, 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: _____ By: _____
Engineer (Authorized Signature) Contractor (Authorized Signature)
Title: _____ Title: _____
Date: _____ Date: _____

Copy to: Owner

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TECHNICAL SPECIFICATIONS

SECTION 01 11 00 - SUMMARY OF WORK

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. The Work to be performed under this Contract shall consist of furnishing tools, equipment, materials, supplies, and manufactured articles, and furnishing all labor, transportation, and services, including fuel, power, water, and essential communications, and performing all work or other operations required for the fulfillment of the Contract in strict accordance with the Contract Documents. The Work shall be complete, and all work, materials, and services not expressly indicated or called for in the Contract Documents which may be necessary for the complete and proper construction of the Work in good faith shall be provided by the Contractor as though originally so indicated, at no increase in cost to the Owner. The Contractor shall provide all materials and equipment required for construction of the project.
- B. The Contractor is responsible to follow the provisions of these Contract Documents, including but not limited to: the following of Plans and Specifications; the timely, complete, and accurate submittal of shop drawings; the work of and correlation with his subcontractors and suppliers, timely performance of the Contract, and timely payment of suppliers and subcontractors. Nothing stated in the Contract Documents or Specifications shall be construed to relieve the Contractor of these basic responsibilities.

1.2 WORK COVERED BY CONTRACT DOCUMENTS

- A. Project Overview: The Work of this Contract comprises construction of the City of Amity's ARPA Water Pipeline Replacements, which includes two water lines, valves, hydrants, connections, trenching, backfill, testing, disinfection, temporary blow-offs, and surface restoration to match existing conditions as specified and shown with all appurtenances.

1.3 CONTRACT METHOD

- A. The Work hereunder will be constructed under a single lump sum.

1.4 CODES AND STANDARDS

- A. Where codes and standards are referred to, they are the current approved codes. It is the duty of the Contractor to obtain from its supplier any material on this work to submit evidence, if requested, that provided material is in compliance with the applicable codes and standards.

1.5 STATE AND LOCAL LAWS

- A. Conform to all applicable State and local laws in carrying out obligations under the contract.

SECTION 01 11 00 - SUMMARY OF WORK

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. The Work to be performed under this Contract shall consist of furnishing tools, equipment, materials, supplies, and manufactured articles, and furnishing all labor, transportation, and services, including fuel, power, water, and essential communications, and performing all work or other operations required for the fulfillment of the Contract in strict accordance with the Contract Documents. The Work shall be complete, and all work, materials, and services not expressly indicated or called for in the Contract Documents which may be necessary for the complete and proper construction of the Work in good faith shall be provided by the Contractor as though originally so indicated, at no increase in cost to the Owner. The Contractor shall provide all materials and equipment required for construction of the project.
- B. The Contractor is responsible to follow the provisions of these Contract Documents, including but not limited to: the following of Plans and Specifications; the timely, complete, and accurate submittal of shop drawings; the work of and correlation with his subcontractors and suppliers, timely performance of the Contract, and timely payment of suppliers and subcontractors. Nothing stated in the Contract Documents or Specifications shall be construed to relieve the Contractor of these basic responsibilities.

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1.3 CONTRACT METHOD

- A. The Work hereunder will be constructed under a single lump sum and unit price contract.

1.4 CODES AND STANDARDS

- A. Where codes and standards are referred to, they are the current approved codes. It is the duty of the Contractor to obtain from its supplier any material on this work to submit evidence, if requested, that provided material is in compliance with the applicable codes and standards.

1.5 STATE AND LOCAL LAWS

- A. Conform to all applicable State and local laws in carrying out obligations under the contract.

- B. Meet the requirements and recommendations of the Manual of Accident Prevention in Construction; Associated General Contractors of America, Inc., and Occupational Safety and Health Act.

1.6 PREDETERMINED EQUIPMENT COSTS

- A. The following methods of determination of construction equipment costs apply to all Change Orders and other adjustments of contract price except for Article 15, Suspension of Work and Termination, outlined in the General Conditions.
 - 1. Allowable ownership and operating expense costs for construction equipment in sound workable conditions owned and furnished by the Contractor for work requiring adjustments in contract price shall be based on the applicable provisions of the U.S. Army Corps of Engineers North Pacific Division (NPD) "Equipment Ownership and Operating Expense Schedule." If, for any reason, the schedule referred to above is discontinued or becomes otherwise unavailable, the Owner and the Contractor shall agree upon another schedule or method of price adjustment which, in their opinion, will result in an equitable adjustment of contract price. For forwarding pricing, the issue of NPD Schedule in effect at the time of negotiations shall apply. For retrospective pricing, the issue of the NPD Schedule in effect as of the time work was performed shall apply.
 - 2. For the purpose of determination of the hourly rates to be applied under this contract, working conditions shall be considered to be average unless otherwise determined by the Owner. Rate for equipment not in the schedule may be used for unlisted equipment of comparable horsepower and auxiliary features.
 - 3. For rented equipment, the Owner will accept rates actually paid (substantiated by certified reproduced copies of invoices or bills), but in no event shall they exceed the rates contained in the current "Rental Rate Blue Book for Construction Equipment," published by Equipment Guide-Book Company, 3980 Fabian Way, Palo Alto, California 94303. When the "Blue Book" rates are applied, fuel, lubricants and operating expendables will be computed in accordance with NPD Schedule. Additional shifts or fractions thereof for rented equipment will be computed at 50 percent of the base rate in the "Blue Book" or invoices, as applicable. Rates for equipment under lease-purchase or sale-leaseback arrangements will be determined in accord with NPD Schedule. Rates for equipment rented from an organization under common control will be determined in accord with the NPD Schedule, and no markup will be permitted. A copy of the NPD Schedule is available on the internet.

1.7 PRODUCT SUBSTITUTIONS

- A. Use equipment and materials specified by name in these Specifications or on Plans. Alternate equipment must be approved in accordance with the bidding documents. If alternate equipment is approved, an addenda will be issued prior to the bid to receive consideration. Alternative equipment suppliers shall be reviewed after bid opening during the shop drawing review process as outlined in Section 01 33 00 – Submittal Procedures.
- B. Request approval for substitutions by submitting written evidence and convincing Engineer of equality of item and suitability for the service and/or construction conditions anticipated.

- C. If alternative equipment or materials are approved, make required changes in structures, buildings, piping, systems, etc., necessary to accommodate alternate items without additional cost to the Owner except as specifically noted for Owner furnished materials.

1.8 PERMITS

- A. The Contractor shall be responsible to obtain and pay for all construction and inspection permits required by the State of Oregon, Yamhill County, and the City of Amity.

1.9 WAGE RATES

- A. All Contractors and subcontractors performing work on the project shall comply with State Prevailing Wage Rates (ORS 279C.800 to 279C.870) as applicable to the project.

1.10 OWNER FURNISHED ITEMS

- A. The below listed items have been acquired by the Owner. Detail sheets for the below items can be found in Appendix A.

- 1. HDPE PIPE

- a. IPS SIZE 12 3/4" OD, DR 11, ASTM F714, PE 4710, NSF STANDARD 61
- b. QUANTITY OF 30 SPOOLS, 50-FT EACH

PART 2 - PRODUCTS NOT USED

PART 3 - EXECUTION

END OF SECTION 01 11 00

1.3 CONTRACTOR'S WORK AND STORAGE AREA

- A. The Owner will designate and arrange for the Contractor's use, a portion of the property adjacent to the Work for its exclusive use during the term of the Contract as a storage and shop area for its construction operations on the Work. At completion of Work, the Contractor shall return this area to its original condition, including grading and landscaping.
- B. The Contractor shall make its own arrangements for any necessary off-Site storage or shop areas necessary for the proper execution of the Work.

1.4 PARKING

- A. The Contractor shall:
 - 1. Provide temporary parking areas for its employees and construction equipment.
 - 2. The Contractor shall direct its employees to park in areas indicated.
 - 3. Traffic and parking areas shall be maintained in a sound condition, free of excavated material, construction equipment, mud, and construction materials. The Contractor shall repair breaks, potholes, low areas which collect standing water, and other deficiencies.

PART 2 - PRODUCTS NOT USED

PART 3 - EXECUTION NOT USED

END OF SECTION 01 14 13

SECTION 01 22 00 - UNIT PRICE MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. Measurement and payment will be made as specified in this Section and in accordance with the provisions of the General Conditions.
- B. This Specification covers all measurement and payment for the Work.

PART 2 - PRODUCTS NOT USED

PART 3 - EXECUTION

3.1 INCIDENTAL WORK

- A. All Work not specifically identified in this Section 01 22 00 shall be considered incidental to other items; no special payment will be given for incidental work.
- B. The Contractor shall install trench backfill using crushed rock base where specified in the plans.

3.2 BASE BID PAY ITEMS

- A. Mobilization, Demobilization, Bonds, Permits & Insurance
 - 1. Paid by the lump sum, not to exceed five (5) percent of the contract amount.
 - 2. Not more than sixty (60) percent of the amount bid for this item will be paid on the first monthly progress payment providing that the contractor has initiated productive work on the project.
 - 3. Up to one hundred (100) percent of the amount bid for this item will be paid on the second monthly progress payment providing that the contractor has initiated productive work on the project.
 - 4. Includes cost of bonds, mobilization, demobilization, permits, insurance, submittal costs, schedule preparation, temporary facilities, and any other costs associated with project setup and mobilization that are not specifically identified under other bid items.
- B. Temporary Work-zone Traffic Control
 - 1. Paid by the lump sum.

2. Includes all permitting costs, labor, materials, and equipment required to provide temporary construction traffic control as specified and all other items incidental thereto.
- C. Erosion Control
1. Paid by the lump sum.
 2. Includes all labor, materials, and equipment for permitting, installing, maintaining, and removing erosion sediment control devices in conformance with Section 01 57 23 – Temporary Erosion and Sediment Control.
- D. Construction Surveying
1. Paid by the lump sum.
 2. Includes all labor, materials, and equipment required to layout and stake the sewer trunk line and appurtenances, road improvements, replacement of any survey monuments as specified and all other items incidental thereto in conformance with Section 01 71 23 16 – Construction Surveying.
- E. 8-inch C900 PVC Pipeline, Fittings, Complete
1. Paid by the linear foot of pipe measured along the horizontal centerline of the pipe. Measured from point of connection to point of connection.
 2. Includes all labor, materials, and equipment to construct the pipeline including PVC pipe as specified, fittings, excavation, utility crossings and parallel support, bedding, backfill, cleaning, disinfection, testing, temporary blowoffs, and all other appurtenances not itemized in the bid schedule.
 3. Includes potholing sufficiently far in advance of trenching to identify utility conflicts.
- F. 12-inch C900 PVC Pipeline, Fittings, Complete
1. Paid by the linear foot of pipe measured along the horizontal centerline of the pipe. Measured from point of connection to point of connection.
 2. Includes all labor, materials, and equipment to construct the pipeline including PVC pipe as specified, fittings, excavation, utility crossings and parallel support, bedding, backfill, cleaning, disinfection, testing, temporary blowoffs, and all other appurtenances not itemized in the bid schedule.
 3. Includes potholing sufficiently far in advance of trenching to identify utility conflicts.
- G. 12-inch HDPE Pipeline, Fittings, Complete
1. Paid by the linear foot of pipe measured along the horizontal centerline of the pipe. Measured from point of connection to point of connection.

2. Includes all labor, materials, and equipment to construct the pipeline including installation of owner-furnished pipe as specified, fittings, excavation, utility crossings and parallel support, bedding, backfill, cleaning, disinfection, testing, and all other appurtenances not itemized in the bid schedule.
 3. Includes potholing sufficiently far in advance of trenching to identify utility conflicts.
- H. AC Pavement Street Restoration
1. Paid by the ton (2,000 lbs) of hot-mix asphalt concrete measured on a load ticket basis. Contractor shall provide load tickets to Owner's Representative.
 2. Includes all labor, materials, and equipment to place and compact asphalt as specified and shown in the drawings and all other appurtenances not itemized in the bid schedule.
- I. Turf/grass Surface Restoration
1. Paid by the linear foot of pipe trench measured along the horizontal centerline of the pipe. Measured from the beginning and end of existing, undisturbed, surfacing.
 2. Includes all labor, materials, and equipment to restore existing turf and grass fields or vegetated surfaces as specified and shown in the drawings and all other appurtenances not itemized in the bid schedule.
- J. Gravel Surface Restoration
1. Paid by the linear foot of pipe trench measured along the horizontal centerline of the pipe. Measured from the beginning and end of existing, undisturbed, surfacing.
 2. Includes all labor, materials, and equipment to restore existing gravel roads as specified and shown in the drawings and all other appurtenances not itemized in the bid schedule. Includes placing, grading and rolling 3 inches of 3-4"-0 crushed quarry rock (non- "boney") at the ground surface.
- K. Rice Lane Waterline Connection (C-101)
1. Paid by the lump sum.
 2. Includes all labor, materials, and equipment to construct the connection detail at the roadway and intersection and on the drawing sheet referenced above, including fittings, valves, excavation, utility crossings and parallel support, bedding, backfill and all other appurtenances not itemized in the bid schedule.
 3. Cleaning, disinfection, testing, temporary blowoffs, are incidental to the pipeline bid items.
 4. The 8-inch pipe being abandoned and reconnected is asbestos concrete (AC). Asbestos concrete abatement as specified is incidental to this bid item.
- L. Reservoir Waterline Connection (C-104)

1. Paid by the lump sum.
 2. Includes all labor, materials, and equipment to construct the connection detail at the roadway and intersection and on the drawing sheet referenced above, including fittings, valves, excavation, utility crossings and parallel support, bedding, backfill and all other appurtenances not itemized in the bid schedule.
 3. Cleaning, disinfection, testing, temporary blowoffs, are incidental to the pipeline bid items.
 4. The 8-inch pipe being abandoned is asbestos concrete (AC). Asbestos concrete abatement as specified is incidental to this bid item.
- M. Goucher Waterline at Oak Ave. (C-201)
1. Paid by the lump sum.
 2. Includes all labor, materials, and equipment to construct the connection detail at the roadway and intersection and on the drawing sheet referenced above, including fittings, valves, excavation, utility crossings and parallel support, bedding, backfill and all other appurtenances not itemized in the bid schedule.
 3. Cleaning, disinfection, testing, temporary blowoffs, are incidental to the pipeline bid items.
- N. Goucher Waterline at 4-inch Connection (C-202)
1. Paid by the lump sum.
 2. Includes all labor, materials, and equipment to construct the connection detail at the roadway and intersection and on the drawing sheet referenced above, including fittings, valves, excavation, utility crossings and parallel support, bedding, backfill and all other appurtenances not itemized in the bid schedule.
 3. Cleaning, disinfection, testing, temporary blowoffs, are incidental to the pipeline bid items.
- O. Goucher Waterline at Maple Ct. (C-203)
1. Paid by the lump sum.
 2. Includes all labor, materials, and equipment to construct the connection detail at the roadway and intersection and on the drawing sheet referenced above, including fittings, valves, excavation, utility crossings and parallel support, bedding, backfill and all other appurtenances not itemized in the bid schedule.
 3. Cleaning, disinfection, testing, temporary blowoffs, are incidental to the pipeline bid items.
- P. Goucher Waterline at Barney Alley (C-205)
1. Paid by the lump sum.

2. Includes all labor, materials, and equipment to construct the connection detail at the roadway and intersection and on the drawing sheet referenced above, including fittings, valves, excavation, utility crossings and parallel support, bedding, backfill and all other appurtenances not itemized in the bid schedule.
 3. Cleaning, disinfection, testing, temporary blowoffs, are incidental to the pipeline bid items.
- Q. Goucher Waterline at Church Ave. (C-206)
1. Paid by the lump sum.
 2. Includes all labor, materials, and equipment to construct the connection detail at the roadway and intersection and on the drawing sheet referenced above, including fittings, valves, excavation, utility crossings and parallel support, bedding, backfill and all other appurtenances not itemized in the bid schedule.
 3. Cleaning, disinfection, testing, temporary blowoffs, are incidental to the pipeline bid items.
- R. Goucher Waterline at Nursery St. (C-207)
1. Paid by the lump sum.
 2. Includes all labor, materials, and equipment to construct the connection detail at the roadway and intersection and on the drawing sheet referenced above, including fittings, valves, excavation, utility crossings and parallel support, bedding, backfill and all other appurtenances not itemized in the bid schedule.
 3. Cleaning, disinfection, testing, temporary blowoffs, are incidental to the pipeline bid items.
- S. New Fire Hydrant Assembly
1. Paid for each new assembly installed per City standard detail.
 2. Includes all labor, materials, and equipment to construct the work as shown in the drawings and specified, including fittings, valves, excavation, utility crossings and parallel support, bedding, backfill and all other appurtenances not itemized in the bid schedule.
- T. Air Release Valve Assembly
1. Paid for each new assembly installed per City standard detail.
 2. Includes all labor, materials, and equipment to construct the work as shown in the drawings and specified, including fittings, valves, excavation, utility crossings and parallel support, bedding, backfill and all other appurtenances not itemized in the bid schedule.
- U. Air Release Valve Assembly

1. Paid for each new assembly installed per City standard detail.
 2. Includes all labor, materials, and equipment to construct the detail as shown in the drawings and specified, including fittings, valves, excavation, utility crossings and parallel support, bedding, backfill and all other appurtenances not itemized in the bid schedule.
- V. Existing Water Service Reconnections- Rice Ln
1. Paid on a lump sum basis for both water service reconnections to the Rice Lane Waterline as shown in the drawings in accordance with the City standard detail.
 2. Includes all labor, materials, and equipment to construct the work as shown in the drawings and specified, including fittings, valves, excavation, utility crossings and parallel support, bedding, backfill and all other appurtenances not itemized in the bid schedule.
- W. Existing Water Service Reconnections- Goucher St.
1. Paid for each water service reconnection being made to the Goucher Street Waterline as shown in the drawings in accordance with the City standard detail.
 2. Includes all labor, materials, and equipment to construct the work as shown in the drawings and specified, including fittings, valves, excavation, utility crossings and parallel support, bedding, backfill and all other appurtenances not itemized in the bid schedule.
- X. Auger Bore Crossing
1. Paid by the lump sum.
 2. Includes all labor, materials, and equipment to construct the auger bore ditch crossing in accordance with the drawings and details and specifications, including fittings, valves, excavation, utility crossings and parallel support, bedding, backfill and all other appurtenances not itemized in the bid schedule.
- Y. Vegetation & Tree Removal and Disposal
1. Paid by the lump sum.
 2. Includes all labor, materials, and equipment to clear and remove vegetation, trees, and shrubs, in accordance with the drawings and specifications and all other appurtenances not itemized in the bid schedule.
- Z. Trench Overexcavation
1. This item is for vertical grade adjustments that may be needed to avoid utility conflicts. Vertical grade adjustments less than 1 vertical foot shall be incidental to the bid price. This item will only be used if vertical grade adjustments are greater than 1 vertical foot.

2. Paid by the linear foot of pipe measured along the horizontal centerline of the pipe per ft of depth. Measured from starting point to the ending point in deviation in the plans as directed by the Engineer.
3. Includes all labor and equipment to construct the additional trenching and backfill and all other appurtenances not itemized in the bid schedule.

3.3 ADDITIVE BID PAY ITEMS

1. NOT USED

END OF SECTION 01 22 00

SECTION 01 31 19 - PROJECT MEETINGS

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. Contractor shall attend all Project meetings. Contractor's representative shall include Supervisor or Superintendent and shall have the required authority to commit the Contractor to solutions agreed upon. Other Contractor and subcontractor representatives may attend Project meetings as desired.
- B. Contractor shall provide all pertinent Work-related reports or documents for each meeting as requested by the Owner.

1.2 PRECONSTRUCTION CONFERENCE

- A. A preconstruction conference will be convened to designate responsible personnel, discuss scheduling, shop drawing procedures, pay applications processing, project supervision, coordination, progress reports, payrolls, labor provisions, and to establish a working understanding among the parties as to the Work. The Contractor will be responsible to have all subcontractors and major suppliers represented at the preconstruction meeting.
- B. The purpose of the conference is to designate responsible personnel and establish a working relationship. Matters requiring coordination will be discussed and procedures for handling such matters established. The complete agenda will be furnished to the Contractor prior to the meeting date. However, the Contractor should be prepared to discuss all of the items listed below.
 - 1. Status of Contractor's insurance and bonds.
 - 2. Issuance of Notice to Proceed
 - 3. Contractor's tentative schedules.
 - 4. Transmittal, review, and distribution of Contractor's submittals.
 - 5. Processing applications for payment.
 - 6. Maintaining record documents.
 - 7. Critical work sequencing.
 - 8. Field decisions and Change Orders.
 - 9. Use of Site, office and storage areas, security, housekeeping, and Owner's needs.
 - 10. Major equipment deliveries and priorities.
 - 11. Contractor's assignments for safety and first aid.

12. Daily Report Form.
 13. Submittal Transmittal Form which the Engineer will furnish.
- C. Unless previously submitted to the Engineer, the Contractor shall bring to the conference one copy each of the following:
1. A preliminary schedule of Shop Drawings, Samples, and proposed Substitute or Equal submittals listed in the Bid.
 2. A list of all permits and licenses the Contractor shall obtain indicating the agency required to grant the permit, the expected date of submittal for the permit, and required date for receipt of the permit.
 3. A preliminary schedule of values in accordance with the bid schedule
- D. The Engineer will preside at the preconstruction conference and will arrange for keeping and distributing the minutes to all persons in attendance.
- E. The Contractor and its subcontractors should plan on the conference taking no more than 1 full working day.

1.3 PROGRESS MEETINGS

- A. The Engineer will arrange and chair periodic progress meetings as deemed necessary. These meetings will be held at the project site and held throughout the course of construction. The Contractor is to ensure that an authorized representative, having authority to act for and on behalf of the Contractor and having full knowledge of the Work and the contract schedule attend the meetings.
- B. Representatives of the Contractor's suppliers and subcontractors, and parties providing services for the same, may attend the meeting if the Contractor elects to invite them to assist the Contractor's representatives at the meetings.
- C. Relay agenda items to Engineer at least 24 hours prior to meeting.
- D. Suggested Agenda
1. Review of Work progress
 2. Field observations, problems, and conflicts
 3. Problems that impede construction schedules
 4. Review of off-site fabrication and delivery schedules
 5. Corrective measure and procedures to regain projected schedules
 6. Revisions to construction schedules
 7. Plan progress schedules during next 2-3 weeks (look-ahead schedule).

8. Coordination of schedules
9. Review submittal schedules, field orders, change orders, RFIs, and pay applications; expedite as required
10. Maintenance of quality standards
11. Review proposed changes for effect on construction schedules and on completion dates
12. Other business

1.4 OTHER MEETINGS

- A. Other meetings will be held from time to time as may be requested by the Owner or Contractor. Time and place of meeting shall be as mutually agreed upon. Those required to be in attendance at meetings shall be as requested.
- B. Other meetings shall also include meetings with regulatory agencies. When requested, the Contractor shall attend meetings held or required by governmental regulatory agencies having jurisdiction of the Work.
- C. Other meetings also include Post-Construction Conference. The Post-Construction Conference will be held prior to initial acceptance of the Work to discuss and resolve all unsettled matters.

PART 2 - PRODUCTS NOT USED

PART 3 - EXECUTION NOT USED

END OF SECTION 01 31 19

SECTION 01 32 16 - CONSTRUCTION PROGRESS SCHEDULE

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. Scheduling of the Work shall be performed by the Contractor in accordance with the requirements of this Section. The purpose of the Construction Schedule is to allow the Contractor to prepare an orderly plan to aid in the timely completion of the project.
- B. Development of the schedule and project status reporting requirements of the Contract shall employ computerized Critical Path Method (CPM) scheduling.
- C. The approved Construction Schedule shall be used to plan and execute the Work, to measure the progress of the Work, and to aid in evaluating time extensions.
- D. Failure to maintain the Construction Schedule in an approved status may result in the Owner withholding a monetary penalty against the responsible Contractor(s) until the schedule is approved as set forth in 3.4 of this Section.

PART 2 - PRODUCTS

2.1 CONSTRUCTION SCHEDULE

- A. Prepare a detailed construction schedule in graphic form showing duration and proposed dates of starting and completing each major division of the Work. The schedule is to be consistent with the time and order of Work requirements of the specifications, and is to be the basis of the Contractor's operations. Prepare the schedule utilizing a Gantt chart (bar type) or similar method that connects related activities.
- B. Sufficient detail shall be included for the identification of subdivisions of the major components listed below. The major components should be broken in into activities such as excavation, foundation subgrade preparation, foundation concrete, completion of all structural concrete, CMU, roof, pump/equipment, mechanical and plumbing installation, electrical power and controls, coatings, and other activities as required.
 - 1. Mobilization
 - 2. Rice Lane Waterline Construction and surface restoration
 - 3. Goucher Street Waterline Construction and surface restoration
 - 4. System Testing and Startup
 - 5. Punchlist, clean-up, demobilization
- C. Submit a horizontal bar chart with separate line for each section of Work, identifying first work day of each week.

- D. Show complete sequence of construction by activity, identifying Work of separate stages and other logically grouped activities. Indicate the early and late start, early and late finish, float dates, and duration. Clearly indicate critical path and activities/items on the critical path.
- E. Indicate estimated percentage of completion for each item of Work at each submission.
- F. Indicate submittal dates required for shop drawings, product data, samples, and product delivery dates.

PART 3 - EXECUTION

3.1 INITIAL SCHEDULE SUBMITTAL

- A. The Contractor shall submit two short-term schedule documents at the Pre-construction Conference which shall serve as the Contractor's Plan of Operation for the initial 60-day period of the Contract Time, and to identify the manner in which the Contractor intends to complete all Work within the Contract Time.
- B. The bar chart shall show the accomplishment of the Contractor's early activities (mobilization, permits, submittals necessary for early material and equipment procurement, and long lead, CPM submittals, initial site work and other submittals and activities required in the first 60 days).
- C. Following the Contractor's receipt of the Engineer's review comments, the Contractor shall correct the schedule to identify missing activities and relationships relevant to the Scope of Work. No time extensions will be granted to complete activities not initially included in the Contractor's Construction Schedule.
- D. To the extent that there are any conflicts between the approved Construction Schedule and the requirements of the Contract Documents, the Contract Documents shall govern.

3.2 FINAL CONSTRUCTION SCHEDULE SUBMISSION

- A. The Final Construction Schedule shall be submitted for approval within 60 calendar days after Notice to Proceed is issued. It shall provide a reasonable level of detail and a reasonable sequence of activities which represent Work through the entire project.
- B. The Construction Schedule shall show the sequence and interdependence of activities required for complete performance of the Work, beginning with Contractor's receipt of the Notice to Proceed and concluding with the date of Final Completion of the Contract. The Project Schedule shall show all activities in workdays, with allowance for holidays and the effects of normal weather conditions on outside work.
- C. The Construction Schedule shall comply with all limits imposed by the Scope of Work, with all contractually specified intermediate milestones and completion dates, and with all constraints, restraints, or sequences included in the Contract.
- D. Procurement Activities: Prepare the schedule in chronological order of submittals. Show specification section of the submittal, name of contractor and generic description of work

covered. Include activities to cover the complete procurement process to include but not limited to: submittal, review, approval, resubmittal, procurement, fabrication, delivery, permits, and similar pre-construction work.

E. Manpower:

1. All activities shall have an estimate of the average number of workers per day that are expected to be used during the execution of the activity.
2. Identification of any manpower, material or equipment restrictions, as well as any activity requiring unusual shift work, such as two (2) shifts per day, six (6) day work week, specified overtime, or work at times other than regular days or hours, shall clearly be identified in the Project Schedule.
3. Critical or near Critical Paths resulting from the use of manpower or equipment restraints shall be kept to a minimum. (Near Critical Paths are defined as paths having 10 workdays or less of total float.)

F. Responsibility: All activities shall be identified in the Construction Schedule by the party responsible to perform the Work. Responsibility includes, but is not limited to, the Contracting Firm, the Subcontracting Firm, Contractor Workforce, or Agency performing a given task. Activities shall not belong to more than one responsible party.

G. Work Areas:

1. Arrange the schedule to show each major area of construction for each major category or unit of Work.
2. All activities shall be identified in the Construction Schedule by the Work area in which the activity occurs. Activities shall not be allowed to cover more than one work area.

H. Modification or Claim Number: Any activity that is added or changed by a change order or used to justify any claimed time, shall be identified by change order code that changed the activity. Activities shall not belong to more than one change order.

I. Milestones: The Construction Schedule shall start no earlier than the date that the Notice to Proceed (NTP) was issued. Milestone dates are defined in calendar days following the date set forth in the Notice to Proceed and are required to be met by all Contractors. Time is of the essence for the completion of Milestones and for the Contract Completion date.

3.3 PERIODIC SCHEDULE UPDATES

- A. Provide 2-3 week look-ahead schedules throughout construction.
- B. Submit revised look-ahead schedule with each Application for Payment, identifying changes since previous version.
- C. Provide recommendations for adjusting the Construction Schedule to meet milestone completion and Contract completion dates (include why the schedule needs adjusting, i.e., change order, weather, contractor resources, etc.).

- D. The Contractor shall prosecute the Work in accordance with the approved Construction Schedule. Out of sequence construction, defined as a change from the Construction Schedule in the Contractor's actual operation, requires prior approval from the Engineer.
- E. Upon the approval of a change order or the issuance of a unilateral change order by the Owner the agreed-upon change order activities, activity durations, logic and impacts shall be reflected in the next schedule submittal by the Contractor.

3.4 PAYMENT FOR CPM SCHEDULES

- A. The Contractor's attention is directed to the condition that 2% of the total Contract Price will be deducted from any money due the Contractor as progress payments until the Original CPM Schedule Submittal listed above has been completed as specified. The aforementioned amount will be retained by the Owner as agreed, estimated value of completing the original schedule. Any such retention of money for failure to complete all such mobilization items as a lump-sum item shall be in addition to the retention of any payments due to the Contractor as specified in the General Conditions of the Contract.
- B. Approval of subsequent monthly pay requests may be delayed unless accompanied by a copy of the monthly update to the CPM schedule as described above. Extensive delays in submission of the monthly update may constitute sufficient basis for the Engineer to recommend withholding of some or all of any payment.

END OF SECTION 01 32 16

SECTION 01 33 00 – SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. Wherever submittals are required hereunder, all such submittals by the Contractor shall be submitted to the Engineer as delineated in this Section.
- B. At the Pre-Construction Conference, the Contractor shall submit the following items to the Engineer for review:
 - 1. A preliminary construction schedule.
 - 2. A preliminary schedule of Shop Drawings, Samples, and proposed Substitutes ("Or-Equal") submittals listed in the Bid.

1.2 ENGINEER'S REVIEW PERIOD

- A. For planning purposes, the Contractor shall assume a minimum of 14 days for review by the Engineer following receipt of submittal/resubmittal. If an expedited review is requested by the Contractor, the submittal shall identify the requested expedited review. The Engineer will attempt to accommodate the expedited review.

1.3 SUBMITTAL PROCEDURES

- A. Verify that the material or equipment described in each submittal conforms to all requirements of the Specifications and drawings. Where the detailed specifications require specific submittal data, submit all data at the same time. The submittals are to be accompanied by the transmittal form attached at the end of this Section. The Engineer will return for resubmittal any information not accompanied by the specified transmittal form, properly completed.
- B. Indiscriminate submittal of only manufacturer's literature is unacceptable and will be rejected.
- C. The submittals shall be numbered as XXXXXX-YY-z., where XXXXXX is the specification section number, YY is the sequential number of the submittal, and Z is used for re-submittal labeled a through z. For example, the first submittal of an item from Section 32 13 13 – Concrete for Exterior Improvements would be numbered "32 13 13-01"; the first re-submittal of the submittal would be numbered "32 13 13-01-A".
- D. A separate transmittal form shall be used for each specific item or class of material or equipment for which a submittal is required. Transmittal of a submittal of various items using a single transmittal form will be rejected. A multiple page submittal shall be collated into sets, and each set shall be stapled or bound, as appropriate, prior to transmittal to the Engineer.

- E. Identify Project, Contractor, subcontractor or supplier, pertinent Drawing sheet and detail number(s), and specifications section number, as appropriate.
- F. All Contractor shop drawings submittals shall be carefully reviewed by an authorized representative of the Contractor, prior to submission to the Engineer. Each submittal shall be dated, signed, and certified by the Contractor, as being correct and in strict conformance with the Contract Documents. In the case of shop drawings, each sheet shall be so dated, signed, and certified. No consideration for review by the Engineer of any Contractor submittals will be made for any items which have not been so certified by the Contractor. All non-certified submittals will be returned to the Contractor without action taken by the Engineer, and any delays caused thereby shall be the total responsibility of the Contractor.
- G. Do not mark the submittals in red. Ensure that any marks are duplicated on all copies submitted. Outline the marks on reproducible transparencies in a rectangular box.
- H. Coordinate submission of related items.
- I. Identify variations from Contract Documents and product or system limitation which may be detrimental to successful performance of the completed Work.
- J. Provide space for Contractor and Engineer Review stamps.
- K. Submit electronic submittals to:
c/o Payson Smith, Project Manager, Keller Associates
psmith@kellerassociates.com
- L. Electronic submittals:
 - 1. Electronic submittals shall be submitted in PDF format and combined into a single file.
 - 2. Engineer will return comments only.
 - 3. Contractor is responsible for distributing copies of the submittal and Engineer's comments to concerned parties.
 - 4. Engineer may require hard copies in lieu of an electronic submittal if, in the opinion of the Engineer, the electronic submittal is difficult to read.
- M. Revise and resubmit submittals as required, identify all changes made since previous submittals.
- N. Distribute copies of reviewed submittals to concerned parties. Instruct parties to promptly report any inability to comply with provisions.

1.4 DEVIATIONS FROM CONTRACT

- A. If the Contractor proposes to provide material or equipment which does not conform to all of the Specifications and Drawings, the transmittal form accompanying the submittal copies shall indicate under "comments" the deviations.

1.5 SHOP DRAWINGS

- A. The term "Shop Drawings" as used herein shall be understood to include detail design calculations, shop drawings, fabrication, and installation drawings, erection drawings, list, graphs, catalog sheets, data sheets, and similar items. Whenever the Contractor is required to submit design calculations as part of a submittal, such calculations shall bear the signature and seal of an engineer registered in the appropriate branch and in the state wherein the project is to be built, unless otherwise directed.
- B. Except as may otherwise be indicated herein, the Engineer will return submittal to the Contractor with comments. The Contractor shall make a complete and acceptable submittal to the Engineer by the second submission of a submittal item.
- C. If submittal is returned to the Contractor marked "NO EXCEPTIONS TAKEN," formal revision and resubmission of said submittal will not be required.
- D. If submittal is returned to the Contractor marked "MAKE CORRECTIONS NOTED," formal revision and resubmission of said submittal will not be required.
- E. If submittal is returned to the Contractor marked "AMEND-RESUBMIT," the Contractor shall revise said submittal and shall resubmit the required number of copies of said revised submittal to the Engineer.
- F. If submittal is returned to the Contractor marked "REJECTED-RESUBMIT," the Contractor shall revise said submittal and shall resubmit the required number of copies of, said revised submittal to the Engineer.
- G. Fabrication of an item shall be commenced only after the Engineer has reviewed the pertinent submittals and returned copies to the Contractor marked either "NO EXCEPTIONS TAKEN" or "MAKE CORRECTIONS NOTED". Corrections indicated on submittals shall be considered as changes necessary to meet the requirements of the Contract Documents and shall not be taken as the basis for changes to the contract requirements.

