



SECTION 12 52 00

CUSTOM UPHOLSTERY

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Current version: americanupholstery.com/specifications.html

EDITOR'S NOTE TO THE SPECIFIER

This is a three-part CSI guide specification for custom upholstery and reupholstery, with American Upholstery of Phoenix, Arizona as the basis of design. Choose or delete each bracketed option [like this], and renumber as needed: for example, Section 12 61 00 for fixed audience seating or 12 54 00 for hospitality furniture. Millwork, casework and wood frames are excluded and belong in Division 06.

Code basis: 2021 International Fire Code (IFC) and International Building Code (IBC), the editions in effect in the most states. Confirm the edition adopted by the authority having jurisdiction (AHJ); the City of Phoenix adopted the 2024 codes effective August 1, 2025. Keep the qualification and substitution requirements in Part 1 intact so that any proposed equivalent is held to the same standard as the basis of design.

PART 1 – GENERAL

1.1 SUMMARY

A. Section includes field measurement, patterning, fabrication, upholstery and reupholstery, delivery and installation of:

1. [Booths, banquettes and built-in seat and back cushions.]
2. [Fixed audience seating: seat and back covers and cushions, including in-place reupholstery.]
3. [Loose seating: chairs, sofas, benches and ottomans.]
4. [Upholstered wall panels, headboards and wall pads.]
5. [Cushions, pads and mats.]

B. Excluded: millwork, casework and wood frame construction (Division 06); metal frames except repair under 3.3.

C. Single-source responsibility: one upholsterer shall perform field measurement, patterning, cutting, sewing, upholstery and installation. Subcontracting of cutting, sewing or upholstery is not permitted.

1.2 RELATED SECTIONS

A. Section 06 40 00 – Architectural Woodwork: frames and bases for booths and banquettes.

B. Section 09 77 00 – Special Wall Surfacing; Section 12 61 00 – Fixed Audience Seating, where those sections govern the furniture itself.

1.3 REFERENCES AND CODE BASIS

- A. International Fire Code (IFC), [2021] edition as adopted by the AHJ, Section 805 (upholstered furniture and mattresses).
- B. International Building Code (IBC), [2021] edition as adopted by the AHJ, Section 803 (interior wall and ceiling finish), for upholstered wall panels and wall-mounted headboards.
- C. NFPA 260 and NFPA 261 (cigarette ignition resistance); ASTM E1537 (heat release of upholstered furniture); ASTM E84 and NFPA 265 (interior finish).
- D. ASTM D4157 (abrasion, Wyzenbeek); ASTM D4966 (abrasion, Martindale); ASTM D4034 (seam slippage); ASTM D5034 (breaking strength); AATCC 16 (lightfastness); AATCC 8 (crocking).

1.4 PERFORMANCE REQUIREMENTS

- A. Upholstered furniture in occupancies regulated by IFC 805 ([Groups I-1, I-2, I-3, and college and university dormitories]): components and assemblies shall meet the cigarette ignition resistance of NFPA 260 (Class I) or NFPA 261, and heat release per ASTM E1537 of not more than 80 kW peak and 25 MJ total in the first 10 minutes, except where IFC permits sprinkler protection in lieu of the heat release test.
- B. Upholstered wall panels and wall-mounted headboards: meet the interior wall finish classification required by IBC 803 for the occupancy and sprinkler condition.
- C. Fabrics in commercial seating: meet the Association for Contract Textiles heavy-duty performance levels in 2.2.

1.5 SUBMITTALS

- A. Product data for each fabric, vinyl or leather, foam, fill and thread, including test reports for 1.4.
- B. Field measurement record and shop drawings: dimensions, cushion profiles, seam, welt and channel layouts, and attachment details for each item type.
- C. Samples: each covering in the specified color; one finished cushion or seat cover of each type for approval before production. Approved samples are the standard for workmanship.
- D. Qualification data demonstrating compliance with 1.6, including a list of completed commercial projects with owner contacts.
- E. Customer-supplied material (COM): yardage requirements per item, issued before the COM is ordered.

1.6 QUALITY ASSURANCE

- A. Upholsterer qualifications:
 - 1. A commercial upholstery firm in continuous operation for not less than [15] years, with not fewer than [20] full-time employees.
 - 2. Patterning, cutting, sewing and upholstery performed in the upholsterer's own facility [within [50] miles of the project site]; the facility shall be available for the Architect's inspection.
 - 3. Not fewer than [5] completed commercial upholstery projects in the past [5] years, including at least one each of: [fixed audience (cinema) seating], [restaurant booths or banquettes], and [vehicle or transportation seating].
 - 4. Ability to perform in-place reupholstery and service at the project site with the upholsterer's own employees.
- B. Mockup: [upholster one complete item of each type in place for approval before production].

1.7 SUBSTITUTIONS

A. Basis of design is stated in 2.1. Proposed equivalents will be considered only when submitted not less than [10] days before bids are due and accompanied by:

1. Documentation of compliance with every requirement of 1.6, item by item.
2. Not fewer than [10] completed commercial upholstery projects of comparable scope in the past [5] years, with owner references.
3. Test reports for every covering and foam proposed, demonstrating compliance with 1.4 and Part 2.
4. A finished sample of each item type, built by the proposed upholsterer at its expense.
5. Access for the Architect to inspect the proposed upholsterer's facility, at the requester's expense.

