CITY OF UNALASKA UNALASKA, ALASKA

RESOLUTION 2021-37

A RESOLUTION OF THE UNALASKA CITY COUNCIL AUTHORIZING THE CITY MANAGER TO ENTER INTO AN AGREEMENT WITH PSI WATER TECHNOLOGIES TO PROVIDE OWNER FURNISHED MATERIALS FOR THE PYRAMID WATER TREATMENT PLANT CHLORINE UPGRADES PROJECT FOR \$288,000

WHEREAS, the Pyramid Water Treatment Plant Chlorine Upgrades Project is a component of the approved Capital and Major Maintenance Program; and

WHEREAS, the City of Unalaska has provided funding to construct the Project; and

WHEREAS, Staff solicited for sealed bids as prescribed by UCO §6.24.020 and the City of Unalaska Purchasing Policy 14-0803 via a Request for Proposals for the On-Site Sodium Hypochlorite Generation System; and

WHEREAS; five Bid Proposals to provide the specified Owner Furnished Materials were received in response to the RFP; and

WHEREAS, PSI Water Technologies, a UGSI Solutions Company, an experienced manufacturer of the requested Owner Furnished Materials has been deemed by Staff to be the most qualified Proposer to provide the equipment within the available budget and short turn-around time.

NOW THEREFORE BE IT RESOLVED that the Unalaska City Council authorizes the City Manager to enter into an Agreement with PSI Water Technologies to provide the requested Owner Furnished On-Site Sodium Hypochlorite Generation System for \$288,000.

PASSED AND ADOPTED by a duly constituted quorum of the Unalaska City Council on May 25, 2021.

Vincent M. Tutiakoff, Sr.

Mayor

ATTEST:

Marjie Veeder, CMC

City Clerk

MEMORANDUM TO COUNCIL

To: Mayor and City Council Members

From: Tom Cohenour, Director, Department of Public Works

Through: Erin Reinders, City Manager

Date: May 25, 2021

Re: Resolution 2021-37, Authorizing the City Manager to Enter into an Agreement with

PSI Water Technologies to Provide Owner Furnished Materials for the Pyramid

Water Treatment Plant Chlorine Upgrades Project for \$288,000

<u>SUMMARY</u>: Through this Resolution, Staff obtains Council approval to enter into a Procurement Agreement for Owner Furnished Materials for the Pyramid Water Treatment Plant Chlorine Upgrades Project. The Procurement of the On Site Sodium Hypochlorite Generation System from PSI Water Technologies, a USGI Solutions Company, for \$288,000 will come from the Project's budget, MUNIS Project WA21A. Copies of the Request for Proposals, PSI Water Technologies' Bid Proposal, and the ranking results for all proposals received are attached to this memo, as is the form of Procurement Agreement.

PREVIOUS COUNCIL ACTION: This Project was funded at \$100,000 via the FY2021 Capital Budget appropriation Ordinance 2020-10, passed and adopted on June 9, 2020. Ordinance 2021-09, a Budget Amendment, passed on May 11, 2021, appropriated \$300,000 towards this procurement of the Owner Furnished On-Site Sodium Hypochlorite Generation System.

BACKGROUND: This project was funded in order to move the Water Utility away from shipping chlorine gas used for potable water disinfection to Unalaska and switch to on-site generation of liquid sodium hypochlorite (bleach), a much safer and cost-effective means of potable water disinfection and similar to that already in use at the Wastewater Treatment Plant and Aquatics Center. Per UCO §6.24.020 and the City of Unalaska Purchasing Policy 14-0803, Staff issued a Request for Proposals to supply the equipment and advertised the RFP via the City Website, various Plan Centers, and direct email to known suppliers. Five Bid Proposals to provide the specified Owner Furnished On-Site Sodium Hypochlorite Generation System were received. A ten-member team composed of City Staff and a member of the design engineering firm reviewed the Proposals and ranked them based on criteria set out in the RFP. PSI Water Technologies was deemed by the team to be the most qualified respondent able to provide the equipment within the Project's budget and narrow time frame for procurement.

<u>DISCUSSION</u>: The timely award of this Procurement Agreement is necessary in order to begin fabrication of the Sodium Hypochlorite Generation System and have it on site at the Pyramid Water Treatment Plant in time for it to be installed as part of the PWTP Micro Turbines Project. PSI Water Technologies' Proposal states the machinery will be at the job site by October 1, 2021 assuming they have a signed procurement agreement by June 1, 2021. Integrating this procurement with the PWTP Micro Turbines Project achieves economy of scale savings estimated to be up to \$200,000 as materials and labor for components of the Micro Turbines Project would become unnecessary or require replacement when the Chlorine Upgrade Project is constructed. Savings on mobilization and demobilization of a new construction crew, reduced construction administration and inspection costs through project integration, and reduced bid support and bid selection costs will also be avoided when this equipment is procured through this award and

installation added to the Micro Turbine Project Contractor's scope of work. In addition to these cost savings, there will be less interruption to Water Division operations and the advantage of more immediate improved water quality through producing water that is less acidic and safer to produce.

<u>ALTERNATIVES</u>: Staff supports any direction the Council chooses to provide. Given the foregoing information, Staff feels it is prudent and necessary to move forward with this Procurement Award.

FINANCIAL IMPLICATIONS: \$300,000 in funding is available in the Projects' Machinery & Equipment line item to support this award. There is a total of \$339,872.20 available in the Project's overall budget. Staff does not believe further funds will be needed to make this procurement.

LEGAL: Not applicable in this instance.

STAFF RECOMMENDATION: Staff recommends this request to approve the purchase of Owner Furnished Materials for the PWPT Chlorine Upgrade Project from PSI Water Technologies for \$288,000.

PROPOSED MOTION: I move to adopt Resolution 2021-37.

CITY MANAGER COMMENTS: I support staff's recommendation.

ATTACHMENTS:

- On-Site Sodium Hypochlorite Generation System Request for Proposal (RFP)
- RFP Evaluation Results
- Draft Procurement Agreement



Request for Proposals

On-Site Sodium Hypochlorite Generation System

DPW Project No. 20401

Prepared by:

City of Unalaska Department of Public Works

PO Box 610 Unalaska, Alaska 99685

April 16, 2021

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Attachment A	Procurement Agreement
Attachment B	Evaluation Matrix
Attachment C	Pyramid Water Treatment As-builts

Attachment D PWTP Chlorine Room – Current Condition Pictures

LIST OF ACRONYMS

Cl Chlorine

COU City of Unalaska

DPU Department of Public Utilities
DPW Department of Public Works

HVAC Heating, Ventilation and Air Conditioning

IBC International Building Code

mg/L milligrams per Liter
MGD Million Gallons per Day

OSHGS On-Site Sodium Hypochlorite Generation System

O&M Operation and Maintenance

ppd pounds per day

psig pounds per square inch in gauge PWTP Pyramid Water Treatment Plant

RFP Request for Proposals

1.0 INTRODUCTION

This is a Request for Proposals (RFP) by the City of Unalaska Department of Public Works for an **On-Site Sodium Hypochlorite Generation System**. All questions about this RFP must be directed to the City Engineer <u>only</u>.

City of Unalaska - Department of Public Works Bob Cummings, City Engineer bcummings@ci.unalaska.ak.us P.O. Box 610 Unalaska, AK 99685 Phone 907-581-1260

Interpretations or clarifications considered necessary by the City of Unalaska in response to such questions will be issued by Addenda. Addenda will be emailed to all registered potential respondents and also posted on the City of Unalaska website:

http://www.ci.unalaska.ak.us/rfps.

1.1 BACKGROUND

The City of Unalaska Department of Public Utilities is planning to transition from chlorine gas to a dilute liquid sodium hypochlorite solution to provide disinfection at the Pyramid Water Treatment Plant. It will be highly advantageous if the selected On-Site Sodium Hypochlorite Generation System utilizes the same space that the existing chlorine gas system does. In addition to this transition, the City of Unalaska Department of Utilities is in the process of installing micro hydro turbine generators (microturbines) that will utilize excess potential energy from incoming raw water to produce electricity which will be fed to the City of Unalaska electrical distribution grid. Construction for the microturbines installation is scheduled to occur between October 1, 2021 and December 1, 2021.

The information from the selected On-Site Sodium Hypochlorite Generation System will be incorporated into the design and construction documents of the Chlorine Upgrade Project. A procurement contract will be executed with the selected proposal for the On-Site Sodium Hypochlorite Generation System with the City of Unalaska. This procurement contract will be subsequently reassigned to the General Contractor that is awarded the construction contract for the Chlorine Disinfection Upgrade Project. It is intended that the Chlorine Upgrade Project will be constructed concurrently with the microturbines project between October 1 to December 1, 2021.

The Pyramid Water Treatment Plant was constructed in 2016 with a design treatment capacity of 9.0 MGD that serves Unalaska's residences, business, and industry. Unalaska has approximately 4,500 permanent residents and up to 5,000 transient residents during seafood processing seasons. Currently flows peak at 7.5 MGD during seafood processing seasons. Chlorine dosing at the Pyramid Water Treatment Plant aims to have a chlorine residual in the distribution system of 0.6 mg/l.

The Pyramid Water Treatment Plant flow and chlorine concentration downstream of the chlorine gas injection point was data was reviewed for the past four years of operation. The summary of this data review is presented in the below table:

Su	Summary Table of PWTP Chlorine Dosing, Plant Production, and Estimated Daily Chlorine Requirement								
		Maximu	m		Minimum		Average		
	Cl dose	MGD	# of Cl	Cl dose	MGD	# of Cl	Cl dose	MGD	# of Cl
2017	1.5	6.71	63	0.3	0.0	0	0.9	3.5	26
2018	1.4	6.71	68.6	0.1	0.0	0	0.9	3.0	23
2019	1.4	6.5	63	0.4	0.0	0	0.9	2.0	20
2020	1.80	6.4	52	0.6	0.0	0	1.0	3.1	23
2021	1.3	5.8	49	0.8	1.4	11	0.9	3.4	27
						Avg.	0.93	2.9	23.8

Chlorine dosing at the Pyramid Water Treatment Plant typically varies between 0.8 mg/L and 1.4 mg/L based on the turbidity of the incoming raw water. During the period of review, the maximum average daily chlorine dose found was 1.8 mg/L. There were nine events where chlorine dosing exceeded 1.8 mg/L during the review period. During these events, the chlorine dosing that exceeded 1.8 mg/L typically lasted for less than one hour. Pyramid Water Treatment Plant operators estimate that the maximum initial chlorine demand, the amount of chlorine consumed between chlorine gas injection and the chlorine analyzer, is 0.05 mg/L. Thus, the design peak daily average chlorine dose was set at 1.85 mg/L (1.8 mg/L + 0.05 mg/L).

When this peak daily average Chlorine dose is applied over the design capacity of the Pyramid Water Treatment Plant, 9.0 MGD, the On-Site Sodium Hypochlorite Generation System must be capable of producing a minimum of 139 pounds of chlorine a day. And while during the review period there was not a day where the chlorine demand exceeded 70 pounds of chlorine a day, an On-Site Sodium Hypochlorite Generation System must be able to supply sufficient chlorine for the scenario where the PWTP is treating water at its design capacity, 9.0 MGD, and the raw water demands a chlorine dose of 1.85 mg/L due to high turbidity on a continual basis.

In addition to producing a minimum of 139 pounds of chlorine a day, the On-Site Sodium Hypochlorite Generation System must be designed and supplied to be fully redundant. Thus, two sub-systems must be supplied that are capable of accepting incoming raw water and dose the produced sodium hypochlorite above the minimum daily required capacity (139 pounds of chlorine) completely independent of the other sub-system.

2.0 SELECTION PROCESS

Only one proposal from any individual, firm, partnership, or corporation, under the same or different names, will be considered. Should it appear to the City of Unalaska that any respondent has interest in more than one proposal for the request, then all proposals in which such respondent has interest will be rejected.

2.1 EVALUATION AND AWARD PROCESS

The Director of Public Works will appoint an evaluation team. The entire scoring procedure, including evaluation team meetings and scoring materials, will be held strictly confidential until after negotiations are concluded.

All evaluation team members will be required to certify that they have no conflicts of interest and that they will strictly adhere to the procedures herein described.

The following is an anticipated timetable of the events relating to the proposal process for the On-Site Sodium Hypochlorite Generation System. This schedule is only a guideline and the City of Unalaska reserves the right to modify this timetable as required during the course of the procurement process.

Event	Anticipated Date
RFP Issued	4/16/2021
Project Review Meeting	4/21/2021
RFP submittal deadline	5/16/2021
Evaluate received submittals	5/17/2021
Proposal selection	5/17/2021
Executed Purchase Agreement	5/20/2021
Purchase Order Issued	5/21/2021

Negotiation with the respondent with the highest scored proposal or, if necessary, the next lowest scored respondent and so on, will occur immediately upon selection. The agreement will be an Engineers Joint Contract Documents Committee standard procurement agreement. A draft agreement is attached in **Attachment A**.

