

Wietse Haitsma Mulier
June 27th 2024

Kinderdijk

FROM START TO FUTURE



Introduction



Swamp

Mauve, A. (ca. 1885). Het moeras [Painting]. <https://www.rijksmuseum.nl/nl/collectie/SK-A-2523>

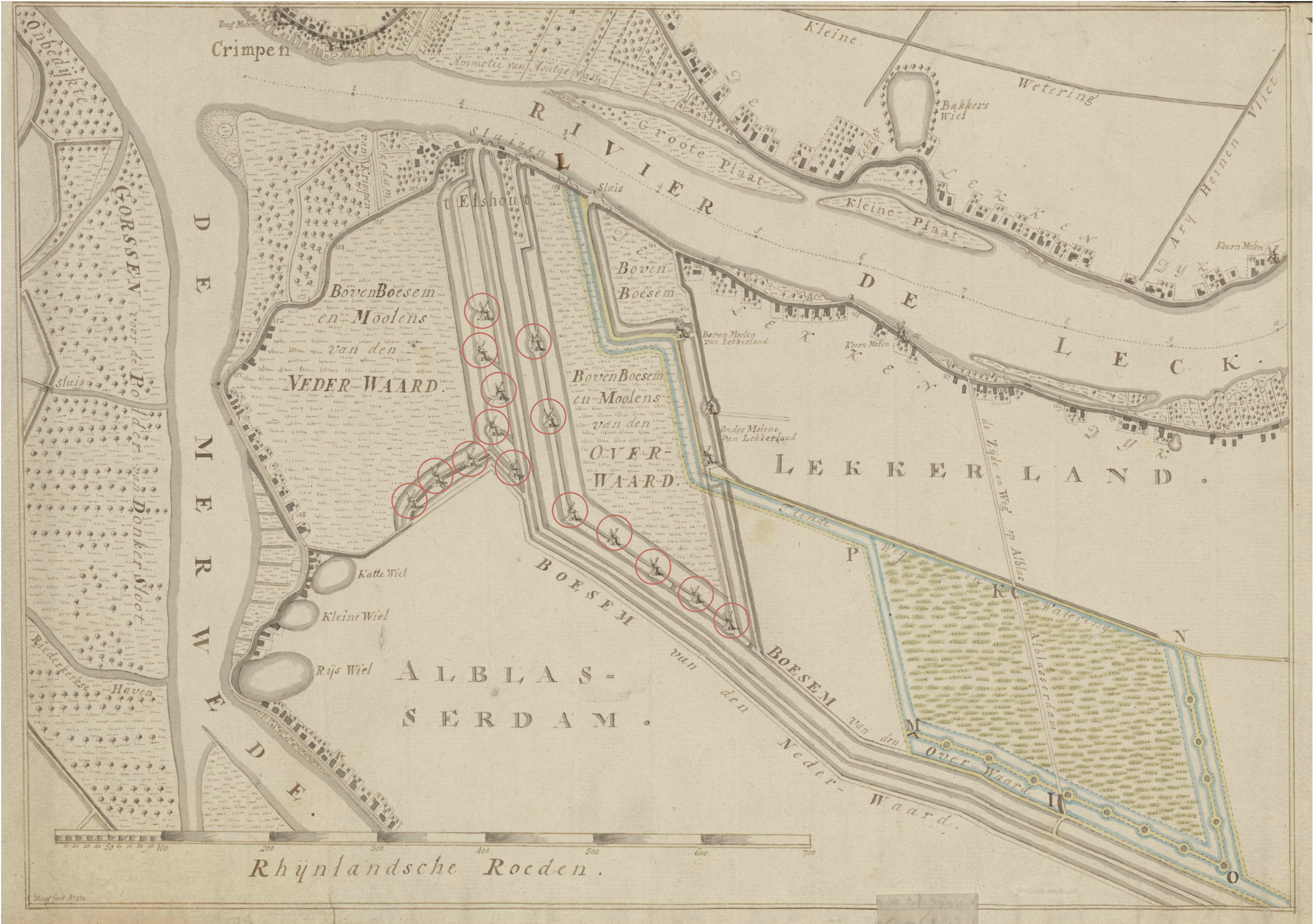
Introduction



Ditches and canals

Backer, J. (1840) Kaart van den Alblasserwaard en de Vijf Heerenlanden, groot 31070 bunders [Lithography]. https://www.nationaalarchief.nl/onderzoeken/kaartencollectie/NL-HaNa_4_OBGK_P16.879?searchKey=12bcc3988e2bb7710c67ac52fd3f2b74

Introduction



Mills

Burg, J. (1774). Kaart van de boezem van de Overwaard en Nederwaard in de Alblasserwaard met de daarop staande molens, Kinderdijk 1774 [Lithography]. (https://www.nationaalarchief.nl/onderzoeken/kaartencollectie/NL-HaNA_4.VTHR_4204?searchKey=0030ea72b96e-b8705a8624c67c9441ef).

Introduction



Village ‘t Elshout

Burg, J. (1774). Kaart van de boezem van de Overwaard en Nederwaard in de Alblasserwaard met de daarop staande molens, Kinderdijk 1774 [Lithography]. (https://www.nationaalarchief.nl/onderzoeken/kaartencollectie/NL-HaNA_4.VTHR_4204?searchKey=0030ea72b96e-b8705a8624c67c9441ef).

Introduction



Steam pumping stations

Fotobasebank. (n.d.). Stoomgemaal Kinderdijk [Postcard]. <https://www.fotobasebank.nl/public/fullphoto.php?foto=9626&c=g>

Introduction



Diesel and electric pumping stations

Introduction



Fotobasebank. (n.d.). Het Waardhuis [Postcard]. <https://www.fotobasebank.nl/public/fullphoto.php?foto=9759&c=g>



Boardhouses

Introduction



Mills and nature

Mass tourism

800 inhabitants in Kinderdijk



600,000 visitors / year

Mass tourism

#Overtourism (Maxvandaag, 2018)

Kinderdijk almost collapses under tourist pressure (De Erfgoedstem, 2018)

Parking nuisance, peeping tourists in the front garden and drones in front of the bedroom window (Kluivers, 2018)

UNESCOcide (De Erfgoedstem, 2018)

Mass tourism

#Overtourism (Maxvandaag, 2018)

Kinderdijk almost collapses under tourist
pressure (De Erfgoedstem, 2018)

A world-class sanitary stop (Luiten & Berkers, 2010)

Parking nuisance, peeping tourists in the front
garden and drones in front of the bedroom
window (Kluivers, 2018)

UNESCOcide (De Erfgoedstem, 2018)

Wish of a miller



RTV Rijnmond, 2019 October 26

“In my ideal Kinderdijk, the visitors do not get off the bus for a quick selfie. Visitors should really experience what it is like to live below sea level and use wind and water.”

Vision

1) Manage mass tourism flows

Vision

1) Manage mass tourism flows

2) Add long-stay, quality tourism

Vision

1) Manage mass tourism flows



Masterplan

2) Add long-stay, quality tourism

Vision

1) Manage mass tourism flows



Masterplan

2) Add long-stay, quality tourism



Boardhouse Nederwaard

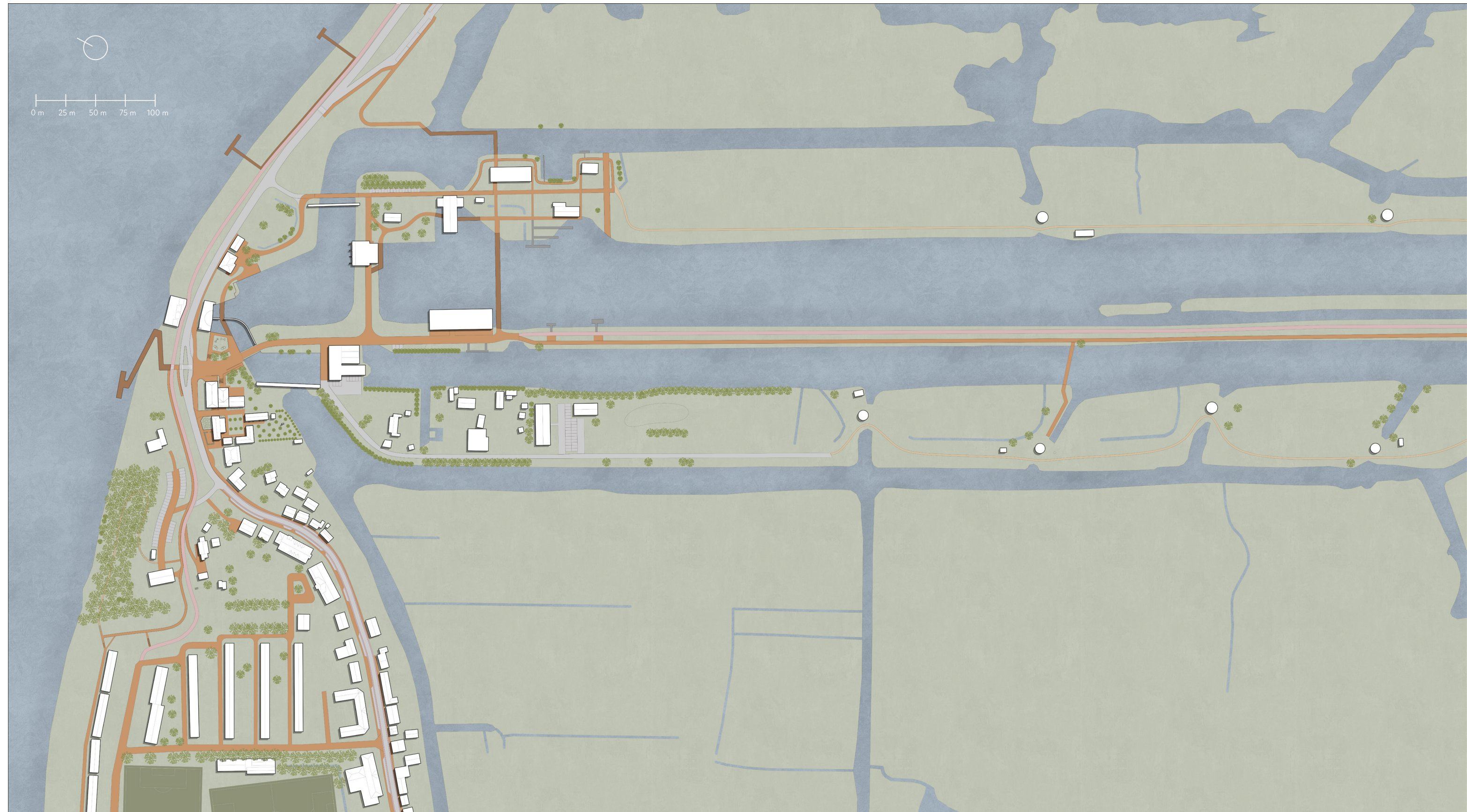
Pot Barn

Masterplan

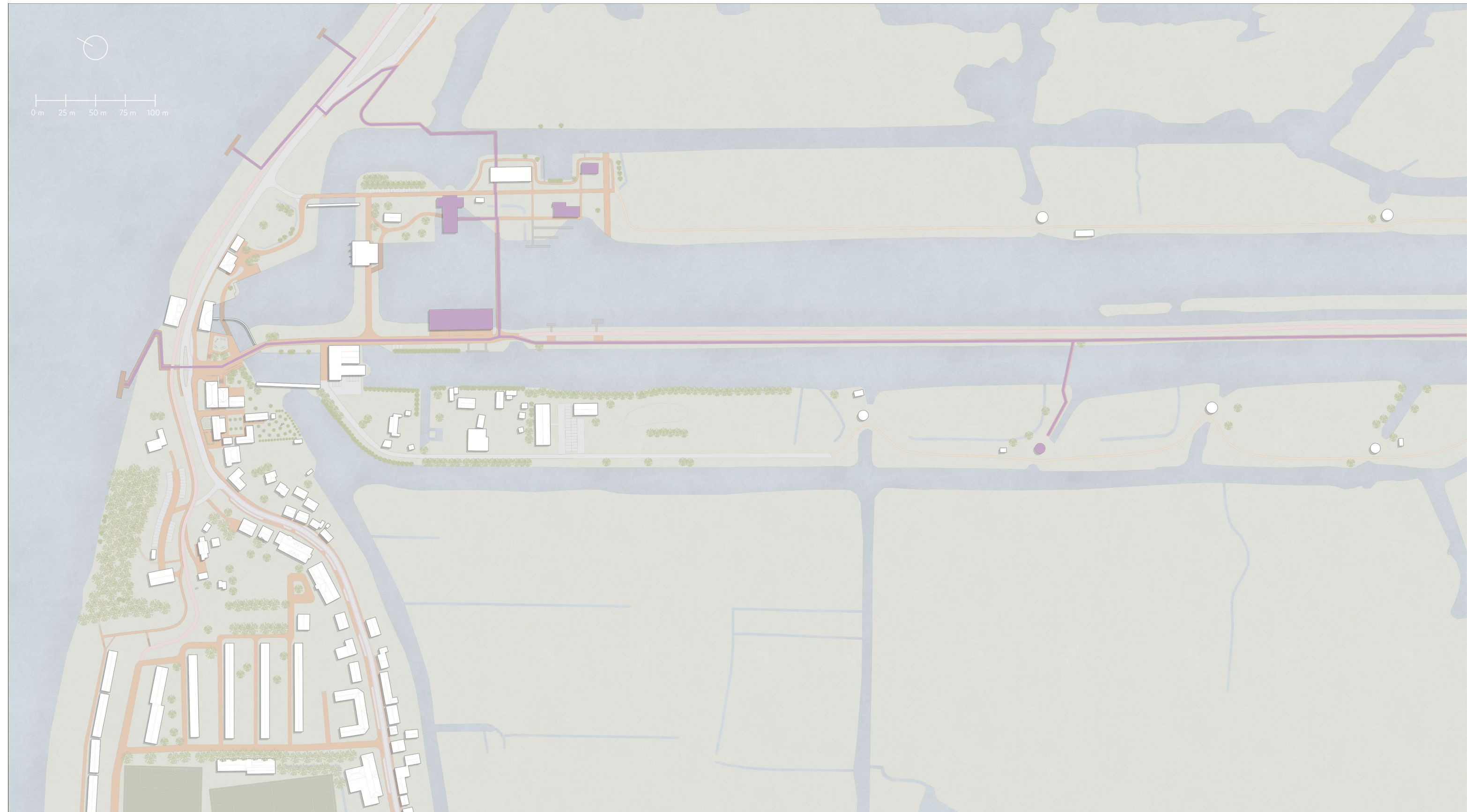
Masterplan

- Keep the tourists in the tourist area
- Adding stories, routes, and views to the tourist visit