1.6 ORGANIZATION

- A. A single submittal transmittal form shall be used for each technical specification section or item or class of material or equipment for which a submittal is required. A single submittal covering multiple sections will not be acceptable, unless the primary specification references other sections for components..
- B. On the transmittal form, index the components of the submittal and insert tabs in the submittal to match the components. Relate the submittal components to specification paragraph and subparagraph, drawing number, detail number, schedule title, room number, or building names, as applicable.

- C. Unless indicated otherwise, terminology and equipment names and numbers used in submittals shall match those used in the Contract Documents.

1.7 EFFECT OF ACCEPTANCE OF CONTRACTOR INFORMATION

- A. Acceptance by the Engineer of any drawings, method of work, or any information regarding materials or equipment the Contractor proposes to provide shall not relieve the Contractor of his responsibility for any errors therein and shall not be regarded as an assumption of risk or liability by the Engineer or Owner, or by any officer or employees thereof, and the Contractor shall have no claim under the contract on account of the failure or partial failure or inefficiency of any plan or method of work or material or equipment so accepted. Such acceptance shall be considered to mean merely that the Engineer has no objection to the Contractor using, upon his own full responsibility, the plan or method of work proposed, or providing the materials or equipment proposed.
- B. Approval of shop drawings by the Engineer is only for general conformance with the design concept of the project and general compliance with the information given in the contract documents. Any action shown is subject to the requirements of the Plans and Specifications. The Contractor is responsible for dimensions which shall be confirmed and correlated at the job site, fabrication process and techniques of construction, coordination of his work with that of all other trades and the satisfactory performance of his work.

1.8 PRODUCT DATA AND SAMPLES

- A. Where required in the Specifications and as determined by the Engineer, test specimens or samples of materials, appliances and fittings to be used or offered for use in connection with the Work shall be submitted to the Engineer at the Contractor's expense. Specimen or sample submittals shall be made with information as to their sources, with all cartage charges prepaid, and in such quantities and sizes as may be required for proper examination and tests to establish the quality or equality thereof, as applicable.
- B. All samples and test specimens are to be submitted in ample time to enable the Engineer to make any tests or examinations necessary, without delay to the Work. The Contractor will be held responsible for any loss of time due to the neglect or failure to deliver the required samples to the Engineer as specified.
- C. Samples are also to be taken during the course of the Work, as required by the Engineer.
- D. Laboratory tests and examinations that the Owner elects to make will be made at no cost to the Contractor, except that, if a sample of any material or equipment proposed for use by the Contractor fails to meet the Specifications, the cost of testing subsequent samples will be borne by the Contractor.
- E. All tests required by the Specifications to be performed by an independent laboratory are to be made, and the samples therefore furnished shall be at the sole expense of the Contractor.
- F. Material used in the Work is to conform to the submitted samples and test certificates as approved by the Engineer.

CITY OF AMITY
ARPA WATER PIPELINE REPLACEMENTS

Section 8, Item a.

215108-021

PART 2 - PRODUCTS NOT USED

PART 3 - EXECUTION NOT USED

END OF SECTION 01 33 00

STANDARD SUBMITTAL FORM

Transmittal of Shop Drawing or Submittal

CONTRACTOR: <CONTRACTOR NAME>

Tracking No. **XXXXXX**

Item covered by this submittal

Refer to the following attachment(s) for a detailed description of the item.

Applicable specification section(s)

- First Submittal OR Resubmittal No. _____
- This item is as specified OR This item is a substitution/or equal
- Supplier/Subcontractor certifies:
- Conforms to contract
 - Minor deviations as specifically noted
 - Major deviations as specifically noted

Review Priority: 1 2 3

Due Date: **XX-XX-XX** (Engineer's standard review period is 14 days)

Notes to Engineer:

Date Received by Contractor: _____

Date Returned to Subcontractor/Supplier _____

Contractor Comments:

Deviations Specifically Noted

PSECTION 01 35 13 – SPECIAL PROJECT PROCEDURES

PART 1 - GENERAL

1.1 GENERAL

- A. Critical events in the sequence of construction are described in this Section and shall be utilized by the Contractor as a guideline. The construction constraints presented do not include all items affecting the completion of the work, but are intended to describe the sequence of right-of-way acquisition by the Owner for the construction of alignments within private property.
- B. It shall be understood and agreed by the Contractor that the critical events described are not all inclusive and that additional items of work not described may be required to minimize disruption and ensure compliance.
- C. The construction constraints described herein shall be incorporated into the Contractor's schedule as described in Section 01 32 16 – Construction Progress Schedule.

1.2 SUBMITTALS

- 1. None.

1.3 OPERATION OF EXISTING WATERLINES IN-SERVICE

- A. Operational functions or shutdown of the existing facility required to facilitate Contractor's operation will be done by the Owner's personnel only.
- B. The Owner's operation and maintenance personnel will cooperate in every way that is practical in order to facilitate Contractor's operation. However, certain shutdown and connections may only be permissible at times other than normal working hours such as nights or weekends. No additional payment will be made to the Contractor for any night, weekend or holiday work or overtime payments. Contractor shall be sensitive to Owner's overhead due to overtime pay and may be responsible for compensation if excessive outages are required.
- C. If it is necessary for the proper operation or maintenance of portions of the existing facility, the Owner may require the Contractor to reschedule an approved shutdown. The Contractor shall then reschedule his operations so there shall be no conflict with necessary operations or maintenance of the plant. The Contractor shall, within two (2) working days, provide the Owner with revised Request for Shutdown and a plan for rescheduling of the work in accordance with the requirements of the Contractor's Schedule.

1.4 WATERLINE SERVICE INTERRUPTION PLANS

- A. The Contractor shall not alter existing waterlines until specific written permission has been granted by the Engineer in each case.

- B. The Engineer will coordinate the Contractor's planned procedure with the Owner's personnel. The Engineer has the authority to modify any proposed shutdown procedures if said work would adversely impact the plant facility's operations.
- C. The Owner shall be notified in writing at least two weeks in advance of the required outage if the schedule for performing the work has changed or if revisions to the outage plan are required.
- D. The Contractor shall provide written confirmation of the shutdown date and time two working days prior to the actual shutdown.
- E. The making of connections to existing facilities or other operations that interfere with the operation of the existing equipment shall be thoroughly planned in advance, and all required equipment, materials, and labor shall be on hand at the time of undertaking the connections. Work shall be completed as quickly as possible and with as little delay as possible, and shall proceed continuously (24 hours a day and seven days a week) if necessary to complete modifications and/or connections in the minimum time.
- F. Any temporary facilities and night, weekend, or holiday work and overtime payments required during process interruptions shall be included in the bid price for the work.

1.5 CONSTRAINTS AND WORK SEQUENCE

- A. The Contractor shall be responsible for development of the construction sequencing. In implementing the construction sequencing, the Contractor shall maintain the existing facilities in service until new facilities are constructed and are operational to supplement the existing capacity. When new facilities are operational, the existing facilities may be taken out of service. The following general guidelines shall be used by the Contractor in planning the sequence of construction.

B. DEFINITION OF SCHEDULED WORK AREAS

- 1. The project consists of two work areas defined by water pipeline stationing. These are Schedules A and B as further described below.
- 2. SCHEDULE A WORK AREA
 - a. Schedule A includes all work shown in the drawings and specified taking place within public right-of-ways and on property owned by the City of Amity.
 - b. The Contractor may proceed with work within these areas at any time upon issuing the Notice to Proceed for Schedule A.
 - c. This work area includes the following stationing of the Goucher St Waterline:
 - 1) STA 99+70 TO 100+80
 - 2) STA 109+40 TO 129+20

3. SCHEDULE B WORK AREA

- a. Schedule B includes all work shown in the drawings and specified requiring easements within private property. The City is in the process of obtaining easements for these pipelines. Upon recording easements for these alignments, the City will issue a Notice to Proceed for Schedule B.
- b. No work is permitted within these areas until authorized by the Owner.
- c. This work area includes the entire alignment of the Rice Lane Waterline.
- d. This work area includes the following stationing of the Goucher St Waterline:
 - 1) STA 100+80 TO 109+40

1.6 ASBESTOS REQUIREMENTS

- A. Contractor is advised that the existing 8-inch water mains in the area of the reservoir are asbestos cement (AC) pipe which is brittle and susceptible to breaks by ground disturbance.
- B. Remove and dispose or abate in place asbestos cement pipe in accordance with all applicable Oregon Department of Environmental Quality and federal regulations and Article 1.17. Cost of disposal shall be incidental to pipe installation.
- C. The project includes project components with a potential for asbestos containing material (materials other than metal, glass, or PVC plastic). Comply with the following regulations:
 - 1. (NESHAP Regulations 40 CFR 61
 - 2. Toxic Substances Control Act – Asbestos 40 CFR 763
 - 3. Asbestos Hazard Emergency Response Act (AHERA)
 - 4. Relevant OSHA Standards
- D. Completing the National Emission Standards for Hazardous Air Pollutants (NESHAP) sampling, testing, submitting the EPA notification and any other required submittals are incidental to the Work.
- E. Contractor shall comply with the following provisions regarding Asbestos Sampling, Testing, Handling, shipping, and disposal
 - 1. Prior to any demolition or renovation, have a National Emissions Standards for Hazardous Air Pollution (NESHAP), Asbestos Hazard Emergency Response Act (AHERA) or Environmental Protection Agency (EPA) certified inspector inspect and collect appropriate samples to determine the presence of Asbestos Containing Material (ACM) in the component.
 - 2. Have the collected samples analyzed at a certified asbestos analytical laboratory.

3. Generate and submit a copy of the inspection report to the Engineer.
 4. If ACM is found and is below the threshold quantities as defined in NESHAP 40 CFR 61.145 Standard for Demolition and Renovation, or if ACM is not present on components being renovated, complete the EPA Notification requirements below.
- F. If ACM is found and was not previously identified in the Contract and is above the threshold quantity as defined in NESHAP 40 CFR 61.145 Standard for Demolition and Renovation, stop Work on the affected component and notify the Owner and Engineer. Do not proceed with Work on the affected component until a Change Order or Work Change Directive has been issued by the Owner. In all matters, Contractor shall comply with the requirements for asbestos containing materials in all of the regulations and standards listed in Section A.
- G. Contactor shall adhere to the following EPA notification requirements
1. Regardless if ACM is found or not, complete a Notification of Demolition/Renovation in writing and submit to the EPA at least 10 days prior to the start of demolition/renovation operations, as outlined in NESHAP 40 CFR 61.145. Use of the following form is recommended.
 - a. http://www.epa.gov/region10/pdf/asbestos/demolition-renovation-notification-form_fillable.pdf
 2. Submit a copy of the notification to the Engineer for concurrence prior to the EPA submittal. Allow 10 working days for Engineer concurrence. Upon concurrence, submit notification to the EPA Region 10 office. At the following address:

Asbestos NESHAP Coordinator
U.S. Environmental Protection Agency
Region 10 Office of Compliance and Enforcement (OCE-101)
1200 th Avenue, Suite 900
1201 Seattle, WA 98101

PART 2 - PRODUCTS NOT USED

PART 3 - EXECUTION NOT USED

END OF SECTION 01 35 13

SECTION 01 35 53 – SECURITY PROCEDURES

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. The Contractor shall implement security procedures to ensure existing facilities and new construction are protected from vandalism, theft, and unauthorized entry. The Contractor shall:
 - 1. Initiate security program in coordination with Owner’s existing security system during mobilization.
 - 2. Maintain program throughout construction period until Substantial Completion.

1.2 ENTRY CONTROL

- A. The Contractor shall:
 - 1. Restrict entry of persons and vehicles into construction areas.
 - 2. Allow entry to construction area only to authorized persons with proper identification.
 - 3. Keep all Contractor employees out of existing facilities that are not being modified under the Work.
 - 4. Coordinate with Owner entry control to existing facilities that are not being modified under the Work.

PART 2 - PRODUCTS NOT USED

PART 3 - EXECUTION NOT USED

END OF SECTION 01 35 53

SECTION 01 42 19 - REFERENCE STANDARDS

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. Titles of Sections and Paragraphs: Captions accompanying specification sections and paragraphs are for convenience of reference only, and do not form a part of the Specifications.
- B. Applicable Publications: Whenever Specification references are made to published specifications, codes, standards, or other requirements, it shall be understood that wherever no date is specified, only the latest specifications, standards, or requirements of the respective issuing agencies which have been published as of the date that the Work is advertised for bids shall apply. No requirements set forth herein or shown on the Drawings shall be waived because of any provision of, or omission from, said standards or requirements.
- C. Specialists' Assignments: In certain instances, specification text requires specific work be assigned to specialists or expert entities who must be engaged for the performance of that work. Such assignments shall be recognized as special requirements over which the Contractor has no choice or option. These requirements shall not be interpreted so as to conflict with the enforcement of building codes and similar regulations governing the Work. In addition, these requirements are not intended to interfere with local union jurisdiction settlements and similar conventions. Such assignments are intended to establish which party or entity involved in a specific unit of work is recognized as "expert" for the indicated construction processes or operations. Nevertheless, the final responsibility for fulfillment of the entire set of contract requirements remains with the Contractor.

1.2 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

- A. Without limiting the generality of other requirements of the Specifications, all work specified herein shall conform to or exceed the requirements of applicable codes and the applicable requirements of the following documents:
 - 1. References herein to "Building Code" shall mean current International Building Code (IBC).
 - 2. References to "Mechanical Code" or "Uniform Mechanical Code," "Plumbing Code" or "Uniform Plumbing Code," "Fire Code" or "Uniform Fire Code," shall mean International Mechanical Code, Uniform Plumbing Code and International Fire Code of the International Conference of the Building Officials (ICBO).
 - 3. "Electric Code" or "National Electric Code (NEC)" shall mean the National Electric Code of the National Fire Protection Association (NFPA).
 - 4. The latest edition of the codes as approved by the Municipal Code and used by the local agency as of the date that the Work is advertised for bids, as adopted by the

agency having jurisdiction, shall apply to the Work herein, including all addenda, modifications, amendments, or other lawful changes thereto.

- B. In case of conflict between codes, reference standards, drawings, and the other Contract Documents, the most stringent requirements shall govern. All conflicts shall be brought to the attention of the Engineer for clarification and directions prior to ordering or providing any materials or furnishing labor. The Contractor shall bid for the most stringent requirements.
- C. The Contractor shall construct the Work specified herein in accordance with the requirements of the Contract Documents and the referenced portions of those referenced codes, standards, and specifications listed herein.
- D. References herein to "OSHA Regulations for Construction" shall mean Title 29, Part 1926, Construction Safety and Health Regulations, Code of Federal Regulations (OSHA), including all changes and amendments thereto.
- E. References herein to "OSHA Standards" shall mean Title 29, Part 1910, Occupational Safety and Health Standards, Code of Federal Regulations (OSHA), including all changes and amendments thereto.

1.3 REGULATIONS RELATED TO HAZARDOUS MATERIALS

- A. The Contractor shall be responsible that all work included in the Contract Documents, regardless if shown or not, shall comply with all EPA, OSHA, RCRA, NFPA, and any other Federal, State, and Local Regulations governing the storage and conveyance of - hazardous materials, including petroleum products.

PART 2 - PRODUCTS NOT USED

PART 3 - EXECUTION NOT USED

END OF SECTION 01 42 19

SECTION 01 45 00 - QUALITY CONTROL

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. Specific quality control requirements for the Work are indicated throughout the Contract Documents. The requirements of the Section are primarily related to performance of the Work beyond furnishing of manufactured products. The term “Quality Control” includes inspection, sampling and testing, and associated requirements.
- B. The Work shall be inspected and tested according to the requirements stated in Article 14 of the General Conditions and as amended by the Supplementary Conditions.

1.2 SUBMITTALS

- A. Submit testing results in accordance with Section 01 33 00 – Submittal Procedures.
- B. For Engineer and Owner approval, the Contractor shall submit testing laboratory’s qualifications and certifications prior to entering into a contractual agreement to perform quality control testing and inspection work.
- C. Reports of testing will be submitted to the Engineer indicating observations and results in test and indicating compliance or non-compliance with Contract Documents. It is the responsibility of the Contractor to ensure these submittals are provided in a timely manner to reduce cost impact of potential removal of defective work.

1.3 SAMPLING AND TESTING

- A. When not otherwise specified, all sampling and testing shall be in accordance with the methods prescribed in the current ASTM standards, as applicable to the class and nature of the article or materials considered; however, the Owner reserves the right to use any generally-accepted system of inspection which, in the opinion of the Engineer will ensure the Owner that the quality of the workmanship is in full accord with the specifications.
- B. Any waiver of any specific testing or other quality assurance measures, whether or not such waiver is accompanied by a guarantee of substantial performance as a relief from the specified testing or other quality assurance requirements as originally specified, and whether or not such guarantee is accompanied by a performance bond to assure execution of any necessary corrective or remedial work, shall not be construed as a waiver of any technical or qualitative requirements of the specifications.
- C. Notwithstanding the existence of such waiver, the Engineer shall reserve the right to make independent investigations and tests as specified in Subparagraph 1.3.D, following; and, upon failure of any portion of the Work to meet any of the qualitative requirements of the specifications, shall be reasonable cause for the Engineer to require the removal or correction and reconstruction of any such work.

- D. In addition to any other inspection or quality assurance provisions that may be specified, the Engineer shall have the right to independently select, test, and analyze, at the expense of the Owner, additional test specimens of any or all of the materials to be used. Results of such tests and analyses shall be considered along with the tests or analyses made by the Contractor to determine compliance with the applicable specifications for the materials so tested or analyzed; provided, that wherever any portion of the work is discovered, as a result of such independent testing or investigation by the Engineer, which fails to meet the requirements of the specifications, all cost of such independent inspection and investigation, and all costs of removal, corrections, and reconstruction or repair of any such work shall be borne by the Contractor.

1.4 TESTING SERVICES

- A. The Contractor shall hire an independent testing lab to perform quality control tests as specified in each specification. All tests shall be paid for by the Contractor.

Item	Reference for testing requirements
Earthwork	See Section 31 00 00 – Earthwork
Trench Backfill	See Section 31 23 33 – Trenching and Backfilling
Asphalt Pavement	See Section 32 12 16 – Asphalt Paving

- B. Testing company shall meet the following qualifications:
 - 1. Basic requirements of ASTM E329, “Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials as Used in Construction” and ASTM D3666, “Standard Specification for Minimum Requirements for Agency Testing and Inspecting Bituminous Paving Materials”, as applicable.
 - 2. Calibrate testing equipment at reasonable intervals by devices of accuracy traceable to either the National Bureau of Standards or accepted values of natural physical constants.
- C. The Contractor shall notify Engineer 24 hour prior to the expected time for operations requiring inspection and laboratory test services. Failure of the Contractor to notify the Engineer at least 24 hours in advance of any such inspections shall be reasonable cause for the Engineer to order a sufficient delay in the Contractor's schedule to allow time for such inspections and any remedial or corrective work required, and all costs of such delays, including its effect upon other portions of the Work, shall be borne by the Contractor.
- D. Samples and test specimens required under these specifications shall be furnished and prepared for testing in ample time for the completion of the necessary tests and analysis before said articles or materials are to be used. The Contractor shall furnish and prepare all required test specimens at his own expense.
- E. Should any tests fail the specified requirements, the work shall be redone and retested at the Contractor’s expense.

1.5 REGULATORY REQUIREMENTS

- A. General

1. Comply with all Federal, State, and local Codes as referenced herein. Such regulations apply to activities including, but not limited to, sitework and zoning, building practices and quality, on and offsite disposal, safety, sanitation, nuisance, and environmental quality.
2. Contractor designed structural systems are subject to the same overall inspection requirements as all other work.

B. Structural Observation

1. Inspect framework, shoring, pipe supports, and other Contractor-designed systems for adequacy.
2. Engineer will provide structural observation in addition to the inspection performed by the Special Inspection Agency.

1.6 RIGHT OF REJECTION

- A. The Engineer may reject portions of the Work as provided in Article 14 of the General Conditions.

PART 2 - PRODUCTS NOT USED

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Inspection: The Contractor shall inspect materials or equipment upon their arrival on the job site and immediately prior to installation and reject damaged and defective items.
- B. Measurements: The Contractor shall verify measurements and dimensions of the work as an integral step of starting each installation.
- C. Manufacturer's Instructions: Where installation includes manufactured products, the Contractor shall comply with manufacturer's applicable instructions and recommendations for installation, to whatever extent these are more explicit or more stringent than applicable requirements indicated in Contract Documents.

3.2 SITE INVESTIGATION AND CONTROL

- A. Contractor shall verify all dimensions in the field and shall check field conditions continuously during construction. The Contractor shall be solely responsible for any inaccuracies built into the Work due to his failure to comply with this requirement.

- B. Contractor shall inspect related and appurtenant work and shall report in writing to the Engineer any conditions which will prevent proper completion of the Work. Failure to report any such conditions shall constitute acceptance of all site conditions, and any required removal, repair or replacement caused by unsuitable conditions shall be performed by the Contractor at his sole cost and expense.

END OF SECTION 01 45 00

SECTION 01 57 23 – TEMPORARY EROSION AND SEDIMENT CONTROL

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. Work consists of controlling soil erosion by wind, water, or other means and preventing eroded sediments and other construction-generated pollutants from moving off the project site, disposal sites, and off-site mitigation areas to comply with federal, state, and local laws, rules, and regulations. This Work also consists of providing temporary erosion and sediment control (ESC) measures and furnishing, installing, moving, operating, maintaining, inspecting, and removing ESC throughout the project area according to the erosion and sediment control plan (ESCP) for the project, specifications, or as directed, until the site is permanently stabilized.
- B. The Work also includes providing an Erosion and Sediment Control Manager responsible for implementing the Contractor's ESCP.
- C. The erosion control measures shown on the ESCP are considered the minimum required for anticipated site conditions and shall be supplemented and/or upgraded by the applicant/contractor as required to control erosion or sediment within the project boundaries and avoid impacts to adjacent property. Additional measures shall be installed as required to ensure that all paved areas are kept clean for the duration of the project.

1.2 REFERENCES

- A. City of Amity Public Works Design Standards (current edition)
- B. Oregon Standard Specifications for Construction (current edition)

1.3 SUBMITTALS

- A. The Contractor shall submit test results of all materials proposed to be used in the Work in accordance with the requirements of Section 01 33 00 - Submittal Procedures.

1.4 EROSION AND SEDIMENT CONTROL MANAGER

- A. Designate and provide an individual responsible for implementing the ESCP, who has a valid ESC training certificate and who meets the requirements of Section 00280.30 of the Oregon Standard Specifications for Construction.

PART 2 - PRODUCTS

2.1 QUALITY

- A. Furnish materials that are on the ODOT Qualified Products List (QPL).

2.2 SEDIMENT FENCES

- A. Sediment fences shall consist of standard strength filter fabric fastened securely to stitched post loops and attached to untreated wood posts.

2.3 BIOFILTER CHECK DAMS

- A. Minimum size 18 by 6 by 30-inch plastic mesh bags with 1/2-inch openings filled with approximately 45 pounds of clean, non-toxic 100 percent recycled wood product waste containing no fine materials or sediments, or as shown on the plans for this device.

2.4 INLET PROTECTION

- A. Fiber Rolls or Wattles: pre-manufactured, filled with plant based, naturally occurring fiber (e.g.: straw, wood, excelsior, hemp, or coconut fiber) that contains no weed seeds and that is not moldy, caked, decayed or of otherwise low quality. Fully biodegradable with enclosing netting derived from natural fibers (e.g.: jute, sisal, hemp, or coir fiber). Furnish rolls and wattles with a minimum density of 2.75 pounds per cubic foot and constructed to hold its shape to provide a diameter of between 8 and 10 inches.
- B. Silt Sack Inlet Control: Prefabricated filter inserts manufactured specifically for collecting sediment in drainage inlets and listed on the ODOT QPL. Include handles and fasteners sufficient to keep the insert from falling into the inlet during maintenance and removal of the insert from the inlet.

2.5 PLASTIC SHEETING SLOPE PROTECTION

- A. Plastic Sheeting - Minimum 6-mil thick polyethylene plastic sheeting.
- B. Rock - Class 50 riprap conforming to Section 31 00 00 – Earthwork.
- C. Sandbags - Durable, weather-resistant bags woven tightly enough to prevent leakage of filler material. Fill bags with at least 75 pounds of firmly-packed fine PCC 3/8" - 0 Aggregate, round 3/8" - 3/16" pea gravel, or sand.
- D. Sediment Barrier - Fiber rolls and compost filter sock meeting the requirements of 2.5(A) of this Section.
- E. Staples - 1/8-inch diameter steel wire staples. 2 inch "U" width with a length of 6 inches minimum.

2.6 EROSION CONTROL MATTING

- A. The erosion matting shall be a type that has an extended term functional longevity (i.e., minimum 24 months degradability) and specifically designed for use of 2H:1V or steeper slopes to ensure that the steep slopes are protected until they have adequate vegetation cover established before the matting biodegrades away. Erosion control matting shall be SC150 matting by North American Green or approved equal.

2.7 CHECK DAM

- A. Biofilter Bags - Minimum size 18 by 6 by 30-inch plastic mesh bags with 1/2-inch openings filled with approximately 45 pounds of clean, non-toxic 100 percent recycled wood product waste containing no fine materials or sediments, or as shown on the Contract Plans for this device.

PART 3 - EXECUTION

3.1 GENERAL

- A. The boundaries of the clearing limits shown on the plans shall be clearly flagged in the field prior to construction. During the construction period, no disturbance beyond the flagged clearing limits shall be permitted. The flagging shall be maintained by the Contractor for the duration of construction.
- B. Install all appropriate perimeter controls before beginning any ground-disturbing activities.
- C. Wet Season Work and Temporary Work Suspension - Update the ESCP and schedule for Work proposed during the wet season to ensure that all appropriate controls, including ESC during Work suspensions, are implemented, and maintained. Submit the updated ESCP and schedule to the Owner and receive approval before beginning any Work during the wet season.
 - 1. During the wet season, limit excavation and bare ground activities to only those required for immediate operations. Stabilize stockpiles at the end of each workday by diverting flows, placing covers, or installing sediment barriers.
- D. Disturbance Restrictions - Limit the amount of disturbed areas to that which can be effectively controlled.
- E. The ESC measures must be installed and maintained in conjunction with all clearing, grading and construction activities, and in such a manner as to ensure that sediment and sediment laden water do not enter the South Yamhill River, the drainage system, roadways, or violate applicable water standards. The Contractor shall be financially responsible for all costs, violations, fines and/or penalties resulting from failure to adequately control erosion or sediment.
- F. The implementation of ESC plans and the construction, maintenance, replacement and upgrading of ESC facilities is the responsibility of the Contractor until all construction is completed and approved and vegetation/landscaping is established as provided for on the construction drawings, or until 75% coverage without bare spots (i.e., vegetation well established and not just showing).
- G. Soil Exposure Limitations:
 - 1. Within 7 days of exposure and regardless of timing, stabilize all areas within 100 feet of waterways, Wetlands, or other sensitive areas using methods that do not rely solely upon germination to control erosion.

2. Stabilize all other areas within 14 days of exposure.
- H. Temporarily stabilize exposed Soils:
1. Every 14 days or more frequently as needed or directed.
 2. Upon approval, active work areas scheduled for re-disturbance may be left unstabilized for 14-Day periods if erosion is not occurring or imminent.
 3. A minimum of 1 Day before expected rain events.
 4. At the end of each Day during wet periods.
 5. As an emergency measure when rain is falling on unprotected areas.
 6. When wind or vehicle traffic is visibly causing more than minor dust.
 7. At finish grade when working outside the permanent seeding dates.
- I. Permanent stabilize exposed Soils:
1. Perform permanent stabilization at each completed excavation and embankment area except for areas that are scheduled to be redisturbed.
 2. If seeded areas are not sufficiently stabilized by an established stand of vegetation according to 32 92 19 – Seeding, or if the soil surface is not sufficiently protected with temporary stabilization ESC by October 1 of each year, do the following:
 - a. Use ESC necessary to redirect water flows away from disturbed areas.
 - b. Re-grade disturbed areas to finish grade.
 - c. Apply permanent seeding at the original specified rate.
 - d. Apply temporary mulching or matting.
 - e. If areas for temporary stabilization are too steep or lack access for effective straw mulch application, apply, upon approval, another effective measure.
 3. Incorporate permanent erosion control features into the Project at the earliest practicable time.

3.2 SEDIMENT FENCES

- A. Sediment fences shall be installed on the upslope side of the posts, with 6 inches of the fabric extended into a trench along the sediment fence alignment. The fabric shall not extend more than 30 inches above the original ground surface. Filter fabric shall not be stapled to existing trees.

- B. The sediment fence (filter fabric barrier) shall be purchased in a continuous roll cut to the length of the barrier to minimize joints. When joints are necessary, the sediment fence shall be spliced together only at a support post, with a minimum 6-inch overlap, and both ends securely fastened to a post.
- C. The filter fabric fence shall be installed to follow the contours where feasible. The fence posts shall be spaced a maximum of 6 feet apart and driven securely into the ground and shall be provided with additional support as required to contain all silt and sediment capture.
- D. Sediment fences shall be inspected by applicant/contractor immediately after each rainfall and at least daily during prolonged rainfall. Any required repairs shall be made immediately.
- E. Sediment fences shall be removed by the Contractor when they have served their useful purpose, but not before the upslope area has been permanently stabilized.

3.3 INLET PROTECTION

- A. Sediment protection (silt sack inserts with biobags) for storm drain inlets, catch basin and area drains shall be installed and maintained for the duration of the project, and until permanent vegetation/landscaping is established.

3.4 EROSION CONTROL MATTING

- A. In addition to hydroseeding, erosion control matting shall be installed on slopes 2H:1V or steeper, where shown on plans, or as required by Owner.

3.5 PLASTIC SHETING

- A. Place plastic sheeting on disturbed, temporary slopes or stockpiles where immediate protection is required and mulching, or other methods of Soil stabilization are not feasible.
- B. Cover exposed Soil with plastic sheeting as shown. Keep sheeting in place during rain events.
- C. Direct runoff away from areas above plastic sheeting to prevent undermining. Control runoff from plastic sheeting so water discharges without causing further pollution.

3.6 TEMPORARY AND PERMANENT MULCHING AND SEEDING

- A. Mulching - Evenly apply dry mulch and tackifier materials according to Section 32 92 19 – Seeding. In areas not accessible to heavy equipment, mulch by hand or by other approved methods.
- B. Seeding - Seed according to Section 32 92 19 – Seeding.

3.7 MATTING

- A. Apply seed according to Section 32 92 19 – Seeding prior to placing matting. Place matting so that it is in loose and complete contact with the soil.

3.8 MAINTENANCE AND INSPECTION PROCEDURES

- A. Maintain copies of the ESCP, inspection forms, and Owner-provided permits onsite and available for inspection upon request.
- B. Maintain installed ESC devices in good working order and effective functioning at all times. Keep the devices in place until the Owner issues notification of acceptance of stabilization. All maintenance and repairs are at no additional cost to the Owner.
- C. Ineffective Controls - If an ESC device does not meet effective functioning, repair, replace, or provide additional devices. Devices repaired, replaced, or added due to improper installation, insufficient maintenance, or damage from Contractor operations will be made at no additional cost to the Owner.
- D. Perform general site inspection, complete an Erosion Control Monitoring Form, and submit the form to the Owner as follows:
 - 1. Weekly for active sites.
 - 2. Every 2 weeks for inactive sites.
 - 3. Within 24-hours after ½ inch or more rainfall occurs, including weekends and holidays.
 - 4. When directed by the Owner or Engineer.
- E. Furnish and install a rain gage at the Project Site.
- F. At no time shall sediment accumulation within a trapped catch basin exceed 50% of the sediment capacity. All catch basins and conveyance lines shall be cleaned prior to paving, by the Contractor as their cost. The cleaning operation shall not flush sediment laden water into the downstream system. Contractor shall also verify that all catch basins and conveyance lines are clean, and all trash or sediment deposits are removed, prior to requesting final inspection of the project by the City.
- G. The Contractor shall provide (at Contractor's expense) site watering as necessary to prevent wind erosion of fine-grained soils, and to support vegetation until it is established as specified herein, or as required by an erosion control permit or to comply with City/state/federal erosion control standards.
- H. All temporary erosion and sediment control features that are not incorporated into the permanent Work remain the property of the Contractor. Within 30 days of the notification of acceptance of permanent stabilization, remove temporary erosion and sediment control devices and materials from the area. Dispose of accumulated sediment before removing the devices and materials offsite. Shape and permanently stabilize areas affected by the removal process. Do not remove temporary erosion and sediment control devices before permanent stabilization is accepted.

END OF SECTION 01 57 23

SECTION 01 64 00 - OWNER – FURNISHED PRODUCTS

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. The Contractor shall install, test and start up existing Owner-furnished piping and appurtenances for a complete and properly operable system, in accordance with the requirements of the Contract Documents.

1.2 SUBMITTALS

- A. The Contractor shall review the manufacturer's instructions and submit a detailed plan of his proposed assembly and installation procedure setting forth the schedule of construction to the Engineer.
- B. Submittals shall be furnished in accordance with Section 01 33 00 - Submittal Procedures.

1.3 QUALITY ASSURANCE

- A. All work shall be performed in accordance with Section 01 45 00 – Quality Control.
- B. The Work shall be performed only by skilled personnel certified and experienced in the installation of butt-fused HDPE piping systems.

PART 2 - PRODUCTS

A. GENERAL

- 1. Contractor shall furnish all materials and tools, including precision instruments which are necessary for proper installation of the piping.
- 2. Contractor shall be fully responsible for providing all of the materials and labor necessary for a complete installation of the piping.

PART 3 - EXECUTION

A. DELIVERY AND TRANSPORT

- 1. The Contractor shall transport the materials as needed to and from the work site.

B. INSTALLATION, GENERAL

- 1. Contractor shall be responsible for protection of all materials prior to final acceptance of installation.
- 2. Cover openings in equipment prior to, during, and following installation so as to prevent dirt, rubbish, or water from entering.

3. Provide materials and labor as required to provide a complete, operable installation. Such miscellaneous materials include, but are not limited to, the following:
 - a. HDPE fittings, DI backing rings, nuts, and bolts.
 - b. Thread lubricants, pipe dope, gasket compound and sealers.
 - c. Cribbing, jacks, slings, rigging, blocking, scaffolding, lifting eyes, and other installation materials.
 - d. Bolts, studs, nuts, and gaskets for makeup of connections to the materials, securing the equipment to its support, inspection, cleaning, filling, or placing into service.

C. INSTALLATION CHECKS AND TESTING

- a. Pressure testing and disinfection per Section Section 01 74 30 - Site Pressure Pipe Testing And Disinfection

END OF SECTION 01 64 00

SECTION 01 71 13 - MOBILIZATION

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. Mobilization consists of preparatory work and operations including, but not limited to those necessary for the movement of personnel, movement of equipment, temporary construction facilities, supplies and incidentals to the project site. Included is the establishment of all necessary offices, buildings, signs, utilities, acquisition of permits, preconstruction submittals, and all other work which must be performed and costs incurred prior to beginning work on the various items of the contract.
- B. Mobilization shall include the following principal items:
 - 1. Moving onto the site all Contractor's equipment required for first month operations.
 - 2. Arranging for and erection of Contractor's work and storage yard in accordance with Section 01 14 13 – Access to Site.
 - 3. Obtaining all required permits and property insurance.
 - 4. Having all OSHA required notices and establishment of safety programs.
 - 5. Having the Contractor's superintendent at the job site full-time.
 - 6. Submitting pre-construction submittals in accordance with Specification Section 01 33 00 -Submittal Procedures.

