**Guide Specification**

**TYPE: LINEA MIXED GRILLE**

**PROJECT:** **<Insert>**

09 54 26 – LINEAR WOOD CEILING PANELS

**PART 1 – GENERAL**

* 1. **SUMMARY**
1. Section Includes:
2. Concealed suspension system for Linear Wood Ceiling Panels.
3. Linear wood Ceiling Panels for concealed suspension system.
4. Trim and accessories
5. Seismic restraints for suspended ceiling system
	1. **RELATED WORK IN OTHER SECTIONS:**
6. Division 1 – “General Conditions” for substitution requests, submittals, etc.
7. Division 9 – “Acoustic Ceilings.”
8. Division 13 – “Integrated Assemblies.”
9. Division 15 – “Mechanical” for work to be coordinated with ceiling.
10. Division 16 – “Electrical” for light fixture coordination.
	1. **REFERENCES**
11. .1 ASTM International (ASTM):
12. .1 ASTM A641/A641M-19 – Standard Specification for Zinc Coated (Galvanized) Carbon Steel Wire.
13. .2 ASTM C423-22 – Standard Test Method for Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method.
14. .3 ASTM C635/C635M-22 – Standard Specifications for Manufacture, Performance, and Testing of Metal Suspension Systems for Acoustical Tile and Lay-In Panel Ceilings.
15. .4 ASTM C 636/C636M-19 – Standard Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels.
16. .5 ASTM E84-21a – Standard Test Method for Surface Burning Characteristics of Building Materials.
17. .6 ASTM E 580/E580M-22 – Standard Practice for Application of Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels in Areas Subject to Earthquake Ground Motions.
18. .7 ASTM E 1264-22 – Standard Classification of Acoustic Ceiling Products.
19. .2 Architectural Woodwork Manufacturers Association of Canada (AWMAC):
20. .1 AWI/AWMAC – Architectural Woodwork Quality Standards Illustrated, current edition.
21. .3 Ceiling and Interiors Systems Construction Association (CISCA):
22. .1 CISCA – Ceiling Systems Handbook, current edition.
23. .4 National Building Code of Canada, Alberta edition 2019.
	1. **QUALITY ASSURANCE**
24. Manufacturer Qualifications: Manufacturers other than those listed in Paragraph 2.1 are required to submit for approval prior to bidding per Section One.
25. Installer Qualifications: Engage an experienced Installer, approved by wood ceiling manufacturer, who has completed panel ceilings similar in species, design, and extent to that indicated for this Project and with a record of successful in-service performance.
26. Inspection: All work must pass inspection and approval of architect, as well as the local codes and regulations or authorities having jurisdiction.
27. Single-Source Responsibility for Wood Ceiling System: Obtain each type of Linear Wood Ceiling Panels from a single fabricator, with in-house Shop Drawing capabilities, in-house assembly and finishing capabilities, and with resources to provide products of consistent quality in appearance and physical properties without delaying the project.
28. Single-Source Responsibility for Suspension System: Obtain each type of suspension system from a single source with resources to provide products of consistent quality in appearance and physical properties without delaying project.
29. Pre-Installation Conference: Conduct conference at Project site to comply with requirements of Division 1 Section "Project Meetings."
	1. **SUBMITTALS**
30. General: Submit each item in this Section according to the Conditions of the Contract and Division 1 Specification Sections.
31. Product Data: For each type of product specified.
32. Samples: For verification of each type of exposed finish required, prepared on samples of size indicated below. Where finishes involve normal color and texture variations, include sample sets showing the range of variations expected

1. 12” x 16” samples of each panel type, pattern, and color.