2.2 CONDITIONS

The City of Unalaska reserves the right to reject any and all proposals and/or to waive any informality in procedures.

This RFP does not commit the City of Unalaska to award a contract, or procure or contract for any services or goods of any kind whatsoever.

The selection of a successful respondent shall be at the sole discretion of the City of Unalaska. No agreement between the City of Unalaska and any respondent is effective until signed by the City Manager and a Purchase Order issued.

The City of Unalaska is not liable for any costs incurred by respondents in preparing or submitting proposals.

In submitting a proposal, each respondent acknowledges that the City of Unalaska is not liable to any entity for any costs incurred therewith or in connection with costs incurred by any respondent in anticipation of City of Unalaska action approving or disapproving any agreement without limitation.

Any perception of a conflict of interest is grounds for rejection of any proposal. In submitting a proposal, each respondent certifies that they have not and will not create and/or be party to conflicts of interest with any City of Unalaska official or employee. Including but not limited to any direct or indirect financial gain and/or gratuity or kickback or through unauthorized communication with City of Unalaska employees or officials not listed in this RFP before the selection process is complete.

Nothing in this RFP or in subsequent negotiations creates any vested rights in any person.

2.3 TRANSMITTAL REQUIREMENTS

Requests for Proposals will be accepted before and on the published date and until the time specified. Each electronic file must be clearly named to identify the contents as a Request for Proposal for the On-Site Sodium Hypochlorite Generation System.

Proposals must be submitted in a single email no larger than 20 megabytes and the email header must clearly identify the project and the respondent e.g.

Name of Firm – Proposal for On-Site Sodium Hypochlorite Generation System

Request for Proposals must be delivered to the email addresses below by <u>2:00 p.m.</u>, <u>local time</u>, <u>on May 16</u>, <u>2021</u>, from a valid email account.

mveeder@ci.unalaska.ak.us and rwinters@ci.unalaska.ak.us

2.4 DOCUMENT REQUIREMENTS

One (1) copy of the proposal must be submitted in an electronic PDF file less than 20 megabytes in size, organized with bookmarks, and printable to standard 8.5" x 11" paper.

3.0 EVALUATION FACTORS

Proposals will be evaluated based on the following criteria.

Ma	jor Factor	Weight
A.	Redundancy	[10]
B.	Previous Experience & References	[5]
C.	Equipment Price	[20]
D.	Operation	[10]
E.	Maintenance	[10]
F.	Installation & On-going Support	[5]
G.	Utilization of Existing Space & Hoist	[20]
Н.	Delivery Timeline	[20]
To	tal	[100]

The evaluation team will score each proposal using an evaluation matrix. A copy of this evaluation matrix is attached in **Attachment B**.

3.1 EVALUATION CRITERIA

A. Redundancy (10%)

The ability of the On-Site Sodium Hypochlorite Generation System to produce and dose sodium hypochlorite appropriately after component failure or maintenance activities will be evaluated.

B. Previous Experience (5%)

Proposals shall include three case studies of installations that most closely approximate the proposed installation at the Pyramid Water Treatment Plant. Contact information shall be provided for these installations.

C. Equipment Price (20%)

The proposal shall quote individual line items that include at a minimum the following items: brine tanks, sodium hypochlorite storage tanks, sodium hypochlorite dosing pumps, hydrogen management system, water softeners, control cabinets, rectifiers, and sodium hypochlorite generation equipment. The proposal shall also quote a total for the complete On-Site Sodium Hypochlorite Generation System including any ancillary equipment not explicitly identified above. The proposal shall quote all freight and handling charges required for FOB delivery to Unalaska, Alaska.

The score for this criterion shall be based on the following formula:

$$Equipment\ Price\ Score = \frac{Lowest\ Vendor\ Total\ Equipment\ Price}{Vendor\ Total\ Equipment\ Price} \times Max\ Score\ (5)$$

D. Operation (10%)

The ease of operations including the accessibility to equipment for the proposed On-Site Sodium Hypochlorite Generation System will be evaluated. The ease of integrating the operations of the On-Site Sodium Hypochlorite Generation System into the existing SCADA system will be analyzed.

E. Maintenance (10%)

The ease and frequency of required and recommended maintenance activities will be evaluated. The replacement cost of the sodium hypochlorite generating electrolytic cells will be evaluated on a cost per pound of chlorine basis. Replacement cost of spare parts and items that may eventually require replacement will be evaluated as well.

F. Installation & On-going Support (5%)

The detail, quality and cost of the proposed support during the installation and on an on-going basis will be evaluated. The quality and length of the proposed warranty will also be evaluated.

G. Utilization of Existing Space & Hoist (20%)

The proposal shall clearly demonstrate that the proposed On-Site Sodium Hypochlorite Generation System will fit within the footprint of the existing Pyramid Water Treatment Plant Chlorine Room. If the proposed On-Site Sodium Hypochlorite Generation System can demonstrate that it can use the existing Chlorine Room hoist to facilitate salt loading of brine tanks with supersacks it will be evaluated more favorably. A copy of the Pyramid Water

Treatment Plant as-builts are attached in **Attachment C**. Some photos of the existing Chlorine Room are attached in **Attachment D**.

H. Delivery Timeline (20%)

The total amount of time required until delivery to Unalaska, Alaska, will be evaluated. A commitment to deliver before October 1, 2021 will evaluated most favorably. All requirements and assumptions and/or conditions utilized to determine a guaranteed delivery date must be specified in detail.

4.0 SCOPE OF WORK

4.1 OVERVIEW

The City of Unalaska plans to transition from chlorine gas to injection of a dilute liquid sodium hypochlorite solution to provide disinfection at the Pyramid Water Treatment Plant (PWTP). It is anticipated that the selected On-Site Sodium Hypochlorite Generation System will utilize the same space that the current chlorine gas injection system occupies (Chlorine Room) in the Pyramid Water Treatment Plant. It will be highly advantageous if all necessary equipment can be guaranteed to be delivered to Unalaska, Alaska by October 1, 2021.

The scope of work for this project includes but is not limited to the following:

- A. Fabricate and deliver equipment for a completely redundant On-Site Sodium Hypochlorite Generation System.
- B. Provide shop drawings and product data submittals prior to fabrication.
- C. Provide an operation and maintenance manual.
- D. Provide start-up services, performance testing, and training.
- E. Deliver recommended spare parts, maintenance items, and consumables
- F. Provide an additional technical advisory site visit.

The cost of design assistance to City of Unalaska and their design engineers, Taku Engineering, Inc., shall be included in the equipment cost supplied in the proposal.

The following parameters shall be used as a basis for this proposal:

Preferred equipment delivery deadline

PWTP design flow rate 9.0 MGD Minimum chlorine demand 139 ppd Sodium hypochlorite storage requirement 12 hours of minimum chlorine demand Maximum height of brine tanks from floor 49" Redundancy Complete redundancy required Minimum temperature of inlet water 32°F minimum Maximum temperature of inlet water 58°F maximum Inlet water pressure range 30-80 psia 70°F adjustable Temperature of equipment installation space Installation in existing PWTP Chlorine Room Highly desirable Use of existing hoist to assist salt addition Desirable

October 1, 2021

The work that is to be performed by other is as follows:

- A. Off-loading of equipment at the point of delivery
- B. Storage of equipment until installation
- C. Demolition of existing disinfection equipment and construction required to prepare building to accept proposed equipment
- D. Installation of equipment
- E. Integration of equipment with existing SCADA system

4.2 SODIUM HYPOCHLORITE GENERATION EQUIPMENT

Equipment for a complete and functional On-Site Sodium Hypochlorite Generation System shall be provided. This equipment shall include but is not limited to: brine tanks, sodium hypochlorite storage tanks, sodium hypochlorite dosing pumps, hydrogen management system, water softeners, control cabinets, rectifiers, sodium hypochlorite generating electrolytic cells, water heaters/chillers, and any ancillary equipment required. The system should be completely redundant and be able to continually produce, store, and dose sodium hypochlorite without mechanical modification to the system in the event of component failure or maintenance activities. In addition, both sub-systems should have the capability to produce, store, and dose sodium hypochlorite simultaneously.

The On-Site Sodium Hypochlorite Generation System shall generate an aqueous solution to a concentration of 0.8% ($\pm 0.05\%$) by weight sodium hypochlorite expressed as chlorine. The minimum capacity shall be demonstrated to equal the capacity specified and be able to supply a minimum of 139 pounds of chlorine per day. The proposed system shall be able to store a minimum of 12 hours of the minimum daily chlorine demand (139 ppd). The system shall include equipment required to achieve the desirable water temperature of the system to function properly and efficiently.

All equipment that can be mounted on pre-assembled racks or skids shall be. At a minimum, the sodium hypochlorite generating cells, power supply, rectifier, water and brine rotameters, control cabinets, interconnect pipes, valves and fittings, interconnect conduit and wiring, water flow sensors, and brine pumps shall be so mounted. All rack or skid materials shall be 304 stainless steel or powdered coated aluminum. The completed assemblies with all mounted equipment shall comply with IBC structural requirements for seismic design category D2.

Hydrogen safety management should be implemented with a system that has a proven safety record. A hydrogen gas monitoring system shall be specified to continuously measure and display hydrogen gas concentration and provide alarms when preset limits are exceeded and be able to integrate with the existing SCADA system.

It is highly desirable for the supplied On-Site Sodium Hypochlorite Generation System to fit completely within the Chlorine Room in the existing Pyramid Water Treatment Plant

and utilize the hoist in this room to facilitate salt loading into brine tanks using 2,000-pound supersacks of salt. The Chlorine Room is indicated as Room 108 in **Attachment C** - Pyramid Water Treatment Plant As-builts. The existing chlorine gas disinfection equipment and associated ancillary equipment will be removed prior to installation. All HVAC equipment and the hoist will remain. The proposal shall include a detailed scaled drawing showing a proposed layout of the proposed On-Site Sodium Hypochlorite Generation System that indicates how the proposed system will integrate with the Chlorine Room (108) of the existing Pyramid Water Treatment Plant. The City of Unalaska intends to use supersacks of salt to load the brine tanks. If the brine tanks do not have material above 49" above floor height and the brine tanks are centered under the existing hoist, this loading shall be possible. Proposals that permit the use of the existing hoist as described will be more favorably evaluated.

The proposed layout shall allow easy access to all equipment for operation, maintenance and replacement. Existing ingress and egress to the Chlorine Room (108) shall not be hindered.

All equipment provided shall be obtained from a single supplier who assumes full responsibility for the completeness and proper operation of the On-Site Sodium Hypochlorite Generation System. The supplied On-Site Sodium Hypochlorite Generation System shall be factory tested as one self-contained unit prior to shipping. Factory testing shall include leak testing, piping and instrumentation check, verification of control panel wiring and operation, and confirmation of proper operating performance over a minimum of eight hours. The supplier shall coordinate with the City of Unalaska to allow City of Unalaska staff or representatives to be present during factory testing if desired. Factory testing results shall be reviewed and accepted by the City of Unalaska before shipment.

In preparation for shipment, where practical, factory assemble components. Mark or tag separate parts and assemblies to facilitate field assembly according to supplied instructions. Package equipment to facilitate handling and protect from damage during shipping, handling, and storage. Mark or tag outside of each package or crate to indicate its purchase order number, bill of lading number, name of project, contents by name, equipment or part number, and approximate weight. Include a complete packing list and bill of materials with each shipment.

Deliver all equipment FOB destination Unalaska, Alaska. Specify a guaranteed delivery date. All requirements and assumptions and/or conditions utilized to determine a guaranteed delivery date must be specified in detail.

Provide three case studies of installations that most closely approximate the proposed On-Site Sodium Hypochlorite Generation System. Provide contact information for the operators of these installations.

4.3 SHOP DRAWINGS AND PRODUCT SUBMITTALS

Due to the time sensitive nature of the On-Site Sodium Hypochlorite Generation System delivery, the City of Unalaska commits to reviewing all submittals in less than five (5) working days from receipt. If the City of Unalaska provides submittal review feedback in greater than five (5) days from submission date, upon request, the delivery date in the procurement contract will be modified accordingly. The following information shall be electronically submitted to the City of Unalaska for review and approval prior to fabrication to ensure the proposed equipment conforms to the site-specific requirements.

- A. Process and instrumentation diagram for the system
- B. Shop drawings and catalog literature showing dimensional information and details of piping, fabrication, and erection of all materials and equipment furnished under this section, including:
 - 1) Detailed drawings of tank nozzle orientations provided.
 - 2) Detailed drawings of equipment installations provided.
- C. Scaled drawing of general layout, general arrangements, and major system components, including:
 - 1) Dimensions, including those for system connections.
- D. Drawings showing fabrication, assembly, installation, and wiring diagram. Wiring diagrams for the electrical control panel and rectifier transformer shall consist of, at a minimum, control schematics, including coordination with other electrical devices operating in conjunction with the On-Site Sodium Hypochlorite Generation System.
- E. Manufacturer's literature, illustrations including weight and dimensions, specifications, materials of construction, and bill of materials for each component of the system.
- F. Performance data: for each pump and blower furnish a performance certification indicating:
 - 1) Pressure
 - 2) Capacity
 - 3) Efficiency
 - 4) Horsepower
- G. Motor data: for each motor furnish a certified motor data sheet for the actual motor or for a previously manufactured electrically duplicate motor which was tested.
- H. Control philosophy including I/O list and loop descriptions.
- I. The acceptable range of water pressure for proper system operation. If a pressure or flow regulator is required, it shall be provided.
- J. A list of all parameters, ratings, or other characteristics where the proposed On-Site Sodium Hypochlorite Generation System deviates from the requirements set forth in this document.
- K. Detailed installation instructions to facilitate proper installation by the contractor. Include any procedures required prior to start-up certification by the supplier.

