

SECTION 10100

MARKERBOARDS AND TACKBOARDS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of the Contract, including General Conditions and Division 1 Specifications, apply to the work of this section, with special attention to Section 01092 (Mounting Heights).

1.02 SUBMITTALS

- A. Comply with requirements of Section 01340 for shop submittals, product data, and samples.
- B. Submit product data for each type of board specified.
- C. Submit Shop Drawings, indicating size, length, joints, and room location of each type of board.
- D. Submit GRENGUARD Indoor Air Quality Certification and must meet stringent standards for low chemical emissions based on established health standards.

1.03 WARRANTY

- A. Provide manufacturer's written warranty agreeing to replace markerboards which have lost original writing and erasing qualities.
- B. Warranty Period: Manufacturer's standard warranty

1.04 QUALITY ASSURANCE

- A. All markerboards and tackboards shall be provided by a single source manufacturer.
- B. Contractor shall, upon request by Architect and Owner's Representative, disassemble one board of each type specified in order to demonstrate that all components comply with requirements of this Section.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store in a secure area, protected from weather and unauthorized access. Follow Manufacturer's written recommendations for storage and handling.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Claridge Products and Equipment, Harrison, AR, 1-870-743-2200, www.claridgeproducts.com, (shall be the basis of the specification and standard of quality).
- B. Best-Rite Manufacturing, Temple, TX, 1-866-886-6935, www.bestrite.com
- C. ADP Lemco Corporation, West Jordan, UT, 1-800-575-3626, www.adplemco.com
- D. Schalow Manufacturing Company, Powhatan, VA, 1-804-794-5102.
- E. Platinum Visual Systems, Corona, CA, 1-800-498-2990, www.pvusa.com
- F. Marsh Industries, Cincinnati, OH, 1-800-260-2776, www.SchoolOutfitters.com
- G. Aarco Products Inc, Yaphank, NY, 1-800-989-2348, www.aarcoproducts.com
- H. Pre-bid approved manufacturer (see Section 01630).

2.02 WHITE MARKERBOARDS

- A. White markerboards shall be as follows:
 - 1. New boards: Series 1, Type "A" (Factory Built),
- B. Porcelain writing surface shall be a vitreous ceramic baked-on 24 gauge minimum steel at 1500° F White markerboards: "LCS-3" (#100 White Low Gloss suitable as a projection surface) - Claridge as the basis of design. All markerboards are to be Magnetic surface and 100% non-combustible surface.
- C. Surface shall conform to requirements set forth in "Standards for Architectural Porcelain" by the Porcelain Institute.
- D. Color of writing surface shall be as selected by Architect from Manufacturer's standard finishes.
 - 1. Elementary School, Middle School and High School music rooms: Writing surface shall have four (4) sets of music staff lines with two treble notes and two bass clef notes in alternating arrangement.
- E. Particle board core shall be 3/8 inch thick.
- F. Backing sheet shall be minimum 0.015 inch thick aluminum sheet.

- G. Joints shall have concealed continuous steel splines, or a tongue and groove finished to a smooth even plane. "H" bars are not acceptable and shall be rejected.

2.03 TACKBOARDS

- A. Tackboards shall be as follows:
 - 1. Series 1, Type "CO".
- B. Tackboard Material: Claridge Bulletin Board Cork; cork and oxidized linseed oil, resin, jute, and pigments on burlap backing, self-healing, soil-resistant, washable, non-toxic, dimensionally stable.
- C. Board Construction: Burlap on hardboard; 1/4" thick tackable surface on 1/4" hardboard (1/2" total thickness).
- D. Color shall be as selected from Manufacturer's standard finishes.

2.04 TRIM AND ACCESSORIES

- A. Trim for white markerboards, and tackboards shall be as noted below. Provide the following:
 - 1. Aluminum trim tray for white markerboards. **Do not provide trim trays at white markerboards in Gymnasium.**
 - 2. Joint splines, end closures, and perimeter trim for white markerboards and tackboards.
 - 3. Trim shall be extrusions of not less than 3/32-inch thick aluminum, for installation without visible fastenings at full-face view; one piece with joints at corners only, no splices. Provide cast aluminum end closures for marker trays.
- B. Provide six map hooks and one flag holder per classroom. Provide one flag holder at all other markerboard locations.

2.05 TACK STRIPS

- A. Tack strips shall be No. 74 Deluxe Map and Display Rail. Provide tack strip at each white markerboard of length equal to length of markerboard
- B. Provide tack strips along the corridors; 3'-0" min to any door for a max length of 20'-0" and a 5'-0" interval before another tack strip.
- C. Tack strips shall be constructed of heavy-gauge extruded aluminum.
- D. Tack strips shall be approximately 1 3/8" wide and 8'-0" long each.

- E. Insert: Same material as tackboard. Natural cork is not acceptable and shall be rejected.
- F. Provide end caps at terminations of strips.

PART 3 – EXECUTION

3.01 INSTALLATION

- A. Series 1 – White markerboards and tackboards shall be surface-mounted with 2 inch clip angle hangers at 24 inch o. c. top and bottom. "Snap-on" installation shall utilize Manufacturer's standard ground clips.
- B. Grounds shall be continuous, aligned and shimmed to a true plane and shall be properly secured to wall surface. Maximum spacing of fasteners shall be 12-inch maximum o. c. under chalkboard and 20 inch o. c. maximum elsewhere.
- C. Clips shall be secured with cadmium-plated sheet metal screws. Power activating anchoring is not accepted.
- D. Markerboards and tackboards shall be set plumb and true, using spotting adhesive applied in spots 12 inch o. c., both horizontally and vertically.
- E. Mounting heights for markerboards and tackboards shall be as indicated by paragraph 1.04, Equipment Mounting Heights in Section 01092, Applicable Standards.
- F. Install corridor tackstrips in two rows, with clearances and maximum runs in accordance with criteria set forth in this section and Section 01092, and as indicated on the Drawings.

3.02 CLEANING

- A. Clean all materials in accordance with Section 01710 of these Specifications and with Manufacturer's printed recommendations.
- B. Remove all trash, debris, packaging, and other items associated with the work, and dispose of legally.

END OF SECTION

SECTION 10110

DISPLAY CASE

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of the Contract, including General Conditions and Division 1 Specifications, apply to the work of this section.

1.02 SUBMITTALS

- A. Comply with requirements of Section 01340 for shop submittals, product data, and samples.
- B. Submit Shop Drawings, indicating all information regarding the display equipment.

1.03 DELIVERY, STORAGE AND HANDLING

- A. Deliver and store in a secure area, protected from weather and unauthorized access. Follow Manufacturer's recommendations.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Claridge Products and Equipment: 376 – Design Standard www.claridgeproducts.com.
- B. Polyvision Corporation www.polyvision.com
- C. Aarco Products Inc, Yaphank, NY, 1-800-989-2348, www.aarcoproducts.com
- D. Pre-bid approved manufacturer (see Section 01630).

2.02 DISPLAY CASE

- A. Case shall be complete with a wood veneer box 16" deep, shelf standards, brackets and 12"x1/4" plate glass shelves. All exposed metals shall be extruded aluminum, with anodized satin finish.
- B. Doors shall be 1/4" tempered glass with special extended aluminum "H" molding top and bottom. Provide with lock, each door should have an adhesive mount finger slot. The doors shall slide smoothly, easily and quietly on fiber wheels at the bottom and rubber guides at the top.

- C. Provide tackable fabric for the case interior.
- D. Lighting is provided under a Division 16 section of the specifications. Each display cabinet shall be equipped with accommodations for light installation.

PART 3 – EXECUTION

3.01 INSTALLATION

- A. Clean all materials in accordance with Section 01710 of these Specifications and with Manufacturer's printed recommendations.
- B. Remove all trash, debris, packaging, and other items associated with the work, and dispose of legally.

END OF SECTION

SECTION 10160

PLASTIC TOILET PARTITIONS (HDPE)

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General Conditions and Division 1 Specifications apply to work of this section.

1.02 RELATED WORK

- A. Toilet Accessories: Section 10800.

1.03 DESCRIPTION OF WORK

- A. Extent of toilet partition work required is shown on drawings.
- B. Types of toilet partitions required include the following:
 - 1. Solid HDPE plastic; floor mounted, overhead braced.
- C. Types of screens required include the following:
 - 1. Solid HDPE plastic; floor mounted, wall braced.
- D. Hardware for plastic toilet partitions and screens.
- E. Extent of shower partition work is shown on the drawings.
- F. Types of shower partitions required include the following:
 - 1. Solid HDPE plastic; floor mounted, overhead braced.

1.04 QUALITY ASSURANCE

- A. Sole Source: All partitions, partition hardware and fasteners shall be provided by one manufacturer.
- B. Use only factory authorized or approved installers.
- C. Field Measurements: Take field measurements prior to preparation of shop drawings and fabrication to ensure proper-fitting work.
- D. Coordination: Furnish inserts and anchorage that must be built into other work for installation of toilet partitions and related work; coordinate delivery with other work to avoid delay.

1.05 SUBMITTALS

- A. Product Data: Submit manufacturer's detailed technical data for materials, fabrication, and installation, including catalog cuts of anchors, hardware, fastenings, and accessories.
- B. Shop Drawings: Submit shop drawings for fabrication and erection of toilet partition assemblies not fully described by product drawings, templates, and instructions for installation of anchorage devices built into other work.
- C. Samples: Submit full range of manufacturer's color samples for doors, panels, pilasters, pilaster shoes, and brackets. Submit minimum 4" square samples of each color and finish on same substrate to be used in work, for color verification after selections have been made.

1.06 DELIVERY, STORAGE AND HANDLING

- A. Deliver and store all partition components and accessories in manufacturers' original protective packaging, with packaging intact, in a secure area, safe from damage by the elements or work of other trades.

1.07 WARRANTY

- A. Provide manufacturers' written warranty covering all plastic components against breakage or deterioration for a period of 25 years.

PART 2 - PRODUCTS**2.01 ACCEPTABLE MANUFACTURERS**

- A. Scranton Products Company, Scranton, PA, 1-800-368-5002, (www.scrantonproducts.com).
- B. Rockville Partitions/General Partitions Incorporated (HDPE), Hennemar, AL, 1-256-657-6755, (www.rockvillepartitions.com).
- C. Partition Systems, Inc, Columbia, SC, 1-803-765-9980 (www.partitionssystem.com).
- D. Pre-bid Approved Manufacturer (see Section 01630).

2.02 MATERIALS

- A. General: Provide materials that have been selected for surface flatness and smoothness. Exposed surfaces that exhibit pitting, stains, discolorations, or other imperfections on finished units are not acceptable.

- B. Solid Plastic: High density, solid polyethylene (HDPE) with homogeneous color throughout. Provide material not less than 1" thick, seamless, with eased edges and radiussed corners.
- C. Aluminum: 6463-T5 alloy extruded aluminum, bright dip anodized finish (except as noted).
- D. Pilaster Shoes: Manufacturer's standard injection molded HDPE plastic shoe, not less than 3" high. Color shall match or shall be compatible with pilaster.
- E. Full length, Continuous Brackets: Manufacturer's standard design for attaching panels to walls and pilasters, as follows:
1. Extruded PVC plastic, with minimum wall thickness of 3/16". Color: compatible with panel finish.
- F. Waterproof and nonabsorbent, with self-lubricating surface, resistant to marks by pens, pencils, markers, and other writing instruments compatible with panel finish.
- G. Hardware and Accessories:
1. Hinges: 8" aluminum hinges with wrap-around flanges. Cam mechanism shall allow field adjustment up to 90°. Hinges shall be thru-bolted to pilasters and doors.
 2. Door Strike/Keeper: 6" long, aluminum with wrap around flanges; minimum 5/32" wall thickness. Bumper: Extruded black vinyl.
 3. Slide latch: Manufacturer's standard aluminum emergency latch for all inswinging doors; accessible latch at outswinging doors (with latch placement to allow emergency access procedure). Finish of side bar and button: Black anodized finish.
 4. Door pulls and Coat Hooks and Bumper shall be provided at all doors. At shower stalls provide 2 coat hooks as shown on the drawings. Bumper to be provided only at outswinging doors by the wall. Mount coat hooks at 47" AFF for HC stalls and other stalls including shower stalls at 5'-6" AFF.
 5. Door pulls and wall bumper: Finish: Chrome plated "Zamak" wall bumper shall be black rubber tipped.
 6. Heat Sinc: Continuous aluminum heat sinc on the bottom of all doors, divider panels and screens.
- H. Headrails: Continuous extruded aluminum tubing in anti-grip profile, 1/8" minimum wall thickness, with clear anodized finish. Provide Manufacturer's standard end cap.

- I. Headrail Brackets: 18 gauge, satin finish stainless steel.
- J. Anchorage and Fasteners: Manufacturer's standard exposed fasteners of stainless steel with tamper-resistant type heads and nuts. For concealed anchors, use hot-dip galvanized, cadmium-plated, or other rust-resistant protective-coated steel. Through bolt fasteners unless otherwise noted.
 - 1. Fasteners for installation of hinges, door strike/keeper, pilaster shoes, brackets and headrail: Stainless steel, torx head sex bolts.

