

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT

1. CONTRACT ID CODE
J
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2. AMENDMENT/MODIFICATION NO. 0001	3. EFFECTIVE DATE 04-Feb-2000	4. REQUISITION/PURCHASE REQ. NO. W25PHS-9333-8152	5. PROJECT NO.(If applicable)
6. ISSUED BY US ARMY ENGINEER DIST, PHILA WANAMAKER BUILDING, RM 643 100 PENN SQUARE EAST PHILADELPHIA, PA 19107-3390	CODE E5P0000	7. ADMINISTERED BY (If other than item 6) See Item 6	

8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)	X	9A. AMENDMENT OF SOLICITATION NO. DACW61-00-B-0008
	X	9B. DATED (SEE ITEM 11) 25-Jan-2000
		10A. MOD. OF CONTRACT/ORDER NO.
		10B. DATED (SEE ITEM 13)
CODE	FACILITY CODE	

11. 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 Offer is extended, is not extended.

Offers 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 8 and 15, and returning _____ copies of the document; (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 ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN THE REJECTION OF YOUR OFFER. If by virtue of this 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.

12. ACCOUNTING AND APPROPRIATION DATA (If required) DE &
MISCELLANEOUS REPAIRS TO DELAWARE CITY & REEDY POINT BRIDGES, INLAND WATERWAY, DELAWARE RIVER TO CHESAPEAKE BAY, MD.

**13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS.
 IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.**

A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.

B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).

C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:

D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor is not, is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)
 THIS AMENDMENT EXTENDS THE BID OPENING DATE TO 29 FEBRUARY 2000 AT 1:00 P.M.

(Continued on next page)

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)	16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)		
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
(Signature of person authorized to sign)		BY (Signature of Contracting Officer)	

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14. DESCRIPTION OF AMENDMENT:

- a. SECTION 00010 - SOLICITATION, OFFER AND AWARD (SF 1442) AND BIDDING SCHEDULE: Please delete inside page and page 00010-3 in their entirety and substitute the revised pages of the same numbers, annotated Amendment No. 0001, attached hereto.
- b. SPECIAL CONTRACT REQUIREMENTS: Please delete Section 00800 in its entirety and substitute the revised section of the same number, annotated Amendment No. 0001, attached hereto.
- c. TECHNICAL SPECIFICATIONS: SECTION 05120: STRUCTURAL STEEL REPAIRS - Please delete section in its entirety and substitute the revised section of the same number, annotated Amendment No. 0001, attached hereto.
- d. CONTRACT DRAWINGS:
- (1) Drawing Nos. 58441 through 58455 inclusive: Please make the following pen and ink change to these drawings: Change the total number of sheets from "16" to "17".
 - (2) Drawing Nos. 58440 and 58451 having the latest revision date of 2 February 2000 thereon, are revised and enclosed.
 - (3) Drawing No. 58500, having the date of 2 February 2000, has been added and is enclosed.
- e. Please indicate receipt of this amendment on Standard Form 1442 (SOLICITATION, OFFER, AND AWARD) as Amendment No. 0001. Failure to acknowledge all amendments may be cause for rejection of the bid.

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INVITATION NO. DACW61-00-B-0008

PHILADELPHIA DISTRICT
CORPS OF ENGINEERS

INVITATION FOR BIDS
FOR

MISCELLANEOUS REPAIRS
DELAWARE CITY AND REEDY POINT BRIDGES

INLAND WATERWAY
DELAWARE RIVER TO CHESAPEAKE BAY
DELAWARE AND MARYLAND

I. NOTE THE AFFIRMATIVE ACTION REQUIREMENT OF THE EQUAL OPPORTUNITY
CLAUSE WHICH MAY APPLY TO THE CONTRACT RESULTING FROM THIS SOLICITATION.

II. BIDDERS ARE REQUIRED TO COMPLETE THE REPRESENTATIONS AND
CERTIFICATIONS PORTION OF SECTION 00600 OF THIS SOLICITATIONS AND SUBMIT
THIS WITH THEIR BID.

** III. SITE INSPECTION WILL BE HELD 10 FEBRUARY 2000 BEGINNING AT 9:00 AM AT **
THE PROJECT SITE, AT THE PARKING LOT ON THE WEST SIDE OF ROUTE 9 JUST TO THE
NORTH OF THE DELAWARE CITY BRIDGE. NO RAIN DATE IS SCHEDULED. ALL THOSE
PLANNING TO ATTEND SHOULD CONTACT LISA RIDDICK AT 215-656-6610.

25 June 1999

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BIDDING SCHEDULE
 (To be attached to SF 1442)

Item No.	Description	Estimated Quantity	Unit	Price	Estimated Amount	
<u>Delaware City Bridge</u>						
D1.	Traffic Control	1	Job	LS	\$	
D2.	Replace Sidewalk and Curb	1	Job	LS	\$	
D3.	Horizontal Concrete Spall Repairs	48	S.F.	\$	\$	
D4.	Vertical Concrete Spall Repairs	92	S.F.	\$	\$	
D5.	Approach Slab/Roadway Spall Repairs	70	S.F.	\$	\$	
D6.	Crack Sealing in Approach Roadways	1	Job	LS	\$	
D7.	Joint Sealing in Approach Roadways	1	Job	LS	\$	
D8.	Roadway Dam Plate Repair	1	Job	LS	\$	
** D9.	Repair Bridge Sidewalk	1	Job	LS	\$	**
D10.	Timber Fender Repairs	1	Job	LS	\$	
D11.	Replace Girder Opening Frame Seals	1	Job	LS	\$	
<u>Reedy Point Bridge</u>						
R1.	Traffic Control	1	Job	LS	\$	
R2.	Drainage Repairs					
	R2a. Downspout Support Repairs	1	Job	LS	\$	
	R2b. Downspout Extension and Support Repairs, PP0 West, Anchor Truss	1	Job	LS	\$	
	R2c. Downspout Extensions	1	Job	LS	\$	
R3.	Guardrail Modifications	1	Job	LS	\$	
R4.	Bridge Railing Repairs	1	Job	LS	\$	