- L. Current NSF Standard 61 Certification for the supplied sodium hypochlorite generation assembly.
- M. Affidavits of compliance with standards and codes.

4.4 OPERATION AND MAINTEANCE MANUALS

A detailed Operation and Maintenance (O&M) manual shall be provided to the City of Unalaska for review and approval. The approved Operation and Maintenance manual shall be bound in hard back three ring binders that include a table of contents and tab sheets to identify the location of each section. All material that does not apply to the equipment supplied for this project shall be removed or crossed out.

In addition to the bound Operation and Maintenance manuals, a copy of the Operations and Maintenance manuals shall be submitted in Adobe Acrobat (pdf) format. All electronic materials should match the table of contents of the hard-bound Operation and Maintenance manual and have a table of contents that provides links to the appropriate section of the Operation and Maintenance manual. There shall be no section of this document longer than five pages in length without a direct link from the table of contents. Each section of the electronic Operations and Maintenance manuals should have a link back to the table of contents. The Adobe Acrobat version of the Operation and Maintenance manual shall be submitted for review and approval.

At a minimum the following shall be included in the operation and maintenance manual:

A. Required operation data

- 1) Complete, detailed operating instructions for each piece of equipment.
- Recommended installation adjustment, start-up, calibration, and troubleshooting procedures.
- A control sequence describing start-up, operation, stand-by, and shutdown.
- 4) Recommended step-by-step procedures for all modes of operation.
- 5) Explanations for all safety considerations relating to operations.
- 6) Complete internal and connection wiring diagrams.
- 7) Performance testing protocol including a recommended test plan, measurement methods, and sample data sheet showing all pertinent process data to be recorded and the frequency of the data readings.

B. Required maintenance data

 All information and instructions required by plant personnel to keep the On-Site Sodium Hypochlorite Generation System properly cleaned, lubricated, and adjusted so that it functions economically throughout its full design life.

- Recommended schedule of maintenance tasks for each component of the system. A combined summary schedule of maintenance tasks required for the complete system shall be included.
- 3) Explanation with illustrations, as necessary, for each maintenance task.
- 4) Maintenance task tracking summary forms.
- 5) Recommended lubrication schedule and table of alternate lubricants. Estimate and include of the yearly quantity needed.
- 6) Name, address, and phone number of manufacturer and manufacturer's local service representative and nearest supplier for major system components.
- 7) Detailed list of required and recommended maintenance tools and equipment.

4.5 START-UP, PERFORMANCE TESTING, AND TRAINING SERVICES

A. Start-up services

It is anticipated that the supplied On-Site Sodium Hypochlorite Generation System will be installed shortly after delivery in October 2021. The supplier will be required to coordinate closely with the City of Unalaska to ensure that a supplier representative will be present at the project site to allow for timely certification of proper On-Site Sodium Hypochlorite Generation System installation and start-up. The supplier quoted cost for these services shall be all-inclusive, including but not limited to materials, airfare, accommodation, meals, incidentals, etc.

Start-up services provided should include an installation certification and system start-up. Installation inspection shall include an inspection and supervising the correction of any defective or faulty work identified through the installation inspection. Only after the On-Site Sodium Hypochlorite Generation System has been inspected and certified by the supplier, the On-Site Sodium Hypochlorite Generation System initial start-up shall be initiated by supplier in coordination with City of Unalaska personnel.

B. Performance Testing

The supplier should submit a testing plan and procedure that it plans to follow to determine if the installed and operational On-Site Sodium Hypochlorite Generation System performs according to operational performance parameters. At a minimum the following performance parameters should be tested; electrical consumption, salt consumption, sodium hypochlorite concentration, and rate of chlorine produced.

C. Training

The supplier shall furnish a representative to be present at the project location for detailed classroom and hands-on training to City of Unalaska personnel on operation and maintenance of the entire On-Site Sodium Hypochlorite Generation System, sub-system and individual components. This training shall be conducted on the same visit as On-Site Sodium Hypochlorite Generator System installation certification, start-up and performance testing. A proposed lesson plan, training materials and schedule of the proposed training shall be submitted to the City of Unalaska for review and approval not less than 21 days from expected equipment delivery. Provide six sets of training materials to be retained by each trainee.

4.6 MAINTENANCE EQUIPMENT, SPARE PARTS, CONSUMMABLES

The supplier shall provide a detailed quote and deliver recommended maintenance tools and equipment, spare parts and consumables (lubricants, etc.) required for one year of continuous operation of the proposed On-Site Sodium Hypochlorite Generation System. In addition, an additional quote for optional maintenance items, spare parts and consumables shall be provided. The replacement cost for any components that occasionally or rarely require replacement shall be quoted including but not limited to; electrolytic sodium hypochlorite generating cells, rectifier, and transformer.

4.7 ADDITIONAL TECHNIAL ADVISORY SITE VISIT

The supplier shall quote an additional one full working day technical advisory site visit to the Pyramid Water Treatment Plant in Unalaska, Alaska, by a mutually agreed upon supplier representative. This quote shall be all-inclusive, including but not limited to airfare, accommodation, meals, incidentals, etc. The date of this site visit shall be a mutually agreed upon date with the City of Unalaska within two years of the installation of the On-Site Sodium Hypochlorite Generation System.

The supplier shall provide a detailed description of how on-going support for the supplied On-Site Sodium Hypochlorite Generation System can be provided and the costs for these services if they are required.

ATTACHMENT A

Draft Procurement Agreement

STANDARD PROCUREMENT AGREEMENT BETWEEN OWNER AND SUPPLIER

	PROCUREMENT AGREEMENT is dated as of this day of, by and between the City of Unalaska (hereinafter called "OWNER") and (hereinafter called "SUPPLIER").
	ER and SUPPLIER, in consideration of the mutual covenants hereinafter set forth, as follows:
Article	e 1. GOODS AND SERVICES.
indica	LIER shall furnish the Goods, Special Services, and Other Services as specified or ted in the PROCUREMENT DOCUMENTS. The Goods to be furnished are ally described as follows:
	Supply [Insert language from RFQ].
Article	e 2. ENGINEER.
The G	oods have been specified by the following:
	[Insert Engineering Firm, Principal designer name, address, phone, fax, and email]
assum ENGI	s hereinafter called "ENGINEER" and who will act as OWNER's representative, e all duties and responsibilities, and have the rights and authority assigned to NEER by OWNER in connection with the furnishing of the Goods, Special es, and Other Services in accordance with the PROCUREMENT DOCUMENTS.
Article	e 3. POINT OF DELIVERY.
-	lace where the Goods are to be delivered is defined in the Procurement General tions as the point of delivery and designated as:
	F.O.B. Unalaska, Alaska
Article	e 4. CONTRACT TIME.
4.1	The Goods are to be delivered to the POINT OF DELIVERY and ready for OWNER's acceptance of delivery on (or within a period of fifteen (15) days prior to)
4.2	All shop drawings and samples required by the PROCUREMENT DOCUMENTS will be submitted to ENGINEER for review and approval within ten (10) days after the date when the Contract Time commences to run as provided in paragraph 2.2 of the Procurement General Conditions.
4.3	Liquidated Damages. OWNER and SUPPLIER recognize that time is of the essence of this PROCUREMENT AGREEMENT and that OWNER will suffer financial loss if the Goods are not delivered at the POINT OF DELIVERY and ready for acceptance of delivery by OWNER within the time specified in paragraph 4.1 above, plus any extensions thereof allowed in accordance with Article 12 of the Procurement General Conditions. They also recognize that the

timely performance of services by other parties involved in OWNER's project are materially dependent upon SUPPLIER's specific compliance with the requirements of paragraph 4.1 Further, they recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual losses or damages (including special, indirect, consequential, incidental, and any other losses or damages) suffered by OWNER if complete acceptable Goods are not delivered on time. Accordingly, and instead of requiring proof of such losses or damages, OWNER and SUPPLIER agree that as liquidated damages for delay (but not as a penalty) SUPPLIER shall pay FIVE HUNDRED DOLLARS (\$500) for each day that expires after the time specified in paragraph 4.1 for delivery of acceptable Goods.

Article 5. CONTRACT PRICE.

OWNER shall pay SUPPLIER for furnishing the Goods, Services, and Special Services, and for performing other services in accordance with the PROCUREMENT DOCUMENTS in current funds as follows:

[INSERT LANGUAGE FROM ACCEPTED, APPROVED QUOTE].

Article 6. PAYMENT PROCEDURES.

SUPPLIER shall submit Application for Payment in accordance with Article 6 of the Procurement General Conditions. Applications for Payment will be processed by ENGINEER as provided in the Procurement General Conditions.

- 6.1 Progress Payments. OWNER shall make progress payments on account of the CONTRACT PRICE in accordance with paragraph 6.3 of the Procurement General Conditions on the basis of SUPPLIER's Applications for Payment as follows:
 - 6.1.1 Upon receipt of the first Application for Payment submitted in accordance with paragraph 6.1 of the Procurement General Conditions and accompanied by ENGINEER's recommendation of payment in accordance with paragraph 6.2.1 of the Procurement General Conditions, an amount equal to 50% of the CONTRACT PRICE
 - 6.1.2 Upon receipt of the second such Application for Payment accompanied by ENGINEER's recommendation of payment in accordance with paragraph 6.2.2 of the Procurement General Conditions, an amount sufficient to increase total payments to SUPPLIER to 85% of the CONTRACT PRICE, less such amounts as ENGINEER shall determine in accordance with paragraph 6.2.3 of the Procurement General Conditions.
- 6.2 Final Payment. Upon receipt of the final Application for Payment accompanied by ENGINEER's recommendation of payment in accordance with paragraph 6.6 of the Procurement General Conditions, OWNER shall pay the remainder of the CONTRACT PRICE as recommended by ENGINEER.

Article 7. INTEREST.

All moneys not paid when due hereunder shall bear interest at the rate required by AS36.90.250, if applicable.

Article 8. SUPPLIER'S REPRESENTATIONS.

In order to induce OWNER to enter into this PROCUREMENT AGREEMENT, SUPPLIER makes the following representations:

- 8.1 SUPPLIER has familiarized himself with the nature and extent of the PROCUREMENT DOCUMENTS and has given ENGINEER written notice of all conflicts, errors, or discrepancies that he has discovered in the PROCUREMENT DOCUMENTS and the written resolution thereof by ENGINEER is acceptable to SUPPLIER.
- 8.2 SUPPLIER has familiarized himself with all local conditions and Federal, State, and Local laws, ordinances, rules, and regulations that in any manner may affect the production and delivery of the Goods and furnishing of Special Services and Other Services in connection herewith.
- 8.3 SUPPLIER does not require additional information from OWNER or ENGINEER to enable SUPPLIER to furnish the Goods, Special Services, or Other Services at the CONTRACT PRICE, within the CONTRACT TIME, and in accordance with the other terms and conditions of the PROCUREMENT DOCUMENTS, but subject to SUPPLIER's right to request interpretations and clarifications in accordance with paragraph 9.2 of the Procurement General Conditions.
- 8.4 SUPPLIER has correlated the results of all such examinations, investigations, and resolutions with the terms and conditions of the PROCUREMENT DOCUMENTS.

Article 9. PROCUREMENT DOCUMENTS.

The PROCUREMENT DOCUMENTS which comprise the entire Agreement between OWNER and SUPPLIER are attached to, or accompany, this PROCUREMENT AGREEMENT, made a part hereof, and consist of the following:

9.1	This PROCUREMENT AGREEMENT (pages 1 to, inclusive).
9.2	Exhibits to this PROCUREMENT AGREEMENT (pages to, inclusive).
9.3	Performance and other Bonds, identified as Exhibits and consisting of pages.
9.4	Notice of Award.
9.5	Procurement General Conditions (pages to, inclusive).
9.6	Procurement Supplementary Conditions (pages 1 to 2, inclusive).
9.7	Drawings, consisting of a cover and sheets numbered through, inclusive, with each sheet bearing the following general titles: [Insert].
9.8	Addenda numbers to, inclusive.
9.9	SUPPLIER's Quote (pages to, inclusive).
9.10	Documentation submitted by SUPPLIER prior to Notice of Award (pages to
	, inclusive).

