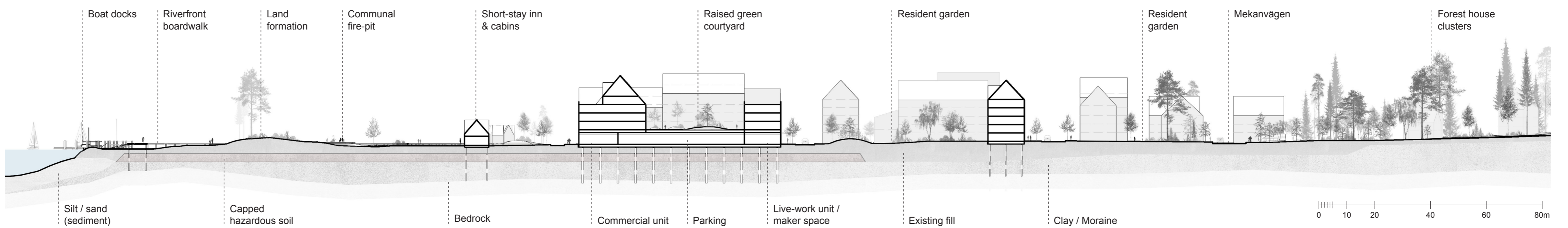
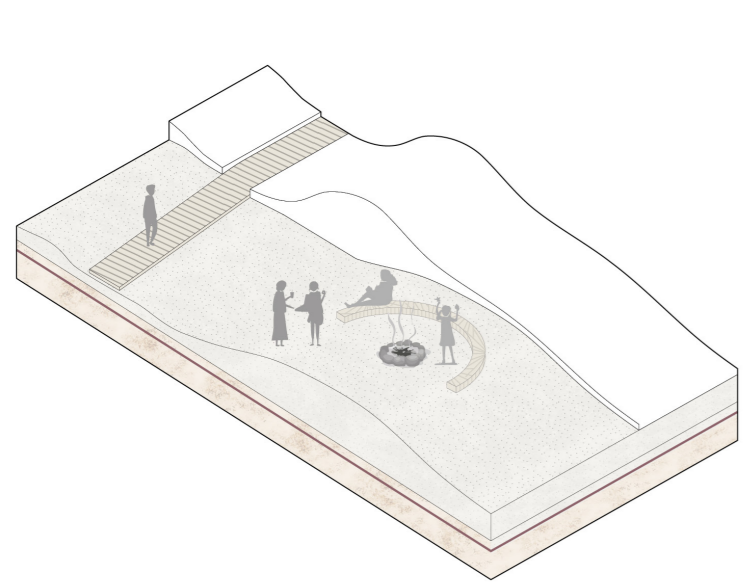




Safe Streets - One of three main car-free axes; the links between housing, public space, ecology, and the waterfront

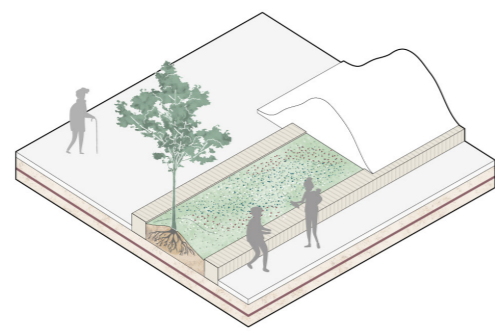


East Site Section (A-A). 1:1000 - From southeast waterfront to forest houses.



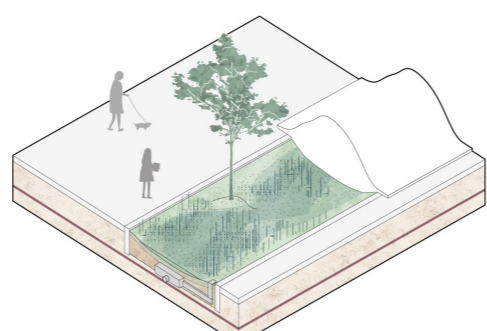
Layering

Geotechnical layering including existing caps, local clay, membrane, drainage layer and select topping media (i.e. sand, pea gravel) is applied at the southeast corner beach and other areas requiring a soft cap solution. Snow is detained, used for recreation, with runoff naturally filtered and drained.