Invitation for Bids
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R5.	Bridge Railing Hardware Replacement	1	Job	LS	\$
R6.	Horizontal Concrete Spall Repairs	367	S.F.	\$	\$
R7.	Vertical/Overhead Concrete Spall Repairs	300	S.F.	\$	\$
R8.	Approach Roadway Joint Repairs	568	S.F.	\$	\$
R9.	Approach Roadway Spall Repairs	36	S.F.	\$	\$
R10.	Crack Sealing in Approach Roadways and Shoulders	1	Job	LS	\$
R11.	Bridge Pier Crack Repair	361	L.F.	\$	\$
R12.	Fastener Replacement	50	Each	\$	\$
R13.	Steel Deck Form Removal	600	S.F.	\$	\$
R14.	Ladder and Cage Modifications	1	Job	LS	\$
R15.	Walkway Transverse Support Repair	1	Job	LS	\$
R16.	Walkway Repair, Panel Point 13	1	Job	LS	\$
R17.	Drainage Hole Drilling	1	Job	LS	\$
R18.	Tack Weld Removal and Dye Penetrant Testing	1	Job	LS	\$
R19.	Replace Joint Seals	1	Job	LS	\$
R20.	Clean and Lubricate Bridge Bearings	1	Job	LS	\$

TOTAL ESTIMATED AMOUNT \$

SECTION 00800
SPECIAL CLAUSES

INDEX

PARA	TITLE
SC-1	COMMENCEMENT, PROSECUTION AND COMPLETION OF WORK
SC-2	LIQUIDATED DAMAGES - CONSTRUCTION
SC-3	CONTRACT DRAWINGS, MAPS AND SPECIFICATIONS
SC-4	PHYSICAL CONDITIONS
SC-5	PERFORMANCE OF WORK BY THE CONTRACTOR
SC-6	LIMITATION ON SUBCONTRACTING
SC-7	ENVIRONMENTAL LITIGATION
SC-8	QUANTITY SURVEYS
SC-9	EQUIPMENT OWNERSHIP AND OPERATING EXPENSE SCHEDULE
SC-10	CERTIFICATES OF COMPLIANCE
SC-11	PERFORMANCE EVALUATION OF CONTRACTOR
SC-12	TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER
SC-13	INSURANCE REQUIREMENTS
SC-14	YEAR 2000 COMPLIANCE
SC-15	CONTINUING CONTRACTS

SPECIAL CLAUSES

SC-1 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK (APR 1984)

The Contractor shall be required to (a) commence work under this contract within 10 calendar days after the Contractor receives the notice to proceed, (b) prosecute the work diligently, and (c) complete the entire work ready for use not later than 180 calendar days after the date the Contractor receives the notice to proceed. The time stated for completion shall include final cleanup of the premises. (FAR 52.211-10)

SC-2 LIQUIDATED DAMAGES - CONSTRUCTION (APR 1984)

a. If the Contractor fails to complete the work within the time specified in the contract, or any extensions thereof, the Contractor shall pay to the Government as liquidated damages, the sum of \$550 for each calendar day of delay.

b. If the Government terminates the Contractor's right to proceed, the resulting damage will consist of liquidated damages until such reasonable time as may be required for final completion of the work together with any increased costs occasioned the Government in completing the work.

c. If the Government does not terminate the Contractor's right to proceed, the resulting damage will consist of liquidated damages until the work is completed or accepted. (FAR 52.211-12)

SC-3 CONTRACT DRAWINGS, MAPS AND SPECIFICATIONS (DEC 1991)

a. The Contractor shall -

- (1) Check all drawings furnished immediately upon receipt;
- (2) Compare all drawings and verify the figures before laying out the work;
- (3) Promptly notify the Contracting Officer of any discrepancies; and
- (4) Be responsible for any errors which might have been avoided by complying with this paragraph (b).

b. Large scale drawings shall, in general, govern small scale drawings. Figures marked on drawings shall, in general, be followed in preference to scale measurements.

c. Omissions from the drawings or specifications or the misdescription of details of work which are manifestly necessary to carry out the intent of the drawings and specifications, or which are customarily performed, shall not relieve the contractor from performing such omitted or misdescribed details of the work, but shall be performed as if fully and correctly set forth and described in the drawings and specifications.

d. The work shall conform to the specifications and the contract drawings identified on the following, all of which are available in the office of the District Engineer, U.S. Army Engineer District, Philadelphia, Room 643, Wanamaker Building, 100 Penn Square East, Philadelphia, PA 19107. Drawings are titled: Miscellaneous Repairs Delaware City and Reedy Point Bridges, Inland Waterway, Delaware River to Chesapeake Bay, Delaware and Maryland, **and have the drawing numbers, subtitles, and dates as listed on Drawing Number 58440.

The reference drawings listed on Drawing Number 58440 are also available for use by the Contractor. (DFARS 252.236-7001) **

SC-4 PHYSICAL CONDITIONS (APR 1984)

Data and information furnished or referred to below is for the Contractor's information. The Government shall not be responsible for any interpretation of or conclusion drawn from the data or information by the Contractor. (FAR 52.236-4)

a. The indications of physical conditions on the drawings and in the specifications are based on as-built record drawings and field inspections.

b. Weather Conditions. The climate of the area is referred to as "continental" by climatologists, characterized by cold winters and moderately hot summers. Complete weather records and reports may be obtained from the local U.S. Weather Bureau Office nearest to the work site. The Contractor shall satisfy himself as to the hazards likely to arise from weather conditions during the construction period.

c. Transportation Facilities. The work site is accessible from the Delaware State Route 9. The Contractor shall be responsible for all investigations of load carrying capacities of bridges and roadways.

d. Tide Data. The mean range of tides at the site of the work is approximately 6 feet mean low water. All vertical references are in C&D Canal Datum.

e. Magnitude of the Contract Work. The estimated value of the contract work is between \$500,000 and \$1,000,000.

