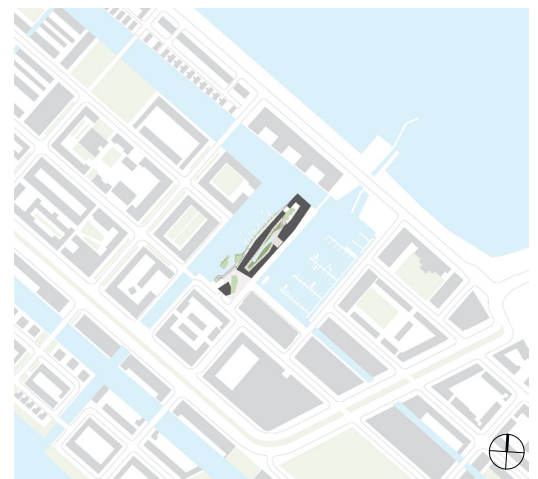




## IJburg, Amsterdam

Jonas is located at the harbor of Amsterdam IJburg and accommodates 190 medium-priced rental homes, 83 owner-occupied homes and a range of supporting facilities. It's a building with an innovative housing concept and spectacular spatial interior that received the highest possible sustainability certificate: BREEAM Outstanding. Jonas will enhance social cohesion, in what is still a new district, by creating a sustainable, inviting heart for the neighborhood. Orange Architects designed Jonas, with a mixed-use programme, for Amvest in collaboration with ABT, Felixx Landscape Architects, Site Urban Development and city maker Floor Ziegler. Ballast Nedam West was in charge of construction.

The name Jonas refers to the story of 'Jonas and the Whale'. It stands for adventure and intimacy, but also for protection, shelter and comfort inside a 'big body'. It is a heroic building with a warm heart. But Jonas is also a sustainable and attractive building that stands out from the surrounding buildings in IJburg — if only because of the special site on the headland and the special programme it accommodates. The building expresses in a striking manner themes that belong to this location: water, quayside and the craft of shipbuilding. As a result, Jonas feels natural, because the building embraces the 'soul of the place' and renders it visible.

