1 Invitation to Bid

CE2 Engineers, Inc. (CE2) is soliciting bids for a Water Tank for the City of Mountain Village. The Alaska Department of Conservation, Village Safe Water (VSW) Program is the City of Mountain Village authorized agent for this Invitation to Bid (ITB). CE2 is authorized to conduct this ITB on behalf of the VSW Program. Bids will be received until 2 PM local Alaska Time, June 22, 2018. Bids received after the specified deadline will not be considered.

The Procurement Officer for this ITB is:

Quentin Guthrie, Procurement Officer CE2 Engineers, Inc. 8221 Dimond Hook Drive Anchorage, AK 99507 Telephone: 907-349-1010 Email: qguthrie@ce2engineers.com

Questions regarding this ITB shall be addressed in writing (email preferred) to the Procurement Officer. The deadline for submission of questions is 2 PM local Alaska Time, June 15, 2018.

Bids shall be mailed/delivered in a sealed envelope to the following address:

CE2 Engineers, Inc. Attn: Quentin Guthrie, Procurement Officer 8221 Dimond Hook Drive Anchorage, AK 99507

Email, fax, or verbal bids are not authorized for this ITB and will not be accepted.

It is the responsibility of the bidder to confirm receipt of their bid by the Procurement Officer.

2 Instructions/Information to Bidders

2-1. Bid Submission and Required Documentation

Bids shall be mailed/delivered in a sealed envelope to the following address:

CE2 Engineers, Inc. Attn: Quentin Guthrie, Procurement Officer 8221 Dimond Hook Drive Anchorage, AK 99507

Email, fax, or verbal bids are not authorized for this ITB and will not be accepted.

It is the responsibility of the bidder to confirm receipt of their bid by the Procurement Officer.

Bidders must bid on all items on the Bid Schedule in order to be considered responsive to this ITB. Failure to bid on all items on the Bid Schedule will disqualify the bid and cause the bid to be deemed non-responsive and therefore not considered.

Alternative bids for anything other than what is required will be rejected unless any possible alternatives are allowed in this ITB. By submitting a bid, the bidder agrees to the terms and conditions contained in this ITB, and that the VSW Program has the sole discretion to interpret and enforce the terms and conditions of this ITB.

Questions regarding this ITB must be made in writing and received by the Procurement Officer before the deadline set for receipt of questions. This will allow time for an amendment to be issued if one is required. It will also help prevent the opening of a defective bid, upon which award cannot be made, and the resultant exposure of bidder prices.

In order to submit a responsive bid, the bidder shall include the written documentation specified below with their bid. Documentation submitted shall not exceed the page limits identified below. Failure to include this documentation with the bid or documentation that exceeds the page limits identified below shall cause the bid to be deemed non-responsive and therefore not considered.

Required Documentation from Bidders:

- Completed Bid Form (1 page) Section 4
- Completed Bid Schedule (1 page) Attachment A
- Completed Federal Debarment Certification Form (1 page) Section 6, Attachment C
- Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions Form (2 pages) – Section 6, Attachment D

ITB # VSW-MOU-2018-10

• Submittal for engineer review required one week after award of purchase order.

Bidders that fail to submit the required documentation, as identified above, before the deadline set for receipt of bids shall be deemed non-responsive.

Bids shall be submitted on the forms provided (Bid Form and Bid Schedule) in this ITB and shall be signed by an individual authorized to bind the bidder to the provisions of this ITB and its bid. Bids submitted that fail to comply with these requirements shall be deemed non-responsive. Bid prices shall be in U.S. funds and include all applicable fees and costs to provide all items identified on the Bid Schedule. The bid must include everything necessary to fulfill all of the requirements of this ITB.

In the event of a difference between a price stated in words and a price stated in figures, the words shall govern. Math errors shall be corrected based on the criteria that words prevail over figures and that unit prices prevail over total prices (extensions of unit prices or bid summations). For purposes of bid comparison, no discounts will be considered.

2-2. Bid Preparation Costs

The VSW Program and CE2 Engineers, Inc. are not liable for any costs incurred by the bidder in bid preparation and submittal.

2-3. Correction and Withdrawal of Bid

Once a bid is submitted, no modifications to the bid will be considered after the deadline set for receipt of bids. No corrections to entries on the Bid Form or Bid Schedule will be considered before the deadline unless the person signing the Bid Form and Bid Schedule initials the corrections. A bidder may choose to submit a revised bid to replace their initial bid if this action is completed prior to the deadline set for receipt of bids.

2-4. Specifications

Unless otherwise specified in this ITB, product brand names or model numbers are examples of the type and quality of product required, and are not statements of preference. If the specifications describing an item conflict with a brand name or model number describing the item, the specifications govern. Reference to brand name or number does not preclude a bid of a comparable or better product, if full specifications and descriptive literature are provided for the product. Failure to provide such specifications and descriptive literature may be cause for rejection of the bid.

2-5. Warranty

The contractor warrants every unit purchased against faulty materials and workmanship for a minimum period of at least 12 months. If, during this period, faults develop with the unit or components of the unit, they will be repaired or replaced without any cost, including any transportation or freight cost, to the VSW Program. Bids, which include supplemental warranties, will be accepted, but supplemental warranties that conflict with or diminish the VSW Program's rights under this warranty clause will be considered null and void. The VSW Program is not responsible for identifying conflicting warranty conditions before issuing a purchase order.

After award of the purchase order:

1. if a conflict arises between the supplemental warranty and the warranty clause in this ITB, the warranty clause in this ITB will prevail; and

2. if the VSW Program's rights are diminished as a result of application of the supplemental warranty, the supplemental warranty will be considered null and void and the ITB warranty clause will prevail.

By signature on the Bid Form and Bid Schedule the bidder acknowledges this requirement and indicates unconditional acceptance of this warranty clause.

2-6. ITB Addendums

Bidders shall acknowledge on the Bid Form their receipt of all ITB addendums issued during the ITB period. Failure to acknowledge addendums will result in the bid being deemed non-responsive.

2-7. Method of Award

The VSW Program reserves the right to reject any bid which is non-responsive, incomplete, or irregular; or any bid in which unit prices are unbalanced in the judgment of the VSW Program. The VSW Program reserves the right to waive any technicalities it deems appropriate in awarding the bid. The VSW Program reserves the right to reject any and all bids.

2-8. Public Record

If a bidder determines there are trade secrets or other proprietary data in their bid which they do not wish made public, they must state so in writing to the Procurement Officer. The bidder must list the parts of their bid they consider confidential and the reasons they consider the information confidential. The Procurement Officer will review this request and make a determination. If the Procurement Officer agrees with the request for confidentiality, those portions of the bid will be kept in a confidential file and will not be released in response to public information requests.

