STRAWBERRY FIELDS FOREVER?
AGRICULTURAL HERITAGE AS PLACE-BASED LANDSCAPE DESIGN

A non-degree-required thesis submitted to the
Master of Landscape Architecture Program
Department of Landscape Architecture

by

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Abstract

This project is an inland boardwalk design that responds to sea level rise, plant hardiness zone shifts, and urbanization. The goal of the thesis is to strategically negotiate access and reinforce a sense of identity in a shifting environment. Seams of agricultural heritage are threaded throughout Pungo, Virginia. Fertile soil and favorable climate make it an ideal location for cultivation of the strawberry. As a result, strawberries have become ingrained in the character of Pungo and its residents. It symbolizes a communal commitment to adapt and thrive in the face of shifting ecological veracities, demonstrating resilience amid uncertainty. Current social realities are rife with tension, ultimately resistant to change. A sensitively adapted phased development is therefore necessary as a method that refutes urgency and embraces the incremental change that occurs in the everyday. At the core of this design investigation lies a fundamental inquiry: what happens to community cohesion and identity when a cultural symbol deeply embedded in the fabric of the landscape fades into memory? I believe this inland boardwalk will serve as a legible indicator to a changing landscape as a proactive nod to the community to better understand future edges. Suggestion of what is to come through an intervention that is empathetic and community-minded will support an optimistic future in Virginia Beach as the community continues to accept the changing environment.

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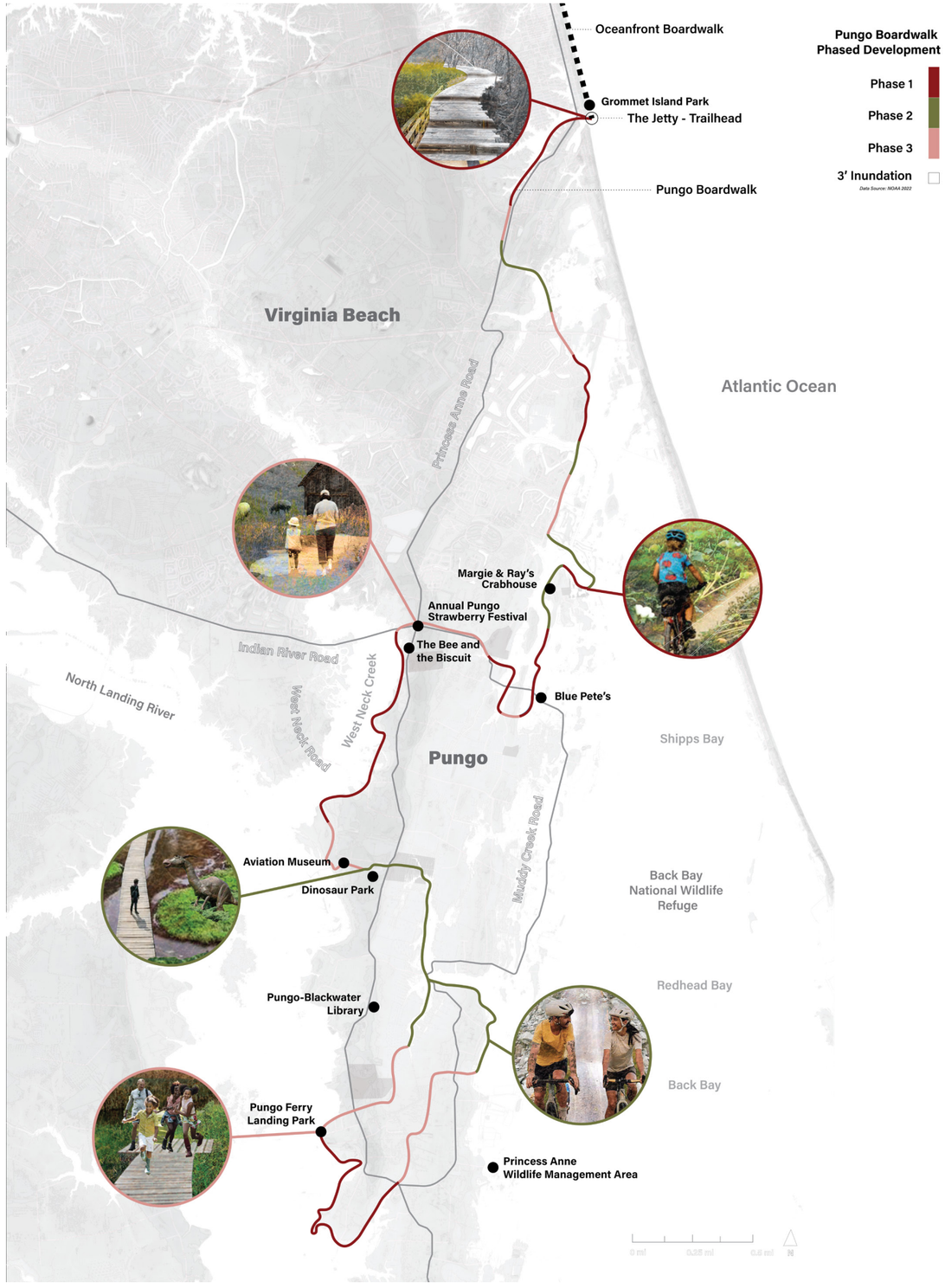
Plant yourself in a strawberry field, ready for harvest. Children dance through the rows, clomping around in rainboots, caked with the residue of damp topsoil. Cheeks stained red, with sugary syrup buzzing bees try to slurp up as it drips down their chins. Jump forward a hundred years to these same fields - they are inundated with brackish water and tadpoles swim along the beds. Children splash in these shallow channels and look closely at the microcosms of life thriving just beneath their wet boots. As time progresses, this idyllic setting undergoes a transformation, evolving into something altogether different yet equally enchanting.

This unique ecological succession is not merely a shift in landscape realities but a testament to a collective acknowledgment of environmental change. It symbolizes a communal commitment to adapt and thrive in the face of shifting ecological realities, demonstrating resilience amid uncertainty.

In Pungo, Virginia, strawberries hold significant cultural and economic importance. Renowned for its strawberry farming industry, the fertile soil and favorable climate makes it an ideal location for cultivation. As a result, strawberries have become ingrained in the identity of Pungo and its residents; its form, too, is etched through Pungo's streets and history.

For many, strawberries represent more than just a crop; they symbolize tradition, community, and heritage. The annual Strawberry Festival is testament to this sentiment. Which, for the 5th year in a row has been canceled due to land ownership discrepancies. This festival brings together locals and visitors alike to celebrate the harvest season. The local economy is deeply connected to the rich history of strawberry abundance, and the community members themselves, long-standing residents and close-knit networks of farmers have a vested interest in the continuation of the strawberry as Pungo's iconographic emblem. Despite enduring significant changes in the local environment over generations, these individuals have steadfastly maintained their strawberry fields. Subtle nods to the strawberry's significance ensure its continued presence and impact, extending beyond the confines of the fields themselves.

Weaving Cultural Relics - Phased Path Plan



Low Impact Mobility
Pedestrian > Vehicular Movement

Native Plant Reintr
for Biodiverse Ecos

oduction
systems

Wetland Plantings to Reduce
Sediment Scour around Elevated Paths

Decomposed
Crops for Fill

As current ecological realities inundate Pungo, flooding, road erosion, sediment scour, and the proliferation of invasive species threaten the continuation of the strawberry. These challenges, only accelerated by the pressures of sea level rise, plant hardiness zone shifts, and residential urban development, portend a future unknown condition for this unique site.

