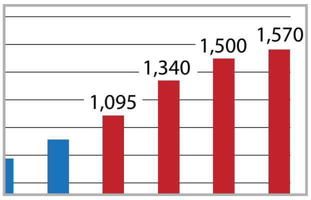
ENGINEERED WOOD Journal

SPRING 2014



BETTER TIMES AHEAD

The (Slowly) Recovering Engineered Wood Products Industry

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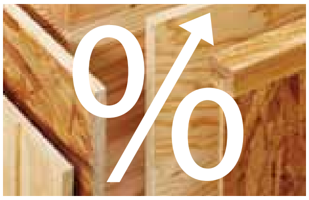

CAUTIOUS OPTIMISM

Business Outlook Survey Suggests Continued Confidence

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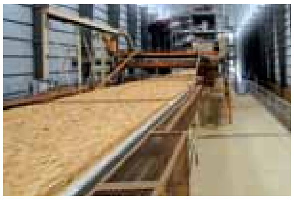

WORKERS WANTED

As Housing Heats Up, Demand for Skilled Workers Increases

PAGE 36

THE OFFICIAL PUBLICATION OF THE ENGINEERED WOOD TECHNOLOGY ASSOCIATION

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ENGINEEREDWOOD *Journal*

ENGINEERED WOOD JOURNAL
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About the Cover:
Glulam beams (manufactured by APA member American Laminators) create the arched curve profile of the roof (designed and erected by Western Wood Structures) of the LeMay Car Museum in Tacoma, Wash. The 165,000-sq-ft museum opened in the spring of 2012.

EWTA

STRENGTH THROUGH CONNECTIONS

departments

features

PRIME *lines*

"Better times lie ahead"

Plenty of optimism can be found in the pages of this issue of the *Engineered Wood Journal.* New APA President Ed Elias offers a look ahead at the engineered wood industry in 2014 from APA's perspective, noting that growth in the construction markets is expected to continue for several years. That said, confidence among consumers and builders is still fragile, Elias noted, and challenges – from a tight lending market to labor issues – remain.

Former APA Market Research Director Craig Adair, meanwhile, contributes an industry outlook beginning on page 16, detailing the housing recovery but pointing out that it won't be as quick as economic recoveries in the past. Adair's overall message, however, is positive: "Better times lie ahead."

Membership Climbing

At press time, membership was at 97 member companies – above expectation for this time of year. New and returning members are welcomed on page 42, and the EWTA Membership Directory (included in this issue) gives full descriptions of these as well as existing members.

The high level of membership should come as no surprise. Single and multi-family housing starts are up 16 percent from 2013, and the news brings reports daily of an economy that is slowly – but finally – climbing out of the recession.

Our members are also telling us that business has been improving. EWTA's latest annual Business Outlook Survey indicates that 85 percent of respondents feel their wood-related business improved in 2013 over the year before. Employment levels rose in 2013 as well, members said, with 56 percent reporting an increase in wood-related business employment in 2013, compared to 41 percent in 2012. Member responses were a little less bullish with regard to business growth and employment levels this year, but overall, spirits seemed bright. See the complete survey results beginning on page 22.

New Email

If you've been in contact with any of us at EWTA recently, you may have noticed that our email addresses have changed. Now, instead of emailing us at apawood.org, we're at engineeredwood.org. Just a little adjustment to underscore our ongoing connection to the engineered wood industry.

Find all our new email addresses on page 45 of this issue. And keep in touch!

Sheila Cain
scain@engineeredwood.org

Structural Panel, Engineered Wood Production Up Again Last Year

Structural panel production in North America was 29.9 billion sq. ft. in 2013, APA reported in January; up 7.6 percent from 2012. OSB led the increase in panel production, rising 11.8 percent while plywood output increased 1.3 percent. Apparent consumption of structural panels rose 7.7 percent, with consumption in the United States up 10.5 percent. Engineered wood products output in North America was also up across the board. Glulam production increased 11.7 percent, I-Joists 12.6 percent and LVL 14.4 percent.

The production increase coincides with a rise in U.S. housing starts, which totaled 926,700 in 2013; an increase of 19 percent from 2012.

The National Association of Home Builders (NAHB) is forecasting a nearly 25 percent gain in total housing starts in 2014 with a 32 percent increase in the single-family category. In its early January forecast, NAHB predicted 1.15 million single-family and multifamily starts in 2014 and 1.51 million in 2015. APA's latest forecast is for 1.10 million in 2014 and 1.29 million in 2015.

Comments Taken On Proposed EPA Regulations

The Composite Panel Association (CPA), with APA, submitted extensive public comments recently criticizing the Environmental Protection Agency's proposed formaldehyde emissions regulations for ignoring specific Congressional directives and the established model in use by the California Air Resources Board (CARB).

The proposed rules, released for public comment in May, are intended to implement the Formaldehyde Standards for Composite Wood Products Act, signed by President Obama in 2010.

Beginning in 2009, CPA and a broad coalition of industry, environmental and health care groups, including APA, championed the national standard to promote environmentally sound products, consistent regulation of industry, and a level playing field that ensures compliance by imports. CPA's recent comments are contained in its second of two filings on the two-part EPA rulemaking and address the definitional and implementation aspects of the agency's proposals.

During the joint CARB/EPA public comment meetings, APA has provided specific language to the draft revision of the CARB regulation to assure clarity that structural wood products are not included within the scope of products covered.

APA President Among Symposium Speakers

APA President Ed Elias is one of two keynote speakers at the 48th Annual International Wood Composites Symposium – a joint symposium offered by Washington State University and APA - The Engineered Wood Association April 30 to May 1 at the Red Lion in downtown Seattle.

Tom Julia, president of the Composite Panel Association, will be the other keynoter.

The event offers an industry-driven forum for wood composite product customers, producers, suppliers and researchers on global regulatory changes, fiber supply issues and the latest product and process improvements for the engineered wood products industry.

The event includes talks from a number of industry experts, including Andrew Jowett of IMAL-PAL Inc. and Chris Whelan of Henkel Purbond, both EWTA member companies.

For more information or to register, visit woodsymposium.wsu.edu.

Plywood Coalition Files Appeal in Trade Decision

The Coalition for Fair Trade of Hardwood Plywood filed a complaint Feb. 18 with the U.S. Court of International Trade asking for a review of the International Trade Commission's (ITC) ruling in the Chinese hardwood plywood anti-dumping case.The complaint alleges the decision was not supported by substantial evidence.

The complaint follows a summons that was filed by the coalition of plywood manufacturers 30 days earlier.

The trade case was initiated on September 27, 2012 when petitioners alleged that Chinese imports are sold in the United States at prices below cost and are subsidized by the Chinese government. Although the Commerce Department determined that producers in China were engaged in unfair trading of the product, on November 5, 2013, the ITC ruled unanimously against the petitioners' case, finding that the unfairly traded imports were not a cause of material injury to domestic manufacturers.

Raised in the February complaint are determinations on the substitutability of Chinese and U.S. hardwood plywood, price depression from Chinese imports, the severe economic harm to the U.S. industry from Chinese hardwood plywood dumped into the U.S. market and the use of illegally sourced wood in these Chinese products. The complaint asks the court to remand the decision back to the ITC for reconsideration.

Next steps include the scheduling of briefs and an oral argument in the U.S. Court of International Trade. Jeff Levin, counsel to the U.S. producers coalition, said this would most likely occur no sooner than this summer.

Green Building Initiative Names New President

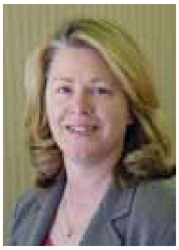
The Green Building Initiative (GBI) has named Jerry Yudelson as its new president. Yudelson will oversee the ongoing development, expansion and marketing of GBI's green building rating system, Green Globes.

Formerly the president of Yudelson Associates, a green building consulting firm in Tucson, Ariz., Yudelson achieved recognition as a Leadership in Energy and Environmental Design (LEED) Fellow and chaired the steering committee for Greenbuild, an annual green building conference and expo, which he helped grow during its first eight years.

Yudelson is a professional engineer and an engineering graduate of Caltech and Harvard University. He also holds an MBA from the University of Oregon.

SFPA Board Names New Executive Director

The Southern Forest Products Association Board of Directors has appointed Tami Kessler as executive director.



Tami Kessler

Kessler most recently served the association as corporate secretary and director of administration. She joined the SFPA staff in 1976 and has held many positions within the association, including two terms as director of SFPA's Forest Products Machinery and Equipment Exposition.

"Knowing what she does about our daily operations, she is well prepared to manage the future progress of our association," said SFPA Chairman Joe Kusar in a press release.

In Memoriam

Ellis Spencer Martin

Ellis Spencer Martin, the eldest son of Louisiana lumber industry pioneer Roy O. Martin and father of APA trustee Jonathan Martin, died on October 18, 2013, in Alexandria, La. He was 96. He was only 19 when his father sent him to manage Martin Timber Company in Castor, La. Mr. Martin was president of Martin Timber Company until 1974. He became president of Roy O. Martin Lumber Company, and later chairman and CEO, until his retirement in 2004.

Paul Cole

Paul Cole, retired CEO of Rosboro LLC, died Sept. 15 in Eugene, Ore. He was 86. He started working for Rosboro Lumber Company as a seasonal employee when he was a teenager and ultimately became a full-time employee in the sales department. He served as general manager and CEO from 1958 to 2001. He remained an owner of the company and board member and worked part time in an advisory capacity until his retirement from Rosboro on June 30, 2010. He was a member of the APA Board of Trustees from 2003 to 2007 and also served as member and chairman of the APA Glulam Management Committee.

Looking Forward

New APA President Offers Engineered Wood Outlook for 2014

Editor's Note: Ed Elias, APA's new president, discusses the state of the housing market in 2014, APA's approach to changing market scenarios, and the evolving relationship between EWTA and APA. Elias, a 35-year APA veteran, has served in numerous technical, financial and international marketing roles during his tenure with the association. Portions of this question and answer article appeared in the December 2013 issues of **Building Products Digest** *and* **Merchant** *magazines.*

Ed Elias

What expectations does APA have for the housing market in 2014?

We're cautiously optimistic that we'll see both increased U.S. housing market demand and global economic growth this year. The economy is slowly improving, and the housing market is recovering in many areas.

APA is forecasting 1.1 million housing starts in the U.S. in 2014, up 16 percent from an expected 945,000 starts in 2013. In Canada, we are expecting overall housing starts to remain similar to 2013 at 187,000.

That being said, confidence among consumers and builders is still fragile, and challenges, from a tight lending market to labor issues, remain. Of particular note is the fact that multi-family construction is up 32 percent compared with single-family starts up 16 percent for 2013. This trend is expected to continue for several years. The driving force for this expectation is the assumption that as household growth among young people picks up, their first move is going to be into a rental apartment and not toward the purchase of a single-family house.

