



## SECTION 09570

### WOOD CEILINGS

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#### PART 1 GENERAL

##### 1.1 SECTION INCLUDES

- A. Wood veneer ceiling panels and support system.

##### 1.2 RELATED SECTIONS

- A. Section 06100 - Rough Carpentry: Ceiling furring.

##### 1.3 REFERENCES

- A. ASTM C 423 - Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method.
- B. ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials.

##### 1.4 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. [[Product Data](#)]: Manufacturer's data sheets on each product to be used, including:
  - 1. Preparation instructions and recommendations.
  - 2. Storage and handling requirements and recommendations.
  - 3. Installation methods.
- C. Shop Drawings:
  - 1. Reflected ceiling plan with details showing layout of panel system and support.
  - 2. Construction details necessary to achieve acoustical rating required.
- D. Certificates of Compliance: Indicate acoustical and fire performance to specified criteria signed by an officer of the panel manufacturer. Attach independent laboratory test results for each product used, showing that the products supplied as components meet or exceed the specified requirements.
- E. Selection Samples: For each finish product specified, samples of finished veneer species as requested by Architect.

- F. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns, including variations as expected with a natural product.

## 1.5 QUALITY ASSURANCE

- A. Single Source: Panels shall be purchased from a single manufacturer.
- B. Installer Qualifications: The installer shall be a firm with a minimum of two years of successful experience in installation of products with similar requirements.
- C. Mock-Up: Provide a mock-up for evaluation of installation techniques and application workmanship.
  - 1. Finish areas designated by Architect.
  - 2. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
  - 3. Refinish mock-up area as required to produce acceptable work.

## 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Panel assemblies shall be delivered to the project site in original, unopened packages.
- B. Prior to panel installation the site shall be free of all wet and dusty trades and the climatic conditions stabilized to normal operational levels.
- C. Panels shall be stored in a fully enclosed space. For a minimum of seventy-two hours immediately prior to installation, store the panels in the room in which they will be installed. The temperature and humidity of the room shall closely approximate those conditions that will exist when the building is occupied. Store the panels off the floor.
- D. Store and dispose of solvent-based materials, and materials used with solvent-based materials, in accordance with requirements of local authorities having jurisdiction.

## 1.7 PROJECT CONDITIONS

- A. Installation shall be done only when the temperature and humidity closely approximate the interior conditions that will exist when the building is occupied. The heating and cooling systems shall be operating before, during, and after installation, with the humidity of the interior spaces maintained between minimum 35 percent to maximum 55 percent.
- B. Prior to installation panels shall be allowed to stabilize on site 72 hours prior to installation, the site must be free of wet and dusty trades and the climate conditions stabilize to normal operational levels.

## PART 2 PRODUCTS

### 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Sound Seal, which is located at: 50 H.P. Almgren Dr. ; Agawam, MA 01001; Toll Free Tel: 800-569-1294; Tel: 413-789-1770; Fax: 413-789-4444; Email: [salbrecht@soundseal.com](mailto:salbrecht@soundseal.com); Web: [www.soundseal.com](http://www.soundseal.com)
- B. Substitutions: Not permitted.

