

**Mid-Atlantic**  
TIMBERFRAMES

# TIMBERTALK

Summer 2023



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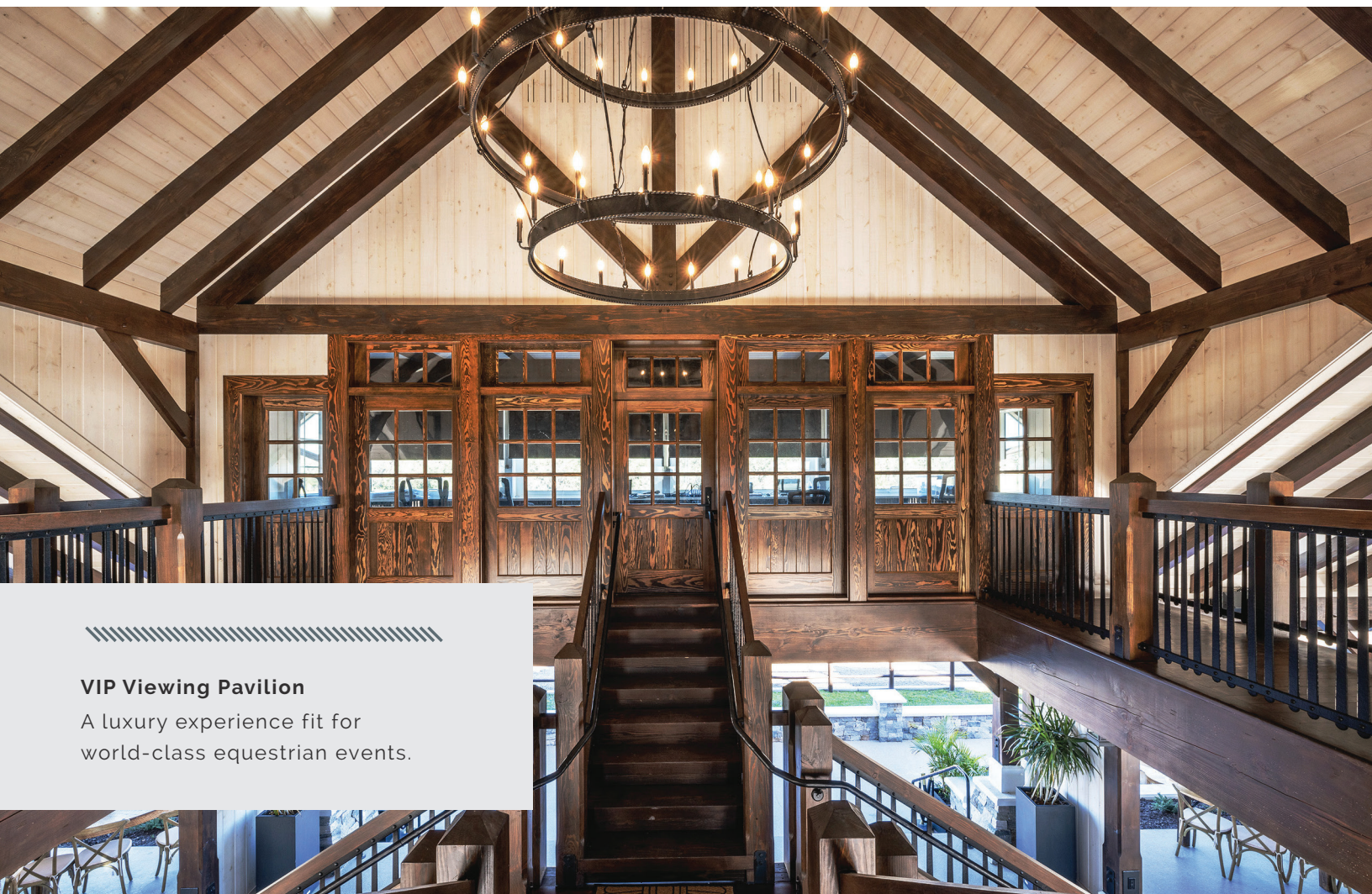
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A luxury experience fit for world-class equestrian events.



# INDUSTRY NEWS



## Trends in Off-Site Construction

Off-site construction isn't new, but its popularity has been growing. This growth, combined with today's technology and economic conditions, is driving industry trends and changing the way we work. Here are just a few we're seeing.

### More Contractor-Prefabricator Partnerships

With ongoing skilled labor shortages and an increasing need for efficiency on the jobsite, contractors are increasingly partnering with prefabricators. Having a reliable partner helps contractors get the quality components they need, when they need them, to keep projects moving. Off-site construction also produces less waste, which helps contractors save money and meet their (or their clients') sustainability goals.

### Using Technology to Collaborate

Making changes once a project is underway can be costly — in terms of both time and money. To avoid this, prefabricators are using BIM (building information modeling) to collaborate with other stakeholders early on and lay the groundwork for success. BIM allows them to build a detailed model of a project before it begins, helping them to spot and solve potential issues and optimize who will do their part when.

### More Standards in More Places

ICC/MBI (International Code Council / Modular Building Institute) standards are helping to create more clarity and consistency in off-site construction. More states are looking at adopting their Standard 1200, which ensures quality components that comply with building code requirements, and Standard 1205, which provides guidance for permitting and inspections. The ICC/MBI is also developing Standard 1210 for release later this year, addressing energy efficiency, water conservation, and mechanical, electrical, and plumbing requirements for off-site projects.

