

SCIENCE

September 30, 2010

I. PROGRAM REQUIREMENTS

Refer to the project-specific Schedule of Spaces for student stations, square footage, and for any requirements that may differ from the prototype requirements listed below:

- 1 Physics Laboratory
- 1 Earth Science Demonstration Classroom
- 1 Physics/Earth Sci. Storage-Preparation Rm.

- 1 Chemistry Laboratory
- 1 Chemistry Demonstration Classroom
- 1 Chemistry Storage-Preparation Room

- 3 Integrated Science Laboratories
- 3 Integrated Science Demonstration Classrms
- 3 Integrated Science Storage-Preparation Rms.

- 2 Biology Laboratories
- 2 Biology Demonstration Classrooms
- 2 Biology Storage-Preparation Rooms

- 1 Hazardous Chemical Storage Rooms
- 1 Department Head Office
- 1 Teacher Planning/Material Storage Room
- 2 Staff Toilet Rooms

II. PROGRAM FURNITURE AND EQUIPMENT

Refer to the Furniture and Equipment List for Owner-provided furniture and equipment.

III. SPECIAL CONSIDERATIONS

1. Heating/Ventilation/Air Conditioning

Provide an emergency exhaust fan, centrally located, in each Laboratory and Storage-Preparation Room, with the exception of the Physics/Earth Science Storage-Preparation Room. To prevent overuse, provide a 10-minute timer on each fan. Demonstration Classrooms do not require emergency exhaust fans.

The air from all Storage-Preparation Rooms and the Hazardous Chemical Storage Room is to be exhausted, not returned into the return air system. The air from all Laboratories and Demonstration Classrooms is to be returned.

2. Acoustical

Standard, refer to the General Design Requirements section.

3. Floor

Provide ceramic tile in the emergency shower area in the Laboratory.
Provide standard flooring elsewhere, in accordance with the General Design Requirements section.

4. Walls

Provide one-hour fire-rated walls at the Hazardous Chemical Storage Room.

5. Ceiling

Standard, refer to the General Design Requirements section.

6. Lighting

Standard, refer to the General Design Requirements section.

7. Windows

Standard, refer to the General Design Requirements section.

8. Doors

Standard, refer to the General Design Requirements section.

9. Water

Laboratories (each)

Provide one (1) pull-cord emergency shower with eyewash, in accordance with SDHC standards.
Provide one (1) epoxy resin sink with cold water in the teacher demonstration table, in accordance with SDHC standards.

Provide one (1) molded fiberglass rinse-counter unit with cold water, located near the door into the Storage-Preparation Room, in accordance with SDHC standards.

Provide one (1) epoxy resin sink with cold water at each of the student laboratory tables, as described elsewhere in this section.

Provide one (1) epoxy resin sink with cold water and under-counter acid dilution bottles in each fume hood, as described elsewhere in this section, in accordance with SDHC standards.

Demonstration Classrooms (each)

Provide one (1) countertop-mounted epoxy resin sink with cold water.

Provide one (1) epoxy resin sink with cold water in the teacher demonstration table, in accordance with SDHC standards.

9. Water (continued)Storage-Preparation Rooms (each)

Provide one (1) molded fiberglass rinse-counter unit with hot and cold water, in accordance with SDHC standards. Provide a garbage disposal at the rinse-counter unit in the Biology Storage-Preparation Rooms only. Provide under-counter acid dilution bottles at the sinks in the Chemistry and Physical Science Storage-Preparation Rooms, in accordance with SDHC standards.

Staff Toilet Rooms (each)

Provide one (1) toilet and one (1) wall-mounted lavatory with cold water.

10. Communications

Provide a clock, speaker, and intercom handset in each Laboratory and Demonstration Classroom, and in the Teacher Planning/Material Storage Room.

Provide a clock and speaker (no intercom handset) in each Storage-Preparation Room and in the Department Head Office, in accordance with the General Design Requirements section and SDHC standards.

