



North Duck Village Sidewalk, Living Shoreline, and NC 12 Resiliency Project

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November 19, 2024

“Always plan ahead. It wasn't raining when Noah built the ark.”

Richard Cushing, American Prelate of the Roman Catholic Church

- Location
- Background History
- Resiliency Planning
- Project Design/Construction/Implementation
- Challenges/Lessons Learned
- Next Steps

Location

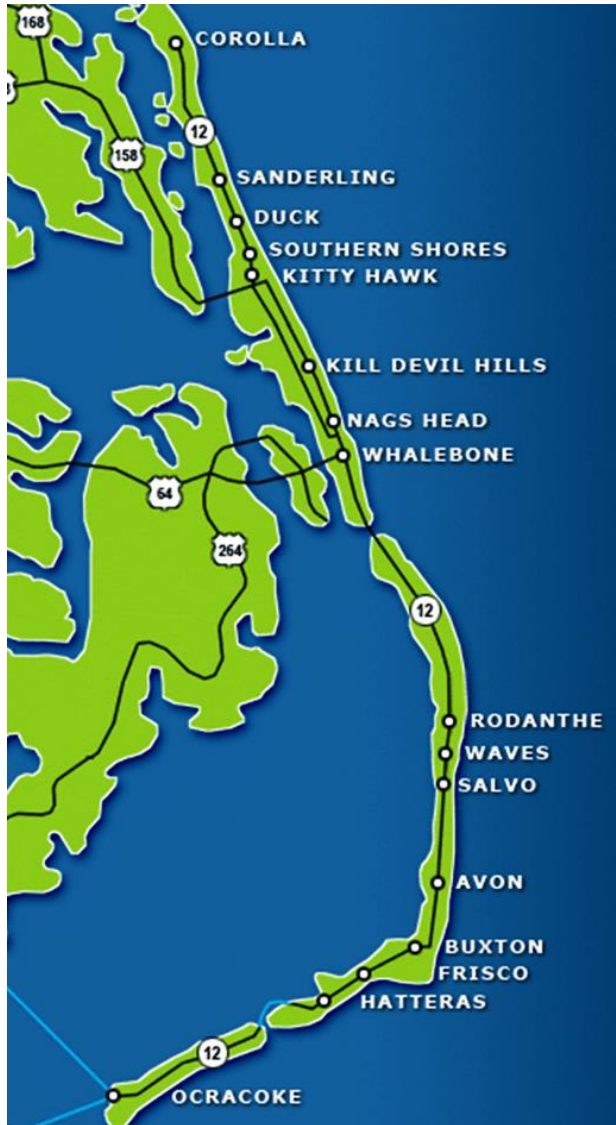


Photo: February 7, 20

Background

- Repetitive flooding
- Only north-south route
- Emergency vehicle access
- Storm evacuation route



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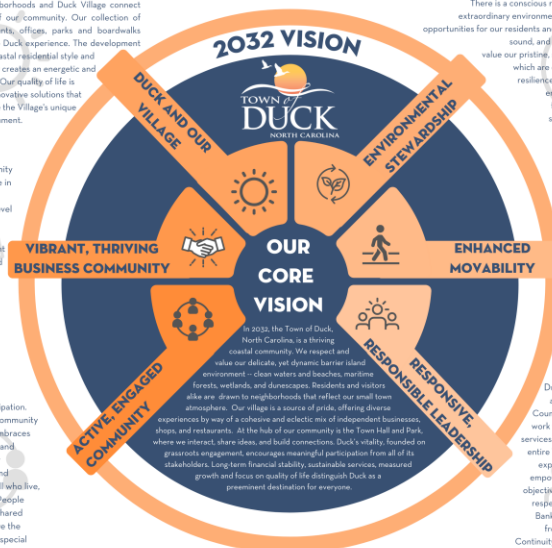
Planning

- 2014 Comprehensive Pedestrian Plan
- 2019 Vulnerability Assessment Plan
- 2020 Regional Hazard Mitigation Plan
- 2020 Comprehensive and CAMA Land Use Plan
- 2032 Vision Emergency

Our residential neighborhoods and Duck Village connect to form the fabric of our community. Our collection of small shops, restaurants, offices, parks and boardwalks combine to shape the Duck experience. The development of the Village has a coastal residential style and scale and its continuity creates an energetic and walkable experience. Our quality of life is enhanced through innovative solutions that protect and preserve the Village's unique character and environment.