2.03 FABRICATION

- A. Furnish standard doors, panels, screens, and pilasters fabricated for partition system, unless otherwise indicated. Furnish units with cutouts and drilled holes, to receive partition-mounted hardware, accessories, and grab bars, as indicated.
- B. Door Dimensions: Unless otherwise indicated, furnish 24" wide inswinging doors for ordinary toilet stalls and 36" wide outswinging doors at stalls equipped for use by individuals with disabilities. Outswinging doors at ambulatory accessible toilets shall be 32" clear. All stalls for individuals with disabilities/Ambulatory stalls must be self-closing.
- C. Solid Plastic Toilet Partitions and Screens
 - 1. General: Fabricate panels from polymer resins under high heat and pressure to form a single, solid, homogeneous sheet. Panels to be minimum 1" thick with uniformly machined radiused edges.
 - a. Divider panel, screen and door height: 60" Reference VCC 1210.3.2 for additional information.
 - b. Pilaster height: 82".
 - 2. Floor-Mounted, Wall-Braced Screens: Furnish panel units in sizes indicated, of same construction as partition system panels.

PART 3 - EXECUTION

3.01 INSPECTION

- A. Examine areas and conditions under which toilet partitions and related items shall be installed, including supporting anchors and supports installed by others.
- B. Notify Owner's Representative and Architect in writing of any conditions detrimental to proper and timely completion of work. Do not proceed with work until unsatisfactory conditions have been corrected.

3.02 INSTALLATION

- A. General: Comply with manufacturer's recommended written installation procedures and final approved shop drawing layouts and submittals. Install partitions rigid, straight, plumb, and level. Provide uniform clearance of not more than 1/4" between pilasters and door panels. Secure panels to walls, and panels to pilasters, with continuous wall brackets. Secure panels in position with manufacturer's recommended anchoring devices. There shall be no visible evidence of drilling, cutting or patching in the finished installation.
- B. Floor-Mounted, Wall-Braced Screens: Attach with heavy-duty anchoring devices, as recommended by manufacturer to suit supporting wall structure. Set units to provide support and to resist lateral impact.

3.03 ADJUSTMENT AND CLEAN-UP

- A. Hardware Adjustment: Adjust and lubricate hardware for proper operation. Set hinges on inswinging doors to hold open approximately 30 degrees from closed position when unlatched. Set hinges on outswinging door to return to fully closed position.
- B. Clean exposed surfaces of partition systems using materials and methods recommended by manufacturer, and provide protection as necessary to prevent damage during remainder of construction period.
- C. Remove all excess packaging, accessories, fasteners, tools and other debris associated with the work of this Section, and dispose of legally off-site.

END OF SECTION

SECTION 10190
CURTAIN AND TRACK
(CLINIC AND VIDEO PRODUCTION)

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Conditions of Contract including Division 1 Specifications shall apply to the work of this Section.

1.02 RELATED WORK

- A. Acoustical Tile Ceilings: Section 09510.

1.03 DESCRIPTION OF WORK

- A. Clinic & Wellness Room (Cubical Curtain)-Provide and install surface mounted channel track, hardware and curtains in clinic space(s) indicated on the drawings.
- B. Video Production (Studio Curtain) - Provide and install surface mounted channel track, curtain, and hardware in the configuration indicated on the Drawings. Fabricate curtain with no pleats.

1.04 QUALITY ASSURANCE

- A. Use only personnel who are skilled in the work required, completely familiar with manufacturer's recommended methods of installation, and thoroughly familiar with requirements of this Work for installation.

1.05 SUBMITTALS

- A. Color Samples: Submit four sets of manufacturers standard color samples for the type of curtain specified. Colors shall be on swatches of the approved curtain fabric.
- B. Installation Methods: Submit manufacturer's recommended installation procedures.
- C. Flame spread rating: Provide certification of flame spread rating, for cubicle curtain fabric that meets requirements of NFPA Bulletin 701. Include certification of flame spread rating for Video curtain fabric, and evidence of compliance with standards referenced in 2.04(A).

1.06 PRODUCT HANDLING

- A. Protection: Protect track hardware and curtains and adjacent work before, during and after installation.

- B. Replacements: In the event of damage, make all repairs and replacements necessary to restore installed curtain, track and hardware to previous unblemished, functioning condition.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS (Clinic & Wellness Curtain)

- A. CS Cubicle Curtains, (basis of specification) 1-800-416-1102 (www.csgroup.com/cubicle-track-curtains)
- B. ARNCO (A. R. Nelson Company, Inc.), St. Louis, MO, 1-800-377-6625 (www.arnelson.com)
- C. Imperial Fastener Company, Pompano Beach, FL, 1-954-782-0089 (www.imperialfastener.com)
- D. Pre-bid approved manufacturer in accordance with Section 01630

2.02 CHANNEL TRACK AND SYSTEM (Clinic & Wellness Curtain)

- A. Curtain: 100% Trevira Polyester Oxford Cloth; inherently flame resistant and washable, with 20" or 21" high, continuous #40 open mesh top. Mesh shall be flame retardant, washable, 100% nylon mesh. Mesh shall be sewn to the body of the curtain in accordance with manufacturers standard procedures. Color shall be a solid color as selected from manufacturers standard line.
- B. Track: General Cubicle Specification #6062 surface mounted cubicle track; dual channel, satin finished extruded aluminum.
 - 1. Carrier gate assembly: carrier gate 262 and carrier stop 162; provide at stacking points.
 - 2. General carrier: #1062N; nylon axle and wheel with nickel plated brass bead chain and hook.
 - 3. Wall sockets, radius ties, splices and other accessories: Provide all accessories required for a complete, functioning installation of layout shown on the Drawings.

2.03 OTHER MATERIALS

- A. Other materials, not specifically described but required for a complete and proper installation shall be as recommended by the cubicle manufacturer.

2.04 ACCEPTABLE MANUFACTURER (Video Production)

- A. Curtain Fabric: "Janus Cloth" (Dazian Fabrics, 1-212-307-7800) or other pre-bid approved fabric; washable, dry cleanable, dimensionally stable, 50% additional fabric fullness, meeting the following specifications and criteria:
1. Fiber Content: 100% "Avara" (Trevira) Polyester
 2. Fabric Weight: 11 oz per linear yard
 3. Fabric Width: 72"
 4. Fabric color: Chroma Key blue with no pleats (flat curtain)
 5. Inherently flame resistant for the life of the fabric:
 - a. Meets requirements of NFPA Bulletin 701
 - b. Complies with FAA regulation (Compartment Interiors, Paragraph 25.853b)
 6. Performance Testing: Meets USA L22 requirements for woven curtain and drapery fabrics as follows:
 - a. Wyzenbeck Abrasion-Medium Duty Upholstery Test – ASTM 3957
 - b. Resistance to Yarn Slippage – ASTM D434
 - c. Tensile Strength: ASTM D1682
 - d. Tear Strength: ASTM D1424
 - e. Shrinkage in Machine Laundering: AATCC 86
 - f. Color Fastness
 - 1) to Light: AATCC 16A
 - 2) to Crocking: AATCC 8
 - 3) to Accelerated Laundering: AATCC 61 IIIA
 7. Smoke Generation: Tested in accordance with NFPA 258 and US DHEW: 450 or less

2.02 ACCEPTABLE FABRICATOR/INSTALLERS:

- A. Yardstick Interiors, Capitol Heights, Maryland, 1-301-350-0550.
- B. Baron Stage Curtain and Equipment Company, Inc. 1-410-327-6962.

- C. Luxout Stage Curtains, Richmond, VA 804-264-3700
- D. Other fabricator/installers meeting the requirements of this Section and 01630

2.03 CURTAIN TRACK SYSTEM (Video Production)

- A. Curtain Track: Surface mounted "cubicle" type track, anodized aluminum as manufactured by General Cubicle Co., Telford, PA, 1-215-723-8931, (www.generalcubicle.com) (Basis of Specification). Equivalent products by the following manufacturers shall be acceptable:
 - 1. ARNCO (AR Nelson Company, Inc.), St. Louis, MO, 1-800-377-6625, (www.arnelson.com)
 - 2. Imperial Fastener Company, Pompano Beach, FL, 1-954-782-0089, (www.imperialfastener.com)
- B. Track shall be supplied with the following to provide a complete installation:
 - 1. 12" radius bends where required on drawings.
 - 2. Carrier gate assembly at all stacking points (includes carrier gate and stop).
 - 3. Carrier gate: #6062.

2.04 FABRIC CONSTRUCTION

- A. Top hem: 1 1/2" wide with three thicknesses of fabric and integral webbing.
- B. Bottom and side hems: 1" wide with three thicknesses of fabric. Bottom hem sewing to be turned vertically at corners.
- C. Vertical Seams: Overlapped, sewn with double needle and interlocked stitch.
- D. All sewing to be performed with lock stitch machines.
- E. Grommets: nickel plated brass, spaced 6" on center and fully machined into top hem.
- F. Flame Resistance: All material must be flame proofed by immersion or permanently and inherently flame resistant. Each fabric shall have a sewn on the back, a label indicating type of flame resistance and smoke spread rating. Dry cleaning, care and maintenance instructions shall be printed on each label.

PART 3 - EXECUTION

3.01 SURFACE CONDITIONS

A. Inspection

1. Inspect installed work of other trades and verify that such work is complete to the point where this installation may properly commence.
2. Verify that track system may be installed in accordance with original design and manufacturer's recommendations.

B. Discrepancies:

1. In event of discrepancies with installed work of other trades, notify Architect and Owner's Representative.
2. Do not proceed with installation until discrepancies have been fully resolved.

3.02 INSTALLATION

A. Install surface mounted track where indicated on Drawings, anchoring components firmly in place in accordance with manufacturer's recommendations.

1. Mount cubicle track directly to main runner of acoustical tile grid system. Where direct attachment is not possible, mount through ceiling panel to metal furring channels suspended from structure. Mounting by means of wood blocking is not acceptable.

3.03 INSPECTION AND ADJUSTMENT

A. Inspect entire work of this Section, test and adjust components for proper operation and straight alignment, and touch-up scratches and abrasions to be completely invisible.

3.04 CLEANING

A. Remove all rubbish and excess materials associated with the performance of this work from the premises and dispose of legally.

END OF SECTION

SECTION 10191

BACKDROP CURTAIN AND TRACK (ELEMENTARY SCHOOLS)

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Conditions of Contract including General Conditions and Division One Specifications, apply to the work of this Section.

1.02 RELATED WORK

- A. Acoustical Tile Ceilings: Section 09510

1.03 DESCRIPTION OF WORK

- A. Provide and install surface mounted channel track, curtain, and hardware in the configuration indicated on the Drawings. Fabricate curtain to allow stacking on both sides of opening.
- B. Location: Multi-Purpose/Stage or as shown on the drawings

1.04 QUALITY ASSURANCE

- A. Installer shall be a firm regularly engaged in the complete installation of draperies, curtains and hardware. Installer shall use only personnel who are skilled in this type of work, and who are completely familiar with the manufacturer's recommendation for track and hardware installations and proper handling of the curtain.

1.05 SUBMITTALS

- A. Color samples: Submit four sets of fabric manufacturers' standard colors. Colors shall be on swatches of the approved fabric material.
- B. Product Data: Submit manufacturers' product data for hardware, curtain track, and curtain. Include certification of flame spread rating for curtain fabric, and evidence of compliance with standards referenced in 2.01(A).
- C. Installation and Maintenance: Submit manufacturers recommended installation instructions and maintenance information for fabric washing and stain removal.

1.06 PRODUCT HANDLING

- A. Deliver and store materials in an area secure from construction damage and unauthorized access. Protect materials before, during and after installation.

- B. In the event of damage, make all repairs and replacements necessary to restore damaged materials.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURER

- A. Curtain Fabric: "Janus Cloth" (Dazian Fabrics, 1-212-307-7800) or other pre-bid approved fabric; washable, dry cleanable, dimensionally stable, 50% additional fabric fullness, meeting the following specifications and criteria:
 - 1. Fiber Content: 100% "Avara" (Trevira) Polyester
 - 2. Fabric Weight: 11 oz per linear yard
 - 3. Fabric Width: 72"
 - 4. Fabric color: Black
 - 5. Inherently flame resistant for the life of the fabric:
 - a. Meets requirements of NFPA Bulletin 701
 - b. Complies with FAA regulation (Compartment Interiors, Paragraph 25.853b)
 - 6. Performance Testing: Meets USA L22 requirements for woven curtain and drapery fabrics as follows:
 - a. Wyzenbeck Abrasion-Medium Duty Upholstery Test – ASTM 3957
 - b. Resistance to Yarn Slippage – ASTM D434
 - c. Tensile Strength: ASTM D1682
 - d. Tear Strength: ASTM D1424
 - e. Shrinkage in Machine Laundering: AATCC 86
 - f. Color Fastness
 - 1) to Light: AATCC 16A
 - 2) to Crocking: AATCC 8
 - 3) to Accelerated Laundering: AATCC 61 IIIA
 - 7. Smoke Generation: Tested in accordance with NFPA 258 and US DHEW: 450 or less

2.02 ACCEPTABLE FABRICATOR/INSTALLERS:

- A. Yardstick Interiors, Capitol Heights, Maryland, 1-301-350-0550.
- B. Baron Stage Curtain and Equipment Company, Inc. 1-410-327-6962.
- C. Luxout Stage Curtains, Richmond, VA 804-264-3700
- D. Other fabricator/installers meeting the requirements of this Section and 01630.