2-9. Assistance to Bidders with a Disability

Bidders with a disability may receive accommodation regarding the means of communicating this ITB or participating in the procurement process. For more information, contact the Procurement Officer no later than seven (7) calendar days prior to the deadline set for receipt of bids.

2-10. Federal Debarment Certification

Expenditures from a purchase order resulting from this ITB may involve federal funds. The U.S. Department of Labor requires all state agencies that are expending federal funds to have a certification filed in the bid (by the bidder) that they have not been

ITB # VSW-MOU-2018-10

debarred or suspended from doing business with the federal government. Certification regarding debarment, suspension, ineligibility and voluntary exclusion lower tier covered transactions (see Section 6, Attachment C: Federal Debarment Certification Form) shall be completed and submitted with the bid. Bids submitted without a completed Federal Debarment Certification Form shall be deemed non-responsive.

2-11. Protest Procedures

For information on VSW protest procedures, please refer to Section 6, Attachment B.

2-12. Human Trafficking

By signature on the Bid Form and Bid Schedule, the bidder certifies that the bidder is not established and headquartered or incorporated and headquartered in a country recognized as Tier 3 in the most recent United States Department of State's Trafficking in Persons Report.

The most recent United States Department of State's Trafficking in Persons Report can be found at the following website: <u>http://www.state.gov/j/tip/</u>.

Failure to comply with this requirement will cause the VSW Program to reject the bid as non-responsive or cancel the purchase order resulting from this ITB.

2-13. Bidders Certification

By signature on the Bid Form and Bid Schedule, the bidder certifies that the bidder will comply with the following:

- a) The laws of the State of Alaska;
- b) The Clean Air Act and Water Pollution Control Act and the regulations issued thereunder by the federal government;
- c) The Copeland Anti-Kick Back Act and the regulations issued thereunder by the federal government;
- d) Section 6002 of the Solid Waste Disposal Act and the regulations issued thereunder by the federal government;
- e) The Clean Water Act and the regulations issued thereunder by the federal government;
- f) The Contract Work Hours and Safety Standards Act and the regulations issued thereunder by the federal government;
- g) The Equal Employment Opportunity Act and the regulations issued thereunder by the federal government;
- h) The Americans with Disabilities Act of 1990 and the regulations issued thereunder by the federal government;
- i) The Civil Rights Act of 1964 and the regulations issued thereunder by the federal government;
- j) The Rehabilitation Act of 1973 and the regulations issued thereunder by the federal government;
- k) The Age Discrimination Act of 1975 and the regulations issued thereunder by the federal government;
- I) Byrd Anti-Lobbying Amendment (31 U.S.C 1352) and the regulations issued

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thereunder by the federal government. A certification must be completed and submitted.

- m) All applicable local, state and federal statutes, regulations, ordinances and codes, whether or not specifically mentioned herein.
- n) All terms and conditions set forth in this ITB;
- A condition that the bid submitted was independently arrived at, without collusion, under penalty of perjury;
- p) That the bid will remain open and valid for at least 90 business days; and
- q) That programs, services and activities provided to the general public under a purchase order resulting from this ITB conform with the Americans with Disabilities Act of 1990 and the regulations issued thereunder by the federal government.

If any bidder fails to comply with [a] through [q] of this paragraph, the VSW Program will reject the bid or terminate the purchase order.

3 Award of a Purchase Order

3-1. Award of a Purchase Order

Award will be made to the lowest responsive and responsible bidder. If a purchase order is to be awarded, CE2 Engineers, Inc. shall issue a Notice of Intent to Award to the apparent lowest responsive and responsible bidder as soon as practicable. The Notice of Intent to Award, serves two purposes. It lists the name of each vendor that offered a bid and the price they bid. It also provides notice of CE2 Engineers, Inc. intent to award a purchase order to the bidder indicated. A copy of the Notice of Intent to Award will be emailed (or mailed if vendor email is not available) to each vendor that responded to the ITB. The bidder identified as the apparent low responsive and responsible bidder shall not proceed with providing any goods or services until a purchase order is given by CE2 Engineers, Inc. A vendor that proceeds with providing goods or services without a purchase order does so without a contract and at their own risk.

Approval of a purchase order resulting from this ITB is contingent upon legislative appropriation and federal funding. Acceptance of the bidders bid shall be by issuance of a purchase order. The bidders total bid amount shall be construed as its bid, pursuant to the bid documents, to be accepted by CE2 Engineers, Inc. CE2 Engineers, Inc. will not sign any vendor contract.

The contractor shall furnish the following documentation to the Procurement Officer before a purchase order is issued:

Valid Alaska business license

3-2. Subcontractors

The contractor may not enter into any subcontracts without prior written approval from the VSW Program. Notwithstanding the approval of any subcontract, the contractor shall be solely responsible for the satisfactory performance of all subcontractors and subcontracted services and for the compensation of all subcontractors. The contractor shall be and remain liable for all costs and damages to the VSW Program and CE2 Engineers, Inc. caused by negligent performance or non-performance of the subcontracted services and shall indemnify, defend and hold harmless the City of Mountain Village, the VSW Program and CE2 Engineers, Inc. from and against any such claims or failures by subcontractors.

If the contractor uses any subcontractors, each subcontractor shall have a written agreement with the contractor ensuring each subcontractor agrees to comply with the terms and conditions of the ITB and purchase order applicable to its scope of performance. That written agreement shall require each subcontractor meet and comply with all of the applicable provisions of the ITB and purchase order, including but not limited to, the indemnity requirements, record keeping obligations, audit rights, and insurance requirements. Should the contractor fail to require the subcontractors to meet and comply with all applicable provisions of the ITB and purchase order, including but not limited to, the indemnity requirements, record keeping obligations, audit rights, and insurance requirements, and such failure damages the City of Mountain Village, the VSW Program and CE2 Engineers, Inc. in any way, the contractor shall indemnify, defend, and hold harmless the City of Mountain Village, the VSW Program and CE2 Engineers, Inc. against such damage. The contractor shall obtain proof of other insurance required from subcontractors and submit such proof to the VSW Program and CE2 Engineers, Inc. upon request.

3-3. No Additional Work or Materials

No claim for additional work or materials, not specifically provided in a purchase order resulting from this ITB, performed or furnished by the contractor, will be allowed, nor may the contractor do any work or furnish any material not covered by a purchase order unless the work or material is ordered in writing by the VSW Program. Any such work or materials which may be done or furnished by the contractor, without a purchase order from the VSW Program, shall be at the contractor's own risk, cost and expense.

