PRATUM HABITATS

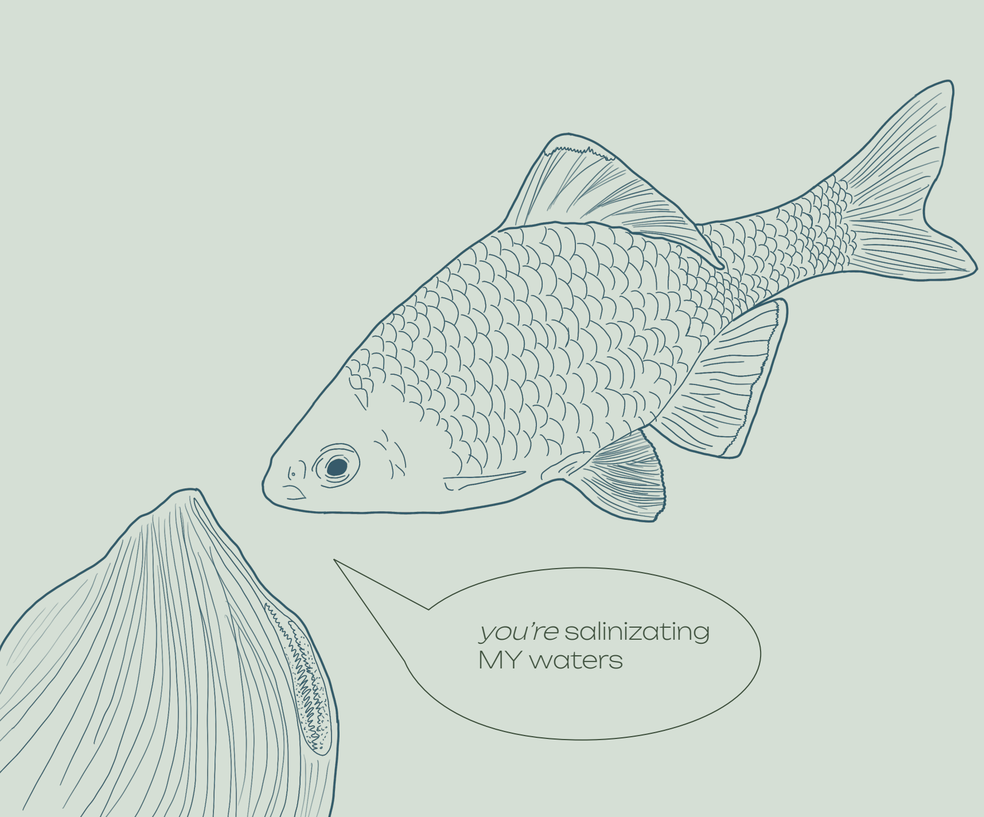
meadow habitats - a habitat for <u>all</u>

Floor van Hoorn - 6095577 - advanced housing design - ecologies of inclusing - Olv Klein - Robbert Guis

BUT WHAT ABOUT US?

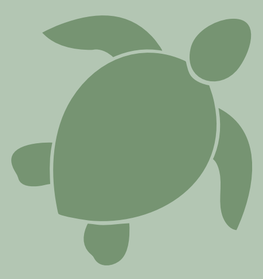
We were here first...

THE MIDDEN-DELFLAND SMALL FIVE



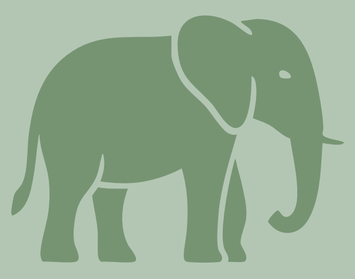
BUT WHAT'S HAPPENING RIGHT NOW?