2.03 CURTAIN TRACK SYSTEM

- A. Curtain Track: Surface mounted "cubicle" type track, anodized aluminum as manufactured by CS Cubicle Curtains., 1-800-416-1102 (www.c-sgroup.com/cubicle-track-curtains) (Basis of Specification). Equivalent products by the following manufacturers shall be acceptable:
 - 1. ARNCO (AR Nelson Company, Inc.), St. Louis, MO, 1-800-377-6625, (www.arnelson.com)
 - 2. Imperial Fastener Company, Pompano Beach, FL, 1-954-782-0089, (www.imperialfastener.com)
- B. Track shall be supplied with the following to provide a complete installation:
 - 1. 12" radius bends where required on drawings.
 - 2. Carrier gate assembly at all stacking points (includes carrier gate and stop).
 - 3. Carrier gate: #6062.

2.04 FABRIC CONSTRUCTION

- A. Top hem: 1 1/2" wide with three thicknesses of fabric and integral webbing.
- B. Bottom and side hems: 1" wide with three thicknesses of fabric. Bottom hem sewing to be turned vertically at corners.
- C. Vertical Seams: Overlapped, sewn with double needle and interlocked stitch.
- D. All sewing to be performed with lock stitch machines.
- E. Grommets: nickel plated brass, spaced 6" on center and fully machined into top hem.
- F. Flame Resistance: All material must be flame proofed by immersion or permanently and inherently flame resistant. Each fabric shall have a sewn on the

back, a label indicating type of flame resistance and smoke spread rating. Dry cleaning, care and maintenance instructions shall be printed on each label.

PART 3 - EXECUTION

3.01 INSPECTION

- A. Prior to installation, inspect installed work of other trades and verify that such work is complete and will allow proper performance of the work in accordance with original design and manufacturer's recommendations.
- B. Notify Contractor and Owner's Representative of discrepancies affecting performance of the work. Do not proceed until such discrepancies have been corrected.

3.02 INSTALLATION

- A. Install surface mounted track directly onto main runner of ceiling grid using fasteners and fastener spacing as recommended by the cubicle track manufacturer. Utilize track sections in longest lengths possible to minimize splices. Install bends where required by Drawings.
 - 1. Where direct attachment to ceiling grid is not possible, mount through ceiling panel to metal furring channels suspended from structure using wire suspension. Mounting by means of wood blocking is not acceptable.
- B. Combustible blocking for track attachment shall not be allowed.
- C. All curtains to be mounted 1/2" above the finished floor.

3.03 INSPECTION AND ADJUSTMENT

- A. Inspect work for compliance to manufacturer's installation instructions. Test and adjust components for proper operation and alignment. Touch-up all scratches and abrasions.

3.04 CLEANING

- A. Remove all rubbish and excess materials associated with this Work from the premises and dispose of legally.

END OF SECTION

INSTRUCTIONS FOR EDITING

SECTION 10200

LOUVERS AND VENTS

1. Coordinate work of this Section with Division 15. If brick vents are not applicable to project, delete the following:
 - A. Subparagraph 1.03 (C)
 - B. Subparagraph 2.01 (B)
 - C. Subparagraph 2.02 (B)
2. Paragraph 2.05, Finishes: Edit for finish selection.

SECTION 10200
LOUVERS AND VENTS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General Conditions and other Division 1 Specification Sections, apply to the Work of this Section.

1.02 RELATED WORK

- A. Unit Masonry: Section 04200.
- B. Sealants: Section 07900.
- C. Air Distribution Devices: Section 15870.

1.03 QUALITY ASSURANCE

- A. Louvers shall comply with AMCA test standards for pressure drop and water leakage and carry AMCA certified ratings seal.
- B. Comply with SMACNA "Architectural Sheet Metal Manual" for fabrication and installation except where noted.
- C. Brick vents: Comply with NAAM "Metal Finishes Manual".

1.04 SAMPLES

- A. Provide 4 samples, minimum size 3 inches X 6 inches, of color specified on the actual base metal.

1.05 SHOP DRAWINGS AND CERTIFICATIONS

- A. Clearly indicate, in large scale, profile of frame and installation details, relation to adjacent construction, flashing, blade configuration connections to duct work, bird screens, and percentage of free air opening. Incorporate field measurements to minimize on-site adjustments, splicing, joints and field assembly.
- B. Provide evidence of AMCA Certified Ratings for water penetration and air performance as part of louver submittal.
- C. Include information on loadbearing extension as part of brick vent submittal.

1.06 PROTECTION

- A. Protect louvers and finishes from damage during delivery and installation.
- B. Protect adjacent surfaces, finishes, and material from damage during installation of louvers.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Acceptable Manufacturers (Louvers)
 - 1. Arrow United Industries, Wyalusing, PA, 1-570-746-1888 (www.arrowunited.com), Model EA-405
 - 2. The Airolite Company, Marietta, OH, 1-740-373-7676 (www.airolite.com) Model K6774
 - 3. Airline Products, Minneapolis, MN, 1-800-547-2635, (www.airlinelouvers.com) Model XB4
 - 4. American Warming and Ventilating, Holland, OH, 1-419-865-5000 (www.awv.com) Model LE-48
 - 5. Pre-bid approved manufacturer(s); See Section 01630
- B. Acceptable Manufacturers (Brick Vents)
 - 1. The Airolite Company, "E" series
 - 2. Airline Products
 - 3. Industrial Louvers, Inc., Delano, MN, 1-763-972-2981 (www.industriallouvers.com)
 - 4. Sunvent Industries (Sylvo Sales Corp.), Pelham, NH, 1-800-325-4115
 - 5. CS Group, Construction Specialties, Inc., Lebanon, NJ, 1-888-621-3344 (www.C-Sgroup.com)
 - 6. Pre-bid Approved Manufacturer(s); See Section 01630

2.02 TYPE

- A. Louvers:

1. Stationary-blade, drainable, or baffle type.
- B. Brick Vents:
1. Extruded aluminum, loadbearing, and masonry rib design. Sizes shall be as indicated on the drawings. Provide load-bearing extension in order to span full thickness of wall.
 2. Features and Accessories: Continuous sill drip and weep holes, integral water stop, extruded blades with integral drip; units furnished with aluminum wire, 1/2" mesh "bird" screens.

2.03 MATERIALS

- A. Louvers: Extruded aluminum, 6063-T5, .081 inches thick minimum.
- B. Brick Vents: 6063T5 Extruded aluminum, 0.125 inches thick (minimum).

2.04 FABRICATION (LOUVERS)

- A. Louvers: Extruded aluminum, 4 in. wide, minimum 0.081 inch with integral waterstop tabbed and riveted to a 0.081 inch minimum channel frame and gas metal arc welded to provide a rigid and square self-supporting unit with fixed blades at 45 degree slope. Free area: 5.25 square feet minimum based on a 48" x 48" louver.
- B. Bird Screen: 1/2 inch interwoven square mesh, 16 gauge in formed frame: black color.
- C. Accessories: Recessed mullions, sill pieces, flashings, wall anchors.

2.05 FINISHES

- A. Louvers and Vents: Provide the following finish available in manufacturer's standard color range:
1. Kynar: Fluoropolymer coating containing Kynar 500 resin.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Field verify dimensions related to openings for installation of louvers and vents. Notify Architect and Owner's Representative if conditions are encountered that will interfere with proper installation.

- B. Ensure that openings designated to receive louvers and vents are properly prepared and that flashings are correctly located to divert moisture to exterior.
- C. Do not proceed with the Work of this Section until unsatisfactory conditions are corrected.

3.02 INSTALLATION

- A. Install louvers and vents in openings level with 1/4 inch in 10 feet and plumb within 1/4 inch in 10 feet.
- B. Secure louver rigid with concealed fasteners of non-corrosive metals to suit materials encountered.
- C. Coordinate installation method with application of masonry and mechanical work. Where brick vents are indicated, ensure that brick vent and load bearing extension support full thickness of masonry wall.
- D. Set and tie in to flashings to ensure diversion of moisture to exterior.
- E. Install bird screens fixed to interior of wall louvers.
- F. Clean exposed surfaces with mild soap and water. Rinse thoroughly and dry.

END OF SECTION

SECTION 10352

FLAGPOLES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General Conditions and Division 1 Specifications Sections, apply to the Work of this Section.

1.02 SUMMARY OF WORK

- A. Location of flagpole(s) is indicated on the Drawings.
- B. Provide and install flagpole(s) and mounting system complete with all fittings and hardware as described in this Section.

1.03 SUBMITTALS

- A. Product Data: Submit manufacturer's technical and catalog data and installation instructions demonstrating compliance with the requirements of this Section.
- B. Shop Drawings: Submit shop drawings covering flagpoles and bases, showing general layout, joinery, and anchoring and support methods.

1.04 QUALITY ASSURANCE

- A. Single Source: Provide each flagpole as a complete unit, produced by a single manufacturer, including fittings, accessories, bases and anchoring devices.
- B. Wind Resistance: Flagpoles shall be constructed and installed to withstand a minimum 90 mile per hour (mph) wind velocity when flag is flying (in accordance with ANSI/NAAM Standard FP 1001-97).
- C. Construction: Construct pole and ship to site in one (1) piece if feasible. Where flagpole is fabricated in more than one piece, provide snug-fitting, precise joints outfitted with self-aligning, internally spliced sleeve construction, to result in weather-tight, "hairline" field joints.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Ship flagpole(s) in hard fiber tubing or other protective container. Spiral wrap each pole in heavy Kraft paper prior to placing in container.
- B. Flagpole(s) and all accessories shall be clearly labeled with manufacturer's identification and parts numbers, with all installation instructions intact.
- C. Handle flagpole(s) and accessories carefully to prevent damage and soiling. Store in a secure area.

PART 2 - PRODUCTS

2.01 Approved Manufacturers

- A. Concord American Flagpole, Addison, TX, 1-800-527-3902 (www.flagpoles.com) (basis of specification).
- B. Morgan-Francis Company, Inc., Arlington, IN, 1-800-814-9568 (www.morgan-francis.com)
- C. Baartol Company, Inc., Kenton, OH, 1-800-537-4143 (www.baartol.com)
- D. Eder Flag Manufacturing Co., Oak Creek, WI, 1-800-558-6044 (www.ederflag.com)
- E. Pole-Tech Company, Inc., E. Setawket, NY, 1-800-633-6733 (www.poletech.com)
- F. Other pre-bid approved manufacturers, complying with the requirements of this Section, are acceptable.

2.02 Flagpole

- A. Cone tapered aluminum, fabricated from seamless extruded tubing complying with ASTM B241, of alloy 6063-T6. Wall thickness shall be 3/16" minimum (0.1875"), with tensile strength not less than 30,000 psi, and yield point of not less than 25,000 psi. Tubing shall be heat-treated and age-hardened after fabrication.
- B. Finish: Fine, directional, mechanical satin polished, bronze anodized finish, complying with NAAM M-32 and AA M32-C12-A42.

2.03 Flagpole Mounting

- A. Provide embedded, ground set mounting system using 16 gauge minimum, galvanized steel foundation tube, complete with welded steel base plate, setting plate, ground spike, wedges and sealant. Provide manufacturer's standard aluminum collar, finished to match pole and properly sized for the foundation tube.

2.04 Fittings

- A. Finial Ball: 14 gauge minimum flush seam, spun aluminum, with gold anodized finish.
- B. Truck: Double sheaved, ball bearing, non-fouling, revolving double-track assembly of cast metal, finished to match flagpole shaft.

- C. Cleats: Provide two (2) 9" cast aluminum cleats with stainless steel fasteners, finished to match flagpole shaft.
- D. Halyards: Provide two (2) continuous halyards for each flagpole, as follows:
 - 1. Braided nylon or polypropylene rope, No. 10 (5/16" diameter).
 - 2. Provide two (2) aluminum swivel snaps per halyard; finish shall be satin luster or chrome.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Excavate to neat, clean lines in undisturbed soil. Provide forms where unstable soil is encountered. Remove loose soil, rubbish, organic material or other foreign matter from the excavated area. Moisten earth prior to placing concrete.
- B. Provide concrete complying with ASTM C94, with 28 day compressive strength of at least 3000 psi, and air entrained. Place concrete immediately after mixing. Provide chuting to avoid segregation of concrete. Compact by use of vibrators. Cure concrete in accordance with ACI standards. Concrete shall be trowel finished, with positive slope for runoff to perimeter of base.
- C. Install flagpole(s) in location(s) indicated on Drawings and in accordance with manufacturer's instructions. Provide positive lightning ground at each location. Prior to placement, paint portions of flagpole that shall be underground with a heavy, uniform coat of bituminous paint.
- D. Unless otherwise indicated on Drawings, provide flagpoles in quantities and heights as follows:
 - 1. Elementary Schools: One (1) flagpole with 30' installed height.
 - 2. Middle and High Schools: Three (3) flagpoles; one (1) with 35' installed height and two (2) with 30' installed height.
- E. Upon completion of the Work, remove all excess soil, rubbish, tools and equipment from the Site and dispose of legally.

END OF SECTION

SECTION 10430

BUILDING IDENTIFICATION LETTERS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General Conditions and other Division 1 Specification Sections, apply to the Work of this Section.

1.02 SUBMITTALS

- A. Submit shop drawings indicating the following:
 - 1. Location of letters on intended wall surface
 - 2. Copy, size, spacing, and type of letters
 - 3. Method of mounting to wall surface, with correct type of fasteners shown.
- B. Provide two (2) samples demonstrating type of metal and specified finish.

1.03 WARRANTY

- A. Provide a minimum five (5) year finish warranty covering coating integrity.

