

Master Innovation & Development Plan

Technical Appendix

**TITLE: Library of Parts Interpretation:
Heatherwick Studio (Site 5)**

AUTHOR: Heatherwick Studio

ABSTRACT

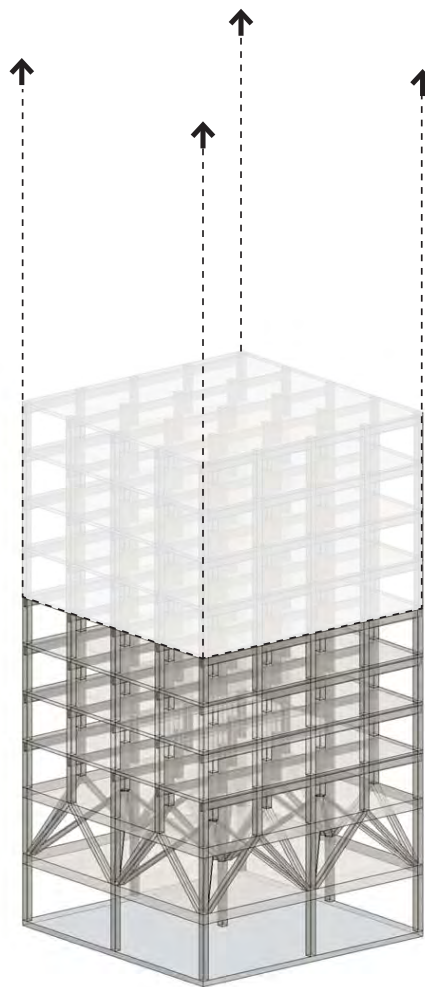
Three leading architecture firms used the Sidewalk Labs mass timber library of parts to conduct design explorations for Quayside's five building sites, prioritizing a mix of uses throughout buildings, energy-efficient building design, and the needs of a diverse population. These design explorations demonstrate that new developments can achieve design excellence as architects reconfigure and assemble the Sidewalk Labs timber building blocks in original ways, allowing for unique, customizable, and welcoming spaces. Heatherwick Studio provided design explorations for Quayside's Site 5.

Most relevant sections: Vol 1 (Quayside Plan) / Vol 2 (Buildings and Housing)

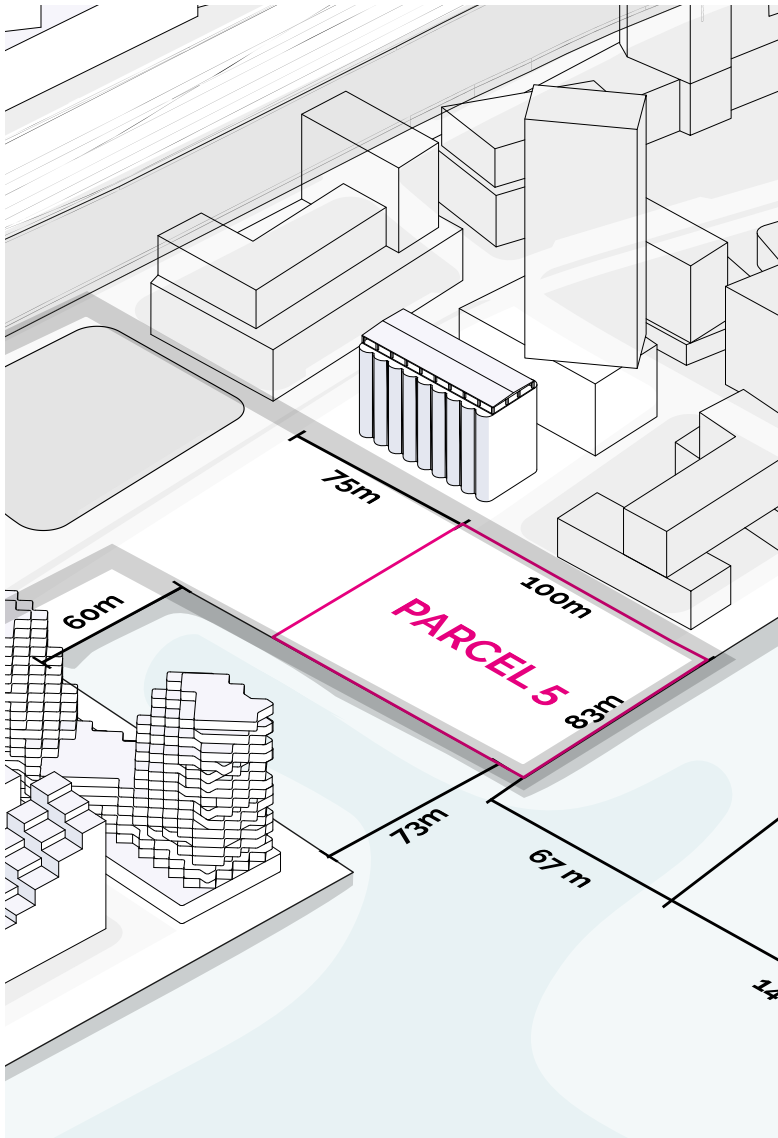
LIBRARY OF PARTS INTERPRETATION

Heatherwick studio

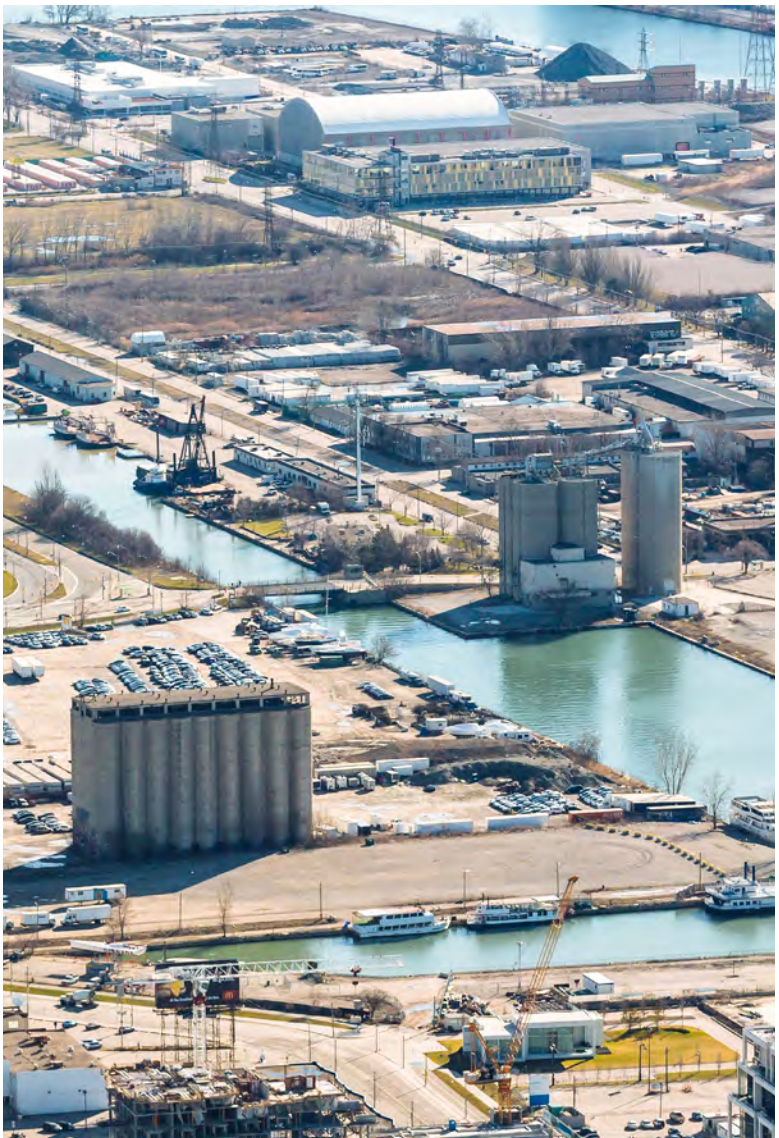
BRIEF



- Library of Parts**
- 1. Explore design opportunities within the timber system developed by MGA
 - 2. Feedback on flexibility of system
 - 3. Buildings to meet Canadian Passive House standards



- Quayside Parcel 05**
- Engagement with public realm and waterfront
 - Mixed use
 - High-end residential
 - Educational institution



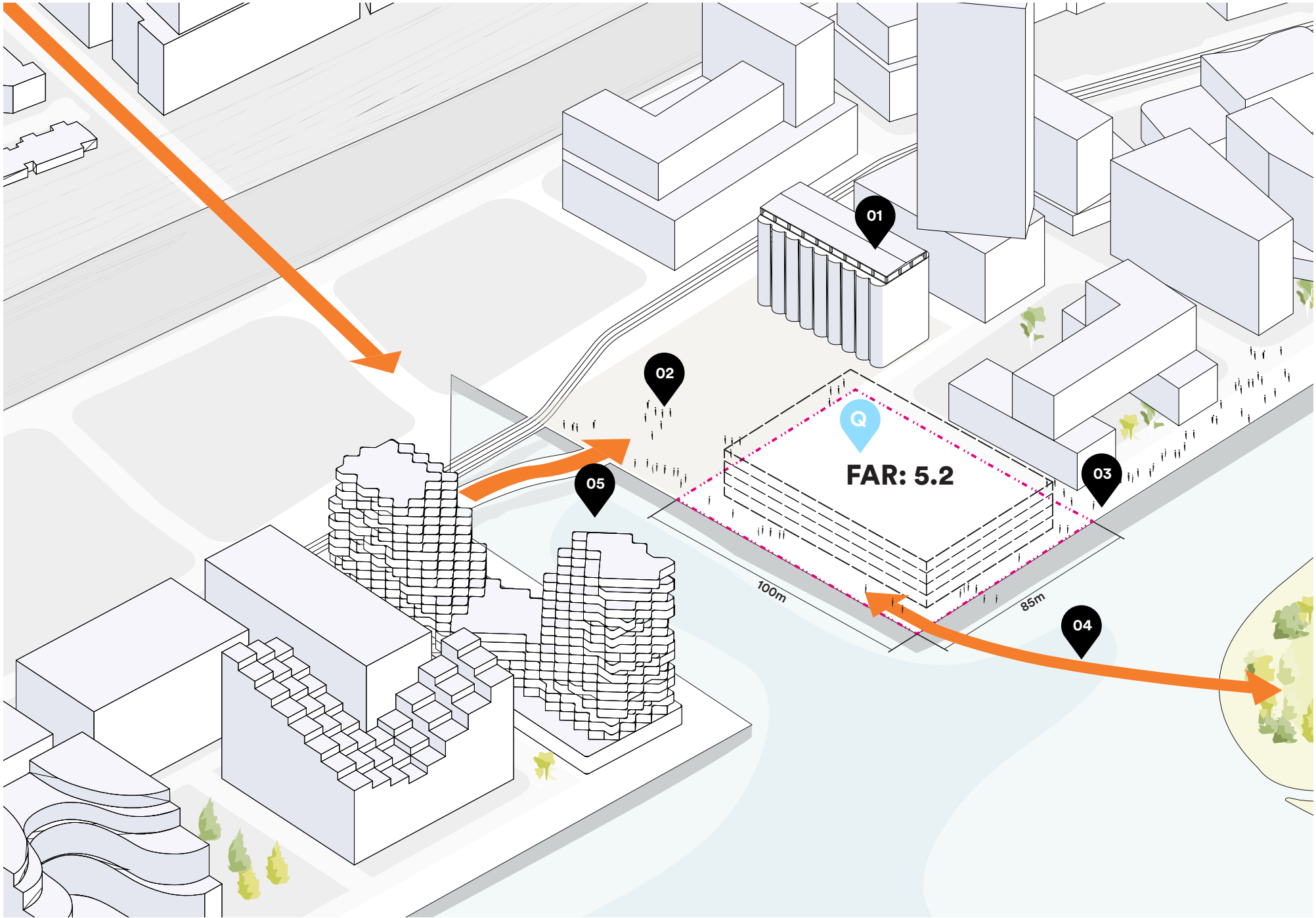
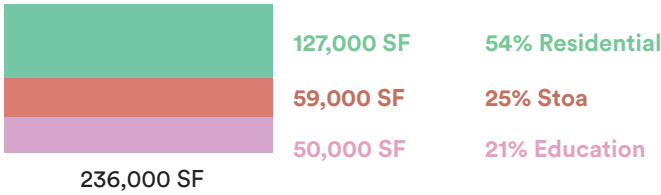
- Masterplan**
- 1. Overall coordination with, and identification of opportunities for the surrounding masterplan

SITE

- 01 Silo Building; Future public programme TBD
- 02 Grand public space
- 03 Activating waterfront
- 04 Pedestrian/Cycle connection to Villiers Island
- 05 Parliament Slip: Public uses

