

Corpus Christi Municipal Marina

Schematic Master Plan

March, 2024







LIVING SHORELINE COMPONENTS



OYSTER REEFS - Constructing oyster reefs to dissipate wave energy and provide habitat for marina life.



MARSHES AND VEGETATION - Planting native vegetation like marsh grasses and mangroves along the shoreline to reduce erosion and create a buffer zone.



SHELL OR SANDBAG SILLS - Creating sills using shells or sandbags to reduce wave energy and encourage sediment deposition.



BIOENGINEERING TECHNIQUES - Combining natural materials like logs, plants, and rocks in innovative ways to provide stabilization.



BREAKWATER+ LIVING SHORELINE

PERFORMANCE OF THE BREAKWATER

The existing rock breakwater was intended to provide essential protection to the Corpus Christi Marina facility, including the landforms, buildings, and marina infrastructure (docks, utilities, etc.). In its current condition, the breakwater has a relatively low average crest (top) elevation compared to storm water level elevations in the area. This low height contributes significantly to the wave and flooding hazards that impact the facility as the breakwater is overtopped during storm events.

The porous nature and narrow width of the breakwater crest also decreases its level of protection under storm event water levels. Sea Level Rise and frequent tropical systems that impact the Gulf Coast/Corpus Christi area will only increase these risk exposures into the future. Improvements to the existing rock breakwater structure are a critical requirement

to ensure the long-term resilience of the existing facility and proposed master plan improvements.

Incorporation of a nature based solution (NBS) such as a living shoreline, beneficial use of dredged material, or similar elements, in combination with structural improvements, will increase the overall performance and resiliency of the breakwater. Added benefits of this approach may include improved aesthetics, habitat creation, water quality benefits, efficient dredge operations, and funding support, among others. As outlined, there are numerous grant/funding programs targeted toward resiliency and nature based solution projects that could help offset the cost for breakwater and nature based improvements at the Corpus Christi Marina.

WHAT IS A LIVING SHORELINE?

Living shorelines combine natural elements with the option for hard structural components, as approved by the Texas General Land Office, to protect and stabilize shorelines while preserving ecological functions. They use natural or recycled materials, strategically placing plants and organic substances to reduce erosion, protect property, create habitats, and enhance resilience. Living shorelines work best in calmer environments like bays and estuaries, shielded from powerful waves. The ideal living shoreline includes various natural components like native trees and shrubs, tidal marsh areas, energy-reduction structures, and submerged aquatic vegetation, all working together harmoniously.





SHORELINE BOULEVARD FINAL CONCEPT ILLUSTRATIVE PLAN

LEGEND

- | | |
|---|--------------------------|
| ① Dry Creek Landscape Statement in Median | ⑥ Shaded Overlook |
| ② Pedestrian Crossing | ⑦ Mixed-Use Node |
| ③ Seawall Promenade | ⑧ Existing Miradores |
| ④ Bike Lane | ⑨ Selena Memorial Statue |
| ⑤ Angled Parking | ⑩ Existing Monument |



SHORELINE BOULEVARD CROSS SECTION

Proposed upgrades of the Shoreline Boulevard corridor are depicted here, including the Seawall Promenade, Mixed-Use Node, Bike Lane, Reduced Traffic Lanes, Angled Parking, Pedestrian Crossings and Reduced Scale Median. In the center of the median, a dry creek bed landscape statement is proposed. This eco-friendly feature will be able to receive storm water, while also reducing overall areas turfgrass, thereby also reducing mowing, irrigation and fertilization demands.