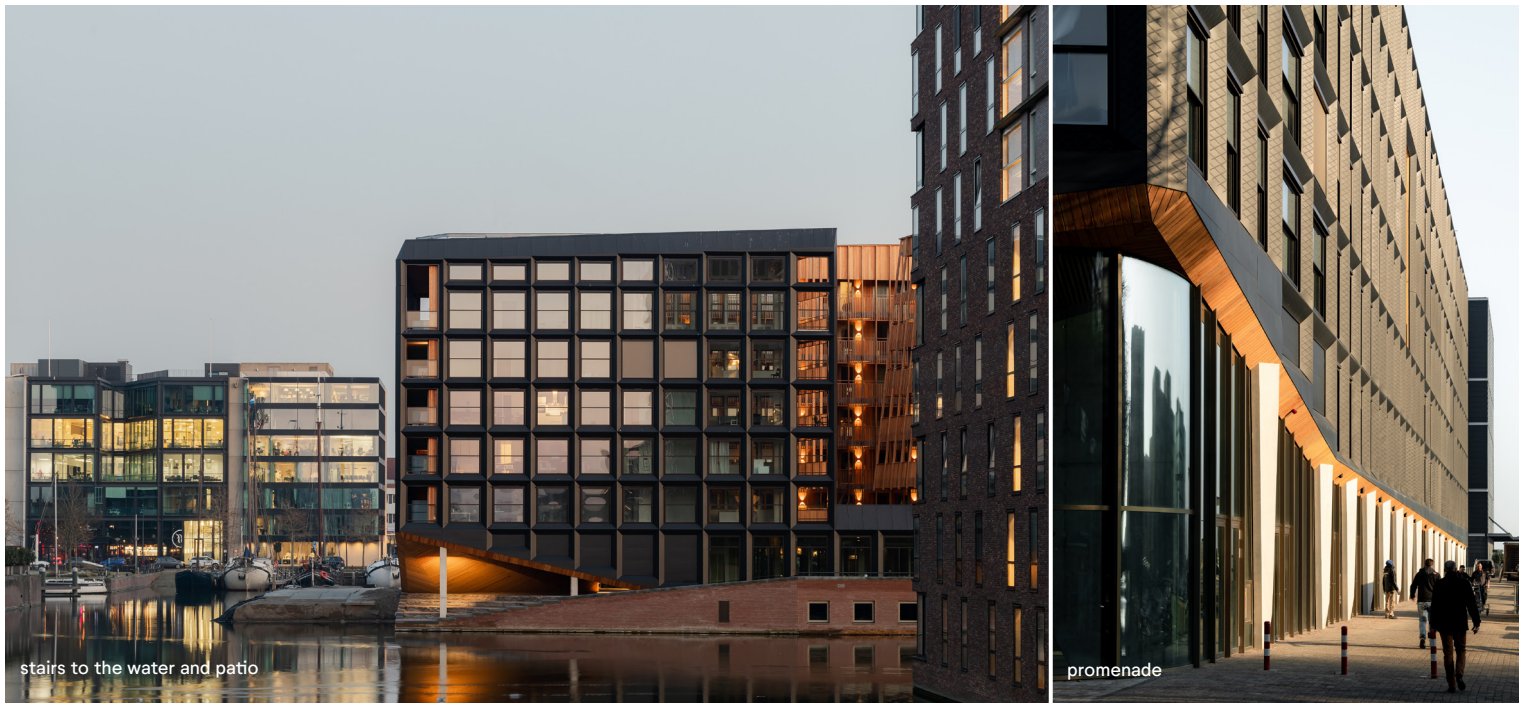


location



concept

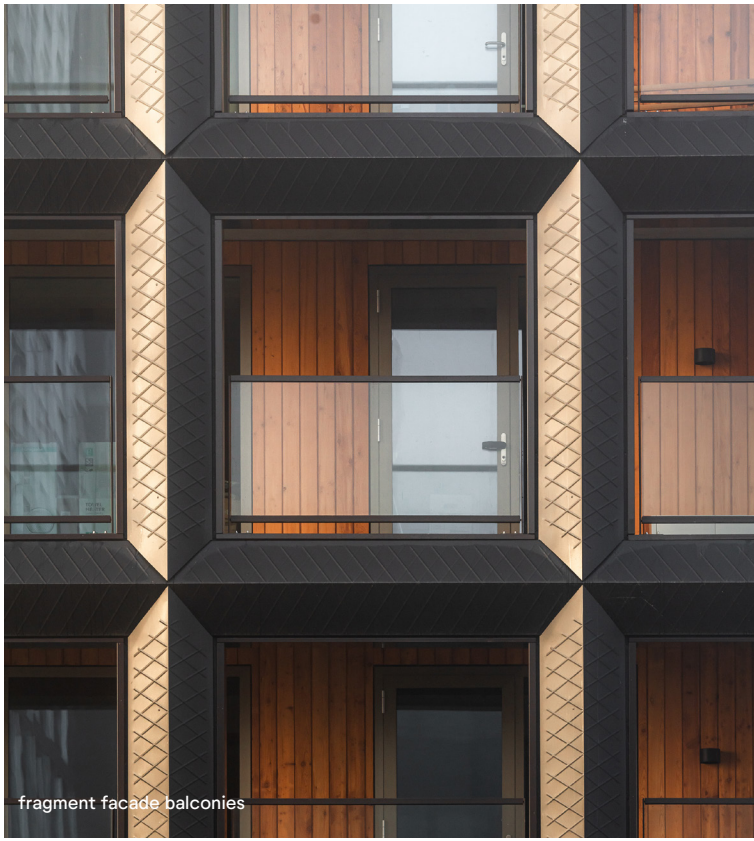




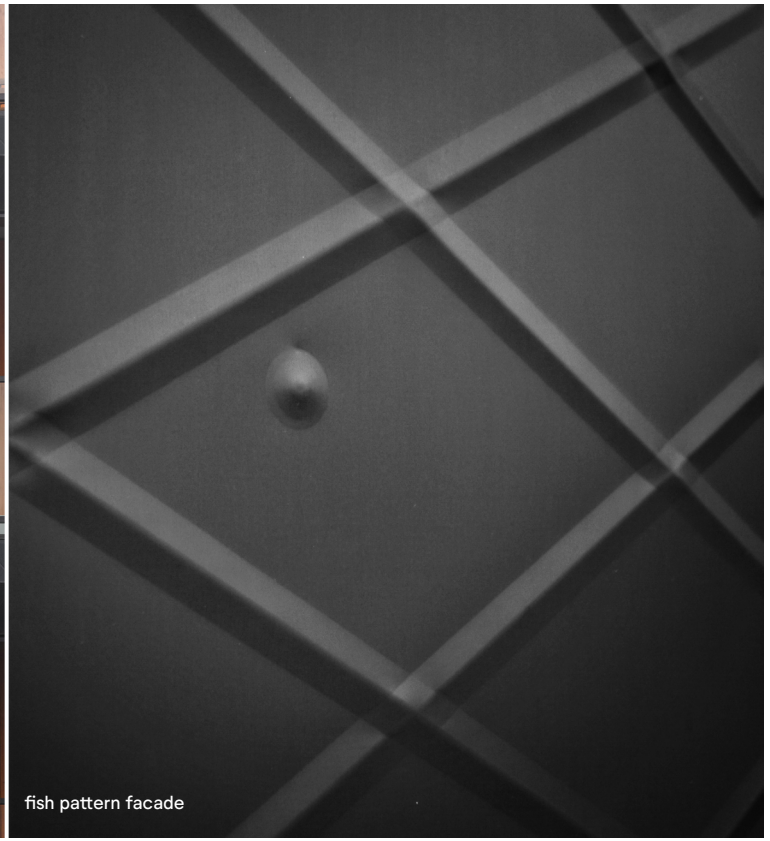
The building with its irregular openings creates the impression that the windows are gently undulating across the facade. That makes Jonas a bit different. It is not covered in stone but faced in dark, pre-patinated zinc. The facade does not touch the ground but is lifted off it. The volume is not rectangular but diamond-shaped. That makes it both familiar and alienating, sculptural yet rational, recognizable yet innovative.