On the positive side, home prices are higher by 12 percent relative to a year ago. Real gross domestic product is expected to average 2.8 percent through 2018, which is potentially high enough to improve the employment rate to levels where housing starts could be as high as 1.0-1.2 million units per year by 2015. By 2018, APA forecasters are projecting that single family housing starts could reach 1.05 million per year and multi-family starts could reach 0.5 million per year.

Demand growth in other end-use sectors, such as repair and remodeling, nonresidential construction and industrial markets, is expected to average 3 percent in 2014.

How will APA approach these changing market scenarios?

As an association, it means keeping a focus on our core goals and services while remaining open to opportunities to expand our programs to new and developing engineered wood products and systems.

Specifically related to housing, APA is pursuing the maintenance and expansion of structural wood-based panel wall sheathing. But we have also continued to support the growth of engineered wood floor systems, reduced callbacks through installation education and the proper specification of standard compliant products by engineers, architects and builders. By way of an example, through our APA Simplified Wall Bracing program, we are promoting the value proposition for the use of fully sheathed walls in low to moderate wind zones (up to 100 mph wind speeds). Four states incorporated these provisions into their building codes this past year: North Carolina, Georgia, Idaho and Montana.

The association has also promoted the expanded application of wood structural panel sheathing used in combination with systems other than foam sheathing to meet energy code and structural building requirements through our Advanced Framing construction program.

More at the trade level, we have also focused on expanding the technical information available on mobile platforms such as iPhones, iPads and Android devices. Basic mobile Builder Tips related to the prevention of panel buckling, proper panel and nail spacing, squeaky floors and care and handling of stock on the building site were successfully introduced in 2013.

What are the biggest challenges for engineered wood manufacturers in the present economy and marketplace?

Recovering from our recent recession, there are no shortages of challenges. Overall market demand remains the primary challenge faced by the North American engineered wood products industry. North American structural wood panel production in 2013 is forecast to reach 21.3 billion square feet on a 3/8 inch thickness basis. We remain well below the 43 billion square feet of production during 2005 and the peak of our housing market that totaled 2.3 million housing starts that year.

Government fiscal policy is a challenge that we cannot directly address but that clearly impacts labor markets, interest rates and consumer confidence. We believe that the trend of depressed employment rates across all age classes, most notably those in the under-35 age group, continues to adversely impact household growth and homeownership.

Global supply and demand of wood products may also impact future consumption patterns of North American construction materials. The cost of raw materials and labor and the availability of transport for product distribution will need to be balanced against trade policies between developing and developed nations. Competitive use of wood fiber for nonstructural applications such as wood pellets to meet clean energy targets could also impact the future availability. Other potential constraints deal with expanding regulatory concerns on formaldehyde emissions and those of methanol, as well as green building legislation.

There are no shortages of challenges. Prioritizing them will be a key role of APA, its Board of Trustees and membership.

What's the industry production forecast for 2014 and beyond? Which categories are expected to be the strongest performers?

We are forecasting U.S. and Canadian plywood and OSB production to rise by 1.9 billion sq. ft., reaching 25.7 billion sq. ft. – an increase of 9 percent from 2013. By 2018, U.S. and Canadian structural wood panel production is expected to reach 27.4 billion sq. ft.

North American production of glued laminated timber, structural composite lumber and wood I-Joists is also forecast to improve by 5 percent, 12 percent and 7 percent, respectively. Glulam demand in North America is expected to grow from 251 million board feet in 2013 to 328 million board feet in 2018. Structural wood I-Joist production is expected to grow from 625 lin. ft. in 2013 to 887 million lin. ft. in 2018. Laminated veneer lumber volumes will increase from 61.5 million cu. ft. in 2013 to 79.8 million cu. ft. in 2018.

The increase in housing starts is expected to be the main driver for this increasing demand for engineered wood in North America. We also believe that recovery in the non-residential construction market will lag behind but follow home building. In this latter sector, we expect to see a 31 percent growth in engineered wood product demand by 2018 compared with 2013.

What specific programs and resources can APA and EWTA members expect from APA in 2014?

APA continues to be guided by a three-year strategic plan developed under the guidance of the APA Advisory Committees and the APA Board of Trustees. In 2014, we will be working with the Board to develop a set of new strategic initiatives for the 2015-2017 APA Strategic Plan. Program elements will focus on:

- Expanded brand recognition of APA member products and their proper specification and application.
- Delivering value to the membership of APA and EWTA (Engineered Wood Technology Association) through enhanced quality services to member mills, a focus on expanding association capabilities in technical research and testing, protection against regulatory threats, and improved market access and education of design professionals and end-users.
- Promotion of initiatives that strengthen APA and EWTA through strategic partnerships with organizations that share common goals and extend our industry's influence.

Meanwhile, highlights from the 2014 APA Strategic Marketing Plan include:

- Promoting the cost-effective use of structural wood wall sheathing to meet state energy and building codes.
- Promotion of continuously sheathed wood structural panel walls to builders and code officials through field calls, publicity, seminars and publications.
- Promotion of the specification and proper application of engineered wood products in APA wall, roof and floor systems both in residential as well as commercial construction applications. The latter will be in conjunction with the industry-wide Woodworks campaign and APA's Designer Circle program directed at building and design professionals.
- Increased incorporation of web-based programs, mobile applications and social media (e.g. YouTube videos) to influence target audiences. The expanded use of webinars, enhancements to PerformancePanels.com directed at industrial users, and promotion of APA's Advanced Framing program details through PerformanceWalls.org are three specific examples.

What role do you see for APA's related supplier organization, the Engineered Wood Technology Association, in 2014?

We have recently begun discussions within our Board of Trustees about how to more effectively leverage the partnership between APA and EWTA, particularly in expanding the voice of the industry. Most recently, expanding this voice has focused on maintaining and increasing the membership and networking between both organizations. In pursuit of that goal, we have been very successful. EWTA's membership base is strong and the membership that APA represents, across all member product lines, is larger than has ever been achieved before. Now we are looking at how to use that networked base of combined membership strategically, and that's where EWTA will become more relevant.

We envision APA partnering with ETWA on an expanding base of strategic initiatives. This increased partnership may take any of several forms. Many years ago, EWTA – then the Plywood Research Foundation and later the Engineered Wood Research Foundation – partnered with APA members in a narrow focus on academic research that addressed efficiencies in product manufacturing. Clipper studies on veneer recovery and the successful gluing of Southeast Asian species are two examples. Later, EWTA engaged with APA on the expanding regulatory front as we faced wood dust and formaldehyde issues.

EWTA's expanded membership and activities are now positioned to support a new list of APA member needs, including advanced processing technologies, environmental compliance, product labeling and even personnel recruitment. The relationship between APA and EWTA has increasingly been directed more towards networking. Now, we're looking again at how the two groups can be more strongly aligned on broader industry goals to increase the demand for engineered wood products and structural wood-based panels as we initiate recovery from the most recent recession.

BETTER TIMES AHEAD

The (Slowly) Recovering Engineered Wood Products Industry

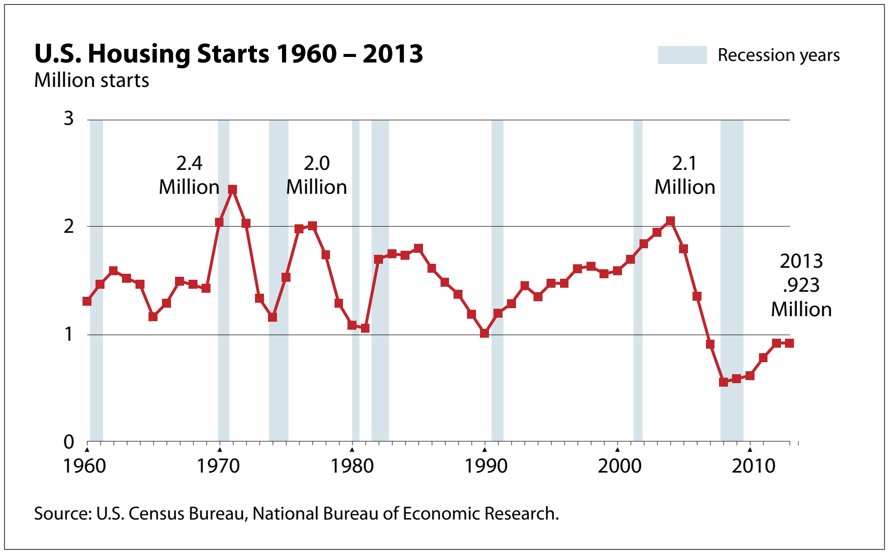
by Craig Adair

According to the National Bureau of Economic Research, the U.S. economy ended an 18-month recession in June of 2009 – the eighth such economic downturn since 1960. It wreaked havoc on end-use markets for all wood products. The recession's chronology has been well-documented and includes a subprime mortgage crisis, falling housing prices, a global financial crisis, collapse of large financial institutions and numerous attempts to stimulate the U.S. economy.

Housing starts reached a multi-year low in 2009, along with North American production of structural panels, glulam timber, I-joists and LVL. Since the end of the recession, recovery has been much slower than expected. Structural panel production has yet to experience 10 percent year-over-year growth since 2009. The typical formula for recovery includes lower interest rates that stimulate demand for single-family homes and quickly pull the forest products industry out of recession. But it hasn't worked this time.

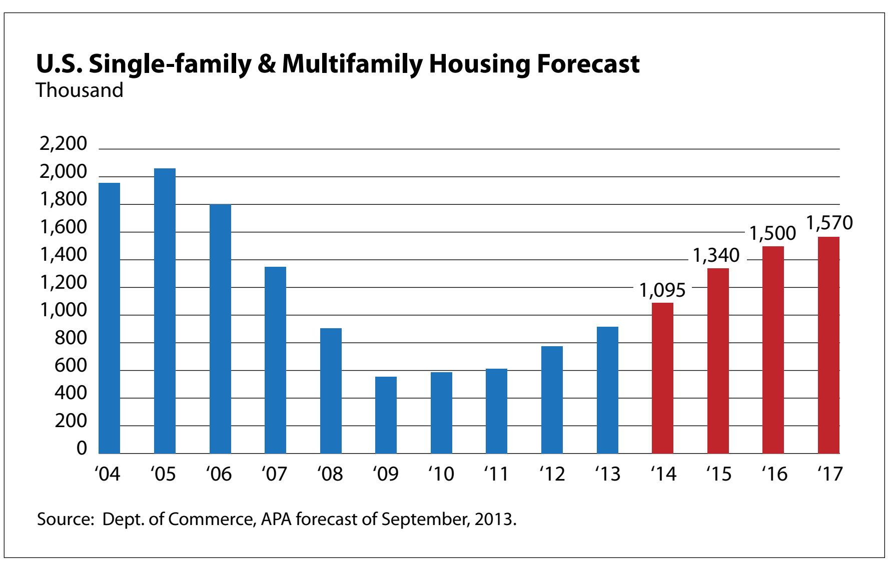
After nearly every major economic downturn since 1960, housing has boomed as low interest rates worked their magic. Unfortunately, our most recent "Great Recession" had deep financial roots and an over-supply of housing with starts increasing for 11 out of 13 years up to and including 2005. U.S. single-family and multifamily starts totaled just 923,400 in 2013. This was less than all of the recession low points since 1960.