SHORELINE BOULEVARD MIXED-USE NODE FINAL CONCEPT ILLUSTRATIVE PLAN

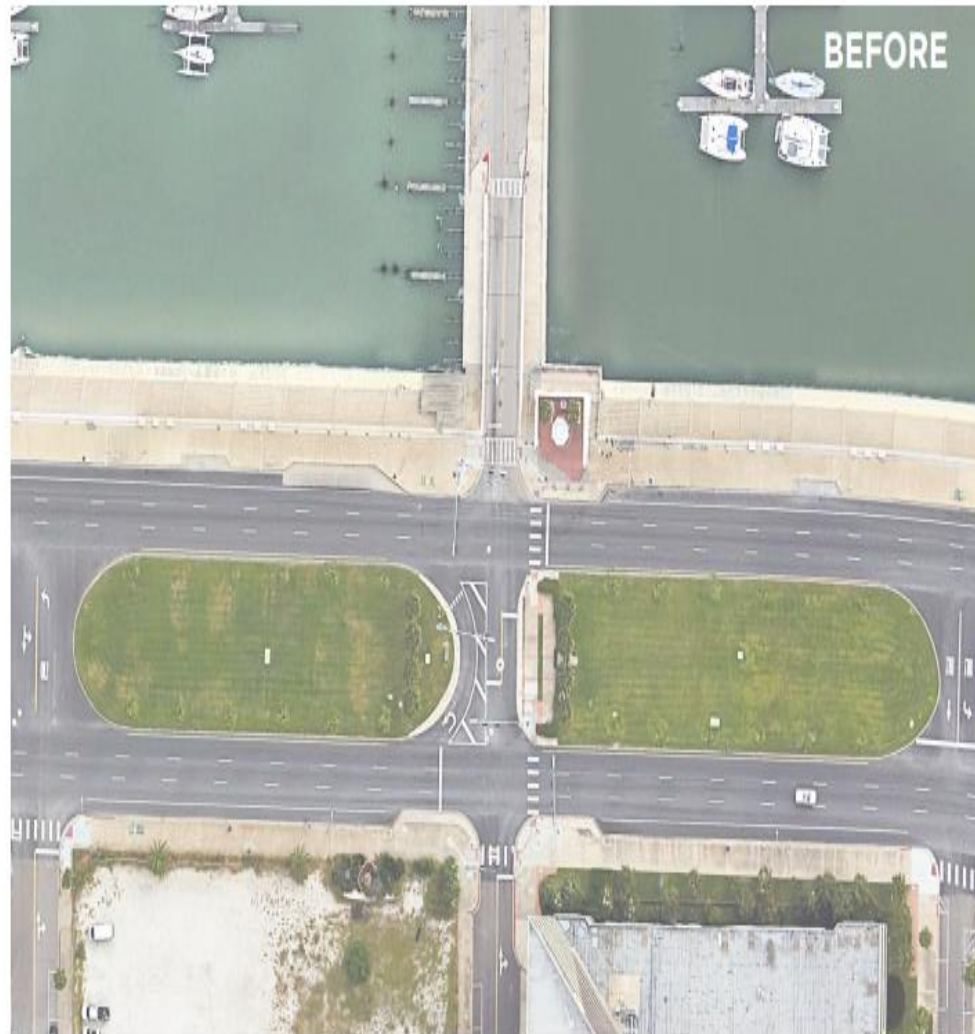
To bring the Shoreline Boulevard promenade to life, the design team suggests considering Mixed-Use Nodes of activity where each causeway meets the seawall. Each node would provide some level of commercial offering, which could be a restaurant, small food and beverage outlet or a retail shop. This concept would attract more foot traffic to these locations, with a continuation of the pedestrian facilities onto each causeway leading to the T-Heads. Each location can take on the feel of a small village scale collection of structures that have the ability to engage with both the seawall and promenade at the street level, as well as the marina basin below. New buildings at promenade level also resolve FEMA requirements to meet flood elevations for new construction.

LEGEND

- | | |
|-----------------------------------|----------------------------|
| ① Mixed-Use Building / Restaurant | ⑧ Existing Miradores |
| ② Seawall Promenade | ⑨ Seawall |
| ③ Bike Lane | ⑩ Selena Memorial Statue |
| ④ Pedestrian Crossing | ⑪ Shaded Overlook |
| ⑤ Dry Creek Landscape Statement | ⑫ Sidewalk |
| ⑥ Shoreline Blvd. | ⑬ Typical Commercial Space |
| ⑦ Angled Parking | |



SHORELINE BOULEVARD RECOMMENDED MODIFICATIONS



LEGEND

- Selena Memorial Statue
- Mixed-Use Buildings / Restaurants
- Bike Lane
- Seawall Promenade
- Sidewalk
- Pedestrian Crossing
- Vehicular
- Green Space



PEOPLES ST. MIXED-USED NODE AS SEEN FROM THE MARINA







PEOPLES STREET T-HEAD FINAL CONCEPT ILLUSTRATIVE PLAN

LEGEND

- | | |
|--|---|
| ① Arrival Court /
Public Transit Stop | ⑫ Parking |
| ② Waterfront Promenade | ⑬ Pedestrian Crossing |
| ③ Kiosks / Plaza | ⑭ Pedestrian Bridge
Connection to Lawrence |
| ④ Flex Lawn | ⑮ Elevated Platform on
Turf Mound |
| ⑤ Landscape Garden | ⑯ Event Lawn |
| ⑥ Playground | ⑰ Tour Boat Dock |
| ⑦ Stage | ⑱ Intimate Seating Nook |
| ⑧ Overlook Plaza | ⑲ Landry's Seafood House |
| ⑨ Mixed-Use Building | ⑳ Parking Control |
| ⑩ Existing Boaters Facility | ㉑ Harrison's Landing |
| ⑪ Shade Structures | |