PROGRAMME BREAKDOWN

Quayside Parcel 5



VALUES



**SOULFUL MATERIALITY
THAT YOU CAN SEE**





DIVERSITY OF PUBLIC SPACES





OUTDOOR SPACES THAT YOU CAN USE ALL-YEAR-ROUND





**PRIORITISE HUMAN EXPERIENCE
OVER BIG GESTURES**



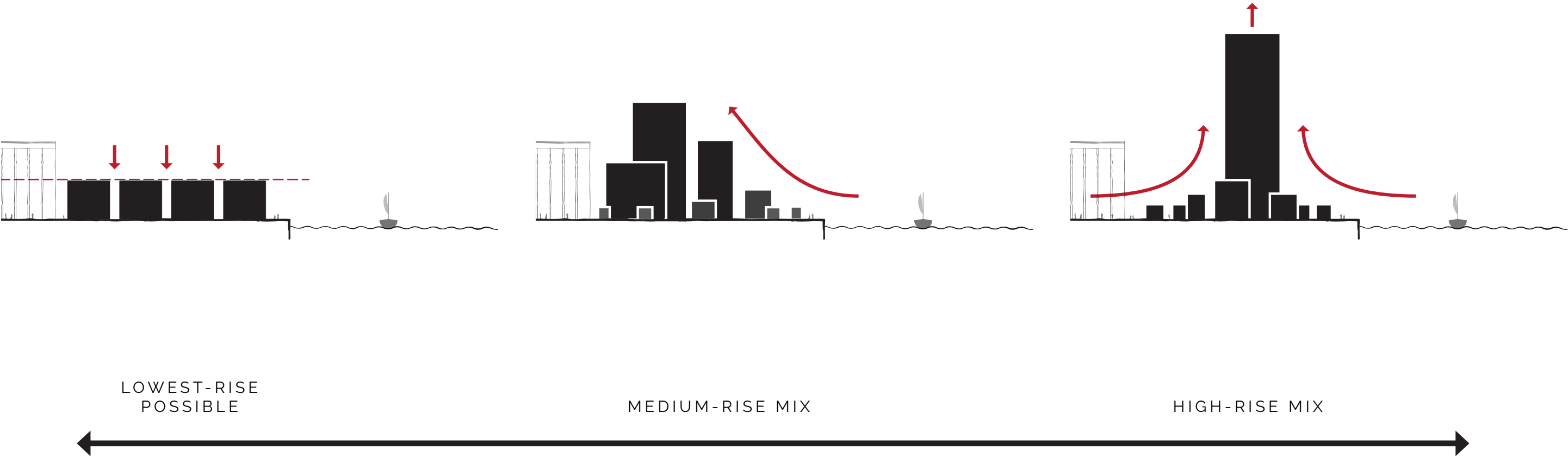


INTIMATE AND VIBRANT STREETSCAPES

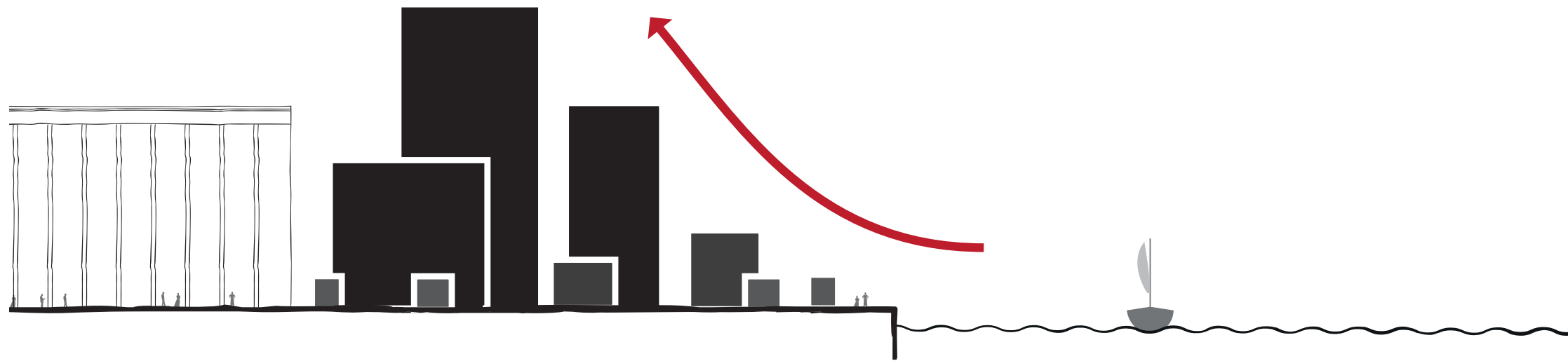




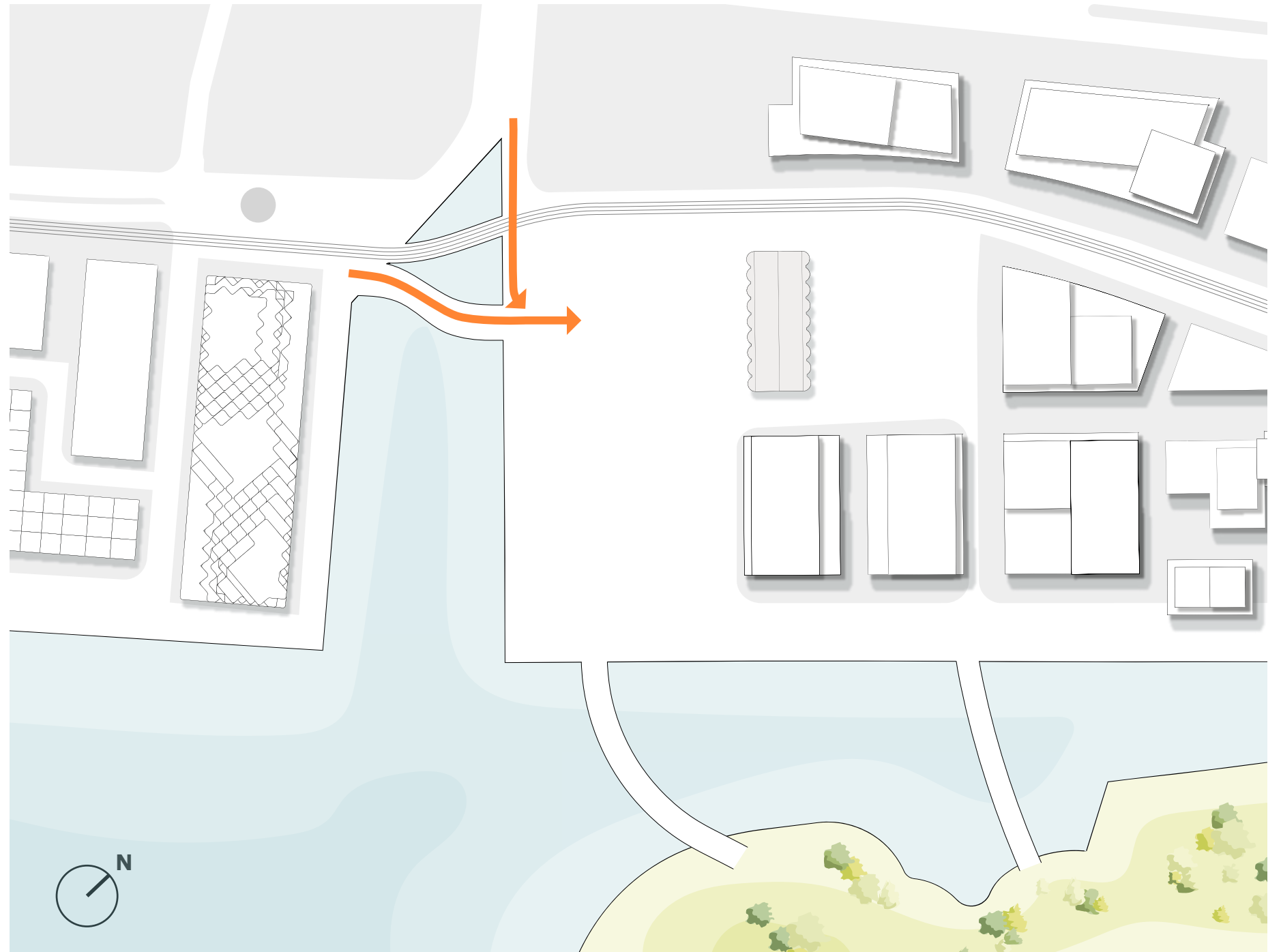
MASSING STRATEGIES



MEDIUM RISE MIX



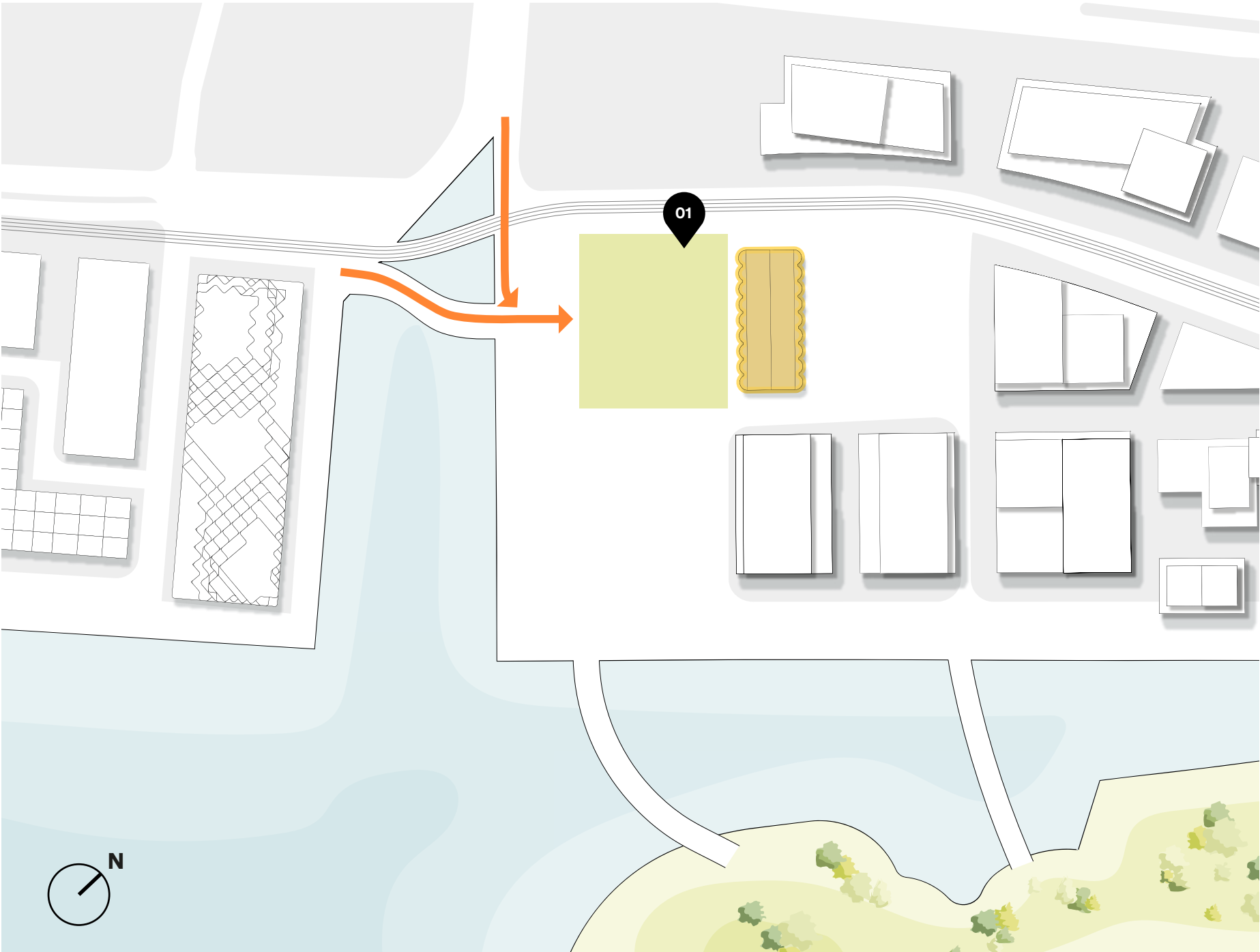
ARRIVAL



DESTINATIONS ON SITE

01 Silo Square

PRIMARY PUBLIC SPACE



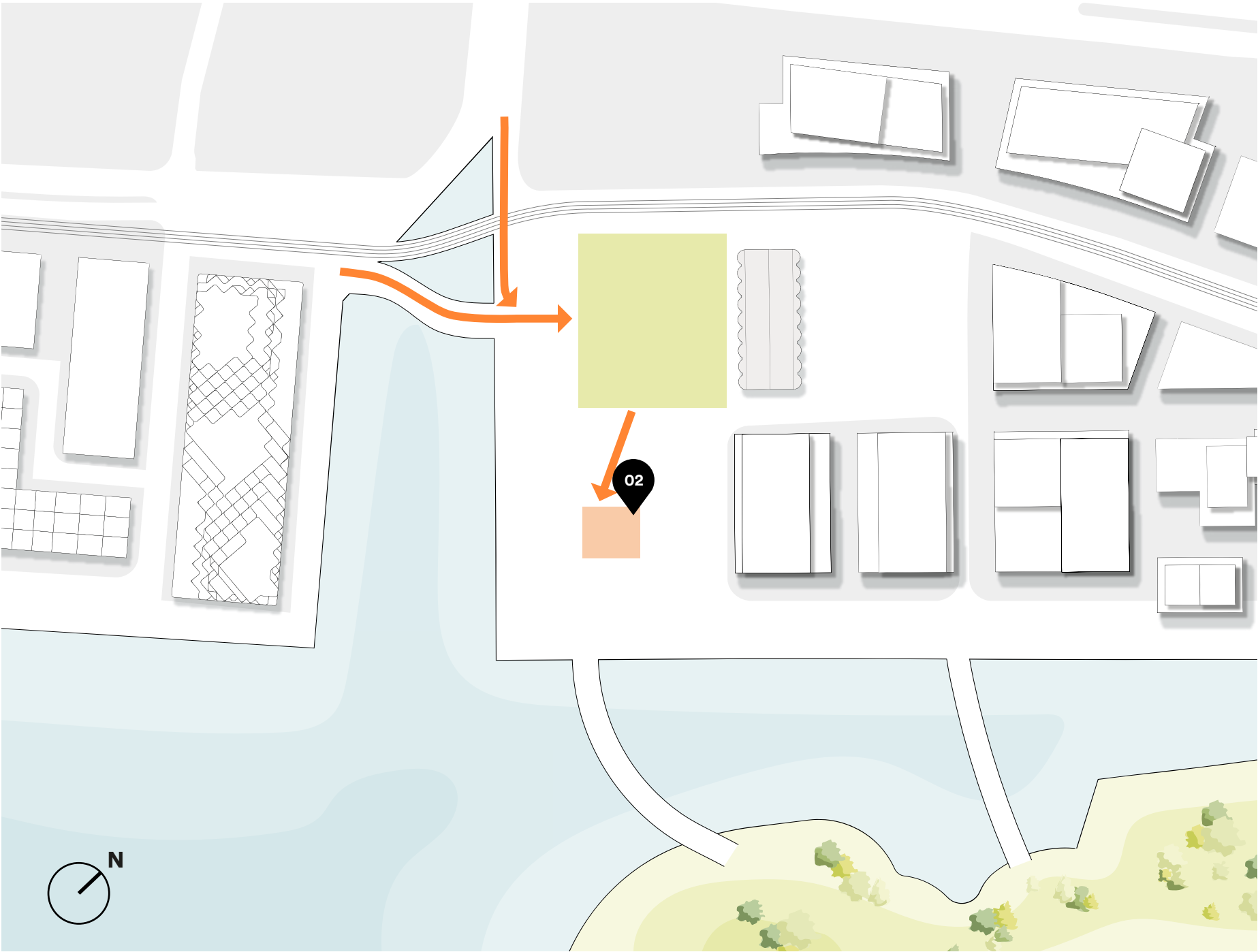
PARCEL 5

DESTINATIONS ON SITE

- 01 Silo Square
- 02 Community Square



- PRIMARY PUBLIC SPACE
- COMMUNITY SQUARE



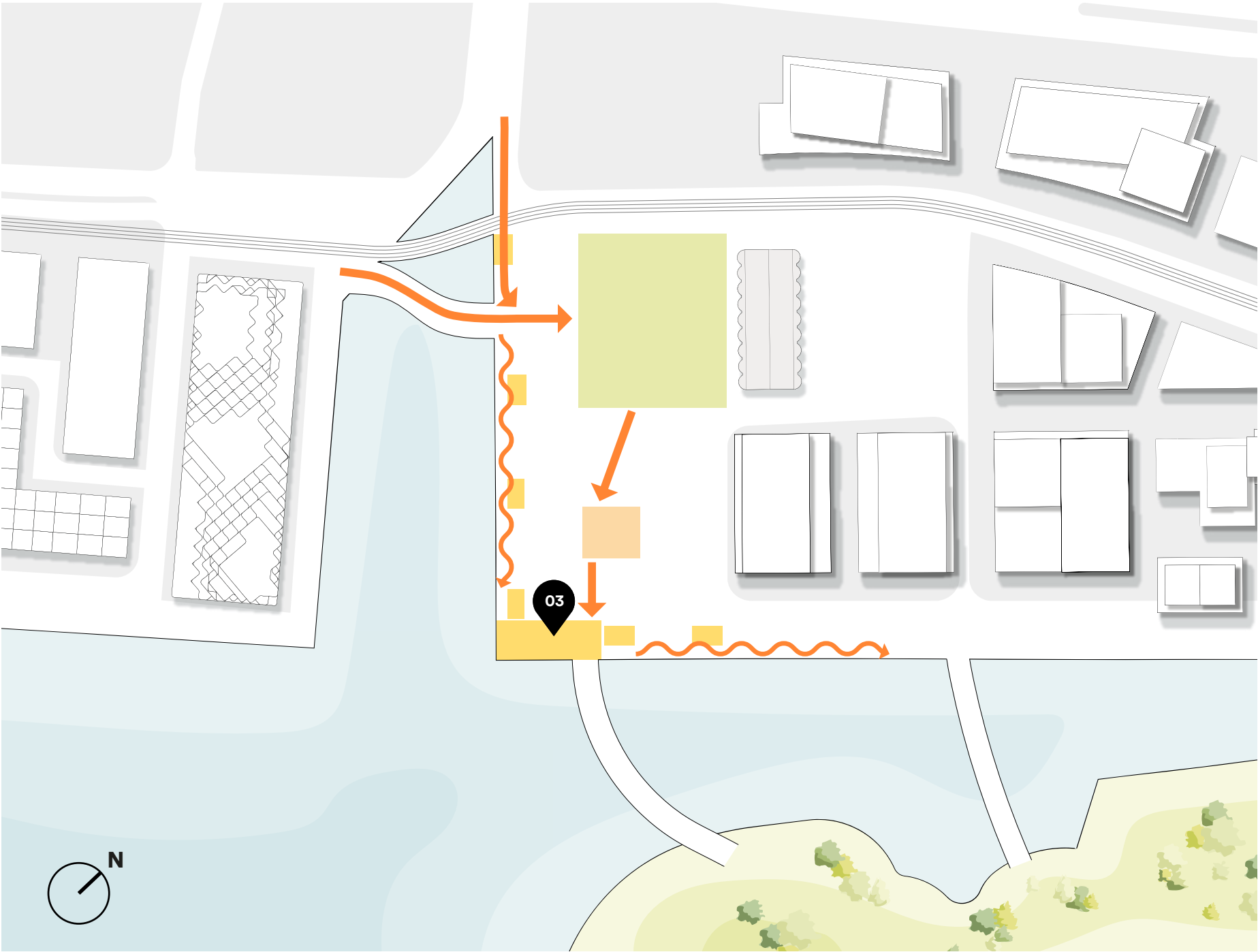
PARCEL 5

DESTINATIONS ON SITE

- 01 Silo Square
- 02 Community Square
- 03 Waterfront Spaces



- PRIMARY PUBLIC SPACE
- COMMUNITY SQUARE
- WATERFRONT



CIRCULATION ON SITE

- 01 Direct route through the heart of the neighbourhood connecting the public and community spaces
- 02 Exploratory route along the waterfront

PRIMARY PUBLIC SPACE

COMMUNITY SQUARE

WATERFRONT

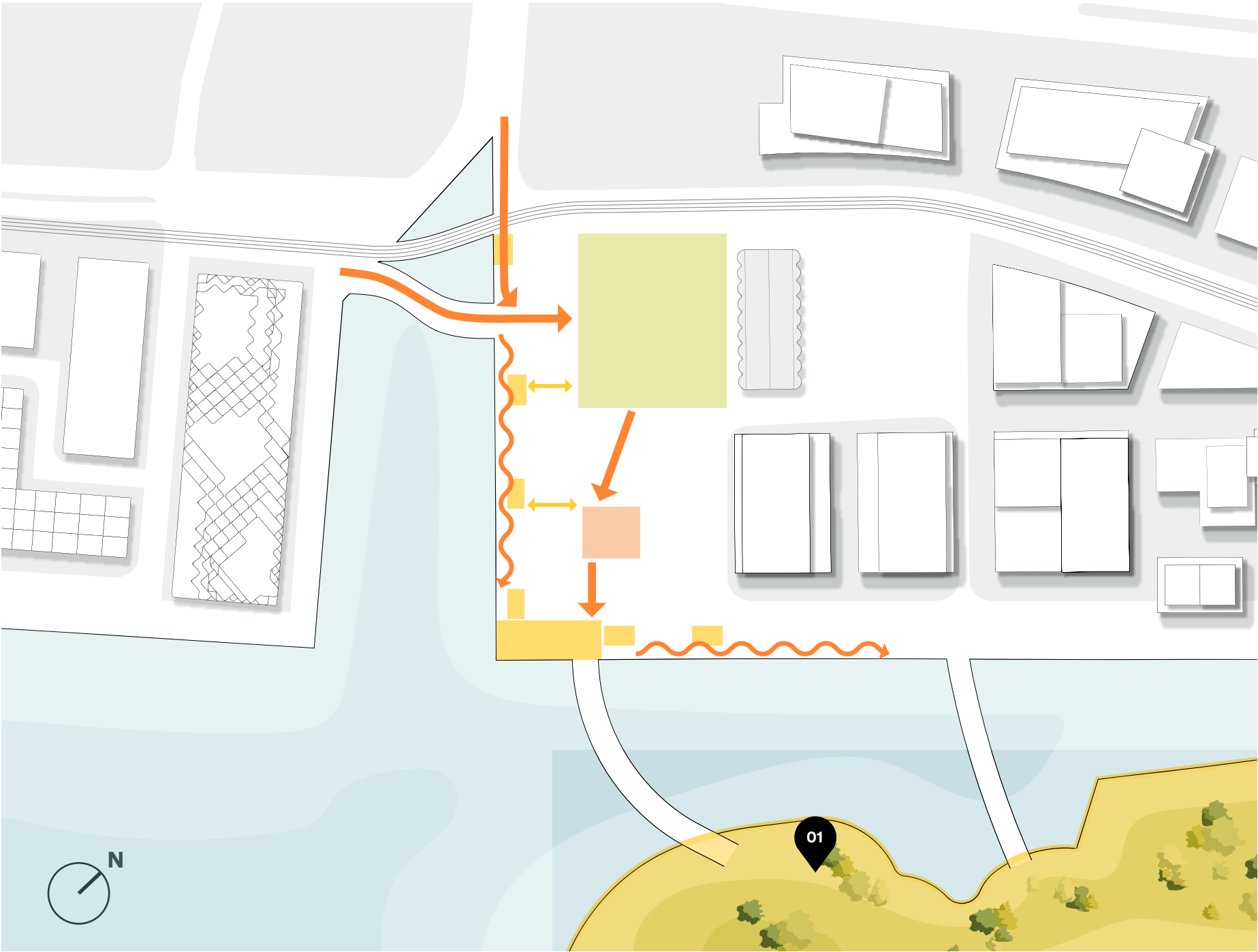


DESTINATIONS BEYOND PARCEL 5

01 Villiers Island



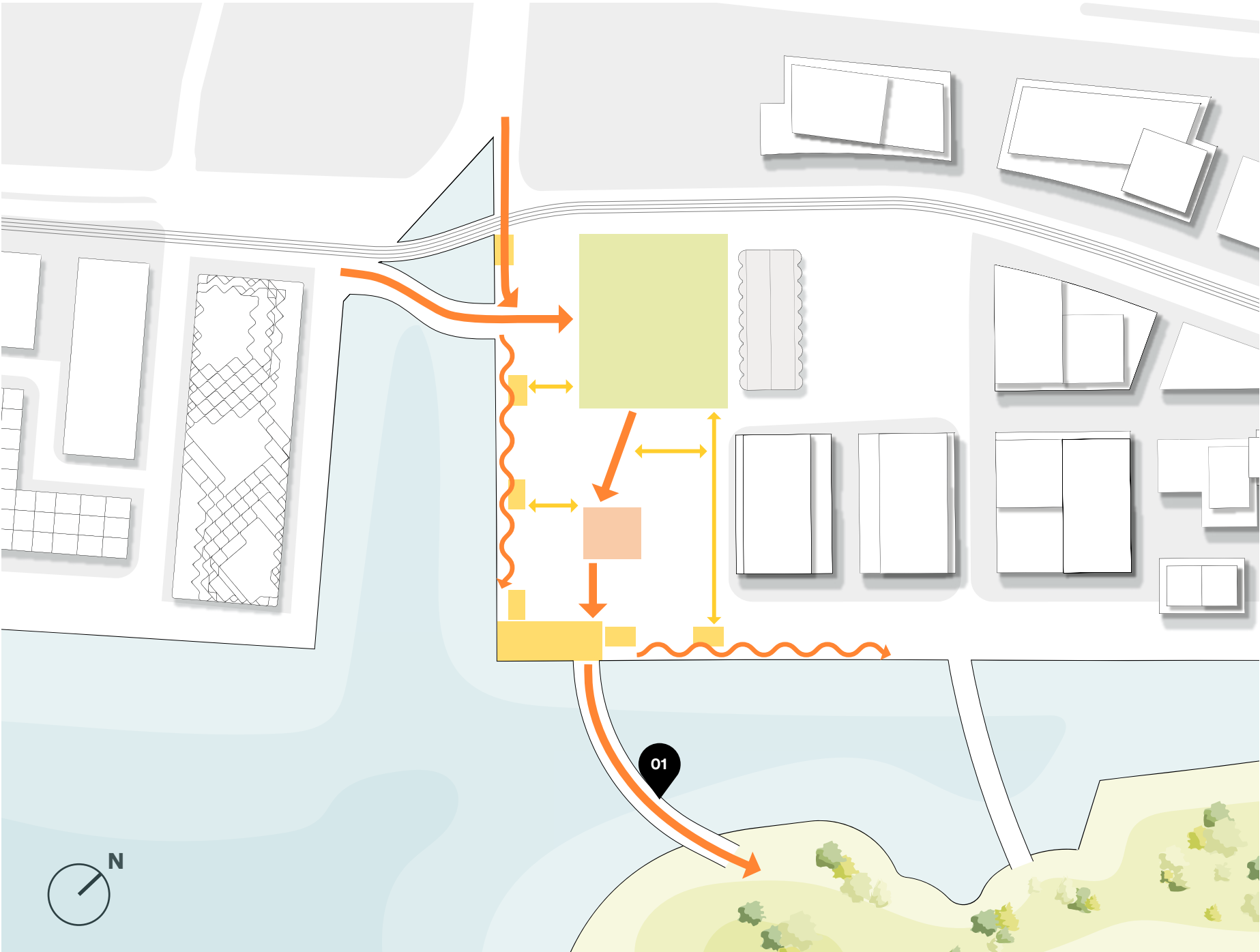
- PRIMARY PUBLIC SPACE
- COMMUNITY SQUARE
- WATERFRONT



