

# GOOD CONNECTIONS®



WINTER 2021

5

Change is Challenging:  
L&P Building Supply Case Study

9

Improving Design Efficiency  
with Component Catalog

11

Important Check Points for  
a Truss Design Drawing





## CALENDAR OF EVENTS

# 2021 UPCOMING U.S. & CANADA HOLIDAY OFFICE CLOSURES

## U.S.

### Christmas

Friday, December 24

### New Year's Day

Friday, December 31

Monday, January 3, 2022

## CANADA

### Holiday Closure\*

Friday, December 24 - Monday, January 3, 2022

\*Our local sales and software representatives will try to monitor e-mails periodically to assist with emergency issues



[Register or log in here](#)

## UPCOMING ALPINE ACADEMY WEBINAR TOPICS

- IntelliVIEW Suite Job Designer | January
- Newer Features of iPanel | February
- New Features of IntelliVIEW Suite | March
- STITCHER Best Practices | April
- Attic Truss Introduction | May
- Floor Truss Tips and Tricks | June

All software training webinars are held  
**11 AM - 12 PM (EST)**

(Sessions and time are subject to change)

If you have suggestions for a class or questions, please email us at [training@alpineitw.com](mailto:training@alpineitw.com)



L&P Building Supply transitions their truss manufacturing system to Alpine – pg. 5

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### Publishers Note:

Good Connections® is published by Alpine® for its customers, associates, builders, architects, building officials, and other professionals interested in the building components industry.

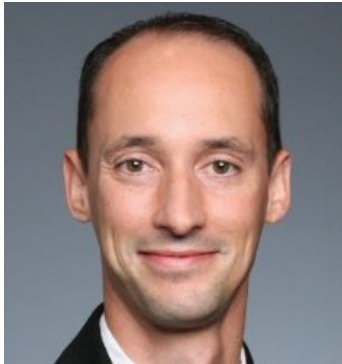
At Alpine, "Good Connections" refers to the quality products and services we offer as well as the connections we have with our customers and the components they provide to the building industry.

We appreciate story ideas, project photos, and other suggestions that you have to make this an even better publication. For more information, contact [marketing@alpineitw.com](mailto:marketing@alpineitw.com).

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## OBSERVATIONS



**Kevin Kraft**

Vice President &  
General Manager

Kevin Kraft is the Vice President and General Manager responsible for overseeing the Alpine® business for ITW. Previously he was the Engineering Director for ITW's Residential Construction Design Center in Lake Forest, Illinois. He led the research and development of innovative fastener and connector systems for the wood-to-wood construction market. He has also served as Research & Development Manager at the ITW Innovation Center in Glenview, Illinois.

As we wrap up another eventful year, I'd like to take a moment to look back and reflect on our journey in 2021.

It was great to be able to attend BCMA in person this year. It was a pleasure to see everyone again, and we always appreciate the opportunity to strengthen our relationships while learning from them.

A special highlight for Alpine was to see Michael Martz being awarded the prestigious SBCE Hall of Fame Award. With over four impressive decades in the component manufacturing industry, Mike's contribution towards the industry and Alpine® will always be recognized and appreciated. I would also like to recognize the late Donald Thiel, Carpenter Contractors of America (CCA), for being awarded the Lifetime Achievement Award. We continue to remember Don's legacy and dedication through the accomplishments of CCA.

We have witnessed an incredibly strong housing market and our customers have had great success this past year. With high demand on the lumber and steel side and an expectation for strong housing to continue through 2022, we're confident in our ability to meet our customers' demands.

A large part of our success is due to our incredible employees who have diligently worked to get things done and keep our customers happy. Without the phenomenal effort and dedication of each of our employees, we would not have accomplished what we did this year.

In 2021, I'm thankful for both the long-term relationships we have with our customers and the newly formed partnerships that have been made this year. As always, challenges will be present, but I am confident that the strengths of our business relationships and the dedication of both our teams will allow us to deliver to our customers, and ultimately your customers.

