

ABOUT STANDARD STRUCTURES, INC.



Carlo Caletti, who had pioneered modular housing during the post-World War II construction boom, founded Standard Structures, Inc. (SSI) in 1947. In his work, he made extensive use of wooden beams and arches laminated with glue. The Glulam Beam became the basis for the company's major product line. The current CEO is Mr. Richard (Dick) Caletti. Mr. Caletti graduated in 1950 with an Engineering degree from the University of Santa Clara and then went on to serve three years in the United States Army Corps of Engineers. In 1953 he joined SSI as a production scheduler.



To this day, Standard Structures remains family owned. Mr. Steven Caletti, who like his father Richard, also earned his engineering degree from the University of Santa Clara, joined the company in 1985. He is currently the Product Development Director.

Led by our CEO, Richard Caletti, Standard Structures, Inc. currently fabricates approximately 10,000,000 lineal feet of joists and trusses, and 14,000,000 BF of glulams per year. We are also the leading fabricator of custom complex beams in the Western United States. Since the birth of SSI, we've developed many new products and boast a wide variety such as assembled trusses, SSI I-Joists, SSW's, SST's and of course the glulams. We've since come a long way from the late 1940's when our glulam beam was first introduced.

During the 1950's and 1960's, there became an increased demand for custom made complex arches and custom made beams. SSI dedicated the company to improve building techniques and refined the technology to respond to this demand for creative arches and even more specialized beams.

As the 1970's approached, the company continued this philosophy under its new slogan 'Developing Better Ways to Build'. A strong increase in the demand for straight commercial glulams required increased production. Therefore, in 1972, SSI acquired the current fabricating site in Windsor, California, which boasts nearly 350,000 sq. ft. of fabricating space. This newly expanded space gave us the opportunity to also develop some new products.

The first new product to be added to our credits was the Mini Lam (ICBO # 3327). Mini Lam was a glulam designed to take the place of conventional 3x and 4x solid timbers used as headers. In comparison, the Mini Lam sizes used a net width of 2 1/2" x and 3 1/2" x with depths starting at 7 1/2" and increasing in 2" increments. The bending stress of this beam was 20F in lieu of conventional 24F and the moisture content was 15%.

Next up in our new line of products was the XL Joist (ICBO # 4901). XL Joists were developed as a substitute for conventional 2x floor and roof joists. XL offered finger-jointed long lengths (up to 72'), with moisture content at 15% or less. This product offered superior floor performance, as compared to normal 2x joists.

As time passed, an increased demand for Glulams created a supply problem for Douglas Fir Lam stock. To address this problem, SSI developed and obtained an ICBO code approval for using Hem Fir, in lieu of Douglas Fir as lam stock material. These Hem Fir Glulams had their own combination lay-up.

During the late 1970's, the commercial and industrial market demand for glulams became even stronger. In response, SSI obtained code approval for ICBO 3584. This was a new product specifically designed for glulam floor joists, and had a rating of 16F. For the panelized roof market, SSI obtained code approval ICBO 3983 for a 24F glulam purlin with 2 1/2" and 3 1/4" widths to be used for a Panelized Roof system.

Continuing its vision in engineered wood products, SSI then developed their own I-Joist facility in Windsor. In 1981 the SSI I-Joist product was born and was given approval under ICBO 4325. Soon after, the 'r' chord feature for these I-Joists was developed. This feature addressed the requirements of close nail spacing and eliminated splitting to the top chord of an I-Joist.



In 1990, SSI responded to the specific need for long span and/or heavy loaded design conditions by developing an Open-Web Truss which we call our "SST".

The SST is a metal press plated truss with a 14" end bearing block. The bearing block sits in a top flange hanger thus providing a flush framed installation. Then most recently in 2003, SSI developed another Open-Web Truss to complement their total product line of Commercial Wood products. The SSW is a top Chord Bearing Metal Web Pin Connected Truss which was incorporated as part of code approval ICBO 5803.



As we head into our future, SSI will continue to respond to the needs of the building community through further research and product development. If you have a special need, contact SSI. SSI continues to be dedicated to 'Developing Better Ways to Build'.

Standard Structures, Inc. (SSI) fabricates and markets engineered structural wood products produced for the commercial and multi-family construction industry. SSI has been in business continuously since 1947 and is a major supplier of engineered wood products in the commercial marketplace.

Product Application

Standard Structures, Inc. maintains a staff of professional engineers and technical specialists to insure proper product application. State-of-the-art technology allows our specialists to detail each product to accommodate the unique requirements of your project. Services such as computer-assisted layouts and product placement plans (shop drawings) are available.

Design Assistance

Standard Structures, Inc. maintains a Design Assistance Department whose sole function is to provide the design professional with the assistance required to create the most cost effective designs for both floors and roofs. Services available include preliminary designs and cost analysis as well as help with calculations for building department approval or development of specialized product adaptations for unique design challenges. Basic product design information is available to the design professional 24 hours a day through our web-site www.ssispec.com or call 1-877-980-SPEC (7732). The goal of the Design Assistance Department is to help you provide "effective designs through product versatility."

Engineering Responsibility Position Statement

Standard Structures, Inc. is a fabricator of engineered wood components. It employs a staff of engineers to aid in the development, fabrication and marketing of its products. SSI is unable to accept the responsibility of the design professional of record for any structure. We will, however accept the delegation of engineering responsibility but only for the products it fabricates. This is only providing that the design professional of record or other responsible party specifies the application conditions. Standard Structures, Inc. provides engineering in the design of its products and does not displace the need on any project for a design professional of record.