The business community plays an essential role in creating the Duck experience. A high level of collaboration and cooperation ensures that we have a vibrant town where each and every individual can enjoy the recreation, arts, music, shopping, dining, and lodging unique to Duck.

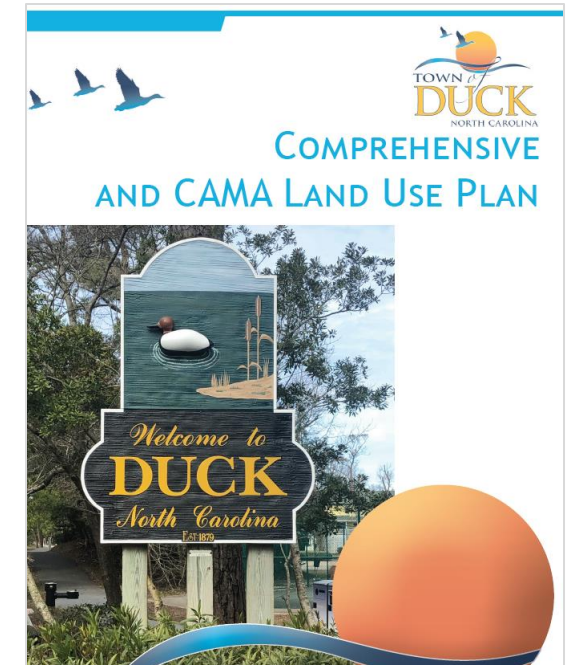
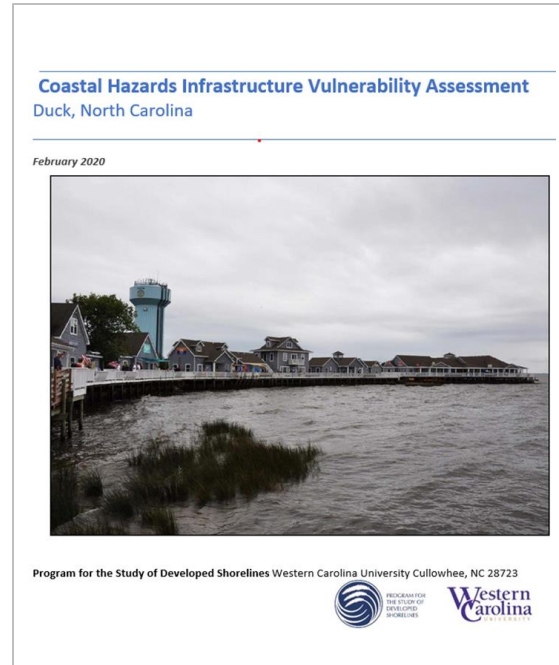
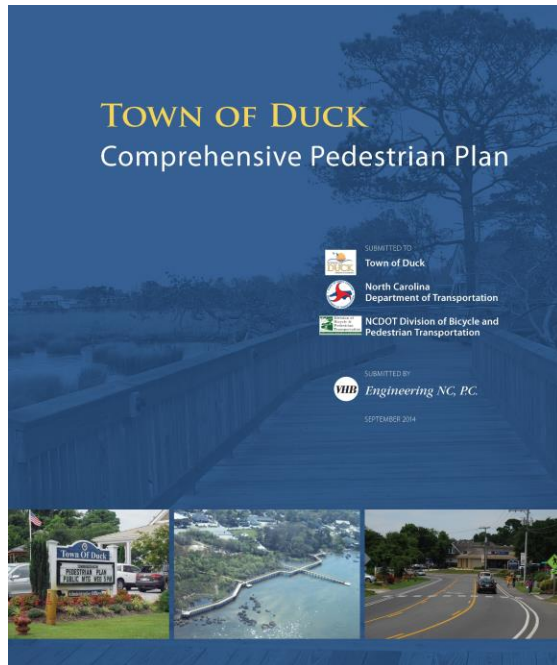
Duck is built on participation. We are an inclusive community that welcomes and embraces the diversity, talents, and expertise of all of our stakeholders. Pride and ownership is felt by all who live, work, and visit here. People feel connected by a shared motivation to preserve the unique nature of this special place.



