**PART 1 - GENERAL**

**1.01 SUMMARY**

A. Provisions of Division 01 apply to this section.

B. Section Includes:

1. Metal lockers and accessories as indicated.

2. Locker Benches.

C. Related Sections:

1. Section 03 30 00: Cast-In-Place Concrete.

**1.02 SUBMITTALS**

A. Shop Drawings: Submit Shop Drawings indicating locker sizes, locations, construction details and locker numbering layout. Indicate size and location of accessories, mounting heights of hardware and details of anchorage.

B. Material Samples: Submit color chips of manufacturer's standard colors for selection by Architect.

C. The manufacturer shall supply a Certificate of Conformance stating that finished surfaces are lead free and that they satisfy all the finish requirements of these specifications.

**1.03 QUALITY ASSURANCE**

A. Qualifications:

1. Manufacturer: Regularly engaged in manufacturing metal lockers for at least 10 years.

2. Installer: Trained and certified by the equipment manufacturer.

**1.04 DELIVERY, STORAGE AND HANDLING**

A. Deliver materials to the Project site with manufacturer's labels intact and legible.

B. Protect metal lockers before, during and after installation. In case of damage, immediately provide necessary repairs and replacements.

**PART 2 - PRODUCTS**

**2.01 MANUFACTURERS**

A. Lyon Metal Products Inc.

B. Republic Storage Systems Co. Inc.,

C. Penco Products

D. DeBourgh Manufacturing Company

E. List Industries Inc., Superior, Heavy-Duty Corridor

**2.02 FABRICATION**

A. Frames: Constructed from 16 gage steel channel uprights to include a continuous door stop on each side of frame, with at least 16 gauge steel channel cross angles welded at corners. Bodies shall be at least 16 gauge cold-rolled steel, with bottoms and intermediate bottoms totally enclosed and bolted. The bottoms and intermediate bottoms will not have more than a 1/16 inch gap at the notches at any assembly point (sides, backs, door stops, etc.). Intermediate bottoms shall be constructed from a minimum of 16 gauge cold rolled steel. Bottom of locker shall be constructed from #14 gauge cold rolled steel, reinforced each one with a #16 gauge cold rolled steel hat section to prevent distortion when anchored.

B. Doors:

1. Lockers shall be furnished with right-hand doors, unless otherwise indicated. Doors shall be at least 14 gage cold-rolled steel. Gymnasium, custodial, and shop lockers shall have standard louver perforations. No louver perforations for Student Book lockers at corridors, halls, exterior, etc.

2. Doors shall be provided with non-corrosive number plates, 22 gage minimum, having figure approximately 3/8 inch high etched into metal, finished in black enamel and fastened with binder-head bolts, or rivets. Split rivets are not permitted. Holes in number plates and doors shall be the same size and shall not exceed .125 inch.

a) Provide numbering to all lockers.

b) Locker numbering shall start with number 1, and increase consecutively throughout the room, running first from top to bottom on multi-tiered lockers and then from left to right consecutively.

c) ADA lockers shall also be numbered following this sequence.

3. On 3-tiered lockers, distance from bottom surface of bottom locker cross-frame to center of combination lock dial of top locker door, shall not exceed 59-3/8 inches.

4. On 4-tiered lockers, distance from bottom surface of bottom locker cross-frame to center of combination lock dial of top locker door, shall not exceed 63-3/8 inches.

C. Door Handles: Recessed handles shall be constructed 22-20 gauge, drawn plated steel, stainless steel, or die cast zinc alloy, nickel plated, with a minimum tensile strength of 40,000 PSI, and shall be furnished with eye for 3/8 inch standard padlock and padlock strike. Spring bolt latching device for doors less than 72 inches high shall be furnished with 2 locking points. Doors 72 inches or more in height shall be furnished with 3 locking points. The 2 locking points shall be no more than 8 inches from top and bottom. The third locking point shall be at the center. Doors shall be automatic latching when pushed shut.

