

An aerial photograph of a city waterfront. A large body of water occupies the foreground and middle ground. A bridge with a distinctive red, curved design spans across the water. On the left side, there are several long, rectangular buildings with flat roofs, possibly industrial or commercial. On the right side, there are more modern buildings, including a prominent one with a blue, perforated facade. The background shows a dense urban area with many smaller buildings and a river or canal winding through it.

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Basic Information

Sporenburg Amsterdam Netherlands

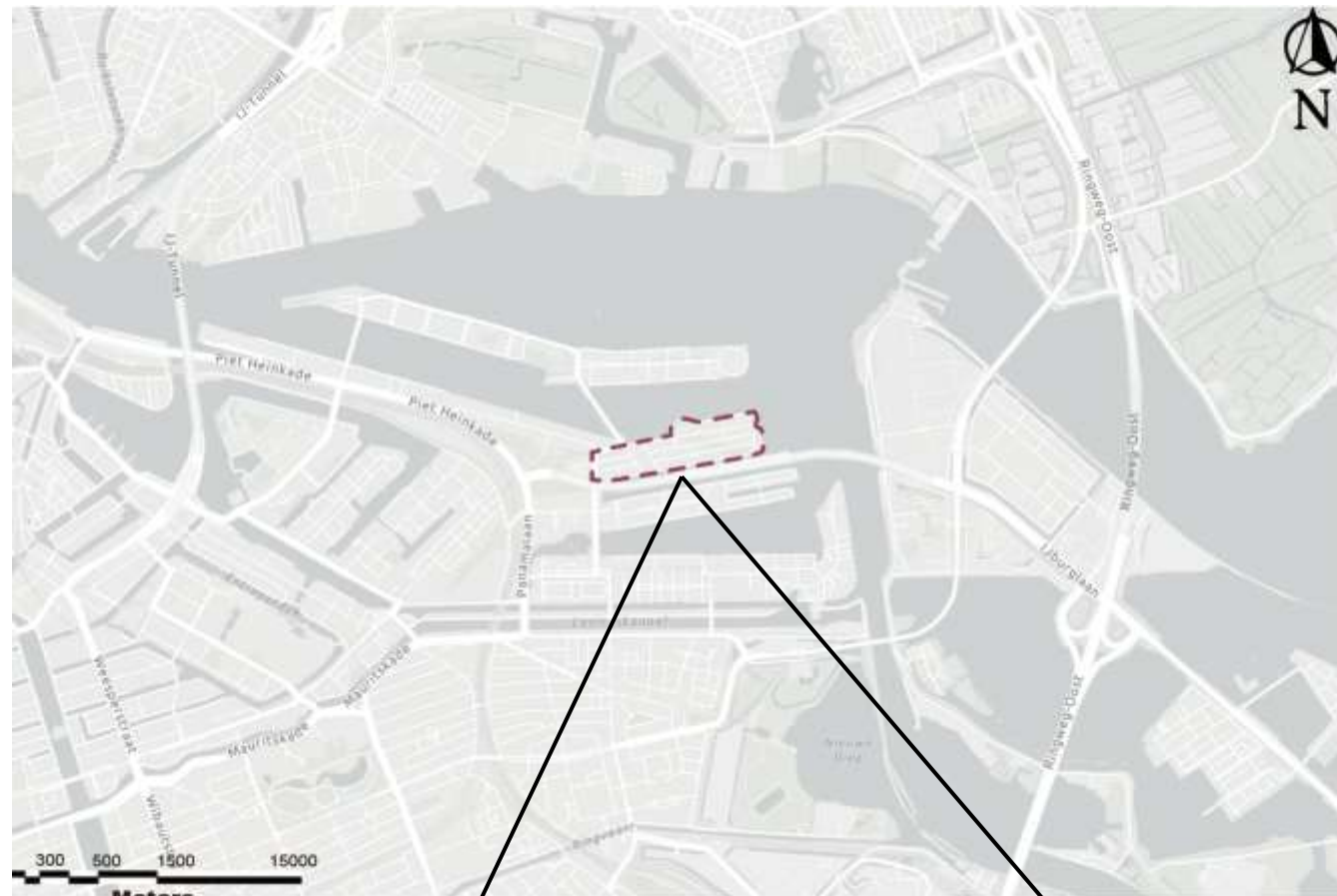


Diagram Map By Zhuoyuan Pan



Image source: Google World Map



Image source: Google World Map

- Eastern docklands of Amsterdam, formerly industrial port and warehouse area.
- Busy shipping hub in mid-20th century, declined after port relocation.
- Redeveloped in the 1990s into a high-density housing district, masterplanned by West 8.
- Around 2,500 dwellings (~100 units/ha), iconic bridges and waterfront public spaces.
- Low-rise but high-density design, strong integration with water, a model for sustainable urban living.