CONNECTION TO VILLIERS ISLAND

01 Connecting Bridge to Villiers Island

- PRIMARY PUBLIC SPACE
- COMMUNITY SQUARE
- WATERFRONT



MASSING PARCELS

- PRIMARY PUBLIC SPACE
- COMMUNITY SQUARE
- WATERFRONT



PUBLIC SPACES

01 Courtyards



- PRIMARY PUBLIC SPACE
- COMMUNITY SQUARE
- WATERFRONT
- COURTYARDS



ROTATION

- 01 Main route through the heart of the neighbourhood connecting the public and community spaces
- 02 Exploratory route along the Waterfront as main connection between Queens Quay and Villiers
- 03 Secondary routes and spaces along waterfront
- 04 Parcel divisions
- 05 Residential Gardens
- 06 Rotation of buildings to create more diversity in public spaces and break up wind corridors

PRIMARY PUBLIC SPACE

COMMUNITY SQUARE

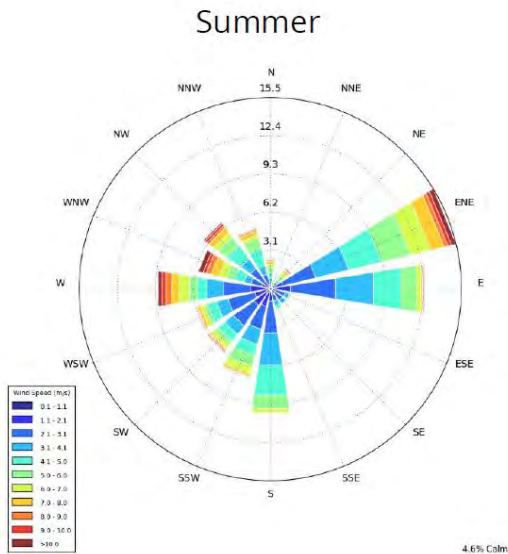
WATERFRONT

COURTYARDS



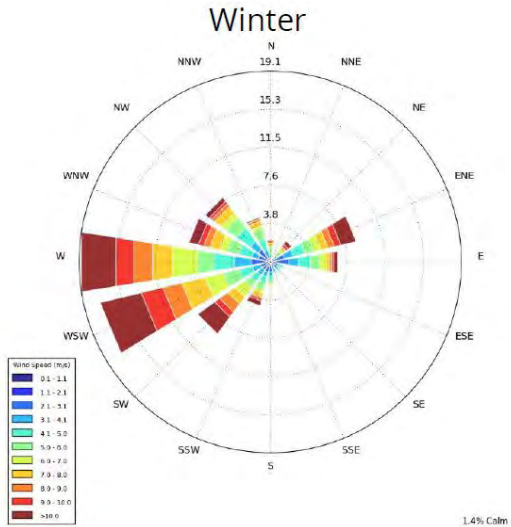
SUMMER BREEZES

- 01 Main route through the heart of the neighbourhood connecting the public and community spaces
- 02 Exploratory route along the Waterfront as main connection between Queens Quay and Villiers
- 03 Secondary routes and spaces along waterfront
- 04 Parcel divisions
- 05 Residential Gardens
- 06 Rotation of buildings to create more diversity in public spaces and break up wind corridors

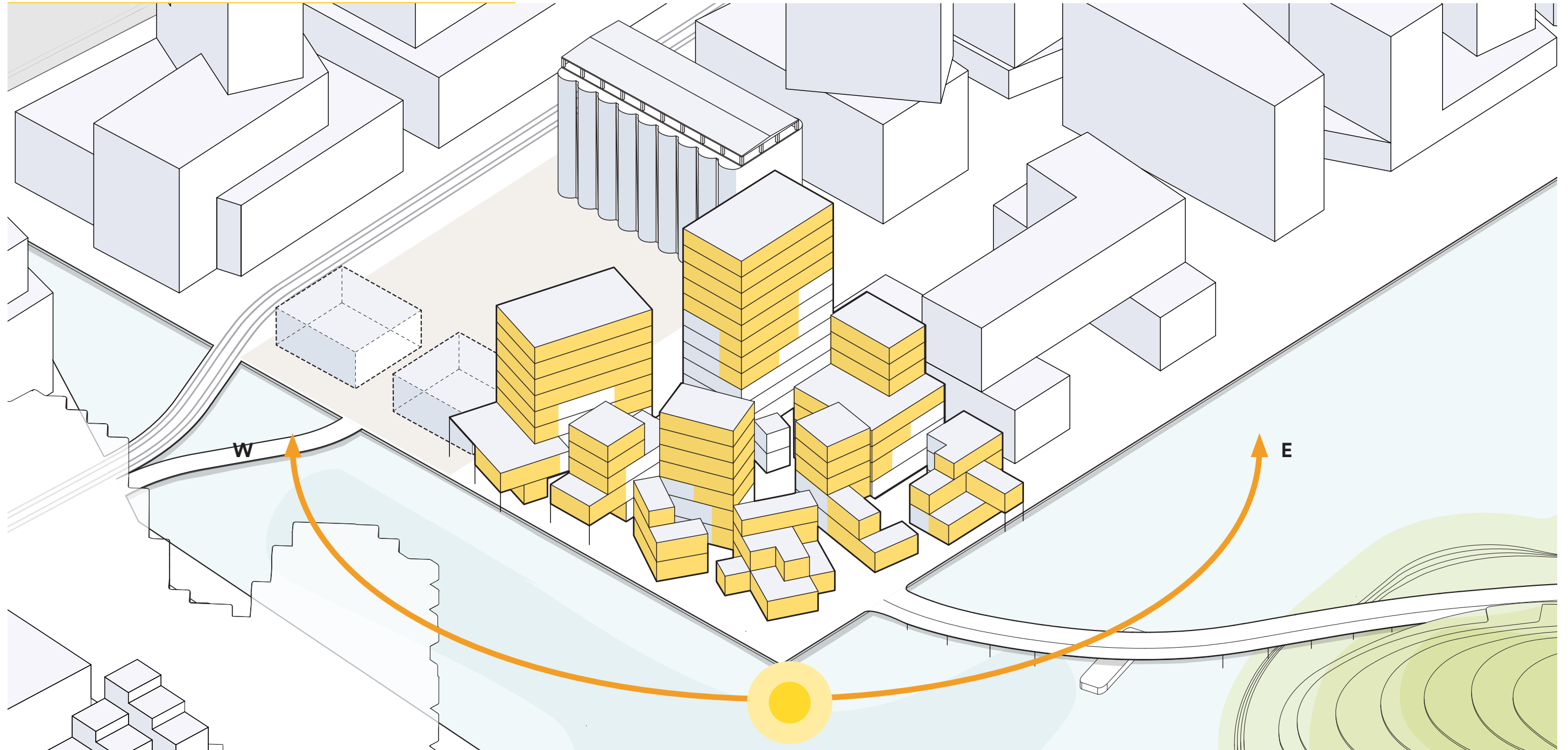


WINTER WINDS

- 01 Main route through the heart of the neighbourhood connecting the public and community spaces
- 02 Exploratory route along the Waterfront as main connection between Queens Quay and Villiers
- 03 Secondary routes and spaces along waterfront
- 04 Parcel divisions
- 05 Residential Gardens
- 06 Rotation of buildings to create more diversity in public spaces and break up wind corridors

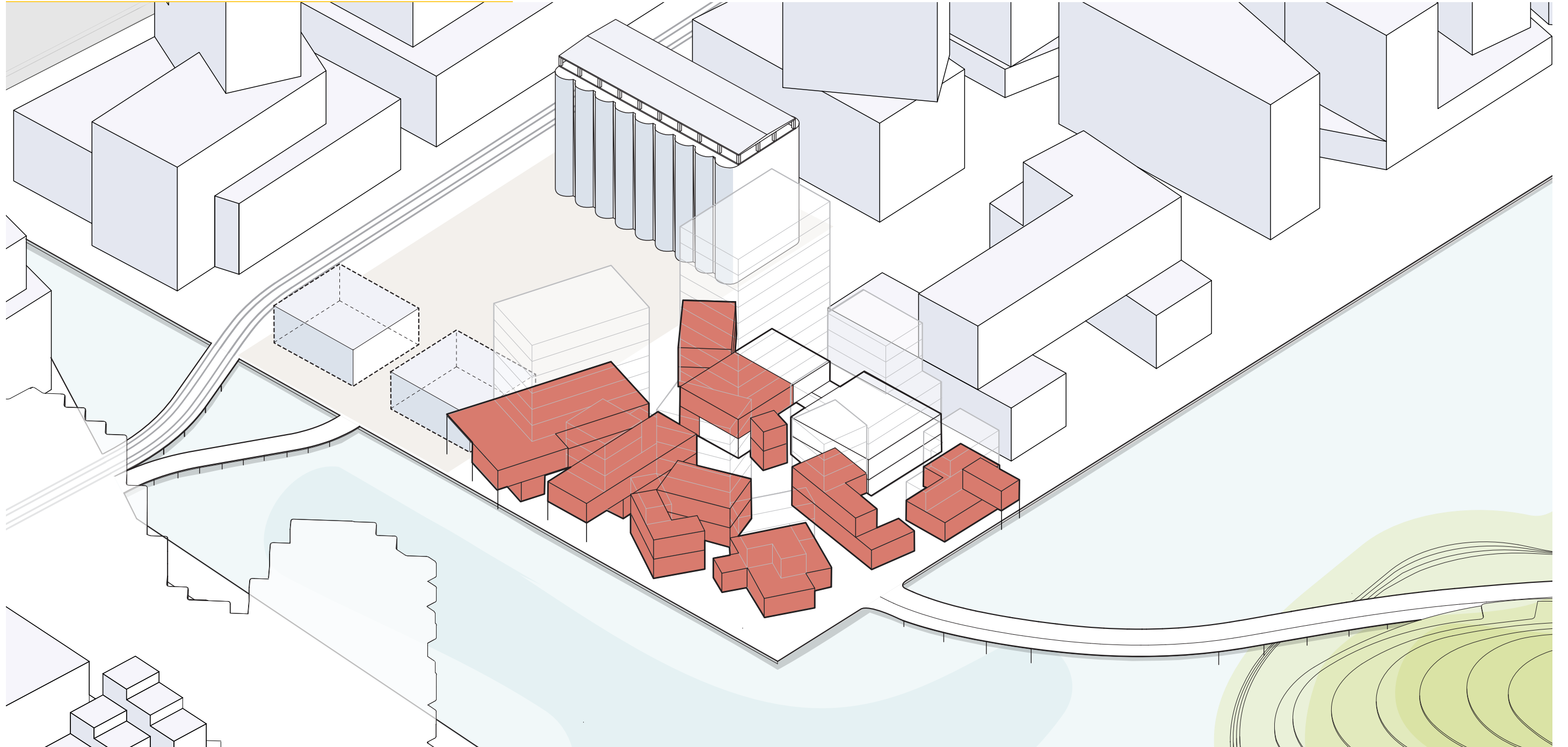


VIEWS AND SUNLIGHT



PROGRAMME

STOA

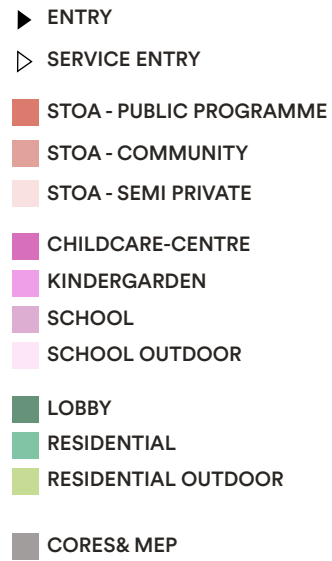


PARCEL 5

STOA

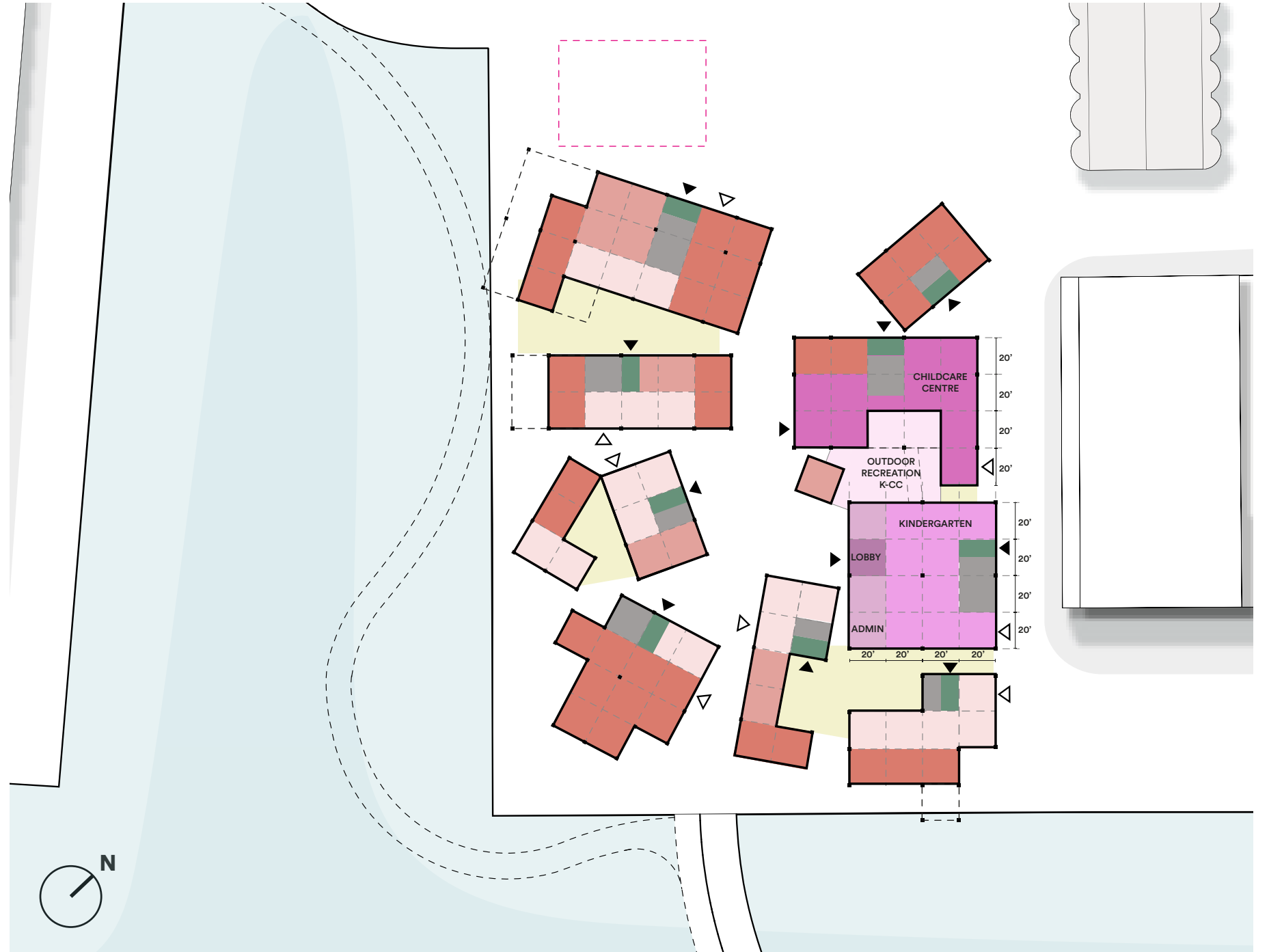


L1 STOA / EDUCATION



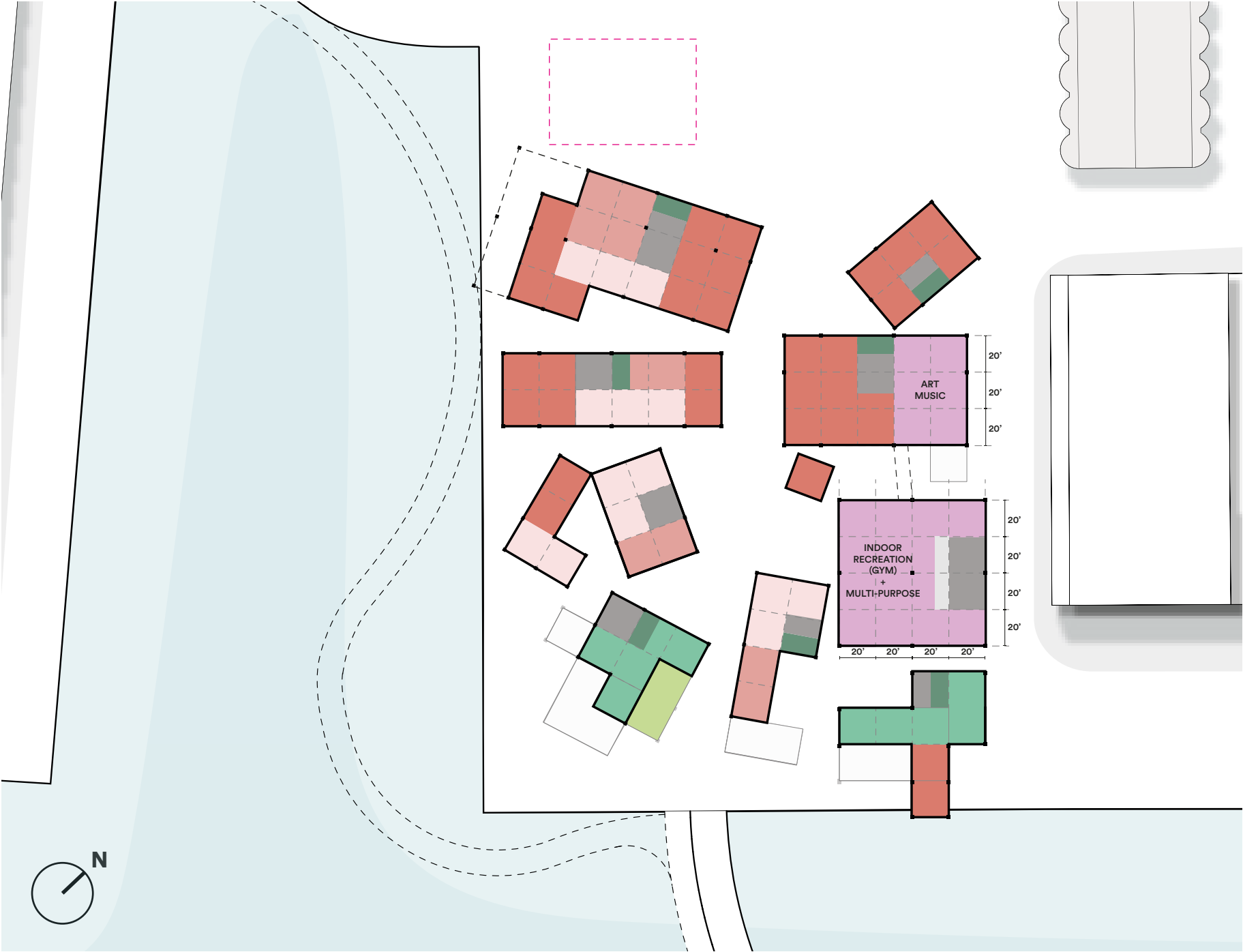
*Athletic Field to be located on Villiers Park