I wish each and every one of you a wonderful and safe holiday season and a prosperous new year. Thank you for your continued partnership.

A handwritten signature in blue ink that reads "Kevin Kraft". The signature is stylized with a cursive-like flow.



## INDUSTRY NEWS

NAHB IBS 2022  
February 8-12, 2022  
Orlando, FL



© Nick Hagen Photography

### Construction Job Openings Surge to Record High

The labor market continues to tighten, especially for the construction industry. The count of open construction jobs increased to 410,000 unfilled positions in October, the highest measure in the history of the Job Openings and Labor Turnover Survey data. The housing market remains under built and requires additional labor, lots, and lumber and building materials to add inventory. [LEARN MORE](#)

### November 2021 Housing Starts

U.S. homebuilding surged to an eight-month high in November amid an acute shortage of properties on the market, though higher prices for raw materials and labor shortages remain a constraint. Housing starts increased 11.8% to a seasonally adjusted annual rate of 1.679 million units last month. [LEARN MORE](#)

### SBCA Open Quarterly Meeting

SBCA's first Open Quarterly Meeting (OQM) of 2022 will be held from Tuesday, January 25th to Thursday, January 27th in New Orleans, Louisiana. There will be educational and networking opportunities, and time spent working towards SBCA's goals for 2022. [LEARN MORE](#)

### NAHB IBS 2022 | Booth W6071

Visit Alpine® at booth W6071 for the upcoming International Builder's Show 2022 by the National Association of Home Builders, from Tuesday, February 8th to Thursday, February 10th at the Orange County Convention Center in Orlando, Florida. [LEARN MORE](#)

### BCMC 2022

Building Component Manufacturers Conference 2022 will be held from Monday, September 12th to Friday, September 16th at the Greater Columbus Convention Center in Columbus, Ohio. Stay tuned to learn about Alpine's exciting new innovations designed for component manufacturers. [LEARN MORE](#)

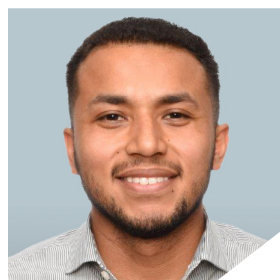
## NEW ORGANIZATIONAL APPOINTMENTS



### Andrew Bauer

Equipment Field Service Technician

Andrew Bauer joined Alpine as an Equipment Field Service Technician. Working remotely from Illinois, Andrew joins us with several years of experience as a maintenance technician. In his current role, Andrew is responsible for installing, troubleshooting, and repairing Alpine equipment.



### Dennis Martinez

District Sales Manager

Dennis Martinez joined Alpine® as a District Sales Manager, California. With over five years of experience in sales, Dennis is responsible for working with our customers and prospect accounts in the Western territory, focusing on Alpine's connector plates, equipment, and software solutions.



