



BEHIND AMERICA'S TALLEST MASS TIMBER BUILDING

Creating an unparalleled financing and logistics solution

Background

Harbor Bay Real Estate Advisors, a Northbrook, Illinois-based real estate development, investment and advisory firm, approached the Port of Cleveland for both financing and logistics solutions to advance its redevelopment project, INTRO Cleveland, in September 2019.

INTRO Cleveland is a mixed-use development located in the heart of Ohio City. Adjacent to the historic West Side Market, one of Cleveland's largest tourist destinations, INTRO Cleveland consists of nine stories in total. The development's first floor consists of 35,000 square feet of downstairs retail, the ensuing floors up to the eighth are used for residential and, lastly, the top, ninth floor combines a mix of residential space as well as approximately 12,000 square feet of event space.

INTRO CLEVELAND *at a glance*

- **\$144 MILLION** development
- **115-FOOT** tall
- **9** stories
- **35,000** square feet of retail
- **12,000** square feet of event space
- **298** residential units
- **342** space underground parking garage
- **60-FOOT** rooftop pool
- **1-ACRE** of public green space
- Fitness center
- Dog park





THE BENEFITS OF USING *Mass Timber in Construction*

21X

less carbon compared to a steel building

SAFER & CHEAPER

than traditional steel or concrete

The 115-foot tall, 300-unit residential planned complex is almost completely made of mass timber, a solid or engineered wood such as cross laminated timber. In fact, during construction, as well as upon completion, the project was nationally recognized as the largest mass timber residential building in the entire United States. The mass timber for the project was manufactured by Austrian based Binderholz GmbH, and designed to be safer, cheaper and less labor-intensive than traditional steel or concrete. In addition to construction advantages, mass timber is environmentally beneficial.

“Using mass timber as a construction material immediately reduces the energy consumption required for a project and results in a drastic and beneficial impact for the reduction of greenhouse gases over time,” noted Steven L. Willobee, Vice President of Government & Public Relations, Harbor Bay Real Estate Advisors. Moreover, on average, a cross-laminated timber structure emits 21 times less carbon compared to a steel building.

By incorporating mass timber in construction, the development highlights its unique luxury housing and retail with an aesthetic appeal and feel that doesn’t exist throughout the United States.

“One of the many reasons that we selected the city of Cleveland for this development was its proximity to Lake Erie and its natural aesthetics. People want to be around water and surrounded by natural products, like wood. So, designing and constructing a mass timber building in the heart of Cleveland truly embodies those two elements,” says Willobee. “Ultimately, what truly makes this project so special is that it would not have been possible without the efforts of our partners, like the Port of Cleveland.”

Challenges

“INTRO Cleveland was our first mass timber development in the United States for Harbor Bay. It was our first project in the city of Cleveland as well as the state of Ohio” noted Willobee.

In addition to INTRO Cleveland being the firm’s first project in Cleveland, Harbor Bay needed competitive financing options to support the construction of the project as well as a cost-effective and efficient logistics solution to move the mass timber and related cargo from Europe to the project’s Cleveland job site.

After speaking with a Cleveland-based financing partner, Harbor Bay was advised to approach the Port of Cleveland, seeking solutions for both financing and logistics.

Solutions

“First and foremost, INTRO Cleveland started with a lot of people believing that something like this could be done within the United States, and also be done within the city of Cleveland,” recalled Willobee.

Harbor Bay first got engaged with the Port of Cleveland through conversations with local professionals that made the firm aware of the financing mechanisms that were available through the Port. Through those conversations, Harbor Bay was introduced to the Port’s team and explained its two unique challenges: The first challenge being the financing component and the second challenge being the logistics of how Harbor Bay could bring mass timber into the United States and directly to its job site in Ohio City.

Development Finance: Tailored Funding

“Harbor Bay reached out to the Port of Cleveland in September 2019 and we quickly met with them. Our Port has a long history of working on projects like this and we have a lot of experience working with small businesses and developers throughout Cuyahoga County,” recounted Carl Naso, chief financial officer, Port of Cleveland.

