SECTION 06 17 13

LAMINATED VENEER LUMBER

(ENGINEERED WOOD PRODUCTS)

Display hidden notes to specifier. (Don't know how? [Click Here](https://www.arcat.com/sd/display_hidden_notes.shtml))

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\*\* NOTE TO SPECIFIER \*\* Roseburg; medium density fiberboard and particleboard.  
This section is based on the products of Roseburg, which is located at:3660 Gateway St.Springfield, OR 97477Toll Free Tel: 800-245-1115Tel: 541-679-3311 Fax: 541-679-2543Email: [request info (MarkN@rfpco.com)](https://arcat.com/rfi?action=email&company=Roseburg&message=RE%253A%2520Spec%2520Question%2520(06170ros)%253A%2520&coid=43520&spec=06170ros&rep=&fax=541-679-2543)  
Web: <http://www.roseburg.com>   
 [ [Click Here](https://arcat.com/company/roseburg-43520) ] for additional information.  
Roseburg was founded in 1936, which means we've been around for more than 80 years. That may seem like plenty of time in human years, but at that age, a tree is just coming into its own. We like to think that as a company we're doing the same.  
Our company founder Kenneth Ford was a pioneer in the forest products industry. In 1946, he blazed a trail by purchasing 15,000 acres of timberland: Today, Roseburg owns over 600,000 acres of viable timberlands, ensuring consistent forest products for the future. We started designing a plywood facility in 1950, and soon began producing wood products as well as lumber.  
All of Roseburg's manufacturing is done in the U.S. What started as a single sawmill in 1946 has grown into the Roseburg of today: America's single broadest mix producer of sustainable wood building products, owner of the largest capacity sawmill in the country, and the greatest exporter of wood chips in the U.S. Roseburg's engineered wood products facility is also one of the largest facilities of its kind in the nation.  
At Roseburg, we offer custom industrial performance panels built to each customer's specifications, and the Roseburg mixed trucks and boxcar shipping solutions mean that we can customize both orders and shipping to suit each customer's needs.

1. GENERAL
   1. SECTION INCLUDES

\*\* NOTE TO SPECIFIER \*\* Delete, add items below not required for project.

* + 1. Laminate Veneer Lumber (LVL): Headers, beams, and studs.
  1. RELATED SECTIONS

\*\* NOTE TO SPECIFIERS \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. Section 03 30 00 - Cast-in-Place Concrete.
    2. Section 05 40 00 - Cold-Formed Metal Framing. Connectors and brackets, anchor bolts, bearing plate anchors, and hardware.
    3. Section 06 10 00 - Rough Carpentry. Permanent bridging and bracing and sheathing framing connectors and hangers.
    4. Section 07 50 00 - Membrane Roofing.
  1. REFERENCES

\*\* NOTE TO SPECIFIERS \*\* Delete any sections below not relevant to this project; add others as required.

* + 1. The Engineered Wood Association (APA):
       1. Product Report: PR-L289.
    2. ASTM International (ASTM):
       1. ASTM D5456 Standard Specification for Evaluation of Structural Composite Lumber Products.
       2. ASTM E199 Standard Test Methods for Fire Tests of Building Construction and Materials.
    3. Canadian Construction Materials Centre (CCMC):
       1. CCMC Report Number 13310-R.
    4. Forest Stewardship Council A.C. (FSC):
       1. STD-40-003 Standard for Multi-site Certification of Chain of Custody Operations.
       2. STD-40-004 V2.0 FSC Standard for Chain of Custody Certification.
       3. STD-40-005 V2.1 Standard for Company Evaluation of FSC Controlled Wood.
    5. ICC Evaluation Service Inc. (ICC-ES):
       1. ICC-ES Report Number ESR-1210.
  1. SUBMITTALS
     1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
     2. Product Data:
        1. Manufacturer's product data, including descriptions of component materials, dimensions of specified products, design properties, allowable spans, and construction details.
        2. Manufacturer's installation instructions.
        3. Catalog pages illustrating products to be incorporated into project.
        4. Material Safety Data Sheets (MSDS)
        5. Preparation instructions and recommendations.
        6. Storage and handling requirements and recommendations.

\*\* NOTE TO SPECIFIER \*\* Delete if not applicable to product type.

