

2/23/2018

Attn: Martin Taylor, AIS Liaison, Loan and Grant Administration Section Attn: Elisabeth Brown, Water Resource Control Engineer State Water Resources Control Board Division of Financial Assistance 10001 | Street, 16th Floor Sacramento, CA 95814

Subject: AIS Waiver Request for Tilting Disc Check Valves, SRF Project # C-06-8025-180 EchoWater TTF

Project

Dear Martin and Elisabeth:

The Tertiary Treatment Facilities (TTF) project at the Sacramento Regional Wastewater Treatment Plant is funded by a loan through the Clean Water State Revolving Loan Fund (CWSRF). The Consolidated Appropriations Act of 2014 includes an "American Iron and Steel" (AIS) provision that requires recipients of CWSRF assistance to use iron and steel products produced in the United States. Valves are among the products listed as being subject to this requirement.

As part of the TTF Project, Short-Body, Triple-Offset Tilting-Disc Check Valves have been included in the design for the Filter Influent Pumping Station (FIPS). There are two 54-inch valves, and two 66-inch valves of this type in the design to provide check service for the new FIPS pumps. The design team built the specification for these valves based on Adams Valve as the primary listed manufacturer.

Discussions with Adams have indicated that they are not able to meet all of the AIS provisions required for CWSRF funding, as their manufacturing process takes place in Germany. Further research indicated that no other manufacturers of the specified valve are able to meet AIS requirements, and it is the design team's opinion that this product is not produced in the US in sufficient quantity or quality to meet the needs of this project. It is also the design team's opinion that alternative valve designs would not provide an equivalent level of performance as the specified valve.

The design team is therefore requesting that a waiver be issued for the tilting-disc check valves specified in this project. In accordance with the guidelines for AIS waiver requests, specific information is required to be submitted with waiver requests (as indicated in the attached checklist from the EPA memorandum Implementation of American Iron and Steel provisions of P.L. 113-76, Consolidated Appropriations Act, 2014). The required information is presented below and in attached documents.

General Information

Description of foreign and domestic construction materials

The specified tilting-disc check valves are constructed of foreign-sourced materials, and manufactured in a foreign facility (located in Germany). Foreign-sourced materials include carbon steel for the body and disc, stainless steel for the valve shafts, stainless steel/graphite for the valve seals, and stainless steel/Teflon for the valve bearings.



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Unit of Measure

The unit of measure for this product is one valve (each).

Quantity

There are a total of four tilting-disc check valves in this project: two 54-inch, and two 66-inch.

Price

The quoted unit price for the tilting-disc check valves is \$103,500 each for the 54-inch valves, and \$132,250 each for the 66-inch valves. The budgetary quotation for these valves has been attached to this waiver request.

Time of Delivery or Availability

The estimated delivery time for the tilting-disc check valves in this project is 52 weeks, from approval of shop drawings to arrival on-site.

Location of the Construction Project

The Tertiary Treatment Facilities Project is located at:
Sacramento Regional Wastewater Treatment Plant
8521 Laguna Station Road
Elk Grove, CA 95758

Name and Address of the Proposed Supplier

The name and address of the first-named supplier of the tilting-disc check valves is:

Adams Valve, Inc. 12303 Cutten Road Houston, TX 77066

Detailed Justification for the Use of Foreign Construction Materials:

The short-body, triple-offset tilting-disc check valve was specified to provide reliable check service for each of the FIPS facility pumps. In addition to being named in the project specifications, contract drawings are based on the Adams valve design. Adams is the original designer and leading manufacturer of the short-body, triple-offset tilting-disc check valve, and the design team has experience with such valves at the District of Columbia Water and Sewer Authority Blue Plains Wastewater Treatment Plant (a 300 mgd facility), with no reported issues. It is the design team's opinion that alternative valve designs would not provide an equivalent level of performance as the specified valve.

The FIPS design team specified the short-body, triple-offset tilting-disc check valves for the following reasons:

- The short-body design has a proven track record for long term performance;
- The short laying length of this type of valve reduces the size and construction cost of the facility, and is conducive to the congested nature of the FIPS piping;
- This valve type provides flexibility for converting to an isolation/check valve combination should the District choose to do so;

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- The specified valve includes a three stage controlled closure using hydraulic dampeners to eliminate excessive pressure surges, which is critical due to the large volume of secondary effluent that the facility is designed to transfer;
- The specified valves feature a triple-offset design, as it incorporates a higher performance metal seat, required to maximize the reliability of this critical process.

As previously mentioned, there are no known manufacturers of triple-offset tilting-disc check valves able to meet the project specifications and AIS requirements, therefore a waiver is being requested for the specified valves.

Supporting documentation necessary to demonstrate the availability, quantity, and/or quality of materials for which the waiver is requested

Supplier information or pricing information from a reasonable number of domestic suppliers indicating availability/delivery date for construction materials

The FIPS design team has been in communication with the following manufacturers of tilting-disc check valves:

- Val-Matic: Manufacturer with domestic sources, able to meet AIS requirements. Val-Matic
 manufacturers tilting-disc check valves, but does not manufacture the specified short-body,
 triple-offset design. Their valves are not capable of being used as isolation valves and as
 full-function automatic flow control valves, and are equipped with a two-stage dampening
 system, which differs from the specified three-stage dampening system.
- Golden Anderson: Golden Anderson manufacturers tilting-disc check valves, but does not manufacture the specified short-body, triple-offset design. Their valves are not capable of being used as isolation valves and as full-function automatic flow control valves, and a three-stage dampening system is not offered. They manufacturer valves in the 6 to 48-inch diameter range, and larger valves are custom applications.
- Crispin: Manufacturer with domestic sources. Crispin manufacturers tilting-disc check
 valves, but does not manufacture the specified short-body, triple-offset design. Their valves
 are not capable of being used as isolation valves and as full-function automatic flow control
 valves, and are equipped with a two-stage dampening system, which differs from the
 specified three-stage dampening system.
- Pratt: Manufacturer with domestic sources. Pratt manufacturers tilting-disc check valves, but does not manufacture the specified short-body, triple-offset design. Their valves are not capable of being used as isolation valves and as full-function automatic flow control valves, and are equipped with a two-stage dampening system, which differs from the specified three-stage dampening system. Pratt only manufacturers these check valves in the 4 to 60-inch diameter range.
- Hilton: Manufacturer with domestic sources. Hilton manufacturers tilting-disc check valves, but does not manufacture the specified short-body, triple-offset design. Their valves are not capable of being used as isolation valves and as full-function automatic flow control valves, and are equipped with a two-stage dampening system, which differs from the specified three-stage dampening system.
- Vanessa: Vanessa manufactures valves of the short-body, triple-offset type, but does not offer check valves with metal seats as specified.

Documentation of assistance recipient's efforts to find available domestic sources, such as a description of the process for identifying suppliers and a list of contacted suppliers

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The list of contacted suppliers has been provided above. During the design phase, the design team reached out to known manufacturers, and conducted research to locate additional manufacturers for potential inclusion in the project.

Project schedule

The TTF project schedule as it relates to the tilting-disc check valves can be summarized as follows:

- Bid Opening: February 28, 2018
- Notice-to-Proceed for Construction: May 9, 2018
- Prepare and Review Submittals for Tilting-Disc Check Valves: June 2018 September 2018
- Installation of Tilting-Disc Check Valves: December 2020 January 2021
- Project Completion: November 1, 2022

Relevant excerpts from the project plans, specifications, and permits indicating the required quantity and quality of construction materials

The technical specification for the tilting-disc check valves (Section 40 05 65.26) is presented in Attachment 2. Select process-mechanical drawings of the FIPS facility detailing the tilting-disc check valves are presented in Attachment 3.

Waiver request includes a statement from the prime contractor and/or supplier confirming the non-availability of domestic construction materials for which the waiver is sought

A statement from Adams indicating that they cannot meet AIS requirements for the specified valves is included as Attachment 4.

