

SECTION 097713 - STRETCHED-FABRIC WALL AND CEILING SYSTEMS

(Attention Specifiers, all areas in red require you to make selection based on requirements of the project before issuing specification. Please refer to the appropriate product data page when making your selection. All data pages are available at <https://acousticalsolutions.com/>)

SECTION 097713 – ACOUSTIWALL FABRIC STRETCH SYSTEM (STRETCHED-FABRIC WALL AND CEILING SYSTEMS)

PART 1 – GENERAL

1.1 SUMMARY

- A. Section Includes: Site-fabricated, stretched fabric acoustical wall system built with rigid polymer stretching system to secure fabric over the wall surface and core material.

1.2 REFERENCES

- A. American Society for Testing and Materials (ASTM):
 - 1. ASTM C423 – Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method.
 - 2. ASTM E84 – Standard Test Method for Surface Burning Characteristics of Building Materials.
- B. National Fire Protection Association (NFPA):
 - 1. NFPA 265 – Standard Methods of Fire Tests for Evaluating Room Fire Growth Contribution of Textile Coverings on Full Height Panels and Walls.

1.3 SYSTEM DESCRIPTION

- A. Design Requirements:
 - 1. Site-fabricated polymer stretching system members engineered specifically for perimeter, midwall, insider corner and outside corner room conditions. The stretching system shall create a cavity on the wall in the depth required by this specification.
 - 2. Core material shall be securely mounted to the substrate and completely fill the cavity created by the stretching system. Gaps in the core material are not acceptable.
 - 3. Fabric shall be stretched over the core material and inserted into the stretching system and be free from wrinkles or sagging. Adhesives, nails and tape should not be used to secure fabric.
 - 4. Stretching system shall be engineered to allow the removal and replacement of fabric as needed leaving adjacent panels undisturbed.
 - 5. Reveal stretching systems must be designed with a base piece and a separate “snap-in” reveal insert piece that is finished as specified by the Architect.
 - 6. Fabric wall panels manufactured off-site do not meet the intent of this specification.
 - 7. Hinged track systems do not meet the intent of this specification.
- B. Performance Requirements:
 - 1. Complete stretched fabric wall system assembly shall be tested to provide surface burning characteristics as follows:
 - a. ASTM E84: Flame Spread of 0 - 25
Smoke Developed Index of 0 - 450
 - b. NFPA 265 Method B: Must pass
 - 2. Complete stretched fabric wall system assembly shall be tested by ASTM C423 Type A Mounting to provide Noise Reduction Coefficient (NRC) rating as follows:

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- a. [1/2" system thickness – .55] [1" system thickness – .80] [2" system thickness – .95] [Custom as needed – NRC as needed]

1.4 SUBMITTALS

- A. General: Submit listed submittals in accordance with Conditions of the Contract and Division 1 submittal Procedures.
- B. Product Data: Submit manufacturer's product data and literature.
1. Include track profile details, panel core specifications, and fabric finish specifications.
 2. Recommended cleaning procedures for fabric.
- C. Shop Drawings:
1. Submit shop drawings of panel layout, system thickness, edge conditions, core configuration and fabric direction.
- D. Samples: Submit selection and verification samples as follows:
1. Submit one (1) panel sample 12" x 12" mounted on wood substrate showing the required system characteristics.
 2. Submit [one], [three] 8" x 10" memo sample(s) of each fabric required.
- E. Quality Assurance / Control Submittals: Submit the following:
1. Test Reports: Upon request, submit certified test reports from independent, recognized testing agencies which demonstrate full compliance with required acoustical and fire protection performance characteristics.
- F. LEED Submittals:
1. Materials
 - a. **Credit 4 Recycled Content:** The AcoustiWall system is built on-site from three components, a textile facing material, core material and polymer track. The percentage of recycled material depends on the selection of these components. Many fabrics and core materials have different percentages of recycled content up to 100%.
 - b. **Credit 5.1 Regional Materials 20% manufactured Regionally (LEED CI Only):** All AcoustiWall wall and ceiling systems are site-fabricated so there will be a contribution credit this credit. All three components are assembled into the final product on the job by AcoustiWall licensed contractors.
 - c. **Credit 6 Rapidly Renewable Materials:** Because the AcoustiWall system does not rely on the core material for the structure of our panels, a wide variety of core materials can be specified that contribute to this credit. Core materials made from cotton and fabrics made from Bio-based materials can contribute to this LEED credit.
 2. **Indoor Environmental Quality:**
 - a. **Credit 4.1 Low-Emitting Materials, Adhesives and Sealants:** All AcoustiWall wall and ceiling systems are installed free of adhesives and sealants. Because the system is a "stretch" type, VOC's are not added to the building.