## CONGRATULATIONS TO MICHAEL MARTZ FOR WINNING SBCA'S HALL OF FAME 2021 AWARD

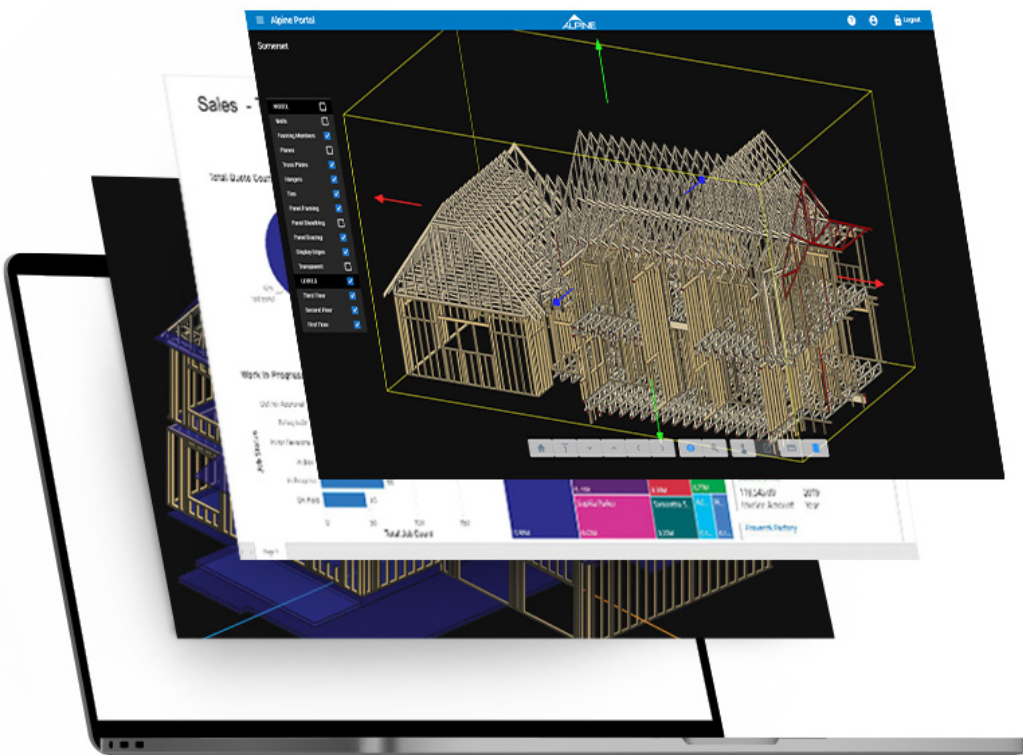


**Michael Martz**  
Retd. Alpine Regional Sales Manager

Mike established unbelievable relationships with fellow employees, customers, prospects and competitors over his career spanning over 40 incredible years in the component manufacturing industry. He had announced his retirement from Alpine® in December 2020.

We thank Mike for his significant contributions to the industry and Alpine.

### ALPINE PORTAL 1.5 NOW AVAILABLE



#### 3D Viewer Enhancements

Improved speed and reaction time when viewing or navigating large 3D models

#### New 3D Viewer Section Tool

A new Section tool allows designers to cut 3D models in any direction while exploring component(s) interactions

#### Help Documentation

Now available online in a single location for easy access from anywhere in the IntelliVIEW® Suite

## CHANGE IS CHALLENGING: L&P BUILDING SUPPLY CASE STUDY

Change is challenging. Many companies forgo the long term advantages of migrating systems simply because they can never find a good time to deal with the short-term complexities of change. But a good partner will make that process smooth and easy. Alpine® works side-by-side with component manufacturers to help them bring a new system up to full speed and begin maximizing efficiency and performance as soon as possible.



### THE CHANGE TO ALPINE

When L&P Building Supply made the decision to transition their truss manufacturing system from a former partner to Alpine, there were a lot of moving parts to consider. Most notably for L&P, they would be bringing on a new General Manager who did not have deep industry

experience. As it turned out, the change to Alpine not only improved service, reliability, and communication, it helped tremendously in bringing new plant leadership up to speed.



Steve Lueck, General Manager,  
L&P Building Supply

"Regardless of what industry I've been in, having service providers and suppliers who are part of our process is critical to me. Alpine has been able to really partner with us, adapt to our process, and has helped us make a lot of positive changes. Alpine is just tremendous. Their responsiveness is something that I think is second to none in terms of any service provider I've worked with in any industry I've been in. Alpine certainly is at another level."

## How Alpine Experience Helped L&P Building Supply Improve Service, Reliability, & Communication

### KEY SUCCESS POINTS

Alpine adapted its systems to fit L&P Building Supply's specific manufacturing processes, requirements, and environments. Suddenly, L&P was able to do things it wouldn't have been able to do before without considerable investment.

Through the flexibility of the iCommand® software interface and an array of adjustable settings and design defaults, Alpine was uniquely able to meet L&P's needs in a way that exceeds customer expectations.