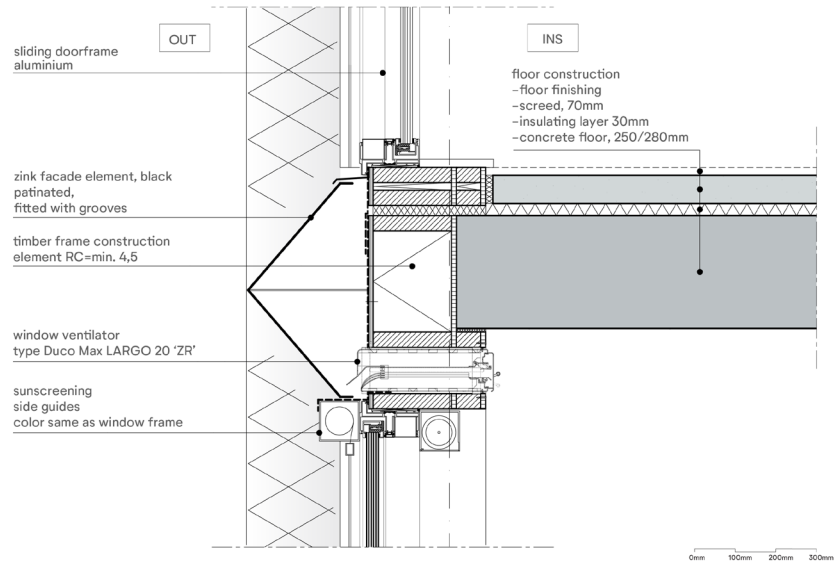




fragment facade balconies



fish pattern facade



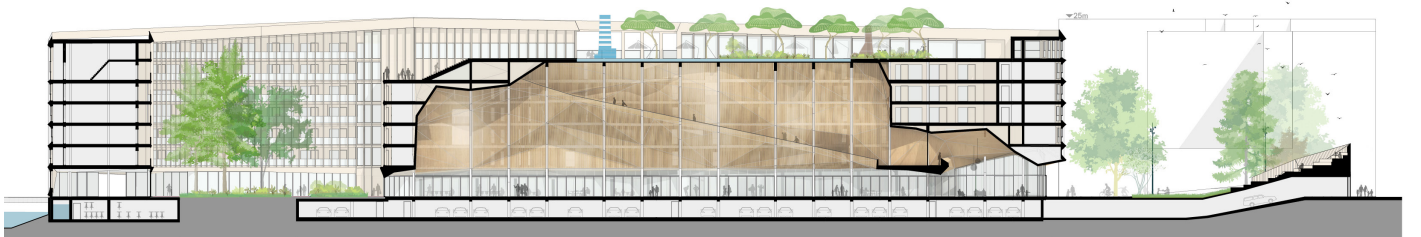
detail zinc facade





public living room (before installation interior)

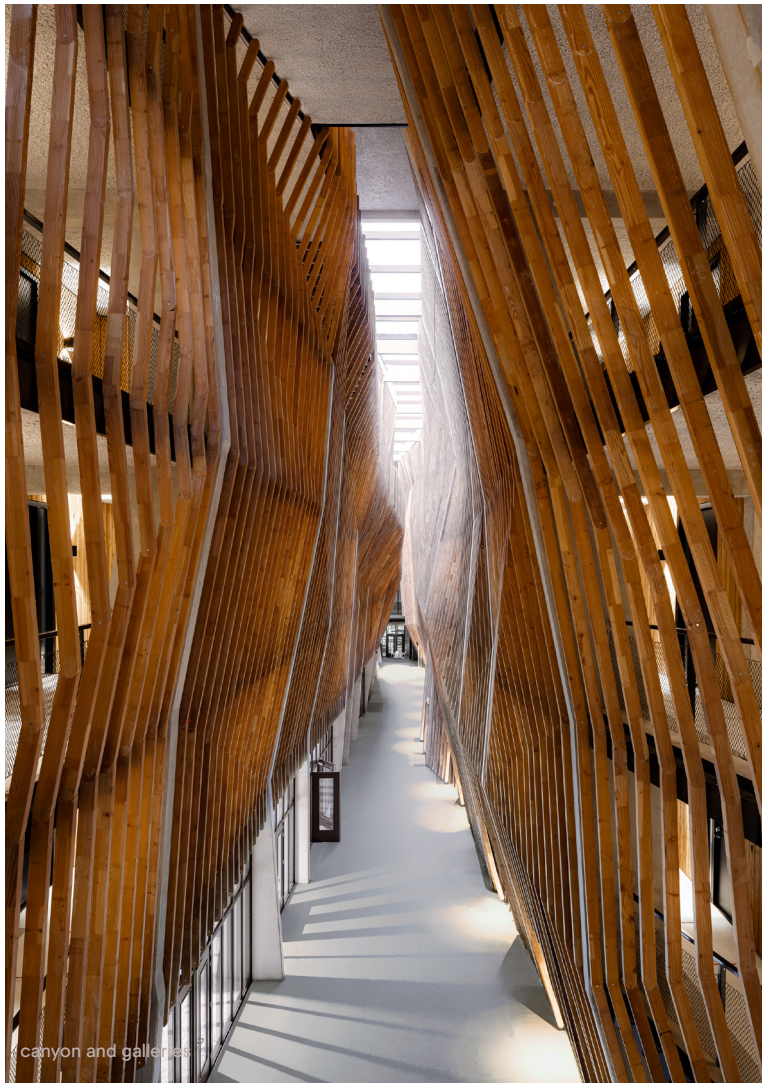
But the real surprise of Jonas awaits inside. This is welcoming, warm and spectacular. It expresses a modern and sustainable community life. The interior is unexpected and surrealistic. The spatial concept is based on the way traditional wooden ships are constructed: a skeleton consisting of a series of trusses arranged in a row, which form the main structure. This allows large hollows to be carved out of the volume, and the required housing program, a total of 273 apartments, is contained within the 'skin' of the building.