What's the takeaway from this analysis? One is that the Great Recession was unusual and, with steps taken to avoid future financial debacles and provide a safer mortgage market, future recessions may be less severe and more like recessions in the past half-century. Another takeaway is that if engineered wood products can continue to diversify into markets other than new residential construction, they'll have a better chance of weathering future storms with less financial impact. Better times lie ahead.



Housing Outlook

The outlook for a continued housing rebound still looks favorable. However, the rebound is expected to be slow and cautious compared to past recession revivals, just as the overall economy is expected to rebound slowly. There are still headwinds and uncertainty related to job creation, the Federal Housing Administration's lower loan limits and the Fed's unwinding of their huge securities-buying strategy. While 2013 U.S. housing starts were lower than those in years of past recession low points, they did represent an 18 percent increase from 2012.



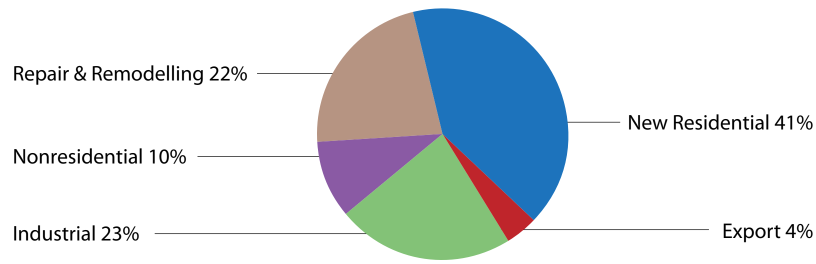
The National Association of Home Builders (NAHB) is forecasting a nearly 25 percent gain in total housing starts in 2014 with a 32 percent increase in the single-family category. In its early January forecast, NAHB predicted 1.15 million single-family and multifamily starts in 2014 and 1.51 million in 2015. APA is forecasting 1.1 million in 2014 and 1.34 million in 2015. Others are anticipating as much as 1.25 million in 2014 and 1.5 to 1.6 million in 2015.

By 2017, we should be approaching what many believe is the underlying demand for housing. Harvard's Joint Center for Housing Studies pegs underlying demand at about 1.60 million housing units, including manufactured homes. Their analysis takes into account population growth, net migration, housing demolition and demand for second homes. The U.S. has already experienced seven years of housing production below underlying demand. With this pent-up backlog, it's possible that once 1.6 million is reached, the average level of starts could remain above this level for several years. Of course, housing will still be subject to cycles related to the overall economy.

Housing is the largest market for engineered wood products. However, residential repair and remodeling, nonresidential construction, industrial uses and exports are also important. Representing 41 percent of the structural panel end-use market, new residential construction is by far the most important market and, at the peak of the recent housing boom, represented 50 percent of structural panel demand.

Industrial markets, which include furniture manufacturing and other end uses where engineered wood may be used as a component of another product, picked up fairly quickly when the recession ended and remain healthy. The repair and remodeling markets have experienced the same slow growth as the overall economy. Big ticket remodeling projects have been delayed until there is more disposable income. Nonresidential construction declined after the housing collapse and is just now showing signs of life. Exports of structural panels and other products are dependent on demand in many countries around the world and the world economy is now beginning to grow faster.

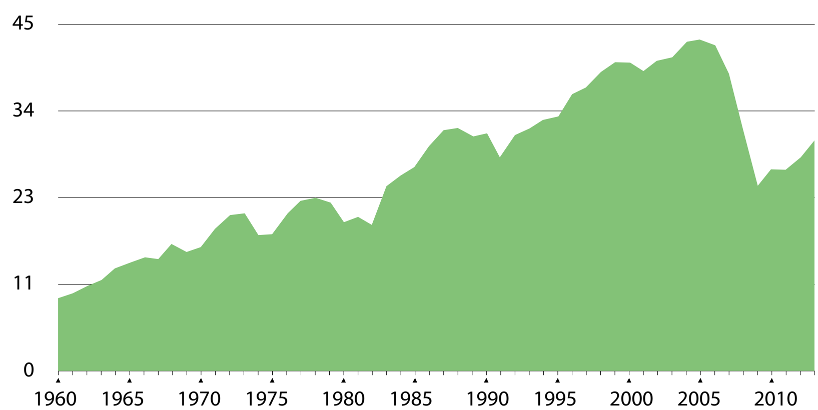
End Use Markets For Structural Panels – 2013



Source: APA.

Structural Panel Production 1960 – 2013

Billion Sq. Ft. 3/8"



Source: APA.

Recovery of Industry Capacity

The Great Recession and the housing meltdown quickly reduced demand for engineered wood products. Both plywood and OSB mill closures became common from 2005 through 2011. Some closures became permanent and others were temporary. At the same time, some new OSB capacity ramped up between 2005 and 2007 even as housing starts declined because construction was committed before the recession.

APA records show that North American structural panel capacity reached a high of 45.6 billion sq. ft. in 2006. Closures brought total capacity down to 39.7 billion sq. ft. in 2011 before increasing in 2012 and 2013. From a peak in 2006, capacity declined 13 percent by 2011. During this time, structural panel production dropped 38 percent, from 42.4 billion to 26.1 billion. Many mills remained open during the meltdown but operated fewer days each month. Production compared to total operable capacity declined from 93 percent in 2006 to 59 percent in 2009, recovering to 71 percent in 2013. Structural panels weathered past recessions much easier compared to the damage inflicted as this Great Recession unfolded.

New Plants and Re-starts

Manufacturers have been very cautious about re-starting structural panel mills and activating construction that was curtailed as the U.S. was sliding into the recession. The slowly moving economy has resulted in slow capacity recovery, but a recovery that is nonetheless moving forward. Five OSB plants opened since the housing market began to crash. These plants were either completely new and curtailed construction during the recession or were new and operated very briefly during the recession. They include RoyOMartin in Cordele, Ga. (opened in 2007); Georgia-Pacific in Allendale, S.C. (2007); Georgia-Pacific in Clarendon, S.C. (2013); Louisiana-Pacific in Thomasville, Ala. (2013); and Tolko, Athabaska Division in the Slave Lake region of Alberta (early 2014). One new plywood plant opened – Natron Wood Products in Jasper, Ore. (2006).

Two I-joist plants in Canada – Pinkwood in Calgary, Alta., and International Beams in Tillsonburg, Ont. – started in 2013. Three glulam plants started in the U.S. and Canada in recent years: TECO-LAM Inc. in Val-d'Or, Que., and Timber Technologies in Colfax, Wis., in 2011, followed by FraserWood Industries Ltd. in Squamish, B.C., in 2013. Two cross laminated timber plants started within the past five years. They are Nordic Engineered Wood in Chibougamau, Que., and Structurlam Products Ltd. in Penticton, B.C.

Numerous other structural panel plants that closed during the downturn have re-opened or are planning to do so. The following mills are the larger mills that were closed for at least several months and are coming back on line. OSB mills include: Georgia-Pacific in Englehart, Ont. (opened in 2010); Weyerhaeuser in Hudson Bay, Sask. (2010); Arbec in Miramichi, N.B. (2012); Norbord in Jefferson, Texas (2013); and Louisiana-Pacific in Dawson Creek, B.C. (2013). Norbord in Huguley, Ala., is expected to open in 2015 and Tolko in High Prairie, Alta., in 2016, both after renovations/expansions.

For softwood plywood, re-opened plants or those planning to re-open include Natron Wood Products in Louisville, Miss., in 2014. The company purchased a plant closed by GP in 2009. Wood Resources LLC in Omak, Wash. is re-starting a mill closed in 2009, producing veneer now and possibly plywood later.

Glulam, I-joist and LVL capacity also suffered during the recession. Most of the permanent closures were I-joist and LVL plants. Most glulam plants hunkered down with fewer operating days, waiting for markets to improve, and only two plants have closed permanently since 2006. Global LVL Inc. in Ville-Marie, Que., purchased an existing LVL plant that closed in 2008 and re-opened it in 2011.

Demand and Production Outlook

With end-use markets holding the promise of sustained growth and with capacity ramping up, what are the prospects in the next several years? Increases in residential construction are expected through 2017, along with industrial uses – the second largest market for structural panels. Industrial markets are expected to grow 3 to 4 percent per year in the near-term. Repair and remodeling is expected to do well for several years as existing home sales pick up and new owners fix up existing properties. Nonresidential building construction is just now reviving and 6 to 7 percent annual gains may be expected as this sector picks up steam.

Offshore exports of structural panels, at just over one billion sq. ft., are difficult to predict because of all the different countries involved. The outlook is to maintain one billion feet of offshore volume.

Unfortunately, with end-use markets growing, more imports are expected. At just over 400 million sq. ft. of structural panel imports in 2013, the outlook is for this volume to double by 2017. Most of the increase is expected to be plywood from Brazil and Chile. Imports and exports of glulam, I-joists and LVL are unknown because there are no harmonized trade classifications for these products. Import and export volumes are believed to be relatively small. After taking domestic demand into account and adjusting for actual and estimated imports and exports, a production forecast can be made.