The experienced team at Alpine® offers ground-level support before, during, and after implementation, ensuring L&P's operation is performing as efficiently and competitively as possible.

### IMPACT

With Alpine's support and products, L&P Building Supply was able to improve operational performance, gain efficiencies, bring a new General Manager on board and up to speed, while also advancing its market position.

Significant productivity gains were seen in two areas:

1) through eShop on the manufacturing floor, especially at the saws and tables; and 2) on the administrative and scheduling side where iCommand® has brought L&P to a performance and efficiency level Steve Lueck calls "the difference of a generation" when compared to L&P's previous system.





# Improve Plant Production. Maximize Labor. Automate Your Truss Manufacturing.

Drive your truss plant into a sustainable future. House of Design, an ABB Robotics integration company, and Alpine, an ITW Company, have teamed together to bring you the latest in robotic solutions. Solutions that increase your plant's production throughput while helping solve labor concerns and improve employee safety. Contact your local Alpine Sales Representative to learn more.

Automated Roof & Floor Truss Systems | Roof Member Preplate | Chord Preplate | Connector Plate Picker | Splicing Station

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Exclusive House of Design Representative



**Rudolph Garza, Jr.**  
Software Consultant

## IMPROVING DESIGN EFFICIENCY WITH COMPONENT CATALOG

The IntelliVIEW® Suite offers many useful tools to simplify truss design. The Component Catalog provides designers the means to compile fully engineered and optimized truss designs for reuse on current and future jobs.

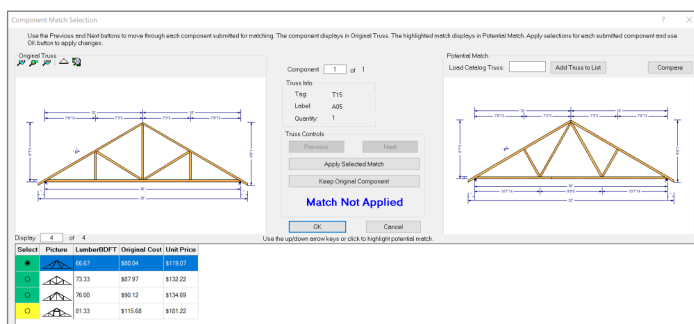
### MATCHING

Component Catalog trusses can be easily matched to trusses in a current job utilizing complete or partial match. This is a helpful tool in repetitive truss design.

**Complete Match** is a fully engineered and optimized truss that will provide maximum time savings for a designer by eliminating further analysis.

**Partial Match** trusses provide a truss that is similar to the desired design with minimal changes required for analysis.

This dynamic flexibility allows the designer control over which Component Catalog trusses best fit the job.



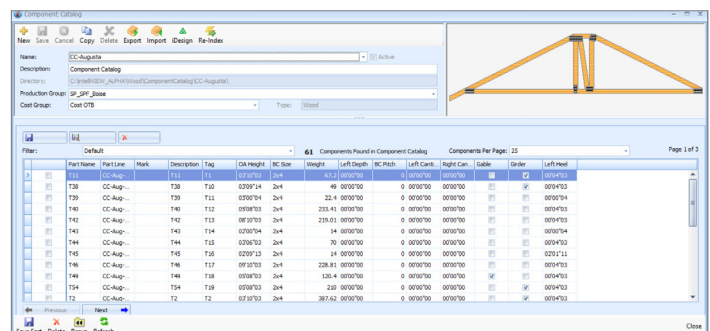
Component Match Selection helps select trusses from the catalog that best fit the job.

### TIME SAVINGS

The Component Catalog saves designers time. Using the Component Match Selection function, trusses can be identified in the Component Catalog and used in the current job. It will eliminate the need for designers to manually review trusses in iDesign, optimize material, and/or plate trusses.

### EASY ACCESS AND ADMINISTRATION

The Component Catalog is part of the IntelliVIEW® software. Trusses can easily be added to the Component Catalog through iModel or iDesign. As lumber and/or plate prices change, the trusses in the catalog can be updated. An extra layer of security in iCommand® provides specific users permission to add or modify trusses within the catalog to protect the integrity of the content.