PEOPLES STREET T-HEAD



PEOPLES T-HEAD PROMENADE LOOKING SOUTH



GATHERING LAWN & STAGE



LAWRENCE STREET T-HEAD FINAL CONCEPT ILLUSTRATIVE PLAN

LEGEND

- | | |
|--|-------------------------|
| ① Arrival Court /
Public Transit Stop | ⑨ Joe's Crab Shack |
| ② Waterfront Promenade | ⑩ Outdoor Seating |
| ③ Plaza and Gardens | ⑪ Shade Structures |
| ④ Flex Lawn | ⑫ Parking |
| ⑤ Landscape Garden | ⑬ Floating Wetlands |
| ⑥ Transient Boater
Check In Dock | ⑭ Overlook Structure |
| ⑦ Viewing Platform | ⑮ Event Lawn |
| ⑧ Future Marina Offices /
Flex Building | ⑯ Parking Control |
| | ⑰ Over Water Platform |
| | ⑱ Pedestrian Connection |



LAWRENCE ST. T-HEAD



LAWRENCE T-HEAD PROMENADE LOOKING NORTH

FLOOR AREA TABULATIONS

EXISTING T-HEAD FACILITIES:

① Landry's Seafood House	+/- 11,000 ft ²
② Harrison's Landing	+/- 5,900 ft ²
③ Joe's Crab Shack	+/- 18,000 ft ²
④ People's St T-Head Boater's Facility Building	+/- 1,200 ft ²
⑤ Lawrence St T-Head Boater's Facility Building	+/- 1,200 ft ²

TOTAL EXISTING +/- 37,300 ft² FLOOR AREA

PROPOSED FACILITIES:

TOTAL +/- 50,000 ft² FLOOR AREA

TOTAL +/- 87,300 ft² FLOOR AREA

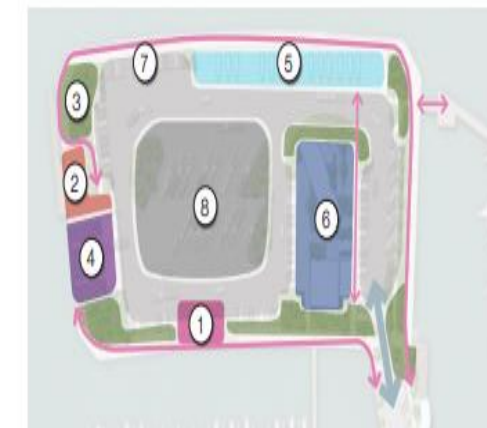


COOPERS L-HEAD FINAL CONCEPT ILLUSTRATIVE PLAN

It was recognized that Coopers L-Head currently serves a critical marina operations function with existing facilities such as boat ramp, dry storage, boat trailer parking, hoist for lifting vessels into the water, etc. A new boater's facility is in the planning for Coopers. These functions and elements are to be maintained, but the team has also recommended some simple upgrades to elevate the overall experience. The organization and improvements for the L-Head are noted on this page.

LEGEND

- ① Hoist Zone
- ② Fuel Zone
- ③ Landscape Garden
- ④ Boat Ramp
- ⑤ Dry Dock
- ⑥ Future Boaters Facility
- ⑦ Parking
- ⑧ Boat Trailer Parking
- ⑨ Shade Structures
- ⑩ Boardwalk
- ⑪ Jane's L-Head Seafood House