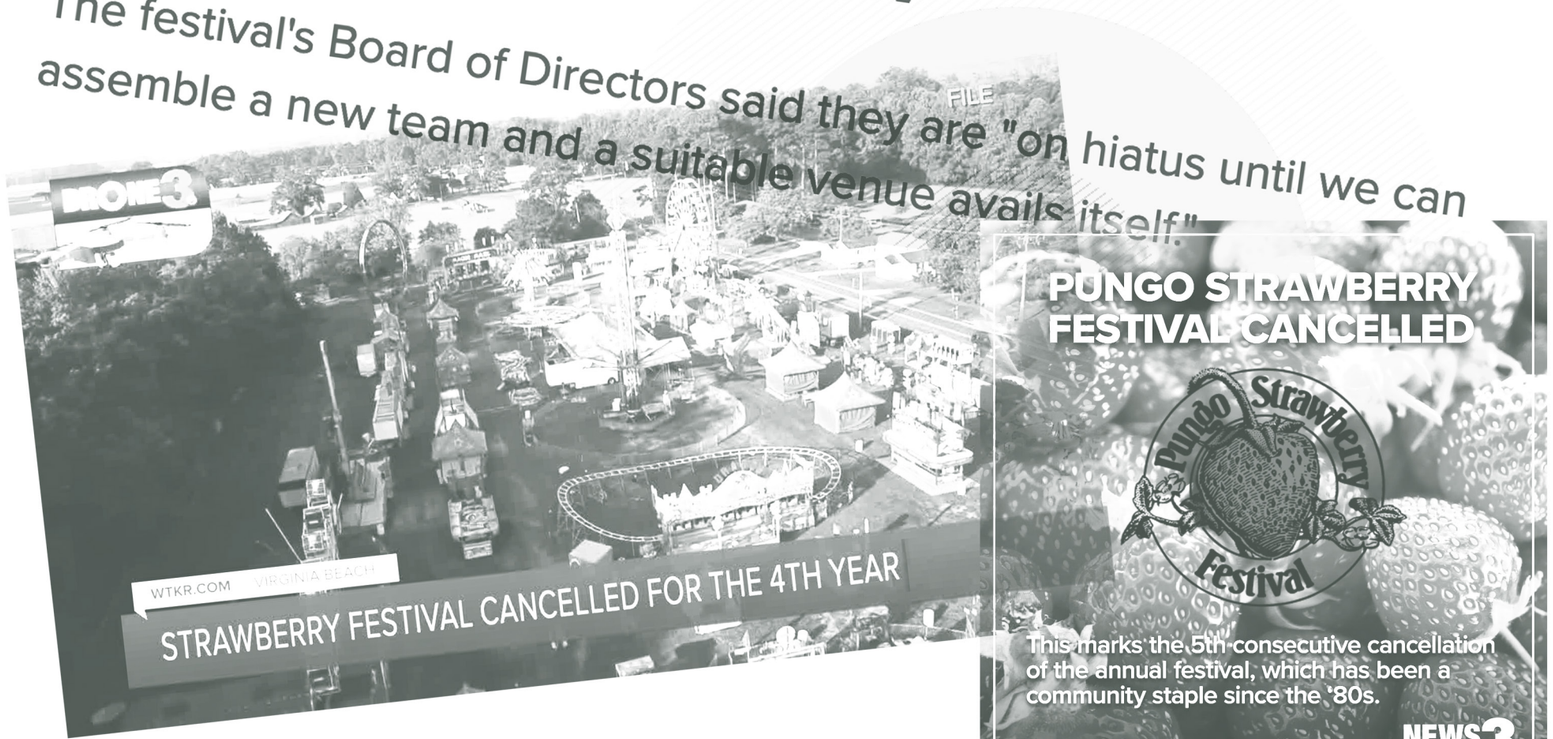
The design responds to the eventual pressures in the coastal city. It binds future projections of inundated areas and visible land through a woven network of a boardwalk. Toiling with the incremental changes to the landscape, the boardwalk hints at the incoming reality of farming on former marshland. As the predictions of rising sea levels become more eminent, the fragmented wetland creeps further inland. To assist the transition, the materiality of the infrastructure is composed of fill from local decomposed strawberry bushels, reused wood planks, steel grating and, gathered limestone boulders. The stark difference between the materials gestures a conscious unfamiliarity as the mundane meets the obscure through time to challenge hidden identities. Traversing the boardwalk, trailers experience a change in path width, viewsheds, successional plant communities, and water depths. These interventions connect travelers to the environment by encouraging an up-close view of a changing landscape in a coastal, rural area. Variability along the route offers a range of biodiversity and temporal dimensions as the ecologies simultaneously evolve at different points in time. The design also connects visitors to keystone resources, like mom-and-pop diners or a dinosaur park, that lace together social networks.

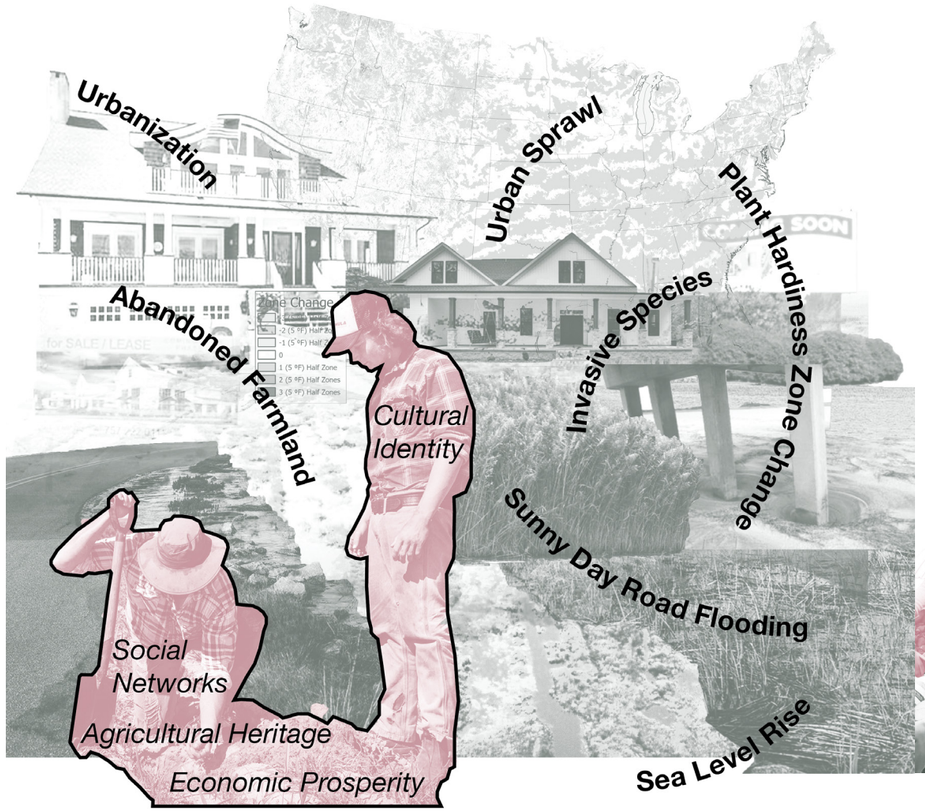
The inland boardwalk operates as a weaving and building design as opposed to a retreat strategy. It waves a subtle flag to the incoming challenges yet braces the community by banding social infrastructures. There are three phases of the development: The first is the most crucial to establish now as these edges already exist and encroach on urban parcels, the second sits about 50 to 75 years in the future as agricultural lands wane with inundation, and the third bridges surfaces and roadways that are anticipated to become flooded in about 100 years. With community consciousness at the forefront, the phasing strategy reacts to projections of sea level rise, plant hardiness zones, and urbanization decisions while also honoring the generations of farmers with transparency around design decisions. Community engagement in the practice of labor to lay, lift, and lengthen over the course of the three phases reflects the community members in the landscape and participation in the actualizing of urban shifts as the environment continues to change. Paving the path and introducing parts of a whole system gently stitches recreation into the relics of agriculture. It allows visitors to contend with these pressures as the boardwalk is placed between future edges of inundation and farmable soil. The approach gradually lays the groundwork for a landscape design and suggests forward thinking on the form and composition of the future environment.