<u>3-4. Title</u>

The contractor warrants and guarantees that title to all material covered by any application for payment will pass to the VSW Program no later than the time of payment free and clear of any liens, security interests and further obligations.

3-5. Assignments

Assignment of rights, duties or payments under a purchase order resulting from this ITB is not permitted unless authorized in writing by the VSW Program.

3-6. Governing Law

A purchase order resulting from this ITB is governed by the laws of the State of Alaska. Any claim concerning the purchase order shall be brought only in the Superior Court of the State of Alaska and not elsewhere.

3-7. Disputes

If a contractor has a claim arising in connection with a purchase order resulting from this ITB that it cannot resolve with the VSW Program by mutual agreement, it shall pursue a claim, if at all, in accordance with the provisions of AS 36.30.620 – 632.

3-8. Default

In case of default by the contractor, for any reason whatsoever, the VSW Program may procure the goods or services from another source and hold the contractor responsible for any resulting excess cost and may seek other remedies under law or equity.

3-9. Inspectors

The VSW Program or its authorized representative shall be allowed access to all parts of the work at all times and shall be furnished with every reasonable facility for ascertaining whether or not the work is in accordance with the requirements and intent of the purchase order and ITB.

3-10. Records Retention and Access

The VSW Program or its authorized representative and the federal awarding agency or its authorized representative have the right of access to any pertinent books, documents, papers, or other records of the contractor and its subcontractors, which are pertinent to the funding of a purchase order, in order to make audits, examinations, excerpts, and transcripts. Retention of all records is required for six (6) years after final payments by the VSW Program and all other pending matters are closed. The right of access shall last as long as the records are retained.

3-11. Force Majeure (impossibility to perform)

The parties to a purchase order resulting from this ITB are not liable for the consequences of any failure to perform, or default in performing, any of its obligations under the purchase order, if that failure or default is caused by any unforeseeable Force Majeure, beyond the control of, and without the fault or negligence of, the respective party. For the purposes of this agreement, Force Majeure will mean war (whether declared or not); revolution; invasion; insurrection; riot; civil commotion; sabotage; military or usurped power; lightning; explosion; fire; storm; drought; flood; earthquake; epidemic; quarantine; strikes; acts or restraints of governmental authorities affecting the project or directly or indirectly prohibiting or restricting the furnishing or use of materials or labor required; inability to secure materials, machinery, equipment or labor because of priority, allocation or other regulations of any governmental authorities.

3-12. Indemnification

To the fullest extent permitted by law, the contractor shall defend, indemnify and hold harmless the City of Mountain Village, Alaska, the State of Alaska, Department of Environmental Conservation, Village Safe Water Program and CE2 Engineers, Inc. from and against any claim of, or liability for error, omission or negligent act of the contractor under any purchase order resulting from this ITB.

3-13. Order of Precedence

The terms and conditions of this ITB and bidders bid shall become part of any purchase order resulting from this ITB. The contractor may not add additional or different terms and conditions to the ITB or any purchase order resulting from this ITB. In the event of a conflict of provisions, the following order of precedence shall apply in resolving which provisions control:

- 1. Purchase order;
- 2. Any written amendment to the purchase order, with the more recent amendment taking precedence over the less recent amendment;
- 3. ITB (includes ITB attachments);
- 4. Bidder's bid.

3-14. Termination by the VSW Program for Cause

The purchase order may be terminated by the VSW Program if the contractor fails to perform in accordance with the terms and conditions of the ITB and purchase order. The VSW Program shall first provide written notice to the contractor. The written notice shall state specifically how the contractor is not performing and will give a reasonable period of time for the contractor to get into compliance. If, after the time limit given in the written notice, the contractor is still not in compliance with the terms and conditions of the ITB and purchase order, the VSW Program shall inform the contractor in writing that the purchase order has been terminated and from that point on, shall be excused from further obligations under the purchase order.

In case of such termination by the VSW Program for cause, the contractor shall be entitled to receive payment for goods received and approved by the VSW Program, work executed and approved by the VSW Program and any other costs approved by the VSW Program.

3-15. Termination by the VSW Program for Convenience

The VSW Program may, at any time for good cause, terminate the purchase order for the VSW Program's convenience. This shall include, but is not limited to, such reasons as the VSW Program being unable to obtain adequate funding or the goods or services no longer being required. Upon receipt of written notice from the VSW Program of such termination for convenience, the contractor shall:

- Cease operations as directed by the VSW Program in the written notice;
- Take actions necessary, or that the VSW Program may direct, for the protection and preservation of the goods or work; and
- Except for work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and enter into no further subcontracts.

In case of such termination for the VSW Program's convenience, the contractor shall be entitled to receive payment for goods received and approved by the VSW Program, work executed and approved by the VSW Program and any other costs approved by the VSW Program.

4 Bid Form

ITB # VSW-MOU-2018-10 VSW Mountain Village Project Water Tank

Company_____

Address____

To the Department of Environmental Conservation, Village Safe Water Program and CE2 Engineers, Inc.:

In compliance with your Invitation to Bid (ITB) # **VSW-MOU-2018-10** dated 6/12/18, the undersigned proposes to provide the items identified on the Bid Schedule.

The undersigned hereby agrees that in the performance of any purchase order resulting from this ITB, the contractor shall comply with all applicable federal, state, and borough regulations, codes, and laws; and be liable for all required insurance, licenses, permits and bonds; and pay all applicable federal, state and borough taxes.

The undersigned declares, under penalty of perjury under the laws of the United States, that the bid submitted was independently arrived at without collusion.

The undersigned acknowledges receipt of the following addenda to the bid documents (give number and date of each):

Addendum No	Date Issued	
Addendum No	Date Issued	
Printed Name		Signature of Authorized Official
Title		Date
The		Dale
Phone Number		Email Address

5 Bid Schedule Instructions

ITB # VSW-MOU-2018-10 VSW Mountain Village Project Water Tank

5-1. Bid Schedule

The Bid Schedule is contained in Section 6, Attachment A.

In the event of a difference between a price stated in words and a price stated in figures, the words shall govern. Math errors shall be corrected based on the criteria that words prevail over figures and that unit prices prevail over total prices (extensions of unit prices or bid summations). For purposes of bid comparison, no discounts will be considered.

Bidders must bid on all items on the Bid Schedule in order to be considered responsive to this ITB. Failure to bid on all items on the Bid Schedule will disqualify the bid and cause the bid to be deemed non-responsive and therefore not considered.

