

# ***AUTOMOTIVE SERVICE TECHNOLOGY***

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 Material Storage Room
- 1 Tool Storage Room
- 1 Flammable Storage Room
- 1 Project Storage Room
- 1 Related Classroom
- 1 Teacher Planning Area
- 1 Exterior Covered Parking/Work Area

## **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 system in the Laboratory, capable of removing fumes generated by test engines and vehicles.

### **2. Acoustical**

Standard, in accordance with the General Design Requirements section.

### **3. Floor**

Provide sealed concrete in the Laboratory and Storage Rooms. The Laboratory floor should be adequately sloped to the floor drains.

Provide painted non-skid zone boundary lines around all Owner-provided equipment.

### **4. Walls**

Provide a high gloss glazed wall coating in the Laboratory.

Provide wire mesh partitions (all metal construction) to fully enclose the Material Storage Room, Tool Storage Room, and Project Storage Room.

### **5. Ceiling**

Provide a 16' high ceiling in the Laboratory.

Provide a 10' high ceiling in the Storage Rooms.

### **6. Lighting**

Standard, in accordance with the General Design Requirements section.

**7. Windows**

Provide windows in the Laboratory, sill height to be minimum 5' above the floor.  
Provide a half-glass door from the Teacher Planning Area into the Laboratory.  
Provide an observation window, 3' wide x 4' high, from the Teacher Planning Area into the Related Classroom, sill height to be 36" above the floor.  
Provide an observation window, 12' wide x 4' high, from the Related Classroom into the Laboratory, sill height to be 36" above the floor.

**8. Doors**

In addition to a standard single door, provide an overhead roll-up door, 12' wide x 10' high (manually operated), from each service bay (number as required) to the Exterior Parking/Work Area.  
Provide a wire dutch-type door from the Laboratory into the Tool Storage Room.  
Provide 4' wide wire mesh doors from the Laboratory into the Material Storage Room, and from the Laboratory into the Project Storage Room.  
Provide 4' wide wire mesh doors from the Material Storage Room into the Tool Storage Room, and from the Project Storage Room into the Tool Storage Room.

**9. Water**

Provide one (1) wall mounted sink with cold water in the 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.  
Provide an electric water cooler in the general vicinity of the Laboratory.  
Provide one (1) hose bibb and floor drains, number as required, in the Laboratory.

**10. Communications**

Provide a clock, speaker and intercom handset in the Laboratory and Related Classroom.  
Provide a clock and speaker (no call-in handset) in the Teacher Planning Area.  
Provide a data outlet with adjacent power outlet in the Laboratory, Related Classroom, and Teacher Planning Area, 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 a duplex outlet at each Owner-provided student workbench and/or student workstation. Provide power poles if required, located as directed.  
Provide convenience outlets 10'-0" apart on three (3) walls.  
Provide pedestal-type floor outlets as required to serve freestanding power tools and equipment. Flush-type floor outlets are not to be provided at these locations.  
Provide two (2) master disconnect switches to shut down all receptacles, located so as to be easily accessible to the teacher. Provide a keyed reset mounted adjacent to each master disconnect switch.  
Provide 120v, 20amp outlets, number as required, at each service bay.  
Provide two (2) 240v outlets for general use, located as directed.

**12. Gas and Air**

Provide one (1) compressed air outlet on each wall of the Laboratory, 120 psi, 10cfm, with one pressure regulator and dryer for each outlet.

**13. Safety**

Standard, in accordance with the General Design Requirements section.

**14. Fencing**

Provide a 6' high chain link fence to enclose the Exterior Parking/Work Area with a 12' wide rolling gate.

**15. Service Drives**

Provide a driveway from the main parking lot to the Exterior Parking/Work Area. Provide convenient access from the driveway to the overhead roll-up door to facilitate delivery of materials.

**16. Parking**

Provide an Exterior Parking/Work Area for twelve (12) cars adjacent to the Laboratory.

**17. Contractor-Provided Equipment and Casework**

Laboratory

Provide one (1) glasses/goggles sanitizing cabinet with 20 safety glasses and 10 goggles, in accordance with SDHC standards.

Provide three (3) 9000 lb capacity, clear floor, asymmetric, full-height, above-ground vehicle lifts. The services necessary to make the lifts fully functional are to be provided (electrical, compressed air, etc.). Due to clearance requirements, vehicle lifts are not to be installed in adjacent service bays, but may be installed end-to-end within the same service bay (see paragraph 19, Other Considerations).

Provide one (1) 4-wheel alignment rack and diagnostic/metrology module. The services necessary to make the rack and module fully functional are to be provided (electrical, compressed air, etc.).

Tool Storage Room

Provide a pegboard, 20' long x 5' high, bottom to be mounted 36" above the floor. The pegboard is to be mounted so as to provide a minimum of 1/2" clearance between the back of the pegboard and the wall.

**18. Contractor-Provided Instructional Aids**

Laboratory

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 Laboratory should be designed, if possible, so as to be a drive-through facility. This is essential if the service bays are configured such that two vehicles can be serviced end-to-end.

In the Laboratory the Owner will provide student workbenches and may provide student workstations (ie computer). The quantity, type of workbenches and workstations and the configuration will vary depending on the program and the design of the space.

In the Laboratory the work areas must be properly laid out to allow normal sequence of operations with a minimum of cross traffic. Provide adequate clearances between Owner-provided machines to avoid interference between operators and to allow free flow of traffic and materials.

# SPACE RELATIONSHIPS

