

**Jefferson County School District, R-1  
Support Services**

**TECHNICAL GUIDELINES**

**DIVISION 10 – August 10, 2007  
Specialties**

## **DIVISION 10 - SPECIALTIES**

### **10 11 00 Visual Display Surfaces – July 27, 2006**

- Work in this section is open to any product or material meeting the requirements of this Technical Guideline.
- Submittals
- Product Data: Required
- Shop Drawing: Required
  1. Samples: Required
  2. Closeout:
    - a. Submittals listed above, updated to record status. Samples excluded.
    - b. Maintenance Instructions
- Chalkboards : Not Permitted
- Markerboards
  1. Core: 3/8-inch plywood
  2. Backing: Sheet aluminum or steel
  3. Magnetic
  4. Integral aluminum frame and continuous tray
  5. Color: White
- Tackboards
  1. 1/4 inch unfaced sheet cork factory bonded to 3/8 inch fiberboard or comparable backing.
  2. Color: no requirements
  3. Integral aluminum frame
- Visual Aid Boards
  1. Vinyl-faced porous material with frame.
- Frame & Trim
  1. Aluminum with natural color satin anodized finish
  2. Concealed mounting preferred.
- Map rail
  1. Full length of chalk or marker board
  2. Complete with end stops and 1 standard map hook/clip per 24 inches of length.
  3. Omit chalk and marker board trays in areas of physical activity such as gymnasiums
  4. Extra Materials: Deliver map hooks/clips in packages directly to Jefferson County School District, R-1 Project Manager.

END SECTION 10 11 00

### **10 12 00 Display Cases - August 2, 2004**

- Work in this section is open to any product or material.

END SECTION 10 12 00

### **10 13 00 Directories - August 2, 2004**

- Work in this section is open to any product or material.
- Directories are typically not required for Jefferson County School District, R-1 educational facilities

END SECTION 10 13 00

### **10 14 00 Signage - August 22, 2006**

- Work in this section is open to any product or material meeting the requirements of this Technical Guideline.
- Interior and exterior signage is required as part of the General Contract for Construction unless otherwise authorized by Jefferson County School District, R-1
- Submittals
  1. Product Data: Required
  2. Signage Schedule: Required
  3. Samples: Required
  4. Dedication Plaque rubbing: Required prior to casting
  5. Closeout: Submittals listed above, updated to record status. Samples excluded.
- Coordination
  1. Review traffic and parking signs with:
    - a. Jefferson County
    - b. Municipality
    - c. Jefferson County School District, R-1 Risk Management
- To the greatest extent possible, work in this section should be low-maintenance and vandal-resistant.
- Building dedication Plaques: One bronze dedication tablet is required for each new building.
  1. Size: 18 inches x 18 inches
  2. Material: Cast Bronze
  3. Finish:
    - a. Letter Face and Border – Satin Polish
    - b. Background – Leatherette, Dark Oxodized
    - c. Two coats of Clear Metal Lacquer Over Surface
  4. See sample
- Exterior Signage:
  1. Freestanding and/or on-building identification, including address number
  2. Individual letters for building mount:
    - a. Finished aluminum
    - b. 10 inch high
    - c. Helvetica medium font