1.2 SITE AREA

- A. The limits of the project site are as indicated on the Drawings.
- B. Contractor shall provide and maintain all signing, barricades, fencing, drainage facilities, and other items as required to protect public and private property from damage caused by mobilization operations.

1.3 ACCESS

- A. Refer to Section 01 14 13 – Access to Site.
- B. If construction access is required in addition to that shown on the Drawings, Contractor shall secure Owner's approval of all additional project entrances prior to construction. Contractor shall also obtain written approval from impacted land owner(s) if other than project owner.

PART 2 - PRODUCTS NOT USED

PART 3 - EXECUTION

3.1 PAYMENT FOR MOBILIZATION

A. Allowable amounts for partial payment of mobilization are as follows:

1. First monthly progress estimate: Up to 60% of the Mobilization contract price in the agreed-upon Schedule of Values, or 6% of the total Contract Amount, whichever is less.
2. The balance of the Mobilization contract price in the agreed-upon Schedule of Values shall be paid after Substantial Completion.
3. The Contractor's attention is directed to the condition that 2 percent of the total Contract Price will be deducted from any money due the Contractor as progress payments until all mobilization items listed above have been completed as specified. The aforementioned amount will be retained by the Owner as the agreed estimated value of completing all of the mobilization items listed. Any such retention of money for failure to complete all such mobilization items as a lump-sum item shall be in addition to the retention of any payments due to the Contractor as specified in Article 4 Section 00 52 13 – Agreement Form – Stipulated Sum or Article 14 of Section 00 72 00 – General Conditions of the Contract.

END OF SECTION 01 71 13

SECTION 01 71 23.16 - CONSTRUCTION SURVEYING

PART 1 - GENERAL

1.1 SCOPE

- A. The Contractor shall provide construction surveying for the project.
- B. The Contractor shall hire a professional land surveyor to reset any disturbed survey monuments in accordance with Idaho Code.

PART 2 - PRODUCTS NOT USED

PART 3 - EXECUTION

3.1 GENERAL

- A. The electronic AutoCAD base maps used to create the drawings are available to the Contractor. In the event of a discrepancy between the stamped paper drawings and the electronic files, the stamped paper drawings shall govern. The Contractor shall immediately notify the Engineer of any discrepancies prior to proceeding. The Contractor shall indemnify and hold harmless the Owner and Engineer from all liability, claims, damages, losses and expenses, including attorneys' fees arising out of or resulting from the Contractor's use or interpretation of electronic files.

3.2 CONSTRUCTION STAKING

- A. The Contractor shall provide location and grade construction surveying as required to locate the Work.

3.3 MONUMENTATION

- A. The Contractor shall employ a professional land surveyor, duly and properly registered in the State of Idaho, to reference all public and private land survey monuments that will be disturbed by construction activities prior to construction. Reestablish such monuments as part of the survey work for this project before project completion in accordance with Idaho Code. Section corner and quarter corner monuments reset after construction shall include corner perpetuations and filing with the county. Sixteenth corner monuments reset and having existing corner perpetuation filed with the county shall have new perpetuation records filed after the corner has been reset. Perform all monument work in accordance with Title 55, Chapter 16 of the Idaho State Code. Perform all corner, property, and roadway centerline reestablishment in accordance with standard surveying practices under the responsible charge of a professional land surveyor.

END OF SECTION 01 71 23.16

SECTION 01 71 33 - PROTECTION OF ADJACENT CONSTRUCTION

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. It shall be the Contractor's responsibility to ascertain the actual location of all existing utilities and other improvements indicated on the drawings and to see that such utilities or other improvements are adequately protected from damage due to all construction operations. The Contractor shall take all possible precautions for the protection of unforeseen utility lines to provide for uninterrupted service and to provide such special protection as may be directed by the Owner.

1.2 RIGHTS-OF-WAY

- A. The Contractor shall not do any work that would affect any oil, gas, sewer, or water pipeline; any telephone, telegraph, or electric transmission line; any fence; or any other structure; nor shall the Contractor enter upon the rights-of-way involved until notified that the Owner has secured authority from the property owner.

1.3 EXISTING UTILITIES AND IMPROVEMENTS

- A. The Contractor shall protect all existing utilities and improvements not designated for removal and shall restore damaged or temporarily relocated utilities, including underground utilities and improvements to a condition equal to or better than they were prior to such damage or temporary relocation, all in accordance with requirements specified herein, and in accordance with the requirements of the Contract Documents.
- B. The Contractor shall determine the exact locations and depths of all underground utilities indicated on the drawings.
- C. The right is reserved to the Owner and to the owners of public utilities and franchises to enter at any time upon any public street, alley, right-of-way, or easement for the purpose of making changes in their property made necessary by the Work of this contract.
- D. Existing utility lines that are shown on the drawings or the locations of which are made known to the Contractor prior to excavation and that are to be retained, and all utility lines that are constructed during excavation operations, shall be protected from damage during excavation and back-filling and, if damaged, shall be immediately repaired by the Contractor at his expense.
- E. In the event that the Contractor damages any existing utility lines that are not shown on the drawings or the locations of which are not made known to the Contractor prior to excavation, the Contractor shall refer to procedures of paragraph 4.04 of General Conditions.
- F. When utility lines that are to be removed are encountered within the area of operations, the Contractor shall notify the Owner a sufficient time in advance for the necessary measures to be taken to prevent interruption of the service.

- G. All repairs to a damaged improvement shall be inspected and approved by an authorized representative of the improvement owner before being concealed by backfill or other work.
- H. Where the proper completion of the Work requires the temporary or permanent removal and/or relocation of an existing utility or other improvement which is shown on the drawings, the Contractor shall, at his own expense, remove and without unnecessary delay, temporarily replace or relocate such utility or improvement in a manner satisfactory to the Engineer and the Owner of the facility. In all cases of such temporary removal or relocations, restoration to former location shall be accomplished by the Contractor in a manner that will restore or replace the utility or improvement as nearly as possible to its former locations and to as good or better condition than found prior to removal.

PART 2 - PRODUCTS NOT USED

PART 3 - EXECUTION

3.1 NOTIFICATION BY THE CONTRACTOR

- A. Prior to any excavation in the vicinity of any existing underground facilities, including all water, sewer, storm drain, gas, petroleum products, or other pipelines; all buried electric power, communications, or television cables; all traffic signal and street lighting facilities; and all roadway and state highway rights-of-way, the Contractor shall notify the respective authorities representing the owners or agencies responsible for such facilities not less than 3 days nor more than 7 days prior to excavation so that a representative of said owners or agencies can be present during such work if they so desire.

END OF SECTION 01 71 33

SECTION 01 74 30 - SITE PRESSURE PIPE TESTING AND DISINFECTION

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. The Contractor shall test all potable water pipelines, utility water, and appurtenant piping, fittings, valves, and meters.
- B. The Contractor shall be responsible for obtaining permits for discharging excess testing and disinfection water and dechlorination of such water if required to satisfy permit limits.

1.2 REFERENCE STANDARDS

- A. Pipeline disinfection
 - 1. AWWA C651 Standard for Disinfecting Water Mains
- B. Clearwell disinfection
 - 1. AWWA C652 Standard for Disinfection of Water-Storage Facilities

1.3 SUBMITTALS

- A. The Contractor shall furnish the following information:
 - 1. A testing plan and schedule, including method for conveyance, control, disposal, de-chlorination, and disinfection shall be submitted in writing for approval.
 - 2. Name of certified bacteriological testing laboratory.
 - 3. Provide to the Project Engineer a record of test duration calculations for each segment or structure tested.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. All test equipment, chemicals for chlorination disinfectant, temporary valves, bulkheads, and other water control equipment, shall be as determined by the Contractor.
- B. Chlorine for disinfection must be ANSI/NSF 60 approved, certificate must be submitted for approval prior to the use of the chemical. The chlorine may be in one of the following forms:
 - 1. Sodium hypochlorite liquid containing approximately 5 to 15% available chlorine, per ANSI/AWWA B 300.
 - 2. Calcium hypochlorite, granular or in 5g tablets containing approximately 65% available chlorine by weight, per ANSI/AWWA B 301.
 - 3. Liquid chlorine: Only with written authorization of Engineer, in accordance with the requirements of ANSI/AWWA B301 - Liquid Chlorine and only by trained personnel using appropriate safety practices.
- C. Dechlorinate water prior to discharge. Dechlorination agents may be sodium bisulfite, calcium bisulfite, sodium sulfite, or sodium thiosulfate.

PART 3 - EXECUTION

3.1 GENERAL

- A. Water for testing pipelines will be furnished by the Owner; however, the Contractor shall convey the water from the Owner-designated source to the points of use.
- B. All pressure pipelines shall be pressure tested; those for potable water shall be disinfected. All chlorinating and testing operations shall be performed in the presence of the Engineer.
- C. Disposal of flushing water and water containing chlorine shall be by methods acceptable to the Idaho Department of Environmental Quality.
- D. Disinfection operations shall be scheduled as late as possible during the Contract Time to maximize the degree of sterility of the facilities at the time the Work is accepted by the Owner. Bacteriological testing shall be performed by a certified testing laboratory and paid by the Contractor.

- E. Disinfection and bacteriologic testing of the Clearwell must be completed according to AWWA Standard C652.
- F. Disinfection and bacteriologic testing of the Finished Water Pipeline must be completed according to AWWA Standard C651.

3.2 HYDROSTATIC TESTING OF PIPELINES

- A. Contractor shall develop a testing procedure and submit the procedure for review prior to beginning any testing activities. The procedure shall conform to the pipe material manufacturers recommend testing procedures.
- B. Prior to hydrostatic testing, pipelines shall be flushed or blown out as appropriate. Flushing pipe velocity shall be 2.5 ft/second minimum. The duration of the flushing operation shall be long enough to remove all deleterious material from the pipeline.
- C. The Contractor shall test pipelines either in sections or as a unit. No section of the pipeline shall be tested until the trench has been properly backfilled and all field-placed concrete or mortar (thrust blocks, etc) has attained an age of 7 days, or until adequately cured. The test shall be made by closing valves when available or by placing temporary bulkheads in the pipe and filling the line slowly with water. The Contractor shall be responsible for ascertaining that all test bulkheads are suitably restrained to resist the thrust of the test pressure without damage to or movement of the adjacent pipe. Unharnessed sleeve-type couplings, expansion joints, or other sliding joints shall be restrained or suitably anchored prior to the test to avoid movement and damage to piping and equipment. Remove or protect any pipeline-mounted devices that may be damaged by the test pressure. The Contractor shall provide sufficient temporary tapping's in the pipelines to allow for all entrapped air to exit. After completion of the tests, such taps shall be permanently plugged. Open all air relief valves during filling.
- D. The pipeline shall be filled at a rate which will not cause any surges or exceed the rate at which the air can be released through the release valves at a reasonable velocity. All the air within the pipeline shall be allowed to escape. The differential pressure across the orifices in the air release valves shall not be allowed to exceed 5 psi at any time during filling.
- E. Verify that, in a minimum two-hour test, the pipe does not leak in excess of the allowable leakage as defined by the following formula in which L is the allowable leakage in gallons per hour.

$$L = \frac{ND(P)^{1/2}}{7,400}$$

Where L = Allowable Leakage (gallons/hours)

N = Number of Joints in Tested Line - including fittings (number)

D = Nominal Pipe Diameter (inches)

P = Tested Pressure (psi, gauge)

F. For pipe working pressures less than or equal to 100 psi, sustain a test pressure of 150 psi. For pipe working pressures greater than 100 psi, sustain a test pressure at least 1.5 times the working pressure or as determined by the Engineer.

G.

3.3 DISINFECTING PIPELINES – TABLET OR GRANULE METHOD

A. Solution Strength: 25 mg/L minimum.

B. Use: Only if the pipes and appurtenances are kept clean and dry during construction. Do not use on solvent welded plastic or screwed joint steel pipe.

C. Placement When Using Granules: During construction, place calcium hypochlorite granules at the upstream end of the first section of pipe, at the upstream end of each branch main, and at 500-foot intervals.

D. Approximate Granual Quantity at each location:

Ounces of Granules	
Pipe Diameter (inches)	Amount (ounces)
4	0.5
6	1.0
8	2.0
10	3.2

Ounces of Granules	
Pipe Diameter (inches)	Amount (ounces)
12	4.0
16	8.0
18	10.2
20	12.5
24	18.0

- E. Placement When Using Tablets: During construction, place 5g calcium hypochlorite tablets in each section of pipe as noted in Table 2, and also place one tablet in each hydrant, hydrant branch and other appurtenances. Attach tablets to the inside of the pipe using an adhesive such as Permatex No. 2 or approved substitution. Assure no adhesive is on the tablet except on the broad side attached to the surface of the pipe. Attach all the tablets at the inside top of the main, with approximately equal numbers of tablets at each end of a given pipe length. If the tablets are attached before the pipe section is placed in the trench, mark their position on the section so it can be readily determined that the pipe is installed with the tablets at the top.

Number of Tablets ¹	
Pipe Diameter (inches)	No. of 5g Tablets ²
4	1
6	1
8	2
10	3
12	4
16	6
18	7
20	9
24	13

¹ Adjust for pipe length other than 18 feet.

²Based on 3.25g available chlorine per tablet.

- F. Filling Procedure: When granule or tablet installation has been completed, fill the main with clean water at a velocity not exceeding 1 fps. Take precautions to assure that air pockets are eliminated. Leave this water in the pipe for at least 24 hours. If the water temperature is less than 41°F, leave the water in the pipe for at least 48 hours. Position valve so that the chlorine solution in the main being treated will not flow into water mains in active service.

3.4 DISINFECTING PIPELINES – CONTINUOUS FEED METHOD

- A. Solution Strength: Dose at 25 mg/L for 4 hours
- B. Residual: 10 mg/L at 24 hours.
- C. Dosing Methods:
 - 1. Liquid Chlorine: Solution feed vacuum-operated chlorinator in combination with a booster pump. Direct feed is not allowed.
 - 2. Hypochlorite Solution: Chemical feed pump designed for feeding chlorine solutions.
 - 3. Calcium Hypochlorite Granules: Refer to previous section.
- D. Filling Procedure: Use approved source to flow clean water at a constant, measured rate into the newly laid water main. Fill at a point not more than 10 feet downstream from the beginning of the new main. Measure concentration at regular intervals to ensure a 25 mg/L dose. Position valves so that the chlorine solution in the main being treated does not flow into water mains in active service. Do not stop chlorine application until the entire main is filled with chlorinated water. Retain the chlorinated water in the main for at least 4 hours, operating all valves and hydrants in the section treated. At the end of the 24-hour period, verify the treated water in all portions of the main has a residual of 10 mg/L free chlorine.

3.5 DISINFECTING PIPELINES – FINAL FLUSHING

- A. After the retention period, flush the chlorinated water from the main until chlorine measurements show that the concentration in the water leaving the main is no higher than that in the system, or is acceptable for domestic use.
- B. Dispose of flushing water to a location approved by the Engineer.

3.6 DISINFECTING PIPELINES – BACTERIOLOGICAL TESTS

- A. After final flushing and before the water main is placed in service, test samples collected from the main(s) for coliform bacteria. Take 2 samples from each location at least 24 hours apart.
- B. If the initial disinfection fails to produce approved bacteriological samples, reflush and resample the main. If check samples show bacterial contamination, re-chlorinate the main until approved results are obtained.

3.7 DISINFECTING PIPELINES – SWABBING

- A. If connections are not disinfected along with the newly installed main, swab or spray the interior of all pipe and fittings used in making the connections with a 1% hypochlorite solution before installation.

END OF SECTION 01 74 30

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SECTION 01 77 00 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. Comply with requirements stated in conditions of the contract and in Specifications for administrative procedures in closing out the Work.
- B. Furnish lien waivers, bond extensions, and other required data.
- C. Satisfy conditions of the contract, fiscal provisions, legal submittals and additional administrative requirements.

1.2 SUBSTANTIAL COMPLETION

- A. When substantially complete, the Contractor shall submit to the Owner:
 - 1. A written notice that the Work, or designated portion thereof, is substantially complete.
 - 2. A list of items to be completed or corrected.
- B. Within a reasonable time after receipt of such notice, Engineer will perform an inspection to determine the status of completion. If the Work is not deemed substantially complete, the following will occur:
 - 1. Owner will promptly notify the Contractor in writing, giving the reasons therefore.
 - 2. The Contractor shall remedy the deficiencies in the Work, and send a second written notice of Substantial Completion to the Owner.
 - 3. Owner will request the Engineer to re-inspect the Work.
 - 4. Once the Work is deemed substantially complete and after review and approval, the Engineer will execute and deliver to the Owner and the Contractor, the Certificate of Substantial Completion with a final list of items to be completed or corrected prior to release of final payment.

1.3 PROJECT RECORD DOCUMENTS

- A. Maintain at Project site, available to Owner and Engineer, one copy of the Contract Documents, shop drawings and other submittals, in good order.
 - 1. Mark and record field changes and detailed information contained in submittals and change orders.
 - 2. Record actual depths, horizontal and vertical location of underground pipes, duct banks and other buried utilities. Reference dimensions to permanent surface features.

3. Identify specific details of pipe connections, location of existing buried features located during excavation, and the final locations of piping, equipment, electrical conduits, manholes, and pull boxes.
 4. Identify location of spare conduits including beginning, ending, and routing through pull boxes and manholes. Record spare conductors, including number and size, within spare conduits, and filled conduits.
 5. Provide schedules, lists, layout drawings, and wiring diagrams.
 6. Make annotations with erasable colored pencil conforming to the following color code:
 - a. Additions - Red
 - b. Deletions - Green
 - c. Comments - Blue
 - d. Dimensions - Graphite
 7. Make all annotations on one set of drawings.
- B. Maintain documents separate from those used for construction.
1. Label documents "RECORD DRAWINGS."
- C. Keep documents current.
1. Record required information at the time the material and equipment is installed and before permanently concealing.
 2. During progress meetings, record documents will be reviewed to ascertain that changes have been recorded.
- D. Submit record documents for review. Submittal shall be in accordance with Section 01 33 00 – Submittal Procedures.

1.4 FINAL SUBMITTALS

- A. The Contractor, prior to requesting final payment, shall obtain and submit the following items to the Engineer for transmittal to the Owner:
1. Written guarantees, where required.
 2. Technical Manuals and instructions.
 3. New permanent cylinders and key blanks for all locks.
 4. Maintenance stock items; spare parts; special tools.
 5. Completed record drawings.

6. Bonds for roofing, maintenance, etc., as required.
 7. Certificates of inspection and acceptance by local governing agencies having jurisdiction.
 8. Releases from all parties who are entitled to claims against the subject project, property, or improvement pursuant to the provisions of law.
 9. Letter from bonding company stating that bonds will be extended for one year after substantial completion.
- B. Owner will prepare a final Change Order, reflecting approved adjustments to the contract sum which were not previously made by Change Orders.

1.5 FINAL CLEANUP

- A. The Contractor shall promptly remove from the vicinity of the completed Work, all rubbish, unused materials, concrete forms, construction equipment, and temporary structures and facilities used during construction. Final acceptance of the Work by the Owner will be withheld until the Contractor has satisfactorily performed the final cleanup of the Site.

1.6 MAINTENANCE AND GUARANTEE

- A. The Contractor shall comply with the maintenance and guarantee requirements contained in the General Conditions.
- B. The Contractor shall make all repairs and replacements promptly upon receipt of written order from the Owner. If the Contractor fails to make such repairs or replacements promptly, the Owner reserves the right to do the Work and the Contractor and its surety shall be liable to the Owner for the cost thereof.

1.7 FINAL PAY ESTIMATE

- A. Submit final pay estimate and supporting data to Owner.
- B. Final estimates shall reflect all adjustments to the contract sum:
1. The original contract sum
 2. Additions and deductions resulting from:
 - a. Previous Change Orders
 - b. Allowances
 - c. Unit prices
 - d. Deductions for uncorrected work
 - e. Penalties and bonuses

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- f. Deductions for liquidated damages
- 3. Total contract sum, as adjusted
- 4. Previous payments
- 5. Sum remaining due

PART 2 - PRODUCTS NOT USED

PART 3 - EXECUTION NOT USED

END OF SECTION 01 77 00

PSECTION 01 78 23 - OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. The Contractor shall submit technical operation and maintenance information for each item of mechanical and electrical equipment in an organized manner in the Owner's Manual. It shall be written so that it can be used and understood by the Owner's operation and maintenance staff. The Owner's Manual information shall also be submitted in electronic format using a USB flash drive.
- B. All manuals supplied to the Owner by suppliers of Owner-furnished equipment, shall be inserted into the Owner's Manual by the Contractor. The Contractor shall be responsible for providing all other information.

1.2 OWNER'S MANUAL

- A. The Owner's Manual shall include the following for each item of mechanical and electrical equipment (as applicable):
 - 1. Equipment Summary: A summary table shall include the equipment name and equipment number, the manufacturer's model number, serial number, and other nameplate information specific to the equipment provided.
 - 2. Operational Procedures: Manufacturer-recommended procedures on the following shall be included:
 - a. Installation
 - b. Adjustment
 - c. Startup
 - d. Location of controls, special tools, equipment required, or related instrumentation needed for operation
 - e. Operation procedures
 - f. Load changes, Calibration, Shutdown
 - 3. Troubleshooting, Disassembly, Reassembly
 - a. Realignment
 - b. Testing to determine performance efficiency
 - c. Tabulation of proper settings for all pressure relief valves, low and high pressure switches, and other protection devices

- d. List of all electrical relay settings including alarm and contact settings
 4. Preventive Maintenance Procedures:
 - a. Procedures: Preventive maintenance procedures shall include all manufacturer-recommended procedures to be performed on a periodic basis, both by removing and replacing the equipment or component, and by leaving the equipment in place.
 - b. Schedules: Recommended frequency of preventive maintenance procedures shall be included. Lubrication schedules, including lubricant SAE grade, type, and temperature ranges, shall be covered.
 5. Parts List and Drawings:
 - a. Parts List: A complete parts list shall be furnished, including a generic description and manufacturer's identification number for each part. Addresses and telephone numbers of the nearest supplier and parts warehouse shall be included.
 - b. Drawings: Cross-sectional or exploded view drawings shall accompany the part list.
 6. Wiring Diagrams: Include complete internal and connection wiring diagrams for electrical equipment items.
 7. Shop Drawings: Include approved shop or fabrication drawings, complete with dimensions. Include performance curves for pumps furnished.
 8. Safety: This part describes the safety precautions to be taken when operating and maintaining the equipment or working near it.
 9. Documentation: All equipment warranties, affidavits, and certifications required by the Technical Specifications shall be placed in this part.
 10. Spare Parts: This part shall contain spare parts information for all mechanical, electrical, and instrumentation equipment. The spare parts list shall include the current list price of each spare part. The spare parts list shall be limited to those spare parts which each manufacturer recommends be maintained by the Owner in inventory at the plant site. Each manufacturer or supplier shall indicate the name, address, and telephone number of its nearest outlet of spare parts to facilitate the Owner in ordering. The Contractor shall cross-reference all spare parts lists to the equipment numbers designated in the Contract Documents.
- B. If manufacturer's standard brochures and manuals are used to describe operating and maintenance procedures, modify such brochures and manuals **to reflect only the model or series of equipment used on this project and features provided**. Cross out neatly or remove extraneous material, or otherwise annotate or eliminate.

1.3 TRANSMITTAL PROCEDURE

- A. Provide three (3) original paper copies and one (1) electronic copy in PDF format of all operating and maintenance information. For ease of identification, label each manufacturer's brochure and manual with the equipment name. Organize the information in 3-ring binders and use an indexing feature within the PDF submission, in numerical order, per specification section number. Include in the manuals a table of contents and tab sheets to permit easy location of desired information. Each binder shall include a cover sheet and spine label giving the project name, Engineer's project number, Contractor name and contact information, applicable subcontractor name and contact information, and supplier name and contact information.
- B. The Contractor shall submit to the Engineer three identical Owner's Manuals a minimum of 90 calendar days prior to the scheduled startup of the equipment.
- C. The Engineer will review the Owner's Manuals within 30 days following their receipt by the Engineer. The Contractor shall then make any corrections and changes noted and compile all the corrected Owner's Manuals for final submittal to the Engineer.

1.4 PAYMENT

- A. Acceptable operating and maintenance information for the project must be delivered to the Engineer prior to the project being 75 percent complete or at least two weeks prior to startup of any equipment. Progress payments for work in excess of 80 percent completion or 2 weeks prior to startup will not be made until the specified acceptable operating and maintenance information has been delivered to the Engineer.

1.5 FIELD CHANGES

- A. Following the acceptable installation and operation of an equipment item, the item's instructions and procedures are to be modified and supplemented to reflect any field changes or information requiring field data.

PART 2 - PRODUCTS NOT USED

PART 3 - EXECUTION NOT USED

END OF SECTION 01 78 23

SECTION 05 50 00 – METAL FABRICATIONS

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Furnish and install miscellaneous metal items as shown on the drawings and specified herein.

1.2 STANDARDS

- A. AISC “Code of Standard Practice.”
- B. ASTM A36 – Specification for Carbon Structural Steel
- C. ASTM A780 – Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings.
- D. ASTM F3125 – Specification for High Strength Structural Bolts, Steel, and Alloy Steel, Heat Treated, 120 ksi and 150 ksi Minimum Tensile Strength

1.3 SUBMITTALS

- A. General: All submittals shall be submitted in accordance with the requirements of Section 01 33 00 – Submittal Procedures.
- B. Product Data: For the following:
 - 1. Nuts, bolts

PART 2 - PRODUCTS

2.1 BOLTS AND ANCHORS

- A. Standard Service (Non-Corrosive Application): Unless otherwise indicated, bolts, anchor bolts, washers, and nuts shall be steel as indicated herein. Threads on galvanized bolts and nuts shall be formed with suitable taps and dies such that they retain their normal clearance after hot-dip galvanizing. Except as otherwise indicated, steel for bolt material, anchor bolts and cap screws shall be in accordance with the following:

Structural Connections	ASTM A307, Grade A or B, hot-dip galvanized
Anchor Bolts	ASTM A307, Grade A or B, or ASTM A36, hot-dip galvanized
High Strength Bolts	ASTM F3125 Grade 325

Pipe and Equipment Flange Bolts	ASTM A193, Grade B- 7
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- B. Stainless steel bolts and nuts for corrosive service
 - 1. Corrosive Service: All bolts, nuts, and washers in the locations listed below shall be stainless steel as indicated below.
 - a. All buried locations.
 - b. All submerged locations.
 - c. All locations subject to seasonal or occasional flooding.
 - d. Inside hydraulic structures below the top of the structure.
 - e. Inside buried vaults, manholes, and structures which do not drain through a gravity sewer or to a sump with a pump.
 - f. All chemical handling areas.
 - g. Inside trenches, containment walls, and curbed areas.
 - h. Locations indicated by the Contract Documents or designated by the ENGINEER to be provided with stainless steel bolts.
 - 2. Unless otherwise indicated, stainless steel bolts, anchor bolts, nuts, and washers shall be Type 316 stainless steel, Class 1, conforming to ASTM A193 for bolts and to ASTM A194 for nuts. All threads on stainless steel bolts shall be protected with an antiseize lubricant suitable for submerged stainless steel bolts, to meet government specification MIL-A-907E. Buried bolts in poorly drained soil shall be coated the same as the buried pipe.
 - a. Antiseize lubricant shall be classified as acceptable for potable water use by the NSF.
 - b. Antiseize lubricant shall be "PURE WHITE" by Anti-Seize Technology, Franklin Park, IL, 60131, AS-470 by Dixon Ticonderoga Company, Lakehurst, NJ, 08733, or equal.
- C. Bolt Requirements: The bolt and nut material shall be free-cutting steel. The nuts shall be capable of developing the full strength of the bolts. Threads shall be Coarse Thread Series conforming to the requirements of the American Standard for Screw Threads. All bolts and cap screws shall have hexagon heads and nuts shall be Heavy Hexagon Series.
- D. Bolts and nuts shall be installed with washers fabricated of material matching the base material of bolts, except that hardened washers for high strength bolts shall conform to the requirements of the AISC Specification. Lock washers fabricated of material matching the bolts shall be installed where indicated.

CLIENT
PROJECT DESCRIPTION

Section 8, Item a.

PROJECT NUMBER

- E. The length of each bolt shall be such that after the joint is made up, the bolt extends through the entire nut, but in no case more than 1/2-inch beyond the nut.
- F. Miscellaneous Bolts and Nuts: ASTM A307
- G. High Strength Bolts and Nuts: ASTM F3125 Grade A325

PART 3 - EXECUTION

- A. None additional.

END OF SECTION 05 50 00

SECTION 31 00 00 - EARTHWORK

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. Provide all labor, materials, and equipment as required for all excavation, grading, providing borrow materials, hauling, placing and compacting earthwork materials to construct the site to the grades shown on the plans.
- B. Submit to the Engineer's Field Representative load tickets on all materials delivered to the site.

1.2 REFERENCE STANDARDS

- A. ASTM D 136 Sieve Analysis of Fine and Coarse Aggregates
- B. ASTM D 422 Method for Particle - Size Analysis of Soils
- C. ASTM D 698 Test Methods for Moisture-Density Relations of Soils and Soil-Aggregated Mixtures, Using 5.5-lb Rammer and 12-inch Drop
- D. ASTM D 1556 Density of Soil by the Sand-Cone Method
- E. ASTM D 1557 Test Methods for Moisture-Density Relations of Soils and Soil Aggregate Mixtures, Using 10 lb. Rammer and 10 inch Drop
- F. ASTM D 1633 Test Method for Compressive Strength of Molded Soil-Cement Cylinders
- G. ASTM D 2419 Test Method for Sand Equivalent Value of Soils and Fine Aggregate
- H. ASTM D 2487 Classification of Soils for Engineering Purposes
- I. ASTM D 2901 Test Method for Cement Control of Freshly-Mixed Soil Cement
- J. ASTM D 2922 Density of Soil and Soil Aggregate in Place by Nuclear Methods (Shallow Depth).
- K. ASTM D 4254 Test Methods for Minimum Index Density of Soils and Calculative of Relative Density
- L. OSHA - 1926.650-651 and other applicable sections.

1.3 SUBMITTALS

- A. The Contractor shall submit test results of all materials proposed to be used in work in accordance with the requirements of Section 01 33 00 - Submittal Procedures.

- B. Submit sieve analysis, moisture density relationship test for both ASTM D698 and D1557, and sand equivalency. The sieve analysis and moisture density relationship tests must have been completed within 12 calendar months from the date of submittal.

1.4 DEFINITIONS

- A. Backfill or Fill: (a) Material used to replace material removed during construction or (b) The act of replacing or placing material during construction.
- B. Backfill Operation or Fill Operation: The method and the activity required to fill surface depressions and excavations, or to construct fills to required grades.
- C. Common Fill: Fill or borrow materials which are naturally occurring and not meeting a specific gradation or classification.
- D. Structural Fill: The act of placing common or imported fill material under controlled operation to a certain density.

PART 2 - PRODUCTS

2.1 SUITABLE FILL AND BACKFILL MATERIAL REQUIREMENTS

- A. The following types of suitable materials are defined (see Execution for the location where the materials are approved for use or where identified in other specifications and drawings):
 1. Common Fill: Fill or borrow materials which are naturally occurring, not meeting a specific gradation or classification, are not Unsuitable Materials, and can be placed in a controlled operation to a certain density.
 2. Crushed Stone Backfill (Bedding Chips): Manufactured angular, crushed stone, crushed rock, or crushed slag with the following gradation requirements:

Sieve Size	Percent Passing By Weight
1"	100
3/4"	80 - 100
3/8"	20 - 70
No. 4	5 - 20
No. 200	0 - 3

3. Foundation Stabilization Backfill: Uncrushed gravel, and sand with the gradation requirements below. The material shall have a minimum sand equivalent value of 28, sand equivalent not required if less than 5% passing the No. 200 sieve.

Sieve Size	Percent Passing By Weight
3"	100

Sieve Size	Percent Passing By Weight
No. 4	25 - 60
No. 200	0 - 12

4. Aggregate Base (3/4" Road Mix): Crushed aggregate base material of such nature that it can be compacted readily by watering and rolling to form a firm, stable base. The material shall meet the following gradation requirements:

Sieve Size	Percent Passing By Weight
1"	100
3/4"	90 - 100
No. 4	40 - 65
No. 8	30 - 50
No. 200	3 - 9

- a. The sand equivalent value shall be not less than 30, sand equivalent not required if less than 5% passing the No. 200 sieve
- b. The material shall have a Los Angeles Abrasion of 35% or less.

5. Trench Plug Material: Low permeable fill material, a non-dispersible clay material having a minimum plasticity index of 10.

6. Topsoil: Excavated material that has a friable, loamy character and contains organic matter amount normal to the region. Obtain soil from well-drained arable land that does not contain subsoil, refuse, roots, heavy or stiff clay, stones larger than 1-inch, coarse sand, sticks, brush, litter, pesticides, contaminated soil, noxious weeds, or other material detrimental to vegetative growth and establishment. Test sources if noxious weeds are located within or adjacent to the source site and obtain approval from the Owner that the source is acceptable to use on the project site. Incorporate vegetative matter into topsoil, except brush, trees, or noxious weeds. Other deleterious material (e.g. plastic, glass, metal, rocks) will not exceed 0.1 percent by weight or volume. Remove and dispose of vegetation at topsoil sources before taking materials from the source. Topsoil material shall meet the following gradation and chemistry requirements:

Sieve Size	Percent Passing By Weight
1"	98 - 100
No. 4	95 - 100
No. 8	80 - 100

Sieve Size	Percent Passing By Weight
No. 200	15 - 80

Property	Minimum	Maximum
pH ¹	5.5	7.8
ESP ²	--	10.0
EC ³	--	8.0
Organic Material	0.5	15.0

¹ pH: Negative logarithm of the hydrogen ion concentration

² ESP: Exchangeable sodium percentage

³ EC: Electrical conductivity, milliohms per cm at 77 °F

7. Gravel Surfacing: Meet the following requirements for gravel surfacing, including added binder or blending material:

Sieve Size	Percent Passing By Weight
3/4"	100
No. 4	40-80
No. 10	25-60
No. 200	8-20

- a. Dust Ratio: the portion passing the No. 200 (0.075 mm) sieve cannot exceed two-thirds of the portion passing the No. 40 (0.425 mm) sieve.
- b. For material passing the No. 40 (0.425 mm) sieve, the liquid limit must not exceed 35 and the plasticity index must not be below 6 or above 12.
- c. A wear factor not exceeding 40% at 500 revolutions.
- d. At least 35% by weight of the aggregate retained on the No. 4 (4.75 mm) sieve must have one fractured face.

2.2 UNSUITABLE MATERIALS

A. Unsuitable material include the materials listed below:

1. Soils which, when classified under ASTM D 2487 – Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System), fall in the classification of Pt, OH, CH, MH, or OL.
2. Soils which cannot be compacted sufficiently to achieve the density specified for the intended use.