Alternative bids for anything other than what is required will be rejected unless any possible alternatives are allowed in this ITB. By submitting a bid, the bidder agrees to the terms and conditions contained in this ITB, and that the VSW Program has the sole discretion to interpret and enforce the terms and conditions of this ITB.

Bidders shall include FOB transportation costs in the total cost column for each item on the Bid Schedule.

5-2. Packaging for Shipment

All items on the Bid Schedule shall be suitably bundled and securely banded on pallets and skids, as appropriate, for ocean barge transport. Items shall be nested to the greatest practical extent to minimize the volume of the shipment. Bundles shall be covered with plywood or OSB board and shrink wrapped to protect the shipment. Smaller pieces shall be placed in crates for full protection and labeled. Every package shall have a label attached identifying contents and stating the following:

Village Safe Water Mountain Village W&S Proje	ct
Water Tank	
Mountain Village, Alaska	
Purchase Order No.:	
Package No.: of	

A list of items in each package shall be forwarded to Quentin Guthrie at qguthrie@ce2engineers.com immediately after packaged goods are shipped to FOB Nenana, Alaska. A copy of delivery documents confirming acceptance at the Ruby Marine Nenana dock shall be submitted with the contractor's written invoice as proof of delivery).

5-3. Delivery Due Date

Water Tank shall be delivered FOB Nenana, Alaska by September 1, 2018.

CE2 Engineers, Inc. will contact the successful bidder and provide the physical address for delivery of the Water Tank after a purchase order has been issued.

5-4. Payment

The terms of the payment are 100%, upon delivery and inspection of materials or services and receipt of a properly documented invoice, payable within 30 days.

Send invoices to: VSW Mountain Village Project Attn: Doug Poage 555 Cordova Street, 4th floor Anchorage, Alaska 99501 Phone: 907-269-7612 E-mail: doug.poage@alaska.gov

6. Attachments

- A. <u>Bid Schedule</u> (Section 5) (1 page)
- B. Village Safe Water (VSW) Program Procurement Protest and Appeals (2 pages)
- C. Federal Debarment Certification Form (2 pages)
- D. <u>Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions</u> <u>Form</u> – (3 pages)
- E. Insurance- (1 page)
- F. <u>Tank Specifications</u> (6 pages)
- G. Tank Insulation Specifications (5 pages)

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				2.2 0	•••===•					
	VILLA	GE S	AFE W	ATER M	OUNTA	IN VILLAGE	PROJECT			
					ER TAN					
Bid Item	Description of item	Unit	Quantity	Unit Weight (Ibs.)	Total Weight (Ibs.)	Unit Dimensions or Packaged Dimensions	Total Dimensions or Packaged Dimensions	Unit Cost (\$)	Total Cost (\$)	
1	150,000 Gallon Bolted Steel Water Storage Tank (See Section 6, Item "F" for Specifications)	EA	1							
2	Pre-fabricated Tank Insulation Package (See Section 6, Item "G" for Specifications)	EA	1							
3	Freight cost to Nenana	EA	1							
Note:	FOB Nenana, AK by September 1, 2018.									
Total Bio	Amount in Words:									
				1						
Total Bio	Price in Numerals:									
Bidder m	ust indicate if they can meet the required de	elivery sch	edule:							
Bidder must indicate if they can meet the required delivery schedule:										
Yes No Alternate Delivery Due Date (if applicable)										
If the bid	der cannot meet the delivery due date, the l	bidder can	propose ar	n alternate deli	very due date	e which will be consid	dered.			
If the alte	rnate delivery due date conflicts with the pr	roject's cor	nstruction se	chedule, the bi	d may be fou	nd non-responsive a	nd therefore not cons	idered.		
Compan	y:									
Busines	s License Number:		1							
Signatur	e of Authorized Official:									
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ATTACHMENT B

Village Safe Water (VSW) Program Procurement Protest and Appeals

Per AS 36.30.550, an interested party has protest and appeal rights concerning VSW procurements including specifications, solicitations and purchase/contract award decisions. To ensure that all sources are provided due process, the following administrative procedure will be followed. The table below designates the Department of Environmental Conservation (DEC) employees who have the authority to investigate and issue decisions for VSW procurement protests and appeals based upon type and award value. An interested party shall first attempt to informally resolve any dispute concerning a VSW procurement with the VSW Project Manager. A dispute for example could include disagreement with an award decision in terms of a proposal's ranking during the Request for Proposals evaluation process. If not satisfied with that outcome, an interested party may submit a written protest with the following information:

- Name, address, fax number, email address and telephone number of the protestor;
- Signature of the protestor or their representative;
- Identification of the contracting agency and the solicitation or contract at issue;
- Detailed statement of the factual grounds of the protest including copies of relevant documents; and
- The form of relief requested.

VSW Small and Medium Procurements

Design of Learning	Cart Darras	Protest Decision	Appeal Decision
Protest Issue	<u>Cost Range</u>	<u>Authority</u>	<u>Authority</u>
		VSW	
		Procurement	VSW
Solicitation	< \$100,000	Specialist	Program Manager
		VSW	
		Procurement	VSW
Specification	< \$100,000	Specialist	Program Manager
		VSW	
		Procurement	VSW
Award Decision	< \$100,000	Specialist	Program Manager

VSW Large Procurements

Protest Issue	Cost Range	<u>Protest Decision</u> <u>Authority</u>	<u>Appeal Decision</u> Authority
		VSW	DEC Facility Program
Solicitation	> \$100,000	Program Manager	Manager
		VSW	DEC Facility Program
Specification	> \$100,000	Program Manager	Manager
		VSW	DEC Facility Program
Award Decision	> \$100,000	Program Manager	Manager

If protesting a solicitation document including the content of a specification, the protest must be filed with the VSW Procurement Specialist not later than four (4) state business days before quotations, bids or proposals are due. Within one (1) state business day of receiving the protest, the VSW Procurement Specialist shall provide notice of the protest to all firms or persons that received the solicitation. The protest notice will include the required not later than date of the VSW decision by the applicable VSW decision authority.

If protesting a decision to cancel a solicitation or an award, purchase or contract, the protest shall be filed with the VSW Procurement Specialist within ten (10) calendar days of the date of the written Notice of Cancellation or Notice of Award. The deadline date cannot end on a weekend or state holiday. Within one (1) state business day of receiving the protest, the VSW Procurement Specialist shall provide notice of the protest to all firms or persons that received the solicitation. The protest notice will include the required not later than date of the VSW decision by the applicable VSW decision authority. The VSW Procurement Specialist shall acknowledge receipt of the protest to the protestor and to the apparent winner of the award as well as all other interested parties within one (1) state business day.

