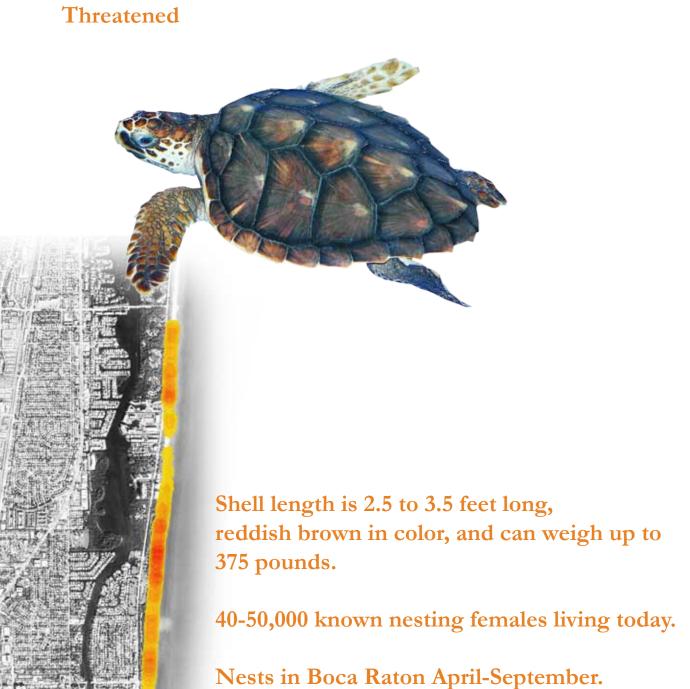
SYMBIOTIC BEACHFRONT DESIGN:

Sharing Southeast Florida's Coast with Sea Turtles





1,893 nests in 2014

Project Area

he project area for this design is 24.6 acres

with a mix of public park and high density

residential fronting on the Atlantic Ocean.

00- 170 feet, from water to current dune

vegetation and the site has a total of .60 miles

The beach width varies from

ale/dark green or yellow color, and weighs

Green, Chelonia mydas

85-90,000 known nesting females living today. Nests in Boca Raton June-August.

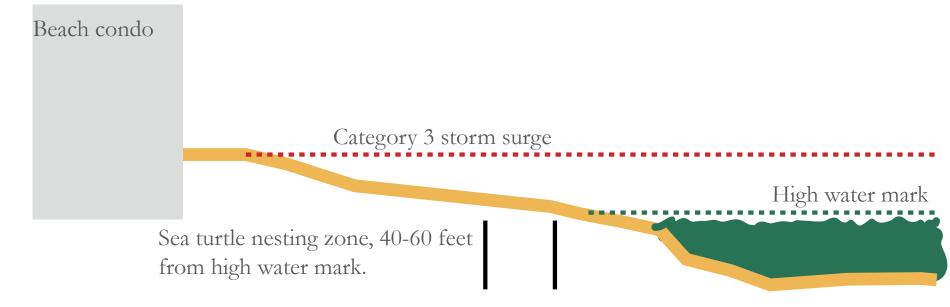
135 nests in 2014

Leatherback, Dermochelys coriacea Shell length is 4-6 feet long, gray/black with white spots and weighs 660-34-36,000 known nesting females living today. Nests in Boca Raton April-October.