In fact, since 1993, the Port of Cleveland has financed over 150 projects located in Northeast Ohio, issuing over \$4.5 billion worth in deals for development. For example, the Port financed Cleveland’s Rock and Roll Hall of Fame renovation in the early 1990’s and completed the development of the East Bank of the Flats in Downtown Cleveland. The Port also works to bring and retain corporate headquarters in Cleveland, such as American Greetings, Avery Dennison and Eaton Corp. Ultimately, by providing financing, the Port’s goal is to promote economic activity and keep business in Cuyahoga County.

150 PROJECTS since 1993
\$4.5 BILLION in development

Of the Port’s financing mechanism, Willobee said, “The Port of Cleveland has financing tools available that we [Harbor Bay] hadn’t seen anywhere else throughout the United States. It’s a program that provides a lot of benefits for businesses as well as developers, positions a project to overcome economic challenges and, most importantly, puts a business or developer in a position to succeed. At first, we didn’t know what the program was or how it worked, but we were in a position to work with a good partner, and we’re thankful for that.”

To provide financing, the Port of Cleveland typically issues taxable lease revenue bonds. In these instances, the Port of Cleveland becomes the conduit. Then, the developer’s bank purchases the issued revenue bonds, providing consistent short- or long-term financing.

“Our goal is to develop. We want job creation, and we want tax revenue generation. In exchange, we can offer some tax advantages to the owner and the purchaser our bonds. So, there’s a benefit to developing in Cleveland,” noted Naso.

Moreover, the Port of Cleveland is one of five ports that also has its own internal bond fund, which can be used for smaller real estate and development activities that require a range of financing up to \$10 million.



Results

\$145 MILLION
worth of construction

730
construction jobs

\$130 MILLION
taxable lease revenue bonds

“Typically, the overall process with the Port is that a developer or one of their partners will approach us, we learn about their project, listen to their needs and quickly get them up to speed on what needs to happen. We can then quickly determine whether we can be of assistance, ensuring that the project creates jobs, generates tax revenue for the County, meets prevailing wage, and so on. Then, we work through all the documentation, term sheets and, ultimately, present the project to our board for approval,” explained Naso.

With INTRO Cleveland by Harbor Bay, the Port of Cleveland took extra time to explain the financing process and options available to the firm.

“Once we knew the project was a good fit, we put together a team of lawyers, bond specialists and financial analysis individuals to ensure that we had a strong solution to bring to our board,” said Naso. “We ultimately had agreeable terms and it all just worked. At the Port, we move at the speed of business, and not only were we able to complete this deal, but we were able to meet a very aggressive timeline for a massive project and advance to breaking ground.”

“For us, one of the key advantages of working with the Port of Cleveland was that in March of 2020, the pandemic had just begun, and everything was starting to shut down. Typically, shutdowns occur, everything stops, and financiers simply won’t move forward. That didn’t happen when we worked with

the Port of Cleveland. They worked remotely together to put us in a position to close our financing. We kept moving forward and even got to a point where we started construction in April of 2020,” noted Willobee.

The solution the Port of Cleveland provided was to issue \$130 million of revenue bonds for \$145 million worth of construction.

“INTRO Cleveland would never have been possible without the efforts of the Port of Cleveland and we wouldn’t be in the position that we’re in today if it wasn’t for the Port’s effort and grit to keep moving forward despite the challenges that every one of us was dealing with. The Port was able to assist us in closing our financing, not just under any circumstances, but under circumstances that hadn’t been felt in 100 years. We’re deeply grateful for that,”

– **Steven L. Willobee**, VP of Government & Public Relations,
Harbor Bay Real Estate Advisors.

Maritime & Logistics: End-to-End Service

Equally important to the financing solution provided by the Port of Cleveland, Harbor Bay needed a logistics solution to get mass timber from Austria to Ohio City in Cleveland, Ohio.

"Shipping often presents a lot of challenges. You're moving products across the world and, in the best of times, there can be issues that arise," Willobee stated. "Under current times [2020], we're dealing with a pandemic. So, we wanted to be in a position where we could pick up a phone and trust that any challenges would be overcome. Having that at the Port of Cleveland is something that you simply can't put a dollar value to."