Over the past 50 years



-85%

freshwater species

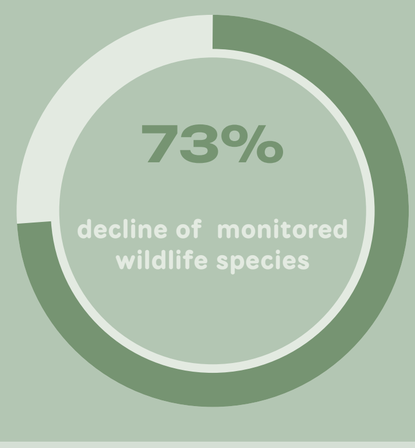


-69%

terrestial species

-56%

marine species



Which can lead to tipping points

Mass extintion of coral reef

destruction of fisheries and the loss of coastal protection against storms

Death of the Amazon rainforest

would result in the release of CO2, changing weather patterns worldwide

Collapse sub polar gyre

would disrupt weather patterns in Europe and North America

WHAT DOES THE SMALL FIVE NEED?

common figwort - Scrophularia nodosa
heal all - Prunella vulgaris
common comfrey - Symphytum officinale
ground ivy - Glechoma hederacea
red clover - Trifolium pratense
red-flowering current - Ribes sanguineum
fire weed - Chamaenerion angustifolium
silver birch - Betula pendula
basket willow - Salix viminalis
dewberry - Rubus caesius
blueberry - Vaccinium myrtillus
blackberry - Rubus fruticosus

bur reed - Sparganium erectum
cattail - Typha angustifolia
common club-rush - Scirpus lacustris L.
wood club-rush - Scirpus sylvaticus
sea club-rush - Bolboschoenus maritimus
marsh fern - Thelypteris palustris
reed - Phragmites australis
common bladderwort - Utricularia vulgaris
floating-leaf pondweed - Potamogeton natans
crisp-leaved pondweed - Potamogeton crispus
perfoliate pondweed - Potamogeton perfoliatus
shining pondweed - Potamogeton lucens

stationary or slow flowing clear water, relativly undeep water witch rich underwater vegetation and not too soft soil

eats plankton from rocks, sometimes amphipods, larvae, snails and worms

- waters < 10 m wide
- clear, moderatly nutrient poor - nutrient rich
- eggs in waterlogged plants, larvae live around the roots
- feeds on small insects: midges, mosquitos, gnats and more

reproduce in the polder landscape, sometimes in ditches

RISKS
- acidification
- pollution
- more often dredging

RISK
- lack of oxygen and waterplants
- lack of sunny sheltered spaces
- toxic substances -> agricultural or industrial
- often dredging or dredging more than 400 meters at a time

preference to blue and purple flowers, blue elements can help them find nests

It nests in old animal burrows or in the cavities of walls. It hibernates in dark, dry and cool places, such as north or west-facing slopes.

RISKS
visual distubance, on average preferbly minimally
- 320 m from a city
- 98 m from a dyke
- 128 m from trees

RISKS
- fragmantation of habitats
- acidification
- overgrowth of plants

RISKS
- fertilizers and pesticides from agriculture
- lack of variety in landscape
- often mowing

peat meadows, preferably extensive landscapes with higher vegetation

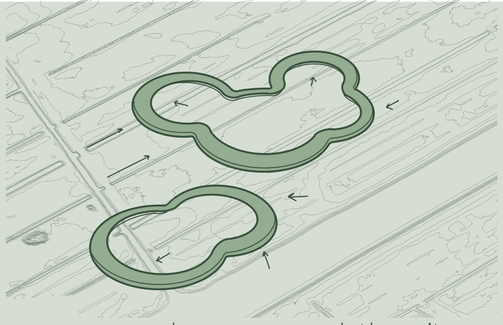
mostly eat soil animals, rainworms, leatherjackets, moscito larvae

RISKS
mowing before june 30th
lack of herb-rich landscapes

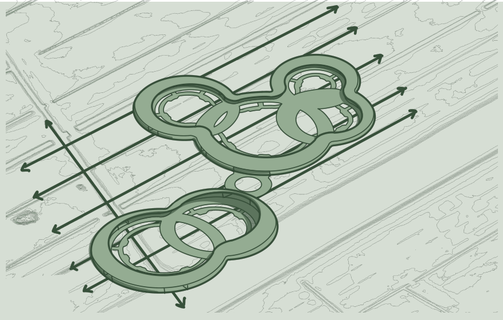
- It nests mostly on straight surfaces in areas of high grass, away from buildings (200–300 m) and high elements (300–600 m).