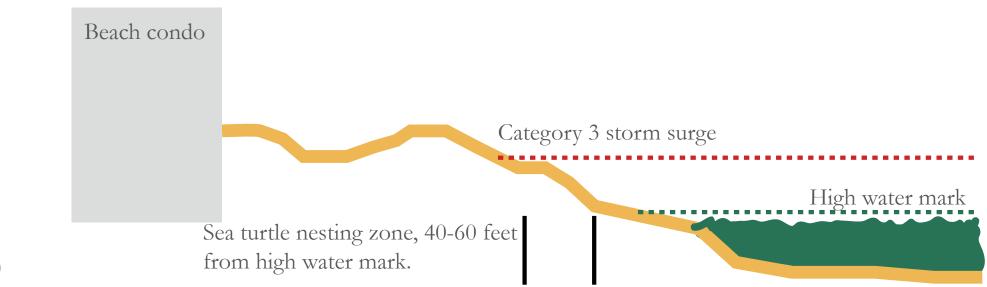
22 nests in 2014

South Inlet Park

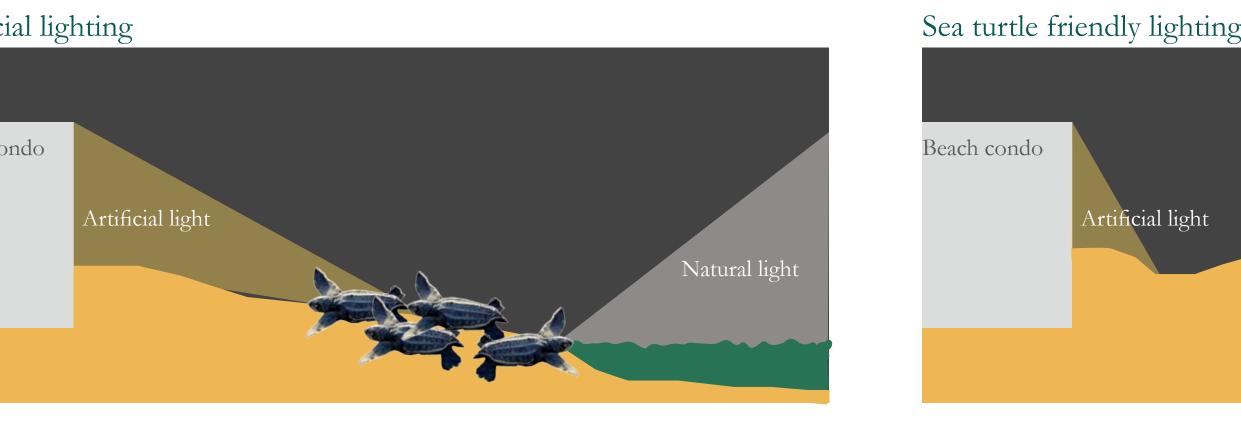
Groomed Beach Profile



High Energy Beach Profile

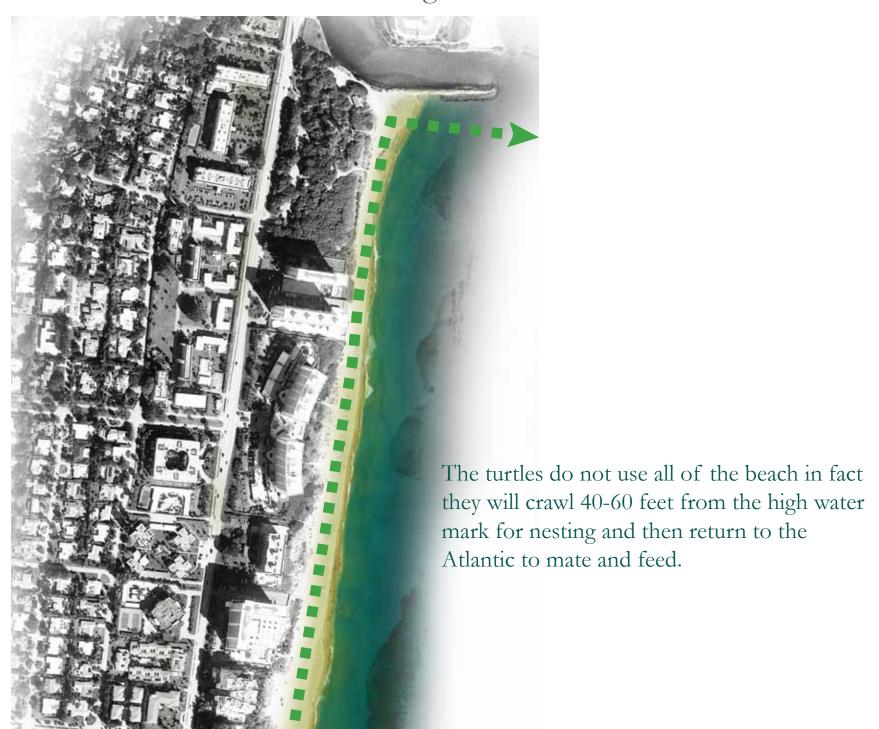


Due to human use, the groomed beach profile is much flatter. This is because of loss of dune vegetation which traps sand that blows toward the shore, as well as beach grooming which keeps the sand flat causing it to erode faster. Boca Raton is naturally a high energy beach which defines it as a narrow beach with dune vegetation beginning 50 feet from the shore, right in the sea turtle nesting zone. Not only would a natural beach be aesthetically pleasing, it would provide for lower maintenance and storm protection.



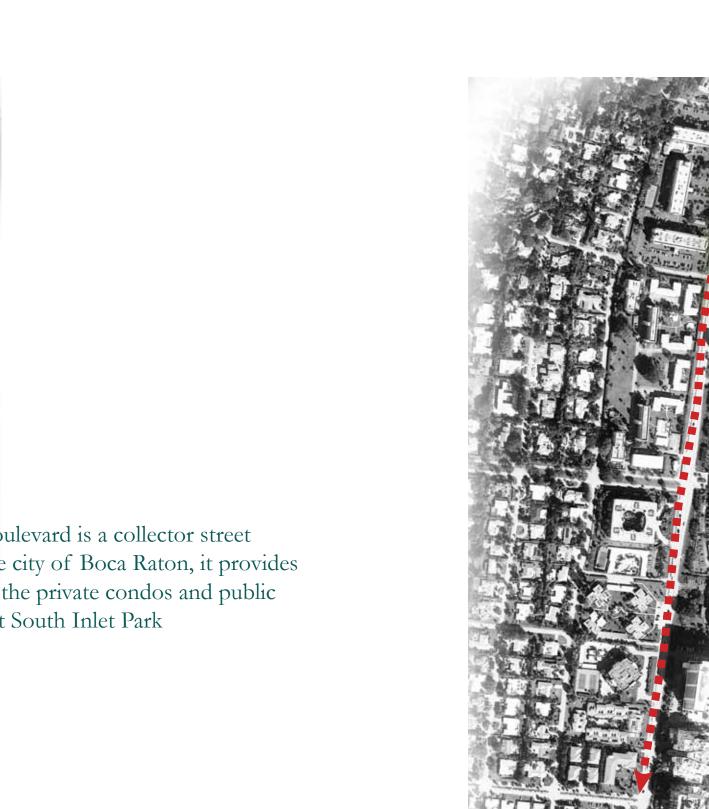
Artificial lighting is very detrimental for sea turtles, because they instinctually nest at night. Not only does it deter females from nesting successfully, hatchlings will crawl toward the brightest horizon, which naturally would be the ocean, however because of human development the hatchlings crawl in the opposite direction often never reaching

Turtle Nesting Habitat



The zoning of this part of the project is important because it indicates how much artificial light can be expected on the beach at night. In the map green is zoned for park use and orange is medium- high residential.

Ocean Boulevard



Ocean boulevard is a collector street within the city of Boca Raton, it provides access to the private condos and public parking at South Inlet Park

Pedestrian access to the beach in this area is limited to South Inlet Park. Circulation through the project area occurs on the inland side of Ocean Boulevard and on the beach; which can be detrimental to sea turtle nesting

Project Goals Rejuvenate healthier sea turtle nesting

habitat along the Boca Raton Beachfront 1) dune vegetation

2) beach renourishment

along the beach.

Create an urban park that helps control

and strengthen human access and activity

Inspire sea turtle conservation and awareness.

1) aesthetic design

2) public conservation activities 2) unique spaces and experiences

Master Plan



Program Elements

Urban dune rejuvenation creates an exciting unique experience.