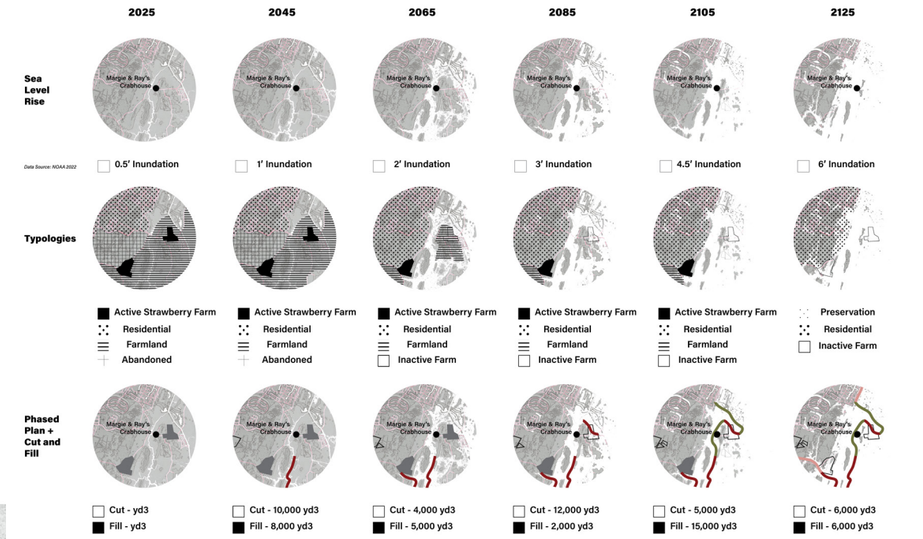
VIRGINIA BEACH

Pungo Strawberry Festival canceled for fifth year in a row

The festival's Board of Directors said they are "on hiatus until we can assemble a new team and a suitable venue avails itself."

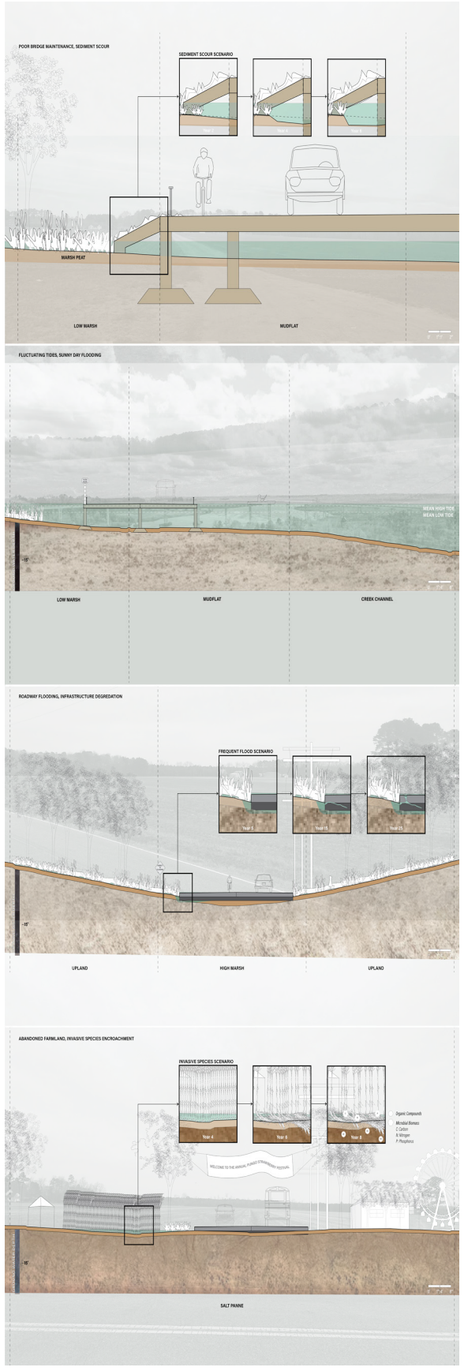



Urbanization
Urban Sprawl
Plant Hardiness Zone Change
Invasive Species
Abandoned Farmland
Cultural Identity
Sunny Day Road Flooding
Social Networks
Agricultural Heritage
Economic Prosperity
Sea Level Rise

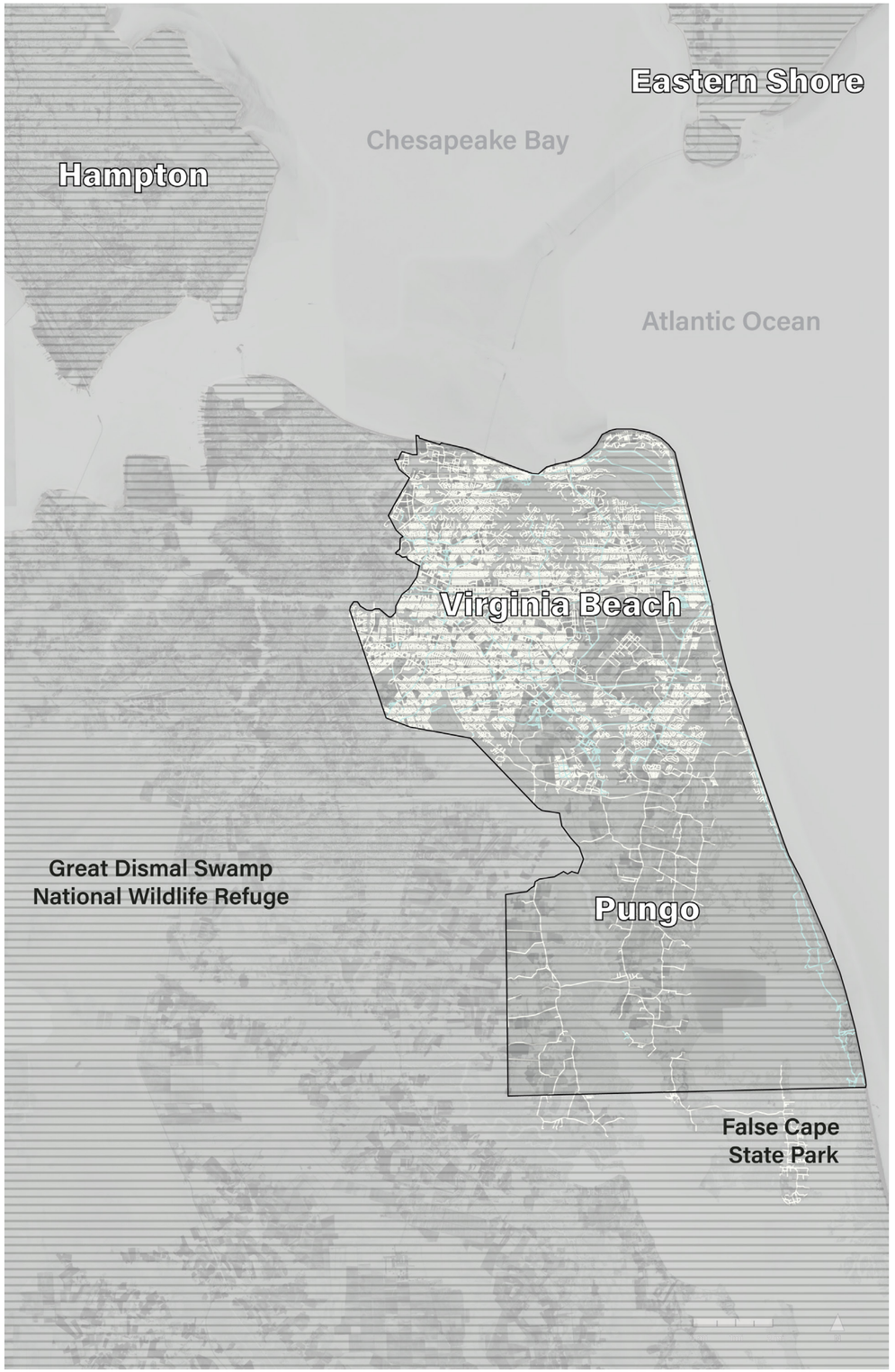

2025
2045
2065
2085
2105
2125
Sea Level Rise
Data Source: NOAA 2022
0.5' Inundation
1' Inundation
2' Inundation
3' Inundation
4.5' Inundation
6' Inundation
Typologies
Active Strawberry Farm
Residential
Farmland
Abandoned
Inactive Farm
Preservation
Phased Plan + Cut and Fill
Cut - yd3
Fill - yd3
Cut - 10,000 yd3
Fill - 8,000 yd3
Cut - 4,000 yd3
Fill - 5,000 yd3
Cut - 12,000 yd3
Fill - 2,000 yd3
Cut - 5,000 yd3
Fill - 15,000 yd3
Cut - 6,000 yd3
Fill - 6,000 yd3

