

SECTION 09 50 00- Open Cell

PART 1 - GENERAL

A. OVERVIEW

- I. Section Contains
 - a. Open Cell fixed to a ceiling suspension system by way of a direct attachment method.
 - b. Suspension system.

B. RELATED DIVISIONS/SECTIONS

- I. 01 00 00- General Conditions for submittals, product substitution requests and supplementary conditions.
- II. 07 21 16- Blanket Insulation
- III. 09 22 26- Suspension Systems
- IV. 09 23 00- Gypsum Plastering
- V. 09 51 10- Acoustic Tile
- VI. 21 13 00- Fire Suppression Sprinkler Systems
- VII. 23 37 00- Air Outlets and Inlets
- VIII. 26 51 00- Interior Lighting
- IX. 27 51 00- Distributed audio-video communications systems
- X. 28 31 00- Intrusion Detection
- XI. 28 46 00- Fire Detection and Alarm

C. REFERENCES

- I. **ASTM A 641:** Standard Specification for Zinc Coated (Galvanized) Carbon Steel Wire; 1992.
- II. **ASTM C 423:** Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method; 1990.
- III. **ASTM C 635:** Standard Specifications for Metal Suspension Systems for Acoustical Tile and Lay-In Panel Ceilings.

- IV. **ASTM C 636:** Standard Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels; 1992.
- V. **ASTM E 84:** Standard Test Method for Surface Burning Characteristics of Building Materials; 1991.
- VI. **ASTM E 580:** Standard Practice for Application of Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels in Areas Requiring Seismic Restraint; 1991.
- VII. **ASTM E 1264-** Classification for Acoustical Ceiling Products.
- VIII. **International Building Code-** (IBC 2021)
- IX. **U.S. Green Building Council-** LEED Building Design and Construction (BD+C) Version 4.1 Rating System. (LEED v4.1)
- X. **FSC STD-01-001** - FSC Principles and Criteria for Forest Stewardship.
- XI. **FSC STD-40-004** - FSC Standard for Chain of Custody Certification.
- XII. **AWS/AWI-** American Woodworking Standards 2016. (Edition 2)
- XII. **CISCA-** Ceiling Systems Handbook.

D. SUBSTITUTIONS

- I. All proposed substitutions to be submitted in accordance with the outlined procedure set forth in 01 25 00 by no later than (10) business days prior to bid due date. The determination of an equal is established by the architect, and is based solely upon his review and acceptance of the proposed substitution. Approved substitutions will be issued by way of the Addenda. If a proposed substitution is not approved by the set timeframe, and the bid is submitted with an unapproved product, then the specified product must be provided without additional compensation to the supplier.

E. QUALITY ASSURANCE

- I. **Manufacturer Qualifications:** Fabricator specializing in commercial architectural wood products with a minimum of (5) years manufacturing experience.
- II. **Installer Experience:** Must have a minimum of (2) years' experience installing projects of similar scope and size in accordance with CISCA installation guidelines.
- III. **Inspection:** All installed work must pass inspection by the architect, and local building inspectors.

- IV. Single-Source Responsibility: Procure each type of Open Cell Wood Ceiling from a single source manufacturer, with in-house shop drawing capabilities, assembly, finishing, and the resource ability to fabricate wood products of quality whose appearance and physical characteristics are consistent, without causing project delays.
- V. Tolerance: Products to be manufactured according to current AWI premium grade standards.
- VI. Substitution requests should contain the following.
 - a. Product drawings showing all dimensional sizes, edge conditions, penetrations, and all applicable hardware with adjoining grid.
 - b. Physical samples (12" x 16") showing hardwood, edging, coloration, finish, hardware system, spacing reveal, etc.
 - c. Completed substitution form as outlined in SECTION 1- General Conditions for submittals, product substitution requests and supplementary conditions.
- VII. Pre-Installation Conference: Meetings to commence (2) weeks prior to the installation of this section. Coordination with other trades will be necessary to determine all penetration points, and establish the layout of integrated components into the suspended ceiling barrier.

F. SUBMITTALS

- I. A submittal for each product will be required in accordance with Section 01 33 00- Submittal Procedures.
- II. Product data: All data pertaining to the fabrication of the product in this section is required. All subcomponent raw material data sheets shall be provided as well as overall data on the finished fabricated product.
- III. Shop Drawings: Illustrate layout of ceiling in conjunction with project architectural plan. Field dimension areas of concern for accuracy prior to layout. Project layout to illustrate penetration points, special edging conditions, manner of suspension, and intersection of other trades integrated products.
- IV. LEED Documentation: Provide all data to substantiate that product will meet the necessary requirements set forth by the USGBC LEED v.4.1

- V. Physical Sample: Full product representation (12" x 16")
- VI. Manufacturer Warranty: Provide reference that product meets or exceeds industry standard warranty requirements.
- VII. Closeout Documents: Provide all manufacturer documentation related to the care and maintenance of the product.

G. SITE CONDITIONS

- I. All doors and windows to be fully installed.
- II. All ventilation systems to be fully operational.
- III. Site must be fully climatized to operating temperatures prior to product delivery.
- IV. Area of installation to be free of moisture and direct contact with elements.
- V. All work above the suspended ceiling must be completed including HVAC, Fire suppression, Partition assemblies, Electrical (Security/Lighting), and Perimeter conditions.

H. DELIVERY, STORAGE, HANDLING, AND ACCLAMATION

- I. All products are to be delivered in the original shipping crate without broken seal.
- II. Products are to be uncrated, and inspected for defects. Defective products should be replaced immediately so as to not create project delays.
- III. All products should be stored, off of the direct ground, for an acclimation period of 72 hours, within the building of installation.

I. ADDITIONAL MATERIAL

- I. Review Section 01 60 00- Product Requirements
- II. Extra Material: An additional amount of material must be furnished, packaged, and provided to the owner for maintenance and repair. This total is to represent 2% of the total square footage for that product, for the total project.

J. WARRANTY

- I. Open Cell Ceiling products have a (2) year limited manufacturers warranty to cover defects and poor workmanship or quality.

PART 2- PRODUCTS

A. MANUFACTURERS – OPEN CELL CEILING SYSTEM

- I. Basis of Design: OGB Architectural Ceilings (A division of OGB Architectural Millwork) estimating@ogb-am.com (505) 998-0000
 - a. Product: Open Cell
 1. SKU: OGB-OC (8) * *Configuration* - (2248) * *Size*
 2. Monolithic & Continuous: (Options Available)
 3. Configurations: 4, 8, 16
 4. Size: 2x2, 2x4,
 5. Species: Red Oak, White Oak, Cherry, Alder, Hickory, Maple, Mahogany, Birch, Beech, Walnut, Doug Fir, Ash
 6. Fire Rating: [Optional] Class A, Class B
 7. Stain: [Optional] See stain color chart- Custom match available
 8. Finish: Clear Satin [Optional] Class A/B Intumescent coating
- II. Or approved equal as defined by the architect.
 - a.
 - b.
 - c.

B. SUSPENSION SYSTEMS

- I. T-Grid Suspension System: Standard metal heavy duty 15/16" T-Grid system which consists of Main Runners, Cross-Tees, and Wall Angle that comply with applicable ASTM C 635 requirements. System must comply with all applicable seismic codes and ordinances.
- II. Hanging Wire: 12-gauge Class 1 zinc coating, soft annealed, with a yield stress load of at least 3x the design load in accordance with ASTM A 641.
- III. Attachment: Open Cell Ceiling Systems are attached directly into the grid or through an eye hook placed in the runners/cross members suspended by hanger wires.

PART 3- EXECUTION

A. EXAMINATION

- I. Inspection: Ensure all t-grid runner/tee systems are in place as specified in Section 09 22 26- Suspension Systems. Verify that suspension system is anchored, level, and fit for (*Open Cell Ceiling*) installation.

B. PREPARATION

- I. Clean all product surfaces prior to installation.
- II. Measure layout area and adjust product placement to ensure products have an even perimeter reveal, and conform with the layout shown on the RCP.
- III. Coordinate with all trades who have penetration points and integrated components within the (*Open Cell Ceiling*) system.

C. INSTALLATION

- I. All work to comply with the standards set forth in the Cisca "Ceiling Systems Handbook."
- II. Open Cell Ceiling products shall be installed as per the manufacturer's installation guide, and in accordance with the local building codes.
- III. Cut wood products to have all exposed edges sealed.
- IV. HVAC, Lighting, Mechanical and Security penetrations to be performed in field with coordinated trades.
- V. Integrated products must be supported independently, and not by the (*Open Cell Ceiling*) panel system.

D. QUALITY CONTROL

- I. Once installation has been completed, the owner shall inspect all finished areas to ensure that work has been completed in a satisfactory manner. All defects resulting from installation will be corrected prior to receiving a notification of substantial completion.

E. CLEANING

- I. Clean all exposed wood surfaces as per the manufacturers care and maintenance instructions, and touch up any minor finish damage.

END OF SECTION