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SECTION 09 84 33 – MICROPERF ACOUSTICAL BOARD WALL PANELS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Sound absorbing micro-perforated wood wall panels with cellulose honeycomb core and an internal acoustical fleece layer.
- B. Related Requirements:
 - 1. Section 09 2 226 - Suspension Systems.
 - 2. Section 09 51 13 - Acoustical Panel Ceilings; suspension system.
 - 3. Section 09 54 24 - Linear Wood Ceilings.
 - 4. Section 09 54 27 - Suspended Wood Grille Ceilings.
 - 5. Section 09 54 33 - Wood Coffered Ceilings.
 - 6. Section 09 54 63 - Suspended Curved Wood Canopies.
 - 7. Section 09 84 36 – Sound Absorbing Wood Ceiling Panels.

1.2 REFERENCES

- A. ASTM International (ASTM):
 - 1. A641/A641M: Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire.
 - 2. ISO 354: Acoustics – Measurement of Sound Absorption in a Reverberation Room; Sound Absorption and Sound Absorption Coefficients.
 - 3. E84: Surface Burning Characteristics of Building Materials.
- B. [FSC® CoC: Forest Stewardship Council® Chain of Custody Certification]

1.3 ADMINISTRATIVE REQUIREMENTS

- A. Pre-Installation Meeting: Schedule a pre-installation at the site to coordinate installation of wall panels.
 - 1. Meeting shall be attended by Contractor, Architect, and installer of system components.
 - 2. Comply with requirements in [Section 01 31 00 “Project Management and Coordination”.]<Insert Section number and title.>

1.4 ACTION SUBMITTALS

- A. Shop Drawings: Show panel size, layout and spacing, panel dimensions, and installation details.
 - 1. **[Include dimensions of custom-sized panels.]**
- B. Product Data: Manufacturer’s information for the wood panels, wood veneer species, cut, and matching, and panel flammability characteristics.
- C. Samples:
 - 1. Sample shall be fabricated using selected laminate or wood veneer with selected finish.
 - 2. Size: Full panel.
- D. Design Data / Test Reports: Submit octave band sound absorption coefficient data and Noise Reduction Coefficient data according to ISO 354.
- E. **[Sustainable Design (LEED):**
 - 1. **General:**
 - a. **Submit information necessary to establish and document compliance with the LEED Certification goals for this Project.**
 - b. **LEED design submittals are in addition to other submittals.**
 - c. **If submitted item is identical to that submitted to comply with other requirements, submit duplicate copies as a separate submittal to verify compliance with specified LEED requirements.**
 - d. **Refer to Section 01 81 13 “Sustainable Design Requirements” for additional information and documentation requirements.**
 - 2. **The following information shall be provided:**
 - a. _____]

1.5 INFORMATIONAL SUBMITTALS

- A. Statement of installer qualifications.
- B. **[Certification that wood items meet specified fire-resistance characteristics if not included with product data.]**

1.6 CLOSEOUT SUBMITTALS

- A. Maintenance data.

1.7 QUALITY ASSURANCE

- A. Manufacturer Qualifications: FSC Chain of Custody Certification.
- B. Flame Spread / Smoke Developed Characteristics, tested by independent, accredited facility.
 - 1. Class A, when required; ASTM E 84, NFPA 255:
 - a. Flame Spread: 10, or less.
 - b. Smoke Developed: 5, or less.
- C. Mockups: First installed panels shall serve as mockup for review and approval by Architect of workmanship, visual appearance, acoustical characteristics, and interface with adjoining construction.
 - 1. Mockup shall include a minimum of 4 [] adjacent panels in approved layout.
 - 2. Make modifications to mockup if requested by Architect.
 - 3. Accepted mockup may remain as part of the work.
 - 4. **[Comply with additional requirements of Section 01 4339, “Mockups.”]**

1.8 DELIVERY, STORAGE, AND HANDLING

- A. Do not deliver wood panels until specified ambient conditions are met.
- B. Store wood panels in conditioned space and keep dry.
- C. Conditioning: Move wood panels into pre-conditioned spaces where they will be installed to allow the moisture content of wood to achieve equilibrium with its environment.
 - 1. Remove panels from sealed packages to facilitate acclimation.
 - 2. Contractor shall allow not less than 72 hours to allow wood panels to acclimate at site.

1.9 FIELD CONDITIONS

- A. Ambient Conditions: Do not proceed with installation until dust-generating activities have been terminated and building temperature and humidity conditions approximate conditions that will exist when the Building is occupied. All wet work, including painting, shall be completed and dry before installation.
- B. Do not install wood panels until work above or behind them is completed, including testing and approval of mechanical work.