Masterplan

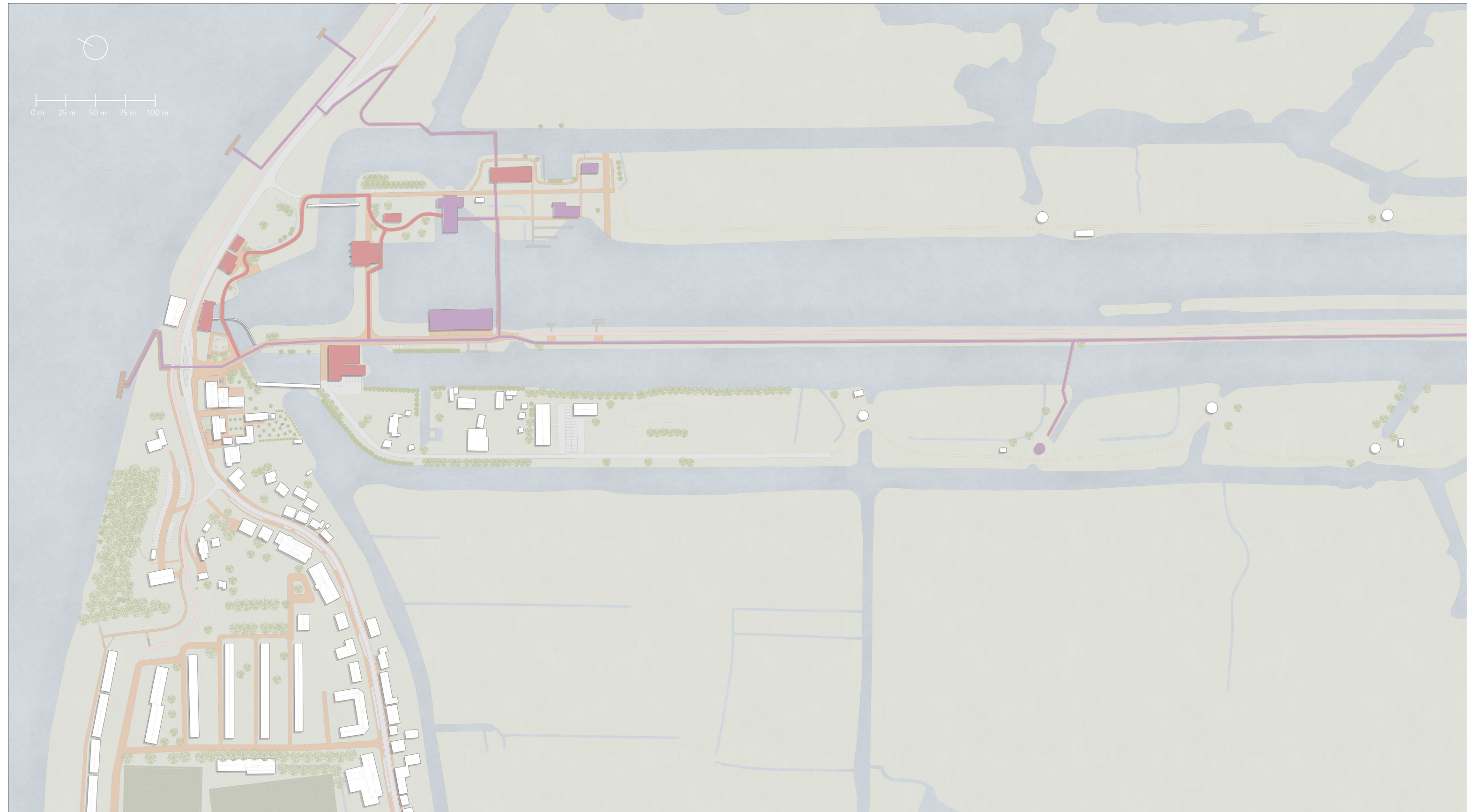


Masterplan



Current tourist routes

Masterplan



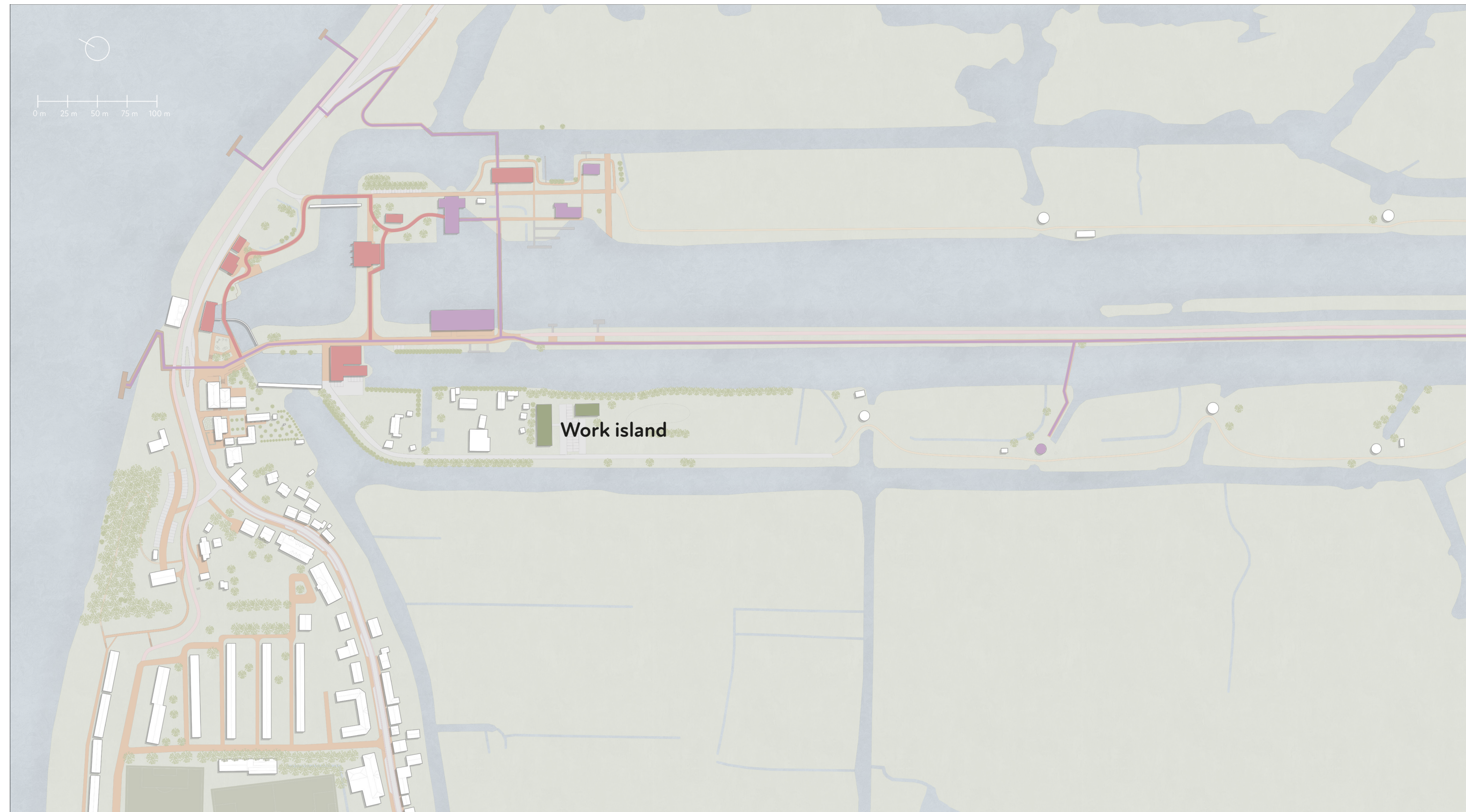
Future routes

Masterplan



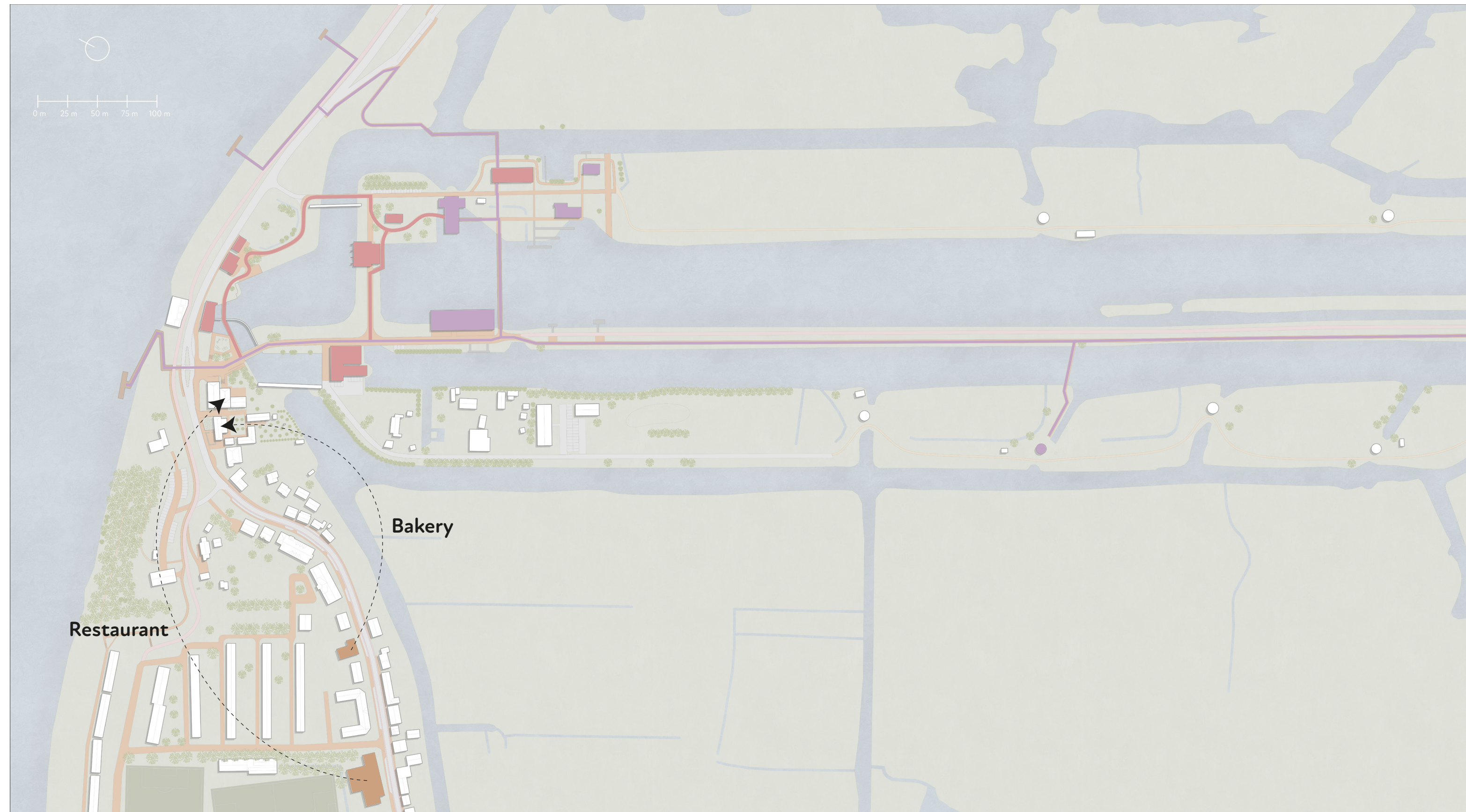
Future exhibitions

Masterplan



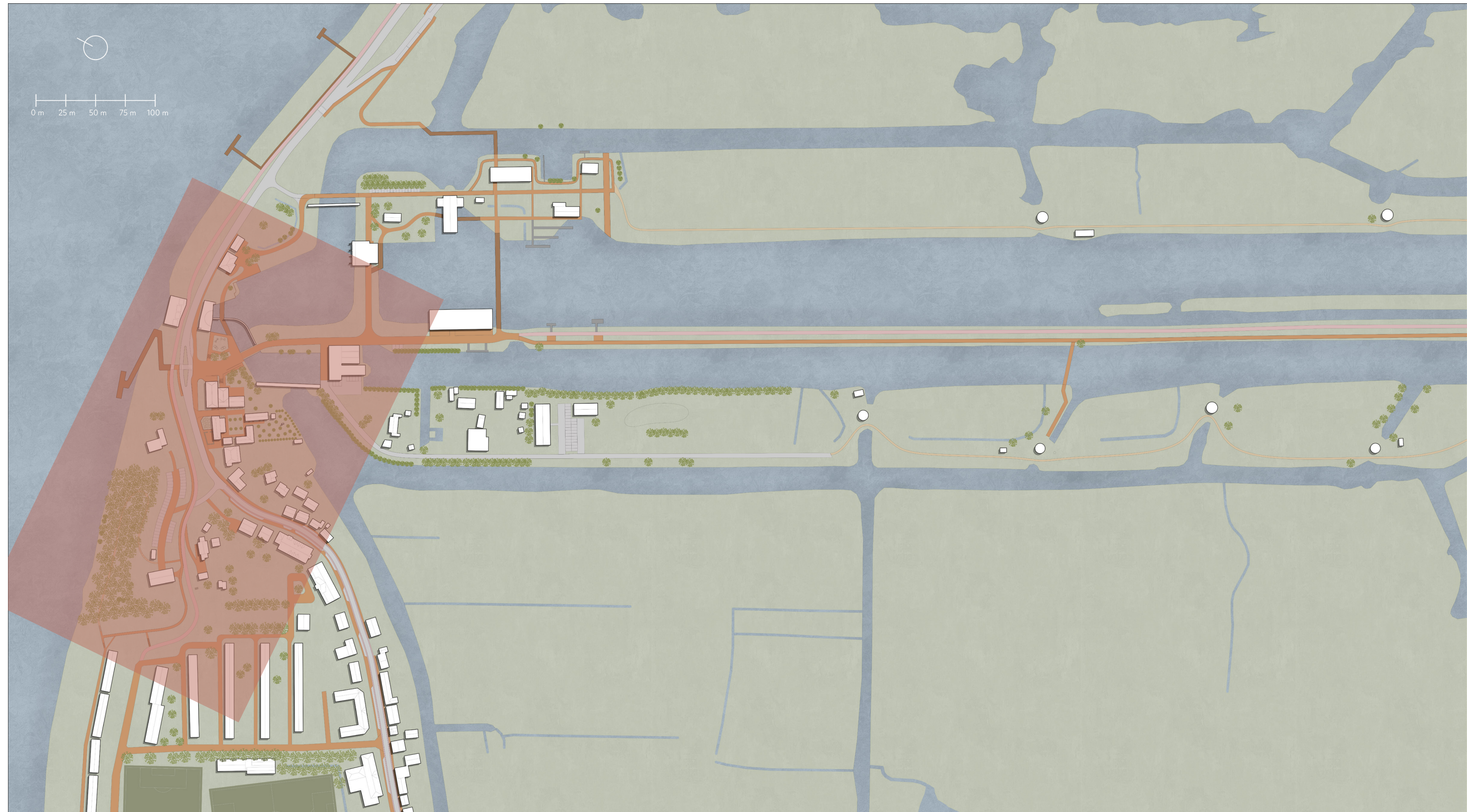
Future workspaces

Masterplan



Move facilities to border between village and mass tourism site

Masterplan



Zoom in

Masterplan



Current situation

Masterplan



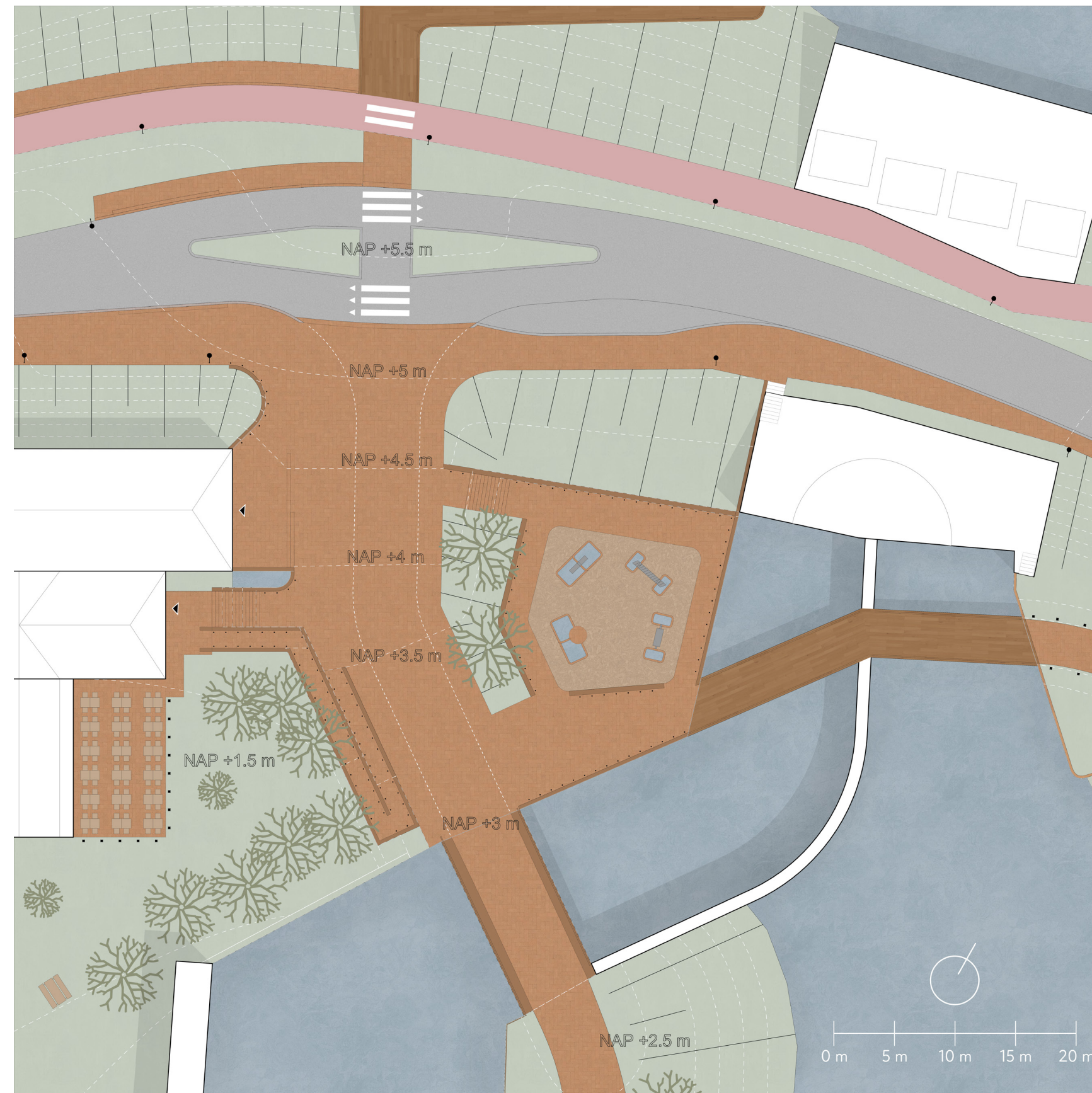
Future situation

Masterplan



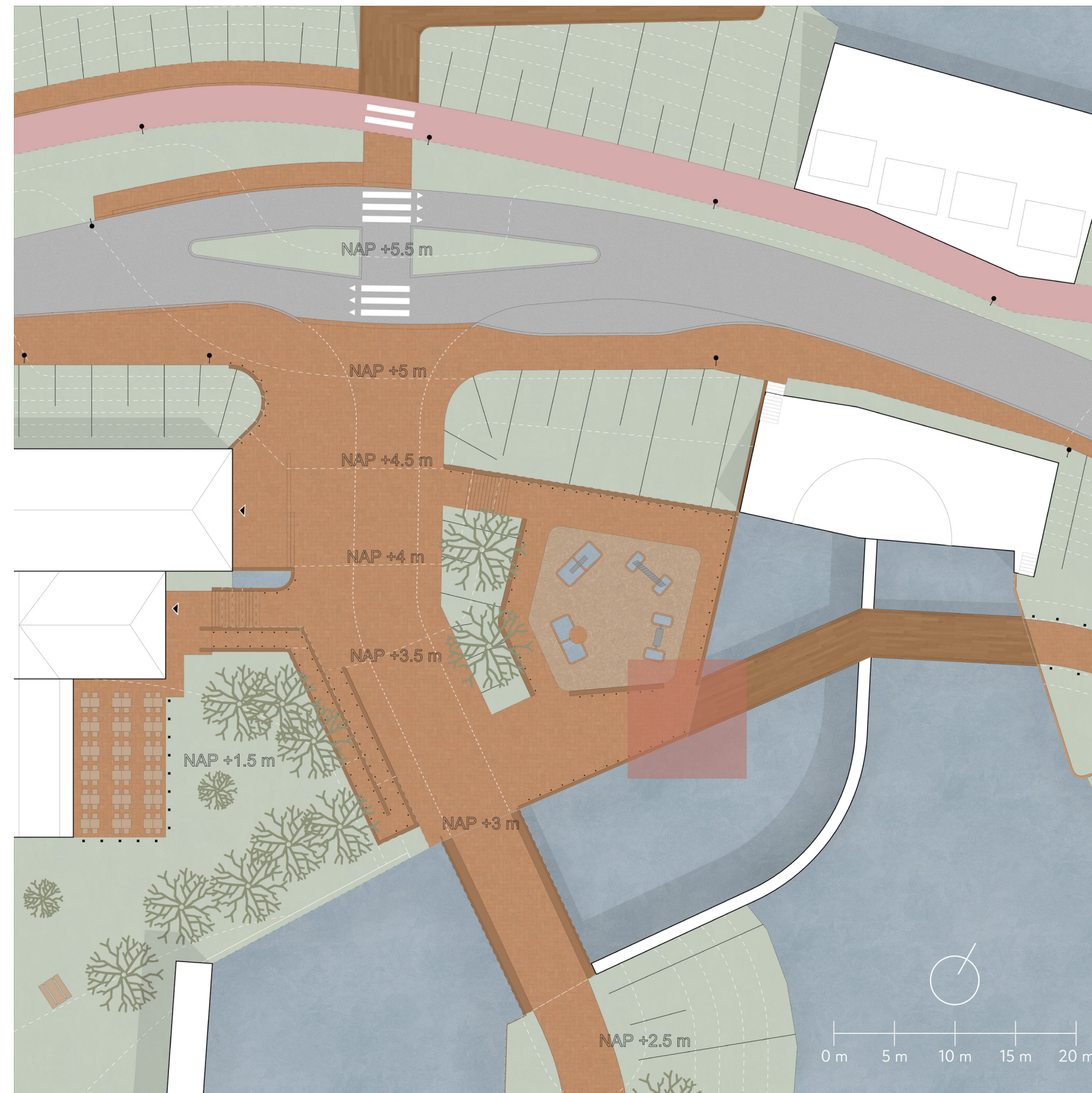
Zoom in on entrance square

Masterplan



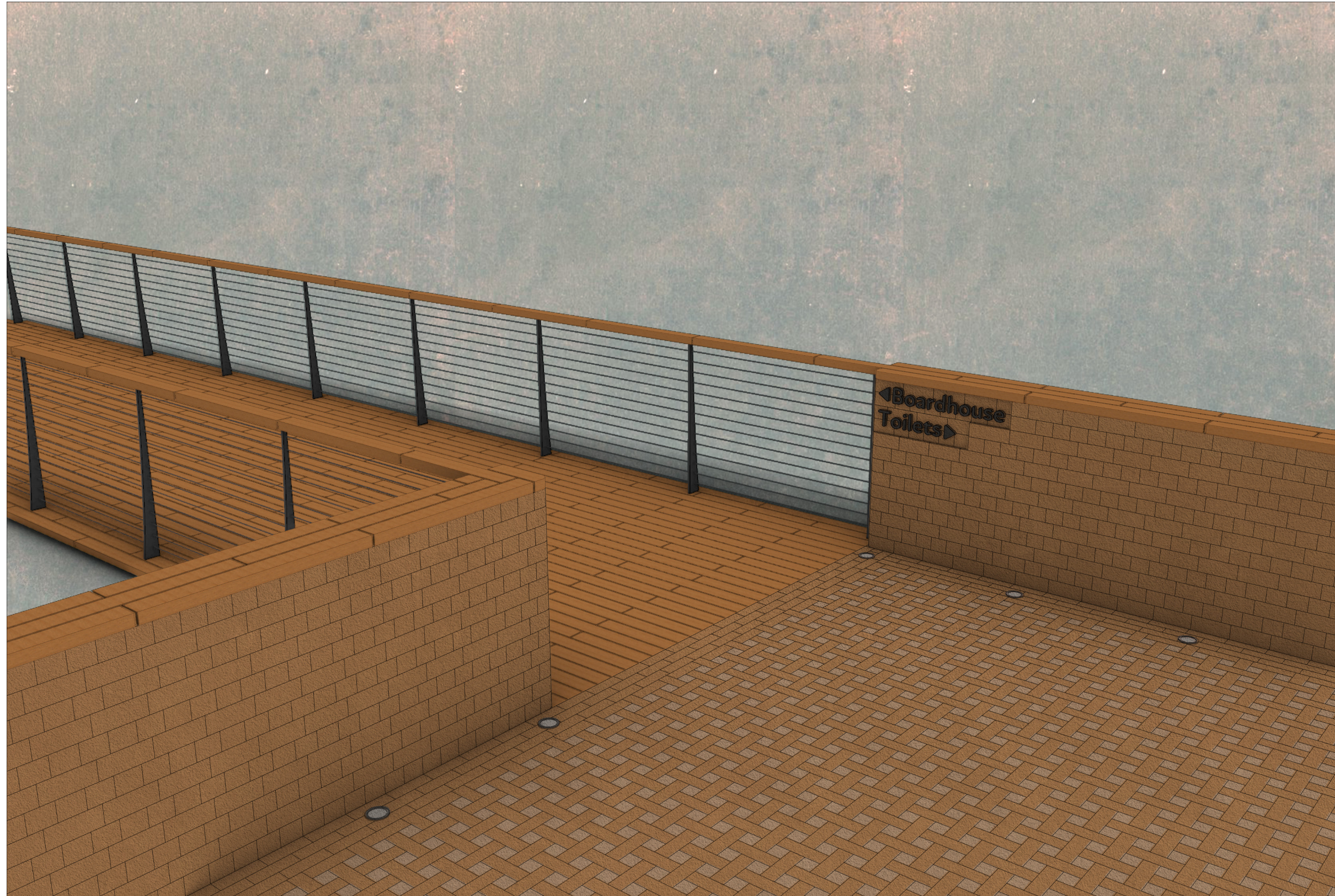
Entrance square

Masterplan



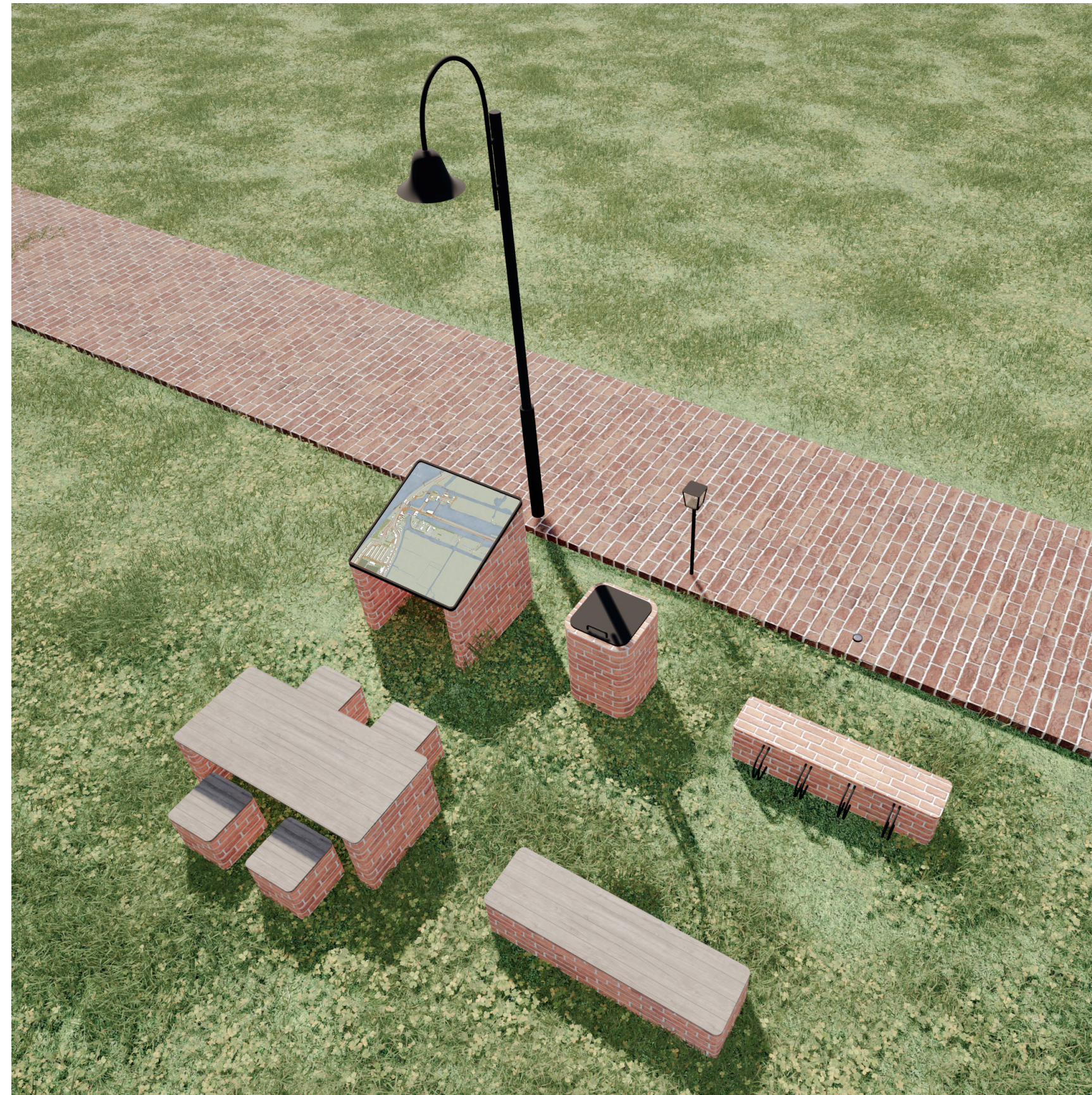
Zoom in on land-bridge connection

Masterplan



Design of outdoor public space

Masterplan



Design of outdoor public space

Masterplan



Project buildings

Gemeenlandshuis Nederwaard

Introduction



Northern and eastern facade

Introduction



Western facade

Introduction



Southern facade

History



Near the sluices

Strij, van J. (1809). De sluizen bij Elshout (Kinderdijk) water uitlatende op de Lek uit de op 30 januari 1809 overstroomde Alblasserwaard [Drawing]. <https://beeldbank.regionaalarchiefdordrecht.nl/search/detail/id/3C098928505693014B591B236E6DFFB6/showbrowse>

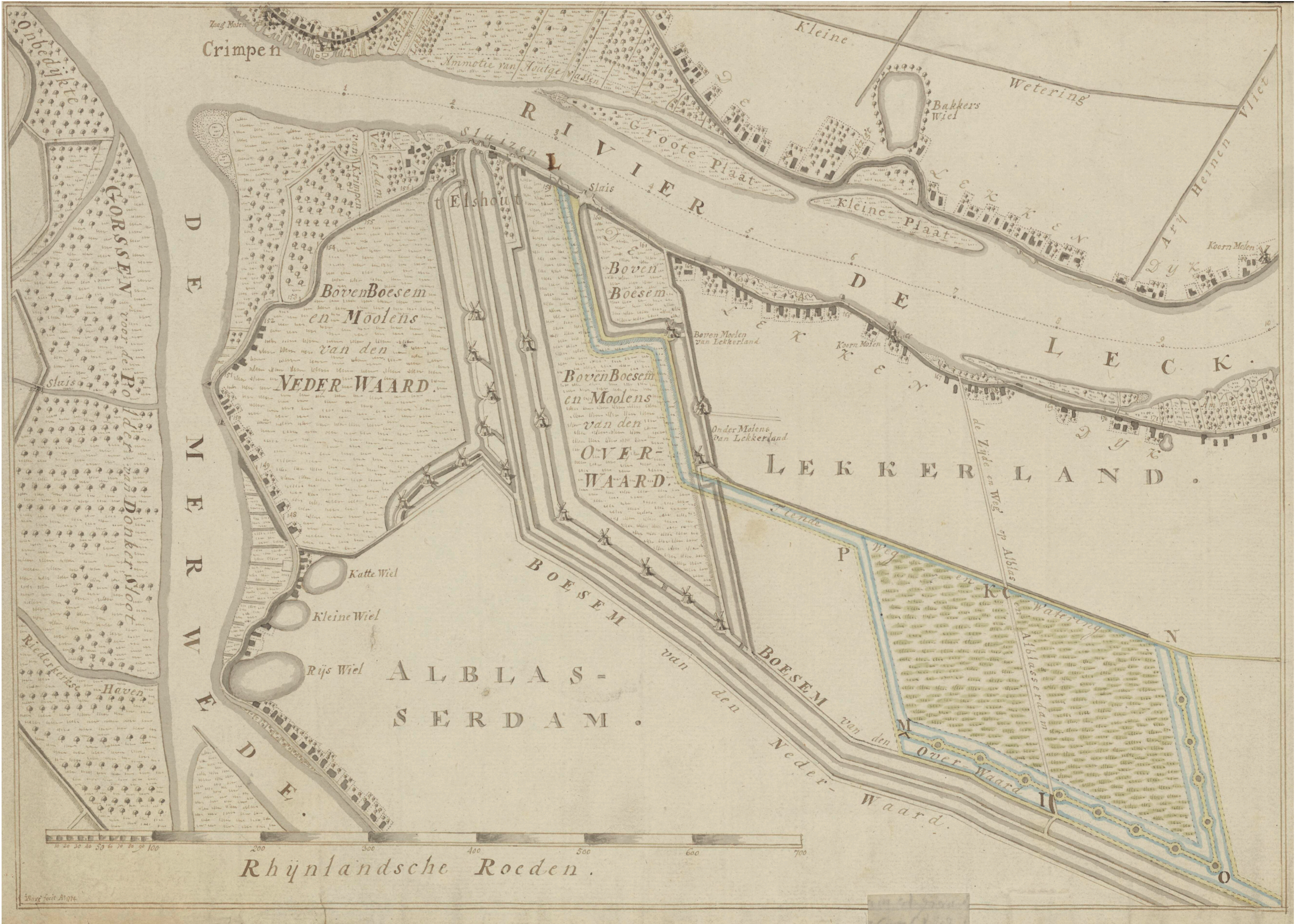
History



Near the sluices

Strij, van J. (1809). De sluizen bij Elshout (Kinderdijk) water uitlatende op de Lek uit de op 30 januari 1809 overstroomde Ablasserwaard [Drawing]. <https://beeldbank.regionaalarchiefdordrecht.nl/search/detail/id/3C098928505693014B591B236E6DFFB6/showbrowse>

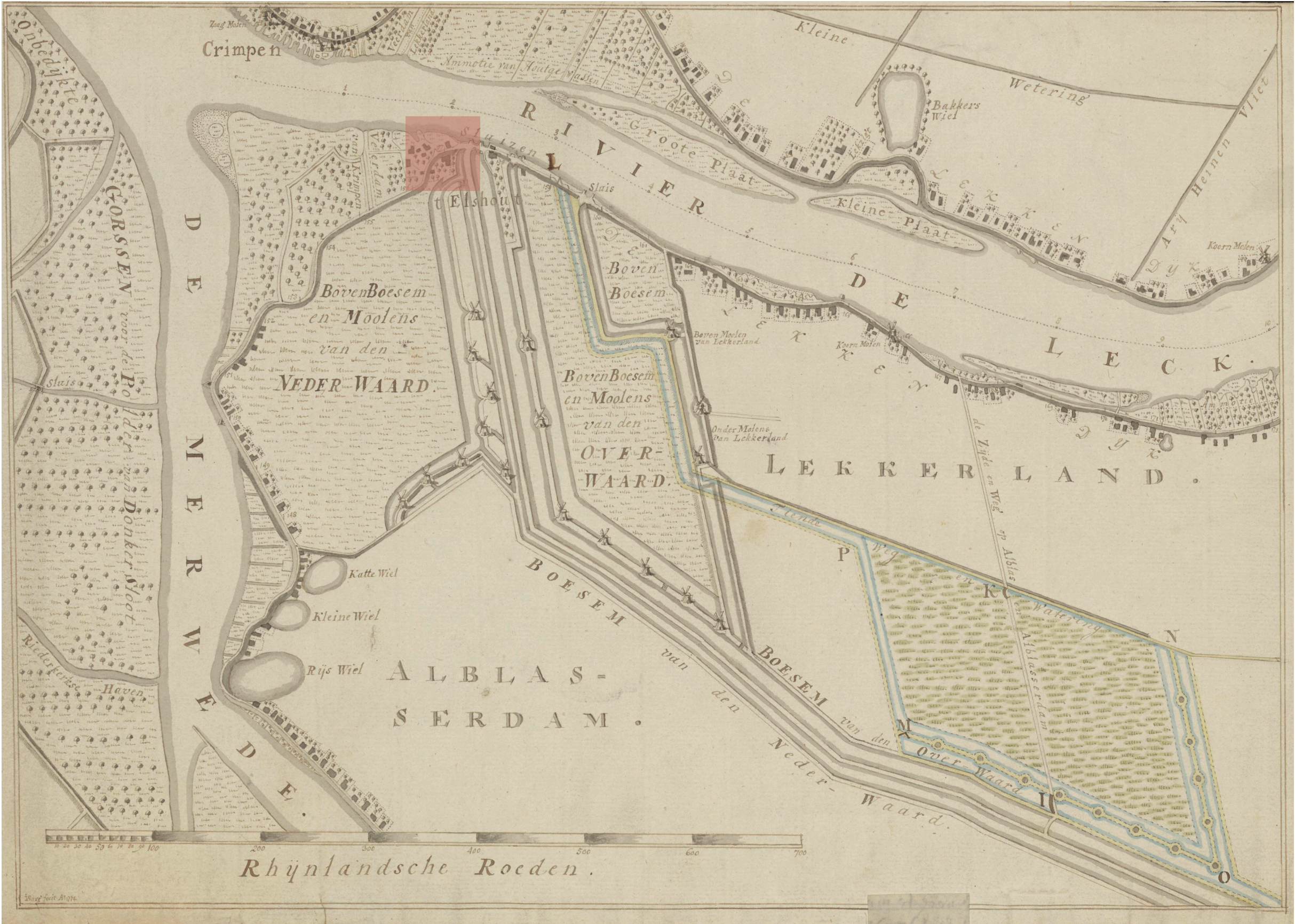
History



1774 map

Burg, J. (1774). Kaart van de boezem van de Overwaard en Nederwaard in de Alblasserwaard met de daarop staande molens, Kinderdijk 1774 [Lithography]. (https://www.nationaalarchief.nl/onderzoeken/kaartencollectie/NL-HaNA_4.VTHR_4204?searchKey=0030ea72b96e-b8705a8624c67c9441ef).

History



1774 map

Burg, J. (1774). Kaart van de boezem van de Overwaard en Nederwaard in de Alblasserwaard met de daarop staande molens, Kinderdijk 1774 [Lithography]. (https://www.nationaalarchief.nl/onderzoeken/kaartencollectie/NL-HaNA_4.VTHR_4204?searchKey=0030ea72b96e-b8705a8624c67c9441ef).

History



1774 map

Burg, J. (1774). Kaart van de boezem van de Overwaard en Nederwaard in de Alblasserwaard met de daarop staande molens, Kinderdijk 1774 [Lithography]. (https://www.nationaalarchief.nl/onderzoeken/kaartencollectie/NL-HaNA_4.VTHR_4204?searchKey=0030ea72b96e-b8705a8624c67c9441ef).

History



1817 map

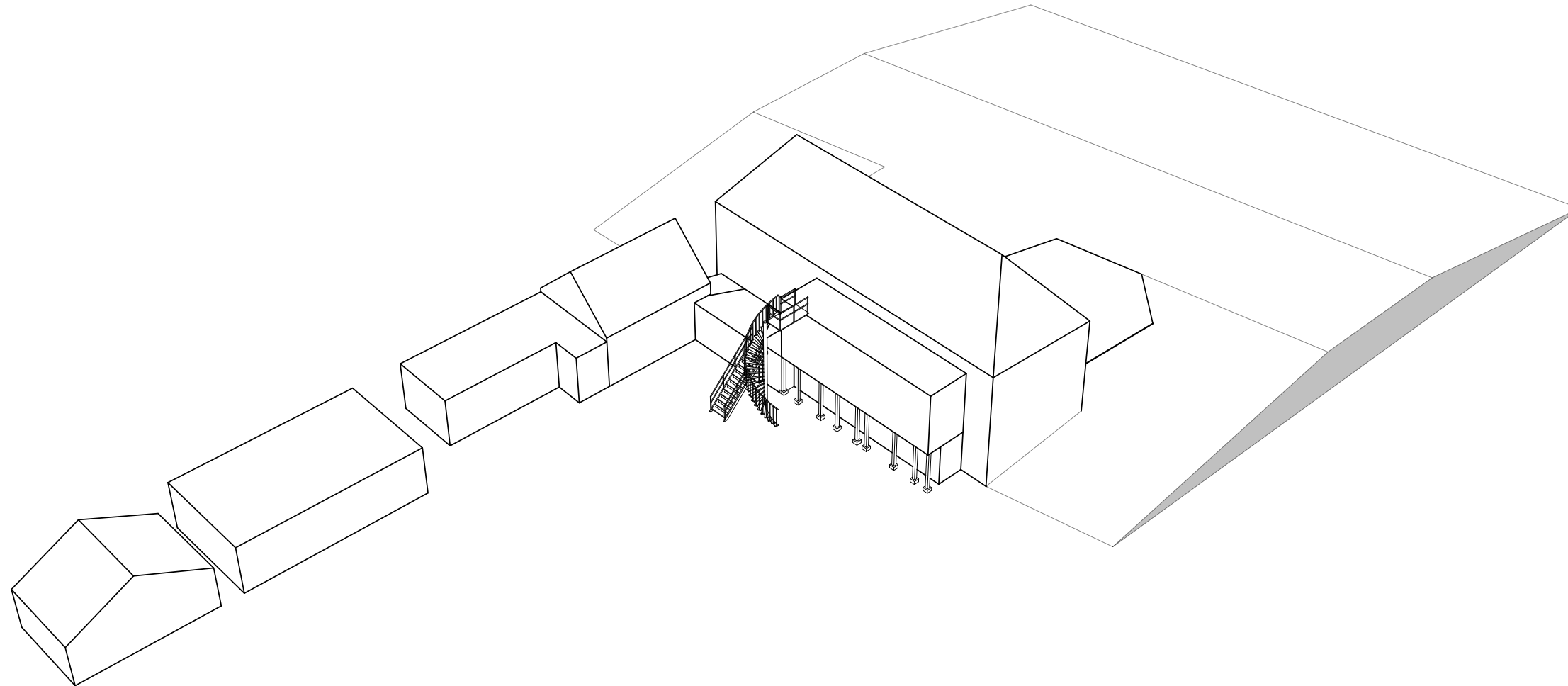
Van Tienhoven, G. (1817). Kaart van het riviervak van de Merwede tussen de Kinderdijk onder Alblasterdam en het huis de Donk onder Ridderkerk, en van een gedeelte van de Lek tot aan de sluis van Lekkerland, met aanwijzing van de zich aldaar bevindende zalmsteek [Drawing]. https://www.nationaalarchief.nl/onderzoeken/kaartencollectie/NL-HaNA_4.VTHR_571?searchKey=-d06e9cf277b7d2c4e709304960b19db5

History



Van Beveren, H. (1968). Achterzijde van waterschapshuis [Photograph]. https://beeldbank.cultureelerfgoed.nl/rce-mediabank/detail/04e2e124-75d7-f546-745e-ffcfe0ce78e2/media/567bec9f-aceb-5913-77d9-ec33ca060bd3?mode=detail&view=horizontal&q=molenstraat%20230&rows=1&page=18&fq%5B%5D=search_s_entity_name:%22Foto%27s%20en%20dia%27s%22&sort=order_s_objectnummer%20asc