Provide a data outlet with adjacent power outlet in each Laboratory, Demonstration Classroom and in the Teacher Planning/Material Storage Room and Department Head Office, in accordance with the General Design Requirements section and SDHC standards.

Provide a duplex data outlet with adjacent power outlet in each Storage-Preparation Room, in accordance with SDHC standards.

Provide a TV bracket with DVD/VCR bracket, CCTV jack, and adjacent power outlet in each Laboratory and Demonstration Classroom, in accordance with SDHC standards.

Provide conduit and cabling through the roof for an Owner-provided weather station and satellite receiver dish, to terminate in a recessed box above the countertop in the Earth Science Demonstration Classroom.

11. ElectricalLaboratories (each)

Provide three (3) duplex outlets above the countertop.

Provide one (1) quadraplex outlet at the teacher demonstration table.

Provide two (2) duplex outlets at each student laboratory table, as described elsewhere in this section.

Provide one (1) duplex outlet in each fume hood, as described elsewhere in this section.

In addition to the above, provide eight duplex outlets above the perimeter countertop in the Physics Laboratory. Each will serve one (1) Owner-provided student laboratory table, as described elsewhere in this section.

Demonstration Classrooms (each)

Provide three (3) duplex outlets above the countertop.

Provide one (1) quadraplex outlet at the teacher demonstration table.

Storage-Preparation Rooms (each)

In addition to the standard outlets, provide two (2) duplex outlets above each countertop.

12. Gas and Air

Provide one (1) double-prong gas jet at the teacher demonstration table in each Laboratory and Demonstration Classroom.

Provide one (1) double-prong gas jet at each student laboratory table, as described elsewhere in this section, in each Laboratory.

Provide one (1) double-prong gas jet above the countertop in each Storage-Preparation Room.

13. Safety

Provide a fire blanket and a fire extinguisher in a recessed cabinet in each Laboratory, Demonstration Classroom and Storage-Preparation Room.

Emergency shut-down devices for gas, water, and receptacles, where required, are to be located so as to be easily accessible to the teacher and must not shut down safety equipment or lighting. Provide a keyed reset mounted adjacent to each electrical shut-down device.

Provide a fire alarm pull station in each Laboratory.

14. Fencing

Not applicable

15. Service Drives

Not applicable

16. Parking

Not applicable

17. Contractor-Provided Equipment and Casework

Chemistry and Physical Science Laboratories (each)

Provide one (1) rinse-counter unit, in accordance with SDHC standards.

Provide twelve (12) linear feet of lockable base and wall cabinets, keyed alike, located adjacent to the rinse-counter unit, to include one (1) bank of lockable graduated drawers, countertop to be 36" above the floor. These base cabinets are to be provided with an epoxy resin countertop.

Provide eight (8) student laboratory tables with sinks, in accordance with SDHC standards.

Provide one (1) teacher demonstration table, to contain the sink and a lockable base cabinet below, in accordance with SDHC standards.

Provide one (1) goggles sanitizing cabinet with goggles, in accordance with SDHC standards.

Provide one (1) built-in double-sided chemical fume hood with a lockable acid storage cabinet in the base section, located in the wall between the Laboratory and the associated Storage-Preparation Room, in accordance with SDHC standards.

17. Contractor-Provided Equipment and Casework (continued)**Biology Laboratories (each)**

Provide one (1) rinse-counter unit, see SDHC standards.

Provide twelve (12) linear feet of lockable base and wall cabinets, keyed alike, located adjacent to the rinse-counter unit, to include one (1) bank of lockable graduated drawers, countertop to be 36" above the floor. These base cabinets are to be provided with an epoxy resin countertop.

Provide eight (8) student laboratory tables with sinks, in accordance with SDHC standards.

Provide one (1) teacher demonstration table, to contain the sink and a base cabinet below, in accordance with SDHC standards.

Provide one (1) goggles sanitizing cabinet with goggles, in accordance with SDHC standards.