PART 2 - PRODUCTS

2.1 MANUFACTURER

- A. Acceptable Manufacturer: Madrid Inc.
 - 1. Address: 7800 Industry Ave., Pico Riviera, CA 90660
 - 2. Phone: 562-942-0707
 - 3. Email sales@madridinc.com
 - 4. Website: madridinc.com

- B. Substitutions: **[Not permitted.] [Substitutions will be considered according to requirements specified in Section 01 25 00 “Substitution Procedures.”]**

2.2 DESIGN AND PERFORMANCE CRITERIA

- A. Seismic Requirements: To meet requirements of the governing Code.
- B. Mounting system shall not be visible from eye level of a person standing on the floor. Orient system away from visible edges.
- C. **[Sustainable Design:**
- 1. Refer to Section 01 81 13 “Sustainable Design Requirements” for additional information.]**

2.3 SOUND ABSORBING WOOD WALL PANELS

- A. Panels:
1. Weight: Approximately 1.6 pounds per square foot.
 2. NRC: 0.75 to 0.85.
 3. Fire Rating: Class A.
 4. Indoor Air Requirements: No VOC’s. No added urea formaldehyde.
- B. Standard Panel Sizes:
- 1. [2 foot x 2 foot x 3/4 inch core].**
 - 2. [4 foot x 4 foot x 3/4 inch core].**
 - 3. [4 foot x 8 foot x 3/4 inch core].**
 - 4. [Custom].**
- C. Core: Lightweight honeycomb made from post-consumer recycled cellulose; 3/4 inch thick.
- D. Wood Veneer:
1. Core: Lightweight honeycomb made from post-consumer recycled cellulose with black acoustical fleece; 3/4 inch thick.
 - a. Face Veneer:
 - 1) [American Walnut].**
 - 2) [American Maple].**
 - 3) [Cherry].**
 - 4) [White Oak].**
 - 5) [Red Oak].**
 - 6) [Birch].**
 - 7) [Pine].**
 - 8) [Custom].**
 - 9) Cut: Plain Sliced, Quartered Sawn, Rotary.
 - 10) [Wood veneer shall be FSC® Certified.]
 - b. Perforations: **[0.50 mm] [0.75 mm] [1.0 mm]**, both sides.
 - 1) Non-perforated panels available for perimeter (not recommended).
 - 2) MDF reinforced panels available for areas where cut-outs are needed
- E. Perimeter Wood Edge: To match panel veneer face; **[Square, standard] [Tongue and Groove] [Custom].**

1. Width: **[1 inch] [2 inch]**.

F. Adhesives: EPA **[and California Air Resources Board]** VOC compliant.

2.4 [ADDITIONAL MATERIALS]

A. [Acoustical Backing: Glass fiber board with black, non-woven mat facing fully bonded to core, conforming to ASTM C612, Class 1A, "CertaPro AcostaBoard Black" by CertainTeed, or equal.

1. Thickness: **[1 inch] [1-1/2] [2] [___]** inch.

2. Density: 3.0 [___] pounds per cubic foot.

3. Surface Burning Characteristics: UL723.

a. Smoke Developed: 50 or less.

b. Flame Spread: 25 or less.]

2.5 FABRICATION

A. Fabricate in accordance with reviewed shop drawings.

B. Wall panel assembly required to have a Class 1/Class A rating shall comply with ASTM E84.

C. Make job measurements as required for proper fabrication of the work.

2.6 FINISHES

A. Shop Finishing: **[Transparent, water-based UV-cured matte finish as standard with manufacturer.]****[Insert custom requirements.]**

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine installation area for compliance with manufacturer's environmental requirements and ensure uninstalled products have been stored, handled and acclimatized properly prior to commencing installation. Inspect all substrates for completion and quality of work to ensure that surfaces are level, plumb, clean, dry and completely cured from water or solvent evaporation

B. Ensure that wet work including concrete, terrazzo, plastering, painting, etc. in the installation area is complete, cured and dry prior to installation

C. Verify mechanical, electrical and building items in substrates are complete and will not affect work of the Section.

3.2 INSTALLATION OF WALL PANELS

A. Install panels in accordance with manufacturer's instructions and reviewed shop drawings for the selected mounting system.

B. Set and secure panels and components in place, plumb and level.

- C. Install hold-down clips to prevent movement or displacement of panels.
- D. Coordinate panel installation with electrical fixtures and mechanical work that interfaces with walls.
- E. Erection Tolerances:
 - 1. Maximum Variation from True Alignment: 1/16 inch.
 - 2. Maximum Offset from True Alignment with Abutting Materials: 1/16 inch.

3.3 ADJUSTMENTS

- A. Adjust panels so that surfaces are aligned, flush and level and gaps in between are of a consistent width and straight.
- B. Verify that manufacturer's expansion and contraction requirements were maintained during installation. Adjust as required.
- C. Remove and replace at no extra charge any damaged panels or that cannot be repaired to the Architect's satisfaction.

3.4 CLEANING AND PROTECTION

- A. Clean panels as recommended by manufacturer.
- B. Prevent damage to panels during remainder of construction.

END OF SECTION 09 84 33