History

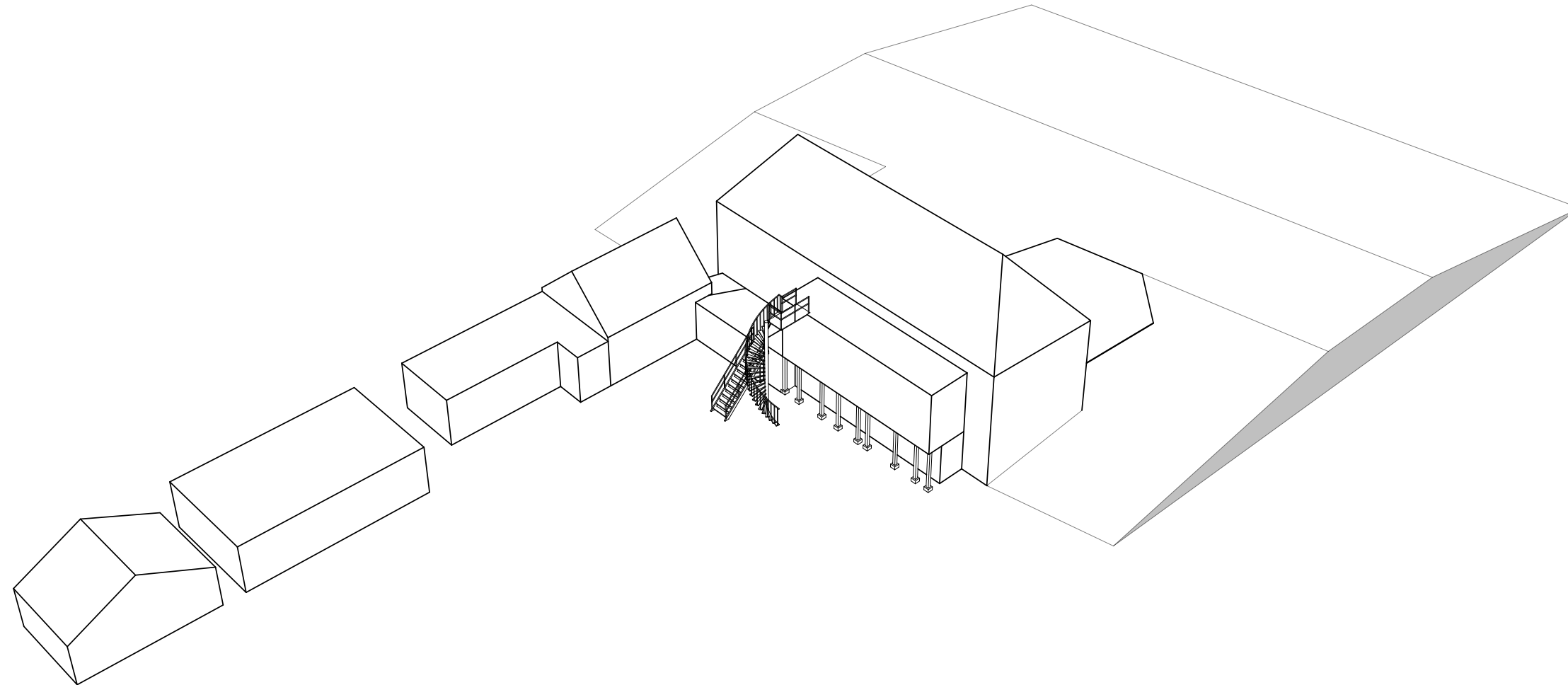


2024

Gemeenlandshuis Nederwaard

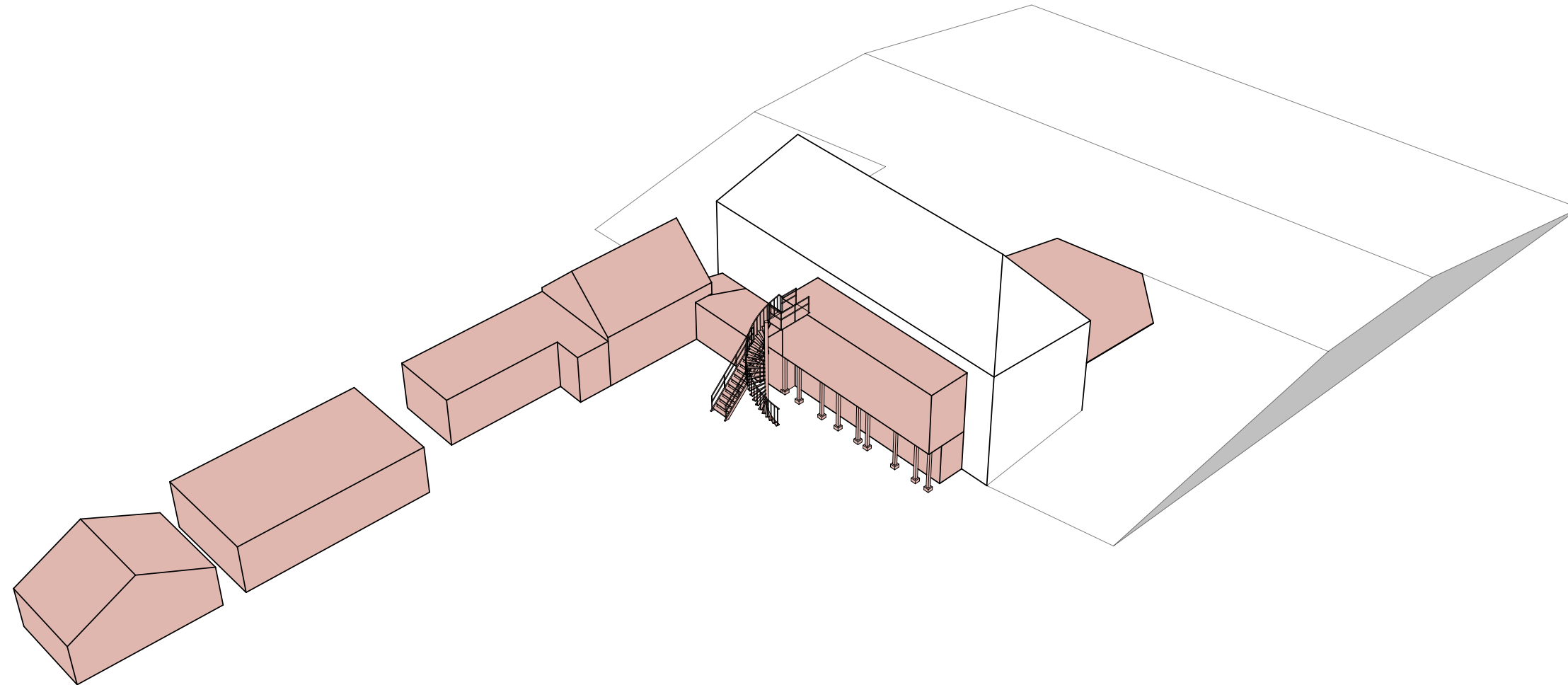
- Increasing the readability of the building
- Future use: meeting, eating, and sleeping

Design



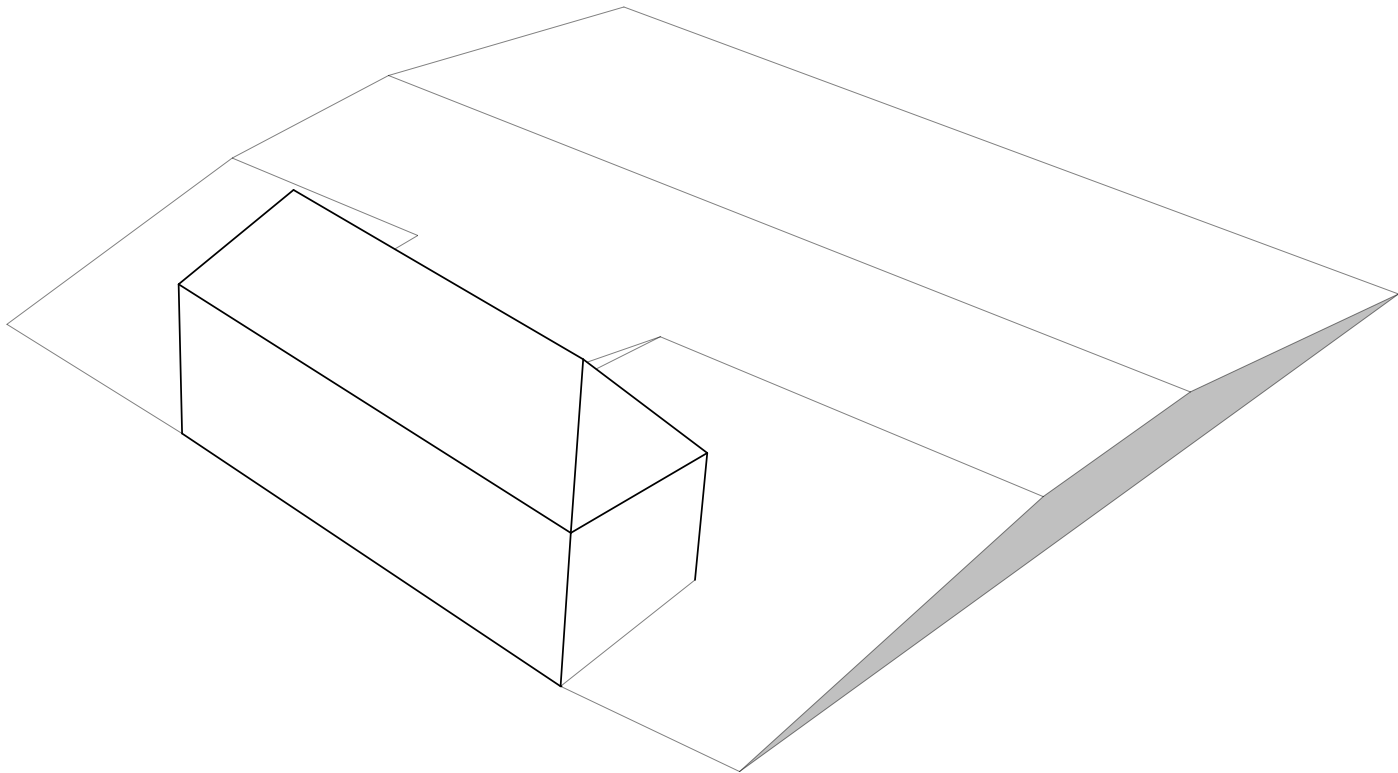
Current situation

Design



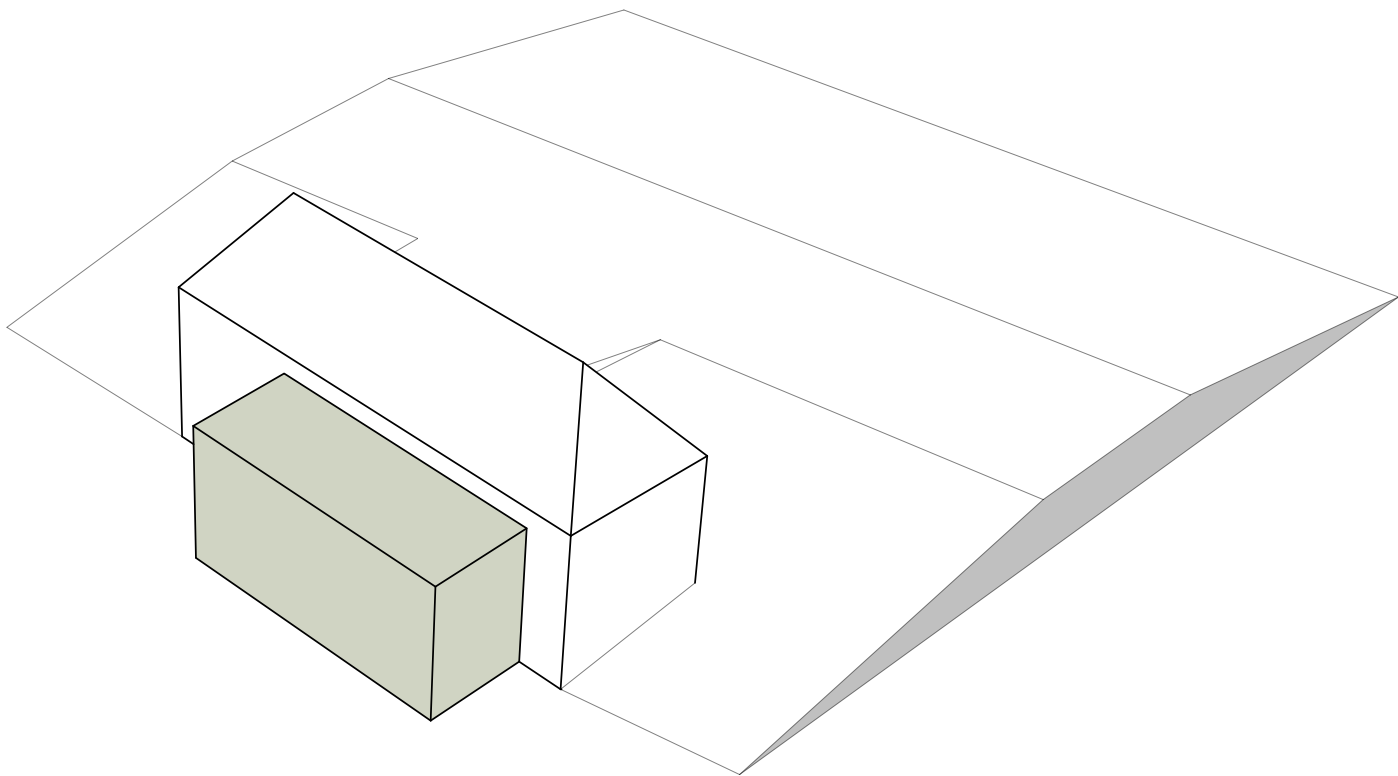
Remove extensions, terrace, and other buildings