**** Athletic Field to be located on Silo Plaza**

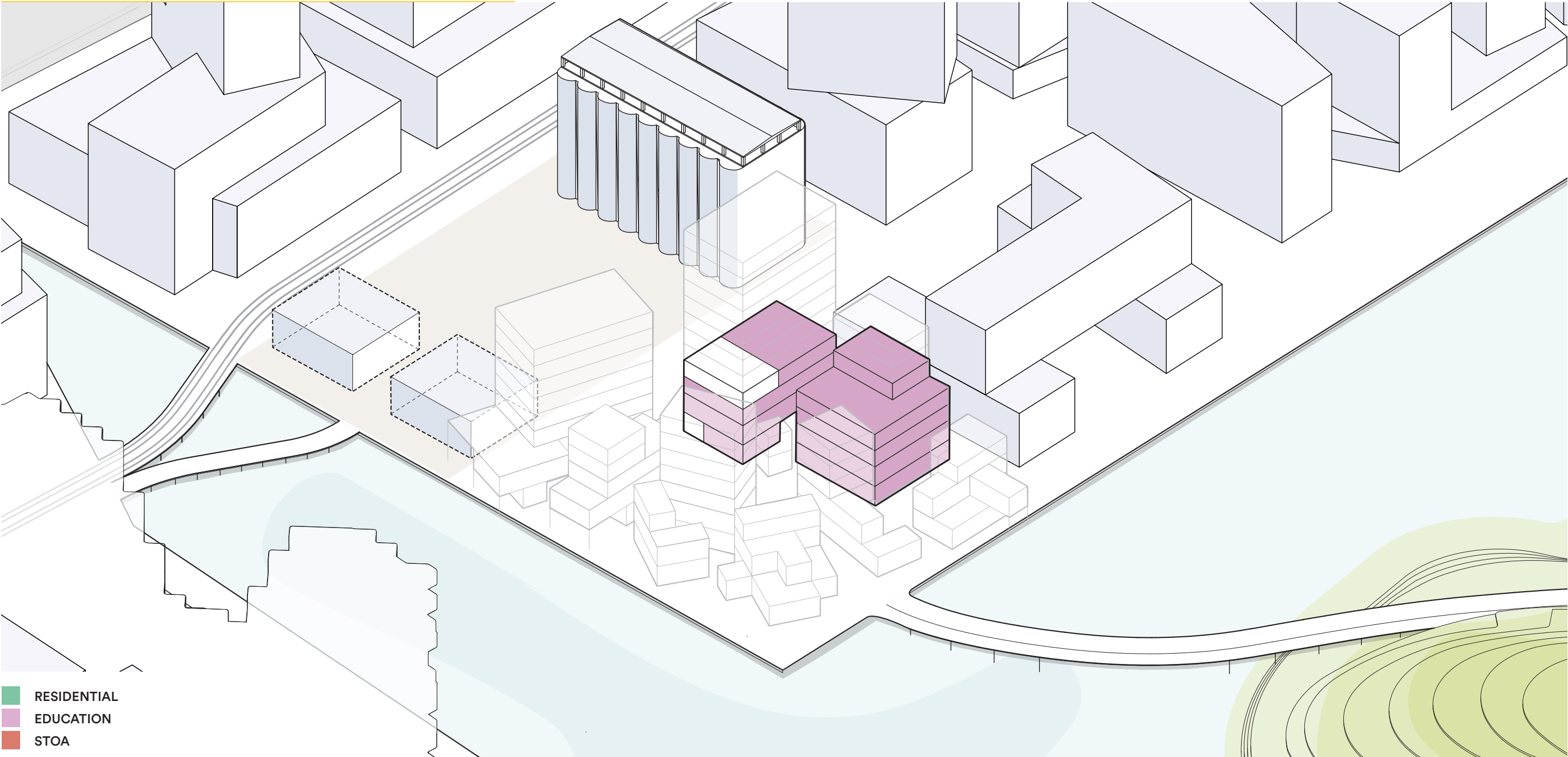


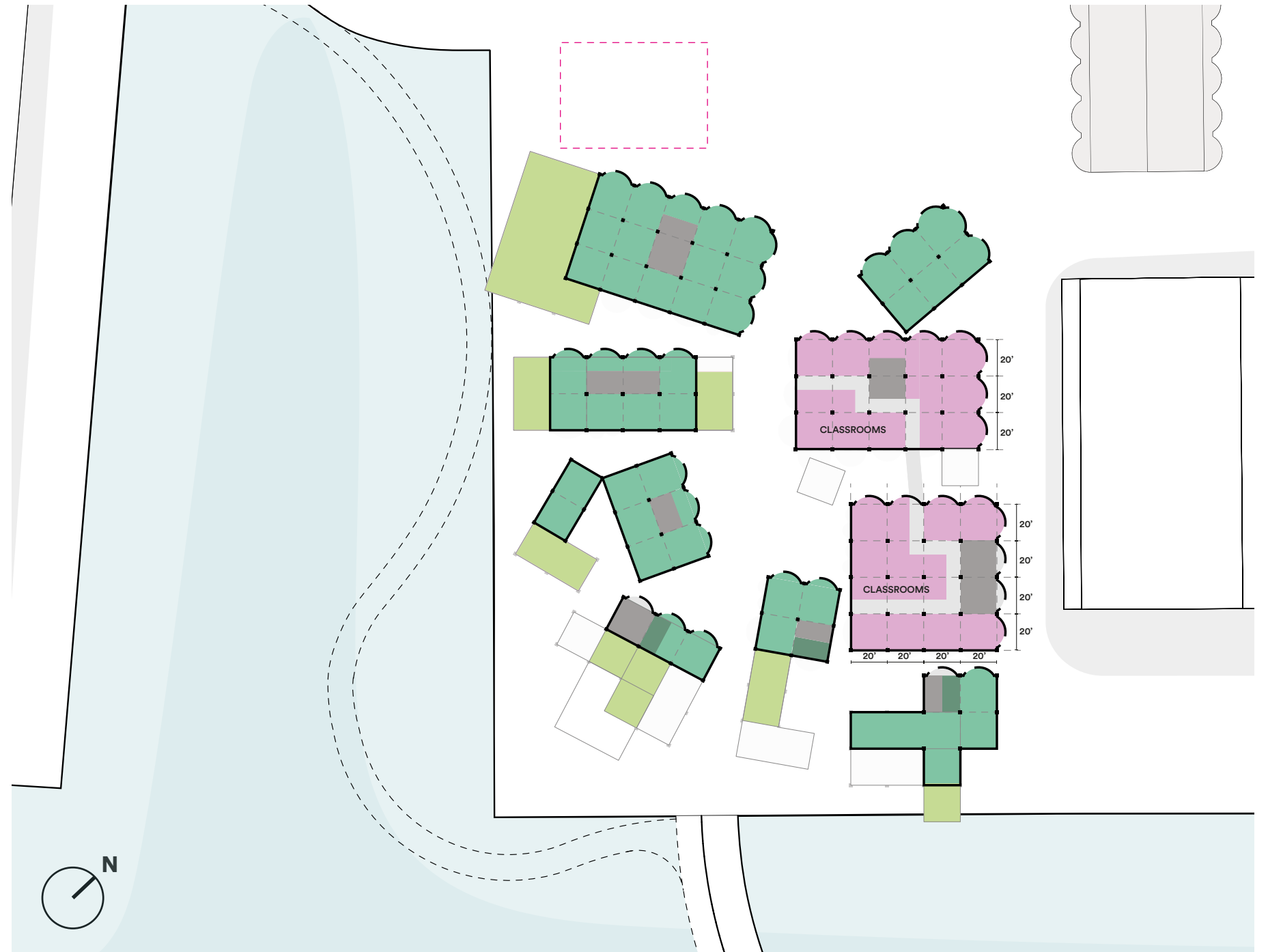
L2 STOA / EDUCATION

- ▶ ENTRY
- ▷ SERVICE ENTRY
- STOA - PUBLIC PROGRAMME
- STOA - COMMUNITY
- STOA - SEMI PRIVATE
- CHILDCARE-CENTRE
- KINDERGARTEN
- SCHOOL
- SCHOOL OUTDOOR
- LOBBY
- RESIDENTIAL
- RESIDENTIAL OUTDOOR
- CORES& MEP



EDUCATION



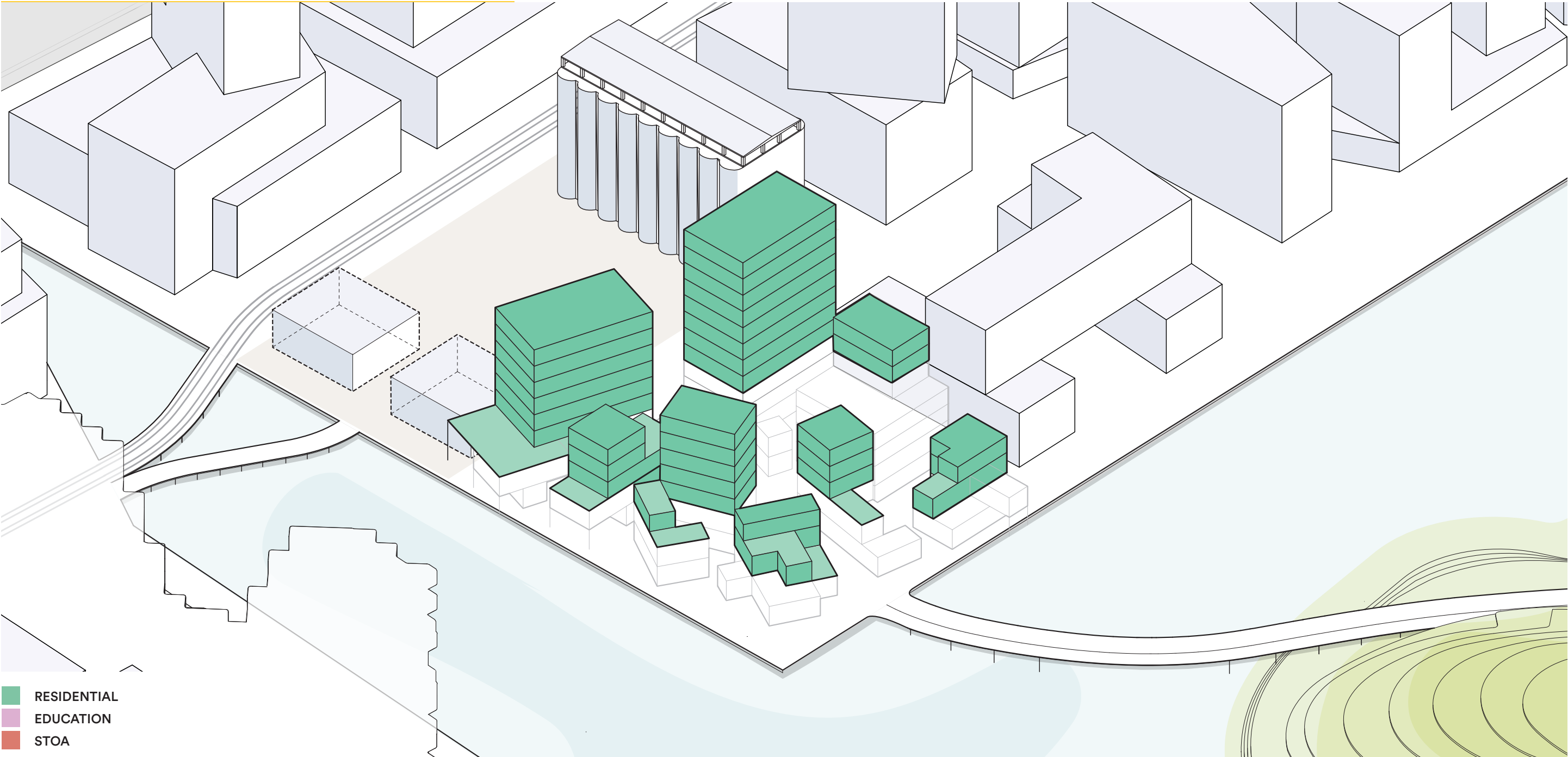


L5 EDUCATION / RESIDENTIAL

- ▶ ENTRY
- ▷ SERVICE ENTRY
- STOA - PUBLIC PROGRAMME
- STOA - COMMUNITY
- STOA - SEMI PRIVATE
- CHILDCARE-CENTRE
- KINDERGARTEN
- SCHOOL
- SCHOOL OUTDOOR
- LOBBY
- RESIDENTIAL
- RESIDENTIAL OUTDOOR
- CORES& MEP