Production Forecast, U.S. & Canada

	2013	2014	2015	2016	2017
Oriented Strand Board – BSF 3/8″	18.76	20.20	22.66	24.53	25.33
Softwood Plywood – BSF 3/8″	11.14	11.83	12.56	13.06	13.26
Total Structural Panels – BSF 3/8″	29.90	32.03	35.22	37.59	38.59
Glulam Timber – MMBF	252.1	264.0	287.0	314.0	325.0
I-Joists – MMLF	625.6	668.0	775.0	851.0	885.0
LVL – MMFT3	57.1	61.5	70.5	76.8	79.7

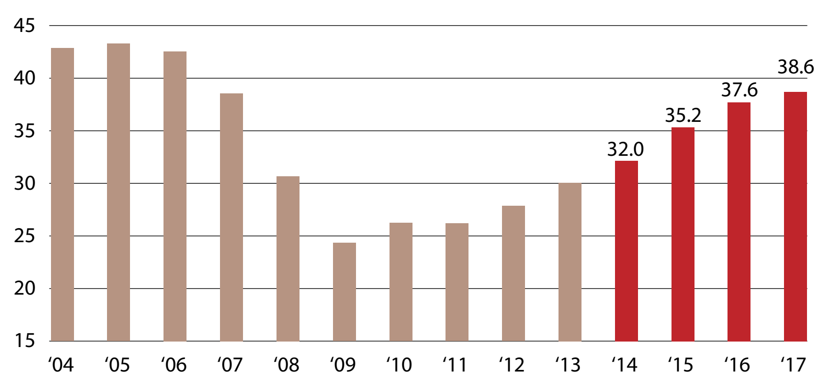
Source: APA, September, 2013

Overall Growth

Between now and 2017, each engineered wood product can expect considerable growth in the U.S. and Canada. Structural panel production is expected to increase 29 percent over these next several years. At just under 40 billion sq. ft. in 2017, the production-to-capacity ratio is expected to increase to around 85 percent from 71 percent in 2013. Glulam production is also forecast to increase 29 percent by 2017. I-joists are expected to increase 41 percent and LVL is expected to increase 40 percent. The significant increases for I-joists and LVL result from their heavy reliance on housing starts. End uses for structural panels and glulam are more diversified.

The outlook doesn't include oriented strand lumber, laminated strand lumber, parallel strand lumber or cross laminated timber. While these products are alive and well – and growing – they are relatively small in terms of production volume and production is not reported publicly. There are just three manufacturers of strand lumber and two CLT manufacturers at this time. These products are sure to grow and will be the subject of many articles in the future.

Structural Panel Forecast 2004 – 2017
Billion Sq. Ft. 3/8″



Source: APA.

Supply Down the Road

The pine beetle has devastated vast forest acreages in the U.S. and Canada and this is expected to impact lumber supply. Before the pine beetle destruction, at least a small percentage of wide lumber production came from affected areas. Also, many sawmills closed permanently during the recession, taking out an unknown volume of wide lumber. There also are increasing shipments of logs and lumber to China. These developments could provide increased demand for I-joists and strand lumber products as housing ramps up and the U.S. economy gains traction. The good news is that idle capacity is available if the need arises and more plants can be built.

In addition, wood pellet factories are being built in many locations, particularly in the southern U.S. Much of this activity is in response to Europe's desire to fuel power plants with renewable resources. What's the implication for wood supply in the U.S.? It's difficult to tell, but it could reduce the supply of wood in the future. Some are predicting soaring log prices as wood product demand picks up and wood supply is constrained.

While this is only speculation, the downside is that wood products could become so expensive that concrete and steel may be able to gain market share in the future. This points to the need for increased wood product promotion and more engineered wood product innovation as we continue to climb out of the recession. EWJ

Craig Adair recently retired after 24 years at APA - The Engineered Wood Association, where he was market research director. He can be reached at dcadair@comcast.net

CAUTIOUS OPTIMISM

Business Outlook Survey Suggests Continued Confidence

by Sheila Cain

While optimism still abounds, it seems the outlook of Engineered Wood Technology Association members is slightly tempered this year compared to the confidence exuded a year ago. According to the results gathered by EWTA's annual Business Outlook Survey, a majority of members saw their business and employment levels improve and increase this past year, but responses indicate they are being a bit more cautious with their expectations for the future.

The 2013 Business Outlook Survey shows 85 percent of respondents saw their business improve this past year over the year before (compared to 71 percent who felt this way last year), and 56 percent (compared to last year's 41 percent) saw their wood related business employment level increase. However, when members were asked to predict their fortunes for the coming year, they were a bit less bullish. Seventy-three percent expect their companies' wood-related business to improve in the coming year – certainly a majority, but less than the 88 percent of respondents who answered the same question a year prior.

Optimism seems to be slowing slightly; understandable after the strong uptick a couple years ago as the economy started picking up. Thirty-nine percent of members expect their companies' wood-related employment levels to increase in 2014, compared to last year's 65 percent.

Overall optimism about member companies' business opportunities in the coming year is healthy. Seventy-one percent said they felt more optimism about the future than they did last year. But numbers were higher when members were asked this question a year ago, with 88 percent of respondents feeling more optimism for 2013 than they did for 2012.

Perhaps the tempered outlook is reflective of the recent housing reports, which predict growth, but growth that will be slower than in past post-recession recovery periods. As reported by APA's former market research director, Craig Adair, in a feature on page 16, the housing rebound is expected to be "slow and cautious" compared to past recession revivals; just as the overall economy is expected to rebound slowly. The National Association of Home Builders (NAHB) is forecasting a nearly 25 percent gain in total housing starts in 2014 with a 32 percent increase in the single-family category.

2012-2013 Survey Response Comparisons

	December 2012 Survey	December 2013 Survey
Did your company's wood-related business over the past year:		
Improve	71%	85%
Worsen	6%	0%
Stay the Same	24%	15%
Did your company's wood-related business employment level over the past year :		
Increase	41%	56%
Decrease	12%	7%
Stay the Same	47%	37%
Do you expect your company's wood-related business in the coming year to:		
Improve	88%	73%
Worsen	0%	2%
Stay the Same	12%	24%
Do you expect your company's wood-related employment level in the coming year to:		
Increase	65%	39%
Decrease	0%	2%
Stay the Same	35%	59%
How optimistic are you about your wood related business in the coming year versus last year?		
More Optimistic	88%	71%
Less Optimistic	0%	5%
Same	12%	24%

How important are the following for recovery:	Very Important	Important	Unimportant
State of the U.S. housing market	78%	22%	0%
Government regulation	39%	46%	15%
Government economic policy	42%	53%	5%
Marketplace competition	34%	56%	10%
Raw material prices or supply	47.5%	47.5%	5%
Transportation costs	27%	56%	17%
International exchange rates/trade policies	21%	49%	30%
Labor issues	9%	62%	29%
Economic uncertainty	46%	49%	5%

The web-based survey was sent to all EWTA members last year. It poses five questions relating to wood-product businesses' employment levels and overall business health. Forty-four percent of respondents were in the equipment/tooling category, 41 percent were in the materials/supplies category and 15 percent were in the services/consulting category. Fifty-six percent of the survey respondents were from the U.S., 24 percent were from Canada and 20 percent were headquartered offshore.

Staying Positive

In other good news, nearly all respondents remained positive in their recap of 2013 and their outlook for 2014. No members felt their business worsened in 2013, and only two percent expected it to do so in the coming year. Seven percent saw their companies' employment levels decrease in 2013, while only two percent expect to lose workers in 2014. Ninety-five percent of all respondents feel either the same or more optimistic this year about their companies' wood-related business than they did at the same time last year. The 2013 survey showed only 82 percent of respondents felt this way.

Survey takers were also asked to rank several factors as "very important," "important" or "unimportant" for industry recovery. Every respondent indicated that the state of the U.S. housing market was either "very important" (78 percent) or "important" (22 percent). Nearly all felt that government economic policy, raw material prices/supply and economic uncertainty were "very important" or "important" for recovery, with only 5 percent labeling each factor as "unimportant."

Issues that seemed to weigh less on members' minds were international exchange rates/trade policies (21 percent "very important," 49 percent "important" and 30 percent "unimportant") and labor issues (9 percent "very important," 62 percent "important" and 29 percent "unimportant").

While it seems members view the coming year in a positive light, many are remaining vigilant and taking steps to ensure their companies remain viable. In a section of the survey in which respondents were asked to list what they have done to adapt to economic conditions or exploit opportunities, many indicated downsizing, restructuring or diversifying their businesses. Others have increased travel, added staff or amped up their marketing and advertising efforts.

None seem to be resting on their laurels, however. As one member noted: "(We've) hired to fit the work, tooled to fit the need, and outpaced the competition." EWJ

Sheila Cain (scain@engineeredwood.org) is communications director of the Engineered Wood Technology Association and editor of its Engineered Wood Journal.

2014 Membership Directory

The Engineered Wood Technology Association (EWTA), the related nonprofit supplier organization of APA - The Engineered Wood Association, serves as a networking and information transfer vehicle between North America's engineered wood product manufacturers and their product, equipment and service providers.

This membership directory, updated for 2014, includes company descriptions and contact information for all EWTA members. It's just one of many tools designed to help members connect with each other and the industry.

Membership Benefits

The benefits of EWTA membership are many. Among them:

- Direct business-to-business links with your customers in the engineered wood products industry through such vehicles and events as Info Fair, an annual supplier show held in conjunction with the APA annual meeting; industry forums and seminars; APA annual meeting events; company news and advertising in the *Engineered Wood Journal*; and dissemination of your company news and technology innovations via the EWTA website and *Connections* e-newsletter.
- Free access to the APA monthly housing starts and quarterly production reports, and discounts on other APA publications and reports.
- Discounts on APA events and *Engineered Wood Journal* advertising.
- Free company listing and profile in the annual meeting issue of the *Engineered Wood Journal* for EWTA Info Fair exhibitors.
- Member products and services directory.
- Annual meeting and other event sponsorship opportunities.
- Supplier award program participation.
- Opportunities to exchange information with other EWTA members, APA members and APA staff via an EWTA advisory and subcommittee structure.
- Opportunities to support, participate in and receive the results of important industry technical and market research projects.

The annual cost of EWTA membership is just $1,200. New members may join anytime during the year at a pro-rated amount. For more information about the benefits of membership or for a membership application, contact Terry Kerwood, Managing Director, terryk@engineeredwood.org or 253-620-7237, or visit the EWTA website at www.engineeredwood.org.

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(continued in next column)

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www.sesametape.com

Solutions for a World under Pressure

HAWE Hydraulics / Pacific Fluid Systems

HAWE Hydraulics is a well-respected, family owned, German company that recently acquired Pacific Fluid Systems, LLC. HAWE's primary business is providing high quality hydraulic components. Through the acquisition of PFS they have increased their offerings to become a Solution provider in hydraulic systems and linear motion applications. Engineering and design focus to provide low cost, energy efficient solutions and enhanced documentation for machine positioning and controls. PFS offers a full range of products from custom hydraulic manifolds to complete hydraulic press conversions. PFS / HAWE also provide complete linear Hydraulic and Electro-mechanical motion control systems.

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www.hawehydraulics.com

HT Staffing Professional

HT Staffing Professional provides nationwide recruiting and staffing services providing access to the nation's premier technical, professional, management, and executive talent. We work extensively in building products, forest products, and consumer goods.