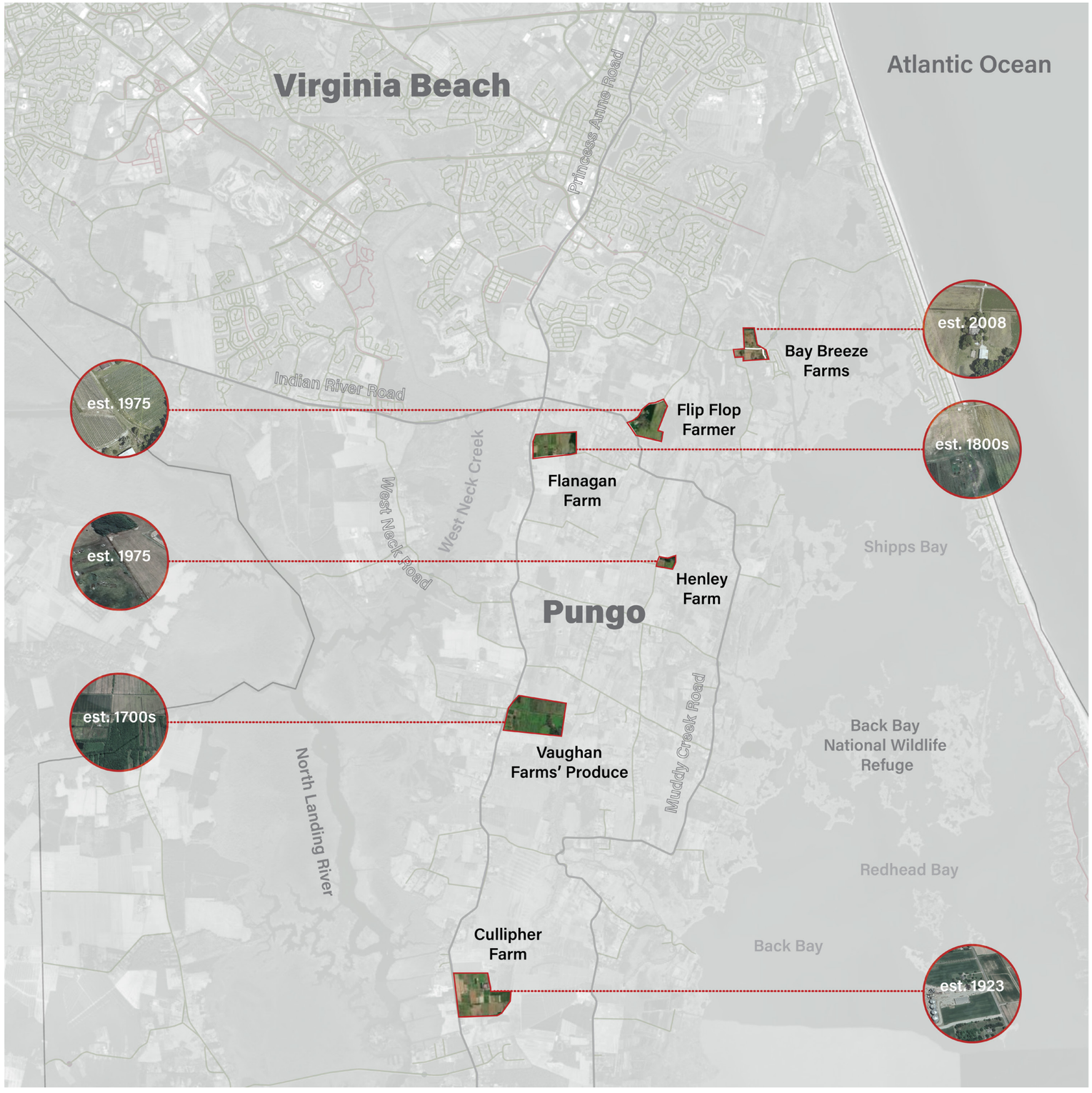

MARGIE & RAY'S CRAB HOUSE
BREAKFAST 7AM
PUNGO BOARDHOUSE
OPEN

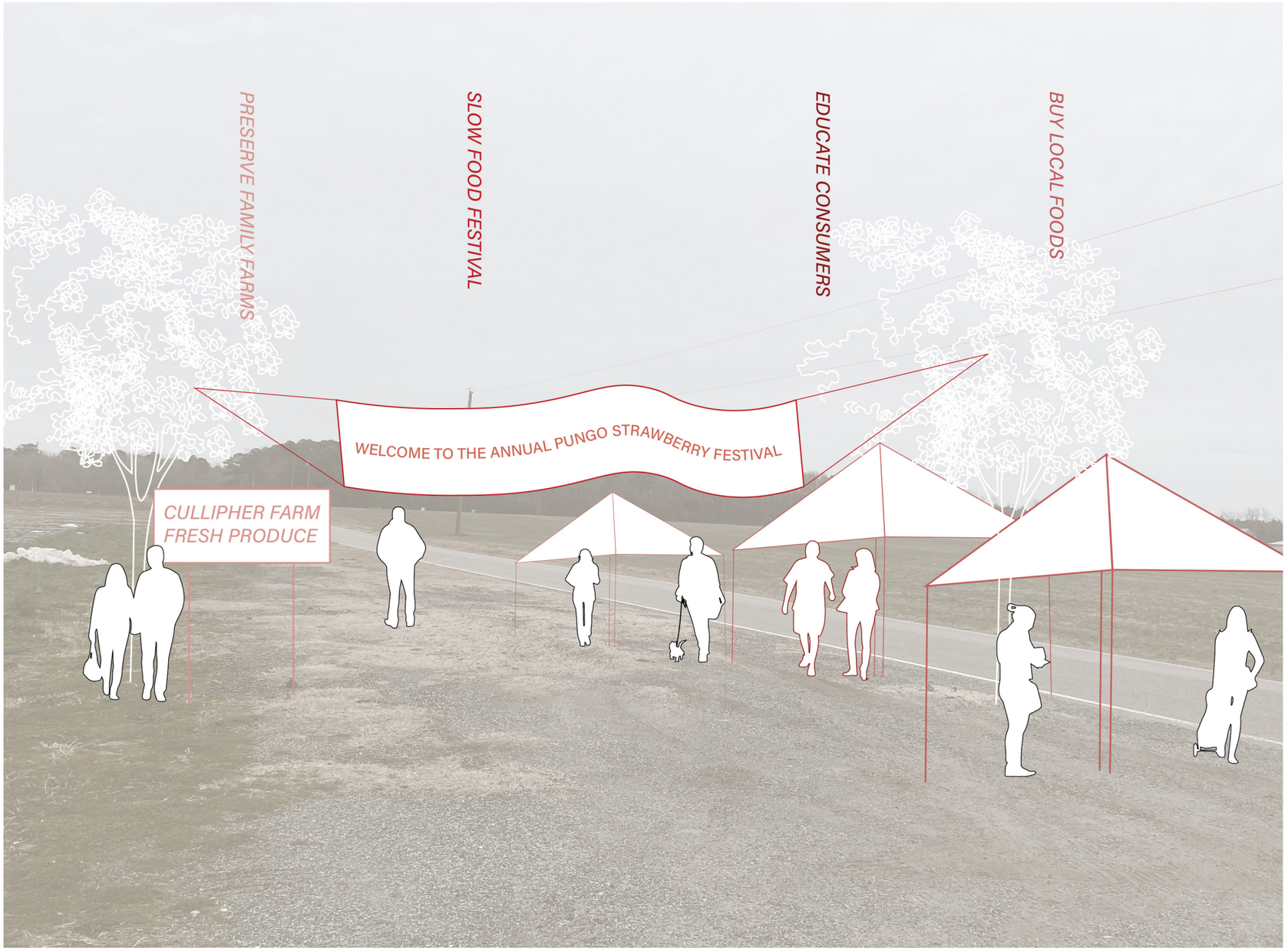