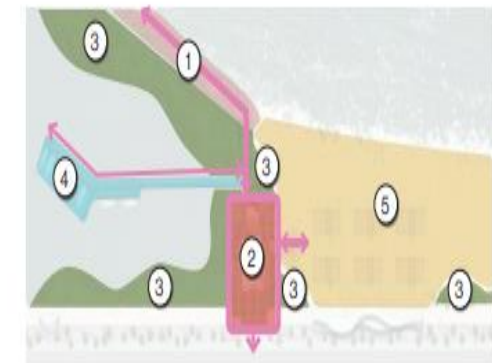


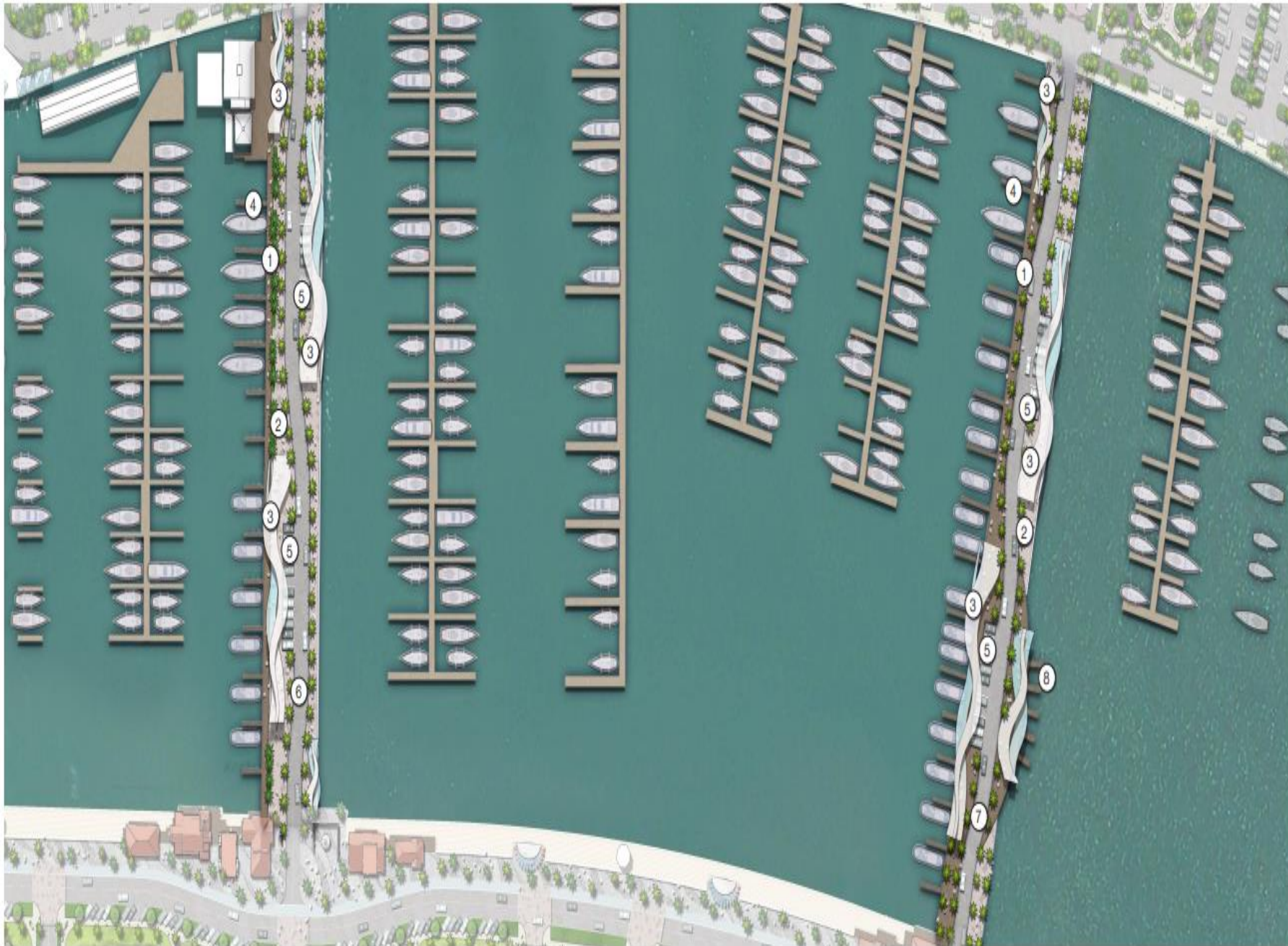
COMMUNITY SAILING CENTER & EVENTS VENUE FINAL CONCEPT

LEGEND

- ① Breakwater with Pedestrian Pathway
- ② Sailing Center
- ③ Landscape Buffer
- ④ Boat Slips
- ⑤ McGee Beach
- ⑥ Beach Volleyball Courts
- ⑦ Shade Structure over Grandstand
- ⑧ Dining Deck
- ⑨ Beach Plaza with Showers

At the south end of the marina basin, where the breakwater meets McGee Beach, siltation drift has slowly created a living shoreline condition. This zone represents opportunity for an activity that supports the overall function and mission of the marina. Several involved and interested in the marina and its operations have suggested to establish a Sailing Center at this location. The existing pavilion at this location can be upgraded as a Sailing Center clubhouse, giving access to docks for rowing and sailing as well as access to the breakwater, the beach and the park spaces immediately to the west. Nearby parking is plentiful in the context of the park. This facility can also serve the needs of beach volleyball tournaments.





CAUSEWAYS FINAL CONCEPT ILLUSTRATIVE PLAN

LEGEND

- | | |
|------------------------|---------------------------|
| ① Boardwalk | ⑤ 90° Parking |
| ② Tree Lined Promenade | ⑥ Peoples Causeway |
| ③ Shade Structures | ⑦ Lawrence Causeway |
| ④ Boat Slips | ⑧ Water Sports Concession |



PEDESTRIAN BRIDGE CONNECTION CONCEPT

The planning team is proposing to connect People's T-Head directly to Lawrence T-Head via a pedestrian swing bridge. Half of this bridge connection could be fixed, while the other half would be designed to swing open for regular daily boat traffic. The bridge would be closed and connected for convenient pedestrian and cart connectivity between the T-Heads during special events. This feature would also be an attractor to generate increased visitation to the T-Heads by the general public.

LEGEND

- ① Swing Bridge
- ② Fixed Segment