

## SECTION 10500 - METAL LOCKERS

### City of San Diego, CWP Guidelines

#### PART 1 -- GENERAL

##### 1.1 WORK OF THIS SECTION

- A. The WORK of this Section includes providing steel lockers, locker room benches, and all appurtenant work.

##### 1.2 RELATED SECTIONS

- A. The WORK of the following Sections applies to the WORK of this Section. Other Sections of the Specifications, not referenced below, shall also apply to the extent required for proper performance of this WORK.
  - 1. Section 03300 Cast-in-Place Structural Concrete
  - 2. Section 08710 Finish Hardware

##### 1.3 CODES

A. The WORK of this Section shall comply with the current editions of the following codes as adopted by the City of San Diego Municipal Code:

- 1. Uniform Building Code

##### 1.4 SHOP DRAWINGS AND SAMPLES

- A. The following shall be submitted in compliance with Section 01300:
  - 1. Manufacturer's catalogues containing technical data and installation instructions, shop drawings, and colors available.
  - 2. Samples of all the materials, finishes, and colors proposed for use on the WORK. The samples shall be clearly marked to show the manufacturer's name and product identification. Color samples shall be submitted on squares of the same metal to be used for fabrication of the lockers.
  - 3. Shop drawings for metal lockers and benches, verifying all dimensions affecting the installation. Lockers and benches shall be shown in detail, including method of installation, required fillers, trim, and accessories. Locker numbering sequence information shall be provided if indicated.

##### 1.5 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. **Delivery of Materials:** Products shall be delivered in original, unbroken packages, containers, or bundles bearing the name of the manufacturer.
- B. **Storage:** Products shall be carefully stored in a manner that will prevent damage and in an area that is protected from the elements.

- C. Metal lockers and benches shall not be delivered until the building is enclosed and ready for locker installation.
- D. Metal locker and bench finishes, as well as adjacent surfaces and materials, shall be protected from damage or marring during installation.

## **PART 2 -- PRODUCTS**

### **2.1 MATERIALS, GENERAL**

- A. **Sheet Steel:** Steel shall be mild cold-rolled and leveled, free from buckle, scale, and surface imperfections.
- B. **Expanded Metal:** Mesh shall be flattened carbon steel, 13-gauge minimum.
- C. **Fasteners:** Fasteners shall be cadmium, zinc, or nickel plated steel; exposed bolt heads shall be slotless type; self-locking nuts or lock washers shall be provided for nuts on moving parts.
- D. **Equipment:** Hooks and hang rods shall be of cadmium-plated or zinc-plated steel or cast aluminum.

### **2.2 FABRICATION, GENERAL**

- A. **Construction:** Lockers shall be fabricated square, rigid, and without warp, with metal faces flat and free of dents or distortion. All exposed metal edges shall be made safe to touch. Frame members shall be welded together to form a rigid, one-piece structure. Other joints and connections shall be welded, bolted, or riveted as standard with the manufacturer. All exposed welds shall be ground flush. Bolts or rivet heads shall not be exposed on fronts of locker doors or frames.
- B. Frames shall be fabricated of 16-gauge channels or 12-gauge angles minimum, with continuous stop/strike formed on vertical members.
- C. Lockers, steel parts, and accessories shall be thoroughly cleaned, given a bonding and rust inhibitive phosphate treatment, and coated with a heavy coat of epoxy resin or synthetic enamel. Enamel shall be baked-on to a hard durable finish of not less than one mil minimum dry thickness. Doors, frames, panel tops, and ends shall receive the same finish at a total minimum dry enamel thickness of 1.5 mils.
- D. Color of lockers and benches shall be as selected by the CONSTRUCTION MANAGER from manufacturer's [standard] [custom] [decorator] colors. Unless otherwise indicated, concealed parts may be manufacturer's standard neutral color.

### **2.3 FABRICATION, WARDROBE LOCKERS**

- A. **Body:** Back and sides shall be fabricated of minimum 24-gauge steel, with double flanged connections extending full height. Top and bottom shall be formed of not less than 24-gauge steel, with flanged edges.
  - 1. A 24-gauge sheet steel hat shelf shall be provided in single-tier units.

