TIMBER PROCESSING™

OCTOBER 2018
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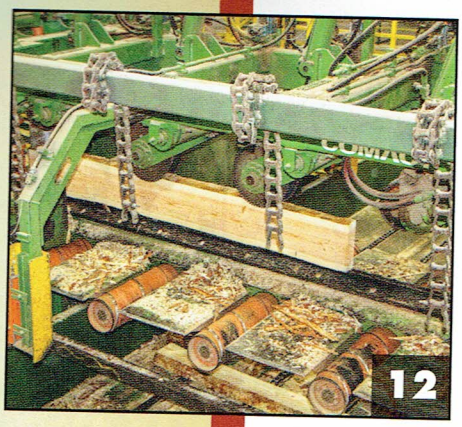
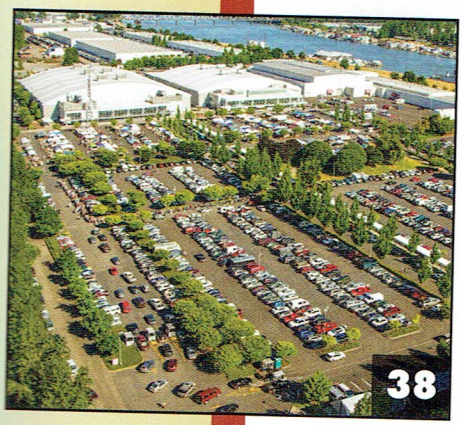
A Hatton-Brown Publication

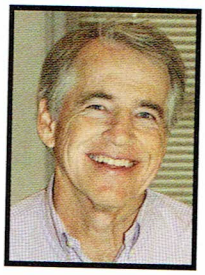
SIERRA PACIFIC DOUBLES UP

NEIMAN THRIVES IN THE BLACK HILLS





Rich Donnell
Editor-in-Chief

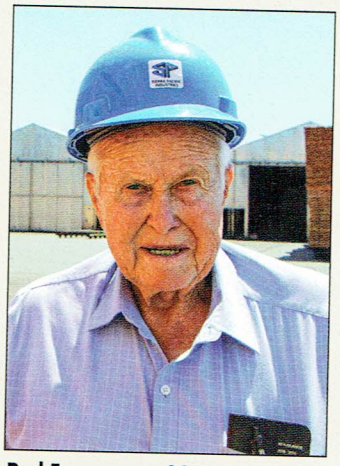


TP&EE PORTLAND WILL HONOR RED EMMERSON

Red Emmerson, the 90-year-old chairman and CEO Emeritus of Sierra Pacific Industries, will be honored during the upcoming Timber Processing & Energy Expo as *Timber Processing* magazine's 2019 Person of the Year.

Since the last issue of *Timber Processing*, when we indicated we would present the award during the Portland, Ore. show to somebody, but didn't name the person, we've received numerous e-mails inquiring as to whom it would be.

Now you know. Archie Aldis "Red" Emmerson himself will be on hand at 4 p.m. on Thursday, October 18 at the Hatton-Brown Publishers Media Presentation Center at the front of the floor in Hall E of the Portland Exposition Center. This will be a quick presentation with a short reception to follow, and really anybody on the show floor at the time can walk over to the Hatton-Brown booth and take it in.



Red Emmerson, 2019 Person of the Year

Mr. Emmerson will be the 31st recipient of the award, which first went to another Northwest sawmiller, Duane Vaagen of Vaagen Brothers Lumber, in 1989. We're hoping that some of the previous persons of the year might be able to stop by the booth and allow us to recognize them to the gathering.

Needless to say we're long overdue (would negligent be a better word?) in presenting the award to Mr. Emmerson. It's almost unfathomable, starting really from scratch, what he has accomplished—partnering early on with his dad—with Sierra Pacific Industries since the post-war years. Today the company operates 14 sawmills in California and Washington, producing in the range of 2.6 billion BF annually. These are high-tech sawmills, as evidenced by our cover story in this issue on SPI's new sawmill at Shelton, Wash. The company owns 1.95 million acres of timberland in those states, making it reportedly the third largest landowner in the U.S. behind John Malone and Ted Turner. Some of the stories about Mr. Emmerson's purchase of some of those timberlands are absolutely remarkable.

Perhaps most impressive of all is the philanthropy undertaken by the Sierra Pacific Foundation toward community projects, youth activities and student scholarships especially in areas where the company has operations.