After protest receipt, the VSW Procurement Specialist or VSW Program Manager as applicable, shall take one of the following actions within fifteen (15) calendar days:

a) Issue a written decision denying the protest including the specific reasons for the denial;

b) Issue a written decision sustaining the protest in whole or in part and implementing an appropriate remedy.

If the protester is not satisfied with the protest decision, they may appeal the protest decision to the VSW Program Manager or DEC Facility Program Manager as applicable, depending on the type of procurement transaction and award value. The written appeal must be filed within ten (10) calendar days of the date of the protest decision. The deadline date cannot end on a weekend or state holiday. The appeal shall not raise any new issues that were not included in the written protest. An informal hearing on the protest appeal may be conducted by the VSW Program Manager or DEC Facility Program Manager as applicable to attempt to resolve the dispute. A written appeal decision on the appeal will be issued as follows:

- a) Issue a written decision denying the appeal including the specific reasons for the denial;
- b) Issue a written decision sustaining the appeal in whole or in part and implementing an appropriate remedy.

<u>Appeal Issue</u>	<u>Cost</u> <u>Range</u>	<u>Appeal Decision</u> <u>Authority</u>	Legal Remedy
Specification, Solicitation or Award	< \$100,000	VSW Program Manager	None – Appeal Decision is final
Specification, Solicitation or Award	> \$100,000	DEC Facility Program Manager	Litigation in Alaska Superior Court

ATTACHMENT C

Federal Debarment Certification Form

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion Lower Tier Covered Transactions

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 29 CFR Part 98, Section 98.510, Participant's responsibilities. The regulations were published as Part VII of the May 26, 1988 Federal Register (pages 19160-19211).

(BEFORE COMPLETING CERTIFICATION, READ THE INSTRUCTIONS ON THE FOLLOWING PAGE WHICH ARE AN INTEGRAL PART OF THE CERTIFICATION)

(1) The prospective recipient of Federal assistance funds certifies, by submission of this bid, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

(2) Where the prospective recipient of Federal assistance funds is unable to certify to any of the Statements in this certification, such prospective participant shall attach an explanation to this Proposal.

Name and Title of Authorized Representative	Name a	nd Title	of Authorized	Representative
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Signature

Date

Federal Debarment Certification Form Instructions

Instructions for Certification

1. By signing and submitting this Proposal, the prospective recipient of Federal assistance funds is providing the certification as set out below.

2. The certification in this class is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective recipient of Federal assistance funds knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the Department of Labor (DOL) may pursue available remedies, including suspension and/or debarment.

3. The prospective recipient of Federal assistance funds shall provide immediate written notice to the person to whom this Proposal is submitted if at any time the prospective recipient of Federal assistance funds learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

4. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "Proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this Proposal is submitted for assistance in obtaining a copy of those regulations.

5. The prospective recipient of Federal assistance funds agrees by submitting this Proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the DOL.

6. The prospective recipient of Federal assistance funds further agrees by submitting this Proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transactions," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may but is not required to check the List of Parties Excluded from Procurement or Non-procurement Programs.

8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the DOL may pursue available remedies, including suspension and/or debarment.

ATTACHMENT D

FAR 52.203-11 CERTIFICATION AND DISCLOSURE REGARDING PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (SEPT 2007)

(a) *Definitions.* As used in this provision—"Lobbying contact" has the meaning provided at <u>2</u> <u>U.S.C. 1602(8)</u>. The terms "agency," "influencing or attempting to influence," "officer or employee of an agency," "person," "reasonable compensation," and "regularly employed" are defined in the FAR clause of this solicitation entitled "Limitation on Payments to Influence Certain Federal Transactions" (<u>52.203-12</u>).

(b) *Prohibition*. The prohibition and exceptions contained in the FAR clause of this solicitation entitled "Limitation on Payments to Influence Certain Federal Transactions" (52.203-12) are hereby incorporated by reference in this provision.

(c) *Certification*. The offeror, by signing its offer, hereby certifies to the best of its knowledge and belief that no Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on its behalf in connection with the awarding of this contract.

(d) *Disclosure*. If any registrants under the Lobbying Disclosure Act of 1995 have made a lobbying contact on behalf of the offeror with respect to this contract, the offeror shall complete and submit, with its offer, OMB Standard Form LLL, Disclosure of Lobbying Activities, to provide the name of the registrants. The offeror need not report regularly employed officers or employees of the offeror to whom payments of reasonable compensation were made.

(e) *Penalty*. Submission of this certification and disclosure is a prerequisite for making or entering into this contract imposed by <u>31 U.S.C. 1352</u>. Any person who makes an expenditure prohibited under this provision or who fails to file or amend the disclosure required to be filed or amended by this provision, shall be subject to a civil penalty of not less than \$10,000, and not more than \$100,000, for each such failure.

CONSENT TO USE OF ELECTRONIC SIGNATURES

BY CHECKING HERE, I AGREE TO THE USE OF ELECTRONIC SIGNATURES AS VALID, LEGALLY BINDING SUBSTITUTES FOR ORIGINAL, HANDWRITTEN SIGNATURES ON THIS DOCUMENT.

Company	
Name (signature)	
Name (printed)	
Title	Date of execution

DISCLOSUR	E OF LOBBYING	GACTIVITIES	Approved by OMB	
Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352 0348-0046				
(See reve	rse for public burde	n disclosure.)		
	and Addres		ype: hitial filing haterial change terial Change Only: r quarter e of last report is a Subawardee, Enter Name	
Congressional District, <i>if known</i> : 6. Federal Department/Agency:	7. Feder	essional District, if kr al Program Name/Des Number, if applicable:	scription:	
8. Federal Action Number, if known:		d Amount, if known:		
10. a. Name and Address of Lobbying Regi (<i>if individual, last name, first name, MI</i>):	differ	duals Performing Ser ent from No. 10a) name, first name, MI):	vices (including address if	
11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made		e:		
		me:		
or entered into. This disclosure is required pursuant to 31 U.S.C. information will be available for public inspection. Any person who f	ails to file the			
required disclosure shall be subject to a civil penalty of not less than not more than \$100,000 for each such failure.		ne No.:	Date:	
Federal Use Only:	reicpilo		Authorized for Local Reproduction Standard Form LLL (Rev. 7-97)	

INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing, pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a covered Federal action. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

- 1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.
- 2. Identify the status of the covered Federal action.
- 3. Identify the appropriate classification of this report. If this is a followup report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.
- 4. Enter the full name, address, city, State and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be, a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
- 5. If the organization filing the report in item 4 checks "Subawardee," then enter the full name, address, city, State and zip code of the prime Federal recipient. Include Congressional District, if known.
- 6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organizationallevel below agency name, if known. For example, Department of Transportation, United States Coast Guard.
- 7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.
- 8. Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Proposal (RFP) number; Invitation for Bid (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., "RFP-DE-90-001."
- 9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.
- 10. (a) Enter the full name, address, city, State and zip code of the lobbying registrant under the Lobbying Disclosure Act of 1995 engaged by the reporting entity identified in item 4 to influence the covered Federal action.
 - (b) Enter the full names of the individual(s) performing services, and include full address if different from 10 (a). Enter Last Name, First Name, and Middle Initial (MI).
- 11. The certifying official shall sign and date the form, print his/her name, title, and telephone number.