Build a catalog of fully engineered and optimized truss designs for use on current and future jobs.

The Component Catalog is a valuable tool that can benefit truss designers with minimal effort, providing time savings and consistency in repetitive truss design.

Contact your local Alpine® Sales Representative or visit [alpineITW.com](http://alpineITW.com) for more information.



# IntelliVIEW

## Manage. Design. Build.

The industry's most powerful integrated component design, engineering, and management software for steel and wood-framed structures.

### ■ iCommand

Manage projects, customers, materials and pricing

### ■ iModel

Design truss layouts and profiles

### ■ iDesign

Optimize material usage and engineer trusses

### ■ iPanel

Design wall layouts, panelize, bundle, break and stack

### ■ eShop

Manage component production, labor and efficiencies

The IntelliVIEW suite is a fully integrated software solution for the layout and design of a building's rough framing elements—including roof and floor trusses, wall panels, solid sawn, EWP, construction hardware, sheathing and various ancillaries.

The IntelliVIEW suite provides the industry's most complete analysis of the design, cost information and bill of materials—promoting increased profits by reducing plate and lumber use.

**Ask those who know. They'll tell you about the people at Alpine who make a difference.**

BUSINESS & DESIGN SOFTWARE | CONNECTOR PLATES  
EQUIPMENT | ENGINEERING SERVICES & SUPPORT



*Building Partnerships*

Call 800-521-9790 or visit [www.alpineitw.com](http://www.alpineitw.com)  
for complete information





**Yoonhwak Kim, PE**

Senior Engineer

## IMPORTANT CHECK POINTS FOR A TRUSS DESIGN DRAWING

A Truss Design Drawing (TDD) includes specific information<sup>1</sup> for structural engineers and building designers: truss profile, plates, loadings, wind speed, codes, enclosure, exposure, reactions, deflections, materials, bracing, bearings, etc. The maximum reactions are the most important values in a truss design. These reactions are used for designing structural components (e.g., column, lintel, connector, dowel, and foundation).

Figure 1 is a typical roof TDD.

Sections **A**, **B**, and **D** are important in determining the correct maximum reactions in **C**.

**A** shows gravity loading and the load duration factor used to design a truss. The proper loadings indicate the least value per code(s). For example, the minimum uniform live loads are 20psf for roof trusses per ASCE7-16<sup>2</sup>, Table 4.1. Also, the load duration factor should be 1.25 for roof, 1.15 for snow, and 1.00 for floor trusses per NDS 2018<sup>3</sup>, Table 2.3.2.

Loading Criteria (psf)	
TCLL:	20.00
TCDL:	10.00
BCLL:	0.00
BCDL:	10.00
Des Ld:	40.00
NCBCLL:	10.00
NCBCLL:	10.00
Soffit:	2.00
Load Duration:	1.25
Spacing:	24.0 "

**A**

**B** details the wind, snow, and building code information. In one job, the wind/building code, wind speed, risk category, and exposure must be the same (wind enclosure can be mixed within a job). If there is a truss which has different wind information, the truss will show wrong reactions in **C**.