RESIDENTIAL



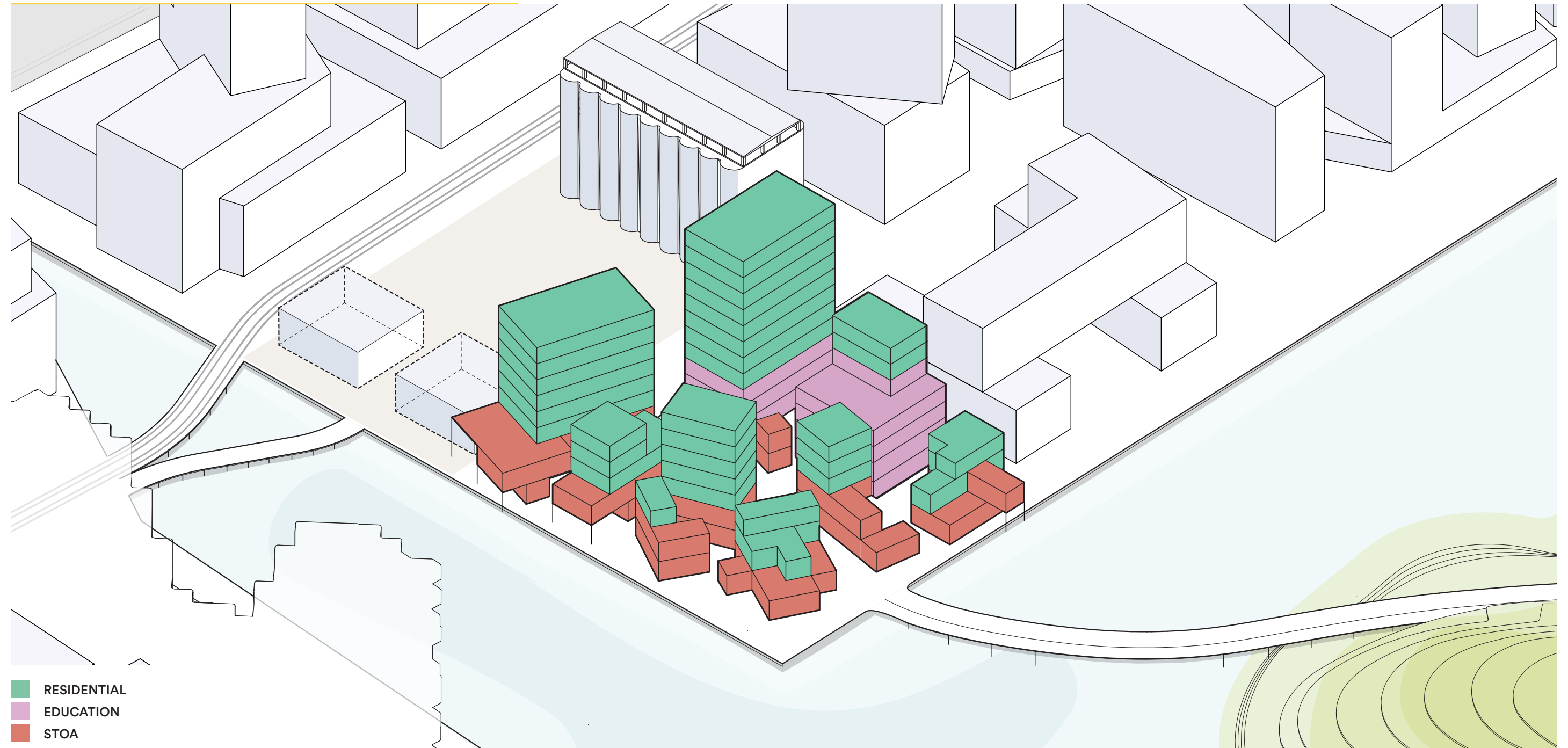


L9 RESIDENTIAL

- LOBBY
- RESIDENTIAL
- RESIDENTIAL OUTDOOR
- CORES& MEP

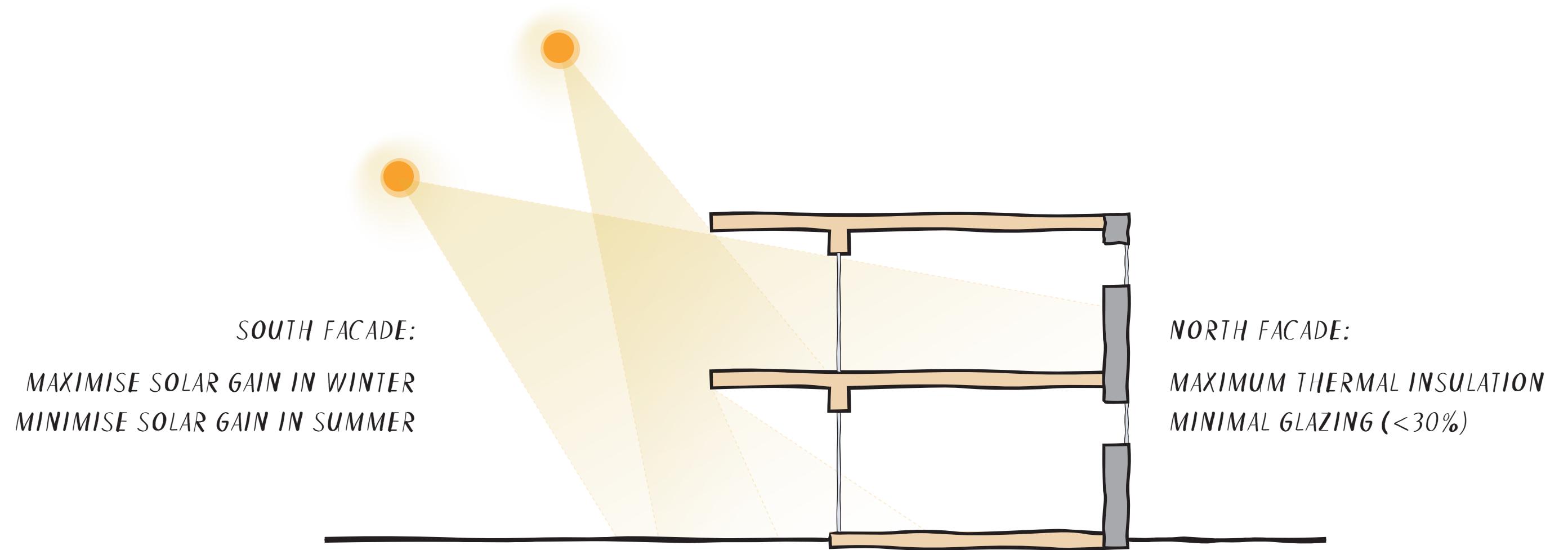


PROGRAMME



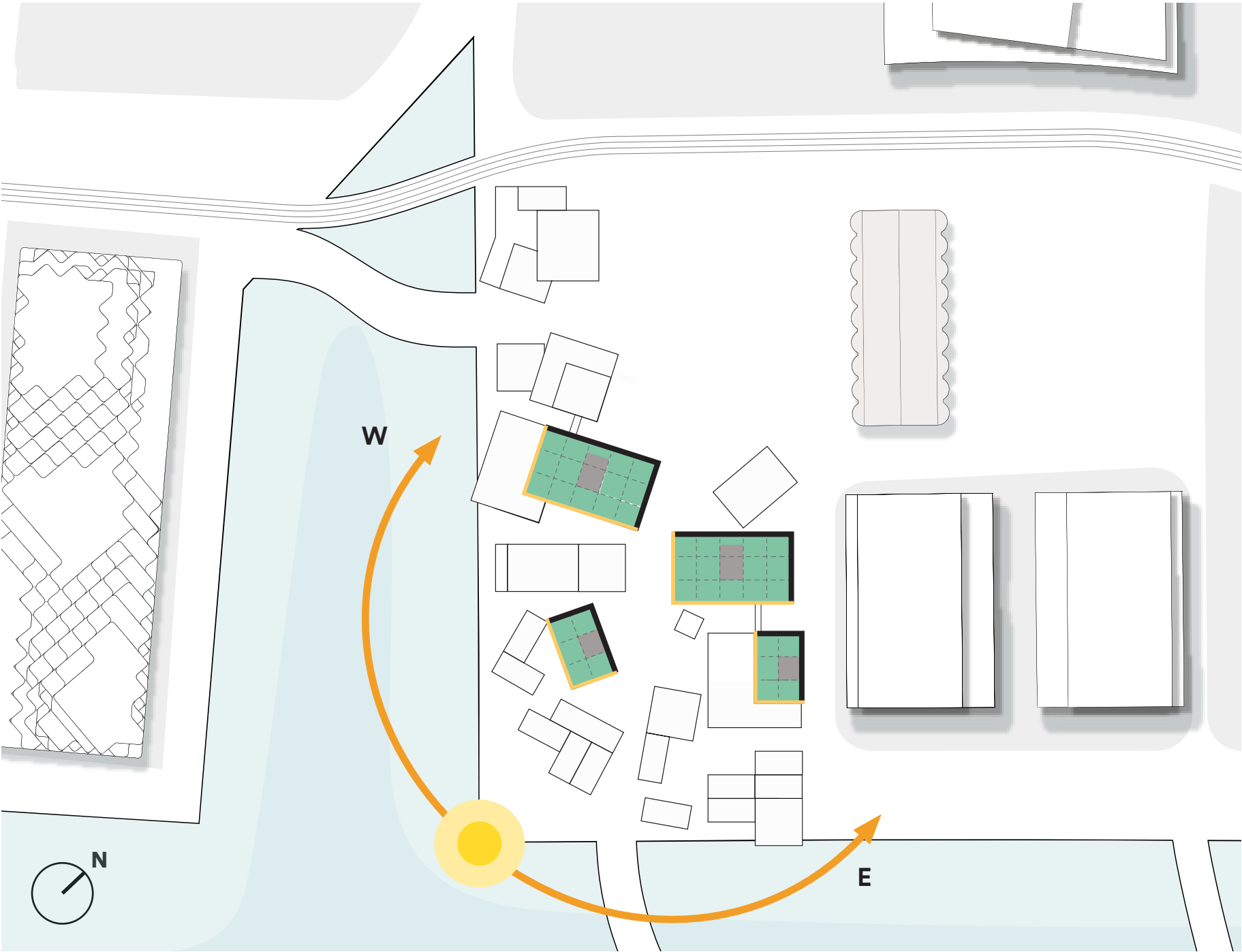
FACADE DESIGN

KEY PASSIVE HOUSE PRINCIPLES



FACADE ORIENTATION

- RESIDENTIAL
- RESIDENTIAL EXTERIOR
- CORES& MEP





TWO-SIDED





NORTH FACADE

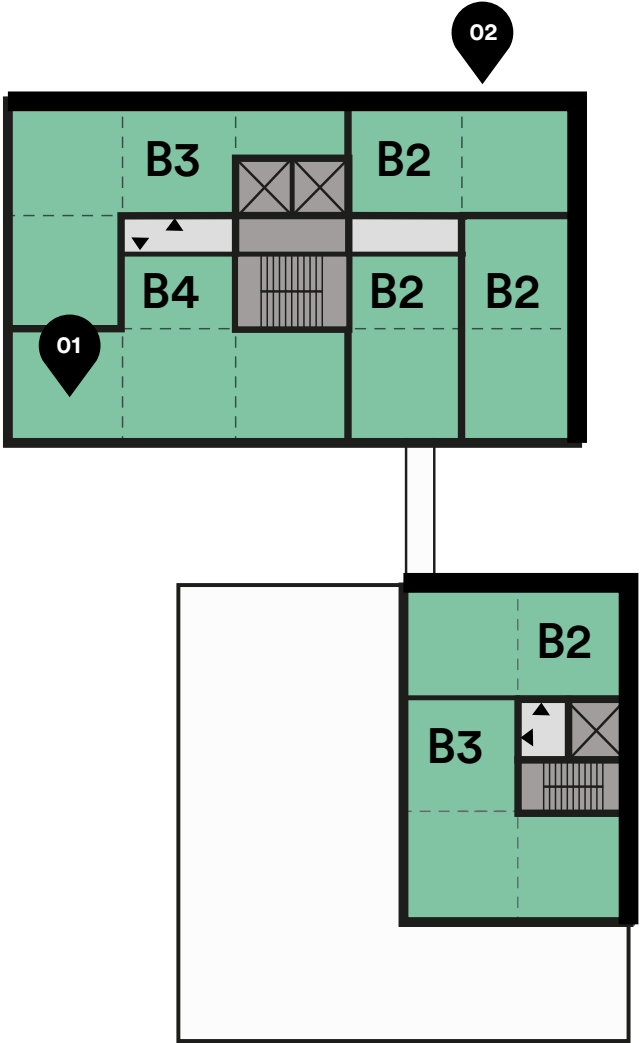


NORTH FACADE

- 01

Typical residential layout*
- 02

North facades required higher thermal insulation, less glazing
(Passive House requires less than 30% glazing)



RESIDENTIAL
RESIDENTIAL EXTERIOR
CORES& MEP

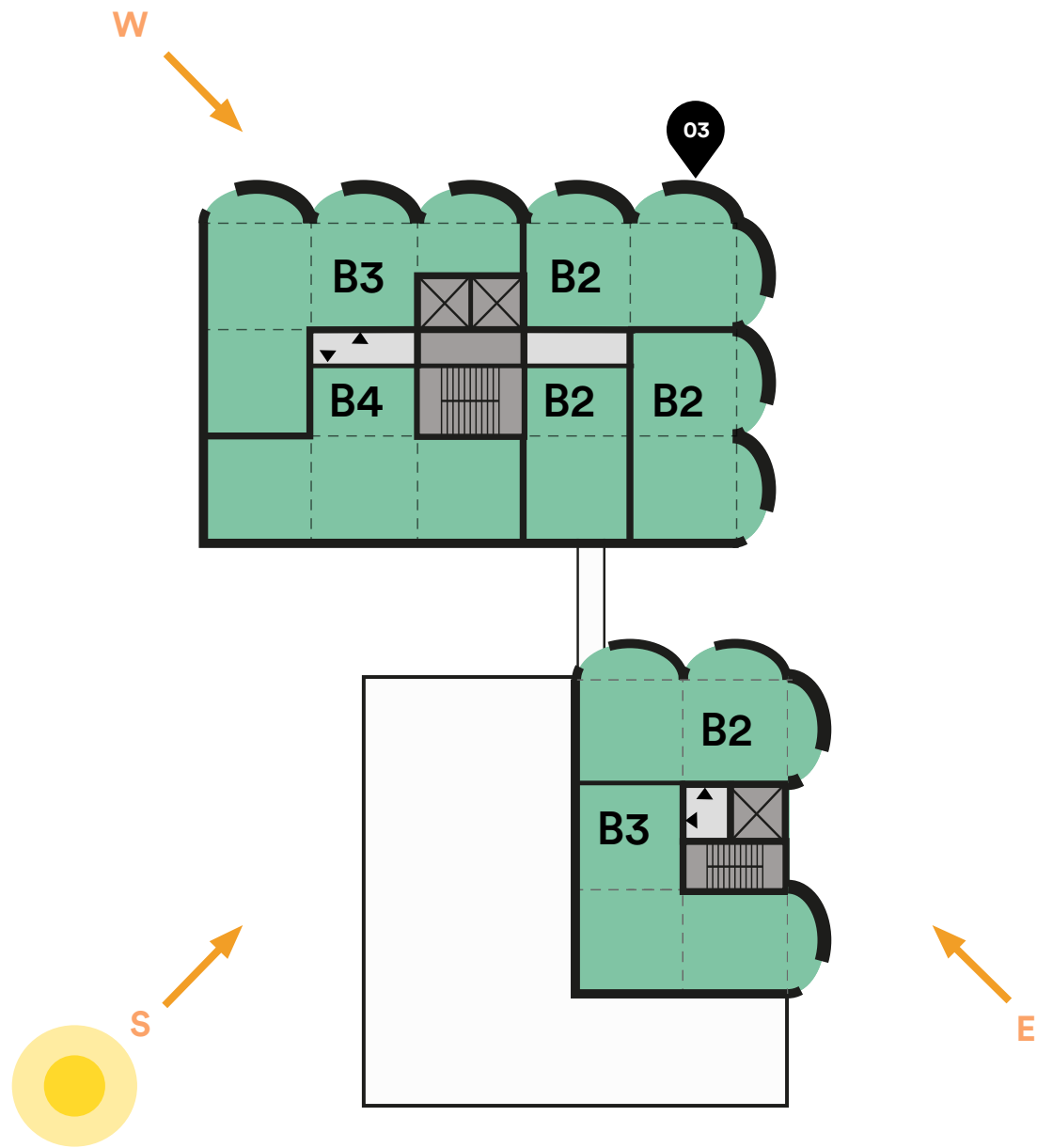


* Average size 1,000 SF GFA/Unit based on aggregated market data for the Waterfront



NORTH FACADE

03 By 'popping-out' the facade we can angle the glazing to east and west and maximise daylight

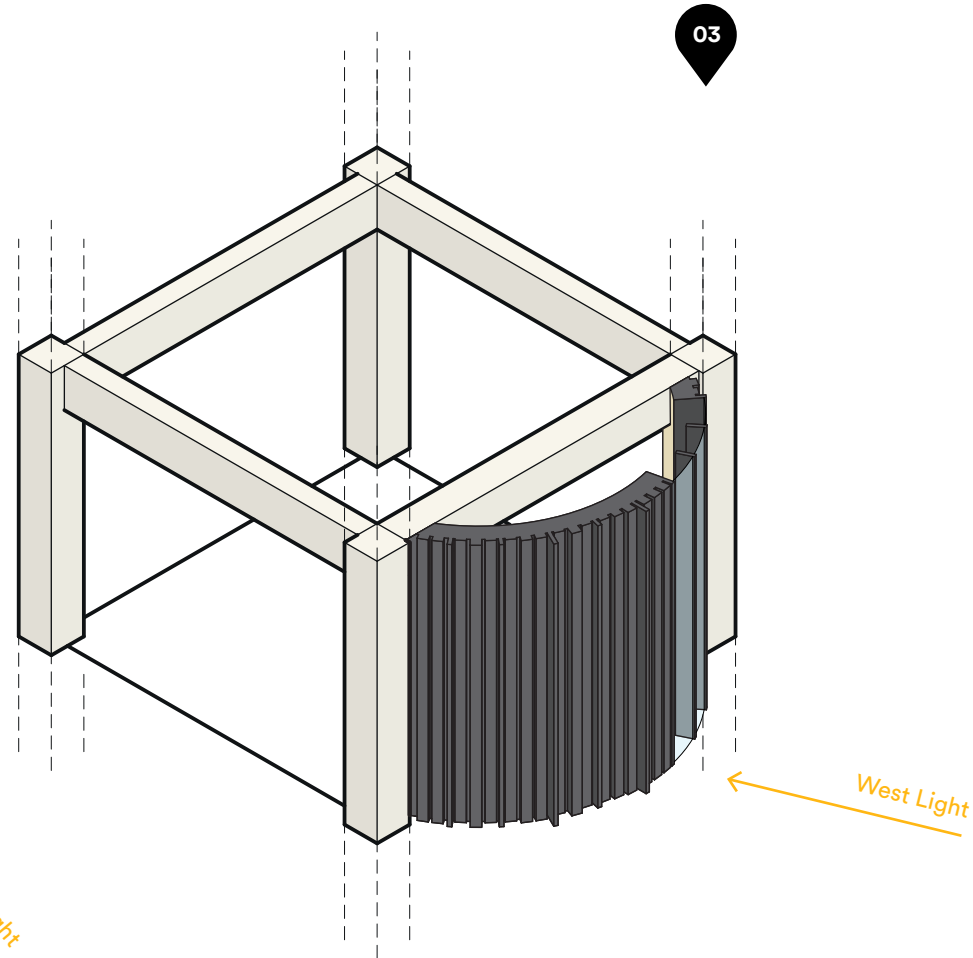
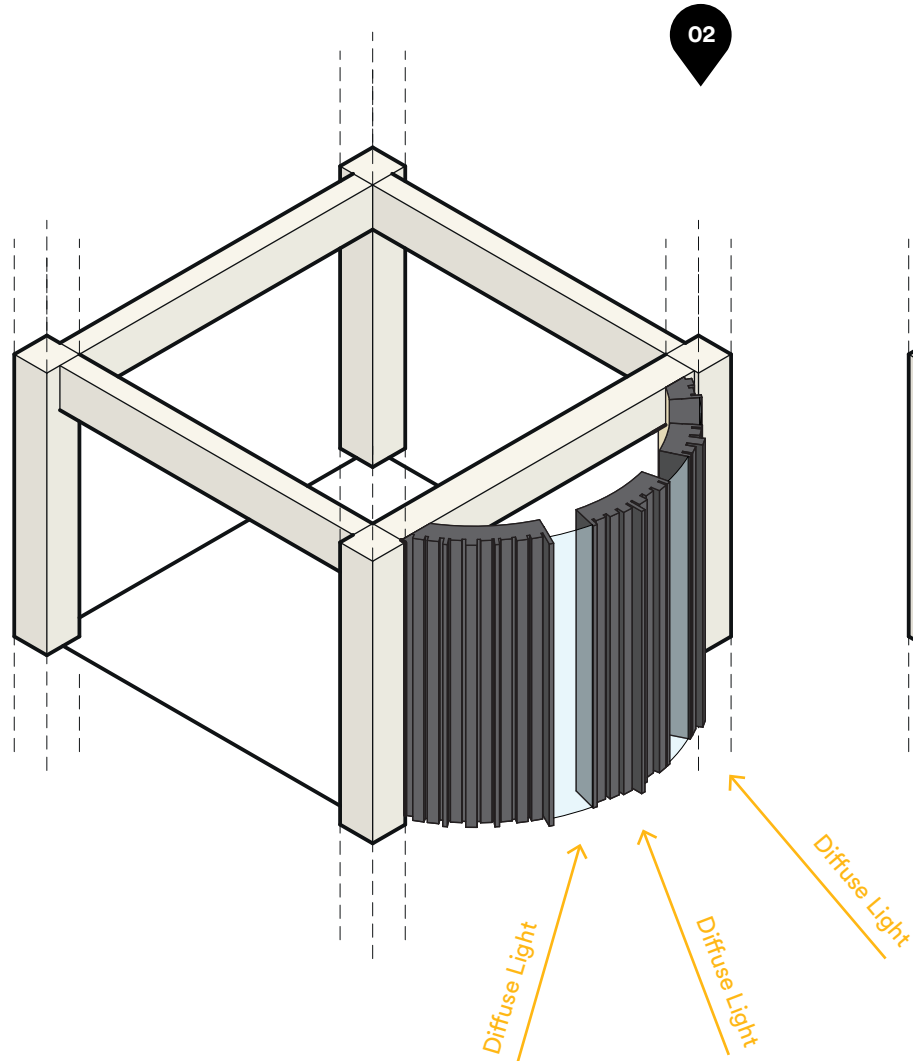
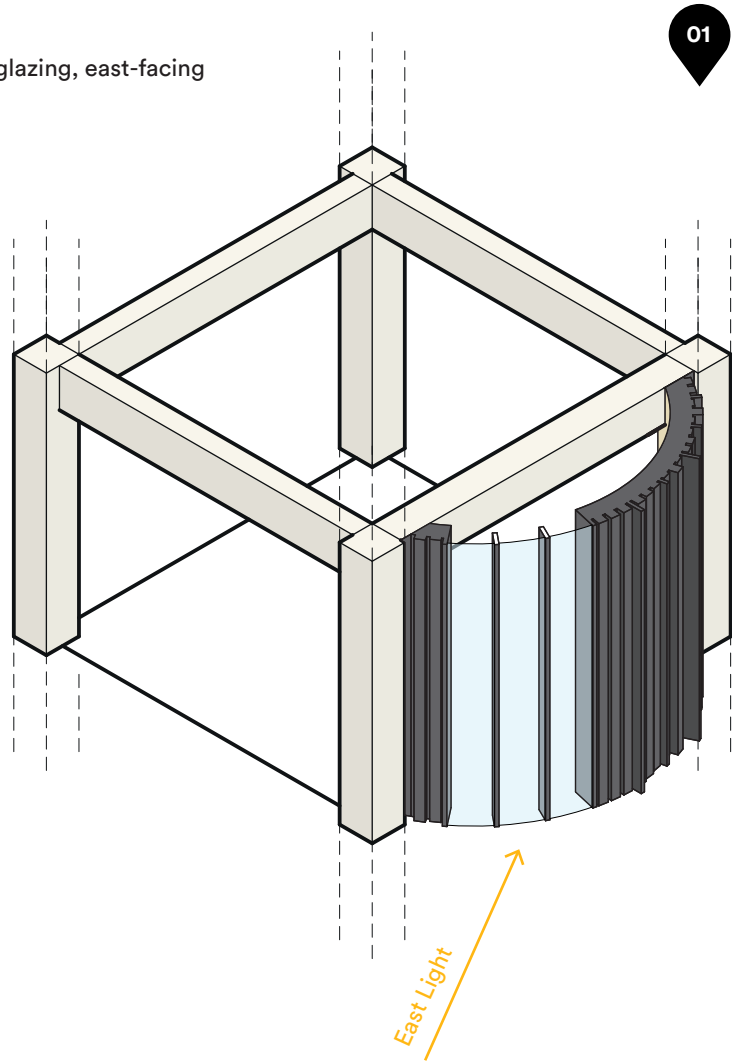