Red Emmerson remains a sawmiller through and through, and his sons and family members are as well. Our January issue of *Timber Processing* always features the Person of the Year and we hope to be able to sit down with Mr. Emmerson between now and then and get him to reflect on his outstanding lumber career.

TP

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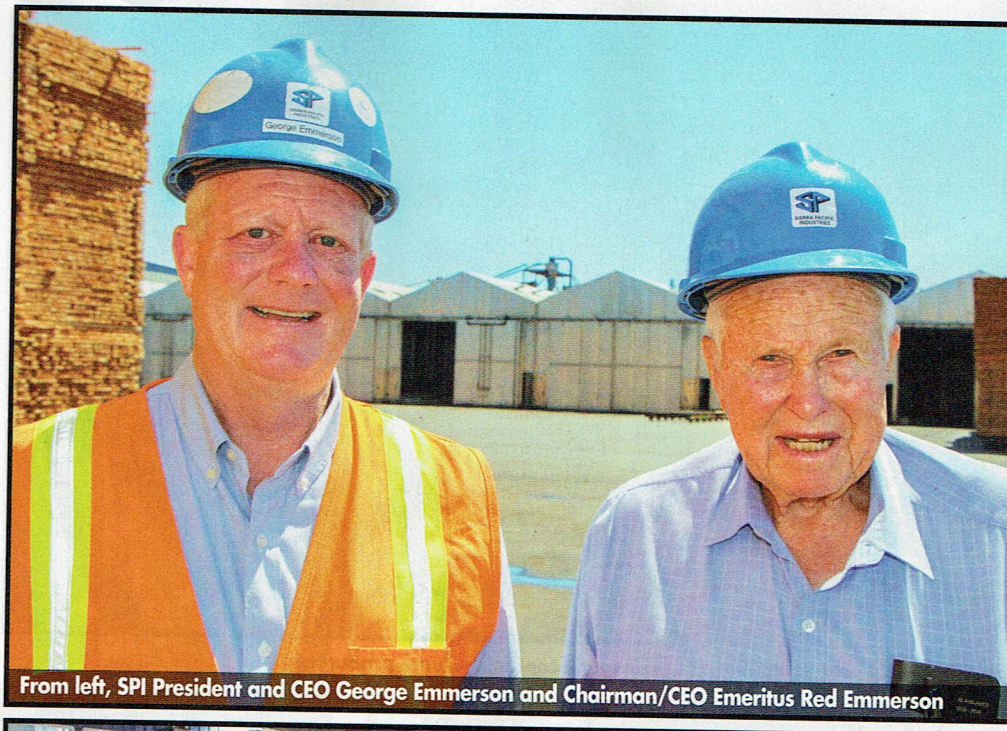
DUAL LINE STUD MILL

By **Dan Shell**

Sierra Pacific's latest Washington mill is a model of compact throughput and efficiency, with high-volume dual line design.

SHELTON, Wash.

Expanding the company's presence and footprint in Washington, Sierra Pacific Industries' (SPI) newest sawmill here is built for high volume and high quality lumber produced in a dual line configuration that's essentially two stud



From left, SPI President and CEO George Emmerson and Chairman/CEO Emeritus Red Emmerson

Merchandising systems feed bins to their respective OLI lines.

Logs entering OLI line flow under Comact scanning system.

mills in one, operating side-by-side. Mill officials say the facility should produce up to 500MMBF annually

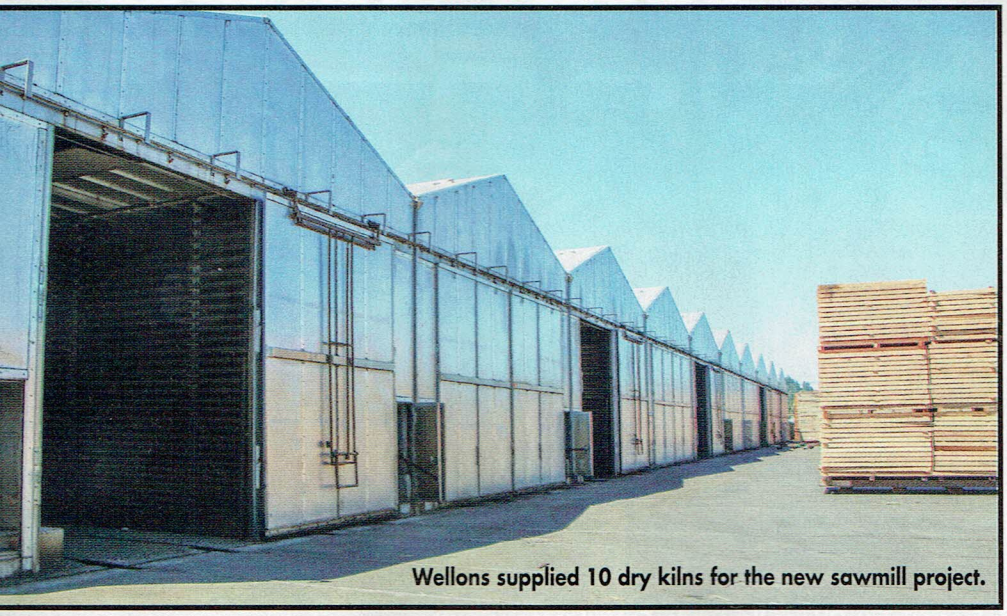
The mill sawed its first log in December 2016 on a transformed site where Simpson Timber had operated a sawmill more than 100 years before SPI bought it in July 2015.