* + 1. Verification Samples: Two representative units of each type, size, pattern, and color.
    2. Specifier Note: Retain the following paragraph only if members are to be designed by the contractor.
    3. Shop Drawings: Submit drawings sealed by the designer indicating member types, sizes, locations, and connection details.
    4. Design Data: Submit design calculations sealed by the designer for representative structural members.
    5. Warranty Documentation: Submit warranty documents specified.
  1. QUALITY ASSURANCE
     1. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with a minimum five years documented experience.
     2. Installer Qualifications: Company specializing in performing Work of this section with minimum two years documented experience with projects of similar scope and complexity.
     3. Designer Qualifications: A professional structural engineer registered in the state where the project is located.
     4. Source Limitations: Provide each type of product from a single manufacturing source to ensure uniformity.
  2. PRE-INSTALLATION CONFERENCE
     1. Convene a conference approximately two weeks before scheduled commencement of the Work. Attendees shall include Architect, Contractor and trades involved. Agenda shall include schedule, responsibilities, critical path items and approvals.
        1. Coordination: Coordinate work of this Section with work of other trades for proper time and sequence to avoid construction delays. Comply with appropriate Division 01 sections.

\*\* NOTE TO SPECIFIER \*\* Add additional text to specify unusual or detailed coordination requirements affecting the work results of this Section. Delete options not required.

* + - 1. [ \_\_\_\_\_\_\_\_ ]
  1. DELIVERY, STORAGE & HANDLING
     1. Delivery and Acceptance Requirements: Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact. Unload material in accordance with manufacturer's recommendations.
     2. Store and handle in strict compliance with manufacturer's written instructions and recommendations.
     3. Protect from damage due to weather, excessive temperature, and construction operations.
     4. Packaging Waste Management:

\*\* NOTE TO SPECIFIER \*\* The disposal of packaging waste into landfill sites demonstrates an inefficient use of natural resources and consumes valuable landfill space. Specifying appropriate packaging and construction waste management and disposal procedures may contribute to points required for USGCB's LEED® construction project certification.

* + 1. Include the following Subparagraphs to specify information that will provide direction to the Contractor for the disposal of construction waste materials using environmentally responsible methodology other than landfill resources.
       1. Separate waste materials for reuse and recycling in accordance with Section 01 74 19 - Construction Waste Management and Disposal.
       2. Specifier Note: USGBC's LEED certification includes credits for the diversion of construction waste from landfill. Diversion can be tracked by either weight or volume but must be consistent for all materials. Manufacturer may reclaim packaging and delivery materials for recycling.
       3. Remove packaging materials from site and dispose of at appropriate recycling facilities.
       4. Collect and separate for disposal paper and plastic packaging material [in appropriate onsite bins] for recycling.
       5. Fold metal and plastic banding; flatten and place in designated area for recycling.
       6. Specifier Note: Alter and add subparagraphs to include pallets, crates, padding and other packing materials that are typically associated with specified products.
       7. Remove:
          1. Pallets from site and return to supplier or manufacturer.
          2. [ \_\_\_\_\_\_\_\_\_ ]

1. PRODUCTS
   1. MANUFACTURER
      1. Acceptable Manufacturer: Roseburg, which is located at:3660 Gateway St.Springfield, OR 97477Toll Free Tel: 800-245-1115Tel: 541-679-3311 Fax: 541-679-2543Email: [request info (MarkN@rfpco.com)](https://arcat.com/rfi?action=email&company=Roseburg&message=RE%253A%2520Spec%2520Question%2520(06170ros)%253A%2520&coid=43520&spec=06170ros&rep=&fax=541-679-2543);Web: <http://www.roseburg.com>

\*\* NOTE TO SPECIFIER \*\* Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.

* + 1. Substitutions: Not permitted.
    2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.
  1. LAMINATED VENEER LUMBER

\*\* NOTE TO SPECIFIER \*\* Include an overall description of the system, assembly, product, or material. Include required properties or characteristics that do not obviously belong under other titles.

* 1. Example: Configuration, size, and color.
     1. Description:

\*\* NOTE TO SPECIFIER \*\* Paragraph below should list obligations for compliance with specific code requirements particular to this section. General statements to comply with a particular code are typically addressed in Contract Conditions and Section 01 41 00 - Regulatory Requirements. Repetitive statements should be avoided.

* + - 1. Regulatory Requirements:
         1. In accordance with Section 01 41 00 - Regulatory Requirements.

\*\* NOTE TO SPECIFIER \*\* Select appropriate code references below.

* + - * 1. Comply with ICC-ES Report Number ESR-1210.
        2. Comply with CCMC Report Number 13310-R.
        3. Comply with APA Product Report PR-L289.
        4. [ \_\_\_\_\_\_\_\_\_ ].
      1. Sustainability Characteristics: Comply with the following FSC Standards.
         1. STD-40-003.
         2. STD-40-004 V2.0.
         3. STD-40-005 V2.1.
         4. [ \_\_\_\_\_\_\_\_\_ ].
      2. Compatibility: Ensure components and materials are compatible with specified accessories and adjacent materials.