long section over living room, canyon, patio and roof beach

0m 5m 10m 20m





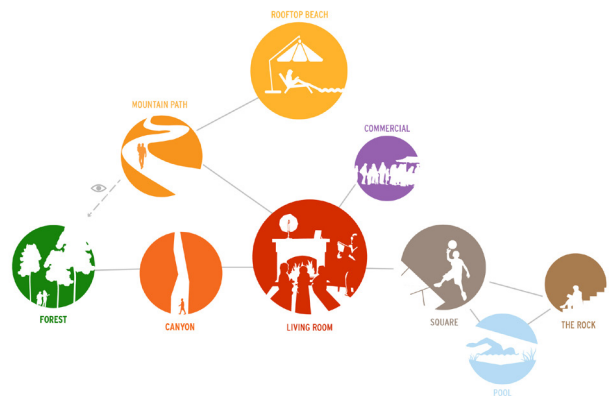
canyon and galleries



canyon, commercial plinth and housing

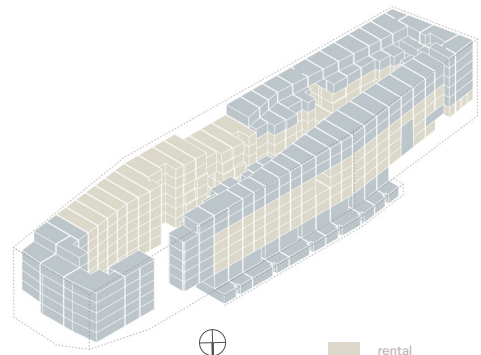
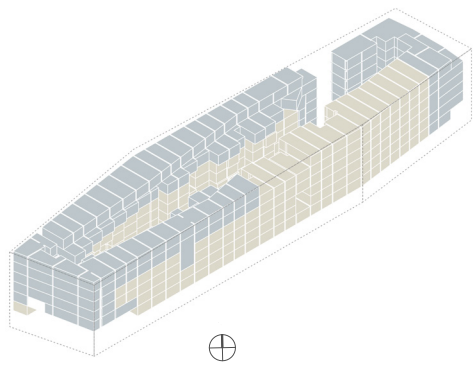
The landscape is not limited to the surroundings of the building, but also penetrates deep into Jonas. A communal route, shaped as a canyon, extends through the building, linking together the public and collective program, including the living room, the cinema, the mountain path, the forest patio and the rooftop beach and bar. The commercial facilities in the plinth, all supporting the concept and bigger picture of Jonas, provide extra dynamism on the ground floor and the quay. This part of the program is also accessible for the public. The residential concept of Jonas is supported by a community manager, who's close to the residents and is to be consulted for matters like booking the guestrooms, the yoga studio or a shared car. He is also responsible for organizing various activities together with residents and locals.

Jonas has a strong focus on communal living, with inclusiveness as one of the main goals. 70% of the 273 homes fall within the mid-rental category, making living in Jonas accessible to various target groups.



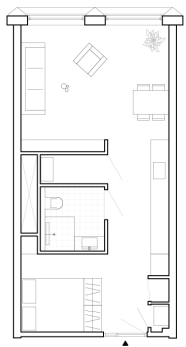
concatenation of collective facilities



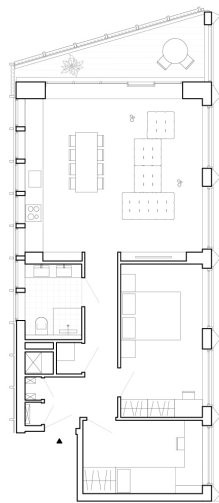


rental  
owner-occupied

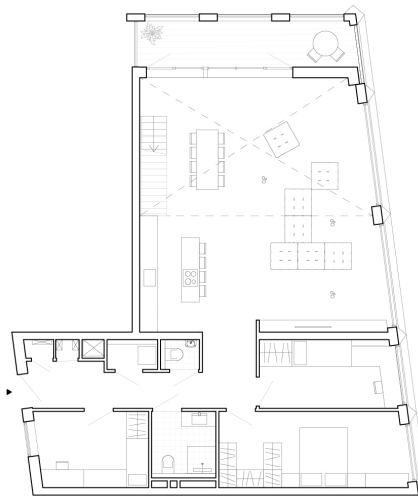
mix of rental and owner-occupied homes



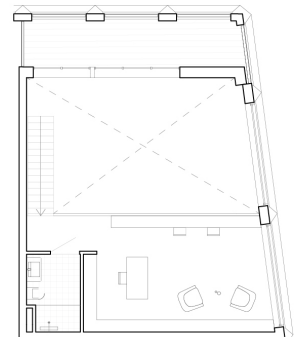
studio (S)



apartement (M)



penthouse (XL)