- C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

## 2.2 WOOD VENEERED CEILING PANEL SYSTEM

- A. Acceptable Product: WoodTrends Elite as manufactured by Sound Seal.
- B. Performance:
  - 1. Fire Performance: Constructed using fire retardant components meeting or exceeding the requirements of the ASTM E 84:
    - a. Flame Spread: Class A, 25 or less.
    - b. Flame Spread: Class B, 26 to 75.
    - c. Flame Spread: Class C, 76-200.
    - d. Smoke Developed: 450 or less.
  - 2. Noise Reduction Coefficient: The panels shall have a minimum NRC when tested in accordance with ASTM C 423:
    - a. 7.2 percent open: 0.55 NRC.
    - b. 18 percent open: 0.80 NRC.
    - c. 24 percent open: 0.90 NRC.
    - d. NRC: \_\_\_\_\_.
- C. Panel:
  - 1. Construction: Fire-retardant 0.67 inch (17 mm) thick core with blind veneer backer with 0.024 inch (0.6 mm) thick wood veneer face.
  - 2. Size: 24 inch (610 mm) by 24 inches (610 mm).
  - 3. Size: 24 inches (610 mm) by 48 inches (1219 mm).
  - 4. Size: 12 inches (305 mm) by 72 inches (1829 mm).
  - 5. Size: \_\_\_\_\_.
  - 6. Edges: Edge detail allowing automatic alignment of panels on grid and full accessibility at each panel:
    - a. Edge Configuration: Two edges to have rabbet.
    - b. Edge Configuration: One edge to have rabbet with deep kerf.
    - c. Edge Configuration: One edge to have rabbet with kerf and two compression springs.
    - d. Edge Configuration: All edges finished with melamine edge banding in matching color.
  - 7. Round Perforations: As required to meet acoustic performance specified with the following characteristics.
    - a. Hole Size: 7 mm.
    - b. Hole Size: 8 mm.
    - c. Hole Size: 9 mm.
    - d. Hole to Hole Center: 16 mm.
    - e. Hole to Hole Center: 32 mm.
    - f. Pattern: Regular.
    - g. Pattern: Staggered.
  - 8. Elongated Perforations: As required to meet acoustic performance specified with the following characteristics.
    - a. Size: 8 mm wide by \_\_\_\_\_ long.
    - b. Pattern: Regular.
    - c. Pattern: Staggered.
  - 9. Custom Perforations: As required to meet acoustic performance specified with the following characteristics.
    - a. Size: \_\_\_\_\_.
    - b. Pattern: Regular.
    - c. Pattern: Staggered.
  - 10. Acoustic Textile: Adhered to back of panel.

D. Support System: Intermediate duty 15/16 inch (24 mm) T-grid.

### 2.3 WOOD VENEERED LAY-IN TEGULAR EDGE CEILING SYSTEM

A. Acceptable Product: WoodTrends Basic as manufactured by Sound Seal.

B. Performance:

1. Fire Performance: Constructed using fire retardant components meeting or exceeding the requirements of the ASTM E 84:
  - a. Flame Spread: Class A, 25 or less.
  - b. Flame Spread: Class B, 26 to 75.
  - c. Flame Spread: Class C, 76-200.
  - d. Smoke Developed: 450 or less.
2. Noise Reduction Coefficient: The panels shall have a minimum NRC when tested in accordance with ASTM C-423:
  - a. NRC, 7.2 percent open: 0.55 NRC.
  - b. NRC, 18 percent open: 0.80 NRC.
  - c. NRC, 24 percent open: 0.90 NRC.
  - d. NRC: \_\_\_\_\_.

C. Panel:

1. Construction: Fire-retardant .50 inch (13 mm) thick MDF with blind veneer backer with .024 inch (0.6 mm) thick wood veneer face.
2. Size: 24 inch (610 mm) by 24 inches (610 mm).
3. Size: 24 inches (610 mm) by 48 inches (1219 mm).
4. Size: 12 inches (305 mm) by 72 inches (1829 mm).
5. Size: \_\_\_\_\_.
6. Edge Detail: 0.20 inches (5 mm) deep by .30 inches (8 mm) wide rabbet for "drop-in" mounting.
7. Round Perforations: As required to meet acoustic performance specified with the following characteristics.
  - a. Hole Size: 7 mm.
  - b. Hole Size: 8 mm.
  - c. Hole Size: 9 mm.
  - d. Hole to Hole Center: 16 mm.
  - e. Hole to Hole Center: 32 mm.
  - f. Pattern: Regular.
  - g. Pattern: Staggered.
8. Elongated Perforations: As required to meet acoustic performance specified with the following characteristics.
  - a. Size: 8 mm wide by \_\_\_\_\_ long.
  - b. Pattern: Regular.
  - c. Pattern: Staggered.
9. Custom Perforations: As required to meet acoustic performance specified with the following characteristics.
  - a. Size: \_\_\_\_\_.
  - b. Pattern: Regular.
  - c. Pattern: Staggered.
10. Acoustic Textile: Adhered to back of panel.