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Hunt Guillot & Associates, LLC

Hunt Guillot & Associates, LLC (HGA) is a multi-disciplined project management and engineering design firm. HGA has been serving the forest products industry since the firm's founding in 1997. HGA continues to provide expertise to the Engineered Wood Products, LVL, I-Joist, OSB, Plywood, Particleboard, Glue Lam and Lumber industries. Services provided include project management, feasibility studies, preliminary engineering, detailed design engineering and on-site technical support services.

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Enriching lives through innovation

Huntsman Polyurethanes

For approximately 30 years, Huntsman has been a global leader in the production of the MDI-based resin binders for particleboard, medium-density fiberboard and oriented strand board. Our dedicated Composite Wood Products teams are committed to helping our customers reach their goals in all market conditions. There is no added formaldehyde (NAF) with Huntsman's RUBINATE® resins, and they are considered "exempt" under requirements of the California Air Resources Board (CARB) standards.

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IBC, International Bar Coding Systems & Consulting Inc.
An integrated manufacturer of the fastest individual piece WOOD PRODUCT specific printer applicator worldwide. For finished or in process units we offer Automated Package labelers (AutoLabeler) for Veneer, OSB, MDF, Plywood, Lumber and EWP. We manufacture tags and labels for any labeling system and are a single source provider for our specialised Vendor Managed Inventory of consumables. We supply fully integrated data collection systems across North America. Manufacturing or distribution operations in BC, WA and TN. We provide full design, build, onsite service, preventative maintenance, training and consulting on a system wide or mill by mill basis.
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Idemitsu Lubricants America Corporation
IDEMITSU/Idemitsu Lubricants America Corporation offers wood industry members a full line of lubricants including synthetic high-temperature chain oils, environmentally friendly gear and hydraulic oils as well as compressor lubricants. By using highly refined, hydro-cracked base oils Idemitsu Lubricants America Corporation can provide high quality blended lubricant products to meet your critical requirements. The customer-oriented philosophy of IDEMITSU is to develop products based on the customer's requirements. Professional Lubrication Engineers can assist in all facets of your lubrication project … from problem analysis to product selection … from lubrication maintenance to development of customized lubricant-check systems.
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www.ilacorp.com

IES - Integrated Environmental Solutions
IES is a progressive air-engineering firm that eliminates the problems with combustible dust through its line of SonicAire™ fans. All the fans apply the new, innovative BarrierAire Technology™ system, which delivers enterprise-wide continuous clean through robotic engineering design. All fans clean by using high velocity and high mass airflow to create an overhead barrier preventing combustible particles from accumulating on steel structures, pipes, ducts and process equipment. Our engineers have customized different fans for every industry since fugitive particles vary by the materials processed. Take advantage of our Try and Buy Promotion. Contact Jordan Newton at 336.712.2437.
Contact: Brad Carr - President
Phone: 336-712-2437
6220 Hacker Bend Court, Suite F
Winston-Salem, NC 27103
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IMAL Inc. IMAL - PAL GROUP
Established in 1970's the Group is a world leader in the manufacture and supply of equipment and systems and its extensive production program is able to supply complete turnkey plants for the treatment and processing of fresh and recycled wood, both the wet and dry areas, for production and processing of particleboard, MDF, OSB, Plywood, Pellets, Pallet Blocks and pressed wood-based products in general. IMAL is a leading manufacturer of glue dosing and blending systems and supplies the most innovative on-line and laboratory quality control devices that are found in virtually all the production plants around the world.
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IMEAS
IMEAS is a world leader in surface finishing solutions, with over 2,400 machines operating worldwide. Imeas sanding and grinding machines are used to achieve precise surface finish and thickness on a wide variety of products such as plywood, LVL, composite wood panels, decorative laminates, flooring, and solid surface products, etc. IMEAS specializes in extra wide machines – 10' (3.2 meter) and cross-belt sanding for wood products, and non-directional mirror finish for specialty steel products.
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InterWrap Inc.
InterWrap® is the largest supplier of coated woven wrap to the Engineered Wood Industry. Its custom-printed WeatherPro™ packaging products are designed to maintain product integrity throughout transportation, inspection and storage of sawn lumber, plywood, OSB, all types of beams, I-Joists and composite wood products. InterWrap is a vertically integrated, global manufacturer of innovative coated woven products serving a wide variety of markets. Consistent product quality is achieved by using state-of-the-art equipment along with a strong commitment to partnership with our customers, employees, and suppliers. InterWrap's global supply chain efficiency is achieved by our strategic

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InterWrap Inc. *(continued)*
manufacturing and distribution centers located throughout North America, Asia & Europe.
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Vancouver, BC V6E 2K3 Canada
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www.interwrap.com

Itipack Systems
Itipack Systems has been in business since 1970. We are a manufacturer of automated strapping systems.
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JAX, Inc.
JAX is a full-line lubricant manufacturer with expertise in compounding high-end synthetic and petroleum lubricants. With over 55 years of industry experience, JAX has earned its reputation as a leader in lubricant technology. JAX lubricants are compounded with the finest raw materials and additive chemistry in the industry. Formulation decisions are based upon performance and quality which ultimately lead to substantial, verifiable cost savings in terms of extended machine life, reduced downtime and increased production. Lubrication technology is a continually evolving science. Products that have worked in the past may not be sufficient to provide adequate lubrication in the future. In order to meet the evolving needs of our customers we are constantly analyzing the JAX product line for opportunities to improve value. JAX is a Manufacturer and Global supplier of the highest quality LUBRICANTS for machinery and process.
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Kimwood Corporation
World's leading producer of new equipment and OEM parts for Kimwood Sanders, Hogs, and Handling Equipment, Stetson-Ross Planers and Moulders, Ferrari Resaws and Tri-State Equipment.
Contact: Mike Simmons - Sander Sales Manager
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KTC Panelboard Engineering
Complete engineering services for the engineered wood products industry.
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Surrey, BC V3W 1E6 Canada
jan.karnik@ktceng.ca
www.panelboard.net

Lundberg
Lundberg is a global supplier of air pollution control systems to process industries including the engineered wood products industry. State-of-the-art systems that include the Geoenergy E-Tube Wet ESP, GeoTherm and GeoCat Oxidizers and GeoWet Scrubbers. Geoenergy systems have provided environmental compliance to the engineered wood products industry on wood dryers, press vents and boilers since 1984.
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Matthews Marking Systems
Matthews Marking Systems, established in 1850, is a leading supplier of marking and coding equipment for the engineered wood and building products industries. Matthews supplies ink jet printing solutions for applications including grade marking, nail patterns, traceability, and large format logo printing. We also offer a variety of inks, specific to the wood industry, including water based, fast dry, and VOC free.
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www.matthewsmarking.com

McLube Division, McGee Industries, Inc.
McGee Industries' McLube Division has manufactured high-technology mold releases agents and industrial lubricants since l954, including water/solvent-based release agents for the rubber, plastics, composite, wood fiber composite/panel pressing, concrete and stone veneer and polyurethane markets, antitack coatings for hundreds of industrial applications and a full line of Moly lubricants (Moly Lube), PTFE lubricants oils, greases and dry film aerosol and bulk containers lubricants. Lines includes antistick coatings, rubber lubricants, anti-seize compounds, cleaners, and protective coatings. Through five decades of innovation, we've earned an international reputation for performance and worldwide industry recognition as expert problem solvers.

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McLube Division, McGee Industries, Inc.
(continued)

Specialists in assessing complex processes, unusual conditions, and developing working solutions.
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MEGTEC Systems, Inc.
MEGTEC Systems, Inc., announces the acquisition of TurboSonic Technologies, Inc. TurboSonic joins MEGTEC as MEGTEC TurboSonic Technologies, Inc., a wholly-owned subsidiary of MEGTEC Systems, Inc., with environmental solutions that now range from VOC abatement and energy recovery systems to particulate and acid gas control. MEGTEC supplies packaged clean air solutions that are proven to meet stringent emissions regulations: wet scrubbers for high efficiency particulate removal for dryers and press vents; WESPs for gas cleaning, and ultra-high efficiency RTO/RCO systems for VOC abatement. MEGTEC also provides upgrades, parts and service for every make of APC equipment for the engineered wood industry.
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Metriguard, Inc.
New for 2014: Rail Shear Tester for web stock, automated Bending Proof Tester, Transverse acoustic lumber grader. High-speed veneer graders operate in LVL and structural plywood mills worldwide. Laboratories depend on Metriguard Panel Testers to evaluate structural panel performance. For MSR/MEL lumber producers, Metriguard offers Model 7200, a longitudinal bending machine and transverse Model 2350 Sonic Lumber Grader. An automation option is now available for Model 312 Bending Proof Tester. Other equipment includes the new Model 840 Rail Shear Tester, Stress Wave Timer, Tension Testers and Grain Angle Meters. Metriguard is celebrating 40 years in the engineered wood products business.
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Michelman
Michelman is a leading global developer of release agents for engineered wood panels and water repellant technologies for wood products. We also manufacture and market water-based barrier and functional coatings for flexible film packaging, paperboard, and corrugated cartons; and water-based surface modifiers, additives and polymers for numerous industries including wood and floor care, industrial coatings, inks, fibers, composites, and construction products. Michelman serves its multinational and regional customers with production facilities in the U.S., Europe and Singapore, and a worldwide network of highly trained field technical support personnel.
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Mill Machinery, LLC.
Customer-driven Provider of New and Used Forest Products Industry Machinery. *CUSTOMIZED SOLUTIONS: MMC specializes in new and re-engineered machinery, taking a forensic approach to each project, building to your specifications. Our inventory encompasses MDF, OSB, Veneer, LVL, Plywood and Particleboard industry sectors. *LIQUIDATION SERVICES: MMC has the tools and custom approach to maximize the value of your surplus machinery. *MAGNUM SAW SYSTEM: - Mill Machinery's Magnum Saw Corner and saw conversion utilizing Servo controls is a breakthrough in sawing high-end panels. The customized Magnum system increases sawline speed and accuracy by adjusting to varying panel sizes with one tap of the panel view screen.
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Momentive Specialty Chemicals, Inc.
Momentive Specialty Chemicals Inc. is a leading global source for adhesives, resins, formaldehyde, melamine and derivatives, serving a broad range of markets including the forest products, foundry, automotive, construction, composites, electronics and oilfield industries, operating more than 50 manufacturing plants in North America, Latin America, Europe and Asia/Pacific. The Forest Products division of Momentive Specialty Chemicals Inc. is the global leader in supplying resins, adhesives, wax emulsions and ancillary products to the forest products industry. Customers use our materials to manufacture a wide range of composite and engineered wood products including plywood, particleboard, oriented strandboard, medium density fiberboard, structural beams, furniture, mouldings and millwork.