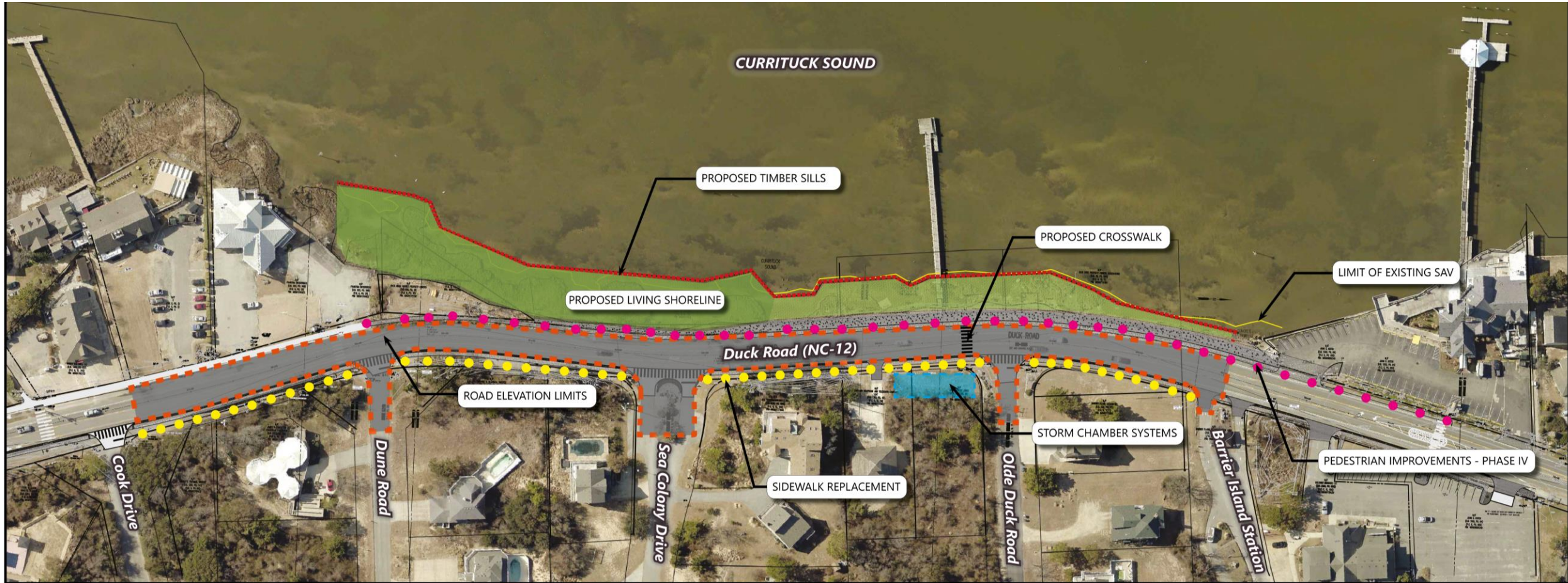
There is a conscious respect for Duck's fragile and extraordinary environment. We protect and preserve opportunities for our residents and visitors to enjoy the ocean, sound, and natural coastal habitats. We value our pristine, safe, uninterupted beaches, which are our most valuable asset. Our resilience and adaptability guided by environmental stewardship and forward thinking, ensure our sustainability as a community.

Duck is a pedestrian first community that is safe and easy to navigate by walking and cycling. Our multi-use trail, sidewalks, soundside boardwalks and beach provide a variety of ways to explore and discover Duck. Collaboration with various organizations enables us to optimize our traffic flow in our unique seasonal environment.

Duck maintains a responsive and responsible government. Council, staff, and the community work together to offer high quality services intended to add value to the entire Town. We have an educated, experienced and motivated staff employed to provide the Town's objectives. Duck is an innovative and respected leader within the Outer Banks region and its solutions are frequently emulated by others. Continuity of leadership preserves our established values and vision.



