HIGH SCHOOL INDUSTRIAL WELDING TECHNOLOGIES EDUCATION LABORATORY

New Construction

I. PROGRAM PHILOSOPHY

The philosophy of Industrial Welding Technologies is to provide students the opportunity to learn about welding as an occupation and as a possible career choice. New technologies require well-educated workers to carry out both standardized and specialized procedures, and whose educational foundation has given them the capacity to keep pace with the increasing Industrial Welding Technology demands.

Welding Technology education addresses the needs of students considering a technical career choice. This special program is designed to provide education that is realistic in making informed career choices and learning the fundamentals within the scope of the Welding Technologies career choice.

II. PROGRAM GOALS

The Welding Technology world as we know it is changing, and students must be prepared with the skills to meet those changes. Industrial welding technology can be used to improve the teaching and learning process as well as provide students with the skills needed for our changing world.

III. PROGRAM ACTIVITIES

Industrial Welding Technology education involves:

Level one career exploration and investigation in one or more career paths. This activity culminates in some level of career decision making.

Level two team building and basic life-skill training. This will include scans competencies and related behaviors considered applicable to the students chosen career field.

Level three basic technical skills training. Skills identified by Industrial welding technology's industry as being the entry-level skills necessary for getting and holding a job will be taught.

IV. ORGANIZATIONAL NOMENCLATURE

Teacher - Student Ratio:	1:25
Student Capacity per Period:	25
Total Number of Teachers:	
Total Number of Aides:	NA (If applicable)
Grade Levels or Age Levels for Which Program is intended:	9 - 12 and Adults
Hours per Day Space Will Be Used:	6 - 10

V. INNOVATIONS, EXPERIMENTAL IDEAS, OTHER PLANNED USES

NA

VI. SQUARE FOOTAGE CHANGES EXPLANATION THAT VARIES FROM APPROVED FACILITIES LIST

NA

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VIII. PROGRAM FURNITURE AND EQUIPMENT REQUEST FORM
*Shown on drawing
purchased and installed by contractor

Space or Area	Number of Items	Description of Furniture/Equipment Needed
INDUSTRIAL WELDING TECHNOLOGIES EDUCATION LABORATORY		
	*14	Welding Booths with fire retardant curtains and Fume Arm attachment with a bracket mount
	*24	Personal protection, to include • Body • Feet • Hands • Ears • Eyes, face and head • Eye goggles cabinets
	*1	Large hand washing sink for three persons
	*1	Emergency eye wash and shower with drain
	1	Electric Pencil Sharpener
	1	Teacher's desk
	1	Computer (Teacher)
	1	Teacher Chair
	*1	Air Compressor 5 Horse Power, Vertical 80 Gallon, 220 Volts – single phase with outdoor package with solid state automatic drain valve
INDUSTRIAL WELDING TECHNOLOGIES, CLASSROOM FOR RELATED INSTRUCTION		
	*1	Teacher's Lectern or Desk
	*20	Student Desks
	1	Electric Pencil Sharpener
	1	Computer (Teacher)
	1	Teacher Chair
	*1	Interactive projector
	1	Four-Drawer File Cabinet, Lockable
	*1	Printer

IX. SPECIAL CONSIDERATIONS

IX. SPECIAL CONSIDERATIONS (continued)

- Floor

  Sealed concrete should be provided in industrial welding laboratory.

- Ceiling

  No ceiling in Industrial Welding Technologies – paint exposed structure.

IX. SPECIAL CONSIDERATIONS (continued)

- Plumbing

  All drinking fountains inside buildings shall be electric water-coolers

- Gas and Air

  Provide compressed air at each welding booth, grinding area and material storage.

- Service Drives

  Provide paved roadway for material deliveries to rollup door of Industrial Welding Technologies Lab.

- Built-in Cabinetry

  A. Case work will be identified during design

  B. Built-in Instructional Aids

  Related Classroom
  One 4 ft. x 16 ft. magnetic white markerboard, one 4 ft. x 4 ft. tackboard. Standard markerboard to have eraser tray, flag holder and demountable map railing. Install an interactive projector in the center of the markerboards.

  Provide wheeled cabinet with doors for sound enhancement equipment and amplifier. Cabinet and equipment shall be located at, or adjacent to, the major teaching wall with tethered wiring harnesses. Equipment purchased with Furniture, Fixtures, Equipment & Technology (FFE&T) funds.

  The back of the cabinet must allow connections of white speaker wire for the four speakers used with sound enhancement equipment, a network connection, connection to interactive projector and power.

  16 Linear Feet of Tackboard