

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE	PAGE OF PAGES	
				J	1	2
2. AMENDMENT/MODIFICATION NO. 0004		3. EFFECTIVE DATE 20-Feb-2003	4. REQUISITION/PURCHASE REQ. NO. W68MD9-2309-1321		5. PROJECT NO.(If applicable)	
6. ISSUED BY USA ENGINEER DISTRICT, SEATTLE ATTN: CENWS-CT P.O. BOX 3755 SEATTLE WA 98124-3755		CODE DACA67	7. ADMINISTERED BY (If other than item 6) See Item 6		CODE	
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)				X	9A. AMENDMENT OF SOLICITATION NO. DACA67-03-R-0205	
				X	9B. DATED (SEE ITEM 11) 14-Jan-2003	
					10A. MOD. OF CONTRACT/ORDER NO.	
					10B. DATED (SEE ITEM 13)	
CODE		FACILITY CODE				
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS						
<input checked="" type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input checked="" type="checkbox"/> is not extended.						
<p>Offer 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:</p> <p>(a) By completing Items 8 and 15, and returning _____ copies 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 ACKNOWLEDGMENT 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 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.</p>						
12. ACCOUNTING AND APPROPRIATION DATA (If required)						
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 <input type="checkbox"/> is not, <input type="checkbox"/> 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.) FY03 Whole Barracks Renewal Fort Lewis, WA This amendment is to correct specifications and drawings, as noted.						
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)		
				TEL:	EMAIL:	
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)		20-Feb-2003	

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

The following items are applicable to this modification:CONT. SHEET

A This amendment is issued to provide the following revisions to this solicitation:

1. Revision to Specification Section 08810 Glass and Glazing, revise Paragraph 2.3.3, Low-E Insulating Glass.

B. CONCERNING DRAWINGS - NOTE: Some drawing sheets in this solicitation may be half size. A correct, full size sheet is 841 x 594 mm. Scale accordingly.

C. The attached revised sections are to be replaced in their entirety. All changes are generally identified, for convenience, either by strikeout for deletions, and underlining of text for additions, or a single dark line in the margin. All portions of the revised or new page shall apply whether or not changes have been indicated.

D. The time and due date for submission of the technical and price proposal **is unchanged** and remains 2:00 PM (PST), **25 February 2003**.

E. Offerors must acknowledge receipt of this amendment by number and date on Standard Form 1442 BACK, in block 19, or by telegram.

Enclosures:
Section 08810

SECTION 08810

GLASS AND GLAZING

PART 1 GENERAL

1.1 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 NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI Z97.1 (1984; R 1994) Safety Performance Specifications and Methods of Test for Safety Glazing Materials Used in Buildings

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM C 509 (1994) Elastomeric Cellular Preformed Gasket and Sealing Material

ASTM C 669 (1995) Glazing Compounds for Back Bedding and Face Glazing of Metal Sash

ASTM C 864 (1999) Dense Elastomeric Compression Seal Gaskets, Setting Blocks, and Spacers

ASTM C 920 (1998) Elastomeric Joint Sealants

ASTM C 1036 (1991; R 1997) Flat Glass

ASTM C 1048 (1997b) Heat-Treated Flat Glass - Kind HS, Kind FT Coated and Uncoated Glass

ASTM C 1172 (1996e1) Laminated Architectural Flat Glass

ASTM C 1349 (1996) Architectural Flat Glass Clad Polycarbonate

ASTM D 395 (1998) Rubber Property - Compression Set

ASTM E 119 (1998) Fire Tests of Building Construction and Materials

ASTM E 773 (1997) Accelerated Weathering of Sealed Insulating Glass Units

ASTM E 774 (1997) Classification of the Durability of Sealed Insulating Glass Units

ASTM E 1300 (1998) Determining the Minimum Thickness and Type of Glass Required to Resist a Specified Load

AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE)

ASCE 7 (1995) Minimum Design Loads for Buildings and Other Structures

CODE OF FEDERAL REGULATIONS (CFR)

16 CFR 1201 Safety Standard for Architectural Glazing Materials

COMMERCIAL ITEM DESCRIPTION (CID)

CID A-A-378 (Basic) Putty Linseed Oil Type, (for Wood-Sash-Glazing)

GLASS ASSOCIATION OF NORTH AMERICA (GANA)

GANA Glazing Manual (1997) Glazing Manual

GANA Standards Manual (1995) Engineering Standards Manual

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 80 (1999) Fire Doors and Fire Windows

NFPA 252 (1995) Fire Tests of Door Assemblies

NFPA 257 (1996) Fire Tests for Window and Glass Block Assemblies

1.2 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: SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

Installation; G

Drawings showing complete details of the proposed setting methods, mullion details, edge blocking, size of openings, frame details, materials, and types and thickness of glass.