- RESIDENTIAL
- RESIDENTIAL EXTERIOR
- CORES& MEP



NORTH FACADE

- 01 30% glazing, east-facing
- 02 30% glazing, north-facing (diffuse light)
- 03 30% glazing, east-facing

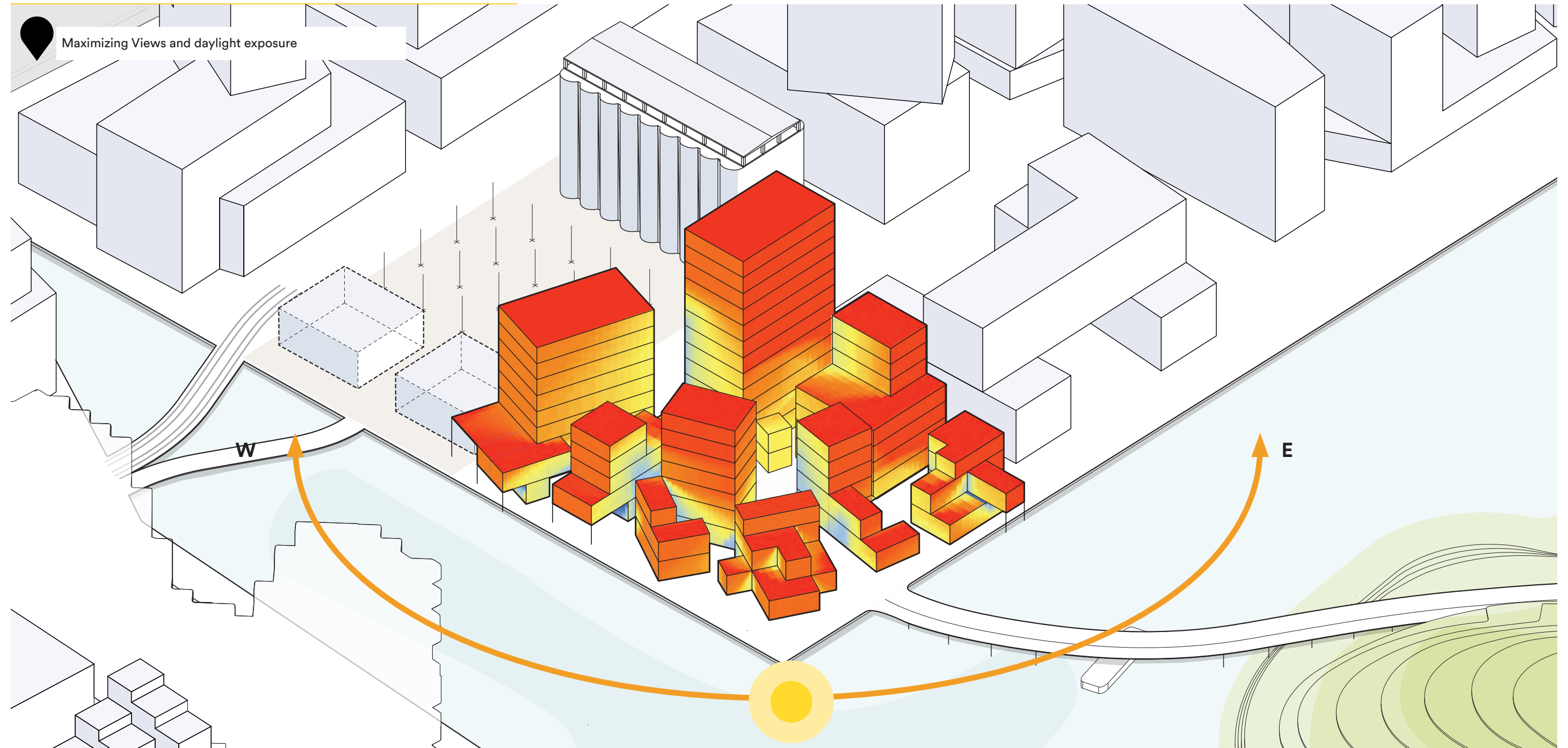




SOUTH FACADE

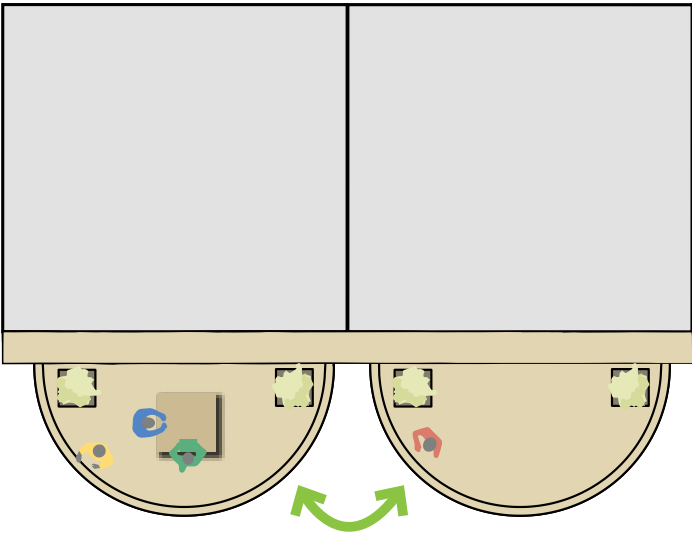
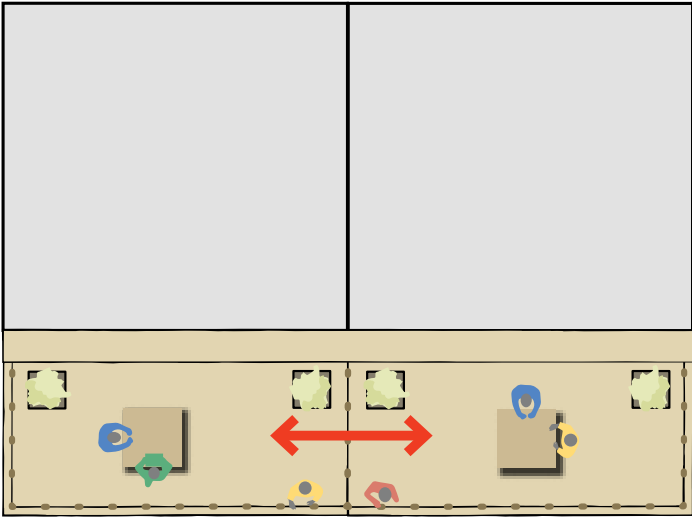


