AMENDMENT OF SOLICITATION

1. AMENDMENT/MODIFICATION NO. 0002	2. EFFECTIVE DATE MAR 14, 2003
3. ISSUED BY DEPARTMENT OF THE ARMY, BALTIMORE DISTRICT CORPS OF ENGINEERS P.O. BOX 1715 BALTIMORE, MARYLAND 21203-1715	CODE: _____
4. NAME AND ADDRESS OF CONTRACTOR (Name, street, county, State and ZIP Code)	4A. AMENDMENT OF SOLICITATION NO. DACW31-03-R-0010 4B. DATED (SEE ITEM 5) MAR 03, 2003

5. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers __ is extended, X is not extended. DATE OF RECEIPT OF PROPOSAL - 4:00 PM, Local Time APR 02, 2003

Others must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 4 and 8, and returning __1__ copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of the amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

6. ACCOUNTING AND APPROPRIATION DATA (If required)
WYOMING VALLEY LEVEE RAISING – PHASE IIB,
WILKES-BARRE & HANOVER TOWNSHIPS, PENNSYLVANIA

7. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subjectmatter where feasible.)

SOLICITATION:

(1) Cover Sheet: Change the Invitation No. “DACW31-03-B-0010” to read “DACW31-03-R-0010”

SPECIFICATIONS:

(2) Section 01330, Submittal Register: At the end of the submittal register add the attached submittal register form for Section 11280.

(3) Section 05502: Immediately after this section insert the attached new Section “11280, SLUICE GATES”. Revise the Table of Contents to reflect this change.

DRAWINGS:

(4) Plate 29: Delete this plate, as originally issued, and substitute therefore the attached like-numbered plate with Revision #1.

Except as provided herein, all terms and conditions of the document referenced in Item 4A, as heretofore changed, remains unchanged and in full force.

8. NAME AND TITLE OF SIGNER (Type or print)	9. CONTRACTOR/OFFEROR _____ (Signature of person authorized to sign)	10. DATE SIGNED

(5) Plate 47: Delete this plate, as originally issued, and substitute therefore the attached like-numbered plate with Revision #1.

(6) Plate 48: Delete this plate, as originally issued, and substitute therefore the attached like-numbered plate with Revision #1.

ATTACHMENTS:

Submittal Register for Section 11280
New Section 11280
Plates 29, 47 and 48 with Revision #1

SUBMITTAL REGISTER

CONTRACT NO.
DACW31-03-R-000

TITLE AND LOCATION
WILKES-BARRE PHASE 2B

CONTRACTOR

ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH #	CLASSIFICATION	GOVT A/E REVWR	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		DATE FWD TO APPR AUTH/ DATE RCD FROM CONTR	APPROVING AUTHORITY				MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS
							SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION		DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE	DATE OF ACTION		
(a)	(b)	(c)	(d)	(e)	(f)		(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		11280	SD-02 Shop Drawings															
			Sluice Gates		G ED													

SECTION 11280

SLUICE GATES

PART 1 GENERAL

1.1 Scope

The work covered by this section consists of furnishing all plant, labor, equipment and materials required to fabricate, install and test the rising stem, sluice gate assemblies in accordance with the drawings and as specified herein. All components necessary to make the sluice gates assembly operational shall be furnished by the Contractor. The sluice gates shall be a product of a manufacturer who has been manufacturing sluice gates for at least five (5) years and who has regularly engaged in the design and manufacture of precision gates for waste-water treatment plants, water works and flood control projects who can show previous experience for similar heads for conditions herein specified.

1.2 APPLICABLE PUBLICATIONS

The following publications of the issues listed below, but referred to thereafter by basic designation only, form a part of this specification to the extent indicated by references thereto:

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM) STANDARDS:

ASTM A48-94	GRAY IRON CASTINGS
ASTM A126-95	GRAY IRON CASTINGS FOR VALVES, FLANGES, AND PIPE FITTINGS
ASTM A194-97	CARBON AND ALLOY STEEL NUTS FOR BOLTS FOR HIGH-PRESSURE AND HIGH-TEMPERATURE SERVICE
ASTM A276-97	STAINLESS AND HEAT-RESISTING STEEL BARS AND SHAPES
ASTM A320-97	ALLOYS-STEEL BOLTING MATERIALS FOR LOW-TEMPERATURE SERVICE
ASTM A582-95	FREE-MATCHING STAINLESS AND HEAT RESISTING STEEL BARS, HOT-ROLLED OR COLD FINISHED
ASTM B21-96	NAVAL BRASS ROD, BAR, AND SHAPES
ASTM B98-97	COPPER-SILICON ALLOY ROD, BAR, AND SHAPES
ASTM B584-96	COPPER ALLOY SAND CASTINGS FOR GENERAL APPLICATIONS