Physics Laboratory

Provide one (1) rinse-counter unit, in accordance with SDHC standards.

Provide twelve (12) linear feet of lockable base and wall cabinets, keyed alike, located adjacent to the rinse-counter unit, to include one (1) bank of lockable graduated drawers, countertop to be 36" above the floor. These base cabinets are to be provided with an epoxy resin countertop.

Provide perimeter lockable base and wall cabinets to include four (4) sinks spaced equally between the Owner-provided student tables, countertop to be 36" above the floor. These base cabinets are to be provided with an epoxy resin countertop. The rectangular Owner-provided tables will abut the base cabinets and project out into the Laboratory.

Provide one (1) teacher demonstration table, to contain the sink and a base cabinet below, in accordance with SDHC standards.

Provide one (1) goggles sanitizing cabinet with goggles, in accordance with SDHC standards.

Demonstration Classrooms (each)

Provide one (1) teacher demonstration table, to contain the sink and a base cabinet below, in accordance with SDHC standards.

Provide twelve (12) linear feet of lockable base and wall cabinets, keyed alike, to include the sink and one (1) bank of lockable graduated drawers, located close to the Storage-Preparation Room door. These base cabinets are to be provided with an epoxy resin countertop.

Storage-Preparation Rooms (each)

Provide one (1) rinse-counter unit, in accordance with SDHC standards.

Provide six (6) linear feet of lockable base and wall cabinets, keyed alike, located adjacent to the rinse-counter unit, to include one (1) bank of lockable graduated drawers, countertop to be 36" above the floor. These base cabinets are to be provided with an epoxy resin countertop.

Provide plastic laminate finished shelving units with 1/2" lips, as much as practicable, units to be 36" wide x 18" deep x 84" high with five (5) adjustable shelves. Shelf support clips are to be non-corrosive.

Provide two (2) lockable tote tray storage cabinets, 24" wide x 24" deep x 84" high, with twelve (12) fixed shelves and center divider, complete with tote trays. Tote trays are to be 10 1/2" wide x 19" long x 3 1/2" high, molded plastic.

Provide one (1) glassware drying rack, mounted above the drain board for the rinse-counter unit, in accordance with SDHC standards.

17. Contractor-Provided Equipment and Casework (continued)

In addition to the above, provide the following:

Physics/Earth Science Storage-Preparation Room

Provide nine (9) linear feet of lockable base cabinets, keyed alike, 30" deep, for use as a workbench, countertop to be 36" above the floor. These base cabinets are to be provided with an epoxy resin countertop.

Chemistry Storage-Preparation Room

Provide one (1) dishwasher (heavy duty).

Biology Storage-Preparation Room (each)

Provide two (2) lockable storage cabinets, 36" wide x 24" deep x 84" high, no shelving. Provide one (1) refrigerator/freezer (14 cu. ft.) without icemaker. Provide one (1) garbage disposal.

Hazardous Chemical Storage Room

Provide plastic laminate finished shelving units with 1/2" lips, as much as practicable, units to be 36" wide x 18" deep x 84" high with five (5) adjustable shelves. Shelf support clips are to be non-corrosive.

Provide one (1) flammable storage cabinet, in accordance with SDHC standards.

18. Contractor-Provided Instructional Aids

Laboratories and Demonstration Classrooms (each)

Provide a 12' wide x 4' high regular markerboard with a 4' wide x 4' high grid markerboard on one (1) side (grid to be 2" x 2") and a 4' wide x 4' high tackboard on the other side, bottom to be mounted 36" above the floor.

Provide an 8' wide x 4' high regular markerboard on an adjacent wall, bottom to be mounted 36" above the floor.

Provide a wall-mounted audio-visual projection screen, approximately 70" x 70", centered over the markerboard.

Teacher Planning/Material Storage Room

Provide a 4' wide x 4' high markerboard and 4' wide x 4' high tackboard, bottom to be mounted 36" above the floor.

19. **Other Considerations**

Not applicable

SPACE RELATIONSHIPS