2. Exposed ends of non-recessed lockers shall be formed of minimum 16-gauge steel.
- B. **Door:** Door shall be one-piece, minimum 16-gauge sheet steel, flanged at all edges and constructed to prevent springing when opening or closing.
1. Reinforcing: Extra bracing or reinforcing shall be provided on insides of doors over 15 inches wide.
  2. Ventilation: Stamped, louvered vents shall be provided in door face as follows:
    - a. Single-tier lockers shall have not less than 6 louver openings top and bottom.
    - b. Double-tier lockers shall have not less than 3 louver openings top and bottom.
    - c. Multi-tier lockers shall have not less than 2 louver openings top and bottom.
  3. Hinges: Hinges shall be heavy-duty, not less than 0.050-inch thick steel, full-loop, 5-knuckle, tight pin, 2 inches high. Weld to inside of frame and secure to door with not less than two factory installed fasteners which are completely concealed and tamper-proof when door is closed.

At least three hinges shall be provided for each door over 42 inches high and at least two hinges shall be provided for each door 42 inches high or less.

- C. **Projecting Handle and Latch:** Latch and pull handle shall be positive, automatic, prelocking and pry-resistant, with rubber silencers; chromium-plated, heavy duty, vandalproof lift-up handle, containing strike and eye for padlock; and with latching action as follows:
1. Single-tier lockers shall have not less than three-point latching.
  2. Double-tier lockers shall have not less than two-point latching.
  3. Multi-tier lockers shall have not less than one-point gravity or spring latch with padlock lugs.

## 2.4 FABRICATION, BOOT LOCKERS

- A. **Body:** Top and bottom shall be fabricated of not less than 16-gauge steel sheet. Back shall not be less than 18-gauge steel sheet. Sides and intermediate partitions shall be constructed of expanded metal welded to steel hemming.
- B. **Door:** Door shall be manufacturer's standard of either expanded metal in a steel frame or perforated steel sheet with flanged edges, not less than 14-gauge for single-tier and double-tier, and 16-gauge for multi-tier units.
1. Reinforcing: Extra bracing or reinforcing shall be provided on insides of doors over 15 inches wide.
  2. Hinges shall be heavy-duty, not less than 0.050-inch thick steel, full-loop, 5-knuckle, tight pin, 2 inches high. Hinges shall be welded to inside of frame and secured to door with not less than two factory-installed fasteners which are completely concealed and tamper-proof when door is closed.

- a. At least three hinges shall be provided for each door over 42 inches high, at least two hinges for each door 42 inches high or less, or a continuous piano hinge shall be provided at tops of doors on multi-tier units.
- C. **Latching:** Latching mechanism shall be one-point type with lock clip for locking with padlock and built-in key lock.

## 2.5 LOCKER ACCESSORIES

- A. **Locking:** Lockers shall be fabricated to receive the following locking devices:
  - 1. Key Lock: Lock shall be 5-pin tumbler type with grooved-key flush lock, keyed separately and master keyed. [Two] keys shall be furnished for each lock and [5] master keys shall be furnished for each locker group in the installation. Type of bolt operation shall be dead-bolt action or spring-bolt action.
- B. **Equipment:** Each locker shall be furnished with the following items unless otherwise indicated:
  - 1. Single-tier units shall be provided with hat shelf, one double-prong hook, and not less than 2 single-prong wall hooks.
  - 2. Double-tier units shall be provided with one double-prong hook and not less than 2 single-prong wall hooks.
  - 3. Lockers 18 inches deep shall be provided with hang rod in lieu of hook.
- C. **Number Plates:** Number plates shall be manufacturer's standard etched, embossed or stamped, non-ferrous metal number plates with numerals not less than 3/8-inch high. Lockers shall be numbered in sequence as directed by CONSTRUCTION MANAGER. Number plates shall be attached to face of each locker door, near the top, centered, with at least two fasteners of the same finish as the number plate.
- D. **Legs:** Nominal 6-inch legs shall be provided by extending the vertical frame members or by attaching gusset type members made of not less than 16-gauge steel sheet. Legs shall have provisions for fastening to the floor.
- E. **Continuous Sloping Tops:** Tops shall be fabricated of not less than 20-gauge sheet steel, approximately 25 degree pitch, in lengths as long as practicable but not less than four lockers. Closures shall be provided at ends and inside and outside corners as may be required for a monolithic sloped top treatment. Sloped tops shall be finished to match lockers.
- F. **Separators:** Horizontal dividers of not less than 16-gauge sheet steel shall be provided between doors of multiple-tier lockers, to ensure rigidity. Perforated separators shall be provided for boot lockers.
- G. **Filler Panels:** Filler panels shall be provided where indicated or required for a complete installation. Panels shall be fabricated of not less than 18-gauge steel sheet, factory-fabricated and finished to match locker units.
- H. Door holds (chain and spring type restrainer) shall be provided on end-of-line doors.