B. The Architect's decision is final. Requests after bid will not be considered, and incomplete requests will be returned without review.

1.8 CUSTOMER-SUPPLIED MATERIAL (COM)

A. COM shall arrive at the upholsterer's facility in the quantity stated in the upholsterer's yardage schedule. The upholsterer shall inspect COM before cutting and report defects in writing; the upholsterer is not responsible for the defects, shrinkage, color, durability or performance of COM.

1.9 DELIVERY, STORAGE AND HANDLING

A. Deliver finished items wrapped and labeled by location. Store in a clean, dry, conditioned space off the floor.

1.10 WARRANTY

A. Upholsterer's workmanship (stitching, seams and the structural integrity of the upholstery work): 90 days from pickup, delivery or completion of installation, whichever comes first.

B. Materials: covered only by their manufacturers' warranties. Normal wear, settling of foam, pilling, and wrinkling or stretching of vinyl and leather are not defects.

PART 2 – PRODUCTS

2.1 UPHOLSTERER

A. Basis of design: American Upholstery (Custom Upholstery, LLC), 4970 N 7th Ave, Phoenix, AZ 85013; (480) 399-7516; americanupholstery.com.

B. Equivalent upholsterers: only as approved under 1.7.

2.2 COVERINGS

A. Fabric, vinyl and leather: [as scheduled] [COM per 1.8].

B. Upholstery fabric in commercial seating shall meet the Association for Contract Textiles (ACT) heavy-duty performance levels:

PROPERTY	MINIMUM	TEST
Abrasion, Wyzenbeek	30,000 double rubs	ASTM D4157
[Abrasion, Martindale]	[40,000 cycles]	ASTM D4966
Seam slippage	25 lb	ASTM D4034
Breaking strength (grab)	50 lb	ASTM D5034

PROPERTY	MINIMUM	TEST
Lightfastness	Class 4 at 40 hours	AATCC 16
Crocking, dry / wet	Class 4 / Class 3	AATCC 8

C. Flammability: as required by 1.4 for the occupancy.

D. Exterior seating: solution-dyed acrylic or marine vinyl rated for outdoor UV exposure.

2.3 FOAM AND FILL

A. Seat cushions: high-resilience polyurethane foam, density not less than [1.8] lb/ft³, indentation force deflection [30 to 35] lb, [CertiPUR-US certified].

B. Backs: [polyurethane foam, density not less than [1.5] lb/ft³] [fiber fill].

C. Wrap: [1 oz.] polyester fiber wrap, bonded to foam where cushions are boxed.

D. Exterior cushions: open-cell reticulated quick-dry foam.

E. Foam and fill meeting 1.4 where IFC 805 applies.

2.4 THREAD AND ACCESSORIES

A. Thread: bonded nylon [Tex 70] for interior work; UV-stabilized polyester for exterior work.

B. Welt cord, zippers, fasteners, staples, webbing and springs: commercial grade, corrosion resistant where exposed to moisture.

2.5 FABRICATION

A. Pattern each item from field measurements or the approved shop drawings, with seam, welt and channel layouts matching the approved sample.

B. Match patterns, stripes and pile direction across seams and between adjacent units. Lay out leather hides to place natural markings and short-hair areas out of view.

C. Cut each covering type from a single dye lot per project where available; notify the Architect in writing before using more than one lot.

D. Label each finished item by its location.

PART 3 – EXECUTION

3.1 EXAMINATION AND FIELD MEASUREMENT

A. Upholsterer's personnel shall field measure built-in and fixed items after frames, bases and finishes are installed, and verify quantities against the schedule. Report conditions that affect the work in writing before fabrication.

3.2 REMOVAL AND TRANSPORT

A. Remove items for shop reupholstery in coordination with the Owner's schedule, label by location, and protect in transit. [Disposal of removed coverings, foam and packaging is included.] [Removed materials remain the Owner's property.]

3.3 FRAME INSPECTION AND REPAIR

- A. Strip existing coverings and foam to the frame. Inspect frames, webbing, springs and fastenings.
- B. Re-glue loose joints, replace broken webbing and springs, and re-secure fasteners. Report structural frame defects, rot and millwork damage to the Architect in writing; frame replacement and millwork are excluded.

3.4 UPHOLSTERY

- A. Install new foam and wrap to the approved profiles. Pull coverings taut and smooth, without puckers, with seams straight and welts continuous.
- B. Fasten with staples at close, uniform spacing, concealed by dust covers or finished edges; no exposed fasteners except decorative nails where specified.
- C. Fixed audience seating and booths to be reupholstered in place: protect adjacent finishes and seating, and leave each area clean at the end of each work period.

3.5 INSTALLATION

- A. Install built-in cushions, panels and seat components plumb, level and tight to adjacent surfaces, using concealed fasteners. Re-install loose items at their labeled locations.

3.6 FIELD QUALITY CONTROL

- A. The upholsterer shall inspect completed work against the approved samples and correct defects before Substantial Completion.

3.7 CLEANING AND PROTECTION

- A. Clean finished surfaces with methods approved by the covering manufacturer. Protect completed work with breathable covers until Substantial Completion.

END OF SECTION 12 52 00

Sources: City of Phoenix 2024 code adoption (effective August 1, 2025); American Upholstery Terms of Service (warranty and COM terms).