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NESTEC, Inc.
NESTEC, Inc. is a turnkey provider of thermal oxidation systems for the wood products industry including; regenerative and regenerative catalytic technologies, process duct design, system upgrades, energy audits, inspections and parts. Our staff of engineers has over 30 years of experience in the field of thermal oxidation and has participated in solving air emissions problems for the wood products industry since the early 1990's. Whether you need a new air pollution control system or require upgrades and improvements to an existing system, NESTEC, Inc. is your best resource to ensure a successful project.

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Nicholson Mfg. Ltd
Industry Leader in ring debarking technology since 1948.

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forestsales@nmbc.com
www.debarking.com

Hurricane, WV

Nondestructive Inspection Service
Nondestructive Inspection Service (N.I.S.) was incorporated in 1960. Since that time we have taken preventative maintenance to higher levels of predictive maintenance while saving our customers costly unpredictable down time, on all types of process equipment along the entire production line. We are the established leader in applying our knowledge of NDT and perfecting inspection procedures to exceed industry standards. In the case of wood processing and construction board plants we have developed, tested, and implemented significant innovations on the standard inspection techniques, to shrink costly inspection downtime and overcome the issues of inspecting difficult-to-reach parts of the equipment.

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Norjohn Limited
Norjohn Limited - For over thirty-five years, Norjohn Limited has provided both wax and asphalt emulsions to a variety of industries and municipalities across Canada, the United States and Mexico. Our ongoing investment in research and development has resulted in the development of green, sustainable options for our customers.

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OCI Melamine
OCI Melamine (formerly DSM Melamine) is a melamine crystal supplier for use in resins with formaldehyde that are used for (among others) OSB, plywood, and other panels.

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Pallmann Industries, Inc.
For more than 100 years Pallmann has designed and built size reduction machinery. Specializing in high-capacity, high-performance standers, flakers, refiners and mill utilized by the engineered panel board industries.

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Panel World Magazine / Hatton-Brown Publishers, Inc.
Panel World's international readership receives six issues per year, with emphasis on mill project startup articles. Product coverage includes softwood and hardwood plywood and veneer, oriented strand board, medium density fiberboard, particleboard and other composite boards and engineered wood products. Hatton-Brown publishes magazines for the Forest Products Industry, of which Panel World is one.

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Paneltech
Paneltech is a young and growing, forward-thinking company comprised of people who have common values and share a common goal…providing environmentally responsible leadership in manufacturing the highest quality green products for industry. Our panel overlays are designed for high performance end uses and superior processability. They are designed to increase the value of the wood products they cover by increasing their durability, enhancing their appearance, and creating uniform surfaces to enhance the products end use.

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Paslode
Leading designer and manufacturer of cordless and pneumatic nailers, staplers and specially engineered fasteners designed to deliver superior wood fastening solutions to the residential construction industry; applications include framing, sheathing, roofing, siding and finishing applications.

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Permapost
Permapost provides custom pressure treating solutions for engineered wood products used throughout the U.S.A. and Asia.

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Pöyry Management Consulting
Whether you are developing a strategy, planning an acquisition, considering an investment project or improving your performance, Pöyry can help. We aim to improve your business prospects by applying the right mix of experience and outside-the-box thinking. We take an impartial stand based on a clear analytical framework and a solid working process. Through accessing our network of global offices, our experts are able to tap into long experience in collective forest industry knowledge. We provide consulting and advisory services at the strategic and operational level. Our clients benefit from our pragmatic implementation plans and solid execution.
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Pur Polymerics, L.L.C.
Pur Polymerics, L.L.C. provides its customers with State of the Art Release Agent Technology to the wood composite panel market. Pur Polymerics is ideally positioned to support panel products in meeting the needs of the ever-changing wood composite industry. We offer specialty additives to facilitate lower production costs and optimizations of manufacturing processes, while improving finished panel quality. We are also suppliers of PMDI resins.
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www.purpm.com

Purbond, Inc.
Purbond, Inc. is a joint venture of Henkel Corporation and Collano AG, and is a leading supplier of high performance moisture curing liquid polyurethane adhesives. PURBOND HB E line is the only 1 part PUR adhesive certified under ASNI 405-2008, including ASTM D7247 High Temperature, as well as passing E119 HRA testing. PURBOND HB E line offers excellent open time/set time ratios, ductile bond lines that significantly reduce glue line checking and are of neutral color, as well as containing no Formaldehyde or solvents. Henkel Corporation, with the acquisition of National Adhesive, is now the largest specialty chemical company in the world.
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Raute Canada Ltd
Raute is a technology company serving the wood products industry worldwide. Its core expertise lies in manufacturing processes for the plywood and LVL industries. Raute is the world market leader as a supplier of mill-wide projects, but can also supply individual process lines, line modernizations and equipment upgrades.
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Samuel Strapping Systems
With over 50-years serving the lumber and forest products industry, Samuel Strapping Systems, offers their customers in the Engineered Wood industry a single source supply for all of their strapping and packaging requirements. Samuel's product line includes steel and plastic strapping, pneumatic and manual hand tools, seals, edge protection, stretch-wrap, product identification equipment, and fully automated strapping systems. Our industry leading VK-30 strapping head has been used in both new and retrofit applications to convert our customers from steel to polyester strapping. Samuel is a leader in strapping for engineered wood products, and had the first AAR approved polyester strapping.
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Woodridge, IL 60517
dgagnon@samuelstrapping.com
www.samuelstrapping.com

Sasol Wax North America Corp.
Sasol Wax is a leading producer and marketer of synthetic and petroleum-derived wax and wax emulsions. Our specialty wax emulsions are used for treating various types of construction board to impart exceptional lubrication and waterproofing. Other industrial wax applications include paper coatings, hot melt adhesives, inks and asphalt. Sasol Wax, a 100% subsidiary of South African company Sasol Limited, employs 1,100 people worldwide with head office in Hamburg, Germany. With numerous manufacturing facilities in North America, Europe and South Africa we offer customizing to specific product specifications, based on own synthetic raw materials and a combination of domestic and imported sources ensuring a continued, reliable supply.
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www.sasolwax.us.com

Scheuch, Inc.
For 50 years Scheuch has been providing proven technology for emission controls in the wood based panel industry. Scheuch's services include the design and supply of dust collection systems and air pollution control systems for drier emissions such as biological scrubbers and wet electrostatic precipitators. The SENA wet ESP system embodies our extensive knowledge and understanding of particulate control with water treatment techniques to provide high efficiency, system cleanliness and ease of operation. Scheuch also offers a complete range of dry electrostatic precipitators for flue gas cleaning for biomass fired energy systems.
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Siempelkamp Limited Partnership
The Siempelkamp Group of Companies are world leaders in the supply, installation and startup of equipment and complete production plants for the manufacture of wood based panel products, energy systems, dryer systems, panel handling and finishing systems.
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www.siempelkamp-usa.com

Signode, an ITW Company
Signode is a multinational manufacturer of steel and plastic strapping, stretch film, pressure sensitive carton sealing tape and application equipment and accessory products for industrial packaging.
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Spar-Tek, Inc.

Spar-Tek Industries manufactures high quality machinery with the latest cutting edge technology for many industries including Plywood, LVL, Rubber and others. Today's high volume Plywood production Lay-Up Lines place an emphasis on efficiency. Spar-Tek's lay-up lines, Hot and Cold Presses, Loading and Unloading equipment, Glue Application systems and other equipment is designed to meet these demands. Helping customers meet and exceed their production and operating goals is a driving force at Spar-Tek. We are here to help you meet your goals and to do so requires innovative technology and machines designed to work at the highest operating speeds.

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Spraying Systems Co.

Spraying Systems Co. is the world's leading manufacturer of spray technology equipment. Our offering includes a family of PanelSpray® systems for applying wax, resin, moisture and chemicals to chips, mats, cauls or belts. These systems ensure the precise volume of fluid is applied even when operating conditions like chip tonnage or line speed changes. We also offer the industry's largest selection of spray products for use throughout your mill in other operations such as humidifying, marking, cleaning and coating. We serve our customers around the world from our 12 manufacturing facilities and 90 sales offices.

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www.spray.com

Standex Engraving Group

Standex Engraving manufactures engraved steel press plates, embossing machinery and engraved molds. Their staff of designers and engineers specializes in the creation of customized, life like, user-friendly textures for a variety of wood based products.

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Steinemann Technology USA

Steinemann Technology offers comprehensive sanding solutions with machines, sanding paper, 24 hour technical expertise and support, and a large inventory of spare parts in our Charlotte, NC facility.

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4607 Dwight Evans Road
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Stratachem Solutions Group LP

Chemical Solutions, leading edge comprehensive approach to resolving process problems relating to the wood products industry. Advanced Systems Controls integrated with well qualified research and development and over 45 years of solving process efficiency and chemical issues, productivity bottlenecks and or simply reducing process costs.

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Sweed Machinery

Since 1957, Sweed Machinery's Panel Handling and Dryer Support Equipment has helped make great veneer dryers BETTER by achieving higher production goals with less downtime! Known for its proven material handling solutions, latest technology, quality craftsmanship, unmatched customer service and excellent after-sale support, Sweed offers new technology that runs at greater capacity with the same labor at no additional fuel or overhead cost, helping mills conquer the challenges facing the industry today. Sweed is also prominent in recycling equipment serving many industries. Since 1956, Sweed's dependable choppers provide simple solutions for eliminating manufacturing by-products like wire, blades and plastic or steel banding. Sweed scrap choppers are the manufacturer's choppers of choice!

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www.sweed.com/panel/

Systems Contracting Corp.

Systems Contracting is a well-rounded construction firm with experience in industrial, municipal and commercial construction markets. We are a self-perform direct-hire contractor in all major disciplines. We view each project with each customer as an opportunity to build trust, showcase our expertise, knowledge and dedication to customer service and secure opportunities to perform future projects. Our customers are never viewed as "one time" customers, which is why we are very frequently given the opportunity of repeat business and are called upon to perform complex projects throughout the world due to our customer's willingness to always give us the highest recommendations.

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TIP – The Industry Pivot, Ltd.

TIP – The Industry Pivot Ltd. offers wax suspension systems to engineered wood manufacturers. Wax suspension systems allow significant wax usage reduction and better board qualities over both slack wax and emulsified wax. TIP's suspension systems are produced by Coil Manufacturing, based in BC, Canada.

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www.the-industry-pivot.com

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Lynnwood, WA 98036-7709
ajohnson@tsi-inc.net
www.tsi-inc.net

University of Tennessee, Center for Renewable Carbon

The Center for Renewable Carbon is a state-of-art research facility at The University of Tennessee. The CRC has nine faculty conducting research on forest products, sustainable biomaterials and bioenergy, http://renewablecarbon.tennessee.edu/. The laboratories include wood composite laboratory steam-injected presses, destructive testing lab, conditioning chambers, dry kiln laboratory and new laboratory capabilities for sustainable biomaterials preprocessing, pretreatment research, thermochemical and biochemical conversion, and product analysis. Also, unique analytical capabilities for nanotechnology sustainable biomaterials are available. The CRC has M.S. and Ph.D. concentrations in Sustainable Biomaterials and Wood Science Technology. The CRC provides world-class industry training programs in SPC/Lean, DOE, and data mining.