Means of Transition



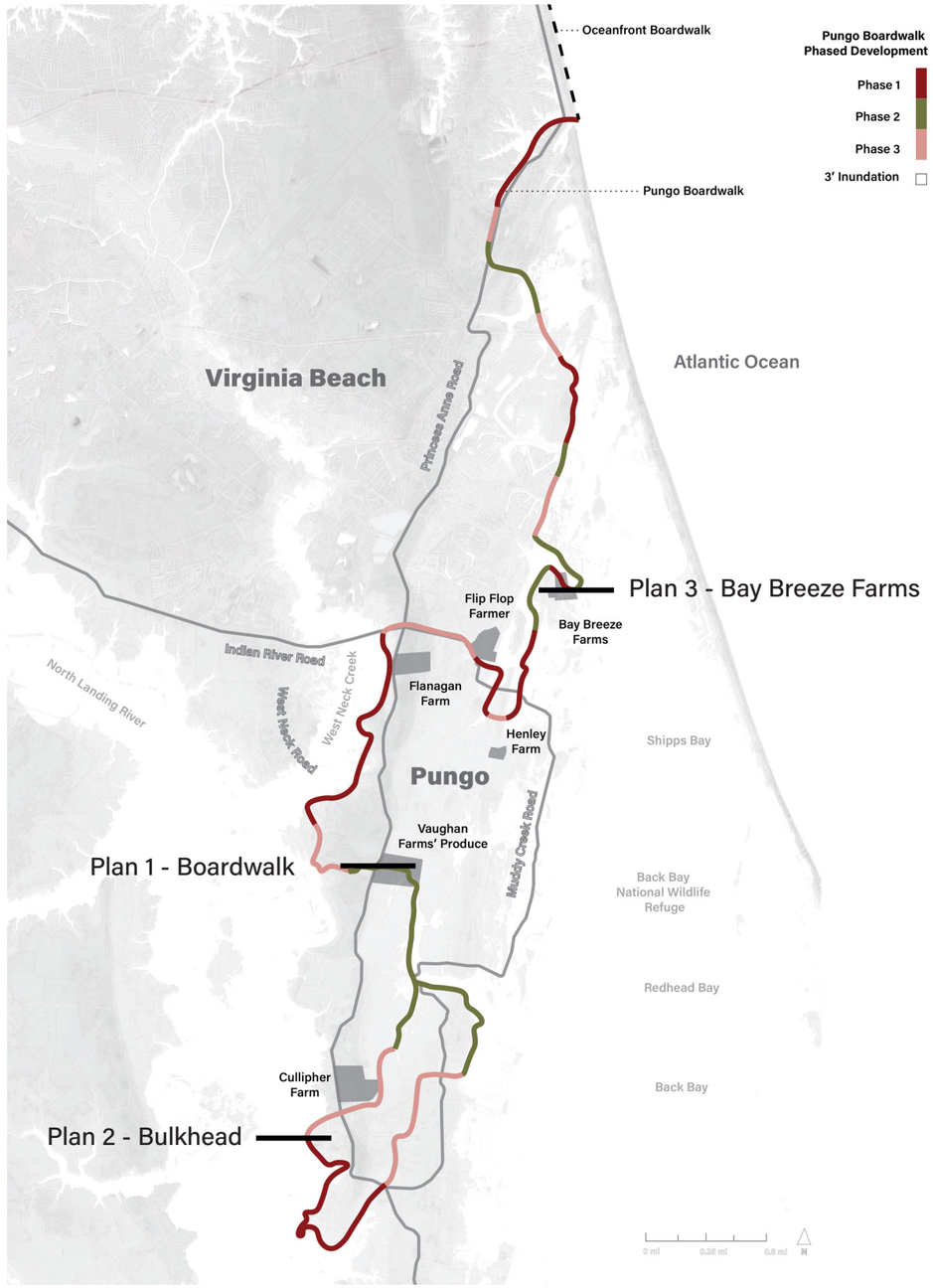
Hampton Roads, Virginia
Tethered By Water