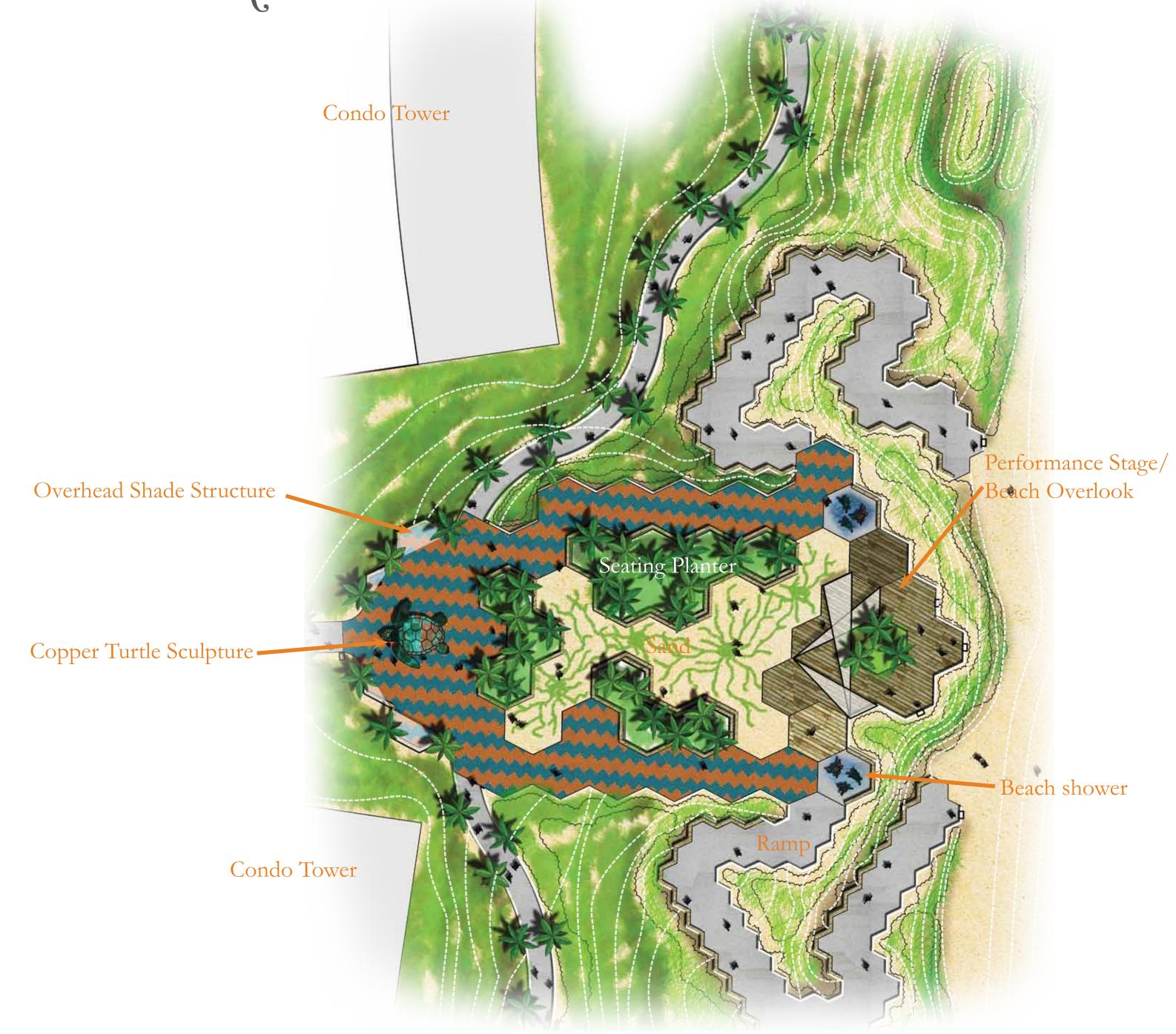
New beach spaces will help people circulate around the nesting habitat to find a more comfortable area to enjoy the beach.