Since then, SPI completely remade the site as it built a new sawmill, converting what was once a sprawling multi-building facility into one large mill building, one shop building, 10 kilns—and a really big log yard. All that's left of the previous facility is the office (since renovated) and boiler.

Key suppliers for the project include Bid Group, which supplied two opti-

Dual processing line design is made for high volume production.

Off-line gang, edger and resaw handle any boards that need additional processing.



Wellons supplied 10 dry kilns for the new sawmill project.

mized length infeed processing lines, two sorter stacker lines and related equipment (off-line resaws, edger and gang), in addition to two planer mill lines with automatic grading systems and sorter-stackers. USNR provided gang saw systems and infeed work on each OLI, and Gilbert provided two planers. Kilns are from Wellons. LogPro (Timber Automation) supplied bucking and merchandising systems. Debarkers are from Nicholson.

The Shelton mill is SPI's fourth in Washington statea. The company is a major independent lumber producer, and prior to the Shelton startup was cranking out more than 2.1 billion BF annually. In addition to the newest mill at Shelton, SPI operates mills at Aberdeen, Centralia and Burlington, Wash. SPI has 10 sawmill operations in California as well as three lumber remanufacturing facilities, plus window manufacturing in California and Wisconsin. In total SPI employs more than 5,000.

A family-owned company, SPI is led by founder and Chairman/CEO Emeritus Red Emmerson and his sons George, President and CEO, and Mark, Chairman and CFO. Their sister, Carolyn Emmerson Dietz, is a Member of the SPI Board of Directors as well as President of the SPI Foundation, which has donated more than $7 million in scholarships and additional donations supporting youth activities and other organizations in the communities where Sierra Pacific Industries operates. Family involvement extends to George's sons Collin and Vaughn, who both work at the Shelton sawmill.

SHELTON PROJECT

The story of Sierra Pacific's move into longtime mill town Shelton, Wash., has its roots in Simpson's decision to separate its timberlands and manufacturing operations into separate companies in 2006. Ultimately, the company decided to sell all its lumber manufacturing facilities:

In late 2014, Simpson sold sawmills at Tacoma and Longview, Wash. Georgetown, SC and Meldrim, Ga. to Interfor. In early 2015 Sierra Pacific purchased the Shelton mill complex, plus smaller operations at Dayton and Johns Prairie, Wash. that were auctioned.

"We really didn't want the whole package," says Red Emmerson. "But by then we had been in Washington a while, really liked the Shelton area and decided we'd try to buy it if we could."

He adds that SPI was attracted to the site thanks to its fully permitted boiler system, waterfront location and rail service

from two lines. Shelton is also a central location on the west side of the Olympic Peninsula that's easily fed by the region's extensive private timberland holdings.

Log availability in the area had a big impact on mill design: Initially, SPI officials were planning a facility with a stud mill and larger log dimension mill but eventually decided on a high production two-sided dual stud mill.

Log availability in the area is good, but smaller stud mill logs a grade below export quality are in better supply. "We decided it would be cheaper to log a two-sided stud mill rather than a large log mill and stud mill," Red Emmerson says.