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Manufacturer of borate based wood preservatives and flame retardants.
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PO Box 310
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tim.fisher@usnr.com
www.usnr.com

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Phone: 336-802-4704
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www.valspar.com

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Contact: Nyla Vogel - Sales Manager
Phone: 814-739-2211
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Wattsburg, PA 16442
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www.westmill.com

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www.wilvaco.com

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228 Industrial Street
West Monroe, LA 71292
dsteed@wpsindustries.com
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Contact: Mark Bradley - President
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Media, PA 19063
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WORKERS WANTED

As Housing Heats Up, Demand for Skilled Workers Increases

by Nad Elias

It's as direct a correlation as it gets: More homes being built means more demand for engineered wood. Now that residential builders are back on track, so is the positive outlook for the engineered wood industry.

As reported in APA's January Housing Starts report, single and multi-family housing starts are anticipated to reach 1.1 million in 2014, up 16 percent from 2013. Analysts predict 1.29 million starts in 2015, and by 2018, APA forecasters predict single and multi-family housing starts could reach 1.55 million units per year. This is nowhere near the 2005 housing market peak that resulted in 2.07 million housing starts, but it's an upswing that is making a big difference.

With this resurgence, hiring in the engineered wood industry should be a breeze, right? Not quite. The industry has lost much of its allure for job seekers at all levels. And as its star players – those who revolutionized the industry in the 1960s, '70s and '80s – are retiring, demand is stronger than ever. For the first time in decades, the engineered wood industry will need to look significantly beyond its immediate candidate pool to fill positions, pulling from other industries. Is the industry up to the challenge?

Photo courtesy of RoyOMartin

This cross-cut saw in RoyOMartin's OSB mill in Oakdale, La. cuts mats to various lengths.

Baby Boomer Blues

To understand today's worker shortage in the engineered wood industry, it's important to remember how the industry got its start. Demand for plywood skyrocketed during the post-WWII boom years beginning in 1944. By 1975, demand had exceeded all expectations, with mills churning out more than 16 billion sq. ft. of plywood to match the need of the housing market. At about this time, engineered wood was a centerpiece for industrial innovation. Engineers flocked to this industry and gave birth to innovation after innovation: oriented strand board, I-joists, glue-laminated timber, laminated veneer lumber. It was an exciting area in which to work – perhaps one of the most exciting in the nation. At the center of this era of innovation was the Baby Boomer generation.

The Baby Boomers represented the largest educated work force our nation had ever seen. Their parents before them were mostly farmers and ranchers. As a result of their numbers, Baby Boomers created the largest economy we've ever experienced. And now, Baby Boomers are retiring. Thus, the shortage in talent that we're experiencing across the board in this country is simple math: There are not enough people to fill the jobs that this generation created. That's why the talent gap exists, and that's why it will get harder before it gets easier. Companies across all industries will need to compete for talent because of the gaps left by Baby Boomers exiting the work force.

For the engineered wood industry, this challenge was further compounded by the recent recession. Once the housing market deflated and mills began shutting their doors, up-and-coming talent was lured to stronger manufacturing industries including those in the energy, technology and automotive sectors; and there they remain.

Now that engineered wood is rising once more, this industry is looking at a five to 15 year talent gap that needs to be filled. Compound that with retiring workers who have been in the industry for 25 to 30 years and we're left with a worker shortage the likes of which the engineered wood industry has never seen before. To get beyond it, the industry will need to scan above the tree line and hire outside the "family."

Courting Back the Talent

Universum, a global research and advisory firm, recently released data on the 100 most attractive employers for engineering students. Nearly 20 percent chose NASA with Boeing, Lockheed Martin, General Electric, the U.S. Department of Energy and Exxon Mobil rounding out the non-tech top 10.

Reasons for these companies ranking high include attributes like innovation, exciting challenges and a commitment to improving the world. Not one engineered wood manufacturer made the top 100 of Universum's list. But let's not forget that the engineered wood industry was conceived by innovation. And that the industry is tasked with stricter and stricter environmental expectations every year. When it comes to providing opportunities for innovative, passionate minds, the engineered wood industry has the framework it needs. There is a consistent need for these products to be manufactured faster, stronger and more sustainably. These attributes not only help attract engineers but passionate workers at all levels.

With this framework already in place, what the industry needs to master now is marketing, recruiting and training. Take a look at companies in other industries. Manufacturers like Tesla Motors have a strong internship and co-op program, which actively recruits some of the best and brightest young talent in the nation, promising great opportunities for challenge and innovation. The oil and gas industry heavily recruits undergrads and recent college graduates as well. Take Chevron, for instance, which places exciting challenges and corporate responsibility front-and-center in its recruiting efforts.

Those in the engineered wood industry are strengthening their own recruiting and training programs, while the industry as a whole is doing a better job at marketing to colleges. A major learning curve stems from having to compete with other industries. Recruiters are now being hired as trainers, with robust training programs being put into place. This is necessary in order to attract and hire talent from outside the industry.

Where to Start?

Clearly, demand for engineered wood is increasing once more. While this upswing is bringing shuttered mills back online, the worker shortage is a concern. Quite simply: talent will need to be drawn from other industries. To do this, begin by asking how you may be able to improve:

Marketing: What makes the industry and your company a great place to work?

Recruiting: In what job areas and from what other industries can you attract great candidates?

Training: What will these new recruits need to learn to be at their best in our industry?

It's this trifecta that will turn a growing concern into, perhaps, another golden era for the engineered wood industry.

Nad Elias is managing partner at HT Staffing, an EWTA member company and total-solution staffing firm based in Austin, Texas. Elias can be reached at nad.elias@htstaffing.com or (512) 533-9700.

TWO FOR ONE

Conferences Team Up to Offer Expanded Program

by Sheila Cain

The World Conference on Timber Engineering, to be held in August in Quebec City, Que., will offer more than its usual renowned speakers and engaging technical programs this year. For the first time, the conference is being held in conjunction with the Forest Product Society's International Conference, promising an even more robust program for those interested in timber engineering, forest product research and technology innovations.

The World Conference on Timber Engineering, a biennial event presented under the aegis of FPInnovations, Université Laval and Cecobois, attracts researchers, engineers, architects, code consultants, building officials, contractors, project managers, fabricators and suppliers from all continents. This year's conference theme is "Renaissance in Timber Construction."

The FPS's International Conference is the wood product research organization's 68th annual event, and brings together scientists, design professionals, managers, and decision makers from academia, government, nonprofit, and private industry to discuss the state of forest products research and learn about innovations in the field. Together, the joint event is expected to draw close to 800 attendees.

The objective of the combined conference is to gather and disseminate the latest information on innovative timber construction, demonstrate how to use wood to improve designs, develop greater collaboration between stakeholders interested in environmentally responsible and sustainable construction, and encourage innovation among young professionals as well as engineering and architecture students.

Coming Together

The idea to integrate the two groups' conferences came about when FPS was looking for a city to host its international conference, said Richard Desjardins, chairman of WCTE 2014 and the manager of engineered wood products manufacturing for FPInnovations, the Canadian forest products research center based in Quebec City. Desjardins admits the idea to join the interests of two seemingly different groups may not make much sense at first glance.

"Typically the engineering and architecture world meets on one side, and materials and forestry on the other," he said.

But by bringing them together, Desjardins said, it links the supply chain between two groups with a common interest.

Technical session topics run the gamut from wood properties in construction; wood and the environment; education and marketing for the forest products industry; and advances in technology. All sessions are open to both groups and are designed to appeal to attendees from both organizations.

Several keynote presentations are also planned, with topics ranging from the history of Quebec City as a forest products hub to the innovative use of wood in Europe and South America.

Other joint activities include a two-day student roof building competition, a combined plenary session and an exhibitors section that includes booths from companies interested in connecting with the international wood design community (see box).

Those who register for the World Conference will be able to attend all FPS International Conference events, and vice versa. The "early bird" registration rate is available until April 30. To register, visit www.agora-inscription.ca/wcte2014. For more information on the conference, visit www.wcte2014.ca.

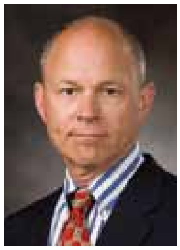
WCTE 2014 and FPS's International Conference will be held Aug. 10-14 at the Quebec City Convention Centre.

Sheila Cain (scain@engineeredwood.org) is communications director of the Engineered Wood Technology Association and editor of its Engineered Wood Journal.

Exhibit at the Joint Conference

Companies with products, services and innovations related to the international wood design community are welcome to exhibit at the WCTE 2014 and FPS's International Conference. For more information on exhibiting, contact WCTE at wcte2014@agoracom.qc.ca

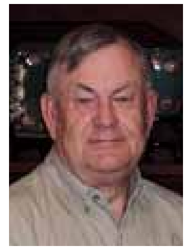
Tom Temple Assumes Chairmanship of APA Board


Tom Temple

Tom Temple, president of wood products at Potlatch Corporation, assumed the chairmanship of the APA Board of Trustees last fall during the APA annual meeting. He succeeds Mary Jo Nyblad in the two-year position.

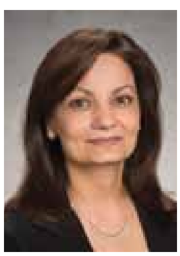
Don Grimm, president of Hood Industries Inc., was elected vice chairman.

Temple has more than 30 years of experience as a forest products industry executive in both large public and medium-sized private firms. His areas of expertise include international and U.S. marketing and sales, operations management, and supply chain and raw materials procurement for regional business units. Temple is also on the board of directors/executive committee for the Western Wood Products Association. Temple has served on the APA board in two capacities: once from 2003 to 2007 during his tenure with Canfor Corp., then from 2009 to present as a Potlatch executive.

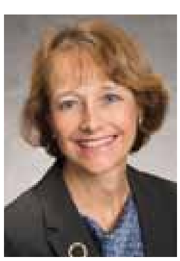

Don Grimm

Grimm has been with Hood Industries since October 2003. Prior to that he held leadership positions with Masonite Corp., ABT Building Products Co. and Louisiana-Pacific. Grimm was elected to the APA board in 2004.