3. Approved methods of attachment for individual letters on masonry building facade:
  - a. Flush to masonry with threaded aluminum stud set in non-staining cement.
  - b. Aluminum tube spacers up to 1.5 inches with threaded aluminum stud set in non-staining cement.
  - c. Top and bottom parallel back bars or channels anchored into masonry
4. Signage per ADA
5. Design, locate, and secure exterior signage to minimize vandalism.
6. Spacers and fasteners for exterior signs: Non-corrosive and vandal-resistant
- Traffic Signage
  1. Signs (directional, parking lot): 1/8" thick steel complying with standard municipal sizing and constructed of vinyl face, vinyl graphics and letters.
  2. Posts and sleeves
    - a. Material: Steel posts conforming to the standard specification for hot rolled carbon sheet steel, structural quality, ASTM designation A570, Grade 50; 60,000 p.s.i.
    - b. Shape: Square tube formed of 12 gauge (.105 U.S.S. gauge) and 10 gauge (.135 U.S.S. gauge) steel, rolled to size and welded directly in the corner by high frequency resistance welding and externally scarfed to agree with corner radii.
    - c. Finish: Hot-dipped galvanized steel conforming to ASTM A653, G90, Structural Quality, Grade 50, Class 1. Corner weld is zinc coated after scarfing operation. Steel is coated with a chromate conversion coating and a clear organic polymer topcoat. Both the interior and the exterior of the post and post sleeve shall be galvanized.
    - d. Cross section: Perforated sign post: 1-3/4" x 1-3/4", U.S.S. Gauge 12, 2.06 lbs./foot. Perforated post sleeve: 2" x 2", U.S.S. Gauge 12, 2.42 lbs./foot.
    - e. Holes: 7/16, +/- 1/64, inches in diameter on one inch centers on all four sides down the entire length of the post. On square tubing, holes shall be on centerline of each side and true alignment and opposite each other directly and diagonally.
    - f. Length: Post = 10'; Post sleeve = 3'.
    - g. Drive post sleeve into the ground so only 6" is exposed above grade. Sign post shall be telescoped into the sleeve and be fastened with 7/16" bolt and nut. Top of sign post shall be no higher than 7' from grade.
- Interior Signage
  1. Room identification: Flexible/removable inserts in permanent fixed frame. One per door or opening
    - a. Provide a slot for insertion of occupant or program name
    - b. 1/4 inch thick monolithic molded polyester composite
    - c. Integral body, letter, graphics, color.
    - d. Raised (tactile) upper-case sans serif characters 5/8 inch to 2 inches high
    - e. Characters that contrast 70-100% with background.
    - f. Grade II Braille
    - g. Pictograms
    - h. Nonglare finish
    - i. Install on the wall adjacent to the latch side of the door per ADAAG.

2. Directional & Informational Signage
  - a. Nonglare finish and contrast.
  - b. Width-to-height and stroke-to-height ratios as required for readability
3. Signage per ADA
4. Maximum capacity of assembly occupancies per AHJ
- Execution Summary
  1. Approved methods of attachment for individual letters on masonry building façade:
    - a. Flush to masonry with threaded aluminum stud set in non-staining cement.
    - b. Aluminum tube spacers up to 1.5 inches with threaded aluminum stud set in non-staining cement.
    - c. Top and bottom parallel back bars or channels anchored into masonry.
- Quality Control: Jefferson County School District R-1 is an *educational* institution; Quadruple check spelling before fabrication!
- Sample Dedication Plaque:

## JEFFERSON COUNTY SCHOOL DISTRICT, R-1

(S C H O O L   N A M E)



DEDICATED (D A T E)

### BOARD OF EDUCATION

PRESIDENT  
FIRST VICE PRESIDENT  
SECOND VICE PRESIDENT  
SECRETARY  
TREASURER

Jane Barnes  
Vince Chowdhury  
Debra Oberbeck  
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SUPERINTENDENT

Dr. Cynthia Stevenson

ARCHITECT

(ARCHITECT'S FIRM NAME)

GENERAL CONTRACTOR

(GENERAL CONTRACTOR'S NAME)

