

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. CONTRACT ID CODE J	PAGE OF PAGES 1   2
2. AMENDMENT/MODIFICATION NO. 0002	3. EFFECTIVE DATE 17-Aug-2004	4. REQUISITION/PURCHASE REQ. NO. W81EWF-4174-9374	5. PROJECT NO.(If applicable)	
6. ISSUED BY VBURG CONSOLIDATED CONTRACTING VICKSBURG OFFICE 4155 CLAY STREET VICKSBURG MS 39183-3435	CODE W912HZ	7. ADMINISTERED BY (If other than item 6) <b>See Item 6</b>		
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		X	9A. AMENDMENT OF SOLICITATION NO. W912HZ-04-B-0001	
		X	9B. DATED (SEE ITEM 11) 21-Jul-2004	
			10A. MOD. OF CONTRACT/ORDER NO.	
			10B. DATED (SEE ITEM 13)	
CODE	FACILITY CODE			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>				
<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 checked="" type="checkbox"/> is extended, <input type="checkbox"/> is not extended. 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: (a) By completing Items 8 and 15, and returning <u>1</u> 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.				
12. ACCOUNTING AND APPROPRIATION DATA (If required)				
<b>13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>				
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.) Reference Solicitation No. W912HZ-04-B-0001 for Laboratory Renovation of Building 3297 located on the Engineering Research and Development Center, Waterways Experiment Station, Vicksburg, Mississippi is amended as follows:  <p style="text-align: center;">SEE CONTINUATION PAGE FOR CHANGES</p>				
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)	17-Aug-2004	

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

**SUMMARY OF CHANGES**

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

A new bid opening time and date of 1430 hours, 26 August 2004 is hereby established.

SECTION 12347, METAL LABORATORY CASEWORK, pages 1 through 5 are added.

Pages revised by this amendment have the notation "Revised by Amendment 0002" at the bottom of the page. Text deleted by this amendment is shown as overstruck. Text added by this amendment is underlined.

Encls: Section 12347, pages 1 through 5.  
Section 12350, page 2.

(End of Summary of Changes)

## SECTION 12347

## METAL LABORATORY CASEWORK

## PART 1 GENERAL

## 1.1 PERFORMANCE REQUIREMENTS

Contractor may supply wood acid storage cabinets and solvent storage cabinets, as specified in Section 12350, Wood Laboratory Casework, or has the option to supply metal acid storage cabinets and solvent storage cabinets under the fumehoods as specified in this section. Metal casework is limited to storage cabinets below fumehoods only, and all other labs casework is wood.

## 1.2.2 Structural Performance

Provide metal laboratory casework capable of withstanding the following loads without permanent deformation, excessive deflection, or binding of drawers and doors:

- a. Shelves of Base, Wall and Storage Cabinets: 100 lb.
- b. Drawers: 150 lb.
- c. Wall Cabinets: 75 lb/ft.
- d. Suspended-Base Cabinets: 75 lb/ft.
- e. Floor-Supported Base Cabinets: 75 lb/ft. within cabinets, 50 lb/ft. countertop, plus 75 lb/ft. on countertop.
- f. Countertop Supports: 50 lb/ft. countertop, plus 75 lb/ft. on countertop.
- g. Support Framing: 300 lb/ft. for single-faced assemblies, 600 lb/ft. for back-to-back assemblies.

## 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 Shop Drawings

Metal Laboratory Casework; GA.

Include plans, elevations, sections, details, and attachments to other work. Indicate locations of blocking and other supports required for installing casework. Indicate locations and types of service fittings, together with associated service supply connection required. Include details of utility spaces showing supports for conduits and piping. Include coordinated dimensions for laboratory equipment specified in other Sections.

SD-14 Samples

Samples for Initial Selection; GA.

Manufacturer's color charts consisting of actual units or sections of units showing the full range of colors, textures, and patterns available for cabinets and each type of top material indicated.

SD-09 Product Test Reports; FIO.

Based on tests performed by a qualified independent testing agency, indicate compliance of laboratory casework finishes and countertops with requirements specified for chemical and physical resistance.

#### 1.4 QUALITY ASSURANCE

##### 1.4.1 Testing Agency Qualifications

An independent testing agency with the experience and capability to conduct the testing indicated without delaying the Work, as documented according to ASTM E 548.

