

AGRICULTURAL MECHANICS

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 Laboratory
- 1 Related Classroom
- 1 Flammable Storage Room
- 1 Machinery Storage Area
- 1 Tool Storage Room
- 1 Greenhouse
- 1 Shadehouse
- 1 Land Laboratory
- 1 Teacher Planning/Material Storage Rm.

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 exhaust fan in the Flammable Storage Room.

Provide a hooded-type exhaust system for the welding stations in the Laboratory.

Provide a thermostat controlled exhaust system in the Greenhouse consisting of two (2) fans on one end wall and an operable shutter on the opposite end wall.

Provide a thermostat controlled tank heater with LP gas tank and electronic ignition in the Greenhouse.

2. Acoustical

Standard, refer to the General Design Requirements section.

3. Floor

Provide sealed concrete in the Laboratory, Flammable Storage Room, Machinery Storage Area, and Tool Storage Room.

Provide a concrete center aisle and three concrete lateral aisles in the Greenhouse and in the Shadehouse.

Provide standard flooring elsewhere, in accordance with the General Design Requirements section.

4. Walls

Provide poly-carbonate covering on the entire Greenhouse structure with the exception of the roll-up side curtains, which are to be manually-operated.

Provide polypropylene screen on the entire Shadehouse, in accordance with SDHC standards.

Provide standard walls elsewhere, in accordance with the General Design Requirements section.

5. Ceiling

Provide painted exposed structure, minimum 12' high, in the Laboratory.
Provide painted exposed structure in all Storage Rooms.

6. Lighting

Standard, refer to the General Design Requirements section.
Provide lighting in the Greenhouse and in the Shadehouse.

7. Windows

Provide windows, sill height above six (6) feet, in the Laboratory.

8. Doors

Provide an exterior double door into the Laboratory.
Provide an overhead roll-up door, 12' wide x 8' high (manually operated), between the Laboratory and the Machinery Storage Area.
Provide a half-glass door from the Teacher Planning/Material Storage Room into the Laboratory.

9. Water

Related Classroom

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

Laboratory

Provide one (1) semi-circular wash station with three (3) faucets.
Provide one (1) pull-cord emergency shower with eyewash, in accordance with SDHC standards.

Machinery Storage Area

Provide one (1) hose bibb and floor drains, number as required.

Land Laboratory

Provide two (2) hose bibbs.
Provide #30 agricultural type sprinkler heads spaced on a 50' x 50' grid and mounted on 36" high risers.

Greenhouse and Shadehouse (each)

Provide one (1) exterior hose bibb and one (1) interior hose bibb, located near the door.
Provide two (2) 1" PVC stub-outs with 1" gate valves for connection to future owner-provided irrigation system. One is to be located near the door on the interior wall, and the other is to be located on a side wall, approximately two feet from the back wall.

10. Communications

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

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

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

11. Electrical

Laboratory

Provide sufficient amperage to accommodate 220V welding equipment.

Provide a master disconnect switch to shut down all receptacles, located on the teaching wall.

Provide three (3) duplex outlets on each wall.

Provide six (6) ceiling-mounted, drop cord-type outlets, (not the retractable type), located as directed.

Machinery Storage Area

Provide one (1) welding outlet.

Provide one (1) 220V outlet and two (2) 110V duplex outlets.

Greenhouse and Shadehouse (each)

Provide two (2) duplex weatherproof outlets.

Related Classroom

Provide one (1) duplex outlet in the teacher demonstration table.

12. Gas and Air

Not applicable

13. Safety

Standard, refer to the General Design Requirements section.

14. Fencing

Provide a 6' high chain link fence around the entire Land Laboratory with two 10' wide swinging gates, located as directed.

Provide a 6' high chain link fence around the Machinery Storage Area with a 12' wide rolling gate.

15. Service Drives

Provide access to a service drive from the Machinery Storage Area.

16. Parking

Not applicable

17. Contractor-Provided Equipment and Casework

Laboratory

Provide twenty (20) lockers, 12" wide x 15" deep x 30" high, supported on a 4" high concrete pedestal with a vinyl base, located near the entry door.

Provide four (4) welding booths, in accordance with SDHC standards.

Tool Storage Room

Provide an 8' wide x 4' high peg board, bottom to be mounted 36" above the floor.

Related Classroom

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

Provide one (1) teacher demonstration table, in accordance with SDHC standards.

18. Contractor-Provided Instructional Aids

Laboratory and Related Classroom (each)

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

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

19. Other Considerations

The Machinery Storage Area is to be a covered patio-type area, enclosed with walls on three (3) sides and covered by a roof. On the open side, provide the fencing and gate as previously noted.

Provide a three-sided, 2-compartment mulch bin, approximately 6' wide x 30' long x 4' high, located near the Greenhouse.

An Animal Shelter of approximately 1000 sq. ft. may be provided by the Owner.

Consideration should be given to its location during the planning phase.

SPACE RELATIONSHIPS