SC-5 PERFORMANCE OF WORK BY THE CONTRACTOR (APR 1984)

The Contractor shall perform on the site, and with its own organization, work equivalent to at least twenty (20) percent of the total amount of work to be performed under the contract. This percentage may be reduced by a supplemental agreement to this contract if, during performing the work, the Contractor requests a reduction and the Contracting Officer determines that the reduction would be to the advantage of the Government. (FAR 52.236-1)

SC-6 LIMITATION ON SUBCONTRACTING (OCT 1987)

By submission of an offer and execution of a contract, the Contractor agrees that in performance of the contract in the case of a contract for-

(a) Services (except construction). At least 50 percent of the cost of contract performance incurred for personnel shall be expended for employees of the concern.

(b) Supplies (other than procurement from a regular dealer in such supplies). The concern shall perform work for at least 50 percent of the cost of manufacturing the supplies, not including the cost of materials.

(c) General construction. The concern will perform at least 15 percent of the cost of the contract, not including the cost of materials, with its own employees.

(d) Construction by special trade contractors. The concern will perform at

least 25 percent of the cost of the contract, not including the cost of materials, with its own employees. (FAR 52.219-14)

SC-7 ENVIRONMENTAL LITIGATION (1974 NOV OCE)

a. If the performance of all or any part of the work is suspended, delayed, or interrupted due to an order of a court of competent jurisdiction as a result of environmental litigation, as defined below, the Contracting Officer, at the request of the Contractor, shall determine whether the order is due in any part to the acts or omissions of the Contractor or a Subcontractor at any tier not required by the terms of the contract. If it is determined that the order is not due in any part to acts or omissions of the Contractor or a Subcontractor at any tier other than as required by the terms of this contract, such suspension, delay, or interruption shall be considered as if ordered by the Contracting Officer in the administration of this contract under the terms of the SUSPENSION OF WORK clause of this contract. The period of such suspension, delay, or interruption shall be considered unreasonable, and an adjustment shall be made for any increase in the cost of performance of this contract (excluding profit) as provided in that clause, subject to all the provisions thereof.

b. The term "environmental litigation", as used herein, means a lawsuit alleging that the work will have an adverse effect on the environment or that the Government has not duly considered, either substantively or procedurally, the effect of the work on the environment. (CENAP)

SC-8 QUANTITY SURVEYS (APR 1984)

a. Quantity surveys shall be conducted, and the data derived from these surveys shall be used in computing the quantities of work performed and the actual construction completed and in place.

b. The Government shall conduct the original and final surveys and make the computations based on them. The Contractor shall conduct the surveys for any periods for which progress payments are requested and shall make the computations based on these surveys. All surveys conducted by the Contractor shall be conducted under the direction of a representative of the Contracting Officer, unless the Contracting Officer waives this requirement in a specific instance.

c. Promptly upon completing a survey, the Contractor shall furnish the originals of all field notes and all other records relating to the survey or to the layout of the work to the Contracting Officer, who shall use them as necessary to determine the amount of progress payments. The Contractor shall retain copies of all such material furnished to the Contracting Officer. (FAR 52.236-16)

SC-9 EQUIPMENT OWNERSHIP AND OPERATING EXPENSE SCHEDULE (MAR 1995)

a. This clause does not apply to terminations. See 52.231-5001, Basis for Settlement of Proposals, and FAR Part 49.

b. Allowable cost for construction and marine plant and equipment in sound workable condition owned or controlled and furnished by the Contractor or sub-contractor at any tier shall be based on actual cost data for each piece of equipment or groups of similar serial or series for which the Government can determine both ownership and operating costs from the Contractor's accounting records. When both ownership and operating costs cannot be determined for any piece of equipment from the Contractor's

accounting records, costs for the equipment shall be based upon the applicable provisions of EP 1110-1-8, "Construction Equipment Ownership and Operating Expense Schedule," Region I and II. Working conditions shall be considered to be average for determining equipment rates using the schedule unless specified otherwise by the Contracting Officer. For equipment not included in the schedule, rates for comparable pieces of equipment may be used or a rate may be developed using the formula provided in the schedule. For forward pricing, the schedule in effect at the time of negotiations shall apply. For retrospective pricing, the schedule in effect as of the time work was performed shall apply.

c. Equipment rental costs are allowable, subject to the provisions of FAR 31.205(d)(ii) and FAR 31.205-36. Rates for equipment rented from an organization under common control, lease-purchase arrangements, and sale-leaseback arrangements, will be determined using the schedule, except that actual rates will be used for equipment leased from an organization under common control that has an established practice of leasing the same or similar equipment to unaffiliated lessees.

d. When actual equipment costs are proposed and the total amount of the pricing action exceeds the small purchase threshold, the contracting officer shall request the contractor to submit either certified cost or pricing data, or partial/limited data, as appropriate. This data shall be submitted on Standard Form 1411, "Contract Pricing Proposal Cover Sheet." (EFARS 52.231-5000)

Note #1: The small purchase threshold is \$100,000.

Note #2: By submitting cost or pricing data, the Contractor grants to the Contracting Officer or an authorizing representative the right to examine those books, records, documents and other supporting data that will permit evaluation of the proposed equipment costs. This right shall extend for two years after expiration of contract performance. After price agreement the Contractor shall certify that the equipment costs or pricing data submitted are accurate, complete and current.