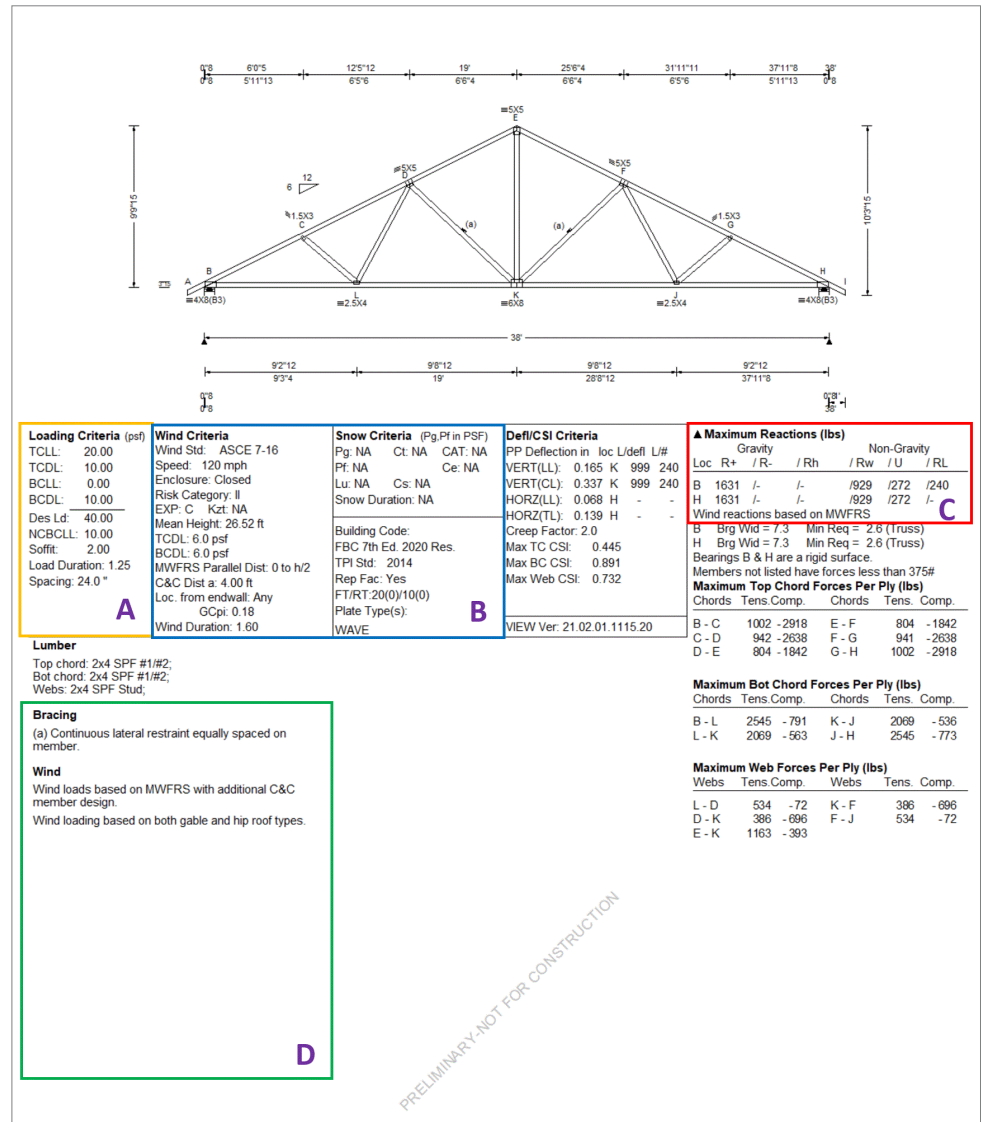


Figure 1. Roof Truss Design Drawing

Once the loading criteria is correct the drawing can then be reviewed and signed by an Alpine® Professional Engineer, typically within one business day.

Also, dead loads in wind load case, shown as TCDL/BCDL in Figure 1, cannot be larger than 60% of the dead loads in **A**. This came from the allowable stress design (ASD) loading combination,  $0.6D + 0.6W$ , to obtain the highest uplift per ASCE7-16<sup>2</sup>, 2.4.1. The code and TPI standard should be the right version per county, city, or local regulation.

Truss deflection, connector plate types and sizes, Combined Stress Index for member (CSI) and bearings all need to be checked to ensure the stability of the truss. When any of these factors are inadequate for the truss, IntelliVIEW® software displays a note in section **D**. This is especially important for a girder truss because these types of trusses are designed to support other trusses. For a **girder truss**, IntelliVIEW<sup>4</sup> software highlights special loads including supporting loads on the truss. These **special loads** directly affect the maximum reactions in section **C**. Therefore, to obtain the correct values in section C, it is crucial to check the special loads carefully.