Design



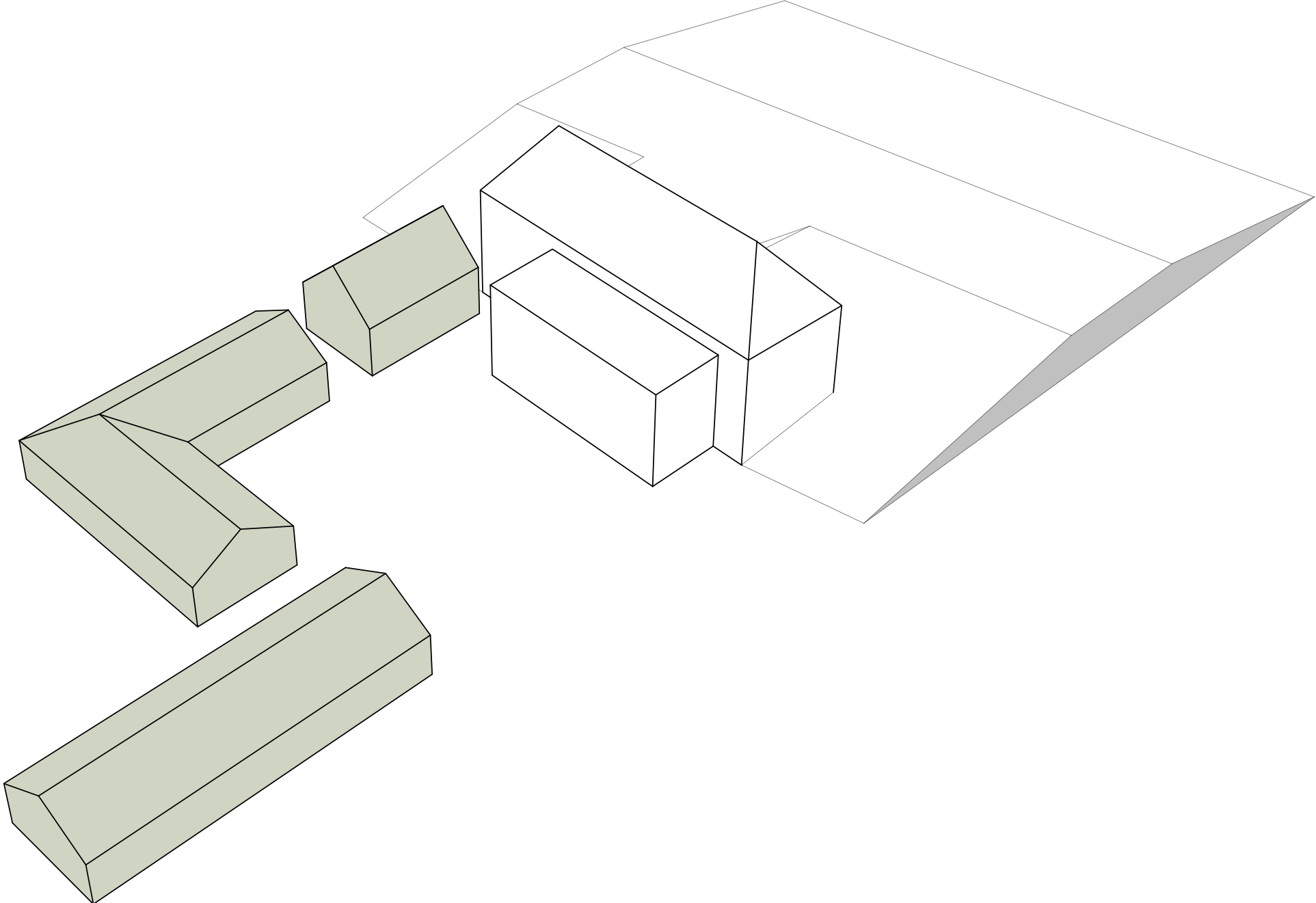
Waardhuis volume remains

Design



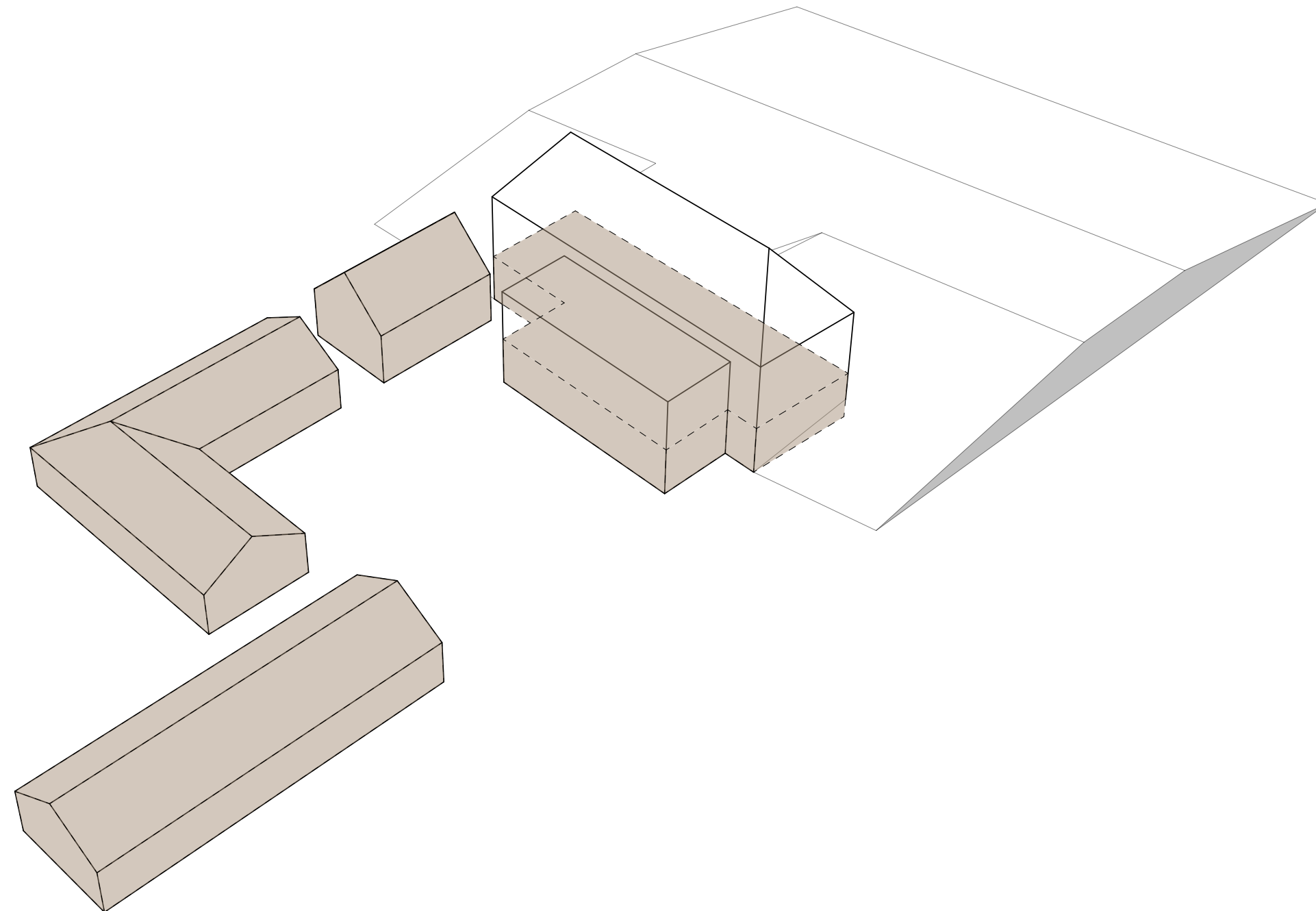
Add sunroom

Design



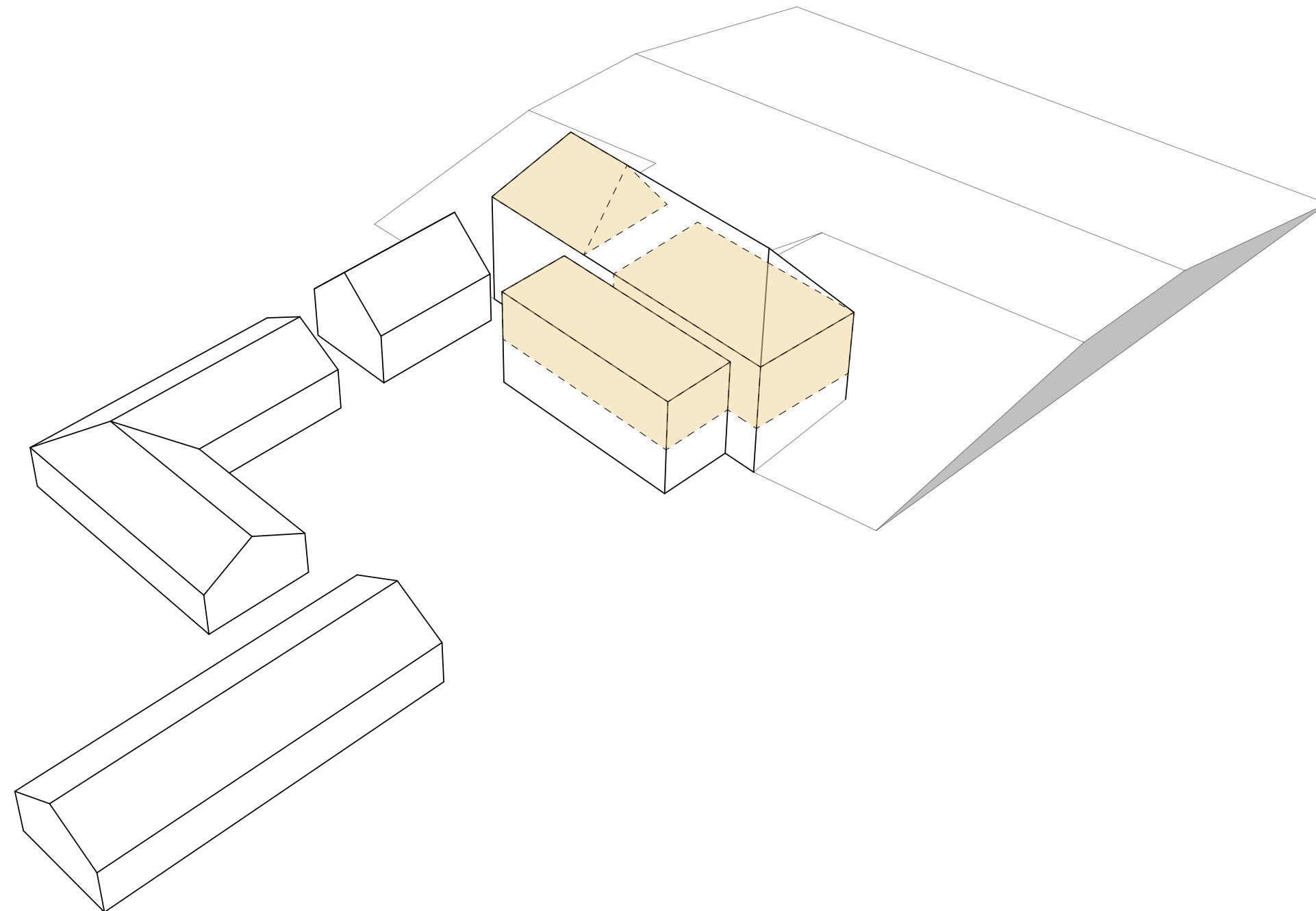
Add barns

Design



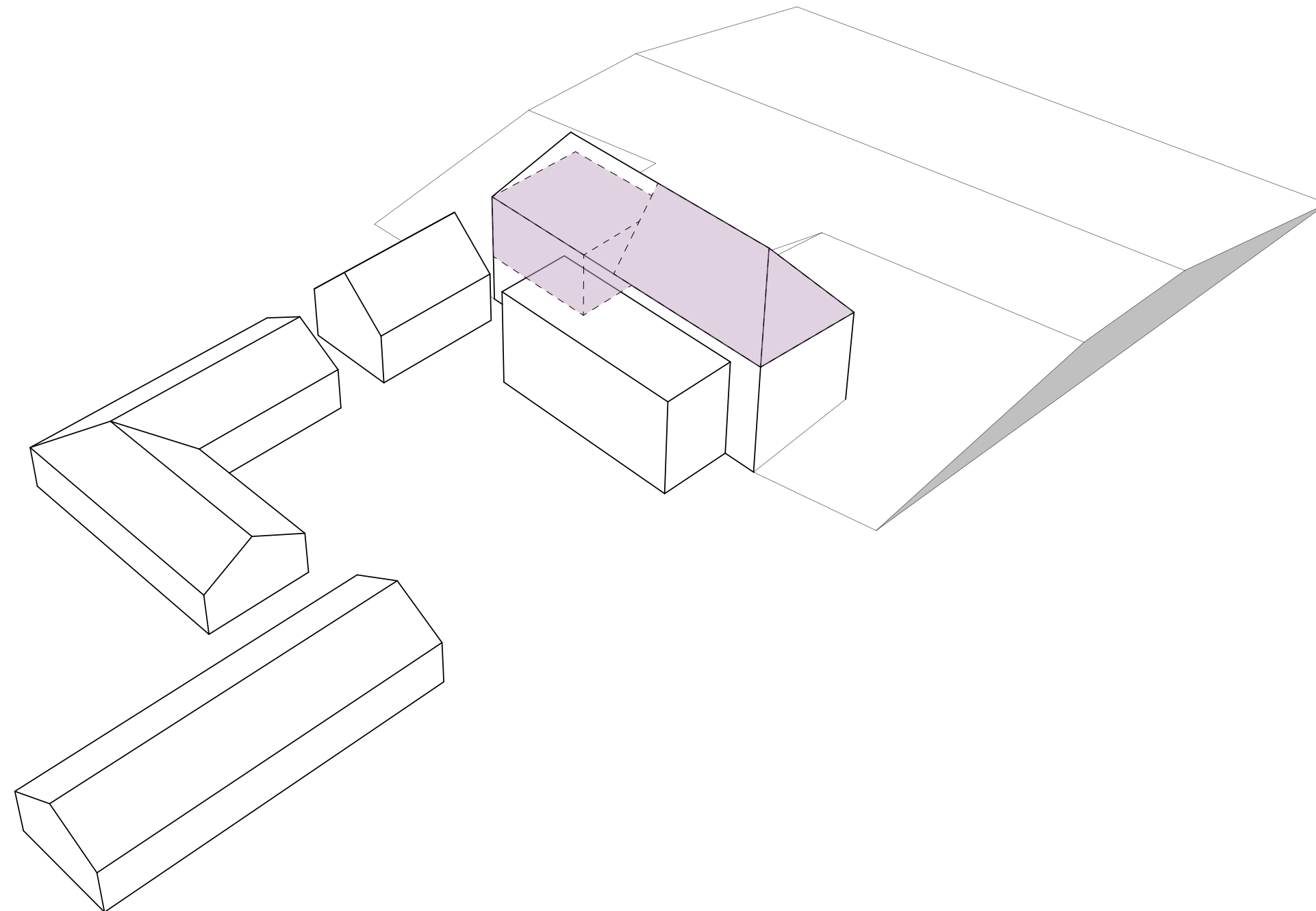
Bed & Breakfast

Design



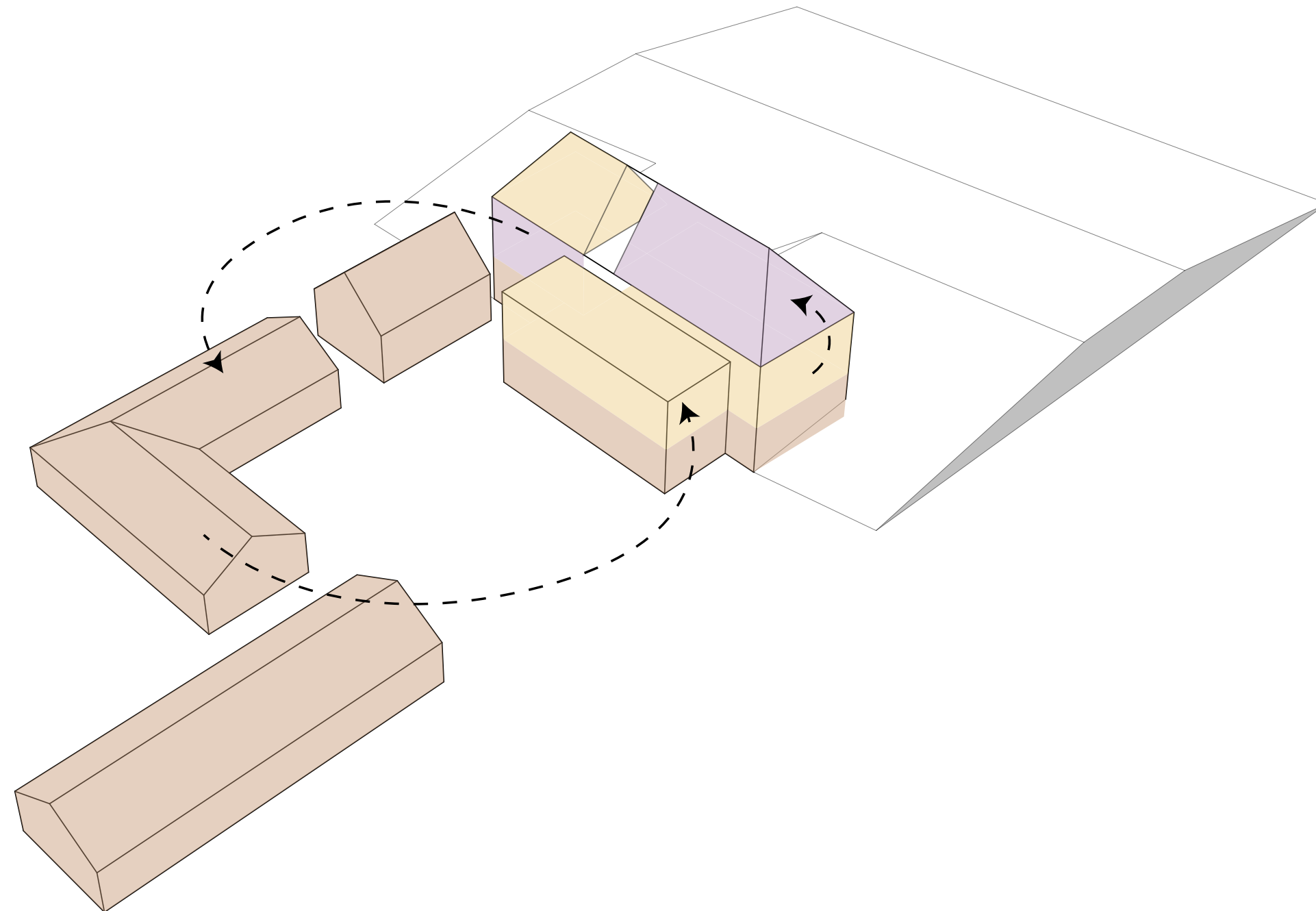
Bakery shop & lunchroom

Design



Meeting rooms

Design



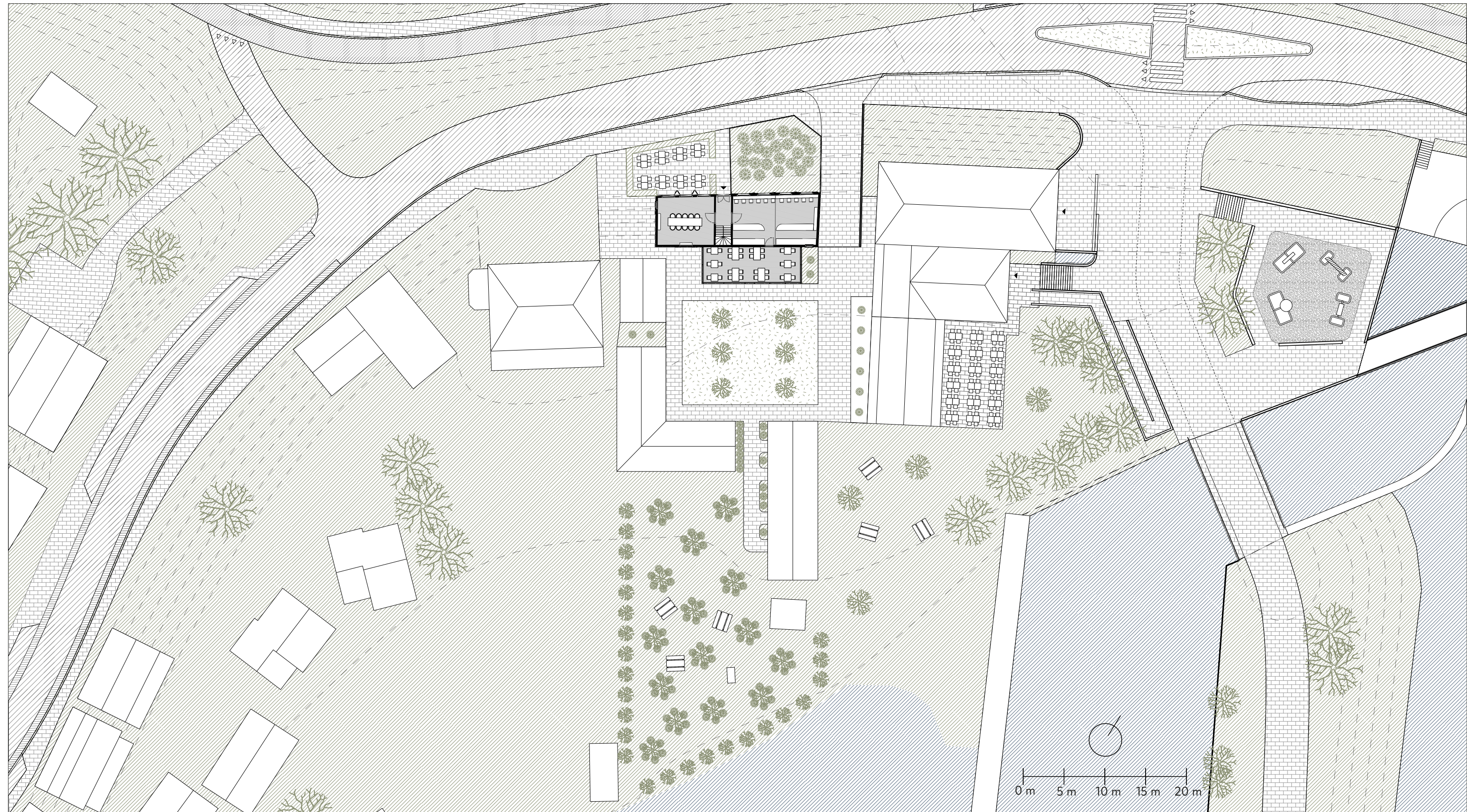
Functions support each other

Design



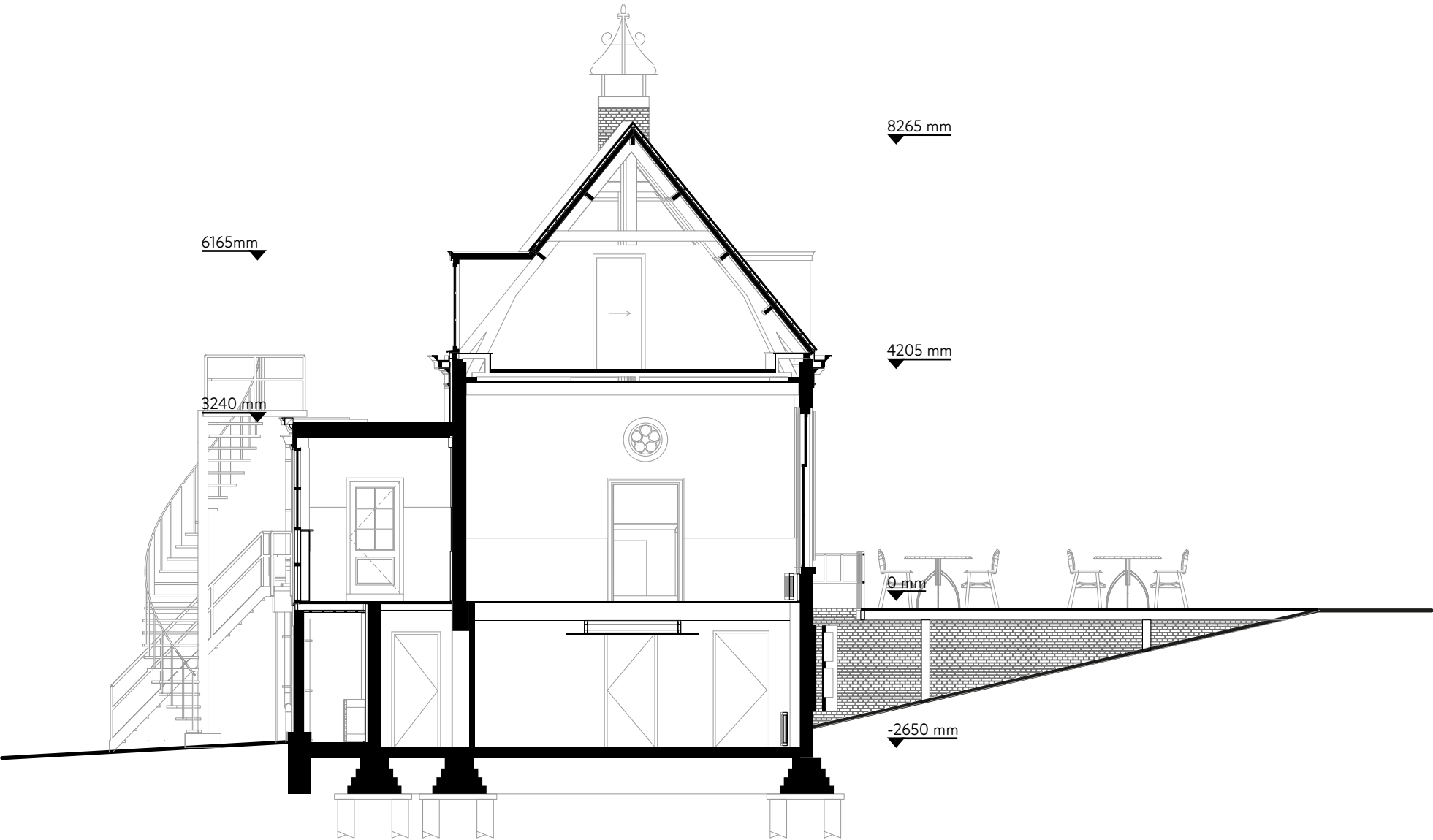
Orchard completes design

Design ensemble



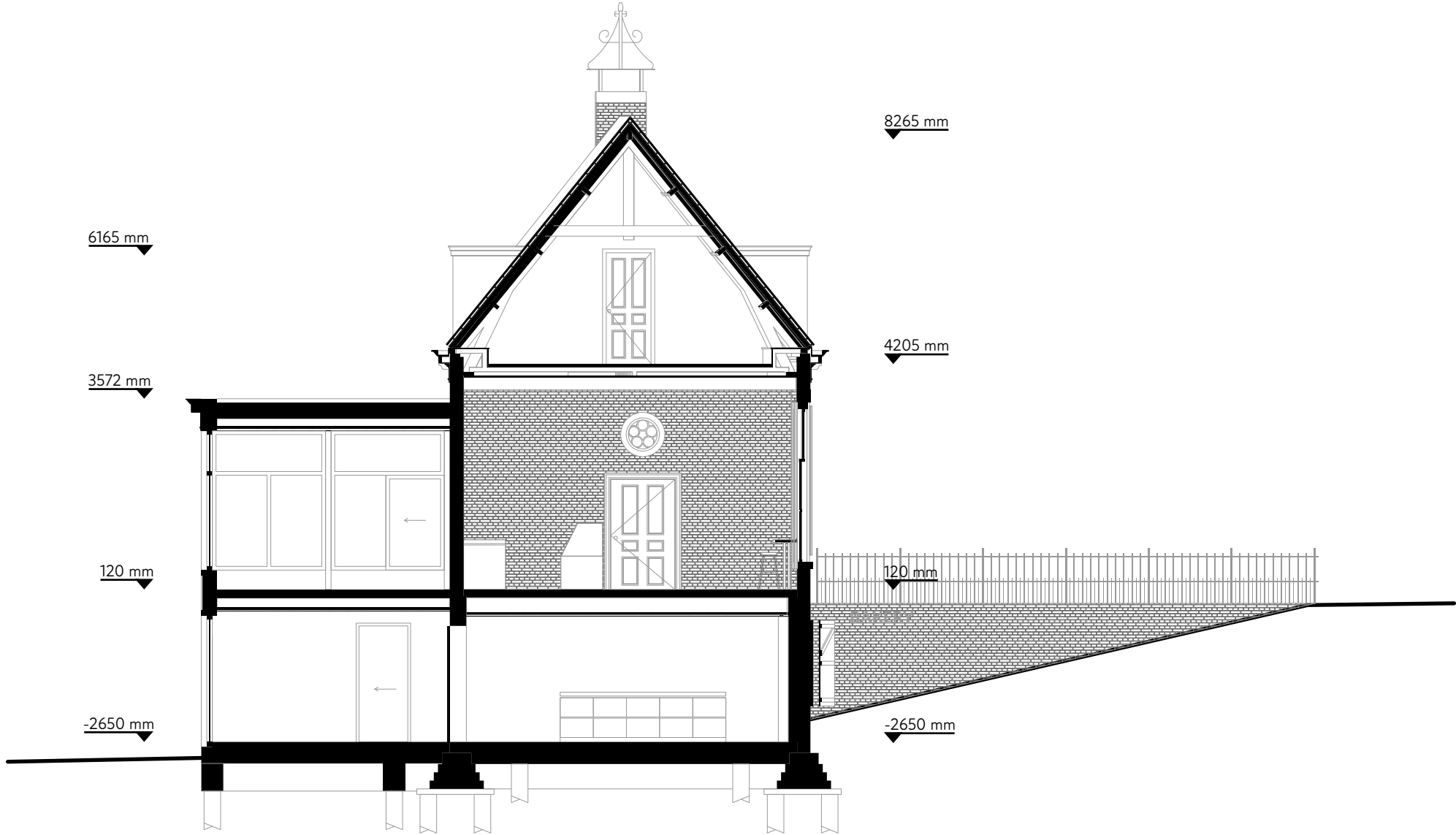
Between village and mass tourism

Current section



Stairs at the back, terrace at the front

Future section



Boardhouse with large sunroom

Current elevation



Messy

Old elevation



De Boer. (1969). Achtergevel waterschapshuis [Photograph]. https://beeldbank.cultureelerfgoed.nl/rce-mediabank/detail/a8f9d422-efc4-f81c-9c42-00a87aaa55d/media/1d13a-9da-f642-dd32-02ac-94a3de771677?mode=detail&view=horizontal&q=molenstraat%20230&rows=1&page=2&fq%5B%5D=search_s_entity_name:%22Foto%27s%20en%20dia%27s%22&sort=order_s_objectnummer%20asc&filterAction

Design sunroom



Arch motif

De Boer. (1969). Achtergevel waterschapshuis [Photograph]. https://beeldbank.cultureelerfgoed.nl/rce-mediabank/detail/a8f9d422-efc4-f81c-9c42-00a87aaa55d/media/1d13a-9da-f642-dd32-02ac-94a3de771677?mode=detail&view=horizontal&q=molenstraat%20230&rows=1&page=2&fq%5B%5D=search_s_entity_name:%22Foto%27s%20en%20dia%27s%22&sort=order_s_objectnummer%20asc&filterAction

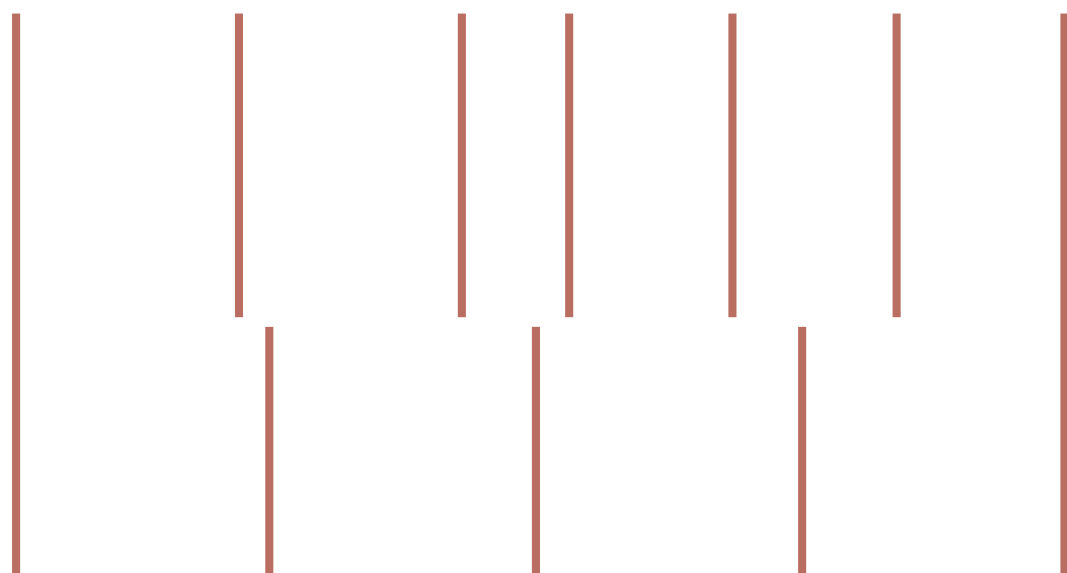
Design sunroom



Vertical partition

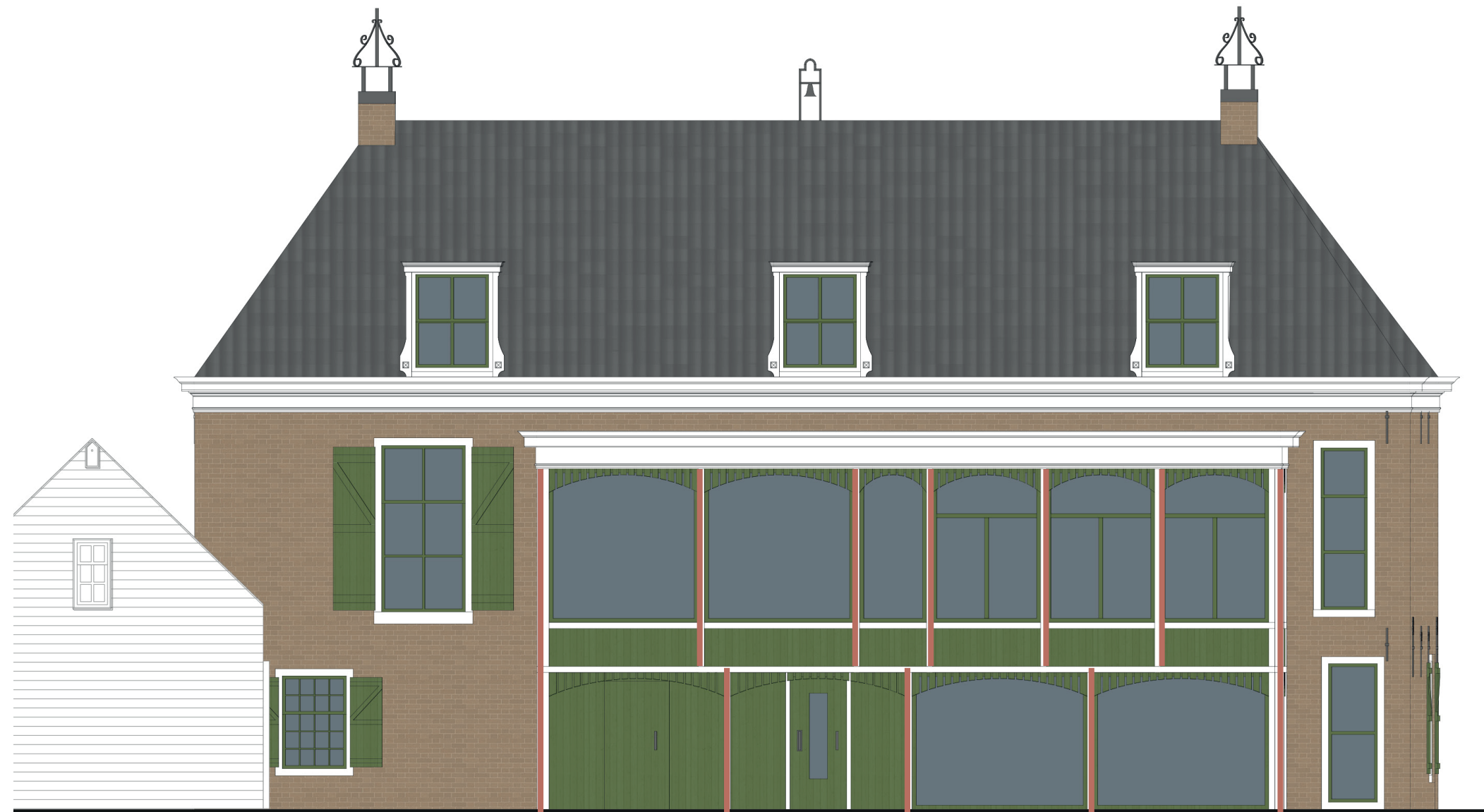
De Boer. (1969). Achtergevel waterschapshuis [Photograph]. https://beeldbank.cultureelerfgoed.nl/rce-mediabank/detail/a8f9d422-efc4-f81c-9c42-00a87aaa55d/media/1d13a-9da-f642-dd32-02ac-94a3de771677?mode=detail&view=horizontal&q=molenstraat%20230&rows=1&page=2&fq%5B%5D=search_s_entity_name:%22Foto%27s%20en%20dia%27s%22&sort=order_s_objectnummer%20asc&filterAction