END SECTION 10 14 00

### **10 17 00 Telephone Specialties – July 30, 2004**

- Work in this section is open to any product or material

END SECTION 10 17 00

### **10 21 00 Compartments and Cubicles – July 30, 2004**

- Work in this section is open to any product or material

END SECTION 10 21 00

### **10 21 13 Toilet Compartments – August 14, 2006**

- Work in this section is open to any product or material meeting the requirements of this Technical Guideline.
- Coordinate layout with plumbing fixtures, floor drains, and access panels.
- Coordinate solid blocking at wall brackets in frame construction.
- Submittals
  1. Product Data: Required
  2. Shop Drawing: Required
  3. Samples: Required for finish selection
  4. Closeout:
    - a. Submittals listed above, updated to record status. Samples excluded..
    - b. Manufacturer Maintenance Instructions
  5. Mock up: Preferred; Required for new construction
    - a. Include toilet and bath accessories (10 23 00)
    - b. Coordinate with Construction Project Manager
- Configuration
  1. Floor to ceiling pilaster: Required for locker rooms and high abuse public restrooms
  2. Overhead braced: Preferred
  3. Ceiling Hung: Prohibited
  4. European: Prohibited
  5. Doorless: Prohibited
- Panels and Doors
  1. Solid Color Reinforced Composite (SCRC): Preferred
  2. Solid Phenolic: Preferred
  3. Solid Polymer Resin (HDPE): Permitted
    - a. 1 inch thick with radiused edges and burn strip
  4. Baked Enamel 20 gauge steel : Permitted
    - a. Restricted to Preschool through 6<sup>th</sup> grade occupancies and staff-only areas.
  5. Plastic laminate: Not permitted
  6. Stainless Steel: Not permitted
  7. Other: Not permitted
- Pilasters
  1. Material: Per panels and doors
  2. 6 inch minimum width with manufacturer's standard shoe.

3. Reinforced at locker rooms and high abuse public restrooms
- Headrail
    1. Anti-grip profile
  - Hinges:
    1. Stainless steel or heavy aluminum extrusion
    2. Surface mounted through-bolt type
    3. Adjustable gravity type with concealed ball bearing rollers
  - Latch and Keeper:
    1. Stainless steel or heavy aluminum extrusion
    2. Recessed with combination rubber faced door strike and keeper.
    3. Slide type latch operation
    4. Rotary (twist) type prohibited
    5. Pull: Required for swing-out doors only.
    6. Emergency access hardware is required at ADA compartments
  - Wall Brackets:
    1. Pre-drilled heavy stainless steel or aluminum extrusion
    2. Full Height continuous or 4 inch height spaced no more than 16 inches o.c.
  - Fasteners:
    1. Tamper-resistant, concealed stainless steel
  - Combination Coat Hook and Bumper:
    1. Manufacturer's standard rubber-tipped stainless steel unit
    2. Plastic material prohibited.
    3. Provide one supplemental coat hook inside stalls intended for the disabled
  - Door Pull: Knob type is not acceptable.

END SECTION 10 21 13

#### **10 22 00 Partitions – July 28, 2004**

- Work in this section is open to any product or material meeting the requirements of this Technical Guideline.
- Submittals
  1. Product Data: Required
  2. Shop Drawing: Required
  3. Samples: Finishes
  4. Manufacturer Test Reports: Acoustical performance
  5. Closeout:
    - a. Submittals listed above, updated to record status. Samples excluded.
    - b. Operation and Maintenance Manual
- Finish: Hard surface
  1. Carpet, Fabric, and Vinyl Wall Covering are prohibited for finish materials.
- Acoustical Design of contiguous ceilings, floors, permanent partitions, and interface details must be consistent with acoustical properties of specified partitions.
- A locking closure panel is required for operable partition pockets
- Motorized operable partitions are prohibited unless authorized by Jefferson County School District, R-1
- Folding Gates:

1. Overhead types are prohibited.
2. Locations are restricted per egress requirements of the International Building Code
- Provide lockset per Division 08 with cylinder keyed to building master.
- Demountable Partitions: Not recommended
- Portable Partitions, Screens, Panels
  1. System must be capable of individual or multi panel two-directional placement without the use of special hardware such as "buttons."
    - a. Continuous Splines permitted.
  2. Acoustical performance: STC = 25 to 35
  3. Panel width: 48 inches preferred;
  4. Panel weight limit: 4.0 lbs./sq. ft. or 120 lbs./panel
  5. Portability (weight) is preferred over acoustical properties.
  6. Concealed operating hardware
- Operable Partitions
  1. Folding Panel Partitions
    - a. Paired panel type only
    - b. Acoustical performance: STC = 30 to 40
    - c. Carrier: Omni-directional rolling type, not sliding
    - d. Top and bottom mechanical pressure seals are preferred over sweeps.
    - e. Lever closure systems are preferred over angle jambs.
    - f. Pass doors are prohibited where high acoustical performance is needed
    - g. Plastic wheels are prohibited
  2. Accordion Folding Partitions: Not recommended
  3. Coiling Partitions: Not recommended
- Field Testing is recommended to confirm NIC (Noise Isolation Class) performance within 70% of specified STC rating (i.e. specified STC 50 = 35 NIC or better).