Once the loading criteria is correct the drawing can then be reviewed and signed by an Alpine Professional Engineer, typically within one business day. Always remember in the TDD, section C is the most important check point as sections **A**, **B**, and **D** will supply the information to obtain the correct values in **C**.

## REFERENCE

1. How to Read a Typical Alpine® Component Drawing [HowToReadComponentDrawing-Rev7.pdf](#) ([alpineitw.com](#))
2. ASCE7-16 Minimum Design Loads and Associated Criteria for Buildings and other Structures
3. NDS 2018 edition for Wood Construction
4. IntelliVIEW® Suite: The software solution for Component Manufacturers ([alpineitw.com](#))

ASCE7-16, Table 4.1 Minimum Uniformly Distributed Live Loads

Occupancy or Use	Uniform psf
Roofs, Ordinary flat, pitched, and curved roofs	20
Residential, all other residential occupancies	40

NDS 2018, Table 2.3.2 Frequently Used Load Duration Factors,  $C_D$

Load Duration	$C_D$	Typical Design Loads
Permanent	0.9	Dead Load
Ten years	1.0	Occupancy Live Load
Two months	1.15	Snow Load
Seven days	1.25	Construction Load
Ten minutes	1.6	Wind/Earthquake Load
Impact <sup>2</sup>	2.0	Impact Load

Wind Criteria	Snow Criteria (Pg,Pf in PSF)
Wind Std: ASCE 7-16	Pg: NA Ct: NA CAT: NA
Speed: 120 mph	Pf: NA Ce: NA
Enclosure: Closed	Lu: NA Cs: NA
Risk Category: II	Snow Duration: NA
EXP: C Kzt: NA	
Mean Height: 26.52 ft	
TCDL: 6.0 psf	Building Code:
BCDL: 6.0 psf	FBC 7th Ed. 2020 Res.
MWFRS Parallel Dist: 0 to h/2	TPI Std: 2014
C&C Dist a: 4.00 ft	Rep Fac: Yes
Loc. from endwall: Any	FT/RT: 20(0)/10(0)
GCpi: 0.18	Plate Type(s):
Wind Duration: 1.60	WAVE

**B**

▲ Maximum Reactions (lbs)						
Gravity			Non-Gravity			
Loc	R+	/ R-	/ Rh	/ Rw	/ U	/ RL
B	1631	/-	/-	/929	/272	/240
H	1631	/-	/-	/929	/272	/-

Wind reactions based on MWFRS

**C**

Bracing
(a) Continuous lateral restraint equally spaced on member.
Wind
Wind loads based on MWFRS with additional C&C member design.
Wind loading based on both gable and hip roof types.

**D**



## WHAT IS THE DIFFERENCE BETWEEN “MAIN WIND FORCE RESISTING SYSTEM” (MWFRS) AND “COMPONENTS AND CLADDING” (C&C)?

**MWFRS** is defined as an assemblage of structural elements that will support and stabilize the building from wind pressures on different surfaces. Think of it as a roof system that will resist wind pressures.

**C&C** refers to single element of the building that receives wind pressures, and these elements or components can be part of the MWFRS.

The Alpine® Engineering Department takes the position that trusses are part of an assemblage of structural elements and as a single element of the overall structure. That is why we apply both MWFRS and C&C wind pressures to truss designs with our engineering software, IntelliVIEW® Suite.

*William H. Krick P.E., Chief Engineer*

### SOFTWARE NOTICE

## INTELLIVIEW SUITE & WINDOWS 11 SUPPORT UPDATE

Support for Windows 11 will begin with the IntelliVIEW Suite Version 22.02 anticipated in September 2022. It is important to withhold from updating relevant machines until Alpine software supports the new operating system.