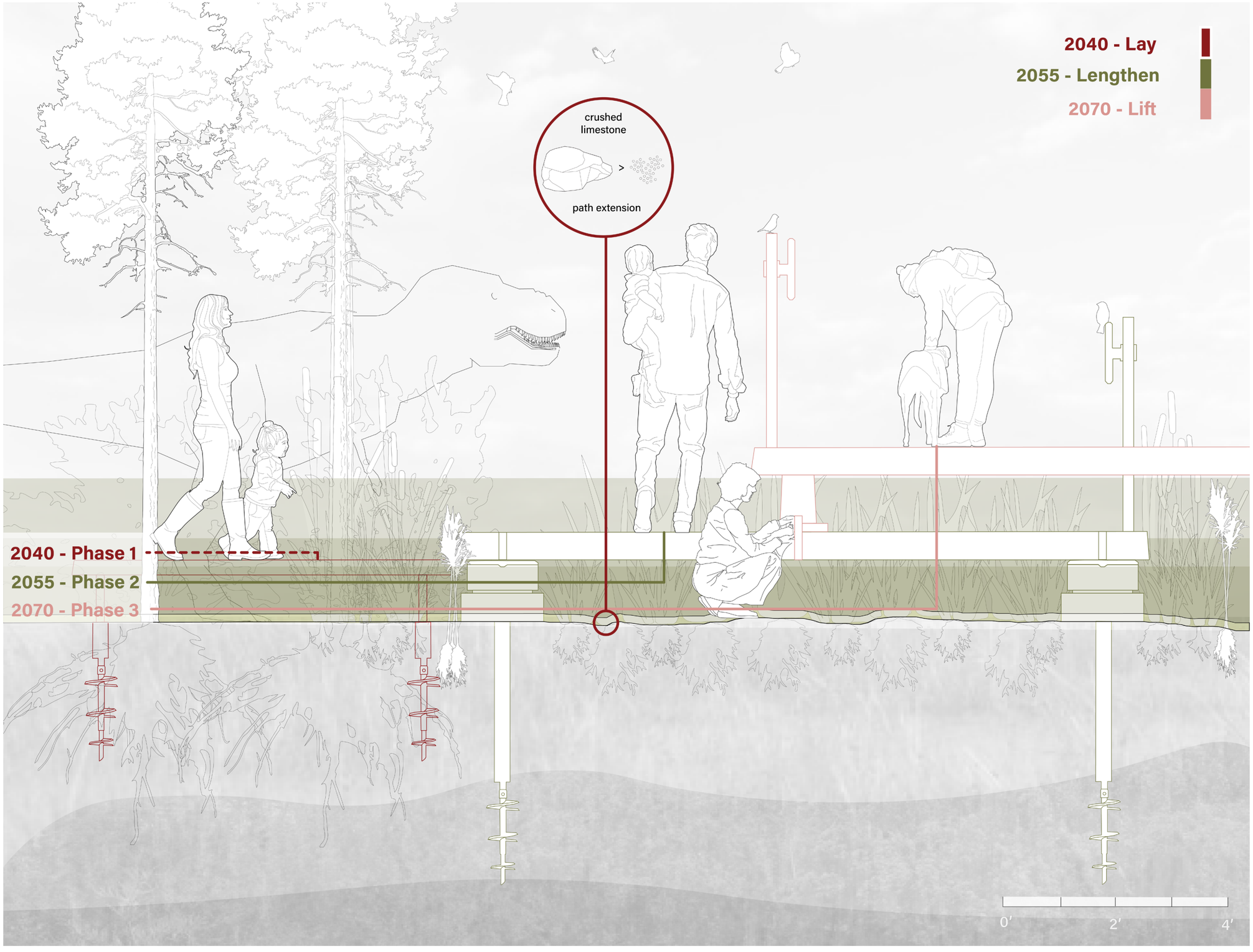

Virginia Beach
Atlantic Ocean
Princess Anne Road
Indian River Road
West Neck Road
West Neck Creek
Muddy Creek Road
North Landing River
Shipps Bay
Pungo
Back Bay
National Wildlife
Refuge
Redhead Bay
Back Bay
est. 1975
est. 1975
est. 1700s
est. 2008
est. 1800s
est. 1923
Bay Breeze
Farms
Flip Flop
Farmer
Flanagan
Farm
Henley
Farm
Vaughan
Farms' Produce
Cullipher
Farm


PRESERVE FAMILY FARMS
SLOW FOOD FESTIVAL
EDUCATE CONSUMERS
BUY LOCAL FOODS
WELCOME TO THE ANNUAL PUNGO STRAWBERRY FESTIVAL
CULLIPHER FARM
FRESH PRODUCE

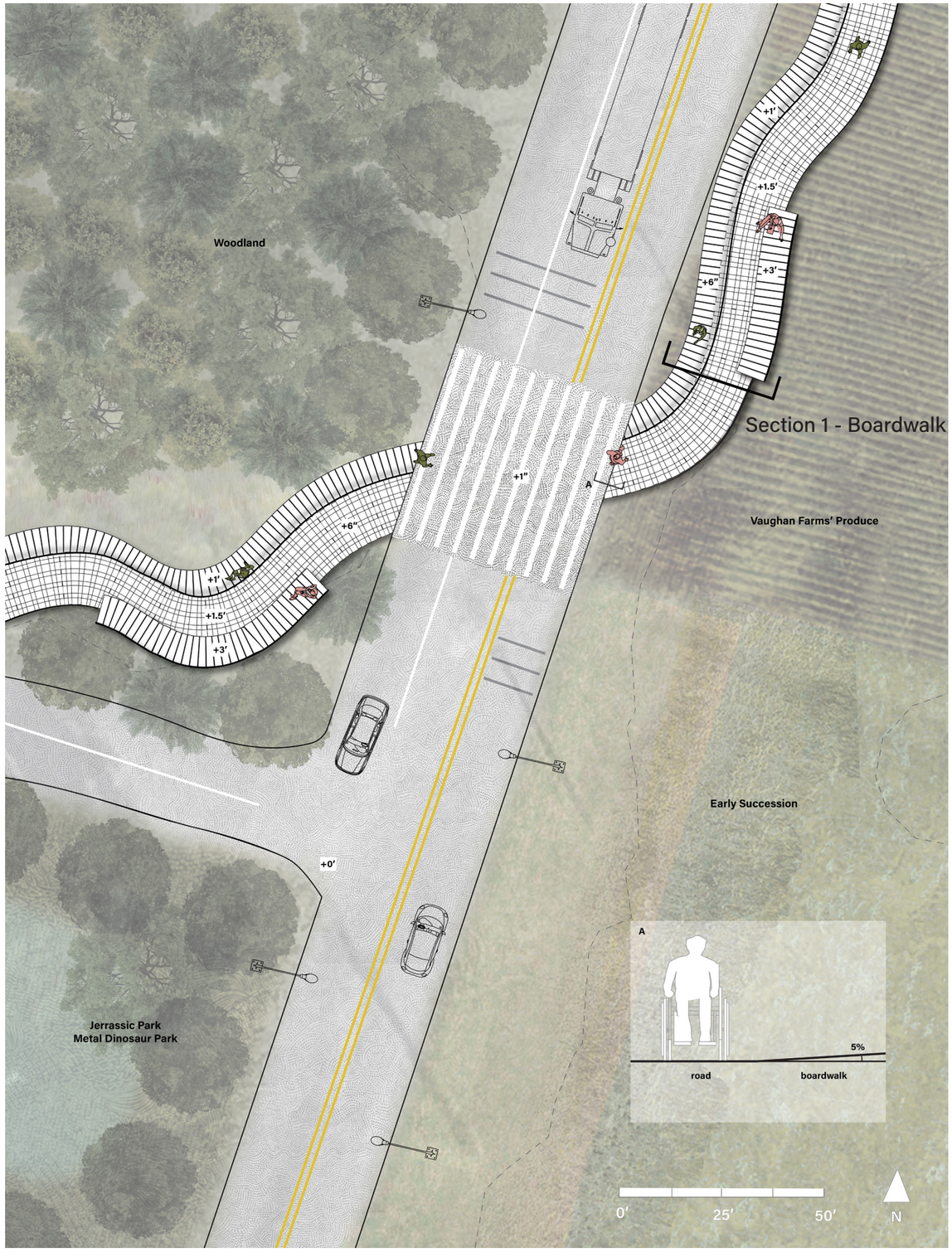
Key Plan


Oceanfront Boardwalk
Pungo Boardwalk
Pungo Boardwalk Phased Development
Phase 1
Phase 2
Phase 3
3' Inundation
Virginia Beach
Princess Anne Road
Atlantic Ocean
Plan 3 - Bay Breeze Farms
Flip Flop Farmer
Bay Breeze Farms
Indian River Road
North Landing River
West Neck Road
West Neck Creek
Flanagan Farm
Henley Farm
Shipps Bay
Pungo
Vaughan Farms' Produce
Plan 1 - Boardwalk
Muddy Creek Road
Back Bay National Wildlife Refuge
Redhead Bay
Back Bay
Cullipher Farm
Plan 2 - Bulkhead
0 mi
0.25 mi
0.5 mi
N