AMERICAN WATER WORKS ASSOCIATION (AWWA) PUBLICATIONS:

AWWA C560-2000 STANDARD FOR SLUICE GATES

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

Sluice Gates; G|ED

Layout drawings and materials lists for all work covered by this section

1.4 SHOP DRAWINGS

Prior to 60 days of start of construction of any gate structure, including all components and accessories, and prior to delivery of any materials to the site, the Contractor shall submit to the Contracting Officer complete layout drawings and materials lists for all work covered by this section. The layout drawings shall include assembly and shop details showing dimensions, weights, material specification, clearances, and connection and erection procedures, if applicable. The material list shall include catalog cuts and all other descriptive data as may be required to demonstrate compliance with the specifications. Complete shop drawings for the gate assembly shall be submitted as a package in order to assure proper coordination and functioning of equipment and structures. If departures from the drawings or specifications are deemed necessary by the Contractor, details of such departures, including the reasons therefor and changes in related portions of the project, shall be submitted with the shop drawings. Any approved departures shall be made at no additional cost to the Government.

PART 2 PRODUCTS

2.1 MATERIALS

a. Gate frame, disc and guides, stem guides, and floor stand shall be cast iron conforming to the requirements of ASTM A 126, Class B, or ASTM A48, Class 30.

b. Wedges, thrust nuts, lift nuts, and stem couplings shall be bronze castings to the requirements of ASTM B584, CA 865 or stainless steel conforming to the requirements of ASTM A276, Type 304.

c Seat facings in frame and disc shall be bronze conforming to the requirements of ASTM B21, CA 482.

d. Stem shall be an annealed stainless-steel bar conforming to the requirements of ASTM A582, Type 303 or ASTM A276, Type 304.

e. Fasteners shall be either copper-silicon rod conforming to the requirements of ASTM B98, CA 651, or CA 655, or stainless steel conforming to the requirements of ASTM A320, Grade B8 or Grade B8F for bolts and ASTM A194, Grade 8 or Grade 8F for nuts.

f. Adjusting screws and mounting bolts shall be bronze or corrosion-resisting steel as recommended by the manufacturer.

2.2 SLUICE GATE SCHEDULE:

2.2.1 Schedule

The Contractor shall furnish and install two sluice gates to meet the conditions indicated on the drawings and as shown in the following schedule:

Gate Size WxH	Design Head (ft. of water)	Operating Head (ft. of water)	Installation Type	Remarks
108" x 48"	35	20'	Pressure unseating Self-contained	Flush bottom

NOTES:

1. See AWWA C560 for definitions of Design Head and Operating Head
2. The gate design pressure seating capability shall be 35 ft. of water

2.2.2 General

The new sluice gates shall be provided complete with crank-operated floor stands, stems, adjustable stem guides, frames, J type anchor bolts, input extension shaft, intermediate bearing support, and all necessary accessories.

2.3 COMPONENTS:

2.3.1 Frame

Frame shall be cast iron, self-contained. All contact surfaces of the frame shall be machined. The frame shall have machined dovetail grooves on the front face into which the bronze seat facings shall be driven and machined to a 63-microinch finish or better.

2.3.2 Disc

Disc shall be cast iron, one piece construction with integrally-cast vertical and horizontal ribs. The disc shall have machined dovetail grooves on the seating face into which bronze seat facings shall be driven and

machined to a 63-microinch finish or better. A tongue, machined on all sides, shall extend the full length of the disc on each side. Wedge pads for side wedges shall be cast integrally on the disc and machined to receive the adjustable bronze wedges. A heavily-reinforced nut pocket shall be cast integrally on the vertical centerline and above the horizontal centerline.

2.3.3 Guides

Guides shall be casts iron and such length as to retain and support at least one-half the disc in the full open position. The guides shall be machined on all contact surfaces and shall have a machined groove along their entire length for the tongue of the disc. Guides shall have machined pads for the side wedge seats. Guides may be integral with the frame or may be attached to the frame with corrosion-resisting steel studs and nuts and dowels to prevent any relative motion between the guides and frame. The frame extension for the self-contained load bar shall be cast iron or fabricated steel.

2.3.4 Side Wedges

Side wedges shall be provided on the gate and shall be solid cast bronze. Wedges shall be machined on all contact surfaces and keyed to the cast-iron pads to prevent rotation or lateral motion. They shall be attached to the disc with bronze or stainless-steel studs and nuts shall have bronze or stainless-steel adjusting screws with lock nuts.

2.3.5 Seat Facings

Seat facings shall be extruded bronze and shall be of such shape as to fill and permanently lock into the machined dovetail grooves. Attaching pins or screws will not be permitted. The installed seat facings shall be machined to a plane with a minimum 63-microinch finish.

