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BID RFI RESPONSE

Project: Cooler/Freezer Project at Cupertino and Kennedy Middle Schools
Owner: Cupertino Union School District
DSA A#: 01-121660, 01-121662
Response Date: September 25, 2025

RFI Received Date: September 24, 2025

1. Please provide a specification for the shelving units.

   Response: See attached specifications.

End of Remarks

SECTION 10 56 13 METAL STORAGE SHELVING

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section includes requirements including but not limited to:
   1. Four post metal storage shelving.
   2. Accessories necessary for a complete installation.

1.3 PERFORMANCE REQUIREMENTS

A. Delegated Design: Design metal storage shelving, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.

B. Seismic Performance - Metal storage shelving shall withstand the effects of earthquake motions determined according to ASCE/SEI 7:
   1. Seismic Component Importance Factor: 1.0.

1.4 SUBMITTALS

A. Product Data: Technical data for each type of shelving unit and accessory components including recessed tracks. Include rated capacities, installation and construction details, and material descriptions, dimensions of individual components and profiles, and finishes.

B. Shop Drawings: Submit plans, elevations, sections, and details, including installation details of connectors, lateral bracing, and special bracing.

C. Seismic Qualification Certificates: For metal storage shelving, accessories, and components, from manufacturer.

PART 2 PRODUCTS

2.1 MATERIALS

A. Hot Rolled Steel Sheet: ASTM A1011/A1011M, Commercial Steel (CS), Type B; free of scale, pitting, or surface defects; pickled and oiled.

B. Cold Rolled Steel Sheet: ASTM A1008/A1008M, Commercial Steel (CS), Type B.

C. Metallic Coated Steel Sheet: ASTM A653/A653M, Commercial Steel (CS), Type B; with G60 (Z180) zinc (galvanized) or A60 (ZF180) zinc-iron-alloy (galvannealed) coating.

D. Steel Tubing: ASTM A513, Type 2.

2.2 STORAGE SHELVING UNITS

A. Four Post Metal Storage Shelving:
   1. Manufacturers are subject to compliance with requirements; provide products by one of the following:
      a. AMCO Corporation.
      b. Dixie Shelving Co.
      c. Equipto.
      d. InterMetro Industries Corporation.
      e. Lyon Workspace Products, LLC.
      f. Montel, Inc.
      g. Penco Products, Inc.
      h. Republic Storage Systems Co.
      i. Safco Products.
      j. Tennsco.

B. Wire Type, Four Post Metal Storage Shelving - Complying with MH 28.1; field assembled from factory formed components. Shelves span between supporting corner posts that allow shelf height adjustment over full height of shelving unit. Provide fixed top and bottom shelves, adjustable intermediate shelves, and accessories indicated:
   1. Load Carrying Capacity per Shelf: Minimum 600 lb (272 kg), uniformly distributed.
   2. Posts - Fabricated from 1-inch (25 mm) OD, round tubing of indicated material; with grooves or notches at 1-inch (25 mm) o.c. to receive shelf to post connectors. Label posts with numbers at not less than 2 inches (51 mm) o.c. for determining shelf height:
      a. Post Material: Stainless steel.
      b. Post Base: Adjustable steel floor plate, drilled for floor anchors.
      c. Post Cap: Nylon or plastic.
      d. Unit Configuration: Configure shelving units as **individual, freestanding and add on unit** assemblies.
   3. Framed Type Wire Shelves: Metallic coated or stainless-steel wire over wire construction, with shelf frame fabricated from same material and with same finish as posts; with standard post collar, designed to engage collet (wedge), welded at each corner.
   4. Truss Type Wire Shelves: Steel or stainless-steel wire over wire construction, with downturned wire truss edges; with standard post collar, designed to engage collet (wedge), welded at each corner.
   5. Shelf Quantity: **Five** shelves per shelving unit in addition to top and bottom shelf.
   6. Shelf to Post Connectors: One-piece collet (wedge), designed to engage post collar attached to shelves.
   7. Bracing: Manufacturer's standard diagonal cross bracing, as required for stability, load-carrying capacity of shelves, and number of shelves.
   8. Overall Unit Width: 48 inches (1219 mm) inclusive of two end posts.
   9. Overall Unit Depth: 18 inches (457 mm).
   10. Overall Unit Height: 72 inches (1829 mm).
   11. Shelf Inlay: Clear plastic mat.
   12. Steel Finish: Except for stainless steel, baked enamel or powder coat.
   13. Color and Gloss: Selected by Architect at Submittal.
   14. Stainless Steel Finish: Nondirectional polish finish.