3. Materials that contain hazardous or designated waste materials including petroleum hydrocarbons, pesticides, heavy metals, and any material which may be classified as hazardous or toxic according to applicable regulations.
4. Soils that contain greater concentrations of chloride or sulfate ions, or have a soil resistivity or pH less than the existing on-site soils.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Notify Engineer prior to starting any grading operations.
- B. Identify required lines, levels, contours and datum.
- C. Identify and flag surface and aerial utilities, known underground utilities locations.
- D. Maintain and protect existing utilities which pass through the work area.

3.2 SITE CONTROL

- A. Unfavorable Weather: Do not place, spread, or roll any fill material during unfavorable weather conditions. Do not resume operations until moisture content of material is satisfactory.
- B. Flooding: Provide berms or channels to prevent flooding or saturation of subgrade. Promptly remove all water collecting in depressions.
- C. Softened Subgrade: Where soil has been softened or eroded by flooding or placement during unfavorable weather, remove all damaged areas and recompact as specified for fill.
- D. Dust Control: Use all means necessary to control dust on and near the work and on and near all off-site borrow areas as specified in Section 01 50 00 – Temporary Facilities and Controls. Thoroughly moisten all surfaces as required to prevent dust from being a nuisance to the public, neighbors, residents, properties, and concurrent performance of other work on the site.
- E. Noise Control: Use equipment that is equipped with adequate noise attenuation devices.

3.3 OFF-SITE IMPACTS

- A. Comply with all traffic and hauling requirements of the State and County.
- B. Provide all signing, flagmen, or other special traffic control required to provide for the safety of the public.
- C. Use only vehicles approved for highway use and comply with all load requirements.
- D. Provide wheel cleaning as required to minimize the tracking of materials onto public roadways.

3.4 PROTECTION

- A. Protect trees and other features to remain as a portion of the final landscaping or project.
- B. Protect bench marks, existing structures, fences, sidewalks, paving, and curbs from equipment and vehicular traffic.
- C. Protect above and below grade utilities which are to remain.
- D. Notify Engineer of unexpected subsurface conditions and discontinue affected work in the area until notified to resume work.
- E. Protect bottom of excavations and soil adjacent to and beneath foundation from frost.
- F. Grade excavation top perimeter to prevent surface water runoff into excavation.

3.5 EXCAVATION

- A. Excavate all cut areas to the grades shown on the plans.
- B. Excavate all areas that have excessive moisture content and cannot be compacted to the required densities.
- C. Correct unauthorized excavation at no cost to the Owner.
- D. Excavate or scarify and aerate soils with excessive moisture content, and allow to dry.

3.6 SUBGRADE PREPARATION

- A. Excavate to subgrade elevation.
- B. In the presence of a materials testing company, thoroughly proofroll with a loaded tandem-axle dump truck with a minimum weight of 20 tons, or 40-ton static roller.
- C. Areas where soft or disturbed conditions are identified, excavate, remove and dispose of unsuitable soft spot material. If the material is suitable except for excessive moisture content, scarify and dry the material to the acceptable moisture content, or replace with Engineer approved materials, and recompact to the density of the material to place over the area.
- D. The Contractor's materials testing company to submit a subgrade inspection report noting the means and methods used to proofroll the subgrade and any corrections or repairs made.

3.7 DISPOSAL OF WASTE SOIL

- A. Contractor shall dispose of waste material at an off-site location determined by the Contractor.

3.8 QUALITY CONTROL

- A. Material & Compaction Testing: All soils testing of samples submitted by the Contractor will be done by an independent testing laboratory mutually agreed upon by Contractor and Owner and at the Contractor's expense. If tests indicate work does not meet specific compaction requirements, remove work, replace, and retest at the Contractor's expense.
 - 1. Qualifications of testing company
 - a. Basic requirements of ASTM E 329, "Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials as Used in Construction" and ASTM D 3666, "Standard Specification for Minimum Requirements for Agency Testing and Inspecting Bituminous Paving Materials", as applicable.
 - b. Calibrate testing equipment at reasonable intervals by devices of accuracy traceable to either the National Bureau of Standards or accepted values of natural physical constants.
 - 2. Frequency of Compaction Tests
 - a. Parking and vehicle areas, roadways: In horizontal plane, test each backfill area with subsequent test for every 2,500 square feet of backfill surface area. At every horizontal location, obtain one test at subgrade. Perform subsequent tests every 12 inches of compacted depth and at top of backfill or when materials or procedures change.

3.9 TOLERANCES

- A. Finished grade of graded areas shall meet the following requirements:
 - 1. In paved areas including roadways, sidewalks, parking lots, etc., plus or minus 0.10 feet from the grade shown on the plans.
 - 2. Building pads, plus or minus 0.05 feet from the grade shown on the plans.
 - 3. In landscaped areas or similar areas, plus or minus two (2) inches.
 - 4. Differential grades between walking surfaces shall not exceed 1/4-inch.
 - 5. Landscape finish grade adjacent to concrete walks shall be minus 1-inch from walking surface elevation.

END OF SECTION 31 00 00

SECTION 31 23 33 - TRENCHING AND BACKFILLING

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. Provide all excavation of trenches, bedding, and backfilling work for construction of piping.
- B. Excavation of trenches shall include all material excavated or removed regardless of type, character, composition or condition of the material.

1.2 SUBMITTALS

- A. The Contractor shall submit samples of all materials proposed to be used in work. Sample sizes shall be determined by the testing laboratory.

1.3 DEFINITIONS

- A. Pipe Zone: That portion of the vertical trench cross-section lying between a plane below the bottom surface of the pipe and a plane 6 inches above the top of the pipe.
- B. Trench Zone: The portion of the vertical trench cross-section lying between the Pipe Zone and a point 18 inches below the finished grade.
- C. Final Backfill: The portion of the vertical trench cross-section within 18 inches of finished grade.
- D. Pipe Bedding: Material placed below the pipe and in the Pipe Zone.
- E. Springline: The center axis of the pipe.
- F. Trench Backfill: Material placed from the top of the Pipe Zone to finished grade.
- G. Trench Foundation Material: Material placed below the Pipe Bedding.

PART 2 - PRODUCTS

2.1 PIPE BEDDING MATERIAL

- A. Pipe bedding shall consist of crushed stone backfill (bedding chips) material per Section 31 00 00 - Earthwork.

2.2 TRENCH BACKFILL MATERIAL

- A. Excavated trench material may be used as follows:
 - 1. Excavated trench material shall be free from cinders, ashes, refuse, organic and frozen material, boulders with any dimension exceeding 8 inches, or other unsuitable material per Section 31 00 00 - Earthwork.
 - 2. Material with excessive or deficient moisture content will not be considered as unsuitable if the moisture content can be adjusted to a level that allows obtaining compaction.

2.3 FOUNDATION STABILIZATION

- A. Trench foundation material shall consist of foundation stabilization backfill material per Section 31 00 00 - Earthwork.

2.4 IDENTIFICATION TAPE AND LOCATING WIRE

- A. Locating wire shall be No. 12 AWG insulated cooper locating wire with 1/64" PVC insulation.
- B. Identification tape shall be 3-inches wide, 4 mil polyethylene vinyl. Tape text and color shall meet the following requirements

Pipe Contents	Text	Color
Potable Water	"CAUTION – WATER LINE BURIED BELOW"	Blue

PART 3 - EXECUTION

3.1 EXISTING UTILITIES:

- A. The Contractor shall be fully responsible for any and all damage to existing or constructed utilities, and shall repair damages in accordance with utility owner's requirements at no additional cost to the Owner. It shall be the Contractor's responsibility to coordinate and notify all affected utility owners. Call 811 Dig-Line before commencing construction.
 - 1. Parallel Utility Support: Work associated with parallel utility support and utility crossings shall be incidental to the work unless a specific bid items is provided for parallel utility support.
 - 2. Utility Crossing Support: All utilities that interfere with the construction of the trenching and pipe installation shall be temporarily supported in accordance with the utility owner's requirements. Work associated with utility crossings support shall be incidental to the work unless a specific bid items is provided for utility crossing support.

3. All crossing utilities shown on the plans and marked by Dig-Line shall be vertical and horizontally located, in a non-destructive manner, prior to construction to verify pipe elevation, materials, and diameter. This information shall be provided to the Engineer for evaluation of conflicts prior to construction. All potholes shall be backfilled immediately after obtaining information.

3.2 TRENCH EXCAVATION

- A. Trenches shall be excavated to lines and grades shown on the drawings, with a minimum width at the top or crown of the pipe not to exceed the outside diameter of the pipe plus 2'. In the event the Contractor should over excavate in width or depth without the Engineer's approval, he shall provide pipe bedding for the full length of the over excavation. No special payment will be made for work caused by over excavation.
- B. Trench shall be kept free from water at all times to facilitate fine grading, proper laying and joining of pipe, and prevention of damage to completed joints.
- C. If the trench bottom is disturbed during excavation, compact trench bottom to 95% maximum density of the standard proctor, ASTM D698.
- D. The Contractor shall conduct trench operations in such a manner as to provide adequate safety precautions for workmen, adjacent property, or the public at all times by use of adequate sheeting, shoring, or bracing to sustain stability of the trench floor and walls. The Contractor shall furnish, place, and maintain such shoring as may be required to support sides of the trench. Costs of shoring and bracing shall be considered incidental to trench excavation and backfill.
- E. The Contractor shall conduct trench operations in such a manner as to provide adequate safety precautions for workmen, adjacent property, or the public at all times by use of adequate sheeting, shoring, or bracing to sustain stability of the trench floor and walls. The Contractor shall furnish, place, and maintain such shoring as may be required to support sides of the trench.

3.3 PIPE BEDDING

- A. Place bedding in layers no thicker than 6 inches. Allow for bedding depth around pipe bells. Place bedding at least 4 inches below the pipe and 6 inches above the pipe.
- B. Shovel slice and tamp to ensure that the bedding material is firmly placed.
- C. Following placement of pipe, place additional bedding material up to the springline of the pipe. Shovel slice and tamp to ensure that the bedding material fills in and supports the pipe haunch area.
- D. In 6 inch lifts, place additional bedding layers from the pipe springline to 6 inches above the pipe.

3.4 TRENCH BACKFILL

- A. All backfill material shall be placed in layers not to exceed 8-inch maximum loose lift thickness for native material and 12-inch maximum loose lift thickness for imported aggregate backfill.
- B. The entire trench shall be compacted to 95% maximum density of the standard proctor as determined by ASTM D-698.

3.5 IDENTIFICATION TAPE AND LOCATING WIRE PLACEMENT

- A. Unless indicated otherwise, attach locating wire to the crown of all buried pipelines using electrical tape, except gravity irrigation, sanitary sewer, or storm sewer mains having visible manholes or clean-out structures at all angle points. Provide 12" of slack wire above ground at each location of valve or wire box.
- B. Unless indicated otherwise, identification tape shall be placed above all buried pipelines, 18" - 24" above the crown of the pipe, except gravity irrigation, sanitary sewer, or storm sewer mains having visible manholes or clean-out structures at all angle points.
- C. Unless indicated otherwise, identification tape shall be placed above all buried pipelines that are installed with locating wire. Identification tape shall be placed 18" - 24" above the crown of the pipe.

3.6 QUALITY CONTROL

- A. Material & Compaction Testing: All soils testing of samples submitted by the Contractor will be done by a testing laboratory mutually agreed upon by Contractor and Owner and at the Contractor's expense. If tests indicate work does not meet specific compaction requirements, remove work, replace, and retest at the Contractor's expense.
 - 1. Qualifications of testing company
 - a. Basic requirements of ASTM E 329, "Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials as Used in Construction" and ASTM D 3666, "Standard Specification for Minimum Requirements for Agency Testing and Inspecting Bituminous Paving Materials", as applicable.
 - b. Calibrate testing equipment at reasonable intervals by devices of accuracy traceable to either the National Bureau of Standards or accepted values of natural physical constants.
 - 2. Frequency of Compaction Tests
 - a. Test section shall be a test at 2-feet above top of pipe and every 1-foot lift thereafter and at the top of the trench backfill.
 - b. Two (2) test sections, at different locations for every trench less than 300 feet in length, but not less than once per day.

- c. One (1) test section per every 300 feet of additional trench and at locations where materials or construction procedures change, but not less than once per day.

3.7 CLEANUP

- A. Surplus excavated material or stripped material not salvaged as topsoil and excavated material not meeting the requirements for backfill shall become waste. All waste material shall be disposed of by the Contractor.

END OF SECTION 31 23 33

SECTION 32 12 16 – ASPHALT PAVING

1.1 WORK INCLUDED

- A. This work consists of constructing minor hot mixed asphalt concrete (MHMAC) pavement to the lines, grades, thicknesses, and cross sections shown or established. Provide MHMAC in accordance with the 2008 Oregon Standard Specifications for Construction, Section 00744 – Minor Hot Mixed Asphalt Concrete (MHMAC) Pavement, as modified herein.

1.2 REFERENCE STANDARDS

- A. 2008 Oregon Standard Specifications for Construction, Oregon Department of Transportation, (ODOT).

1.3 SUBMITTALS

- A. Submit the proposed job mix formula and supporting data to the Engineer for review at least 10 calendar days before anticipated use.

1.4 QUALITY CONTROL

- A. The mixture will be accepted by visual inspection by the Engineer. If the mixture is considered suspect, the Engineer may verify that the mixture is within tolerances and limits of 00744.14. When requested, obtain samples according to appropriate procedures in the Oregon Department of Transportation, Construction Manual, Manual of Field Test Procedures (MFTP) under the observation of the Engineer at a frequency established by the Engineer. The Engineer will test for gradation, asphalt content, moisture, and recycled asphalt paving (RAP) content (if applicable) according to procedures specified in 00744.14 and the MFTP. Take corrective action when testing shows that MHMAC is not within the tolerances and limits of ODOT Section 00744.14.

PART 2 - PRODUCTS

2.1 MINOR HOT MIXED ASPHALT CONCRETE (MHMAC)

- A. Asphalt Cement – Use PG 64-22.
- B. Broadband Limits – 1/2" Dense.
- C. Job Mix Formula – Level 2.

2.2 EQUIPMENT

- A. Equipment in accordance with ODOT Section 00744.24.

PART 3 - - EXECUTION

3.1 CONSTRUCTION

- A. Construction in accordance with ODOT Section 00744.

END OF SECTION 32 12 16

SECTION 32 92 19.16 – SEEDING

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. Furnish all labor, materials, and equipment as required to hydroseed/hydromulch the areas shown on the plans, including soil preparation, and hydroseeding.

1.2 SUBMITTALS

- A. Furnish information on proposed seed mix, fertilizer, hydromulch, etc for review.
- B. Furnish a certificate with each delivery of bulk material delivery, stating source, quantity, and type of material.
- C. Certification of Grass Seed from seed Vendor for each type of seed.

1.3 MAINTENANCE

- A. Protect the hydroseeded areas until final acceptance of all work under the contract.
- B. At time of acceptance of the complete project, all hydroseeded areas shall be totally established with no bare spots.
- C. Provide adequate protection to all newly seeded areas including the installation of approved temporary fences to prevent trespassing and damage, as well as erosion control, until acceptance.

1.4 PROJECT CONDITIONS

- a. Season: Seed between March 1 through May 15 and September 1 through October 31.
- b. Weather conditions: Seeding is not permitted during the following conditions:
 - 1) Cold weather: When air or surface temperature is less than 32 degrees F.
 - 2) Hot weather: When air temperature is greater than 80 degrees F.
 - 3) Soil Temperature: When soil temperature is less than 55 degrees F.
 - 4) Wet weather: When ground becomes saturated.
 - 5) Windy weather: When wind velocity is greater than 10 mph.

1.5 WARRANTY

- a. The warranty of plant materials furnished and planted under this contract shall be for two full years from the date of Substantial Completion and written acceptance as specified herein.
- b. At the end of the warranty period, all seeded areas not meeting requirements of these specifications shall be reseeded with the same species and size as originally specified. Such replacement shall be made in the same manner as specified for the original plantings, and at no extra cost to the Owner. The warranty on reseeded areas shall be extended for one full season's cycle after reseeded has been completed.

PART 2 - PRODUCTS

2.1 GROWING MEDIA

- A. Topsoil: See Section 32 91 13 – Soil Preparation.

2.2 SEED

A. Grass Seed

1. Furnish weed-free grass seed that is fresh, clean, and new-crop seed composed of the following varieties mixed in the proportions by weight as shown, and tested to have a minimum of ninety (90) percent of purity and a minimum of eighty (80) percent germination.
2. Do not use seed which has become wet, moldy, or otherwise damaged prior to use.
3. Provide the following seed mixes per project area described below:
 - a. All other areas hydroseeded areas:
 - 1) Dwarf perennial ryegrass, low mow.

PART 3 - EXECUTION

3.1 GENERAL

- A. Seed slopes within one week of cut/fill operations.
- B. Seed other areas once work in those areas have ceased.
- C. The hydroseeding work shall not be performed at any time when it may be subject to damage by climatic conditions.
- D. Re-seed areas not adequately germinated after 30 days of placing seed.

3.2 SOIL PREPARATION

- A. See Section 32 91 13 – Soil Preparation

3.3 HYDROSEEDING

- A. Do not apply hydroseeding mixture if rainy conditions within three days or outside manufacturer's recommendations are anticipated. In the event of unanticipated rainy conditions, re-apply the hydroseeding mixture to uncured areas.
- B. Equipment: Mixing shall be performed in a tank. The tank shall have a built-in continuous agitation and circulation system, of sufficient operating capacity to produce homogenous slurry of mulch, stabilizer, seed and water in the designated unit proportions for a minimum coverage of one-half acre. The tank shall have a discharge system that will permit attachment of at least 500 feet of hose extensions, a change of elevation of 150 feet in height from tank to discharge nozzle, and still retain enough pressure to apply the slurry to the areas at a continuous and uniform rate.
- C. Proportions: Proportions per acre shall be as follows:
 - 1. Mulch: 2,500 pounds
 - 2. Seed: 44 pounds per acre
 - 3. Stabilizer: 120 pounds
 - 4. Water: 3,000 gallons

- D. Application: With agitation system operating at part speed, water shall be added to the tank and good recirculation shall be established. Materials shall be added in such a manner that they are uniformly blended into the mixture. When the tank is 1/3 filled with water, add the following materials in the sequence listed:

Sequence	Material
1	Stabilizer, 1/2-acre requirement
2	Three 50-pounds bales mulch
3	Seed, 1/2-acre requirement

1. Agitate mixture at full speed when the tank is half filled with water.
2. Add remainder of mulch requirement before tank is 3/4 full.
3. Slurry distribution shall begin immediately. The entire tank of each batch of slurry shall be emptied and the slurry evenly applied to areas to be hydroseeded within a 2-hour period following the mixing of each slurry batch. Slurry batches not applied during this time will be rejected.

3.4 BONDED FIBER MATRIX

- A. After hydroseeding, apply bonded fiber matrix soil stabilization application.
- B. Bonded fiber matrix shall be a mixture of cellulosic fibers and binding agents mixed at 70 pounds of dry fiber to 100 gallons of water. Apply using a hyroseeding machine at a rate of 3,500 to 4,000 pounds of dry fibers per acre.

3.5 ACCEPTANCE OF SEEDED AREAS

- a. Satisfactory Seeded Areas: Unless otherwise specified all seeded areas shall at the time of substantial completion, exhibit a healthy, uniform, close stand of the specified seed mix, free of weeds and surface irregularities, with coverage of mix in specified proportions, exceeding 90 percent over any 10 sq. ft. (0.92 sq. m) and bare spots not exceeding 5 by 5 inches.

END OF SECTION 32 92 19.16

SECTION 33 05 07.23 – UTILITY BORING AND JACKING

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. The Contractor shall furnish and install bored or jacked steel casing as indicated on the drawings, complete and in place, all in accordance with the requirements of the Contract Documents. Carrier pipe installation within the steel casing shall be in accordance with the requirements contained within this Section.
- B. In the performance of the work, the Contractor shall comply with the lawful requirements of the affected public agencies and owners of public utilities or other facilities respecting the safeguarding of traffic and improvements which might be endangered by the boring and jacking operations. The approach trenches in public streets will not be permitted to remain open for extended periods of time. Provide adequate traffic control and signing around bore pits to prevent public and traffic from falling into the excavated hole.
- C. If the Contractor is not ready to place the pipe in the casing at the time of completion of boring and jacking operations, the ends shall be bulkheaded, and the approach trenches in public streets and right-of-ways shall be backfilled, temporary surfacing placed thereon, and the affected portion of the street reopened to traffic.
- D. The Contractor shall be responsible for maintaining the specified line and grade, and for preventing settlement of overlying structures, or other damage due to the boring and jacking operations.
- E. Grouting will be required if the space around the casing is more than 1” or if drilling in a sandy area and caving occurs.

1.2 REFERENCE STANDARDS

- ASTM A 283 Specification for Low and Intermediate Tensile Strength Carbon Steel Plates, Shapes, and Bars.
- ANSI/AWS D1.1 Structural Welding Code.
- ANSI/AWWA C200 Steel Water Pipe 6 Inches and Larger.

1.3 SUBMITTALS

- A. Submit product data for pipe casing, including diameter, thickness, and class of steel casing; accessories (casing insulators, end seals, vents); and casing backfill material in accordance with Section 31 00 00 – Earthwork.
- B. Submit a jacking/boring plan, to include:
 - 1. Detailed locations and sizes of all boring or jacking and receiving pits.

2. Boring methods and equipment.
 3. Casing installation schedules which include schedules of excavation, pipeline installation, and backfill operations.
 4. Permits associated with the boring or jacking operations.
 5. Barricades, signing, and traffic control.
- C. Submit, for informational purposes only, shop drawings of trench safety system (shoring, bracing, etc.) if jacking pit to be excavated is over 4 feet deep.
- D. Submit a dewatering plan in the event surface or groundwater are encountered.

1.4 QUALITY ASSURANCE

- A. All boring or jacking operations shall be done by a qualified Contractor with at least 5 years of experience involving work of a similar nature.
- B. Welding Requirements: All welding procedures used to fabricate steel casings shall be prequalified under the provisions of ANSI/AWS 01.1. Welding procedures shall be required for, but not necessarily limited to, longitudinal and girth or special welds for pipe, cylinders, casing joint welds, reinforcing plates and grout coupling connections.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Steel Casing: Steel casings shall be welded steel pipe of minimum inner diameter at least 2 inches larger than the OD of the carrier pipes largest diameter, 35,000 psi yield strength, and wall thicknesses of 0.3125 inches. The steel casing pipe shall conform to the requirements of ASTM A252 and ANSI/AWWA C200. The Contractor may select a greater diameter or thickness for the method of work and loadings involved, site conditions, and possible interferences at no additional cost to the Owner.
1. Casing section joints shall be butt welded, lap welded, or welded using butt straps in the field. Each end of the casing for butt welding shall be prepared by providing a 30-degree chamfer on the outside edges of each pipe end, with a 1/8 inch root land.
 2. The Contractor shall provide a pipe nipple at each end for a casing vent as shown on the Drawings.
 3. Casing joints shall conform to the requirements of AWWA C206. Joints between sections shall be completely welded to the preceding sections. Prior to welding joints, the contractor shall ensure that both ends of the casing sections being welded are square.

- B. Annular Space Backfill: Grout or sand for filling the annular space between the carrier pipe and the casing pipe shall be as specified in the Oregon Standard Specifications for Construction, paragraph 00406.13 – Grout and 00406.14 - Sand.
- C. Casing Insulators: Calpico Model M-8-SS or approved equal.
- D. Casing End Seals: Calpico Model W or approved equal.

PART 3 - EXECUTION

3.1 UTILITY NOTIFICATION

- A. No specific additional requirements.

3.2 CONSTRUCTION SAFETY

- A. For all excavation, boring, and jacking operations, meet or exceed safety requirements of OSHA and the affected utilities.

3.3 PROTECTION OF PROPERTY AND UTILITIES

- A. Refer to Section 31 23 33 – Trenching and Backfill, and to Appendix for specific requirements per railroad agreement and ODOT permit.

3.4 INSTALLATION OF STEEL CASING

- A. Jacking Head: A steel jacking head shall be fitted to the lead section of the casing in such a manner that it extends around the entire outer surface of the steel casing and projects at least 18 inches beyond the driving end of the casing. The jacking head shall not protrude more than 1/2-inch outside of the outer casing surface. The head shall be securely anchored to prevent any wobble or alignment variation during the boring or jacking operations. To minimize voids outside the casing, excavation shall be carried out entirely within the jacking head and not in advance of the head. Excavated materials shall be removed from the casing as the boring or jacking operation progresses and no accumulation of excavated materials within the casing shall be permitted.
- B. Jacking Pit: The excavations for the boring or jacking operations shall be adequately shored to safeguard existing substructures and surface improvements and to ensure against ground movement in the vicinity of the jack supports. Heavy guide timber, structural steel, or concrete cradles of sufficient length shall be provided to assure accurate control of boring or jacking alignment. The Contractor shall provide adequate space within the excavation to permit the insertion of the lengths of casing to be bored or jacked. Timbers and structural steel sections shall be securely placed to ensure action of the jacks in line with the axis of the casing. A bearing block, consisting of a timber or structural steel framework, shall be constructed between the jacks and the end of the casing to provide uniform end bearing over the perimeter of the casing and distribute the jacking pressure evenly.
- C. Control of Alignment and Grade: The Contractor shall control the application of the jacking pressure and excavation of materials ahead of the casing as it advances to prevent the casing from becoming earthbound or deviating from the required line and grade. The Contractor

shall restrict the excavation of the materials to the least clearance necessary to prevent binding in order to avoid loss of ground and consequent settlement or possible damage to overlying structures.

1. Allowable grade deviations in horizontal and vertical alignments shall be no greater than 0.2 feet per 100 feet in any direction over the length of the jacking or boring to a maximum of 0.5 feet at any point.
- D. Installation: The installation of the casing shall be in accordance with the Contract Documents and subject to the approval of the agency having jurisdiction over the area containing the boring or jacking operations.

3.5 INSTALLATION OF CARRIER PIPE

- A. Joints: All joints of the carrier pipe within the casing shall be joined in accordance with the specification section for the type of pipe material installed.
- B. Annular Fill: Pressure test carrier pipe prior to placing annular fill. Fill the annular space between the casing and the carrier pipe with approved grout or sand to prevent pipe flotation. Perform filling as specified in the Oregon Standard Specifications for Construction, paragraph 00406.48 – Placing Fill in Casing. Fill carrier pipe with water prior to placing fill in annular space. Do not induce pressures that will collapse or distort the carrier pipe.
- C. Testing of the Carrier Pipe: Hydrostatic testing of the carrier pipe shall be performed in accordance with the pipeline specifications prior to placing annular fill and the casing end seals.
- D. Casing Insulators (Spacers): Casing insulators shall have a maximum spacing of 6-ft along pipe lengths and have a maximum of 1-ft spacing from each pipe joint.
- E. End Seals: Install end seal at each end of the carrier pipe to ensure a tight seal between the carrier pipe and casing pipe. End seals shall be synthetic neoprene rubber pull-on type end seals with stainless steel bands.
- F. Closing of Pits: After jacking equipment and excavated materials from the boring or jacking operations have been removed from the jacking pit, the Contractor shall prepare the bottom of the jacking pit as a pipe foundation. The Contractor shall remove all loose and disturbed materials below pipe grade to undisturbed earth and recompact the material to 95% of maximum density.

END OF SECTION 33 05 07.23

SECTION 40 05 00 – PIPING, GENERAL

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. The Contractor shall provide the piping systems indicated, complete and operable, in accordance with the Contract Documents.
- B. The mechanical drawings define the general layout, configuration, routing, method of support, pipe size, and pipe type. The mechanical drawings are not pipe construction or fabrication drawings. Where pipe supports and spacings are indicated on the drawings and referenced to a standard detail, the Contractor shall use that detail. Where pipe supports are not indicated on the drawings, it is the Contractor's responsibility to develop the details necessary to design and construct all mechanical piping systems, to accommodate the specified equipment, and to provide all spacers, adapters, and connectors for a complete and functional system.
- C. Piping system drawings are diagrammatic and are intended to show approximate location of equipment and piping. Dimensions given on the plans in figures take precedence over scaled dimensions. Verify dimensions, whether in figures or scaled, in the field. The Contractor shall be responsible for the installation of complete and workable systems whether completely detailed on the plans or not.
- D. The Contractor shall ascertain locations of apparatus, fixtures, equipment, and piping in the field, and layout work accordingly. The Owner reserves the right to have minor changes in location of piping and equipment made up to the time of installation without additional cost.

1.2 REFERENCE STANDARDS

- A. All mechanical work shall conform to latest edition of the International Mechanical Code.
- B. Commercial Standards
 - 1. ANSI/ASME B 1.20.1 Pipe Threads, General Purpose (inch)
 - 2. ANSI B 16.5 Pipe Flanges and Flanged Fittings, Steel Nickel Alloy and other Special Alloys
 - 3. ASTM A 325 Specification for High-Strength Bolts for Structural Steel Joints
 - 4. ASTM D 792 Test Methods for Specific Gravity and Density of Plastics by Displacement
 - 5. ASTM D 2000 Classification System for Rubber Products in Automotive Applications

1.3 CONTRACTOR SUBMITTALS

- A. Furnish submittals in accordance with Section 01 33 00 - Submittal Procedures.
- B. At a minimum, the following information shall be submitted for review and approval prior to ordering piping materials.
 - 1. Manufacturer specifications for each pipe type, including all references to acceptable standards as referenced in each individual pipe section.
 - 2. Indicate fittings and manufacturer recommended connections.
 - 3. Pressure ratings.
 - 4. Lining and coating type, thickness, and application procedures.
 - 5. Fitting types and manufacturer recommended applications and acceptable installation procedures and tolerances.
 - 6. Provide NSF 61 certification for all products to be in contact with potable water.
- C. Fabrication Drawings: The Contractor shall submit piping fabrication drawings show in all fittings, pipe material, supports, and all dimensions for proper installation of piping system as illustrated on mechanical drawings.

1.4 QUALITY CONTROL

- A. Certifications: Necessary certificates, test reports, and affidavits of compliance shall be obtained by the Contractor. A certification from the pipe fabricator that each pipe will be manufactured subject to the fabricator's or a recognized quality control program. An outline of the program shall be submitted to the Engineer for review prior to the manufacture of any pipe.
- B. Where the assistance of a manufacturer's service representative is advisable, in order to obtain recommended pipe joints, supports, or special connections, the Contractor shall furnish such assistance at no additional cost to the Owner.
- C. All pipe, fittings, and gaskets used in potable water systems shall be compliant with NSF/ANSI 61, 14, and 372.

PART 2 - PRODUCTS

2.1 GENERAL

- A. Extent of Work: Pipes, fittings, and appurtenances shall be provided in accordance with the requirements of the applicable sections of Divisions 31 and 40 and as indicated. Materials in contact with potable water shall be listed as compliant with NSF Standard 61.
- B. Lining: Application, thickness, and curing of pipe lining shall be in accordance with the applicable sections of Division 40 unless otherwise indicated. Fittings and couplings shall

be lined with the same material required for the pipeline in which the fittings and couplings are installed.

- C. Coating: Application, thickness, and curing of pipe coating shall be in accordance with the applicable sections of Division unless otherwise indicated. Pipes above ground or in structures shall be field-coated in accordance with Section 09 90 00 – Painting and Coating.
- D. Pressure Rating: Piping systems shall be designed for the maximum expected pressure as indicated on the drawings and individual pipe specifications.
- E. Tests: Except where otherwise indicated, materials used in the manufacture of the pipe shall be tested in accordance with the applicable specifications and standards. Welds shall be tested as indicated. The Contractor shall be responsible for performing material tests.
- F. Joining Dissimilar Materials: Di-electric unions shall be used at the junction of two dissimilar metallic pipes as required by the local adopted plumbing code. It shall be the responsibility of the Contractor to identify any such conditions whether indicated in the Project Drawings or not. Di-electric unions shall be lead free, appropriate for the two dissimilar metals and be stamped with an approved UPC seal.

2.2 PIPE FLANGES

- A. Flanges shall have flat faces and shall be attached with bolt holes straddling the vertical axis of the pipe unless otherwise indicated. Attachment of the flanges to the pipe shall conform to the applicable requirements of AWWA C207. Flange faces shall be perpendicular to the axis of the adjoining pipe. Flanges for miscellaneous small diameter pipes shall be in accordance with the standards indicated for these pipes. Flanges shall have pressure ranges corresponding to the following:
 - 1. 150 PSI or less: Flanges shall conform to either AWWA C207 - Steel Pipe Flanges for Waterworks Service-Sizes 4 In. Through 144 In., Class D, or ASME B16.5 - Pipe Flanges and Flanged Fittings, 150 lb. class.
 - 2. 150 to 275 PSI: Flanges shall conform to either AWWA C207 Class E or Class F, or ASME B16.5 150 lb. class.
 - 3. 275 to 700 PSI: Flanges shall conform to ASME B16.5, 300 lb. class.
 - 4. AWWA flanges shall not be exposed to test pressures greater than 125 percent of rated capacity. For higher test pressures, the next higher rated AWWA flange or an ANSI-rated flange shall be selected.
- B. Blind Flanges: Blind flanges shall be in accordance with AWWA C207, or as indicated for miscellaneous small pipes. Blind flanges for pipe sizes 12-inches and greater shall be provided with lifting eyes in the form of welded or screwed eye bolts.
- C. Flange Coating: Machined faces of metal blind flanges and pipe flanges shall be coated with a temporary rust-inhibitive coating to protect the metal until the installation is completed.

- D. Flange Bolts: Bolts and nuts shall conform to Section 05 50 00 – Metal Fabrications. All-thread studs shall be used on all valve flange connections, where space restrictions preclude the use of regular bolts.
- E. Insulating Flanges: Insulated flanges shall have bolt holes 1/4-inch diameter greater than the bolt diameter.

2.3 INSULATING CONNECTIONS

- A. Insulating Flange Sets: Unless otherwise specified, insulating flange sets shall be provided at all locations where dissimilar metals are connected. Each insulating flange set shall consist of an insulating gasket, insulating sleeves and washers, and a steel washer. Insulating sleeves and washers shall be one piece when flange bolt diameter is 1-1/2 inch or smaller and shall be made of acetal resin. For bolt diameters larger than 1-1/2 inch, insulating sleeves and washers shall be two (2) pieces and shall be made of polyethylene or phenolic material. Steel washers shall be in accordance with ASTM A 325 - Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength. Insulating gaskets shall be full-face.
 - 1. Insulating Flange Manufacturers, or equal
 - a. JM Red Devil, Type E
 - b. Maloney Pipeline Products Co., Houston
 - c. PSI Products, Inc., (Frost Engineering Service Co., Costa Mesa, California).
- B. Threaded insulating bushings, unions, or couplings, as appropriate, shall be used for joining threaded pipes of dissimilar metals and for piping systems where corrosion control and cathodic protection are involved. Threaded insulating connections shall be of nylon, Teflon, polycarbonate, polyethylene, or other non-conductive materials, and shall have ratings and properties to suit the service and loading conditions.
- C. Insulating Sleeve Couplings: Where insulating couplings are required, both ends of the coupling shall have a wedge-shaped gasket which assembles over a sleeve of an insulating compound material compatible with the fluid service in order to obtain insulation of all coupling metal parts from the pipe

2.4 SLEEVE-TYPE COUPLINGS

- A. Sleeve-type couplings shall be provided where indicated. The Contractor will not be allowed to substitute a sleeve-split coupling for the sleeve coupling unless approved by the Engineer.
- B. Construction: Sleeve couplings shall be in accordance with AWWA C219 - Standard for Bolted Sleeve- Type Couplings for Plain-End Pipe. Couplings shall be steel with steel bolts, without pipe stop. Couplings shall be of sizes to fit the pipe and fittings indicated.
 - 1. The middle ring shall be not less than 1/4-inch thick or at least the same wall thickness as the pipe to which the coupling is connected. If the strength of the

middle ring material is less than the strength of the pipe material, the thickness of the middle ring shall be increased to have the same strength as the pipe. Buried sleeve-type couplings shall be epoxy-coated at the factory as indicated.