Windows 11 support will extend to the following software products starting:

- IntelliVIEW® Suite 22.02
- eShop 7.04
- Equipment software released September 2022

Support for the SQL Server will be discontinued for SQL 2012 (December 2021) and SQL 2014 (July 2022).

Please review the [Windows and SQL Support Policy](#) for more information on Alpine support or contact your local Alpine® Sales Representative.





### Walls & Bearing Legends

Automatic legend note includes unique bearing heights with improved customization and accuracy.

### Enhanced 3D Viewer

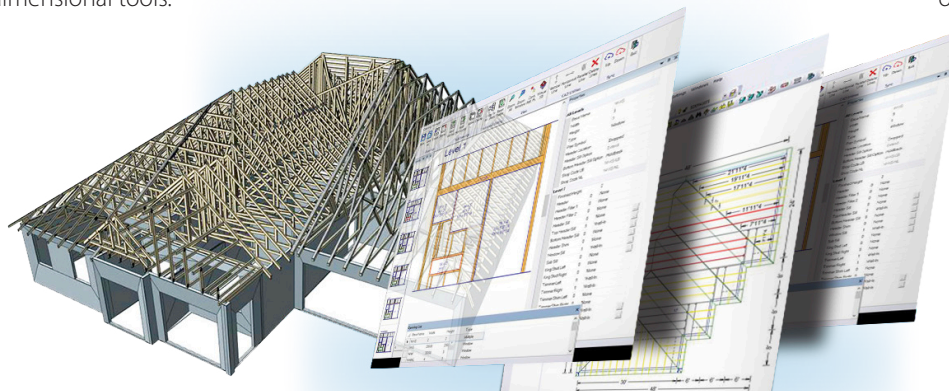
Publish a modernized 3D model in iModel or share with customers on the Alpine Portal.

### CAD Tools

Improved modification, labeling, and dimensional tools.

### Truss Collision Tool

Automatically identifies duplication or overlapping trusses in layouts.



### Simplified Truss Editor

Save CAD markups to your truss files from iModel.

### EWP Design Improvements

EWP design collaboration with CSD's iStruct.

### iModel 3D Room Openings

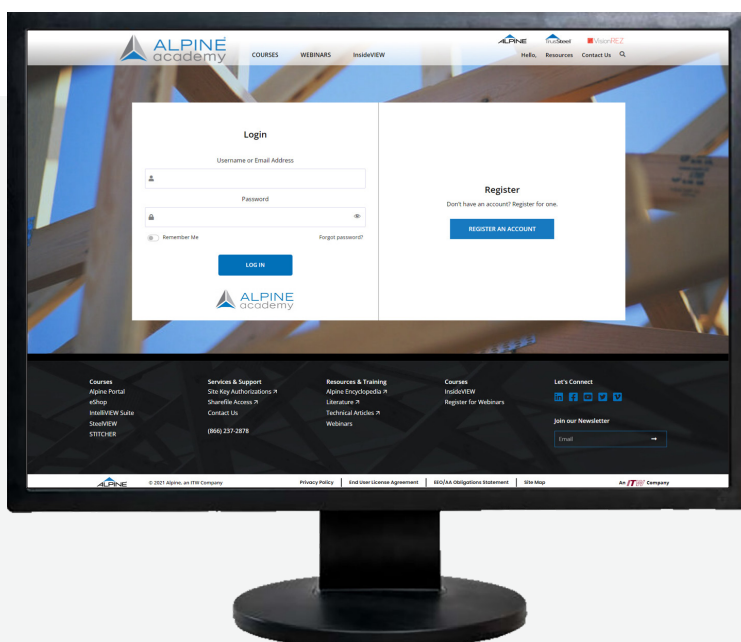
Efficient and accurate definition of 3D room openings.

### Truss Properties Manager

Find, review, and compare trusses in layouts.

### Floor Truss Bearings

Improved mid-height bearing design with ribbon notch.



## LAUNCHING EARLY 2022.

New Alpine® Academy website.  
Learn at your convenience.