

# Section 097714 – SoundPly® RF M51 Acoustic Wall Panels

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## **PART 1 GENERAL**

### **1.1 RELATED DOCUMENTS**

- A. Drawings and general conditions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to the work of this Section.

### **1.2 SUMMARY**

- A. Section Includes:

- 1. Acoustic wall panels

- B. Related Sections

- 1. Section 01350 Special Environmental Requirements
  - 2. Section 060100 – Lumber
  - 3. Section 060200 – Finish Carpentry
  - 4. Section 064000 – Architectural Woodwork
  - 5. Section 092116 – Gypsum Board Assemblies
  - 6. Division 23 – Mechanical Diffusers, vents and other mechanical items
  - 7. Division 26 – Electrical lights and other ceiling mounted electrical items

- C. Alternates

- 1. Prior Approval: Proposed product substitutions may be submitted to the Architect no later than ten (10) working days prior to the date established for receipt of bids. Substitutions will only be considered if submitted with manufacturer's complete product information, including acoustical data and an 18" x 18" sample. Acceptance of substituted product is contingent on the Architect's approval and that substituted products comply with all specified requirements of this section. Approved products will be set forth by Addenda to all bidders.

### **1.3 SUBMITTALS**

- A. Comply with Section 013300 – Submittal Procedures
- B. Product Data: Manufacturer's technical data and installation instructions for each type of wall panel required.
- C. Certifications: Certified test reports showing compliance with performance requirements specified.

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- D. Samples: Submit a minimum of three (3) samples of each panel type and finish type required. Include samples that show the range of variation expected in grain, texture and color.
- E. Shop drawings: Submit shop drawings showing overall layout with dimensions and details of penetrations and intersections with other materials or building components.
- F. LEED requirements: Where specified submit required documentation indicating compliance.
- G. Submit operation and maintenance data for installed products. Include precautions relating to harmful cleaning materials and methods that would affect the service life of the panels.

### 1.4 QUALITY ASSURANCE

- A. Single Source Responsibility: Provide acoustic wall panels from a single Manufacturer with at least 2 years of prior experience fabricating projects of similar size and complexity.
- B. Installer: Installation shall be done by qualified Carpenters experienced in the installation of architectural woodwork. Installers must receive training on handling, cutting, machining and field finishing the specified product prior to receiving materials on site.
- C. Fire Performance Characteristics: Class A as tested by an independent accredited testing facility. Tests: ASTM E84. Flame spread: 25 or less. Smoke developed: 450 or less as specified by State or local codes.
- D. Applicable LEED Credits:
  - 1. EA 1 Optimized Energy Performance
  - 2. MR 4.1, 4.2 Recycled Content
  - 3. MR 6 Rapidly Renewable Materials
  - 4. EQ 4.1, 4.4 Low-Emitting Materials
  - 5. MR 5.1 Use of Regional Materials (dependent on project location)
  - 6. MR 7 Use of FSC material
  - 7. EQ 7 & 7.1 Thermal Comfort
  - 8. EQ 9 Enhanced acoustical performance
- E. Coordination of Work: Installing contractor shall organize and conduct a pre-installation survey of temperature, humidity, and construction elements attaching, penetrating, or concealed behind the acoustic wall panels.

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- F. Acoustic wall panels to be manufactured from no less than 64 percent post-industrial recycled materials by weight.

### 1.5 REFERENCES

- A. Test Methods:
  1. **ASTM C 423** Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method performed by an independent testing agency.
  2. **ASTM E 84** Standard Test Method for Surface Burning Characteristics of Building Materials
  3. **ASTM E 336** Standard Test Method for Measurement of Airborne Sound Attenuation between Rooms in Buildings
  4. **ASTM D 1037** Linear Expansion with Change in Moisture Content

### 1.6 DELIVERY, STORAGE AND HANDLING

- A. Deliver panels to the project in original, unopened packages. Inspect containers for visible damage and report any questionable condition to the shipper and manufacturer immediately.
- B. Store products in a fully enclosed, clean, dry space out of direct sunlight and protected from damage with temperature controlled between 50 and 86 degrees F.
- C. Handle products carefully to avoid damaging panel surfaces or chipping edges. Report any damage immediately. Installation of damaged panels is not covered by the manufacturer's warranty.

### 1.7 PROJECT CONDITIONS

- A. Do not install acoustic wall panels until space is enclosed and weather-proofed, wet work is completely dry, and ambient temperature and humidity conditions are maintained at the levels indicated for the project when occupied for its intended use.
- B. Permit panels to reach room temperature, 50 to 86 degrees F, and stabilized moisture content of 25% to 55% RH for at least 72 hours before installation per AWI standards. Building should be enclosed and HVAC systems functioning in continuous operation with relative humidity maintained between 25 and 55 percent.

### 1.8 WARRANTY

- A. Provide manufacturer's standard one year written product warranty per Section 01770 – Closeout Procedures Manufacturer's warranty is limited to decorative or acoustical panel materials only.

