



**Powers/Hagerman/Corgroup**  
10315 Allisonville Rd  
Fishers, IN 46038

**Eastwood Middle School**  
**Addendum 3**  
**11/6/18**

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1. Replace Specification Section 012300 Alternates with the attached.
2. Replace Specification Section 004323 Alternates Form with the attached.
3. Specification Section 115123 Library Stack Systems is attached.
4. Replace Specification Section 123450.99 Musical Instrument & Robe Cabinet System with the attached.

**SECTION 012300 – ALTERNATES (Revised Addendum 3)**

**PART 1 - GENERAL**

**1.1 RELATED DOCUMENTS**

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

**1.2 SUMMARY**

- A. Section includes administrative and procedural requirements for alternates.

**1.3 DEFINITIONS**

- A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the bidding requirements that may be added to or deducted from the base bid amount if the Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.
  - 1. Alternates described in this Section are part of the Work only if enumerated in the Agreement.
  - 2. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternates into the Work. No other adjustments are made to the Contract Sum.

**1.4 PROCEDURES**

- A. Coordination: Revise or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.
  - 1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidental to or required for a complete installation whether or not indicated as part of alternate.
- B. Execute accepted alternates under the same conditions as other work of the Contract.
- C. Schedule: A schedule of alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work described under each alternate.

**PART 2 - PRODUCTS (Not Used)****PART 3 - EXECUTION****3.1 SCHEDULE OF ALTERNATES**

- A. Alternate No. 01 – Wood seat bleachers
  - a. Base Bid – Provide plastic bleachers per Section 126600 “TELESCOPING STANDS” in both gymnasiums.
  - b. Alternate – In lieu of plastic bleachers, provide wood bleachers per Section 126600 “TELESCOPING STANDS” in both gymnasiums.
- B. Alternate No. 02-LVT flooring in corridors
  - a. Base Bid – Provide Vinyl Composition Tile (VCT) per Section 096519 “RESILIENT TILE FLOORING” in the corridors where indicated.
  - b. Alternate – In lieu of VCT, provide Luxury Vinyl Tile (LVT) per Section 096519 “RESILIENT TILE FLOORING” in the corridors where indicated.
- C. Alternate No. 03- Gymnasium HVAC
  - a. Base Bid – Existing HVAC equipment to remain. Provide new piping and reconnect to existing AHU’s in the main gymnasium.
  - b. Alternate – Replace AHU’s with new RTU’s, provide new ductwork and relief hoods as well as electrical and structural scope to power the units in both gyms as indicated in the Contract Documents.
- D. Alternate No. 04- 2<sup>nd</sup> Floor Glazing
  - a. Base Bid – Provide glazing type IG-1 as indicated on the A-600 sheets at all exterior first floor glazing.
  - b. Alternate Bid – Provide IG-1 in lieu of IG-3 on at all exterior second floor glazing. See 088000 “GLAZING” and A-600 Series drawings.
- E. Alternate No. 05-Epoxy flooring in cafeteria
  - a. Base Bid – Provide Luxury Vinyl Tile (LVT) per Section 096519 “RESILIENT TILE FLOORING” in the cafeteria.
  - b. Alternate – In lieu of LVT, provide Resinous Flooring and base per Section 096723.17 “RESINOUS FLOORING – LEVEL 3” in the cafeteria.
- F. Alternate No. 06- Locker room HVAC
  - a. Base Bid – Mechanical units to remain in the locker rooms. Remove existing diffusers, clean existing ductwork, and then reinstall the existing diffusers into the new ceiling and reconnect to existing ductwork. Provide new fire alarm and fire protection.