END SECTION 10 22 00

#### **10 26 00 Wall and Door Protection – July 28, 2004**

- Work in this section is open to any product or material
- Corner guard:
  1. Required at exterior corners of corridor and public area frame (stud) partition construction.
  2. Aluminum or clear plastic or gray resilient
  3. 6 feet minimum height
  4. Screw attachment is required; adhesive attachment is prohibited.

END SECTION 10 26 00

## 10 28 00 Toilet, Bath, and Laundry Accessories – August 14, 2006

- Work in this section is restricted to specific products of specific manufacturers that have been previously approved by Jefferson County School District, R-1 Purchasing Department.
- Except as noted, toilet accessories are provided and installed under the General Contract.
- Submittals
  1. Product Data: Required
  2. Closeout:
    - a. All submittals listed above, updated to record status.
    - b. Keys
- Limit electric hand/hair dryers to locations where the noise does not adversely impact the acoustics in adjacent instructional or public areas.
- Mirror: Manufacturer ASI, Bobrick, or Bradley
  1. Channel or angle frame is recommended to permit field replacement of mirror.
  2. Integral shelf is not recommended
- Soap Dispenser: Deb SBS Aero Foam; Provided by Jeffco Public Schools Purchasing Department and installed by General Contractor.
- Sanitary Napkin Dispenser: Manufacturer – Rochester (Vendor – Northern Colorado Paper)
- Paper Towel Dispenser: En Motion 59462; Provided by Jeffco Public Schools Purchasing Department and installed by General Contractor.
- Electric Hand/Hair Dryer: fixed nozzle only; World or Bradley
- Toilet Tissue Dispenser: Georgia Pacific 53771; Provided by Jeffco Public Schools Purchasing Department and installed by General Contractor.
- Grab Bars: Manufacturer – ASI, Bobrick, or Bradley
- Coat Hooks (with bumper): Manufacturer – ASI, Bobrick, or Bradley
- Lavatory Book Shelf: Manufacturer – ASI, Bobrick, or Bradley
  1. Eighteen gauge stainless steel with raised front and back edges
  2. Six inches wide, mounted 1 inch out from the wall to facilitate cleaning
  3. Length: full length of lavatory or lavatory bank
  4. Mount on stainless steel brackets bolted to the wall.
- Medicine Cabinet: Recessed, locking, mirrored, 18 x 24 inches; Manufacturer – ASI, Bobrick, or Bradley
- Diaper changing station: Manufacturer – Koala Corporation
- Fasteners/ Hangers: Manufacturer – ASI, Bobrick, or Bradley; Concealed corrosion- and tamper-resistant

- Locks:
  1. Provide locks with the same keying for each type of accessory unit in the project.
  2. Furnish two keys for each lock.
- Products in this Section should be provided with exposed or concealed names or labels identifying the manufacturer.
- Secure toilet, bath, and laundry accessories to solid or reinforced substrates only.
- Items in this section must be evaluated and approved through Jefferson County Public Schools Facilities Services and Purchasing Departments.