0m 1m 5m 10m





living room

canyon

forrest patio

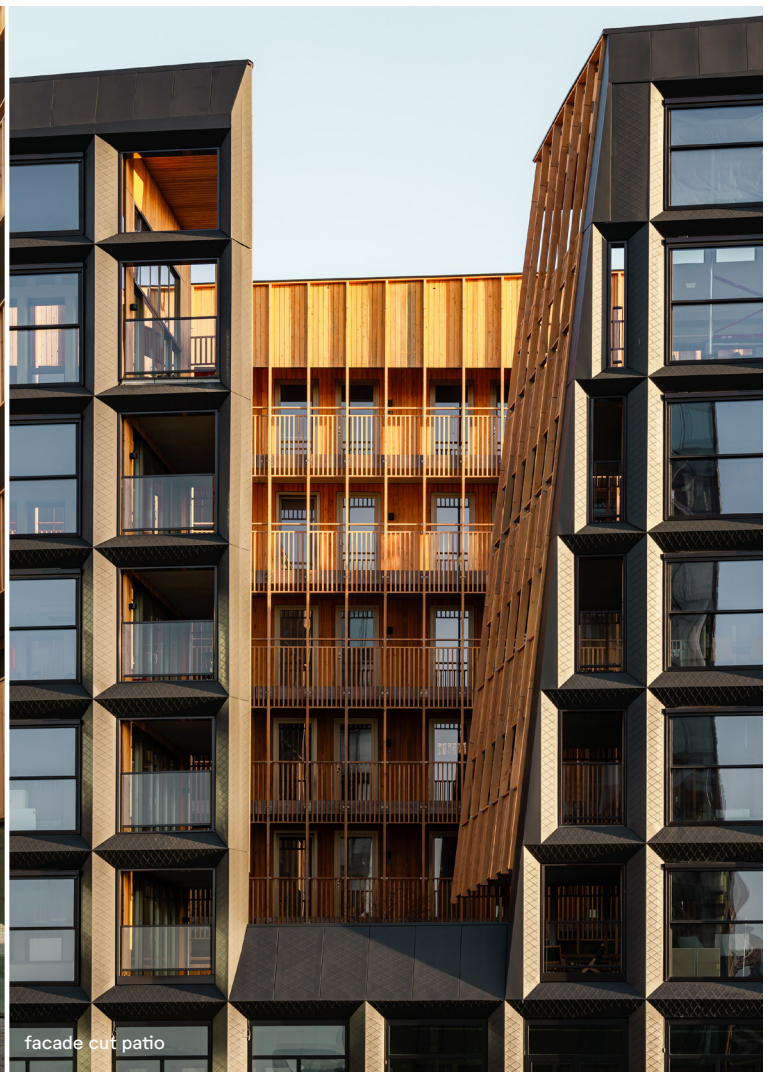
cross sections

Besides the attention for social sustainability, Jonas is brimming with technically sustainable elements. The zero-energy building boasts a large number of solar panels on the roof. The sustainable energy is used for, among others, the mechanical installations and lighting system. Moreover, a low-temperature heating system connects to the public heating grid. The cold storage source uses the nearby water: Thermal Energy from Surface Water (TEO). As a result, the homes can be both heated and cooled.

In addition to providing a future-proof energy supply, the design aims to reduce the use of materials and to reuse raw materials. The environmental impact of materials was an important selection criterion, and the use of various raw materials was considered on multiple occasions during the process. The shadow price and carbon footprint of construction materials were constantly monitored and optimized. For example, the concrete is CSC certified, and at least a quarter of the granulate consists of recycled material, taken from construction waste for example. European Douglas wood is used both inside and outside.



