PART I - GENERAL

1.01 All laboratory casework: steel box with factory finish suitable for laboratory corrosive environments unless other materials are requested by Facilities Services for specific user needs.

A. Doors and Drawer Fronts may be metal or wood.

B. Wood doors and drawer fronts shall be made of high grade industrial particleboard core plywood to prevent warping and shrinkage. Provide hardwood or approved plastic laminate face and 1/8-inch solid edge banding.

C. Wood products not allowed in areas subject to extremely high humidity or wet areas.

D. Wood boxes may be allowable based on high level specification built for high end academic lab use.
   a. Wood drawer boxes shall be of solid plywood such as Baltic Birch and be joined with dovetails, dowels, or glue and pinned lock shoulders.

E. Metal drawers shall be one piece construction

1.02 All casework, especially storage shelving units, equipped with features such as glass doors or retainage rod to prevent spillage or breakage of laboratory materials during earthquake events.

1.03 Request Facilities Services to furnish list of chemicals to be used in lab, and furnish MSDS sheets. Consultant is to verify specific chemical resistance of the countertop surface material. List the chemical resistance characteristics in the technical specification.

1.04 Use epoxy resin tops for casework unless other materials are requested by Facilities Services. Epoxy countertops shall not have an integral backsplash. Call out for contractor to seal the joint formed by the top and backsplash with approved material.

1.05 Full extension type drawer hardware with roller bearing.

1.06 Stainless steel wire drawer and door pulls. Hinges shall be stainless institution grade, adjustable, similar to bullet type barrel

1.07 Under-mount epoxy sinks for most labs. Stainless steel sinks may be used in areas subject to heavy use of soiled material, animal surgery, or as required by Facilities Services or applicable codes.

1.08 Roll out traps preferred if solid traps are required due to the lab use. Standard design: an 18 inch x 12 inch x 12 inch polypropylene or stainless steel tank. Trap with 1.5 inch overflow
and swivel casters 2/ brakes, on a stainless steel frame. Design: include a floor drain adjacent to the trap. Roll out soil traps can not be used with extra deep sinks.

1.09 Design proper wall backing, wood or heavy metal lathe, for adjustable shelving and wall mounted cabinets.

1.10 Adjustable shelving may be metal, chemical resistant P-lam wood, or epoxy with a minimum of 100 lb load capacity. Call out proper sized backing on drawings.

1.11 Provide a flammable and acid storage cabinet in all labs. Preferably, cabinets will be placed under the fume hood for easy connection to the exhaust system. Corrosive cabinets shall be vented while solvent/flammable cabinets shall not be vented.

1.12 Under-counter garbage disposals are by special request by Facilities Services. In general, disposals not allowed due to high maintenance cost.

1.13 Provide lab services fittings on countertops and in fume hoods. Color coded 4-blade or single blade valve handles.

A. Specify an accessible isolation valve for lab gas by room level, either in a manual valve box located near an exit or an automatic shut off valve with a push button located near an exit. Coordinate with Division 22.

1.14 Use ground key cocks on all lab gas valves.

1.15 Provide drying racks in wet labs.

1.16 Use umbilicals to bring lab services from overhead to island and peninsula case work.

1.17 Provide overhead service carriers for a minimum of two shelves, under mount lights and wiremold for electrical and data outlets. Carriers shall be painted or powder coated.

1.18 Provide task lighting where needed or requested. If mounted to an adjustable shelf, provide provisions for the fixture to be shorter than the shelf and the electrical has flexible cords.

1.19 Make provisions for hand washing in lab layouts to include PTD, Soap, and trash receptacle.

1.20 Provide at least one accessible work station and fume hood in every teaching laboratory. In research labs, consult with FS/DDC Project Manager for number of accessible work station in each space.

1.21 Consultant shall provide a well-coordinated, highly detailed custom specification for this division to ensure the project receives casework that is maintenance friendly, is long lasting, and sustainable.

1.22 Provide floor drains for lab equipment, emergency showers, and as indicated by the user.
PART 2 – PRODUCTS

2.01 Acceptable manufacturers of laboratory casework limited to:

A. Fisher Hamilton Industries.
B. Jamestown/ISEC
C. Kewaunee Scientific Equipment Corporation
D. Mott Manufacturing
E. BEDCO

2.02 Lab fittings: Water Saver, TS Brass, or Chicago Faucet, No Alternate Brands, No Substitutions.

2.03 Specialty Lab Equipment

A. Specify in section 11 53 50
B. Autoclaves: Steam Driven, either from building steam or electric steam generator, Steris or Lynx are Basis of Design. If electric generator, specify water softener upstream of supply water.
C. Vacuum Pump: Specify under Division 22
D. Shelving: Stainless steel wire shelving such as Metro shelving.
E. Ice Maker: Manitowoc is Basis of Design, other manufacturers meeting the specifications will be allowed. Obtain specific ice cube size and shape from user during design. Provide water softener upstream of supply water.

PART 3 – EXECUTION (NOT USED)

END OF SECTION