2. The coupling shall be either 5- or 7- inches long for sizes up to and including 30-inches and 10-inches long for sizes greater than 30-inches, for standard steel couplings, and 16-inches long for long-sleeve couplings.
 3. The followers shall be single-piece contoured mill sections welded and cold-expanded as required for the middle rings, and of sufficient strength to accommodate the number of bolts necessary to obtain adequate gasket pressures without excessive rolling. The shape of the follower shall be of such design as to provide positive confinement of the gasket.
 4. Bolts and nuts shall conform to the requirements of Section 05 50 00 – Metal Fabrications.
- C. Pipe Preparation: Where indicated, the ends of the pipe shall be prepared for flexible steel couplings. Plain ends for use with couplings shall be smooth and round for a distance of 12-inches from the ends of the pipe, with outside diameter not more than 1/64-inch smaller than the nominal outside diameter of the pipe. The middle ring shall be tested by cold-expanding a minimum of one percent beyond the yield point, to proof- test the weld to the strength of the parent metal. The weld of the middle ring shall be subjected to air test for porosity.

2.5 GASKETS

- A. Gaskets for wastewater and sewerage applications shall be Buna N (NBR), Grade 60, or equivalent suitable elastomer and shall be rated for a temperature range of -30°F to 150°F.
- B. Gaskets for drinking water and tertiary effluent applications shall be SBR (Styrene Butadiene) or EPDM (Ethylene Propylene Diene Monomer), and suitable for a temperature range of -30 °F to 150 °F minimum. Provide non-asbestos compressed fiber gaskets when system working pressure exceeds 150 psi.
- C. All gaskets for potable water systems shall be NSF 61 Certified.
- D. Gaskets for compressed air pipe shall be Viton and rated for a working temperature of 300 °F, minimum.
- E. The flanged joint rating for pressure and temperature performance shall match or exceed the working pressure and temperature of the pipe system in which it is installed.
- F. Flange gaskets in ductile iron pipe shall be full-faced type with a minimum thickness of 1/8 inch. Flanged gaskets shall be the high performance type satisfying the special requirements of ANSI/AWWA C111/A21.11, Appendix C, Section C.2 with a minimum of two bulb type rings molded into both faces of the gasket.
- G. Flange gaskets for steel and stainless steel pipe shall comply with ASME B16.21 for ASME B16.5 flanged joints. Gaskets shall be full-face type with a minimum thickness of 1/8 inch for Class 150 pipe flanges and fittings.

- H. Flange gaskets for Sch. 40 and Sch. 80 PVC and CPVC shall be 1/8" thick, full face gaskets with ANSI Class 150 bolt pattern and a Shore "A" Durometer of approximately 70.
- I. Gaskets in bell ends of PVC gravity and pressure pipe shall be Rieber-style with a steel insert in the gasket that complies with ASTM F477. Gaskets in ductile iron pipe bells shall be a molded synthetic rubber ring gasket consisting of two hardnesses, shaped to fit the gasket socket in accordance with ANSI/AWWA C111/A21.11.

2.6 FLANGE COUPLING ADAPTERS

- A. Flange coupling adapters shall only be used where shown on the drawings or accepted by the Engineer. Otherwise, the Contractor shall only use dismantling joints if additional flexibility is required for the pipe installation.
- B. Flange coupling adapters shall be designed for a water working pressure not less than the design pressure of the pipe on which they are to be installed, and shall be equipped with suitable rubber gaskets.
- C. Couplings shall be Romac RFCA, or equal. Thrust ties shall be provided for all flexible couplings to sustain the force developed by the test pressure. Anchor studs will not be acceptable.

2.7 MECHANICAL JOINT ADAPTERS

- A. Flanged joints shall not be allowed in buried applications unless shown on the drawings. If there is limited space for installation, mechanical joint fittings may be connected with a MJ x MJ adapter.
- B. MJ adapters and spacers shall be constructed of high strength ductile iron that complies with ASTM A536 Grade 65-45-12.
- C. The hardware kit shall consist of Type 316 t-head and pigtail bolts.
- D. Gasket materials shall comply with the gasket section of this specification section.
- E. Adapter shall be rated for 350 psi working pressure in sizes 3" to 24" and 250 psi working pressure in sizes 30" through 36".

2.8 MISCELLANEOUS

- A. Restrained Joints: Sleeve-type couplings on pressure lines shall be harnessed unless thrust restraint is provided by other means. Harnesses shall be designed by the pipe manufacturer in accordance with Manual M11, or as indicated. Harness sets shall be designed for the maximum test pressure of the pipe in which they are installed. Where harness sets are installed near the suction and discharge of the pump. Harness bolts shall have zero elongation to prevent misalignment of the pump imparted by the thrust within the piping system. Thrust restraints systems shall be manufactured by Victaulic, "Depend-O-Lok"; Dresser, "Style 38"; Ford Meter Box Co., Inc., "Style FC1 or FC3"; and Smith-Blair, "Style 411."

- B. Pipe Threads: Pipe threads shall be in accordance with ANSI/ASME B1.20.1 - Pipe Threads, General Purpose (inch), and be made up with Teflon tape unless otherwise indicated.

2.9 TAPPING SADDLES

- A. Tapping saddles shall have a ductile iron body meeting ASTM A536, Grade 65-45-12. Gasket shall be Nitrile Butadiene Rubber (NBR) for water and sewer service. Saddles shall have two, 2" straps constructed of Type 304 stainless steel with GMAW and GTAW welds. Stainless steel shall be passivated for corrosion resistance. Casting shall be coated with fusion bonded black nylon, 10 – 12 mils thick, with a dielectric strength of 1,000 v/mil. Threads as required for installation of instrumentation.
- B. Bolts, nuts and washers shall be Type 304 (18-8) heavy gauge stainless steel.
- C. Saddles shall comply with AWWA C800 and shall have a pressure rating of 350 psi for pipe sizes up to 24 inch.
- D. Provide Romac 202 service saddles or equivalent.

2.10 THRUST BLOCKS

- A. Concrete to have a minimum compressive strength of 2,500 psi at 7 days. Place in accordance with plan details.

2.11 MECHANICAL RESTRAINT

- A. Type: Standard mechanical joint restraint gland, restraint devices for MJ fittings and appurtenances to conform to ANSI/AWWA C111 or ANSI/AWWA C153.
- B. Product: EBAA Iron Series 2000 PV (for PVC Pipe) or EBAA Iron Series 1100 Megalug (for DIP) or approved equal, and to meet requirements of ASTM F1674.
- C. Application: Approved for above ground installation and below ground where specifically specified on the Plans. Also, mechanical restraint shall be installed in locations where the pipeline must be used immediately as a temporary restraint while thrust blocks cure.
- D. Pipe joints shall be restrained 30 ft. or a minimum of two pipe joints (whichever is longer) upstream and downstream of a mechanically restrained fitting.

2.12 BOLTS AND ANCHORS

- A. Bolts and anchors for fittings, pipe couplings, valves, piping and accessories shall comply with Section 05 50 00 – Metal Fabrications.

2.13 POLYETHYLENE PIPE WRAP

- A. Polyethylene encasement shall comply with ISO 8180, ANSI A21.5, AWWA C105, and ASTM A674. Utilize Protective Wrap V-Bio or approved equal. Polyethylene encasement shall be installed on all buried pipe, valves, and fittings (including all nuts, bolts, and other

apparatuses installed below grade) per manufacturers recommendations and shall meet all the requirements of AWWA C105/A21.5 standard for polyethylene encasement.

PART 3 - EXECUTION

3.1 GENERAL

- A. Piping, fittings, and appurtenances shall be installed in accordance with the requirements of applicable sections of Division 31 and Division 40. Proprietary manufactured couplings shall be installed in accordance with the coupling manufacturer's recommendation.
- B. Care shall be taken to ensure that piping flanges, mechanical-type couplings, sleeve-type couplings, flexible connectors, and expansion joints are property installed as follows:
 - 1. Gasket surfaces shall be carefully cleaned and inspected prior to making up the connection. Each gasket shall be centered properly on the contact surfaces.
 - 2. Connections shall be installed to prevent inducing stress to the piping system or the equipment to which the piping is connected. Contact surfaces for flanges, couplings, and piping ends shall be aligned parallel, concentric, and square to each axis at the piping connections.
 - 3. Bolts shall be initially hand-tightened with the piping connections properly aligned. Bolts shall be tightened with a torque wrench in a staggered sequence to the AISC recommended torque for the bolt material.
 - 4. Groove ends shall be clean and free from indentations, projections, and roll marks in the area from the pipe end to the groove.
 - 5. After installation, joints shall meet the indicated leakage rate. Flanges shall not be deformed nor cracked.
- C. Lined Piping Systems: The lining manufacturer shall take full responsibility for the complete, final product and its application. Pipe ends and joints of lined pipes at screwed flanges shall be epoxy-coated to assure continuous protection.
- D. Cleanup: After completion of the Work, cuttings, joining and wrapping materials, and other scattered debris shall be removed from the Site. The entire piping system shall be handed over in a clean and functional condition.
- E. Protective Coating: All pipes shall be coated in accordance with Section 09 90 00- Painting and Coating.

3.2 MATERIAL DELIVERY, STORAGE, AND PROTECTION

- A. Piping materials, fittings, valves, and accessories shall be delivered in a clean and undamaged condition and stored off the ground for protection against oxidation caused by ground contact. Defective or damaged materials shall be replaced with new materials.

3.3 PIPING INSTALLATION

- A. Cut piping accurately for fabrication to measurements established at the construction site and work into place without springing and/or forcing.
- B. Remove burrs and cutting slag from pipe by reaming or other approved cleaning methods.
- C. Make changes in direction with proper fittings.
- D. Arrange piping so as not to interfere with the removal of other equipment, ducts, or devices. Do not block access doors, windows, or access openings. Provide unions in the piping at connections to all equipment. Unions must be accessible.
- E. Make connections of dissimilar metals (such as copper and steel) with insulating couplings suitable for at least 175 psi working pressure at 250 degrees F.
- F. Cap or plug open ends of pipes and equipment with PVC caps or expanding neoprene plugs to keep dirt and other foreign materials out of the system. Plugs of rags, wool, cotton, waste, or similar materials are not acceptable.
- G. Install all piping systems so they can easily be drained. Provide hose bibs at low point of water lines.
- H. Slope all soil and waste lines within the building at 1/4 inch fall per foot in the direction of flow unless otherwise noted on drawings.

3.4 YARD PIPING INSTALLATION

- A. If excavation enters an area of petroleum or other contamination, stop work and notify the Engineer for verification of piping and gasket material usage.
- B. Install pipe per manufacturer's specific instructions. Do not install pipe without continuous support under the barrel or where a dry joint connection cannot be made.
- C. Install pipe with a minimum of 5 feet of cover or as indicated on the drawings. Insure that the pipe has adequate cover from sub-grade as listed above and installed below frost depth.
- D. Pipe bedding is required; bed pipe in accordance with Section 31 23 33 – Trenching and Backfilling.
- E. Mechanical Joint Pipe
 1. Gland shall be placed on spigot end of pipe with lip extension toward the joint, and the rubber gasket shall be slipped on the pipe with its thick edge toward the gland.
 2. The gasket and joint surfaces shall be thoroughly wetted using a soapy solution made with vegetable soap or similar soap as recommended by the manufacturer.
 3. After inserting the spigot end of the pipe to full depth and pressing the gasket firmly into place in the bell, the gland shall be moved into place, the bolts inserted, and the nuts finger tightened. The nuts shall then be tightened gradually with a wrench - a half turn at a time, moving wrench from one nut to another repeating until all nuts are uniformly tight. Final tightness shall be with a torque wrench: 60

- 90 pounds torque for ¾” bolts. Install gland retainer on thrust retainer glands as recommended by the manufacturer.

- F. Pressure Pipelines: All buried pipe installations shall be capable of withstanding maximum thrust at test pressure; provide thrust blocks at each angled fitting, tee, cross, reducer, cap, and plug, or mechanically restrained joints where shown. All buried valves shall be mechanically restrained in accordance with this specification section. For thrust blocks, provide bearing area against undisturbed earth. Place such that thrust block may be removed in the future without damage to pipe or fitting. Place V-Bio polyethylene plastic between thrust blocks and fittings.
- G. Furnish and install plugs or caps on pipe ends and stub-outs. Insure watertight connection. Provide a bell end or joint suitable for making a gasketed connection when the pipeline is extended. Thrust block all pressure pipe stubs. Protect against displacement during backfilling operations and testing.
- H. When pipe installation is suspended at the end of each day, ensure that no dirt or other foreign material is allowed in pipe or fittings. Block or plug the open end of the pipe to prevent creep, uplift or floating, entrance of water, dirt, or other materials.
- I. Place pipe anchors on all pipes installed on slopes 20% and greater.
- J. Do not operate existing or active valves without the authorization of the Engineer.
- K. Install pipe end markers to surface. Pipe marker to be 2x4 wood stud, painted green for sewer, purple for reclaimed or utility water or irrigation, or blue for potable water. Attach finder wire attached to stub and 2x4.
- L. Assure that continuity is maintained in locating wire, in accordance with Section 31 23 33 – Trenching and Backfilling.

3.5 WORKMANSHIP

- A. Care shall be taken at all times to protect floors, stairways, and walls during the make-up, erection of piping, and placing of equipment. The Contractor shall remove all stains and repair all damage before final acceptance of the work.

3.6 TESTING

- A. Test all pressure piping according to the requirements of Section 33 01 12 – Site Pressure Pipe Testing and Disinfection.
- B. Repair defects which develop under tests promptly and repeat tests. No caulking of screwed joints, cracks, or holes will be permitted. Repair leaks in screwed joints by replacing pipe or fitting or both with new material.
- C. Repair leaks in copper tubing by melting out joint, thoroughly cleaning both tubing and fitting, and resoldering.

3.7 CLEANUP

- A. After completion of the work, all remaining pipe cuttings, joining and wrapping materials, and other scattered debris, shall be removed from the site. The entire piping system shall be handed over in a clean and functional condition.

END OF SECTION 40 05 00

SECTION 40 05 19 - DUCTILE IRON PIPE AND FITTINGS

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. Furnish all labor, materials and equipment as required for the installation of all ductile iron pipe, couplings, fittings, and jointing materials where shown on the Plans, including all piping installed under buildings that is connected to PVC yard piping.
- B. Coordinate Work with all other trades.

1.2 REFERENCE STANDARDS

- A. AWWA C104 Cement-Mortar Lining for Ductile-Iron and Grey-Iron Pipe and Fittings for Water
- B. AWWA C105 Polyethylene Encasement for Ductile-Iron Pipe Systems
- C. AWWA C110 Ductile-Iron and Gray-Fittings, 3 in through 48 in for water
- D. AWWA C111 Rubber Gasket Joints for Ductile-Iron and Grey-Iron Pressure Pipe and Fittings
- E. AWWA C115 Flanged Cast-Iron and Ductile-Iron Pipe with Threaded Flanges
- F. AWWA C151 Ductile-Iron Pipe, Centrifugally Cast in Metal Molds or Sand Lined Molds, for Water or Other Liquids
- G. AWWA C153 Grey-Iron and Ductile-Iron Fittings, 3-inch through 48-inch, for Water and Other Liquids
- H. AWWA C600 Installation of Ductile-Iron Water Mains and Their Appurtenances
- I. State Plumbing Code, as applicable.

1.3 SUBMITTALS

- A. Submit shop drawings in accordance with Section 01 33 00 – Submittal Procedures and Section 40 05 00 – Piping, General and include, but not limited to the following information:
 - 1. Pipe Manufacturer information, including pipe class and pressure rating and joint design.
 - 2. Pipe Manufacturer information regarding epoxy, glass, and cement-mortar lining, including lining thickness and descriptions of material properties.

3. Certifications: The Contractor shall furnish a certified affidavit of compliance for all pipe and other products or materials furnished under this Section and as specified in the referenced standard and the following supplemental requirements:
 - a. Physical and chemical properties.
 - b. Hydrostatic test reports.
4. Submit manufacturer's certification that pipe and fittings meet or exceed specified requirements.

1.4 QUALITY ASSURANCE

- A. Tests: Except as modified herein, all materials used in the manufacture of the pipe shall be tested in accordance with the requirements of the referenced standards as applicable.
 1. The Contractor shall perform said material tests at no additional cost to the Owner. The Engineer shall have the right to witness all testing conducted by the Contractor; provided, that the Contractor's schedule is not delayed for the convenience of the Engineer.
- B. Reject any pipe which does not conform to specifications or is cracked, chipped, or otherwise unacceptable.
- C. Use the type, size, and strength rating of the pipe as specified in the proposal or as shown on the Plans.

PART 2 - PRODUCTS

2.1 GENERAL

- A. All pipe and fittings used in potable water systems shall be compliant with NSF/ANSI 61, 14, and 372.

2.2 MATERIALS

- A. Use ductile iron pipe conforming to AWWA C151 pressure class 250 minimum unless otherwise required by the plans. Nominal pipe laying lengths shall be 20 ft. The pipe and associated fittings shall be of the diameter and class indicated. The interior lining shall be as indicated in the Pipe Schedule and as described below. Exterior coatings are described in 2.1.I.
- B. Use Class 150 grey-iron or ductile iron fittings conforming to AWWA C153 unless otherwise required by the Plans.
- C. Use flanged fittings, spools and flanged couplings for all above grade piping whether shown or not and for buried locations if indicated on the Plans to provide a complete functional pipe system. Fittings shall conform to AWWA C110, C111, and C115. All valve and equipment connections shall be flanged.

- D. Use mechanical joint fittings, spools, and couplings for all below grade piping whether shown or not and for above grade locations if mechanically restrained and shown on the Plans to provide a complete functional pipe system. Pipe and fittings shall conform to AWWA C110, C111, and C153. The pipe manufacturer shall provide gasket bolt sets for each pipe and spool provided. All buried valve connections shall be mechanical joint.
- E. Joint Design: Ductile iron pipe and fittings shall be furnished with mechanical joints, push-on joints, flanged joints, or restrained joints as required.
1. Mechanical and push-on joint shall conform to AWWA C111. Mechanical joints shall be installed with little or no deflection. Following complete assembly, the joint can be deflected as necessary.
 2. Flanged joints shall conform to AWWA C115. Where threaded flanges are provided, the pipe wall thickness under the cut threads shall not be less than the calculated net thickness required for the pressure class of the pipe.
 3. Restrained joints shall be “Flex-Ring” restrained joint by American Ductile Iron Pipe, “TR Flex” restrained joint by U.S. Pipe, Griffen BOLT-LOK or MECH-LOK or equal.
 4. When ductile iron fittings are called out to be mechanically restrained on the Plans, mechanical restraint shall comply with Section 40 05 00 – Piping, General, 2.15. In addition, the pipe joints shall be restrained 30 ft. or a minimum of two pipe joints (whichever is longer) upstream and downstream of a mechanically restrained fitting.
- F. Cement-Mortar Lining: Except as otherwise provided herein, interior surfaces of all ductile iron pipe, fittings, and specials used for potable water and non-potable water service (i.e. tertiary effluent) shall be cleaned and lined in the shop with cement-mortar lining applied centrifugally in conformity with AWWA C104. During the lining operation and thereafter, the pipe shall be maintained in a round condition by suitable bracing or strutting. The lining machines shall be a type that has been used successfully for similar work. Every precaution shall be taken to prevent damage to the lining. If lining is damaged or found fault at the Site, the damaged or unsatisfactory portions shall be replaced with lining conforming to these specifications.
1. Cement: Cement for mortar lining shall conform to the requirements of AWWA C104; provided, that cement for mortar lining shall be Type II or V. Cement shall not originate from kilns that burn metal-rich hazardous waste fuel, nor shall a fly ash or pozzolan be used as a cement replacement.
 2. The minimum lining thickness shall be double the thickness defined by AWWA C104.
 3. Protection of Pipe Lining/Interior: Shop-applied cement mortar lining shall be given a seal coat of asphaltic material in conformance with AWWA C104.
- G. Exterior Coating:

1. All buried mechanical joints, piping and fittings shall be wrapped with a polyethylene encasement as specified in Section 40 05 00 – Piping, General. All buried ductile iron piping shall be provided with a bituminous tar coating on the pipe exterior.
- H. Bolts and Nuts: The flange and MJ bolts shall comply with the material specified in Section 05 50 00 – Metal Fabrications.
- I. Gaskets shall be as specified in Section 40 05 00 – Piping, General.

PART 3 - EXECUTION

3.1 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Protect pipe and components against dirt and damage during shipment and storage.
- B. The pipe shall be handled according to the manufacturer's specifications to prevent damage to the pipe coating/exterior. The use of chains, hooks, or other equipment that might damage the pipe coating/exterior is prohibited. Stockpiled pipe shall be supported on padded skids, sand or earth berms free of rock exceeding 3 inches in diameter, sand bags, or suitable means so the coating will not be damaged. The pipe shall not be rolled and shall be secured to prevent accidental rolling.
- C. Keep jointing material sealed when not in use.
- D. Unload and string out pipe in accordance with manufacturer's recommendations and in a manner approved by the Engineer.

3.2 INSTALLATION

- A. The pipe shall be installed in accordance with AWWA C600 and per manufacturer's specific instructions. Do not install pipe without continuous support under the barrel or where a dry joint connection cannot be made.
- B. Coat all mechanical joints with low density polyethylene film sleeve as per AWWA C105, except where concrete encased as shown.
- C. Where necessary to raise or lower the pipe due to unforeseen obstruction or other causes, the Engineer may change the alignment and/or the grades. Such change shall be made by the deflection of joints, by the use of bevel adapters, or by the use of additional fittings. However, in no case shall the deflection in the joint exceed 75 percent of the maximum deflection recommended by the pipe manufacturer. No joint shall be misfit any amount that will be detrimental to the strength and water tightness of the finished joint.

3.3 RUBBER GASKETED JOINTS

- A. Rubber Gasketed Joints.

1. For bell end pipe, the bell end of the pipe shall be thoroughly cleaned immediately before joining the pipe, and a clean rubber gasket shall be placed in the bell groove. The spigot end of the pipe and the inside surface of the gasket shall be carefully cleaned and lubricated. The lubricant shall be suitable for lubricating the parts of the joint for assembly.
 - a. For potable water pipe the lubricant shall be a compound listed as in compliance with NSF Standard 61. The lubricant shall be nontoxic, shall not support the growth of bacteria, and shall have no deleterious effects on the gasket material. The lubricant shall not impart taste or odor of water in the pipe. Tilting of the pipe to insert the spigot into the bell will not be permitted.
2. For mechanical joint pipe, once the gasket is placed over the plain end of the pipe and prior to assembly, the gasket shall be thoroughly lubricated so the gasket will “flow” into the wedge-shaped gasket seat during tightening of the bolts.

3.4 INSTALLATION OF PIPE APPURTENANCES

- A. Protection of Appurtenances: When the joining pipe is dielectric-coated, buried appurtenances shall be coated in kind. Where pipe is encased in polyethylene sleeves, buried appurtenances shall also be encased in polyethylene.
- B. Installation of Valves: Valves shall be handled in a manner to prevent any injury or damage to any part of the valve. Joints shall be thoroughly cleaned and prepared prior to installation. The Contractor shall adjust all stem packing and operate each valve prior to installation to insure proper operation.
- C. Valves shall be installed so that the valve stems are plumb in the location indicated.

3.5 PIPELINE TESTING

- A. All pipes shall be tested in accordance with Section 33 01 12 Inspection and Testing of Water Utilities or Section 33 05 05.41 Air Testing, as shown on the pipe test ID on the drawings. The Contractor shall furnish all test equipment, labor, material, and devices at no extra cost to the Owner. Leaks shall be repaired to the satisfaction of the Engineer, and the system shall be re-tested until no leaks are found at no extra cost to the Owner.

END OF SECTION 40 05 19

SECTION 40 05 31 – PVC PROCESS AND YARD PIPING

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. The Contractor shall provide polyvinyl chloride (PVC) pipe (pressure and gravity) and complete and in place, in accordance with the Contract Documents. PVC pipe shall be schedule 40, schedule 80, SDR 21, ASTM D3034, F679, or AWWA C900/C905 and in accordance with the Piping Schedule shown on the drawings.
- B. Refer to Section 40 05 00 – Piping, General for Process Interconnections for additional requirements.

1.2 REFERENCE STANDARDS

- A. ASTM D 1785 Poly Vinyl Chloride (PVC) Plastic Pipe, Schedules 40, 80, and 120
- B. ANSI/ASME B 16.5 Pipe Ranges and Flanged Fittings, Class 150
- C. ASTM D 2467 Socket-Type Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80
- D. ASTM F 1498 Taper Pipe Threads 60 Degrees for Thermoplastic Pipe and Fittings
- E. ASTM D 2241 PVC Pressure Rated Pipe SDR 21 and SDR 35
- F. ASTM D 3034 PVC, SDR 21 and SDR 35 Fittings
- G. AWWA C900 PVC Pressure Pipe and Fabricated Fittings
- H. ASTM D 2241 PVC Pressure Rated Pipe
- I. ASTM D 3034 Type PSM PVC Sewer Pipe and Fittings
- J. NSF/ANSI 14 Plastics Piping System Components and Related Materials
- K. NSF/ANSI 61 Drinking Water System Components – Health Effects
- L. NSF/ANSI 372 Drinking Water System Components – Lead Content

1.3 SUBMITTALS

- A. Submit shop drawings in accordance with Section 40 05 00 – Piping, General for Process Interconnections, and Section 01 33 00 – Submittal Procedures.

PART 2 - PRODUCTS

2.1 GENERAL

- A. All pipe and fittings used in potable water systems shall be compliant with NSF/ANSI 61, 14, and 372.

2.2 PIPE MATERIAL

- A. PVC Schedule 40 and 80 pressure pipe, sizes ½ inch to 16-inch, ASTM D 1785.
 - 1. Approved Use: As indicated in the Plans.
 - 2. Pipe: Schedule 40 and Schedule 80 pipe shall be iron pipe size (IPS), made from all new rigid polyvinyl chloride compounds with a cell class of 12454 as per ASTM D 1784. Pipe shall be NSF 61 compliant if indicated in the pipe schedule on the drawings. Operating temperature will be less than 140 degrees F.
 - 3. Joints:
 - a. Pipe joints shall be solvent-welded type with solvent cement and primer as recommended by the pipe manufacturer for the chemical to be used in the pipe. Solvent cements shall comply with ASTM D 2564. Primers shall comply with ASTM F656.
 - b. Schedule 80 screwed joints that are necessary to match up to threaded valves or fittings shall be made up with appropriate thread sealant, either paste or tape.
 - c. Flanged joints shall be made with Van-Stone type flanged connections.
 - 4. Fittings:
 - a. Schedule 80 Fittings: Injection molded PVC Schedule 80 fittings shall conform to ASTM D 2467; threaded fittings shall conform to ASTM D 2464. Fittings shall conform to NSF International Standard 61 if indicated on the drawings.
 - b. Schedule 40 Fittings: Injection molded PVC Schedule 40 fittings shall comply with ASTM D 2466.
 - c. Flanged Fittings: Flanged fittings shall be Van-Stone type, Schedule 80 fabricated PVC fittings with 150 lb. flanges conforming to ANSI/ASME B 16.5. Gaskets shall be ANSI 150 lb. full face, 1/8-inch thick Plain Rubber SBR with NSF 61 Certification for water and Nitrile Buna-N for wastewater service. Gasket material shall be suitable for the chemical service shall be provided.

- B. PVC Pressure Pipe Sizes 4-inch through 60-inch for Water Distribution, ANSI/AWWA C900.
 - 1. Approved Use: As indicated in the Plans.
 - 2. Dimension Ratio: DR 18.
 - 3. Joint: Bell and spigot end with ASTM F 477-02 elastomeric gaskets.
 - 4. Fittings: Ductile Iron as per Section 40 05 19 – Ductile Iron Pipe and Fittings.
- C. COUPLINGS
 - 1. Couplings shall be in accordance with Section 40 05 00 – Piping, General for Process Interconnections
- D. THRUST BLOCKS
 - 1. Thrust blocks shall be in accordance with Section 40 05 00 – Piping, General for Process Interconnections.
- E. MECHANICAL RESTRAINT
 - 1. Mechanical restraint shall be in accordance with Section 40 05 00 – Piping, General for Process Interconnections.

PART 3 - EXECUTION

3.1 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Protect pipe and components against dirt, damage and excessive sunlight during shipment and storage. Handle and store pipe to prevent damage or contamination.
- B. Verify compatibility of pipe type and fittings prior to installation.
- C. Keep jointing material sealed when not in use. Store gaskets in a cool, well-ventilated place and do not expose to the direct rays of the sun until immediately before joint assembly.

3.2 PIPE PREPARATION

- A. Prior to installation, each pipe length shall be carefully inspected, flushed clean of any debris or dust, and be straightened, if not true. Ends of threaded pipes shall be reamed and filed smooth. Pipe fittings shall be equally cleaned before assembly.

3.3 INSTALLATION

- A. PVC pipe shall be installed in a neat and workmanlike manner, properly aligned, and cut from measurements taken at the Site to avoid interferences with structural members, architectural features, openings, and equipment. Exposed pipe shall afford maximum headroom and access to equipment, and where necessary, piping shall be installed with sufficient slopes for venting or drainage of liquids and condensate to low points. It is recommended that the Contractor obtain the assistance of the pipe manufacturer's field representative to instruct the pipe fitters in the correct installation and support of PVC piping.
- B. Install pipe as per manufacturer's specific instructions. Do not install buried pipe without continuous support under the barrel or where a dry joint connection cannot be made.
- C. Install buried pipe with cover indicated in the plans. Ensure that the pipe has adequate cover from subgrade and is installed below frost depth.
- D. Supports and Anchors: Piping shall be firmly supported with fabricated or commercial hangers or supports in accordance with Section 40 05 07 – Hangers and Supports for Process Piping. Where necessary to avoid stress on equipment or structural members, the pipe shall be anchored or harnessed. Expansion joints and guides shall compensate for pipe expansion due to temperature changes.
- E. Valves and Unions: Unless otherwise indicated, connections to fixtures, groups of fixtures, and equipment shall be provided with a shutoff valve and union, unless the valve has flanged ends. Unions shall be provided at threaded valves, equipment, and other devices requiring occasional removal or disconnection. Valves and flanges attached to PVC pipe shall be provided with adequate supports.
- F. Control line and grade of the pipe installation by use of a pipeline laser. Limit variance of installed pipe from design line and grade to less than 0.02 feet, unless a smaller variance is necessary to prevent a level or negative slope.
- G. Furnish and install plugs or caps on pipe ends and stub-outs. Insure watertight connection. Provide a bell end or joint suitable for making a gasketed connection when the pipeline is extended. Thrust block all pressure pipe stubs. Protect against displacement during backfilling operations and testing.
- H. If excavation enters an area of petroleum or other contamination, stop Work and notify the Engineer for verification of piping and gasket material usage.
- I. When pipe installation is suspended, assure that no dirt or other foreign material is allowed in pipe or fittings. Block or plug the open end of the pipe to prevent creep, uplift or floating, entrance of water, dirt, or other materials.
- J. Joint Gap: Rubber gasket pipe shall be installed with maximum joint gaps not exceeding 75% of the manufacturer's recommended gap, at any point around the internal joint perimeter. Joint gaps shall be internally verified for each joint.

- K. Place thrust blocks at each angled fitting, tee, cross, reducer, cap, plug, and valve. Provide bearing area against undisturbed earth. Place such that thrust block may be removed in the future without damage to pipe or fitting. Place 6 mil polyethylene plastic between thrust blocks and fittings.
 - 1. Concrete thrust blocks shall be cured one (1) day before the pipeline may be filled with water, and three (3) days before the pipeline may be pressurized.
- L. Deflection: Long radius curves may be constructed by pulling the pipe at the joints. The maximum deflection angle at a pulled joint shall not exceed one degree (1°) or as recommended by the manufacturer, as long as the maximum joint gap does not exceed 75% of the manufacturer's recommended gap.
- M. Do not operate existing or active valves without the authorization of the Engineer.
- N. Pipe bedding is required, bed pipe in accordance with Section 31 23 33 – Trenching and Backfilling.
- O. Except as required for backfilling, prohibit walking or working on the pipe until backfilling of the trench has been completed. Provide temporary bridging over pipe as necessary to provide crossings for workers or equipment.
- P. Assure that continuity is maintained in locating wire, in accordance with Section 31 23 33 – Trenching and Backfilling.

3.4 PIPE JOINTS

- A. Threaded Joints: Pipe threads shall conform to ASTM F 1498 - Taper Pipe Threads 60 Degrees for Thermoplastic Pipe and Fittings, and shall be full and cleanly cut with sharp dies or molded. Joints shall be made with Teflon tape or thread sealant.
- B. Solvent-Welded Joints: Solvent-welded joints shall be made with fresh primer and solvent cement on clean, dry pipe ends. The primer and cement cans shall be kept closed at all times and the joints shall be made up at the recommended ambient temperatures, to the pipe or cement manufacturer's written recommendations. Pipe ends shall be inserted to the full depth of the socket.
- C. Flange Joints: Flanged joints shall be made with gaskets and Type 316 stainless steel bolts and nuts. Care shall be taken not to over-torque the bolts, in accordance with the manufacturer's written recommendations.
- D. Mechanical Joints: As per Section 40 05 00 – Piping, General for Process Interconnections.

3.5 INSPECTION AND FIELD TESTING

- A. Inspection: Finished installations shall be carefully inspected for proper joints and sufficient supports, anchoring, interferences, and damage to pipe, fittings, and coating. Damage shall be repaired to the satisfaction of the Engineer.

- B. Field Testing: The Contractor shall allow adequate time for the solvent cement joints to cure. Curing time shall be per the solvent cement manufacturer's recommendation. Prior to enclosure or burying, piping systems shall be pressure tested as required in 40 05 00 – Piping, General for Process Interconnections, without exceeding the tolerances listed in the Piping Schedule. Caution - Do not use air or gas for testing PVC pipe. Where no pressures are indicated, the pipes shall be subject to 1-1/2 times the maximum working pressure. The Contractor shall furnish all test equipment, labor, materials, and devices.
- C. Leakage shall be determined by loss of pressure. Fixtures, devices, or other accessories that would be damaged if subjected to the test pressure shall be disconnected and ends of the branch lines shall be plugged or capped as appropriate during the testing procedures.
- D. Leaks shall be repaired to the satisfaction of the Engineer, and the system shall be re-tested until no leaks are found at Contractor's expense.
- E. Disinfect 1W and 2W water service lines in accordance with Section 33 01 12 – Inspection and Testing of Water Utilities.