* 1. **SHOP DRAWINGS & COORDINATION WITH OTHER TRADES**
1. Shop Drawings: Provide Shop Drawings/Coordination Drawings for all ceilings, which should include RCP and product details. Coordinate Linear Wood ceiling panels layout and installation of wood panels and suspension system components with other construction elements that penetrates ceilings or is supported by them, including light fixtures, HVAC equipment, fire-suppression system components, partition assemblies and all perimeter conditions.
	1. **PROJECT CONDITIONS**
2. Space Enclosure and Environmental Limitations: Do not install wood panel ceilings until spaces are enclosed and weatherproof, wet-work in spaces is completed and dry, work above ceilings is complete, and ambient temperature and humidity conditions are being maintained at the levels indicated for Project when occupied for its intended use.
	1. **DELIVERY, STORAGE, AND HANDLING**
3. Delivery & Unloading: Coordinate crate sizes, weights, unloading options, and delivery schedule with manufacturer prior to fabrication. Deliver wood panels and suspension system components to Project site in original, unopened packages and store them in a fully enclosed space where they will be protected against damage from moisture, direct sunlight, surface contamination, and other mistreatment.
4. Acclimatization: Before installing wood panels, permit them to reach room temperature and a stabilized moisture content (at least 72 hours) per AWI standards.
5. Handling: Handle Linear Wood Ceiling Panels carefully to avoid chipping edges or damaging units in any way.
6. Protection:
7. Personnel: Follow good safety and industrial hygiene practices during handling and installing of all products and systems, with personnel to take necessary precautions and wear appropriate protective equipment as needed. Read related literature for important information on products before installation. Contractor to be solely responsible for all personal safety issues during and subsequent to installation; architect, specifier, owner, and manufacturer will rely on contractor’s performance in such regard.
8. Existing completed work: Protect completed work above suspension system from damage during installation of suspension system components.
	1. **EXTRA MATERIAL/WARRANTIES**
9. Extra Materials: Furnish extra materials described below that match products installed, are packaged with protective covering for storage, and are identified with labels clearly describing contents.
10. Linear Wood Ceiling Panels: Furnish quantity of full-size units equal to 2.0 percent of amount installed.
11. Suspension System Components: Furnish quantity of each component equal to 2.0 percent of amount installed.
12. Warranties: Provide owner with a (1) year warranty for material and workmanship on all installed products.
13. Manufacturers: All materials, wood ceiling and grid, shall be warranted for (1) one year for material and workmanship.
14. Installer: All work shall be warranted for (1) year from final acceptance of completed work

**PART 2 – PRODUCTS**

* 1. **LINEAR WOOD CEILING PANELS AND SUSPENSION SYSTEM**
1. General: The following manufacturer is basis of design:
2. LINEA Ceiling & Wall Systems

2320 Peardonville Road, Abbotsford, BC, Canada, V2T 6J8

Ph. 1-604-776-2265 / Website: www.LineaCeilings.com / Email: Sales@LineaCeilings.com