Data source: *Reimagining the streetscape: a framework for diversity and participation*



Data source: *Reimagining the streetscape: a framework for diversity and participation*

Flood-Resilient Design -- Sporenburg

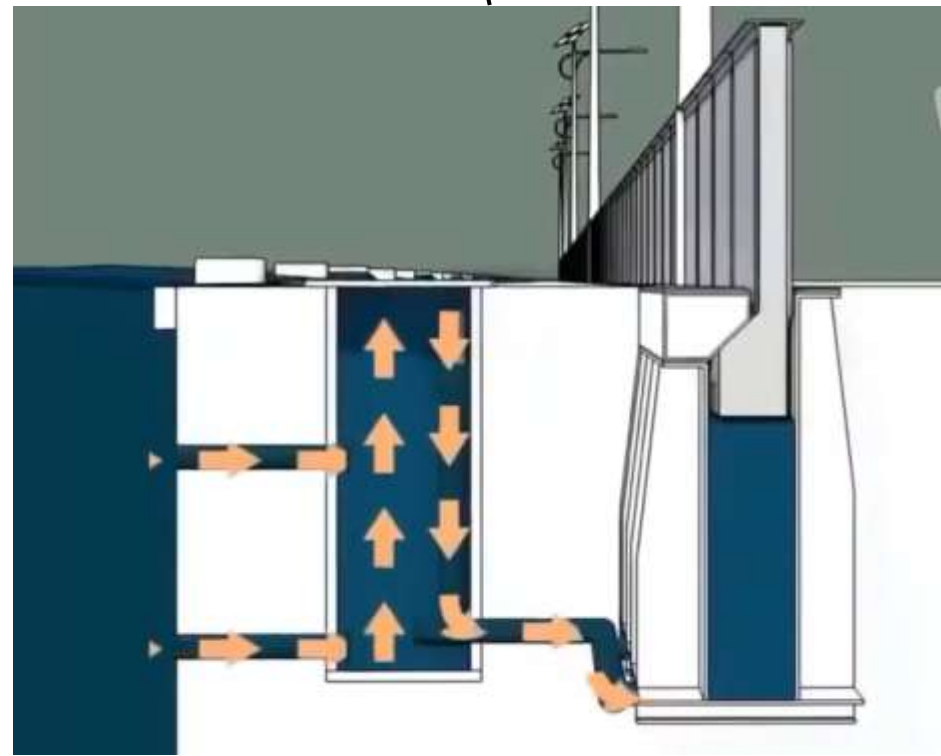


Macro Flood Control Measures Diagram by Zhuoyuan Pan

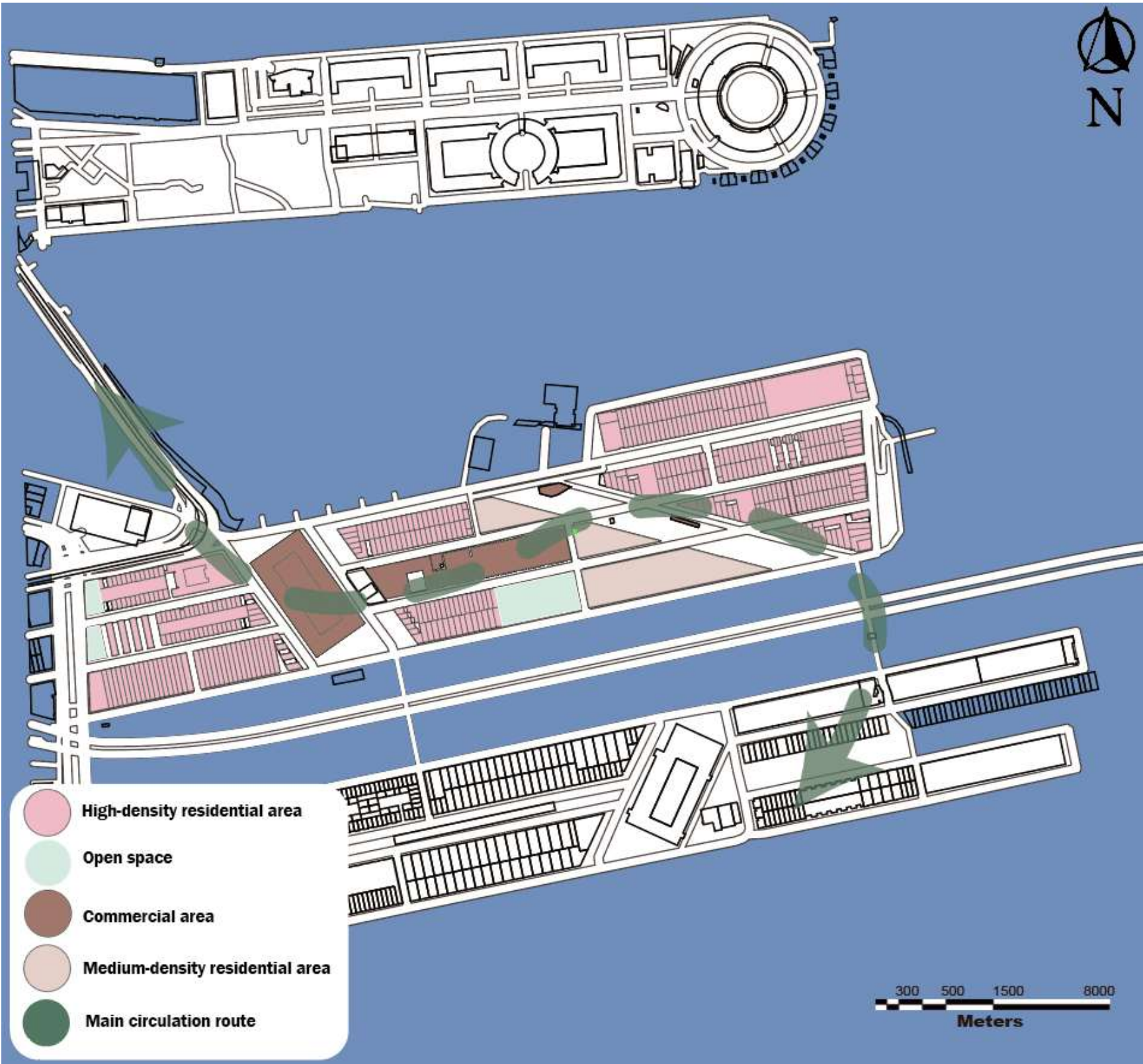
- Green -- low elevation (close to water level, flood-prone).
- Yellow -- raised streets and building bases.