END SECTION 10 28 00

**10 44 00 Fire Protection Specialties – July 27, 2006**

- Work in this section is restricted to specific products of specific manufacturers that have been previously approved by Jefferson County School District, R-1.
  1. Amerex
  2. J. L. Industries
  3. Larsen's
- Fire extinguishers and cabinets are required as part of the General Contract for construction of new buildings, additions, and renovations.
- Submittals
  1. Product Data: Required
  2. Closeout: Submittals listed above, updated to record status.
- Fire Extinguisher Cabinet
  1. Semi-recessed Fire Extinguisher Cabinets only.
    - a. Surface-mounted type is permitted for unique circumstances. Owner consent is required.
    - b. Larsen's #2409RM
    - c. J. L. Industries #1017
  2. U.L. approved
  3. Conforming to U.S. Department of Transportation requirements
  4. Compliant with current NFPA Publication 10, current edition.
  5. Manufactured within the past 12 months
  6. Semi-recessed hollow metal type with 2 ½ inches rolled edge return
  7. Mitered trim and door construction
  8. Inside dimensions: W: 9 ½ inches or 10 ½ inches; H: 24 inches; D: 6 inches
  9. Finish options:
    - a. White baked acrylic enamel
    - b. 304 stainless steel with #4 finish
  10. Door: single piece ½" thick
  11. Hinge: full height piano hinge

12. Glass options:
    - a. 1/8 inch single or double strength clear glass
    - b. Full break glass or duo panel break glass configuration
  13. Trim options:
    - a. Extruded aluminum with clear anodized finish
    - b. Painted steel
  14. A single model of Fire Extinguisher cabinet is preferred throughout a building.
- Fire Extinguisher
    1. Manufacturer and model: Per Fire Extinguisher Schedule.
    2. No substitutions.
    3. One piece steel or aluminum cylinder
    4. Head, handle, and valve assembly
      - a. Steel, aluminum, brass or combination of these metals
      - b. Nylon and plastic components are prohibited
  - Accessories
    1. Keys:
      - a. Key all cabinets alike
      - a. Provide 2 keys per cabinet: Larsen's key CH751 or J.L. key BH005
      - b. Provide manufacturer's standard identification decals for each cabinet
  - Locations
    1. Per applicable codes
    2. Per Fire Extinguisher Schedule
    3. Corridors
      - a. In addition to code requirements, provide fire extinguishers in cabinets at each end of building corridors in the immediate vicinity of exit doors.
    4. Instructional Areas
      - a. Locate one fire extinguisher within 6 feet of primary exit door in each of the instructional areas itemized in the Fire Extinguisher Schedule.
      - b. Auto Shop:
        - (1) One fire extinguisher within 6 feet of primary exit door
        - (2) One fire extinguisher at each side of vehicle bay doors
    5. Non-Instructional Areas
      - a. Locate one fire extinguisher within 6 feet of the primary exit door in each of the non-instructional areas itemized in the Fire Extinguisher Schedule.
  - Quality Assurance
    1. Work in this section is subject to the review and approval of the authority having jurisdiction (AHJ).

**Fire Extinguisher Schedule**

Type	Size	Class	Locations (Within 6'-0" of Exit Door)	Approved Manufacturer and Model
General purpose dry chemical	10 pounds	4A:60B:C	Art studio Auditorium (minimum 1 at rear, each side) Automotive Classroom Auto Shop (also at each bay door) Boiler room Chemical Storage Chemistry Lab Communications Equipment, MDF, IDF Computer Lab Corridor FACS Lab Grounds equipment storage Jewelry studio Kitchen, food service and instructional Penthouse Shops (metal, welding, wood) Staff lounge Stage (minimum 1 each side) Tech Arts Technology Welding	Amerex B456
Small Carbon dioxide	5 pounds	CO2 5-B:C	Boiler room Computer/Technology/ Electronics lab HVAC Machine Room/ Penthouse Staff lounge	Amerex 322
Large Carbon dioxide	10 pounds	10B:C	Electrical Equipment Room	Amerex 330
Portable	20 pounds	Wet Chemical 2A:K	Kitchens with deep fat fryer(s)	Amerex B260