According to the Paperwork Reduction Act, as amended, no persons are required to respond to a collection of information unless it displays a valid OMB Control Number. The valid OMB control number for this information collection is OMB No. 0348-0046. Public reporting burden for this collection of information is estimated to average 10 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, DC 20503.

Workers' Compensation Insurance: The contractor shall provide and maintain, for all employees engaged in work under this contract, coverage as required by AS.23.30.045, and where applicable, any other statutory obligations including but not limited to Federal U.S.L. & H. and Jones Act requirements. In the case of subcontractor work, the contractor shall provide workmen's compensation insurance for all of the subcontractors' employees engaged in such work. The policy shall provide waiver of subrogation against the State of Alaska. The coverage shall include:

Employer's Liability Protection at \$500,000 each accident/each employee and \$500,000 policy limit

<u>Commercial General Liability Insurance</u>: The contractor shall provide and maintain coverage for all business premises and operations used by the contractor in the performance of services under this contract with minimum combined single limit coverage per the following schedule:

\$1,000,000 each occurrence\$1,000,000 personal injury\$1,000,000 general aggregate\$1,000,000 products completed operations aggregate

The State of Alaska shall be named as an additional insured.

<u>Commercial Automobile Liability Insurance</u>: The contractor shall provide and maintain coverage for all vehicles used by the contractor in the performance of services under this contract with minimum coverage limits of \$1,000,000 combined single limit per occurrence.

All of the above insurance coverage shall be considered to be primary and non-contributory to any other insurance carried by the State of Alaska, whether through self-insurance or otherwise.

SPECIFICATIONS FOR FACTORY POWDER COATED BOLTED STEEL TANK

PART 1 GENERAL

1.01 SCOPE

- A. This specification covers the furnishing of all labor, material, equipment, tools, services and erection of a Factory Powder Coated Bolted Steel water storage tank, for the City of Mountain Village, Alaska, as shown on the plans and specified herein.
- B. The bolted steel tank shall conform to the requirements of American Water Works Association (AWWA) D103-09 Standard for Factory-Coated Bolted Carbon Steel Tanks for Water Storage.

1.02 SUBMITTALS

A. Shop Drawings: Submit shop drawings of the bolted steel reservoir and all accessories for review and approval by the engineer prior to beginning any related shop fabrication or erection. Include sufficient data to show that the reservoir and accessories conform to the requirements to these Specifications for a Factory-Coated Bolted Carbon Steel Tanks for Water Storage located in the City of Mountain Village, Alaska.

Submittals shall include:

- 1. Design calculations, signed by a civil or structural engineer registered in the State of <u>Alaska</u>.
- 2. Fabrication and erection drawings and details for the reservoir and all accessories.
- 3. Certified mill tests on steel plate and structural members demonstrating that the physical and chemical requirements of this Specification have been met.

PART 2 PRODUCTS

2.01 GENERAL DESCRIPTION

A. The Manufacturer shall furnish, erect and test the tank, as required by AWWA.D103-09. The Manufacturer shall be completely responsible for the construction and satisfactory performance of the tank during the guarantee period. The tank shall conform to AWWA 0103-09, to the latest

edition Building Code, and to the requirements of the plans and these Specifications. The supplier shall submit for approval complete and detailed plans for the tank and appurtenances.

B. The Factory Powder Coated, bolted steel tank shall have a nominal capacity of <u>150,000</u> gallons. It shall have a nominal diameter of <u>34</u>' and a nominal height of <u>24</u>'. A cone roof, sloped to drain toward the shell, shall be provided. Provide the reservoir complete with all pipe connections, access openings, nozzles. taps, drains, ladders, vent, and other accessories as shown on the plans or required herein.

2.02 DESIGN DATA

A. The following data and information are supplied as a basis for estimating of the tank and appurtenances. The design professional noted in Section *1.02 SUBMITTALS*, above, shall be responsible for confirming the below listed design parameters are appropriate for the City of Mountain Village, Alaska, water tank.

 Tank Capacity & Dimensions Nominal Capacity Usable Capacity Inside Diameter Tank Height 	150,000 gal. 147,500 gal. 32' 24'
2. Seismic Design Criteria a. Seismic Use Group b. Seismic Importance Factor, IE c. Site Class d. S_s e. S_1 f. F_a g. F_v	Specify Per D103 14.2.1 (II) Specify Per D103 14.2.2 (1.25) Specify Per D103 14.2.4 ('C') Specify Per D103 14.2.3 (0.50 g) Specify Per D103 14.2.3 (0.17 g) Specify Per D103 14.2.6 (1.20) Specify Per D103 14.2.6 (1.63)
 Design Wind Loading Basic Wind Speed, V (mpg) Gust Factor, G Importance Factor, I Exposure Category 	Specify Per D103 15.1.2(130)Specify Per D103 15.1.1(1.0)Specify Per D103 15.1.1(1.15)Specify Per D103 15.1.3('C')
4. Roof Design Loadinga. Roof Live Load (psf)b. Ground Snow Load (psf)	Specify Per D103 5.2.3.1 (60) Specify Per D103 5.2.3.2
5. Liquid to be stored	Potable water
6. Allowable Soil Bearing Pressure	3,500 psf

2.03 MATERIALS

- A. Plates and Sheets. Plates and sheets shall conform to appropriate ASTM designation as set forth in Section 4.4, AWWA D103-09, and shall have a minimum yield strength of 30,000 psi.
- B. Structural Shapes. Structural shapes shall conform to the requirements and ASTM designations of AWWA D103-09 section 4.5
- C. Bolts. Tank joint bolting shall be minimum ½" diameter, shall meet the requirements of AWWA D103-09 section 4.2.1. and have tensile strength of at least 120,000 pounds per square inch.
- D. Gaskets and Sealant. All gaskets and sealants used on this tank shall conform to the requirements of AWWA D103-09 section 4.10.