forrest patio



facade cut patio



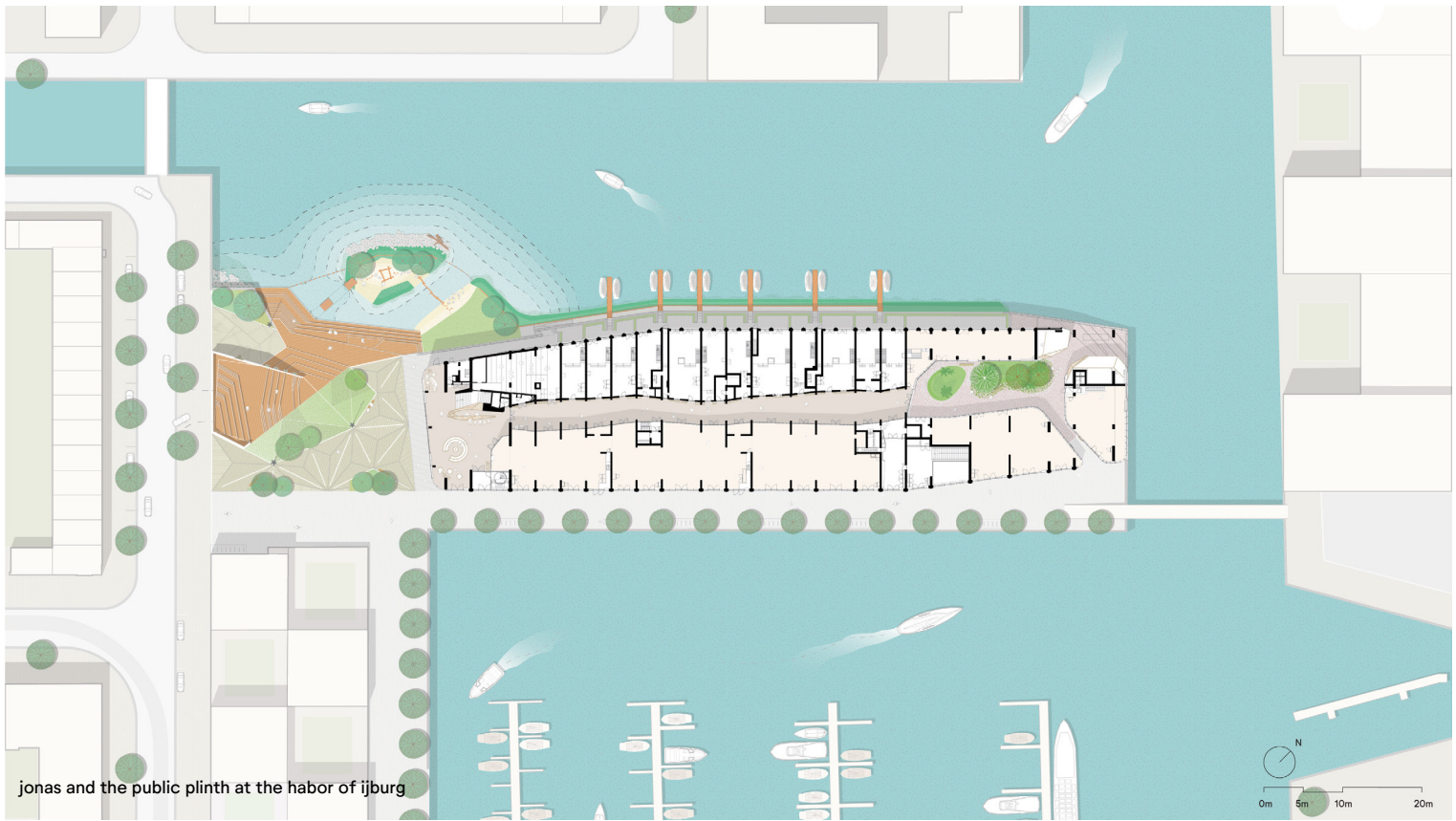


rooftop beach

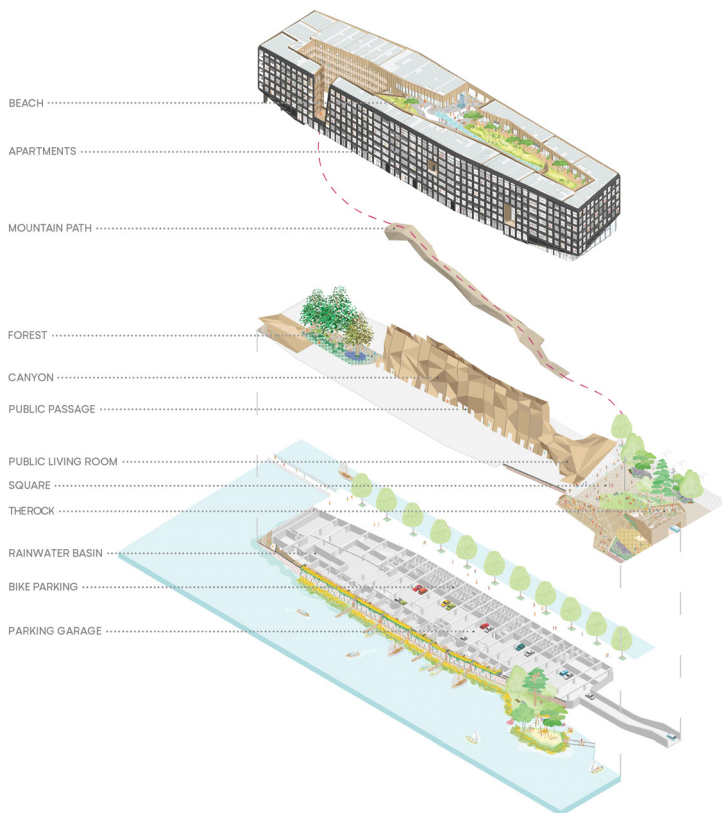


jonas in context





jonas and the public plinth at the harbor of ijburg



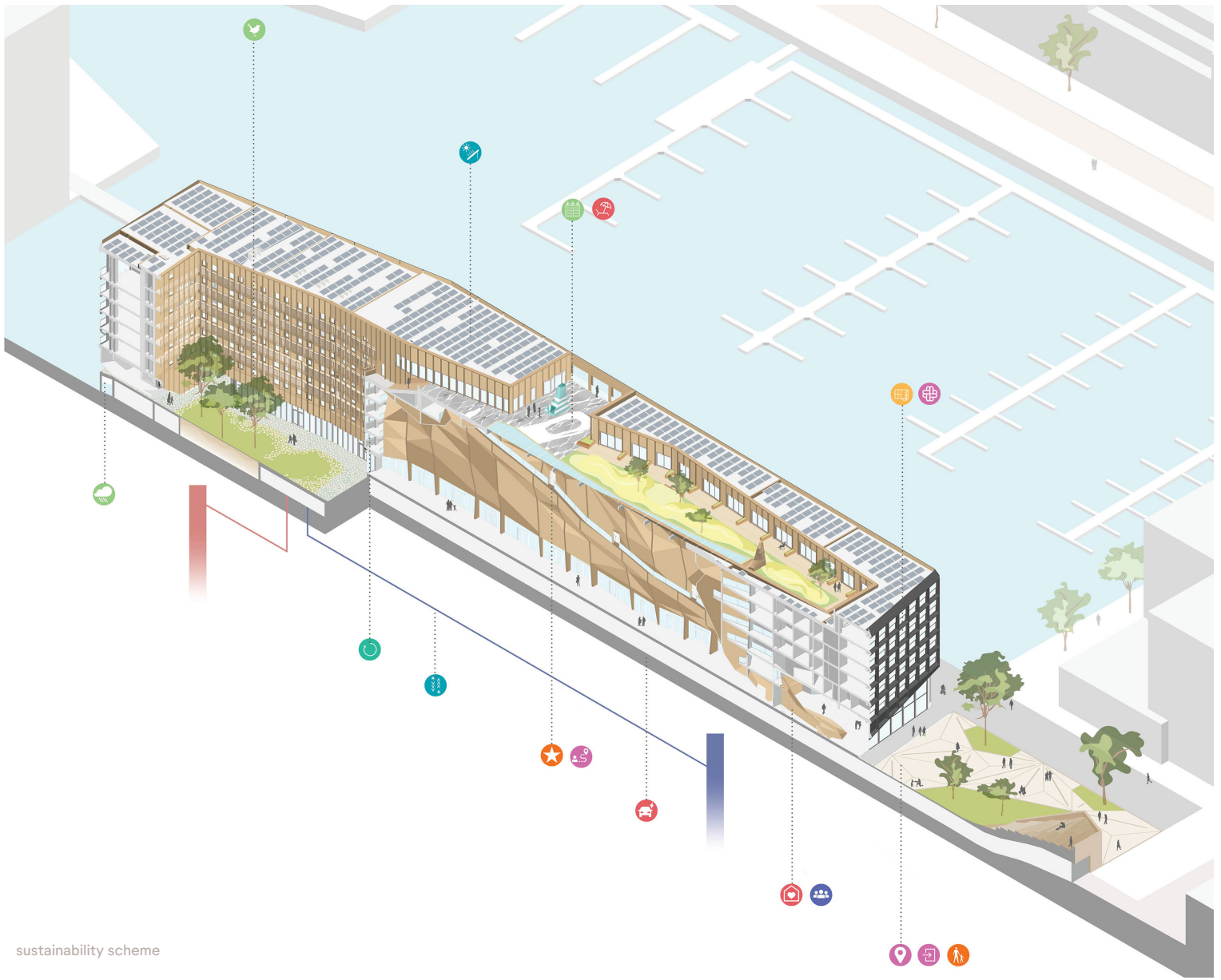
program

The landscaping is nature-inclusive and is aimed at strengthening the ecological values of the area. For example, native riverside vegetation is planted. Moreover, mussel reefs are created in the water as a natural way of improving water quality and increasing biodiversity. A special feature to be built is a wall for sand martins. This species of bird belongs in this area but it is now under increasing pressure because of all the construction taking place. The sand martin wall will ensure that this species finds a home in the area again.

In addition to the measures to boost flora and fauna, Jonas wants to help in various ways to counter the effects of climate change. Rainwater, for example, is collected in the basement and reused to flush toilets in the public spaces and commercial units on the ground floor. The vegetation on the rooftop beach slows down water run-off. The moving water layer on the glass roof above the canyon provides for a pleasant experience of the rooftop beach and cools the glass in the summer. The patio, where a number of mature trees are planted in open ground, is a shaded place for contemplation, an extremely suitable spot in which to withdraw on a hot summer day.

Everything in Jonas is geared to stimulate social interaction and encounters to ensure the building becoming a focal point for activities and act as a catalyst for the neighborhood. Besides the technical sustainability, Jonas demonstrates that a green, healthy environment and social sustainability are essential principles, which are of the greatest importance for the success of the building and its surroundings.





sustainability scheme

## WORLD

### RESOURCES

- 1 one compact building
- 2 sun shading on all necessary windows
- 3 optimized insulation
- 4 850 solar panels on top roof
- 5 heat/cold storage with thermal energy from surface water
- 6 floor heating connected to city heating
- 7 efficient ventilation system with natural intake
- 8 efficient LED lighting system with motion detection

### CIRCULARITY

- 9 maximized flexibility on the ground floor
- 10 25% of the main structure is made from recycled concrete
- 11 environmental effect is calculated for all materials
- 12 easy demountable zinc facade