SD-03 Product Data

Insulating Glass; G
Glazing Accessories;

Manufacturer's descriptive product data, handling and storage recommendations, installation instructions, and cleaning instructions.

SD-04 Samples

Insulating Glass; G

Two 203 x 254 mm samples of each of the following: tinted glass, and insulating glass units.

SD-07 Certificates

Insulating Glass; G

Certificates stating that the glass meets the specified requirements. Labels or manufacturers marking affixed to the glass will be accepted in lieu of certificates.

1.3 SYSTEM DESCRIPTION

Glazing systems shall be fabricated and installed watertight and airtight to withstand thermal movement and wind loading without glass breakage, gasket failure, deterioration of glazing accessories, and defects in the work. Glazed panels shall comply with the safety standards, as indicated in accordance with ANSI Z97.1. Glazed panels shall comply with indicated wind/snow loading in accordance with ASTM E 1300.

1.4 DELIVERY, STORAGE AND HANDLING

Glazing compounds shall be delivered to the site in the manufacturer's unopened containers. Glass shall be stored indoors in a safe, well ventilated dry location in accordance with manufacturer's instructions, and shall not be unpacked until needed for installation. Glass shall not be stored on site over 1 month.

1.5 PROJECT/SITE CONDITIONS

Glazing work shall not be started until outdoor temperature is above 5 degrees C and rising, unless procedures recommended by glass manufacturer and approved by Contracting Officer are made to warm the glass and rabbet surfaces. Ventilation shall be provided to prevent condensation of moisture on glazing work during installation. Glazing work shall not be performed during damp or raining weather.

1.6 WARRANTY

1.6.1 Insulating Glass

Manufacturer shall warrant the insulating glass to be free of fogging or film formation on the internal glass surfaces caused by failure of the hermetic seal for a period of 10 years from Date of Substantial Completion. Warranty shall be signed by manufacturer.

1.7 CONTRACTOR QUALITY CONTROL

The Contractor shall establish and maintain a quality control procedure to assure compliance of glass and glazing with the contract requirements. Any work found not to be in compliance with the contract shall be promptly removed and replaced, or corrected in an approved manner. Quality control shall include, but not be limited to, the following:

- (1) Storage and handling of materials.
- (2) Inspection of material delivered to the project site against approved material data.
- (3) Shop drawings include explicit identification of coordination with other trades.
- (4) Verification that glazing channel surfaces are properly prepared to receive installation of glazing.
- (5) Finished appearance of glazing is consistent with specification.
- (6) Windows and glazed surfaces are cleaned.

The actual quality control observations and inspections shall be documented and a copy of the documentation furnished to the Contracting Officer within 24 hours following the observations, inspections, or tests.

PART 2 PRODUCTS

2.1 FLOAT GLASS

2.1.1 Annealed Glass

Annealed glass shall be Type I transparent flat type, Class 1 - clear, Quality q3 - glazing select, 89 percent light transmittance, 0.95 percent shading coefficient, conforming to ASTM C 1036 for nominal 3 mm glass thickness. Annealed glass shall be provided for glazed openings not indicated or specified otherwise.

2.1.2 Tinted (Light-Reducing) Glass

Tinted (light-reducing) glass shall be Type I transparent flat type, Class 3-tinted, Quality q3 - glazing select, 75 percent light transmittance, 75 percent shading coefficient, minimums conforming to ASTM C 1036 for nominal 3 mm glass. Color shall be green.

2.1.3 Obscure Glass

Obscure glass shall be used where indicated and meet the requirements for annealed glass with additional etched or sandblasted treatment to provide a translucent character.

2.2 WIRED GLASS

Wired glass shall be Type II flat type, Class 1 - translucent, Quality q8 - glazing, Form 1 - wired and polished both sides, 6 mm thick,, 85 percent light transmittance, , conforming to ASTM C 1036. Wire mesh shall be polished stainless steel Mesh 2 - square. Wired glass for fire-rated windows shall bear an identifying UL label or the label of a nationally recognized testing agency, and shall be rated for 45 minutes when tested in accordance with NFPA 257. Wired glass for fire-rated doors shall be tested as part of a door assembly in accordance with NFPA 252 and shall conform to NFPA 80.

2.3 INSULATING GLASS

Insulating glass shall be Class A preassembled units of dual-seal construction consisting of lites of glass separated by an aluminum, steel, or stainless steel, spacer and dehydrated space conforming to ASTM E 773 and ASTM E 774 Class A. Nominal overall thickness shall

be 25 mm with a 12 mm air space. Spacer shall be roll-formed, with bent or tightly welded or keyed and sealed joints to completely seal the spacer periphery and eliminate moisture and hydrocarbon vapor transmission into airspace through the corners. Primary seal shall be compressed polyisobutylene and the secondary seal shall be a specially formulated silicone. Insulating units shall be installed in windows and doors as indicated. Window unit performance shall be K-Value/Winter Nighttime 2.0 (R-Value/ Winter Nighttime 2.9). Glass types shall be as follows:

2.3.1 Clear Insulating Glass

Glass for exterior pane of insulating units shall be Type I annealed glass, Class 1 - clear, Quality q3 - glazing select, conforming to ASTM C 1036. Obscure glass shall be used where indicated.