Should you have any questions about this request, please do not hesitate to contact us.

Sincerely,

CAROLLO ENGINEERS, INC./AECOM

Jeff Riley, P.E. Lead Engineer

JDR:jr

Enclosures: Attachment 1 - Adams Valve Quotation, dated Tuesday, May 23, 2017

Attachment 2 - Tilting Disc Check Valves Specification Section (40 05 65.26)

Attachment 3 - Select FIPS Process Mechanical Drawings

Attachment 4 - Statement from Supplier

Attachment 5 - Information Checklist for Waiver Request

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cc: William Yu, SRCSD

Scott Mueller, SRCSD John Nurmi, SRCSD

Chris Cleveland, Carollo Engineers, Inc. Patrick Carlson, Carollo Engineers, Inc. Joe Huang, AECOM

Joe Huang, AECOM Paul Moulton, AECOM John Plummer, AECOM



12303 Cutten Rd.

Houston, TX 77066-1807 USA

Phone: 281-453-3750 Fax: 281-453-3749 Fed ID: 94-3050976

Quote No: 14722

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AECOM

1000 Elm St.

Attn: Paul Moulton, P.E.

Manchester, NH

USA

Date: Tuesday, May 23, 2017 End User: City of Sacramento

Engineer: AECOM

Contractor: TO BE ADVISED - USA

Representative: ATLFLT

Payment Terms

Shipping Terms

Salesperson Beth Cuskey - Tim Martin

Rev:

Rev:

Reference 54" + 66" RZI Check Valves Sacramento

Validity: 65 Days

Paul,

Please see below for **budgetary** pricing and delivery.

Thank you.

Line: **1** Qty **209009**

RZI 54" PN 2.5 CSXCS BUDGETARY

ADAMS STYLE RZN FAST ACTING TILTED DISC CHECK VALVE WITH DAMPING UNIT.

BODY: CARBON STEEL DISC: CARBON STEEL SHAFT: STAINLESS STEEL SEAL: SS/GRAPHITE BEARINGS: SS/TEFLON

SIZED TO 60 DEGREES F, 15 PSIG

ADDER FOR COUNTERWEIGHT: \$4000.00

U/M Lead Time Discounted Extd Price

Unit Price

1 EA 52 WEEKS, ARO \$103,500.00 \$103,500.00

Line: 2 Qty 209009

RZI 66" PN 2.5 CSXCS BUDGETARY

ADAMS STYLE RZN FAST ACTING TILTED DISC CHECK VALVE WITH DAMPING UNIT.

BODY: CARBON STEEL DISC: CARBON STEEL SHAFT: STAINLESS STEEL SEAL: SS/GRAPHITE BEARINGS: SS/TEFLON

SIZED TO 60 DEGREES F, 15 PSIG

ADDER FOR COUNTERWEIGHT: \$5500.00

U/M Lead Time Discounted Extd Price

Unit Price

1 EA 52 WEEKS, ARO \$132,250.00 \$132,250.00



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Built to Meet Critical Requirements

NOTES:

1. Adams standard terms and conditions of sale apply.

2. Terms: To Be Advised 3. FOB: Port of Entry, USA

> **Quotation Total** \$235,750.00



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Formation, Entire Agreement, Termination, and Modification

Formation. These terms and conditions of sales apply to and are an integral and necessary part of any and all quotes or confirmations of sale issued by Adams Valves, Inc. ("Seller") and acceptance of said quote or confirmation of sale by Buver is limited to the acceptance of all of the terms and conditions of said quote or confirmation of sale, together with all technical data, standards, specifications, drawings, and designs attached, referred to, or later incorporated into said quote or confirmation of sale by Seller ("Seller's Data"), and these Terms and Conditions of Sale, and the inclusion of no other terms and conditions. Acceptance shall be by a written Purchase Order signed by Buyer or by Seller's confirmation of sale and by no other means. Any terms or conditions of Buyer contained in any purchase order or other document, which are either different from or additional to the Terms and Conditions of Sale stated herein and in Seller's quotation or confirmation of sale are hereby objected to; are excluded from the terms of sale unless expressly and specifically agreed to in writing by Seller prior to acceptance of the order; and shall not be binding on Seller under any circumstances unless so accepted by Seller in writing. If Buyer proceeds without requesting resolution of any conflict in the terms and conditions of sale, then Seller's decision as to the governing requirement shall be final and all costs incurred in correcting Buyer's erroneous interpretations shall be borne by Buyer.

These Terms & Conditions of Sale along with Seller's quote or confirmation of sale, Seller's Data, and the acceptance of the same, as limited above, shall constitute the entire Agreement between Buyer and Seller (sometimes for convenience called the "Contract") and includes all prior oral and written negotiations and agreements, and all rights, duties, and obligations of the parties shall be determined under Seller's quote or confirmation of sale, Seller's Data, and these Terms & Conditions of Sale.

Termination. Buyer shall not terminate or cancel any order, for any reason whatsoever, after acceptance by Seller under these Terms and Conditions of Sale without the express written permission of Seller. Any said proposed cancellation by Buyer shall be subject only to such terms and conditions as Seller agrees to in writing. If no agreement is reached regarding said proposed cancellation, then Buyer shall be liable to Seller for the full purchase price of the goods. Seller may at its option, at any time, for cause or without cause, terminate the Contract in whole or in part by giving ten (10) days prior notice to the Buyer in writing, in which instance neither party shall have any liability to the other.

Modification. Buyer may not modify an order in any way without the express written consent of Seller. Any said modification proposed by Buyer which is accepted by Seller may be subject to modification charges or changes in the price, specification, or delivery time of the goods as determined in Seller's sole discretion, which shall be binding on Buyer when communicated to Buyer. Seller may suspend work during the pendency of any modifications or adjustments in its sole discretion.

Materials. Seller may obtain the materials used in the goods from any source it chooses, in its sole discretion, as long as such materials meet the specifications of the goods. Should said materials not be reasonably available, the Seller shall be excused from any performance or liability under the Contract, including these terms and conditions of sale. These terms and conditions of sale.

Change of Design. Without any notice whatsoever, Seller may, in the ordinary course of its manufacturing process, change or modify the design and construction of any of the Seller's goods without affecting its rights under this Contract or incurring any obligation for any such changes or modifications on goods previously or subsequently sold.

Expediting. Whether Buyer chooses to expedite this sale or not, Buyer shall have no rights or access to subcontractors or suppliers of Seller, without Seller's written permission.

Inspection and Testing. Prior to the delivery of the goods, Buyer shall have no specific rights to test and inspect the goods during their manufacture or review any documents or information relating thereto, except on the written permission of Seller or as agreed to in the specification control plan, or purchase documents accepted by both parties

Prices.

- A. Minimum order value is \$100.00 net.
- B. Unless otherwise agreed in writing signed by Seller, goods which are to be released for immediate shipment are invoiced at the price in effect at the time the quotation or offer was accepted by the Buyer.
- C. Unless otherwise expressly agreed to in writing signed by Seller, all certificates, reports, certified drawings and additional documentation provided to Buyer will be an extra charge. See price list.
- D. List prices and discounts are subject to change without notice
- E. All goods sold, unless otherwise expressly agreed to in writing by Seller, will be supplied

to Seller's standards for testing, tagging, shipping, preparation, and warranty.

Freight Charges. All orders will be shipped prepaid and add, third party billed, or collect, as determined by the Buyer. On prepaid and add shipments, freight will be billed at cost plus 15% for shipping and handling.

Taxes. Any tax, public charge, tariff or duty assessed or imposed upon Seller by reason of the manufacture, sale or delivery of any goods ordered by Buyer are excluded from our equipment prices and shall be added to the

price for such goods and shall be paid by Buyer, even if billed subsequently to the sale.

Packing. Except as otherwise agreed to by Seller in writing, Seller shall pack and prepare each order in its usual and customary manner and shall have no liability for any subsequent failure of said packing.