### NATURE

- 13 environmental research on existing biodiversity
- 14 mussel reefs to stimulate underwater life
- 15 cabinets for bats and nesting stones for birds
- 16 green roof and patio
- 17 new greenery along waterside
- 18 rainwater infiltration on roofs
- 19 rainwater buffering of 38 m<sup>3</sup> in basement
- 20 rainwater reuse
- 21 place for organic waste collection

## WE

### WELL-BEING

- 22 optimal daylighting with large windows
- 23 unobstructed views around the harbor
- 24 sound calculation for optimized acoustics
- 25 all necessary windows have sun shading
- 26 lots of meeting points such as a collective living room
- 27 high accessibility through wide common corridors
- 28 wooden canyon in the middle of the building
- 29 designated space for waste collection
- 30 vertical operable windows in all apartments

### HEALTH

- 31 high frequency lighting in all rooms
- 32 CO2 controlled mechanical ventilation
- 33 promoting use of attractive vertical routing
- 34 facilities for promoting bike use
- 35 pedestrian-oriented outdoor space around building
- 36 attractive routing from canyon to collective roof
- 37 shared indoor exercise space
- 38 optimal thermal comfort per room controlled by user

### SOCIAL

- 39 shared electric cars and shared mobility solutions
- 40 facilities to actively promote use of public transport
- 41 shared guestrooms for family and friends
- 42 collective roof top with bar
- 43 diverse meeting points to encourage chance encounters
- 44 collective indoor spaces
- 45 easy accessibility of communal program
- 46 embrace diverse community with different typologies
- 47 community engagement is highly available
- 48 identify and encourage spaces residents can design

## + VALUE

### CONTEXT

- 49 height and mass fits the context
- 50 buildings stands out due shape and appearance
- 51 the architecture fits the nautical context
- 52 zinc facade has unique contextual pattern
- 53 program activates new public square
- 54 entrances are easy findable
- 55 routing of pedestrians and cyclist is kept in mind
- 56 car parking is underground and not visible

### ECONOMIC

- 57 optimized area use by compact building
- 58 flexible space in commercial plinth
- 59 robust and high quality materials
- 60 commercial program adds to local economy
- 61 strong local focus that increases the lifespan
- 62 BIM modeled to reduce construction faults

### COMMUNAL

- 63 collective living room to stimulate social interaction
- 64 work spaces for tenants and sustainable office
- 65 social program in plinth
- 66 city makers and neighbourhood involvement in the process
- 67 public square and well designed public space
- 68 spaces and facilities to promote community initiatives
- 69 support and promote local businesses and local artists
- 70 waste reuse and small scale circular economy initiatives
- 71 engage community during construction phase



Design  
Post Construction  
In-Use





## Project details



Location:	Krijn Taconiskade 1 – 567, Amsterdam
Design:	2017
Realisation:	2022
Size:	29950 m2
Program:	Mixed-use
Client:	Amvest
Architect:	Orange Architects
Team:	Patrick Meijers, Jeroen Schipper, Paul Kierkels, Elena Staskute, Florentine van der Vaart, Irina Vaganova, Athanasia Kalaitzidou, Gloria Caiti, Luís Cardoso, Kapilan Chandranesan, Eric Eisma, Filippo Garuglieri, Casper van Leeuwen, Francesco Mainetti, Manuel Magnaguagno, Angela Park, Niek van der Putten, Erika Ruiz, Ivan Shkurko
Contractor:	Ballast Nedam West
Advisors:	ABT, Felixx Landscape Architects, Bureau Stadsnatuur, Publiik&Vos, Site Urban Development, JMJ Bouwmanagement, Floor Ziegler, SmitsRinsma
Photography:	Sebastian van Damme
Aerial:	Orange Architects

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# orange architects

Orange Architects is a multidisciplinary and internationally operating design firm for architecture, urban design, interiors and outdoor space, headed by Patrick Meijers and Jeroen Schipper. Our office is located in the centre of Rotterdam. Traditionally a city of national and international trade, a city with residents from around the globe. This is our home, and we share with Rotterdam the identity of our company: creative, 'hands-on', proactive and international.

We believe that we can make a better living environment together. With our integral approach sustainability is an important design ambition in all our buildings right from the first sketches. We work on the basis of a broad definition of sustainability, built upon three pillars: WORLD | WE | VALUE. Our mission is to incorporate and unite these themes in all our projects, from the first sketches to completion. This is the way we want to make buildings that positively influence the quality of life.

We are an office of thinkers and makers. We strive for local and unique projects that resonate with people and align with the environment in which they live. All

our projects come to life on the strength of an inspiring and unifying concept. Translating this concept into a convincing and feasible building calls for expertise, right down to the detailing. This is a craft we have been practicing for over 25 years, a craft that lives within Orange Architects and is constantly improving through innovation.

Orange Architects formulates attractive, conceptually advanced and smart answers to complex spatial challenges. What distinguishes us is our rational attitude which we combine with a sensitivity to context, to local culture, to the client's wishes, and to the future users of our projects. Drawing on our knowledge and expertise, Orange Architects transforms ideas, dreams and wishes of clients into inspiring and sustainable living environments.