PART 2 - PRODUCTS

- A. Letters: Cast Aluminum, 1" deep, "Helvetica" Style; provide 12" high letters for school name and 8" high numbers for street address.
- B. Copy: Signage shall read as follows:
 - " _____ SCHOOL" (Name of School)
 - " _____ " (Street Number)
- C. Finish: Clear anodized finish meeting minimum warranty requirements stated in 1.03. Letters shall be mechanically sanded, filed, degreased and primed prior to finish application.
- D. Mounting: Provide manufacturer's standard mounting hardware and accessories for mounting to type of wall surface or substrate indicated on the Drawings.

PART 3 - EXECUTION

3.01 PREPARATION AND INSTALLATION

- A. Examine the surfaces to receive letter mounting. Verify that the letters can be securely mounted to the wall surface in the approved location. Notify the Owner's Representative and Architect of any conditions that would adversely affect the installation. Do not proceed until such conditions have been corrected.
- B. Install building letters in approved location, properly and evenly spaced, using manufacturer-provided full size template. Mount letters securely, using manufacturer's recommended hardware, and attached in accordance with manufacturer's written instructions. For mounting on brick, anchor into mortar joints; do not penetrate bricks.
- C. After installation, remove all packaging and excess materials associated with the work of this Section from the work area and dispose of legally.

END OF SECTION

INSTRUCTIONS FOR EDITING

SECTION 10440

INTERIOR SIGNS AND ROOM SIGNAGE

1. Part 1, 1.03, B. Edit the locations of the Interior Directional Signs per project requirements and the specific Space Programming for the project as indicated.
2. Indicate on plans locations of the interior directional signs with interior elevations indicating flow direction.

SECTION 10440

INTERIOR SIGNS AND ROOM SIGNAGE

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including Conditions and Division One Specification Sections, apply to work of this Section.

1.02 RELATED WORK

- A. Building Identification Signage: Section 10430.
- B. Site signage, including site accessibility signage, is covered on Civil Drawings.

1.03 DESCRIPTION OF WORK

- A. Furnish and install interior signs in the following locations:
 - 1. Each permanent room and space within the project area.
 - 2. Utility rooms: Exterior doors accessing storage rooms, sprinkler rooms, electric rooms, boiler rooms, elevator machine rooms, and other mechanical or electrical spaces as indicated on the Drawings.
 - 3. Where indicated on the Drawings, signs providing direction to, or information about, permanent rooms and spaces.
 - 4. Provide international symbol of accessibility signage at all group toilets, individual staff and student toilets, and accessible entry and egress doors.
 - 5. Doors into enclosed courtyards: Provide signs with the following text: "Door shall remain unlocked from Courtyard during occupied hours".
- B. Furnish and install Interior Directional Signs in the following locations:
 - 1. Towards elevator(s) as indicated on the drawings.
 - 2. Towards ramp(s) as indicated on the drawings.
 - 3. Towards the Main Gym, Main Administrative Office and Student Services, Library, Auditorium, SACC, Lecture Hall and Career Center.
- C. Furnish and install AED Wall sign (Model number # 989803170921 by Philips)

1. Mount sign above each Defibrillator Cabinet at 82" AFF to bottom of plate.
 2. Mount sign to allow optimum visibility in two directions (T-mount).
 3. Color shall be RED.
- D. Furnish and install Raised Character and Braille Exit Signs.
1. A sign stating "EXIT" in raised characters and Braille.
 2. Provide to an area of Refuge, an exterior area for assisted rescue, an exit stairway, an exit ramp, an exit passageway and the exit discharge.
 3. Size: 6" W x 4" H

1.04 REQUIREMENTS OF REGULATORY AGENCIES

- A. Signage shall comply with applicable provisions of the Americans with Disabilities Act (ADA), including but not limited to, the following:
1. 1/32" high raised letters, numerals and Grade 2 Braille in type, style and sizes as defined in ADA standards. (Braille not required for doors serving utility spaces).
 2. Locate on latch side of doors; except at door pairs, locate on nearest adjacent wall. Locate to comply with path of approach and to avoid protruding objects.
 3. Comply with finish and contrast requirements.

1.05 SUBMITTALS

- A. Submit manufacturer's specifications and technical data indicating compliance with this Section.
- B. Submit samples of letters, numerals, sign type, colors and materials.
- C. Submit shop drawings for each type of sign showing dimensions of plaque and characters.
- D. Submit list of all signage required for permanent rooms and spaces, including directional signage where indicated on the drawings. Room names and numbers indicated on floor plans and Finish Schedule shall not be used for signage fabrication. The list of actual names and numbers will be provided by the Architect or Owner's Representative prior to preparation of submittals.

1.06 WARRANTY

- A. Submit manufacturer's written product warranty covering materials and fabricated signs.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Best Sign Systems, Inc., Montrose, CO, 1-800-235-BEST (www.bestsigns.com)
- B. Mohawk Sign Systems, Inc., Schenectady, NY, 1-518-370-3433 (www.mohawksign.com)
- C. National Sign, Inc., Ambridge, PA, 1-800-363-1203 (www.natsign.com)
- D. Signs and Wonders, Inc.
- E. Bayuk Graphic Systems, Inc., Parkesburg, PA, 1-717-442-0247
- F. R&D Stamp & Sign Co., Inc, Lorton, Virginia 1-703-5501423
- G. Other pre-bid approved manufacturer(s) in accordance with Section 01630.

2.02 MATERIALS AND FABRICATION

- A. Plaque: Basic stock shall be 1/8" thick, melamine laminate or matte acrylic with face and backplate; provide radiussed corners.
- B. Characters: Provide 3/4" raised letters, 1" numerals, and braille characters where required on background stock by means of a blast process or by chemically welding characters to stock.
- C. Raised Copy: Provide up to seventeen (17) characters for letters, up to three (3) characters for numbers. Provide accompanying raised braille.
- D. Character Type: Upper case, sans serif or simple serif.
- E. Room signs, excluding utility rooms, gym, library, cafeteria, toilet rooms and storage rooms: Provide one 3/4" high window with Lexan insert.

PART 3 - INSTALLATION

3.01 SIGN MOUNTING

- A. Mounting Method: MM (Mechanical Fastening). Mounting by means of double-faced adhesive tape shall not be acceptable.
- B. Drill and insert appropriate type plugs or expansion anchors into wall substrate.
- C. Attach signs to wall using countersunk tamperproof screws. Screw heads shall be flush with sign face.
- D. Mount so that bottom of the letters above finished floor surface is as follows:
 - 1. All Schools: 48" min – 54" max.

3.02 CLEANING

- A. Remove all construction debris and excess materials associated with the work of this Section from the job site and dispose of legally.

END OF SECTION

INSTRUCTIONS FOR EDITING

SECTION 10505

METAL LOCKERS AND LOCKER BENCHES

1. General: This Section includes standard wardrobe lockers at corridors, athletic lockers (PE and Team Rooms), Kitchen and Custodian staff and locker room benches.
2. Edit the following as appropriate to comply with project requirements:
 - a. 1.02 WORK DESCRIPTION, Subparagraph B.
 - b. 3.01 INSTALLATION: delete subparagraph D (Benches) if not part of Work Scope.
3. Middle School and High School: Provide numbering sequence for lockers (on drawings or provide at the time of shop drawing submittal). Coordinate numbering sequence with school.

SECTION 10505

METAL LOCKERS AND LOCKER BENCHES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General Conditions and Division 1 Specification Sections, apply to this Section.

1.02 RELATED WORK

- A. Section 03300: Cast in Place Concrete: Concrete Bases
- B. Section 06100: Rough Carpentry: Wood ground and furring
- C. Section 09662: Resilient Tile Floor, Base and Accessories (VCT)

1.03 WORK DESCRIPTION

- A. This Section includes provision and installation of metal lockers, accessories, and related equipment in quantities and locations as indicated on the Drawings.
- B. Types of products in this section include the following:
 - 1. High School Corridor Wardrobe:
 - a. Wall Mounted, Double Tier:
15" W x 12" D x 72" H; non-vented with sloped top
 - 2. High School Coaches:
 - a. Wall Mounted, Single Tier:
12" W x 12" D x 60" H; vented with flat top
 - 3. Middle School Corridor Wardrobe:
 - a. Wall Mounted, Double Tier:
15" W x 12" D x 60" H; non-vented with sloped top
 - 4. Middle and High School Tech Labs
 - a. Underneath 2 ¼" thick Edge Grain Maple Top, Double Tier
12" W x 18" D x 30" H, non-vented (back to back)
 - 5. Kitchen Staff (all schools) and Custodian Staff:

- a. Wall Mounted, Single Tier:
12" W x 18" D x 60" H; non-vented with flat top
6. Athletic Lockers:
 - a. Physical Education:
 - 1) High School (double tier): 12"W x 12"D x 36"H; vented, with flat tops (free-standing or wall mounted as indicated on the Drawings, 72" total height).
 - 2) Middle School (double tier): 12"W x 12"D x 30"H; double tier, vented, with flat tops (freestanding or wall mounted as indicated on the Drawings, 60" total height).
 - b. Team Room Lockers (High School Only):
 - 1) Football: 24"W x 18"D x 60"H; single tier, expanded or perforated metal, with flat tops (freestanding or wall mounted as indicated on the Drawings).
 - 2) Girls: 12"W x 15"D x 60"H; single tier, expanded or perforated metal, with flat tops (freestanding or wall mounted as indicated on the Drawings).
 - 3) Boys: 18"W x 18"D x 60"H; single tier, expanded or perforated metal, with flat tops (freestanding or wall mounted as indicated on the Drawings).
6. Locker room benches. (See drawing for handicap location.)

1.04 SUBMITTALS

- A. Submit the following in accordance with Section 01340.
 1. Manufacturer's Product data and written installation instructions for all types of metal locker units specified. Product data shall include manufacturer's catalog, supplemented with a clear written description of each type of locker, including gauges of body parts and a complete list of all accessories.
 2. Color Samples on squares of the same metal that shall be used for fabrication of lockers.
 3. Door sample with recessed handle, pan and locking mechanism.
 4. Shop Drawings that show metal lockers in dimensioned relation to adjacent surfaces based on field verification of dimensions and

clearances. Show lockers in detail, method of installation, fillers, trim, base, and accessories. Include locker numbering sequence information.

5. Actual working sample of each type of locker specified.
6. Combination Listing for combination locks and their respective locker numbers in electronic format. Coordinate with item 4 above. This contractor must provide CD ROM to Owner with electronic listing of which locker number received which combinations.
7. Manufacturer's standard warranty.
8. Greenguard Certification.

1.05 QUALITY ASSURANCE

- A. Single Source Responsibility: Provide metal lockers that are standard products of a single manufacturer, with interchangeable like parts. Include manufacturer's required mounting accessories, fittings, and fastenings.
- B. Lockers shall be GREENGUARD Children and Schools Certified.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Do not deliver metal lockers until building is enclosed and ready for locker installation.
- B. Store metal lockers in a secure, climate controlled location, in original packaging.
- C. Protect metal lockers from damage during delivery, storage, handling, and installation. Upon installation, protect from damage by other trades using cardboard and/or Kraft paper.

1.07 WARRANTY

- A. Provide manufacturer's minimum ten (10) year warranty covering materials and workmanship.

PART 2 - PRODUCTS

2.01 APPROVED MANUFACTURERS

- A. List Industries, Deerfield Beach, FL, 1-800-776-1342, (www.listindustries.com), shall be basis of design and standard of quality.
- B. Subject to compliance with the requirements of this Section, equivalent products of one of the following shall be acceptable:

1. Penco Products, Oaks, PA, 1-800-562-1000, (www.pencoproducts.com)
2. Lyon Workspace Products, Aurora, IL, 1-800-323-0082, (www.lyonworkspace.com), shall be the basis of Specification and standard quality.
3. AMP (Art Metal Products) Deerfield Beach, FL, 1-800-252-5633, www.ArtMetalproducts.com
4. Pre-bid approved manufacturer in accordance with Section 01630.

2.02 MATERIALS

- A. Sheet Steel: Mild cold-rolled and leveled furniture steel, free from buckle, scale, and surface imperfections.
- B. Expanded Metal: 3/4-inch mesh flattened carbon steel.
- C. Fasteners: Cadmium, zinc, or nickel-plated steel; exposed bolt heads, slotless type; self-locking nuts or lock washers for nuts on moving parts.
- D. Equipment: Hooks and hang rods of cadmium-plated or zinc-plated steel.

2.03 FABRICATION GENERAL

- A. Construction: Fabricate locker components square, rigid, and without warp, with metal faces flat and free of dents or distortion. Make exposed metal edges safe to touch. Weld door assemblies to form rigid, one-piece structure. Weld, bolt, or rivet other joints and connections. Grind exposed welds flush.
- B. Sheet Steel: Mild cold rolled and leveled furniture steel, free from buckle, scale, and surface imperfections.
- C. Frames: Fabricate of 16-gauge channels or 12-gauge angles minimum, as specified for locker type, with continuous stop/strike formed on vertical members.
- D. Fasteners: Cadmium, zinc, or nickel-plated steel; exposed bolt heads, slotless with self-locking "Kep" or "Tenz" nuts.
- E. Finishing: Chemically pretreat metal with degreasing and phosphatizing process. Apply baked-on enamel finish to all surfaces, exposed and concealed, except plates and nonferrous metal.
 1. Color: Provide locker units in color(s) selected by Architect from manufacturer's full range of standard and custom colors. Concealed parts may be manufacturer's standard neutral color. Two-tone finish for exposed body, frame and door shall be optional at no additional cost.

- F. Wardrobe Hooks: Cadmium or zinc-plated steel.