- 9.11 All Modifications, including Change Orders, duly delivered after execution of this PROCUREMENT AGREEMENT.
 9.12 There are no PROCUREMENT DOCUMENTS other than those listed above in
- 9.12 There are no PROCUREMENT DOCUMENTS other than those listed above in this Article 9. The PROCUREMENT DOCUMENTS may only be altered, amended, or repealed by a Modification (as defined in Article 1 of the Procurement General Conditions).

Article 10. MISCELLANEOUS.

- 10.1 Terms used in this PROCUREMENT AGREEMENT which are defined in Article I of the Procurement General Conditions shall have the meanings indicated in the Procurement General Conditions.
- 10.2 No assignment by a party hereto of any rights under or interests in the PROCUREMENT DOCUMENTS will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation, moneys that may become due and moneys that are 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 PROCUREMENT DOCUMENTS.
- 10.3 OWNER and SUPPLIER each binds himself, his partners, successors, assigns, and legal representatives to the other party hereto, his partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the PROCUREMENT DOCUMENTS.

IN WITNESS WHEREOF, the OWNER and SUPPLIER have signed all counterparts of this PROCUREMENT AGREEMENT. All portions of the PROCUREMENT DOCUMENTS have been signed or identified by OWNER and SUPPLIER or by ENGINEER on their behalf.

This PROCUREMENT AGREEMENT with 2021.	be effective on,
SUPPLIER	CITY OF UNALASKA, ALASKA
By:, Its	By: Erin Reinders, City Manager
State of Alaska)) ss. Third Judicial District)	State of Alaska) ss. Third Judicial District)
The foregoing instrument was acknowledged before me on the day of, 2021, by, the of a Corporation, on behalf of the corporation.	The foregoing instrument was acknowledged before me on the day of, 2021, by Erin Reinders, City Manager for the City of Unalaska, a First Class Alaska Municipal Corporation, on behalf of the City of Unalaska.
Notary Public, State of Alaska My Commission Expires:	Notary Public, State of Alaska My Commission Expires:

ATTACHMENT B

Evaluation Matrix

PWTP On-Site Sodium Hypochlorite Generation System RFP Evaluation

CRITERIA CHECKLIST

Scores available from 1-5

1. Redundancy	VENDOR 1	VENDOR 2	VENDOR 3	BASIS FOR SCORE
Ability of system to produce Chlorine due to component failure				
Average Score				
2. Previous Experience	VENDOR 1	VENDOR 2	VENDOR 3	BASIS FOR SCORE
Experience with Similar Sized Installations				
References/Case Studies				
Average Score				
3. Equipment Price	VENDOR 1	VENDOR 2	VENDOR 3	BASIS FOR SCORE
Overall proposal price				
Average Score				
4. Operation	VENDOR 1	VENDOR 2	VENDOR 3	BASIS FOR SCORE
Ease of Operations				
Accessibility to Equipment				
SCADA integration quality				
Average Score				
5. Maintenance	VENDOR 1	VENDOR 2	VENDOR 3	BASIS FOR SCORE
Frequency of required Maintenance Activities				
Ease of required Maintenance Activities				
Replacement cost of electrolytic cell per #FAC/day capacity				
Replacement cost of common system components				
Average Score				
6. Installation & On-going Support	VENDOR 1	VENDOR 2	VENDOR 3	BASIS FOR SCORE
Quality of Installation support				
Quality of on-going support				
Price of on-going support				
Warranty Length				
Warranty Terms				
Average Score				
7. Utilization of Existing Space and Hoist	VENDOR 1	VENDOR 2	VENDOR 3	BASIS FOR SCORE
All Equipment Fits in Existing Space				
Proposal Allows the Use of Existing Hoist for Salt Delivery				
Average Score				
8. Delivery Timeline	VENDOR 1	VENDOR 2	VENDOR 3	BASIS FOR SCORE
Total # of Weeks until Equipment Delivery On-Site				
Average Score				

CRITERIA SCORES	WEIGHT	VENDOR 1 WEIGHTED SCORE	VENDOR 2 WEIGHTED SCORE	VENDOR 3 WEIGHTED SCORE	NOTES
1. Redundancy	0.10	0.0	0.0	0.0	
2. Previous Experience	0.05	0.0	0.0	0.0	
3. Equipment Price	0.20	0.0	0.0	0.0	
4. Operation	0.10	0.0	0.0	0.0	
5. Maintenance	0.10	0.0	0.0	0.0	
6. Installation & On-going Support	0.05	0.0	0.0	0.0	
7. Utilization of Existing Space and Hoist	0.20	0.0	0.0	0.0	
8. Delivery Timeline	0.20	0.0	0.0	0.0	
Total Score	1.00	0.0	0.0	0.0	

ATTACHMENT C

Pyramid Water Treatment Plant As-builts

CITY OF UNALASKA							
SHIRLEY MARQUARDT	MAYOR						
CHRIS HLADICK	CITY MANAGER						
NANCY PETERSON	PUBLIC WORKS, DIRECTOR						
ROBERT LUND	PUBLIC WORKS, CITY ENGINEER						
DAN WINTERS	PUBLIC UTILITIES, DIRECTOR						
CLINT HULING	WATER DIVISION, SUPERVISOR						
JEREMIAH KIRCHOFER	WATER DIVISION, OPERATOR						



CITY OF UNALASKA

UNALASKA, ALASKA 99685-0610 (907) 581-1260 · FAX (907) 581-2187

PROJECT DESCRIPTION

THIS PROJECT REPLACES UNALASKA'S EXISTING WATER TREATMENT FACILITY (PWSID 260309) WITH A NEW PLANT. THE NEW WATER TREATMENT PLANT WILL DISINFECT RAW WATER FROM ICY CREEK RESERVOIR WITH UI TRAVIOLET RADIATION AND CHLORINE GAS IN ACCORDANCE WITH THE LONG TERM 2 ENHANCED SURFACE WATER TREATMENT RULE

PROJECT TEAM

SURVEY, CIVIL ARCHITECTURAL, STRUCTURAL

LCGLANTECH, Inc

ANCHORAGE, AK 99501 (907) 243-8985

PROCESS

THE DANIELS GROUP

1907 ELK CREEK RD ELK CITY, ID 83525 (208) 842-2235

MECHANICAL, ELECTRICAL

RSA ENGINEERING. Inc

WASILLA, AK 99654 (907) 357-1521

CONTROLS

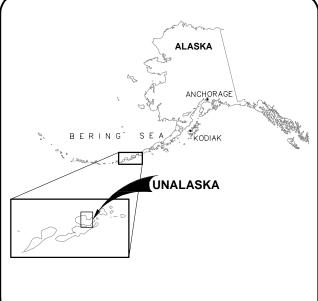
BOREAL CONTROLS, Inc.

CHANNEL DR. SUITÉ JUNEAU, AK 99801 (907) 586-8367

PYRAMID WATER TREATMENT PLANT

RECORD DRAWINGS





CIVIL DRAWINGS

- G1.0 LEGEND, ABBREVIATIONS, NOTES
- G1.1 WATER SYSTEM OVERVIEW AND DIAGRAM
- V1.0 SITE CONTROL
- D1.0 DEMOLITION PLAN
 C1.0 WATER TREATMENT PLANT SITE PLAN
- C1.1 WATER LINE PLAN & PROFILE
- C1.2 DISCHARGE WATER LINE SITE PLAN
- C1.3 BURIED DISCHARGE WATER LINE PLAN AND PROFILE
- C1.5 CONSTRUCTED SLOPE STABILIZATION CROSS SECTIONS C2.0 WATER TREATMENT PLANT GRADING PLAN

- C3.0 CIVIL SECTIONS
- C3.1 EXTERIOR PIPING LAYOUT C3.2 CIVIL DETAILS (1 of 2)
- C3.3 CIVIL DETAILS (2 of 2)
- C3.4 DRAINAGE DETAILS
- C3.5 DISCHARGE STRUCTURE DETAILS
- C3.6 ENERGY DISSIPATER DETAILS
- C3.7 SEPTIC TANK DETAILS
- C3.8 SEPTIC DRAINFIELD DETAILS C3.9 PIPE SUPPORT DETAILS
 - **PROCESS DRAWINGS**
- P1.0 PROCESS DESCRIPTION (1 of 2) P1.1 PROCESS DESCRIPTION (2 of 2)
- P1.2 PROCESS FLOOR PLAN
- P1.3 FLOW PROCESS AND INSTRUMENTATION DIAGRAM
- P1.4 CHLORINATION
- P1.5 CHLORINATION PROCESS AND INSTRUMENTATION DIAGRAM
- P1.6 PIPING PLAN
- P2.0 PIPE SECTIONS P2.1 INSTRUMENT DETAILS
- P2.2 CHLORINE ROOM PUMPS
- P3.0 VALVE AND CONTROL SCHEDULE 1/3 P3.1 VALVE AND CONTROL SCHEDULE 2/3

ARCHITECTURAL DRAWINGS

- A1.1 ARCHITECTURAL GENERAL NOTES MAIN LEVEL FLOOR PLAN
- A1.2 MEZZANINE FLOOR PLAN AND ROOF PLAN A2.1 EXTERIOR FLEVATIONS
- A3.1 BUILDING SECTIONS
- A4.1 INTERIOR ELEVATIONS
- A6.1 DOOR AND WINDOW DETAILS, DOOR AND FINISH SCHEDULES A6.2 BUILDING ASSEMBLIES, WALL, ROOF AND CANOPY DETAILS
- A6.3 STAIR AND RAILING DETAILS

STRUCTURAL DRAWINGS

- S1.0 GENERAL NOTES AND DETAILS S1.1 CONCRETE SLAB AND FOUNDATION PLAN
- S1.2 MEZZANINE FLOOR FRAMING PLAN AND CANOPY ROOF FRAMING PLANS
- S5.1 STRUCTURAL DETAILS
- S5.2 STRUCTURAL DETAILS II
- **S5.3 STRUCTURAL DETAILS III**

MECHANICAL DRAWINGS

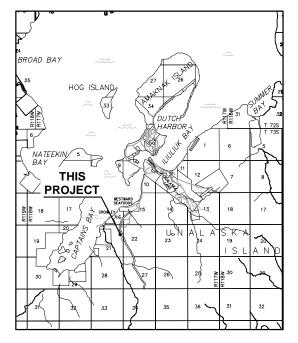
- M0.1 MECHANICAL LEGENDS AND ABBREVIATIONS
- M0.2 MECHANICAL SCHEDULES
- M0.3 MECHANICAL SCHEDULES CONTINUED
- M1.0 MECHANICAL SITE PLAN
- M1.1 PLUMBING PLAN UNDER FLOOR
- M1.2 PLUMBING PLAN ABOVE FLOOR M2.1 1ST FLOOR HEATING PLAN
- M2.2 2ND FLOOR HEATING PLAN AND DETAILS
- M3.1 1ST FLOOR VENTILATION PLAN
- M3.2 2ND FLOOR VENTILATION PLAN AND DETAILS
- M4.1 BOILER ROOM PLANS AND DETAILS
- M5.1 DETAILS M5.2 DETAILS

ELECTRICAL DRAWINGS

- E0.1 ELECTRICAL LEGEND, SCHEDULES, SITE PLAN AND DETAILS
- E0.2 ELECTRICAL DETAILS F1.1 LIGHTING PLANS
- E1.2 POWER PLANS
- E1.3 SPECIAL ELECTRICAL SYSTEMS PLAN
- E1.4 MEZZANINE ELECTRICAL PLANS
- **E1.5 GENERATOR ELECTRICAL PLANS E2.1 ELECTRICAL DETAILS**
- **E2.2 ELECTRICAL DETAILS**
- E3.1 PANEL SCHEDULES

CONTROLS DRAWINGS

- EC-01 INSTRUMENTATION FLOOR PLAN
- EC-02 CONTROL RISER DIAGRAM (1 OF 2)
- EC-03 CONTROL RISER DIAGRAM (2 OF 2) **EC-04 NETWORK DIAGRAM**
- EC-05 CONTROL PANEL LAYOUT
- EC-06 MAIN CONTROL PANEL, CONTROL PANEL SCHEMATIC
- EC-07 MAIN CONTROL PANEL DISCRETE 120VAC INPUT SCHEMATIC (1 of 3)
- EC-08 MAIN CONTROL PANEL DISCRETE 120VAC INPUT SCHEMATIC (2 of 3) EC-09 MAIN CONTROL PANEL DISCRETE 120VAC INPUT SCHEMATIC (3 of 3)
- EC-10 MAIN CONTROL PANEL DISCRETE HIGH SPEED DC INPUT SCHEMATIC
- EC-11 MAIN CONTROL PANEL DISCRETE OUTPUT SCHEMATIC
- EC-12 MAIN CONTROL PANEL ANALOG INPUT SCHEMATIC (1 of 5)
- EC-13 MAIN CONTROL PANEL ANALOG INPUT SCHEMATIC (2 of 5)
- EC-14 MAIN CONTROL PANEL ANALOG INPUT SCHEMATIC (3 of 5) EC-15 MAIN CONTROL PANEL ANALOG INPUT SCHEMATIC (4 of 5)
- EC-16 MAIN CONTROL PANEL ANALOG INPUT SCHEMATIC (5 of 5)
- EC-17 MAIN CONTROL PANEL ANALOG OUTPUT SCHEMATIC FC-18 MAIN CONTROL PANEL MISCELLANEOUS DISCRETE 1/0 WIRING
- EC-19 MAIN CONTROL PANEL MISCELLANEOUS WIRING DIAGRAMS



VICINITY MAP

RECORD DRAWINGS

THESE RECORD DRAWINGS HAVE BEEN PREPARED FROM INSPECTIONS, CONTRACTOR FURNISHED INFORMATION, AND BASED ON PERIODIC FIELD OBSERVATIONS BY THE ENGINEERS. THE CONTRACTOR PROVIDED INFORMATION APPEARS TO REPRESENT THE PROJECT AS CONSTRUCTED. ANY USE OF THESE DRAWINGS SUBSEQUENT TO THIS DATE SHALL BE FOR INFORMATION AND RECORD PURPOSES ONLY AND NOT FOR

CONSTRUCTION.
BY: Thomas Regan, P.E. Januas Rega DATE: Sept 1, 2016



250 H STREET Anchorage, AK. 99501 (907) 243-8985

CITY OF UNALASKA UNALASKA, ALASKA

3. ALL WORK PERFORMED ON THE WATER SYSTEM SHALL CONFORM TO THE LATEST VERSION OF THE ADEC 18 AAC 80 DRINKING WATER STANDARDS.