END SECTION 10 44 00

## 10 51 00 Lockers – August 10, 2007

- Work in this section is open to any product or material meeting the requirements of this Technical Guideline.
- Submittals
  1. Product Data: Required
  2. Shop Drawing: Required
  3. Samples:
    - a. Sample locker for field quality control
    - b. Color sample
  4. Closeout:
    - a. Submittals listed above, updated to record status. Samples excluded.
    - b. Schedule of lock combinations
- Extra Materials: Touch-up paint: Provide 8 fluid ounces for each 100 lockers or fraction, of each color installed; up to 1 quart total for standard colors and up to 2 quarts total for custom colors.
- Panel parts: Fabricated from mild cold rolled sheet steel free from imperfections and capable of taking a high-grade enamel finish.
- Welded construction is required for P.E./Athletic lockers.
- Preference is given to products containing no plastic or pot metal (cast zinc) components.
- Finish: Factory applied baked enamel or powder coat finish selected from manufacturer's full line of standard colors (minimum of 15 colors). Custom colors as directed.
- Body Frame
  1. 1 3/8 inches x 0 7/8 inches minimum section
  2. 16 gauge
  3. 14 gauge for P.E./Athletic lockers.
- Door Frame
  1. Cold-rolled steel channel with corners lapped and fastened into a rigid assembly
  2. Capable of taking same high-grade finish as balance of locker
  3. Gauge: Same as body frame
  4. Strike: full height continuous or locally reinforced
  5. 16-gauge channel frame members are required between the upper and lower doors of multiple tier lockers
- Doors
  1. Standard
    - a. 16-gauge flattened carbon steel with flanges on all 4 sides for rigidity.
    - b. Louvers are not recommended

2. P.E./Athletic:
  - a. 14-gauge angle frame and center lock plate
  - b. Fully concealed lock bar and channel formation on the hinge side and right angle formations across the top and bottom.
  - c. 14 gauge flattened carbon steel with right angle flanges on all four sides.
  - d. Expanded or punched to provide a net vent area no less than 25% of gross door surface area.
  - e. Security-type vents are preferred; Hole ventilation is acceptable if each opening dimension is less than 1/4 inch.
  - f. Configure bays to prevent the end locker door from swinging into cross traffic.
- Lock/Latch Device
  1. Positive prelocking automatic-type locking device whereby locker may be locked while door is open, then closed without unlocking and without damaging locking mechanism.
    - a. Deadbolt type lock/latch is prohibited.
  2. Latch mechanism: Nylon, spring steel, or composite assembly
  3. Lock bar: 24-gauge minimum galvanized cold rolled steel
    - a. 3-point latching is required for single pan doors over 24-inch height
    - b. Single point latching is acceptable for double-pan and reinforced door construction.
    - c. 2 point latching is required elsewhere.
    - d. Fully enclosed, tamper-resistant lock bar is required for P.E./Athletic lockers and is preferred elsewhere.
  4. Lifting (handle) feature contained in a formed 20-gauge stainless steel or chrome-plated steel finished steel pocket.
    - a. Projecting lift mechanisms are prohibited
    - b. Painted pockets are prohibited.
  5. Catch: 14-gauge steel fabrication welded to frame
- Combination Lock:
  1. Built-in, master keyed combination lock for each locker
    - a. Master Lock Company No. 1630 or 1631
  2. Padlock locker designs are prohibited.
- Hinges
  1. 2 inches high, five knuckle, full loop, tight pin style 16 gauge steel hinges
  2. PE/Athletic: 3 inches high, five knuckle, full loop, tight pin style 14 gauge steel hinges
  3. Full height piano type hinges are acceptable.
  4. Hinge attachments to frame and door (minimum per hinge leaf):
    - a. 2 spot welds
    - b. 2 tamper resistant bolt/nuts
    - c. 3 rivets
    - d. any 3 point combination of weld, bolt, and rivet
  5. 3 hinges are required for locker doors over 42 inches high; 2 hinges elsewhere