# PROJECT SPOTLIGHT

## VIP Viewing Pavilion at TerraNova Equestrian Center



<b>Builder</b>	B&D Builders
<b>Location</b>	Myakka City, FL
<b>Points of Interest</b>	<ul style="list-style-type: none"><li>• Dimensions: 30' x 270'</li><li>• Custom cupolas and barnwood tables crafted by Vintage Millwork &amp; Restoration</li></ul>

TerraNova's two-story, open-air viewing pavilion is a testament to the structural integrity of timber frame construction. Because of its open nature, the pavilion "catches" wind, much like a kite, so we knew it needed to be carefully engineered and constructed to withstand Florida's hurricane season. Its first test came shortly after completion: Hurricane Ian, a category 4 storm. While other buildings in the area were demolished, TerraNova's viewing pavilion stood strong — a good indicator it will provide world-class views of the center's premier equestrian competitions for years to come.







The VIP Viewing Pavilion at TerraNova Equestrian Center is a beautiful vantage point for judges and spectators alike.



# INDUSTRY HIGHLIGHT



**Dana Clark | Tippetts/Weaver Architects**



## **How long have you been an architect?**

I've been a registered architect in the Commonwealth of Pennsylvania since 2002. I've also been an NCARB-accredited professional since 1994, a member of the AIA since 2002, and a LEED-certified professional since 2011. I started with T/WA in 1998 and became a partner in 2015.

## **Which project are you most proud of?**

The Bucknell University Bookstore in Lewisburg is a design I'm extremely proud of. Formerly the C. Dreisbach & Sons Hardware Store, the 1942 structure was originally proposed to be demolished and replaced with a new building. The design team realized that one of the unique qualities of the town's historic district is its ability to represent an entire continuum of architectural styles, circa 1773 through the early 1950s. The building represented a time when resources were scarce and incorporated design principles that reflected that austerity.

T/WA was able to demonstrate that preserving the building was more economical, a greener alternative to new construction, and would strengthen the university's position as a good steward of the Lewisburg Historic District. We meshed each of the client's program elements with the context of the original store, from the historic freight elevator repurposed as the children's reading room down to the store's highly detailed original safe. The project preserved a key component of the town's fabric and its existing streetscape.



**"I find inspiration in Central Pennsylvania's unique agrarian heritage and the structures and details that supported that way of life."**

## **Where do you find inspiration?**

Anytime I travel, regardless of where, I find inspiration. The diversity of construction principles from different regions, and how they might be adapted to my own work, creates seemingly unlimited possibilities. However, as a lifelong Lititz resident and a caretaker of the family's century-old farm, I find inspiration in Central Pennsylvania's unique agrarian heritage and the structures and details that supported that way of life. So many of those details and ideas have influenced my work, from a heavy timber residence in Warwick Township to the new terminal at Lancaster Airport.

## **Which structure in the world do you find most interesting?**

There are too many to narrow it down to just one. Salisbury Cathedral in England was home to one of my most inspirational experiences. Also, the Hoover Dam in Nevada, while often considered more of an engineering marvel, is an unmistakable Art Deco masterpiece. The detailing is beautiful and enduring, yet also practical — something lost in many of today's public projects.

## **What are your thoughts on designing with timber?**

I've always been fascinated with traditional heavy timber construction, not only for the beautiful joinery details but its inherent strength. Its ability to perform, even when left to deteriorate to a derelict state, is a testament to its use as a building material. There is an organic beauty and warmth to the material that lends itself to nearly any design style, making it an obvious choice for architects.

**Want to be our next Industry Highlight?** Email Sam Ebersol | [Samuel.Ebersol@MATFLLC.com](mailto:Samuel.Ebersol@MATFLLC.com)



# ASK AN EXPERT



## What is the difference between heavy and mass timber?

### Heavy Timber

Heavy timber refers to using solid sawn or glued laminated timber for the primary structural framing of a building. Connections can range from traditional mortise and tenon to fully concealed steel plates. These sustainably sourced timber elements are known for their rich beauty and craftsmanship, so they are often left exposed as an architectural feature. Dating back to at least the 10th century, heavy timber was originally used mainly for agricultural and storage buildings, but today it's popular in projects ranging from homes to educational settings to commercial spaces and everything in between. The 2021 IBC permits heights up to 85 feet for Type IV-HT construction.

### Mass Timber

Mass timber is a modern construction method that uses engineered wood products, the most common being cross-laminated timber (CLT) or glued laminated timber (glulam). These products are a renewable resource and offer exceptional strength and durability, making them ideal for large projects such as office buildings, mixed-use settings, and multifamily structures. While steel and concrete have been the traditional choices for these types of buildings, mass timber now provides a more attractive, and more sustainable, option. The 2021 IBC permits heights up to 270 feet for Type IV-A construction.



"While steel and concrete have been the traditional choices for these types of buildings, mass timber now provides a more attractive, and more sustainable, option."



### Mike Banta | Operations Manager

Mike has been designing timber frame structures for more than 20 years and enjoys sharing his expertise in glued laminated timber, cross-laminated timber, steel-timber hybrid design, and reclaimed or recycled timber. He also has experience in glulam manufacturing, CNC fabrication, and design optimization.

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### Advancing the Art of Timber Construction

Mid-Atlantic Timberframes builds custom legacy homes and one-of-a-kind academic, agricultural, and commercial structures. Timber frame construction provides versatility that traditional construction methods can't match, for limitless possibilities. We employ innovative computer-aided design and computer numerical control (CNC) machining technology, bringing our craft to a higher level of precision and resulting in exceptional structures that deliver lasting durability and peace of mind.

For more information about Mid-Atlantic Timberframes, visit **MATFLLC.com**.