- Regional defense relies on the Delta Works dike system.
- Local strategy: raised foundations + permanent rising flood barriers at critical access points.
- Barriers remain invisible during normal conditions and automatically rise when water levels increase.
- Implication: Demonstrates integration of automatic flood defense technology into urban form.



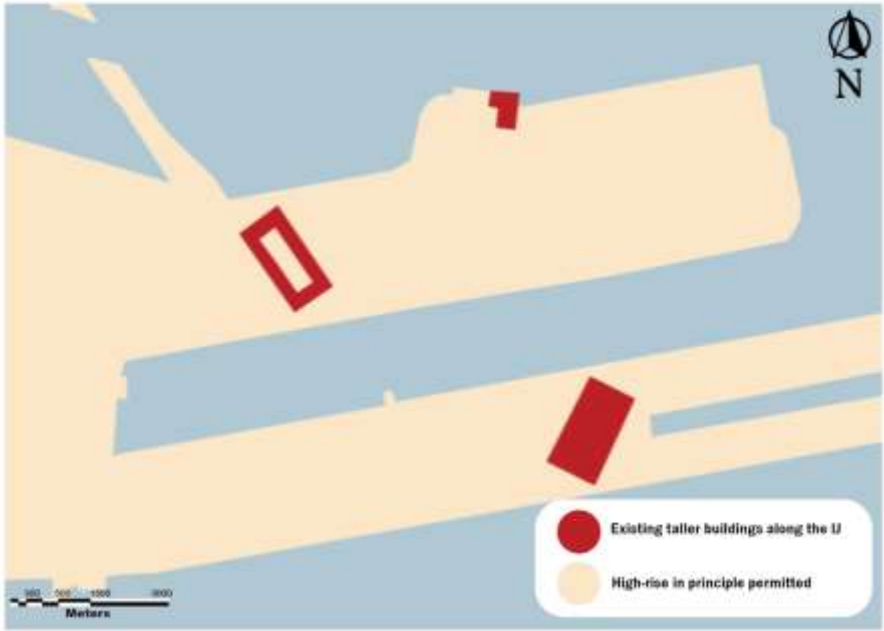
Data source: Actueel Hoogtebestand Nederland (AHN), PDOK viewer



