



CASE STUDY | TRANSPORT LOGISTICS | SPECIAL SOLUTION

BOAT STORAGE

USA

SPECIAL SOLUTION

HIGH-BAY WAREHOUSE FOR BOATS

Overcrowded Marinas Due to High Demand: Southwest Florida is a particularly attractive place for boat owners. The problem? Too few docking spaces and extremely long waiting lists. Additionally, Florida is frequently hit by hurricanes.

The solution?

A high-bay warehouse for 150 boats. This not only solves the space problem but also provides excellent protection against storms. GCM Contracting Solutions, Inc. recognized this potential and decided to partner with us on the Gulf Star Marina project to create the first high-bay warehouse for boats in Fort Myers Beach. The result? A satisfied customer who is already planning the next boat storage facilities with us.

The Demand

Due to the weather and calm waters, Southwest Florida is especially popular with boating enthusiasts. There are about 38,000 registered boat owners in Lee County alone, which has led to several marinas in the region being completely overcrowded.

Owners of larger boats, in particular, face endless waiting lists for dock spaces. With space at a premium, the American company GCM Contracting Solutions, Inc. was searching for a solution that not only addresses the space issue but is also resistant to storms and severe weather.

The Requirement

Due to the lack of space in Fort Myers Beach, boats were already being stored in dry docks, operated by diesel-powered forklifts. This method is not only cumbersome but also very noisy, causing significant environmental pollution and disturbances for the neighborhood. The existing system had also become outdated and was susceptible to corrosion due to exposure to the elements.

Every boat retrieved from storage required rust removal. Additionally, the site needed more space as the demand for storage for larger boats continued to grow. Previously, Gulf Star's storage could only be used at a single depth, accommodating



GCM Contracting Solutions, Inc.
 Full-service general contractor
 in southwest Florida
Founded: 1988
Employees: over 25



Multi-level boat storage



Boat storage for 150 boats



Withstands wind speeds of over 300 km/h

just 44 boats. Boats often had to be shuffled around depending on which one was needed next, making the process inefficient. Therefore, there was a high demand for an automated system that could independently determine the optimal storage position.

The Solution

Thanks to LTW's high-bay warehouse, the space can now be fully utilized as boats can be stored at multiple depths. The 3,000 square meter and 20-meter-high building can store over 150 boats simultaneously. Additionally, the concrete structure is a hurricane bunker, capable of withstanding wind speeds of over 300 km/h. The best part? Customers can use the BoatCloud app to specify when they need their boat, and the system will automatically retrieve it in time, eliminating unnecessary wait times. Moreover, the new system is so quiet that boats can be relocated within the high-bay warehouse even at night. This allows boats that will be needed the next day to be repositioned for easy retrieval. It takes less than 10 minutes for a boat to be retrieved and ready for use in the water.



With this fully automated solution, we've achieved a significant milestone. Not only is the limited space optimally utilized through multi-depth storage, but our service has also become even more customer-friendly.

Thanks to the app, customers can order their boats to be ready as soon as they

arrive at the marina – a unique solution! Todd Carroll, President of Carroll Properties & Marina's Owner

The Implementation

With a load capacity of 7,000 kilograms, the storage and retrieval system can store boats at multiple depths. During planning, not only the size and weight of the boats were important, but also the challenge of corrosion from saltwater. Thanks to precise planning and special equipment, this challenge was easily overcome.

Proof of Quality

One of the reasons for choosing a high-bay warehouse was definitely the concern about storms and severe weather. This foresight by the customer has already paid off. In 2022, the coastal region around Fort Myers Beach was devastated by Hurricane Ian. The Category 5 storm reached speeds of up to 260 km/h and hit Fort Myers with full force, causing widespread destruction.

Despite the extreme conditions, the LTW boat warehouse remained intact, and no boats were damaged. After minor repairs, Gulf Star Marina was able to resume manual operations within a week. Other traditional boat storage facilities in the area suffered total losses of more than 120 boats. The boats in the LTW warehouse remained undamaged, and the insurance premiums for the boats stored there were adjusted due to the secure storage.

Follow-up Projects

Two more projects of this kind are already in the pipeline. As part of the massive joint project "The Whitecap NPI," a high-bay warehouse for over 300 boats is being built in Corpus Christi, Texas. This luxury development will include parks, pools, fitness centers, restaurants, and a large nature reserve, in addition to the high-bay warehouse for boats.

The second high-bay warehouse for boats is being constructed on the Isles of Capri in Florida, with space for over 220 boats. Both fully automated high-bay warehouses will be equipped with a storage and retrieval system and a boat lift. Our software will ensure that all operations run smoothly in the warehouse.

More Infos at:

LTW.AT/en/references/detail/boatslager

PROJECT OUTLINE



HIGH-BAY WAREHOUSE

- Steel rack high-bay warehouse
- L x B x H: 69 x 31 x 20 m
- 1 rack aisle
- Multi-deep storage
- Approximately 300 boat spaces
- Payload: 7,000 kg
- Temperature range: +5 bis +35°C

CONVEYOR SYSTEM

- 2 transfer cars: Typ LTW VW-70 QSHU-2/A

STACKER CRANES

- 1 aisle-bound stacker crane Typ LTW 7019-QSHU-2/A
- Rail systems: 46 m, Typ S41
- Driving speed: 80 m/min
- Driving acceleration: 20 m/min
- Lifting speed: 0,30 m/s²
- Lifting acceleration: 0,30 m/s²
- Performance: 6 KS / h / RBG