D. Hinges: Shall be 5 knuckle, 2 inch tight pin butt type, full loop, constructed of cold-rolled steel, riveted or bolted to the inside locker frame with 3/16 inch oval head solid rivets and bolted to the inside of the door frame with 10 x 24 truss-head bolts. Hinges may be spot welded to the inside of locker frame. Location shall not exceed 4-1/2 inches from top and bottom of each door. Doors shall be bolted to each hinge with 2 binder truss-head machine screws no-slot head, 3/16 inch x 7/16 inch minimum.

1. Provide at least 3 hinges for each door over 42 inches high.

2. Provide at least 2 hinges for each door 42 inches high or less.

E. Shelves, Hooks and Coat Rods: Lockers shall be furnished with at least 2 single-prong hooks with ballpoints, located on opposite sides. Hooks shall be smooth and rustproof and shall be fastened with 2 bolts each. Lockers that are 72 inches, and are 18 inches or deeper, shall be furnished with coat rod in lieu of coat hooks.

1. Where 36-inch high lockers in 2 tiers are indicated or specified, lower tier lockers shall be provided with one shelf approximately 7 inches from top of locker.

2. Single-tier 72-inch high lockers shall be furnished with one shelf, 9 inches from top of locker.

F. ADA compliant lockers

1. Handle: recessed pull/latch mechanism. Latching and locking shall not require twisting, pinching or grasping to operate.

2. Shelf: Install bottom shelf not less than 9 inches from floor.

3. Single Tier Lockers: 72-inch Lockers: Provide shelf and coat hooks 42 inches from locker bottom. If locker is 18 inches or deeper, a coat rod shall be provided in lieu of coat hooks. Provide top shelf at 48 inches maximum from floor.

4. Assigned Lockers: minimum one locker and not less than 1 percent of total lockers shall be ADA accessible.

5. Provide manufacturer’s 4 by 4 inches universal ADA accessible symbol decal.

6. ADA lockers shall include a ADA compliant lock – Digilock or equal. Mounting height for locks shall be 48 inches maximum above floor.

G. Kep nuts shall be used for all assemblies, including those to attach wardrobe hooks. Bolts shall not protrude more than 1/8 inch past the kep nut.

H. Exposed ends, backs and tops hoods, shall be 16 gauge cold-rolled steel.

I. Parts shall be finished before assembly; fastenings shall be cadmium-plated.

J. Locks:

1. Student Book lockers and gymnasium lockers shall be furnished with built-in Master 1630, Zepher 1930, or approved equal, master keyed combination locks. Each shall be furnished with separate control keys; 12 each for 24 keys. Control key numbers shall be obtained from the OAR.

2. Custodial lockers shall be furnished with built-in Master 1710MK or approved equal locks.. Locks shall be keyed differently and master-keyed. Furnish 2 keys for each lock. Master key number shall be obtained from the OAR. Provide 2 master keys.

3. Cafeteria lockers shall be furnished with 3/8-inch hole in handle for personal locks (no-built-in locks). Blank off combo hole.

K. Accessories: Lockers shall be furnished with 16 gage sloping tops unless recessed, except that faculty and kitchen lockers shall be furnished with flat tops. Lockers shall be furnished with metal legs and skirts unless they are installed on a raised concrete curb and/or platform. Provide 16 gage cold-rolled steel trim, cap strips, filler strips, corner fillers, and other items required for a complete assembly. Caulk locker frame to the adjoining walls if the gap between the locker and wall is less than 3/8 inch.

**2.03 FINISH**

A. Before enamel is applied, surface of the steel shall be phosphatized in a 5-stage process to inhibit corrosion. Surfaces shall be finished with a heavy coat of baked-on enamel. Dry film thickness shall be a minimum of 1 mil for interior surfaces except interior of door. Exterior surfaces and interior of door shall be 2 mils minimum. The manufacturer shall supply a Certificate of Conformance stating that the lockers satisfy all the finish requirements of these specifications.

B. Powder coating is considered an acceptable alternative to paint. Finished dry film thickness shall be a minimum of 1.00 mil for all interior surfaces except interior of door. Exterior surfaces and interior of door shall be a minimum 2.00 mils.

C. All finished surfaces must be lead free. The manufacturer shall supply a Certificate of Conformance stating that finished surfaces are lead free and that they satisfy all the finish requirements of these specifications.