SC-10 CERTIFICATES OF COMPLIANCE

Any certificates required for demonstrating proof of compliance of materials with specifications requirements shall be executed in triplicate copies. Each certificate shall be signed by an official authorized to certify on behalf of the manufacturing company and shall contain the name and address of the Contractor, the project name and location, and the quantity and date or dates of shipment or delivery to which the certificates apply. Copies of laboratory test reports submitted with certificates shall contain the name and address of the testing laboratory and the date or dates of the tests to which the report applies. Certification shall not be construed as relieving the Contractor from furnishing satisfactory material, if, after tests are performed on selected samples, the material is found not to meet the specific requirements. (CENAP)

SC-11 PERFORMANCE EVALUATION OF CONTRACTOR

a. As a minimum, the Contractor's performance will be evaluated upon final acceptance of the work. However, interim evaluation may be prepared at any time during contract performance when determined to be in the best interest

of the Government.

b. The format for the evaluation will be DD 2626, and the Contractor will be rated either outstanding, satisfactory, or unsatisfactory in the areas of Contractor Quality Control, Timely Performance, Effectiveness of Management, Compliance with Labor Standards, and Compliance with Safety Standards. The Contractor will be advised of any unsatisfactory rating, either in an individual element or in the overall rating, prior to completing the evaluation, and all Contractor comments will be made a part of the official record. Performance Evaluation Reports will be available to all DOD Contracting offices for their future use in determining Contractor responsibility, in compliance with DFARS 236.201(c)(1). (CENAP)

SC-12 TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER (OCT 1989)

a. This clause specifies the procedure for determination of time extensions for unusually severe weather in accordance with the Contract Clause entitled: "Default (Fixed-Price Construction)". In order for the Contracting Officer to award a time extension under this clause, the following conditions must be satisfied:

(1) The weather experienced at the project site during the contract period must be found to be unusually severe, that is, more severe than the adverse weather anticipated for the project location during any given month.

(2) The unusually severe weather must actually cause a delay to the completion of the project. The delay must be beyond the control and without the fault or negligence of the Contractor.

b. The following schedule of monthly anticipated adverse weather delays is based on National Oceanic and Atmospheric Administration (NOAA) or similar data for the project location and will constitute the base line for monthly weather time evaluations. The Contractor's progress schedule must reflect these anticipated adverse weather delays in all weather dependent activities. For the purpose of this contract, unusually severe weather is defined as daily precipitation equal to or exceeding 0.5 inches and/or maximum daily temperature not exceeding 32 degrees F.

MONTHLY ANTICIPATED ADVERSE WEATHER DELAY
WORK DAYS BASED ON (5) DAY WORK WEEK

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
7	4	2	2	2	2	2	2	2	2	2	3

c. Upon acknowledgment of the Notice to Proceed (NTP) and continuing throughout the contract, the Contractor shall record on the daily CQC report, the occurrence of adverse weather and resultant impact to normal scheduled work. Actual adverse weather days must prevent work on critical activities for 50 percent or more of the Contractor's scheduled work day. The number of actual adverse weather delay days shall include days impacted by actual adverse weather (even if adverse weather occurred in previous month), be calculated chronologically from the first to the last day of each month, and be recorded as full days. If the number of actual adverse weather delay days exceeds the number of days anticipated in paragraph b. above, the Contracting Officer will convert any qualifying delays to calendar days, giving full consideration for equivalent fair weather work days, and issue a modification in accordance with the contract clause entitled: "Default (Fixed Price Construction)". (ER 415-1-15)

SC-13 INSURANCE REQUIREMENTS

Evidence of the following insurance shall be provided to the Contracting Officer prior to commencement of work and shall be maintained throughout the period of performance:

- a. General Liability Insurance (Comprehensive form of policy): Bodily Injury Liability - \$500,000 per occurrence.
- b. Automobile Liability Insurance (Comprehensive form of policy): Bodily Injury Liability - \$200,000 per person and \$500,000 per accident. Property Damage Liability - \$20,000 per accident.
- c. Workmen's Compensation and Employer's Liability Insurance: Compliance with applicable workmen's compensation and occupational disease statutes is required. Employer's liability coverage in the minimum amount of \$100,000 is also required."
- d. Applicable Marine Casualty and Marine Workmen's Compensation Insurance: As appropriate for this contract.

SC-14 YEAR 2000 COMPLIANCE

- a. In accordance with FAR 39.106, the contractor shall ensure that with respect to any design, construction, goods, or services under this contract as well as any subsequent task/delivery orders issued under this contract (if applicable), all information technology contained therein shall be Year 2000 compliant.
- b. The contractor shall:
 - (1) Perform, maintain, and provide an inventory of all major components to include structures, equipment, items, parts, and furnishings under this contract and each task/delivery order which may be affected by the Y2K compliance requirement.
 - (2) Indicate whether each component is currently Year 2000 compliant or requires an upgrade for compliance prior to government acceptance.

SC-15 CONTINUING CONTRACTS (MARCH 1995 EFARS)

- a. This is a continuing contract, as authorized by Section 10 of the River and Harbor Act of September 22, 1922 (33 U.S. Code 621). The payment of some portion of the contract price is dependent upon reservations of funds from future appropriations, and from future contribution to the project having one or more non-federal project sponsors. The responsibilities of the Government are limited by this clause notwithstanding any contrary provision of the "Payments to Contractor" clause or any other clause of this contract.
- b. The sum of \$500,000 has been reserved for this contract and is available for payments to the Contractor during the current fiscal year. It is expected that Congress will make appropriations for future fiscal years from which additional funds together with funds provided by one or more non-federal project sponsors will be reserved for this contract.
- c. Failure to make payments in excess of the amount currently reserved, or that may be reserved from time to time, shall not entitle the Contractor to

a price adjustment under the terms of this contract except as specifically provided in paragraphs f and i below. No such failure shall constitute a breach of this contract, except that this provision shall not bar a breach-of-contract action if an amount finally determined to be due as a termination allowance remains unpaid for one year due solely to a failure to reserve sufficient additional funds therefore.