Product Descriptions



SSI I-Joist and SSI I-Purlin

The SSI I-Joist offers a lightweight roof and floor joist product specifically developed for multi-family, light commercial, and light industrial applications. For its wood flanges, this product is fabricated with either machine stress-rated lumber (MSR) or laminated veneer lumber (LVL). This I-Joist product also uses structural grade oriented strand board (OSB) webs. All top and bottom MSR chord members are tension tested. The flange sizes range from 1 1/2" to 3" in depth and 2 1/2" to 3 1/2" in width and the joist depths range from 9 1/2" to 32". This range of product offerings allows for the most cost and design effective joist to be used in floor, roof, and purlin applications.

SST Truss and SST Purlin

The SST open web truss has several series specifically developed for the more stringent long span demands of light commercial and light industrial applications. Whether utilized in a commercial office floor or in a purlin application for panelized roof construction, the SST Truss can efficiently accommodate the gravity and wind/seismic loads. Its conventional "flush framed" installation results in a lower total installed cost by eliminating the need for installing special blocking at bearings, and reducing the amount of bracing due to its more rigid cross-section. The SST Truss can be designed in a variety of profiles including parallel, tapered and pitched. Just like the SSI I-Joist, all top and bottom chord members are tension tested.





SSW Truss

The SSW open web truss combines wood and steel, to provide a strong and lightweight truss for use in commercial and light industrial applications. The open web design allows for large duct penetrations thus increasing ceiling heights and design flexibility. MSR chords and steel tube web members are connected using hardened steel pins. SSW trusses are custom designed and fabricated with very tight tolerances. Chords are tension tested prior to truss assembly. The range of depths is 14" to 64" with lengths up to 70'. These trusses are available in various profiles including parallel, tapered and pitched.

Engineered Wood Beams

- **Glued Laminated Timber**
glulams are a stress-rated engineered wood product made up of wood laminations (or lams) that are bonded together with adhesives. Individual lams are 2" nominal thick for Western species. glulams range in net widths from 2 1/2 to 14 1/4 inches. Custom members are available in virtually any size and shape that may be required to meet the design conditions. Available lengths can range up to 120'-0. HSC (High Strength Composite) 32F and 30F glulam beams in multiple sizes are available.
- **Custom/Complex Laminated Timber**



Standard Structures, Inc. can provide solutions for custom and complex engineered timber design. Our fabricating and assembling abilities are not limited to standard beam shapes and sizes. We can supply laminated members to meet the most complex design configurations and size requirements, including any curved arches, tudor arches or bolted connected trusses.

Product Features of SSI I-Joists, SST Open Web Trusses and SSW Open Web Trusses

All Standard Structures, Inc. products are custom engineered, but share similar performance characteristics that make them the ideal engineered wood component for today's construction challenges.

- **Light Weight/Ease of Handling**
Product composition and shape allows for maximum strength with a minimal amount of material. Light weight and wider more stable cross-sections result in lower erection costs and faster construction.
- **Nailable Flanges and Chords**
Attachment of decking material has become easier due to wider chords and flanges. Factory applied 'r' chord can be specified when additional split resistance is needed to accommodate nail spacing as close as 1 inch on center.
- **Minimal Waste**
All engineered wood products offered by Standard Structures, Inc. are fabricated with material having low moisture content. This virtually eliminates twisting and shrinking. These products can be ordered cut to length at the factory resulting in additional labor and material savings.
- **Field Trimming**
Construction realities dictate that on some occasions, components may require additional trimming to length. Generally, all engineered wood products offered by Standard Structures, Inc. have some degree of "trim-ability" except for the SSW Truss. SST Truss has 1 inch each end for trimming.
- **Mechanical Access**
Ductwork, plumbing and wiring can easily slip through all open-web trusses. The web of the SSI I-Joists can also be cut or drilled to accommodate larger ductwork or piping (but only after referring to the location and hole size diagram).

- **Seismic Compatibility**
All engineered wood products offered by Standard Structures, Inc. are capable of accepting direct application of many seismic connections. WF2 and WF4 factory attached web fillers will handle lateral loads up to 10,000 lbs.
- **Dependable Deliveries**
Our fabrication facilities are centrally located in the heart of the largest construction market in the Western United States which provides for timely deliveries and responses to job-site inquiries.

Product Features of SSI Engineered Wood Timbers (glulams)

- **Minimal Waste**
All engineered wood products offered by Standard Structures, Inc. are fabricated with material having low moisture content. This virtually eliminates twisting and shrinking. These products can be ordered cut to length at the factory resulting in additional labor and material savings.
- **Field Trimming**
Construction realities dictate that on some occasions, components may require additional trimming to length. Generally, all engineered wood timber products offered by Standard Structures, Inc. have varying degrees of "trim-ability" dependant of the type.
- **Seismic Compatibility**
All engineered wood timber products offered by Standard Structures, Inc. are capable of accepting direct application of seismic connections.
- **Aesthetics**
Glued-laminated wood beams offer the classic natural wood appearance that holds a timeless appeal.
- **Design Advantages**
Glued-laminated wood beams can be fabricated in a wide range of shapes, sizes and configurations. These attributes allow builders and designers more design versatility than they would have with other structural products.

The Environment

Standard Structures, Inc. offers a number of engineered wood products that are third party certified: "FSC (Forest Stewardship Council) - Smart Wood". All of SSI engineered wood products offer an environmentally sound alternative to conventional dimensional lumber. Projects designed with SSI engineered wood products require about half the number of trees as those built with dimensional lumber. SSI products are fabricated from "renewable building material" and require less energy to produce than steel, concrete, or other materials.

Every precaution has been taken to assure that all data and information contained in this literature is as accurate as possible. However, Standard Structures, Inc. cannot assume responsibility or liability for errors or omissions resulting from the use of this literature in the plans or specifications.