Design sunroom



Vertical partition

Design sunroom



Vertical partition

Design sunroom

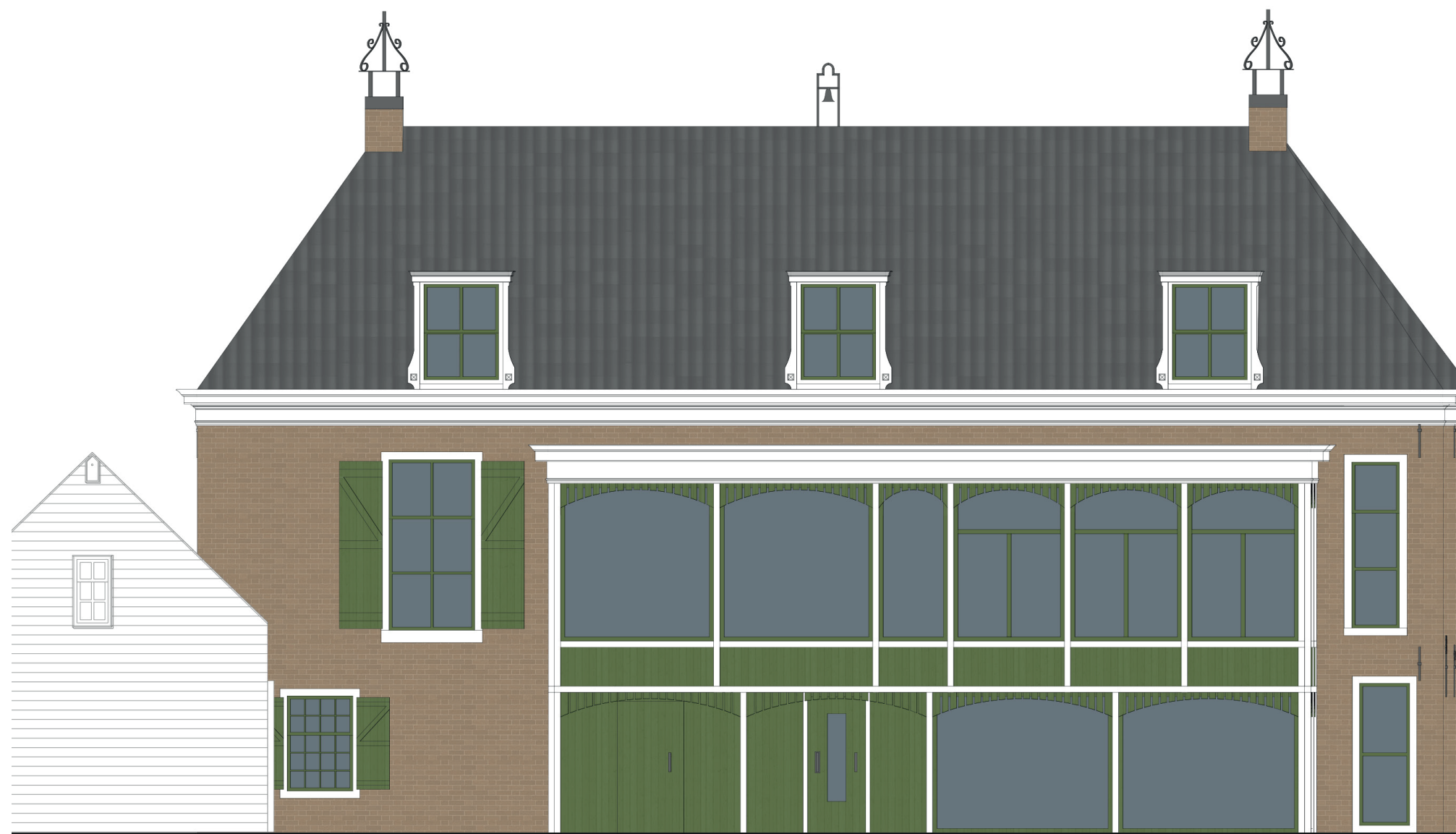


Vertical partition

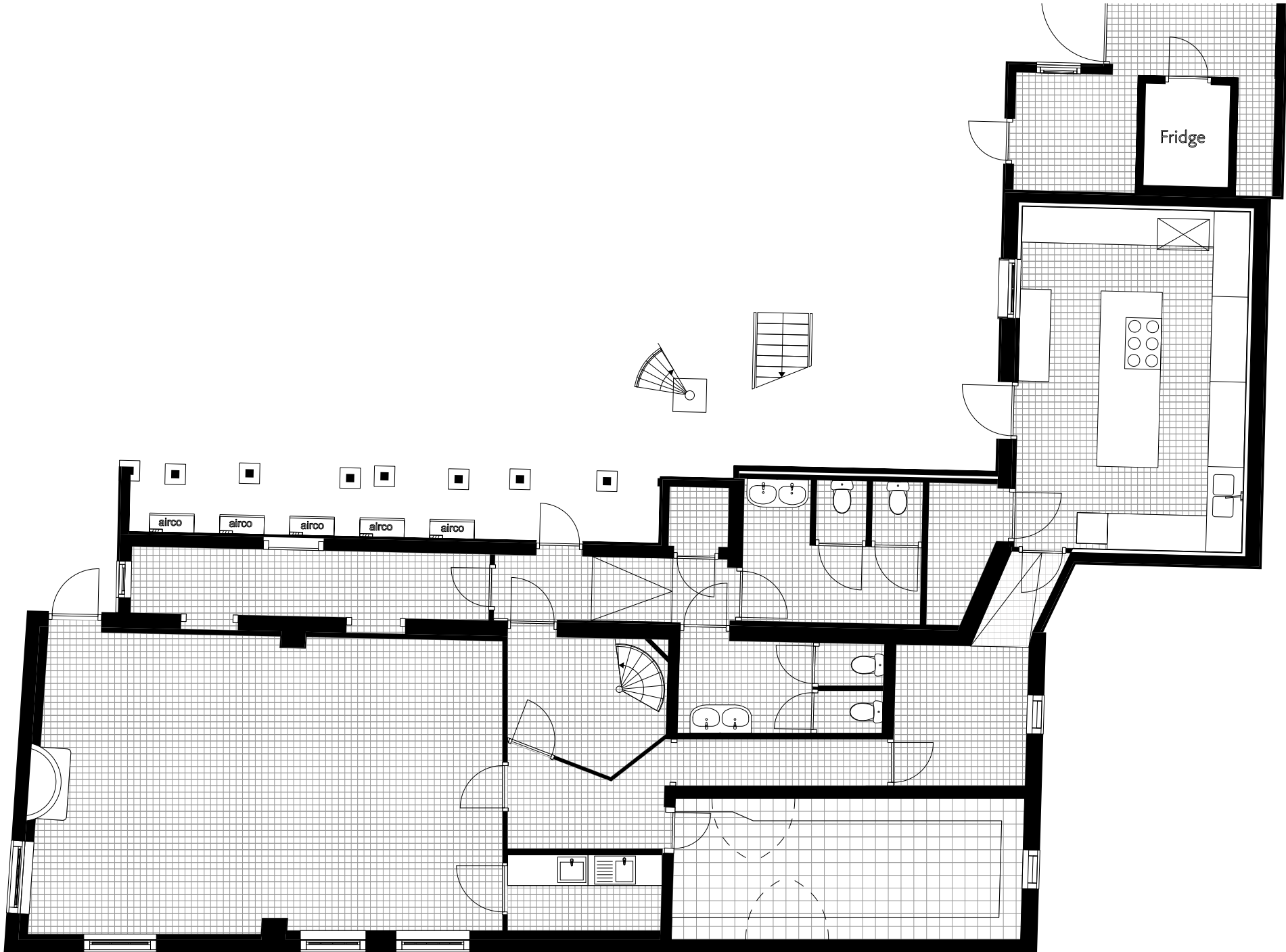
Current elevation



Future elevation

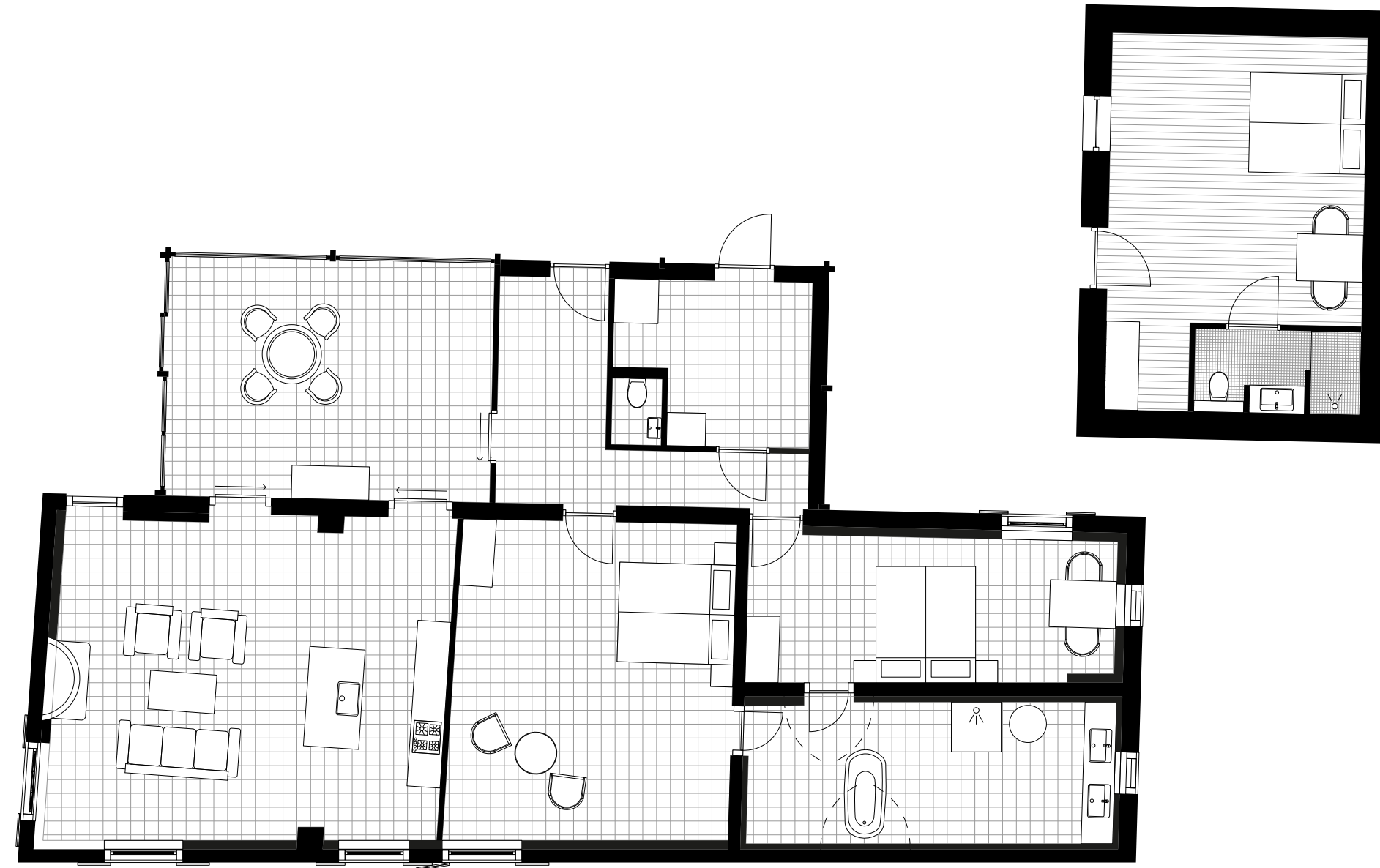


Current floor plan



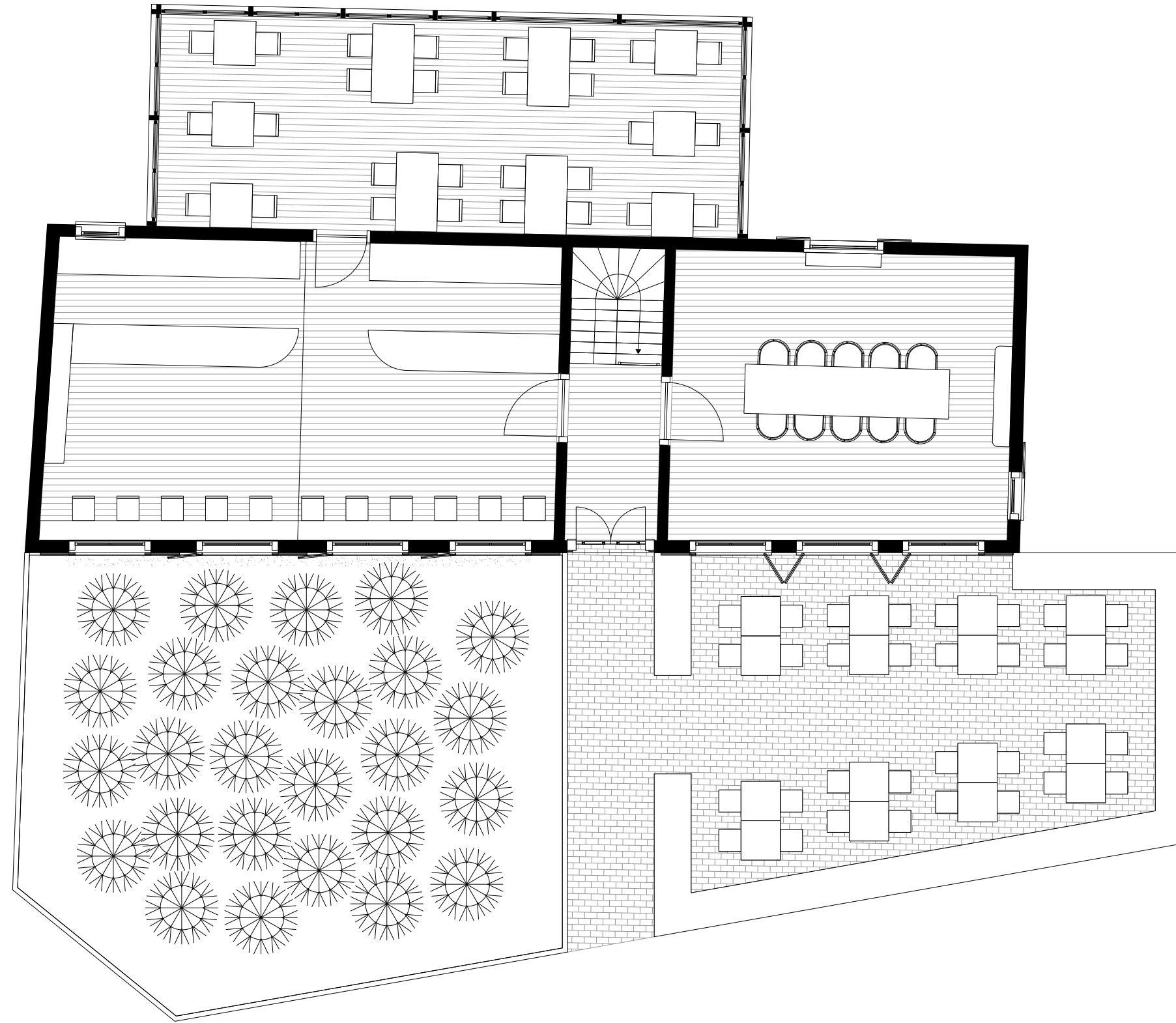
Illegible floor plan

Future floor plan



Less interior walls, clear floor plan

Future floor plan

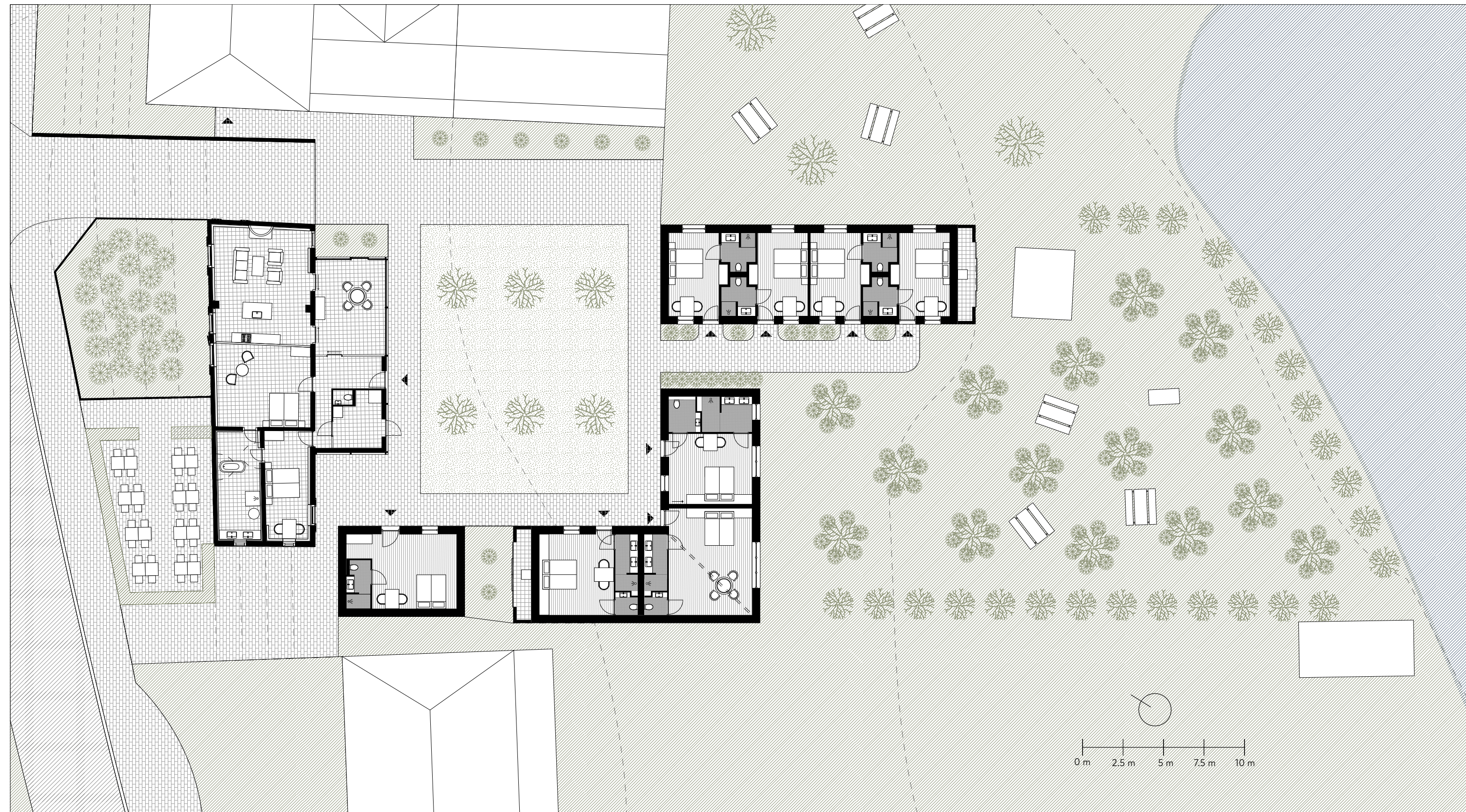


Bakery shop, lunchroom, and meeting room

B&B Barns

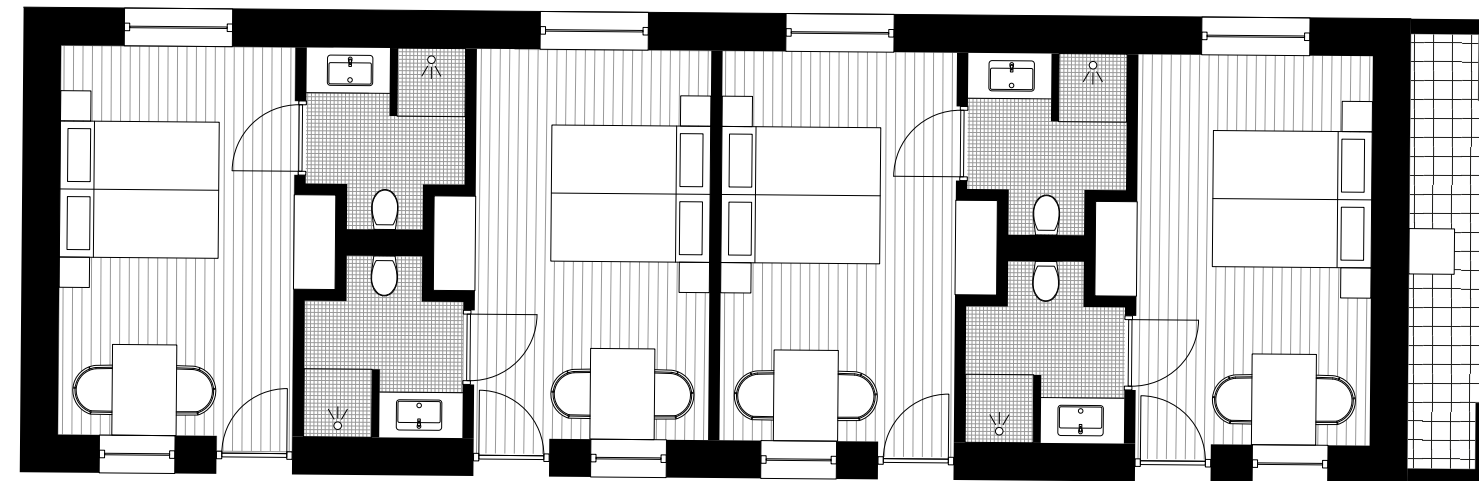
- Comfortable, nature-friendly, awareness-increasing

Design ensemble



B&B accommodations

Future floor plan



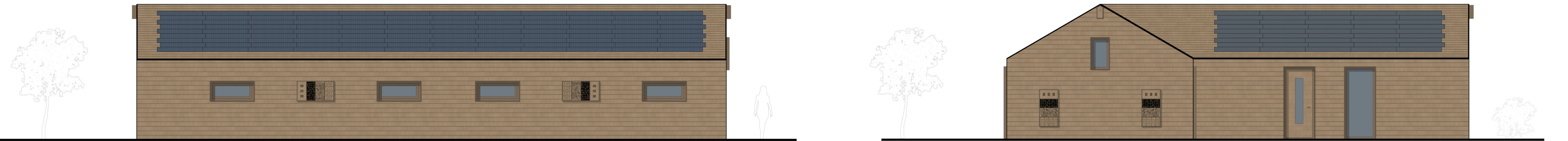
Straight barn

Future floor plan



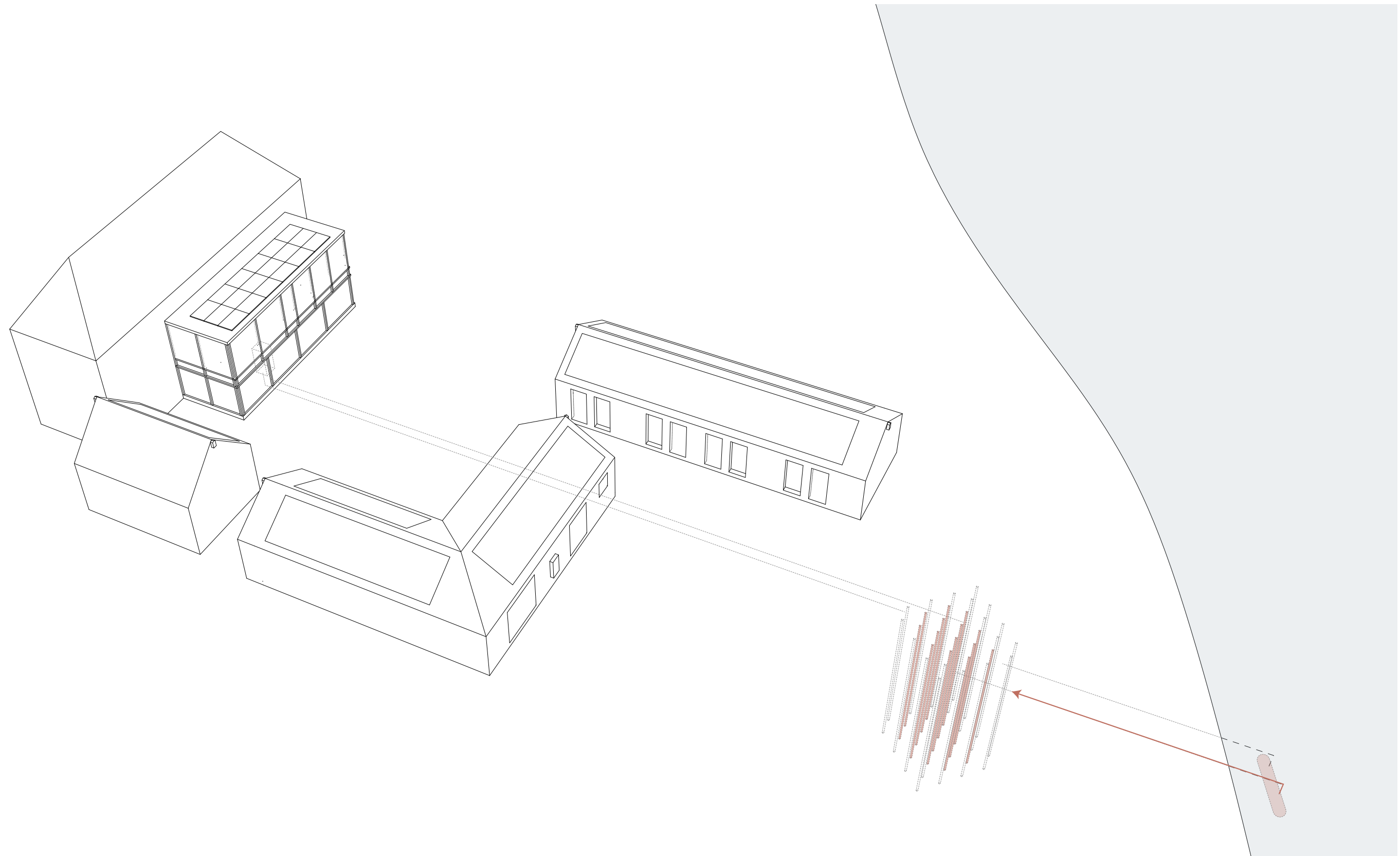
Corner and small barn

Elevations



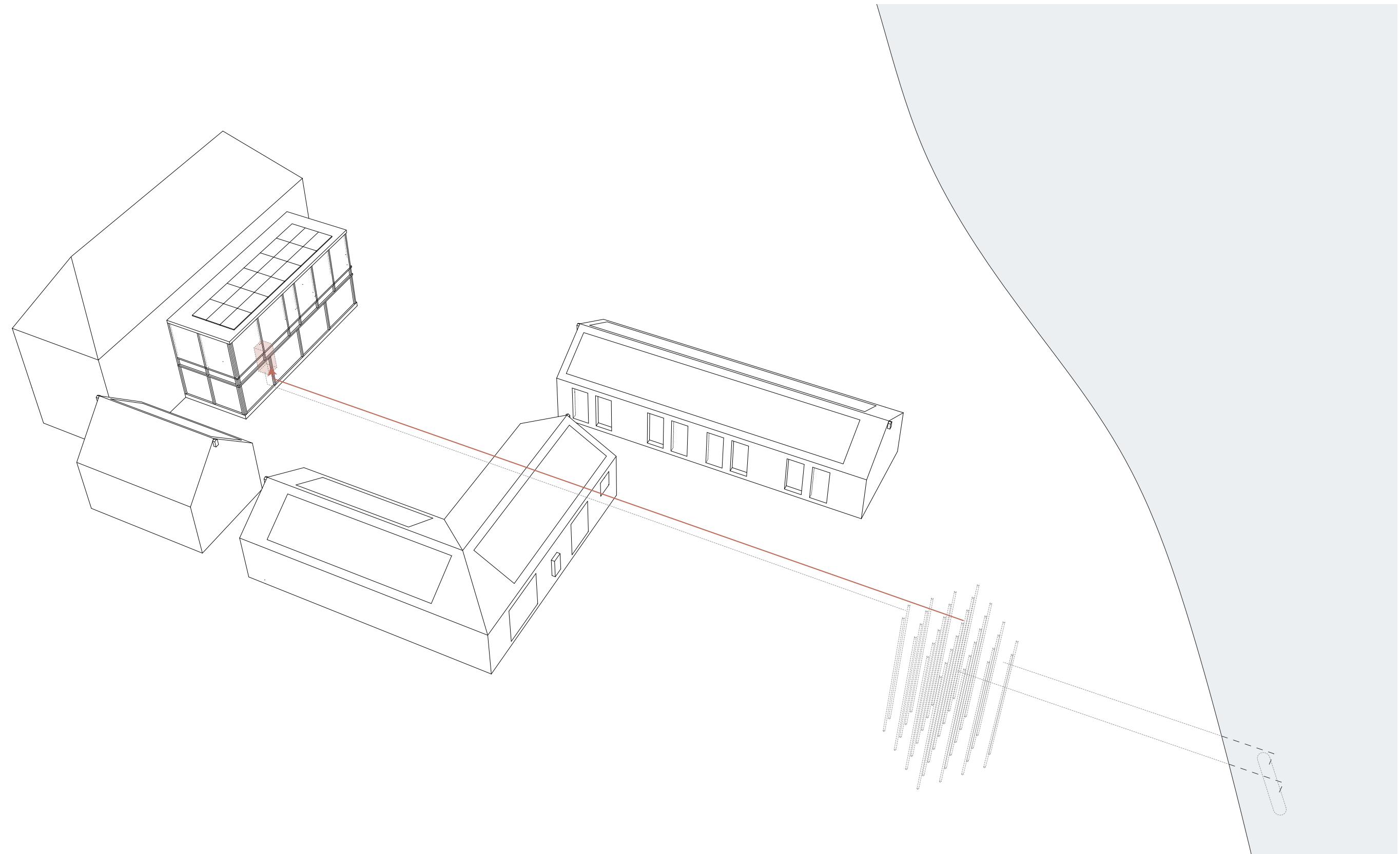
Modern interpretation of barns

Climate



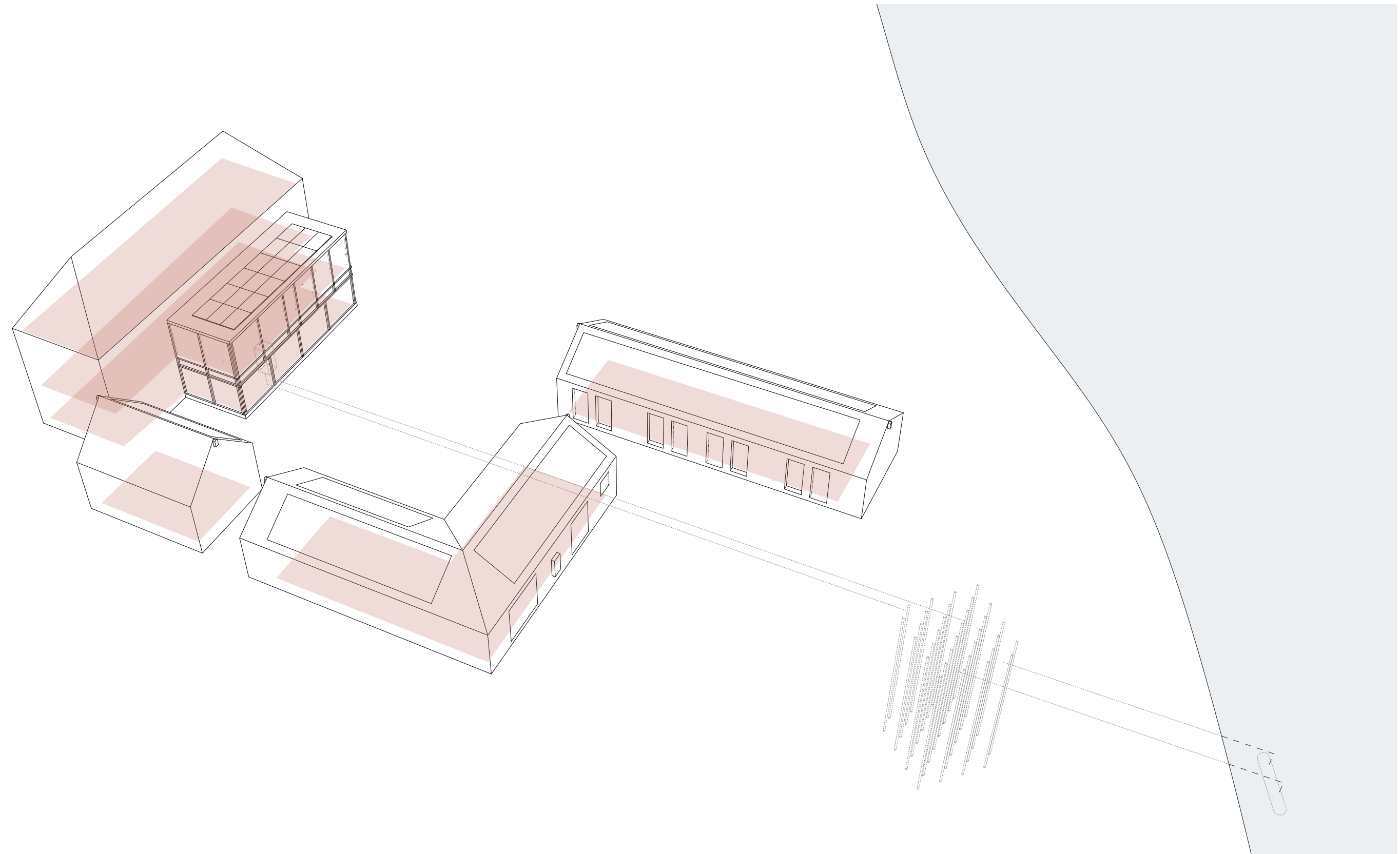
Heat exchanger + Borehole Thermal Energy Storage