- Body
  1. Cold rolled steel specially flanged for added strength and rigidity to insure tight joints between bolts.
  2. 24 gauge with 20 gauge floor typical.
  3. P.E./Athletic lockers: 18 gauge throughout
  4. Vented locker body common walls are not permitted.
- Fasteners:
  1. Bolts and nuts: zinc plated, tamper-resistant.
- Hooks
  1. Zinc plated steel or aluminum with ball points.
  2. 3 single-pronged wall hooks
  3. One double-pronged ceiling/shelf hook required for all lockers over 24 inches high.
- Shelf
  1. 22-gauge minimum rolled-lip fabrication located approximately 9 inches from top. Required for lockers 36 inch nominal height and taller.
- Sloped top
  1. Required at all non-recessed/soffited installations
  2. 1:3 minimum slope
  3. 20 gauge minimum
  4. Continuous (seamless) assemblies are preferred.
- Miscellaneous
  1. Identification plate
  2. Tamper-resistant rubber silencers
- Quality
  1. Full flush construction and detailing. No component should project more than 1/8 inch from the plane of locker door and frame.
  2. High quality continuous uniform tight seams and corners without gaps, burrs, sharp edges, or exposed unfinished flanges which could snag clothing.
  3. Seams and joints should not permit passage of a U.S. dime.
- Install lockers on 4 inch high (clear) concrete curb.
  1. Wood curb is permitted only for limited retrofit applications.
  2. Locker legs are prohibited.

END SECTION 10 51 00

**10 55 00 Postal Specialties – July 27, 2004**

- Work in this section is open to any product or material
- Minimum mail slot dimension: 5 inches

END SECTION 10 55 00

## 10 56 00 Storage Assemblies – February 4, 2005

- Work in this section is open to any product or material meeting the requirements of this Technical Guideline.
- Mobile storage units (high density shelving systems) are included in the General Contract for construction.
- Submittals
  1. Product Data: Required
  2. Shop Drawing: Required for Mobile Storage Units only
  3. Samples: Required
  4. Closeout:
    - a. Submittals listed above updated to record status.
    - b. Operation and Maintenance Manual is required for Mobile Storage Units only
- Warranty: Provide manufacturer's standard one-year warranty covering defects in material, workmanship, and installation.
- Structural evaluation of floor may be required.
- Metal Storage Shelving
  1. Standards: Heavy-duty type
  2. Brackets: Heavy-duty, positive attachment (retainer) type.
  3. Shelves:
    - a. Design to limit deflection to ¼ inch in 36 inches with 20 lbs. per lineal foot loading.
    - b. Finish is required at all surfaces.
- Mobile Storage Units
  1. Rails
    - a. Steel
    - b. Size and spacing per manufacturer's recommendations for anticipated loading
  2. Deck: Integral, machined ¾ inch (minimum) particleboard or plywood or 3/16 inch (minimum) hardboard with continuous ADA compliant ramp / closure plate
  3. Carriages and Stationary bases
    - a. Pre-engineered formed steel or aluminum components designed for 1000 p.l.f.
    - b. Precision bolted and cross-braced rigid assembly
    - c. End Panel: 5/8 inch core stock with high-pressure laminate covering entire face and wrapped around both vertical returns
    - d. Engineered to prevent tipping
  4. Wheels
    - a. Solid steel
    - b. Permanently shielded ball bearings
    - c. 2 3/4 inch minimum diameter
  5. Drive
    - a. Mechanically assisted manual positive drive system
    - b. Starting effort to move ratio = 1 : 2500 or better
    - c. Automatic handle disengage when not in active drive mode
    - d. Automatic collapse feature or 3 inch maximum projection when idle
    - e. Sprocket - chain - drive shaft mechanism
  6. Shelving

