

**DIVISION 13 – SPECIAL CONSTRUCTION**  
**13 20 00 SPECIAL PURPOSE ROOMS**  
**13 20 81 MAINTENANCE MECHANIC ROOMS**

**PART 1 - GENERAL**

1.01 SCOPE

- A. In major buildings (25,000 square feet or larger), provide a Building Engineer Shop and Service Area (Maintenance Mechanic Room). The service area shall contain clear and efficient access, work benches, peg boards, shelving, compressed air, electrical power, parts bins, locking tool and parts storage, service sink, and adequate ladder storage.

1.02 GENERAL DESIGN CRITERIA

- A. Floor Area: Standard shop area shall be 240 square feet, located adjacent to or very near the building Mechanical Room.
- B. Shops located adjacent to Mechanical Rooms shall include at least two means of egress: a connecting door with the Mechanical Room and an additional door opening into a common area for emergency egress.
- C. Shop access shall facilitate moving equipment in and out without difficulty. Do not place shop on a floor which is not serviced by an elevator.
- D. Consider the handling radius of long ladders in Building Engineer Shop design and location. Do not place doors around tight corners or narrow corridors where maneuvering a ladder in and out of storage will be difficult or damage adjacent walls.
- E. No utility panels shall be located within the Building Engineer Shop.

1.03 DESIGN CRITERIA

- A. Furnishings and specialties required:
  - 1. Door width: 42 inches, out-swinging
  - 2. Lighting: LED or Fluorescent
  - 3. Electrical: Provide 110V electrical power by way of a GFCI-protected plug strip above work benches. Provide outlets spaced at 8 feet on center around the room. Provide 220V power to at least one outlet at the main work bench.
  - 4. Plumbing: Provide one large laundry-style sink with hot and cold water connections for hand-washing and cleaning mechanical equipment. Provide a floor drain at the lowest point of the floor (preferably in the

**DIVISION 13 – SPECIAL CONSTRUCTION**  
**13 20 00 SPECIAL PURPOSE ROOMS**  
**13 20 81 MAINTENANCE MECHANIC ROOMS**

center of the room). Floors shall be sloped to ensure all spills and runoff flow to floor drains.

5. Ventilation: Mechanical exhaust with 12 air changes/hour
  6. Shelving: 110 lineal feet of two-foot deep steel rack shelving on one wall
  7. Two work benches: one at least eight feet long, the second at least six feet long
  8. Two personal lockers with locking capabilities
  9. Provide one lockable metal cabinet for tool and material storage. Dimensions: 6 feet tall x 30 inches wide x 36 inches deep.
  10. Provide space for a desk and chair with adjacent telecommunications outlet and 110V power.
  11. Make provision for one air compressor (minimum of one 1/3 horsepower), with air line plumbed to the primary work bench. Provide on/off switch and air hose valve and coupling at the bench.
    - i. The WSU Project Manager will provide guidance whether the air compressor shall be Contractor-furnished or Owner-furnished. In some cases, WSU Facilities Services will supply the air compressor.
  12. Provide a ladder storage rack designed to accommodate a ladder tall enough to reach the tallest above-ceiling space in the new or remodeled facility.
- B. Finishes:
1. Floor finish shall be sealed concrete.
  2. Wall finishes shall be concrete block. To enhance lighting, ceiling and walls shall be painted white. Paint shall conform to section 09 90 00 Paints and Coatings.
    - i. Where building design will not accommodate concrete block, finish shall be of a durable, impact-resistant, easily cleaned and maintained finish.
    - ii. Walls shall be insulated for sound deadening.

**DIVISION 13 – SPECIAL CONSTRUCTION**  
**13 20 00 SPECIAL PURPOSE ROOMS**  
**13 20 81 MAINTENANCE MECHANIC ROOMS**

**PART 2 - PRODUCTS (NOT USED)**

**PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**