Climate



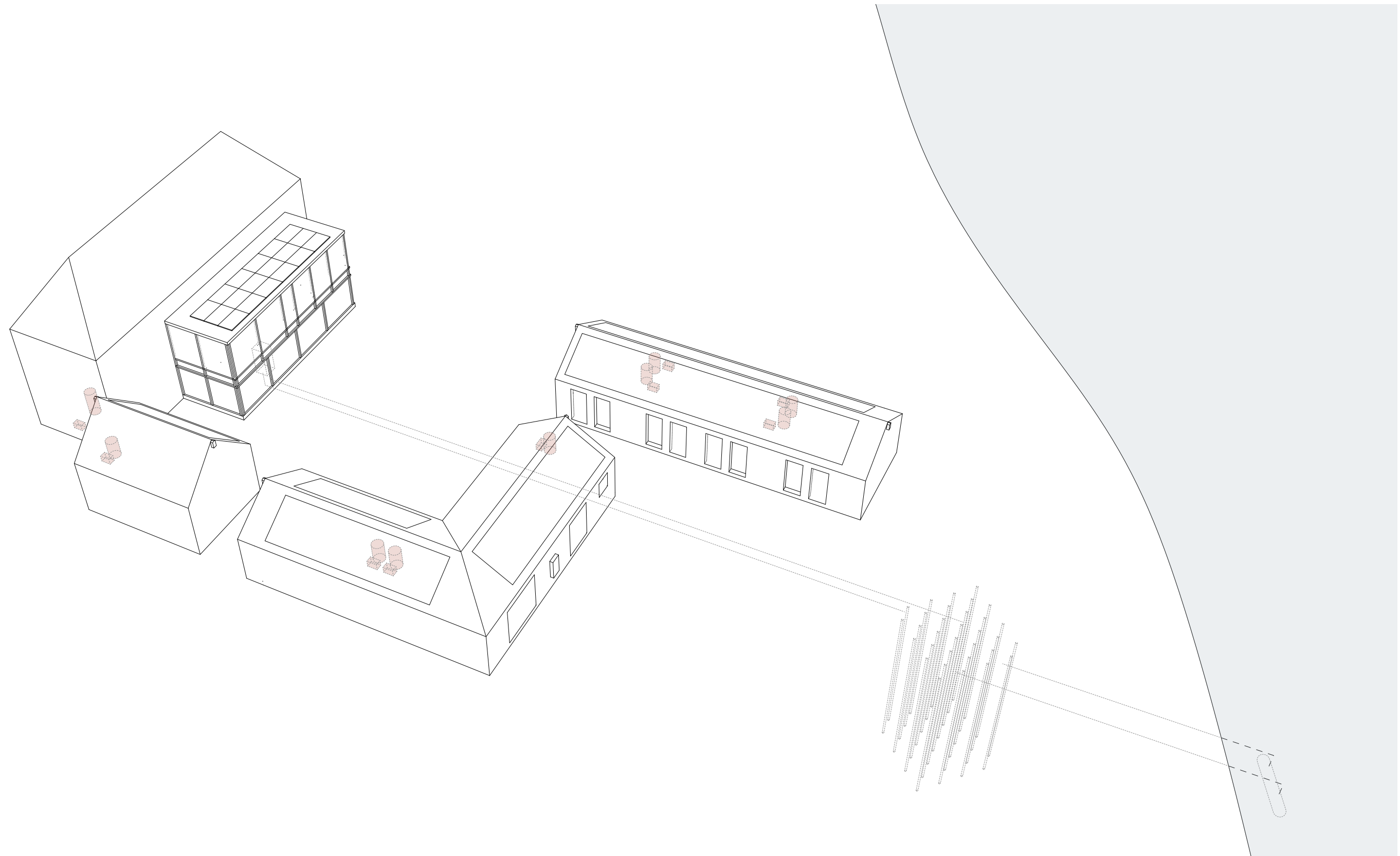
Central heat pump

Climate



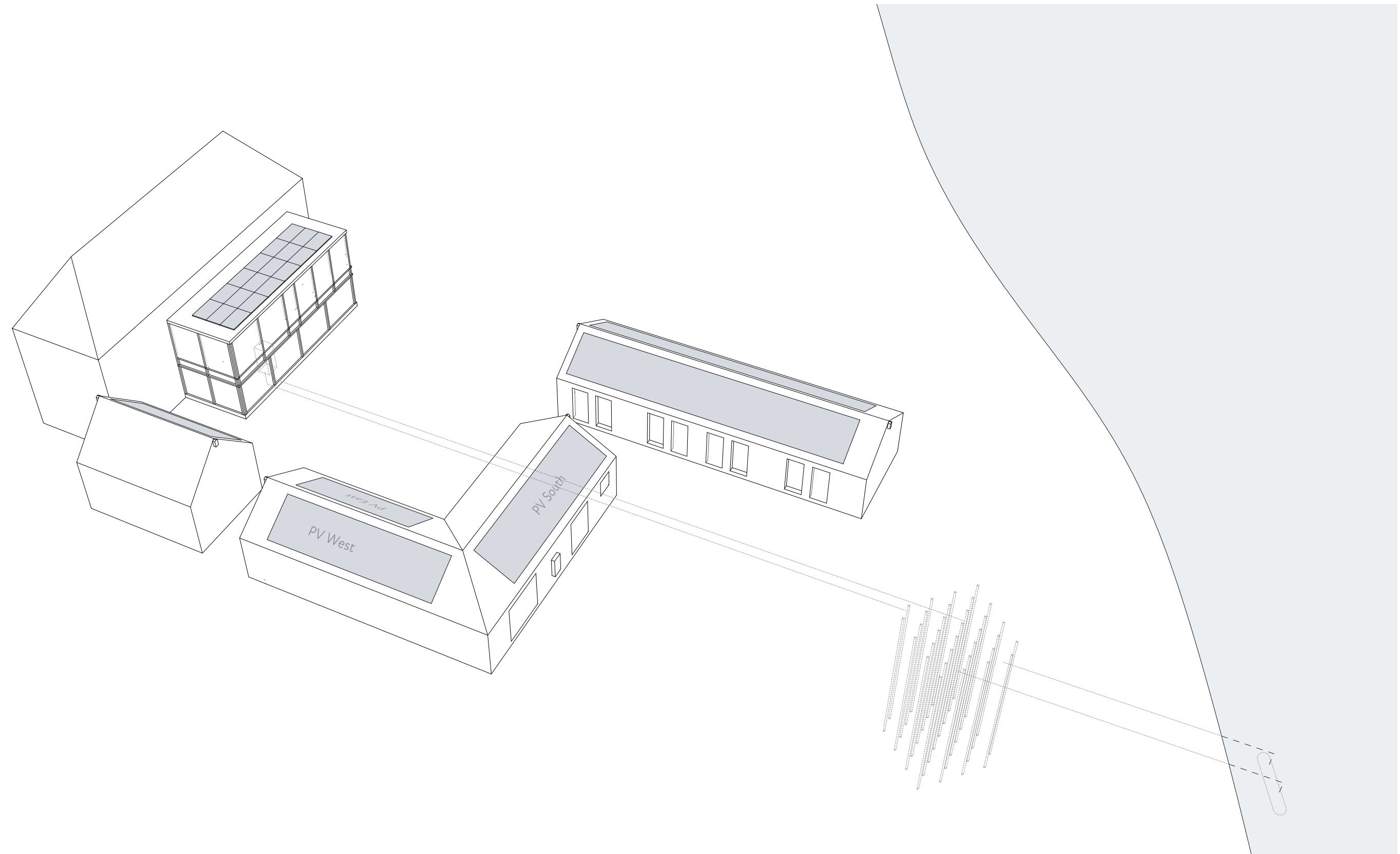
Floor heating

Climate



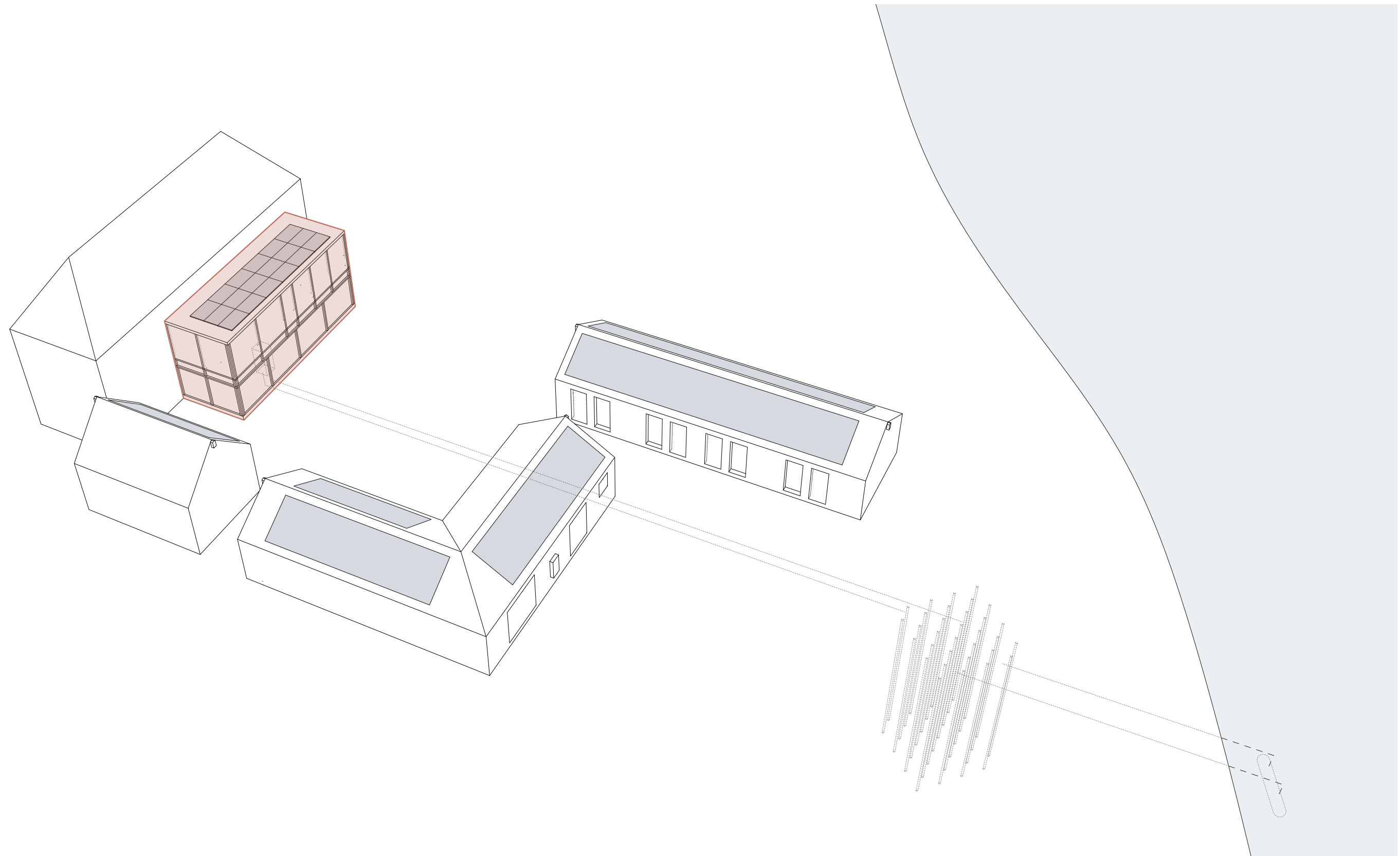
Booster heat pumps and storage vessels

Climate



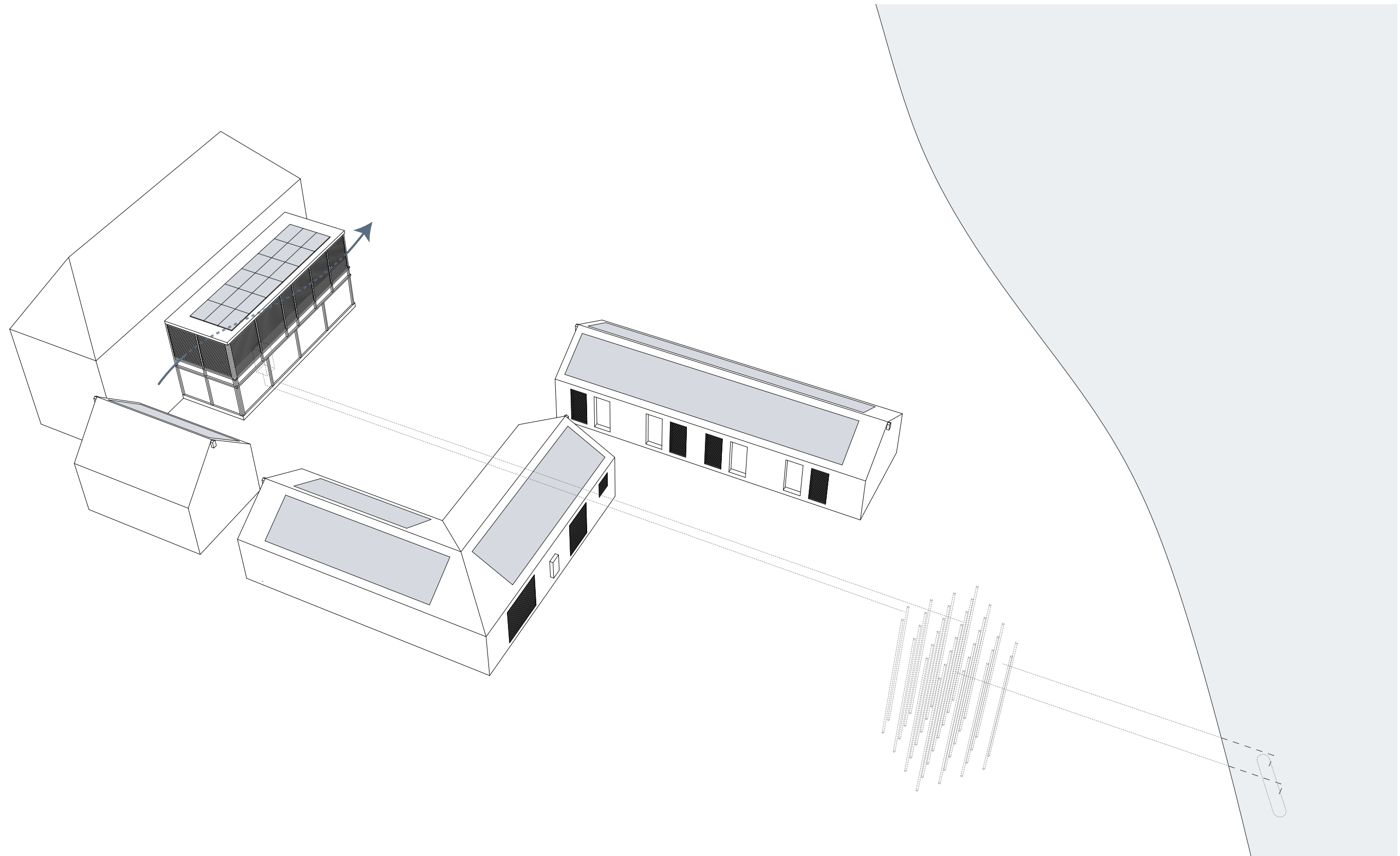
PV panels

Climate



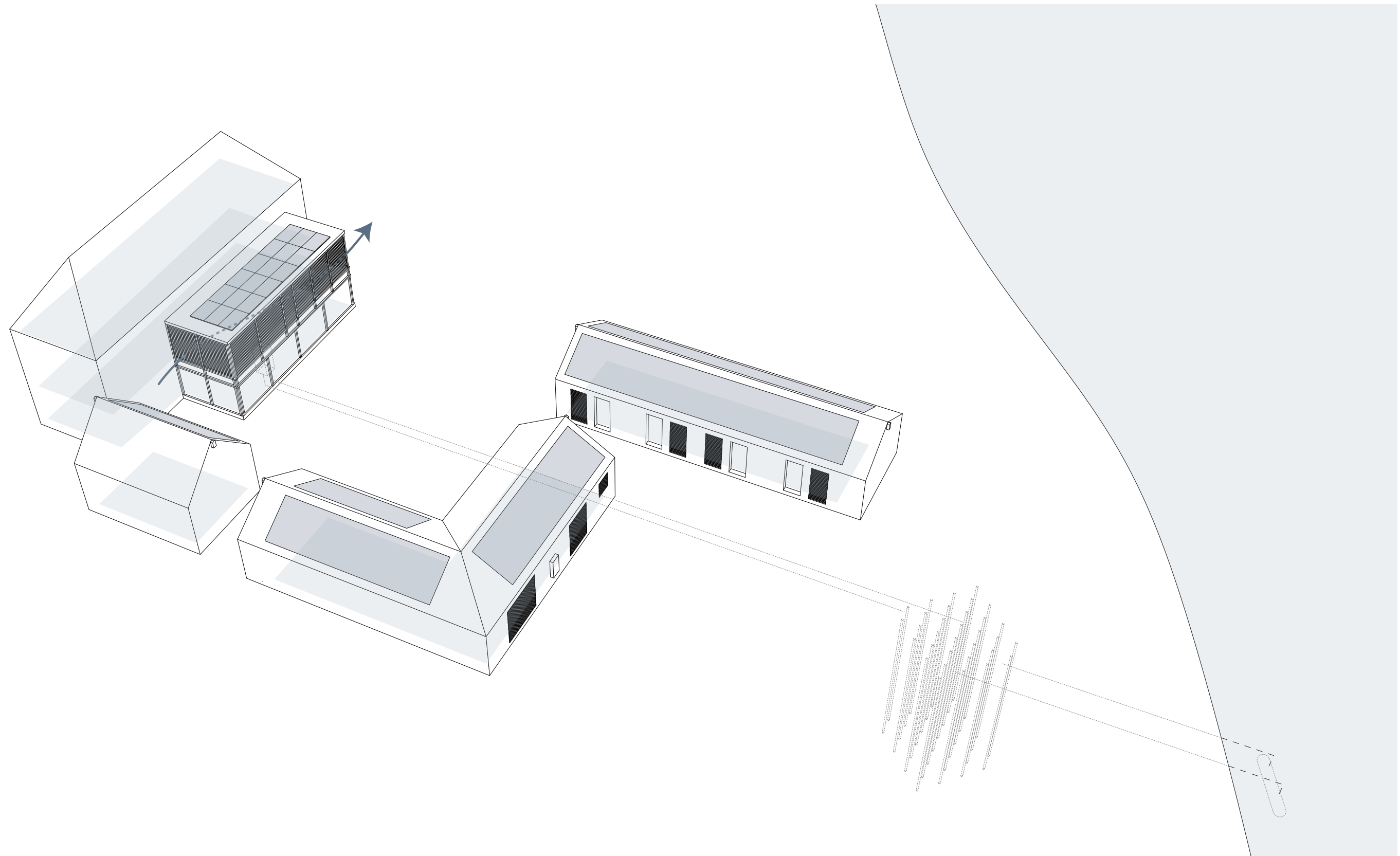
Sunroom as thermal buffer

Climate



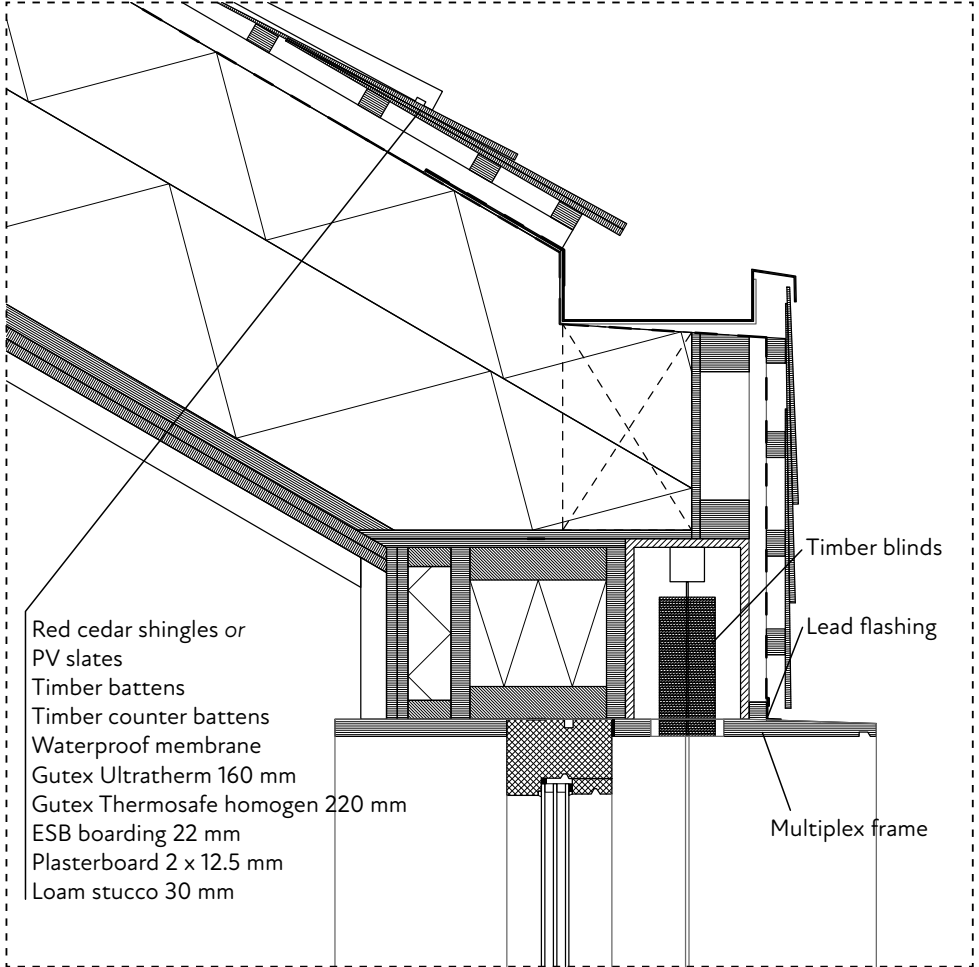
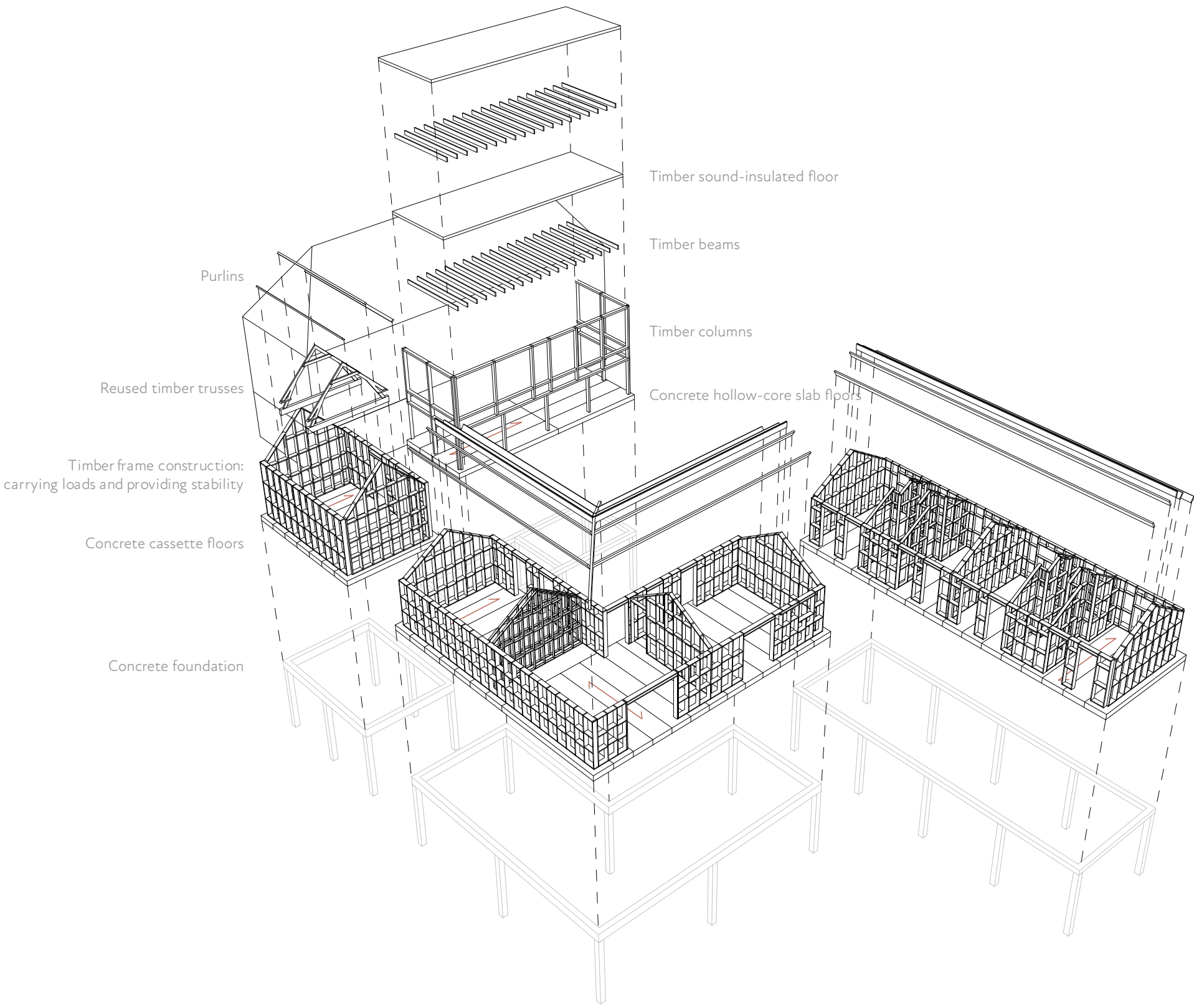
Blinds and natural cross ventilation cool down sunroom

Climate



Floor cooling

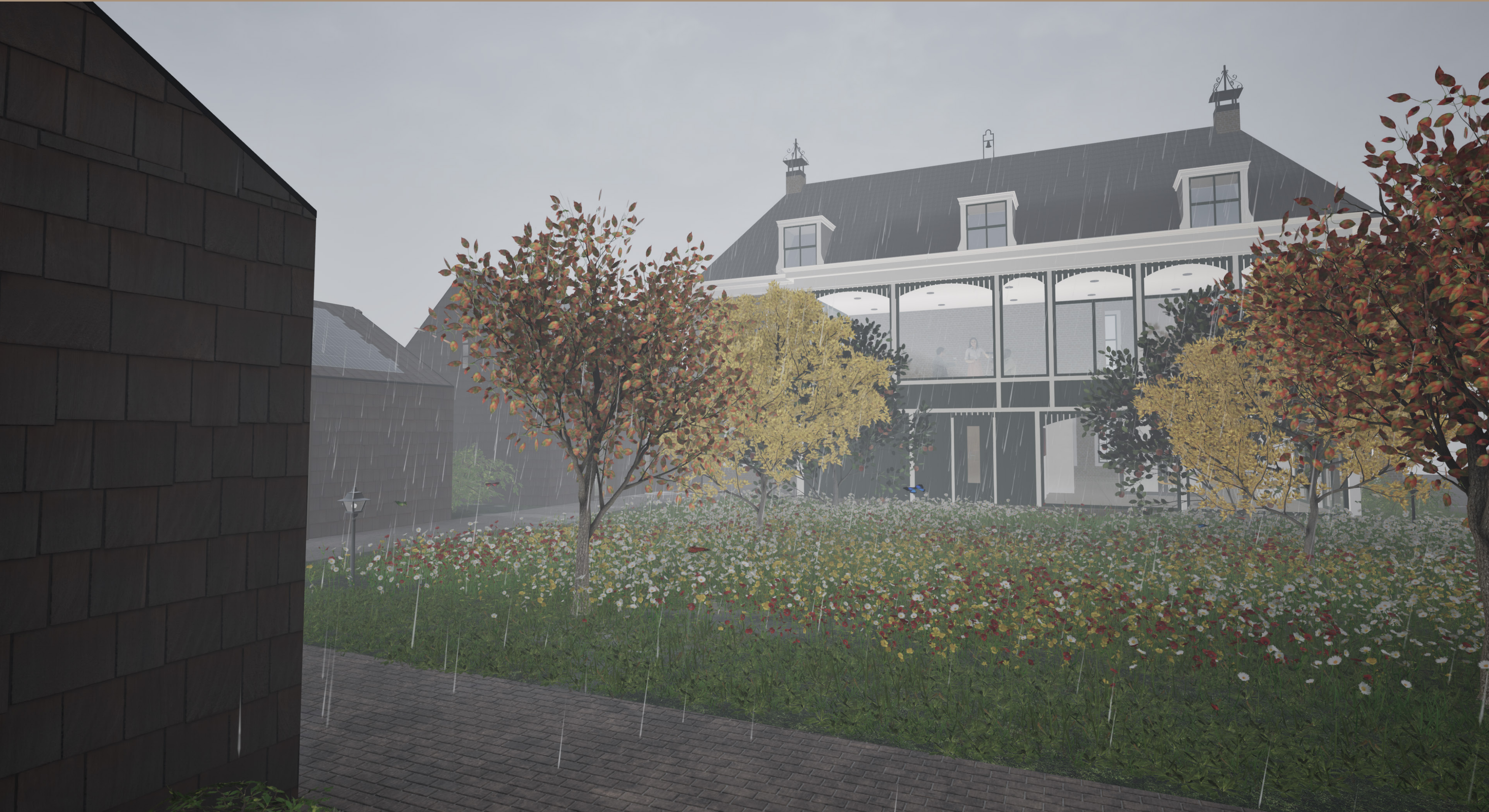
Structure: biobased



Biobased materials and detailing

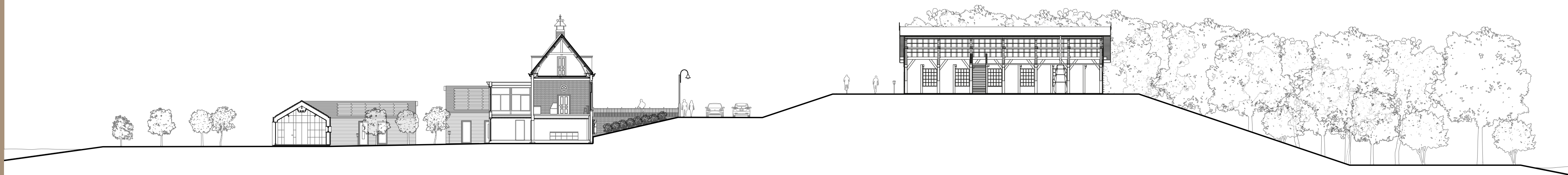








Section



Pot Barn

Introduction



Outer dike barn

Introduction



Western and southern facade

Introduction



Northern facade

Introduction



Rotten floorboards



Rotten column base

Introduction



Roof structure

De Keijzer, L. (2023)

Research Intermezzo

Pre-1914 barns around Dordrecht



Pre-industrial barns around Dordrecht



History



In the background the Pot shipyard, in the foreground the sluices

Weissenbruch, J. (n.d.). Sluis te Elshout met scheepswerf Pot [Painting]. https://www.haarlemsdagblad.nl/cnt/dmf20181019_26464770?utm_source=google&utm_medium=organic

History



The three barns

KLM Aerocarto, (1931), Kinderdijk [Photograph]. Personal communication with Stichting Werelderfgoed Kinderdijk

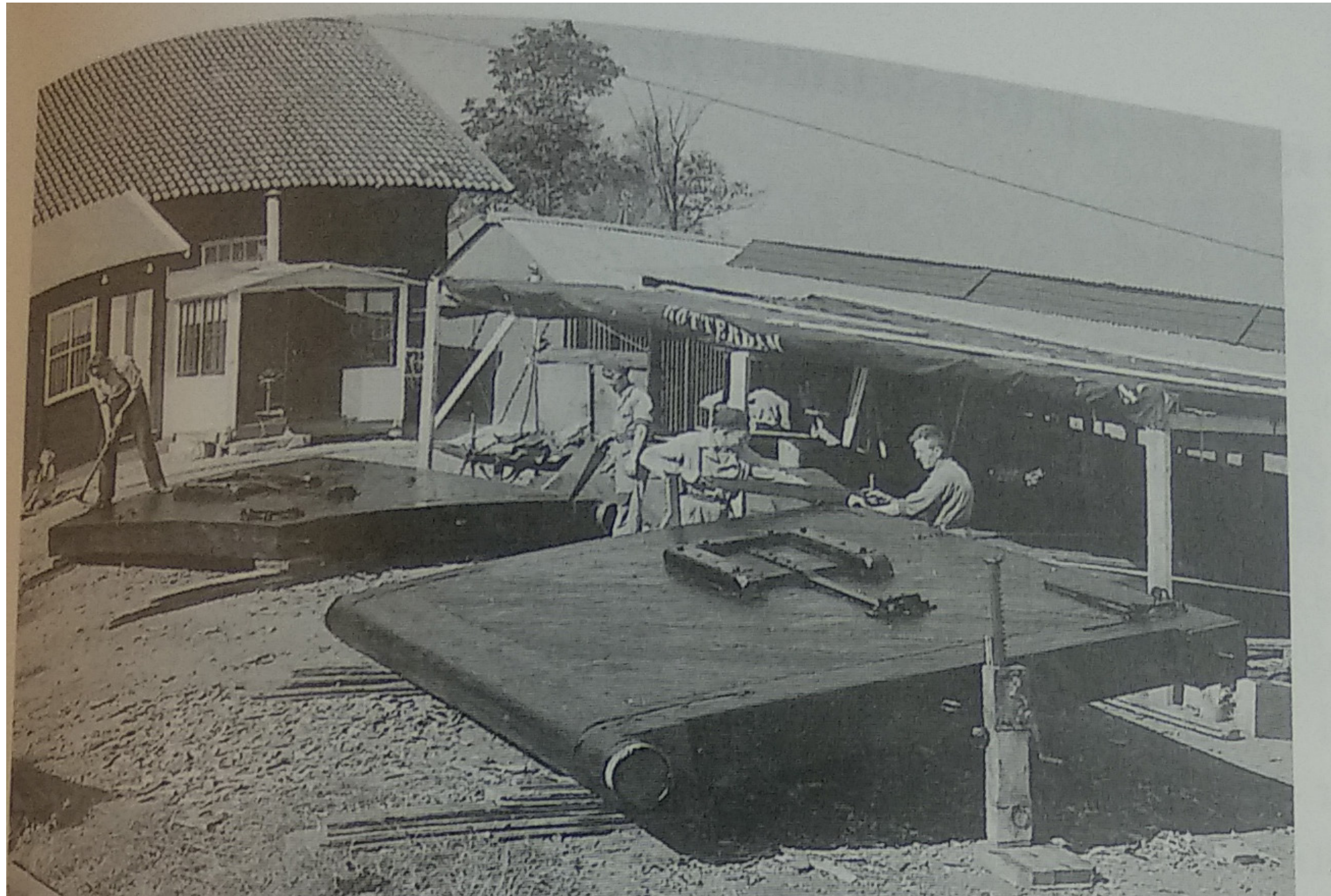
History



The three barns as seen from the water

Fotobasebank (n.d.). Molenstraat met scheepswerf van Pot [Photograph]. <https://www.fotobasebank.nl/public/fullphoto.php?foto=10507&c=g>

History



Repair work on the sluice gates by contractors

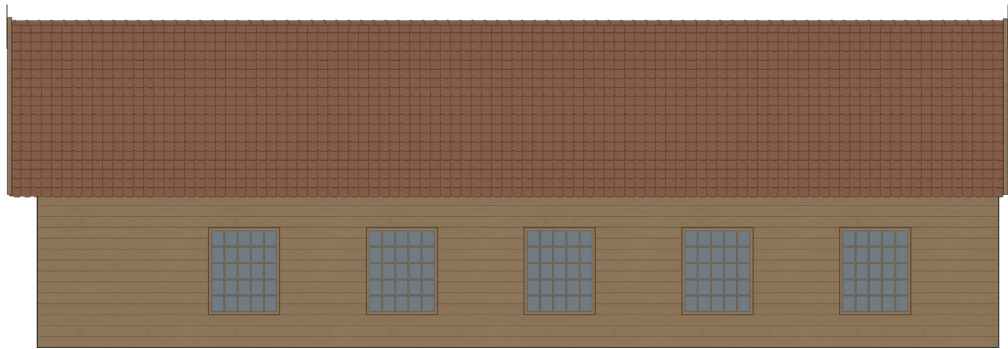
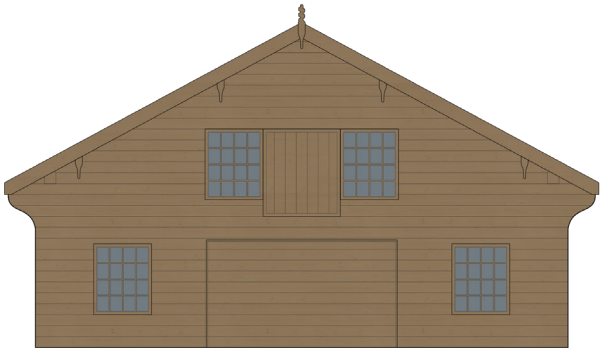
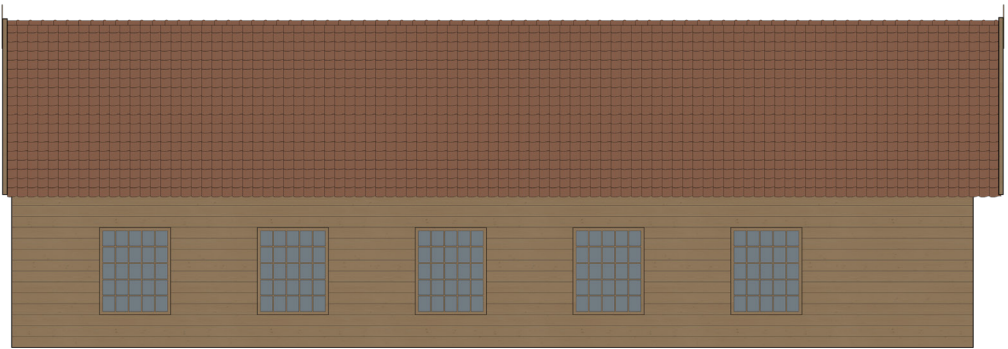
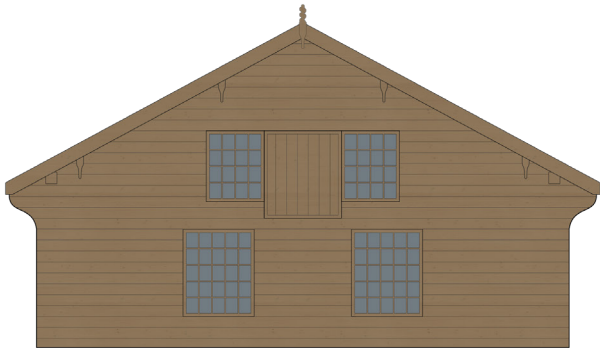
Deelen et al. (2002). Nieuw-Lekkerlandse winkels en bedrijven in vroeger jaren (p. 349). Stichting Publicaties West-Alblasserwaard.