Project Design

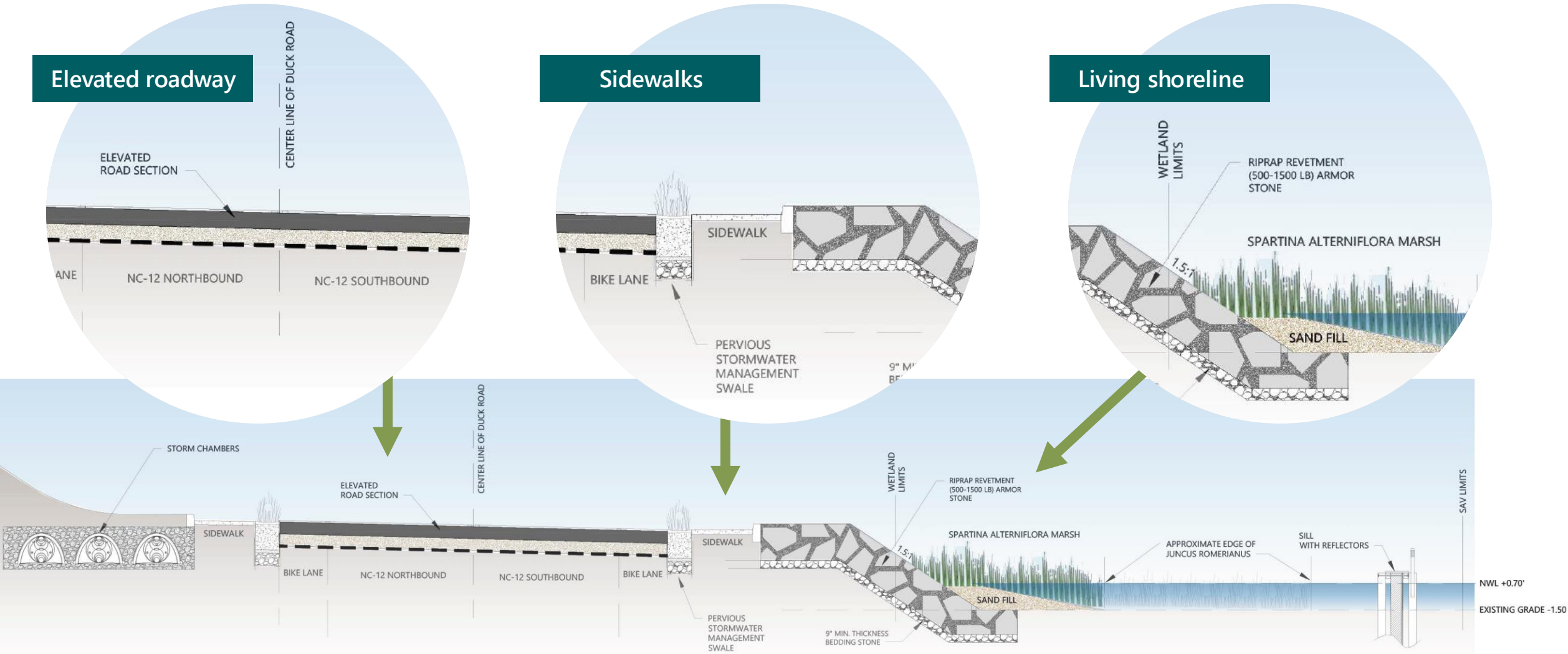


Three Integrated Project Elements

Elevated roadway

Sidewalks

Living shoreline



Implementing Plans: N.C. Highway 12 Elevation