SOUTH FACADE



CIRCULAR BALCONIES

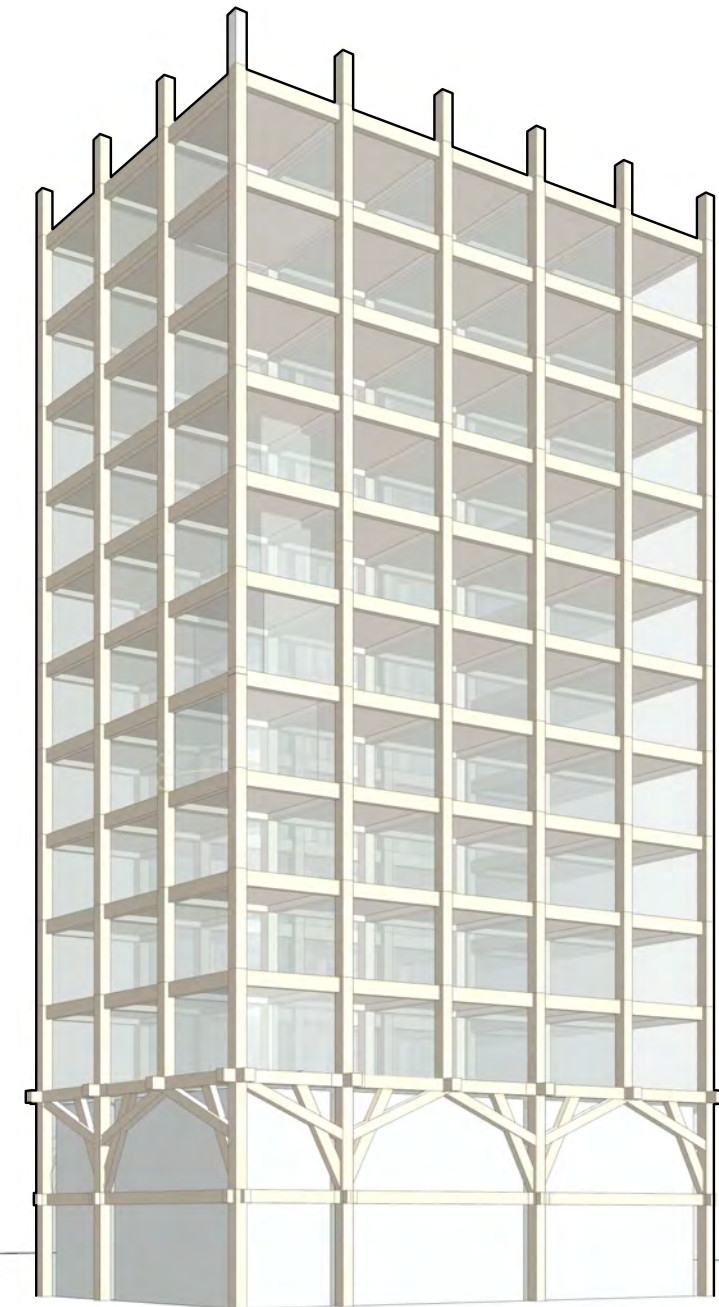
01 Separation between balconies



SOUTH FACADE

01

Tall timber building system



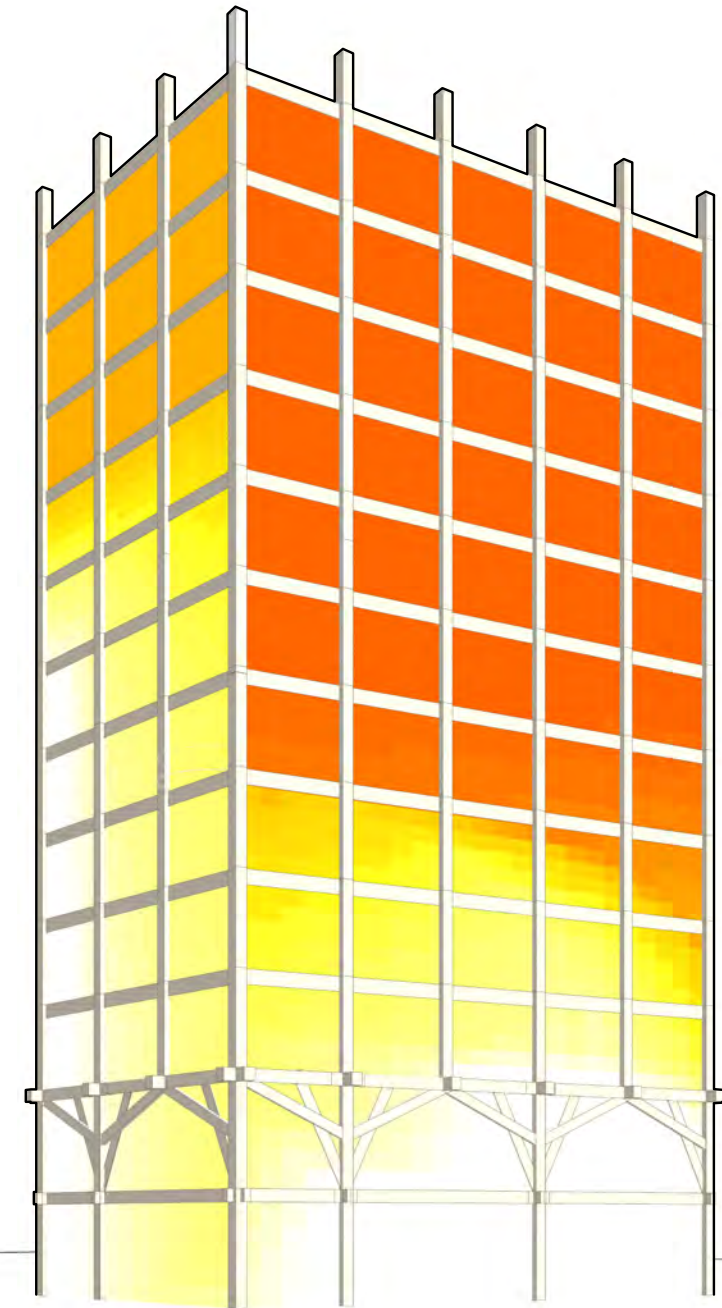
SOUTH FACADE

01

Tall timber building system

02

Sunlight study



SOUTH FACADE

01

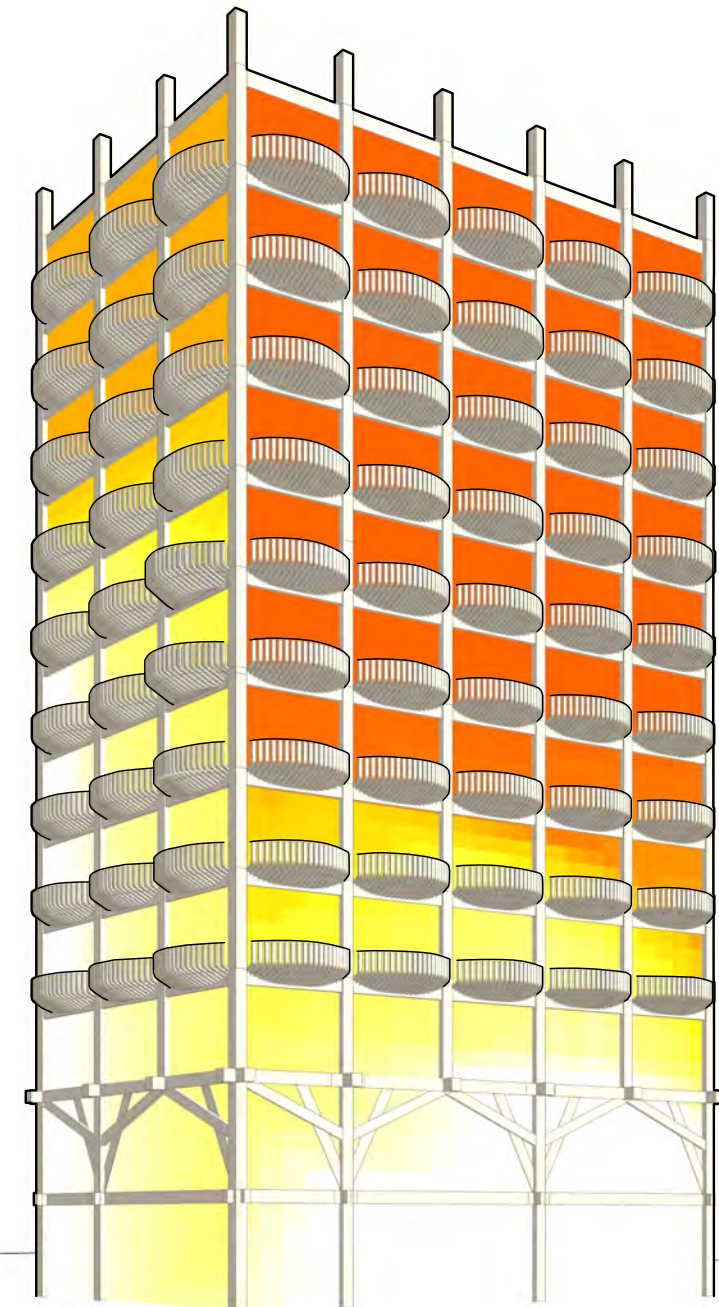
Tall timber building system

02

Sunlight study

03

Typical balconies



SOUTH FACADE

01

Tall timber building system

02

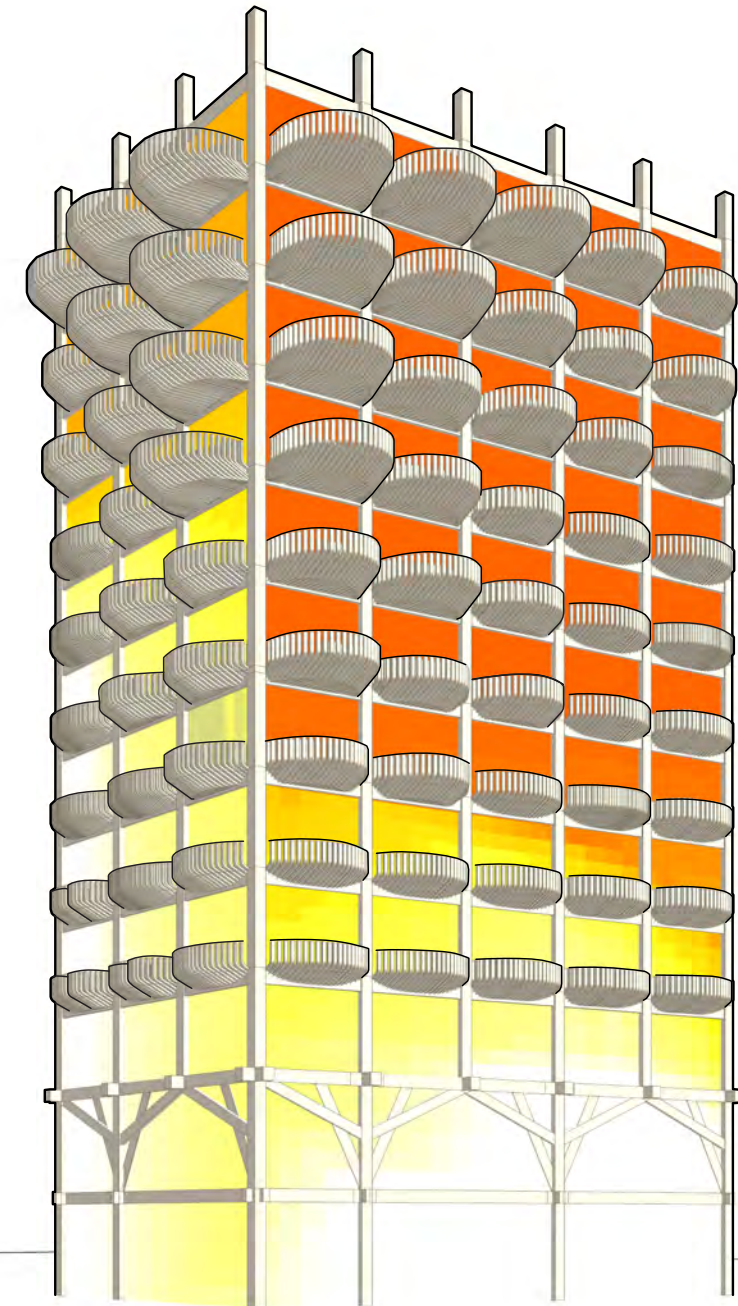
Sunlight study

03

Typical balconies

04

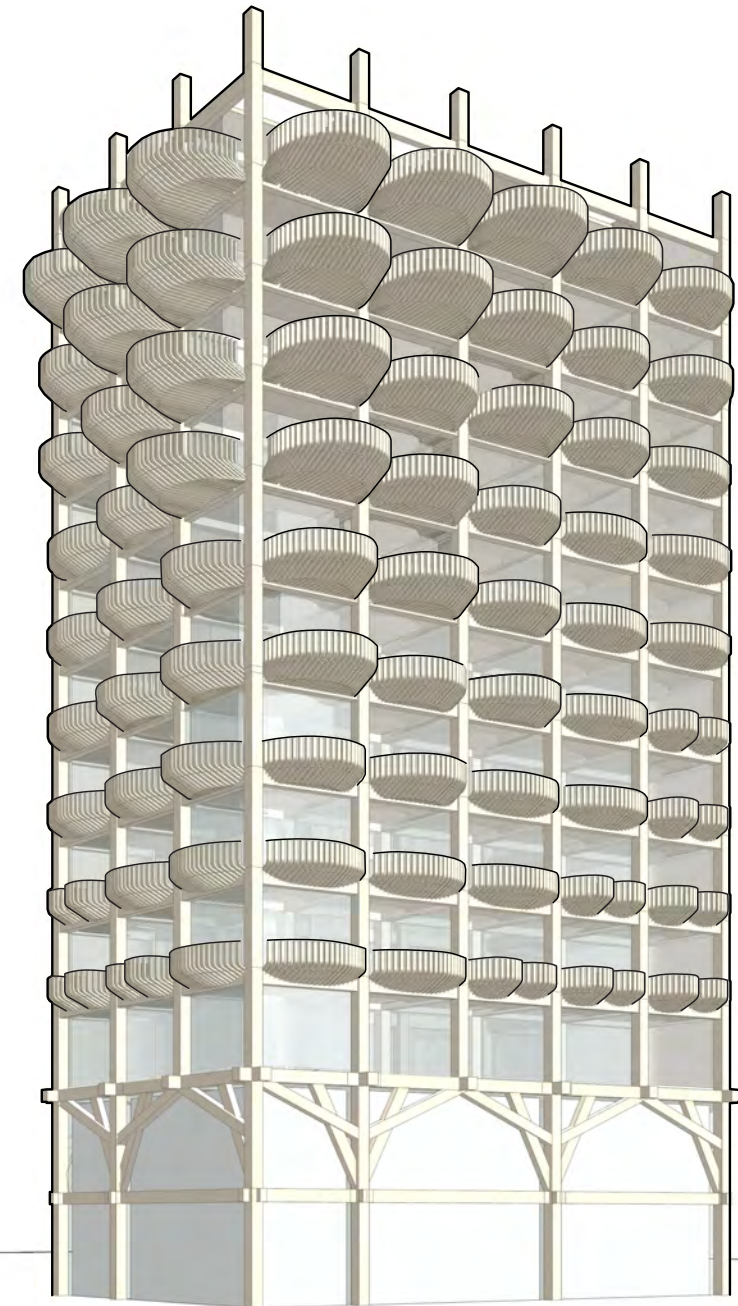
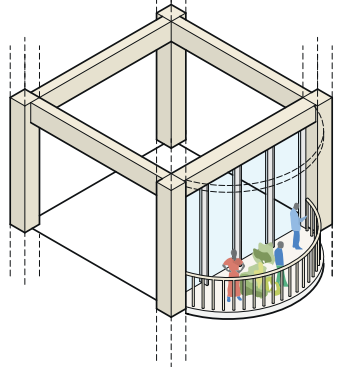
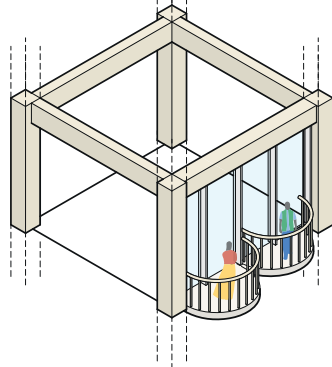
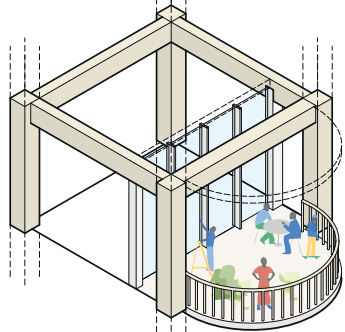
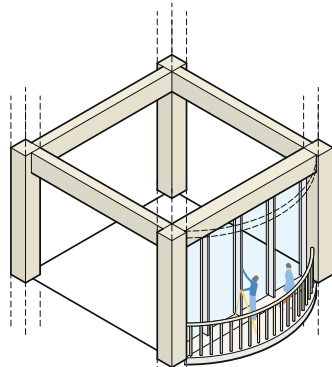
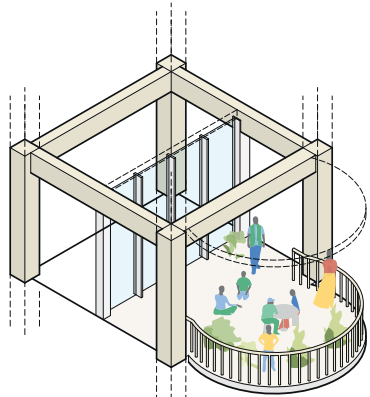
Modular balcony sizes respond to shading requirments



SOUTH FACADE

04

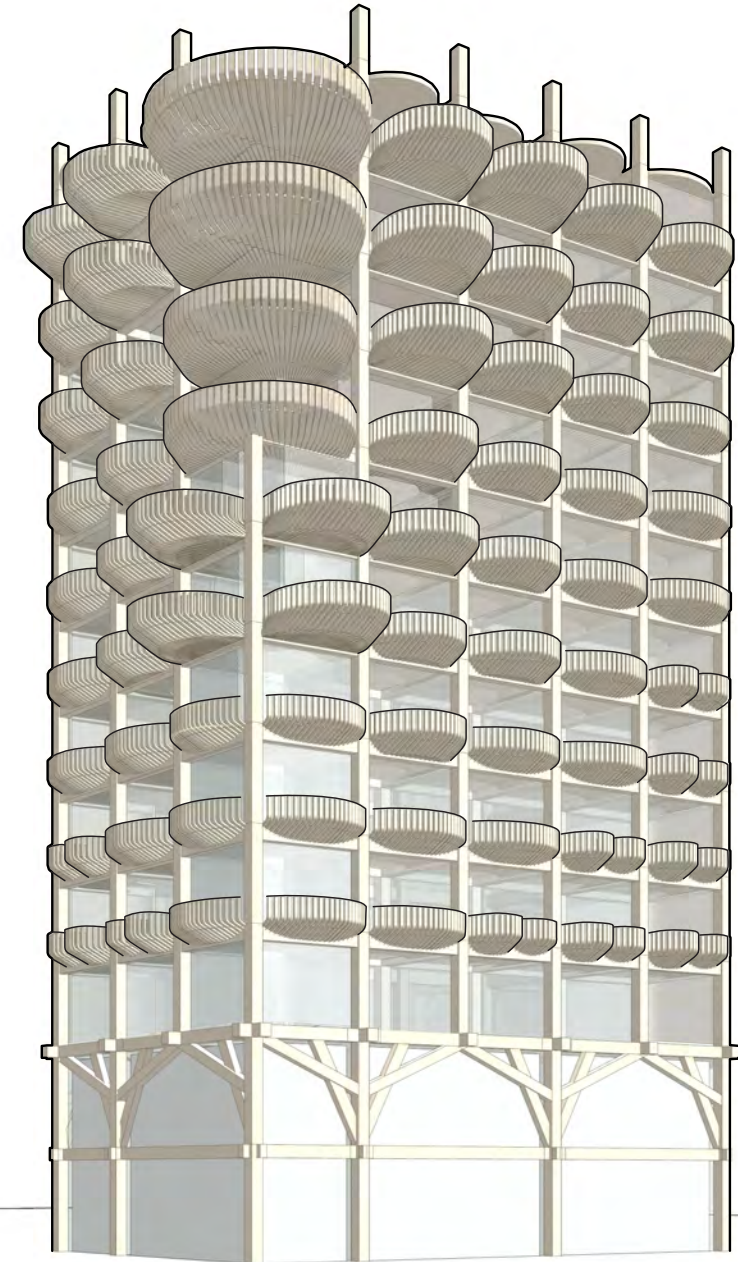
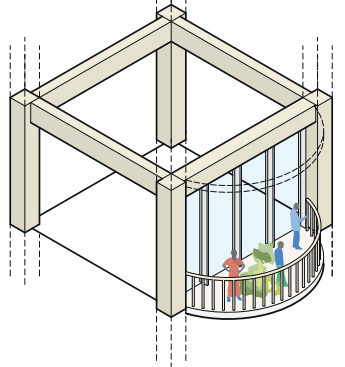
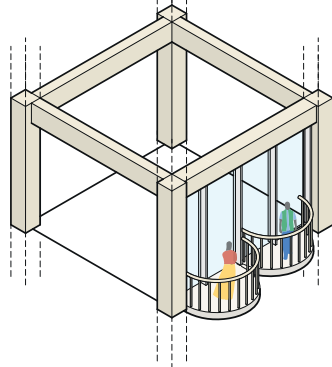
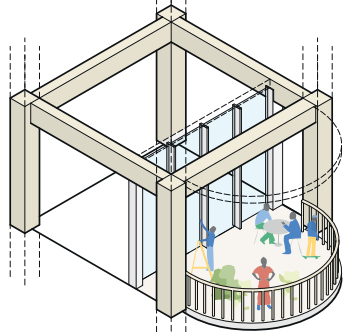
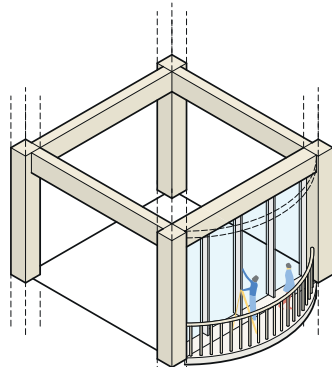
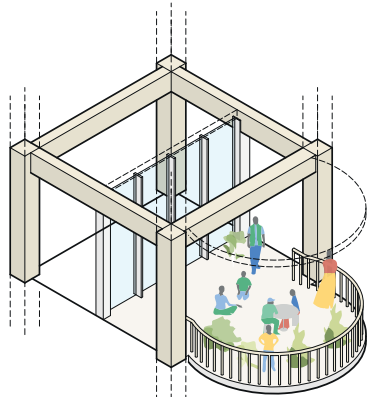
Modular balcony sizes respond to shading requirements



SOUTH FACADE

05

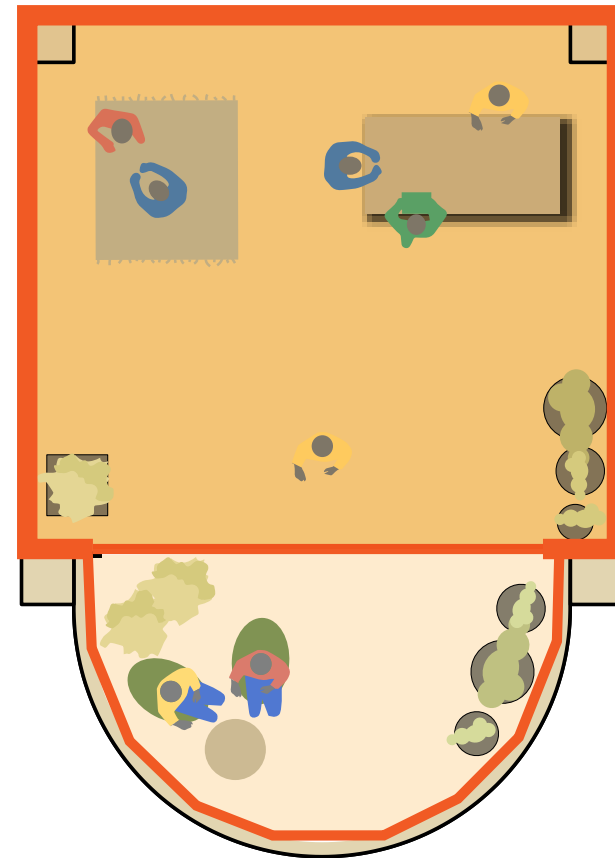
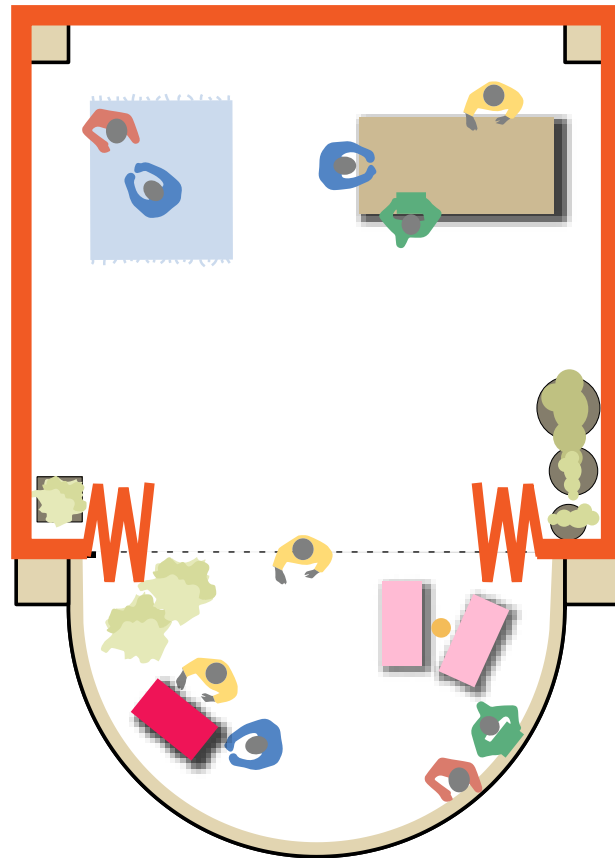
Special balconies to corners



WINTER GARDENS

03

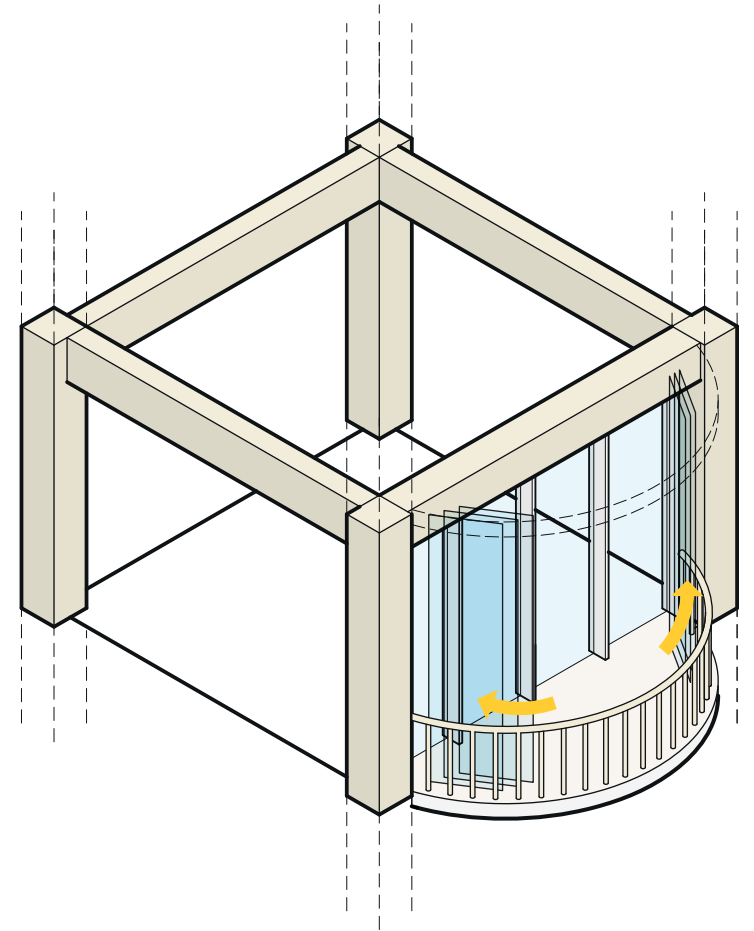
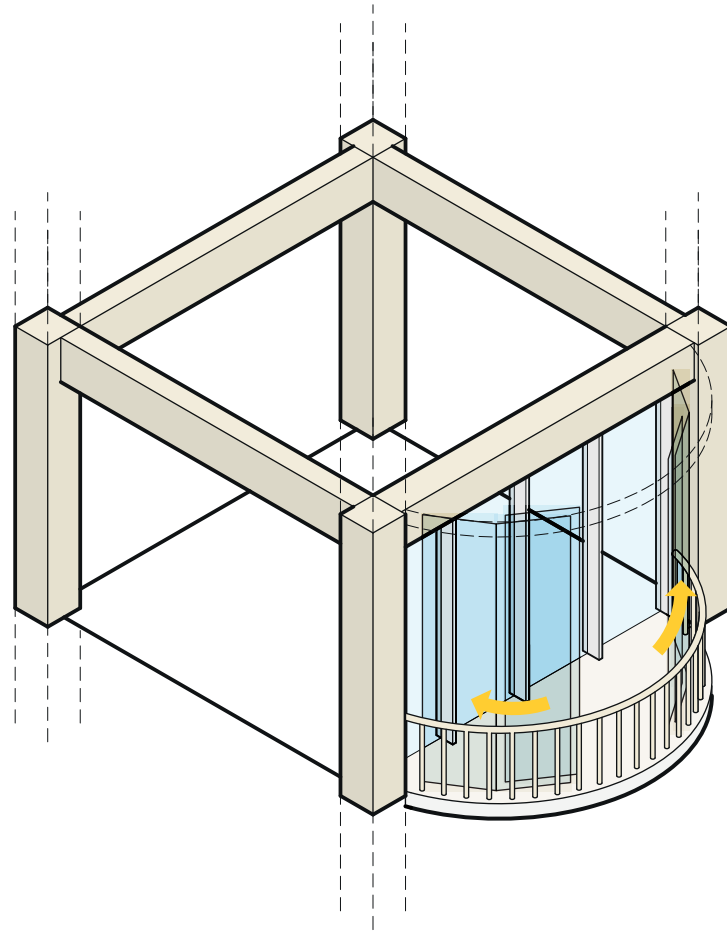
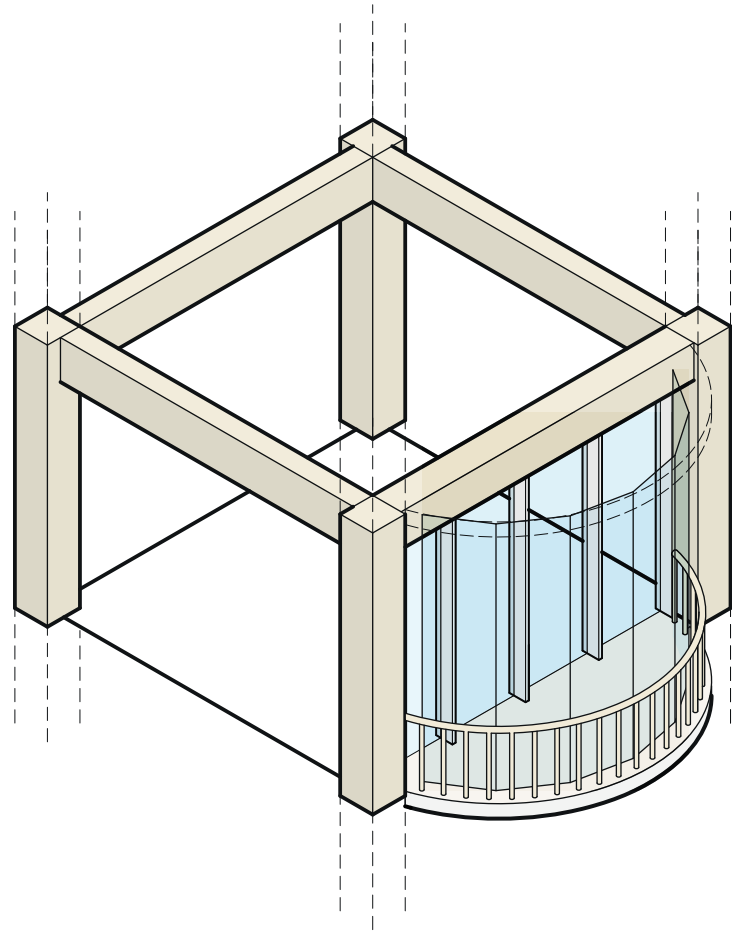
Extending the living space and providing panoramic views