- unshaded, low vegetated to bare areas with shallow water, 5-20 cm, maximum 30-50 cm deep
- handmade pools must not be too small or deep
- eats any prey that fits into its mouth

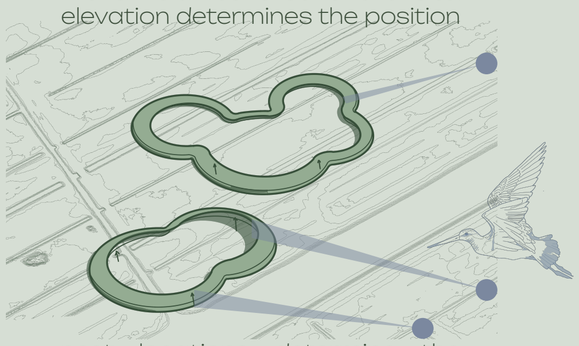
has a symbotic relationship with the freshwater mussel



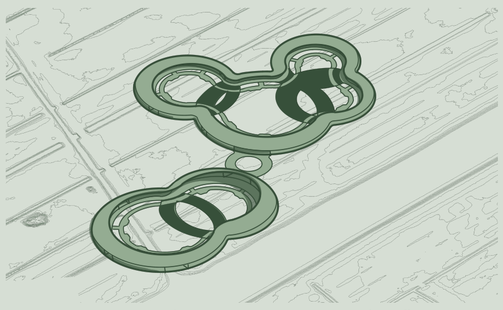
move volumes around the site. elevation determines the position



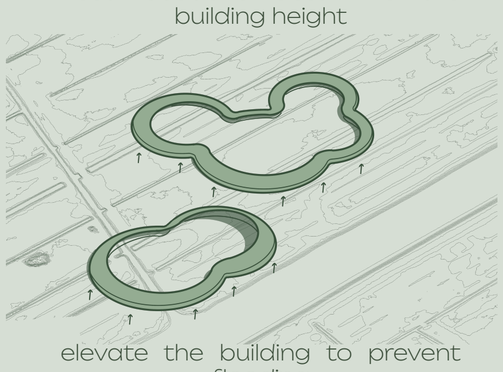
cut volumes around waterways, keep ditches open



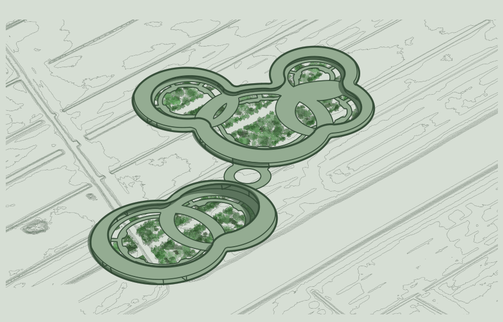
nest locations determine the building height



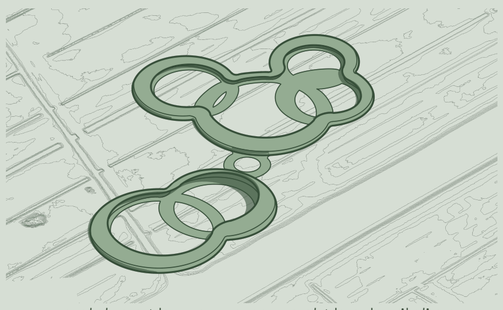
community spaces on platform



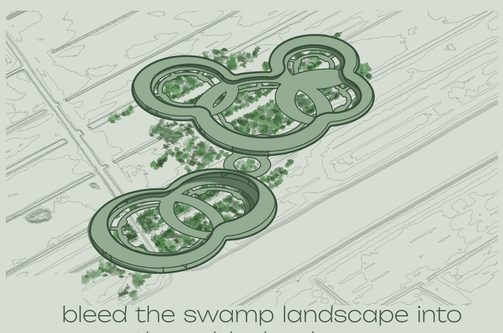
elevate the building to prevent flooding