2.3.2 Safety Glazing

Provide safety glazing in exterior pane where indicated or required by the International Building Code.

2.3.3 Low-E Insulating Glass

Exterior glass panes of all insulating unit windows shall have a Low-E anti-reflective low-emissivity coating on No. 2-3 surface (inside-outside surface of exterior-interior pane).

2.3.4 Laminated Glass

Interior glass panes of exterior insulating unit windows shall be laminated glass consisting of two layers of Type I transparent float glass, Class 1-clear, Quality q3 - glazing select, conforming to ASTM C 1036. Glass shall be bonded together with 0.76 mm thick PVB interlayer under pressure, or alternatives such as resin laminates, conforming to requirements of 16 CFR 1201 and ASTM C 1172. Color shall be clear.

2.3.5 Tinted Insulating Glass

At South, West and North (construction elevations) exposure walls of Barracks, Glass for exterior pane of insulating units shall be Type I annealed glass, Class 3 - tinted, Quality q3 - glazing select, conforming to ASTM C 1036. Window unit performance shall be K-Value/Winter Nighttime 2.0 (R-Value/ Winter Nighttime 2.9). Obscure glass shall be used where indicated.

2.4 HEAT-TREATED GLASS (SAFETY GLAZING)

Heat-treated glass shall conform to the following requirements. Glass shall be permanently labeled with appropriate markings. Provide safety glazing where indicated or as required by the International Building Code.

2.4.1 Tempered Glass

Tempered glass shall be kind FT fully tempered transparent flat type, Class 1-clear, Condition A uncoated surface, Quality q3 - glazing select, conforming to ASTM C 1048 and GANA Standards Manual.

2.4.2 Heat-Strengthened Glass

Heat-strengthened glass shall be kind HS heat-strengthened transparent flat type, Class 1-clear, Condition A uncoated surface, Quality q3 - glazing select, conforming to ASTM C 1048.

2.5 LAMINATED GLAZINGS

Laminated glass shall consist of two layers of Type I transparent float glass, Class 1-clear, Quality q3 - glazing select, conforming to ASTM C 1036. Glass shall be bonded together with 0.76 mm thick PVB interlayer under pressure, or alternatives such as resin laminates, conforming to requirements of 16 CFR 1201 and ASTM C 1172.

2.6 FIRE/SAFETY RATED GLASS

Fire/safety rated glass shall be laminated Type I transparent flat type, Class 1-clear. Glass shall have a 60 minute rating when tested in accordance with ASTM E 119. Glass shall be permanently labeled with appropriate markings.

2.7 SPANDREL GLASS

Spandrel glass shall be kind HS heat strengthened transparent flat type, Condition B, coated with a colored ceramic material on No. 2 surface, Quality q3 – glazing select, conforming to ASTM C 1048. Glass performance shall be K value/Winter Nighttime 2.0 (R Value/Winter Nighttime 2.9), maximum shading coefficient 0.5.

2.8 MIRRORS

2.8.1 Glass Mirrors

Glass for mirrors shall be Type I transparent flat type, Class 1-clear, Glazing Quality q1 6 mm thick conforming to ASTM C 1036. Glass color shall be clear. Glass shall be coated on one surface with silver coating, copper protective coating, and mirror backing paint. Silver coating shall be highly adhesive pure silver coating of a thickness that shall provide reflectivity of 83 percent or more of incident light when viewed through 6 mm thick glass, and shall be free of pinholes or other defects. Copper protective coating shall be pure bright reflective copper, homogeneous without sludge, pinholes or other defects, and shall be of proper thickness to prevent "adhesion pull" by mirror backing paint. Mirror backing paint shall consist of two coats of special scratch and abrasion-resistant paint, and shall be baked in uniform thickness to provide a protection for silver and copper coatings which will permit normal cutting and edge fabrication.

2.8.2 Mirror Accessories

2.8.2.1 Mastic

Mastic for setting mirrors shall be a polymer type mirror mastic resistant to water, shock, cracking, vibration and thermal expansion. Mastic shall be compatible with mirror backing paint, and shall be approved by mirror manufacturer.

2.8.2.2 Mirror Frames

Mirrors shall be provided with mirror frames where indicated, (J-mold channels) fabricated of one-piece roll-formed Type 304 stainless steel with No. 4 brushed satin finish and concealed fasteners which will keep mirrors snug to wall. Frames shall be 32 x 6 x 6 mm continuous on all edges of mirrors. Concealed fasteners of type to suit wall construction material shall be provided with mirror frames.