1.5 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For stretched-fabric systems to include in maintenance manuals. Include fabric manufacturer's written cleaning recommendations.

1.6 QUALITY ASSURANCE

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- A. Installer Qualifications: Use licensed and trained installation technicians with at least five years' experience installing stretched fabric wall systems on projects of similar size and complexity.
- B. Installation Company must provide documentation they are licensed and trained by the manufacturer.

1.7 DELIVERY, STORAGE AND HANDLING

- A. Storage and Protection:
 - 1. Protect system components from moisture, dust and damage during shipment.
 - 2. Deliver system components in unopened bundles and store in dry area with adequate air circulation.
 - 3. Fabric on bolts should not be stored under other material or upright on end.

1.8 PROJECT / SITE CONDITIONS

- A. Environmental Requirements:
 - 1. Environmental Limitations: Do not install stretched-fabric systems until spaces are enclosed and weathertight, wet work in spaces is complete and dry, work at and above ceilings is complete, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.
 - 2. Lighting: Do not install stretched-fabric systems until a permanent level of lighting is provided on surfaces to receive stretched-fabric systems.
 - 3. Air-Quality Limitations: Protect stretched-fabric systems from exposure to airborne odors such as tobacco smoke, and install systems under conditions free from odor contamination of ambient air.

1.9 SEQUENCING AND SCHEDULING

- A. Installation of stretched fabric wall system shall begin only after all adjoining work is complete.
- B. All wet work must be completed.

1.10 WARRANTY

- A. Provide a one-year installation warranty.
- B. Provide a special manufacturer warranty up to five years against polymer stretching system and core material defects.

1.11 MAINTENANCE

- A. Extra Material: Provide 10 yards of extra stock for each fabric specified of same dye lot for use by owner for maintenance and repair.

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PART 2 – PRODUCTS

2.1 MANUFACTURERS AND INSTALLERS:

- A. Basis-of-Design Product (SFW): Subject to compliance with requirements, provide Acoustical Solutions "AcoustiWall" product as indicated on Finish Legend furnished and installed by the following:
 - 1. Acoustical Solutions. LLC
2420 Grenoble Road

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Richmond, VA 23294
Phone: 800-782-5742
Fax: 804-346-8808
E-mail: estimating@acousticalsolutions.com
Website: www.acousticalsolutions.com