2.3 ANCHORS

A. Floor Anchors: Galvanized steel, post installed expansion anchors or power actuated fasteners. Provide number per unit recommended by manufacturer unless additional anchors are indicated in calculations.

B. Wall Anchors: Galvanized steel anchors designed to secure metal storage shelving to adjacent wall. Provide one per shelving unit for each shelving unit adjacent to a wall unless additional anchors are indicated in calculations.

2.4 FABRICATION

A. Fabricate metal storage shelving components to provide field assembled units that are square and rigid, with posts plumb and true and shelves flat and free of dents or distortion. Fabricate connections to form a rigid structure, free of buckling and warping:
   1. Form exposed connections with hairline joints, flush and smooth, using concealed fasteners where possible. Locate joints where least conspicuous.
   2. Build in straps, plates, brackets, and other reinforcements as needed to support shelf loading.
   3. Cut, reinforce, drill, and tap metal fabrications to receive hardware, fasteners, and similar items.

B. Form metal in maximum lengths to minimize joints. Form bent metal corners to smallest radius possible without causing grain separation or otherwise impairing the work. Form backs of shelving units of up to 48 inches (1219 mm) wide from one piece.

C. Form edges and corners free of sharp edges or rough areas. Fold back and crimp exposed edges of unsupported sheet metal to form a hem on the concealed side; ease edges of metal plate to radius of approximately 1/32 inch (0.8 mm). Shear and punch metals cleanly and accurately. Remove burrs.

D. Weld corners and seams continuously to develop strength, minimize distortion, and maintain the corrosion resistance of base metals. At exposed locations, finish welds and surfaces smooth and blended so surface is smooth after finishing and contour of welded surface matches that of adjacent surface. Weld before finishing components to greatest extent possible. Remove weld spatter and welding oxides from exposed surfaces before finishing.

PART 3 EXECUTION

3.1 COORDINATION

A. Coordinate sizes and locations of blocking and backing required for installation of metal storage shelving attached to wall and ceiling assemblies.

B. Coordinate locations and installation of metal storage shelving that may interfere with ceiling systems including lighting, HVAC, speakers, sprinklers, access panels, electrical switches or outlets, and floor drains.

3.2 FIELD CONDITIONS

A. Environmental Limitations: Do not deliver or install metal storage shelving until spaces are enclosed and weathertight, wet work in spaces is complete and dry, and temporary HVAC system is operating and maintaining ambient temperature and humidity conditions at levels intended for building occupants during the remainder of the construction period.

3.3 EXAMINATION

A. Examine areas for compliance with requirements for installation tolerances and other conditions affecting performance of the work. Examine floors for suitable conditions where metal storage shelving will be installed.

B. Examine walls and ceilings to which metal storage shelving will be attached for properly located blocking, grounds, or other solid backing for attachment of support fasteners.

C. Proceed with installation after correcting unsatisfactory conditions.

3.4 PREPARATION

A. Vacuum and clean finished floor over which metal storage shelving is to be installed.

3.5 INSTALLATION

A. Install metal storage shelving level, plumb, square, rigid, true, and with shelves flat and free of dents or distortion. Make connections to form a rigid structure, free of buckling and warping:
   1. Install exposed connections with hairline joints, flush and smooth, using concealed fasteners where possible.
   2. Install braces, straps, plates, brackets, and other reinforcements as needed to support shelf loading and as required for stability.
   3. Adjust post base bolt leveler to achieve level and plumb installation.
   4. Anchor shelving units to floor with floor anchors through floor plate. Shim floor plate to achieve level and plumb installation.
   5. Install seismic restraints.
   6. Connect side to side and back to back shelving units together.
   7. Install shelves in each shelving unit at spacing indicated on Drawings:
      a. Four Post Metal Storage Shelving: Install four clips, one at each post, for support of each shelf; with clips fully engaged in post perforations.

3.6 ERECTION TOLERANCES

A. Erect four post metal storage shelving to a maximum tolerance from vertical of 1/2 inch (13 mm) in up to 10 feet (3 m) of height, not exceeding 1 inch (25 mm) for heights taller than 10 feet (3 m).

3.7 ADJUSTING

A. Adjust metal storage shelving so that connectors and other components engage accurately and securely.

B. Adjust and lubricate operable components to operate smoothly and easily, without binding or warping. Check and readjust operating hardware.

C. Touch up marred finishes or replace metal storage shelving that cannot be restored to factory-finished appearance. Use only materials and procedures recommended or furnished by metal storage shelving manufacturer.

D. Replace metal storage shelving components that have been damaged beyond successful repair by finish touchup or similar minor repair procedures

END OF SECTION 10 56 13