Delivery. Except as otherwise agreed to by Seller in writing, all shipments by Seller are F.O.B. Seller's plant or warehouse and all risk of loss with respect to any goods shall pass to Buyer when such goods are picked up by a

carrier at Adams' plant or warehouse, and title shall vest in Buyer at that time, subject to any reservation or security interest of Seller. Claims of lost or damaged products in transit shall be filed by the Buyer directly with the carrier.

Adams shall ship and invoice each Order with its normal and usual documentation. Any drawings or design documentation prepared by Seller and supplied to Buyer pursuant to an order shall remain the property of Seller, and Buyer shall return the same to Seller on demand. There shall be no requirement for Seller to document any aspect of this sale or retain any such documentation, except as agreed to by Seller in writing. Buyer shall have no audit rights in said documentation.

Time of Delivery. Seller does not guarantee that the goods will be shipped or delivered at the time specified in Seller's quote, offer, or confirmation, as such shipment or delivery time (the "time") is an estimate only and NOT OF THE ESSENCE OF THIS AGREEMENT. Accordingly, Seller shall have no liability whatsoever, of any nature, to Buyer for failing to ship or deliver the goods at said time, and said time may be changed by Seller at any time prior to delivery without incurring any liability from Buyer.

Contingencies. Seller shall not be liable for any delay or failure to manufacture, ship, or deliver any or all of the goods ordered by Buyer for any reason whatsoever.

Buyer's Acceptance. Buyer shall conduct a reasonable and complete inspection of the goods delivered hereinunder after Buyer's actual receipt of the goods. If Buyer accepts all or part of a shipment, such acceptance shall be final and irrevocable and no attempted revocation of such acceptance shall be effective. If Buyer rejects any shipment, Buyer must notify Seller of such rejection by a written notice within ten (10) days after Buyer's receipt of the goods. Such notice of rejection must fully specify any error, defect, shortage or nonconformity and failure to comply with this notice requirement shall constitute a waiver of such error, defect, nonconformity. Any failure of Buyer to reject all or part of such shipment within said ten (10) days, shall constitute an irrevocable acceptance of the goods, other than for warranty defects. The cost of packing and returning any rejected goods shall be borne by Buyer.

If all or part of a shipment of goods is rejected by Buyer, Seller shall have the right to cure, in any reasonable manner, the error, defect, shortage, or other nonconformity giving rise to the rejection, in Seller's sole

Return of Goods. Seller's written permission, including a "Returned Goods No." from the General Office of Seller must be secured before returning goods for credit, whether said goods are nonconforming or defective or otherwise. A minimum restocking charge of 15% will apply for standard valves or parts returned in "As New" condition within one (1) year from shipment. Any valves or parts to be returned that have originally shipped over one (1) year ago are not subject to restocking. Standard valves are defined as 3" through 24" CLASS 150; 3" through 24" CLASS 300; and 3" through 12" CLASS 600 in Carbon Steel or 316 Stainless Steel construction.

Payment Terms. Payment shall be in cash on delivery; net 30 days upon credit approval; or as specifically negotiated on terms acceptable to the Seller. Buyer agrees to provide whatever financial information is necessary for Seller to make an informed credit decision. Any negotiated terms must be agreed to in writing and in advance of the acceptance of this order. Buyer may not withhold payment after delivery and acceptance of the goods, as provided herein, for any reason whatsoever, and shall have no right of set-off against the amount owed Seller for the goods because of any other claim of Buyer against Seller. Any payments of Buyer received by Seller shall not be considered trust funds or restricted in any way.

Liens. Seller retains a security interest, and any other lien rights it may have, in all goods delivered to Buyer to secure payment of the full purchase price. Buyer shall fully cooperate in immediately returning the goods to Seller upon Seller's request, should Buyer default in the payment of the purchase price.

Publicity. Seller shall have the unfettered right to publicize this order in any manner it sees fit without permission of Buyer.

Patent and Other Rights. Seller shall have no liability to Buyer for infringement of any patent rights of any third party or any other rights of any third party.

Confidentiality. Any specification or other information provided to the Seller by the Buyer shall be treated confidentially, but Seller shall have no liability whatsoever for the disclosure of said information to third parties unless

Seller does so intentionally. Any specifications or other information provided to the Buyer by the Seller shall be treated as confidential, shall be used only for the purpose of the performance of this Contract and shall not be reproduced in whole or in part for any other purpose. All such information shall remain the property of Seller and shall be returnable to Seller upon demand. The Buyer shall ensure that such information is not divulged to any third party except where necessary for the performance of the Buyer's obligations under this Contract and, in such case, subject to the third parties in question undertaking a similar obligation of confidentiality.

Compliance with Laws; Permits and Certificates. The Seller shall use its best efforts to comply with all applicable federal, state, and local laws, regulations and ordinances; however, Seller shall have no liability to Buyer, of any nature whatsoever, for any violation of the same. Likewise, Seller shall use reasonable efforts to obtain all permits expressly required of Seller under the Contract for applicable laws, regulations, ordinances, and other rules in effect at the place where any of the work is to be performed; however, Seller shall have no liability to Buyer, of any nature whatsoever, for any failure to obtain any of the same

Seller warrants that the goods sold hereunder will be free of defects of workmanship or material for a period of eighteen months after shipment or 12 months from the date of initial use, whichever comes sooner, ("the warranty er wariants that the goods sord increased with the feet of the Buyer and to no other party and is not assignable or transferable by Buyer to any other party. Any warranty other than those contained herein made by Buyer in connection with the resale of any of the goods covered by this Contract hereby constitute an agreement between the Buyer and such vendee or end-user and shall not be binding upon Seller nor shall it obligate Seller to anything not contained herein. Said warranty is limited in scope to the provisions of this Section 26 and any and all other representations by Seller, whether oral or written, express or implied, however arising, that are not contained in this Section are expressly disclaimed and denied as not being within the scope of this Warranty. The warranty is expressly conditioned upon Buyer:

- A. Installing the goods properly as recommended by Seller, and
- B. Using the goods in the manner that they were designed for as recommended by Seller, and
- C. Not modifying the goods prior to, during, or after installation without the express written
- consent of Seller, and,
- D. Operating the goods properly, and
- E. Following all of Seller's warnings and instructions with respect to said goods, and
- F. Notifying Seller on any breach of Warranty, in writing, within ten (10) days after said



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breach occur

IF ANY OF THESE CONDITIONS ARE VIOLATED, THEN THIS WARRANTY SHALL BE NULL AND VOID.

Upon proper notification of any breach, Seller, at its option, may either repair the defective goods; ship a rep

BOTH PARTIES AGREE THAT THESE SHALL BE THE EXCLUSIVE REMEDIES AVAILABLE TO BUYER UPON ANY BREACH OF WARRANTY AND SHALL CONSTITUTE THE TOTAL FULFILLMENT OF ALL OF SELLER'S LIABILITY WITH RESPECT TO SAID BREACH. AND THAT SELLER SHALL NEVER BE LIABLE FOR ANY CONSEQUENTIAL INDIRECT, INCIDENTAL, CONTINGENT OR SPECIAL DAMAGES CAUSED BY SAID BREACH OF WARRANTY

Seller does not warrant and shall not be liable for equipment and accessories supplied by other manufacturers. THERE ARE NO IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. THE WARRANTY STATED HEREIN IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, GUARANTEES, AND REPRESENTATIONS, EXPRESS.

General Limitation of Liability. Any liability of the Seller to Buyer, any other vendee, any end-user, and any third party (the "persons") shall be limited by the provisions of this Section.