Pot Barn

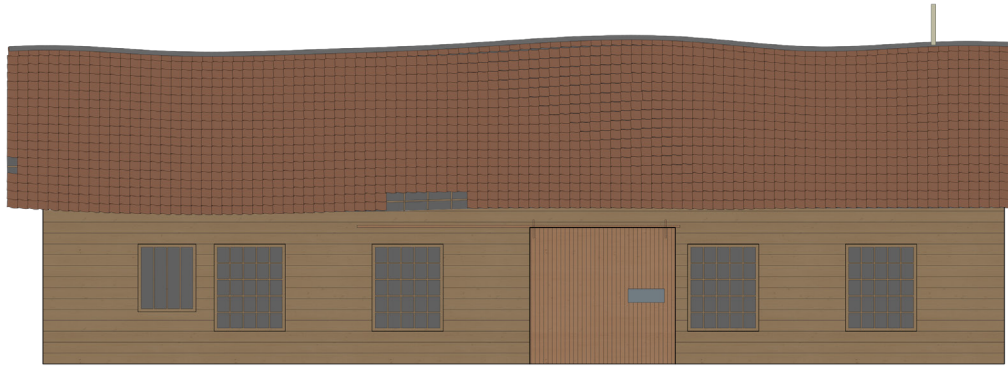
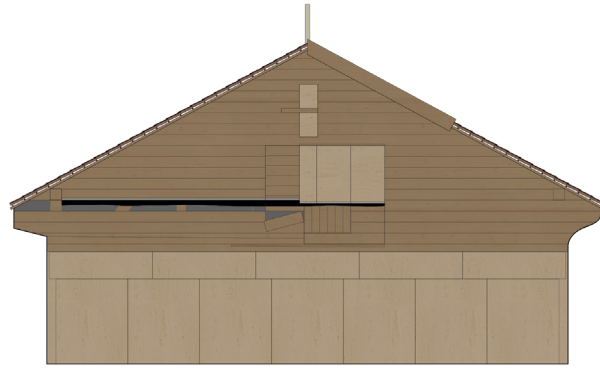
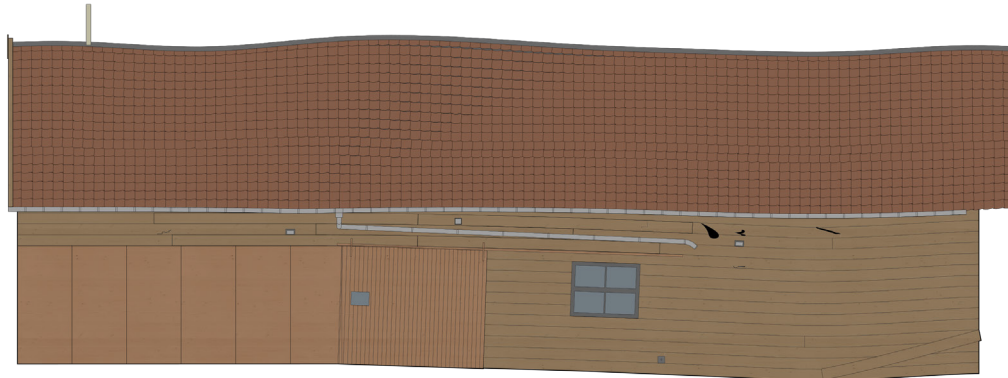
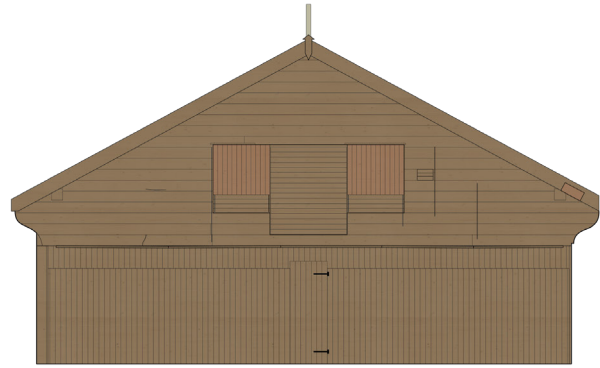
- Show its age, size, and roof structure
 - Let it be a low tech barn

Elevations

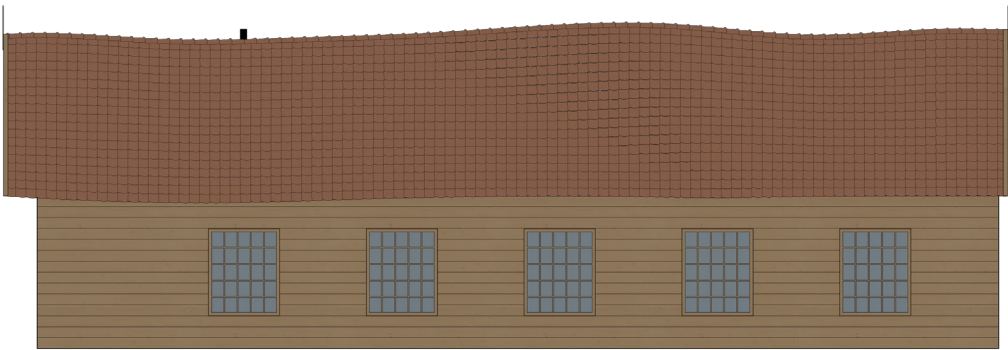
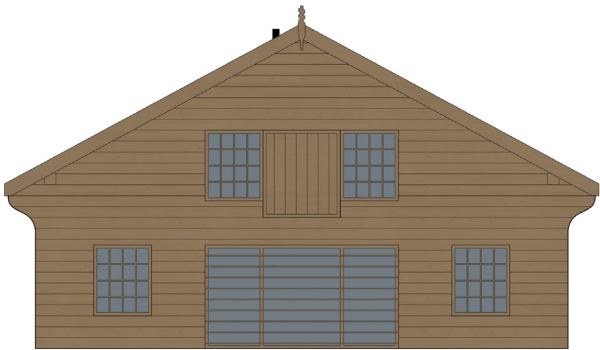
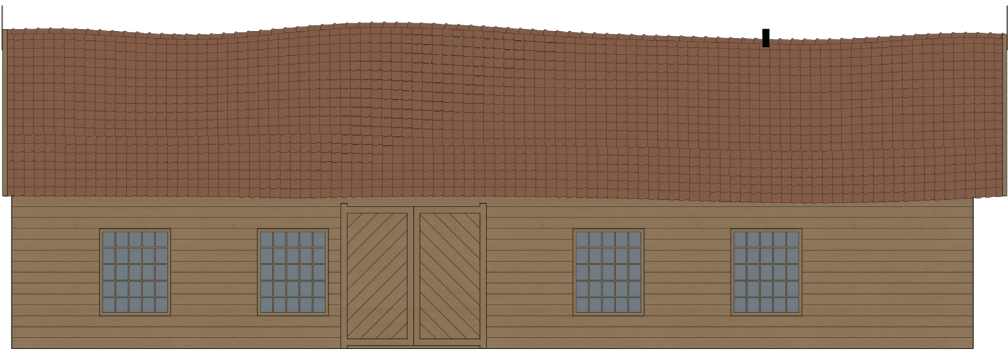
Original*



Current



Future



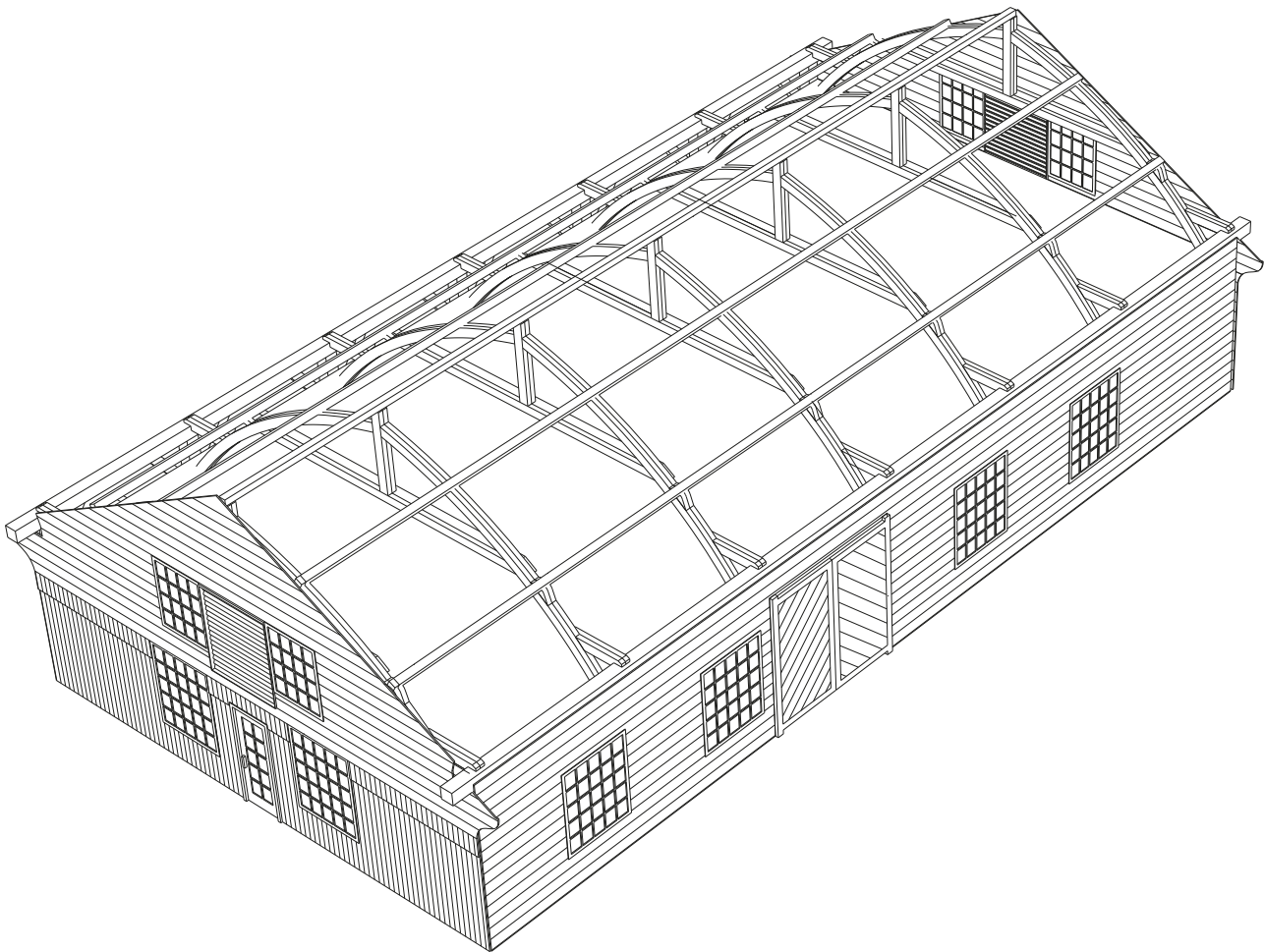
South

East

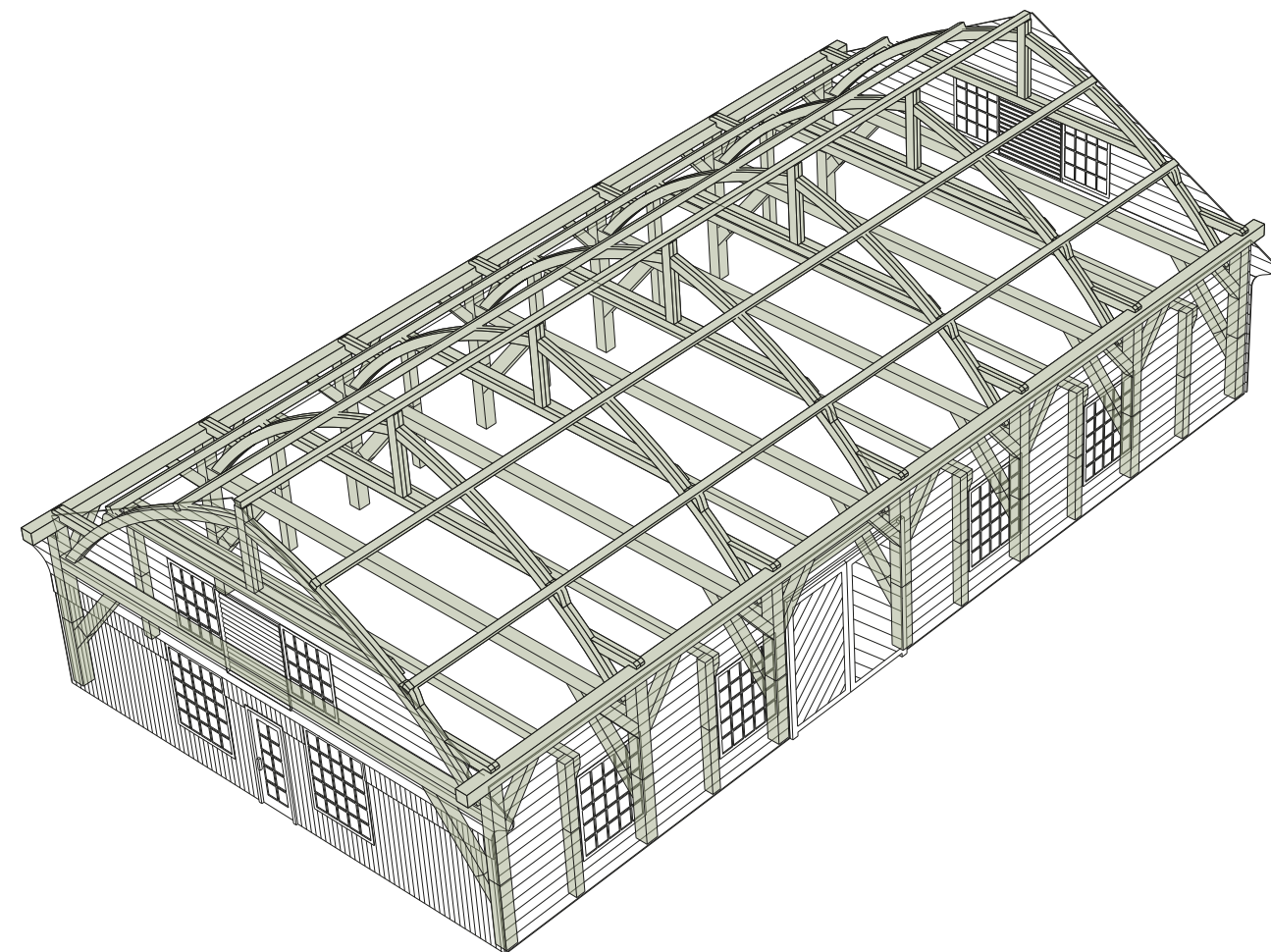
North

West

Design

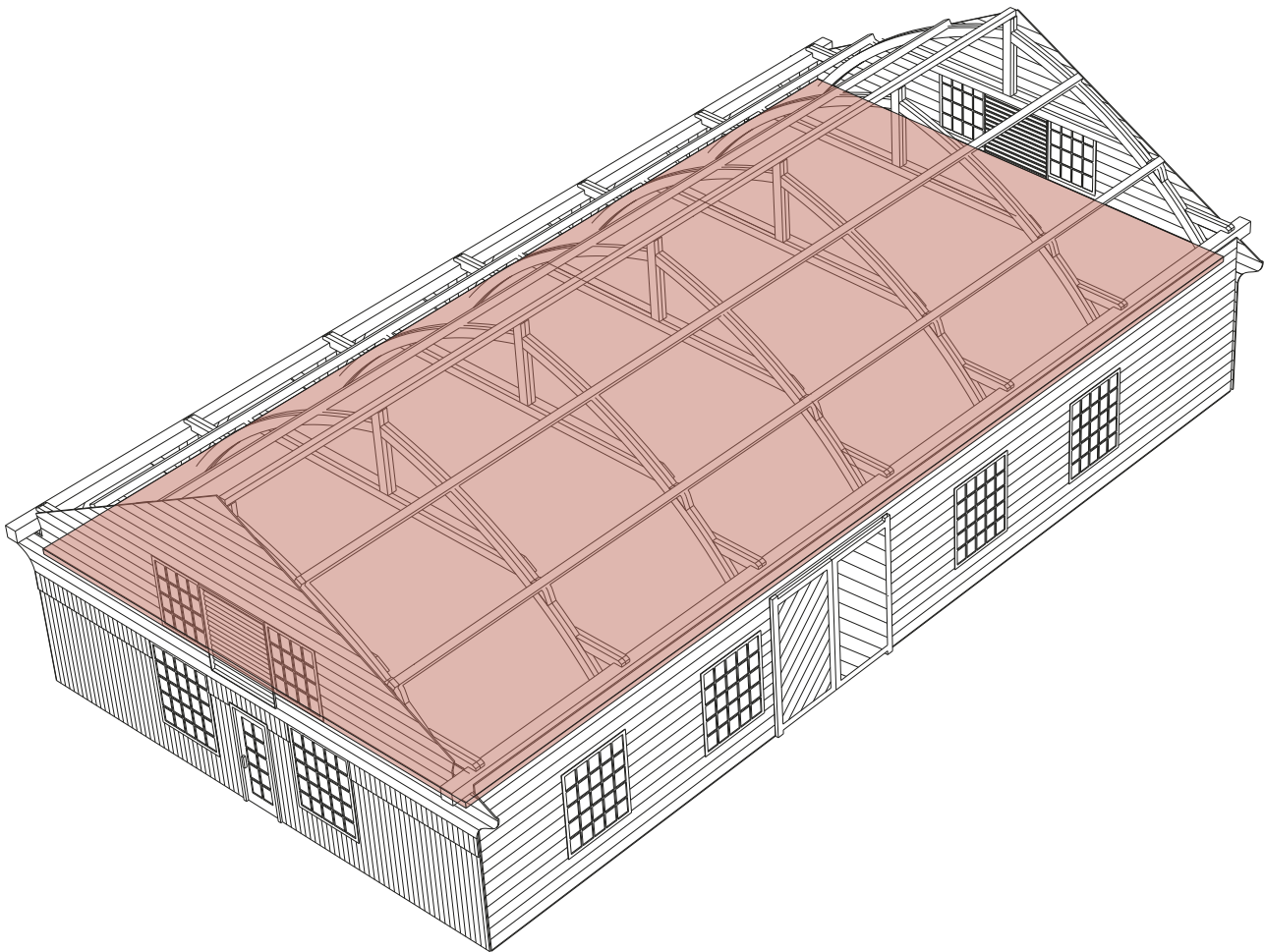


Design



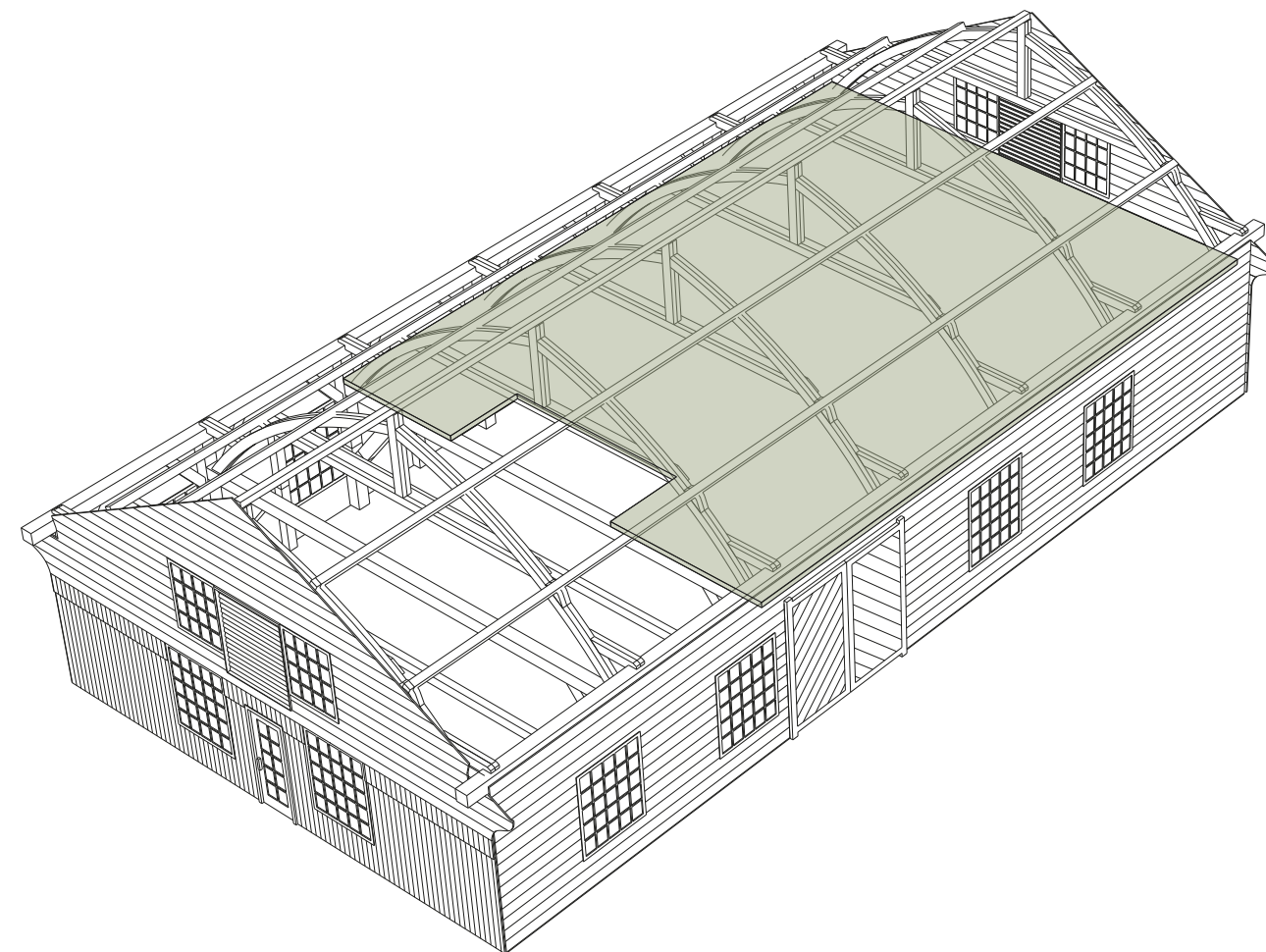
Highly valued Philibert trusses

Design



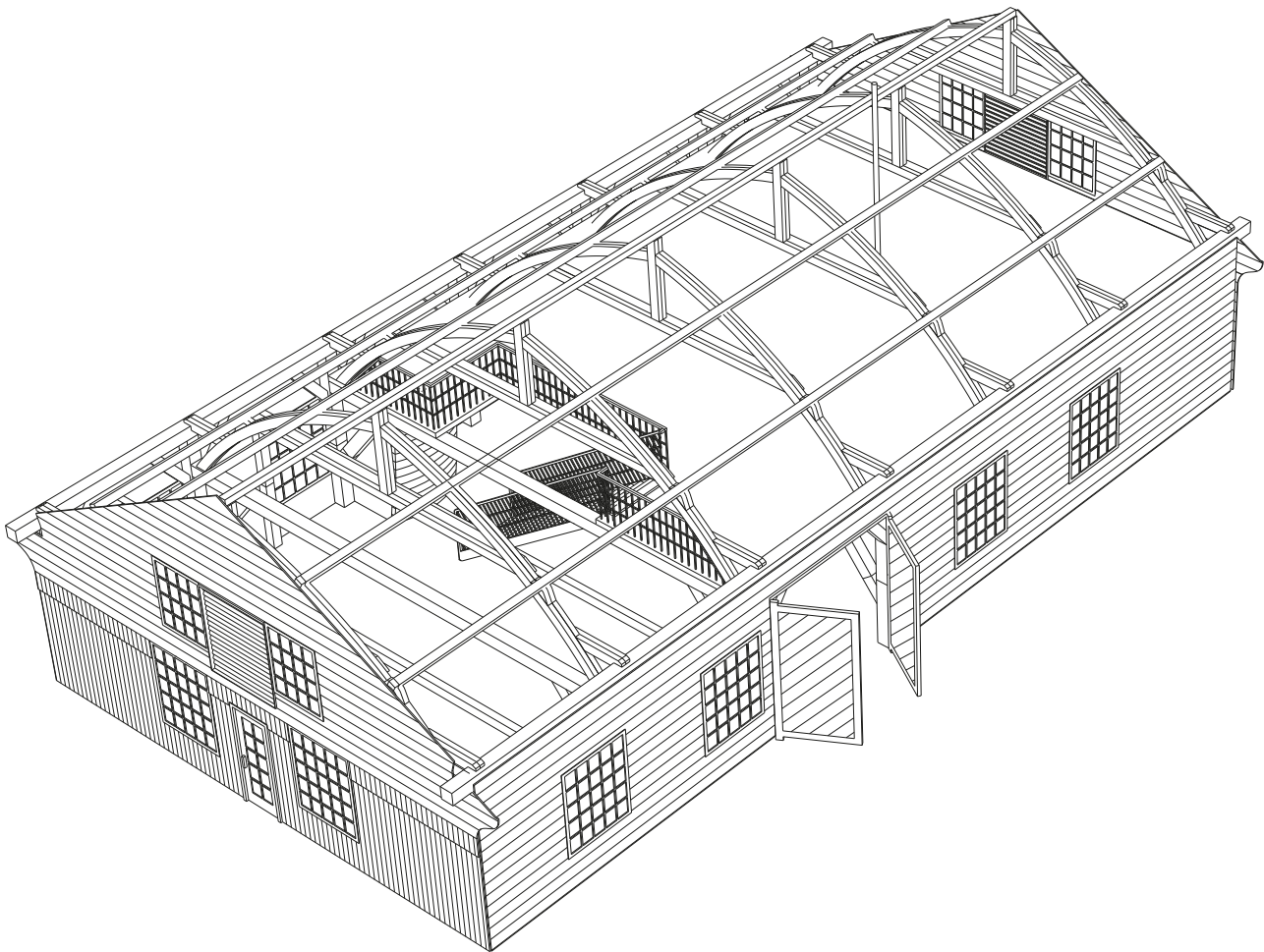
Floor blocks view on Philibert trusses

Design

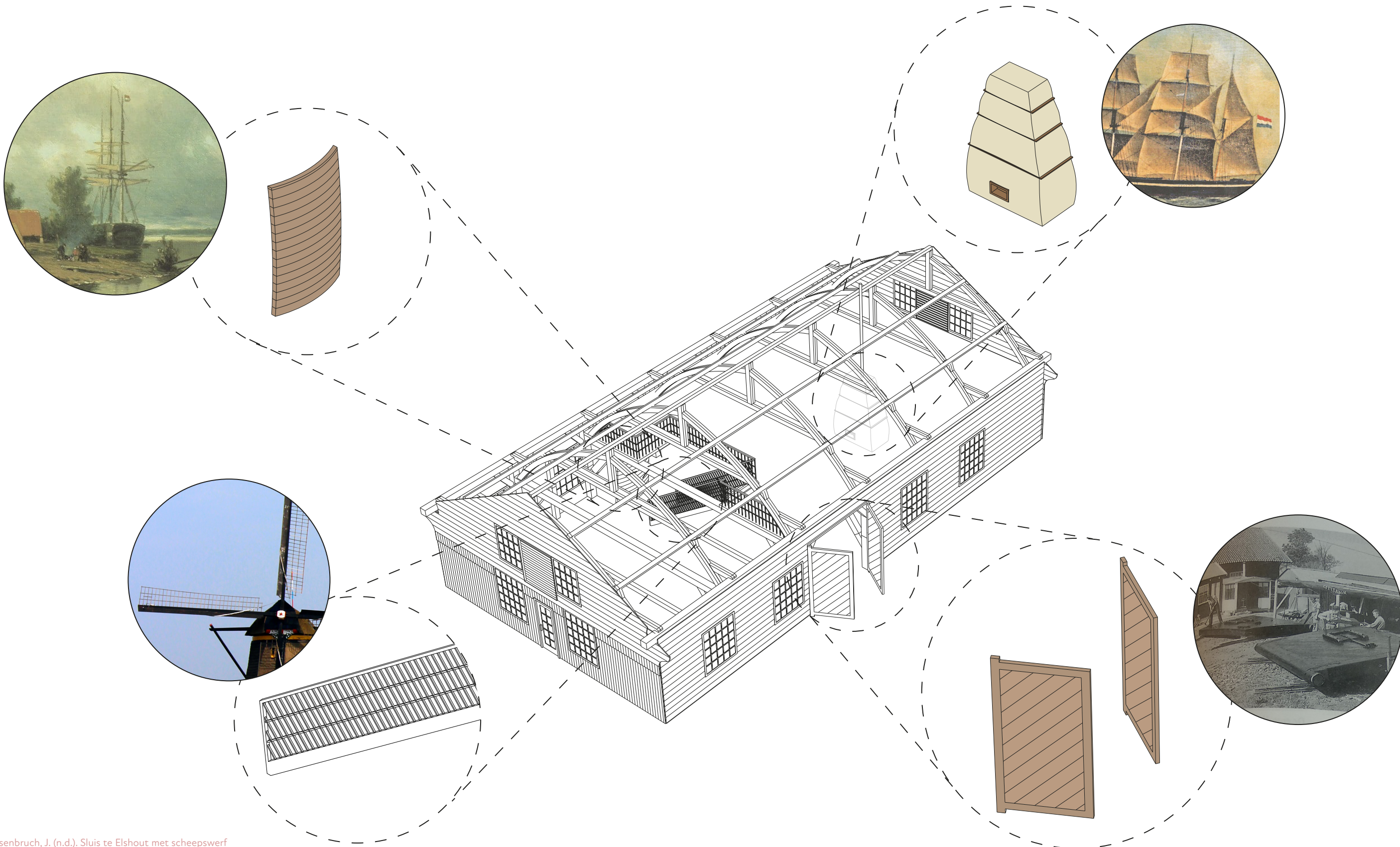


Create a void

Design



Design



Weissenbruch, J. (n.d.). Sluis te Elshout met scheepswerf Pot [Painting]. https://www.haarlemsdagblad.nl/cnt/dmf20181019_26464770?utm_source=google&utm_medium=organic