2.04 WARDROBE (Corridor), KITCHEN and CUSTODIAN Staff LOCKERS

- A. Standard Quiet Non-Vented Lockers
- B. Body: Fabricate back and sides of minimum 24-gauge steel, with double-flanged connections extending full height. Form top and bottom of not less than 24-gauge steel, with flanged edges.
 - 1. Provide minimum 24-gauge steel sheet hat shelf in single-tier units.
 - 2. Form exposed ends and tops of non-recessed lockers of not less than 16-gauge steel.
 - 3. Backs: Not less than 18-gauge steel.
- C. Door: One-piece, minimum 16-gauge sheet steel, flanged at all edges, constructed to prevent springing when opening or closing. Fabricate to swing 180 degrees.
 - 1. Hinges: 2" high, 5 knuckle, full loop, tight pin style. Hinges shall be welded to the frame and riveted to the inside of the door flange. Provide three (3) hinges for locker doors over 42" tall; doors 42" tall and less shall have two (2) hinges.
- D. Recessed Handle and Latch: 20-gauge minimum, seamlessly drawn stainless steel pocket. Housing shall form recess for non-protruding 14-gauge lifting trigger and locking devices; with latching action as follows:
 - 1. "Quiet" Locking Device: 3 point latching for full height (over 42" tall), 2 point latching for tiered lockers. Device shall include channel shaped locking device with polyethylene or nylon glides to eliminate metal-to-metal contact.
 - 2. Pre-locking Device: Lockers shall be capable of being locked while open and closed without unlocking.

2.05 ATHLETIC LOCKERS (Physical Education, Team Rooms and Coaches)

- A. Heavy Duty Vented Premier Lockers
- B. Body: Fabricate top and bottom of not less than 16-gauge steel sheet. Fabricate back of not less than 18-gauge steel sheet. Construct sides and intermediate partitions of diamond perforated 16-gauge metal.
 - 1. Provide 16-gauge perforated steel shelf in single-tier lockers.

- C. Door: Manufacturer's standard perforated steel sheet, roll formed with flanged edges, not less than 16-gauge for multi-tier units.
 - 1. Reinforcing: Minimum 18-gauge stiffener, full height on hinge side, welded all sides (top, bottom, and flange).
 - 2. Hinges: Minimum 2" high, 5 knuckle, full loop, tight pin hinge riveted to door and welded to frame. Provide three hinges for doors over 42" high; provide two hinges for doors 42" high and less.
- D. Recessed Handle and Latch: Provide mechanism as follows:
 - 1. Seamlessly drawn stainless steel handle, 20-gauge minimum. Housing shall form recess for 14-gauge lifting trigger and locking devices; non-protruding latch lifter shall contain strike and eye for padlock.

2.06 LOCKER ACCESSORIES

- A. Wardrobe Corridor Lockers, Physical Education, Team Rooms, Coaches, Kitchen and Custodian staff Lockers:

Locking: Fabricate all **Wardrobe Corridor and Physical Education Lockers only** to receive the following locking devices:

 - 1. Built-In Combination Lock: Key-controlled, 3-number dialing combination lock, with combination change made automatically by use of control key. Provide bolt operation as follows:
 - a. Manual dead-bolt action, Master Lock Series 1630. Locks shall be grand master keyed to the Fairfax County Public Schools keying system.
 - b. This contractor must provide CD ROM to Owner with electronic listing of which locker number received which combinations.
 - 2. Locking devices for other Locker types (Team Rooms, Coaches, Kitchen and Custodian Staff) to be fitted for removable padlocks.
- B. Equipment: Furnish each locker with the following items, unless otherwise shown:
 - 1. Single-Tier Units: Hat shelf, one double-prong hook and not fewer than 3 single-prong wall hooks.
 - 2. Double-Tier Units: One double-prong hook and not fewer than 3 single-prong wall hooks.

3. Number Plates: Manufacturer's standard etched, embossed, or stamped, nonferrous metal number plates with numerals not less than 3/8 inches high. Number lockers in sequence as directed by Architect. Attach plates to each locker door, near top, centered, with at least 2 fasteners of same finish as number plate.
4. Separators: Provide horizontal dividers of not less than 16-gauge sheet steel between doors of multiple-tier lockers to ensure rigidity.
 - a. Provide perforated separators for athletic lockers.
- C. Filler Panels: Provide filler panels, of not less than 16-gauge steel sheet, factory fabricated and finished to match locker units. Panels to be at end of run or in corners.
- D. Sloped Tops (only at Wardrobe corridor lockers): Provide sloped tops of not less than 16-gauge steel sheet complete with filler panels to completely close off locker assemblies. Provide Flat top of not less than 16-gauge steel sheet complete with filler panels at all other locker types.
- E. End Panels: Shall be 18 gauge to fit tightly over the universal side panel at exposed row ends.
- F. Fillers: Fabricated from 18 gauge nominal thickness sheet steel
- G. Flat tops: Shall be standard 24 gauge

2.07 LOCKER ROOM BENCHES

- A. Manufacturer's standard units with laminated hardwood seat approximately 9-1/2 inches wide by 1-1/4 inches thick, in lengths as indicated, benches compliant with American with Disabilities Act are 20" inches wide. Furnish and install steel pedestal supports not more than 6' -0" o. c., with provisions for concealed fastening to floor and securing to bench. Furnish and install all anchorages. Apply manufacturer's standard transparent coating to bench seat and baked enamel finish to pedestals. Height to top of bench shall be 17 1/2".
 1. Pedestals shall be 2" O. D. steel tubing with minimum 14-gauge steel flanges welded to each end.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Install metal lockers at locations shown in strict accordance with manufacturer's instructions for plumb, level, rigid, and flush installation. Lockers shall be

securely anchored to wall and/or base depending upon type of installation and in accordance with manufacturer's written recommendations.

- B. Space fastenings not more than 48 inches o. c., unless otherwise recommended by manufacturer, and apply through backup reinforcing plates where necessary to avoid metal distortion, using concealed fasteners.
- C. Installation of sloped tops; Tops shall be supported continuously (at entire perimeter), including at ends of locker banks. Provide and install wall cleats or similar components for support. Tops shall be pop riveted to end cleats or similar support components.
- D. Install benches in compliance with manufacturer's instructions.

3.02 ADJUSTMENTS AND CLEANING

- A. Adjust doors and latches to operate easily without binding. Verify that integral locking devices are operating properly.
- B. Touch up marred finishes; replace units that cannot be restored to factory-finished appearance. Use only materials and procedures recommended or furnished by locker manufacturer.

END OF SECTION

INSTRUCTIONS FOR EDITING

SECTION 10520

FIRE EXTINGUISHERS AND ACCESSORIES

1. Paragraph 2.01: Edit subparagraph A for replacement of existing fire extinguishers; delete if not appropriate.
2. For Elementary School projects, delete 2.03 (Fire Blankets).

SECTION 10520

FIRE EXTINGUISHERS AND ACCESSORIES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General Conditions and other Division 1 Specification Sections, apply to the Work of this Section.

1.02 RELATED WORK

- A. Mounting blocks for fire extinguishers not in cabinets: Section 06400.

1.03 REQUIREMENTS OF REGULATORY AGENCIES

- A. Fire extinguishers shall be listed and rated by Underwriters Laboratories, Inc. (UL).

1.04 SUBMITTALS

- A. Submit manufacturer's catalog data indicating type, weight and rating of fire extinguisher, type of cabinet and/or mounting bracket, fastenings, supports and anchorage to wall, clearances and connections to adjacent construction.
- B. Submit manufacturer's certification of Underwriters Laboratories, Inc. (UL) listing and rating.

PART 2 - PRODUCTS

2.01 FIRE EXTINGUISHERS

- A. Dry chemical, 10 lb., 4A-60BC as rated by UL.
 - 1. Provide at locations as indicated on Drawings, and where applicable, at existing locations to replace existing extinguishers where noted on the Drawings.
- B. Approved Manufacturers:
 - 1. JL Industries, Bloomington, MN, 1-800-554-6077, (www.jlindustries.com) "Cosmic" 10E
 - 2. Potter-Roemer, City of Industry, CA, 1-800-366-3473, (www.potterroemer.com) Model 3010

3. Amerex Corporation, Trussville, AL, 1-800-654-5980 (www.amerex-fire.com) Model B456
 4. Pre-Bid approved manufacturer in accordance with Section 01630
- C. Provide manufacturer's standard wall brackets at locations not receiving cabinets.

2.02 FIRE EXTINGUISHER CABINETS

A. Approved Manufacturers:

1. JL Industries "Panorama" Series (Basis of Specification).
 - a. 1015PQ48 for fully recessed conditions.
 - b. 1017Q48 for semi-recessed conditions.
2. Potter-Roemer 7100 Series
 - a. 7120-E-18-HR-RR for recessed conditions.
 - b. 7123-E-18-HR-RR for semi-recessed conditions.

B. Characteristics: Flat trim with rolled edge style in white epoxy finish. Door shall be a frameless, opaque acrylic door with scratch-proof lettering on white background with horizontal RED LETTERS with the word, "FIRE EXTINGUISHER" on each cabinet. Provide standard pull handle in Zinc finish with "**SAF-T-LOK**".

C. Semi-recessed Cabinets shall be ADA compliant for projection into corridors (accessible path of travel).

2.03 FIRE BLANKETS AND CABINETS (*Middle and High School Science Labs*)

A. Approved Manufacturers:

1. Larsen's Manufacturing Co., Minneapolis, MN, 1-800-527-7367 (www.larsenmfg.com) FB1016 Series (10"x16"x8")
2. JL Industries Royal Series, Type 2 FB (16"x13"x5")

B. Characteristics:

1. Cabinet: "Drop Type" operation, surface mounted, cold rolled steel with baked on enamel finish and "FIRE BLANKET" lettering.

2. Blanket: Processed wool fire blanket, complying with Federal Specification CS-191-53.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Deliver fire extinguishers to Owner's Representative for installation in cabinets or brackets after substantial completion.
- B. Mounting height shall be as follows:
 1. All grades and adults: 56" from floor to top of cabinet.

END OF SECTION

INSTRUCTIONS FOR EDITING

SECTION 10530

AUTOMATED EXTERNAL DEFIBRILLATOR

1. For all School projects; locate near Main Lobby, Gymnasium, Auditorium, and other locations as required to be within a 4 minute round trip to “drop and shock”.
2. As a general guide use 465 linear feet as a maximum distance to the AED location given same floor, no barriers (doors).
3. For reference guide each elementary school may have 2 units and middle school, high school and administrative building allocations are based on the site assessment of 4 minutes “drop to shock”. Middle schools may have approximately 4 units and high schools may have 6 – 7 units.

SECTION 10530

AUTOMATED EXTERNAL DEFIBRILLATOR

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General Conditions and other Division 1 Specification Sections, apply to the Work of this Section.

1.02 RELATED WORK

- A. Section 04200: Masonry wall Construction
- B. Section 09110: Wall Framing Systems

1.03 SUBMITTALS

- A. Submit manufacturer's catalog data indicating type, weight and rating of Automated External Defibrillator, type of cabinet, fastenings, supports and anchorage in wall, clearances and connections to adjacent construction.

PART 2 - PRODUCTS

2.01 AUTOMATED EXTERNAL DEFIBRILLATORS

- A. AED manufactured by Cardiac Science, model Powerheart G5 Auto with sleeve dual Defibrillator with the following options and accessories; AED Pads Adult G5, AED Pads Pediatric G5 CS, AED Prep Kit Premium SH School Health. **NO SUBSTITUTIONS**
 - 1. Provide at locations as indicated on Drawings, and where applicable, at existing locations to replace existing AED's where noted on the drawings.

2.02 AUTOMATED EXTERNAL DEFIBRILLATOR CABINETS

- A. Approved Manufacturers:
 - 1. Philips Model #PFE7023D Defibrillator Cabinet semi-recessed. **NO SUBSTITUTIONS**
 - 2. Provide at locations as indicated on Drawings, and where applicable, at existing locations to replace existing AED's where noted on the drawings.
 - 3. Refer to Section 10440 for Interior Signs requirement.

- B. Semi-recessed Cabinets shall be ADA compliant for projection into corridors (accessible path of travel).

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Deliver Automated External Defibrillators and accessories to Owner's Representative for installation in cabinets after substantial completion.
- B. Mounting height shall be as follows:
 - 1. All grades and adults: 48" from floor to center line of access door latch of cabinet.

END OF SECTION

SECTION 10538

CANOPIES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General Conditions and Division 1 Specifications Sections, apply to the Work of this Section.

1.02 RELATED WORK

- A. Section 04200 Unit Masonry
- B. Section 05120 Structural Steel

1.03 DESCRIPTION OF WORK

- A. Work in this section includes furnishing and installation of aluminum overhead canopies.

1.04 QUALITY ASSURANCE

- A. Products meeting these specifications established standard of quality required as manufactured by Mapes Industries, Inc. Lincoln, Nebraska 1-888-273-1132.
- B. Specialty Engineer Qualifications: The Contractor shall engage the services of a Professional Engineer who shall be responsible for engineering design and the preparation of shop drawings. The Professional Engineer shall have the following minimum qualifications:
 - 1. Registered in the state of the proposed project.
 - 2. Specialization in structural design.
 - 3. Professional liability insurance coverage in the aggregate amount of \$250,000 to protect the Engineer and Owner, from claims which may arise in the performance of engineering services.
- C. Installer Qualifications: Installer or Erector shall have not less than five years successful experience in installation of pre-manufactured canopies and must be approved by the canopy manufacturer.

1.05 PERFORMANCE REQUIREMENTS

- A. Design Loads per Virginia USBC current edition:

1. Wind Load - Base Wind Speed, Exposure, and Importance Factor as indicated on drawings.
 2. Snow Load - Ground snow load or minimum roof load as indicated on drawings with adjustment for drifting snow.
- B. Deflection Limits: Unless otherwise noted on the drawings, canopy framing to withstand loading with deflection not exceeding $L/360$.

1.06 SUBMITTALS

- A. Product Data: Submit manufacturer's technical and catalog data and installation instructions demonstrating compliance with the requirements of this Section.
- B. Insurance: Certificate verifying the Specialty Engineer's professional liability insurance coverage shall be submitted to the Architect/Engineer within 30 days of bid acceptance.
- C. Field Verification and Measurement: Confirm existing conditions and dimensions prior to preparation of shop drawings. Prepare shop drawings on the basis of verified conditions and measurements.
- D. Shop Drawings: Submit shop drawings and structural calculations for all canopy elements. Shop drawings shall include all component sizes/gages, member spacing, connection details, fasteners, welds, bracing, and hangers, as required to illustrate a complete system. Submit backup data with allowable load-capacities for each screw or fastener utilized.
- E. Anchorage to the building substrates shown in the contract documents shall be the design responsibility of the Canopy supplier's Specialty Engineer. Submit backup data with allowable load-capacities for each anchor, utilized.
- F. Shop drawings and calculations shall be prepared, signed, and sealed by a Specialty Engineer licensed in the state of the proposed project.
- G. Calculations and shop drawings will be reviewed by both the Architect and Structural Engineer for general compliance with the design intent, conformance to the design loads, and attachment to building substrates.
- H. Alterations or repairs to canopy framing due to improper fabrication, improper erection, and/or failure to verify existing conditions are the responsibility of the contractor. All alterations or repairs shall be submitted for review and shall be signed and sealed by the Specialty Engineer. All associated testing shall be at the contractor's expense.
- I. Selection Samples: Two complete sets of color chips representing manufacturer's full range of available colors and patterns.

- J. Verification Samples: For each finish product specified, two samples, minimum size 3 inches (76 mm) by 5 inches (128 mm) representing actual product, color, and patterns.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store all canopy components in protected areas.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

- A. Mapes Industries, Inc., Lincoln, Nebraska, (888) 273-1132.
- B. Peachtree Protective Covers, Inc., Hiram, Georgia, (800) 341-3325.
- C. Other pre-bid approved manufacturers in accordance with Section 01630, and complying with the requirements of this Section, are acceptable.

2.02 PRE-MANUFACTURED ALUMINUM CANOPY

- A. Manufacturers:
 - 1. Mapes Industries, Inc., "Lumishade" Hanger Rod Canopy (basis of design).
 - 2. Peachtree Protective Covers, Inc., wall hung canopy cover.
- B. Decking shall consist of an interlocking roll-formed 2-1/2 inch "W" style pan (minimum .032 aluminum.).
- C. Intermediate framing members shall be extruded aluminum, alloy 6063-T6, in profile and thickness shown in manufacturer's current brochure.
- D. Fascia shall be standard 8 inch extruded "J" style (minimum .125 aluminum).
- E. Hanger rods and attachment hardware shall be galvanized/zinc plated.

2.03 FINISH

- A. Two-coat Kynar color finish. Color to be selected by Architect from manufacturer's full range of standard and custom colors.

2.04 FABRICATION

- A. All canopies are shipped in preassembled sections for ease of installation.
- B. All connections shall be mechanically assembled utilizing 3/16" fasteners with a minimum shear capacity of 350 lb. Pre-welded or factory-welded connections are only acceptable with prior approval from the Architect.
- C. Decking shall be designed with interlocking extruded aluminum members with mechanical fasteners field applied to provide structural integrity for the completed assembly.
- D. Concealed drainage: Water shall drain from covered surfaces into intermediate trough and be directed to either the front for front drainage or to the rear for ground level discharge via one or more designated scuppers and/or downspouts.

PART 3 - EXECUTION**3.01 INSPECTION**

- A. Confirm that surrounding area is ready for the canopy installation.
- B. Installer shall confirm dimensions and elevations to be as shown on drawings provided by manufacturer.
- C. Erection shall be performed by an approved installer and scheduled after all concrete, masonry and roofing in the area is completed.

3.02 INSTALLATION

- A. Installation shall be in strict accordance with manufacturer's shop drawings. Particular attention should be given to protecting the finish during handling and erection.

3.03 CLEAN-UP

- A. After installation, entire system shall be left in a clean condition.

END OF SECTION

INSTRUCTIONS FOR EDITING

SECTION 10652

FOLDING PANEL PARTITION

Steps to follow when the following conditions occur at existing opening for new bi-fold folding partition location:

- A. If the existing partition opening is less than 26'-7":
 - Locate the new partition inside the stage side, (offset to stage side)
 - Call for pocket doors at both ends
 - After offset, if the existing clear dimension is less than 31'-2" only the basis of design Mordenfold Inc, can meet this requirement. Revise the Specifications to accordingly.

- B. If the existing partition opening is 26'-7" minimum and less than 31'-2":
 - Center the new partition between the opening wall.
 - Only the basis of design Mordenfold Inc, can meet this requirement. Revise the Specifications to accordingly.

- C. At conditions A & B where any dimension is more than 31'-2", revision to specification is not required.

- D. New construction, plan on bifold partition to meet the 31'-2" opening if not, line item "B" will govern.

- E. Classroom partition (single partition) does not require revision to the specification.

- F. Above information is not applicable to High school. Leave all manufacturers at HS.

- G: Manual folding partitions shall be used at the following locations:
 - All instruction classrooms at all levels (ES, MS, and HS)
 - Existing elementary school stagesSpecs to be edited to match this requirement where used.

- H. Motorized folding partitions shall remain at the following locations:
 - High School Cafeteria
 - High School Lecture Hall
 - High School Driver's Education classrooms
 - High school Health classrooms
 - High School Library
 - High School Collaborative space
 - High School Special education classrooms
 - New elementary school stages

Specs to be edits to match this requirement where used.

SECTION 10652
FOLDING PANEL PARTITIONS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General Conditions and Division 1 Specifications, apply to the work of this section.

1.02 RELATED WORK

- A. Shop Drawings: Section 01340
- B. Operating and Maintenance Data: Section 01730
- C. Structural steel for support of Folding Panel Partitions: Section 05120
- D. Sound Insulation above the track (Sound barrier): Section 07210
- E. Wiring Installation Requirement: Section 16620
- F. Section 08710: Finish Hardware-Cylinder Keying

1.03 DESCRIPTION OF WORK

- A. Furnish and install all steel, continuously hinged / Electric, operable walls and suspension system with Safety system and associated items as indicated on drawings, and as required in order to provide complete, functional motorized operable wall systems. Panels shall be electrically operated (where indicated), top supported, with operable floor seals.
- B. Provide factory installed Whiteboards and/or tackboard surfaces where indicated on the Drawings.
- C. Provide factory installed Infrared Safety system at all locations where motorized folding partition is indicate on the drawings
- D. Pocket doors shall be provided at both ends where partition is offset.
- E. Where motor is located in gypsum ceiling, metal shroud shall be provided.

1.04 WORK EXCLUDED

- A. Preparation of opening in order to receive installation of folding panel, such as:
 - 1. Finish trim adjoining head and jamb.

2. All headers, blocking, primary overhead steel supports, including prepunching of steel structure to conform to manufacturer's mounting template.
 3. Bulkheads and adjoining wall construction.
- B. Sound barrier assemblies extending from mounting construction to underside of deck.

1.05 REFERENCE STANDARDS

- A. Surface Burning Characteristics: ASTM E84
- B. Opening Preparation: ASTM E557
- C. Sound Transmission Classification (STC): ASTM E90
- D. Noise Isolation Classification (NIC): ASTM E336 and ASTM E413
- E. Noise Reduction Coefficient (NRC): ASTM C423

1.06 QUALITY ASSURANCE

- A. Acoustical Performance: Operable walls shall have been tested by an independent acoustical laboratory in accordance with ASTM E90 and ASTM 413 test procedures, and shall have attained an STC rating of no less than 52. **Operable partition with an STC rating of 51 will not be accepted.**
- B. The operable wall panel construction shall consist of Class A rated materials in accordance with ASTM E84.
- C. Installer shall be approved by the folding panel manufacturer and shall employ only workmen who are trained and experienced in installing the work of this Section. Installation shall comply with ASTM E557.
- D. Field sound performance shall have been tested on an actual field installation by an independent certified acoustical consultant in accordance with ASTM E336 (no less than 42 N.I.C. and 42 FSTC).

1.07 SUBMITTALS

- A. Complete shop drawings shall be provided prior to fabrication indicating construction and installation details. Shop drawings shall be submitted in accordance with Section 01340. Field verify existing conditions prior to shop drawing preparations.
- B. Submit the following:

1. Manufacturer's written technical information, including data indicating compliance with test requirements specified in 1.06 of this Section. Include written test reports documenting compliance.
2. Shop drawings showing installation details, dimensions, support connections and interface with adjoining work. Include the following:
 - a. Panel elevations
 - b. Track plans
 - c. Horizontal and vertical details compatible with required opening conditions.
 - d. Support templates
 - e. Infrared safety (motion detection) system (motorized locations only)
3. Color and finish samples of the Manufacturer's standard panel finish materials:
 - a. Acoustical wall carpet
 - b. Tackboard surfaces
 - c. Whiteboard /Markerboard surfaces
4. Manufacturer's written recommended installation instructions, which shall become the basis for accepting or rejecting the installation of the work.
5. Manufacturer's written instructions for proper operation and maintenance.

1.08 WARRANTIES

- A. Folding panel partitions shall be covered by the manufacturer's written warranty for a minimum of two (2) years.

1.09 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store panels and all components in Manufacturer's original packaging with all identifying labels intact.
- B. Store in a secure, well-ventilated area, protected from damage by other trades and exposure to temperature and humidity extremes.
- C. Store panels on edge and above floor on cushioned blocking.

PART 2 - PRODUCTS

2.01 APPROVED MANUFACTURERS

- A. Modernfold, Inc, Greenfield, IN, 1-800-869-9685 (www.modernfold.com) "Acousti-Seal" #933E Electrically Operable Partition, "Encore" Manually Operable Partition, continuously hinged panels (Basis of design)
- B. Other acceptable manufacturer's approved subject to compliance with the requirements of this section:
 - 1. Kwik-Wall Co, Springfield, IL, 1-800-280-5945 (www.kwik-wall.com) Model 3050
 - 2. Advanced Equipment Corporation, Fullerton, CA, 1-714-635-5350 (www.advancedequipment.com) Type 2EC
 - 3. Moderco Partitions, Blockerville, QC, Canada, 1-800-363-3150 (www.moderco.com) Signature Series 8760 (STC 52)
 - 4. Pre-bid approved manufacturer per Section 01630.

2.02 PANEL PARTITIONS

- A. Operation shall consist of a series of 3-4 inch thick panels in manufacturer's standard 48-inch widths hinged, center stacking, electrically or manually operated, flat steel panels on steel frame; top supported, with mechanically operated floor seals. Final closure shall be accomplished with a side jamb closure.
 - 1. Key Switch: Partition shall be operated by two spring key control stations wired in series and located on opposite sides of the partition. Control stations shall be activated by holding two key switch with clear view of both sides of opening. Key switch to be spring loaded type.
 - 2. The key type must be cylinder keying. The operation and function of the partition key must be compatible to the school system master keying. Refer to section 08710. Three (3) keys shall be provided.
 - 3. Where partition is offset provide pocket doors at each end.
- B. Panel Construction:
 - 1. All panel horizontal and vertical members fabricated from minimum 16 gauge welded steel frame with corner supports and cross bracing reinforcement.

2. Skin: Steel face sheets welded to frame and laminated to backing panel. Face shall wrap around vertical panel edges with no vertical trim.
 3. Panel assembly shall comply with STC rating indicated in 1.06.
- C. Hinges: Full leaf, steel-butt hinges, attached directly to panel frame. Hinges mounted into panel edge or vertical astragals are not acceptable.
- D. Seals:
1. Vertical Seals: Interlocking tongue and groove configuration, consisting of extruded aluminum or steel astragals, incorporating continuous vinyl acoustical seals in both panel edges.
 2. Horizontal Top Seals: Fixed top seals, continuous contact, fingered vinyl, installed on both sides of panel and sealing against the flanges of the overhead track.
 3. Horizontal Bottom Seals: Floating operable seals shall provide nominal operating clearance with an operating range of 1 ½" and shall provide continuous floor contact as panels are positioned without the need for tools or cranks.
- E. Electric System: (only motorized locations) Electric operator shall consist of 1/2 H.P., 208 volt, three phase capacitance wound electric motor. Activation of the operator shall be controlled by a two (2) position key switch to arm the system mounted at 48" AFF.
- F. **Electric System for heavier motorized partitions: (At Cafeteria, Lecture Halls, Gyms or similar larger spaces)** 1 H.P., 208 volt, three phase capacitance wound electric motor. Activation of the operator shall be controlled by a two (2) position key switch to arm the system mounted at 48" AFF.
- G. Stack Arrangements:
1. One end stacking at classrooms or as shown on drawings
 2. Two ends stacking, one at each end at stage/caferteria or stage/gym locations or as shown on drawings
- H. Track/Suspension System:
1. For hinged panels up to and including 10'-0" in height: **Tracks shall be all steel construction.** Track shall be supported by adjustable steel hanger brackets connected to primary structural support by pairs of 3/8" minimum threaded steel rods.

2. For hinged panels over 10'-0" in height: Roll formed steel gauge selected based on weight of panels required to achieve required STC rating. **All steel support tracks** with adjustable steel hanger brackets secured to primary structural support with pairs of 3/8" minimum threaded steel rods.
 3. Carrier Assembly: Each panel shall be supported by one four-wheeled trolley consisting of four steel wheels with sealed steel ball bearings.
 4. Exposed Track Soffit: Aluminum with baked-on finish, integral to the track.
- I. Finish: Factory applied acoustical wall carpet, vertically ribbed, non-woven, with fused fibers (NRC of .65 minimum).
- J. Accessories (where indicated on Drawings):
1. Factory installed, inset tackboard surface.
 2. Factory installed, inset porcelain enameled steel writing surface.
- K. Infrared Safety (motion detection) System (at motorized locations only):

Furnish and install sufficient infrared sensing devices, with the approved guards, to detect any personnel obstructions along the entire length of the path of the folding door (no more than seven (7) feet, no less than three (3) feet to both sides) during opening and closing modes.

1. Passive Infrared Detectors "OPTEX" model # SP-80 AM High Sensitivity (PIR) Device shall be capable of wall or ceiling surface mounting, self-contained, self-monitoring circuit operating on 12 VDC input power and have adjustable integral anti-masking features capable of automatic fail to safe condition function optics. Optics shall be focused to provide the narrowest detection corridor adjacent to the doors that assures reliable detection. The operator control switches shall be positioned as close to the detection corridor as possible without causing the operator to cause an unintended detection/alarm. Each Long-Range PIR Detector shall provide a multiple individual zones of detection. A solid infrared barrier must be achieved and be free of voids between detection zones. PIR detectors which permit voids in the infrared barrier and do not provide 100% coverage are unacceptable.
 - a. At (2) pocket / stack locations provide additional sensors.
2. PIR guards shall be constructed of sheet metal with hi-temperature baked white enamel finish or an approved equal. Guard shall be independently fastened to the wall or ceiling with a least four approved fastening devices.

3. Lockable System Control Panel (SCP): Install a suitable size to house all the equipments required.
- L. Install low voltage wiring in accordance with wiring installation requirements in Division 16, Section 16620.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Examine conditions under which operable partitions shall be installed. Notify Architect and Owner's Representative of any adverse conditions that would affect proper performance of the work. Do not begin operations until such conditions have been corrected.
- B. Schedule work to minimize conflicts with work of other trades.

3.02 INSTALLATION

- A. Complete installation shall be by an authorized, factory-trained installer and shall include all work shown and described on drawings specified herein and in accordance with approved, final shop drawings and manufacturer's written installation instructions. Protect installation from damage by work of other trades until substantial completion and Owner acceptance. Safety sensor wiring must be in conduit.

3.03 CLEANING

- A. All track and panel surfaces shall be cleaned and shall be free from grease, soil, and handprints.
- B. Remove all trash, excess materials, tools, and other debris from the project area and legally dispose of off site.

3.04 DEMONSTRATION

- A. Demonstrate proper operation and maintenance procedures to Owner's Representative and school staff.

END OF SECTION

INSTRUCTIONS FOR EDITING
SECTION 10655
ACCORDION FOLDING PARTITIONS

1. **Only** to be used where section 10652 (Folding panel partition) is not feasible or at rooms with less than 10 people. Notify owner at locations where accordion will be used.

SECTION 10655

ACCORDION FOLDING PARTITIONS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General Conditions and Division 1 Specification, apply to the Work of this Section.

1.02 RELATED WORK

- A. Folding Panel Partitions: Section 10652
- B. Structural Steel Support for Folding Partitions: see Drawings and Section 05120.

1.03 WORK DESCRIPTION

- A. Furnish and install all-steel vinyl clad accordion folding partitions as indicated on the Drawings. Installation shall be complete with all accessories in order to provide proper functional wall systems.

1.04 WORK EXCLUDED

- A. Preparation of opening in order to receive installation of folding partition including, but not limited to:
 - 1. Finish trim adjoining head and jambs.
 - 2. All headers, blocking, overhead steel support framing, including pre-punching of steel structure.
 - 3. Bulkheads and other adjoining ceiling or wall construction.

1.05 REFERENCE STANDARDS

- A. Sound Transmission Classification: ASTM E90 – Airborne Sound Transmission Loss of Building Partitions.
- B. Fire Hazard Classification (Panel Finish): ASTM E84 – Surface Burning Characteristics of Building Materials.
- C. ASTM E557 – Architectural Application and Installation of Operable Partitions.

1.06 QUALITY ASSURANCE

- A. Folding partitions shall only be installed by a distributor authorized by the manufacturer, and shall employ only trained and experienced workmen familiar with the type of partition to be installed.
- B. Field conditions shall be surveyed and verified prior to submission of shop drawings.

1.07 SUBMITTALS

- A. Product Data: Provide manufacturer's specifications for type of panel and hinge construction, suspension system, perimeter seals, and hardware. Include information (with written test reports) showing compliance with minimum required acoustical performance.
- B. Shop Drawings: Provide complete shop drawings showing installation details, head and jamb conditions, track layout, interface with adjacent construction, support connections, and opening dimensions.
- C. Samples: Submit samples of manufacturer's standard range of color/finish selections.
- D. Manufacturer's written recommended installation instructions, including installation sequence and support details, which shall become the basis for acceptance or rejection of the work.

1.08 WARRANTIES

- A. Folding partitions shall be covered by the manufacturer's written warranty for a period of two (2) years.

1.09 DELIVERY, STORAGE AND HANDLING

- A. Deliver and store in a manner to minimize damage. All parts shall remain in original packaging until ready for installation.

PART 2 - PRODUCTS**2.01 ACCEPTABLE MANUFACTURERS**

- A. Modernfold, Inc., Greenfield, IN, 1-800-869-9685 (www.modernfold.com) "Soundmaster #12 (Basis of Specification) or other manufacturer's meeting the requirements.
- B. Pre-bid approved manufacturer in accordance with Section 01630.

2.02 PRODUCT CHARACTERISTICS

A. "SoundMaster #12

1. Frame Construction: Steel hinge plates welded to .18-inch diameter vertical rods, with a single row of plates at the bottom and top with intermediate rows at approximately 42-inch on center. Partitions 10'-0" high or over have a double row of hinge plates at the top. A high tensile alloy steel trolley yoke, functioning as a hinge pin at required intervals, supports the frame assembly.
2. Panel Assembly: Reinforced heavy duty Vinyl with woven backing.
3. Suspension System: Suspension system, track and trolley sizes matched to the size of the partition. Partition shall be suspended from the track by two-wheel intermediate and for-wheel lead trolley assemblies.
4. Perimeter Seals: Pairs of flexible sweep strips shall be provided at top and bottom of the partition.
5. Lead and Back Posts:
 - a. Lead post shall seal into foam lined aluminum molding on jamb.
 - b. Back post shall be sound sealed against a steel jamb channel with a foam sealing strip. Back post shall be equipped with concealed jamb lock for detaching and reattaching folding wall for cleaning under stack area.
 - c. Air Release: .375" diameter holes through lead post molding shall permit air to escape within the partition during operation.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Examine areas where accordion-folding partitions shall be installed. Notify Owner's Representative of any conditions that would impede installation or performance. Do not proceed until such deficiencies have been corrected.
 1. Confirm that track support assemblies will allow proper installation of assembly, are properly braced, and will accommodate level operation within the manufacturer's recommended tolerances.
 2. Confirm that floor level is within manufacturer's recommended tolerances for proper operation.

3.02 INSTALLATION

- A. Install folding partitions in accordance with approved shop drawings. Test, lubricate and adjust to ensure proper operation of snug perimeter seal when closed, and smooth operation of partition from stacked to fully drawn position.

3.03 CLEAN UP

- A. Remove all tools, packaging and other debris associated with the installation and dispose of legally.

END OF SECTION

SECTION 10670
METAL SHELVING UNITS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General Conditions and other Division 1 Specification Sections, apply to the Work of this Section.

1.02 DESCRIPTION OF WORK

- A. Work Included: Provide all metal storage shelving, set completely in place, as indicated on the Drawings, specified herein, with all accessories required for a proper installation.
- B. Standard shelving sizes shall be used.
- C. Long runs of shelving shall be a combination of standard sizes to arrive at a total length of shelving, as close to the length indicated on the Drawings as possible.
- D. Shelf depths shall be as indicated on the Drawings, or the manufacturer's next largest standard size.
- E. Metal shelving located in the Gym storage area must have a "Ball lip" to the edges of the shelves, so that balls cannot roll off of the shelves.

1.03 QUALITY ASSURANCE

- A. Manufacturer's Requirements: Manufacturers shall have had a minimum of five (5) years successful experience in the manufacture of metal shelving.

1.04 SUBMITTALS

- A. Comply with requirements of Section 01340.
- B. Provide manufacturer's catalog cuts indicating all dimensions, gauges of metal, construction and shelf support details, wall attachment details, etc., for each type of unit. Include shelf load capacity information.
- C. Submit shop drawings indicating locations of shelving units, configurations of shelving runs and shelving dimensions.
- D. Submit manufacturer's color chart indicating standard color selections.
- E. Submit manufacturer's recommended assembly instructions.

1.05 DELIVERY, HANDLING, AND STORAGE

- A. Deliver all shelving in manufacturer's original, unopened cartons, with all identifying labels intact.
- B. Outside of carton shall designate model numbers, colors, and other descriptive information.
- C. Shelving shall be handled and stored in a manner that will insure against abuse and construction damage, such as denting, bending or scraping.
- D. Store in a clean, dry, secure area.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Approved Manufacturers (Subject to requirements of this Section):
 - 1. Penco Products, Oaks, PA, 1-800-562-1000 ,
(www.pencoproducts.com) ("Clipper" Shelving)
 - 2. Lyon Workspace Products, Aurora, IL, 1-800-433-8488,
(www.lyonworkspace.com) (8000 Series)
 - 3. Hallowell (Division of List Industries, Inc.), Deerfield, FL, 1-800-776-1342
 - 4. AMP (Art Metal Products) Deerfield Beach, FL, 1-800-252-5633,
www.ArtMetalproducts.com
 - 5. Pre-bid approved equal in accordance with Section 01630
- B. Intermediate shelving units shall have open sides with solid metal reinforced shelves; provide double cross bracing not less than 12 gauge on the back of each unit for freestanding units; all wall units shall be anchored to wall.
- C. Shelving units shall support minimum of 65 lbs. per square foot of total shelf area. Provide seven (7) shelves per unit. Shelf shall be box formed. Front and rear flange shall utilize box beam construction. Flanges shall be welded on not less than 8" centers. Corners shall be lapped and welded. Sides shall be double flanged, not less than 22 gauge for 36" wide units, and 20 gauge for 48" wide units.
- D. All shelves shall be adjustable, utilizing compression type clip of not less than 14 gauge (bolted assembly shall not be acceptable).

- E. Exposed Ends: Provide and install solid end panels of not less than 24 gauge at the end of each run of units.
- F. All posts shall be angle post type not less than 14 gauge, punched on 1" or 1 1/2" centers. (14 gauge beaded or 16 gauge "T" posts welded on 3" centers are acceptable).

2.02 COLORS

- A. Colors shall be selected from manufacturer's standard colors (at least 6 color choices shall be available).

2.03 FABRICATION

- A. Shelving units shall be thoroughly degreased with phosphate coating and dipped in chromic acid rinse for resistance to corrosion. Final coat shall be manufacturer's standard baked-on enamel.

PART 3 - EXECUTION

3.01 INSPECTION

- A. Contractor shall inspect areas to receive shelving and notify Architect or Owner's Representative if shelving cannot be installed in accordance with the Drawings and the final approved shop drawings.
- B. Contractor shall be responsible for approved shelving fitting properly into designated areas.

3.02 INSTALLATION

- A. All wall shelving shall be attached to walls with the appropriate device for the type of wall.
- B. Erect shelving according to manufacturer's recommended written assembly instructions, in locations indicated on the Drawings.
- C. Clearance for ceiling mounted sprinkler coverage: Where shelving shall be erected in rooms with pendant mounted sprinkler heads, maximum installed height shall not exceed 6'-0". Coordinate with ceiling heights shown on the Drawings for spaces scheduled to receive shelving. Verify actual ceiling heights prior to installation.

3.03 CLEANING

- A. Remove all debris and excess materials from the Project Site and dispose of legally.

- B. Remove all dust, dirt, grease, and other foreign substances from all shelving.

END OF SECTION

INSTRUCTIONS FOR EDITING AND COORDINATION

SECTION 10705

SUNSHADES

INSTRUCTION FOR EDITING:

1. Aluminum Windows:

Use this section if only Solar shading devices are been considered on the South side of the building to shade, reduce heat and glare or other exposure for aesthetic reasons. Coordinate with Mechanical for cooling and heating Loads requirements.

2. Aluminum Curtain Wall:

If a curtain wall system is used, aluminum solar shading devices (sunshades) shall be by the Curtain wall Manufacturer, to include fins, blades and connections as detailed on the contract drawings. Solar shades must also satisfy code required loading capacities.

a. Finish shall match window or curtain wall finish.

SECTION 10705

SUNSHADES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General Conditions and Division 1 Specifications apply to work of this section.

1.02 RELATED WORK

- A. See Structural Drawings for Attachment.

1.03 DESCRIPTION OF WORK

- A. Furnish and install "Sunshades" over windows on the South side of the building. Refer to Architectural Elevations.

1.04 QUALITY ASSURANCE

- A. Sole Source: All sunshades, accessories, hardware and fasteners shall be provided by one manufacturer.
- B. Use only factory authorized or approved installers.
- C. Field Measurements: Take field measurements prior to preparation of shop drawings and fabrication to ensure proper-fitting work.

1.05 SUBMITTALS

- A. Product Data: Submit manufacturer's detailed technical data for materials, fabrication, and installation, including catalog cuts of anchors, hardware, fastenings, and accessories, required for complete installation.
- B. Shop Drawings: Submit shop drawings showing installation details and sizes of "Sunshades", and interface with adjacent construction.

1.06 DELIVERY, STORAGE AND HANDLING

- A. Deliver and store "Sunshades" on wood pallets to include accessories in manufacturers' original protective packaging, with package intact, in a secure area, safe from damage by the elements or work of other trades.

1.07 WARRANTY

- A. Provide manufacturers' written warranty covering "Sunshades and accessories" for a period of ten (10) years. See Section 01740 for start of warranty period.

PART 2 - PRODUCTS**2.01 ACCEPTABLE MANUFACTURERS**

- A. Extruded Aluminum Louver Sunshades:
Aiolite is the basis of design.
1. Aiolite
 - (Telephone number (740) 373-7676).
 - Website: www.aiolite.com.
 2. ASCA
 - (Telephone number (603) 433-6700).
 - Website: www.asca-design.com.
 3. Dittmer
 - (Telephone number (407) 699-1755).
 - Website: www.dittdeck.com.
 4. Ruskin
 - (Telephone number (816) 761-7476).
 - Website: www.ruskin.com.

2.02 SIZES

- A. Sunshades shall extend out from face of wall 32" and 8" past the jambs of windows. Size of windows varies. See Drawings for exact sizes. Sunshades shall be supported from the building structural system without the use of hanging rods. Intermediate support hangers to be spaced not more than a maximum of 6'-0" o.c.

2.03 MATERIALS

- A. Extruded aluminum with round fascia and bar blade configuration similar to profile shown on Drawings.
- B. Finish shall match window or curtain wall finish.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. General: Comply with manufacturer's recommended written installation procedures and final approved shop drawings and submittals.
- B. All aluminum surfaces between aluminum and structural steel shall be coated with Kynar paint.
- C. See Structural Drawings for connection requirements to steel lintels or steel plates. Note where anchored to structural steel (instead of steel plates); the sun shade bolts are to be machine bolts tapped into structural member by the sun shade manufacturer. The sunshade installer is responsible for all connection members and bolts.
- D. Touch up scratched or chipped paint with Kynar paint supplied by sunshade manufacturer and matching factory applied finish.

END OF SECTION

INSTRUCTIONS FOR EDITING

SECTION 10800

TOILET ACCESSORIES

1. Subparagraph 2.02:
 - A. Add or delete toilet accessories to comply with project requirements.
 - B. Item D: To be used at sinks at the following locations:
 1. Workrooms
 2. Teacher Lounges
 3. Classrooms
 4. Laboratory Classrooms
 5. Resource Areas
 6. All toilets (group and single)
 7. Kitchen Hand Sinks
 - C. Item I: To be used at **ALL** Girl's and Women's toilets and clinic.
 - D. Item C: (1) to be used between sinks at all group toilets, all other locations (1) per sink.
 - E. Coordinate with Drawings to ensure that all accessories are shown in both toilets rooms and "wet and dirty" areas.
 - F. Item Q: Electric Hand Dryers only to be used at high school locker rooms.

SECTION 10800
TOILET ACCESSORIES

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provision of Contract, including General Conditions and Division 1 Specification Sections, apply to the Work of this Section, with special attention to the following:
 - 1. Mounting Heights: Section 01092.

1.02 SUBMITTALS

- A. Submit product data for each product specified.
- B. Submit shop drawings indicating fabrication, assembly and erection details, sizes of members, fastening, supports and anchors, and clearances and connections to adjacent construction.

1.03 DELIVERY AND STORAGE

- A. Deliver and store materials in a manner to prevent damage.
- B. While stored on job site, protect materials from weather and construction damage.
- C. Accessories shall be stored in original packaging until ready for installation.

1.04 WARRANTY

- A. Provide written ten (10) year warranty against silver spoilage on all mirrors.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Bobrick Washroom Equipment, Inc., North Hollywood, CA, 1-818-503-1630 (www.bobrick.com) (basis of specification and standard of quality). Or, specific manufacturer listed under each item.
- B. Other acceptable manufacturers (subject to compliance with specification requirements):

1. Bradley Corp., Menomonee Falls, WI, 1-800-BRADLEY (www.bradleycorp.com) (except item "H")
2. Pre-bid approved manufacturer in accordance with Section 01630.

2.02 TOILET ACCESSORIES

- A. General: All catalog numbers shown are Bobrick, except for soap dispenser, toilet tissue dispenser, and paper towel dispenser.
1. Stainless Steel: 18-8, type 304 stainless steel, gauges as indicated.
 2. Finish: All stainless steel shall be satin finish unless otherwise noted.
- B. Mirrors:
1. B-165 X 2436 (individual toilet rooms)
 2. B-165 X 2448 (group toilets)
 3. Features:
 - a. Frame: 1/2" x 1/2" x 1/2" stainless steel channel, bright polished finish, mitered corners, with galvanized steel back.
 - b. Mirror: No. 1 quality, 1/4" float/plate glass guaranteed for 10 years against silver spoilage.
 - c. Mounting: Concealed locking screws for attachment to concealed galvanized wall hangers. Provide additional lower support brace for mirrors taller than 24 inch.
- C. Soap dispenser: "SC Johnson Professional WHB1LDS" installed using mechanical attachment.
- D. Paper towel dispenser (all locations): 772828 Tork Mechanical Hand Towel Roll Dispenser available at www.torkusa.com
- E. Toilet tissue dispenser (all locations except HC stalls and offices): 565828 Tork 3 Roll Bath Tissue Roll Dispenser for OptiCore available at www.torkusa.com
- F. Toilet tissue dispenser (HC stalls and offices): 565728 Tork Twin Bath Tissue Roll Dispenser for OptiCore available at www.torkusa.com
- G. Waste Receptacles:
1. B-275 (surface mounted for group toilets), 20 gallon

2. B-279 (surface mounted for individual toilets), 6.4 gallon
 3. Features:
 - a. Receptacle body: 22 gauge stainless steel with hemmed bottom edges. Provide four interior hooks for liner attachment. Mounting holes for wall attachment shall be reinforced.
 - b. Liner: removable vinyl liner with four (4) grommets for attachment to hooks.
- H. Electric Hair Dryers (at locker rooms as indicated on drawings)
1. Recessed Airstyle Hair Dryers RB-974 manufactured by World Dryer.
 2. Features:
 - a. One piece cast iron cover, finished in vitreous enamel. Unit shall include a 16-gauge steel wall-mounting box. Cover shall be secured to base with vandal resistant fasteners.
 - b. Motor: 1/10 HP, equipped with automatic thermal overload switch.
 - c. Heating element: equipped with automatic thermal overload switch.
 - d. Timer: Solid state, 80 second drying cycle.
 - e. Touch button and outlet nozzle shall be chrome plated. Outlet nozzle shall be fixed.
 - f. Mounting base: 14 gauge steel with four (4) mounting holes.
 - g. Chrome plated nozzle to revolve 360°.
- I. Sanitary Napkin Disposal Unit (surface mounted)
1. B-254
 2. Features:
 - a. Cabinet, door, and receptacle: 22 gauge stainless steel. Cabinet shall have all welded construction. Door shall be self-closing and secured to cabinet with spring loaded continuous stainless steel piano hinge. Receptacle shall be equipped with tumbler lock.
 - b. Capacity: 1.3 gallons

- J. Grab Bars (see drawings for locations, sizes, and configurations)
1. B-5806 series
 2. Features: 18 gauge stainless steel tubing with ends welded to 11 gauge stainless steel flanges. Flanges shall lock to concealed 13 gauge stainless steel mounting plates with four (4) set screws.
 - a. Provide 1 1/4" O.D. tubing at elementary school at student toilets only and 1 1/2" O.D. adult toilets
 - b. 1 1/2" O.D. tubing for middle and high schools (all toilets)
- K. Mop Strip (Janitor Closets)
1. B223 x 24"
 2. Features:
 - a. Mounting base: 22 gauge stainless steel
 - b. Mop and broom holders: spring-loaded rubber cams with plated steel retainers.
- L. Curtain Rod (individual shower stalls)
1. B-6047
 2. Features: 18 gauge, 1-1/4" O. D. stainless steel tubing, with one piece, die-formed, 20 gauge stainless steel flanges.
 3. Refer to drawings for required length.
- M. Shower Curtain
1. 204 series opaque white vinyl shower curtain with 204-1 stainless steel hooks. See drawings for width of curtain required.
- N. Folding Shower Seat
1. B5171 (right hand) or B5181 (left hand). Refer to drawings for required handedness of seat.
 2. Features:
 - a. Frame: Stainless steel type frame consisting of 16-gauge 1-1/4" square tubing and 18 gauge 1" diameter tubing.

- b. Slats: 5/16" thick solidly fused plastic laminate with melamine surface, face sheets, and phenolic core all integrally bonded.
 - c. Provide stainless steel mounting flanges, base plate, spring and guide bracket.
 - d. Shower seat shall be capable of folding up against the wall when not in use. Shower seat shall comply with accessibility guidelines for structural strength.
- O. Baby Changing Station: Koala KB200, Koala, Centennial, CO, or equal.
- 1. Molded high impact polyethylene with integral straps for securing baby.
 - 2. Surface mounted.
 - 3. Color to be selected by Architect.
- P. Anchors and Fasteners
- 1. Provide all anchors and fasteners necessary to develop retaining force required for the toilet accessory to be mounted, well suited to the type of supporting wall construction and as recommended by the accessory manufacturer.
 - 2. Provide concealed mounting plates where called for by accessory manufacturer
- Q. Electric Hand Dryers (at high school locker rooms only)
- 1. Wall-mounted QuietDry Series Hand Dryers B-7128 manufactured by Bobrick, Inc.
 - 2. Features:
 - a. One-piece stainless steel cover, finished in #304 satin finish. Cover shall be secure to plate with vandal resistant fasteners.
 - b. Motor: 1/7 HP, equipped with automatic thermal overload switch
 - c. Heating element: equipped with automatic thermal overload switch
 - d. Timer: infrared sensor
 - e. Outlets integral and fixed into cover.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Prior to beginning work, examine the work area and supporting wall construction to which the toilet accessories shall be mounted. Notify owner of any conditions that would adversely affect the installation. Do not proceed until such deficiencies are corrected.

3.02 INSTALLATION

- A. Secure toilet accessories firmly in place with anchors, fasteners, and mounting plates supplied or recommended by the accessory manufacturer for the type of supporting wall construction provided.
 - 1. Anchor accessories to masonry walls using lead expansion shields and fasteners provided or recommended by manufacturer.
 - 2. Anchor accessories to metal stud partition using concealed anchorage recommended by the manufacturer for the type of accessory to be mounted.
- B. Protect installed accessories from damage until formally accepted by Owner's Representative.

3.03 CLEANING

- A. Once installation is complete, remove all excess materials, trash and debris from the Project Site and dispose of legally.
- B. Remove all dust, dirt, grease or other foreign substances from all accessories.

END OF SECTION

SECTION 10900
CLOSET SHELVING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General Conditions and other Division 1 Specification Sections, apply to the Work of this Section.

1.02 DESCRIPTION OF WORK

- A. Provide and install Custom Length wall mounted closet shelving in locations indicated on the Drawings.

1.03 SUBMITTALS

- A. Comply with provisions of Section 01340.
- B. Shop Drawings: Indicate layout of shelving in spaces provided, size of units, and connection and support details.
- C. Manufacturers Literature: Descriptive literature of all items and installation procedures.
- D. Certificates: Manufacturer's certification that shelving provided meets or exceeds the requirements of these specifications.

1.04 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver shelving and related parts in manufacturers original unopened and undamaged packages with labels legible and intact.
- B. Store in dry space separate from construction area.
- C. Replace items damaged as a result of improper storage and handling.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Manufacturers:
 - 1. EMCO Specialty Products, Inc. www.emcospi.com 1-913-281-4555; Model R2, Basis of design. Other manufactures meeting the requirements as specified.

2. Pre-bid approved manufacturer(s) in accordance with Section 01630.
- B. Shelves:
1. Medium Oak Hardwood, Nominal 12" wide.
 2. Formed of either 1" square or 1" round aluminum tubes.
 3. Length of shelves shall be as required to suit arrangement with supports not greater than 60 inches, o. c.
 4. Provide 2 shelves and hanging rod for each unit.
- C. Hangers:
1. Provide one 3/16" wire heavily plated closed hood type for each 4" length of hanger rod.

PART 3 - EXECUTION

3.01 INSPECTION

- A. Verify that the areas to receive shelving are complete and ready for installation.
- B. Do not install shelving until all finishes of room have been completed.

3.02 INSTALLATION

- A. Install according to manufacturer's recommendations and procedures.
- B. Secure units to each other at changes in direction.
- C. Secure all shelving adjacent to wall with appropriate fasteners.

3.03 CLEAN-UP

- A. Remove all debris and excess materials from the Project Site and dispose of legally.

END OF SECTION