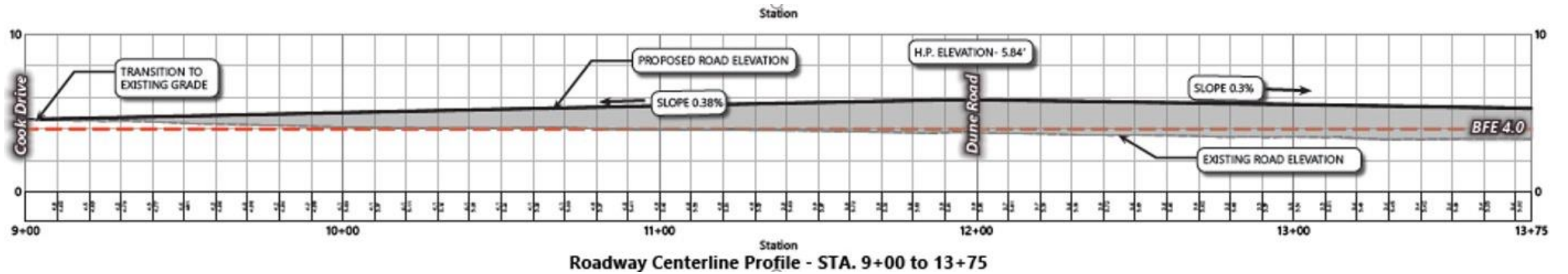


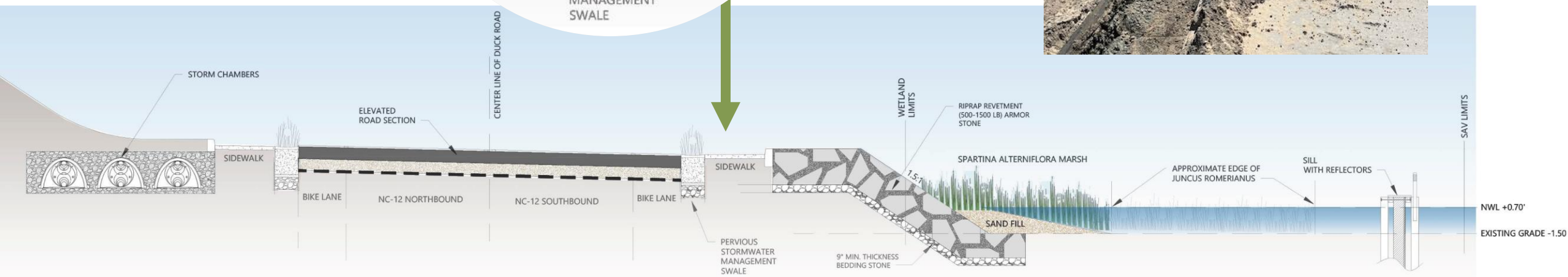
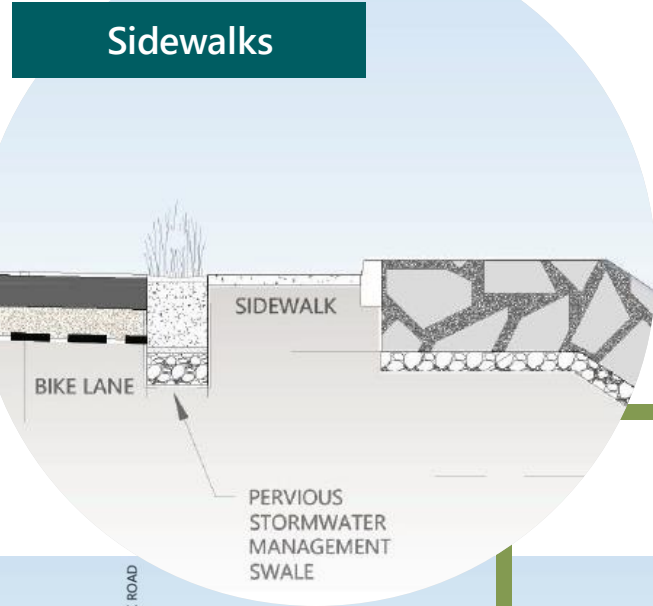
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Elevated Roadway



