

Planar A1 Specifications – Theatre Seating

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PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this section

1.2 SUMMARY

- A. This section includes the following:
 - 1. Common standard floor mounted chairs as detailed in Part 2 of these specifications.

1.3 SUBMITTALS

- A. Product data for each type of product specified. Include installation methods.
- B. Shop drawings, prepared for architectural drawings and from field dimensions, showing the seating layout, seat numbering sequence, chair sizes, and aisle widths. Also show a section view with profile dimensions of the seating and back-to-back dimensions.
- C. Samples for initial selection purposes in the form of manufacturer's color charts or samples of materials showing the full range of standard colors, finishes, and patterns.
 - 1. Fabric
 - 2. Metal Finishes
 - 3. Wood Finishes
- D. Statement signed by the theater seating manufacturer confirming that the products submitted comply with the specified requirements.

1.4 QUALITY ASSURANCE

- A. Provide installer's qualifications confirming the installer is qualified to install the manufacturer's chairs
- B. Provide seating that complies with California Technical Bulletin 117.
- C. Obtain each type of seating, including accessories and mounting components, from a single manufacturer.
- D. Design and install seating with end standards aligning from first to last row and with backs and seats varied in width to optimize sightlines. Comply with ADA rules and regulations.

1.5 PROJECT CONDITIONS

- A. Environmental Conditions: Do not install seating until space is enclosed and weatherproof, wet work in space is complete and dry, installation of finishes including painting is complete, and ceilings are complete. Do not install seating until ambient temperature and humidity conditions are continuously maintained at final occupancy values.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver seating in manufacturer's unopened cartons clearly labeled with manufacturer's name and contents.
- B. Handle seating in manner to prevent damage.

1.7 EXTRA MATERIALS

- A. Furnish from the same production run as the materials installed. Package materials with protective covering and identify with labels describing contents.
 - 1. Seat and back covers to be furnished in a quantity equal to 5 percent of the amount of chairs installed.

PART 2 – PRODUCTS

2.1 SEATING

- A. Provide from Theatre Solutions, Inc., 121 Park Avenue, Quakertown, PA 18951, the **Planar "A1"** model as follows:
 - 1. Basic floor mounted chair.
 - 2. Inner upholstered seat and back.

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3. Outer wood veneer seat and back with stained edges.
 4. Wood armrests.
 5. Aisle lights where indicated on the drawings.
 6. Wood veneer end panels where indicated on the drawings.
- B. Model noted is based on the Theatre Solutions, Inc. Planar “A1” model with the intent of establishing the high level of quality required for the project. Other brands submitted for approval will be given consideration provided that a full seating mock-up, along with a complete list of specification discrepancies between the proposed substitution and the product specified is received at least 10 working days prior to the bid date.
1. By offering a quote for this project, the bidder assumes full responsibility for complying with the specifications for this project and shall be totally responsible for any expenses incurred if the product quoted does not comply with the specifications.
- C. Failure to comply with the warranty described in Part 4 of these specifications will be cause for disqualification.

2.2 MATERIALS

- A. Padding material shall be flexible polyurethane foam which conforms to the standards of the California Bureau of Home Furnishings 117. The back shall be 2” thick. The seat shall be 3” thick.
- B. Seating fabric shall be _____ with the color to be selected from the standard choice of colors. The inner back and seat shall be upholstered by attaching the fabric to the inside wood back and seat panels. All upholstery shall be first quality without creases, stretch lines, or wrinkles.
- C. Exposed wood on the outer back and seat panels shall be veneer. The panel edges shall be stained to match the veneer faces. The arms shall be solid wood. All wood shall be stained to match the architect’s sample.

2.3 FABRICATION, GENERAL

- A. Fabricate the theater seating in contoured form for maximum comfort using materials that are carefully selected to be free from defects, objectionable projections, or irregularities. Smooth round corners and edges to present the least possible snagging and pinching hazards.

2.4 MOUNTING

- A. Fabricate seating units for floor attachment, using standards that have been manufactured to conform to the slope of the floor while maintaining seat and back in same angular relationship to standards throughout.