Dave Gutheil, Chief Commercial Officer, Port of Cleveland recalled, "When Harbor Bay first approached us, their team shared that they wanted the option of financing their project through the Port, and that they also wanted to bring their cargo through our Port. Prior to INTRO Cleveland, I don't believe that we've ever both financed and handled cargo for a project at the same time. For us, this was a unique opportunity because the cargo was coming from Europe, specifically Austria, and fit within the service parameters of the Cleveland-Europe Express (CEE). The mass timber traveled on a vessel through the St. Lawrence Seaway, and because of our CEE service, we were able to get as close as possible to the project site and store the cargo here locally."

The first steps that the Port of Cleveland took to provide a logistics solution was to analyze the quantity and timing of the cargo that needed to move, explore what options were available to bring the cargo to Cleveland and the various options of storage and, lastly, how it was going to be moved to the project site.

Throughout logistics planning with Harbor Bay, the Port of Cleveland was uniquely suited and positioned to handle the mass timber. Its geographical location offered immediate benefits to enhance the efficiency of the project as the Port is located just a short distance from Ohio City and offers 320,000 square feet of inside storage capacity as well as ample outdoor storage. With the proper infrastructure in place, the Port was suited for handling the mass timber required for Harbor Bay's project. Additionally, the Port's terminal operator, LOGISTEC USA, was prepared to handle the cargo moving through the Port.

Beyond meeting those initial requirements, the Port of Cleveland is the only port on the Great Lakes with a scheduled international vessel service. The Cleveland-Europe Express is a direct, scheduled vessel service that moves containerized and non-containerized cargo between the Great Lakes and Europe, through the Port of Antwerp.

"The Port's maritime approach was to provide a solution for Harbor Bay to ensure that all the parties were working together to move the cargo from the plant in Austria to the cargo's final destination in Ohio City, near the Port," said Gutheil. "It was really important that Spliethoff's team in Europe was communicating properly with the manufacturing plant in Austria. Then, to ensure the project timeline and the manufacturing timeline matched up with the vessel schedule. It was then critical to get LOGISTEC USA prepared to manage the movement of the cargo out of the Port and to the construction site," explained Gutheil.

To start, the mass timber was loaded on a vessel and prepared for shipping in Fügen, Austria. The Spliethoff Group's vessels — the Port's partner for the Cleveland Europe Express — can carry more than 20,000 tons of cargo in a single voyage. For comparison, it would take about 642 trucks to do the same exact work of one vessel. In addition to simplifying the supply chain for Harbor Bay, waterborne transport also offers economic and environmental benefits by saving on fuel costs and, more importantly, releasing fewer emissions along the way.

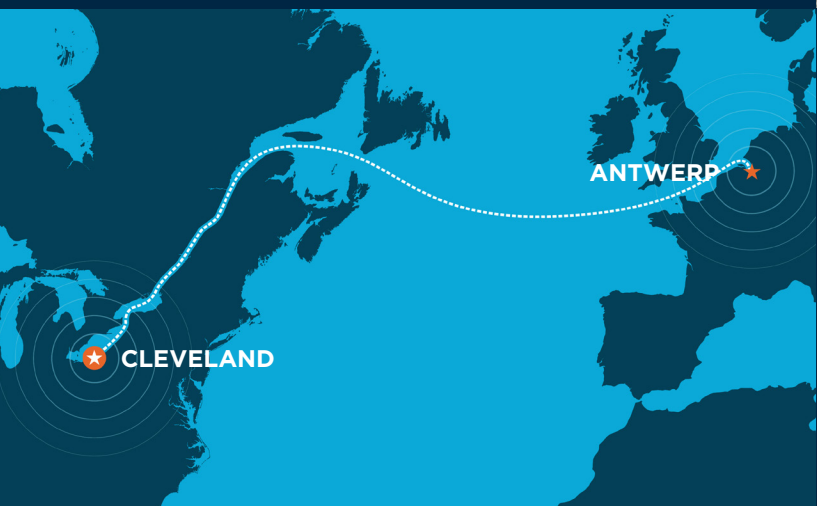
Next, the mass timber took a 16 day port-to-port journey across the Atlantic Ocean, through the St. Lawrence Seaway, past Montreal and the Niagara, and 53 miles across Lake Ontario until it arrived at the Port of Cleveland's docks.