##### 1.4.2 Source Limitations

Obtain laboratory casework, including tops, sinks, service fittings, and accessories, through one source from a single manufacturer.

##### 1.4.3 Flammable Liquid Storage

Where cabinets are indicated for solvent or flammable liquid storage, provide units that are listed and labeled as complying with the requirements of NFPA 30 for design, construction, and capacity of storage cabinets by UL, Warnock Hersey, or another testing and inspection agency acceptable to authorities having jurisdiction.

## PART 2 PRODUCTS

### 2.1 MATERIALS

#### 2.1.1 Metal

Commercial-quality, cold-rolled, carbon-steel sheet, complying with ASTM A 366 (ASTM A 366M); matte finish; suitable for exposed applications; and stretcher leveled or roller leveled to stretcher-leveled flatness.

#### 2.1.2 Minimum Metal Thickness

Provide metal laboratory furniture components of the following minimum thicknesses:

a. Sides, ends, fixed backs, bottoms, tops, soffits, and items not otherwise indicated: 0.0478 inch. Except for flammable liquid storage cabinets, bottoms may be 0.0359 inch if reinforced.

b. Back panels, doors, drawer fronts and bodies, and shelves: 0.0359 inch. for back panels and doors for flammable storage cabinets, use 0.0478-inch thick metal. For shelves more than 36 inches long, use 0.0478 inch-thick metal or provide suitable reinforcement.

c. Intermediate horizontal rails, table aprons and cross rails, center posts, and top gussets: 0.0598 inch.

d. Drawer runners, sink supports, and hinge reinforcements: 0.0747 inch.

e. Leveling and corner gussets: 0.1046 inch.

### 2.1.3 Acid Storage Cabinet Lining

1/4 inch thick, polypropylene, epoxy, or phenolic composite lining material.

## 2.2 FABRICATION

### 2.2.1 Unit Fabrication

Fabricate units on precision dies for interchangeability of like-size drawers, doors, and similar parts.

### 2.2.2 Flush Doors

Outer and inner pans formed and telescoped into box formation, with channel reinforcements full height on center of each pan. Fill doors solid with noncombustible, sound deadening material.

### 2.2.3 Hinged Doors

Mortise at flanges for hinges and reinforce with angles, welded inside inner pans at hinge edge.

### 2.2.6 Drawers

Assemble fronts from telescoping outer and inner pans, designed to eliminate raw edge of steel at top. Fabricate sides, back, and bottom of one piece with rolled or formed top of sides for stiffening and comfortable grasp for drawer removal. Weld drawer front to sides, back, and bottom to form a single, integral unit. Provide drawers with rubber bumpers, runners, and positive stops to prevent metal-to-metal contact or accidental removal.

### 2.2.7 Adjustable Shelves

Front, back, and ends formed down with returned lip at front and back.

### 2.2.8 Toe Space

Provide metal toe space, fully enclosed, 4 inches high by 3 inches deep, with no open gaps or pockets.

## 2.4 FINISH FOR METAL LABORATORY CASEWORK

### 2.4.2 Chemical-Resistant Enamel Finish

Immediately after cleaning and pretreating, apply manufacturer's standard 2-coat, chemical-resistant, baked-enamel consisting of prime coat and thermosetting topcoat with a minimum dry film thickness of 1 mil for topcoat and 2 mils for system.

#### 2.4.3 Chemical and Physical Resistance of Finish System

Provide metal laboratory casework with finish system complying with the following requirements for chemical and physical resistance.

##### 2.4.3.1 Chemical Resistance

Capable of withstanding application of not less than 5 drops of the following reagents applied to finish surface; covered with a watch glass for 60 minutes, rinsed, and dried; with no permanent change in gloss, color, film hardness, adhesion, or film protection.