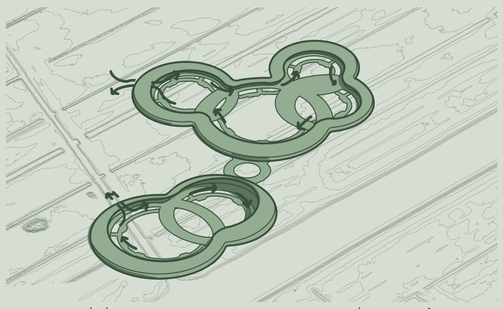
return the old Dutch swamp landscape to return biodiversity



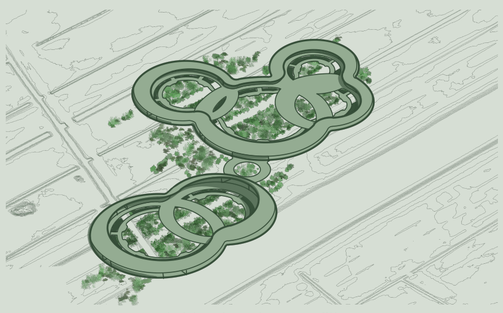
add pathway around the building volumes



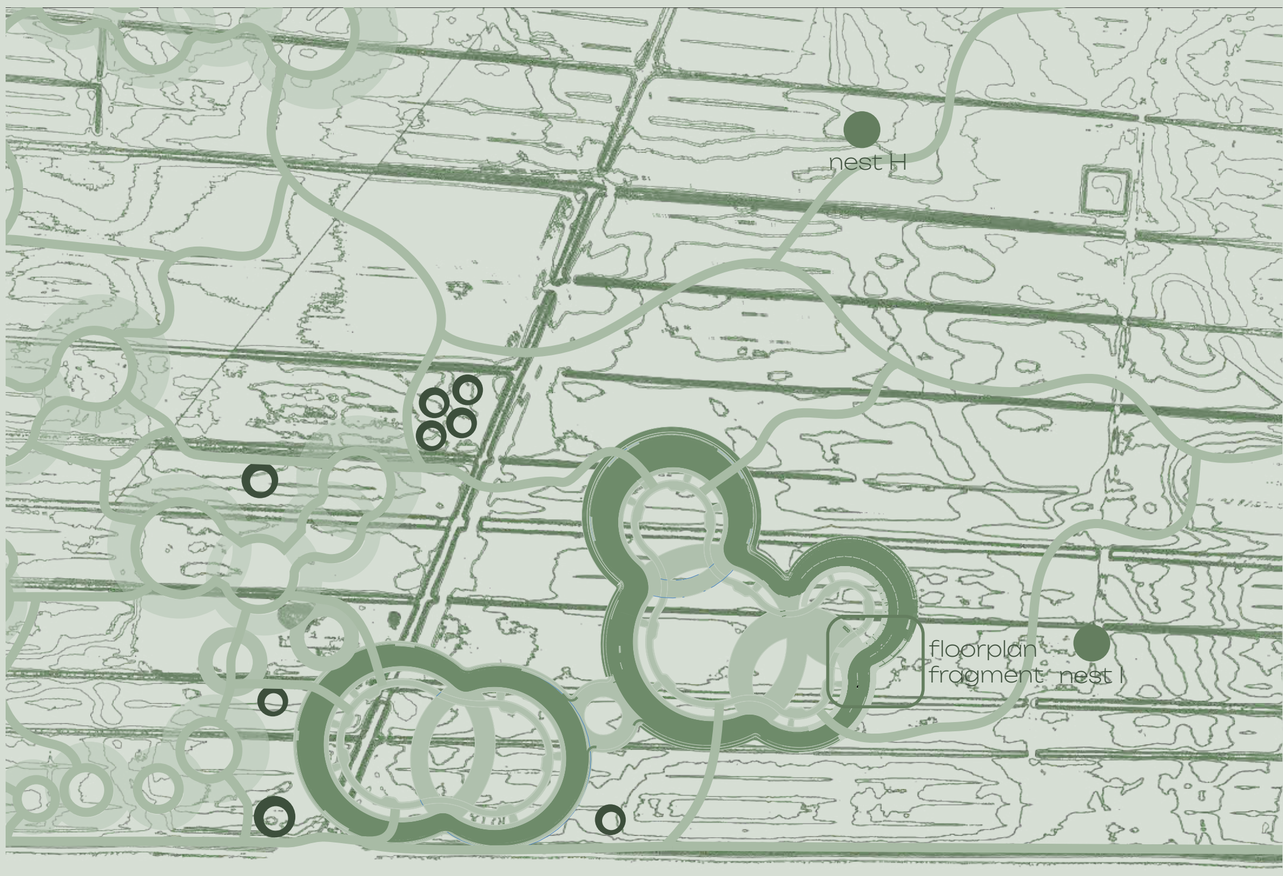
bleed the swamp landscape into the polder landscape