- A. IN NO EVENT, SHALL SAID PERSONS BE ENTITLED TO RECOVER ANY CONSEQUENTIAL, CONTINGENT, SPECIAL, INDIRECT OR INCIDENTAL DAMAGES, INCLUDING BUT NOT LIMITED TO, LOSS FOR ANY PERSONAL INJURY OR DEATH OR FOR ANY COMMERICAL LOSS, WHETHER OR NOT SAID DAMAGES ARE CAUSED, IN WHOLD OR IN PART, BY ANY FAULT OF SELLER, OR ANY BREACH BY SELLER OF ANY OF THE TERMS AND CONDITIONS OF THIS CONTRACT, WARRANTY, OR THESE TERMS AND CONDITIONS OF SALE.
- B. In the event that a negligence or other cause of action is asserted against Seller alleging fault, Seller shall only be held to an "ordinary" or "moderate" standard of care and not a "strict" or "high" standard of care.
- C. Any and all liability of Seller shall be conditioned on said Persons properly installing said goods; properly operating said goods; using the goods for a use that they were designed for; not modifying the goods, prior to, during, or after installation; and following all of Seller's warnings and instructions with respect to such goods.

 D. Seller shall not have any liability to Buyer or to the Persons of any nature whatsoever

except as set out under these Terms and Conditions of Sale.

Indemnification. Buyer shall indemnify and hold Seller harmless against all liabilities and causes of action asserted against Seller by reason of the sale and/or use of said goods, including any subsequent use by third parties, for any negligence or tort of Buyer, or any violation of this Contract or any other contract by Buyer, or any violation by Buyer of any laws, that causes harm to Seller. SELLER SHALL NOT INDEMNIFY BUYER IN ANY MANNER OR IN ANY CIRCUMSTANCES WHATSOEVER.

Disputes and Remedies

Governing Laws. Both parties agree that the Contract and any agreement based on these Terms and Conditions of Sale was entered into in Harris County, Texas, and shall be governed by the laws of the State of Texas

Disputes. Should any dispute arise under or related to the Contract or these Terms and Conditions of Sale, then the parties agree that the sole, mandatory forum for the litigation of said dispute shall be a federal or state court of competent jurisdiction in Harris County, Texas; provided however, that if Seller is Plaintiff and cannot obtain proper jurisdiction or service over Buyer for any reason, then Seller may litigate said dispute in any forum or Court that Seller chooses. Buyer shall pay all costs and expenses incurred by Seller in enforcing its rights hereunder, including, without limitation, reasonable attorney's fees and court costs.

Waiver. No right or remedy of Seller shall be deemed to have been waived or renounced, in whole or in part, unless such waiver or renunciation is supported by consideration and is in a writing signed by Seller. Any such waiver or renunciation shall be effective only to the extent expressed in such writing.

Severability. Should any part of the Contract or these Terms and Conditions of Sale ever be found to be void, voidable, or unenforceable, then said term shall not affect the remainder of this Contract, but shall be deleted, and said Contract shall be construed and interpreted without said term

Assignability and Subcontracting. Seller reserves the right to assign this order to any party. None of the rights, duties, and obligations of Buyer may be assigned or transferred to any other party without the express written consent of Seller. Seller may subcontract or otherwise manufacture, procure, or supply any or all of the work for the goods as Seller deems appropriate, in its sole discretion, with any entity in any country of the world.

Notice. Any notice appropriate or required pursuant to this Contract, shall be in writing, and delivered by certified mail or fax, and shall be effective upon the receipt thereof. Said notice shall be sent as follows:

- A. If to Seller, at Adams Valves, Inc., 10649 Haddington Drive, Suite 160, Houston, Texas 77043. Fax (713) 973-2788
- B. If to Buyer, at the address shown in Buyer's purchase order or other written document, or to the main domestic office of Buyer, or any other place held out by Buyer for the receipt of said Notice.

SECTION 40 05 65.26

TILTING DISC CHECK VALVES

PART 1 -- GENERAL

1.01 GENERAL REQUIREMENTS

A. SCOPE:

- 1. Provide and test short body tilting check valves, and appurtenances as indicated and in compliance with Contract Documents.
 - a. Provide sizes and capacities as indicated and specified.
- B. This item is considered Major Equipment as defined by the GENERAL CONDITIONS Section (00 72 00) and is subject to special progress payment procedures in accordance with the PROGRESS PAYMENT PROCEDURES Section (01 29 76).

1.02 REFERENCES

A. REFERENCE STANDARDS: The publications referred to hereinafter form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only. The latest edition of the referenced publications in effect at the time of the bid shall govern. In case of conflict between the requirements of this section and the listed references, the requirements of this section shall prevail.

Reference	<u>Title</u>
API 598	Valve Inspection and Testing
ASME B16.34	Valves-Flanged, Threaded, and Welding End
ASTM	Standard Specification for Steel Castings, Carbon, Suitable for
A216/216M	Fusion Welding, for High-Temperature Service
ASTM A576	Standard Specification for Steel Bars, Carbon, Hot Wrought,
	Special Quality
ASTM A276	Standard Specification for Stainless Steel Bars and Shapes
ASTM	Standard Specification for Pressure Vessel Plates, Carbon Steel,
A516/516M	for Moderate- and Lower-Temperature Service
AWWA C207	Standard Pipe Flanges for Waterworks Service, Sizes 4 In.
	through 144 In. (100 mm through 3,600 mm)
MSS-SP-25	Standard Marking System for Valves, Fittings, Flanges, and
	Unions
MSS-SP-55	Quality Standard for Steel Castings for Valves, Flanges, Fittings,
	and Other Piping Components – Visual Method for Evaluation of
	Surface Irregularities

B. DEFINITIONS:

<u>Type</u> <u>Description</u>

SBTD Short Body Tilting Disc Check Valve

1.03 SUBMITTALS

A. The following information shall be submitted for review in accordance with SUBMITTAL PROCEDURES Section (01 33 00):

- 1. A copy of this specification section, with addenda updates, with each paragraph check marked to show specification compliance or marked to show deviations.
 - a. If deviations and clarifications from the specifications are indicated, and therefore requested by the Contractor, provide a detailed written justification for each deviation and clarification.
 - b. Failure to include a copy of the marked up specification sections and or the detailed justifications for any requested deviation or clarification will result in submittal return without review until marked up specification and justification are resubmitted with the entire package.
- 2. Manufacturer's information and catalog data showing compliance with this specification and a full description of the product.
- 3. Certified shop and erection drawings of valves including valve operators, dampeners and parts lists. Contractor shall submit electronic files of the proposed equipment in the performance size and arrangements as indicated and specified.
- 4. Data, regarding valve characteristics and performance including Cv.
- 5. Shop drawing data for accessory items.
- 6. Number of service person-days provided and per diem field service rate.
- 7. Manufacturer's literature as needed to supplement certified data.
- 8. Listing of reference installations as specified with contact names and telephone numbers.
- 9. Qualifications of field service technician.
- 10. Shop and Field inspection reports.
- 11. Manufacturer's affidavit stating that valves comply with all provisions of this specification.
- 12. Certified test reports covering shop performance, leakage, hydrostatic tests and as specified.

- 13. Recommendations for short and long term storage.
- 14. Shop and field testing procedures and equipment to be used.
- 15. Manufacturer's product data and specifications for shop painting.
- 16. Provide a layout drawing, plan and section showing orientation of valve and nearest obstructions for each valve.
- 17. Provide a listing of the materials recommended for each service specified and indicated. Provide documentation showing compatibility with process fluid and service specified and indicated.
- 18. The most recent ISO 9001 series certification or quality system plan.
- 19. Material Certification:
 - a. Where materials are not specified, provide technical data and certification that the proposed materials are recommended and suitable for the service conditions specified and indicated.

1.04 OPERATION AND MAINTENANCE INSTRUCTIONS

A. Submit operation and maintenance (O&M) instructions in accordance with the OPERATION AND MAINTENANCE DATA Section (01 78 23) by submitting a copy of the OPERATION AND MAINTENANCE DATA Section (01 78 23) with each paragraph check marked to show compliance. O&M instructions shall be submitted after all submittals specified above have been returned mark "No Exceptions Taken" or "Make Corrections Noted." O&M instructions shall reflect the approved materials and equipment.