d. The Government may at any time reserve additional funds for payments under the contract if there are funds available for such purpose. The Contracting Officer will promptly notify the Contractor of any additional funds reserved for the contract by issuing an administrative modification to the contract.

e. If earnings will be such that funds reserved for the contract will be exhausted before the end of any fiscal year, the Contractor shall give written notice to the Contracting Officer of the estimated date of exhaustion and the amount of additional funds which will be needed to meet payments due or to become due under the contract during that fiscal year. This notice shall be given not less than 45 nor more than 60 days prior to the estimated date of exhaustion.

f. No payments will be made after exhaustion of funds except to the extent that additional funds are reserved for the contract. The Contractor shall be entitled to simple interest on any payment that the Contracting Officer determines was actually earned under the terms of the contract and would have been made except for exhaustion of funds. Interest shall be computed from the time such payment would otherwise have been made until actually or constructively made, and shall be at the rate established by the Secretary of the Treasury pursuant to Public Law 92-41, 85 STAT 97, as in effect on the first day of the delay in such payment.

g. Any suspension, delay, or interruption of work arising from exhaustion or anticipated exhaustion of funds shall not constitute a breach of this contract and shall not entitle the Contractor to any price adjustment under the "Suspension of Work" clause or in any other manner under this contract.

h. An equitable adjustment in performance time shall be made for any increase in the time required for performance of any part of the work arising from exhaustion of funds or the reasonable anticipation of exhaustion of funds.

i. If, upon the expiration of sixty (60) days after the beginning of the fiscal year following an exhaustion of funds, the Government has failed to reserve sufficient additional funds to cover payments otherwise due, the Contractor, by written notice delivered to the Contracting Officer at any time before such additional funds are reserved, may elect to treat his right to proceed with the work as having been terminated. Such a termination shall be considered a termination for the convenience of the Government.

j. If at any time it becomes apparent that the funds reserved for any fiscal year are in excess of the funds required to meet all payments due or to become due the Contractor because of work performed and to be performed under the contract during the fiscal year, the Government reserves the right, after notice to the Contractor, to reduce said reservation by the amount of such excess. (EFAR 52.232-5000)

--End of Special Clauses--

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SECTION 05120

STRUCTURAL STEEL REPAIRS

PART 1 GENERAL

1.1 SCOPE

The work covered by this section consists of furnishing all labor, materials and equipment and performing all operations required for repairs to existing structural steel including replacing fasteners, tightening existing fasteners, removing steel deck forms, repairing walkway support plates and handrails, drilling drain holes, and modifying the existing ladders and cages at the Reedy Point Bridge, and repairing a crack on the underside of the roadway dam support channels at the Delaware City Bridge, **repairing the damaged sidewalk at the Delaware City Bridge, ** as specified herein and shown on the drawings.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
(AASHTO)

AASHTO-01 (1993) Standard Specification for Highway Bridges, with all Interim Specifications

AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)

AISC S 329 (1986) Allowable Stress Design Specification for Structural Joints Using ASTM A 325 or ASTM A 490 Bolts

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM A 36 (1996) Carbon Structural Steel

ASTM A 123 (1989a) Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products

ASTM A 153 (1995) Zinc Coating (Hot-Dip) on Iron and Steel Hardware

ASTM A 325 (1996) Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength

ASTM A 563 (1994) Carbon and Alloy Steel Nuts

ASTM F 436 (1993) Hardened Steel Washers

AMERICAN WELDING SOCIETY (AWS)

AWS D1.5 (1995) Bridge Welding Code

AWS A2.4 (1993) Symbols for Welding, Brazing and
Nondestructive Examination

CODE OF FEDERAL REGULATIONS (CFR)

29 CFR 1926.62 (1996) Lead

STEEL STRUCTURES PAINTING COUNCIL (SSPC)

SSPC SP-3 (1995) Power Tool Cleaning

1.3 SUBMITTALS

Government approval is required for submittals with a "GA" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01300 SUBMITTAL PROCEDURES:

SD-04 Drawings

Structural Steel; GA CO

Shop drawings shall be submitted for approval. Drawings shall include necessary field measurements and all shop and erection details. Members and connections for any portion of the structure not shown on the Contract Drawings shall be detailed by the fabricator and indicated on the shop drawings. All welds shall be indicated by standard welding symbols of the AWS A2.4.

Record Drawings; GA CO

The Contractor shall keep a careful record during the progress of the work of all changes and corrections from the layouts shown on the Contract Drawings. The Contractor shall document such information on one set of record drawings promptly, but in no case less than on a weekly basis. The record drawings shall be furnished to the Contracting Officer at the conclusion of the contract.

Drainage Hole Drilling Plan; GA CO

The Contractor shall furnish a detailed plan for drilling drainage holes in the structural members indicated in this section, including method of access, method of drilling, and all other pertinent details, including sketches of each location showing proposed arrangement of holes, spacing and location of drilled hole in cross-section of member.

SD-08 Statements

Welder Qualifications; GA CO

The Contractor shall furnish certified copies of welder qualifications test records showing qualifications in accordance with AWS D1.5.

SD-13 Certificates

Structural Steel; High Strength Bolts; Nuts; Washers; GA CO

Certificates of compliance shall be submitted for approval. Certified

copies of mill test reports shall be furnished for structural steel, high strength bolts, nuts and washers.

SD-14 Samples

High Strength Bolts; Nuts; Washers; Allen Head Bolts; GA CO

Random samples of high-strength bolts, nuts and washers as delivered to the job site, may be taken if requested, in the presence of the Contracting Officer and provided to the Contracting Officer for testing to establish compliance with specified requirements.