APA Board of Trustees Names New Officers


Sonya Bachlmayr

Sonya Bachlmayr, who was hired last fall as APA financial and administrative services director, was named APA treasurer by the Board of Trustees in October. She assumes the position formerly held by new APA President Ed Elias. Bachlmayr comes to APA from the Washington State Farm Bureau, where she served as director of finance. Prior to working for the Farm Bureau, she was the accounting manager at APA.


Marilyn Thompson

Marilyn Thompson, APA market communications director, also was elected corporate secretary in October. She has been with APA for 28 years.

Both Bachlmayr and Thompson will continue in their roles as directors of their divisions.

In other APA staff moves:

- Tom Kositzky, Field Services Division director, was appointed staff advisor to the Marketing Advisory Committee.
- Bob Clark, engineered wood specialist and member services liaison, was named residential market coordinator.
- LaDauna Wilson, formerly market communications website coordinator, was appointed administrative analyst in APA's Quality Services Division. The position was previously held by Jan Elias, who retired in late 2013.
- Dan Mak, who had previously worked at APA, has rejoined the association as a quality auditor in British Columbia.
- Kelly Devlin, market communications writer, has been promoted to publications and website manager. He also continues to serve as the industrial market staff coordinator.
- Senior Scientist Ben Herzog has been promoted to manager, APA Laboratories.
- Gary Peterson, APA certification coordinator, retired from APA after 25 years with the association. A successor has not yet been named.

APA and ICC Co-Publish New Energy Guide

APA has teamed with the International Code Council (ICC) to publish a guide on construction systems that meet the new, more stringent energy codes.

IECC Compliance Options for Wood-Frame Wall Assemblies provides tips that help builders construct energy code-compliant wood walls using continuous wood structural panel wall sheathing, and describes how to reduce the insulation costs of 2x6 walls with plywood or OSB and still meet the energy code. By using advanced framing techniques, insulated headers or insulated siding, lower cost wall cavity insulation can be incorporated, saving builders hundreds of dollars per house.

The guide features several prescriptive wood-frame wall assemblies that comply with the R20 and R13+5 requirements for several climate zones included in the 2009, 2012 and 2015 International Energy Conservation Code. Developing systems that make 2x6 walls more cost-effective is a key association strategy to compete with the more expensive 2x4 framed walls that require the use of foam wall sheathing.

The guide can be downloaded from the APA website at www.apawood.org. Printed copies are also available for order.

EWTA Approves Funding For Research, Code Activities

EWTA's Advisory Committee at its fall meeting approved a recommendation from the Adhesives and Technical Subcommittee to allocate $25,000 in funding for APA and Coalition for Fair Energy Codes (CFEC) activities.

APA Technical Services Director BJ Yeh presented a proposal seeking $10,000 towards a study that would compare conventional shearwall design with core shearwalls in mid-rise, non-residential wood-framed buildings. The study is designed to provide a better understanding and characterization on the emerging core shearwall design.

A second proposal presented by CFEC Executive Director Tom Kositzky asked for $15,000 in funding to support CFEC's efforts. The money will assist with continued funding of a consultant who is helping guide amendments to energy codes at the state and national level.

CFEC is an alliance of wood industry companies and associations established to advance the fair and impartial treatment of all building products in energy codes and standards.

EWTA Welcomes New Members

EWTA membership hovered around 97 companies at press time with the addition of several new and rejoining members added since the beginning of the year. They are:

Guardian Chemicals Inc. (www.guardianchem.ca) of Sturgeon County, Alta., a provider of chemical technologies and services for the engineered wood industry. Vice President Greg Pecharsky can be reached at gpecharsky@guardianchem.ca.

Spraying Systems Co. (www.spray.com) of Carol Stream, Ill., a manufacturer of industrial spray nozzles, spray manifolds and turnkey spray systems. The company has 85 sales engineering offices around the world. Brian Valley, director of industrial solutions, can be reached at brian.valley@spray.com.

ADM Systems Engineering Ltd. (www.admse.com) of Quispamsis, N.B., a multi-disciplined engineering and software services firm providing integrated solutions to improve productivity and operational efficiency. Project Manager Stephen Fyffe can be reached at fyffes@admse.com.

Eagle Project Services LLC (www.eagleprojects.net) of Ruston, La., a provider of engineering and project management services in industrial and commercial industries including wood products, pulp/paper and biomass. Jeremy Clark, director of project services, can be reached at jeremy.clark@eagleprojects.net

McGee Industries - McLube Division (mclube.com) of Aston, Pa., a manufacturer of high-technology mold release agents and industrial lubricants. Sales and marketing Vice President Mark Finn can be reached at mark@mclube.com.

For a complete list of members, see the directory in this issue of the *Journal* or visit the EWTA website at www.engineeredwood.org

Tolko Plywood Mills Join APA

The Tolko Industries Ltd. plywood mills in Heffley Creek and Armstrong, B.C. joined APA last October.

The mills produce plywood for flooring, underlayment and sheathing, as well as specialty panels for industrial applications. Tolko has been manufacturing plywood and veneer products for more than 50 years. The company's oriented strand board mills in High Prairie (expected to re-open in 2016) has been an APA member since 1995. Its OSB mill in Slave Lake, Alta. has been a member since 2007 and its Meadow Lake, Sask. OSB facility joined APA in 2003.

"The support services our OSB mills have received from their APA membership has been invaluable," said Tolko Sales, Marketing and Logistics Vice President Hardy Wentzel in a statement. "We look forward to APA helping us meet our goal of supplying superior products that meet the demands of builders."

APA President Ed Elias was equally pleased with the addition of the Tolko mills.

"APA welcomes the Heffley Creek and Armstrong plywood mills of Tolko Industries as new members to the association," Elias said. "Tolko has strong history of support for APA through the membership of their oriented strand board facilities. This further commitment by Tolko significantly strengthens APA's voice in Canada and the broader North American plywood industry. We look forward to Tolko's expanded participation in the association's strategic planning and advisory committee process and program activities."

Tolko's vice president of OSB and Kraft Papers, Jim Baskerville, currently serves on the APA Board of Trustees.

Magazine Honors LP with "Safest Company" Award

Louisiana-Pacific Corp. is among 16 companies named to *EHS Today* magazine's America's Safest Companies list for 2013. The list, compiled annually since 2002, recognizes companies for their leadership in environmental, health and safety issues. LP was also named to the magazine's list in 2007.

"Being recognized as one of America's Safest Companies is a great honor," said LP Health and Safety Director Keith Harned in a press release. Harned is also an APA Safety and Health Advisory Committee member and past chairman. LP was also a Safest Company Award winner in APA's 2012 Safety and Health Awards Program.

Wijnbergen Named CEO, President of Norbord

Peter Wijnbergen, an APA trustee from 2005 to 2011, was recently named president and CEO of Norbord Inc.

Wijnbergen succeeds Barrie Shineton, who served as president and CEO of the company from 2004 until his retirement the end of last year. Wijnbergen, who most recently served as senior vice president and chief operating officer of Norbord, assumed his new post January 1. Shineton was appointed vice-chair of the board of directors.

Carmanah Acquired by Pulp And Paper Industry Supplier

Surrey, B.C.-based Carmanah Design and Manufacturing Inc. was recently acquired by Massachusetts-based Kadant Inc., a supplier to the global pulp and paper industry for $52 million ($54 million Canadian).

"We are excited to join Kadant and believe its global footprint will provide an opportunity for Carmanah to enhance its global market position," said Carmanah President Michael Colwell in a statement. "Kadant's emphasis on product quality and customer-driven solutions fits well with Carmanah's culture."

The company's transition to Kadant Carmanah was expected at the end of last month. The company's personnel, location and products will remain unchanged, the company said in a post on its website.

EWTA Members Named On Business Top Lists

Two EWTA members were recently named as "top" companies in regional business rankings.

Allnorth Consultants Ltd. was ranked 73rd on *Business Vancouver*'s Top 100 Fastest Growing Companies list. The list recognizes companies in British Columbia with the greatest percentage change in revenue over the past five fiscal years.

In Austin, Texas, HT Staffing was ranked 11th in the *Austin Business Journal*'s Fast 50 – an annual list of the fastest growing private companies in Austin. The company was ranked in the "Over $10 Million" category. In 2012, the company debuted in 15th place in the Fast 50 "Under $10 Million" category.

UPCOMING *connections*

2014

APRIL

30-5/1 48th Annual International Wood Composites Symposium, Seattle, Wash., woodsymposium.wsu.edu

MAY

4-7 American Wood Protection Association's 110th Annual Meeting, Newport Beach, Calif., www.awpa.com

6 PwC Global Forest and Paper Industry Conference, Vancouver, B.C., Canada, www.pwc.com

18-20 Composite Panel Association 2014 Spring Meeting, Puerto Vallarta, Mexico, www.compositepanel.org

18-20 Hardwood Plywood and Veneer Association 2014 Spring Conference, Naples, Fla., www.hpva.org

JUNE

3-5 USDA's Forest Products Laboratory SmallWood Conference, Rochester, Minn., www.forestbusinessnetwork.com

11-13 International Bioenergy Conference and Exhibition, Prince George, B.C., www.bioenergyconference.org

26-28 American Institute of Architects Annual Convention, Chicago, Ill., www.aia.org

AUGUST

10-14 Word Conference on Timber Engineering 2014 and Forest Products Society International Conference, Quebec City, Quebec, Canada, www.wcte2014.ca

20-23 International Woodworking Fair, Atlanta, Ga., www.iwfatlanta.com

OCTOBER

15-17 Timber Processing and Energy Expo, Portland, Ore., www.timberprocessingandenergyexpo.com

NOVEMBER

8-10 APA - The Engineered Wood Association Annual Meeting and Info Fair, San Antonio, Texas, www.apawood.org

READER *services*

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To submit letters to the editor:

Letters to the editor are welcome and encouraged. Please include your name, company affiliation, address, and phone and fax numbers. Letters should be no longer than 300 words, and may be edited in accordance with space constraints or for clarity.

To suggest or submit stories:

Story ideas and submissions are welcome. Queries are suggested prior to submitting articles. Send to scain@engineeredwood.org. Writer guidelines can be found in the *Engineered Wood Journal* section of the EWTA website at www.engineeredwood.org.

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To read the current or past issues of the Journal online:

www.engineeredwood.org

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For Info Fair exhibiting information, contact:

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For APA member product questions or assistance:

Contact the APA Product Support Help Desk, 253-620-7400, help@apawood.org.

Mailing and membership lists:

As a matter of policy, mailing lists for this publication are not available. For a listing of members of the Engineered Wood Technology Association (EWTA), log on to www.engineeredwood.org. For a listing of APA members, visit www.apawood.org.

ADVERTISER *connections*

Product Showcase

MEGTEC

MEGTEC Systems
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WEB: www.megtec.com

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JAX

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