- a. Supports and reinforcements: 2 per shelf, 14-gauge steel
  - b. All other components 18-gauge cold rolled steel
  - c. Uprights: closed-end
  - d. Shelves: flanged all 4 sides
  - e. Center and backstops required
  - f. Typical configuration: 76 inches nominal height with 6 shelves adjustable @ 1 1/2 inch intervals.
7. Reference Shelf
    - a. Same as above mounted under shelf on ball bearing extension slides
    - b. Minimum 1 per aisle at 30 inches to 40 inches above floor.
  8. Finish: Baked enamel or powder coating from manufacturer's standard color palette
  9. Card Holder: Sleeve or frame at each carriage and stationary unit end panel to hold and protect a 3 inches x 5 inches identification card
  10. Hardware: Provide handles and other hardware necessary for a complete and functional installation
  11. Rails
    - a. Install rails dead level with leveling pads or scribe strips
    - b. Shims prohibited
    - c. Align and secure track joints both vertically and horizontally
    - d. Fill gaps between track and floor with non-shrink 8000psi grout
  12. Deck
    - a. Install deck on solid, leveled substructure secured to floor
    - b. Allow for future removal
    - c. Trim exposed edges with T-molding or equivalent
    - d. Recess ramp to occur within shelving system
  13. Install system to accommodate future expansion
- Fabricated Wood Storage Shelving
    1. Standards: Heavy-duty type
    2. Brackets: Heavy-duty, positive attachment (retainer) type.
    3. Shelves:
      - a. Design to limit deflection to 1/4 inch in 36 inches with 20 pounds per lineal foot loading.
      - b. Particleboard shelving is prohibited unless fully plastic-laminate faced.
      - c. Finish is required at all surfaces.
  - Plastic Storage Shelving: No requirements
  - Wire Storage Shelving: No requirements
  - Storage Racks: No requirements

END SECTION 10 56 00

**10 57 00 Wardrobe and Closet Specialties – July 28, 2004**

- Work in this section is open to any product or material.
- Submittals
  1. Product Data: Required
  2. Shop Drawing:
  3. Samples: Required
  4. Closeout: Submittals listed above, updated to record status. Samples excluded.
- Coat racks
  1. Plastic coat racks are prohibited.
  2. Hook spacing may not be less than 9 inches o.c.
- Secure wardrobe and closet specialties to solid or reinforced substrates only.

END SECTION 10 57 00

**10 70 00 Exterior Specialties – July 30, 2004**

- Work in this section is open to any product or material

END SECTION 10 70 00

**10 75 00 Flagpoles – February 8, 2005**

- Work in this section is open to any product or material meeting the requirements of this Technical Guideline.
- Submittals
  1. Product Data: Required
  2. Shop drawings required
  3. Closeout:
    - a. All submittals listed above, updated to record status.
    - b. O& M manual
- Ground Set Flagpoles
  1. Tapered seamless extruded aluminum with aluminum top ball
    - a. 6 inch minimum butt diameter
    - b. 3.5 inch minimum top diameter
  2. 0.1875 inch minimum wall thickness
  3. Single-piece construction preferred
  4. 25 feet exposed length at elementary school
  5. 30 feet exposed length at junior and senior high schools
  6. Non-fouling, manually operated ball bearing revolving track
  7. Concealed, locking, tamper-resistant internal halyard for 2 flags
  8. Removable crank handle

9. Grounding / Lighting Protection per NFPA:
  - a. Strike termination device
  - b. Down conductor
  - c. Ground terminal
  - d. Bonding to metal objects within 12 foot radius
- Accessories
  1. Rope: 1/16 inch diameter stainless steel aircraft cable
  2. Halyard: Flexible bronze core with 2 pairs of snaps
  3. Counterweight: Neoprene-coated 3.5 pounds with braided retainer ring
- 2 feet 6 inch (minimum radius) paved apron is required around the base of ground-set flagpoles.

END SECTION 10 75 00

**10 80 00 Other Specialties - July 30, 2004**

- Work in this section is open to any product or material.

END SECTION 10 80 00

**10 81 00 Pest Control Devices - July 28, 2004**

- Work in this section is open to any product or material meeting the requirements of this Technical Guideline.
- Use of poisons and toxic substances is prohibited on Jefferson County School District, R-1 property without written consent of the Risk Management Department and the office of Environmental Compliance.
- Submittals
  1. Product Data: Required. Include MSDS
  2. Closeout: Submittals listed above, updated to record status.
- Bird Control:
  1. Use of separate, active bird control measures is not recommended.
  2. Instead, Jefferson County School District, R-1 requires building exteriors to be designed with minimal exposed structure and similar details which attract and harbor birds.
- Insect Control: No special requirements
- Rodent Control: Required at storm drainage outlets.

END SECTION 10 81 00