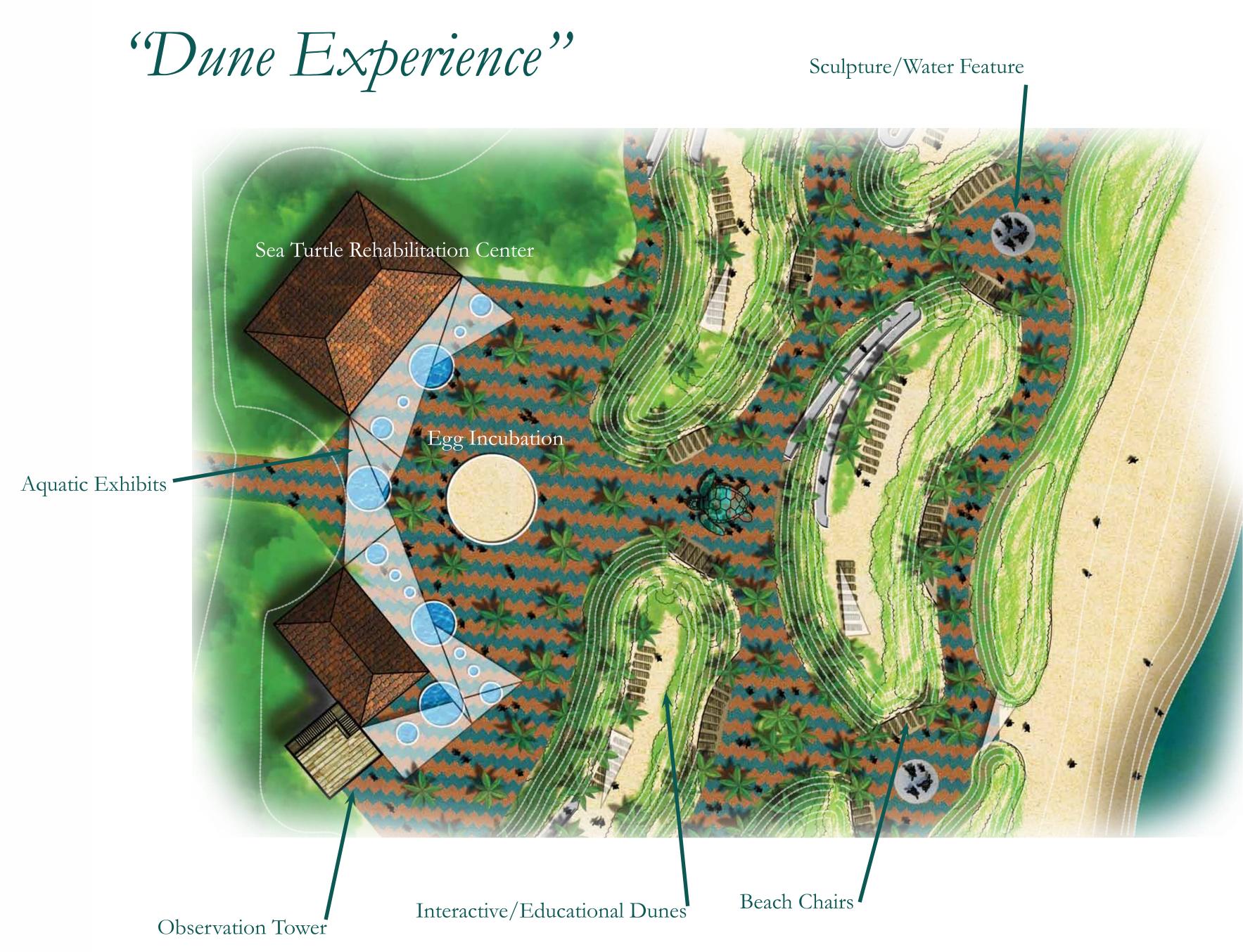
Using turtle friendly lighting throughout the site will create a safer and sexier beach environment at night; for humans and most importantly for the sea turtles.

Natural approach to storm protection and lower maintenance as dunes will naturally grow and strenghten over time.