2.3.6 Stems

The operating stem shall be corrosion-resisting steel and shall be of size to safely withstand the stresses induced by the operating forces. The stem shall be designed to transmit in compression at least two times the rated output of the floor stand with a 40 pound effort on the crank. Threads shall be machine cut, Acme type. A stem of more than one section shall be joined by bronze couplings threaded and keyed or bored and pinned to the stem. Adjustable bronze stop collar shall be provided on the stem above the floor stand lift nut.

2.3.6.1 Stem Guides

Stem Guides: Stem guides shall be split type cast iron, bronze brushed, and fully adjustable. Spacing shall be as required to adequately support the stem. L/R ratio of 200 is not to be exceeded. L/R is defined as the length of unsupported stem between guides or attachments divided by the radius of the stem.

2.3.6.2 Stem Cover

Stem Cover: A stem cover shall be furnished for the hoists. The cover shall be made of Schedule 80 steel pipe, hot-dipped galvanized after fabrication, and shall be of sufficient diameter and length to permit full stem travel without obstruction. The top of the cover shall be closed with a galvanized-steel pipe cap. The bottom end of the stem cover shall be mounted in a housing or adaptor plate for easy field mounting. The stem cover shall have slots cut to indicate sluice gate fully open and sluice gate fully closed.

2.3.7 Floor Stand

Crank-operated dual ratio, tandem hoist floor stands shall be furnished for each of the gates. The capacity shall be as required so that the gate operates under the specified head with not more than a 40-pound effort on the crank. Gears shall be cast iron with machine-cut teeth Tapered roller or ball bearings shall be provided. The pinion shafts shall be supported on tapered roller or ball and cover. All components shall be enclosed in cast-iron case and cover. Positive mechanical seals shall be provided to retain lubricant and to exclude moisture and dirt. Lubrication fittings shall be provided for the lubrication of all gears and bearings. The floor stand shall include a cast-iron pedestal designed to position the input shaft approximately 36 inches above the mounting pad. The direction of rotation to open the gate shall be cast on or permanently attached to the floor stand. One removable crank for each operator shall be provided. Each floor stand shall be provided with dual ratio (low and high) gearing. The gear ratio with the greatest mechanical advantage shall be sufficient to unseat the sluice gate with a maximum crank effort of 40-lb. The gear ratio with the least mechanical advantage shall fully raise and lower the sluice gate with a maximum crank effort of 40-lb. The crank mechanism is to allow for easy transfer between high and low gear ratios by a shifting lever which shall be vandal proofed.

2.3.7.1 Extension Shaft for Portable Operator

An extension shaft shall be provided and permanently attached to the input shaft of the floor stands used to drive the tandem assembly. Articulation shall be provided to match the output shaft of the existing portable operators. The input shaft extension shall not be interfered with by the railing whose mounting height shall be as indicated on the structural plans. Coordinate with the Wyoming Valley Project Office (570-829-3055) to determine the proper connection or adapters required.

2.3.8 Chain and Padlock

A corrosion-resistant chain and corrosion-resistant padlock shall be provided for the gate for locking the handcrank to the pedestal to prevent the gate from being operated manually by unauthorized persons. The padlock and chain shall be as specified in SECTION: 05502 - MISCELLANEOUS METAL MATERIALS, STANDARD ARTICLES, AND SHOP FABRICATED ITEMS.

2.4 PAINTING

The gate, frames, floor stand, and all other ferrous metal surfaces that

are normally required to be painted in order to provide needed protection or acceptable appearance shall be painted as specified by the gate manufacturer.

2.5 MACHINED SURFACES

All machined ferrous surfaces, including drilled tapped holes, shall be coated with a protective grease for shipment.

2.6 INSTALLATION

The sluice gate equipment and appurtenances shall be installed in strict accordance with the manufacturer's printed instructions. Extreme care shall be used in the handling, storage, and installation of the equipment to prevent damage or distortion to the flap gates and to ensure proper performance.

2.7 QUALITY ASSURANCE

2.7.1 Shop Testing

The gate assemblies shall be assembled in vertical position in the shop and inspected for proper seating. The gate disc shall be fully opened and closed to ensure that it operates freely. The floor stand shall be shop operated to ensure proper assembly and operation. The tandem floor stand shall be shop operated to ensure proper assembly and operation. Written notice shall be furnished to the Contracting Officer not less than 10 working days prior to the commencement of shop tests.

2.7.2 Field Testing

After installation and final adjustment, the gate assembly shall be field tested. The gate shall be opened to full position and then closed with hand crank to ensure that the gate operates freely and seats properly. The Contractor shall be responsible for keeping the gate in proper operating condition until completion of the contract.

PART 3 EXECUTION

NOT APPLICABLE

-- End of Section --