

Kaap Hoorn

Stacking circular bricks

in Hoorn

Commissioned by Intermaris



Stacking circular bricks in Hoorn

Five new elongated residential buildings are being built along the track between Purmerend and Hoorn. The urban development plan is by Erik Wiersema. M3H designed building 1 and 3, Heren5 architects designed building 2 and 4 and FARO architects designed building 5. All buildings have seven-storey front height accents and three-storey dividing sections that jump back. In this way, each building embraces a green park zone.

The height accents on the ends are slightly smaller on each floor, creating a stepped shape desired by the urban planner.

Buildings 1 and 3 contain 132 social rental homes for the Intermaris housing association. In the 3-storey high "body" we have designed downstairs and upstairs apartments with their own entrance from the street and compact apartments on the second floor next to a gallery. In the towers, maisonettes have been conceived in the lower two floors and on top of that a variety of smaller and larger apartments. The building volume changes in width and depth as well as in height, this provides space for specific homes and outdoor spaces.

The masonry connections of horizontally and vertically stacked bricks, in both stretcher and tile bond, accentuate the stepped shapes of the building volume. We composed the facades of horizontal and vertical strips and bands. The roof moldings are distinguished by "ribbed" (alternating protruding layers) masonry. The corners of the volume are differentiated by serrations in the masonry. The ridges and serrations create vertical and horizontal shadow lines that accentuate the building contour and string

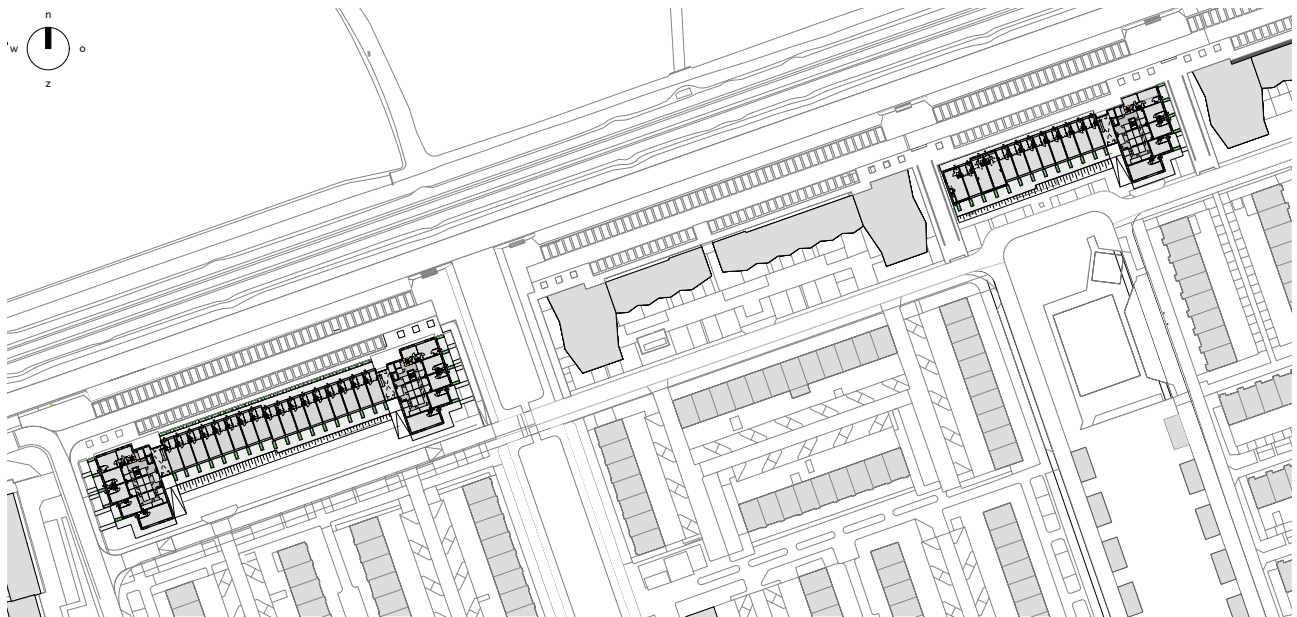
the volumes together.

We opted for a yellow washer-rich brick with greenish and red nuances from Wienerberger from the brick factory in Beerse, Belgium. The bricks are stacked with a unique circular dry stacking system, Dry stack. They are the first buildings in which this technique has been applied on such a large scale. Dry stack has a number of advantages. The main thing is that the brick facades are easy to disassemble and that this technology is completely circular. Bricklaying is also much easier. Now that there is an alarming shortage of masons, this can be done by anyone who loves to stack. Together with the supplier and contractor, we have explored the limits of the stacking system in this innovative design. This allows us to not only apply stretcher bond laying, but also stack bondage, staggered bond and even upright stones to form vertical bond. The serrated 'Hoornse hoek' designed by us can also be built with Drystack.