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### 1.9 MAINTENANCE

- A. Maintenance Instructions: Provide manufacturers standard maintenance and cleaning instructions for finishes provided.
- B. Extra Materials
  - 1. Deliver no less than (3 percent, 5 percent, 1 carton) of each type, color and pattern of material.
  - 2. Extra materials shall be from the same production run as the original materials.
  - 3. Extra materials shall remain in the manufacturer's original unopened packaging and stored in a fully enclosed, clean, dry space out of direct sunlight and protected from damage with temperature controlled between 50 degrees F and 86 degrees F.

### PART 2 – PRODUCTS

#### 2.1 MANUFACTURER

- A. Provide wall system utilizing "SoundPly®" Acoustic Panels manufactured by Navy Island Inc., 275 Marie Avenue E, St. Paul, MN 55118, Ph. (651) 451-4454, email [sales@navyisland.com](mailto:sales@navyisland.com).

#### 2.2 MATERIALS

- A. **SOUNDPLY® RF M51 Acoustic Wall Panels for interior installation**  
2" (51mm) thick acoustical or decorative panels as follows: An architectural face material (wood veneer, UV printed, painted, vinyl, decorative paper or other approved material) laminated to a rigid backer. Face and backer thickness not less than 1.5mm (0.060"), to provide long-term color stability of face material, in addition to adequate impact resistance for the panel. The core of the panels shall be comprised of a Class A material and a balancing backer sheet.
- B. **Acoustical Panels:** Panels will be furnished with a perforated face consisting of 0.5mm (0.02") diameter holes in an offset pattern. The perforations must be clean, without rounded edges or grain pull out between perforations. **A minimum of 99.5% of the perforations must be acoustically functional, providing unobstructed passage into the open cavities of the core.** Perforations must maintain consistent diameter through the face and backer, with no tapering or roughness. A fiberglass-reinforced polymer sheet, designed to balance the face, will be applied to the back of the panels, and will vary based on the face sheet specified.
- C. **Panels Edge Treatment:** Panels will be edge banded with the matching materials and finish, or as specified by the architect, to match or contrast with the panel face.
- D. **Panel Weight:** Panels will not exceed 2.3 lbs/ft<sup>2</sup> (11.3 kg/m<sup>2</sup>) for 2" (51mm) thick panels.

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- E. **Panel Sizes:** Panels are custom sized based on field dimensions up to a maximum of 1525mm (60”) by 3660mm (144”). Panels longer than 3048 mm (120”) are limited by veneer availability.
- F. **Flame Resistance:** Class 1(A) rating based on ASTM E-84 Standard Test Method for Surface Burning Characteristics in Building Materials. Some veneer species and other face materials may not achieve an overall Class 1(A) rating. Check with local building codes for requirements or exemptions.
- G. **NRC Performance:** Noise Reduction Coefficient for acoustical panels to be no less than 1.00 using Type F6 direct mount without additional acoustical insulation.
- H. **STC Performance:** Sound Transmission Class to be no less than 37 using ASTM Test Method E336.
- I. **Panel Stability:** Linear contraction or expansion to not exceed 0.4% maximum variation in width or height per ASTM D1037.
- J. **Finish for Veneer faced panels:**
  - 1. Species as selected by the architect.
  - 2. Cut: (*plain sliced, quartered/rift, rotary*)
  - 3. Grade: Trugrade (*70, 80, 90*)
  - 4. Matching veneer leaves: (*book, slip, random matching*)
  - 5. Matching between panels: (*no sequencing, natural sequencing, specified sequencing, blueprint match, blueprint and endmatched*)
  - 6. Finishes, shall be applied in the shop: (*clear, stained, painted, as selected by architect.*)

### PART 3 – EXECUTION

#### 3.1 EXAMINATION

- A. Inspect installation area and conditions under which work is to be performed for compliance with all manufacturers’ environmental requirements. All wet work in the installation area must be complete, cured and dry prior to installation. Do not proceed until all unsatisfactory conditions have been corrected.

#### 3.2 INSTALLATION

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- A. Installation must be done by qualified carpenters experienced in the installation of architectural woodwork. The firm must demonstrate successful experience installing materials of similar type and quality of those required for this project. The use of proper carpentry tools and techniques will be required for the installation.
- B. Comply with manufacturer's instruction and recommendations for installation of wall panels consistent with industry standards.
- C. Confirm all field dimensions are coordinated with shop drawings.
- D. Coordinate the exact size, location and sequencing of panels including penetrations by all building components.
- E. Lay out wall panels per approved shop drawings. Report any interferences or deviations before proceeding.

### 3.3 ADJUSTING AND CLEANING

- A. Clean soiled surfaces of wall panels per manufacturer's instructions.
- B. Remove and replace damaged or discolored materials not in compliance with manufacturer's tolerances.
- C. Adjust tiles after installation so that surfaces are aligned with gaps or reveals between units straight and consistent in width.

**END OF SECTION**