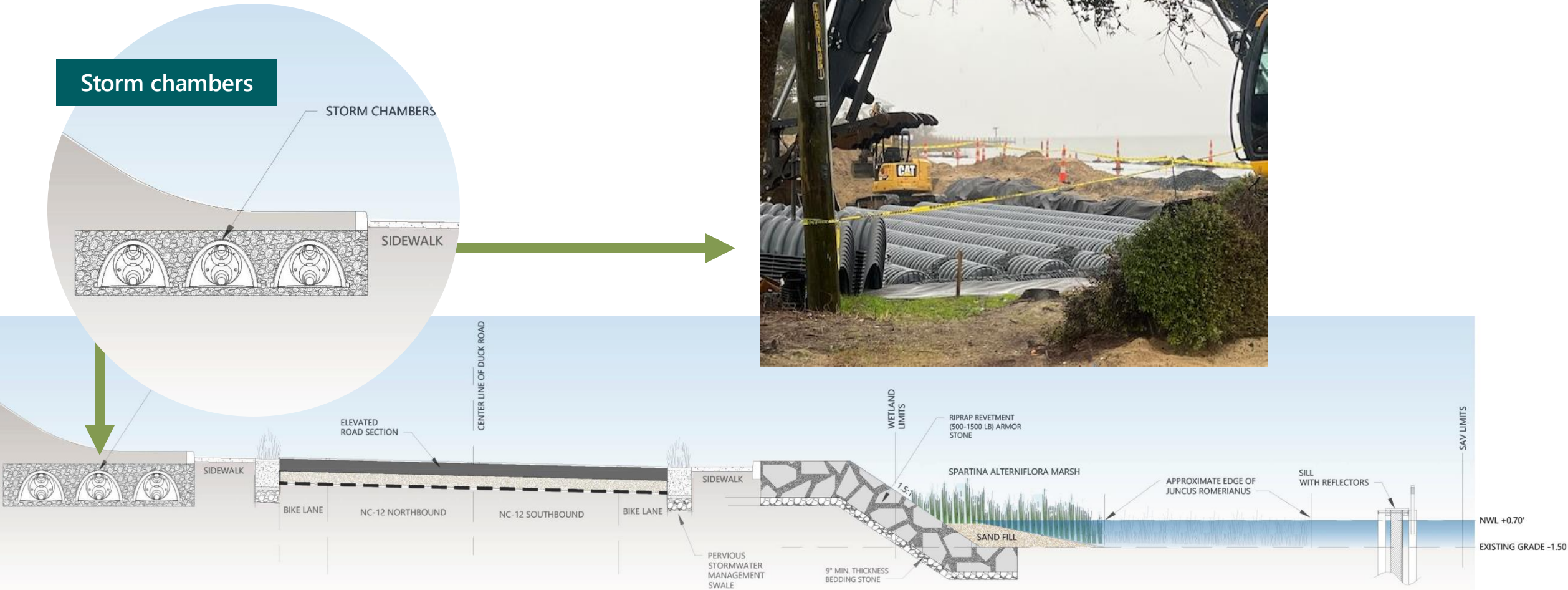
Implementing Plans: Pedestrian Improvements – Phase 4



Drainage Improvements

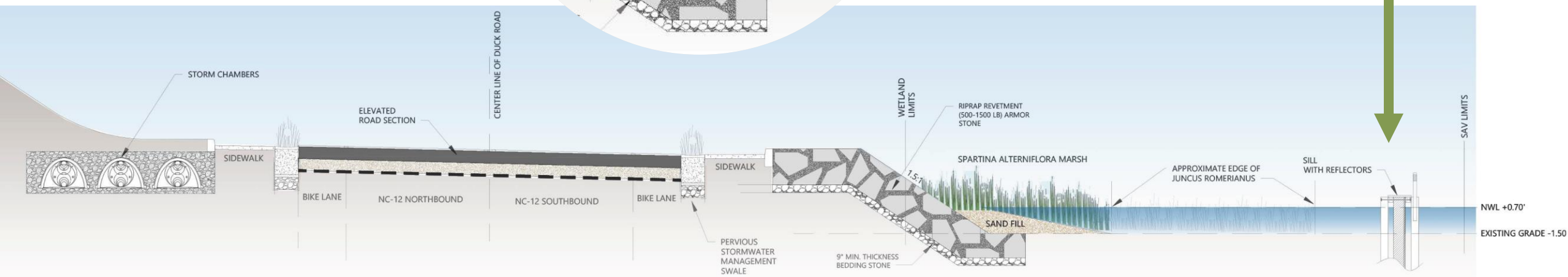
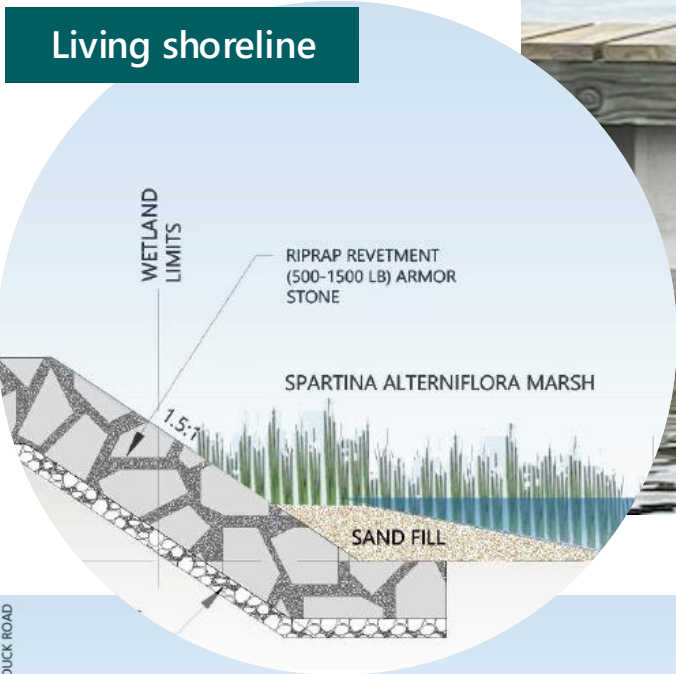