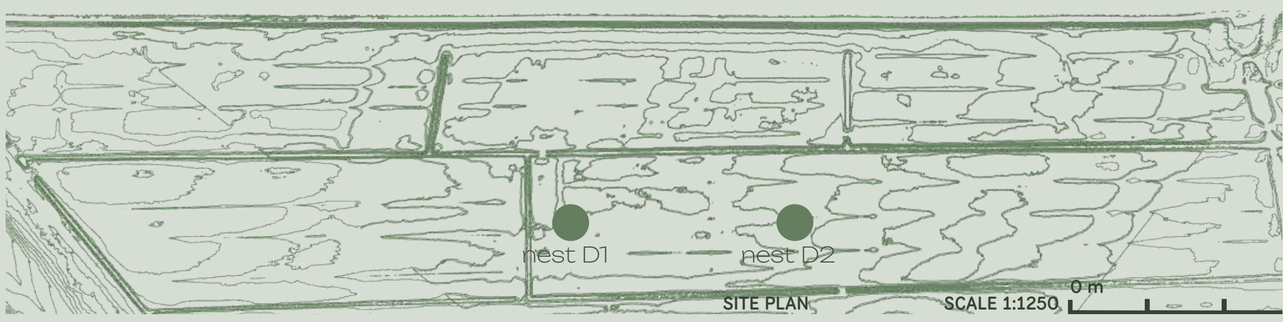


add a emergency and service route



add helophyte filters





hairy dragonfly

natterjack toad

black-tailed godwit

early bumblebee

bitterling

tints from each animal are represented in the facade. The bottom layer consists of recycled plastic sheets on which a translucent one is assed, creating a large range of colours, repesenting the small alterations in each animal.

blue tints only on south facades as the early is more attracted to the colour blue and uses it to find nesting spots as well bumble bee

‘photoframe’ in facade, sightlines around the ditches remain visible.

native vegetation, returing biodivesity to the land,reducingtheamount of‘grassphaltinthepolder.

variable roof height, based on the distance to the nest of the black-tailed godwit. minimum 3,2 m, maximum 14 m

plants around waterways stimulate a suitable living place for the hairy dragonfly and the bitterling.

blue panels provide nesting places for the early bumblebee

green roof merges into the polder landscape from above, reducing visual disturbance for the black-tailed godwit.

foodforest with combined community space. Edible plants for the early bumble bee and humans

inner facade

vegetation rods are alternated with downpipes, these lead to the reflection pond, leading to the surface

native vegetation, returing biodivesity to the land, reducing the amount of ‘grassphalt in the polder.

green facade and roof merge into the grass landscape

foodforest with combined community space. Edible plants for the early bumble bee and humans

green ‘curtain’ provides shaded private teracces

‘photoframe’ in facade, sightlines around the ditches remain visible.

outer facade