Mixed-Use Development Potential -- Sporenburg



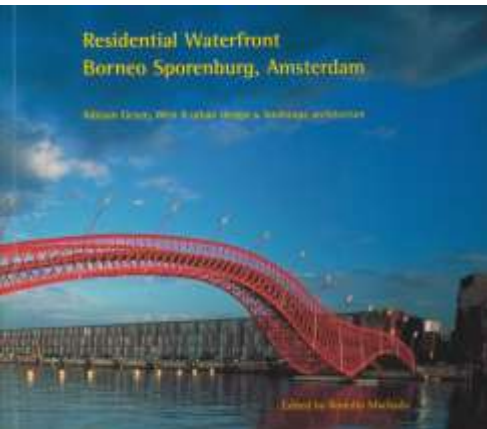
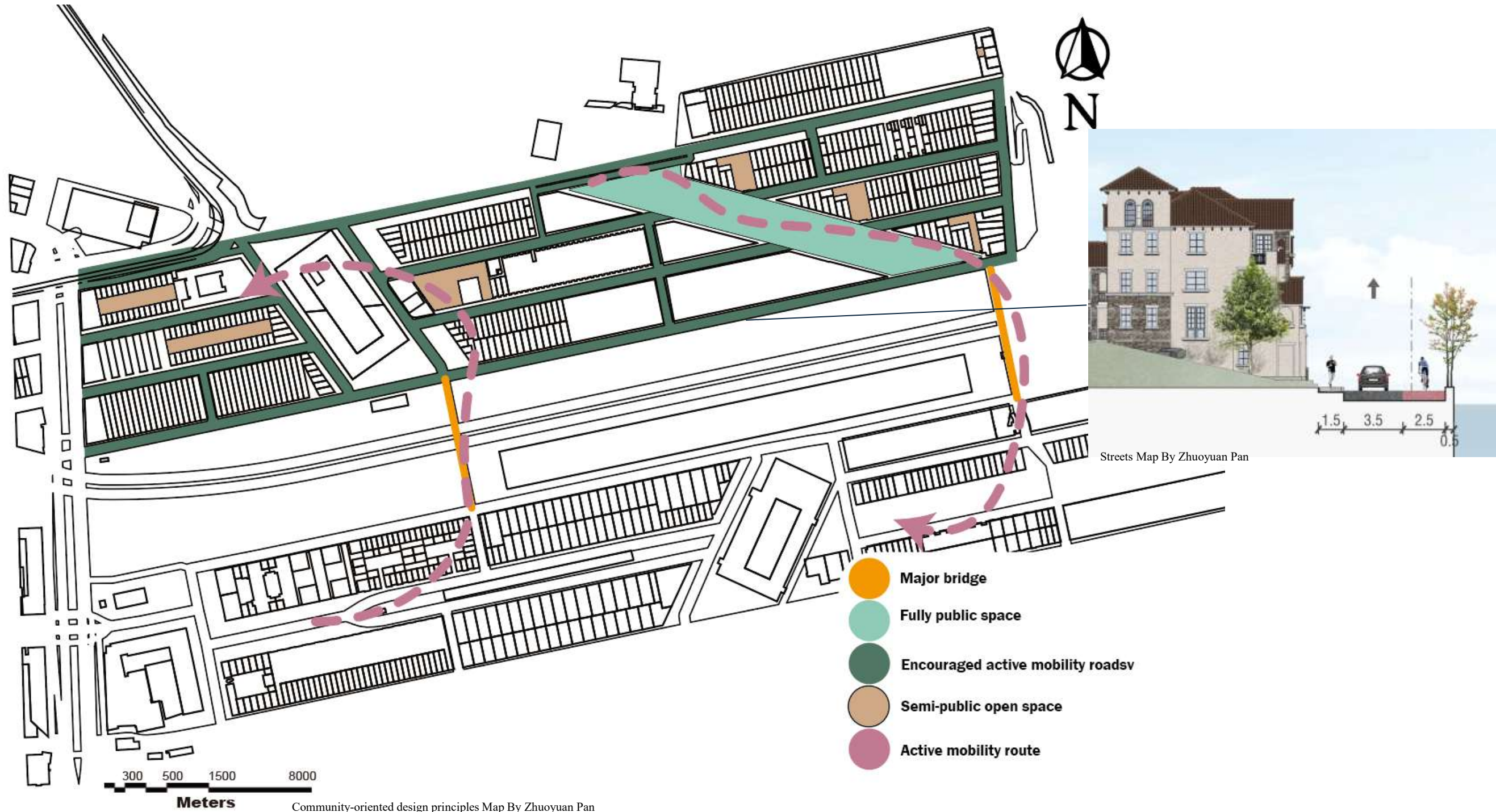
Mixed-use development potential Map by Zhuoyuan Pan



