

Procurement Title*Laboratory Casework, Worktops, Cabinetry, Hoods and Installation.
Statement of Work* Statement of Work for Casework and Cabinetry Refit for Building 894, 151A-E

I. Background

This statement of work (SOW) covers the replacement of casework, vented chemical hoods, and cabinetry in building 894, rooms 151A and 151E. The casework replacement is part of a larger refit of the facility to move electrical, water, exhaust and HVAC, and compressed gas to refit the laboratory. As part of that work, new casework needs to be installed at a specific timeframe in the refit of the laboratory.

II. Statement of Work (SOW)

A. The Contractor shall provide a set of casework, worktops, cabinetry and hoods appropriate to the space in the defined areas, according to an attached drawing and specifications. The work to be performed in this lab is general electrochemistry and electrochemical engineering of reactive chemicals, and as such, a certain level of quality for all exposed and exposable surfaces must be assured. This quality reflects the ability to withstand the acid and base chemistries, as well as the reactive materials, that might be present as part of the testing occurring within this laboratory.

1) The Contractor shall furnish relevant performance and test data regarding the response of their surfaces and coatings to strong acid attack, base attack, and reactivity to alkali earth metals under both exposure to water and temperature. In addition, the Contractor shall supply data demonstrating that face surfaces of the casework are resistant to stains from solvents, acids, and bases, and not reactive to any of the aforementioned chemistries.

2) The Contractor shall have the ability to meet or exceed 8 week lead-times and sign a written commitment to that effect.

3) The Contractor shall provide installation of the casework, hoods, cabinets, countertops, sinks, and all ancillary support equipment into a prepared facility.

4) The Contractor's manufacturer's plant shall be located in the United States

B. A layout and design of the space to be retrofit is attached to this spec. Each section will be addressed separately for specific needs, but in general, the contractor shall provide:

1) For Base Cabinets:

a. 5" high toekicks; 4" or less are not acceptable, due to clearances of other equipment within the room.

b. Cabinets made from cold-rolled steel, and powder coated with high quality, dense coatings that are resistant to acid, base, and reactive metal burns, as well as solvents (SEFA tested chemical resistant finish).

c. All doors must have a positive door catch made of 2 piece heavy duty construction with a cam action positive catch. Magnetic, nylon, or pin type catches are not acceptable. Cams shall be positioned near the pivoting edge of the door to provide a clean, unobstructed opening to the shelving. The main body of the catch shall be confined within an integral cabinet divider rail, while latching posts shall be mounted on the inside of the door.

d. Doors shall have reinforced edges on all sides.

e. Leveling screws for base cabinetry shall be accessible from inside the cabinet only. Access from cutouts or from the toe kick are not acceptable.

- f. All cabinetry in the island portion of the layout shall be mobile cabinet type with 4" swivel casters with front mount brakes for positive position control.
- g. Cabinets underneath hoods shall be flammable cabinets, separately exhausted from the main body of the hood, and have positive closure systems that ensure the doors to the cabinet close in a specific order (ie, doors shall have synchronized closing). The doors shall be at least 2" thick (UL Listed Standard 1275). The cabinets shall be made of powder coated steel, with containment located within the cabinet. The doors shall have a lockable, quarter turn cabinet handle.
- h. All base cabinets shall be standing-height cabinets (31" + toekick).

2) For work surfaces:

- a) All work surfaces shall be made of Durcon Durastone, 1" thick epoxy resin or better quality.
- b) All work surfaces must come with a 4" backsplash that provides protection for the adhesive or mounting system against accidental exposure to acids, bases, solvents, and reactive metals.
- c) All work surfaces shall be minimum 30" depth, except for on the north wall 894/151A -as noted below, where the minimum depth is 38".
- d) A minimum of 4' must be maintained between all seams in the work surface, and all seams must be sealed with a polymer epoxy that has good solvation and chemical attack resistance to acids, bases, solvents, and reactive metals.
- e) Front edge of the countertops shall be relieved by 1/8" minimum radius top and bottom, and all internal and external rounds on the countertop radius shall be 3".
- f) For sinks located in the work surface, the sink shall be an under-mount design. The sinks shall be formed epoxy resin, with at least 16" depth of the counter, and at least 18" from the countertop to the drain.
- g) Fixtures for Sinks shall be made of epoxy coated noncorrosive, nonreactive metal.
- h) Exception: Work surface for 151A workbench shall be hardwood butcher block construction, minimum 1 1/2" thick, coated with stain resistant and solvent resistant sealant.

3) For Wall Mount Cabinets:

- a) All cabinets shall have glass faced doors that open from the center out with high quality hinges that resist attack by acids, bases, solvents, and reactive metals.
- b) All cabinets shall be made of steel powder coated with a nonreactive coating that does not react with acids, bases, solvents, and reactive metals (SEFA tested chemical resistant finish).
- c) All cabinet doors shall have a positive door catch that holds the door closed. Cabinets shall not have a center post, but have the doors close together. Doors shall open individually (ie, no lip or catch on one door to set the order of closure).
- d) The metal portion of the doors shall be no larger than 4" wide around the circumference of the door, with the remainder of the door being glass. Glass shall not be held in place through grooves. Clamps, glue, or compression based fixturing is not acceptable.
- e) Wall cabinets shall be minimum 13" deep full depth (back of the cabinet to the front of the door).
- f) Doors on cabinets shall be flush with the cabinet, not mounted outside of the cabinet.