## 2.6 LOCKER UNITS

### A. Locker units shall conform to the following requirements:

1. Wardrobe lockers shall consist of [ ] one-person, single tier lockers, 15 inches by 18 inches by 72 inches high [with 6-inch legs] [for mounting on concrete curb], securely tied in [a bank] [banks of [ ]] as indicated; provided complete with sloping tops, number plates, and built-in master flat keyed type locks, and pad lockable handles.
2. Wardrobe lockers shall consist of [ ] 2-person lockers, 15 inches by 18 inches by 72 inches high [mounted on concrete curb] [with 6-inch high legs,] securely tied in [a bank] [banks of [ ]] as indicated; provided complete with sloping tops, number plates, and built-in master, flat-keyed type locks, and pad lockable handles.
3. Wardrobe lockers shall consist of [ ] 2-person double tier lockers, 15 inches by 18 inches by 72 inches high (two 36-inch units) [mounted on concrete curb] [with 6-inch high legs] securely tied in [a bank] [banks of [ ]] as indicated; provided complete with sloping tops, number plates, and built-in master flat keyed type locks and pad lockable handles.
4. Boot lockers shall consist of [ ] multiple tier expanded metal (vented) lockers [mounted on concrete curb] [with 6-inch high legs], securely tied in [a bank] [banks of [ ]], as indicated. The lockers shall be 4-tier high lockers with 12-inch wide by 18-inch deep by 15-inch high compartments and shall be provided complete with sloping tops, number plates, and built-in master, flat-keyed locks and pad lockable handles.

## 2.7 LOCKER ROOM BENCHES

- ### A. Locker room benches shall consist of prefinished 1-1/4-inch minimum thick by [ ] long by 9-1/2-inch wide, laminated hardwood bench top and approximately 18-inch high enameled steel tube pedestals not more than 6'-0" on centers, with top and floor connections and fastenings. Apply manufacturer's standard clear coating to bench tops and baked enamel finish to pedestals.

## 2.8 PAINT LOCKER

- ### A. Paint locker shall have minimum construction of cold-rolled prime furniture steel, with double 18-gauge walls, 16-gauge shelves, liquid tight, 2-inch drip pan, louver vents with flash back screens and finish hardware of heavy duty spring-loaded hinges, handles, and 3-point locking system. Doors shall be self-closing and self-latching.
- ### B. Paint lockers shall conform to NFPA specifications.

## 2.9 MANUFACTURERS

- ### A. Products of the types indicated shall be as manufactured by one of the following (or equal):

1. Locker units:

Lyon Metal Products, Inc.  
Republic Steel Corporation  
Interior Steel Equipment Company

2. Locker room benches:

Lyon Metal Products, Inc.  
Republic Steel Corporation

3. Paint lockers:

Norren Manufacturing, Inc., Model N-4000  
Lyon Metal Products, Model 5445

## **PART 3 -- EXECUTION**

### **3.1 LOCKERS**

- A. Lockers shall be fastened to the structures in accordance with manufacturer's printed recommendations and in conformance with the Uniform Building Code. Frames and doors shall form a flush exterior when installed. Lockers shall be plumb, level, rigid and securely fastened in banks.
- B. Fastenings shall be spaced not more than 48 inches on center, and applied through back-up reinforcing plates where necessary to avoid metal distortion. Fasteners shall be concealed insofar as possible.
- C. Trim, sloping top units, and metal filler panels shall be installed where indicated, using concealed fasteners to provide flush, hairline joints against adjacent surfaces.

### **3.2 LOCKER ROOM BENCHES**

- A. Benches shall be installed in compliance with manufacturer's instructions.
- B. Anchors for securing benches to the floor shall be stainless steel expansion bolts into the concrete subfloor.

### **3.3 ADJUST AND CLEAN**

- A. Doors and latches shall be adjusted to operate easily without binding. Integral locking devices shall be verified as operating properly.
- B. Marred finishes shall be touched up, but units which cannot be restored to factory-finished appearance shall be replaced. Only materials and procedures recommended or furnished by locker manufacturer shall be used.

**\*\* END OF SECTION \*\***