1.05 UNIT RESPONSIBILITY

A. Equipment systems made up of two or more components shall be manufactured and assembled as a unit by the responsible manufacturer. The responsible manufacturer shall select all components of the system to assure compatibility, ease of construction and efficient maintenance. The responsible manufacturer shall coordinate selection and design of all system components such that all equipment furnished under the specification for the equipment system, including equipment specified elsewhere but referenced in the specification, is compatible and operates properly to achieve the performance requirements specified. Unless otherwise specified in the particular equipment specification, the responsible manufacturer shall be the manufacturer of the driven equipment. Agents, representatives or other entities who are not a direct component of the manufacturing corporation shall not be acceptable as a substitute for the manufacturer's corporation in meeting this requirement. This requirement for unit responsibility shall in no way relieve the Contractor of his responsibility for performance of all systems as provided in the GENERAL CONDITIONS Section (00 72 00).

B. The Contractor shall ensure that all equipment systems provided for the project are products for which unit responsibility has been accepted by the responsible manufacturer. Certificates shall be signed by an officer of the manufacturer's corporation.

1.06 SPARE PARTS

- A. Provide list of spare parts inventory in accordance with SPARE PARTS Section (01 78 43).
- B. Special tools: none, except for as required by the contractor for installation. Special tools shall be removed from the site by the Contractor after commissioning of the equipment is completed.
- C. Spare parts: None, except for as required by the Contractor during Start-up and Commissioning.

1.07 QUALITY ASSURANCE

- A. Comply with the requirements specified in COMMISSIONING Section (01 91 00).
- B. Provide enclosures for the area classifications specified and indicated.
- C. Services of Manufacturer's Representative as stated in QUALITY CONTROL Section (01 45 00) and specified herein.
- D. Valve manufacturer must have a minimum of ten (10) years of experience in valve and dampening design with staged dampening with valves of the same design and size specified and larger. Provide a minimum of three (3) references of operating installations with valves of the size specified or larger and in the same service as specified operating for not less than five (5) years.
- E. If equipment proposed is heavier, different laying length or requires more operating space than specified and indicated; provide all structural, architectural, mechanical, electrical and plumbing revisions at no additional cost to the District.
 - 1. If equipment is heavier than specified, the Contractor shall provide all hoisting equipment sized to maintain the minimum safety factor between the specified maximum equipment weight and the lifting capacity of the hoisting equipment indicated and specified.
- F. All valves in this section shall be the product of one manufacturer.
- G. Valves shall be manufacturer's standard cataloged product and modified to provide compliance with the drawings, specifications and the service conditions specified and indicated.

- H. Shop tests as specified.
- I. The Contractor shall obtain the valves and appurtenances from the valve manufacturer, as a complete and integrated package to insure proper coordination and compatibility and operation of the system.

1.08 DELIVERY, STORAGE, AND HANDLING

A. Comply with the requirements specified in PRODUCT DELIVERY REQUIREMENTS Section (01 65 00) and as specified.

1.09 WARRANTY

A. Provide a Manufacturer's warranty meeting the requirement of the GENERAL CONDITIONS Section (00 72 00).

PART 2 -- PRODUCTS

2.01 TILTING DISC CHECK VALVES – TRIPLE OFFSET - SHORTBODY:

- A. Manufacturers:
 - 1. Adams
 - 2. Or Acceptable Equivalent Product
- B. Non-return, tilting disc design
 - 1. Non-return check valve
 - a. Provide valves with a single disc offset pivoted above the centerline of the valve.
 - b. Triple offset geometry.
 - c. Valves shall be metal seated. Elastomeric seats are not acceptable.
 - d. Provide shaft offset a minimum of 65 percent of the valve inside body diameter. Butterfly valve geometry is not acceptable.
 - e. Provide the offset disc partially balanced and capable of closing with minimum backflow for non-slam operation.
 - f. Provide offset pivot disc for minimal seating and un-seating torques to prevent seat wear.

- g. Provide a torque seated valve with the geometry such that the seat ring compresses equally into the seat and lifts away equally for optimum and equal sealing at all points.
- h. Provide the disc seal ring bolted on for ease of replacement. Welding is not acceptable.
- 2. Provide valves that can be retrofitted in the field from check to combined function valves adding the capability of being used as an isolation valve and as a full function automatic flow control valve in one compact valve design.
- C. Provide valve class or pressure rating as specified in the Valve Schedule.
- D. Valve Construction and Materials:
 - 1. Valve Body: Cast steel ASTM A216/216M or fabricated carbon steel ASTM A516/516M, Grade 60.
 - a. Provide the valve body with conical sealing angles to prevent the disc from over-traveling the position
 - b. Valve Body Flanges: AWWA C207.
 - 2. Body Seat: ASTM A276 Type 316 stainless steel
 - 3. Seal Ring: Combination Type 316 stainless steel and graphite
 - a. Field replaceable without the need for special tools or machining
 - b. Provide disc seal retainer ring screws mechanically locked in place to eliminate possibility of loosening and falling out
 - 4. Seal Retainer Ring: ASTM A276 Type 316 stainless steel
 - 5. Valve Shaft:
 - a. Heat treated and hardened 17-4PH-SS stainless steel.
 - b. Provide the valve shaft connected to the drive shaft coupling with slot keys.
 - c. Provide the shaft with upper and lower pressed fit bearings:
 - 1) Provide bearings of Ni-Resist material limiting friction and maintenance throughout the life of the valve.
 - 6. Provide brackets held in place by register fit and dowel pins to prevent the potential loosening of the fasteners.

E. Dampening System:

- 1. Provide the valve disc closure rate controlled with a hydraulic dampening system to control the rate of closure over the entire stoke of the valve.
- 2. Provide a self-contained hydraulic unit with three (3) separate damping rate increments with the points during the check valve closing travel at which each rate change occurs completely and independently field adjustable allowing the valve to match the closing characteristics of the installed system to prevent pressure surge and provide a fully controlled and non-slam closing action.
- 3. Provide a steel reservoir and sight glass for observation of hydraulic fluid level.
- 4. Provide valves convertible in the field to a combination pump control check and isolation valve by the addition of a gearbox and electric motor actuator.
- 5. Hydraulic Fluid: Food grade and suitable for use in potable water systems.
- 6. Provide the hydraulic dampening cylinder with adjustable cams and throttling valves to control the closing speed such that each stage dampening has an adjustable starting point.
 - a. Provide the hydraulic dampening cylinder located on one side of the valve.
 - b. Locate the dampening system on the side of the valves as indicated on Contract Drawings.

F. Valve Schedule:

Service	Secondary Effluent		
Check Valve Tag Numbers	73SE11 & 13	73SE10 & 12	
Fluid Temperature, degrees F	63 - 70	63 - 70	
Ambient Temperature, degrees F	31.1 - 100	31.1 - 100	
Valve Size, inches	54	66	
Number of Valves	2	2	
Valve Maximum Flow Rate, gpm	70,000	110,000	
Velocity at Maximum Flow, ft/s	9.8	10.3	
Operating Pressure, psi	7	7	
Back Pressure, psi	6	6	
Valve Minimum Flow Rate, gpm	30,000	60,000	
Valve Ends	Flanged	Flanged	
Valve Disc Offset, %	20	20	
Cv	140,000	220,000	
Valve Drilling, AWWA Class	D	D	
Valve Working Pressure Rating, psi	50	50	
Maximum Flange to Flange laying Length, inches	28	32	

Service	Secondary Effluent		
Maximum Valve Weight, lbs	7,200	11,217	
Valve Overall Dimension along shaft, in	94	110	

PART 3 -- EXECUTION

3.01 GENERAL (NOT USED)

3.02 INSTALLATION

- A. Prior to installation, protect stored valves and appurtenances from damage due to exposure to sunlight, heat, dirt, debris, freezing and thawing, vandalism, etc.
- B. Clean all debris, dirt, gravel, etc, from inside of piping before installing valves in place.
- C. Inspect material for defects in workmanship and material.
- D. Erect and support valves in respective positions free from distortion and strain on appurtenances during handling and installation.
- E. Set plumb and support valves in conformance with instructions of manufacturer.
- F. Clean out debris and foreign material from valve openings and seats, test operating mechanisms to check functioning, and check nuts and bolts for tightness.
- G. Repair, valves and other equipment which does not operate easily or are otherwise defective at no additional cost to the District.
- H. Optimize, test and set dampening settings.