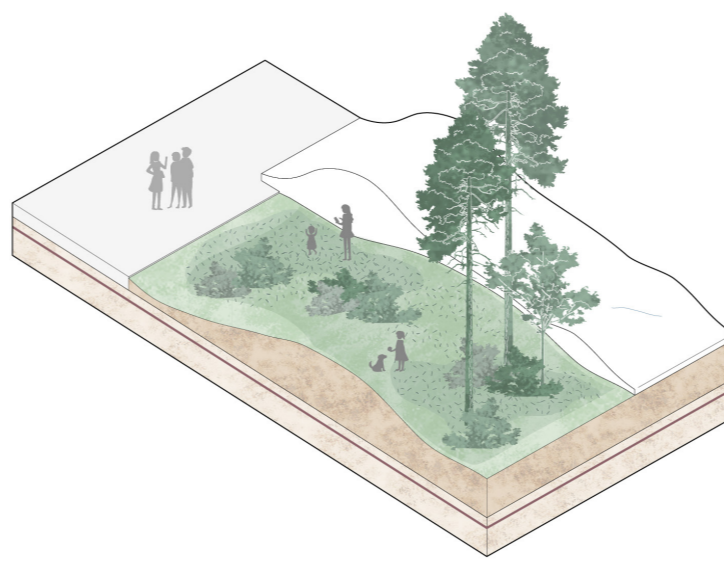
Raised Planter

Contaminated material is capped with local clay and a geotechnical membrane. Edges with weeps are built up to create safe, raised planting areas for public and private gardens and clean winter snow management space as needed.



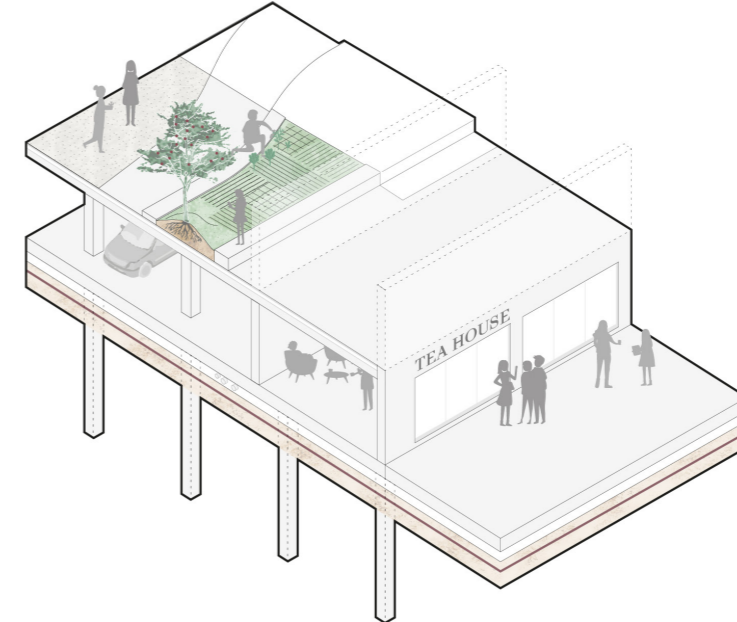
Rain Garden

Stormwater management features with interconnected drainage systems for conveyance and treatment. Capped with local clay and geotechnical membrane at contaminated areas. Snow detention, melt, and treatment zones for clear streets and public ways.



Land Formations

Built up soil beds over allows for creative landscape solutions like raised leisure mounds, and can accommodate shallow root tree species. Snow is detained, used for recreation, with runoff naturally filtered and drained.



Plinth System

Insulated pile and raft foundations encapsulate contaminated soil. Raised concrete plinths provide covered parking with semi-private courtyards above for gardening, greenhouses, reduced stormwater/snow runoff, and multi-family housing. Activated uses are along the periphery.

Remediation Techniques

A surgical approach is used which incorporates geotechnical layering (such as what was done at Alphen aan den Rijn Coupepolder in the Netherlands), careful plant species and bed composition, and a plinth typology.

Two reference projects inform the public of site conditions, while still attracting activity and interest:

- De Ceuvel, (NL) - demonstrates public awareness, flexible cultural use, and short stay, with natural remediation running its course. A mix of capping, softscape, a raised wooden walkway, and a lively waterfront is used.
- Deventer Raambuurt (NL) - is a residential development built on a heavily polluted site which held participatory meetings, and fostered conscious living by clarifying safety guidelines for planting and gardens.

Examples of where pile and raft foundation systems are used elsewhere on brownfield sites include King's Cross in London (UK) and Hafencity in Hamburg (DE).

Various technics of phytoremediation were investigated, but are ineffective due to the types of contaminants on the Scharnis site. Rather, phytostabilization is considered a more effective solution.



West Site Section (B-B). 1:600 - Wetland to Context. Variety of habitats to create a diverse and flourishing ecosystem. Safe spaces for human-nonhuman interactions (bird-watching, gardening, hiking).