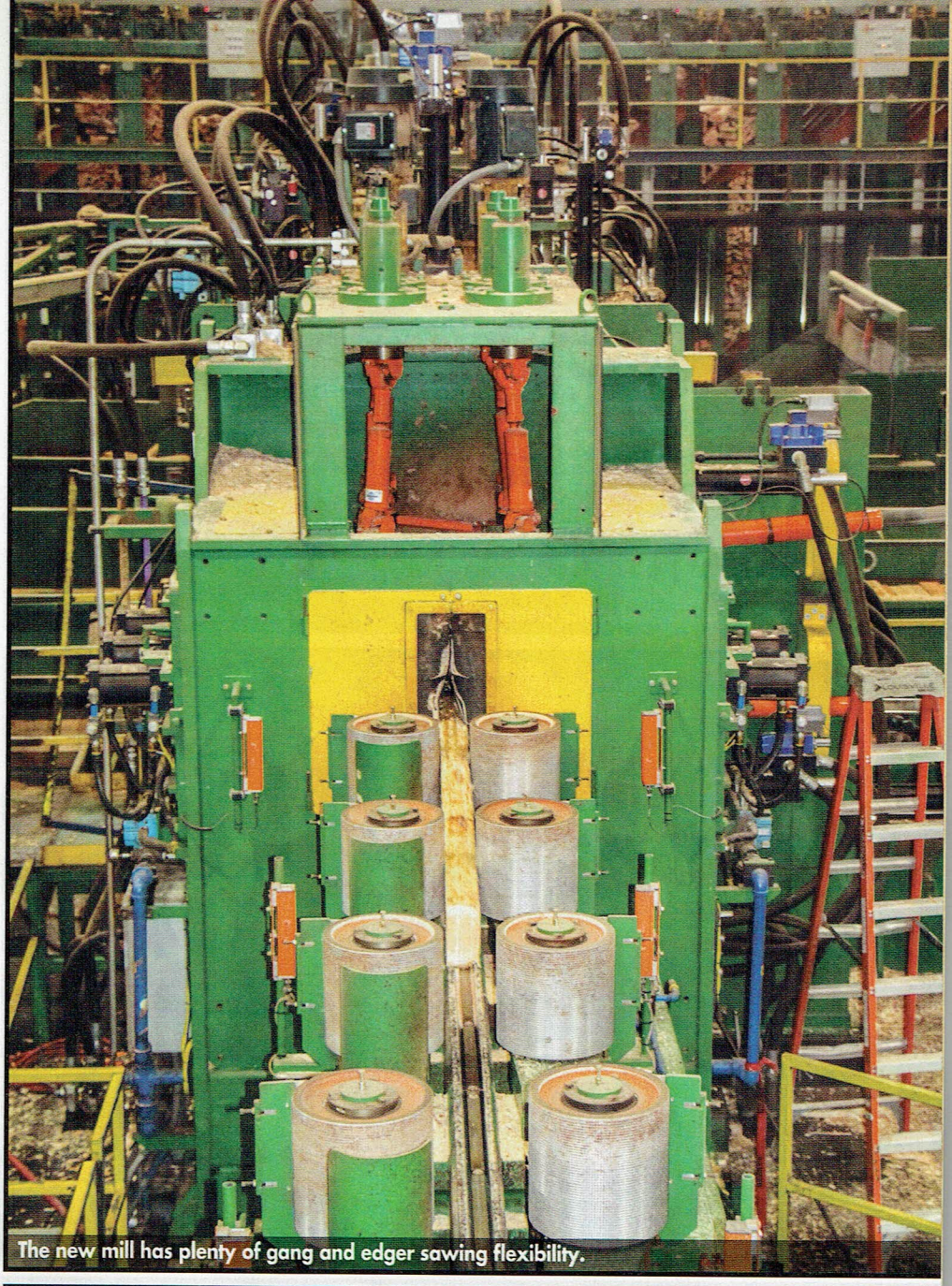
Another reason for the decision was good old competition: With the eventual closure of the former Simpson mills at Tacoma, Dayton and Johns Prairie, logs in the area were looking for a new home, and SPI executives wanted to take full advantage.

NEW MILL

The Shelton mill was designed by SPI's in-house engineering group. Mill design is loosely based on the Centralia sawmill, which has a single line configuration. "The only engineering we farmed out was some of the structural," George Emmerson says. "Almost all our mills—and all of the mills in Washington—have been designed by our own folks."

Following their belief in engineering and fabricating self-sufficiency, one of the first moves SPI made when it began work at the Shelton site was to set up an on-site fabricating facility. With more than 90 employees involved in fabrication throughout SPI (23 at Shelton), the company operates one of the biggest fabricating shops on the West Coast between Sacramento and Portland at its Anderson, Calif. headquarters, and the Shelton facility's fab shop plays a big role in keeping all the Washington mills in good sawing shape. "One of the first things we did here was to start the fab shop with several CNC milling machines, lathes and more," George says.