END OF SECTION 40 05 31

SECTION 40 05 33 – HDPE UTILITY PIPE AND FITTINGS

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. This section specifies high density polyethylene (HDPE) pipe and fittings as indicated on the Plans, and as specified herein.
- B. Furnish all labor, material and equipment as required for installation of water distribution main.

1.2 REFERENCES

- A. To the extent referenced in this specification section, the standards and documents listed below are included, and made a part of this specification. In the event of a conflict, the requirements of this specification section prevail. Unless otherwise specified, references to documents shall mean the latest published edition of the referenced documents in effect at the bid date of the project.

1. ASTM

- a. D638 Standard Test Method for Tensile Properties of Plastics
- b. D746 Standard Test Method for Brittleness Temperature of Plastics and Elastomers by Impact
- c. D1505 Standard Test Method for Density of Plastics by the Density-Gradient Technique
- d. D2737 Standard Specification for Polyethylene (PE) Plastic Tubing
- e. D2774 Standard Practice for Underground Installation of Thermoplastic Pressure Piping
- f. D2837 Standard Test Method for Obtaining Hydrostatic Design Basis for Thermoplastic Pipe Materials
- g. D3035 Standard Specifications for Polyethylene (PE) Plastic Pipe (DR-PR) Based on Controlled Outside Diameter
- h. D3350 Standard Specification for Polyethylene Plastic Pipe and Fittings Material
- i. F714 Standard Specification for Polyethylene (PE) Plastic Pipe (S.D.R.-PR) Based on Outside Diameter
- j. F1055 Standard Specification for Electrofusion Type Polyethylene Fittings for Outside Diameter Controlled Polyethylene and Crosslinked Polyethylene (PEX) Pipe and Tubing

- k. F2164 Standard Practice for Field Leak Testing of Polyethylene (PE) and Crosslinked Polyethylene (PEX) Pressure Piping Systems Using Hydrostatic Pressure
 - l. F2206 Standard Specification for Fabricated Fittings of Butt-Fused Polyethylene (PE)
 - m. F2620 Standard Practice for Heat Fusion Joining of Polyethylene Pipe and Fittings
2. AWWA
- a. C111/A21.11-17 Rubber-Gasket Joints for Ductile Iron Pressure Pipe and Fittings
 - b. C906 Polyethylene (PE) Pressure Pipe and Fittings, 4 in. Through 63 in., For Water Distribution and Transmission
3. NSF
- a. Standard 14 Plastics Piping System Components and Related Materials
 - b. Standard 61 Drinking Water System Components - Health Effects
4. Plastic Pipe Institute (PPI)
- a. Handbook of Polyethylene Pipe (2nd Edition)
 - b. Generic Butt Fusion Joining Procedure for Field Joining of Polyethylene Pipe TR-33
 - c. Bolt Torque for Polyethylene Flanged Joints TN-38
 - d. Recommended Minimum Training Guidelines for PE Pipe Butt Fusion Joining Operators for Municipal and Industrial Projects TN-42

1.3 SUBMITTALS

- A. Submit product data for each type of product indicated in accordance with Section 104.03 - Submittals.
- B. Submit Shop Drawings of pipe, fittings, and appurtenances.
- C. Certificates: Submit manufacturer's certification that pipe and fittings meet or exceed specified requirements.
- D. Submit manufacturer's installation instructions and recommended fusion procedures; maintain copy at the jobsite.

PART 2 - PRODUCTS

2.1 PIPE & FITTINGS MATERIALS FOR 4-INCH AND LARGER PIPE FOR PRESSURE PIPING

- A. Polyethylene pipe & fittings shall be made from a HDPE material having a minimum material designation code of PE 4710 or higher. The material shall meet the requirements of ASTM D3350 and shall have a minimum cell classification of 445574C.
- B. The pipe and fittings shall meet the requirements of AWWA C906.
- C. HDPE pipe shall be rated for use at a pressure class based on the table below. The outside diameter of the pipe shall be based upon the IPS sizing system and match existing owner-furnished pipe.

Proposed Pipeline	HDPE Outside Diameter (in)	DR Rating	Pressure Rating
Goucher St (portion)	12-3/4"	11	200 psi

2.2 FITTINGS

- A. Fusion Fittings. HDPE pipe shall be joined to HDPE pipe by thermal butt fusion. Thermal fusion shall be accomplished in accordance with the pipe manufacturer and fusion equipment supplier specifications. Butt fusion outlets shall be made to the same outside diameter, wall thickness, and tolerances as the mating pipe.
- B. All fittings and custom fabrications shall be fully rated for the same pressure rating as the mating pipe.
- C. Transitions from HDPE to Ductile Iron
 - 1. Transitions from HDPE to Ductile Iron pipe shall be accomplished with butt-fusion welded flange adapters and flanged ductile-iron fittings, including fusion-bonded epoxy coated DI backing rings, gaskets, and thrust restraint. These components shall be as specified in the contract documents.

2.3 PIPE AND FITTING IDENTIFICATION

- A. The pipe shall be marked in accordance with the standards to which it is manufactured.
- B. Color identification via stripes on pipe to identify pipe service shall be optional.
- C. Tracing wire shall be placed parallel and above, but separate from the pipe, and shall be 12 AWG or Engineer approved equal.

PART 3 - EXECUTION

3.1 DELIVERY, STORAGE AND HANDLING

- A. Handle pipe in accordance with manufacturer's recommendations using approved strapping and equipment rated for the loads encountered. Do not use chains, wire rope, forklifts or other methods or equipment that may gouge or damage the pipe. Field storage is to be in compliance with AWWA Manual of Practice M55 Chapter 7.
- B. If any gouges, scrapes, or other damage to the pipe results in loss of 10% of the pipe wall thickness, cut that section or do not use.
- C. Protect pipe and components against dirt, damage and excessive sunlight during shipment and storage. Handle and store pipe to prevent damage or contamination.
- D. Verify compatibility of pipe type and fittings prior to installation.
- E. In addition to any deficiencies not covered by the applicable References, pipe that has any of the following visual defects, will not be accepted: Cracks, bubbles, pinholes, inclusions or occlusions, which, because of their nature, degree, or extent, detrimentally affect the strength and serviceability of the pipe.

3.2 JOINING METHODS

- A. Fusion: The pipe shall be joined by the butt fusion procedure outlined in ASTM F2620 or Plastic Pipe Institute TR-33. All fusion joints shall be made in compliance with the pipe or fitting manufacturer's recommendations. Fusion joints shall be made by qualified fusion technicians per Plastic Pipe Institute TN-42. Perform all butt fusion joints in the presence of the Inspector.
- B. JOINT RECORDING
 - 1. The critical parameters of each fusion joint, as required by the manufacturer and these specifications, shall be recorded by an electronic data logging device. All fusion joint data shall be included in the Fusion Technician's joint report. Record the temperature and corresponding time for each fusion joint.
- C. DEBURRING
 - 1. Any HDPE pipe that is cut for pipeline installation must be deburred using a hand scraper. Deburr the interior and exterior of fused pipes following each joint fusion. Ensure that pipe walls are free of any beads or protrusions and use compressed air to blow any debris out of the pipe.

3.3 INSTALLATION

- A. Buried HDPE pipe and fittings shall be installed in accordance with ASTM D2774 for pressure systems and AWWA Manual of Practice M55, chapter 7. Pipe embedment and bedding shall be as indicated on Plans.

- B. When pipe installation is suspended, assure that no dirt or other foreign material is allowed in pipe or fittings. Block or plug the open end of the pipe to prevent creep, uplift or floating, entrance of water, dirt, or other materials.
- C. Pressure Pipelines without Restrained Joints: Place thrust blocks at each angled fitting, tee, cross, reducer, cap, plug, and valve. Provide bearing area against undisturbed earth. Place such that thrust block may be removed in the future without damage to pipe or fitting. Place 6 mil polyethylene plastic between thrust blocks and fittings.
- D. Assure that continuity is maintained in locating wire.
- E. Welder Qualifications
 - 1. Before any HDPE fusion welding is performed, Contractor to submit certification that the welders to be used on this project have successfully demonstrated proper welding procedures in accordance with the Code of Federal Regulations, Title 49, Part 192, Section 192.285.

3.4 TESTING

- A. Butt Fusion Testing: On each day that butt fusions are to be made, the first fusion of the day shall be a trial fusion. The trial fusion shall be allowed to cool completely, then fusion test straps shall be cut out. The test strap shall be 12 inches (min) or 30 times the wall thickness in length with the fusion in the center, and 1 inch (min) or 1.5 times the wall thickness in width. Bend the test strap until the ends of the strap touch. If the fusion fails at the joint, a new trial fusion shall be made, cooled completely, and tested. Butt fusion of pipe to be installed shall not commence until a trial fusion has passed the bent strap test.
- B. Hydrostatic leakage testing is required and shall comply with ASTM F2164, AWWA Manual of Practice M55 Chapter 9, and PPI Handbook of Polyethylene Pipe Chapter 2 (2nd Edition). If the test section fails this test, the Contractor shall repair or replace all defective materials and/or workmanship at no additional cost to Owner.
- C. Pneumatic (compressed air) leakage testing of HDPE pressure piping is prohibited for safety reasons.
- D. The piping section under test and any closures in the test section shall be restrained to prevent uncontrolled movement in the event of rupture. Select pressurizing equipment to complete test within allowable limits for size of area to be tested.
- E. Test Pressure: For continuous pressure systems, the maximum allowable test pressure shall be 1.5 times the system design pressure at the lowest elevation in the pipe section being tested. If valves or other components in the line have lower rated components and cannot be removed or isolated, the test pressure is the maximum allowable test pressure for that device or component.

- F. **Test Duration:** For any test pressure from 1.0 to 1.5 times the system design pressure, the total test time including initial pressurization, initial expansion, and time at test pressure, must not exceed eight (8) hours. If the pressure test is not completed during that time frame, the test section shall be de-pressurized, and allowed to relax for at least eight (8) hours before bringing the test section up to test pressure again.
- G. **Pre-Test Inspection:** Test equipment and pipeline shall be examined before pressure is applied to ensure that connections are tight, necessary restraints are in place and secure, and any lower pressure valves or components are isolated or disconnected.
- H. **Hydrostatic Testing:** The test section shall be completely filled with water, taking care to bleed off any trapped air. Venting at high points may be required to purge air pockets while the test section is filling. Venting may be accomplished by loosening flanges. Retighten any loose flanges before applying test pressure.
- I. **Monitored Make-up Water:** The test procedure consists of initial expansion, and test phases. During the initial expansion phase, the test section is pressurized to the test pressure, and sufficient makeup water is added each hour for three (3) hours to return to test pressure as per the following table:

Nominal Pipe Size, Inches	Make-Up Water Allowance (US Gallons per 100 ft. of Pipe)		
	1-Hour Test	2-Hour Test	3-Hour Test
6	0.3	0.6	0.9
8	0.5	1.0	1.5
10	0.8	1.3	2.1
12	1.1	2.3	3.4
13-3/8	1.2	2.5	3.7
14	1.4	2.8	4.2
16	1.7	3.3	5.0
18	2.0	4.3	6.5
20	2.8	5.5	8.0
22	3.5	7.0	10.5
24	4.5	8.9	13.3
26	5.	10.0	15.0
28	5.5	11.1	16.8
30	6.3	12.7	19.2
32	7.	14.3	21.5

After the initial expansion phase, about four (4) hours of pressurization, the test phase begins. The test phase may be one (1), two (2), or three (3) hours, after which a measured amount of make-up water is added to return to test pressure. If the amount of make-up water added does not exceed the values listed in the table above, leakage is not indicated.

- J. As an option, the Contractor may conduct a non-monitored make-up water test. The test procedure consists of initial expansion, and test phases. For the initial expansion, make-up water is added as required to maintain the test pressure for four (4) hours. For the test phase, the test pressure is reduced by 10 psi. If the pressure remains steady (within 5% of the target value) for an hour, no leakage is indicated.

3.5 CLEANING

- A. After installation and pressure testing, flush pressure lines.

END OF SECTION 40 05 33

SECTION 40 05 51 - VALVES, GENERAL

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. The Contractor shall provide valves, actuators, and appurtenances, complete and operable, in accordance with the Contract Documents.
- B. The provisions of this Section shall apply to all valves and valve actuators pertaining to this Work as outlined in Contract Documents. Valves and actuators in particular locations may require a combination of units, sensors, and controls indicated in other sections of the Specifications.
- C. Unit Responsibility: A single manufacturer shall be made responsible for coordination of design, assembly, testing, and furnishing of each valve; however, the Contractor shall be responsible to the Owner for compliance with the requirements of each valve section. Unless indicated otherwise, the responsible manufacturer shall be the manufacturer of the valve.
- D. Single Manufacturer: Where two or more valves of the same type and size are required, the valves shall be furnished by the same manufacturer.

1.2 REFERENCE STANDARDS

- A. ANSI B1.20.1 Pipe Threads, General Purpose
- B. ANSI B16.1 Cast Iron Pipe Flanges and Flanged Fittings
- C. ANSI B16.5 Pipe Flanges and Flanged Fittings
- D. AWWA C111 Rubber-Gasket Joints for Ductile Iron and Gray Iron Pressure Pipe and Fittings
- E. AWWA C207 Steel Pipe Flanges for Waterworks Service - Sizes 4 through 144 IN

1.3 SUBMITTALS

- A. Furnish submittals in accordance with Section 01 33 00 – Submittal Procedures.
- B. Shop Drawings: Shop Drawings shall contain the following information:
 - 1. Valve name, size, Cv factor, pressure rating, identification number (if any), and specification section number.
 - 2. Complete information on valve actuator, including size, manufacturer, number, limit switches, and mounting.
 - 3. Cavitation limits for control valves.

4. Assembly drawings showing part nomenclature, materials, dimensions, weights, and relationships of valve handles, handwheels, position indicators, limit switches, integral control systems, needle valves, and control systems.
 5. Valve Labeling: A schedule of valves to be furnished with stainless steel tags, indicating in each case the valve location and the proposed wording for the label.
 6. Certification that products being used under meet requirements of standards referenced.
- C. Operation and Maintenance Data: Provide in accordance with Section 01 78 23 – Operation Maintenance Data.
- D. Spare Parts List: A Spare Parts List shall contain the required information for each valve assembly, where indicated.
- E. Factory Test Data: Where indicated, signed, dated, and certified factory test data for each valve requiring certification shall be submitted before shipment of the valve. The data shall also include certification of quality and test results for factory-applied coatings.

1.4 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: Valve manufacturers shall have a successful record of not less than five (5) years in the manufacture of the valves indicated.
- B. Valve Testing: As a minimum, unless otherwise indicated or recommended by the reference Standards, valves 3-inches in diameter and smaller shall be tested in accordance with manufacturer's standard, larger valves shall be factory tested as follows:
1. Hydrostatic Testing: Valve bodies shall be subjected to internal hydrostatic pressure equivalent to twice the water rated pressure of the valve. Metallic valves rating pressures shall be at 100 degrees F and plastic valves shall be at 73-degrees, higher temperature according to type of material. During the hydrostatic test, there shall be no leakage through the valve body, end joints, or shaft seals, nor shall any part of the valve be permanently deformed. The duration shall be sufficient time to allow visual examination for leakage. Test duration shall be at least 10 minutes.
 2. Seat Testing: Valves shall be tested for leaks in the closed position with the pressure differential across the seat equal to the water rated pressure of the valve. The duration of test shall be sufficient time to allow visual examination for leakage. Test duration shall be at least 10 minutes. Leakage past the closed valve shall not exceed 1 fluid ounce per hour per inch diameter for metal seated valves and drop-tight for resilient seated valves.
 3. Performance Testing: Valves shall be shop operated from fully closed to fully open position and reverse under no-flow conditions in order to demonstrate the valve assembly operates properly.
- C. Certification: Prior to shipment, the Contractor shall submit for valves over 12- inches in size, certified, notarized copies of the hydrostatic factory tests, showing compliance with the applicable standards of AWWA, ANSI, or ASTM.

PART 2 - PRODUCTS

2.1 GENERAL

- A. All valves used in potable water systems shall be NSF/ANSI 61 certified and compliant with 14 and 372.

2.2 PRODUCTS

- A. Valves and gates shall be new and of current manufacture. Shut-off valves 6-inches and larger shall have actuators with position indicators. Gate valves 18-inches and larger or where chain wheel is required, shall be furnished with spur gear and hand wheel. Buried valves shall be provided with valve boxes and covers containing position indicators and valve extensions. Manual shut-off valves mounted higher than 7-feet above working level shall be provided with chain actuators.
- B. Protective Coating: The exterior surfaces of all valves and the wet interior surfaces of ferrous valves of sizes 4-inches and larger shall be coated in accordance with manufacturer's written instructions. The valve manufacturer shall certify in writing that the required coating has been applied and tested in the manufacturing plant prior to shipment. Flange faces of valves shall not be epoxy coated.
- C. Valve Labeling: Except when such requirement is waived by the Engineer in writing, a label shall be provided on shut-off valves and control valves except for hose bibbs. The label shall be of 1/16-inch plastic or stainless steel, minimum 2-inches by 4-inches in size and shall be permanently attached to the valve or on the wall adjacent to the valve as directed by the Engineer.

2.3 MATERIALS

- A. Materials shall be suitable for the intended application. Materials in contact with potable water shall be listed as compliant with NSF Standard 61. Materials not indicated shall be high-grade standard commercial quality, free from defects and imperfections that might affect the serviceability of the product for the purpose for which it is intended. Unless otherwise indicated, valve and actuator bodies shall conform to the following requirements:
 - 1. Ductile Iron: ASTM A 536 - Ductile Iron Castings, or to ASTM A 395 - Ferritic Ductile Iron Pressure-Retaining Castings for Use at Elevated Temperatures.

2.4 VALVE CONSTRUCTION

- A. Bodies: Valve bodies shall be cast, molded (in the case of plastic valves), forged, or welded of the materials indicated, with smooth interior passages. Wall thicknesses shall be uniform in agreement with the applicable standards for each type of valve, without casting defects, pinholes, or other defects that could weaken the body. Welds on welded bodies shall be done by certified welders and shall be ground smooth. Valve ends shall be as indicated, and be rated for the maximum temperature and pressure to which the valve will be subjected.

- B. Valve End Connections: Unless otherwise indicated, valves 2-1/2 inches diameter and smaller may be provided with threaded end connections. Valves 3-inches and larger shall have flanged end connections for above grade installations and mechanical joint connections for below grade.
- C. Bonnets: Valve bonnets shall be clamped, screwed, or flanged to the body and shall be of the same material, temperature, and pressure rating as the body. The bonnets shall have provision for the stem seal with the necessary glands, packing nuts, or yokes.
- D. Stems: Valve stems shall be of the materials indicated, or, if not indicated, of the best commercial material for the specific service, with adjustable stem packing, O-rings, Chevron V-type packing, or other suitable seal. Where subject to dezincification, bronze valve stems shall conform to ASTM B 62, containing not more than 5 percent of zinc or more than 2 percent of aluminum, with a minimum tensile strength of 30,000 psi, a minimum yield strength of 14,000 psi, and an elongation of at least 10 percent in 2 inches.
- E. Stem Guides: Stem guides shall be provided per the manufacturer's recommendations. Submerged stem guides shall be 304 stainless steel.
- F. Internal Parts: Internal parts and valve trim shall be as indicated for each individual valve. Where not indicated, valve trim shall be of Type 316 stainless steel or other best suited material.
- G. Nuts and Bolts: Nuts and bolts on valve flanges and supports shall be in accordance with Section 05 50 00 Metal Fabrications.

2.5 VALVE ACCESSORIES

- A. Valves shall be furnished complete with the accessories required to provide a functional system.

2.6 SPARE PARTS

- A. The Contractor shall furnish the required spare parts suitably packaged and labeled with the valve name, location, and identification number. The Contractor shall also furnish the name, address, and telephone number of the nearest distributor for the spare parts of each valve. Spare parts are intended for use by the Owner, after expiration of the correction of defects period.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Prior to installation, inspect interconnecting piping and end connections to ensure compatibility.
- B. Prior to installation, inspect and verify condition of valve and appurtenances. Installation constitutes installer's acceptance of product condition for satisfactory installation.
- C. Ensure exposed piping is sufficiently supported to bear weight of valve when it is installed.

3.2 PREPARATION

- A. Correct defects or conditions, which may interfere with or prevent a satisfactory installation.

3.3 VALVE INSTALLATION

- A. Valves, actuating units, stem extensions, valve boxes, and accessories shall be installed in accordance with the manufacturer's written instructions and as indicated. Gates shall be adequately braced to prevent warpage and bending under the intended use. Valves shall be firmly supported to avoid undue stresses on the pipe.
- B. All buried valves shall be mechanically restrained as per Section 40 05 00 – Piping, General.
- C. Access: Valves shall be installed with easy access for actuation, removal, and maintenance and to avoid interference between valve actuators and structural members, handrails, or other equipment.
- D. Valve Accessories: Where combinations of valves, sensors, switches, and controls are indicated, the Contractor shall properly assemble and install such items so that systems are compatible and operating properly. The relationship between interrelated items shall be clearly noted on Shop Drawing submittals.

END OF SECTION 40 05 51

SECTION 40 05 61 - GATE VALVES

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. The Contractor shall provide gate valves and appurtenances, complete and operable, in accordance with the Contract Documents.

1.2 SUBMITTALS

- A. Provide shop drawings per Section 01 33 00 – Submittal Procedures and Section 40 05 51 – Valves, General.

PART 2 - PRODUCTS

2.1 GENERAL

- A. All buried valves shall be of the inside screw, non-rising stem type.

2.2 RESILIENT-SEATED GATE VALVES (2-INCH AND LARGER)

- A. Construction: Resilient-seated gate valves for water and sewage service shall conform to ANSI/AWWA C515 – Reduced-Wall, Resilient-Seated Gate Valves for Water Supply Service. The valve bodies shall be of cast iron conforming to ASTM A 126 - Specifications for Gray Iron Castings for Valves, Flanges, and Pipe Fittings, or ductile iron conforming either to ASTM A 395 - Specification for Ferritic Ductile Iron Pressure-Retaining Castings for Use at Elevated Temperatures, or to ASTM A 536 - Specification for Ductile Iron Castings, with flanged, bell and spigot, or mechanical joint-ends as indicated.
 - 1. The wedge shall be ductile iron or bronze encapsulated with EDPM rubber.
- B. Body and bonnett wall thickness shall be equal to or greater than the minimum wall thickness as listed in Table 2 of ANSI/AWWA C500. The design working water pressure shall be 250 psig. For sewage or fluids containing solids, an outside thread shall be used.
- C. The gate valve stem and wedge nut shall be copper alloy in accordance with Section 4.4.5.1 of the AWWA C515 Standard. The stem shall have an integral thrust collar.
- D. Valves shall be certified NSF to Standard 61.
- E. The operating nut shall be constructed of ductile iron and shall have four flats at stem connection.
- F. Stem shall be sealed by three O-Rings.

- G. All internal and external surfaces of the valve body and bonnet shall have a fusion-bonded epoxy coating, complying with ANSI/AWWA C550, applied electrostatically prior to assembly.

2.3 MANUFACTURERS, OR EQUAL

- A. American Flow Control;
- B. Mueller;
- C. Clow Valve Co.;
- D. Crane Valves;
- E. Kennedy Valve;
- F. M & H Valve Company.

2.4 GATE VALVES (SMALLER THAN 2-INCH)

- A. Construction: Gate valves, smaller than 2-inch, for general purpose use, shall be non-rising stem, heavy-duty type for industrial service, with screwed or soldered ends to match the piping. The bodies shall have union bonnets of bronze conforming to ASTM B 62 - Specification for Composition Bronze or Ounce Metal Castings. The stems shall be of bronze conforming to ASTM B 62, or ASTM B 371 - Specification for Copper-Zinc-Silicon Alloy Rod. The solid wedges shall be of bronze conforming to ASTM B 62. The valves shall have malleable iron handwheels, unless otherwise indicated, and stem seals shall be of Teflon-impregnated or other acceptable non-asbestos packing. All valves shall have a pressure rating of minimum 125 psi steam, and 200 psi coldwater, unless otherwise indicated.
- B. Manufacturers, or Equal:
 - 1. Crane Company;
 - 2. Milwaukee Valve Company;
 - 3. Wm. Powell Company;
 - 4. Stockham Valves and Fittings; Walworth Company.

PART 3 - EXECUTION

3.1 GENERAL

- A. All gate valves shall be installed in accordance with the provisions of Section 40 05 51 – Valves, General. Care shall be taken that all valves in plastic lines are well supported at each end of the valve.

END OF SECTION 40 05 61

SECTION 40 05 81.13 - FIRE HYDRANTS

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. The Contractor shall provide fire hydrants, complete and operable, including all appurtenances and accessories, in accordance with the Contract Documents.
- B. The requirements of Section 40 05 51 – Valves, General and Section 40 05 57 – Actuators for Process Valves and Gates apply to this section.

1.2 COMMERCIAL STANDARDS

- A. ANSI/AWWA C 502 Standard for Dry-Barrel Fire Hydrants
- B. ANSI/AWWA C 550 Protective Epoxy Interior Coatings for Valves and Hydrants

1.3 SUBMITTALS

- A. The Contractor shall submit Manufacturer information for Engineer review in accordance with Section 01 33 00 – Submittal Procedures and Section 40 05 51 – Valves, General.

PART 2 - PRODUCTS

2.1 DRY-BARREL FIRE HYDRANTS

- A. Construction: Unless otherwise shown, all hydrants shall be of the dry-barrel type according to ANSI/AWWA C 502, with a minimum of one 4-inch or 4-1/2-inch steamer connection, one 2-1/2-inch hose connection, and a 6-inch diameter inlet, except where otherwise required by the local fire department. The hose and steamer connections shall be provided with cast iron caps and metal chains. The barrel shall have a cast iron breakaway section above ground and a lower barrel of ductile iron, with an elbow or tee-section at the base. The stem shall have a breakaway coupling, or there shall be some other safety device in case of a fracture. Each hydrant shall be isolated by an individual, buried gate valve, with cast iron box and cover. All bolts, nuts, and washers shall be of Type 316 stainless steel, except where otherwise required for structural reasons. The hydrants shall be tested to 300 psig and they shall be suitable for a working pressure of 150 psig. All interior and exterior surfaces shall be coated in accordance with AWWA C 550.
- B. Manufacturers, or Equal
 - 1. American Flow Control (Darling)
 - 2. American Valve and Hydrant
 - 3. Mueller

4. Clow – Medallion

PART 3 - EXECUTION

3.1 GENERAL

- A. All fire hydrants shall be installed in strict accordance with the manufacturer's published recommendations, AWWA Standards, and all applicable codes, and the applicable provisions of Section 40 05 51 – Valves, General. All installations shall be to the satisfaction of the local fire and building department.
- B. All hydrant isolating valves with slip joints, friction type, or caulked joint connections shall be harnessed to the main pipe by means: of welded steel harness sets, or clamps and steel rods, designed for this purpose. All hydrants with other than flanged inlets shall be installed with a concrete thrust block, calculated for the maximum expected water pressure. Dry-Barrel fire hydrants shall be set on a bed of pea gravel not less than 18-inches deep and 3-foot square, for drainage, or as required by local regulations and conditions. Provide geotextile around drain rock and overlap a minimum of 18-inches.
- C. Place fire hydrants so that sidewalk flange is at least 2-inches above finished grade, but no more than 4-inches above finished grade.
- D. Apply poly-fm grease to al buried metal surfaces and wrap with 8 mil thick polyethylene sheet and tape wrap prior to pouring concrete thrust blocks.
- E. Paint the fire hydrants to meet the local Fire Department paint standards.

END OF SECTION 40 05 81.13



CITY OF AMITY

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AGENDA ITEM

Subject: Yamhill County Sheriff's Office (YCSO) Contract
Date: May 1, 2024
Origin: YCSO & Nathan Frarek City Administrator
Action Requested: Vote to Approve Contract

Background

The City of Amity has a 1-year \$337,238.84 contract with the Yamhill County Sheriff's Office presented to it. This contract will provide the same level of law enforcement service to the City going forward.

On behalf of Sheriff Elliott, please see the attached annual Police Services Contract. Please note:

- Deputy rates were calculated at a 3% salary increase as negotiations for a successor bargaining agreement have not concluded. If the negotiated increase for FY24-25 is higher than 3%, cities will not be charged the additional increase under this year's contract.
- The Sheriff's Office has held any step increases under this costing due to the uncertainty of the negotiated increase under the cba. As always, deputies in the position(s) will receive their step increase under the requirements of the cba; the cost is not passed on to the city.
- The County's Accident Insurance rate increased from 2.54% to 3.34% for law enforcement positions.
- Until the successor agreement is signed, we are unable to forecast more than one year out, so only one-year agreements are available at this time.

It is City Staff's recommendation to accept this contract from the YCSO.

Exhibits / Further Information

Exhibit A – YSCO Contract 2024-2025

Staff Recommends the following Action(s)

I move to approve and accept the new contract with the Yamhill County Sheriff's Office and allow the mayor to sign for the City.

**AGREEMENT FOR POLICE SERVICES
(City of Amity 2024-2025)**

THIS AGREEMENT is made the last dates set forth adjacent to the signatures of the parties, to be effective July 1, 2024, by and between **YAMHILL COUNTY**, Oregon, a political subdivision of the state of Oregon ("the County") and the **CITY OF AMITY**, a municipal corporation of the State of Oregon ("the City").

RECITALS

- A. ORS 190.010 and 206.345 allow cities to contract with county sheriffs and governing bodies for the provision of county police services to incorporated cities.
- B. The City desires to continue to contract with the County for Yamhill County Sheriff’s Office to provide police services within the City. County is agreeable to providing police services on the terms and conditions set forth in this agreement from July 1, 2024, through June 30, 2025.
- C. This agreement supersedes and replaces the prior police services agreement between the parties that expires June 30, 2024. NOW, THEREFORE,

AGREEMENT

In exchange for the mutual promises and obligations as set forth herein, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

SECTION 1. SCOPE OF SERVICES. The County agrees to provide police protection within the corporate limits of the City to the extent and in the manner described in this section. The police services shall encompass duties and enforcement functions of those normally undertaken by Yamhill County Sheriff’s Office under the statutes of the State of Oregon. Such services shall include public safety, criminal law enforcement, issuing of citations based on City ordinances, traffic enforcement, preparation of police reports and/or attendance at council meetings, and related services that are within the legal authority of the Sheriff to provide.

SECTION 2. MANAGEMENT BY COUNTY. Subject to applicable bargaining agreements and law, the rendition of such service, standards of performance, discipline of officers, personnel issues, and other matters incident to the performance of such services shall be subject to the control of the County. However, if the City is unhappy with any such items, the parties will attempt to resolve the dispute through a joint meeting of a representative of the Sheriff’s Office and the City Administrator. In addition, management of deputies by the County will be subject to the following:

- a. **County to provide monthly schedule.** Deputies assigned to the City shall maintain schedules on a monthly basis which will set forth the time deputies spend within the City.
- b. **Scheduling of Deputies.** The City shall recommend the schedule to the extent feasible. The County agrees to exercise its best efforts to accommodate the City’s desired schedule for

deputies assigned to provide police services under this agreement but retains ultimate authority to schedule.

- c. **Areas of Assignment.** The County agrees to exercise its best efforts to accommodate the City’s desired target areas for police services under this agreement. The City will communicate desired target areas to County’s supervisor. The supervisor will use all reasonable efforts to fulfill the City’s request.
- d. **Deputies shall do Paperwork in the City.** The County and deputies assigned to the City will use every reasonable effort to perform report-writing and other office-based functions of law enforcement in the City to maximize the number of hours which the assigned deputies remain within the City.

SECTION 3. COUNTY FURNISHES LABOR AND MATERIALS; CITY FURNISHES OFFICE SPACE. For the purpose of performing these functions, County and City shall provide the following:

- a. **County’s Requirements.** The County shall furnish and supply all labor, supervision, equipment, vehicles, communication facilities, and supplies necessary to provide the services described in Section 1, including any necessary secretarial or record keeping services.
- b. **City’s Requirements.** The City shall provide sufficient office space within the City limits for County personnel to perform services under this agreement. The City shall provide and pay for utilities costs, except that the County shall provide and pay for its own telecommunications needs.

SECTION 4. PERSONNEL COMMITMENTS.

- a. **Full-Time Equivalent (FTE) Assigned to the City.** The County shall provide **TWO (2.0)** patrol deputy full time equivalent positions. All County personnel assigned to provide services under this agreement will be certified by DPSST to perform the services described in Section 1.
- b. **Full-Time Equivalent (FTE) Defined.** As used in this section, an FTE means a full-time equivalent position. One (1) FTE constitutes approximately 2,080 hours per year, less time used for the following purposes: leaves authorized by the collective bargaining agreement or state or federal law; court time; training time related to maintenance or enhancement of proficiency; and any other function directly related to job performance as an employee of the County.
- c. **Extra Personnel to the City; Temporary Absence from the City.** When available, the County shall provide, at no cost, extra patrol for the City if emergency backup or coverage is needed. Deputies assigned to the City will not be sent out of the City to surrounding calls, unless it is necessary for the deputies to provide backup or make a first response to an emergency. When response to a surrounding call is made, the deputy will return to the City as soon as a rural patrol deputy or other law enforcement official has relieved the deputy.

d. **City Representatives Authorized to Request Emergency Patrols.** The City Administrator is authorized to request special or emergency patrols or response by the Sheriff, and the Sheriff will abide by the request if adequate personnel, in the Sheriff’s sole determination, is available; provided, however that the City shall reimburse the County at the County’s cost for personnel time spent on special or emergency patrols or responses requested and provided under this paragraph.

SECTION 5. PERSONNEL EMPLOYED BY THE COUNTY. All persons employed in the performance of this agreement shall be County employees. The County acts as an independent contractor under this agreement. The City shall not be called upon to assume any liability for the direct payment of any salaries, wages, or other compensation to any County personnel performing services herein for the City. Except as otherwise specified herein, the City shall not be liable for compensation or indemnity to any County employee for any injury or sickness arising out of the employee’s employment with the County. The County shall comply with ORS 656.017, which requires it to provide workers compensation coverage for its subject workers.

SECTION 6. THE CITY’S RECIPROCAL INDEMNIFICATION. The County, its officers, and its employees, shall not be deemed to have assumed any liability for acts of the City, or of any officer, employee, or agent thereof, and, subject to the limits of the Oregon Tort Claims Act and the Oregon Constitution, the City hereby covenants and agrees to hold and save the County and all of its officers, agents, and employees harmless from all claims whatsoever that might arise against the County, its officers, agents, or employees, by reason of any act of the City, its officers, agents, and employees.

SECTION 7. THE COUNTY’S RECIPROCAL INDEMNIFICATION. The City, its officers, and its employees, shall not be deemed to have assumed any liability for acts of the County, or of any officer, employee, or agent thereof, and, subject to the limits of the Oregon Tort Claims Act and the Oregon Constitution, the County hereby covenants and agrees to hold and save the City and all of its officers, agents, and employees harmless from all claims whatsoever that might arise against the City, its officers, agents, or employees, by reason of any act of the County, its officers, agents, and employees.

SECTION 8. TERM AND TERMINATION OF AGREEMENT.