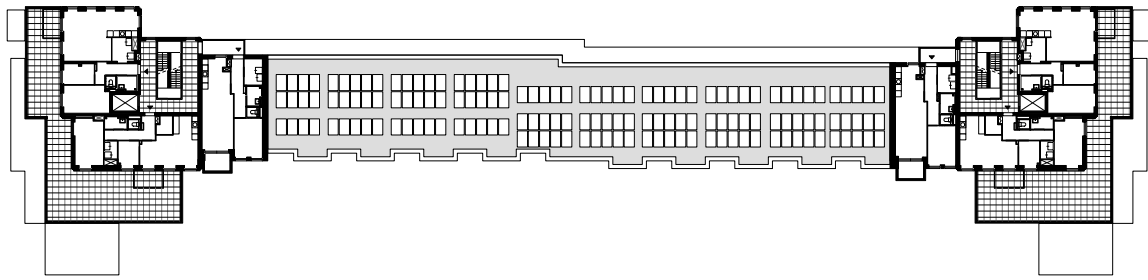
PARTNERS

M3H Architects, Machiel Spaan, Marc Reniers,
Brigitte Kwa, Jeroen Caderius Van Veen
Intermaris, housing corporation
Slokker Bouwgroep, contractor
Wienerberger, Beerse, Brick Factory
Dry-Stack, brick company
Nynke Koster, artist
DioCON, structural engineer
Casteo, BIM engineer
Nieman, installation adviser

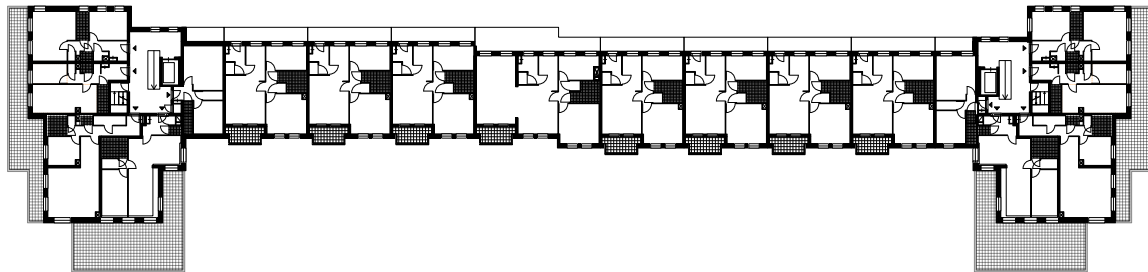
Total Floor area 11.640m²
Usable floor area 7.490m²



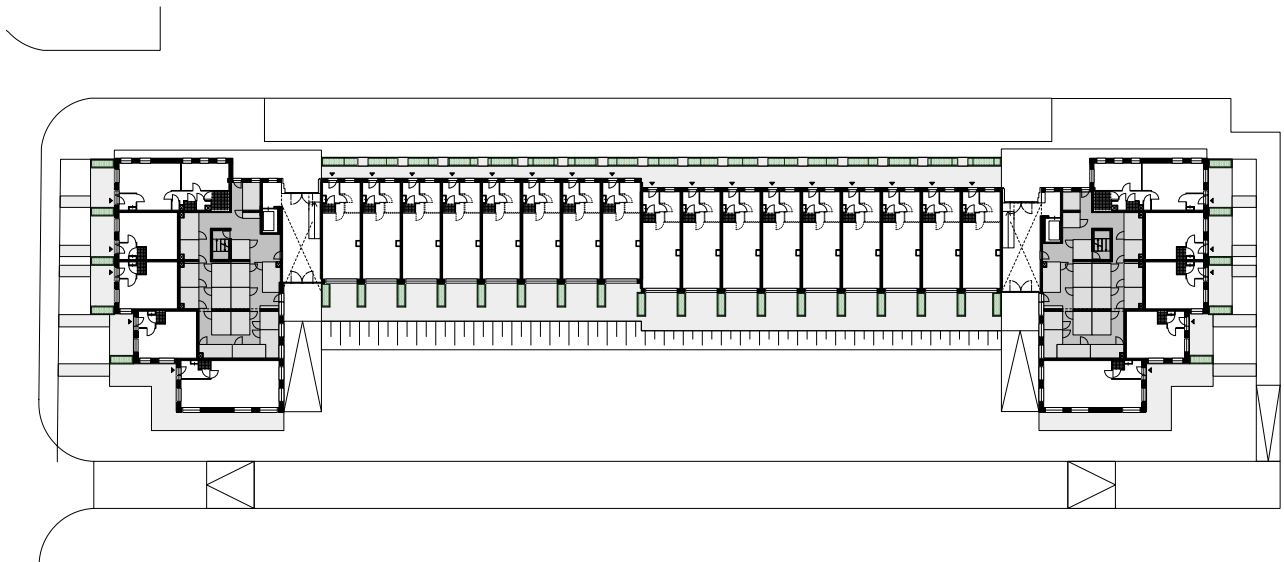
Situation



Thirth floor



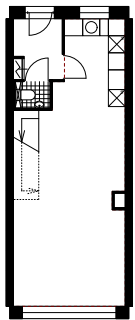
Second floor



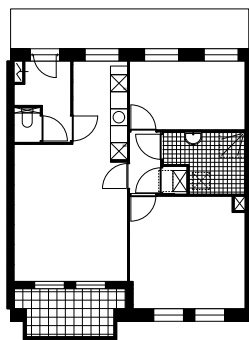
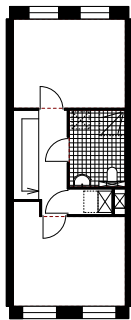
Ground floor



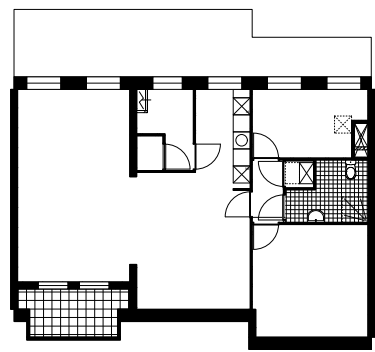
Facade railtrack-side



Type A



Type B



Type C

Floorplan typologies