2.5 METAL STANDARDS

- A. Frame shall be laser-profiled 5/16” hot-rolled steel plate and 11 gauge steel brackets welded into one integral freestanding structure upon which the seat, back, and arms are assembled. Pivot and stop pins shall be machined from cold finished steel to tolerances of +0.000 -0.005. Floor mount plate shall be 5/16” thick hot-rolled pickled-in-oil steel plate with two countersunk holes for 1/4-20 mounting screws.

2.6 UPHOLSTERED CHAIRS

- A. General: Fabricate theater seating with padding and fabric covering. Equip each seat with a gravity self-rising mechanism so that unoccupied seats return to an upright position perpendicular to the base line of floor of auditorium. Spring compensating mechanism will not be acceptable. Chair profile with the seat in the upright position and without a tablet arm, cannot exceed 17-1/2”. The chair profile with the seat in the upright position and with a tablet arm, cannot exceed 23-1/2”.

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- B. Seat Construction: Solid seat bottom construction comprised of a plywood veneer outer panel fastened solidly and without voids to an inner structural plywood panel. The outer panel shall be 15mm thick, faced one side with Grade A veneer, and exposed plywood laminations along all edges. The inner panel shall be 3/4" thick. Both shall be electronically glued hardwood plywood and shall be fastened together with bayonet hanging brackets at the top and two steel angles at the bottom, resulting in a rigid connection with no visible fasteners. The veneer face and edges of the outer panel shall be stained to match the architect's sample. The padding shall be a fabricated assembly of urethane foam components, shall be glued to the inner panel, and shall conform to the California Bureau of Home Furnishings Technical Bulletin 117. The complete seat assembly shall be supported by two 7 gauge formed steel mounting brackets which will attach the seat assembly to the hinges on the standards. The seat shall have a built-in counterweight to insure automatic self-rising without the aid of springs. Arch-spring seat construction will not be acceptable.
- C. Back Construction: Solid back construction comprised of a plywood veneer outer panel fastened solidly and without voids to an inner structural plywood panel. The outer panel shall be 15mm thick, faced one side with Grade A veneer, and exposed plywood laminations along all edges. The inner panel shall be 1/2" thick. Both shall be electronically glued hardwood plywood and shall be fastened together with bayonet hanging brackets at the top and two 1/4-20 x 1-1/8" Allen-drive low-profile bolts at the bottom, resulting in a rigid connection with no visible fasteners on the outer wood panel. The veneer face and edges of the outer panel shall be stained to match the architect's sample. The padding shall be a fabricated assembly of urethane foam components, shall be glued to the inner panel, and shall conform to the California Bureau of Home Furnishings Technical Bulletin 117. The complete back assembly shall be supported by two 13 gauge formed steel brackets and two 3/8-16 hex head bolts which will attach the back assembly to the standards.
- D. Armrests: Shall be kiln-dried solid hardwood, nominally 13/16" thick x 2-1/4" wide x 11-3/4" long, stained to match the outer seat and back panels. The armrest will be fastened to the steel frame with four #8 x 5/8" pan head sheet metal screws. Chairs equipped with tablet arms shall have armrests nominally 13/16" thick x 2-1/4" wide x 17-5/8" long and shall be attached to the steel frame arm support with four #8 x 5/8" pan head sheet metal screws.
- E. Hinge: The seat hinge shall be a weldment consisting of a 7 gauge hot-rolled pickled-in-oil steel component and shall be formed and punched to receive a 0.56" id x 0.75" od x 0.5" long steel bushing. A self-lubricating nylon sleeve shall be fitted between the seat hinge and the standard seat hinge pin. The hinge shall be machined to provide a positive stop location for the seat in both occupied and unoccupied positions. The hinge shall be fitted with a plastic cover to eliminate all pinch points and shall include a 3/16" thick urethane rubber pad to dampen noise upon the seat return to the vertical position.

PART 3 – OPTIONS

3.1 END PANEL

- A. Provide manufacturer's standard end panel at the end of the row. The configuration of the panel shall follow the angle of the frame and back at the rear, and shall be vertical at the front end. The panel shall be constructed of 3/4" thick plywood with veneer on both sides and 1/8" thick solid wood on the vertical edges. The end panel shall be stained to match the outer wood seat, back, and armrests.