- a. **Term.** Unless terminated in accordance with subsection (b), the term of this agreement is from July 1, 2024, through June 30, 2025.
- b. **Termination for Any Reason.** Either party may terminate this agreement on ninety (90) days written notice to the other party. Termination shall not excuse liabilities incurred prior to the termination date.

SECTION 9. COMPENSATION BY CITY.

- a. For the period July 1, 2024, to June 30, 2025, the City will pay to the County, for performance of the duties identified in Section 1, the sum of **\$337,238.84**, in monthly installments of **\$28,103.24**, as outlined in Exhibit A, which is incorporated herein by this reference. Such payment is due by

the 15th day of the month in which services were provided.

- b. The County shall exercise its best efforts to notify the City in writing of any proposed rate adjustment for the subsequent fiscal year no later than April 30.

SECTION 10. TRANSFER OF ORDINANCE ENFORCEMENT AUTHORITY. Upon execution of this agreement and during its effective term, the police authority of the City for enforcing City ordinances is transferred to Yamhill County Sheriff’s Office. For the limited purpose of compliance with applicable city charters, the City upon execution of this agreement hereby designates the Yamhill County Sheriff as the Chief of Police of said City.

SECTION 11. INCORPORATION. The introductory paragraph and recitals appearing at the beginning of this agreement are hereby incorporated into and made a part of this agreement as if fully set forth herein.

DONE the dates set forth adjacent to the signatures below.

CITY OF AMITY, OREGON

YAMHILL COUNTY, OREGON

RACHEL KING, Mayor

LINDSAY BERSCHAUER, Chair
Board of Commissioners

Date: _____

Date: _____

ATTEST:

ATTEST:

NATHAN FRARCK, City Administrator

SAM ELLIOTT, Sheriff

Date: _____

Date: _____

APPROVED AS TO FORM:

By: _____
CHRISTIAN BOENISCH, County Counsel

Date: _____



CITY OF AMITY

109 Maddox Avenue
P.O. Box 159
Amity, OR 97101

Ph: (503) 835-3711
Fax: (503) 835-3780

AGENDA ITEM

Subject Planning Commission Vacancy
Date: May 1, 2024
Origin: Natasha Johnson, City Recorder/Treasurer
Action Requested: Appoint Planning Commission Member

Background: There has been two vacancies on the Planning Commission, and we have advertised the vacancy. We have received one application and have suggested to the applicants that they try to attend the meeting.

Exhibits: Planning Application for: Amanda Aschim

Recommendation: Move to appoint Amanda Aschim to the Amity Planning Commission to a term to expire December 31, 2025.

City of Amity Planning Commission Application

The Amity Planning Commission is looking for a new member.

Please provide the following information and return it to Amity City Hall.

1- You must be a registered voter in Oregon

Name: Amanda Christensen Telephone #: 971-241-5712

Number of Year(s) Lived in Amity: 7 Occupation: HR Director

Mailing Address PO BOX 123 Amity OR 97101

E-Mail Address: aaschim05@gmail.com

Please list your previous volunteer positions (If Any):

Amity Fire Board member, Volunteer Volleyball coach 4 years, Wildflower preschool board, Amity Senior partners board member.

State briefly why you are interested in a position on the Planning Commission:

In my role within the local city administration, I've witnessed firsthand how planning decisions can either foster community growth or contribute to stagnation. I'm eager to contribute to the planning process to ensure our community flourishes and becomes a vibrant hub for its residents.

What qualifies you to serve on the Planning Commission?

I've been a resident of the Amity community for more than 20 years and have spent 15 years working in local government. During this time, I've collaborated with our planning and building departments on various projects. Through these experiences, I've gained valuable insights into the planning process.

Applications may be mailed to:
City of Amity, P.O. Box 159, Amity, OR 97101
Or may be hand delivered to:
Amity City Hall, 109 Maddox Avenue, Amity, OR 97101



CITY OF AMITY

109 Maddox Avenue
P.O. Box 159
Amity, OR 97101

Ph: (503) 835-3711

AGENDA ITEM

Subject: MWVCOG Intergovernmental Agreement for Planning & Legal Services
Date: May 1, 2024
Origin: Nathan Frarck, City Administrator
Action Requested: Approve MWVCOG Intergovernmental Agreement

Background:

Attached is the annual intergovernmental agreement for Land Use Planning and Legal Services through the Mid-Willamette Valley Council of Governments from July 1, 2024, to June 30, 2025.

Exhibits:

Exhibit A – MWVCOG Cover Letter
Exhibit B – Intergovernmental Agreement
Exhibit C – Local Service Plan
Exhibit D – Resolution 2024-01 Establishing Rates

Staff recommends the following motion:

I move to approve the Mid-Willamette Valley Council of Government Intergovernmental Agreement for Planning & Legal Services and authorize the city administrator to sign.



100 HIGH STREET S.E., Suite 200 | SALEM, OREGON 97301 | www.mwvcog.org
T: 503.588.6177 | F: 503-588-6094 | E: mwvcog@mwvcog.org
An equal opportunity lender, provider, and employer

April 15, 2024

Dear COG Member,

As you know, every spring COG sends service contracts for the upcoming fiscal year. We have some important changes to share about our process and rates.

Streamlined Services Contracting Process

In the past, COG contracted with members for each type of service offered, creating multiple contracts which were identical except for the service description requiring redundant efforts for members and COG. To create efficiencies where possible, COG has streamlined our contracting process and now offers a Master Services Agreement for your consideration.

The Master Services Agreement allows the COG and members to agree to the terms for the delivery and payment of services for all services that the member may request from COG during the fiscal year. This reduces the processing time and cost for both the member and COG for contracts that are identical except for the service description.

Rate Changes

At their March meeting, the MWVCOG Board of Directors adopted Resolution 2024-01 setting rates for our services. A description of all COG services is provided in the attached Local Services Plan. The rates were informed by a cost analysis conducted by the COG finance team and presented to the Board and were set based on cost recovery principles. The new rates are attached as part of the Master Services Agreement.

Member Cost Recovery

In many cases, members are able to pass this cost on to developers or applicants who request planning services, either through direct billing or through the collection of fees. This is available for planning, legal and GIS services. We would be glad to assist you with putting such a system in place if you do not already have such a means of recovering these costs or if you would like information on a full recovery fee schedule.

Legal Services Change to Flat Rate Packages

COG is pleased to continue offering legal and hearings officer services. This year we are offering a bundled rate of 10 hours of service to members for a flat rate of \$1000. Thereafter, legal services are billed at the hourly rate of **\$200/hour**. Flat rate packages will continue to be available for special projects e.g. Charter review.

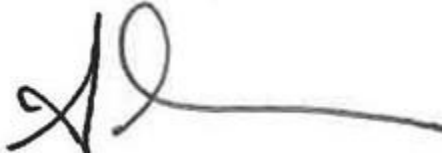
COG’s Service Offerings

COG staff that are assigned to work with members are a great source of information for not only their own area of expertise but other areas of expertise that a member may need. The combined knowledge and experience of the staff at COG ensure that member needs can be met on a variety of projects and services. Please don’t hesitate to speak with any of our staff about our array of services.

Please sign and return both copies of the enclosed contract by **June 30th**. If you have questions or wish to discuss this further, please feel free to contact any of our COG team.

We appreciate the opportunity to provide services to you and look forward to working with you in the coming years.

Sincerely,



Scott Dadson, MWVCOG Executive Director

INTERGOVERNMENTAL AGREEMENT
Between
MID-WILLAMETTE VALLEY COUNCIL OF GOVERNMENTS
And
CITY OF AMITY

1. PARTIES TO AGREEMENT

This Intergovernmental Agreement (Agreement) is made pursuant to the authority found in ORS 190.010, et seq., between the *Mid-Willamette Valley Council of Governments*, an Oregon Intergovernmental Agency created under ORS Chapter 190, hereafter called COG, and City of Amity, hereafter called MEMBER. COG and Member collectively are referred to as Parties.

2. PURPOSE

The purpose of this Agreement is to establish the terms and conditions under which COG will provide services as described on the Local Service Plan to MEMBER.

3. TERM

This Agreement shall be effective for the period of time from July 1, 2024 through and until June 30, 2025 unless sooner terminated or extended as provided herein.

4. METHOD OF PAYMENT AND PAYMENT SCHEDULE

- 4.1 COG agrees to submit written invoices for services to the billing contact person identified in the signature block below.
- 4.2 COG shall submit invoices for services according to the current COG "Schedule of Fee for Services."
- 4.3 MEMBER agrees to pay for services at the rates set forth in the most current COG Schedule of Fee for Services resolution schedule including as applicable, hourly staff rates, flat rates, indirect rate (if applicable), and mileage at the IRS mileage rate for travel related to providing said services.
- 4.4 MEMBER agrees to make payment to COG within 30 days of receipt of invoices from COG.

5. ACCESS TO RECORDS

Both parties shall maintain all records relating to this Agreement in accordance with generally accepted accounting principles. In addition, both parties shall maintain any other records pertinent to this Agreement in such a manner as to clearly document both parties' performance hereunder. Parties

acknowledge and agrees that the Oregon Secretary of State's Office, the Federal Government and their duly authorized representatives shall have access to such fiscal records and all other documents that are pertinent to this Agreement for the purpose of performing audits and examinations and making copies, transcripts and excerpts. All such fiscal records and documents shall be retained by parties for a minimum of six (6) years (except as required longer by law) following final payment and termination of this Agreement, or until the conclusion of any audit, controversy, or litigation arising out of or related to this Agreement, whichever date is later.

6. COMPLIANCE WITH APPLICABLE LAWS

Each party agrees to comply with all federal, state, and local laws, codes, regulations and ordinances applicable to the provision of services under this Agreement, including, without limitation, the provisions of: (i) Title VI of the Civil Rights Act of 1964; (ii) Section V of the Rehabilitation Act of 1973; (iii) the Americans with Disabilities Act of 1990 (Pub L No 101- 336), ORS 659.425, and all amendments of and regulations and administrative rules established pursuant to those laws; and (iv) all other applicable requirements of federal and state civil rights and rehabilitation statutes, rules, and regulations.

7. AMENDMENTS

This Agreement may be amended by mutual agreement of the parties. Any amendments shall be in writing and signed by duly authorized representatives of both parties.

8. SUSPENSION OR TERMINATION

- 8.1 This Agreement may be extended by written agreement of the parties signed by the representatives authorized to execute this agreement.
- 8.2 This agreement may be terminated by mutual consent of the parties at any time.
- 8.3 This Agreement may also be terminated for convenience upon written notification by either party with a minimum notice of thirty (30) calendar days delivered by mail or in person. In the event of Agreement termination for convenience, COG shall be due payment for all work completed by the time of termination.
- 8.4 Any such termination of this agreement shall be without prejudice to any obligations or liabilities of either party already accrued prior to such termination.

9. INDEPENDENT CONTRACTOR

MEMBER has engaged COG as an independent contractor for the accomplishment of a particular service. Neither party, nor the officers and employees of either party shall be deemed the agents or employees of the other party for any purpose.

10. LIMITED WARRANTY

In no event shall COG be liable for indirect or consequential damages. In no event regardless of theory of recovery shall COG be liable for any damages in excess of the amounts actually paid by MEMBER to COG for services provided under this agreement.

11. CONFLICT OF INTEREST

No member, officer, or employee of MEMBER, or its designees or agents, no member of the MEMBER Council, and no other public official of MEMBER who exercises any function or responsibility with respect to this project during the public official's tenure or for one year thereafter, shall have any interest, direct or indirect, in any contract or subcontract, or the proceeds thereof, for work to be performed in connection with the project assisted under the contract.

12. NONDISCRIMINATION

The parties agree to comply with all applicable requirements of Federal and State civil rights and rehabilitation statutes, rules, and regulations in the performance of this agreement.

13. INSURANCE

Each party shall insure or self-insure and be independently responsible for the risk of its own liability for claims within the scope of the Oregon Tort Claims Act (ORS 30.260 to 30.300).

14. INDEMNIFICATION

Each party shall indemnify, defend, save, and hold harmless the other party and its officers, employees, and agents from and against all claims, suits, actions, liabilities, damages, losses, or expenses, arising out of the acts or omissions of the party, its officers, agents, or employees performing under this Agreement, provided that this discharge and waiver shall not apply to claims by one party against any officer, employee, or agent of the other arising from such person's malfeasance in office, willful or wanton neglect of duty, or actions outside the course and scope of the person's official duties

15. MERGER CLAUSE

The Parties concur and agree that this agreement constitutes the entire agreement between the Parties. No waiver, consent, modification or change to the terms of this agreement shall bind either party unless in writing and signed by both Parties. There are no understandings, agreements, or representations, oral or written, not specified herein regarding this agreement. The Parties, by the signatures below of their authorized representatives, hereby agree to be bound by its term and conditions.

16. ASSIGNMENT, DELEGATION, SUCCESSOR

Neither party shall assign, delegate, nor transfer any of its rights or obligations under this Agreement without the other party's prior written consent. A party's written consent does not relieve the other party of any obligations under this Agreement, and any assignee, transferee, or delegate is considered the agent of that party. The provisions of this Agreement shall be binding upon and shall inure to the benefit of the parties to the Agreement and their respective successors and assigns.

17. CONFLICTS

Should a conflict arise regarding billing or quality of service, the parties shall prior to bringing a claim, action, suit or proceeding in court, meet to attempt to resolve the issue within thirty (30) days of issue identification. Each party shall designate a representative authorized to negotiate a solution to the conflict. If the conflict cannot be resolved by the parties, the parties will submit the issue for mediation. Each party shall make a good faith effort to resolve the conflict through mediation. If the conflict cannot be resolved by the parties through mediation.

18. GOVERNING LAW, JURISDICTION, VENUE & ATTORNEY FEES

This Agreement shall be governed and construed in accordance with the laws of the State of Oregon, without resort to any jurisdiction's conflict of laws rules or doctrines. Any claim, action, suit, or proceeding (collectively, "the claim") between the parties that arises from or relates to this Agreement shall be brought and conducted solely and exclusively within a Circuit Court of the State of Oregon. Provided, however, if the claim must be brought in a federal forum, then it shall be brought and conducted solely and exclusively within the United States District Court for the District of Oregon. Each party shall be responsible for the party's attorney fees, costs and disbursements at all times including appeals.

19. WAIVER

The failure of either party to enforce any provision of this Agreement shall not constitute a waiver by that party of that or any other provision of this Agreement, or the waiver by that party of the ability to enforce that or any other provision in the event of any subsequent breach.

20. COUNTERPARTS.

This Agreement and any subsequent amendments may be executed in any number of counterparts (including by facsimile, PDF, or other electronic transmission), each of which so executed shall be deemed to be an original, and such counterparts shall together constitute one agreement binding on all parties.

21. SEVERABILITY

If any provision of this Agreement shall be held invalid or unenforceable by any court or tribunal of competent jurisdiction, such holding shall not invalidate or render unenforceable any other provision, and the obligations of the parties shall be construed and enforced as if the Contract did not contain the particular term or provision held to be invalid.

22. NOTICES

Any notice required to be given to COG or MEMBER under this Agreement shall be sufficient if given, in writing, by first class mail or in person as described in the signature block below.

23. SIGNATURES

This agreement and any changes, alterations, modifications, or amendments will be effective when approved in writing by the authorized representative of the Parties hereto as of the effective date set forth herein.

In witness whereof, the Parties hereto have caused this agreement to be executed on the date set forth below.

**MID-WILLAMETTE VALLEY
COUNCIL OF GOVERNMENTS**

CITY OF AMITY

By: _____

Scott Dadson, Executive Director

Date: _____

Mid-Willamette Valley Council of Governments

By: _____

Printed Name & Title _____

Date: _____

Organization: _____

BILLING CONTACT FOR INVOICES

FOR COG

Amber Mathiesen

Finance Director

amathiesen@mwvcog.org

100 High Street SE Ste. 200

Salem, OR 97301

NOTICES

For COG:

Scott Dadson

Executive Director

sdadson@mwvcog.org

100 High Street SE

Salem, OR 97301

For MEMBER:

Name: _____

Title: _____

Email Address: _____

Mailing Address: _____

For MEMBER:

Name: _____

Title: _____

Email Address: _____

Mailing Address: _____

Member Services (continued)

		COG Member Rates	Affiliate Member Rates	Grant Contract Rates
Strategic Planning/Goal Setting				
	Evening/Half Day (4 hours)*	\$ 2,700	\$ 2,970	
	One Day (8 Hours)*	\$ 5,400	\$ 5,940	
	Evening Plus full day (10 hours)*	\$ 6,450	\$ 7,095	
	* hourly rates apply thereafter			
Staff Services				
	Executive Director	per hour	\$ 187	\$ 230 \$ 225
	Department Director	per hour	\$ 141	\$ 170 \$ 195
	Loan Program Manager	per hour	\$ 148	\$ 180 \$ 180
	Project Manager 2	per hour	\$ 114	\$ 140 \$ 165
	Planner, Senior	per hour	\$ 109	\$ 130 \$ 165
	Admin Services Coordinator	per hour	\$ 92	\$ 110 \$ 150
	Accountant	per hour	\$ 92	\$ 110 \$ 150
	Planner, Associate	per hour	\$ 107	\$ 130 \$ 150
	Project Manager 1	per hour	\$ 99	\$ 120 \$ 150
	Administrative Specialist	per hour	\$ 84	\$ 100 \$ 120
	Planner, Assistant	per hour	\$ 84	\$ 100 \$ 120
Modeling Services				
	Modeling Services Member Rate	per hour	\$ 100	\$ 160
	Modeling Services For Profit Rate	per hour		\$ 200
Loan Underwriting , Packaging and Closing Services*				
	*charged as per lender requirement		See contract	See contract
Copy				
	Black and White Copies (Each)		\$ 0.30	\$ 0.30
	Color Copies (Each)		\$ 0.80	\$ 0.90
	Regular Plots (Each)		\$ 39.00	\$ 42.00
	Image Plots (Each)		\$ 55.00	\$ 61.00

Affiliate and Business Partner Rates

	Individual / Non-Profit Affiliate
Cost	\$500
Eligibility	<ul style="list-style-type: none">i. Local governments outside of Marion, Polk and Yamhill countiesii. Individual: Available to public employees or employees of nonprofits who work regularly with COG.iii. Nonprofit: Non-profit regional organizations and statewide intergovernmental associations that either have government representation on their boards (i.e. SEDCOR, Travel Salem, LOC, AOC, OSBA) or that partner with the COG in the delivery of its programs and services (i.e. Boys and Girls Club)
Scope of Services	<ul style="list-style-type: none">i. Affiliates are eligible for fee-for-service community development, transportation planning and GIS programs and such other services as the Executive Director may deem appropriate based on available resources.ii. Affiliates are not eligible to participate in the COG's fee for service programs that are limited to Marion, Polk, and Yamhill local government entities (i.e. recruitments, strategic planning, etc.)

ADOPTED by the Board of Directors of the Mid-Willamette Valley Council of Governments at Salem, Oregon this 19th Day of March 2024.

ATTEST


Roxanne Beltz, Vice Chair
COG Board of Directors



Scott Dadson
Executive Director



MEMORANDUM

TO: Board of Directors DATE: March 14, 2024
Mid-Willamette Valley Council of Governments
THRU: Scott Dadson Executive Director
FROM: Amber Mathiesen Finance Director
SUBJECT: Resolution No. 2024-01 Establishing Rates for Services for FY 2024-25

ISSUE

Should the Mid-Willamette Valley Council of Governments (COG) Board of Directors adopt the attached resolution establishing rates for fee-for-service programs FY 2024-25?

BACKGROUND

The COG, as an intergovernmental entity formed by agreement pursuant to ORS Chapter 190, has the authority to enter into intergovernmental agreements for the delivery of services to its member governments. The COG presently offers a host of fee-for-service programs on a contractual basis with its member governments, including but not limited to: land use planning, housing rehabilitation loan administration, revolving loan program administration, legal services, executive recruiting, and other technical services.

As part of the budget setting process, the Board adopts a rate schedule annually that sets out the fees that the COG charges for services provided to member and non-member governments.

RECOMMENDATION

The Board adopt Resolution No. 2024-01 establishing rates for fee-for-service programs FY 2024-25.

DISCUSSION

The following discussion summarizes the analysis that staff used to arrive at the rates on the attached resolution to include:

- Any relevant historical context for the program or service and its associated rates;
The assumptions and methodology staff used to arrive at the recommended rate;

- Where applicable, how the recommended rate compares with private sector rates for similar work; and
- Whether the proposed rate will generate revenue in excess of expenses, only recover costs, or result in a program loss (and if so, why that is advisable).
-

Member Services Rates

Recruiting Services. The rates set forth in the attached resolution are based on an analysis that averages the number of hours spent on this service over a five-year period and tiered by entity size. The rates are well below that which recruiters charge (which based on recent recruitments in the area are \$25,000 - \$35,000 per recruitment). However, the services conducted by recruiters is markedly different, in that recruiters offer a guarantee and will also actively recruit candidates (whereas the COG's service approximates the role of an internal Human Resources staff - a passive recruitment model). The anticipated net effect of the attached rates is to be both revenue and cost neutral based on a five-year average.

Legal Services. The COG began providing legal services in 2018. The attached resolution contains two rates for attorney services. The first is for Legal Services subscriptions which allow members to get up to 10 hours of legal services for a flat rate. Then there are rates for general counsel and hearings officer services at a rate of \$200 per hour. Both rates are at or below what cities have historically paid for these services.

The COG's cost for providing this service is expected to be \$114 per hour starting July 1, 2024. On a strictly per-hour basis, this model results in a net revenue of \$86 per hour for attorney services. That net revenue goes to pay for the cost of legal services provided to the COG on internal matters. The anticipated net effect of the attached rates is to be revenue and cost neutral, with some potential for a net gain (depending on the degree to which the attorney is used for internal matters).

Strategic Planning / Goal Setting. The COG provides goal setting and strategic planning sessions through a contractor. The attached rates reflect the cost of the contractor. The net effect is to be both revenue and cost neutral.

Miscellaneous Services. The COG will occasionally provide additional member services on a fee for service basis. For example, members will contract with the COG to facilitate amendments to the city Charter, facilitate resolution of conflicts, or perform other studies within the skills and abilities of the Executive Director. The anticipated hourly cost for the Executive Director (including wages and benefits) is \$150.00. The anticipated hourly cost for administrative support is \$80.00. Staff recommends a rate of \$187 per hour for the Executive Director and \$84.00 per hour for the Administrative Support, which is the rate that most facilitators charge for similar services. Because the demand for this type of work is intermittent, it is difficult to accurately predict the revenue impact of this rate, but any revenue would be minimal.

Community Development Rates

Land Use Planning. The COG provides land use planning services on a contractual, hourly basis for over twenty (20) jurisdictions throughout the region. The current contracts are set to expire on June 30, 2024.

Contract work includes current planning, special planning projects and long-range planning work, such as updating comprehensive plans, buildable land inventories and UGB expansions, code updates, mapping, etc. and this work is often shared between the local jurisdiction and private sector (if we are not successful in securing grant sources).

The staff recommended rates are intended to recover costs, however, some rates have historically been lower than cost recovery. In these cases, we are raising these rates incrementally 10% this year, and similar increases in following years)to improve recovery over time.

A market rate analysis of other planning services consultants within the region shows that, at the recommended rates, the COG proposed FY24/25 in the mid-range of other planning consultants within the region.

Program attributes that sets the COG apart, in addition to our hourly services contracts, are:

- Direct representation of our local jurisdictions with an assigned planner they can become familiar with and develop firm relationships and understandings;
- Support from the Community Development program as a whole, including support from the Community Development Director, Housing Rehabilitation Specialist, Grant Administrator, and Small Business Loan Program staff; and
- Support from a total of seven (7) Community Development staff rather than a single land use planner providing office hours that can often serve as a siloed resource.

Grants Administration. COG staff also contract with cities and other local governments throughout the year for funding application assistance, administration of public infrastructure grants and loans, and/or income surveys or other tasks needed to ensure continued eligibility for various state and federal funding programs. The recommended rate will achieve full cost recovery for this program area and is well within market rates for similar services.

Housing Rehabilitation. Community Development staff support the Valley Development Initiatives (VDI) housing rehabilitation program and contracted hourly services to support housing rehabilitation program contracts for the cities of Jefferson, Mt. Angel, Scotts Mills, Silverton, and Woodburn who maintain their own housing funds and desire COG assistance with program administration. The recommended rate will achieve full cost recovery for this program area.

Other Economic Development Services. Community Development staff will occasionally provide other economic development services, such as urban renewal planning and other

economic development efforts as requested by member local governments to enhance the region. The recommended rates for these services will achieve full cost recovery for those activities.

Geographic Information Services (GIS) / Transportation Modeling Services Rates

The COG provides various technical GIS services to member governments to include:

- Updates of zoning and comprehensive plan maps as well as other maps needed for local land use planning services;
- Requested services of a local government, such as address mapping, or assistance with Census program participation (e.g. Boundary and Annexation Survey)
- Support to Yamhill County to maintain and update the county's online GIS web application;
- Services for the Salem-Keizer School District to maintain and update data layers, update and create maps of school boundaries, and maintain the district's online GIS web application (the Salem-Keizer School Finder), and other services requested by the district; and
- Mailing list GIS services for ODOT Region 2.

The hourly member rate is the needed to cover COG's labor rate for a GIS analyst, plus indirect and material costs.

Modeling Services. On an infrequent basis (from two to four times per year), the COG transportation section will get requests for modeling forecasts from private sector companies (or their consultants) for projects associated with a private-sector land use development application. COG only provides this service only for the geographic area inside the SKATS MPO area. The proposed Transportation Modeling services hour charges of \$130/hour is higher than the "break-even" costs of \$110.00/hour for a Senior Planner- \$100/hour for an Associate Planner. In a typical year, the total amount of hours charge is less than 20 hours. Requests from our local governments within SKATS and ODOT for modeling forecasts and related outputs is not charged to those jurisdictions or ODOT since they provide local or state funds for matching the federal funds provided to the COG for SKATS.

Loan Program Service Rates

The loan program bills the individual loan programs for the time spent to market, underwrite, funding and servicing the loans. The recommended staff rates are expected to achieve full cost recovery when loans are funded. However, because many prospective lending opportunities are not pursued by the business borrowers and their participating lenders, for a variety of reasons beyond the control of the loan program staff, the time spent working on these prospective projects is not billable, so the time and costs are not recovered in instances when a loan does not

fund. The costs of those activities are then borne by the carryover in program income from year to year, which derives from other program revenues.

The loan program budget is the aggregate revenues of each revenue source. For example, the SBA 504 program and the Oregon Business Development Fund generates income in excess of costs; the COG revolving loan fund and VDI loan programs fund most, to all of the revenues to cover expenses and the contract lending services provided two cities and one county is subsidized by the other COG lending activities.

The COG's rates are well below market rates and that of other public sector lenders. A true private sector comparison is problematic because a lender would reluctant to accept the liability risk and increased insurance costs inherent with a contract for lending services that are not core to the lenders activities. However, for comparisons purposes assume the COG's rate for loan officer and program manager to be doubled to match private sector salaries (loan officer and team leader) and add a factor of plus 50% for indirect costs; the loan servicing rates would be increased by an indirect increase of 50%. Public sector comparisons are limited to other Councils of Governments in the State, which either are understaffed, do not have the software capacity, and are unable to provide lending services outside of their area of operations. Typically, these public entities have higher staff rates because of their individual burden rates/indirect costs in comparison to MWVCOG, as per our prior affiliation with jointly operated (three COGs) Certified Development Company.



ABOUT MID-WILLAMETTE VALLEY COUNCIL OF GOVERNMENTS

The Mid-Willamette Valley Council of Governments is a voluntary association of over 40 local governments. Members include Marion, Polk, and Yamhill counties, 32 cities, 7 special districts, and the Confederated Tribes of the Grand Ronde.

MISSION

Our ongoing mission includes:

- Expanding interaction and improving dialogue among local units of government
- “Convenorship” – enhancing collective awareness of major regional issues through seminars and workshops
- Coordinating regional planning and development activities
- Providing technical assistance and local services tailored to individual needs of member governments.

GOVERNMENT

The Mid-Willamette Valley Council of Governments operates under Oregon Revised Statute 190 however; the charter has enumerated powers, so we do not have all the same powers granted to municipal corporations by State statutes. Enumerated powers limit the Board’s power to the powers expressly listed in the ORS 190 Agreement. This affects the power to issue debt, levy taxes, as well as other Board’s decisions and daily operations.

Mid-Willamette Valley Council of Governments is governed by a representational Board comprised of an appointed Chair and 19 Board members. The Board exercises policy-making and legislative authority and is responsible for COG legislation, adopting the budget, appointing committees, and hiring the Executive Director.

The Executive Director and staff are responsible for carrying out the day-to-day operations of the COG.

The COG’s fiscal year begins July 1 and ends June 30. Current information about services and projects can be found at the website www.mwvcog.org

MEMBER SERVICES

The Council of Governments provides services to our members. At the core of MWVCOG programs are: Promoting regional collaboration, cooperation and dialogue among local units of government; Enhancing collective awareness of major regional issues, projects and activities through newsletters, meetings, seminars and workshops; Providing staff support, technical assistance and local services tailored to the individual needs of Mid-Willamette Valley Council of Government member jurisdictions.

ADMINISTRATIVE SERVICES

COG provides a variety of services to support the elected leadership and central office functions. These include facilitation, recruitments, finance and accounting, and legal services.

Facilitation

Facilitation services are available for elected leadership as well as department level efforts. Services include council goal-setting sessions, community visioning, and strategic planning.

Recruitment Services

COG staff are available to provide recruitment services for city managers and administrators including;

- Develop a recruitment timeline based on the Council's decisions regarding the placement of advertisements and the associated deadlines; the process that the Council determines is appropriate, Council availability, etc.
- Meet with Council to draft a position profile.
- Draft and place the position advertisements.
- Receive applications and send acknowledgment letters to all applicants. Screen applications.
- Respond to inquiries from candidates during the recruitment process.
- Perform background/reference checks on finalist(s) chosen by the Council.
- Work with the Council in designing the interview process and questions.
- Facilitate the interview process.
- Send out regret letters to unsuccessful candidates at appropriate times.
- Assist in negotiating an employment agreement. MEMBER is responsible for having its legal counsel prepare or review any proposed employment contract with the person being hired as MEMBER Manager.

Legal Services

COG provides experienced local government attorneys to provide legal services. Services include:

- Legal consultation and navigation services to assist with answering day-to-day questions such as conduct of a public meeting, public records, or the interpretation of a code or legal requirement.
- Review and drafting of contracts, intergovernmental agreements, and other documents and legal instruments.
- Drafting or resolutions, ordinances, and updates of municipal code sections as requested by MEMBER.
- Attendance at MEMBER meetings as requested by MEMBER and coordinated with the designated attorney.
- Attendance at meetings requiring legal representation either accompanying one or more MEMBER representatives or as the designated MEMBER legal representative.
- Training of MEMBER personnel, elected, and appointed officials on legal issues.
- Hearings Officer.
- Other legal services as requested by MEMBER, but does not include, litigation, bond counsel, personnel and labor negotiations, city prosecutor, or other specialized attorney services beyond agreed upon general legal representation.

Fiscal and Budget Administration Services

COG finance staff provide services to members for budgeting, accounting, payroll administration, financial reporting, cash management, insurance, investment oversight, fiscal records management, property management, analyses, and audit support.

TRANSPORTATION PLANNING AND GIS SERVICES

MWVCOG provides administrative services and staffing for the Metropolitan Planning Organization (MPO) responsible for transportation planning in the Salem-Keizer-Turner metropolitan planning area. Policy direction for the MPO program is provided by the Salem Keizer Area Transportation Study Policy Committee (SKATS). Participants in SKATS are: City of Salem, City of Keizer, City of Turner, Marion County, Polk County, School District 24J, Salem Area Mass Transit District, and Oregon Department of Transportation (ODOT). SKATS is responsible for the adoption and maintenance of the SKATS Metropolitan Transportation Plan (MTP), the SKATS Transportation Improvement Program (TIP), development of the regional travel demand model, and coordination and technical assistance for regional transportation studies in the SKATS boundary.

COG's Safe Routes to School program serves the Salem Keizer School district area using funding from transportation grants from ODOT the SKATS TIP, and matching funds from the Salem Keizer School District.

COG provides support and assistance to the Mid-Willamette Area Commission on Transportation (MWACT) to facilitate discussion and develop consensus on transportation issues throughout the three county-area.

GIS Services

COG's GIS (Geographic Information System) services include specialized mapping and analysis, online web map and application development, mapping support to land use planning, census data analysis, and assisting members in establishing or expanding the use of GIS in their agencies. Ongoing projects include development and maintenance of online web map applications for Yamhill County Planning and the cities of Sheridan, Dundee, and Turner, mobile data collection application development for Yamhill County Public works and the Marion Soil and Water Conservation District, attendance boundary maintenance for the Salem-Keizer School District, quarterly building permit reports for the greater Salem-Keizer area, and production and maintenance of zoning, comp plan, address, natural resources, and other maps for member cities. Specific services include:

- Web map application development/hosting
- Planning, transportation, natural resources, demographic, utility, and many other types of mapping
- Advanced geographic processes and analyses
- Online surveys
- Mobile data collection application development
- Utility CAD data conversion
- Public participation tools, such as online public comment maps
- Story Maps
- Arc HUB sites
- Custom data analysis

COMMUNITY AND ECONOMIC DEVELOPMENT SERVICES

Community and economic development services include land use planning, grant writing and administration, housing rehabilitation program management, small business lending, and economic development planning and activities.

Land Use Planning

MWVCOG provides professional planners for land use planning services for current and long-range planning including code updates, UGB expansion, and related analysis. Planning staff:

- Analyzes and evaluates land use applications, development proposals and building permits; prepares appropriate public notices; evaluates data; interprets applicable laws, codes, and ordinances, and makes appropriate recommendations; coordinates reviews and negotiations with other City departments.
- Identifies and resolves critical issues affecting the feasibility and success of various development proposals and land use applications.
- Answers questions and provides information to the public on land use, sign, and public nuisance regulations; investigates complaints and recommends corrective action as necessary to resolve concerns regarding the City's land use code.
- Prepares staff reports for the City Council and Planning Commission, Hearings Official, and other committees and advisory boards; makes presentations as required.
- Participates in pre-application conferences with project teams.
- Confers with and advises engineers, surveyors, developers, architects, attorneys, landscape architects and the public regarding City development requirements and planning policies and standards; coordinates City's response on land use applications, zoning, and other planning related matters; negotiates and resolves related conflicts that arise.
- Serves as project manager or staff team member on complex land use applications and studies.
- Conducts plan review on residential, multifamily, and commercial plans for zoning development standards, such as building design, setbacks, bicycle and motor vehicle parking, and landscaping.
- Develops informational materials to provide information to the public regarding land use standards and procedures related to the City's land use code, plans, and other standards.
- May research and draft ordinances to amend the zoning and other land use development ordinances; may evaluate amendments to the comprehensive plan or neighborhood plans.
- May make presentations regarding general planning issues, or specialized planning policies and procedures to neighborhood groups, educational, civic, and professional organizations.

Grants Administration

MWVCOG grant administration staff monitors, identifies and notifies member governments of grant and other opportunities; writes and administers grants including environmental reviews and wage monitoring; and completes reports to comply with grant requirements. These services include helping in insuring future eligibility for state and federal grants and loans by helping members with regulatory compliance in managing projects.