Storm chambers



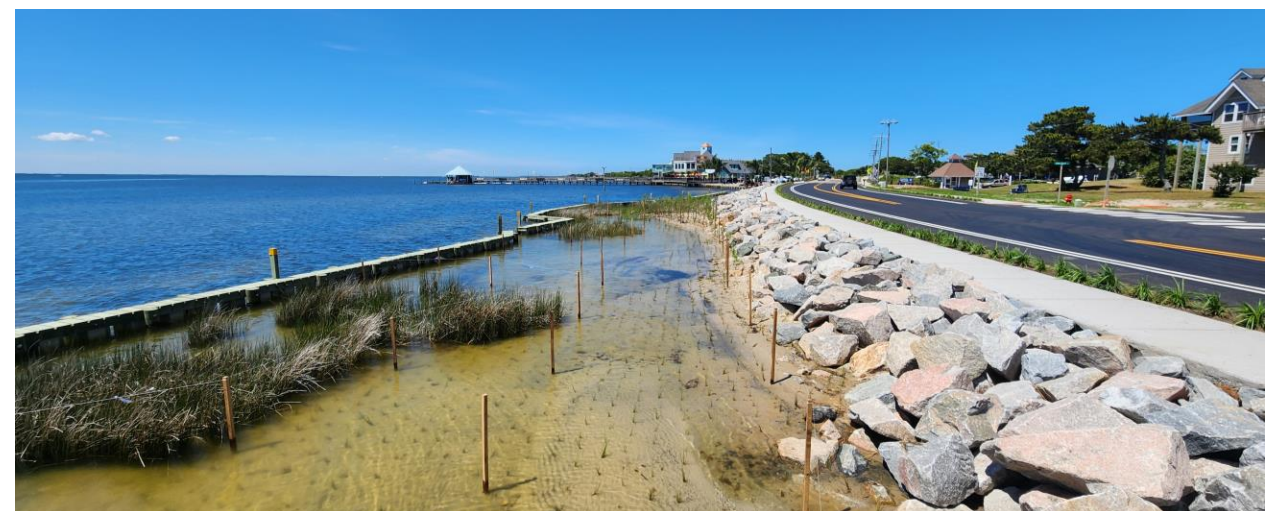


Living Shoreline





Living Shoreline



Challenges

- Funding
- Permitting
- Timing
- Maintenance of Traffic
- Weather
- Easements



Funding Sources





January & February
2024 Storms



Lessons Learned

- ✓ Start early
- ✓ Be persistent
- ✓ Challenge the status quo
- ✓ Communicate
- ✓ Document
- ✓ Be prepared for the unexpected



Next Steps

- ✓ Share our Story
- ✓ Develop a Shoreline Monitoring Plan
- ✓ Continue to evaluate site conditions
- ✓ Plan for future treatments and plantings
- ✓ Share our Story





Questions?



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