3.2 AISLE LIGHT

- A. Aisle lights shall be provided in accordance to the locations shown on the architectural drawings. The units shall be of low voltage (24v) type and the light tube shall fit into a routed area on the underside of the armrest. The chair frame shall be prepared to accept the power wire. The necessary access holes and blank cover plates shall be provided. The chair manufacturer shall also provide the necessary transformers. All wiring and electrical connections shall be conducted at the job site and shall be the responsibility of others.

3.3 HARDWOOD EDGES, OUTER SEAT AND BACK

- A. Outer plywood panels shall be trimmed in 1/8" thick hardwood on the top and vertical edges. The hardwood shall match the face veneer species and be stained to match.

3.4 INSET UPHOLSTERY, BACK

- A. Back upholstery shall be inset to expose the veneer face on the inside of the outer back panel. The veneer on the inside face on the back panel shall match the veneer species on the outside face and be stained to match.

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3.5 SEAT AND ROW IDENTIFICATION TAGS

- A. Provide manufacturer's standard shape brass number and letter plates. Font shall be Times Roman. The size of the font on the seat number plates shall be 27pt; the size of the font on the row letter plates shall be 42pt. The number plates shall fit into a recessed area at the top edge of the seat. The row letter plates shall fit into a recessed area at the back of the armrest.

3.6 REMOVABLE CHAIR

- A. Provide the manufacturer's standard one, two or three chair removable units which shall include an integrated steel sled-base that is engineered to conform to the row radii and includes two through holes per chair for floor mounting.

3.7 FREESTANDING REMOVABLE CHAIR

- A. Provide manufacturer's standard freestanding removable chair which shall include an integrated steel sled-base that is engineered to conform to the row radii and includes extended length floor plates to allow the chairs to remain stable with no physical attachment to the floor.

3.8 TABLET ARMS

- A. Tablet arm shall be two-motion fold-away style, constructed of 1/2" medium density fiberboard, faced two sides with matte black high-pressure laminate. The edges shall be finished with a vinyl T-molding trimmed flush with both top and bottom surfaces.

3.9 BOOKRACK

- A. The bookrack shall be constructed of hardwoods and hardwood plywood. Bookrack shall be assembled with tongue and groove construction and finished with a catalyzed lacquer. The bookrack shall be attached to the outer surface of the chair back. An optional attachment configuration shall consist of a steel weldment attached to the chair leg. This configuration allows the bookrack to be located between chair backs.

3.10 COMPLIANCE WITH CALIFORNIA TECHNICAL BULLETIN 133

PART 4 – WARRANTY

4.1 The theater seating manufacturer must provide a Lifetime Warranty to the original purchaser of the seating as follows:

- A. The seating manufacturer shall warrant its products against failures and manufacturing defects for the life of the product. This warranty applies to the original purchaser and is non-transferable. The seating manufacturer will provide parts and labor to replace defective parts for the first two years after the installation. Thereafter, the manufacturer will provide replacement parts for the life of the product.
- B. This warranty shall not cover damage from abuse, misuse, neglect, or act of God. Damage caused by modifications to the product by anyone other than a TSI authorized seating installation technician will void this warranty. This warranty does not apply to fabrics or products not installed by authorized TSI seating installation technicians.

PART 5 - EXECUTION

5.1 EXAMINATION

- A. Examine site conditions, with installer present, for compliance with requirements for construction tolerances as they affect anchors and fasteners, and location of junction boxes.
- B. Do not proceed until unsatisfactory conditions have been corrected.

5.2 GENERAL

- A. Comply with seating manufacturer's printed installation instructions applicable to products.
- B. Locate seating in locations indicated on approved shop drawings, with required clearances.
- C. Install standards in locations conforming to seating layout, with each standard attached to substrate by no less than two anchoring devices of size and type required to insure that chairs are stable under conditions of actual use.
- D. Install chairs using manufacturer's recommended hardware and fasteners. Insure that chairs in curved rows are installed on proper radius and are oriented toward the center point of the radius. Verify that moving components operate smoothly and quietly.

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5.3 ADJUSTING

- A. Adjust as required to assure that the seats in each row are aligned when in the upright position.
- B. Touch-up minor abrasions and imperfections in painted finishes with coating that matches factory-applied finish.
- C. Replace any upholstery that has been damaged during installation.

END OF SPECIFICATION