- a. Acetic acid (98 percent).
- b. Hydrochloric acid (37 percent)
- c. Nitric acid (25 percent).
- d. Phosphoric acid (75 percent)
- e. Sulfuric acid (25 percent).
- f. Acetone.
- g. Benzene.
- h. Carbon tetrachloride.
- i. Ethyl acetate.
- j. Ethyl alcohol.
- k. Ethyl ether.
- l. Formaldehyde (37 percent).
- m. Furfural.
- n. Methyl ethyl ketone.
- o. Phenol (85 percent).
- p. Toluene.
- q. Xylene.
- r. Ammonium hydroxide (28 percent).
- s. Potassium hydroxide (40 percent).
- t. Sodium carbonate (saturated).
- u. sodium chloride (saturated).
- v. Sodium hydroxide (25 percent)
- w. Sodium sulfide (saturated).
- x. Zinc chloride (saturated).

#### 2.5 CASEWORK HARDWARE

##### 2.5.1 Hardware, General

Provide manufacturer's standard satin-finish, commercial-quality, heavy-duty hardware complying with requirements indicated for each type.

##### 2.5.2 Hinges

Stainless steel, 5-knuckle hinges complying with BHMA 156.9, Grade 1, with antifriction bearings and rounded tips. Provide 2 for doors less than 48 inches high and 3 for doors more than 48 inches high.

### 2.5.3 Pulls

Stainless steel fastened from back with 2 screws. For sliding doors, provide stainless steel recessed flush pulls. Provide 2 pulls for drawers more than 24 inches wide.

### 2.5.4 Door Catches

Dual, self-aligning, permanent magnet catch. Provide 2 catches on doors more than 48 inches wide.

### 2.5.5 Drawer Guides

Metal-channel, self-closing drawer guides, designed to prevent rebound when drawers are closed, with nylon-tired, ball-bearing rollers, and complying with BHMA A156.9, Type B05091.

### 2.5.6 Sliding Door Hardware Sets

Manufacturer's standard, to suit type and size of sliding door units.

## 2.6 Wall Mounted Shelving

Wall mounted shelving shall be chemical resistant plastic laminate of a black color that matches counter tops.

## PART 3 EXECUTION

### 3.2 INSTALLATION

#### 3.2.1 Installation

Install casework as per manufacturers instructions. Install plumb, level, and true; shim as required, using concealed shims. Where laboratory casework abuts other finished work, apply filler strips and scribe for accurate fit, with fasteners concealed where practical.

-- End of Section --

laboratory furniture company.

#### 1.3.2. Manufacturer's Qualifications:

Modern plant with proper tools, dies, fixtures and skilled production staff to produce high quality laboratory casework and fume hoods, and shall meet the following minimum requirements:

- a. Minimum of ten years experience in manufacture of wood laboratory casework and fume hoods.
- b. Minimum of ten installations of equal or larger size.

#### 1.3.3 Installer Qualifications:

The installer shall be certified by the manufacturer.

#### 1.3.4. Test Results

The manufacturer shall provide load test results certified by an independent testing laboratory for drawers, doors, suspension slides and unit shelving.

### 1.4 Summary

~~All lab casework to be wood.~~ **All casework except acid storage cabinets and solvent storage cabinets under each fume hood shall be wood. The contractor may at his option supply wood acid storage cabinets and solvent storage cabinets as specified in this section or may supply metal acid storage cabinets and solvent storage cabinets as specified in Section 12347, Metal Laboratory Casework.** Contractor shall verify existing conditions in the field before ordering casework. Any errors or discrepancies in the contract drawings will be resolved.

### 1.5 DEFINITIONS

#### 1.5.1 Exposed Portions of Casework

Surfaces visible when doors and drawers are closed, including bottoms of cabinets more than 48 inches above floor, and visible surfaces in open cabinets or behind glass doors. Ends of cabinets indicated to be installed directly against and completely concealed by walls or other cabinets after installation shall not be considered exposed.

#### 1.5.2 Semiexposed Portions of Casework

Surfaces behind opaque doors, such as interiors of cabinets, shelves, dividers, interiors and sides of drawers, and interior faces of doors. Tops of cases 78 inches or more above floor are defined as semiexposed.

#### 1.5.3 Concealed Portions of Casework

Includes sleepers, web frames, dust panels, and other surfaces not usually visible after installation.

### 1.6 Flammable Liquid Storage

Where cabinets are indicated for solvent or flammable liquid storage, provide units that are listed and labeled as complying with the requirements of NFPA 30 for design, construction and capacity of storage cabinets by UL, Warnock Hersey, or another testing and inspection agency