D. Manufacturers shall provide a minimum of 5 standard colors. Color to be selected by Architect.

**2.04 LOCKER BENCHES**

A. Bench Tops: Provide manufacturer’s standard solid phenolic resin, one-piece units, 3/4 inch thick, with rounded corners and edges.

1. Standard bench: 9-1/2 inches wide.

2. ADA compliant bench: 24 inches wide and 48 inches minimum in length.

3. Height: 17 to 19 inches above finish floor.

4. Bench lengths shall be as indicated on the drawings.

B. Pedestals: Provide manufacturer’s standard pedestal supports, with predrilled fastener holes, complete with fasteners and anchors, and as follows:

1. Type: Tubular steel, minimum 1 ¼ inch diameter x 0.12 inch thick wall, with steel flanges welded at top and base. Steel flanges shall be minimum 7-3/8 inches diameter x 0.125 inch thickness for shaped flanges; flat flanges shall have a minimum thickness of 0.375 inch. Finish shall be baked enamel.

2. Color: As selected by Architect from manufacturer’s full range.

3. Bench Fastener: Thru Bolt with ¼ inch x 20 Stainless Steel Carriage Bolts, Nuts, and Lock Washers.

4. Floor Fastener: No. 14 x 2 inch stainless steel sheet metal screws anchored by plastic screw anchors sunk into concrete floor.

C. Bench Assembly: Furnish a minimum of two pedestals for each bench, with pedestal spacing not more than 36 inches on centers.

**PART 3 - EXECUTION**

**3.01 INSTALLATION**

A. Locker banks shall be fabricated with independent backs.

B. Installation of lockers shall be in accordance with manufacturer's written recommendations and reviewed Shop Drawings. Installation shall meet requirements of Department of Health Services codes. Installed lockers shall comply with ADA and CBC requirements.

C. Provide and install trim, sloped and hoods, tops, cap strips, end and back panels, filler strips, corner fillers and any other items required to complete installation in accordance with manufacturer's written recommendations and this Specification. Exposed ends, tops, and backs shall be 16 gage cold-rolled steel and painted to match new lockers.

D. Lockers shall be completely assembled and ready for installation prior to delivery to the Project site. The lockers shall be set plumb and securely fastened in place. Bottom of lockers shall be reinforced to prevent distortion from anchoring devices.

E. Tie-backs and angle clips must be installed every 4 feet or less on lockers.

F. The back shall be secured with a minimum thickness of 5/16 inch, minimum embedment 2 inches.

LOCKER SCHEDULE

**High School Size Legs and Concrete #**

**Location W D H Apron Base Tiers**

Shops / Technical 12 x 15 x 18 yes no 4

Student Book Lockers

(corridors, halls, etc.) 12 x 15 x 18 no yes 4

Phys. Ed. Locker Rooms:

Boys / Girls 12 x 12 x 24 no yes 3

## Secured Area 12 x 12 x 36 no yes 2

Team Rooms 18 x 18 x 36 no yes 2

## Coaches / Faculty 15 x 21 x 72 no yes 1

## Cafeteria Staff

## No Curb 12 x 15 x 36 legs only no 2

With Curb 12 x 15 x 36 no yes 2

Garden Tools Building 12 x 15 x 36 yes no 2

Utility Building 15 x 21 x 72 yes no 1

**Middle School Size Legs and Concrete #**

**Location W D H Apron Base Tiers**

Student Book Lockers

(corridors, halls, etc.) 12 x 15 x 18 no yes 4

Phys. Ed. Locker Rooms:

Boys / Girls 12 x 12 x 24 no yes 3

Coaches / Faculty 15 x 21 x 72 no yes 1

Cafeteria Staff

No Curb 12 x 15 x 36 legs only no 2

With Curb 12 x 15 x 36 no yes 2

## Garden Tool Building 12 x 15 x 36 yes no 2

**Elementary Schools Size Legs and Concrete #**

**Location W D H Aprons Base Tiers**

Cafeteria Staff

No Curb 12 x 15 x 36 legs only no 2

With Curb 12 x 15 x 36 no yes 2

**3.02 CLEANUP**

A. Remove rubbish, debris, and waste materials and legally dispose of off the Project site.

**3.03 PROTECTION**

A. Protect the Work of this section until Substantial Completion.

### **END OF SECTION**