



# TIDE GATE ENCLOSURE

## Challenge

Port Hueneme (pronounced wy-**nee**-mee) is a small beach city in Ventura County, California surrounded by the city of Oxnard and the Santa Barbara Channel. The name derives from the Spanish spelling of wene me, meaning “resting place”. The Port of Hueneme, shared with Oxnard Harbor District and Naval Base Ventura County, is the only deep water port between the Port of Los Angeles and the Port of San Francisco, and the only Navy-controlled harbor between San Diego Bay and Puget Sound in Washington state.<sup>1</sup>

The tide gate enclosure project executed by CJW Construction, Inc. was a design-build task order for the United States Navy, involving the rehabilitation of a pump station that controlled fresh water drainage outflow to the Pacific Ocean. Tide gates are used to control ocean water from leaking back to the drainage water.

The scope of work involved replacing three 75 HP vertical turbine pumps capable of pumping 30,000 gallons per minute each. This replacement also required a complete upgrade of the existing electrical system and backup power generation, along with the removal and reconstruction of failing concrete.

During the upgrade, the Navy requested a new building to house the pumps that were installed. This building request was unique because the Navy asked that the roof have removable panels in the event they needed to repair or remove the pumps.

The structure was a straightforward rectangular shape, however special design considerations were needed to ensure proper alignment in order to fit around existing staircases and landings.

<sup>1</sup> [https://en.wikipedia.org/wiki/Port\\_Hueneme,\\_California](https://en.wikipedia.org/wiki/Port_Hueneme,_California)

**PROJECT:**

Port Hueneme Pump Station Rehab

**LOCATION:**

Port Hueneme, California

**ORGANIZATION:**

US Navy

**FACILITY TYPE:**

Tide Gate Enclosure



## Solution

Based on discussions with a Navy representative at pre-bid time, CJW selected Kelly Klosure to provide the pump house enclosure. According to CJW, the biggest benefit of the Kelly Klosure building was its turnkey design since it came complete with removable roof capacity and all required louvers, doors, hardware and vents.

Plus, the pre-framed panelized system allowed for quick installation in the field. Traditional buildings require a crew to build the structure and then attach the exterior roof and wall sheeting. Kelly Klosure's building consists of factory assembled panels with the exterior sheeting already attached to the structured steel panel frame. The shipment arrived in one truckload, neatly bundled, well organized and ready for fast assembly.

CJW has a significant amount of Pre-Engineered Metal Building (PEMB) experience, and the advantage the Kelly Klosure structure has compared to a PEMB is that it's put together by bolting the panel frames together from inside of the structure footprint. Most of the assembly work is done prior to the building ever being delivered to the job site.

"Kelly Klosure was clearly the right choice for this job. Their team was very responsive and helped make this project happen on time and on budget. From the sales quotes through the design phase to the field installation, Kelly Klosure did a great job."

– Chris Whitehead, CJW Construction



A&B: Installing wall panels with boom lift  
 C: Finished tide gate enclosure  
 D: Bolting together wall panels from the inside  
 E: Factory installed door panel arrives



### Results

This job required working over water, and the building went edge to edge on an elevated slab that was, in some places, up to 20 feet in the air. A large portion of the installation was achieved from inside the building where the CJW team had a working surface, which was helpful under those conditions. All of the exterior work had to be completed with a boom.

Overall, CJW Construction was pleased with the building quality, ease of installation, competitive pricing and service.



#### BUILDING SIZE

31.5 ft long x 13.5 ft wide  
(425 sq ft)

#### ENVIRONMENTAL CONDITIONS

Tidal influence, over water

#### PROJECT TIMELINE

Award: June 2015

Design: June 2015–January 2016

Pump procurement: January  
2016–April 2016

Construction: April 2016–July 2016

Enclosure timeline: Seven  
working days

#### RESOURCES USED

- Crew of four
- Boom lift
- Two 6-ft. stepladders
- Impact guns for nuts/bolts

#### CUSTOMER INFO

CJW Construction, Inc. (CJW) is a woman-owned Small Disadvantaged SBA certified HUBZone construction company specializing in facilities and heavy civil construction. CJW has been awarded contracts with the US Navy, US Army Corps of Engineers, US Department of Homeland Security, US Coast Guard, US Air Force, US Army Reserve, NASA, County of Los Angeles DPW, Irvine Water District, County of Orange Integrated Waste Management Department and various other local, state and federal municipalities, as well as private clients.



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