High-rise building illustration Map by Zhuoyuan Pan

- High-density, low-rise development (~100 dwellings/ha), mainly row houses with some apartments and special buildings.
- Narrow plots divided by canals, with a regular, walkable, and bike-friendly street network.
- Studios, shops, and community uses at ground level create active street edges.
- Integration of canals, waterfront promenades, and greenways, where water functions as both landscape and drainage system.
- Predominantly 3–4 storeys with occasional landmark buildings; massing controlled to avoid overshadowing.

Community-Oriented Design Principles -- Sporenburg



- The planning emphasizes semi-public spaces and internal courtyards, fostering resident interaction.
- Canals and waterfront promenades serve as public corridors and primary community activity spaces, enhancing spatial connectivity.
- The community layout unfolds along the water system, with bridges and canals directly linking blocks to public spaces.
- Streets are narrow with limited car parking, making walking and cycling the dominant modes of travel.
- Bridge-linked blocks support active mobility only, shaping a sustainable community.

Inspiration for AF Thomas Park

- Borneo-Sporenburg demonstrates how to achieve around 100 dwellings/ha within a low-rise scale. AF Thomas Park can adapt this model by adopting medium-to-high density with low-rise housing, balancing efficiency and human-scale design.
- With selected ground-floor shops and community facilities, Borneo adds street vitality. Thomas Park can incorporate mixed-use ground floors at key locations, such as community hubs, small retail, or co-working spaces.
- Borneo links canals with public promenades as central community spaces. Thomas Park can create waterfront public areas around wetlands/detention zones, combining flood management with recreation.
- Narrow streets and limited parking encourage walking and cycling. Thomas Park can implement a walkable and bike-friendly network, reducing car dependence.
- Borneo relies on dikes and rising flood barriers. Thomas Park can integrate wetland detention basins and localized protective measures to strengthen flood resilience.
- The narrow, car-restricted streets of Borneo reduce polluted runoff after rain. Thomas Park can adopt natural drainage systems (permeable pavements, bioswales, green corridors) to purify stormwater and integrate water with ecology, creating a truly human–nature integrated community.



Data source: *Reimagining the streetscape: a framework for diversity and participation*