1.3.1 GENERAL REQUIREMENTS

Structural steel fabrication and erection shall be performed by an organization experienced in structural steel work of equivalent magnitude. The Contractor shall be responsible for correctness of detailing, fabrication, and for the correct fitting of structural members. The Contractor shall verify all measurements and shall take all field measurements necessary before fabrication. AASHTO-01 shall govern the work. Welding shall be in accordance with AWS D1.5. Surfaces to be welded must be free from rust scale, paint, grease, water, etc. High strength bolting shall be in accordance with AISC S 329.

1.3.2 RESPONSIBILITY FOR ERRORS

The Contractor shall be responsible for all errors of detailing, fabrication, and for the correct fitting of the structural members.

1.3.2.1 STORAGE

Material shall be stored out of contact with the ground in such a manner and location as to minimize deterioration.

PART 2 PRODUCTS

2.1 MATERIALS

2.1.1 Structural Steel

Carbon grade steel shall conform to ASTM A 36.

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2.1.2 Steel Tread Plate

Steel Tread Plate(Diamond Plate) shall be carbon grade steel conforming to ASTM A36.

2.1.3 Shim Plate

Shim Plates shall be carbon grade steel conforming to ASTM A36.

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2.1.4 High Strength Bolts, Nuts and Washers

High strength bolts shall conform to ASTM A 325. Nuts and washers shall conform to ASTM A 563 and ASTM F 436, respectively.

2.1.5 Allen Head Bolts

Allen Head Bolts shall conform to ASTM A 325 with self-locking nuts and hardened washers, beveled where required. See reference drawing no. 35443 - to be replaced in kind.

PART 3 EXECUTION

3.1 FABRICATION

Fabrication of members for the modification of the ladders and cages shall be in accordance with the applicable provisions of AASHTO-01. Structural steel shall be fabricated to the dimensions shown on the contract drawings. Steel tread plate shall be fabricated to the dimensions shown on the contract drawings. Fabrication shall be done in the shop to the greatest extent possible. All new structural steel and the steel tread plate is to be cleaned and painted in accordance with Specification Section 09900 PAINTING.

3.2 FASTENER REMOVAL AND BOLT INSTALLATION

New high-strength bolts of the same nominal diameter as the rivets and bolts being removed shall be installed. Bolts of sufficient length to project a minimum of 1/16 inch beyond the nut shall be used. If, in the opinion of the Contracting Officer, the rivet or bolt shanks cannot be removed by punching without damaging the base metal, remove the shank by drilling. If any structural steel to remain in place is damaged, the material shall be repaired or replaced as directed by the Contracting Officer, at no additional cost to the Government. If the new bolt cannot be placed in the hole originally occupied by the rivet, ream the hole to proper size. If reaming produces an oblong hole in any material, the largest diameter of which is more than 3/16 inch larger than the diameter of the removed rivet, increase the diameter of the new bolt by one size and ream the hole to fit the larger bolt. Prior to installing each new bolt, remove all nicks, burrs, corrosion, scale, paint and foreign substances from inside the hole and from the surfaces around the hole with a power tool grinding wheel according to SSPC SP-3 to ensure proper seating of the nut, the bolt head, and the washers. Any damage to existing painted surfaces adjacent to fastener removal areas shall be cleaned and painted in accordance with Specification Section 09900 PAINTING.

3.3 RIVET REMOVAL

Rivets shall be removed by shearing the rivet head using a pneumatic breaker (helldog), and driving out the rivet shank with a pneumatic punch.

3.4 BOLT REMOVAL

Bolts shall be removed by one of the following methods:

- a. Remove nut and drive out bolt by manual or pneumatic tools.
- b. Shear bolt head using a pneumatic breaker (helldog), and drive out bolt shank with a pneumatic punch.

3.5 MISCELLANEOUS STRUCTURAL STEEL REPAIRS

Miscellaneous metalwork shall be well formed to shape and size, with sharp lines and angles and true curves. Exposed surfaces of work in place shall have a smooth finish, unless otherwise approved. Where tight fits are

required, joints shall be milled. Work shall be accurately set and securely fastened in place. Installation shall be in accordance with manufacturer's installation instructions and approved drawings, cuts, and details. The Contractor shall repair or replace any structural steel to remain in place damaged by construction operations as directed by the Contracting Officer at no additional cost to the Government. All existing steel members which require removal and reinstallation to facilitate installation of new members shall be cleaned and painted in accordance with Specification Section 09900 PAINTING.

3.5.1 Ladder and Cage Modifications, Reedy Point Bridge

The existing access ladders and cages at Piers N1 and S1, shall be modified as shown on the contract drawings. The Contractor shall remove the existing bottom platforms and the existing ladder side rails shall be cut 6 inches below the center of the last rung to remain. The ladder extension shall be installed as shown. Side rails shall be connected with splice plates and high strength bolts. Ladder extension, constructed from siderail channels and ladder rungs to match existing, shall be supported by connection angles and bent plates to bottom of existing strut, as shown on drawings. Ladder rungs shall not exceed 12 inch spacing. Existing vertical cage straps shall be cut in an alternating pattern, 6 inches minimum. New vertical cage straps shall be attached to existing with splice plates and high strength bolts. New horizontal straps shall be welded to vertical straps as shown. High strength bolts shall be installed so that nuts and threaded ends of bolts shall face outward. The front two existing vertical straps shall be cut at a height of 6 feet from the top of the pier to allow access to the top of the pier as shown. A small section of horizontal strap shall be welded to the two cut vertical straps and the adjoining full length vertical straps on either side.

3.5.2 Walkway Transverse Support Repair, Reedy Point Bridge

The Contractor shall remove existing cracked or broken walkway transverse supports from underneath the walkway. Install new transverse walkway support plate with high strength bolts and weld to walkway plate as shown.