D. Support System: Install with "drop-in" mounting on intermediate duty T-grid.

1. Grid Face Width: 9/16 inch (14 mm).
2. Grid Face With: 15/16 inch (24 mm).

E. Support System: Install with "drop-in" mounting on heavy duty T-grid.

1. Grid Face Width: 9/16 inch (14 mm).
2. Grid Face With: 15/16 inch (24 mm).

## 2.4 WOOD VENEERED CONCEALED GRID CEILING SYSTEM

- A. Acceptable Product: WoodTrends Select as manufactured by Sound Seal.
- B. Performance:
  - 1. Fire Performance: Constructed using fire retardant components meeting or exceeding the requirements of the ASTM E 84:
    - a. Flame Spread: Class A, 25 or less.
    - b. Flame Spread: Class B, 26 to 75.
    - c. Flame Spread: Class C, 76-200.
    - d. Smoke Developed: 450 or less.
  - 2. Noise Reduction Coefficient: The panels shall have a minimum NRC when tested in accordance with ASTM C-423:
    - a. NRC, 7.2 percent open: 0.55 NRC.
    - b. NRC, 18 percent open: 0.80 NRC.
    - c. NRC, 24 percent open: 0.90 NRC.
    - d. NRC: \_\_\_\_\_.
- C. Panel:
  - 1. Construction: Fire-retardant 0.67 inch (17 mm) thick MDF with blind veneer backer with 0.024 inch (0.6 mm) thick wood veneer face.
  - 2. Size: 24 inch (610 mm) by 24 inches (610 mm).
  - 3. Size: 24 inches (610 mm) by 48 inches (1219 mm).
  - 4. Size: 12 inches (305 mm) by 72 inches (1829 mm)/
  - 5. Size: \_\_\_\_\_.
  - 6. Edge Detail:
    - a. Rabbet on one edge.
    - b. Rabbet with kerf opposite edge.
    - c. Adjacent edges square.
    - d. Edges to have 2 mm bevel.
  - 7. Round Perforations: As required to meet acoustic performance specified with the following characteristics.
    - a. Hole Size: 7 mm.
    - b. Hole Size: 8 mm.
    - c. Hole Size: 9 mm.
    - d. Hole to Hole Center: 16 mm.
    - e. Hole to Hole Center: 32 mm.
    - f. Pattern: Regular.
    - g. Pattern: Staggered.
  - 8. Elongated Perforations: As required to meet acoustic performance specified with the following characteristics.
    - a. Size: 8 mm wide by \_\_\_\_\_ long.
    - b. Pattern: Regular.
    - c. Pattern: Staggered.
  - 9. Custom Perforations: As required to meet acoustic performance specified with the following characteristics.
    - a. Size: \_\_\_\_\_.
    - b. Pattern: Regular.
    - c. Pattern: Staggered.
  - 10. Acoustic Textile: Adhered to back of panel.
- D. Support System: Install ceiling panels with "drop-in" mounting on heavy-duty Z-bar (Jumbo DCS-57) as manufactured by Donn.

## 2.5 WOOD VENEERED PLANK CEILING SYSTEM

- A. Acceptable Product: WoodTrends Standard as manufactured by Sound Seal.