2.04 ACCESSORIES

- A. Shell Manhole: Provide a 24", minimum, hinged shell manhole located as shown on the drawings. The center of the manhole shall be located 30 inches above the bottom of the tank.
- B. Pipe Connections:
 - 1. Provide inlet nozzle, outlet nozzle with antivortex plate {recommended}, and overflow and drain outlets as shown on the plans.
 - 2. Provide a 1-inch NPT tank connection as shown on the plans for sampling connection.
- C. Overflow pipe: Provide steel internal or external overflow pipe, internal weir box, if required, and supports as shown on the plans. Overflow pipe assembly shall be powder epoxy lined and coated for corrosion protection.
- D. Ladders:
 - 1. Provide a galvanized steel welded exterior ladder with backguard as shown on the plans. The ladder shall have a lockable closure at the bottom.
 - 2. Provide a galvanized steel welded interior ladder. Safe-T-Climb assembly is optional.

- E. Roof Openings:
 - 1. A 20 inch screened vent shall be provided on the roof. The vent shall be fabricated to provide removable screened openings between the vertical support members of the vent. The screened openings of the vent shall be sized by the manufacturer to all venting of a 3,000 gpm pumping rate. An effective area of 75% of screen opening shall be assumed. The screen shall consist of one layer of Type 316 stainless steel: 16 x 16 x 0.018 wire mesh insect screen.
 - 2. The tank roof shall have a curbed, upward opening 24-inches square, minimum hatch located near the ladder. The curb shell extend at least 4 inches above the tank. The hatch cover shall be hinged and shall have locking provisions. The hatch cover lip shall extend for a distance of 2-inches down on the outside of the curb.
- F. Provide a Superior Tank Model # 2400, Liquid Level Indicator with Type 316 stainless steel internals and complete with float and target board assembly is optional.
- G. Gaskets and sealants shall meet or exceed AWWA, FDA, and EPA standards for potable water.
- H. Anchor bolts and stirrups, if required, to be furnished by the tank manufacturer.

PART 3 EXECUTION

2.04 PROTECTIVE COATING

- A. General: All metal plates, supports, members and miscellaneous parts, except bolts, shall be Factory Powder Coated in accordance with AWWA D103, Section 12.6 and this Section. Field coating, other than touch-up, will not be permitted.
- B. Surface Preparation:
 - 1. All steel surfaces shall be shot blasted to equivalent of a SP 10 or better near white metal finish. The surface anchor pattern shall be no less than 1.5 mils.
 - 2. Spray a final Deionized water rinse with Silica-Zirconium (Si-Zr) sealer to prevent rusting prior to the powder coating application and provide additional level of corrosion protection

- 3. All steel surfaces shall drip dry for seven (7) minutes prior to entering the dry off oven for eight (8) minutes at 425 degrees F.
- C. Coating:
 - 1. All interior steel surfaces, support members and miscellaneous parts shall receive 5 mils minimum average dry film thickness using *Dupont/Axalta* "Tank Tan" (An NSF 61 Approved, Thermal Set Epoxy Powder Coating).
 - 2. All exterior steel surfaces, support members and miscellaneous parts shall receive minimum 2 mils average dry film thickness "Tank Tan" primer under 3 mils minimum average dry film thickness using *Dupont* "Superior Sand" (A Thermal Set TGIC-Polyester Powder Coating), for a total of 5 mils.
 - 3. NOTE: Painted, uncoated, or glass lined bolted tanks and FRP tanks are not considered equal

3.02 CONSTRUCTION

A. Field erection of Factory Powder Coated bolted steel tanks shall be in strict compliance with manufacturer's recommendations and performed by manufacturer's employees or certified erection crew to alleviate any potential disputes in coating quality or erection thereof. Particular care shall be exercised in handling and bolting of the tank plates, supports, and members to avoid abrasion or scratching the coating. Prior to placing water in the tank, a "holiday" inspection of the entire tank, corners included, will be provided and performed by the manufacturer in the presence of the owner. Touch-up coating shall be done per the manufacturer's recommendations where needed and as directed to achieve 100% holiday-free surface.

3.03 TESTING AND INSPECTION

- A. General: Test storage tank after erection. Floor shall be clean and free from dirt, foreign substance and debris.
- B. Bottom: Vacuum test seams in floor plates.
- C. Shell: Test by filling with water to elevation of overflow. Completed storage tank shall show no leaks at end of 24 hour test period. No charge will be made for water required to fill tank.
- D. Disinfection:

- 1. General: After testing has been satisfactorily completed, tank shall be disinfected.
- 2. Standards: Disinfecting of interior surfaces shall be performed in accordance with AWWA C652-86. After disinfection, the Owner shall take a water specimen for bacteriological test, as prescribed at Code 40 of the Federal Regulations, Sections 141.21 through 141.30, 141.41 and 141.42.
- 3. After disinfection, the tank shall be filled to the overflow level and allowed to stand for 5 days, minimum. After 5 days. the Owner shall take water specimens for V.O.C. test per EPA 502.2. The tank may be placed into service once acceptable test results are received.

3.04 WARRANTY

A. The tank manufacturer shall warrant the tank against any defects in workmanship and materials for a period of one (1) year from the date of shipment. In the event any such defect should appear, it should be reported in writing to the manufacture during the warranty period.

3.05 FOUNDATION

A. Tank foundation shall be concrete ringwall per AWWA D103-09 section 13.4.1 or granular berm with steel retainer ring per AWWA D103-09 section 13.4.5.

END OF SECTION

SECTION

PREFABRICATED TANK SHELL INSULATION SYSTEM

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. This section includes the manufacture and supply of a prefabricated tank insulation system applied over a potable bolted steel water storage tank (WST). The materials covered in this specification include a composite insulation system for the WST side walls complete with a banding system as specified in the Plans.
- B. The prefabricated tank insulation system shall be complete with all assembly hardware, gaskets, sealants, bands, spring tensioner and all requisite accessories as shown on the Plans and/or described in this specification. If provided, any attached drawings and/or appendix(s) shall illustrate pertinent information with regard to tank dimensions, installation location, pipe species, type of piping and appurtenances.
- C. The insulation manufacturer shall verify the bolted WST design depicted on the contract drawings prior to commencement of insulation fabrications.

1.2 RELATED SECTIONS:

- 1. Section Submittals and Substitutions
- 2. Section Storage and Protection
- 3. Section Rigid Board Insulation
- 4. Section Bolted Steel Water Storage Tank

1.3 DESIGN REQUIREMENTS

- A. Snow Loads: The design snow load shall be per the structural plans.
- B. Wind Loads: Design and size components to withstand positive and negative wind loads, including increased loads at building corners per loading stated in the structural plans.
- C. (Specify a specific design wind speed and category from ASCE 7- 5 or 10 Code.)