- B. Substitutions:
 - 1. Whisper Walls

2.2 MATERIALS

A. Stretched Fabric Wall System:

1. Panel Size: As indicated on drawings.
2. Panel Thickness: As indicated on drawings.
3. Stretching System: Polymer extrusions
 - a. Perimeter edge condition:
 - i. [Bevel] [Radius] [Square] [Square Side-Load]
 - ii. Weltded – [Black] or [Fabric wrapped as specified by Architect.]
 - iii. [Bevel Reveal 1" width] – Finish is [Black], or [Custom as specified by Architect.]
 - iv. [Square Reveal in 1/4", 1/2", 3/4" or 1" width] – Finish is [Black] or [Custom as specified by Architect.]
 - b. Midwall edge condition:
 - i. [Bevel] [Radius] [Square] [Square Side-Load]
 - ii. Weltded – [Black] or [Fabric wrapped as specified by Architect.]
 - iii. [Bevel Reveal 1" width] – Finish is [Black], or [Custom as specified by Architect.]
 - iv. [Square Reveal in 1/4", 1/2", 3/4" or 1" width] – Finish is [Black] or [Custom as specified by Architect.]
 - c. Outside Corner edge condition:
 - i. Square – [With Seam], [Fabric wrapped without seam]
4. Core Material:
 - a. Acoustical: Semi-rigid fiberglass board
 - i. Density: [6 PCF Knauf Acoustical Wallboard with ECOSE Technology] or [Custom or dual density as specified by Architect or Acoustical Consultant.]
 - ii. Thickness: [1/2"], [1"], [1-1/2"], [2"], or [Custom as specified by Architect or Acoustical Consultant.]
 - b. Tackable and Acoustical: 100% Polyester fibrous board
 - i. ZECORE Eco-Friendly Core
 - ii. Density: [8 PCF (1/2")] or [6 PCF (1")]
 - iii. Thickness: [1/2"] or [1"]
 - c. Tackable and Reflective: High density mineral fiber board
 - i. Density: > 10 PCF
 - ii. Thickness: [1/2"] or [3/4"]
 - iii. Homasote does not meet the intent of this specification.

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5. Fabric: Shall be approved by the Licensed Installation Company.
 - a. [Insert manufacturer's contact information]
 - b. Style Name and Number:
 - c. Color Name and Number:
 - d. Width:
 - e. Content:
 - f. If needed, a liner fabric may be stretched below the specified fabric to ensure the concealment of the stretching system.

PART 3 – EXECUTION

3.1 MANUFACTURER'S INSTRUCTIONS

- A. Install all materials in accordance with on site regulations, performance requirements and industry standards.

3.2 EXAMINATION

- A. Site Verification of Conditions:
 1. Examine the condition of the substrate in areas where work is to be performed.
 2. Installation to begin only after the following:
 - a. Building is closed in and climate controlled.
 - b. All related work is complete including electrical, hvac, millwork, paint, ceilings, base board and floor coverings.
 3. Contractor is to be notified in writing of any unsatisfactory conditions.
 4. Work will not proceed until unsatisfactory conditions have been corrected or completed in a manner satisfactory to the installer.

3.3 INSTALLATION

- A. Install materials in accordance with the manufacturer's instructions and complying with governing regulations, fire resistance rating requirements indicated and industry standards applicable to the work.
- B. Fasten the rigid polymer stretching system to the surfaces receiving the treatment. Secure with mechanical diverging stapler using 1 inch 18 gage staples spaced on 2-inch centers.
- C. Install rigid polymer stretching system plumb and straight, flush, and in proper alignment.
- D. Install the core material required, continuous and flush, to the shoulder of the stretching system and secure in place with recommended fasteners.
- E. Cut the fabric from each roll maintaining sequence of drops and matching direction of weave for sequential and uniform installation.
- F. Stretch the fabric and secure into the locking jaws of the stretching system so that it will be smooth, free of wrinkles and the weave straight and parallel to perimeter anchors, plumb, and aligned horizontally and vertically. Gluing or stapling of fabric will not be acceptable for this work.
- G. Examine fabric as it is installed for damage, imperfections, poor color match, or other deficiencies. Replace with acceptable material as directed by the Architect.

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3.4 CLEANING

- A. Clean exposed surfaces of acoustical wall system and comply with manufacturer's instructions for cleaning and repair of minor finish damage. Remove and replace work which cannot be successfully cleaned and repaired to permanently eliminate evidence of damage.
- B. Upon completion of work, remove all remaining material including trash and debris. All areas are to be left in an orderly and clean condition.

3.5 PROTECTION

- A. The Installer shall advise the Contractor of required protection for the AcoustiWall system including temperature, humidity limitations, and dust control so the work will be without damage and deterioration at the time of acceptance by the Owner.

END OF SECTION