- B. Performance:
1. Fire Performance: Constructed using fire retardant components meeting or exceeding the requirements of the ASTM E-84:
    - a. Flame Spread: Class A, 25 or less.
    - b. Flame Spread: Class B, 26 to 75.
    - c. Flame Spread: Class C, 76-200.
    - d. Smoke Developed: 450 or less.
  2. Noise Reduction Coefficient: The panels shall have a minimum NRC when tested in accordance with ASTM C-423:
    - a. NRC, 7.2 percent open: 0.55 NRC.
    - b. NRC, 18 percent open: 0.80 NRC.
    - c. NRC, 24 percent open: 0.90 NRC.
    - d. NRC: \_\_\_\_\_.
- C. Panel:
1. Construction: Fire-retardant .50 inch (13 mm) thick core with blind veneer backer with 0.024 inch (0.6 mm) thick wood veneer face.
    - a. Size: 4 1/2 inches (115 mm) wide by 95-1/4 inches (2420 mm) long.
    - b. Size: 11 1/2 inches (290 mm) wide by 95-1/4 inches (2420 mm) long.
    - c. Size: 23 1/2 inches (600 mm) wide by 95-1/4 inches (2420 mm) long.
    - d. Size: \_\_\_\_\_.
  2. Edge Detail:
    - a. Reveal edge shall utilize wood strip to hide pivot clip.
    - b. Flush edge panels shall butt together with 2 mm bevel delineating panel edges.
  3. Round Perforations: As required to meet acoustic performance specified with the following characteristics.
    - a. Hole Size: 7 mm.
    - b. Hole Size: 8 mm.
    - c. Hole Size: 9 mm.
    - d. Hole to Hole Center: 16 mm.
    - e. Hole to Hole Center: 32 mm.
    - f. Pattern: Regular.
    - g. Pattern: Staggered.
  4. Elongated Perforations: As required to meet acoustic performance specified with the following characteristics.
    - a. Size: 8 mm wide by \_\_\_\_\_ long.
    - b. Pattern: Regular.
    - c. Pattern: Staggered.
  5. Custom Perforations: As required to meet acoustic performance specified with the following characteristics.
    - a. Size: \_\_\_\_\_.
    - b. Pattern: Regular.
    - c. Pattern: Staggered.
  6. Acoustic Textile: Adhered to back of panel.
- D. Support System: Install planks with pivot clip on intermediate duty 15/16 inch (24 mm) T-grid. Support panels with pivot clip at a distance of not more than 24 inches (610 mm).

## 2.6 WOOD VENEERED PLANK CEILING SYSTEM

- A. Acceptable Product: WoodTrends Timbre as manufactured by Sound Seal.
- B. Performance:
1. Fire Performance: Constructed using fire retardant components meeting or exceeding the requirements of the ASTM E-84:

- a. Flame Spread: Class A, 25 or less.
  - b. Flame Spread: Class B, 26 to 75.
  - c. Flame Spread: Class C, 76-200.
  - d. Smoke Developed: 450 or less.
- C. Panel:
- 1. Material: Wood veneer laminated to fire retardant chipboard with blind veneer backer.
    - a. Size: 24 inches (9610 mm) wide by 102 inches (2591 mm) long.
    - b. Chipboard Thickness: 0.95 inches (24 mm).
    - c. Chipboard Thickness: 1.2 inches (31 mm).
  - 2. Edge Detail: Plank edges with overlap configuration.
  - 3. TIMBRE 24/2 Design:
    - a. Configuration: 0.16 inch (4 mm) groove 1.3 inches (33 mm) apart.
    - b. Width: 23.6 inches (600 mm) wide plank.
    - c. Standard Length: 102 inches (2591 mm).
    - d. NRC: With open cavity to back of panel: 0.70.
    - e. NRC: With closed cavity to back of panel: 0.40.
  - 4. TIMBRE 31/1 Design:
    - a. Configuration: 0.16 inch (4 mm) groove 0.91 inch (23 mm) apart
    - b. Width: 23.6 inches (600 mm) wide plank.
    - c. Standard Length: 98 inches (2489 mm).
    - d. NRC: With open cavity to back of panel, 0.85.
    - e. NRC: With closed cavity to back of panel, 0.45.
- D. Support System: Install planks by means of overlap edge configuration on hardwood or metal furring. Glue and staple panels with nails to the furring on distances not greater than 24 inches (610 mm) centers.

## 2.7 VENEER AND FINISH

- A. Veneer: First Quality select veneer from manufacturer's standard selection of wood species.
- B. Veneer: Special veneers with staining and lacquering to match Architect's samples.
- C. Veneer Species:
  - 1. American Walnut.
  - 2. American Oak.
  - 3. European Oak.
  - 4. Anigre.
  - 5. Ash.
  - 6. Khaya Mahogany.
  - 7. Beech Steamed.
  - 8. Maple.
  - 9. Beech Unsteamed.
  - 10. Oregon Pine.
  - 11. Pear.
  - 12. Carolina Pine.
  - 13. Sapeli Mahogany.
  - 14. Cherry.
  - 15. Teak.
  - 16. Custom: \_\_\_\_\_.
- D. Veneer Finish: Two coats clear UV- Polyacrylate lacquer.

## PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. Clean surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

- A. Install in accordance with manufacturer's instructions.

3.4 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

END OF SECTION