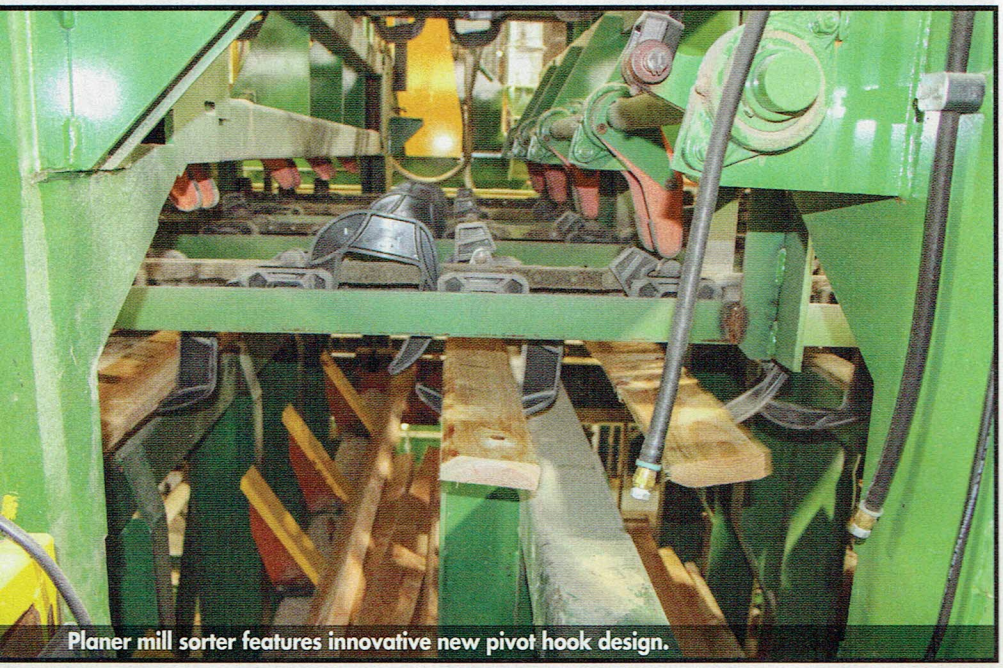
Supporting all its mills in California and Washington, SPI's two main fab shops don't do a lot of new original design work but instead focus on building equipment, components and parts for machines that need repairing. The shops also do a good bit of handling equipment such as conveyors, bins, etc. For example, on the Shelton mill sorter lines the SPI fab shop built the frame work and bins while Bid Group supplied the sorter "top" with its kickers and pivot



The new mill has plenty of gang and edger sawing flexibility.

Planer mill is designed like the green end: two mills running side-by-side.

The mill's only trimmers are in the planer mill.



Planer mill sorter features innovative new pivot hook design.

Sierra Pacific Industries is focused on high production and high quality.

hooks and control system. "We split the machine shop work between here and California, and it's only a 10-hour drive, which isn't too far for a major part or machine," George says. "We try to move the workload around where it makes the most sense and runs the smoothest."

The mill processes primarily Douglas fir and the remainder is hemlock. Log specs for the Shelton facility are down to 5 in. on the small end, up to 23 in. on the butt end, with 40 ft. the preferred length.

Incoming log trucks are unloaded by Komatsu 600 wheel loaders that also feed the mill. A Liebherr log handler performs decking duties. Logs are introduced to two identical processing lines:

Each LogPro bucking and merchandising system feeds four bins that in turn feed their respective processing line. The company continues to refine a plan to sort logs by saw pattern to keep log gaps to a minimum. "We're not quite there yet, but we want to have minimum saw movement between logs," Red says.

Wave feeders in each bin feed logs to a belt that moves them under a Comact C1 scanning system and a quad roll log turner. The Comact Optimized Length Infeed (OLI) line includes a set of canter heads and a Cetec twin band with profiling heads. A USNR Variable Shape Sawing (VSS) gang at the end of each line processes cants. Each OLI can also feed material requiring additional processing to a 4 in. McGehee gang, three-saw high speed Comact edger and Cetec resaw if needed.

Lumber then flows to matching Bid Group sorter-stacker lines: double unscramblers, rotary log loaders, 90° and 180° transfers, 40 bin drag chain sorters and 8 ft. stacker lines. Bid Group supplied controls for the primary breakdown and edger line and sorter-stacker line while SPI handled much of the heavy metal work.