4. ALL WATER PIPING AND ASSOCIATED APPURTENANCES SHALL BE NSF 61 COMPLIANT.

5. ALL WORK ASSOCIATED WITH THE INSTALLATION OF THE WASTEWATER SYSTEM SHALL BE PERFORMED IN ACCORDANCE WITH ADEC 18 AAC 72 - WASTEWATER DISPOSAL REGULATIONS.

6. ALL BURIED DUCTILE IRON PIPE & FITTINGS SHALL BE WRAPPED WITH ONE LAYER OF 8-MIL THICK POLYETHYLENE ENCASEMENT "BAGGIES" IN ACCORDANCE WITH "METHOD A" OF ANSI/AWWA A21.5/C105.

7. EXISTING UTILITIES ARE APPROXIMATE. FIELD VERIFY HORIZONTAL AND VERTICAL LOCATIONS OF ALL UTILITIES AND STRUCTURES ENCOUNTERED DURING CONSTRUCTION. EXERCISE CAUTION DURING EXCAVATION. CONTRACTOR SHALL IMMEDIATELY CONTACT OWNER'S REPRESENTATIVE IF A CONFLICT IS FOUND BETWEEN PLANS AND WHAT IS IN THE GROUND. RECORD LOCATIONS AND CHANGES TO UTILITIES IN SURVEY NOTES AND ON THE CONSTRUCTION DRAWINGS

8. CONFINE ALL VEHICLES, CONSTRUCTION EQUIPMENT, MATERIALS, AND OPERATIONS WITHIN THE CONSTRUCTION LIMITS INDICATED ON SHEET C1.0.

9. UNLESS DIRECTED OTHERWISE BY THE CONTRACT DOCUMENTS OR OWNER'S REPRESENTATIVES, RESTORE ALL DISTURBED PROPERTY TO ORIGINAL CONDITIONS.

10. INSTALL NORTH AMERICAN GREEN VMAX SC 250 OR APPROVED EQUAL PER MANUFACTURER'S RECOMMENDATION ON ALL SLOPES OF 1:2 OR LESS GREATER THAN 5 FEET IN TOTAL HEIGHT.

11. RE-SEED ALL DISTURBED AREAS OUTSIDE GRAVEL PAD AREAS OR STABILIZED SLOPES. APPLY SEED MIX CONTAINING 60% NORTRAN (NORTHCOAST) HAIRGRASS AND 40% BOREAL RED FESCUE. SEEDING SHALL BE APPLIED AT A RATE 45 POUNDS PER SQUARE ACRE. FERTILIZER SHOULD BE COMPOSED OF 20% NITROGEN, 20% PHOSPHORUS, AND 10% POTASSIUM. FERTILIZER MIX SHALL BE APPLIED AT 450 TO 500 POUNDS PER SQUARE ACRE.

PRELIMINARY CODE STUDY

2009 INTERNATIONAL BUILDING CODE 2009 INTERNATIONAL FIRE CODE

OCCUPANCY CLASSIFICATION:

TREATMENT/PROCESS/OFFICE AREA - F-1, 2,250/100 = 22 Occupants MODERATE HAZARD CHLORINE STORAGE -H-3, 600/200 = 3 Occupants OXIDIZING GAS STORAGE

CONSTRUCTION TYPE: TYPE V-B

FIRE SUPPRESSION: AUTOMATIC FIRE SPRINKLER SYSTEM INSTALLED THROUGHOUT

FIRE DETECTION: AUTOMATIC SMOKE DETECTION SHALL BE INSTALLED PER THE FIRE CODE (CHAPTERS 37, 39 & 40)

22.800 SF

ALLOWABLE AREA CALCULATION:

H-3 AREA BASE AREA:

TOTAL ALLOWABLE

5,000 SF, ONE STORY SPRINKLER INCREASE: 15,000 SF FRONTAGE INCREASE: 2,800 SF

F-1_AREA 8,500 SF, ONE STORY BASE AREA: SPRINKLER INCREASE: 25.500 SF

FRONTAGE INCREASE: 5,400 SF TOTAL ALLOWABLE 39,400 SF

ACTUAL: ONE STORY H-3: 600 SF F-1: 2,250 SF

OCCUPANCY SEPARATION (TABLE 508.4): 1-HOUR FIRE BARRIER WALL REQUIRED WITH SPRINKLER SYSTEM (BOTH SIDES), 2-HOUR FIRE BARRIER WALL REQUIRED IF

EGRESS: EGRESS FROM THE CHLORINE STORAGE ROOM (H OCCUPANCY) SHOULD NOT EXIT THROUGH THE F-1 OCCUPANCY, BUT DIRECTLY TO THE EXTERIOR (VERIFY CODE PROVISIONS).

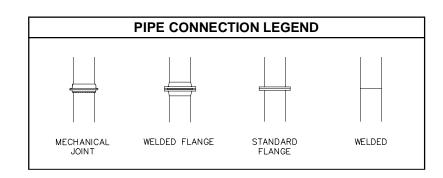
ABBREVIATIONS

AB	ANCHOR BOLT	IFC	INTERNATIONAL FIRE CODE
AC	ASPHALT CEMENT	INV	INVERT
ADEC	ALASKA DEPARTMENT OF	LF	LINEAR FEET
	ENVIRONMENTAL CONSERVATION	LT	LEFT
DOT & PF	ALASKA DEPARTMENT OF	MAX	MAXIMUM
	TRANSPORTATION & PUBLIC FACILITIES	MB	MACHINE BOLT
\FF	ABOVE FINISH FLOOR	ME	MATCH EXISTING
SSY	ASSEMBLY	МН	MANHOLE
C	BUILDING CORNER	MIN	MINIMUM
F	BURIED FUEL LINE	MJ	MECHANICAL JOINT
H	BORE HOLE	NC	NORMALLY CLOSED
LDG	BUILDING	NIC	NOT IN CONTRACT
OP	BOTTOM OF PIPE	NFS	NON-FROST SUSCEPTIBLE
TU	BRITISH THERMAL UNITS	NO	NORMALLY OPEN
В	CATCH BASIN	NSF	NATIONAL SANITATION
C.	COPPER X COPPER		FOUNDATION
_ :L	CENTER LINE	NTS	NOT TO SCALE
MP	CORRUGATED METAL PIPE	OC	ON CENTER
PEP	CORRUGATED POLYETHYLENE PIPE	OD	OUTSIDE DIAMETER
ON'T	CONTINUATION	PE	PLAIN END
ONC	CONCRETE	PL	PLATE
CT	CONDUIT	PP	POWER POLE
TRL	CONTROL	PPD	POUNDS PER DAY
CU	COPPER	PSI	POUNDS PER SQUARE INC
IA	DIAMETER	PRV	PRESSURE RELIEF VALVE
	DUCTILE IRON	PVC	POLYVINYL CHLORIDE
)		R	RADIUS
)IP	DUCTILE IRON PIPE	RED	REDUCING
W	DISCHARGE TO WASTE		
A	EACH	RT	RIGHT
L	ELEVATION	RW	RAW WATER
W	EACH WAY	SF	SQUARE FEET
XIST	EXISTING	SHLDR	SHOULDER
C	FENCE CORNER	SL	PIPE SLOPE
E	FLOOR ELEVATION	SSCO	SANITARY SEWER CLEANO
F	FINISH FLOOR	SSMH	SANITARY SEWER MANHOL
G	FINISH GRADE	SS	STAINLESS STEEL
Н	FIRE HYDRANT	STL	STEEL
L	FLANGE	STA	STATION
T	FEET OR FOOT	SW	SAMPLE WATER
TG	FOOTING	TB	THRUST BLOCK
IP .	FEMALE IRON PIPE	TH	TEST HOLE
W	FINISH WATER	TO	TANK OVERFLOW
AL	GALLON	TP	TEST PIT
ALV	GALVANIZED	TR	THRUST RESTRAINT
B	GRADE BREAK	TW	TREATED WATER
PM	GALLONS PER MINUTE	TYP	TYPICAL
SV.	GATE VALVE	UT	UNDERGROUND TELEPHONE
IDPE	HIGH DENSITY POLYETHYLENE	UV	ULTRAVIOLET
ORZ	HORIZONTAL	UVT	ULTRAVIOLET TRANSMITTA
P	HORSE POWER	VERT	VERTICAL
 BC	INTERNATIONAL BUILDING CODE	WS	WOOD STAVE PIPE
)	INSIDE DIAMETER	WTP	WATER TREATMENT PLANT
-	INVERT ELEVATION		

RECORD DRAWINGS

THESE RECORD DRAWINGS HAVE BEEN PREPARED FROM INSPECTIONS. CONTRACTOR FURNISHED INFORMATION, AND BASED ON PERIODIC FIFE OBSERVATIONS BY THE ENGINEERS. THE CONTRACTOR PROVIDED INFORMATION APPEARS TO REPRESENT THE PROJECT AS CONSTRUCTED. ANY USE OF THESE DRAWINGS SUBSEQUENT TO THIS DATE SHALL BE FOR INFORMATION AND RECORD PURPOSES ONLY AND NOT FOR BY: Thomas Regan, P.E. Chamas Reca DATE: Sept 1, 2016

CIVIL LEGEND				
PROPOSED	EXISTING	DESCRIPTION		
		CONSTRUCTION LIMITS		
		RIGHT OF WAY		
		UTILITY CORRIDOR		
		ROAD CENTERLINE		
		TRAIL		
<u> </u>		GATE		
\rightarrow	>=======	CULVERT		
100	100	CONTOURS		
_		DRAINAGE DIRECTION DRAINAGE		
		DRAINAGE SWALE		
Y		SLOPE SYMBOL		
		EDGE OF CUT SLOPE		
		TOE OF FILL SLOPE		
————s—		SEWER LINE		
		CONDUIT		
		DISCHARGE WATER		
————FW —	FW	FINISH WATER		
————RW —	RW			
—sw —	sw	SAMPLE WATER		
		TANK OVERFLOW		
————т w —		TREATED WATER		
	ws	WOOD STAVE		
× _		STANDARD FITTING		
V	✓ FH	FIRE HYDRANT		
• SSC0		SEWER CLEANOUT		
		PIPELINE DEMOLITION		
₩	>	WATER VALVE		
	Ð	AIR RELEASE VALVE		
	0	BOLLARD		
· · · GB	Ů	GRADE BREAK		
V 4 4 R		CONCRETE		
		GRAVEL SURFACE		
		REVEGETATED AREA		
		NATIVE GROUND		
		IMPORTED FILL		
	UT	TELEPHONE PEDESTAL		
		TEST PIT LOCATION		
	Вн	BORE HOLE LOCATION		
	E	ELECTRICAL BOX		
	_			



250 H Ancho WTP ALASI

PYRAMID JNALASKA,

SCALE:

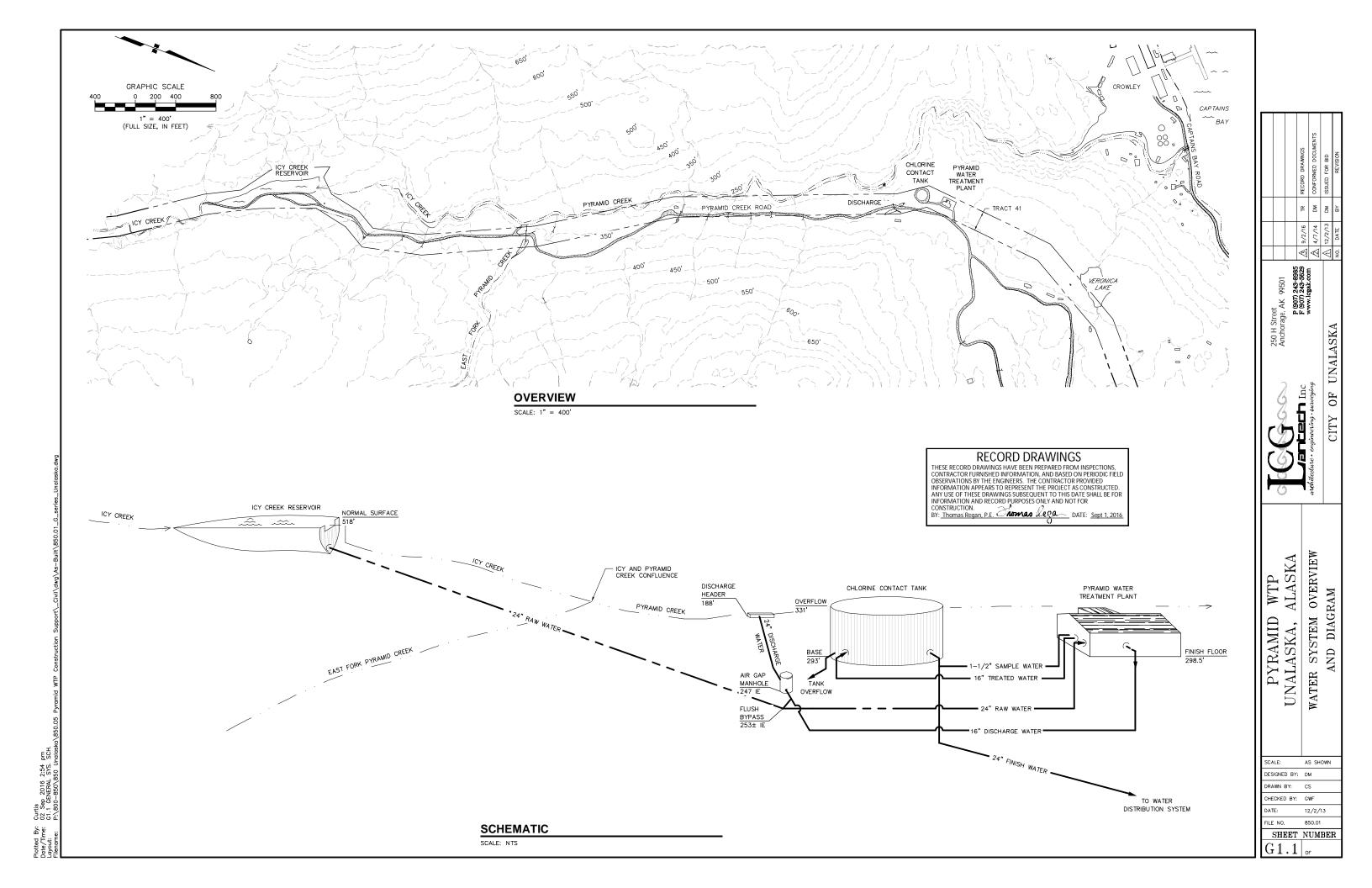
DESIGNED BY: DM

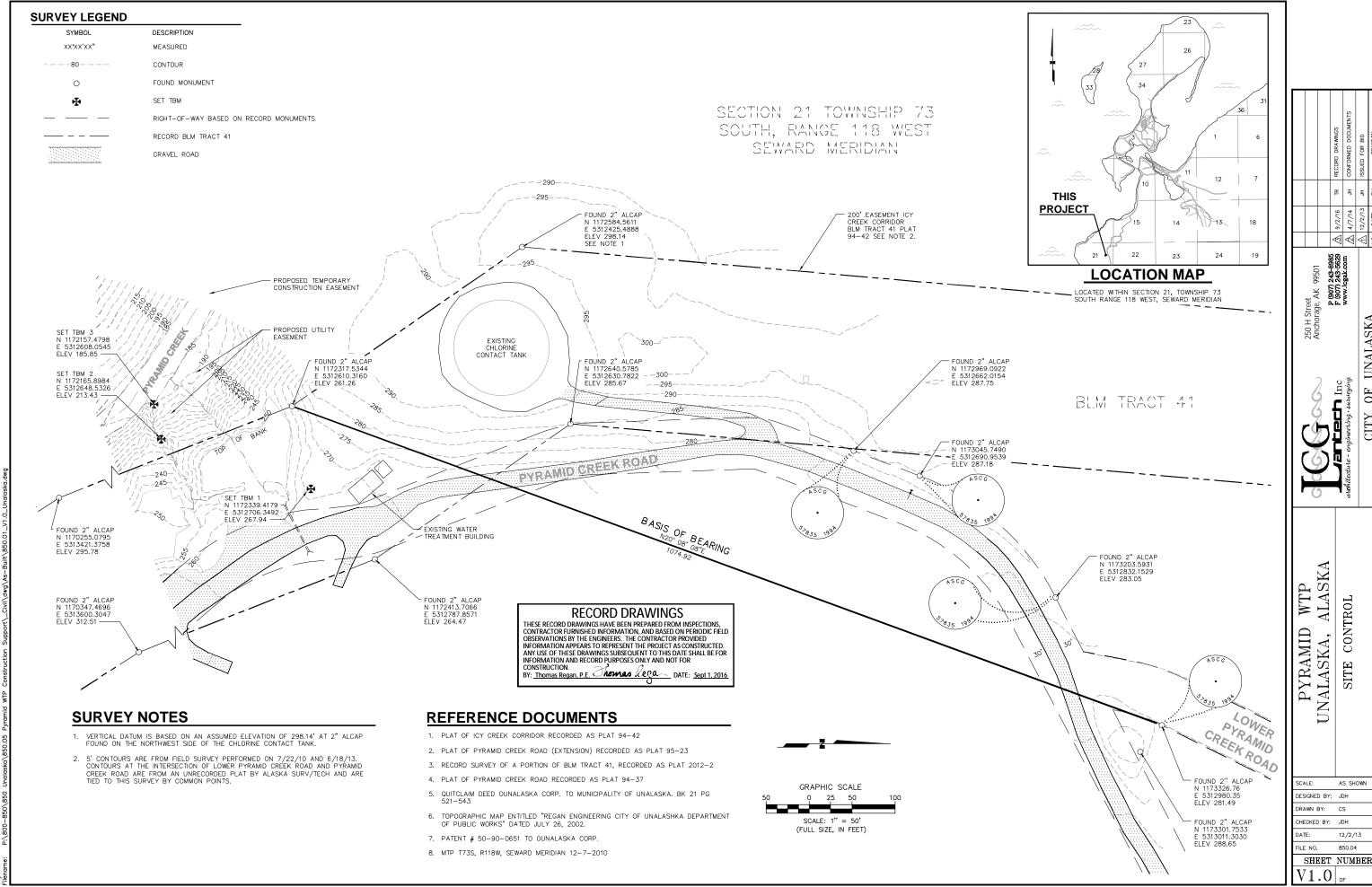
DRAWN BY: CS CHECKED BY: GWF

[G1.0]

SHEET NUMBER

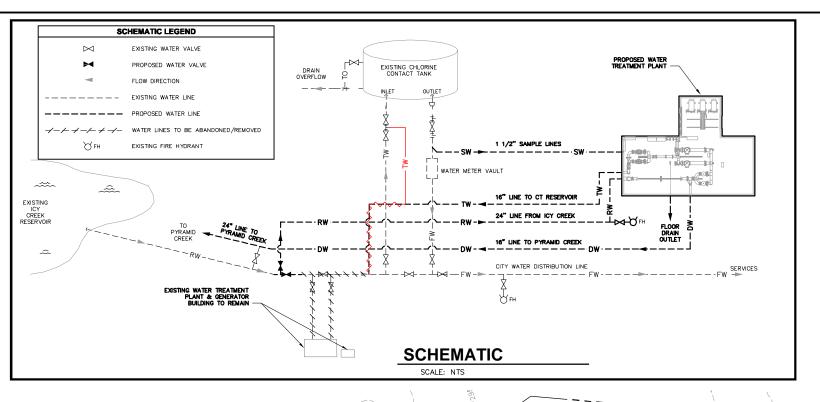
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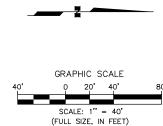




UNALASKA

OF





DEMOLITION INSTRUCTIONS

- 1 REMOVE AND DISPOSE OF STEEL PIPE GATE POSTS. SCARIFY EXISTING GRAVEL ACCESS DRIVE (MINIMUM 6" DEEP), PLACE TOPSOIL AND ORGANIC MATERIAL RECOVERED FROM PROPOSED GRAVEL ACCESS AND BUILDING PAD SEE SITE PLAN. SMOOTH AND RESEED. MINIMUM 5% CROSS SLOPE.
- (2) REMOVE OR ABANDONED IN PLACE EXISTING BURIED WATER LINES AND APPURTENANCES BETWEEN POINTS OF CONNECTION (SEE SITE PLAN) AND EXISTING WATER TREATMENT BUILDING.
- (3) REMOVE EXISTING 16" DIAMETER WOOD STAVE PIPE AND APPURTENANCES FROM WITHIN CONSTRUCTION LIMITS.
- \bigodot remove and dispose of existing 6" line and Cap line after the nearest valve to the raw water line
- 5 REMOVE AND DISPOSE OF 62LF OF 24"Ø CPEP CULVERT. REPLACE WITH CLASSIFIED AND 6" SURFACE COURSE MATERIAL ALL COMPACTED TO 95% MAX DRY DENSITY. GRADE TO MATCH EXISTING ROAD CONTOURS WITH A SMOOTH TRANSITION FROM EXITING ROAD TO REPLACED SECTION.

DEMOLITION NOTES

- 1. EXISTING UTILITIES SHOWN ON PLANS ARE APPROXIMATE, PRIOR TO DEMOLITION THE CONTRACTOR SHALL LOCATE AND FIELD VERIFY ALL UTILITIES DUE TO BE DEMOLISHED OR ABANDONED. PRESERVE AND PROTECT ALL UTILITIES, STRUCTURES, AND APPURTENANCES NOT DESIGNATED FOR DEMOLITION.
- 2. IMMEDIATELY NOTIFY OWNER'S REPRESENTATIVE OF ALL OBSTACLES ENCOUNTERED WITHIN THE DEMOLITION LIMITS NOT SHOWN ON PLANS.
- 3. ALL ITEMS TO BE REMOVED SHALL BE DISPOSED OF AT AN APPROVED DISPOSAL SITE.
- 4. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DISPOSAL FEES.
- THE CITY OF UNALASKA SHALL HAVE FIRST RIGHT OF REFUSAL FOR ALL COMPONENTS REMOVED.
- CONTRACTOR SHALL SUBMIT PHASING PLAN TO ALLOW BOTH EXISTING WATER TREATMENT FACILITIES AND APPURTENANT PIPING TO BE OPERATIONAL UNTIL THE NEW PLANT IS FULLY FUNCTIONAL AND COMMISSIONED INTO SERVICE.

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· · · · · · · · · · · · · · · · · · ·	1				- · (5
245	285. 290. 2 285. 290. 40	EXISTING CHLORINE CONTACT TANK EXISTING WATER VAULT	17-3 (3)	EXISTING CORRIDOR (TRACT 41)	2. 3. 4. 5.
259.7 (N) (S) (S) (N) (S) (N)		PYRAMID CREEK ROAD PYRAMID CREEK ROAD EXISTING FIRE HYDRANT BURIED LITIES	FW ROW 24"ø FINISH WATER LINE	FW 285 - ROW ROW	
		STING WATER TREATMENT) GENERATOR BUILDING, BE DEMOLISHED UNDER 'ARATE CONTRACT		RECORD DRAWINGS THESE RECORD DRAWINGS HAVE BEEN PREPARED FROM INSPECTIONS, CONTRACTOR FURNISHED INFORMATION, AND BASED ON PERIODIC FIELD OBSERVATIONS BY THE ENGINEERS. THE CONTRACTOR PROVIDED INFORMATION APPEARS TO REPRESENT THE PROJECT AS CONSTRUCTED.	

INFORMATION APPEARS TO REPRESENT THE PROJECT AS CONSTRUCTED.