\*\* NOTE TO SPECIFIER \*\* The term "Design Criteria" is used when describing the intended characteristics of a product for which the Contractor is assigned design responsibility. Retain Paragraph below only if members are to be designed by the contactor.

* + 1. Design Criteria:

\*\* NOTE TO SPECIFIER \*\* Select and/or insert loading criteria to conform to project requirements.

* + - 1. Floors:
         1. Design Live and Dead Load for Floors: \_\_\_\_ psf (\_\_\_\_kg per sq m).

Live Load Deflection: 1/600 of span.

Live Load Deflection: 1/480 of span.

Live Load Deflection: 1/360 of span.

Live Load Deflection: \_\_\_\_ of span.

Live Load Deflection: \_\_\_\_ inches (\_\_\_ mm).

Total Load Deflection: 1/360 of span.

Total Load Deflection: 1/240 of span.

Total Load Deflection: 1/180 of span.

Total Load Deflection: \_\_\_\_ inches (\_\_\_ mm).

* + - 1. Roofs:
         1. Design Live [and Dead] Load for Floors: \_\_\_\_ psf (\_\_\_\_kg per sq m).

Live Load Deflection: 1/480 of span.

Live Load Deflection: 1/360 of span.

Live Load Deflection: 1/240 of span.

Live Load Deflection: \_\_\_\_ of span.

Live Load Deflection: \_\_\_\_ inches (\_\_\_ mm).

Total Load Deflection: 1/360 of span.

Total Load Deflection: 1/240 of span.

Total Load Deflection: 1/180 of span.

Total Load Deflection: \_\_\_\_ inches (\_\_\_ mm).

* + 1. Materials:
       1. Laminated Veneer Lumber: To ASTM D5456.
          1. Laminates Veneer Lumber Studs: To ASTM E119.
          2. Specifier Note: Retain types(s) below to conform to project requirements. If more than one is retained. Create designators and coordinate with the drawings. If members are to be designed by the contractor, delete the next two paragraphs.
       2. Plies: 1.
       3. Plies: 2.
       4. Plies: 3.
       5. Plies: 4.
       6. Thickness: 1-1/2 inches (38mm).
       7. Thickness: 1-3/4 inches (44mm).
       8. Thickness: 3-1/2 inches (89mm).
       9. Thickness: 5-1/4 inches (133mm0.
       10. Thickness: 7 inches (178mm)].
       11. Grade of Rigidlam LVL: 1.3E.
       12. Grade of Rigidlam LVL: 1.5E.
       13. Grade of Rigidlam LVL: 2.0E.
       14. Grade of Rigidlam LVL: 2.2E.
       15. Grade of Rigidlam LVL: 2.3E.
       16. Specifier Note: Insert height unless indicated on the drawings.
       17. Depth: \_\_\_\_ inches (\_\_\_\_ mm).
       18. Depth: As indicated on drawings.
  1. RIGIDLAM LVL SIZES
     1. Thick: 1-1/2 inch ( mm).
        1. Elasticity Modulus: 1.4E.
        2. Elasticity Modulus: 1.6E.
        3. Elasticity Modulus: 2.1E.
        4. Height: 3-1/2 inches ( mm).
        5. Height: 4-3/8 inches ( mm).
        6. Height: 5-1/2 inches ( mm).
        7. Height: 7-1/4 inches ( mm).
        8. Height: 9-1/4 inches ( mm).
        9. Height: 9-1/2 inches ( mm).
        10. Height: 11-1/4 inches ( mm).
     2. Thick: 1-3/4 inch ( mm).
        1. Elasticity Modulus: 1.4E.
        2. Elasticity Modulus: 1.6E.
        3. Elasticity Modulus: 2.1E.
        4. Height: 3-1/2 inches ( mm).
        5. Height: 4-3/8 inches ( mm).
        6. Height: 5-1/2 inches ( mm).
        7. Height: 7-1/4 inches ( mm).
        8. Height: 9-1/4 inches ( mm).
        9. Height: 9-1/2 inches ( mm).
        10. Height: 11-1/4 inches ( mm).
        11. Height: 11-7/8 inches ( mm).
        12. Height: 14 inches ( mm).
        13. Height: 16 inches ( mm).
        14. Height: 18 inches ( mm).
        15. Height: 20 inches ( mm).
        16. Height: 22 inches ( mm).
        17. Height: 24 inches ( mm).
     3. Thick: 3-1/2 inch ( mm).
        1. Elasticity Modulus: 1.4E.
        2. Elasticity Modulus: 1.6E.
        3. Elasticity Modulus: 2.1E.
        4. Elasticity Modulus: 2.6E.
        5. Height: 5-1/2 inches ( mm).
        6. Height: 7-1/4 inches ( mm).
        7. Height: 9-1/4 inches ( mm).
        8. Height: 9-1/2 inches ( mm).
        9. Height: 11-1/4 inches ( mm).
        10. Height: 11-7/8 inches ( mm).
        11. Height: 14 inches ( mm).
        12. Height: 16 inches ( mm).
        13. Height: 18 inches ( mm).
        14. Height: 20 inches ( mm).
        15. Height: 22 inches ( mm).
        16. Height: 24 inches ( mm).
     4. Thick: 5-1/4 inch ( mm).
        1. Elasticity Modulus: 1.6E.
        2. Elasticity Modulus: 2.1E.
        3. Elasticity Modulus: 2.3E.
        4. Height: 9-1/2 inches ( mm).
        5. Height: 11-1/4 inches ( mm).
        6. Height: 11-7/8 inches ( mm).
        7. Height: 14 inches ( mm).
        8. Height: 16 inches ( mm).
        9. Height: 18 inches ( mm).
        10. Height: 20 inches ( mm).
        11. Height: 22 inches ( mm).
        12. Height: 24 inches ( mm).
     5. Thick: 7 inch ( mm).
        1. Elasticity Modulus: 1.6E.
        2. Elasticity Modulus: 2.1E.
        3. Elasticity Modulus: 2.3E.
        4. Height: 9-1/2 inches ( mm).
        5. Height: 11-1/4 inches ( mm).
        6. Height: 11-7/8 inches ( mm).
        7. Height: 14 inches ( mm).
        8. Height: 16 inches ( mm).
        9. Height: 18 inches ( mm).
        10. Height: 20 inches ( mm).
        11. Height: 22 inches ( mm).
        12. Height: 24 inches ( mm).
  2. ACCESSORIES
  3. Specifier Note: Retain fastener type below to conform to project requirements.
     1. Fasteners: Sized to suit application.
        1. Material: Galvanized steel
        2. Material: Stainless steel
        3. Acceptable Manufacturers:
           1. Simpson Strong-Tie.
           2. USP Structural Connectors.