3.03 TESTING

A. FACTORY TESTING

- 1. Shop test valves in accordance with ASME B16.34, API 598 and as specified.
- 2. All testing will be witnessed by the District Representative.
- 3. Provide shell test at 1.50 times the valve pressure rating:
 - a. Duration: Minimum 5 minutes after valve is fully pressurized
 - b. No visible leakage
- 4. Closure Testing
 - a. Test at working pressure specified and at back pressure ranges specified.

- b. No visible leakage
- 5. Provide written test certificates and test results
- 6. Provide the following visual inspections:
 - a. Verification of the primary dimensions
 - b. Verification of the absence of defects in castings (per MSS-SP-55)
 - c. Verification of the nameplate and marking (per MSS-SP-25)
- 7. Correct or replace promptly all defects or defective equipment revealed by or noted during tests at no additional cost to the District.
- 8. In the event that specified tests indicate that the valves or appurtenances will not meet specifications, the District Representative has the right to require additional complete witnessed tests for all valves and appurtenances at no additional cost to the District.
- 9. Repeat tests until specified results are obtained.
- 10. Correct or replace promptly all defects or defective equipment revealed by or noted during tests at no additional cost to the District.

B. Field Testing

- 1. Valves shall be tested with the piping system test per COMMON WORK RESULTS FOR PIPING SYSTEMS Section (40 50 03).
- 2. Pressure test valves with pipeline pressure testing.
- 3. Test functions and dampening settings of each valve.
- 4. Make all adjustments necessary to place valves in specified working order at time of above tests.
- 5. Remove and replace valves and appurtenances at no additional cost to the District with equipment that will meet all requirements specified and indicated if unable to demonstrate to the satisfaction of the District Representative that valves will perform the service specified.

3.04 TRAINING

A. Training shall conform to TRAINING Section (01 79 10). The number of training session and hours for each craft shall conform to the requirements of TRAINING Section (01 79 10).

- 1. Vendor Training: Provide classroom and field operation and maintenance instruction including all materials, slides, videos, handouts and preparation to lead and teach classroom sessions.
- 2. Credit to the District, all unused service person-days specified above, at the manufacturer's published field service rate.
- B. Any additional time required of the factory trained service technician to assist in placing the equipment in operation or testing, or to correct deficiencies in installation, equipment or material shall be provided at no additional cost to the District.

3.05 PAINTING

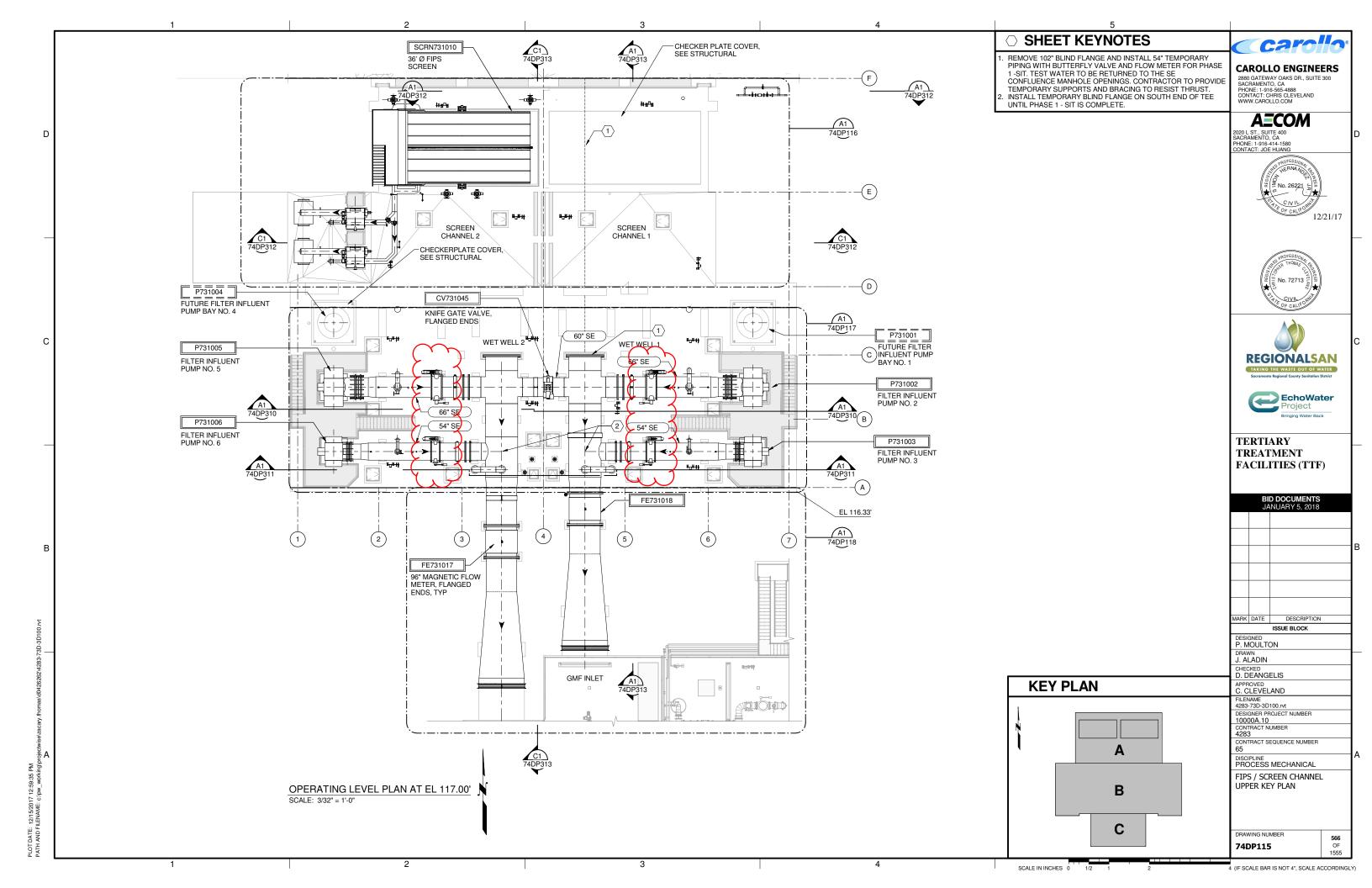
- A. When testing is completed and accepted, prepare valves for shipment.
 - 1. Provide all external surfaces of the valves free of grease or oil and provide all machined surfaces protected with an anticorrosive preparation.
 - 2. Painting: Provide manufacturer's standard epoxy painting system.
- B. Markings: All identifying or data plates or markings bearing serial numbers, ratings, and other essential information shall be placed on the valve body. Provide all data on Type 316 stainless steel nameplates.
- C. After installation and accepted testing by the District Representative, apply touch-up paint to all scratched, abraded, and damaged shop painted surfaces. Coating type and color shall match shop painting.