The sawmill filing room features Armstrong Vari-Sharp CNC band saw sharpeners, three #4 Armstrong grinders, three Vollmer round saw grinders, Wright dual side grinders and a Jacobsen plasma tipper.

Simonds supplies both round and band saws, and round saws run with Stellite wire tips. Burton Saw provides most of the filing room's consumables such as grinding wheels, lubricants, etc.

Kilns are from Wellons, 120 ft. new units that operate with Wellons controls and are heated with a wood-fired boiler.

The side-by-side planer mills feature

Shelton Div. Manager Darrin Moorcroft, left, and Washington Operations Manager Curt Adcock

two Gilbert planers that feed to a set of rotary lug loaders that present boards to Comact two-camera GradExpert automatic grading systems. Boards are processed through two Comact double arbor trimmers and two pivot hook sorters with 40 bins. Lumber released from the sorters goes to double unscramblers and double fork stacking systems. Packaging and banding system is from Samuel Strapping.

SPI IN WASHINGTON

The Shelton mill project culminates an almost 20-year run of developing SPI facilities into a major presence in Washington state. Prior to 2000, all SPI assets were in California. While the company had done very well there and outlasted many larger competitors to become the dominant forest products producer in the Golden State, SPI executives believed they had reached the limit for growth in California.

In addition, having all the company's assets in a single state and region with some of the toughest environmental, labor and legal conditions for business led the Emmersons to begin looking elsewhere for expansion.

They found the sweet spot in southwest Washington, where a log export boom in the 1980s and much of the 90s had dissipated, and plenty of logs were looking for a new destination. In addition, mills in the area had closed or not kept up with the technology required to efficiently handle large volumes of small logs. Lumber capacity in the region had atrophied as a result of the strong log export market.

What began SPI's march to Washington was a conversation with Rayonier executives: The company had a closed sawmill in Aberdeen and was looking for someone to buy it and enter into a log supply agreement to help boost local markets for Rayonier's 500,000 acres of timberland in the region.

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18 ➤ Sierra Pacific made the move, although officials decided to build a new mill on another site in Aberdeen, a former mill location that was already cleared. The Aberdeen operation started up in 2002. "It's been successful from Day 1, and we've been really happy with it," Red says.

As the Aberdeen mill was starting up, SPI was already looking at another lumber operation, this time north of Seattle. The company looked at the Darrington Lumber mill that was eventually purchased by Hampton, and also came real close to building a mill in Everett until local restrictions and requirements led officials to look elsewhere.

They settled on Burlington, Wash., where there's decent private timber availability plus the near access to Canadian logs. "This gave us a footprint in another part of the state," George says of the dimension mill that makes a wide range of products.

"It's been successful from the get-go," he says of the mill that started up in 2006. He adds that operating a mill north of Seattle also revealed the city as a "natural barrier" between northern and southern parts of the state along the I-5 corridor, especially for businesses that depend on regular deliveries of raw materials—like sawmills and log deliveries.

"It's hard to do business if you're trying to haul logs through Seattle every day," George says. As a result, the Burlington mill has capabilities to handle a wider range of logs from its procurement area compared to the three southwest Washington mills that occasionally work together on optimum log specs when timber sale location makes log swapping possible.

A year later, SPI made another move in the state when it acquired Centralia Sawmill Co. in Centralia from an investment group that had not completed the single line stud. "They had it about 90% completed when the economic recession of 2008 began. At that time with the uncertainty in the lumber business they decided to sell and we were the successful purchaser," George says.

MOVING FORWARD

Almost two years after sawing its first log, SPI's Shelton Div. Manager Darrin Moorcroft says the mill is running well and continues to seek more consistency and continual improvement. SPI Washington Operations Manager Curt Adcock says, "Logistically, the Shelton area was a perfect fit for fiber resources and the transportation available." He adds that Shelton's proximity to the other southwest Washington mills helps with workforce needs and offers more growth opportunities for crew members.

The mill is expected to produce around 100MBF/hr. once all the crews are more fully trained and experienced, SPI officials say. According to Adcock, "Overall, it's been a really successful project," he says, noting there haven't been any issues with design, material flow or equipment capacities. "We are quite pleased with the Shelton operation, as it came in not only on time but on budget," he adds, noting the challenges of auctioning and demolishing the old facility, adding infrastructure and building a new mill.

"Not only does it fit well with our other Washington operations, the additional stud capacity fits well with our overall SPI lumber production and having the additional volume of studs really complements our product offering to the market," George Emmerson explains. "We are quite excited about our growth in Washington State and anticipate that we will continue to grow our presence in the region." TP