“When you compare the timing of the same trip from Europe to other larger coastal ports, you’ll find that shipping to the Port of Cleveland is actually 5-10 days faster door-to-door. That means getting products in front of customers, like Harbor Bay, faster and closer to their job site,” Gutheil explained.

Lastly, the mass timber was unloaded by LOGISTEC and stored at the Port, allowing Harbor Bay to send trucking companies to take the product to the project's site for final use during construction.

70,000 tons of cargo
can be carried in a single voyage

= 2,800 trucks
would be required to do the same exact work
as the work of one vessel



22 DAY journey
across the Atlantic Ocean to the Port of Cleveland.

5-10 days faster
to ship to the Port of Cleveland than other ports.



“Ultimately, our partnerships were extremely important. We needed a vessel partner, in this case Spliethoff, that has experience moving project and construction-related cargos, particularly timber. Having a vessel line that understands the needs of a customer like that is extremely important. We also have a partnership with LOGISTEC USA that is efficient and experienced in handling cargo related to the construction industry,” recounted Gutheil. “The project also shows that the Port of Cleveland can handle a multitude of cargos. We provided a successful transportation solution, a local storage solution close to the job site and worked in unison with other all the parties involved to make sure the customer’s needs are being met.”

INTRO Cleveland’s first shipment of mass timber smoothly arrived at the Port of Cleveland on November 9, 2020. The project is set to be completed in the first quarter of 2022.

“Harbor Bay’s project is important to Northeast Ohio and Cleveland. It shows how the city of Cleveland can accommodate forward thinking projects and solutions. Over the last decade, we’ve seen more activity occurring through various new economic developments.

Cleveland is becoming known as a destination city,” noted Gutheil. “When a project like INTRO Cleveland comes to fruition, it’s the culmination of many initiatives that a lot of folks here in Northeast Ohio have been working on, and the Port of Cleveland is proud to be a partner in these successes.”

Willabee concluded, “The project is really one of a kind. INTRO Cleveland is a highly sustainable development and the cargo needed for it was moved by one of the most environmentally friendly modes of transportation. It truly sets a new national standard in sustainability and I hope Cleveland shares in that pride. When I walk through the project and I see the mass timber, I don’t just see a piece of wood. I see the benefits from a sustainability perspective. I think of all the logistical challenges and obstacles that we had to overcome together with the Port of Cleveland to get that product here and make the project possible.”



Want to work together? Contact us today!

Dave Gutheil

Chief Commercial Officer

Port of Cleveland

David.gutheil@portofcleveland.com

216-377-1363

Carl Naso

Chief Financial Officer,

Port of Cleveland

carl.naso@portofcleveland.com

216-377-1340

The Port of Cleveland is the only local government agency whose sole mission is to spur job creation and economic vitality in Cuyahoga County. The Port is an economic engine for our community, a key to Northeast Ohio's competitiveness and a crucial partner in building Cuyahoga County's future.

1100 West Ninth Street #300 Cleveland, Ohio 44113

216.241.8004

portofcleveland.com

     @PortofCleveland





The Port of Cleveland is the only local government agency whose sole mission is to spur job creation and economic vitality in Cuyahoga County. The Port is an economic engine for our community, a key to Northeast Ohio's competitiveness and a crucial partner in building Cuyahoga County's future.

Want to work together? Contact us today!

Dave Gutheil
Chief Commercial Officer

Port of Cleveland
David.gutheil@portofcleveland.com
216-377-1363

Carl Naso
Chief Financial Officer,

Port of Cleveland
carl.naso@portofcleveland.com
216-377-1340

1100 West Ninth Street #300 Cleveland, Ohio 44113
216.241.8004
portofcleveland.com

     @PortofCleveland