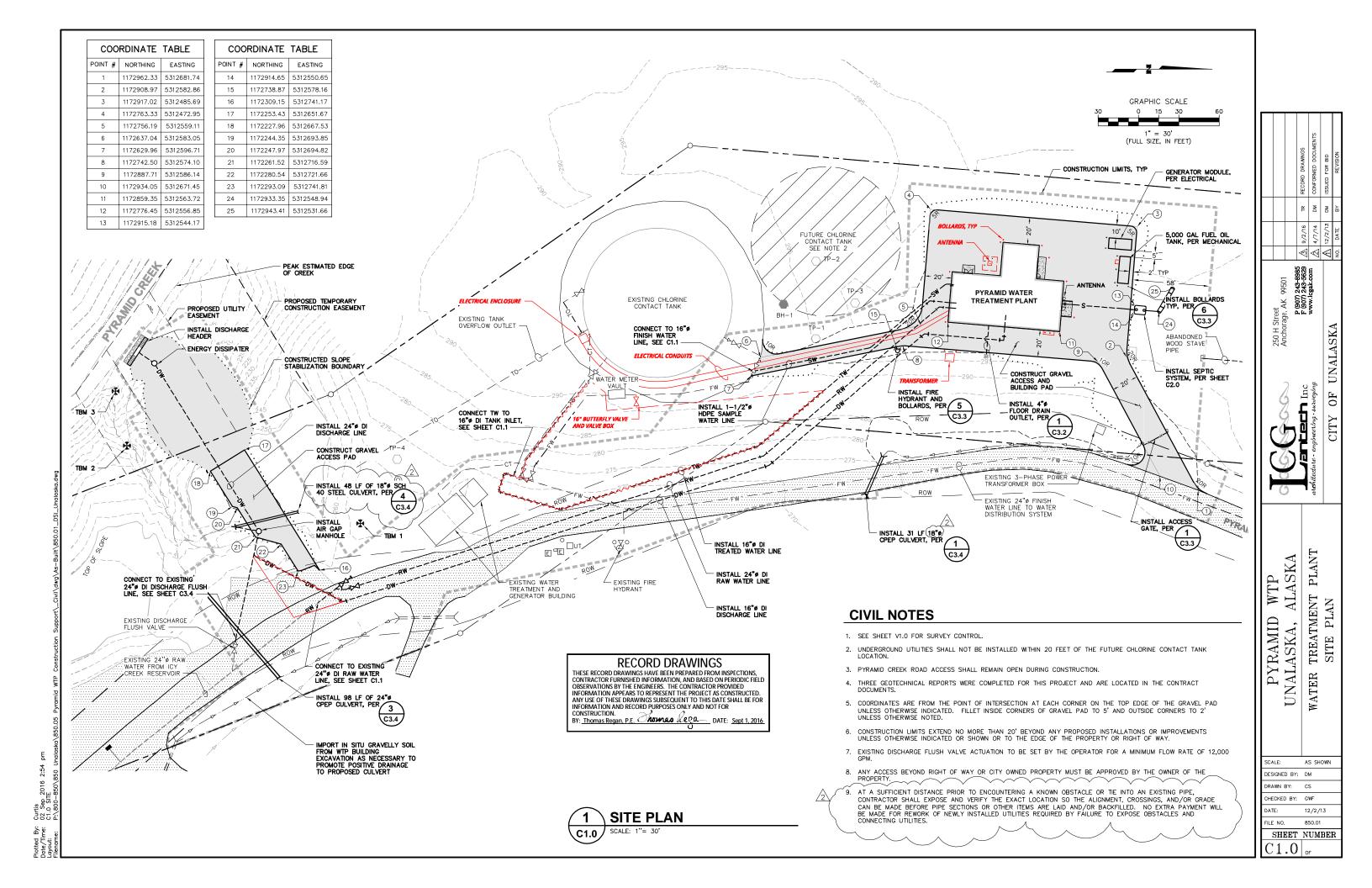
ANY USE OF THESE DRAWINGS SUBSEQUENT TO THIS DATE SHALL BE FOR INFORMATION AND RECORD PURPOSES ONLY AND NOT FOR CONSTRUCTION.

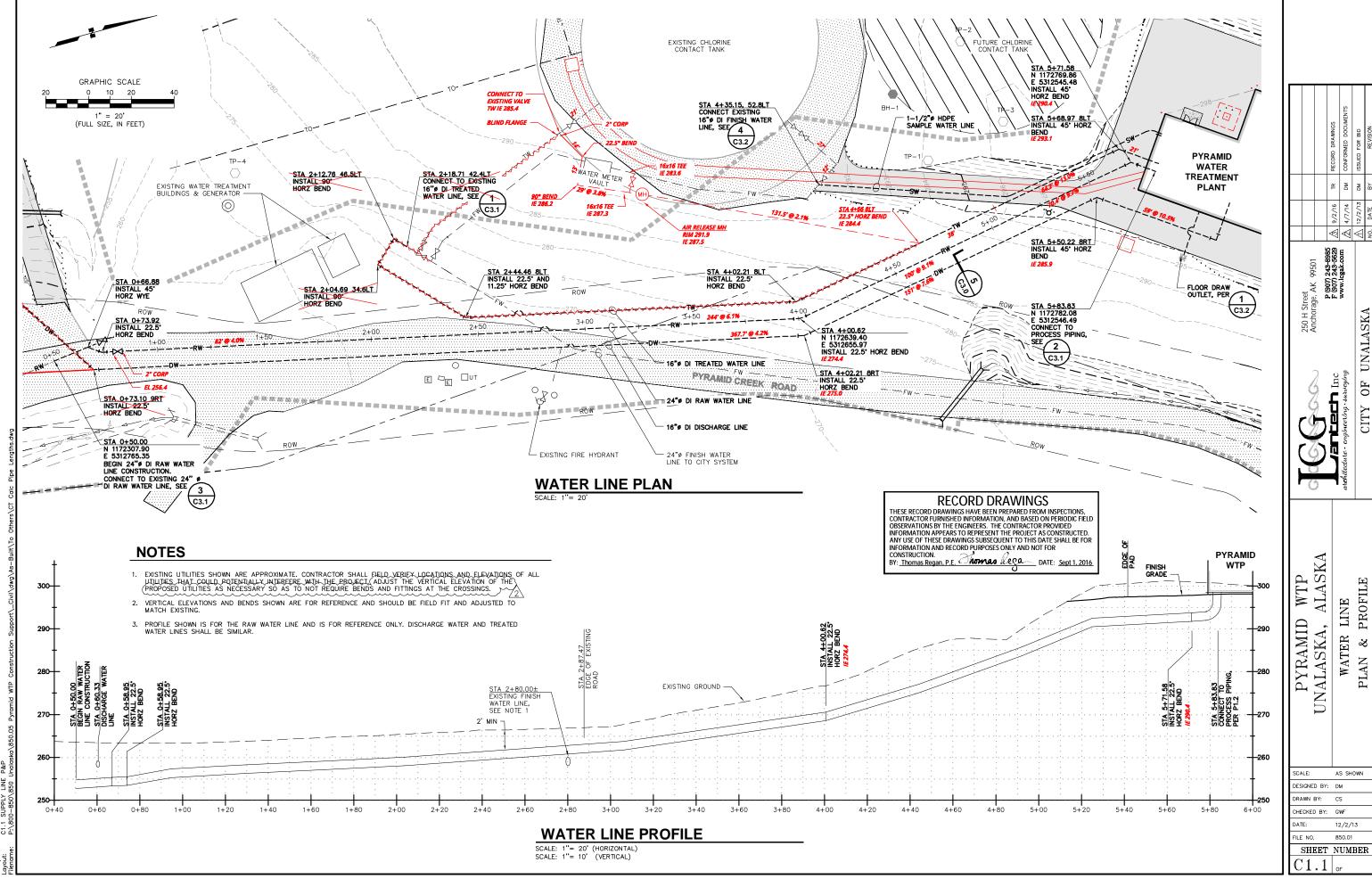
BY: Thomas Regan, P.E. ADMAS Rega. DATE: Sept 1, 2016

DEMOLITION PLAN D1.0 SCALE: 1"= 40"

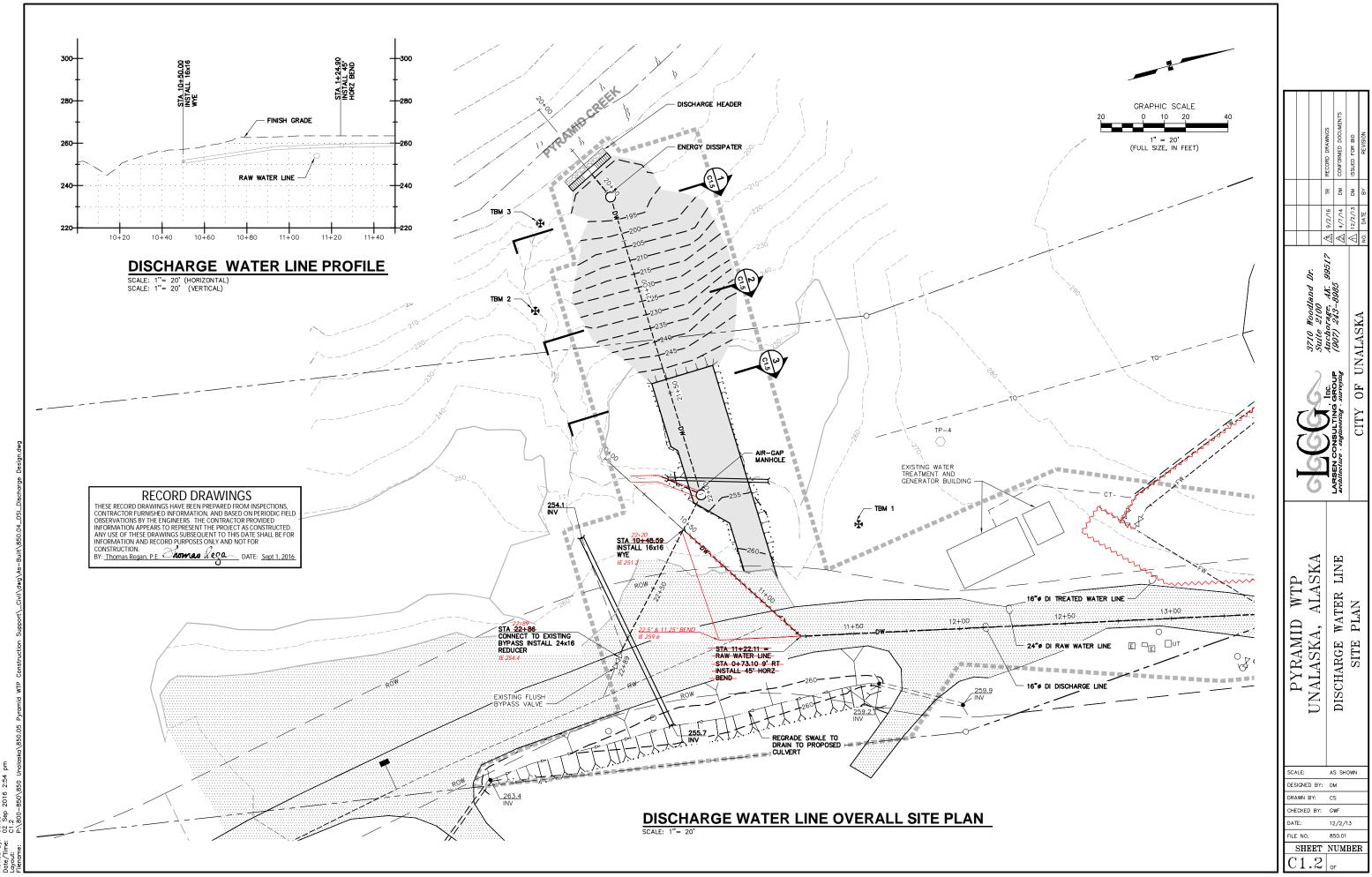
UNALASKA H Inc OF $\begin{array}{c} \text{WTP} \\ \text{ALASKA} \end{array}$ PLAN PYRAMID INALASKA, SCALE: AS SHOWN DESIGNED BY: DM DRAWN BY: CS CHECKED BY: GWF SHEET NUMBER D1.0