3.5.3 Walkway Repair, Panel Point 13, Reedy Point Bridge

The Contractor shall remove the existing deteriorated connection angles, walkway support angle, handrail and walkway plate at the location and to the limits shown on the contract drawings. New connection angles, new walkway support angle, new handrail and new grating of the sizes and lengths shown shall be installed using high strength bolts and welding at the locations shown.

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3.5.4 Bridge Sidewalk Repair, Delaware City Bridge

The Contractor shall remove the existing damaged sidewalk at the location and to the limits shown on the contract drawings. Removal shall be by cutting. New tread plate and shim plates shall be installed using welding at the locations shown. New tread plate, shim plates and the existing steel angle supports(welded to shim plates) curb bar, and sidewalk channel shall be cleaned and painted in accordance with Specification Section 09900 PAINTING. Cleaning and painting of curb bar and sidewalk channel shall be done only in the areas where existing paint cover is damaged by welding.

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3.6 FASTENER REPLACEMENT

The Contractor shall replace loose, missing or deteriorated bolts or rivets in the following locations(if no number given then only one fastener) as designated by the Contracting Officer:

- a. East girder, third floorbeam south of Pier S20. Lateral brace to girder web connection, one bolt.
- b. West girder, third floorbeam south of Pier S19. Horizontal connection plate to web of girder, one bolt.
- c. West girder, first floorbeam south of Pier S15. Floorbeam to connection plate, one of six bolts.
- d. East girder, second floorbeam south of Pier S14. Lateral brace to girder web connection, one of six bolts.
- e. First bay north of Pier S14. Center lateral bracing connection, one bolt.
- f. Third bay south of Pier S14. Center lateral bracing connection.
- g. Second bay south of Pier S14. Center lateral bracing connection, one bolt.
- h. First bay south of Pier S14. Center lateral bracing connection.
- i. Second bay south of Pier S13. Center lateral bracing connection.
- j. First bay south of Pier S13. Center lateral bracing connection, one bolt.
- k. East girder, fourth floorbeam south of Pier S12. Lateral brace to girder web connection, one of six bolts.
- l. West girder, first floorbeam south of Pier S12. Lateral brace to girder web connection, one of six bolts.
- m. West girder, second floorbeam south of Pier S11. Horizontal connection plate to web of girder, one bolt.
- n. East girder, third stringer north of Pier S10. Inboard bottom flange, one bolt.
- o. West girder, fourth floorbeam south of Pier S8. Lateral brace to girder web connection. 2 bolts.
- p. Panel Point 0, south end of lower chord bottom plate connection to sole plate at west truss. 4 bolts.
- q. Panel Point L6', east truss, lower lateral bracing bottom horizontal gusset plate.
- r. Panel Point L4, east truss, inboard web of bottom chord adjacent to the lateral bracing bottom gusset plate.
- s. Panel Point 18, upper sway bracing T-section connection to the east gusset plate of the vertical on the west truss.

- t. Panel Point 13, top south clip angle sway bracing connection to upper chord gusset plate at west truss.
- u. Panel Point U13, west truss, top chord upper cover plate connection, outboard.
- v. Panel Point U11', west truss, diagonal to gusset plate connection , inboard.
- w. Panel Points 0, 13, 0', replace all damaged or missing hold-down bolts in the finger dam metal work in the cantilever span (Allen head bolts).
- x. Panel Point 0, top chord end diaphragm bottom connection angle.
- y. Panel Point 0, south deck truss, the catwalk handrail to the vertical support post connection.
- z. East girder, third floorbeam north of Pier N3. Lateral brace to girder web connection, one bolt.
- aa. East girder, first floorbeam south of Pier N6. Lateral brace to girder web connection, one bolt.
- bb. West girder, fourth floorbeam south of Pier N4. Floorbeam bracket connection to floorbeam bottom flange, four bolts.
- cc. West girder, first floorbeam south of Pier N5. Floorbeam bracket connection to floorbeam bottom flange, one bolt.
- dd. East girder, third floorbeam south of Pier N20. North lateral brace connection, one bolt.
- ee. East girder, first floorbeam south of Pier N21. Center lateral bracing connection, one bolt.
- ff. First bay south of Pier N21. Center lateral bracing connection, one bolt.
- gg. Stringer 4, Pier N29, bottom diaphragm connection plate. One bolt on either side.

3.7 STEEL DECK FORM REMOVAL

3.7.1 General

The Contractor shall mark out the limits of the rusted steel deck forms to be removed. Upon approval of the repair area by the Contracting Officer, the Contractor may proceed with removal. Forms shall be removed using non-power hand tools. Burning forms off will not be permitted. Any damage to existing painted surfaces adjacent to steel deck removal shall be cleaned and painted in accordance with Specification Section 09900 PAINTING.

3.7.2 Approximate Dimensions of Removal

All dimensions will be verified and marked-out for Contracting Officer approval, as described above. The approximate dimensions of steel deck form removal are as listed below and shall be used for bid purposes:

- a. Span S1-S2, Panel 0-1, between stringer 1-2: 10' x 7' and 3' x 7', between stringer 2-3: 4' x 5' and 15' x 7', between stringer 3-4: 5' x 4' and 5' x 4'.
- b. Span S2-S3, Panel 3-4, between Stringers 1 and 2: 4' x 6' and 4' x 6', and between Stringer 3 and the east top chord: 1' x 1' and 3' x 6'.
- c. Span S3-S4, between Floorbeams S3-3 and S3-4, between Stringers 1 and 2: approximately 1 square foot.
- d. Span S3-S4, between Floorbeams S3-0 and S3-1, between Stringers 1 and 2: approximately 1 square foot.
- e. Span N13-N14, between Floorbeams N13-1 and N13-2, and between Floorbeams N13-0 and N13-1: approximately 2 square feet total.
- f. Span N11-N12, throughout the span: approximately 100 square feet with 75 square feet between Floorbeams N11-0 and N11-1.
- g. Span N10-N11, Bay 4, between Stringers 1 and 2: approximately 25 square feet.
- h. Span N9-N10, throughout the span: 150 square feet.
- i. North anchor span, Panel 5'-6', between Stringers 3 and 5: approximately 100 square feet.
- j. Main span, Panel 11-12, between Stringers 2 and 4: approximately 5 square feet.
- k. Span N11-N12, between the west girder and Stringer 1: approximately 25 square feet of deformed and corroded forms.
- l. Span N3-N4, south bay: approximately 20 square feet of corroded-through form.
- m. Main span, at Panel Point 16, between Stringers 1 and 2: 10 square feet.
- n. South anchor span, at Panel Point 3, west truss: 10 square feet.
- o. Span S2-S3, Panel 3-4, between Stringers 2 and 3: 7' x 6' and 4' x 6'.
- p. Span S5-S6, north bay between west girder and Stringer 1: approximately 6 square feet of form corroded.
- q. Span S10-S11, north bay, between west girder and Stringer 2: approximately 25 square feet of deformed forms with several corroded areas.
- r. Span S26-S27, Bay 2: 4 square feet.

3.8 DRAINAGE HOLE DRILLING

The Contractor shall drill drainage holes through the following members to eliminate water retention. Locations and spacing of drainage holes shall be detailed by the Contractor as specified in paragraph SUBMITTALS. The Contractor shall make provisions for a Government representative to safely

observe all drainage hole drilling. All debris shall be flushed and cleaned from surface of member prior to any drilling work. A maximum of 3 holes shall be drilled in each member. The drainage holes shall be 3/4 inch diameter maximum, and edges of holes shall be ground smooth, leaving no nicks, burrs or rough edges. No burning shall be permitted. The holes shall not be drilled through the throat of an angle or at the web/flange intersection of any member, but adjacent to it. If any cracking or distress is observed in the member during the hole drilling process, the work shall be stopped immediately and the Contractor shall notify the Government representative. Any damage to existing painted surfaces adjacent to drilled drainage holes shall be cleaned and painted in accordance with Specification Section 09900 PAINTING. Drainage holes shall be drilled in the following locations:

- a. Inside of portal strut at Panel Point U13.
- b. Inside of portal strut at Panel Point U13'.
- c. Inside of lower lateral strut at Panel Point L10.
- d. Wind linkage component at Panel Point L13.
- e. Wind linkage component at Panel Point L13'.

3.9 REPAIR OF ROADWAY DAM PLATE

The north roadway dam plate on the Delaware City Bridge shall be repaired at the location shown on the contract drawings. The Contractor shall grind or air arc the cracked area of existing steel dam plate and shall weld (seal) the length of the crack as directed by the Contractor Officer. The repaired area of the roadway dam plate shall be cleaned and painted in accordance with Specification Section 09900 PAINTING.

3.10 MEASUREMENT AND PAYMENT

3.10.1 Fastener Replacement

Replacement of loose, missing, or heavily corroded fasteners and installation of new high-strength bolts at the Reedy Point Bridge will be measured for payment by the number of new high-strength bolts installed. Payment will be made at the contract unit price for Bid Item No. R12, "Fastener Replacement", which shall include full compensation to the Contractor for removal and disposal of existing fasteners designated by the Contracting Officer to be removed, and providing new high-strength bolts, including painting of the new bolts.

3.10.2 Steel Deck Form Removal

Removal of rusted steel deck forms at the Reedy Point Bridge will be measured for payment by the square feet of deck forms removed. Payment will be made at the contract unit price for Bid Item No. R13, "Steel Deck Form Removal", which shall include full compensation to the Contractor for removal and disposal of existing rusted steel deck forms designated and approved by the Contracting Officer to be removed.

3.10.3 Ladder and Cage Modifications

Modifications to the ladders and cages at the Reedy Point Bridge will not

be measured for payment and all costs in connection therewith shall be included in the contract lump sum price for Bid Item No. R14, "Ladder and Cage Modifications", which shall include full compensation to the Contractor for all material and labor needed for modifying the ladders and cages and for painting the new material.

3.10.4 Walkway Transverse Support Repair

Repair of walkway transverse supports from underneath the walkway at the Reedy Point Bridge will not be measured for payment and all costs in connection therewith shall be included in the contract lump sum price for Bid Item No. R15, "Walkway Transverse Support Repair", which shall include full compensation to the Contractor for all material and labor needed for installing new transverse walkway support plates with high strength bolts and welding, and for painting the new materials.

3.10.5 Walkway Repair, P.P.13

Repair of walkway at Panel Point 13, at Reedy Point Bridge will not be measured for payment and all costs in connection therewith shall be included in the contract lump sum price for Bid Item No. R16, "Walkway Repair, Panel Point 13", which shall include full compensation to the Contractor for all material and labor needed for installing new connection angles, new walkway support angle, new handrail and new grating with high strength bolts and welding, and for painting the new materials.

3.10.6 Drainage Hole Drilling

Drainage hole drilling at Reedy Point Bridge will not be measured for payment and all costs in connection therewith shall be included in the contract lump sum price for Bid Item No. R17, "Drainage Hole Drilling", which shall include full compensation to the Contractor for all materials and labor needed for drilling drainage holes and painting the members.

3.10.7 Repair of Roadway Dam Plate

Repair of the roadway dam plate at the Delaware City Bridge will not be measured for payment and all costs in connection therewith shall be included in the contract lump sum price for Bid Item No. D8, "Roadway Dam Plate Repair".

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3.10.8 Repair Bridge Sidewalk

Repair of the damaged sidewalk at Delaware City Bridge will not be measured for payment and all costs in connection therewith shall be included in the contract lump sum price for Bid Item No. D9 "Repair Bridge Sidewalk". **

-- End of Section --