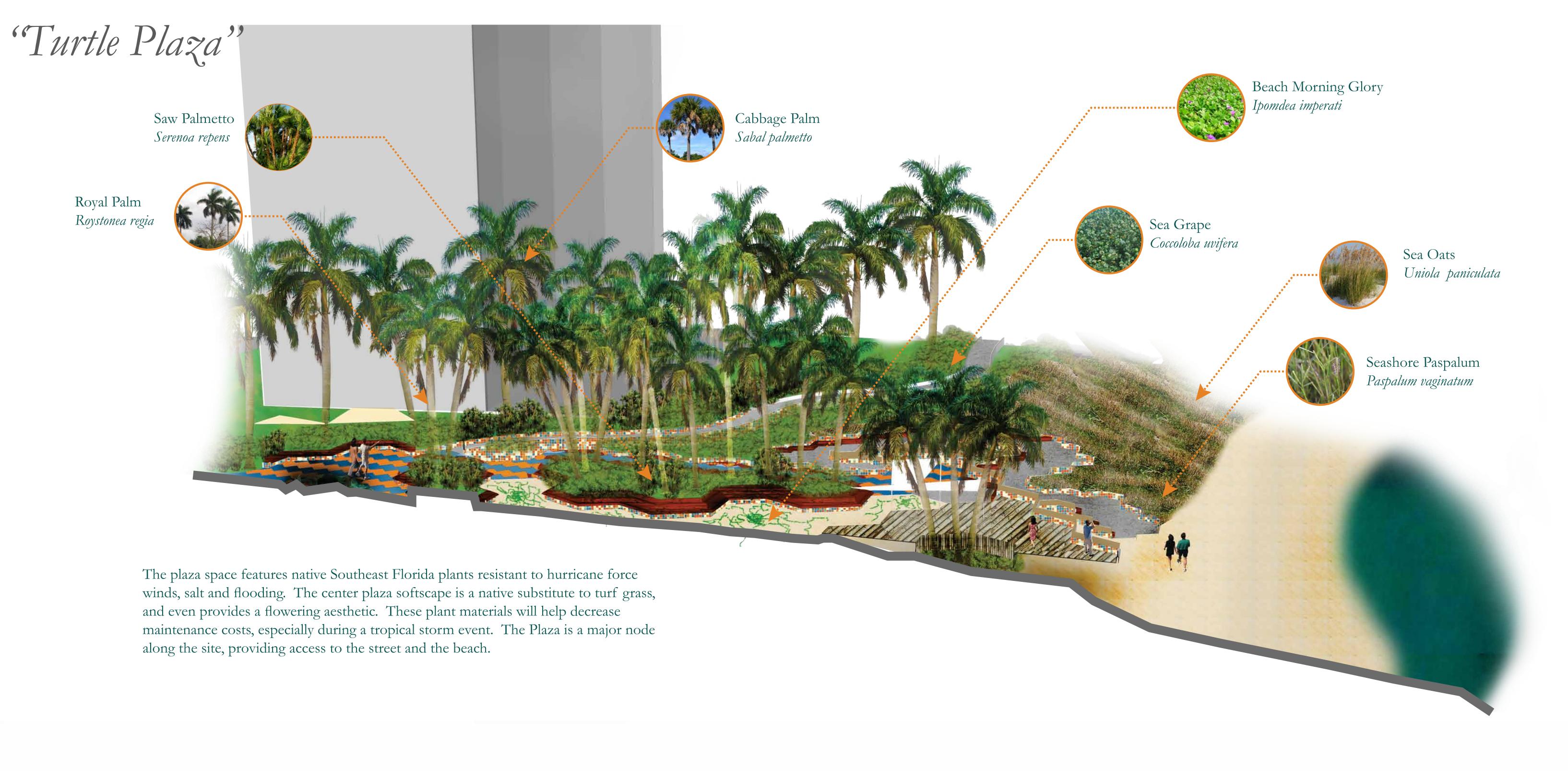
The turtle rehabilitation center and turtle sculptural elements give people the opportunity to physically interact with these often ignored or forgotten animals, as well as be involved in the process of returning injured or endangered turtles back to the Atlantic Ocean.