- D. Seismic Loads: Design and size components to withstand seismic loads and sway displacement as presented in the structural plans.
- E. Exterior Components: Accommodate the following without damage to system, components or deterioration of seals.
 - 1. Movement within system.
 - 2. Movement between system and perimeter framing components.
 - 3. Dynamic loading and release of loads.
 - 4. Deflection of structural support framing.
 - 5. Expansion and contraction for temperature extremes of -60° F to $+100^{\circ}$ F

1.4 SUBMITTALS

- A. Submittal Procedures: Submittal procedures.
- B. Shop Drawings: Indicate details of construction including attachments, joint patterns, penetrations, interface with flashings and adjacent materials.
- C. Product Data:
 - 1. Submit data on system materials, product characteristics, performance criteria and limitations.
 - 2. Submit data on metal types, finishes, and characteristics.
 - 3. Submit color samples for finish selection. The color of the exterior sheathing will be selected by the Owner.
- D. Samples: If not named Manufacturer: Submit one (1) each 8 x 12 inch size samples of the composite insulation system illustrating a composite section of exterior sheathing with protective coating, insulation, panel connection clips, vertical weather seal with band location slots.
- E. If not named Manufacturer: Submit one (1) each band spring tensioner assembly for selection.
- F. Manufacturer's Installation Instructions: Submit written instructions covering storage, handling, inspection of materials, preparation required, installation techniques, jointing requirements and maintenance information. These instructions shall include a detailed erection drawing(s) of sufficient clarity to allow erection by others.
- G. The drawing(s), manufactures submittal data, installation instructions shall be emailed in Adobe© .pdf format to

1.5 QUALIFICATIONS

- A. Manufacturer: Thermacon Tank Insulation Systems by Vertarib Inc.
- B. Applicator: Company specializing in performing Work of this section with minimum three years of documented experience.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Section Storage and Protection: Product storage and handling requirements.
- B. Protect adhesives and finish materials from freezing by storing in environment recommended by manufacturer.
- C. All insulation panels and miscellaneous parts shall be packaged for shipment in such a manner as to prevent abrasion or scratches due to direct contact between factory-coated surfaces of any and all individual insulation components and appurtenances, or packaging/crating material.
 - 1. Insulation components of similar function, i.e., will be crated with like components.
 - 2. Insulation panels be stacked together but separated from each other with a non-abrasive material, which is intended to protect the sheets from each other during rough-ocean shipping conditions.
 - 3. Roof sheets may be stacked together but separated from each other with a non-abrasive material, which is intended to protect the sheets from each other during rough-ocean shipping conditions.
 - 4. All spring tensioner, nuts, bolts and miscellaneous small parts and hardware shall be boxed, crated, and labeled appropriately.
 - 5. Prior to shipment, all insulation components and materials shall be palletized to facilitate easy transfer between modes of transportation.
- D. All insulation component items and appurtenances shall be full-box export crated for open-deck ocean-barge shipment.
 - 1. Prior to enclosure in solid plywood export-type wooden crates, each palletized unit shall be tightly wrapped with plastic-film to prohibit exposure of the deliverable materials to saltwater spray during open-ocean barge transport of the appurtenances.
 - 2. Pallet weights shall not exceed 3,000 pounds.
 - 3. Pad eyes or hooks will be left exposed and easily accessible when installed as lifting devices and are an integral part of the crate. The sheathed crate shall consist of frame members which are covered with solid sheathing material such as lumber or plywood fastened to the interior frame.

- E. For containerized shipments, the following shall apply:
 - 1. Insulation panels shall be full box crated and blocked and braced.
 - 2. Miscellaneous small parts and hardware shall be full box crated, blocked and braced.
 - 3. Odd shaped parts not conducive to packing shall be tightly wrapped with plastic-film and shall be individually blocked and braced.

1.7 WARRANTY

A. The manufacturer shall warrant the insulation system against any and all defects in workmanship and materials for a period of one year from the date of delivery to the FOB point. In the event any such defect should appear, it shall be reported in writing to the manufacturer during the warranty period.

PART 2 PRODUCTS

2.1 MANUFACTURES OF PREFABRICATED TANK INSULATION SYSTEM

Thermacon Tank Insulation by Vertarib Inc.- Horizontal Insulation System

2.2 COMPONENTS

- A. The insulation panels shall be precurved to fit the tank shell curvature. The panels shall be 4-feet by 8-feet and composed of a 2-inch foil faced (both sides) isocyanurate foam core laminated to 0.032-inch, 3105H14 alloy aluminum sheathing. The thermal conductivity (k) of the isocyanurate foam insulation shall be a maximum of 0.153 BTU in/Ft²⁰FHr, at 75°F mean temperature. The exposed side of the aluminum sheathing on the panels shall have a polyester finish covered by a standard commercial warranty.
- B. Fastening system and weather sealing: An effective weather tight system shall be provided. The weather tight system shall have a 2-inch wide aluminum vertical weather seal, and ³/₄" butyl tape insert on the end of each panel. Each panel shall have two (2) slots that will secure, provide location and prevent vertical movement of the horizontal banding system.
- C. Aluminum bands shall be provided for sealing the top edge of all panels. The bands shall be of sufficient width to insure a 1-1/2inch minimum lap over the external sheathing.
- D. Preloaded Spring Tension Clamping System shall be provided for attaching the insulation panels to the tank. The banding and clamping system shall be designed

to withstand the wind pressure specified and shall allow for extremes of thermal expansion and contraction of the banding. A minimum of two (2) clamps per band shall be provided.

- E. Flashing System: The contractor shall supply a roof flashing as shown in the drawing(s) to cover the roof-wall intersection.
- F. Shell Manhole Cover: The contractor shall supply the quantity of shell manhole covers and manhole flanges specified in the drawing(s). The covers and flanges shall be precurved to fit the tank shell curvature. The covers shall be composed of a 2-inch foil faced (both sides) isocyanurate foam core which is laminated to an aluminum sheathing. The aluminum sheathing color shall be identical to the insulation panel color. The design of the shell manhole cover and flange shall be as shown in the drawing(s).

G. ACCESSORIES

- 1. Insulation Adhesive (As recommended by manufacturer)
- 2. Sealant Materials: (As recommended by coating manufacturer)

PART 3. EXECUTION

3.1 EXAMINATION

- 1. Administrative Requirements: Coordination and project conditions.
- 2. Verify materials are dry and have not been damaged.

END OF SECTION