

**SECTION 12 61 00
FIXED AUDIENCE SEATING**

PART 1 GENERAL**1.1 SECTION INCLUDES**

- A. Fixed, upholstered theater chairs.
- B. Support standards.
- C. Chair accessories.

1.2 RELATED REQUIREMENTS

- A. Section 26 0519 - Low-Voltage Electrical Power Conductors and Cables (600 V and Less).
- B. Section 26 0535 - Surface Raceways.

1.3 REFERENCE STANDARDS

- A. ASTM D3597 - Standard Specification for Woven Upholstery Fabrics-- Plain, Tufted, or Flocked; 2002 (Reapproved 2009).
- B. ASTM E1352 - Standard Test Methods for Cigarette Ignition Resistance of Mock-Up Upholstered Furniture Assemblies; 2008a.
- C. ASTM E1537 - Standard Test Method for Fire Testing of Upholstered Furniture; 2007.
- D. NFPA 261 - Standard Method of Test for Determining Resistance of Mock-Up Upholstered Furniture Material Assemblies to Ignition by Smoldering Cigarettes; National Fire Protection Association; 2009.

1.4 SUBMITTALS

- A. Shop Drawings: Fabrication and installation details, chair layouts and dimensions and seat numbering scheme.
 - 1. Field Measurements: Verify seating layout by field measurements and record field dimensions on shop drawings.
- B. Selection Samples: Manufacturer's color charts and swatches for fabric upholstery and see Finish Plans 4-AS7.12 for fabric selection, indicating full range of materials, colors, and patterns available.
- C. Verification Samples: Full-size two-seat fabricated sample of each type of chair specified, including all accessories and one end panel, illustrating all finishes and workmanship to be expected in the finished Work; approved sample may be incorporated into the Work.
- D. Maintenance Materials:
 - 1. Extra Fabric: Quantity sufficient for reupholstering 5 percent of installed seating.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced installer certified in writing by the seating manufacturer to be qualified for installation of specified seating.
- B. Fire Retardance of Upholstered Seating: Self-extinguishing when mock-up is exposed to smoldering cigarettes in accordance with ASTM E1352 or NFPA 261.
- C. Fire Retardance of Fixed Theater Seating: Maximum instantaneous net

peak rate of heat release of 250 kW or less, and total energy released during first 5 minutes of 40 MJ or less, when tested in accordance with ASTM E1537.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver seats to project site in unopened containers clearly labeled with manufacturer's name and identification of contents.
- B. Store seating units in dry and clean location until needed for installation. During installation, handle in a manner that will prevent marring and soiling of finished surfaces.

1.7 MOCK-UP

- A. Construct mock-up with at least 2 seats in each of 2 rows at location indicated. Approved mock-up will serve as quality standard for completed installation. Approved mock-up may remain as part of the Work.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Fixed Theater Seating:
 - 1. American Seating Inc.: www.americanseating.com.
 - 2. KI. Inc
 - 3. Theatre Solutions, Inc: www.theatresolutions.com.
 - 4. OR APPROVED EQUAL

2.2 MATERIALS

- A. Polyurethane Foam: Density not less than 1.8 lb/cu ft, fire retardant, non-hardening and non-oxidizing, with high resistance to alkalis, oils, moisture, and mildew.
- B. Upholstery Fabric: ASTM D3597 heavy-duty plain woven nylon fabric, treated to resist cigarette ignition and staining; color and pattern as selected from manufacturer's standards.
- C. Upholstery Fabric: See Finish Plans 4-AS7.12 for fabric selection; fabric designation; color and pattern.
 - 1. Above fabric designation is intended to establish fabric material; weight, weave, surface texture, pattern, and color required. Products by other manufacturers that match the specified product in all essential respects may be substituted, with LEGAT ARCHITECTS 's prior approval.

2.3 UPHOLSTERED CHAIRS

- A. Fixed seating system designed to permit radial installation using common middle support standards in each row and aisle standards aligned as indicated on drawings. Width of seats not less than 22 inches, except exit seat locations may be reduced to 20 inches to complete specific row dimensions.
- B. Backs: Fixed type; two-panel construction with fabric covering over padding and protective back panel, with installed height not less than 32 inches above finished floor.
 - 1. Padding: Polyurethane foam not less than 1 in thick bonded to structural support.
 - 2. Covering: Fabric bonded to padding and fastened by upholstery technique that facilitates replacement.

- C. Seats: Hinged type, constructed to permit reupholstering without removing seat from chair.
- D. Hinges: Self-lubricating, noiseless steel hinges with brass alloy bearings or nylon bushings, equipped with spring mechanism that causes unoccupied seat to rise automatically to uniform 3/4 fold, with 100 percent fold when additional pressure is applied.
- E. Arm Rests: Locate at aisles and between chairs; mount to support standard with concealed fasteners; exposed surfaces of solid hardwood lumber with smoothed edges.
 - 1. Provide hinged arm rests with cup holder opening sized to accommodate cups up to 40 ounces.
- F. End Panels: One piece panels fastened securely to aisle standards with concealed fasteners, configured as follows:
 - 1. Shape: Rectangular.
 - 2. Finish: Solid hardwood.

2.4 STANDARDS

2.5 ACCESSORIES

- A. Folding Tablet Arms: At standard to right side of each seat, provide manufacturer's standard fold-away tablet arm assembly, with hinge and swivel mechanism securely fastened to underside of writing surface and designed to provide solid support in the open position and semi-automatic return to stowed position beneath right arm rest and parallel to right standard.
 - 1. Finish: Plastic laminate both sides, with smooth, rounded edges.
 - 2. Size: Writing surface not less than 100 sq inches.
- B. Seat and Aisle Numbers: Manufacturer's standard seat numbers securely fastened to front edge of folding seats and row numbers securely fastened to aisle arm rests; anodized aluminum finish, with letters and numbers countersunk and filled with black paint.
- C. Power and Data System: Provide raceways and terminals for power and data connections at each chair.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Comply with manufacturer's instructions for installation and approved shop drawings.
- B. Anchor support standards securely to substrate with at least two anchoring devices recommended by manufacturer.
 - 1. Place standards in each row laterally so the standards at the aisle will be in alignment. Vary width of seats and backs as required to optimize sightlines, and comply with ADA requirements for row and aisle widths.

3.2 ADJUSTING

- A. Adjust seat mechanisms to ensure that seats in each row are aligned when unoccupied.
- B. Repair minor abrasions and imperfections in painted finishes with a coating that matches factory-applied finish; replace units that cannot be repaired to unblemished appearance.

C. Replace upholstery fabric damaged or soiled during installation.

END OF SECTION