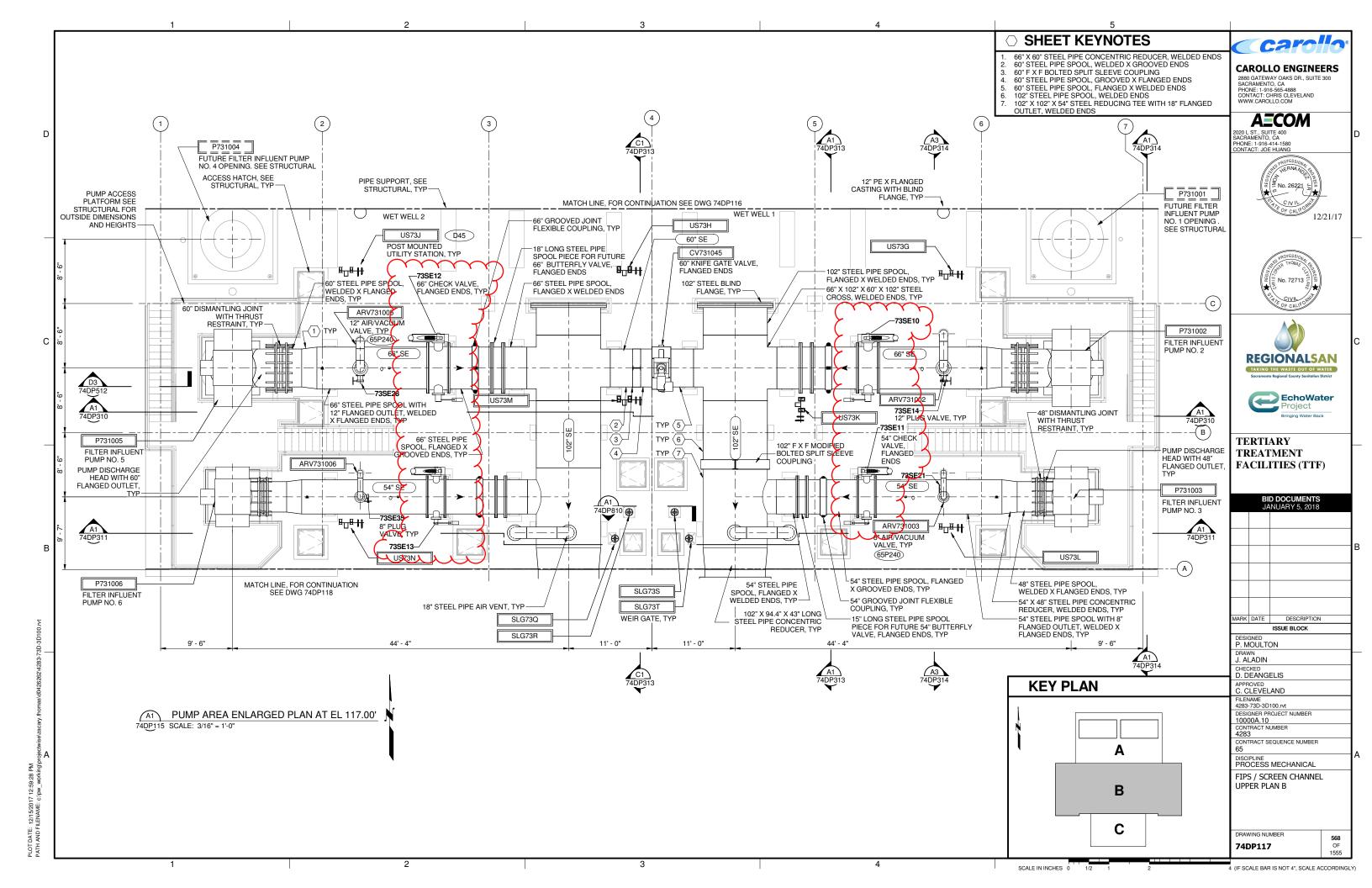
3.06 COMMISSIONING

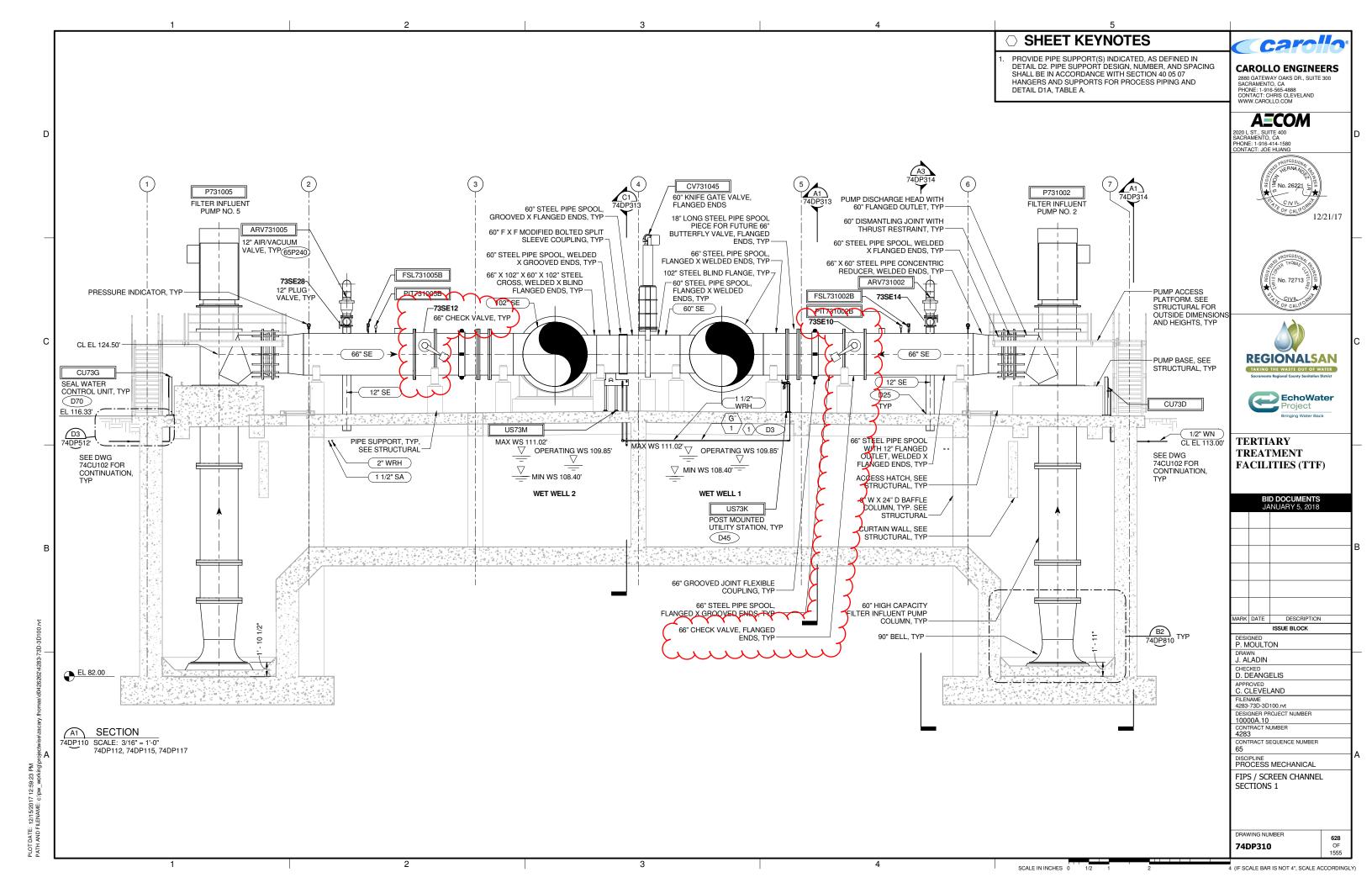
- A. Services of Manufacturer's Representative as stated in COMMISSIONING Section (01 91 00) and as specified herein.
- B. Provide services of factory-trained Service Technician, specifically trained on type of equipment specified:
 - 1. Service Technician must be present on site for all items listed below. Person-day requirements listed are exclusive of travel time, and do not relieve Contractor of the obligation to place equipment in operation as specified.
 - 2. Installation: Supervise, valve internals; setting, leveling, alignment, field erection; coordination of piping, electrical and miscellaneous utility connection:
 - a. 1 person-day.
 - 3. Functional Testing: Calibrate, check performance and perform a functional test. Tests to include all items specified.
 - a. 2 person-days.