- b. Alternate –Replace existing AHU and replace with new RTU, reconnect RTU to existing dust work, remove existing diffusers, clean existing ductwork, and then reinstall the existing diffusers into the new ceiling and reconnect to existing ductwork as indicated in the Contract Documents.
- G. Alternate No. 07- P.E. and Locker room G103A and Ancillary spaces as indicated on A-101.
- a. Base Bid – Lockers to remain, new ceiling. Fire alarm and fire protection.
  - b. Alternate – Provide new 12"x12"x72" (6 high, slope top) P.E. lockers in main corridor as indicated. Remove and replace lockers in G103A with 15x15x36 double height lockers as indicated in the Drawings and Specification Section 105113 "METAL LOCKER." Demo door and enclose wall as indicated and provide two new doors to Storage as indicated on A-101. Add chain link fence with 2 gates as indicated.
- H. Alternate No. 08- Kitchen freezer and Cooler
- a. Base Bid – Existing Freezer and Cooler to remain in the kitchen.
  - b. Alternate – Provide new Freezer (Item #5) and Cooler (Item #13) (per Section 114000 "FOOD SERVICE EQUIPMENT") including roof mounted condensers, electrical to power units, and data rough-ins to monitor the units. Infill area of recessed slab south of new Freezer to flush with Kitchen finish floor. Provide associated shelving items #6 and #7 as well as #14 and #15.
- I. Alternate No. 09-Kitchen and support spaces renovation
- a. Base Bid – Upgrade fire alarm and fire protection only in kitchen and support spaces as well as exhaust fan for dishwasher.
  - b. Alternate– Renovate the Kitchen including new CMU wall for Hood assembly, the Hood (Item 23), Vegetable Prep Table & Sink (Item 16), Prep Table & Sink (Item 25), Hand-washing Sink (Item 12), associated mechanical (ductwork, piping, and RTU), plumbing, fire protection, and electrical work, new resinous flooring, wall painting, ceiling tile, laundry equipment connections, and renovations to staff restrooms and custodial room. Provide items #24 Hot Water Dispenser and #55 Stainless Steel Wall Cabinet.
- J. Alternate No. 10- Kitchen pass through units
- a. Base Bid – No kitchen pass through units.
  - b. Alternate – Provide 3 Single Door Pass-thru Refrigerator Units (Item 28) and 3 Single Door Pass-Through Heated Cabinets (Item 29) as indicated in Section 114000 "FOOD SERVICE EQUIPMENT" and in the Food Service Drawings.
- K. Alternate No. 11-Mobile Kitchen tables and Combi Oven
- a. Base Bid – No mobile worktables or Combi oven.
  - b. Alternate – Provide 2 mobile kitchen tables (Item 26) and a Combi Oven with Stand (Item 21) as indicated in Section 114000 "FOOD SERVICE EQUIPMENT" and in the Food Service Drawings.
- L. Alternate No. 12 – Kitchen serving line & Milk Coolers

- a. Base Bid – No new 3<sup>rd</sup> Serving line or milk coolers.
  - b. Alternate – Provide 3<sup>rd</sup> Serving Line, including Serving Table (Item 37), Drop-in Two Pan Hot/cold Well (Item 38), Self-Serve Breath Guard (Item 39), Serving Table (Item 40), Drop-In Frost Top (Item 41), Self-Serve Breath Guard (Item 42) as well as 2 Milk Coolers (Item 49) as indicated in Section 114000 “FOOD SERVICE EQUIPMENT” and in the Food Service Drawings.
- M. Alternate No. 13 – Acoustical Treatment – Band, Choir, Orchestra, Practice & Ensemble
- a. Base Bid – Provide APC-1 ceiling only in band, choir, orchestra, practice rooms and ensemble room.
  - b. Alternate – Provide Acoustical wall panels, acoustic ceiling APC-4 and Waveform Harmonix-K ceiling panels in the band, choir, orchestra, and ensemble rooms as indicated in the Contract Documents.
- N. Alternate No. 14 – Acoustical Treatment – Cafetorium
- a. Base Bid – Provide APC-4 and trim as indicated on AC1F1. Do not provide any acoustic wall treatment or ceiling reflector at front of Platform in the Cafeteria.
  - b. Alternate Bid – Provide acoustic wall treatment per Sheet I-203. Provide acoustic reflector at front of Platform per drawings.
- O. Alternate No. 15 – TPO Roof
- a. Base Bid – Provide EPDM roof membrane per SECTION 075323.
  - b. Alternate Bid – Provide TPO roof membrane per SECTION 075423.

END OF SECTION 012300

**DOCUMENT 004323 - ALTERNATES FORM (Addendum 3)**

**1.1 GENERAL INFORMATION**

- A. Bidder: \_\_\_\_\_.
- B. Contact Name: \_\_\_\_\_.
- C. Contact Email: \_\_\_\_\_.
- D. Contact Mobile: \_\_\_\_\_.
- E. Alternates for bid package No. (turn in one sheet for each bid package) \_\_\_\_\_
- F. Project Name: Eastwood Middle School
- G. Project Location: 4401 E 62<sup>nd</sup> St., Indianapolis, IN 46220
- H. Owner: M.S.D. of Washington Township

**1.2 BID FORM SUPPLEMENT**

- A. This form is required to be attached to the Bid Form.

**1.3 DESCRIPTION**

- A. The undersigned Bidder proposes the amount below be added to or deducted from the Base Bid if particular alternates are accepted by Owner. Amounts listed for each alternate include costs of related coordination, modification, or adjustment.
  - 1. Cost-Plus-Fee Contract: Alternate price given below includes adjustment to Contractor's Fee.
- B. If the alternate does not affect the Contract Sum, the Bidder shall indicate "NO CHANGE."
- C. If the alternate does not affect the Work of this Contract, the Bidder shall indicate "NOT APPLICABLE."
- D. The Bidder shall be responsible for determining from the Contract Documents the effects of each alternate on the Contract Time and the Contract Sum.
- E. Owner reserves the right to accept or reject any alternate, in any order, and to award or amend the Contract accordingly within ninety (90) days of the Notice of Award unless otherwise indicated in the Contract Documents.

- F. Acceptance or non-acceptance of any alternates by the Owner shall have no effect on the Contract Time unless the "Schedule of Alternates" Article below provides a formatted space for the adjustment of the Contract Time.

**1.4 SCHEDULE OF ALTERNATES**

- A. Alternate No. 01 – Wood seat bleachers (Base bid-plastic seat bleachers)  
Add \$ \_\_\_\_\_
- B. Alternate No. 02-LVT flooring in corridors (Base bid-vct flooring in corridors)  
Add \$ \_\_\_\_\_
- C. Alternate No. 03-Add gymnasium HVAC (Base bid-gymnasium hvac to remain)  
Add \$ \_\_\_\_\_
- D. Alternate No. 04- Two layers of laminated glass on second floor windows (Base bid-one layer of laminated glass on second floor and two layers on first floor)  
Add \$ \_\_\_\_\_
- E. Alternate No. 05-Epoxy flooring in cafeteria (Base bid-lvt flooring)  
Add/Deduct (Circle One) \$ \_\_\_\_\_
- F. Alternate No. 06-Add locker room HVAC (Base bid-locker room hvac to remain)  
Add \$ \_\_\_\_\_
- G. Alternate No. 07-Replace lockers in PE and Locker rooms (Base bid-lockers to remain)  
Add \$ \_\_\_\_\_
- H. Alternate No. 08- Replace the kitchen freezer and Cooler (Base bid-cooler and freezer to remain)  
Add \$ \_\_\_\_\_
- I. Alternate No. 09-Kitchen and support spaces renovation (Base bid-kitchen and support spaces to remain)  
Add \$ \_\_\_\_\_
- J. Alternate No. 10-Add kitchen pass through units (Base bid-no pass through units)  
Add \$ \_\_\_\_\_

- K. Alternate No. 11-Mobile Kitchen tables and Combi Oven(Base bid-tables and Combi Oven to remain)

Add \$ \_\_\_\_\_

- L. Alternate No. 12 – New third kitchen serving line and milk coolers (Base bid-no new third serving line and milk coolers)

Add \$ \_\_\_\_\_

- M. Alternate No. 13 – Acoustical Treatment – Band, Choir, Orchestra & Ensemble (Base Bid-no acoustical treatment in these areas)

Add \$ \_\_\_\_\_

- N. Alternate No. 14 – Acoustical Treatment – Cafetorium (Base Bid-no acoustical treatment in cafetorium)

Add \$ \_\_\_\_\_

- O. Alternate No. 15 – TPO Roof (Bae Bid-EPDM ROOF)

Add \$ \_\_\_\_\_

**1.5 SUBMISSION OF BID SUPPLEMENT**

- A. Respectfully submitted this \_\_\_\_ day of \_\_\_\_\_, 2012.
- B. Submitted By: \_\_\_\_\_(Insert name of bidding firm or corporation).
- C. Authorized Signature: \_\_\_\_\_(Handwritten signature).
- D. Signed By: \_\_\_\_\_(Type or print name).
- E. Title: \_\_\_\_\_(Owner/Partner/President/Vice President).

END OF DOCUMENT 004323



## SECTION 115123 - LIBRARY STACK SYSTEMS

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

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

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Wood-case shelving.

#### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
  - 1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for library stack systems and accessories.
- B. Shop Drawings:
  - 1. Include plans, elevations, sections, and details.
  - 2. Show clear-aisle widths from face of units.
  - 3. Detail fabrication and installation of library stack systems, including methods of anchoring them to building structures at locations recommended by manufacturer.
- C. Samples for Initial Selection: For units with factory-applied finishes, 6 inches in size.

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For Installer.
- B. Sample Warranty: For manufacturer's special warranty.

#### 1.5 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For library stack systems to include in maintenance manuals.

1.6 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
  - 1. Shelf Units: Five percent of quantity installed for each size and type indicated, but no fewer than 10 units.

1.7 QUALITY ASSURANCE

- A. Installer Qualifications: An entity that employs installers and supervisors who are trained and approved by manufacturer.

1.8 FIELD CONDITIONS

- A. Environmental Limitations: Do not deliver or install wood shelving until building is enclosed, wet work is complete, and HVAC system is operating and maintaining temperature and relative humidity at occupancy levels during the remainder of the construction period.

1.9 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace components of library stack systems that fail in materials or workmanship within specified warranty period.
  - 1. Failures include, but are not limited to, the following:
    - a. Deterioration of metal finishes and other materials beyond normal wear.
  - 2. Warranty Period: Five years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Seismic Performance: Library stack systems shall withstand the effects of earthquake motions determined according to ASCE/SEI 7.

2.2 WOOD-CASE SHELVING

- A. Wood-Case Library Shelving: Shelving designed for library use, consisting of base frame and full end, top, and back panels, with end panels made to receive pins to support adjustable shelves.
  - 1. Manufacturers: Subject to compliance with requirements, provide products by the following:

- a. Brodart Co; Contract Library Furniture Division.
  - b. Liat.
  - c. Worden Company.
  - d. Jasper Library Furniture; Division of Jasper Seating Company, Inc.
  - e. Russwood.
2. Bookstack Units (BS-1):
- a. Type: Mobile, Self-supporting units.
  - b. Configuration: Double-faced units.
  - c. Width: 36 inches .
  - d. Height: 42 inches .
  - e. Shelf Depth: 24 inches nominal.
  - f. Shelves: Provide the following style and number of shelves:
    - 1) Two, flat adjustable shelves.
    - 2) One, fixed bottom wood base shelf.
  - g. Base Frames: Solid hardwood toe kick, back rail, and two end cleats, 3 to 4 inches (76 to 102 mm) high, designed to support bottom shelf and fabricated to attach and tie together vertical panels.
  - h. Bottom Shelf: Solid hardwood boards glued together, 3/4 inch (19 mm) thick, or veneer panels, 1 inch (25 mm) thick, with 1/4-inch (6.3-mm) solid-wood banding.
  - i. Adjustable Wood Shelves: Panels consisting of solid hardwood boards glued together, 3/4 inch (19 mm) thick, or veneer panels, 1 inch (25 mm) thick, with 1/4-inch (6.3-mm) solid-wood banding, and grooved on underside to rest securely on supporting pins.
  - j. End Panels: Panels consisting of solid hardwood boards glued together, 3/4 inch thick, veneer-faced panels, five or nine ply, 1 inch thick, with 1/4-inch solid-wood banding. Provide two rows of holes at 1-1/4-inch intervals for 5/16-inch shelf-support pins on one side of end panels and both sides of intermediate panels.
  - k. Tops: 3/4- to 1-inch- thick veneer- faced panels banded with 2- to 3-inch solid hardwood fasciae on one side for single-faced units and on two sides for double-faced units, fabricated to attach and tie together vertical panels .
  - l. Divider Panels: Veneer-faced panels, 1/4 inch thick, at each double-faced unit.
3. Bookstack Units (BS-2S):
- a. Type: Starter units.
  - b. Configuration: Single -faced units.
  - c. Width: 36 inches .
  - d. Height: 42 inches.
  - e. Shelf Depth: 12 inches nominal.
  - f. Shelves: Provide the following style and number of adjustable shelves:
    - 1) Two, flat adjustable shelves.
    - 2) One, fixed bottom wood shelf.

- g. Base Frames: Solid hardwood toe kick, back rail, and two end cleats, 3 to 4 inches (76 to 102 mm) high, designed to support bottom shelf and fabricated to attach and tie together vertical panels.
  - h. Bottom Shelf: Solid hardwood boards glued together, 3/4 inch (19 mm) thick, or veneer panels, 1 inch (25 mm) thick, with 1/4-inch (6.3-mm) solid-wood banding.
  - i. Adjustable Wood Shelves: Panels consisting of solid hardwood boards glued together, 3/4 inch (19 mm) thick, or veneer panels, 1 inch (25 mm) thick, with 1/4-inch (6.3-mm) solid-wood banding, and grooved on underside to rest securely on supporting pins.
  - j. End Panels: Panels consisting of solid hardwood boards glued together, 3/4 inch thick, veneer-faced panels, five or nine ply, 1 inch thick, with 1/4-inch solid-wood banding. Provide two rows of holes at 1-1/4-inch intervals for 5/16-inch shelf-support pins on one side of end panels and both sides of intermediate panels.
  - k. Tops: 3/4- to 1-inch- thick veneer- faced panels banded with 2- to 3-inch solid hardwood fasciae on one side for single-faced units and on two sides for double-faced units, fabricated to attach and tie together vertical panels and for continuous horizontal shelving.
  - l. Back Panels: Veneer-faced panels, 1/4 inch (6.3 mm) thick, at each single-faced unit.
4. Bookstack Units (BS-2A):
- a. Type: Adder units.
  - b. Configuration: Single -faced units.
  - c. Width: 36 inches .
  - d. Height: 42 inches.
  - e. Shelf Depth: 12 inches nominal.
  - f. Shelves: Provide the following style and number of adjustable shelves:
    - 1) Two, flat adjustable shelves.
    - 2) One, fixed bottom wood shelf.
  - g. Base Frames: Solid hardwood toe kick, back rail, and two end cleats, 3 to 4 inches (76 to 102 mm) high, designed to support bottom shelf and fabricated to attach and tie together vertical panels.
  - h. Bottom Shelf: Solid hardwood boards glued together, 3/4 inch (19 mm) thick, or veneer panels, 1 inch (25 mm) thick, with 1/4-inch (6.3-mm) solid-wood banding.
  - i. Adjustable Wood Shelves: Panels consisting of solid hardwood boards glued together, 3/4 inch (19 mm) thick, or veneer panels, 1 inch (25 mm) thick, with 1/4-inch (6.3-mm) solid-wood banding, and grooved on underside to rest securely on supporting pins.
  - j. End Panels: Panels consisting of solid hardwood boards glued together, 3/4 inch thick, veneer-faced panels, five or nine ply, 1 inch thick, with 1/4-inch solid-wood banding. Provide two rows of holes at 1-1/4-inch intervals for 5/16-inch shelf-support pins on one side of end panels and both sides of intermediate panels.

- k. Tops: 3/4- to 1-inch- thick veneer- faced panels banded with 2- to 3-inch solid hardwood fasciae on one side for single-faced units and on two sides for double-faced units, fabricated to attach and tie together vertical panels and for continuous horizontal shelving.
  - l. Back Panels: Veneer-faced panels, 1/4 inch (6.3 mm) thick, at each single-faced unit.
5. Bookstack Units (BS-3S):
- a. Type: Starter units.
  - b. Configuration: Single -faced units.
  - c. Width: 36 inches .
  - d. Height: 82 inches .
  - e. Shelf Depth: 12 inches nominal.
  - f. Shelves: Provide the following style and number of adjustable shelves:
    - 1) Five, flat adjustable shelves.
    - 2) One, fixed bottom wood shelf.
  - g. Base Frames: Solid hardwood toe kick, back rail, and two end cleats, 3 to 4 inches (76 to 102 mm) high, designed to support bottom shelf and fabricated to attach and tie together vertical panels.
  - h. Bottom Shelf: Solid hardwood boards glued together, 3/4 inch (19 mm) thick, or veneer panels, 1 inch (25 mm) thick, with 1/4-inch (6.3-mm) solid-wood banding.
  - i. Adjustable Wood Shelves: Panels consisting of solid hardwood boards glued together, 3/4 inch (19 mm) thick, or veneer panels, 1 inch (25 mm) thick, with 1/4-inch (6.3-mm) solid-wood banding, and grooved on underside to rest securely on supporting pins.
  - j. End Panels: Panels consisting of solid hardwood boards glued together, 3/4 inch thick, veneer-faced panels, five or nine ply, 1 inch thick, with 1/4-inch solid-wood banding. Provide two rows of holes at 1-1/4-inch intervals for 5/16-inch shelf-support pins on one side of end panels and both sides of intermediate panels.
  - k. Back Panels: Veneer-faced panels, 1/4 inch (6.3 mm) thick, at each single-faced unit.
6. Bookstack Units (BS-3A):
- a. Type: Adder units.
  - b. Configuration: Single -faced units.
  - c. Width: 36 inches .
  - d. Height: 82 inches .
  - e. Shelf Depth: 12 inches nominal.
  - f. Shelves: Provide the following style and number of adjustable shelves:
    - 1) Five, flat adjustable shelves.
    - 2) One, fixed bottom wood shelf.

- g. Base Frames: Solid hardwood toe kick, back rail, and two end cleats, 3 to 4 inches (76 to 102 mm) high, designed to support bottom shelf and fabricated to attach and tie together vertical panels.
- h. Bottom Shelf: Solid hardwood boards glued together, 3/4 inch (19 mm) thick, or veneer panels, 1 inch (25 mm) thick, with 1/4-inch (6.3-mm) solid-wood banding.
- i. Adjustable Wood Shelves: Panels consisting of solid hardwood boards glued together, 3/4 inch (19 mm) thick, or veneer panels, 1 inch (25 mm) thick, with 1/4-inch (6.3-mm) solid-wood banding, and grooved on underside to rest securely on supporting pins.
- j. End Panels: Panels consisting of solid hardwood boards glued together, 3/4 inch thick, veneer-faced panels, five or nine ply, 1 inch thick, with 1/4-inch solid-wood banding. Provide two rows of holes at 1-1/4-inch intervals for 5/16-inch shelf-support pins on one side of end panels and both sides of intermediate panels.
- k. Back Panels: Veneer-faced panels, 1/4 inch (6.3 mm) thick, at each single-faced unit.

## 2.3 WOOD MATERIALS

- A. Solid Wood: Clear hardwood lumber, selected for compatible grain and color.
  - 1. Wood Species and Cut: Red oak, plain sliced.
  - 2. Staining and Finish: As selected by Architect from manufacturer's full range.
- B. Edgework: Minimum 1/8-inch- thick solid wood of same species as face veneer.
  - 1. Colors: As selected by Architect from manufacturer's full range.

## 2.4 GENERAL FINISH REQUIREMENTS

- A. Appearance of Finished Work: Noticeable variations in same piece are unacceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

## 2.5 WOOD FINISHES

- A. Finishing: Apply manufacturer's standard, baked, clear finish, consisting of a sealer and a conversion varnish or nitrocellulose lacquer UV-curing resin topcoat. Sand and wipe clean between applications of sealer and topcoat.

## 2.6 ACCESSORIES

- A. Floor Anchors: Galvanized steel, post-installed expansion anchors power-actuated fasteners threaded concrete screws.

- B. Wall Anchors: Manufacturer's standard galvanized-steel anchors.
- C. Top Bracing: Minimum 1- by 1-3/4-inch transverse struts, 0.048-inch- thick steel channels, welded or bolted to top of stack units and securely fastened to structure.
- D. Filler Panels: Provide corner peninsula intermediate wall filler panels; 0.048-inch- thick cold-rolled steel, with fitted caps, in color and finish to match shelving. Locate where indicated to fill gaps at abutting shelving units.
- E. Furniture Casters: Nonmarking; hooded nonhooded; single-wheel twin-wheel spherical-ball type; nylon urethane thermoplastic rubber polyolefin tread; top plate stem hidden corner bracket attachment and integral brakes.

### PART 3 - EXECUTION

#### 3.1 EXAMINATION

- A. Examine areas, with Installer present, for compliance with requirements for installation tolerances, location of framing and reinforcements, and other conditions affecting performance of the Work.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

#### 3.2 PREPARATION

- A. Vacuum finished floor over which shelving is to be installed.
- B. Before installing wood-case shelving , condition materials to average prevailing humidity in installation areas for a minimum of 48 hours unless longer conditioning is recommended by manufacturer.

#### 3.3 INSTALLATION

- A. Install library stack systems at locations indicated on Drawings and according to manufacturer's written instructions.
- B. Starter/Adder Units: Connect groups together with standard fasteners according to manufacturer's written instructions, using concealed fasteners where possible.
- C. Enclosure Panels: Install with concealed fasteners.
- D. Level and plumb bookstack units to a tolerance of 1/8 inch in 96 inches .
- E. Filler Panels: Install corner peninsula intermediate wall filler panels where indicated to fill gaps at abutting shelving units.

- F. Install type of shelves at locations indicated and at spacing indicated or, if not indicated, at equal spacing in each unit.

3.4 ANCHORAGE

- A. Bookstack Anchorage: Install bookstacks using floor anchors, wall anchors, or top bracing in locations recommended by manufacturer and as indicated on Shop Drawings.

3.5 CLEANING AND PROTECTING

- A. Repair or remove and replace defective work as directed on completion of installation.
- B. Clean finished surfaces, touch up as required, and remove or refinish damaged or soiled areas to match original factory finish, as approved by Architect.
- C. Protect installed products from damage during remainder of the construction period.

END OF SECTION 115123



SECTION 123540.99 - MUSICAL INSTRUMENT & ROBE CABINET SYSTEM

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Section Includes:
  - 1. Instrument storage cabinets.
- B. Products Furnished and Installed Under this Section:
  - 1. All music education cabinets shown on Drawings.
  - 2. All mounting and connection hardware and accessories.
- C. Related Sections include following:
  - 1. Division 12 Section "Modular Casework" for plastic laminate casework and countertops.

1.3 REFERENCES

- A. American Laminators Assoc. Performance Standard ALA 1985.
- B. ANSI - BHMA Standard A156.9, Grade 1.

1.4 ACTION SUBMITTALS

- A. Samples:
  - 1. Submit Samples of musical instrument and robe cabinet manufacturer's standard decorative laminate colors, patterns, and textures for exposed and semi-exposed materials for Architect's/ Engineer's selection. Samples of other materials or hardware shall be made available, if requested.
  - 2. Architect/Engineer may request representative full-size samples for evaluation prior to approval. Samples may be held by Architect/Engineer and Owner until completion of Project to ensure compliance with Specifications.
- B. Product Data with Shop Drawings:

1. Product Data: In addition to provisions described in General Conditions relating to approval process, submittals of manufacturer's data, installation instructions, and Samples are required upon request of Architect/Engineer.
2. Shop Drawings: Provide complete Shop, setting, and installation Drawings on all musical instrument and robe cabinet system to Architect/Engineer for approval before fabrication of items.
  - a. Dimensions of equipment specified and sizes and shapes shown on Drawings are approximate. Shop Drawings shall show exact dimensions of equipment, including centerlines of all cutouts, in plan and elevation, which shall be coordinated to fit available space. Particular care shall be taken to fit continuous units together to form straight, unbroken surfaces.
  - b. Carefully check all dimensions and conditions at building and submit field-dimensioned Shop Drawings to Architect/Engineer for approval before fabrication is completed or equipment is shipped to Project site.
  - c. Drawings of assemblies of equipment between walls shall show methods of compensating for variations in measurements after walls are finished and during installation of equipment.
  - d. Model numbers as they appear on Drawings shall appear on Shop Drawings.

#### 1.5 INFORMATIONAL SUBMITTALS

- A. Qualification Data: For firms and persons specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects/engineers, owners, and other information specified.

#### 1.6 QUALITY ASSURANCE

- A. Manufacturer and Installer's Qualifications: Manufacturer and installer shall show evidence of not less than five (5) years experience providing musical instrument and robe cabinet systems and accessories similar in material, design and extent to that indicated for this Project and shall have a record of successful in-service performance.
- B. Source Limitations for musical instrument and robe cabinet systems: Furnish and install cabinet systems and all related items from one source with that source having sole responsibility for integrating Work of this Section with the Work of all other trades.
  1. Manufacturer shall submit evidence of having adequate facilities and sufficient personnel required to perform the Work of this Project.
- C. Musical instrument and robe cabinet systems shall conform to design, quality of materials, workmanship, and function as shown and indicated on Drawings and as herein specified.

### 1.7 DELIVERY, STORAGE AND HANDLING

- A. Deliver musical instrument and robe cabinet system units only after wet Work in areas of building indicated for installation of this Work has been completed.
  - 1. Schedule delivery of units to minimize required amount of storage time on Site.
- B. Store musical instrument and robe cabinet systems in a ventilated room, protected from weather with a relative humidity range of from 20 to 50 percent.
- C. Protect finished surfaces from soiling and damage during handling and installation.

### 1.8 WARRANTY

- A. General Warranty: Submit manufacturer's written warranty agreeing to repair or, if repairs cannot be made to eliminate all evidence of damage, replace modular casework and countertops as directed by Architect/Engineer which show damage or deterioration resulting from failures in either materials or workmanship during indicated warranty period.
  - 1. Warranty Period for Instrument Storage Cabinets: Three (3) years from date of Substantial Completion.
  - 2. Warranty Period for Shelving within Storage Cabinets: Ten (10) years from date of Substantial Completion.

### 1.9 SYSTEM DESCRIPTION

- A. Design Requirements:
  - 1. Music education system of storage cabinets will be specifically designed and engineered for intended use and shall meet minimum performance characteristics specified herein. Music instrument storage units shall be chip- and abrasion-resistant under normal usage and shall protect instruments and cases from damage under normal use.
  - 2. Provide one-piece high-molecular polyethylene instrument and uniform/robe storage shelving with integral ventilation grooves, designed and engineered to withstand continuous use without surface or front edge breakdown.
  - 3. Individual instrument, robe/uniform storage cabinets will be manufactured with thermo-fused polyester laminated panels, finish both faces all components. All end panels shall be factory-jigged and drilled to accept unit-to-unit through-bolting; no conventional wood screws attaching units side-to-side will be permitted. Each instrument storage cabinet shall be furnished with an integral base and four (4) steel levelers accessible from within unit but concealed in final installation. These features shall combine to provide modularity, on-site re-arrangement or future relocation of music education storage cabinet.

4. Provide inset style door panels, solid or wire grille as shown on Drawings; reveal or full overlay style solid or wire grille doors will not be permitted due to inherent weakness of overlay hinges. All hinges shall be structurally attached to vertical panels using engineered and tested through-bolt hardware, and either welded to wire grille doors or through-bolted to solid door leaf; screw-mounted hinges will not be permitted.
- B. Manufacturer Shall Provide Documentation of Following Minimum Performance Requirements:
1. Molded plastic instrument storage shelf shall have a static load capacity of over 1,000 lbs.
  2. Full height solid-hinged door for instrument storage units shall support a minimum dynamic live load of 315 lbs., applied at outer edge.
  3. Wire grille door hinge shall be welded to door frame in five places, pull-tested to withstand 3,000 lbs.
  4. Instrument storage shelf system shall have a factory warranty of ten (10) years against defects in material and workmanship.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by following:
1. Wenger Corporation.
  2. Case Systems, Inc.
  3. TMI System Design Corporation.
  4. Stevens Industries, Inc.
- B. Quality of Standard:
1. Manufacturers offering substitute products shall obtain approval prior to bidding or shall offer voluntary alternates under provisions of Instructions to Bidders.
  2. Manufacturer requesting prior approval shall submit evidence of minimum 10 years experience manufacturing musical instrument storage.
  3. Manufacturer requesting prior approval shall submit performance documentation and test results as noted above, plus actual Samples of materials, construction features and finishes, specifically but not necessarily limited to following:
    - a. Typical shelf and mounting details.
    - b. Cabinet wall panel complete with surface finish and edging.
    - c. Door panel, both solid and wire grille, if applicable.
    - d. Hinges, preferably mounted to door sample.
    - e. Slide bolts/latch mechanism.

4. Manufacturers' names are used to establish a standard of quality and are not intended to limit competition. Additional manufacturers may be accepted provided they are approved by Architect/Engineer, before date/time for bids.
  - a. It is intent of this Specification to establish performance and quality criteria consistent with pre-established standards of design and function herein described. Casework systems not meeting these minimum standards will not be accepted.
  - b. Refer to Division 01 Section "Substitution Procedures" for provisions and requirements for substitutions.

## 2.2 MATERIALS

- A. Cabinet Wall Panels: 3/4 inch thick industrial (cabinet) grade particleboard, minimum 48 pcf with thermoset polyester (melamine not acceptable) laminate on both sides for totally finished construction. No backer sheets or unfinished surfaces may be used on unexposed sides.
- B. Cabinet Shelving:
  1. Cabinets up to 27 inches wide: One-piece high-molecular blow-molded polyethylene with 1-3/8 inch radius front edge (Patented). Mount to cabinet walls with one-piece molded rigid ST nylon clip. Shelf shall be replaceable without damage to adjacent surfaces. Doweled shelves will not be permitted.
  2. Cabinets over 27 inches wide: One-piece high molecular formed polyethylene with radius front edge and 3/16" wall thickness. Ribbed for structural integrity. Supported by four structural tubular members 1-1/2" x 1" x 16 ga. wall thickness with 14 gauge welded end plates.
- C. Door Options:
  1. Grille doors: Welded steel grille construction with powder coat finish. Welds at T-joints shall be 360°.
    - a. Hinges, 5-knuckle institutional-type hinge, supplied by ISO 9002 vendor.. dynamic vertical load. Hinge pin shall be 2-3/4" long. Weld hinge welded to door frame in five places. Fasten to cabinet with through-bolt construction; attachment by wood screws not acceptable. Finish: powder coat paint. Two hinges on compartment doors, four on full height doors.
    - b. Weld wire grille door hinge to door frame in five places, pull-test to withstand 3,000 lbs.
  2. Locking slide-bolt: All doors shall be factory-provided with locking slide-bolt designed for padlocks, with formed steel strike plate through-bolt connected to cabinet end panel; 12 gauge steel. Provide clear plastic label holder for identification card insert. Finish: Powder coat paint.
- D. Edging: Heat-bonded 3mm beveled PVC edge-banding, machine applied using hot-melt adhesives, edges and corners machine profiled for safety, integral color.

## E. Finish Hardware:

1. Joinery Hardware: Two inches, 1/4-20 panel connectors with 15mm head diameter, and steel thread inserts shall be utilized to join desired cabinets side-to-side; use factory-jigged and drilled joinery holes. Finish: Powder coat paint.
2. Cabinet levelers: Structural levelers for each cabinet, accessible from within unit when desired, concealed in complete installation; glides with minimum 3/8 inch diameter threaded rod mounted in steel corner brackets. Provide minimum four glides per cabinet, six glides for cabinets with divider panels.

## F. Cabinet Back Panel:

1. Standard cabinet back shall be 1/4" thick prefinished hardboard.

## G. Closure Kit: Provide visual closure kit as required, as illustrated on music/robe cabinet elevations.

1. Vertical Closure Kit: Provide visual closure between wall and cabinet. Construct of 3/4" thick thermoset polyester composite wood to match cabinet side panels. Colors: Match adjacent laminate surface; shall fit 3/4" to 30" wide opening.
2. Horizontal Closure Kit: Provide visual closure between top of cabinet and soffit. Construct of 3/4" thick thermoset polyester composite wood to match cabinet side panels. Color: Match adjacent laminate surface; shall fit 3/4" to 30" high opening.
3. Top Back Filler Kit: Provide visual closure between back wall and top panel of cabinet. Construct of 3/4" thick thermoset polyester composite wood to match cabinet top panels. Color: Match adjacent laminate surface; shall fit 10" and 20" deep openings.
4. Finished Back Panel: Provide panel to attach to cabinet back that is exposed. Construct of 1/2" thick thermoset polyester composite wood to match cabinet. Color: Match adjacent laminate surface.

## H. Ventilation: Built-in to cabinet top and around doors and shelves to help circulation and dissipate moisture.

## 2.3 FABRICATION

- A. Fabricate casework to dimensions, profiles, and details shown on Drawings.
- B. Fabricate and package all components in factory and ship fully assembled or ready to assemble.

## PART 3 - EXECUTION

## 3.1 PREPARATION

- A. Field Measurements: Take all necessary measurements in field to ensure proper dimensions for cabinets and countertops.

- B. Verify that modular casework may be fabricated and installed in complete accordance with original design, approved Shop Drawings, and with all referenced standards.

### 3.2 INSPECTION

- A. Installer shall examine Project site and conditions under which the Work of this Section shall be performed.
  - 1. Immediately notify Architect/Engineer, in writing, of unsatisfactory conditions.
  - 2. Do not proceed with Work of this Section until all unsatisfactory conditions have been fully resolved.

### 3.3 INSTALLATION

- A. Condition musical instrument and robe cabinet system to average prevailing humidity conditions in installation areas before installing.
- B. Musical instrument and robe cabinet system shall be installed under supervision of and as authorized by casework manufacturer. Shim as required to make level and plumb. Where laminate clad casework abuts other finished Work, accurately scribe and cut to fit.
- C. Securely and rigidly anchor cabinets in place using screws or bolts. Perfectly align cabinets and securely and rigidly anchor them together so that exposed joints are "hairline" tight. Keep items plumb and level. Provide scribe molds or fillers where items abut walls and in accordance with Architect/Engineer-approved Shop Drawings. Conceal anchorage wherever possible. Provide sufficient quantities of anchorage devices to securely install items and arrange them neatly and uniformly.
- D. Adjust casework and hardware so that doors and drawers operate smoothly without warping or binding.
- E. Installation shall be in compliance with manufacturer's instructions.

### 3.4 CLEANING AND PROTECTION

- A. Upon completion of the Work, repair or remove and replace defective Work as directed by Architect/Engineer at no additional cost to Owner.
- B. Clean plastic surfaces (inside and outside surfaces of cabinetry). Repair minor damage per plastic laminate manufacturer's recommendations. Replace other damaged parts or units with new.
- C. Implement procedures and precautions for protecting musical instrument and robe cabinet system from damage by other trades until time of Substantial Completion.