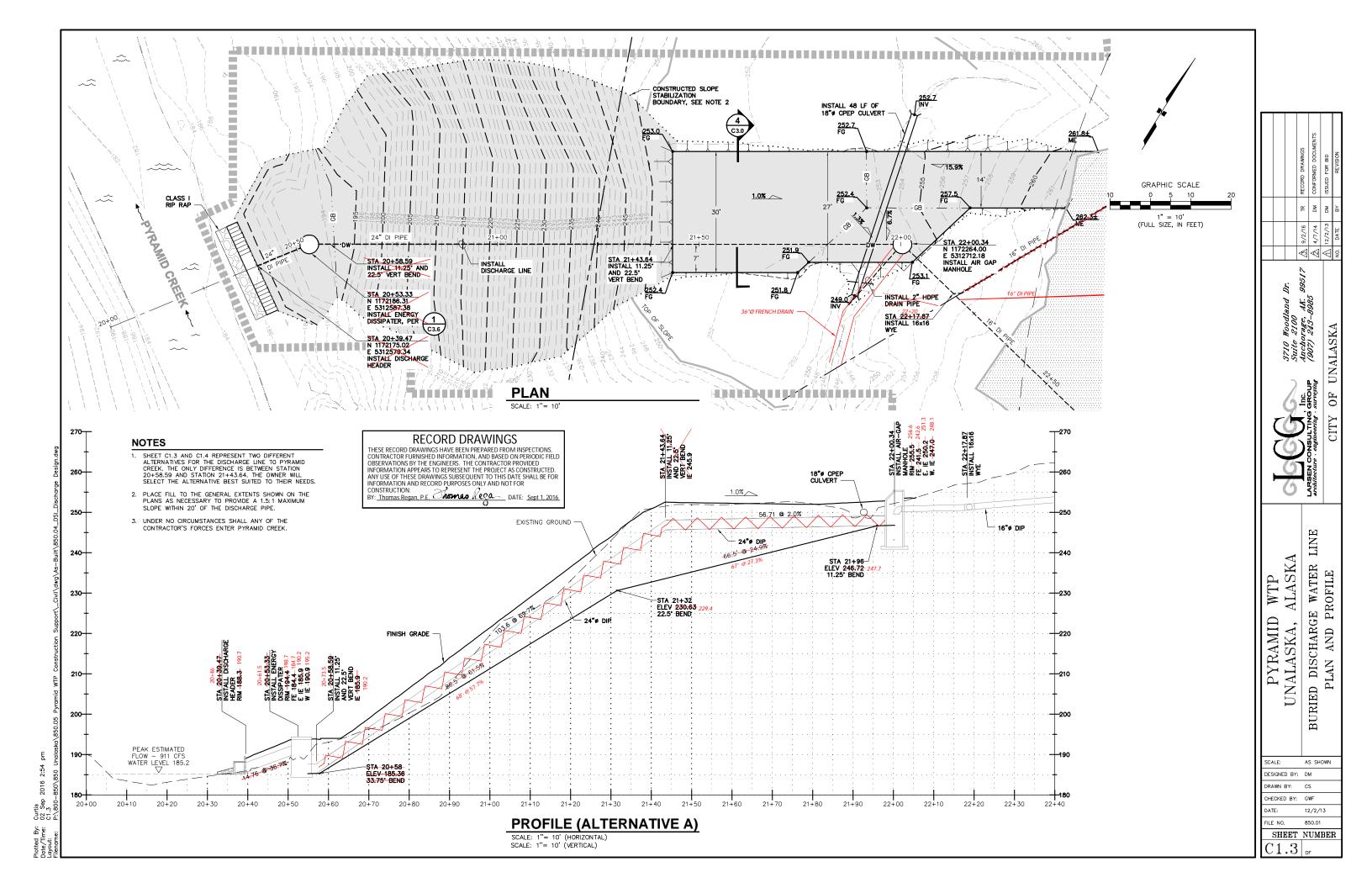
243-8985 243-5629 cgak.com





Andres 22 Nov 2016 9:20 am C1.1 SUPPLY LINE P&P





PWTP On-Site Sodium Hypochlorite Generation System RFP Scoring

	Evaluator #	A - UGSI WEIGHTED SCORE	B - TMG WEIGHTED SCORE	C - De Nora WEIGHTED SCORE	D - TMI WEIGHTED SCORE	E - Koniag WEIGHTED SCORE
	1	2.7	2.8	4.7	1.4	1.7
	2	4.8	3.8	4.0	2.9	2.8
	3	4.1	3.5	4.2	2.6	3.3
	4	5.0	3.2	4.2	2.0	1.0
	5	4.8	2.7	3.6	2.6	2.7
	6	4.3	2.4	2.6	1.9	3.7
	7	4.6	3.8	4.2	2.9	3.5
	8	8.0	0.6	0.8	0.6	0.6
	9	4.6	3.9	4.1	3.1	3.5
	10	4.0	3.9	3.0	2.7	2.5
Average Weighted Ven	dor Score	4.0	3.1	3.5	2.3	2.5
		A - UGSI WEIGHTED SCORE	B - TMG WEIGHTED SCORE	C - De Nora WEIGHTED SCORE	D - TMI WEIGHTED SCORE	E - Koniag WEIGHTED SCORE

STANDARD PROCUREMENT AGREEMENT BETWEEN OWNER AND SUPPLIER

THIS PROCUREMENT AGREEMENT is dated as of	f this day of	
2021, by and between the City of Unalaska (her	einafter called "OWNER") and PSI Water
Technologies, a UGSI Solutions Company, (herei	nafter called "SUPPLIER")	

OWNER and SUPPLIER, in consideration of the mutual covenants hereinafter set forth, agree as follows:

Article 1. GOODS AND SERVICES.

SUPPLIER shall furnish the Goods, Special Services, and Other Services as specified or indicated in the PROCUREMENT DOCUMENTS. The Goods to be furnished are generally described as follows:

- Fabricate and deliver equipment for a completely redundant On-Site Sodium Hypochlorite Generation System.
- Provide shop drawings and product data submittals prior to fabrication.
- Provide an operation and maintenance manual.
- Provide start-up services, performance testing, and training.
- Deliver recommended spare parts, maintenance items, and consumables
- Provide an additional technical advisory site visit.

Article 2. ENGINEER.

The Goods have been specified by the following:

Zachary B. Boldrick, P.E.

Taku Engineering, LLC

403 W. Fireweed Lane

Anchorage, Alaska 99503

907-433-1125

Bob Cummings, P.E.

City of Unalaska, DPW

1035 E. Broadway

Unalaska, Alaska 99685

907-581-1260

hereinafter called "ENGINEER" and who will act as OWNER's representative, assume all duties and responsibilities, and have the rights and authority assigned to ENGINEER by OWNER in connection with the furnishing of the Goods, Special Services, and Other Services in accordance with the PROCUREMENT DOCUMENTS.

Article 3. POINT OF DELIVERY.

The place where the Goods are to be delivered is defined in the Procurement General Conditions as the point of delivery and designated as:

F.O.B. Unalaska, Alaska

Article 4. CONTRACT TIME.

4.1 The Goods are to be delivered to the POINT OF DELIVERY and ready for OWNER's acceptance of delivery on (or within a period of fifteen (15) days prior to)

October 1, 2021.

- 4.2 All shop drawings and samples required by the PROCUREMENT DOCUMENTS will be submitted to ENGINEER for review and approval within ten (10) days after the date when the Contract Time commences to run as provided in paragraph 2.2 of the Procurement General Conditions.
- 4.3 Liquidated Damages. OWNER and SUPPLIER recognize that time is of the essence of this PROCUREMENT AGREEMENT and that OWNER will suffer financial loss if the Goods are not delivered at the POINT OF DELIVERY and ready for acceptance of delivery by OWNER within the time specified in paragraph 4.1 above, plus any extensions thereof allowed in accordance with Article 12 of the Procurement General Conditions. They also recognize that the timely performance of services by other parties involved in OWNER's project are materially dependent upon SUPPLIER's specific compliance with the requirements of paragraph 4.1 Further, they recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual losses or damages (including special, indirect, consequential, incidental, and any other losses or damages) suffered by OWNER if complete acceptable Goods are not delivered on time. Accordingly, and instead of requiring proof of such losses or damages, OWNER and SUPPLIER agree that as liquidated damages for delay (but not as a penalty) SUPPLIER shall pay FIVE HUNDRED DOLLARS (\$500) for each day that expires after the time specified in paragraph 4.1 for delivery of acceptable Goods.

Article 5. CONTRACT PRICE.

OWNER shall pay SUPPLIER for furnishing the Goods, Services, and Special Services, and for performing other services in accordance with the PROCUREMENT DOCUMENTS and SUPPLIER'S Response dated May 14, 2021 to the Request for Proposals in current funds as follows:

Two Hundred Eighty Eight Thousand Dollars (\$288,000)

Article 6. PAYMENT PROCEDURES.

SUPPLIER shall submit Application for Payment in accordance with Article 6 of the Procurement General Conditions. Applications for Payment will be processed by ENGINEER as provided in the Procurement General Conditions.

- 6.1 Progress Payments. OWNER shall make progress payments on account of the CONTRACT PRICE in accordance with paragraph 6.3 of the Procurement General Conditions on the basis of SUPPLIER's Applications for Payment as follows:
 - 6.1.1 Upon receipt of the first Application for Payment submitted in accordance with paragraph 6.1 of the Procurement General Conditions and accompanied by ENGINEER's recommendation of payment in accordance with paragraph 6.2.1 of the Procurement General Conditions, an amount equal to **50%** of the CONTRACT PRICE
 - 6.1.2 Upon receipt of the second such Application for Payment accompanied by ENGINEER's recommendation of payment in accordance with

paragraph 6.2.2 of the Procurement General Conditions, an amount sufficient to increase total payments to SUPPLIER to **85%** of the CONTRACT PRICE, less such amounts as ENGINEER shall determine in accordance with paragraph 6.2.3 of the Procurement General Conditions.

6.2 Final Payment. Upon receipt of the final Application for Payment accompanied by ENGINEER's recommendation of payment in accordance with paragraph 6.6 of the Procurement General Conditions, OWNER shall pay the remainder of the CONTRACT PRICE as recommended by ENGINEER.

Article 7. INTEREST.

All moneys not paid when due hereunder shall bear interest at the rate required by AS§36.90.250, if applicable.

Article 8. SUPPLIER'S REPRESENTATIONS.

In order to induce OWNER to enter into this PROCUREMENT AGREEMENT, SUPPLIER makes the following representations:

- 8.1 SUPPLIER has familiarized himself with the nature and extent of the PROCUREMENT DOCUMENTS and has given ENGINEER written notice of all conflicts, errors, or discrepancies that he has discovered in the PROCUREMENT DOCUMENTS and the written resolution thereof by ENGINEER is acceptable to SUPPLIER.
- 8.2 SUPPLIER has familiarized himself with all local conditions and Federal, State, and Local laws, ordinances, rules, and regulations that in any manner may affect the production and delivery of the Goods and furnishing of Special Services and Other Services in connection herewith.
- 8.3 SUPPLIER does not require additional information from OWNER or ENGINEER to enable SUPPLIER to furnish the Goods, Special Services, or Other Services at the CONTRACT PRICE, within the CONTRACT TIME, and in accordance with the other terms and conditions of the PROCUREMENT DOCUMENTS, but subject to SUPPLIER's right to request interpretations and clarifications in accordance with paragraph 9.2 of the Procurement General Conditions.
- 8.4 SUPPLIER has correlated the results of all such examinations, investigations, and resolutions with the terms and conditions of the PROCUREMENT DOCUMENTS.

Article 9. PROCUREMENT DOCUMENTS.

The PROCUREMENT DOCUMENTS which comprise the entire Agreement between OWNER and SUPPLIER are attached to, or accompany, this PROCUREMENT AGREEMENT, made a part hereof, and consist of the following:

- 9.1 This PROCUREMENT AGREEMENT (pages 1 to 5, inclusive).
- 9.2 Exhibits to this PROCUREMENT AGREEMENT (pages to , inclusive).
- 9.3 Performance and other Bonds, identified as Exhibits and consisting of pages.

- 9.4 Notice of Award.
- 9.5 Procurement General Conditions (pages 1 to 56, inclusive).
- 9.6 Request for Proposals issued April 16, 2021.
- 9.7 Addendum Number 1 to the Request for Proposals issued May 6, 2021.
- 9.8 SUPPLIER's Bid Proposal dated May 14, 2021, (pages 1 to 55, inclusive).
- 9.9 Documentation submitted by SUPPLIER prior to Notice of Award (pages ____ to , inclusive).
- 9.10 All Modifications, including Change Orders, duly delivered after execution of this PROCUREMENT AGREEMENT.
- 9.11 There are no PROCUREMENT DOCUMENTS other than those listed above in this Article 9. The PROCUREMENT DOCUMENTS may only be altered, amended, or repealed by a Modification (as defined in Article 1 of the Procurement General Conditions).

Article 10. MISCELLANEOUS.

- 10.1 Terms used in this PROCUREMENT AGREEMENT which are defined in Article I of the Procurement General Conditions shall have the meanings indicated in the Procurement General Conditions.
- 10.2 No assignment by a party hereto of any rights under or interests in the PROCUREMENT DOCUMENTS will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation, moneys that may become due and moneys that are 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 PROCUREMENT DOCUMENTS.
- 10.3 OWNER and SUPPLIER each binds himself, his partners, successors, assigns, and legal representatives to the other party hereto, his partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the PROCUREMENT DOCUMENTS.

IN WITNESS WHEREOF, the OWNER and SUPPLIER have signed all counterparts of this PROCUREMENT AGREEMENT. All portions of the PROCUREMENT DOCUMENTS have been signed or identified by OWNER and SUPPLIER or by ENGINEER on their behalf.

This PROCUREMENT AGREEMENT with be effect	ctive on, 2021.
UGSI WATER TECHNOLOGIES	CITY OF UNALASKA, ALASKA
By:, Its	By: Erin Reinders, City Manager
State of)) ssCounty)	State of Alaska)) ss. Third Judicial District)
The foregoing instrument was acknowledged before me on the day of, 2021, by, the of PSI Water Technologies, a UGSI Solutions Company, a Corporation, on behalf of the	The foregoing instrument was acknowledged before me on the, 2021, by Erin Reinders, City Manager for the City of Unalaska, a First Class Alaska Municipal Corporation, on behalf of the City of Unalaska.
Notary Public, State of My Commission Expires:	Notary Public, State of Alaska My Commission Expires: