

Use of Custom-Sawn Lumber in Structures Columbia, Clatsop, and Tillamook Counties, Oregon

September 15, 2000
(Minor Updates September 11, 2001)

Prepared By

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Prepared For

Northwest Oregon Economic Alliance

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By
Larry Swan and Joel Koch¹

Purpose

The purpose of this report is to define the nature, extent, and potential for use of custom-sawn lumber in structures within Columbia, Clatsop, and Tillamook counties, particularly where an accredited grading bureau stamp is normally required².

Background

In 1997, the U.S. Forest Service, Oregon Economic and Community Development Department (OECDD), and Northwest Oregon Economic Alliance (NOEA) cooperated to identify potential forest product public/private investment opportunities and technical assistance needs. Over 20 interviews were conducted with a cross-section of forest product companies in Columbia, Clatsop, and Tillamook counties.

Eight interviews were conducted with portable or small stationary sawmill owners (approximately 40% of the total interviews). The reason so many small sawmill owners were interviewed was that small sawmills comprise a significant percent of the total forest products businesses in the three-county area, and they are under-utilized. Larry Swan, Forest Products Specialist who conducted the interviews, estimated there are 40 to 50 small sawmills in the three-county area. Of these 40 to 50 sawmills, he estimates fewer than five cut more than 100,000 board feet per year.

The eight small or portable sawmill owners interviewed expressed strong interest in better understanding how to gain county or city building official approval for use of custom-sawn lumber in structural applications. Much of their business comes from small woodlot owners who want to use lumber manufactured from their own trees for outbuildings and other structures. The small mill owners interviewed thought they could increase their business and utilization of existing small sawmill capacity if they better understood the building code and process needed to

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² The term “custom-sawn” refers to lumber produced by a portable or small sawmill. For the purposes of this report, a small sawmill is characterized by an average eight-hour production run of less than three thousand board feet (nominal measurement basis). Logs used by portable and small sawmills are often cut on-site, or are owned by the person who plans to use the lumber produced.

gain approval for custom-sawn lumber for certain applications. Interviews conducted with portable and small stationary sawmill owners in other parts of Oregon indicate similar interests (Larry Swan, Personal Communication).

The NOEA Board (Columbia, Clatsop, and Tillamook counties) approved a sum of \$4,000 for a contract to clarify if and how custom-sawn lumber could be used in structures, and explore alternative methods to satisfy state and local permit and code requirements³. Joel Koch, local portable mill owner and former contractor and logger, was awarded the contract to document local experience and requirements for use of custom-sawn lumber, explore alternative methods to satisfy state and local permit and code requirements, and put on three workshops describing his findings (one in each county). Although still planned, the contractual requirement for workshops was dropped due to the number of interviews that had to be conducted.

Information Collection Methods

Thirty-two telephone interviews were conducted between March and September 2000. Building officials for all county and local building department jurisdictions in Columbia, Clatsop, and Tillamook counties were contacted (total of 10), as well as the State Building Official, six registered architects, two professional engineers, seven small sawmill owners, and six lumber grading bureaus. Interviews with architects, engineers, and small sawmill owners were spread about evenly between the three-county area. The lumber grading bureaus contacted represent all accredited grading bureaus reported active or potentially active in the three-county area.

Interviews were conducted using open-ended questions (see Appendix A, *Interview Forms, Use of Custom-Sawn Lumber in Structures*). Questions differed slightly for each group interviewed, however all interviews addressed the following general topics:

1. History or experience with use of custom-sawn lumber in structures?;
2. Methods used to obtain building official approval to use custom-sawn lumber for load bearing or structural application normally requiring a grade stamp?;
3. Recommended contacts for further information or for potential service providers (e.g. lumber grading bureaus)?

Interview results were summarized in tabular form and sent to each person who requested a copy prior to public release of this report (see Appendix B, *Interview Summaries, Use of Custom-Sawn Lumber in Structures*). Corrections and edits were made to clarify responses and ensure accuracy. Results and tentative interpretation of the results were reviewed with Building Officials and portable sawmill owners at a meeting in November, 2001 (Warrenton). Comments and suggestions were incorporated into the Final Report.

³The Northwest Economic Alliance Board is composed of volunteers appointed by county elected officials. The Board manages economic development project application and selection process for lottery funding, as part of the Regional and Rural Investments programs administered by the Oregon Economic and Community Development Department.

Interview Results

Building Officials

Nine out of the 10 Building Officials interviewed report limited experience with inspection and use of custom-sawn lumber in structures. Four reported dealing with a single incident involving custom-sawn beams or lumber within the last three to five years, and one reported dealing with over 100 situations involving custom-sawn lumber in Idaho, but none within the last 12 months in Oregon.

The Building Officials interviewed report they will accept custom-sawn lumber for structural applications if it is graded and stamped by a certified grader on-site, and meets building code requirements for a particular application. Three Building Officials report they will accept a letter from a registered architect or professional engineer documenting the suitability of a certain lot of custom-sawn lumber for a particular structural application (for this report such a document is called a *Letter of Suitability*) (see Appendix B, *Summary of Interviews With Building Officials*).

Registered Architects and Professional Engineers

Only one architect reported any experience with providing a *Letter of Suitability* or similar to a Building Official for custom-sawn lumber intended for use in a structural application. Four out of the six architects interviewed said they were willing to be contacted to discuss such a service. Two architects suggested that a certified lumber grader's services would probably cost less than their services.⁴ Neither engineer interviewed wanted to be contacted concerning a *Letter of Suitability* for custom-sawn lumber (see Appendix B, *Summary of Interviews With Engineers and Architects*).

Small Mill Owners

Only two of the seven small sawmill owners interviewed reported having obtained the services of a certified grader or *Letter of Suitability* from a professional engineer or registered architect. In one case, the mill owner hired a certified grader to grade custom-sawn beams intended for a building on the East Coast prior to shipment, and in the other case a *Letter of Suitability* was obtained from a professional engineer for custom-sawn lumber intended for structural framing.

Three mill owners reported custom-sawing lumber for some type of structure between two and 10 times within the last 12 months, and four mill owners reported between five and 50 times within the last five years. The intended use of the custom-sawn lumber was not specifically requested in the interview. Several small mill owners emphasized that they only provided a service to the log owner, and what the owners did with the lumber was up to them (see Appendix B, *Summary of Interviews With Small Mill Owner/Operators*).

⁴ The architects contacted estimate that a *Letter of Suitability* would cost between \$600 to \$1,000, assuming they have the time and are willing to provide such a letter, but with no guarantee that the local Building Official would accept it.

Lumber Grading Bureaus

Six grading bureaus were contacted who have grade stamp programs accredited by the Board of Review, American Lumber Standard Committee⁵. Four of the six will provide on-site grading services for small sawmills and a *Certificate of Inspection*. The Western Wood Products Association (WWPA) provides grading services only to members of the WWPA and the Redwood Inspection Service does not provide grading services in Oregon or Washington.

The four grading bureaus that provide on-site grading services for portable sawmills reported doing so between three- and 20-times within the last 12 months. On-site grading services cost between \$350/day plus travel and \$500/day plus travel. Half-day rates are available from some grading bureaus, as well as discounted travel if the grader has more than one mill visit in the area.

Most lumber grading bureaus provide training for the same cost as on-site grading services. Training is only provided to stationary mills (i.e. fixed installations) because grading bureaus are required to perform random inspections to maintain accreditation. There is a minimum flat rate for grade stamp use of between \$250 to \$350/month. Most grading bureaus have “dormancy” programs that reduce monthly payments due to temporary mill closures, or suspend payments if grading stamps are turned-in (see Appendix B, *Summary of Interviews With Lumber Grading Bureaus*).

State Building Official Interview

Peggy Collins, State Building Official, stated that the *State of Oregon One- and Two-Family Dwelling Specialty Code* (International Code Council 2000) and *Oregon Structural Code* (International Conference of Building Officials 1998) offer Building Officials the latitude to accept alternate materials and methods of construction, so long as they accomplish the purposes intended by the code. Realistically though, most Building Officials require lumber used for structural products to have the appropriate grade stamp from an accredited grading bureau.⁶ The

⁵ The American Lumber Standard Committee develops voluntary product standards according to procedures published by the U.S. Department of Commerce, CFR Part 10, Title 15. Members are appointed by the Secretary of Commerce and include hardwood and softwood producers, distributors, and consumers. There is also a National Grading Rules Committee, which is responsible for developing and maintaining dimension lumber nomenclature and grade descriptions that conform to American Lumber Standard product standards (American Lumber Standard, 1999). Visual lumber grade design values are in Table 502.3(1) of the 1998 International One- and Two-Family Dwelling Code, as amended and adapted by the State of Oregon, Building Codes Division (International Code Council, 2000; 45-62);

⁶ Oregon One- and Two-Family Dwelling Specialty Code uses the following statement to introduce the chapters for *Floors, Wall Construction, Wall Covering, Roof-Ceiling Construction, and Roof Coverings*: “...The use of materials or methods of construction not specified in this chapter accomplishing the purposes intended by this code and approved by the building official in accordance with Section 108, shall be accepted as complying with this code.” Section 108 refers to *Alternate Materials and Systems*, which begins with: “The provisions of this code are not intended to limit the appropriate use of materials, appliances, equipment or methods of design or construction not specifically prescribed by this code, provided the building official determines that the proposed alternate materials, appliances, equipment or methods of design or construction are at least equivalent of that prescribed in this code in

willingness of a particular Building Official to approve structural products, such as custom-sawn lumber without grade stamps, will depend heavily on the experience and expertise of the individual.

Ms. Collins said a letter from a professional engineer or registered architect may be submitted to a Building Official to document the suitability of a particular lot of custom-sawn lumber for a specific structural application. It is up to the Building Official, however, whether or not to accept such a letter. If submittal of such a letter is approved, it must contain sufficient information to permit a professional evaluation whether or not a particular product meets required standards. For example:

- Intended Structural Purpose;
- Species and Moisture Content;
- Lumber Dimension (custom-sawn lumber is sometimes cut to full dimension rather than nominal);
- Lumber Quality (i.e. professional opinion about similarity to a certain lumber grade or clear descriptive language for someone familiar with grading rules to evaluate);
- Required Standard (e.g. design values);
- Clear Statement of Suitability for Intended Purpose.⁷

According to Ms. Collins, the question of “permit exemptions” may be confusing to small sawmill owners. The *State of Oregon One- and Two-Family Dwelling Specialty Code* (OTFDC) states that certain structures are exempt from permits and fees. However, even if a permit is not required, these structures have to comply with state and local building code provisions and ordinances, such as maximum bending stress for structural members (see OTFDC Section 111, *Permit*, for listing, and Oregon Revised Statute [ORS] 455.31[2] for authority).

Examples of structures exempted from permits and fees, and commonly-made with custom-sawn lumber, include (OTFCD, Section 111):

1. Porches and Decks – Porches and decks, where the floor or deck is not more than 30-inches above grade and the edge of the porch, deck or floor is not closer than 3-ft. from the nearest property line;
2. Patio Covers – Patio covers, not over 120 sq. ft. in area;
3. Interior Coverings - Interior wall, floor, or ceiling coverings (e.g. paneling and wainscot);
4. Nonbearing Partitions – Nonbearing partitions except when such partitions create habitable rooms;
5. Shelving and Cabinet Work;
6. Small Accessory Buildings – Non-habitable small accessory buildings not over 120 sq. ft. or 10-ft. measured to the highest point;

suitability, quality, strength, effectiveness, fire resistance, durability, dimensional stability, safety, and sanitation.”

⁷ One suggestion from a small mill owner who has previously obtained a *Letter of Suitability* was that the material be clearly designated so other lumber cannot be substituted, and that the manner in which it is designated is described in the *Letter of Suitability*.

7. Siding – Replacement or repair of siding not required to be fire resistant;
8. Reroofing – Reroofing, except in wildfire hazard zones or where replacement or repair of roofing does not exceed 30 percent of the required live load design capacity, and is not required to be fire resistant;
9. Fences – Fences not over 6-ft. in height, except for barriers around swimming pools;
10. Retaining Walls – Retaining walls not over 4-ft. in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge (i.e. force created by uphill soil and water).

Certain agricultural buildings do not require compliance with state structural specialty code:

...“agricultural building” means a structure located on a farm and used in the operation of such farm for storage, maintenance or repair of farm machinery and equipment or for the raising, harvesting and selling of crops or in the feeding, breeding, management and sale of, or the produce of, livestock, poultry, fur-bearing animals or honeybees or for dairying and the sale of dairy products or any other agricultural or horticultural use or animal husbandry, or any combination thereof, including the preparation and storage of the produce raised on such farm for human use and animal use and disposal by marketing or otherwise.” (ORS 455.315)

The definition of “agricultural building” does not include: 1) “dwelling”; 2) “...structure used for a purpose other than growing plants in which 10 or more persons are present at any one time”; 3) “...structure regulated by the State Fire Marshal...”; 4) “...structure used by the public”; or 5) structure subject to the National Flood Insurance Act of 1968, as amended. Incorporated cities may regulate agricultural buildings within their boundaries (ORS 455.315).

Small sawmill owners may have heard that owner-built dwellings and outbuildings are exempt from building code provisions. According to Ms. Collins, this is not exactly the case. For example, provisions in *Oregon Revised Statutes* exempt owner-built dwellings or outbuildings from certain structural code provisions, but these exemptions are limited in scope (i.e. ceiling height, room size, and maintenance of specific temperature levels). Owner-built is defined as a structure built by an owner who intends to occupy the structure, and by friends and relatives assisting on an unpaid basis. An owner-built structure still requires a building permit, which documents exactly what aspect of the dwellings or other structures do not comply with structural code provisions, which is attached to the permanent deed for the property (ORS 455.320).

Ms. Collins mentioned that another *Oregon Revised Statutes* provision that may be misinterpreted by small sawmill owners relates to the authority of counties to pass an ordinance to exempt owner-built dwellings from structural code. Counties are not allowed to exempt code provisions related to fire egress, fire retardant properties of materials used, smoke alarms and detectors, insulation and energy conservation, and maximum bending stress allowed by structural code for structural members (ORS 455.340). None of the Building Officials contacted reported knowledge or experience with such an ordinance for their jurisdictions.

Summary of Telephone Interviews

Thirty-two telephone interviews were conducted between March and September, 2000 with Building Officials in Columbia, Clatsop, and Tillamook counties and the State of Oregon, as

well as architects, engineers, small sawmill owners, and representatives of lumber grading bureaus. The purpose of the interviews was to gather information about past and present use of custom-sawn lumber in structures, methods to obtain Building Official approval of custom-sawn lumber for structural applications, and who to contact for more information or assistance.

Building Officials reported limited inspection experience with custom-sawn lumber. However, those interviewed said they were willing to accept custom-sawn lumber if it was graded and stamped on-site by a certified grader, and met building code requirements. Several Building Officials also expressed willingness to consider a letter from a registered architect or professional engineer documenting the suitability of a certain lot of custom-sawn lumber for a particular structural application (graded lumber was preferred though).

The architects and engineers interviewed also report limited experience dealing with custom-sawn lumber and structures. The majority of the architects expressed a willingness to consider providing a *Letter of Suitability* for custom-sawn lumber, but suggested a certified grader may be able to provide the necessary services at a lower cost.

Four lumber grading agencies are willing to provide on-site grading services for small sawmills. Costs of on-site grading services range between \$350/day and \$500/day plus travel. Half-day rates are also available. Training programs are only available for stationary sawmills (i.e. fixed installations) because grading bureaus must be able to perform random inspections to maintain accreditation.

The majority of the small sawmill owners interviewed report having cut lumber used in some type of structure at least once within the last five years. Sawmill owners who reported custom-sawing lumber for use in some type of structure within the last 12 months averaged seven jobs. The question used to interview small sawmill owners did not specifically request information about how the custom-sawn lumber was used (e.g. structural or appearance).

Peggy Collins, State Building Official, addressed several common misconceptions about the authority of local Building Officials, and permit and building code exemptions. Local Building Officials have authority to accept structural products. If a *Letter of Suitability* for a particular lot of custom-sawn lumber is obtained from a professional engineer or registered architect, certain information must be provided to allow a professional evaluation of the suitability of the lumber for a particular structural application. The local Building Official may or may not accept this letter, and it is always better to find-out before going through the time and expense to obtain such a letter.

The requirements for “building permit exemptions” can be confusing. For example, custom-sawn lumber is often used for decks and small accessory buildings. However, size and height of these structures cannot exceed building code provisions, and have to comply with state and local building code provisions and ordinances, such as maximum bending stress for structural members.

“Agricultural buildings” and “owner-built dwellings and outbuildings” building code exemptions are another source of confusion. The definition of “agricultural buildings” limits structural

specialty code exemptions to certain uses, and “owner-built dwellings and outbuildings” still require a building permit, and must comply with certain code provisions, such as maximum bending stress allowed for structural members.

Interpretation and Recommendations for Small Sawmill Owners

1. *Familiarity With Local Jurisdictional Differences* – Willingness of local Building Officials to consider custom-sawn lumber for certain structures and applications differ, as well as their willingness to consider a *Letter of Suitability* from an architect or engineer. Several local Building Officials stated their willingness to work with serious small portable sawmill owners on acceptable methods and documentation. If a small sawmill owner wants to provide additional services to log owners and landowners, there is no substitute for familiarity with local Building Official requirements, and local building code policy and practices (see either Appendix B, *Summary of Interviews With Building Officials*, for contact information, or Oregon Building Codes Division web site at www.oregonbcd.org).
2. *On-Site Grading by Certified Graders* – Most grading bureaus are interested in providing on-site grading services to small sawmills. From strictly an economic perspective, a log owner or lumber buyer interested in custom-sawn structural framing lumber should have at least two- to three-thousand board feet (nominal measurement) before bringing in a certified grader. Savings of up to \$100 per thousand board feet (compared to local retail prices) are projected for quantities over five- to six-thousand board feet (basis for comparison is retail cost of similar structural framing lumber). Most small sawmill owners emphasize, however, that the emotional satisfaction of using and displaying lumber and beams sawn from logs you own or harvested from your property is often the key deciding factor, not cost per thousand.⁸
3. *Familiarity With Basic Grading Rules* - Familiarity with basic grading rules will help small sawmill owners pre-sort for applications intended by the log owner, or whomever is buying the lumber. This will reduce the time a certified lumber grader needs to be on-site and potentially reduce costs (e.g. it usually takes a grader more time to grade for “highest grade” than for a couple of basic “construction grades”). Familiarity with grading rules may also help the log owner decide what markets to pursue, or if additional services, such as kiln drying, are economically feasible.
4. *Letter of Suitability* – A letter from a registered architect or professional engineer that documents suitability of a particular lot of custom-sawn lumber for a specific structural application is accepted by some Building Officials, but not others. The cost for the services of an architect or engineer may or may not be more than the cost for a certified grader, depending on billing rates, intended purpose for the custom-sawn lumber or beams, and quantities involved. A long-term relationship with an architect or engineer is encouraged to build understanding and trust, reduce cost of recurring and similar situations, and expand business opportunities and

⁸ “Break-even” point was calculated using low-end prices for 2X6 framing lumber of about \$390/MBF (No. 2 & BTR, Hem-Fir; Astoria; September 20,2000), and assuming \$250/MBF sawing costs and \$300 for grading services (half-day rate plus travel). No costs were included for falling or skidding logs because of widely varying circumstances and small volumes involved.

contacts. For example, architects and engineers may provide referrals or specify certain products that small sawmills can produce, such as beams and appearance products.

5. *Custom-Sawn Lumber Recovery and Grade Demonstrations* – Small sawmill owners may want to consider demonstrating grade recovery and various custom-sawn products from an average run of small woodlot logs for local Building Officials, architects, engineers, and small woodlot owners. Demonstrations may be more effective if a certified grader grades the lumber, and results documented and shared with Building Officials, architects, engineers, and small woodlot owners in Columbia, Clatsop, and Tillamook counties.

References

American Lumber Standard Committee

1999 *American Softwood Lumber Standard*. Voluntary Product Standard PS-20-99. National Institute of Standards and Technology. U.S. Government Printing Office, Washington, D.C. (43 pp).

International Code Council, Inc.

2000 *State of Oregon One- and Two-Family Dwelling Specialty Code* (based on 1998 Edition of the International One- and Two-Family Dwelling Code, as amended by the Oregon Building Codes Division, Salem). Falls Church, Virginia.

International Conference of Building Officials

1998 *State of Oregon Structural Specialty Code* (based on *Uniform Building Code*, 1997 Edition, as amended by the Oregon Building Codes Division, Salem). Whittier, CA (2 volumes).

APPENDIX A

Interview Questions

Use of Custom-Sawn Lumber in Structures
Columbia, Clatsop, and Tillamook Counties, Oregon

- Building Inspectors and Officials
- Engineers and Architects
- Grading Bureaus
- Small Mill Owners/Operators

Interview Questions for Building Inspectors and Officials

Use of Custom-Sawn Lumber in Structures Columbia, Clatsop, and Tillamook Counties, Oregon

Contact Information:

Name: _____

Jurisdiction: _____

Position: _____

Phone No.: _____

Address: _____

Interview Questions:

1. Are you aware of any custom-sawn lumber used in structures over the last 12 months? For what purpose?
How much?
 - A. If not within the last 12 months, how about the last five years?
2. What methods were used to obtain permission to use custom-sawn lumber?
3. What methods will you accept to satisfy structural lumber building code requirements?
4. Are you aware of any engineers or architects who are willing to provide a letter or other documentation for the suitability of custom-sawn lumber for a particular structural application?
5. Do you want to review a draft of the report in which the results of this informal survey will be summarized?
6. Are you interested in attending a meeting to discuss the results of this survey?

Interview Questions for Engineers and Architects

Use of Custom-Sawn Lumber in Structures Columbia, Clatsop, and Tillamook Counties, Oregon

Contact Information:

Name: _____

Company: _____

Professional Title/Certifications: _____

Phone No.: _____

Address: _____

Interview Questions:

1. Have you ever provided a letter documenting the suitability of custom-sawn lumber for a particular structural application?
 - A. If so, would you be willing to describe the situation?
 - 1) Species?
 - 2) Quantity of lumber and purpose?
 - 3) Cost for professional services?
 - B. How many times have you done this over the last 12 months? Last five years?

2. Is it OK for other people to contact you to discuss the possibility of this professional service?
 - A. If not yourself, are you aware of someone else who might provide this professional service?

3. Do you want to review a draft of the report in which the results of this survey are summarized?

4. Are you interested in attending a meeting to discuss the results of this survey? Do you know of others who would be interested in attending a meeting to discuss the results of this survey?

Interview Questions for Grading Bureaus

Use of Custom-Sawn Lumber in Structures
Columbia, Clatsop, and Tillamook Counties, Oregon

Contact Information:

Name: _____

Organization: _____

Position: _____

Phone No.: _____

Address: _____

Interview Questions:

1. Do you grade custom-sawn lumber?
 - A. If so, what is the process to obtain this service and its cost?
 - B. Can you provide examples where this has occurred?
 - C. Can you recall how many times over the last 12 months your organization has provided this service and where? How many times over the last five years and where?
 - D. Who is the appropriate contact for your organization for this service and how are costs determined?
 - E. What is the cost of training to obtain certification as a grader?
2. Have you heard or seen other methods used to obtain Building Official approval for use of custom-sawn lumber for a particular structural application?
3. Do you want to review a draft of the report in which the results of this informal survey will be summarized?
4. Are you interested in attending a meeting to discuss the results of this survey?

Interview Questions for Small Mill Owners/Operators

Use of Custom-Sawn Lumber in Structures
Columbia, Clatsop, and Tillamook Counties, Oregon

Contact Information:

Name: _____

Area Where Usually Work: _____

Position: _____

Phone No.: _____

Address: _____

Interview Questions:

1. Have you ever obtained grading services or letter from an engineer or architect for lumber intended to be used in a structure?
 - A. If so, would you be willing to describe the situation?
 - B. How many times have you provided custom-sawn lumber for use in structures within the last 12 months? Last five years?
2. Do you know of other ways to obtain local building department permission to use custom-sawn lumber for structural applications?
3. Is there someone you would recommend who is willing to grade custom-sawn lumber, or provide documentation acceptable to your local building inspector?
4. Are you interested in attending a meeting to discuss the results of this survey?
5. Do you know of others who would be interested in attending a meeting to discuss the results of this survey?

APPENDIX B

Interview Summaries

Use of Custom-Sawn Lumber in Structures
Columbia, Clatsop, and Tillamook Counties, Oregon

- Building Inspectors and Officials
- Engineers and Architects
- Grading Bureaus
- Small Mill Owners/Operators

Summary of Interviews With Building Inspectors and Officials
Use of Custom-Sawn Lumber in Structures
Joel Koch, Interviewer

<i>Date</i>	<i>Jurisdiction</i>	<i>Contact Information</i>	<i>Experience With Custom-Sawn Lumber Used in Structures?</i>	<i>Methods to Obtain Permission to Use Custom-Sawn Lumber in Structural Applications?</i>
9/00	Scappoose	Don Salee, Bldg. Inspector P.O. Box P Scappoose, OR 97056 503/543-7146 FAX 503/543-5679 Cell 503/267-9478	- None in last 12 months and twice in last five years for agricultural buildings;	- Will accept custom-sawn lumber graded and stamped by certified grader on-site;
3/00	Clatsop County and Seaside	Roger Converse, Formerly Bldg. Inspector 800 Exchange St. Astoria, OR 97103 503/738-7100 FAX 503/738-8765	- Single occurrence with five structures (one residence and outbuildings) (permission was obtained after-the-fact – owner used certified grader on-site);	- Will accept custom-sawn lumber graded and stamped by certified grader on-site;
9/00	Clatsop County	Rotating Assignment, State Building Staff (currently John Simoneau) 65 N. Hwy. 101, Suite F Warrenton, OR 97146 503/861-7140 FAX 503/861-7324	- Will get back with specific number;	- Will accept custom-sawn lumber graded and stamped by certified grader on-site, with clear documentation about species and moisture content;
9/00	Astoria and Warrenton	Tom Phillips, Bldg. Official P.O. Box 250 Warrenton, OR 97146 503/378-4459 FAX 503/861-2351 503/325-5821 (Astoria)	- None within last 12 months, but at least 100x within last 5 yrs. in ID;	- Will accept lumber graded and stamped by certified grader on-site;
8/00	Seaside	Bob Mitchell, Building Official	- None	- Will only accept custom-sawn lumber on-site if it is graded and stamped by certified grader (unless engineer or architect who

Summary of Interviews With Building Inspectors and Officials
 Use of Custom-Sawn Lumber in Structures
 Joel Koch, Interviewer

<i>Date</i>	<i>Jurisdiction</i>	<i>Contact Information</i>	<i>Experience With Custom-Sawn Lumber Used in Structures?</i>	<i>Methods to Obtain Permission to Use Custom-Sawn Lumber in Structural Applications?</i>
		989 Broadway Seaside, OR 97138 503/738-7100 FAX 503/738-8765		writes a "Letter of Suitability" is also a certified grader); - Suggested contact Peggy Collins, State Building Official, and ask for "interpretive ruling" if this is a major issue;
9/00	Cannon Beach	Tim Lindsey, Bldg. Official P.O. Box 368 Cannon Beach, OR 97110 503/436-0229 FAX 503/738-9385	- None within last 12 months and one situation within last five yrs. with reclaimed lumber sawn from salvaged beams (graded and stamped on-site);	- Will accept lumber graded and stamped by certified grader on-site;
9/00	Gearhart	Jim Bryant, Bldg. Inspector P.O. Box 2510 Gearhart, OR 97138 503/738-5501 FAX 503/738-9385	- None within last 12 months and once within last 5 yrs. for single family dwelling (framing lumber);	- Will accept lumber graded and stamped by certified grader on-site;
3/00	Columbia County	Richard Morse, Building Official Courthouse St. Helens, OR 97051 503/397-1501 FAX 503/366-3902	- None within last 12 months; once about 3 yrs. ago;	- Will accept lumber graded and stamped by certified grader on-site; - Letter from architect or engineer documenting that lumber meets provisions of Building Code for a particular application;
8/00	Tillamook County	Nancy Steiner, Building Official 201 Laurel Ave. Tillamook, OR 97141 503/842-3407 FAX 503/842-1819 email:	- None within last 12 months, but at least one occurrence within last 5 yrs.;	- Will accept lumber graded and stamped by certified grader on-site; - Letter from architect or engineer documenting that lumber meets provisions of Building Code for a particular application;

Summary of Interviews With Building Inspectors and Officials
 Use of Custom-Sawn Lumber in Structures
 Joel Koch, Interviewer

<i>Date</i>	<i>Jurisdiction</i>	<i>Contact Information</i>	<i>Experience With Custom-Sawn Lumber Used in Structures?</i>	<i>Methods to Obtain Permission to Use Custom-Sawn Lumber in Structural Applications?</i>
		nsteiner@co.tillamook.or.us		
3/00	Manzanita	Arn Sorgatz, Building Official P.O. Box 129 Manzanita, OR 97130 503/368-5343	- None within last 12 months, but at least one occurrence within last 5 yrs.;	- Would accept lumber graded and stamped by certified grader on-site; - Letter from architect or engineer, with special expertise or experience with wood structures, documenting that lumber meets provisions of Building Code for a particular application;

Summary of Interviews With Building Inspectors and Officials
Use of Custom-Sawn Lumber in Structures
Joel Koch, Interviewer

<i>Date</i>	<i>Jurisdiction</i>	<i>Contact Information</i>	<i>Experience With Custom-Sawn Lumber Used in Structures?</i>	<i>Methods to Obtain Permission to Use Custom-Sawn Lumber in Structural Applications?</i>
8/00	State of Oregon	Peggy Collins, State Building Official P.O. Box 14470 Salem, OR 97309-0404 503/373-1258 FAX 503/378-2322 Email peggy.a.collins@state.or.us	See Next Column	<ul style="list-style-type: none"> - Building Officials have authority to accept structural products, but will be “judgement call”, and partially depends on expertise and experience of particular building official; - It is up to the discretion of a Building Official whether or not to accept a letter from an engineer or architect concerning the suitability of custom-sawn lumber for an application that normally requires a grade stamp; - Letter from engineer or architect would have to include such information as intended purpose, species, description of lumber quality (either grade or other descriptive terminology), required standard (e.g. design values per code), and a clear statement whether or not in the judgement of the engineer or architect the material is adequate for the intended purpose; - Noted that agricultural buildings are exempted from state structural specialty code, but the language is fairly restrictive (ORS 455.325); - Noted that counties may issue ordinance to exempt owner-built dwellings in rural areas from structural code (ORS 455.330), with the exception of code requirements for maximum bending strength allowed for structural members; - Some examples of where building permits may not be required (but all applicable code provisions still apply, depending on local jurisdictions) include: 1) Porches and decks not more than 30-in. above grade and no closer than 3-ft. from property line; 2) Patio covers not over 120 sq. ft. in area; 3) Interior walls (non-load bearing), floor, or ceiling coverings; 4) Non-bearing partitions, except when such partitions create habitable rooms; 5) Nonhabitable small accessory buildings not over 120 sq. ft. in area or 10-ft. at the highest point; 6) Door and window replacements; 7) Replacement or repair of siding not required to be fire resistant; and 8) Fences not over 6-ft., except for around swimming pools; (ORS 455.310 and 2000 Oregon One- and Two-Family Dwelling Specialty Code, Section 111, Permit);

Summary of Interviews With Engineers and Architects
Use of Custom-Sawn Lumber in Structures
Joel Koch, Interviewer

Interview Date	Company Name	Contact Information	Custom-Sawn Lumber "Letter of Suitability"			Are You or Someone You Know Available to Provide Similar Letter as Professional Service?
			Previous Experience With Similar Letter?	If "Yes", Description of Situation?	How Often Provide Service?	
3/00	Rankin Engineering	Jim Rankin, Architect 679 E. Harbor Warrenton, OR 97146 503/861-0779	No	- Not available for such a service;	Not Applicable	Not Applicable
3/00	Fedco Engineering	John Fung, Licensed Mechanical Engineer 32238 Coal Creek Rd. Scappoose, OR 97056 503/543-3398	No	- Not available for such as a service;	Not Applicable	Not Applicable
3/00	John Low Consulting Engineers, Inc.	John Low, Structural Engineer 27448 NW St. Helens Rd. Scappoose, OR 97056 503/543-3123	No	- Have not been contacted for "Letter of Suitability", but would be willing to consider such a proposal;	None Yet	- Willing to be contacted to discuss such a service;
8/00	Philip Thompson, Architect (also interviewed by Larry Swan, U.S. Forest Service)	Philip Thompson, Architect 33470 Chinook Plaza Scappoose, OR 97056 503/593-2000 FAX 503/543-7362	No	- May be available for such a service, but suggests that certified grader may be cheaper (estimates would take about six hours total to visit site, inspect lumber and lumber production, and write-up appropriate letter – professional fee would be \$100/hr * 6 hrs. = \$600);	None Yet	- Willing to be contacted to discuss such a service;
3/00	Tevis Dooley, Jr., Architect	Tevis Dooley, Jr., Architect P.O. Box 46 Cannon Beach, OR 97110 503/436-1883	No	- May be available for such a service;	None Yet	- Willing to be contacted to discuss such a service;

Summary of Interviews With Engineers and Architects
Use of Custom-Sawn Lumber in Structures
Joel Koch, Interviewer

<i>Interview Date</i>	<i>Company Name</i>	<i>Contact Information</i>	<i>Custom-Sawn Lumber "Letter of Suitability"</i>			<i>Are You or Someone You Know Available to Provide Similar Letter as Professional Service?</i>
			<i>Previous Experience With Similar Letter?</i>	<i>If "Yes", Description of Situation?</i>	<i>How Often Provide Service?</i>	
8/00	Tom Bender, Architect	Tom Bender, Architect 38755 Reed. Rd. Nehalem, OR 97131 503/368-6294	No	- Only related experience is one incident with structural use of Douglas-fir in roundwood form; - Suggests that certified grader would be cheaper - If he was willing, estimates his professional services would cost \$500 to \$600;	Once in last 12 months;	- Is not interested in providing such a service at this time;
3/00	Doug Warman, Architect	Doug Warman, Architect 15000 NE 88 th Court Battle Ground, WA 360/576-8801	No	- May be available for such a service;	None Yet	- Willing to be contacted to discuss such a service;
3/00	Robert Johnson, Architect	Robert Johnson, Architect P.O. Box 506 Cannon Beach, OR 97110 503/436-9680	No	- May be available for such a service;	None Yet	- Willing to be contacted to discuss such a service;

Summary of Interviews With Grading Bureaus

Use of Custom-Sawn Lumber in Structures

Joel Koch, Interviewer

Interview Date	Grading Bureau	Contact Information	Custom-Sawn Lumber Grading			Other Methods to Obtain Structural Approval?
			Yes/No	Process to Obtain Grading Service? (Note: Fees for on-site grading subject to change.)	How Often Perform Service for Portable Sawmills?	
3/00 9/00	Pacific Lumber Inspection Bureau	Jeff Fantozzi, Mgr., 33432 First Way South, Suite 300 Federal Way, WA 88003 253/835-3344 FAX 253/835-3371 Email plib@foxinternet.com	Yes	- Service available for \$350/day plus travel (\$0.33/mi. plus actual expenses); - Sawmill must provide person to assist and, if necessary, a fork lift or other equipment; - Training available for stationary mills for \$350/day plus travel; - Stamp use costs \$350/month min., or \$0.235/MBF if production over 1.67 MMBF. Possible to turn-in stamps for mill shut-downs and similar circumstances, but try and discourage “in and out” participation; - 2 graders available for OR & WA;	Est. 5-6x in last 12 months; 5-6x per year over last 5 yrs.;	None known, besides using another grading bureau accredited by American Lumber Standard Committee;
3/00 9/00	West Coast Lumber Inspection Bureau	Jim Kneaper, Ops. Mgr. P.O. Box 23145 Portland, OR 97281-3145 503/639-0651 FAX 503/684-8928	Yes	- Service available for \$500/day (\$250/ half-day) plus mileage (\$0.325/mi.) (no mileage charge for up to 100 mi.); - Sawmill expected to provide person to assist and, if necessary, a fork lift or other equipment; - Training available for stationary mills for \$500/day plus mileage (\$0.325/mi.); - Stamp use costs \$310/month min. or \$0.31/MBF for more than 1 MMBF production. There is a \$960 refundable deposit. Inactive status is \$50/month and there is a “dormancy” program (turn-in stamps); - Field staff available to provide service;	Est. 20x in last 12 months; 100x or more over last 5 yrs.;	None known, besides using another grading bureau accredited by American Lumber Standard Committee;

Summary of Interviews With Grading Bureaus
Use of Custom-Sawn Lumber in Structures
Joel Koch, Interviewer

Interview Date	Grading Bureau	Contact Information	Custom-Sawn Lumber Grading			Other Methods to Obtain Structural Approval?
			Yes/No	Process to Obtain Grading Service? (Note: Fees for on-site grading subject to change.)	How Often Perform Service for Portable Sawmills?	
3/00 9/00	Timber Products Inspection	Casey Dean, Director, Western Operations 105 SE 124 th Ave. Vancouver, WA 98684 360/449-3138 FAX 360/449-3953 Email: tpwest@mindspring.com	Yes	- Service available for \$480/day plus travel time and expenses (\$60/hr. plus \$0.30/mi.); - Sawmill expected to provide person to assist and, if necessary, a fork lift or other equipment; - Training available for stationary mills for \$480/day plus travel time and expenses (\$60/hr. plus \$0.032/mi.); - Stamp use costs \$250/month min. or \$0.32/MBF, whichever is more;	Est. about 20x in OR and WA within last 12 months; 100x or more over last 5 yrs.;	None known, besides using another grading bureau accredited by American Lumber Standard Committee;
3/00 9/00	California Lumber Inspection Service	George Reinking, Owner 420 W. Pine St., Suite 10 Lodi, CA 95240 209/334-6956 FAX 209/334-6970	Yes	- Service available for \$500/day plus travel (\$0.35/mi. plus actual expenses); - Sawmill expected to provide person to assist and, if necessary, a fork lift or other equipment; - Training available for stationary mills for \$500/day plus travel (\$0.35/mi. plus actual expenses); - Stamp use is \$275/month for less than 1 MMBF production and \$0.28/MBF for more than 1 MMBF production (have "dormancy" program for non-operational mill for \$100/month, or can turn-in stamps during temporary mill closure); - Inspector in Corvallis area;	Est. 3x in last 12 months in OR; 20x-30x over last 5 yrs.;	None known, besides using another grading bureau accredited by American Lumber Standard Committee;
3/00	Western Wood Products Association	Jim Mathews 522 SW 5 th Ave., #400 Portland, OR 97204 503/224-3930	No	- Have to be member of WWPA for services; minimum cost of use of stamp is \$325/month, and \$0.325/MBF after first MMBF (does not include initial grader training, refresher courses, and costs of stamps and ink);	None	None known, besides using another grading bureau accredited by American Lumber Standard Committee;

Summary of Interviews With Grading Bureaus
Use of Custom-Sawn Lumber in Structures
Joel Koch, Interviewer

Interview Date	Grading Bureau	Contact Information	Custom-Sawn Lumber Grading			Other Methods to Obtain Structural Approval?
			Yes/No	Process to Obtain Grading Service? (Note: Fees for on-site grading subject to change.)	How Often Perform Service for Portable Sawmills?	
3/00	Redwood Inspection Service	405 Enfrente Dr., Suite 200 Novato, CA 94949 415/382-0662	No	- Not Applicable – Do not provide inspection services in either Oregon or Washington;	Not Applicable	Not Applicable

Summary of Interviews With Small Mill Owner/Operators
Use of Custom-Sawn Lumber in Structures
Joel Koch, Interviewer

Interview Date	Company Name	Contact Information	Grading Services or Custom-Sawn Lumber “Letter of Suitability”		Frequency Saw Lumber for Use in Structures?	Methods Used to Obtain Local Bldg. Dept. Permission for Use of Custom-Sawn Lumber?
			Previously Obtained?	If “Yes”, Description of Situation?		
3/00	D&E Custom Lumber	Emery (Mark) Neale 38351 Hwy. 30 Astoria, OR 97103 503/325-2086	Yes	- Obtained grading services from West Coast Lumber Inspection Bureau for custom-sawn beams for bldg. in Philadelphia, PA;	Estimate 10x in last 12 months; Estimate 20x in last 5 yrs.;	- Only way know is to pay for grading bureau services;
3/00	Christiansen	Mike Christiansen 8494 Trask River Rd. Tillamook, OR 97141 503/842-1033	No	- Not Applicable	Estimate 8-12x in last 12 months; Estimate 50x in last 5 yrs.;	- Only way know is to pay for grading bureau services;
3/00	Herlamann	Scott Herlamann 12805 Old Woods Rd. Cloverdale, OR 97112	No	- Not Applicable	None	- No response;
3/00	Sorber	Vern Sorber 31191 Pittsburg Rd. St. Helens, OR 97051	No	- Not Applicable	None	- None known;

Summary of Interviews With Small Mill Owner/Operators
 Use of Custom-Sawn Lumber in Structures
 Joel Koch, Interviewer

Interview Date	Company Name	Contact Information	Grading Services or Custom-Sawn Lumber "Letter of Suitability"		Frequency Saw Lumber for Use in Structures?	Methods Used to Obtain Local Bldg. Dept. Permission for Use of Custom-Sawn Lumber?
			Previously Obtained?	If "Yes", Description of Situation?		
		503/397-1284				
3/00	Bond	Tyler Bond 19197 Mallory Park Rd. Clatskanie, OR 97016 503/728-3193	Yes	- Obtained letter from Gene Strader, Professional Engineer (309 Oak St., Kelso, WA, 360/423-0130) for framing lumber;	Estimate 2x in last 12 months; Estimate 12x in last 5 yrs.;	- Also can obtain services of certified grader,
3/00	Kelly	Tim Kelly R. 4 Box 823 Astoria, OR 97103 503/458-5516	No	- Not Applicable	None	- None known;
3/00	Leach	Al Leach 3811 3 rd St. Tillamook, OR 97141 503/842-2846	No	- Not Applicable	None for last 12 months; Estimate 5x or 6x over last 5 yrs.;	- Only way know is to pay for grading bureau services;