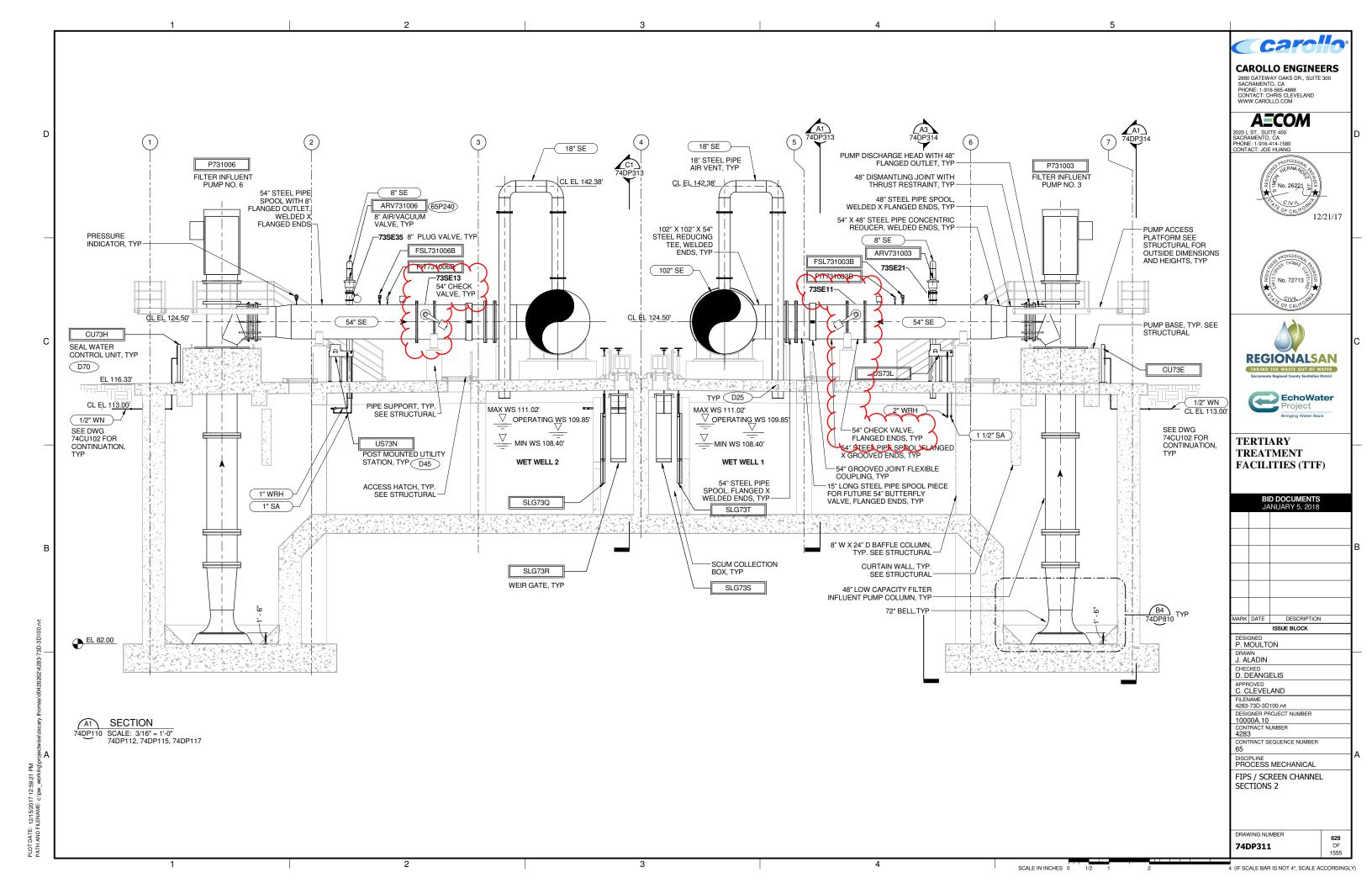
- 4. Field Performance Testing: Field performance test equipment specified.
 - a. 2 person-days.

END OF SECTION









Jeff Riley

From: Moulton, Paul <Paul.Moulton@aecom.com>

Sent: Monday, January 08, 2018 8:32 AM

To: Plummer, John

Subject: FW: TTF - SAC REGIONAL - SPEC 40 05 65.26 - Tilting Disc Check Valves

From: Tim Martin [mailto:tmartin@adamsvalves-usa.com]

Sent: Friday, January 5, 2018 9:25 AM

To: Moulton, Paul **Cc:** moji@aftinc.com

Subject: RE: TTF - SAC REGIONAL - SPEC 40 05 65.26 - Tilting Disc Check Valves

Hello Paul,

Happy New Year, and thanks for sending this.

My background with AIS is very limited, in fact, to my knowledge we have not had this invoked on any previous projects. I must dig around to find out what the requirements are. If this is only to purchase US made steel for the valves, there is no reason we cannot comply. These valves are fabricated from plate steel and I know our German procurement office typically buys plate steel on the international market – it may be made in India or Eastern Europe or ? Of course, it always is purchased with material certification.

If the AIS requirement is for American made valves, then we have a bigger challenge.

If you can shed any light on this, I would appreciate it.

*By the way, we are doing a pre-qualification on a job in Vancouver, BC Canada – the user is Greater Vancouver Water District and the engineer is AECOM. Can we use your name as a reference for Adams in the supply of TOV butterfly valves?

Thanks

Best regards, Tim Martin

ADAMS Valves, Inc. 12303 Cutten Road 77066 USA Houston, Texas - USA

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Appendix 1: Information Checklist for Waiver Request

The purpose of this checklist is to help ensure that all appropriate and necessary information is submitted to EPA. EPA recommends that States review this checklist carefully and provide all appropriate information to EPA. This checklist is for informational purposes only and does not need to be included as part of a waiver application.

	Items	1	Notes
General			
•	Waiver request includes the following information:	,	
	 Description of the foreign and domestic construction materials 	1	
	 Unit of measure 	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
	 Quantity 	1	4
	- Price	J.	
	Time of delivery or availability	/	
	 Location of the construction project 	V.	
	 Name and address of the proposed supplier 	V	
	 A detailed justification for the use of foreign construction materials 	\checkmark	
•	Waiver request was submitted according to the instructions in the memorandum		
•	Assistance recipient made a good faith effort to solicit bids for domestic iron and steel products, as demonstrated by language in	J	
	requests for proposals, contracts, and communications with the prime contractor	- V	
Cost Wa	iver Requests		
•	Waiver request includes the following information:		
	 Comparison of overall cost of project with domestic iron and steel products to overall cost of project with foreign iron and 		NOT APPLICABLE
	steel products		APPL TCABLE
	 Relevant excerpts from the bid documents used by the contractors to complete the comparison 		11110000
	 Supporting documentation indicating that the contractor made a reasonable survey of the market, such as a description of the 		
	process for identifying suppliers and a list of contacted suppliers		
Availabi	lity Waiver Requests		
•	Waiver request includes the following supporting documentation necessary to demonstrate the availability, quantity, and/or quality of		
	the materials for which the waiver is requested:	,	
	 Supplier information or pricing information from a reasonable number of domestic suppliers indicating availability/delivery 	$\sqrt{}$	*
	date for construction materials		
	 Documentation of the assistance recipient's efforts to find available domestic sources, such as a description of the process 		
	for identifying suppliers and a list of contacted suppliers.	,	
	 Project schedule 	V	
	 Relevant excerpts from project plans, specifications, and permits indicating the required quantity and quality of construction materials 	✓	+
•	Waiver request includes a statement from the prime contractor and/or supplier confirming the non-availability of the domestic	\checkmark	
	construction materials for which the waiver is sought	V	9
•	Has the State received other waiver requests for the materials described in this waiver request, for comparable projects?		UNKNOWN