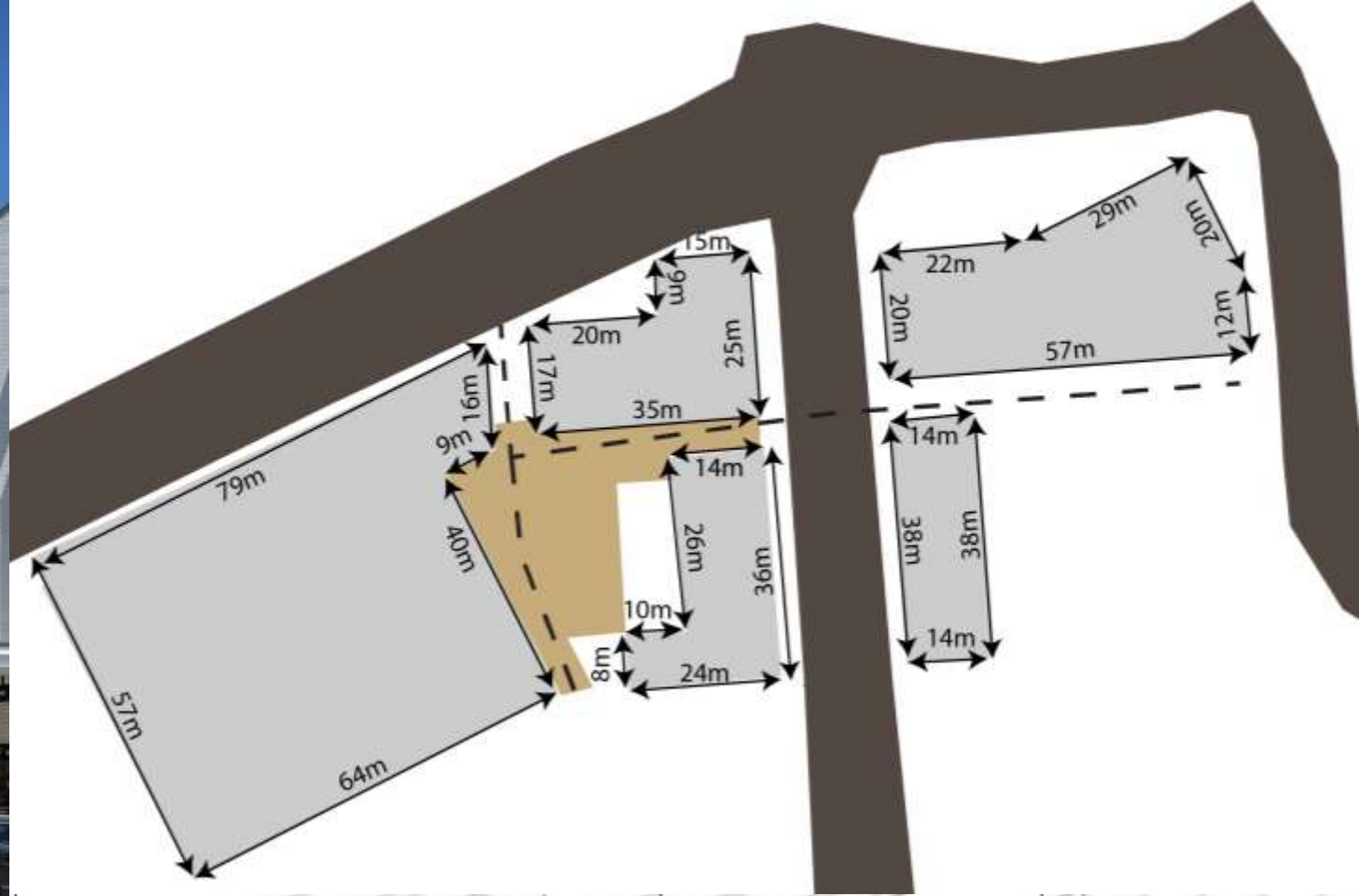


Data source: *Reimagining the streetscape: a framework for diversity and participation*

- Size: 14,900m²
- Mix of uses:
 - Supermarket (2,900m²)
 - Retail (2,350m²)
 - Commercial (1450m²)
 - Food and beverage (1,000m²)
 - Apartments (2460m²)
 - 26 units
 - 1-2 bedrooms
 - 64-122m² including balcony
 - Across three storeys, over ground-floor retail.
 - Precedent gross density 17.5 dwellings per hectare
 - AF Thomas Park gross density 12.2 dwellings per hectare (only residential area)
 - Public courtyard (750m²)
 - 1:2 ratio
 - Zero green space as part of town-centre development; however, the town centre is located in front of the Vaughan's Stream Reserve, a 20ha wetland.
 - Building heights up to 16m

Long Bay Village Design Strategy





- Supermarket
- Residential
- Commercial/Retail
- Food & Beverage



Long Bay Village Lessons for AF Thomas Park

- Insufficient consideration of sustainability or flood resiliency, limiting applicability to AF Thomas Park
- An example of high-quality, dense, mixed-use development in an Auckland suburban context.
- Achieving sufficient permeability and efficient land uses, despite containing a supermarket
- Consistent, small tenancies on all ground floors.
- Provision of high-quality public space in the form of pedestrian links, narrow traffic-calmed streets, and a public plaza holding community events.
- Provision of flood-resiliency through a nearby wetland and facilitating a high-quality edge between the two developments.



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