1. Or equal, as prior approved by architect.
2. Substitution: Not permitted
	1. **LINEAR WOOD CEILING PANELS**
3. Product: LINEA MIXED GRILLE
4. LINEA Ceiling & Wall Systems. (www.LineaCeilings.com):
5. Species/Grain: <Insert wood specie and grain type required>
6. Core: Solid Wood
7. Edge: Square
8. Panel Size(s): 20-1/4” wide x 8’ or 10’ long (less 1” for reveal) <Custom per drawings>
9. Blade Size: Grille - 5/8” x 1-3/8” (6 per panel); Plank - 5/8” x 2-1/4” (4 per panel) <Custom per drawings>
10. Reveal: 11/16” <Custom per drawings>
11. Color: Natural <Stain, Tint, or Painted to match architect sample>
12. Finish: Clear, <Matte, Satin, or Semi-Gloss> Sheen; Interior <Exterior> Grade
13. Fire Rating: Class A <Class C>
14. Assembly: <Wood Backers (Black), Flexible (Black), PET Acoustic Felt [select color from standard range]>
15. Fabric Backer: <None or Black; Factory Attached>
16. Installation: Direct screw to grid and/or wood furring <Backer Clips>
	1. **METAL SUSPENSION SYSTEMS, GENERAL**
17. Metal T-Grid Suspension System: Provide standard interior Metal Heavy Duty 15/16” <9/16”, 1 ½”> suspension T-Grid system using Main Runners, Cross-tees, Wall Angle or Shadow Moldings of types, structural classifications, and <black> finishes indicated and that comply with applicable ASTM C 635 requirements. Comply with all applicable <seismic> codes and ordinances.
18. Attachment Devices: Size for 3 times the design load indicated in ASTM C 635, Table 1, Direct Hung unless otherwise indicated.
19. Wire, Braces, Ties, Hanger Rods, Flat Hangers and Angle Hangers: Provide wires, rods and hangers that comply with applicable ASTM specifications.
	1. **ACCESSORIES**
20. Matching perimeter trim to be supplied by wood ceiling manufacturer. <insert if applicable>
21. Touch-up Paint: Type and color to match acoustic wood panels
22. Optional Wood Backer clips, if required for installation
23. Acoustic Batt Insulation: Specified in Section <insert section> 1-inch thick <thickness determined by desired NRC rating> supplied and installed by Contractor. <insert if applicable>
	1. **FINISH**
24. Factory Finishing: Panel shall be factory-finished with manufacturer’s standard lacquer products per color selection by architect.
25. Due to the nature of real wood (variation in grain, texture and color) the finished product may range from light to dark affecting the look of the panels.

**PART 3 – EXECUTION**

* 1. **EXAMINATON**
	2. General: Examine substrates and structural framing to which ceilings attach or abut, with installer present, for compliance with requirements specified in this and other sections that affect ceiling installation and anchorage. Do not proceed with installation until unsatisfactory conditions have been corrected.
	3. **PREPARATION**
	4. Coordination: Furnish layouts for cast-in-place anchors, clips, and other ceiling anchors whose installation is specified in other Sections.
	5. Layout: Measure each ceiling area and establish the layout of Linear Wood Ceiling Panels to balance border widths at opposite edges of each ceiling. Avoid using less-than-half-width panels at borders and conform to the layout shown on reflected ceiling plans in accordance with wood ceiling manufacturer’s approved Shop Drawings.
	6. **INSTALLATION**
	7. General: Install LINEA MIXED GRILLE to comply with manufacturer's instructions and CISCA "Ceiling Systems Handbook."
	8. Attachments: Suspend ceiling hangers from building's structural members per manufacturer’s instructions and in compliance with all local codes and regulations.
	9. Installation of Metal T-Bar Grid: Install, align, brace, tie-off, mount, handle interferences, and space suspension T-Grid in accordance with suspension manufacturer’s instructions and in compliance with all local codes and regulations.
	10. Installation of LINEA MIXED GRILLE: Install Linear Wood ceiling panels in accordance with manufacturer’s installation instructions and in compliance with all local codes and regulations. Install with undamaged edges and fitted accurately to suspension system runners and edge moldings. Scribe and cut panels at borders and penetrations to provide a neat, precise fit, as required.
	11. Suspension Runners: Install suspension system runners so they are square and securely interlocked with one another. Install number and use on-center spacing per wood ceiling manufacturer’s instructions, as indicated on approved Shop Drawings and in compliance with all local code

* 1. **CLEANING**
	2. General: Clean exposed wood surfaces of wood ceiling panels. Comply with manufacturer’s instructions for cleaning and touchup of minor finish damage. Remove and replace wood ceiling components that cannot be successfully cleaned and repaired to permanently eliminate evidence of damage
	3. **INSPECTION**
	4. When LINEA Ceiling & Wall Systems wood ceiling panels have been completely installed, the owner and/or the owner’s representative shall inspect all finished surfaces of the wood ceiling system to validate that the work has been completed in compliance with these specifications. Any defect in meeting installation specifications shall be corrected by the installing contractor at no additional cost to the owner and/or LINEA Ceiling & Wall Systems.

**END OF SECTION**