2.8.2.3 Mirror Clips

Concealed fasteners of type to suit wall construction material shall be provided with clips.

2.9 GLAZING ACCESSORIES

2.9.1 Preformed Tape

Preformed tape shall be elastomeric rubber extruded into a ribbon of a width and thickness suitable for specific application. Tape shall be of type which will remain resilient, have excellent adhesion, and be chemically compatible to glass, metal, or wood.

2.9.2 Sealant

Sealant shall be elastomeric conforming to ASTM C 920, Type S or M, Grade NS, Class 12.5, Use G, of type chemically compatible with setting blocks, preformed sealing tape and sealants used in manufacturing insulating glass. Color of sealant shall be clear.

2.9.3 Glazing Gaskets

Glazing gaskets shall be extruded with continuous integral locking projection designed to engage into metal glass holding members to provide a watertight seal during dynamic loading, building movements and thermal movements. Glazing gaskets for a single glazed opening shall be continuous one-piece units with factory-fabricated injection-molded corners free of flashing and burrs. Glazing gaskets shall be in lengths or units recommended by manufacturer to ensure against pull-back at corners. Glazing gasket profiles shall be as indicated on drawings.

2.9.3.1 Fixed Glazing Gaskets

Fixed glazing gaskets shall be closed-cell (sponge) smooth extruded compression gaskets of cured elastomeric virgin neoprene compounds conforming to ASTM C 509, Type 2, Option 1.

2.9.3.2 Wedge Glazing Gaskets

Wedge glazing gaskets shall be high-quality extrusions of cured elastomeric virgin neoprene compounds, ozone resistant, conforming to ASTM C 864, Option 1, Shore A durometer between 65 and 75.

2.9.3.3 Aluminum Framing Glazing Gaskets

Glazing gaskets for aluminum framing shall be permanent, elastic, non-shrinking, non-migrating, watertight and weathertight.

2.9.4 Setting and Edge Blocking

Neoprene setting blocks shall be dense extruded type conforming to ASTM D 395, Method B, Shore A durometer between 70 and 90. Edge blocking shall be Shore A durometer of 50 (+ or - 5). Silicone setting blocks shall be required when blocks are in contact with silicone sealant. Profiles, lengths and locations shall be as required and recommended in writing by glass manufacturer.

PART 3 EXECUTION

3.1 PREPARATION

Openings and framing systems scheduled to receive glass shall be examined for compliance with approved shop drawings, GANA Glazing Manual and glass manufacturer's recommendations including size, squareness, offsets at corners, presence and function of weep system, face and edge clearance requirements and effective sealing between joints of glass-framing members. Detrimental materials shall be removed from glazing rabbet and glass surfaces and wiped dry with solvent. Glazing surfaces shall be dry and free of frost. Do not proceed with installation until all aspects are suitable for work and compliant with specification.

3.2 GLAZING INSTALLATION

Glass and glazing work shall be performed in accordance with approved shop drawings, GANA Glazing Manual, glass manufacturer's instructions and warranty requirements. Glass shall be installed with factory labels intact and removed only when instructed. Wired glass and fire/safety rated glass shall be installed in accordance with NFPA 80. Edges and corners shall not be ground, nipped or cut after leaving factory. Springing, forcing or twisting of units during installation will not be permitted. All glazing installations shall provide for the full range of expansion and contraction anticipated by temperature extremes and the performance of adjacent materials.

3.3 MIRROR INSTALLATION

Apply one additional coat of moisture resistant paint, or type recommended by mirror manufacturer, to back of mirror, and allow to dry. Apply mirror mastic to cover not more than 25 percent of back of mirror. Set mirror in support on setting blocks or continuous gasket, press against substrate to ensure bond of adhesive. Leave open ventilation space, 3 mm or more in thickness between mirror and substrate, over 75 percent of mirror area (wherever there is no adhesive). Do not seal off ventilation space at edges of mirror.

3.4 CLEANING

Upon completion of project, outside surfaces of glass shall be washed clean and the inside surfaces of glass shall be washed and polished in accordance with glass manufacturer's recommendations.

3.5 PROTECTION

Glass work shall be protected immediately after installation. Glazed openings shall be identified with suitable warning tapes, cloth or paper flags, attached with non-staining adhesives. Reflective glass shall be protected with a protective material to eliminate any contamination of the reflective coating. Protective material shall be placed far enough away from the coated glass to allow air to circulate to reduce heat buildup and moisture accumulation on the glass. Glass units which are broken, chipped, cracked, abraded, or otherwise damaged during construction activities shall be removed and replaced with new units.

END OF SECTION

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