1. EXECUTION
   1. EXAMINATION
      1. Verification of Conditions: Verify that conditions of substrate previously installed under other sections or contracts are acceptable for product installation in accordance with manufacturer's instructions prior to laminated veneer lumber (LVL) headers, beams, and studs installation.
      2. If substrate preparation is the responsibility of another installer, notify Architect in writing of unsatisfactory preparation before proceeding.
      3. Do not begin installation until substrates have been properly constructed and prepared.
   2. PREPARATION
      1. Clean surfaces thoroughly prior to installation.
      2. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
   3. INSTALLATION
      1. Coordinate installation of laminated veneer lumber (LVL) headers, beams, and studs in accordance with Section 01 73 19 - Installation.
      2. Coordinate laminated veneer lumber (LVL) headers, beams, and stud work with work of other trades for proper time and sequence to avoid construction delays.
      3. Comply with manufacturer's product data, including product technical bulletins, product catalog installation instructions and product carton instructions, for installation.
      4. Install members plumb, level and as indicated.
      5. Fasten members to supporting framing as recommended by the LVL manufacturer and the hanger manufacturer.
      6. Provide temporary bracing to hold members in position until permanently secured.
      7. Cut holes in members only as allowed by the manufacturer.
   4. CLEANING
      1. Perform cleanup in accordance with Section 01 74 00 - Cleaning and Waste Management and Section 01 74 13 - Progress Cleaning.
      2. Upon completion and verification of performance of installation, remove surplus materials, rubbish, tools, and equipment in accordance with Section 01 74 23 - Final Cleaning.
      3. Specifier Note: Specify special measures needed to minimize waste, collect recyclable waste, and dispose of or recycle field-generated construction waste created during demolition, construction, or final cleaning.
      4. Waste Management:
         1. Coordinate recycling of waste materials in accordance with Section 01 74 19 - Construction Waste Management and Disposal.
         2. Collect recyclable waste and dispose of or recycle field generated construction waste created during demolition, construction, or final cleaning.
         3. Remove recycling containers and bins from site.

END OF SECTION