4) For fume hoods:

- a) Fume hoods shall be made of powder coated steel for all exposed exterior surfaces (SEFA tested chemical resistant finish). Interior surfaces of the hoods shall be made of KEMR epoxy resin with no exposed mounting fixtures through the liners. Fiberglass reinforced polyester is not acceptable.
- b) Cup sinks within the fume hoods shall be made of KEMR epoxy resin. Polysinks are not acceptable.
- c) Minimum inside depth from the front of the baffle to the back of the sash shall be 25.5".
- d) Exhaust collars on the hood shall be 11-5/8" round to match exhaust HVAC plumbing.
- e) The hoods shall have interior recessed T5 fluorescent lighting with a chemical resistant covering over the light fixture, with control switch accessed from the outside radius corner post of the hood.
- f) Fume hoods shall have Air Alert 600 fume hood monitor
- g) All service fixtures (hood flow control, lighting, gas supplies) shall be mounted on the radius corner posts of the hood.
- h) Fume hoods shall have at least four (4) 20-amp ground fault circuit interrupter (GFCI) receptacles.
- i) Sashes for hoods shall be dual opening. Main sash shall open vertically. Within this main sash, at least 4 separate horizontal, sliding panels shall allow access to the hood without opening the main sash. These panels shall be made of impact resistant glass on sliding tracks. These tracks shall not be bearing or roller type tracks, and shall have some protection (mechanical or chemical) from splashes of acids, bases, and solvents.

5) For Island Workstation:

- a) Uprights for the island shall be powder coated aluminum construction. Steel is not acceptable.
- b) Uprights shall be 6" wide and shall have double slotted standards and electrical carriers. Single slot standards are not acceptable.
- c) Uprights shall have a minimum of two modesty panels for separation.
- d) Work surfaces and shelving shall be adjustable in 1" increments.
- e) Work surface shall be Durcon Durastone, 1" thick minimum, 25" deep on each side of the island.

6) General Requirements:

- a) All casework shall be SEFA tested and compliant.
- b) Cabinet filler panels needed to complete cabinetry run lengths from wall to wall shall be made of powder coated steel, and supplied by the contractor.

C. In each specific subsection of the laboratory refit in the included schematic, specific casework and cabinetry shall be supplied:

- 1) 151A East Wall Bench and Cabinets: One 36" wide base casework, two door opening, one 36" wide 4 drawer base casework, one 48" wide base casework, two door opening, one 36" 4 drawer base casework. Three 36" wide two door wall cabinets, one 48" wide two door wall cabinet.
- 2) 151A North Wall Bench and Cabinets: One 48" wide base casework, two door opening. One 48" wide 8 drawer base casework. One 24"+24" wide 1 door opening base casework

with blind corner. Two 48" wide two door wall cabinets. One 24"+ 24" wide one door wall cabinet 1 door opening with blind corner.

3) 151A South Wall and Cabinets: Two 36" wide base casework, two door opening. One 36" wide sink pedestal, 2 door opening. Two 36" wide base casework, 4 drawer. One 36" wide 8-10 drawer base casework. Five 36" wide wall cabinets. One 42" wide wall cabinet. One 18" wide single door cabinet with 22" blind corner.

4) 151A Fume Hood, Base and Wall cabinets: One 30" wide two door opening base cabinet with 24" blind corner access through the front door. One 30" wall cabinet. One 72" wide fume hood waist height, flammable cabinets underneath, fixturing for Ar supply and for house water and drain.-

5) 151A Island: Two 73 5/8" wide stationary island supports, 84" tall with lighting and two shelves per unit. Eight single door plus single drawer mobile cabinets, 30" wide.

6) 151A Workbench: Two 48" wide stationary island supports, 84" tall with lighting and two shelves per unit. Two single door plus single drawer mobile cabinets, 24" wide. Butcherblock work surface, 8' wide, 25" deep.

7) 151E West Wall Benches and Cabinets: Two 36" wide two drawer + two door base cabinets. Two 36" wide 4 drawer base cabinets. One 42" wide 8 drawer cabinet. Four 36" wide wall cabinets. One 42" wide wall cabinet.

8) 151E South Wall: One 30" wide base cabinet, two door opening +26" blind corner access through the front doors. One 42" wide 8 drawer cabinet. One sink pedestal 36" wide, two door opening.

9) 151E East Wall Fume Hoods: One 96" wide fume hood, waist height, flammable cabinets underneath. One 96" wide "walk in" floor to top fume hood with 3 part sash. This fume hood shall have horizontal sash requirements only at the waist height vertical sash.

Mandatory Requirements* See Statement of Work (SOW) above.