Coastal Conditions: Responding to the Partial Opening of the Haringvliet Sluice
Delft University of Technology Urbanism + Landscape Architecture: Flowscapes Studio
Talya ten Brink - Graduation Report - September 23, 2014
Native marsh plantings
Section Perspective with tidal, salinity, and habitat information for the test area location

houses to beach pedestrian walkway
private atmosphere
of neighborhood nestled in dunes

This section shows the typology of beach houses, dune houses, and marsh houses, and the public/private gradient, as well as the pedestrian-only walkways.

1 m sunken road
exposed, public beach
semi-private
open park
walkway
semi-private
sheltered

A1
A2
A3

A1
A2
A3

Beach Detail of walkway partially flooded during high tide, allowing pedestrian but not bicycle access

Why the programs are suitable for their positions on the island
The development of the housing areas over time. The maximum housing in the area has been established that allows the housing to stay within the 'footprint' of urban development while experiencing the surrounding atmosphere of dunes and/or marsh.

25 years
35 years
45 years

The paths, landmarks and nodes.

End of the island: Lighthouse, Nature Park, Exposed Spine End
Community park next to Balance Island Library and Town Hall

Design Project Overview:
0. Open the sluice to reconnect the ecological cycles
1. Intervene with spine (placement should be informed by hydrology models)
2. Natural Processes gather sand around the spine (accretion)
3. Add enough sand (through sustainable dredging methods) to allow the island to stay dry even with 100 years of climate change
4. Fix the dunes with optimally-planted native plantings, which will establish and spread
5. Create access to the island and place facilities, zoning, commercial, industry, and housing

The paths form the spine on the island should be placed to help the pedestrian-only walkways. Creation of stepping-stones, can help to establish the pedestrian-only walkways. The main components of paths, i.e. rock walls, and the topographical elevations and drainage, should be designed to prevent erosion and allow for pedestrian only paths.

1. These urban forms should also reflect contemporary elements of this urban tissue such as community spaces, landmarks, pedestrian paths, etc., and ensure resilience against coastal storms and fluvial flooding.

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Now I will show you an overview of the design...

Propose a new way of living where people can live alongside nature respectfully.

Masterplan

This is a timeline for how the entire region will develop over time.

1 m intervals height
20 m intervals width