Housing Rehabilitation Services

COG provides specialized assistance to members with management and administration of housing rehabilitation programs and funds. Via the HUD Community Development Block Grant (CDBG) Program, these funds provide loans or grants to low and moderate-income homeowners for home

repairs and often require extensive regulatory compliance and specialized management on the part of funded cities. Due to regulatory changes, it is advantageous for many cities to assign these CDBG funds to Valley Development Initiatives, a regional non-profit corporation, for long term management. MWVCOG provides staff services to Valley Development Initiatives (VDI) under contract.

Economic Development

MWVCOG coordinates and provides staff support to the activities of the Mid-Willamette Valley Community Development Partnership, an advisory Board chartered by the MWVCOG consisting of 29 members made up of both local government elected officials and private sector representatives. The Partnership provides policy direction for the regional economic development planning program. This program is supported by federal funds (EDA) and MWVCOG and Economic Development District dues.

With EDA assistance, MWVCOG provides economic development services such as urban renewal planning projects, mapping, infrastructure and employment land inventories, participation in regional economic development activities and meetings, and continued services as the Economic Development District to ensure eligibility for EDA funding and opportunities.

Fiduciary Funds

COG offers fiscal agent services for members. For example, COG provides fiscal agent services under an agreement with the Marion Cultural Development Corporation. Donations are received and held pending disbursement instructions from the corporation.

BUSINESS LENDING AND REVOLVING LOAN FUND SERVICES

Revolving Loan Fund Administration

COG staff provide revolving loan fund administration services for members.

Business Lending

MWVCOG operates a regional loan program to help finance business facilities. This Revolving Loan Fund (RLF) program was capitalized by grants from the U.S. Economic Development Administration (EDA), member governments and the Regional Investment Program.

MWVCOG entered into intermediary relationships with the United States Department of Agriculture (USDA), the Oregon Business Development Corporation, CCD Business Development Corporation, and Business Oregon to provide loan packaging services.

Under contract with Valley Development Initiatives, MWVCOG provides staff support and fiscal services to administer an Intermediary Relending Program from the USDA Rural Business Development Loan Program and the SBA Intermediary Lending Pilot (ILP) Program.

Valley Development Initiatives applied to the U.S. Small Business Administration to become a Community Advantage lender under the SBA 7a guaranty loan program. With this program Valley Development Initiatives can lend to eligible borrowers and receive an SBA guaranty for a portion of the loan, then selling the guaranteed portion to secondary market pools, receiving a premium on the sale, servicing income and income generated from the non-guaranteed portion of each loan. The Community Advantage program targets businesses that cannot find financing elsewhere but are creditworthy.



CITY OF AMITY

109 Maddox Avenue
P.O. Box 159
Amity, OR 97101

Ph: (503) 835-3711
Fax: (503) 835-3780

To: Honorable Mayor and Amity City Council
Origin: City Administrator Nathan Frarck
Date: May 1st, 2024
Subject: City Administrator Staff Report

1. The new City website has now been up for about a month. There have been several hiccups to work out, but I believe we've overcome many of them and are on a good track. I've also gotten several compliments on the new website. Overall, I believe it's a massive upgrade and will allow us to continue to build and flesh out the information and resources that we offer to our community.
2. City staff has been hard at work preparing a draft budget for the upcoming fiscal year. The draft is nearing or at completion and should be posted soon. Please take time to review that carefully, write down any questions or concerns, and bring feedback to the budget committee meetings/hearings. Money may not be everything, but budgeting for the City's priorities is essential if we're going to move forward and make progress on our goals.
3. I know that I keep reporting on the Comprehensive Plan update project without much substantial progress, but we now have a signed contract with our consultants, Healthy Sustainable Communities, and we are gearing up to push it forward. By the end of this week, you'll see a press release/announcement go out and I'll begin reaching out to key community members that I believe can help represent a wide range of voices for the City of Amity. If there's anyone interested in participating, please send them my way.
4. Greg and I are preparing to meet with DEQ to discuss a new NPDES permit. This permit allows us to discharge our treated wastewater to Salt Creek and sets limits on the properties that that water can have. We'll be carefully reviewing the proposed limits and attempting to determine what improvements are feasible and which will create an unattainable burden on our Wastewater plant.
5. Our park host is doing well and working hard to keep the park well kept. He has a lot of energy and ambition, as well as experience with maintenance and facility work so if you have any feedback, please let me know.

CITY OF AMITY

109 Maddox Avenue
 P.O. Box 159
 Amity, OR 97101
 Ph: (503) 835-3711



Monthly Report from City Recorder/Treasurer

April 2024 for May 2024

Respectfully Submitted by: Natasha Johnson

Regular Tasks:

- Payroll- 2X (Prepared and paid liabilities, PERS Reports, per pay period, print checks, get signed, and distribute OR send to payroll center for direct deposit)
- Reconciliations (LGIP Account, First Federal Account), Deposit Entries
- Paid city bills
- Minutes for City Council Meetings
- Council Packets, Council Meeting Follow-up ~ completed tasks as requested
- Miscellaneous walk-in customers, response letters, etc.
- Human Resource Items (set up new employees, update employee files, close out former employees, insurance claims, etc.)
- Completed March billing for water/sewer and May newsletter

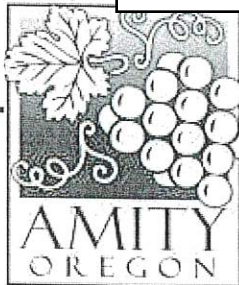
Other Items

- Worked on building & planning files
- Completed 48's & Shutoffs
- Court
- Attended trainings for Website
- Attended & help setup planning meeting
- Worked on preparing city budget

*****NEW*** Complaints Received**

	Subject	Resolution/Outcome	Copy to
04-09-24	Pothole	PW put cold patch on pothole	PW

CITY OF AMITY CITIZENS' COMPLAINT FORM



109 Maddox Avenue
P.O. Box 159
Amity, OR 97101
Ph: (503) 835-3711
Fax: (503) 835-3780

Date: 4/9/24

I, DAYNA BOURASSA wish to make the following complaint:
(Print Name)

- Public Nuisance at _____
- Discourteous or unresponsive city employee _____
- Obstruction of a city street or sidewalk at _____
- Illegal parking _____
- Trailer or RV being used as a residence at _____
- Possible unpermitted construction activity at _____
- Other POTHOLE

Please give a detailed description of your complaint: (use an additional sheet a paper if necessary)

POTHOLE IN CENTER OF JELLISON AT THE
INTERSECTION OF NURSERY. CENTER OF ROAD
AT STOP SIGN.

The complaint location is critical. If an address is not visible, give clear directions, like, "The vacant lot just north of 123 2nd Street". If the complaint is not visible from the street, please describe where it can be seen. If you are unable to give clear directions, be sure to put your contact phone number on the form so we can call to clarify.

Your name and contact info is not required, but can be very helpful. If the complaint is only visible from private property, we will have to contact you directly to get permission to enter your property to observe the problem. If we are unable to locate the complaint, and are unable to contact you for clarification, the complaint may be closed with no action taken.

I understand that city staff will investigate and take appropriate action.

[Signature]
Complainant Signature

Address: 909 S JELLISON AVE

Phone: 503 - 753 - 9810

I wish to be contacted by staff as a follow-up

City Administrator Police Chief

Date: _____ Emp. Int. _____

Copy given to (original on file with recorder):

Additional Documents Attached

_____ Date & Time

_____ Written By: Name/Title

_____ pet hole to shallow, cold patch will not last long

Additional Info:

_____ Date & Time

_____ Written By: Name/Title

_____ CH

Supervisor Comments: _____ filled with cold patch

Date complaint was given to supervisor: _____

Name of supervisor receiving complaint: _____ *Angie Binko*

DO NOT WRITE BELOW THIS LINE - FOR OFFICE USE ONLY

Public Works Report to Council

April 2024

Water:

- Clear path from reservoir to Rice for waterline inspection for ARPA project
- We have had 3 leaks to fix this month
- Used Diver to pull river pump out of riverbed, should be underwater until middle of May
- Clean intake lines twice weekly
- Several more repairs to Chlorine system at the water plant
- Calibrate NTU meters

Wastewater

- Work on Leak on force main
- Start I&I for Trade st sewer station
- Maintenance to blower for lagoons
- Working with Oregonvalue on depth of sewer lines for Oak st assessment
- Start a map of storm system
- Work on Chlorine and pH issues at wastewater plant

Streets:

- Fill potholes
- Cleaning of catch basins
- Mowing along Trade St and other locations

Parks:

- Maintenance of park equipment

Other:

-

Respectfully Submitted,
Greg Binks
Amity Public Works

APL City Council report

May 1, 2024

We are busy with Summer Reading planning! We postponed our kit assembly until May 2, so we'll have all the supplies we need, and we're trying to book additional events.

Our circulation increased in March, with 562 check-outs and 422 renewals (usually in the 300's). We have a rotation of storytime readers, our only volunteers lately, for a total of four hours in April.

KELLER ENGINEERING REPORT

Report Month: May 2024

Section 9, Item e.

PROJECT NO	DESCRIPTION	INVOICE	CURRENT AMOUNT	PRIOR BILLED	PROJECT TOTAL
215108-001	WATER SYSTEM SERVICES	240654	4,525.00	202,551.36	207,076.36
215108-002	SEWER SYSTEM SERVICES		0.00	20,557.50	20,557.50
215108-003	MUNICIPAL PLANNING SERVICE	2406663	1,777.50	164,957.90	166,735.40
215108-004	STREETS INFRASTRUCTURE SERVICES		0.00	47,804.93	47,804.93
215108-005	WATER SYSTEM IMPROVEMENTS		0.00	690,495.00	690,495.00
215108-011	WATER SYSTEM IMPROVEMENTS USDA)	240666	16,610.61	811,647.19	828,257.80
215108-006	WATER RESERVOIR IMPROVMENTS		0.00	54,740.00	54,740.00
215108-014	AMITY SALT CREEK RELOCATION PROJ		0.00	126,257.62	126,257.62
215108-021	ARPA WATER LINE FINAL DESIGN	240933	19,650.00	80,150.00	99,800.00
215108-020	AMITY RICE LANE SIDEWALKS SCA		795.00	38,050.00	38,845.00
215108-017	ROAD REHAB PROJECT SCA		0.00	13,594.25	13,594.25
215108-008	GIS GRANT SUPPORT		0.00	3,832.50	3,832.50
			<u>0.00</u>	<u>3,832.50</u>	<u>3,832.50</u>
			\$ 43,358.11	\$ 2,254,638.25	\$ 2,297,996.36



March 19, 2024

City of Amity
Attn: Tasha Johnson/Nathan Frarck
Email: njohnson@ci.amity.or.us
nfrarck@ci.amity.or.us

P.O. Box 159
Amity, OR 97101

Transmitting Invoice No. 0240654 – Amity - Water System Services

Dear Ms. Johnson and Mr. Frarck:

Please find attached the invoice in the amount of \$4,525.00 for project number 215108-001. During the month of February, Keller Associates completed the following engineering services:

- Project administration and management
- Coordination of 5th & Stanley Waterline
- Coordination of Amity Water Main Transmission Replacement Scope and Fee estimate
- Coordination, correspondences, and meetings

If you have any questions, please do not hesitate to contact me at 503.364.2002.

Sincerely,

KELLER ASSOCIATES, INC.

 Digitally signed by
Peter Olsen
Date: 2024.04.05
13:50:33-07'00'

Peter Olsen, PE
Project Manager



City of Amity
Attn: Tasha Johnson
Email: njohnson@ci.amity.or.us
Email: nfrarck@ci.amity.or.us

March 15, 2024
Project No: 215108-001
Invoice No: 0240654

Project 215108-001 Amity - Water System Services

Project Manager: *Peter Olsen* Digitally signed by Peter Olsen
Date: 2024.04.05 13:50:46-07'00'

Professional Services from January 28, 2024 to February 24, 2024

Professional Personnel

	Hours	Rate	Amount
Hastings, Krista	.25	80.00	20.00
Marquez, Ashley	.25	90.00	22.50
Olsen, Peter	1.50	215.00	322.50
Soto, Adam	26.00	160.00	4,160.00
Totals	28.00		4,525.00
Total Labor			4,525.00
		Total this Invoice	<u>\$4,525.00</u>

Billings to Date

	Current	Prior	Total
Labor	4,525.00	200,360.75	204,885.75
Consultant	0.00	1,324.50	1,324.50
Expense	0.00	866.11	866.11
Totals	4,525.00	202,551.36	207,076.36

Billing Backup

Thursday, March 14, 2024

Keller Associates, Inc.

Invoice 0240654 Dated 3/15/2024

8:56:13 AM

Project 215108-001 Amity - Water System Services

Professional Personnel

			Hours	Rate		Amount
00298	Hastings, Krista	2/16/2024	.25	80.00		20.00
	Project Administration					
00380	Marquez, Ashley	2/16/2024	.25	90.00		22.50
	Project Administration					
00031	Olsen, Peter	2/14/2024	.50	215.00		107.50
	5th & Stanley waterline project development					
00031	Olsen, Peter	2/20/2024	.50	215.00		107.50
	5th and Stanley project concept					
00031	Olsen, Peter	2/22/2024	.50	215.00		107.50
	5th and Stanley project concept					
00397	Soto, Adam	2/7/2024	6.50	160.00		1,040.00
	Amity Water Main Transmission Replacement Scope and Fee estimate					
00397	Soto, Adam	2/8/2024	4.00	160.00		640.00
	Amity water transmission main scope and fee					
00397	Soto, Adam	2/16/2024	4.00	160.00		640.00
	Amity Water Transmission main scope, fee, and task order					
00397	Soto, Adam	2/19/2024	1.50	160.00		240.00
	Amity water transmission main fee and scope					
00397	Soto, Adam	2/20/2024	4.00	160.00		640.00
	Amity Water Transmission Main Scope/Fee Survey request					
00397	Soto, Adam	2/21/2024	.50	160.00		80.00
	Water Transmission Main Survey Scope meeting					
00397	Soto, Adam	2/22/2024	3.00	160.00		480.00
	Amity Water Transmission Main Scope/Fee					
00397	Soto, Adam	2/23/2024	2.50	160.00		400.00
	Amity Water Transmission Main Scope/Fee					
	Totals		28.00			4,525.00
	Total Labor					4,525.00
				Total this Project		\$4,525.00
				Total this Report		\$4,525.00



April 8, 2024

City of Amity
Attn: Tasha Johnson/Nathan Frarck
Email: njohnson@ci.amity.or.us
nfrarck@ci.amity.or.us
P.O. Box 159
Amity, OR 97101

Transmitting Invoice No. 0240666 – Amity-Water System General

City of Aurora:

Please find attached invoice in the amount of \$16,610.61 for project number 215108-011. During the month of February, Keller Associates completed the following engineering services:

- Project management and administration
- Correspondence, Meetings and Coordination
- Coordination of change orders, RFI's, and agenda
- Calls with contractors – project coordination
- Review of Change Order 7
- Site Visits – answer follow up questions
- Review with Structural Team – Anchor Bolt
- Coordination of Sprinkler Monitoring Plan

If you have any questions, please do not hesitate to contact me at 503.364.2002.

Sincerely,

KELLER ASSOCIATES, INC.

A handwritten signature in blue ink that reads "Peter Olsen".

Peter Olsen, PE
Project Manager



March 15, 2024
Project No: 215108-011
Invoice No: 0240666

City of Amity
Attn: Tasha Johnson
Email: njohnson@ci.amity.or.us
Email: nfrarck@ci.amity.or.us

Project 215108-011 Amity - Water System Improvements (USDA)

Project Manager: *Peter Olsen* Digitally signed by Peter Olsen
Date: 2024.04.05 13:56:34-0700'

Professional Services from January 28, 2024 to February 24, 2024

Task	1	Basic Services- Bidding & Negotiating Phase	
Fee			
Total Fee		65,900.00	
Percent Complete	100.00	Total Earned	65,900.00
		Previous Fee Billing	65,900.00
		Current Fee Billing	0.00
		Total Fee	0.00
		Total this Task	0.00
		Total this Task	0.00

Task	2	Basic Services - Construction Phase	
Fee			
Total Fee		414,103.60	
Percent Complete	92.00	Total Earned	380,975.31
		Previous Fee Billing	368,552.20
		Current Fee Billing	12,423.11
		Total Fee	12,423.11
		Total this Task	\$12,423.11
		Total this Task	\$12,423.11

Task	3	Resident Project Representative	
Professional Personnel			
		Hours	Rate
Hennenfent, Maureen		33.50	125.00
Totals		33.50	4,187.50
Total Labor			4,187.50
		Total this Task	\$4,187.50

Billing Limits	Current	Prior	To-Date
Total Billings	4,187.50	160,405.99	164,593.49
Limit			173,265.40
Remaining			8,671.91
		Total this Task	\$4,187.50

Project 215108-011 Amity - Water System Improvements (USDA) Invoice 02

Task	4	Basic Services Redesign		
Fee				
Total Fee		20,000.00		
Percent Complete	100.00	Total Earned	20,000.00	
		Previous Fee Billing	20,000.00	
		Current Fee Billing	0.00	
		Total Fee		0.00
		Total this Task		0.00

Task	5	Basic Services 1200C		
Fee				
Total Fee		8,000.00		
Percent Complete	100.00	Total Earned	8,000.00	
		Previous Fee Billing	8,000.00	
		Current Fee Billing	0.00	
		Total Fee		0.00
		Total this Task		0.00

Task	6	SCADA & Integration		
Subtask 6-1: Project Management				
Fee				
Total Fee		5,220.00		
Percent Complete	100.00	Total Earned	5,220.00	
		Previous Fee Billing	5,220.00	
		Current Fee Billing	0.00	
		Total Fee		0.00
		Total this Task		0.00

Subtask 6-2: Panel Design				
Fee				
Total Fee		49,150.00		
Percent Complete	100.00	Total Earned	49,150.00	
		Previous Fee Billing	49,150.00	
		Current Fee Billing	0.00	
		Total Fee		0.00
		Total this Task		0.00

Subtask 6-3: Programming and Integration				
Fee				
Total Fee		134,419.00		
Percent Complete	100.00	Total Earned	134,419.00	
		Previous Fee Billing	134,419.00	
		Current Fee Billing	0.00	
		Total Fee		0.00
		Total this Task		0.00

Subtask 6-4: Communications, Coordination, Start-Up and Commissioning

Project 215108-011 Amity - Water System Improvements (USDA) Invoice 02

Fee			
Total Fee	36,900.00		
Percent Complete	0.00	Total Earned	0.00
		Previous Fee Billing	0.00
		Current Fee Billing	0.00
		Total Fee	0.00
		Total this Task	0.00

Subtask 6-5: Manuals, As-Built Documentation, and Training

Fee			
Total Fee	17,611.00		
Percent Complete	0.00	Total Earned	0.00
		Previous Fee Billing	0.00
		Current Fee Billing	0.00
		Total Fee	0.00
		Total this Task	0.00
		Total this Task	0.00
		Total this Invoice	<u>\$16,610.61</u>

Billings to Date

	Current	Prior	Total
Fee	12,423.11	651,241.20	663,664.31
Labor	4,187.50	158,056.25	162,243.75
Expense	0.00	2,349.74	2,349.74
Totals	16,610.61	811,647.19	828,257.80

Billing Backup

Friday, March 15, 2024

Keller Associates, Inc.

Invoice 0240666 Dated 3/15/2024

12:44:08 PM

Project	215108-011	Amity - Water System Improvements (USDA)		
Task	3	Resident Project Representative		

Professional Personnel

			Hours	Rate	Amount	
00313	Hennenfent, Maureen	1/29/2024	2.50	125.00	312.50	
00313	Hennenfent, Maureen	1/30/2024	2.00	125.00	250.00	
00313	Hennenfent, Maureen	1/31/2024	.50	125.00	62.50	
00313	Hennenfent, Maureen	2/1/2024	.25	125.00	31.25	
00313	Hennenfent, Maureen	2/2/2024	1.00	125.00	125.00	
00313	Hennenfent, Maureen	2/5/2024	.50	125.00	62.50	
00313	Hennenfent, Maureen	2/8/2024	5.00	125.00	625.00	
00313	Hennenfent, Maureen	2/9/2024	5.00	125.00	625.00	
00313	Hennenfent, Maureen	2/13/2024	3.50	125.00	437.50	
00313	Hennenfent, Maureen	2/14/2024	5.00	125.00	625.00	
00313	Hennenfent, Maureen	2/15/2024	4.00	125.00	500.00	
00313	Hennenfent, Maureen	2/20/2024	.25	125.00	31.25	
00313	Hennenfent, Maureen	2/22/2024	4.00	125.00	500.00	
	Totals		33.50		4,187.50	
	Total Labor					4,187.50
				Total this Task		\$4,187.50
				Total this Task		\$4,187.50
				Total this Project		\$4,187.50
				Total this Report		\$4,187.50



March 19, 2024

City of Amity
Attn: Tasha Johnson/Nathan Frarck
Email: njohnson@ci.amity.or.us
nfrarck@ci.amity.or.us
P.O. Box 159
Amity, OR 97101

Transmitting Invoice No. 0240663 – Amity - Municipal Planning Services

Dear Ms. Johnson & Mr. Frarck:

Please find attached the invoice in the amount of \$1,777.50 for project number 215108-003. During the month of February, Keller Associates completed the following engineering services:

- Project administration and management
- Meetings, correspondence, and coordination
- Amity Oaks Permit research
- Coordination of Amity city park path cost estimate
- Coordination of Amity city ordinance and design standards questions
- Amity MS/HS - (\$563.75)

If you have any questions, please do not hesitate to contact me at 503.364.2002.

Sincerely,

KELLER ASSOCIATES, INC.

 Digitally signed by
Peter Olsen
Date: 2024.04.05
15:47:47-07'00'

Peter Olsen, PE
Project Manager



March 15, 2024
Project No: 215108-003
Invoice No: 0240663

City of Amity
Attn: Tasha Johnson
Email: njohnson@ci.amity.or.us
Email: nfrarck@ci.amity.or.us

Project 215108-003 Amity - Municipal Planning Services

Project Manager: Peter Olsen Digitally signed by Peter Olsen
Date: 2024.04.05 15:48:27-0700

Professional Services from January 28, 2024 to February 24, 2024

Professional Personnel

	Hours	Rate	Amount
Hastings, Krista	.25	80.00	20.00
Marquez, Ashley	.50	90.00	45.00
Olsen, Peter	3.50	215.00	752.50
Soto, Adam	6.00	160.00	960.00
Totals	10.25		1,777.50
Total Labor			1,777.50
		Total this Invoice	<u>\$1,777.50</u>

Billings to Date

	Current	Prior	Total
Labor	1,777.50	164,878.75	166,656.25
Expense	0.00	79.15	79.15
Totals	1,777.50	164,957.90	166,735.40

Billing Backup

Thursday, March 14, 2024

Keller Associates, Inc.

Invoice 0240663 Dated 3/15/2024

9:46:16 AM

Project 215108-003 Amity - Municipal Planning Services

Professional Personnel

			Hours	Rate	Amount	
00298	Hastings, Krista	2/16/2024	.25	80.00	20.00	
	Project Administration					
00380	Marquez, Ashley	1/29/2024	.25	90.00	22.50	
	Project Administration					
00380	Marquez, Ashley	2/16/2024	.25	90.00	22.50	
	Project Administration					
00031	Olsen, Peter	1/29/2024	1.00	215.00	215.00	
	Amity MS/HS code research (0.25), Amity Oaks permit research (0.75)					
00031	Olsen, Peter	1/30/2024	.25	215.00	53.75	
	Amity MS/HS coordination					
00031	Olsen, Peter	2/12/2024	.25	215.00	53.75	
	checkin mtg with Holly					
00031	Olsen, Peter	2/19/2024	2.00	215.00	430.00	
	amity HS next steps (1.0), bi-weekly checkin mtg (1.0)					
00397	Soto, Adam	1/29/2024	.50	160.00	80.00	
	Weekly check-in meeting					
00397	Soto, Adam	1/30/2024	3.00	160.00	480.00	
	Amity City park path cost estimate					
00397	Soto, Adam	2/8/2024	2.00	160.00	320.00	
	Amity City Ordinance and design standards questions					
00397	Soto, Adam	2/19/2024	.50	160.00	80.00	
	Amity HS next steps task					
	Totals		10.25		1,777.50	
	Total Labor					1,777.50
				Total this Project		\$1,777.50
				Total this Report		\$1,777.50



March 18, 2024

City of Amity
Attn: Nathan Frarck, City Manager
E-Mail: nfrarck@ci.amity.or.us

Transmitting Invoice – 215108-020 – Amity Rice Lane Sidewalks SCA Project

Dear Mr. Frarck:

Please find attached Keller Associates’ (Keller) invoice for project number 215108-020. During the month of February, Keller completed the following engineering services:

- Project management and administration
- Rice Lane Bid quantities discussion
- Coordination of Draft NTP for Rice Lane
- Discussion with contractor RE Lump Sum

	Task	Budget	This invoice	Billed to Date	Remaining
1	Project Management	\$ 3,700.00	\$ -	\$ 1,665.00	\$ 2,035.00
2	SCA Topographic Surveying and Base Mapping	\$ 9,400.00	\$ -	\$ 9,400.00	\$ -
3	Plans, Specifications and Cost Estimates (PS&E)	\$ 21,200.00	\$ -	\$ 21,200.00	\$ -
4	Services During Bidding	\$ 4,000.00	\$ -	\$ 4,000.00	\$ -
5	Construction Phase Services	\$ 8,000.00	\$ 795.00	\$ 1,265.00	\$ 6,735.00
6	Owner Reserve for Additional Services	\$ 5,000.00	\$ -	\$ 1,315.00	\$ 3,685.00
	Total	\$ 51,300.00	\$ 795.00	\$ 38,845.00	\$ 12,455.00

If you have any questions, please do not hesitate to contact me or Abby McFetridge at 503.364.2002.

KELLER ASSOCIATES, INC.

Shannon Williams, PE
Project Manager



March 15, 2024
 Project No: 215108-020
 Invoice No: 0240563

City of Amity
 Attn: Nathan Frarck, City Manager
 E-Mail: nfrarck@ci.amity.or.us
 CC: njohnson@ci.amity.or.us

Project 215108-020 Amity - Rice Lane Sidewalks SCA Projects
 Project Manager: *Gannon Morrison*

Professional Services from January 28, 2024 to February 24, 2024

Task	001	Project Management		
Fee				
Total Fee		3,700.00		
Percent Complete	45.00	Total Earned	1,665.00	
		Previous Fee Billing	1,665.00	
		Current Fee Billing	0.00	
		Total Fee		0.00
		Total this Task		0.00

Task	002	SCA Topo Surveying & Base Map		
Fee				
Total Fee		9,400.00		
Percent Complete	100.00	Total Earned	9,400.00	
		Previous Fee Billing	9,400.00	
		Current Fee Billing	0.00	
		Total Fee		0.00
		Total this Task		0.00

Task	003	Plans, Specs & Cost Estimate (PS&E)		
Fee				
Total Fee		21,200.00		
Percent Complete	100.00	Total Earned	21,200.00	
		Previous Fee Billing	21,200.00	
		Current Fee Billing	0.00	
		Total Fee		0.00
		Total this Task		0.00

Task	004	Services During Bidding		
Fee				
Total Fee		4,000.00		
Percent Complete	100.00	Total Earned	4,000.00	
		Previous Fee Billing	4,000.00	
		Current Fee Billing	0.00	
		Total Fee		0.00

Total this Task **0.00**

Task 005 Construction Phase Services

Professional Personnel

	Hours	Rate	Amount
Soto, Adam	3.50	160.00	560.00
Williams, Shannon	1.00	235.00	235.00
Totals	4.50		795.00
Total Labor			795.00

Billing Limits

	Current	Prior	To-Date
Total Billings	795.00	470.00	1,265.00
Limit			8,000.00
Remaining			6,735.00
Total this Task			\$795.00

Task 006 Owner Reserve for Additional Services

Billing Limits

	Current	Prior	To-Date
Total Billings	0.00	1,315.00	1,315.00
Limit			5,000.00
Remaining			3,685.00
Total this Task			0.00

Total this Invoice \$795.00

Billings to Date

	Current	Prior	Total
Fee	0.00	36,265.00	36,265.00
Labor	795.00	1,785.00	2,580.00
Totals	795.00	38,050.00	38,845.00

Billing Backup

Monday, March 11, 2024

Keller Associates, Inc.

Invoice 0240563 Dated 3/15/2024

12:15:09 PM

Project	215108-020	Amity - Rice Lane Sidewalks SCA Projects
Task	005	Construction Phase Services

Professional Personnel

			Hours	Rate	Amount	
00397	Soto, Adam	2/2/2024	.50	160.00	80.00	
00397	Soto, Adam	2/21/2024	2.00	160.00	320.00	
00397	Soto, Adam	2/22/2024	1.00	160.00	160.00	
00244	Williams, Shannon	2/2/2024	1.00	235.00	235.00	
	Totals		4.50		795.00	
	Total Labor					795.00

Total this Task \$795.00

Total this Project \$795.00

Total this Report \$795.00



City of Amity
 Attn: Nathan Frarck
 E-Mail: nfrarck@ci.amity.or.us
 E-Mail: njohnson@ci.amity.or.us

April 15, 2024
 Project No: 215108-021
 Invoice No: 0240933

Project 215108-021 ARPA Waterlines Final Design
 Project Manager: E. Payson Smith
Digitally signed by E. Payson Smith
 DN: cn=E. Payson Smith, o=Keller Associates,
 Date: 2024.04.17 14:55:15 -0700

Professional Services from February 25, 2024 to March 31, 2024

Task	001	Project Management		
Fee				
Total Fee		8,800.00		
Percent Complete		50.00	Total Earned	4,400.00
			Previous Fee Billing	3,520.00
			Current Fee Billing	880.00
			Total Fee	880.00
			Total this Task	\$880.00

Task	002	Easement Analysis and Acquisition		
Fee				
Total Fee		90,400.00		
Percent Complete		20.00	Total Earned	18,080.00
			Previous Fee Billing	9,040.00
			Current Fee Billing	9,040.00
			Total Fee	9,040.00
			Total this Task	\$9,040.00

Task	003	Final Design Services		
Fee				
Total Fee		75,100.00		
Percent Complete		100.00	Total Earned	75,100.00
			Previous Fee Billing	67,590.00
			Current Fee Billing	7,510.00
			Total Fee	7,510.00
			Total this Task	\$7,510.00

Task	004	Services During Bidding		
Fee				
Total Fee		7,400.00		
Percent Complete		30.00	Total Earned	2,220.00
			Previous Fee Billing	0.00
			Current Fee Billing	2,220.00
			Total Fee	2,220.00

Project 215108-021 ARPA Waterlines Final Design Invoice 02

Total this Task \$2,220.00

 Task 005 Construction Phase Services
Total this Task 0.00

 Task 006 Management Reserve
Total this Task 0.00

Total this Invoice \$19,650.00

Outstanding Invoices

Number	Date	Balance
0240518	3/15/2024	66,848.00
		66,848.00

Billings to Date

	Current	Prior	Total
Fee	19,650.00	80,150.00	99,800.00
Totals	19,650.00	80,150.00	99,800.00

Mid-Willamette Valley Council of Governments

100 High Street SE STE 200
Salem, OR 97301
(503) 540-1603
amathiesen@mwvcog.org



INVOICE

BILL TO
City of Amity
PO Box 159
Amity, OR 97101 United States

INVOICE # 3115 DATE 03/31/2024 TERMS Real 45 days DUE DATE 05/15/2024

PROJECT MANAGER
Byram, Holly

	DESCRIPTION	QTY	RATE	AMOUNT
Associate Planner - Local	[Mar 5 – Mar 29] - Holly C Byram	11:45	99.00	1,163.25
General Counsel Services	[Mar 13 – Mar 27] - Laura Conroy	10:42	188.00	2,011.60

Contact Mid-Willamette Valley Council of Governments to pay.

BALANCE DUE

\$3,174.85

**ette Valley Council of Governments
Time for Invoicing Type 1 Projects
Activity: March 2024**

Activity Date	Employee	Product/Service	Memo/Description	Rate	Duration	Amount
03/05/2024	Holly C Byram	Associate Planner - Local	2208-01 LA -Joint Work Session CC/PC	99.00	1	99.00
03/06/2024	Holly C Byram	Associate Planner - Local	General planning	99.00	0.25	24.75
03/07/2024	Holly C Byram	Associate Planner - Local	Pre-App - TL 05101, corner of Woodson & Getchell	99.00	0.25	24.75
03/11/2024	Holly C Byram	Associate Planner - Local	2208-01 LA -Joint Work Session CC/PC on ADUs etc. + Staff memo/materials	99.00	4.75	470.25
03/12/2024	Holly C Byram	Associate Planner - Local	2208-01 LA -Joint Work Session CC/PC	99.00	0.5	49.50
03/12/2024	Holly C Byram	Associate Planner - Local	General planning	99.00	0.25	24.75
03/14/2024	Holly C Byram	Associate Planner - Local	2403-01SDR School District, Pickleball Courts	99.00	0.5	49.50
03/18/2024	Holly C Byram	Associate Planner - Local	2403-01SDR Pickleball Courts, Amity School District	99.00	1	99.00
03/19/2024	Holly C Byram	Associate Planner - Local	General planning	99.00	0.25	24.75
03/19/2024	Holly C Byram	Associate Planner - Local	2403-01SDR Pickleball Courts, Amity School District	99.00	0.5	49.50
03/20/2024	Holly C Byram	Associate Planner - Local	General planning	99.00	0.25	24.75
03/21/2024	Holly C Byram	Associate Planner - Local	2403-01SDR Pickleball Courts, Amity School District	99.00	0.5	49.50
03/26/2024	Holly C Byram	Associate Planner - Local	2403-01SDR Pickleball Courts, Amity School District	99.00	0.75	74.25
03/28/2024	Holly C Byram	Associate Planner - Local	Inquiry - 1214 S Jellison	99.00	0.5	49.50
03/29/2024	Holly C Byram	Associate Planner - Local	Pre App Woodson Mixed-use Gibbs/Polluci	99.00	0.25	24.75
03/29/2024	Holly C Byram	Associate Planner - Local	General Planning	99.00	0.25	24.75

03/13/2024	Laura Conroy	General Counsel Services	review bid documents for waterline project, email to city manager with guidance and sample language	188.00	3	564.00
03/13/2024	Laura Conroy	General Counsel Services	Research and call with City Manager re deferral agreements	188.00	1	188.00
03/18/2024	Laura Conroy	General Counsel Services	Election Question	188.00	1	188.00
03/19/2024	Laura Conroy	General Counsel Services	Elections questions	188.00	1	188.00
03/20/2024	Laura Conroy	General Counsel Services	Elections questions	188.00	1	188.00
03/21/2024	Laura Conroy	General Counsel Services	Review email from CM re ordinance	188.00	0.2	37.60
03/22/2024	Laura Conroy	General Counsel Services	review/respond city manager email re ordinance	188.00	0.5	94.00
03/25/2024	Laura Conroy	General Counsel Services	Draft Ordinance to Nathan	188.00	1	188.00
03/27/2024	Laura Conroy	General Counsel Services	Call with Truman, call with Nathan re Resolution of Need and Ordinance to repeal ORD 664	188.00	2	376.00
				22.45		\$ 3,174.85