'Turtle Plaza''





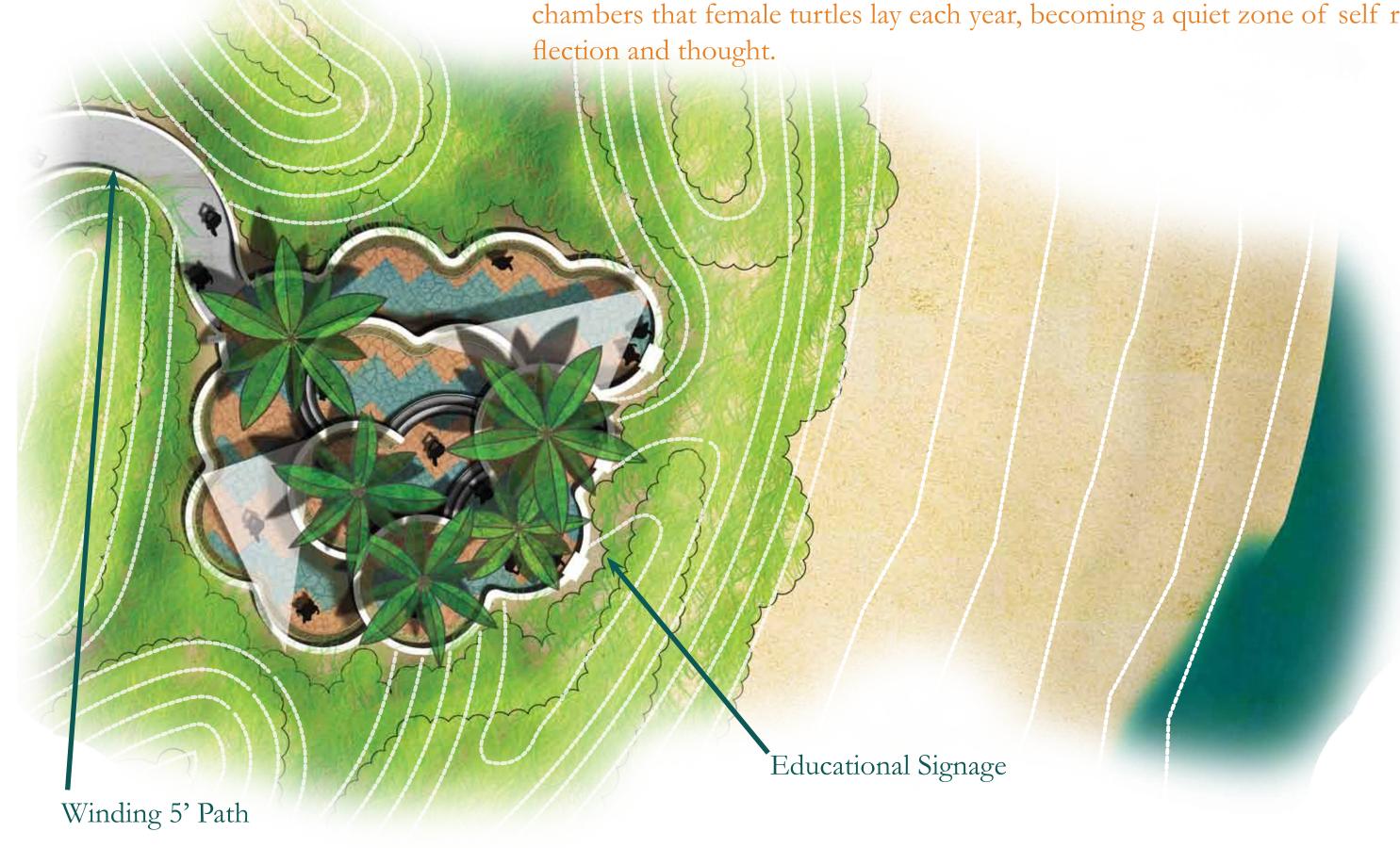






'Dune Room'

This intimate space is intended to be a place of observation, awareness, and education. The space is nestled within the dunes; inspired by the egg chambers that female turtles lay each year, becoming a quiet zone of self re-











'Dune Experience'









The dune experience and turtle rehabilitation center is the main access for the public onto the beach in this area and will inspire sea turtle awareness and conservation. It will also give people the opportunity to become involved, whether it's a night nesting tour or live hatchling exhibit.