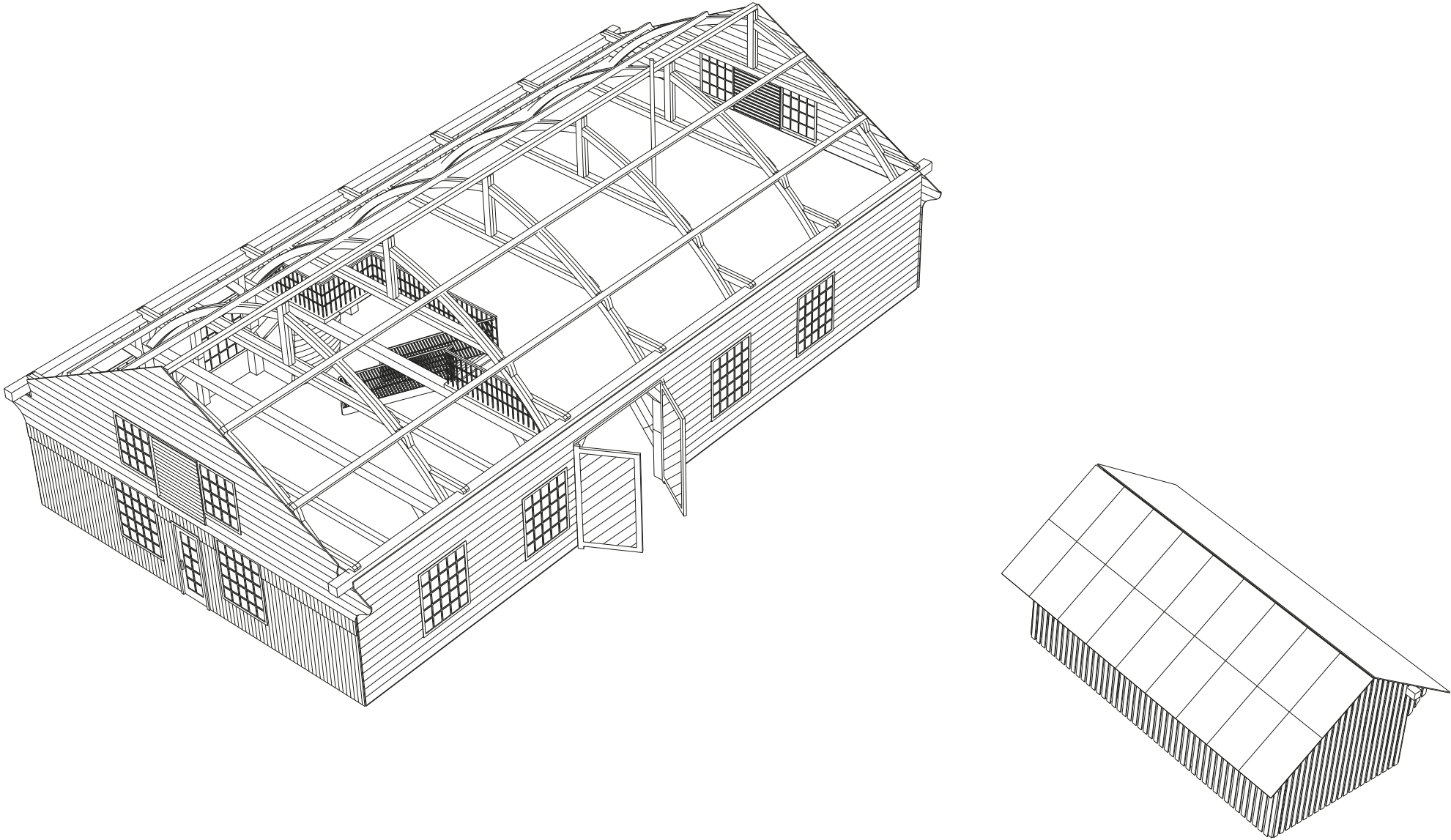
Jade. (2015). Kinderdijk Holland: A Day at the Windmills [Photograph]. <https://www.jadescapades.com/kinderdijk/>

Werf Gusto. (n.d.). Loopuijt [Painting]. <https://werf-gusto.com/bouwlijst-de-nijverheid/>

Deelen et al. (2002). Nieuw-Lekkerlandse winkels en bedrijven in vroeger jaren (p. 349). Stichting Publicaties West-Alblasserwaard.

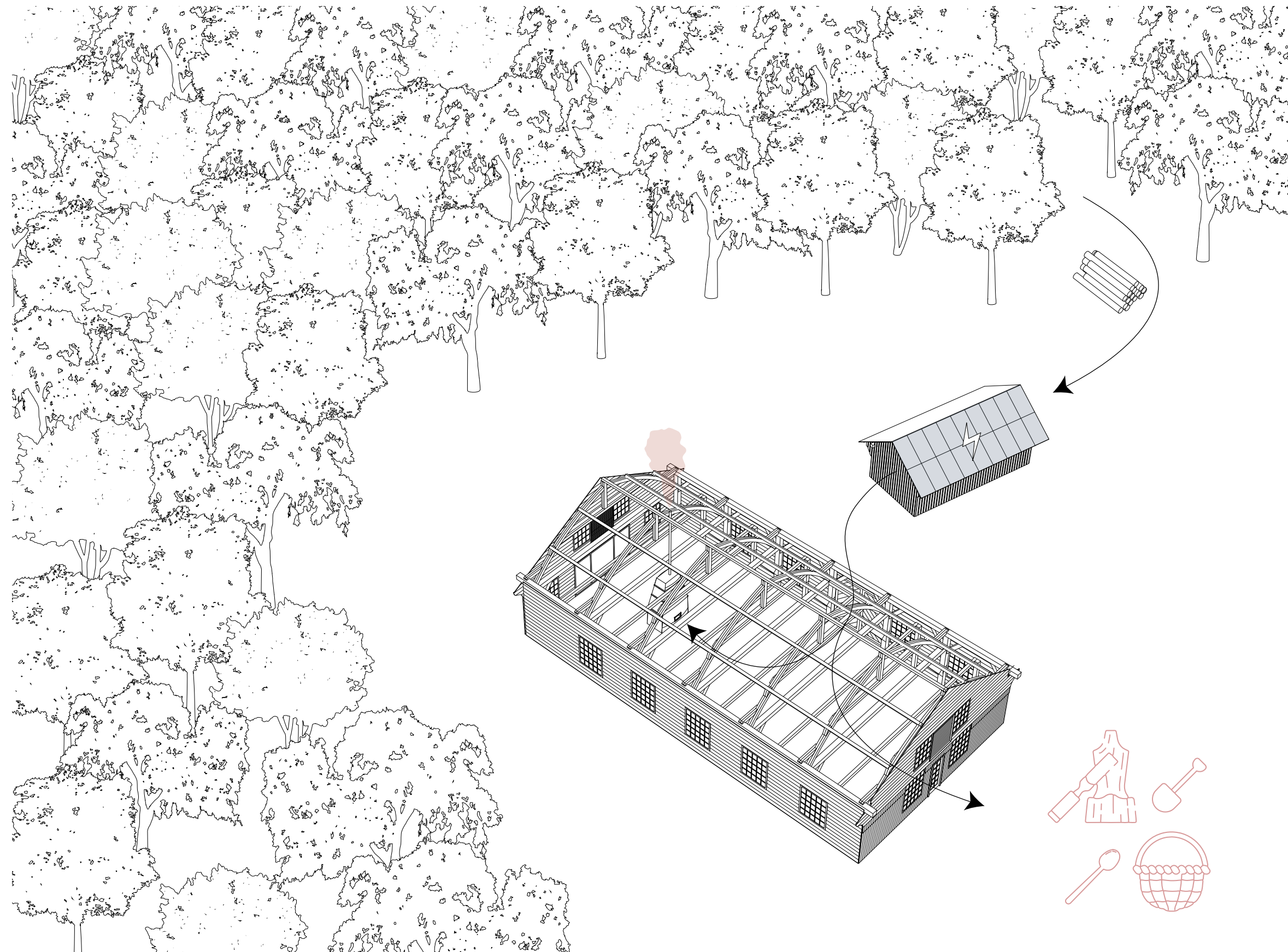
Added elements refer to previous practices in the barn

Design



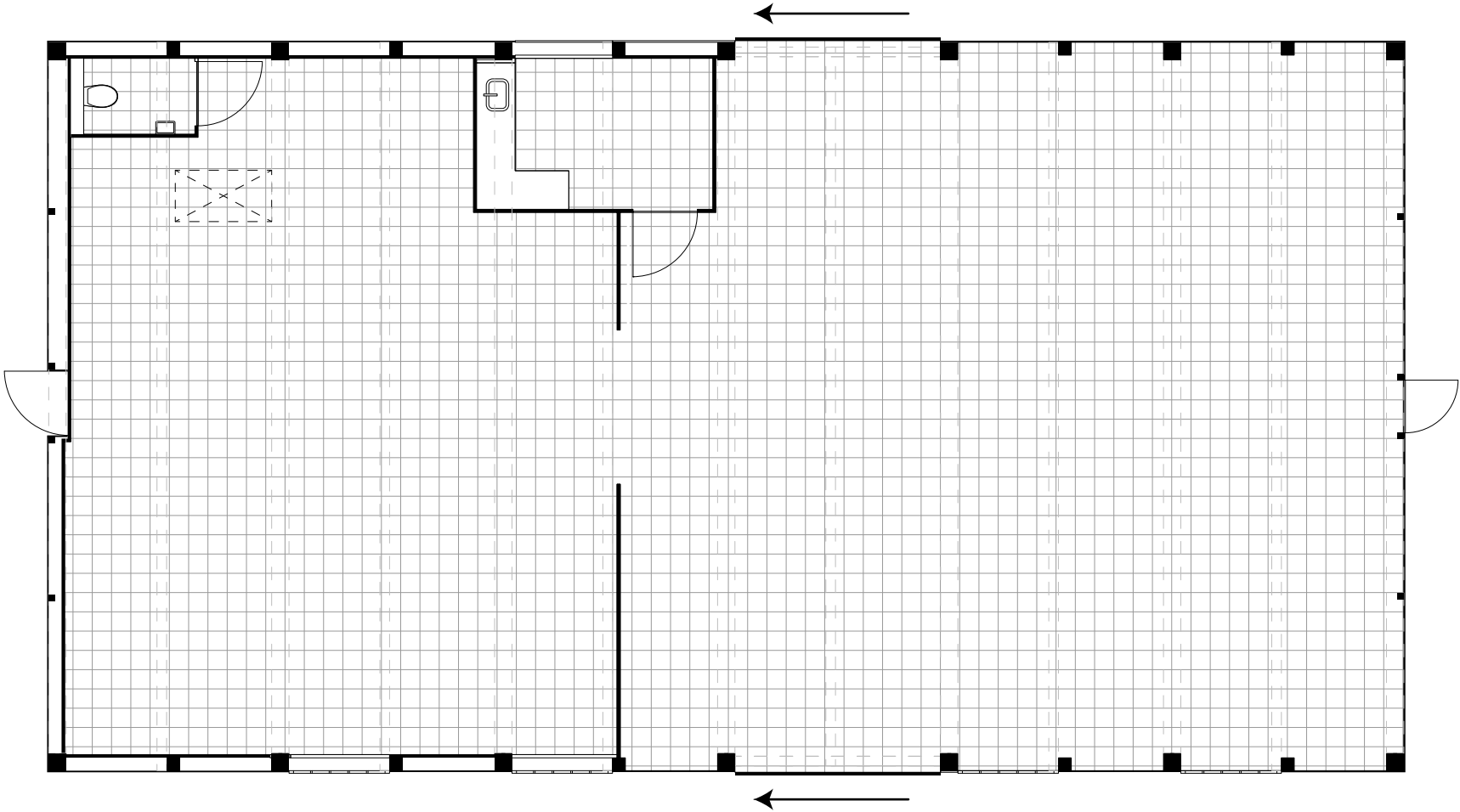
Storage barn

Climate

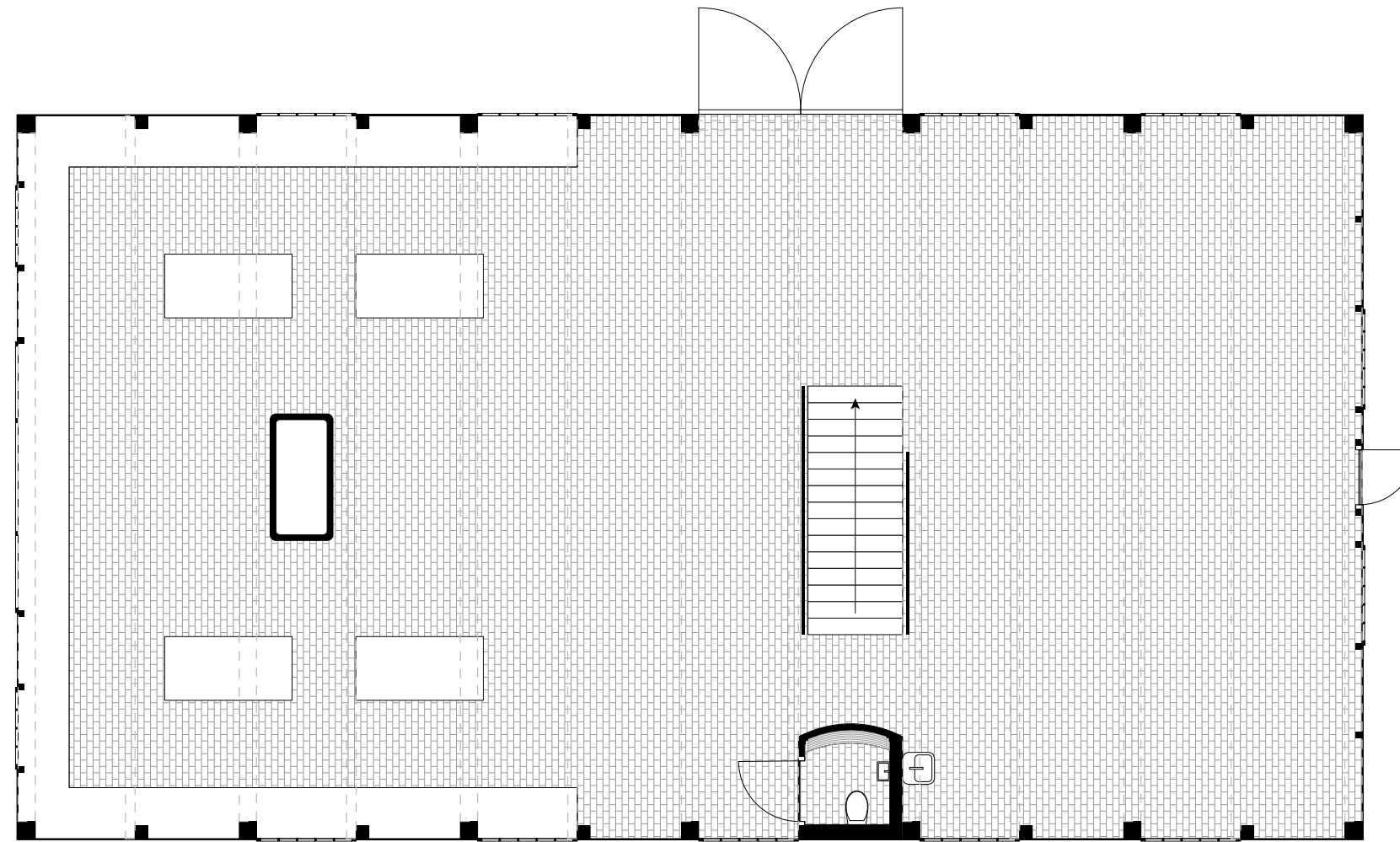


Woodworking in 't Elshout as an activity for quality tourists

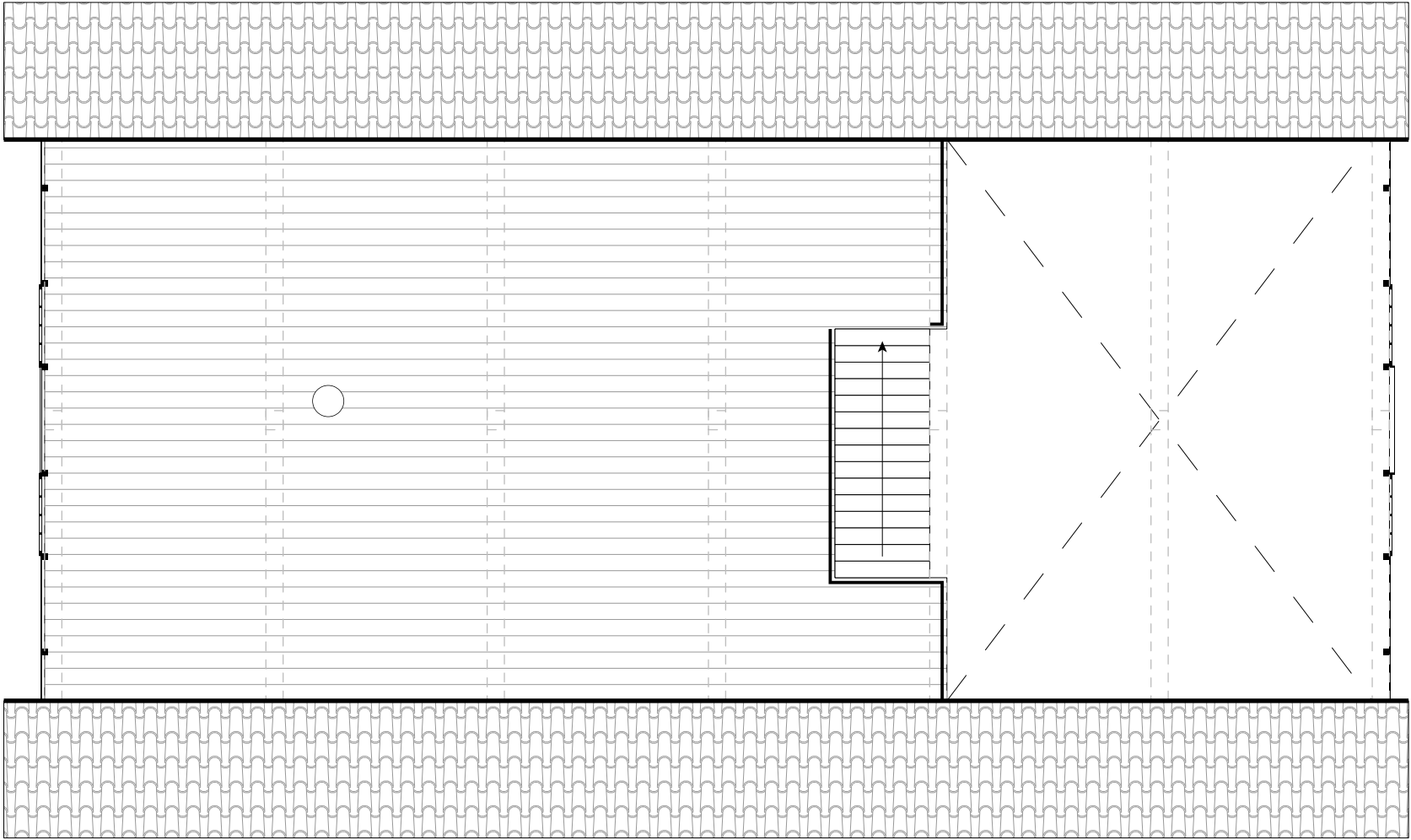
Current floor plan



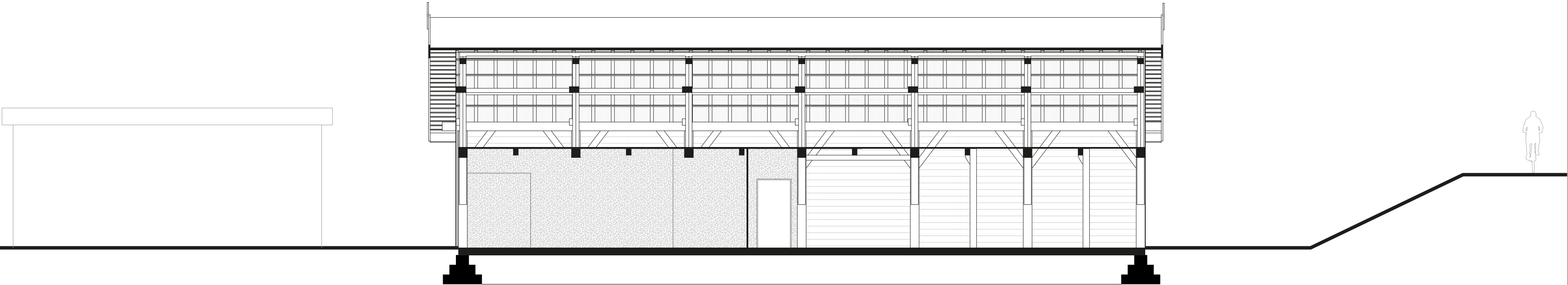
Future floor plan



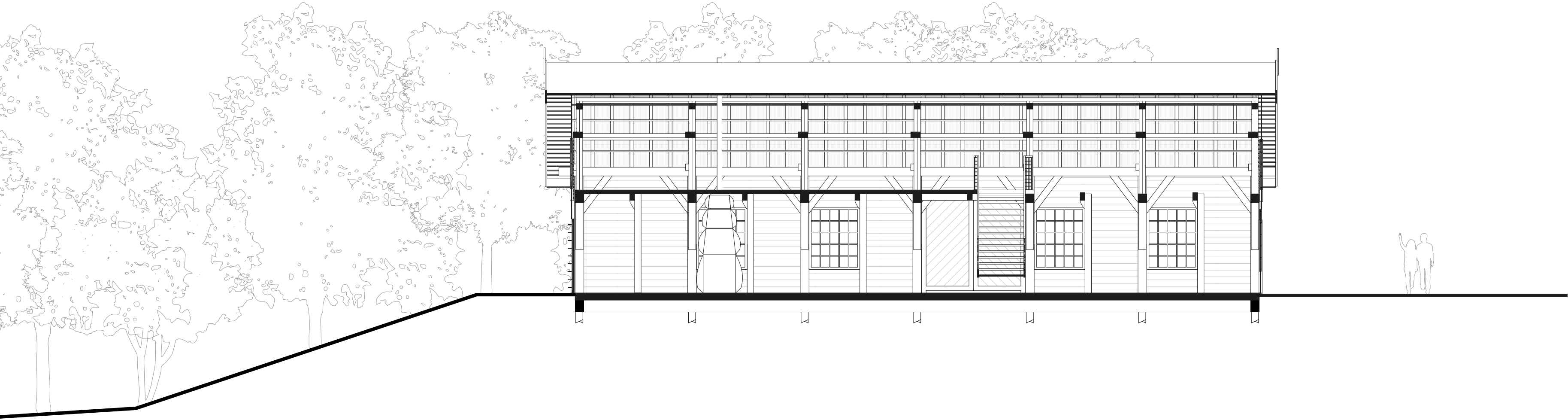
Future floor plan



Current section

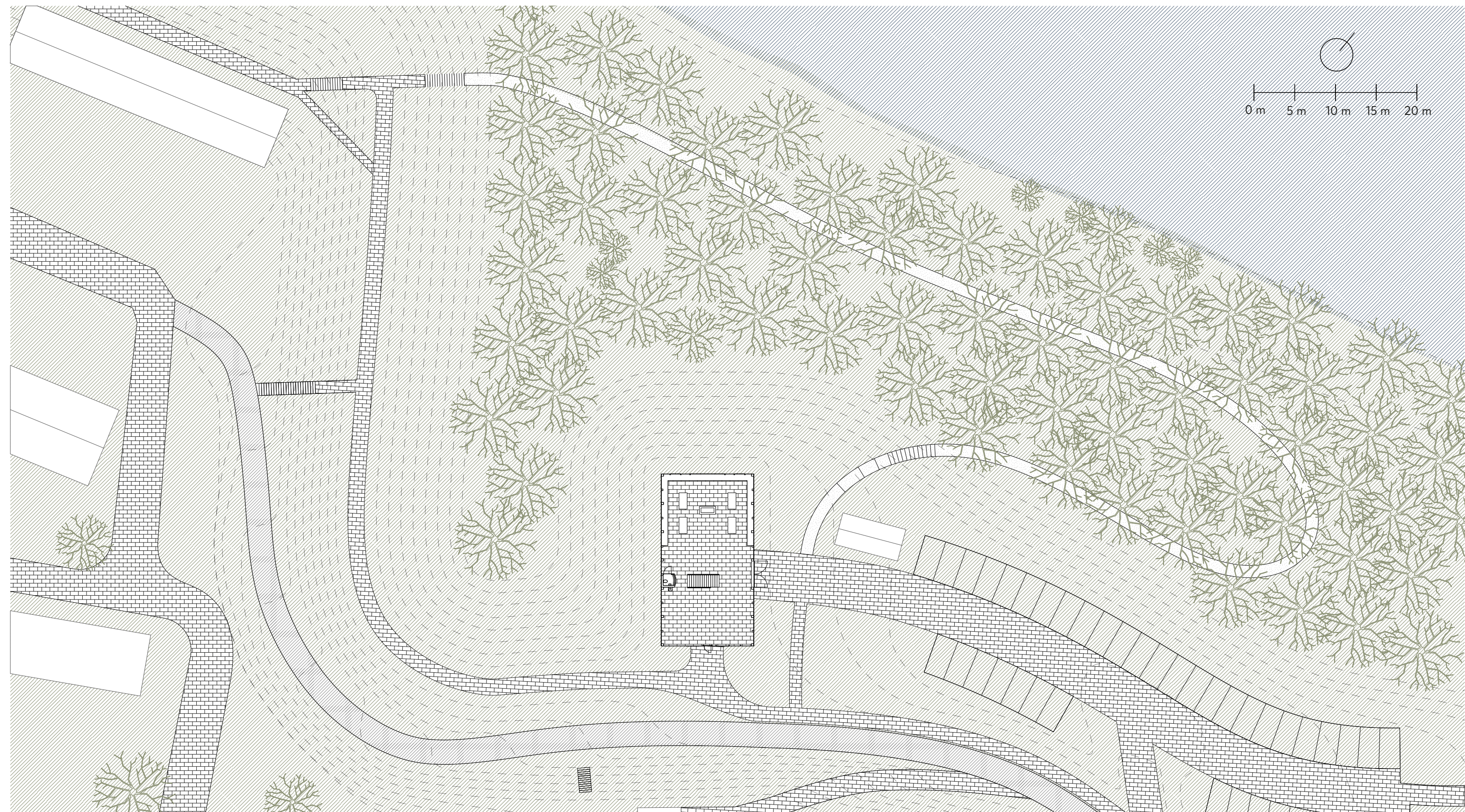


Future section



Elevated in ‘t Elshout forest

Masterplan



Footpath in 't Elshout forest







Kinderdijk

FROM START TO FUTURE



Kinderdijk

FROM START TO FUTURE



Thank you