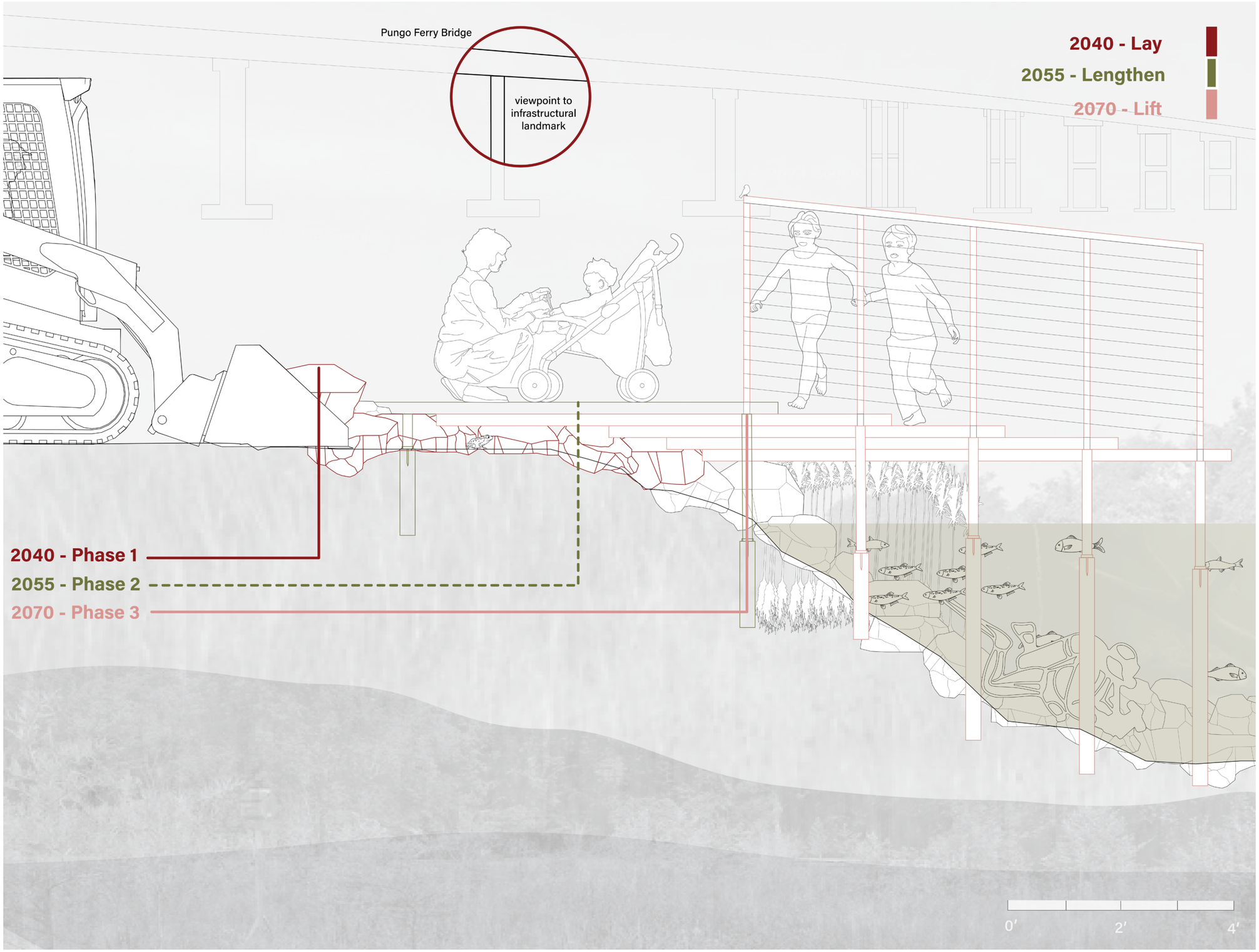
Section 1 -
Boardwalk



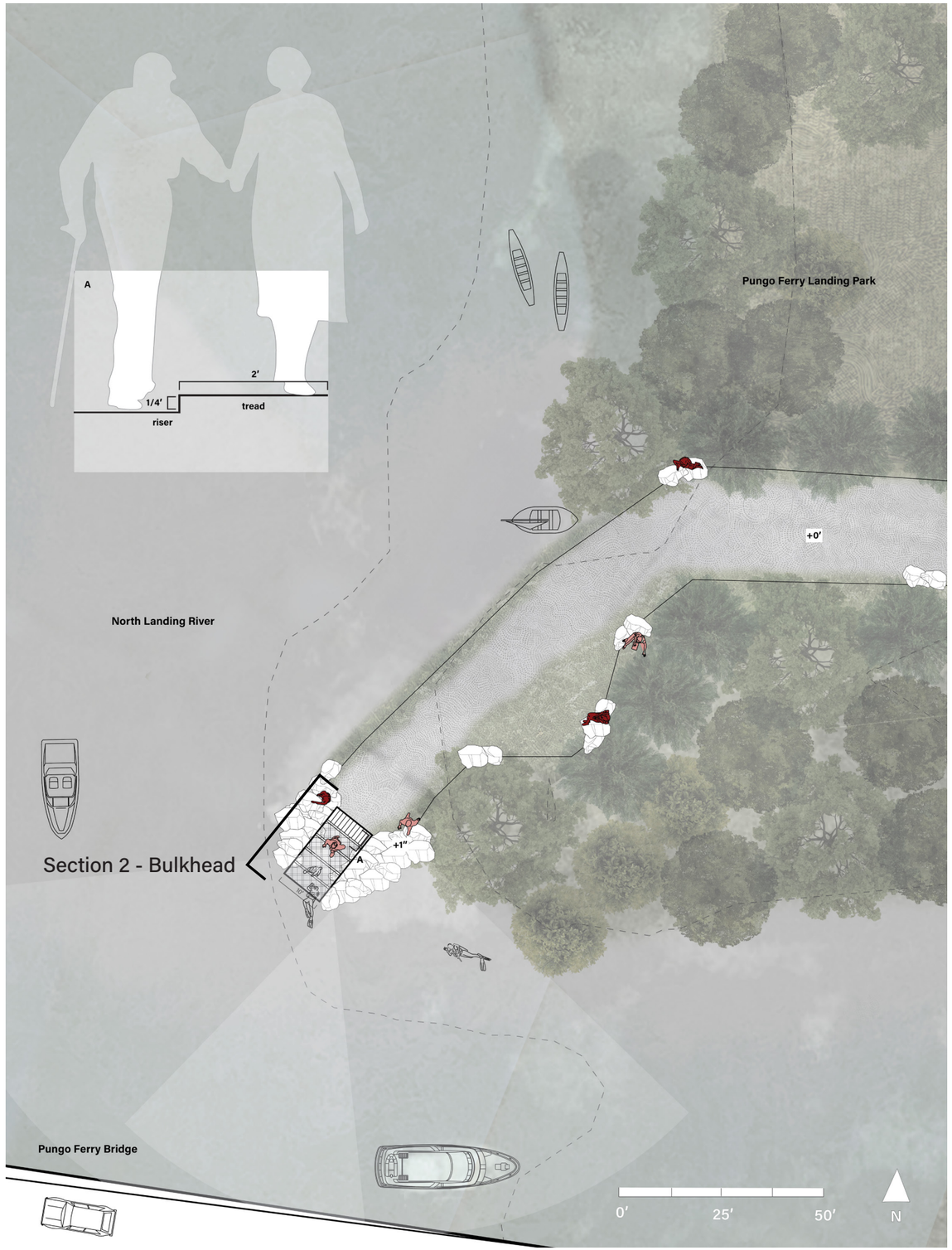
Plan 1 - Boardwalk



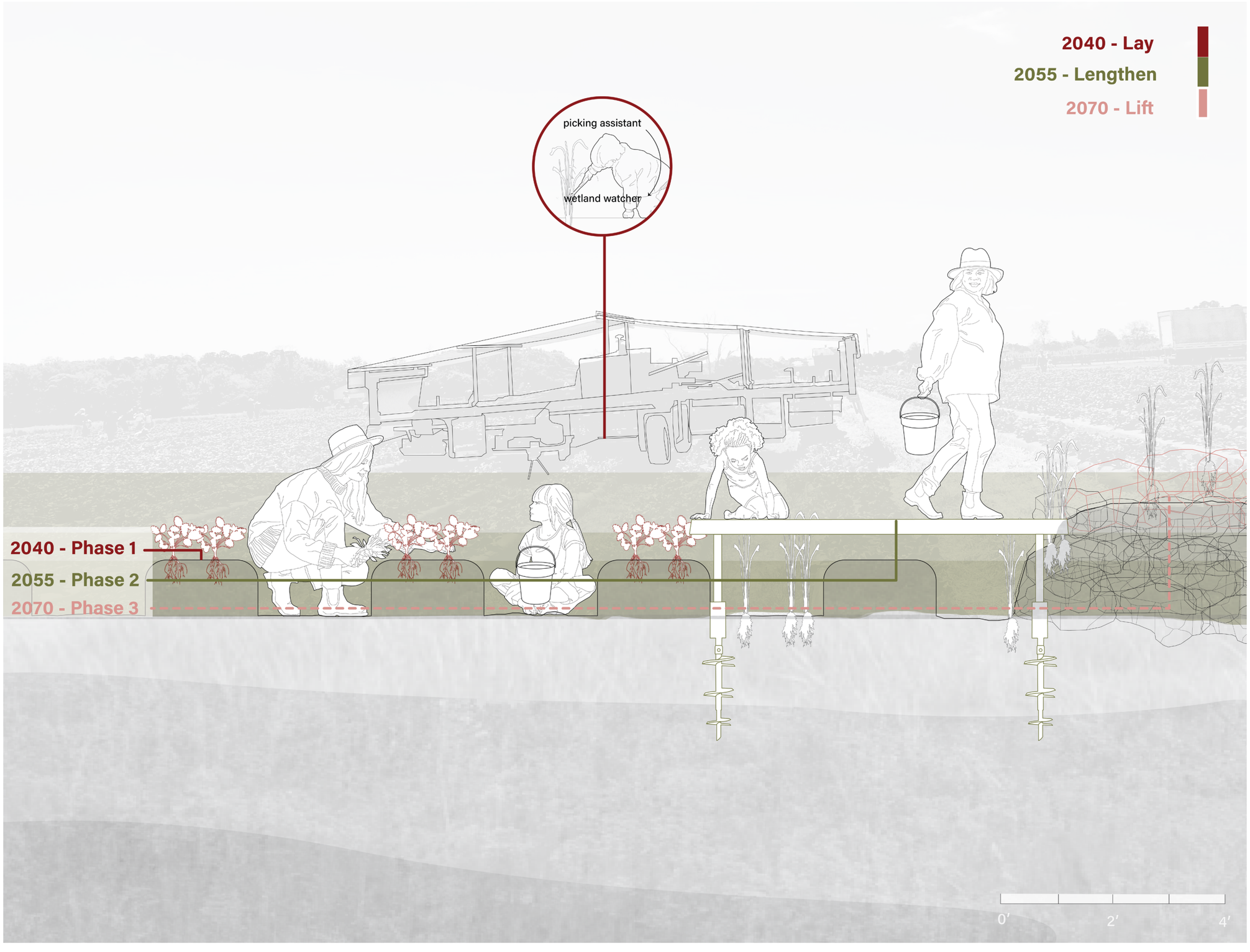
Section 2 -
Bulkhead



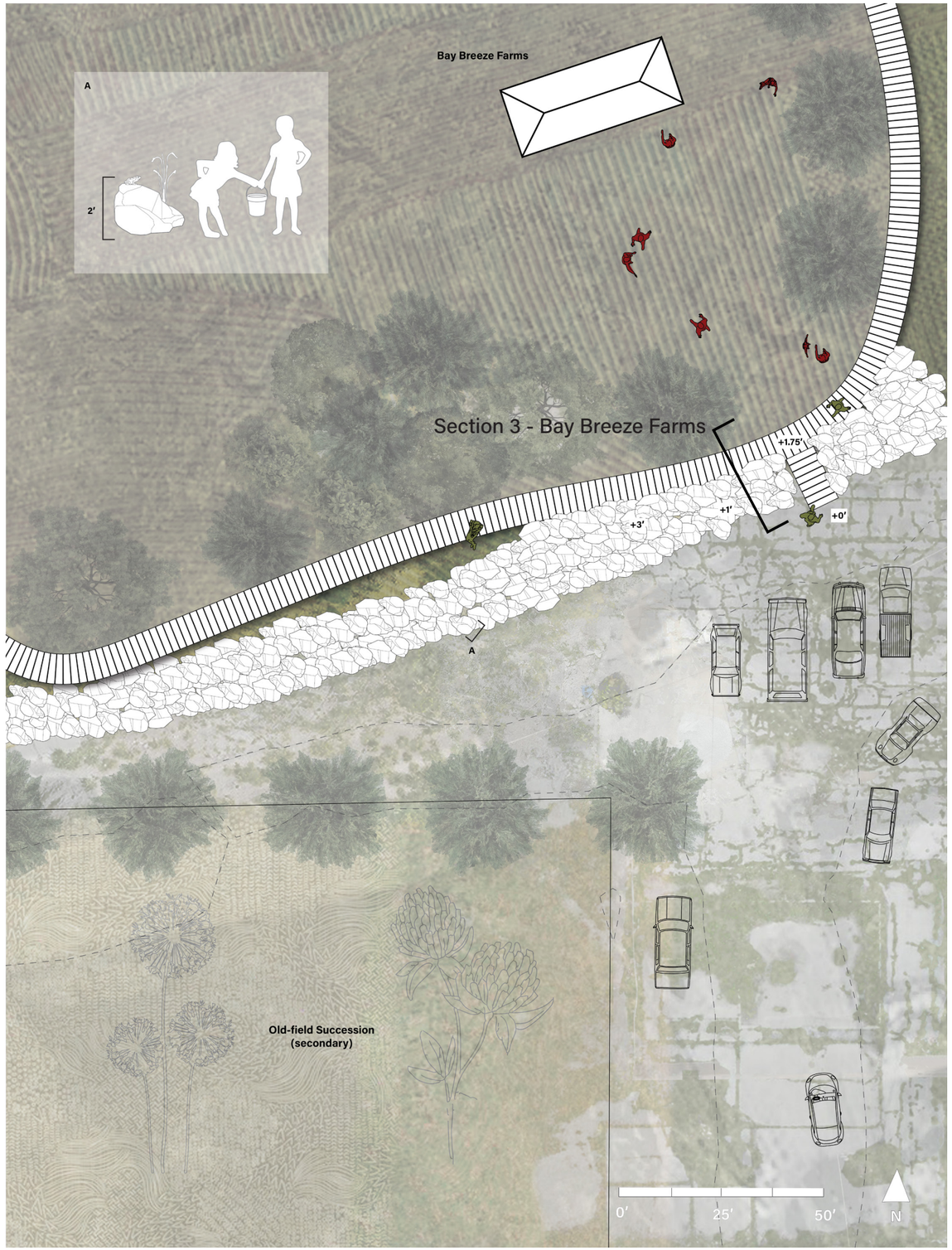
Plan 2 - Bulkhead



Section 3 -
Bay Breeze Farms



Plan 3 - Bay Breeze Farms



Atlantic Ocean

Week 4

Week 3

Week 2

Week 1

Flooding of Aviation Museum x Jerassic Park

Family Time in a Former Strawberry Field


Year 2100
Year 2075
Year 2050
Year 2025

Layering of Labor on the Land


Trails
Virginia Beach
Trailhead
Pungo

Urgency instills fear, especially when considering delicate circumstances like land loss due to inundation and heavy-handed residential urbanization. I believe this inland boardwalk will serve as a legible indicator to a changing landscape as a proactive signal to the community as new edges emerge. Suggestion of what is to come through an intervention that is empathetic and community-minded will support an optimistic future in Virginia Beach as the community continues to accept the changing environment.

Embedded within this vision is the recognition of the power of community and social cohesion. As individuals traverse this evolving pathway together, they forge bonds strengthened by shared experiences and a common purpose. It's a testament to the resilience of the human spirit and our ability to come together in the face of adversity. Woven into the fabric of this evolving landscape are the seeds of new economies, waiting to be nurtured and cultivated. From sustainable agriculture practices to eco-tourism initiatives, this vision lays the groundwork for innovative pathways towards prosperity that are rooted in harmony with nature.

In essence, this design encapsulates not just a physical transformation but a journey of collective growth and adaptation. It's a testament to our capacity to embrace change, foster community, and chart a course towards a more lively and inclusive future.

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