WINTER GARDENS

06

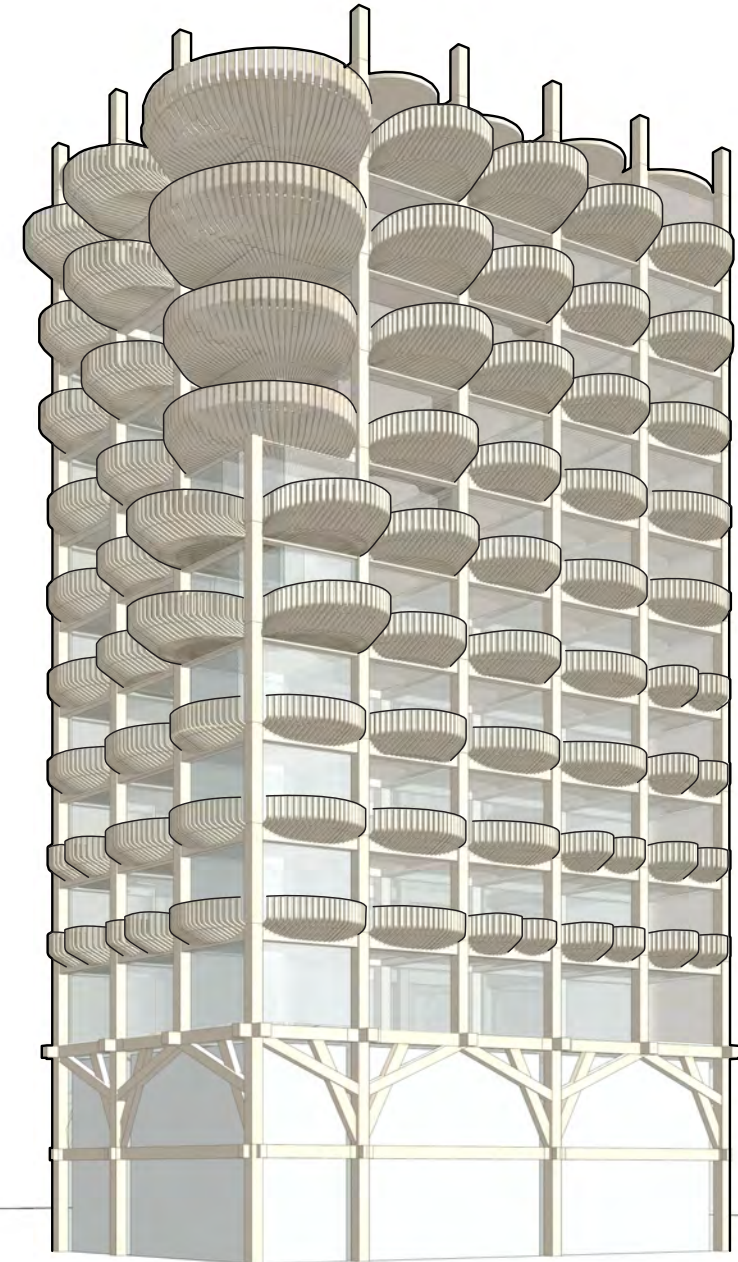
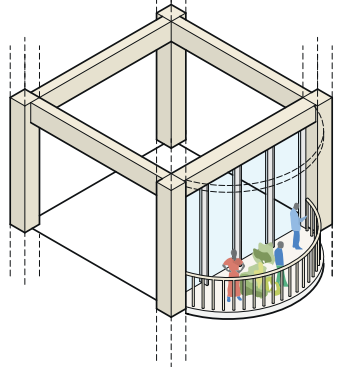
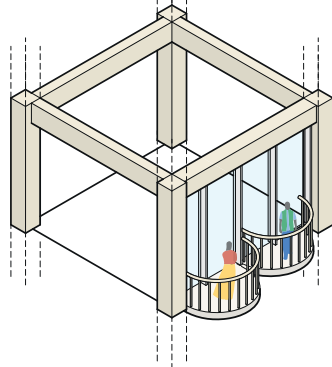
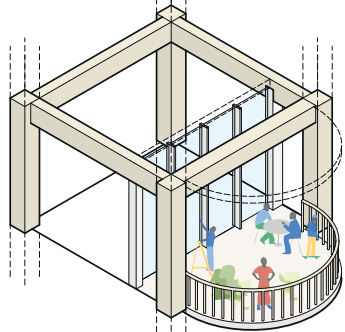
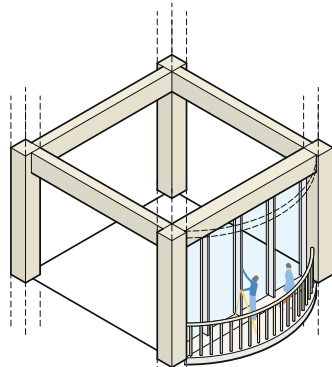
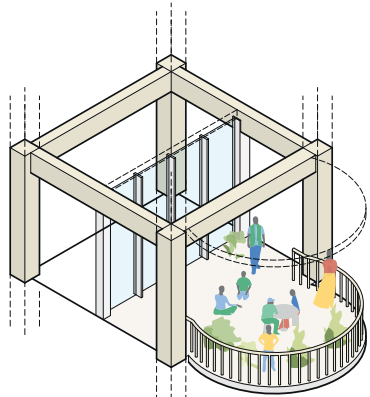
Balconies enclosed to form winter gardens



SOUTH FACADE

05

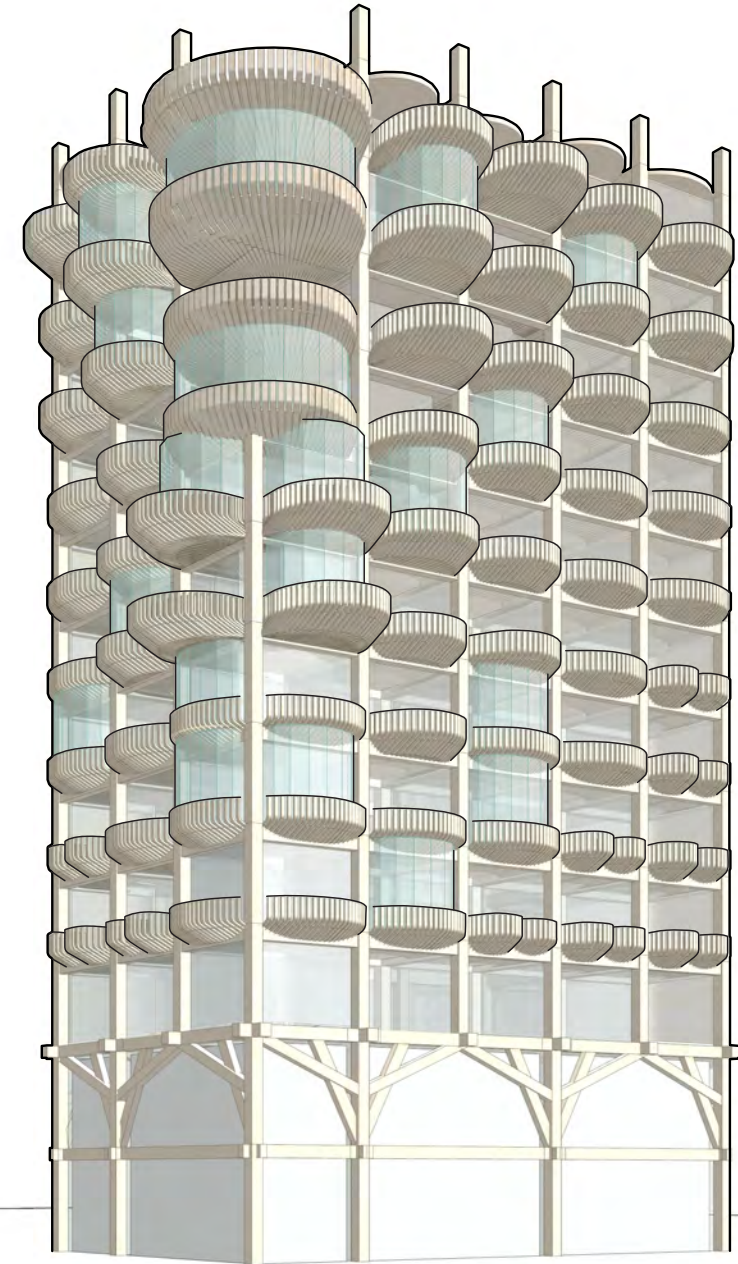
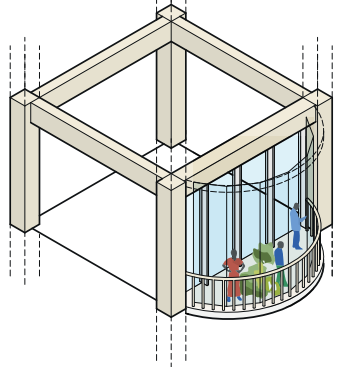
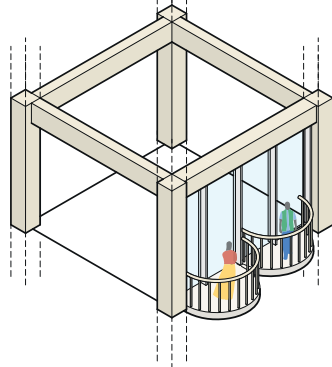
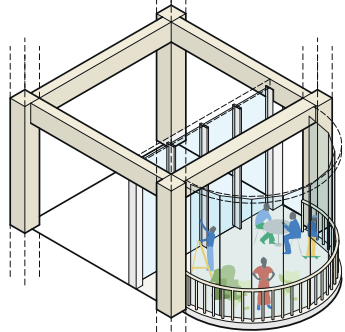
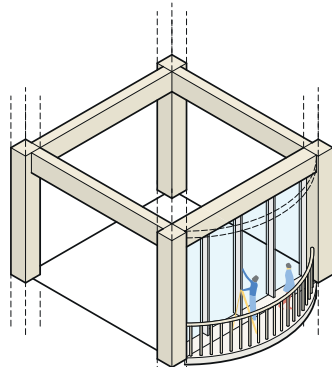
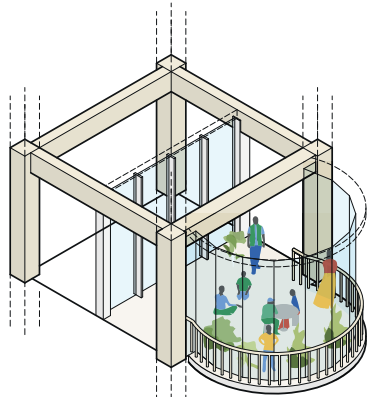
Special balconies to corners



SOUTH FACADE

06

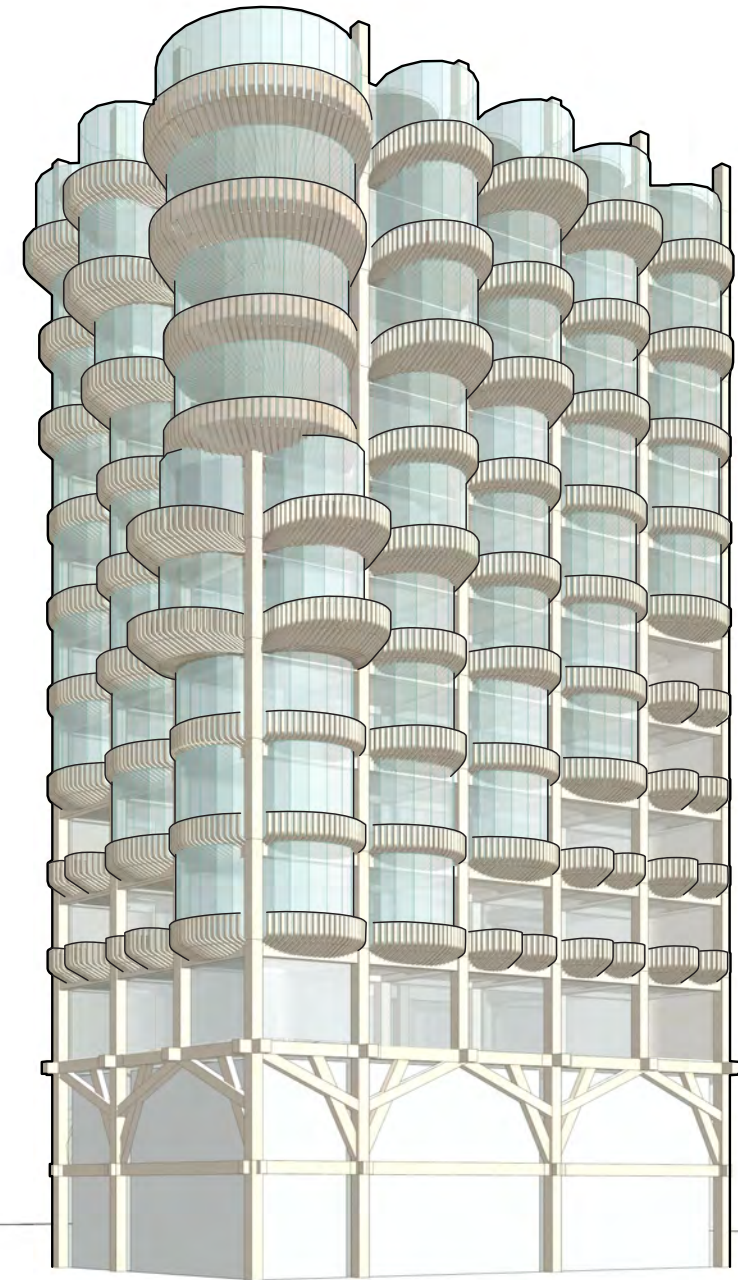
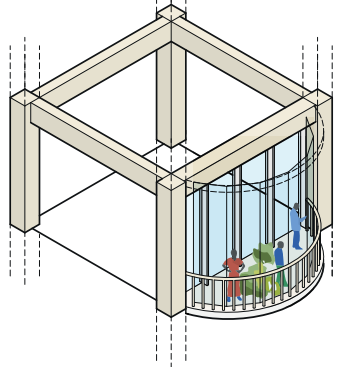
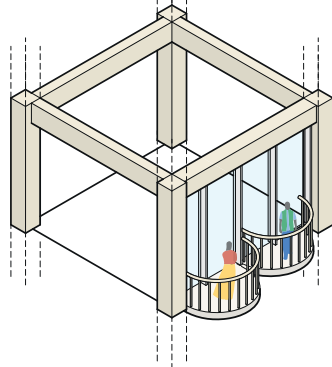
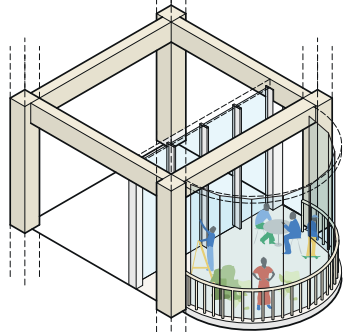
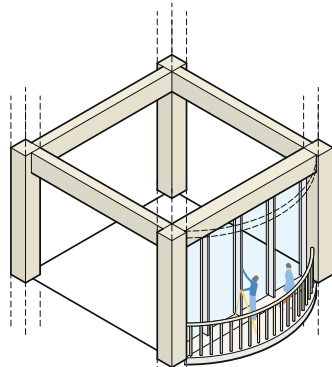
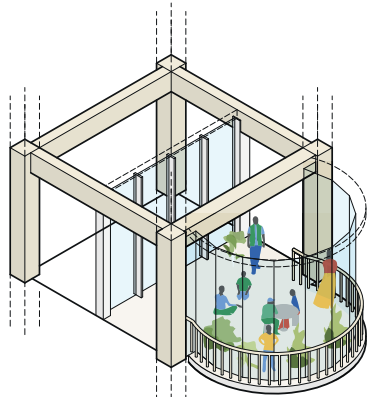
Balconies enclosed to form winter gardens



SOUTH FACADE

06

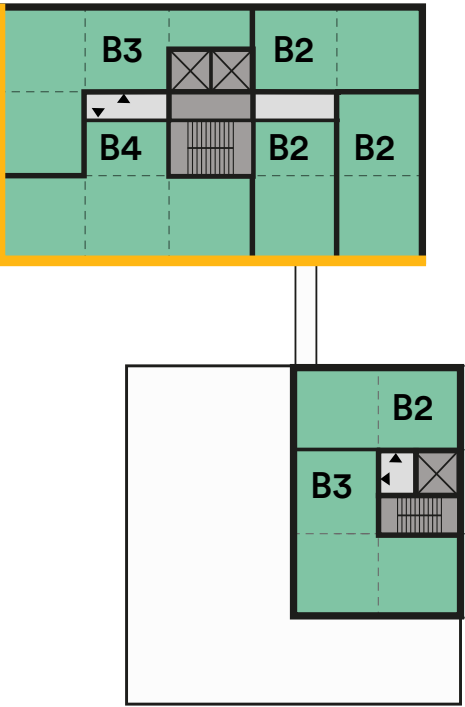
Balconies enclosed to form winter gardens



SOUTH FACADE

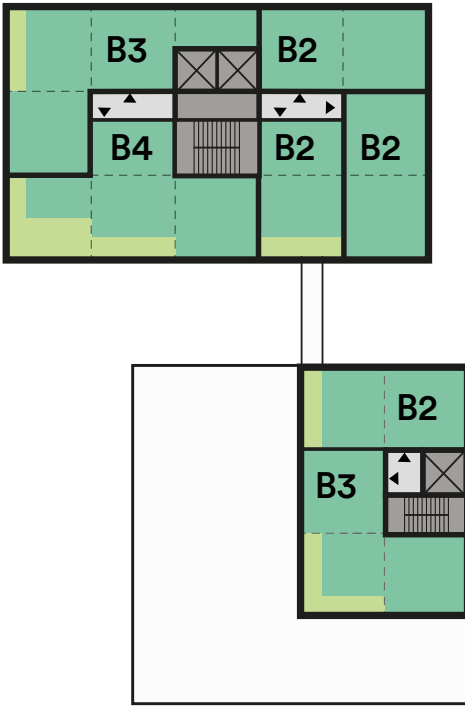
01

Sun exposure facades



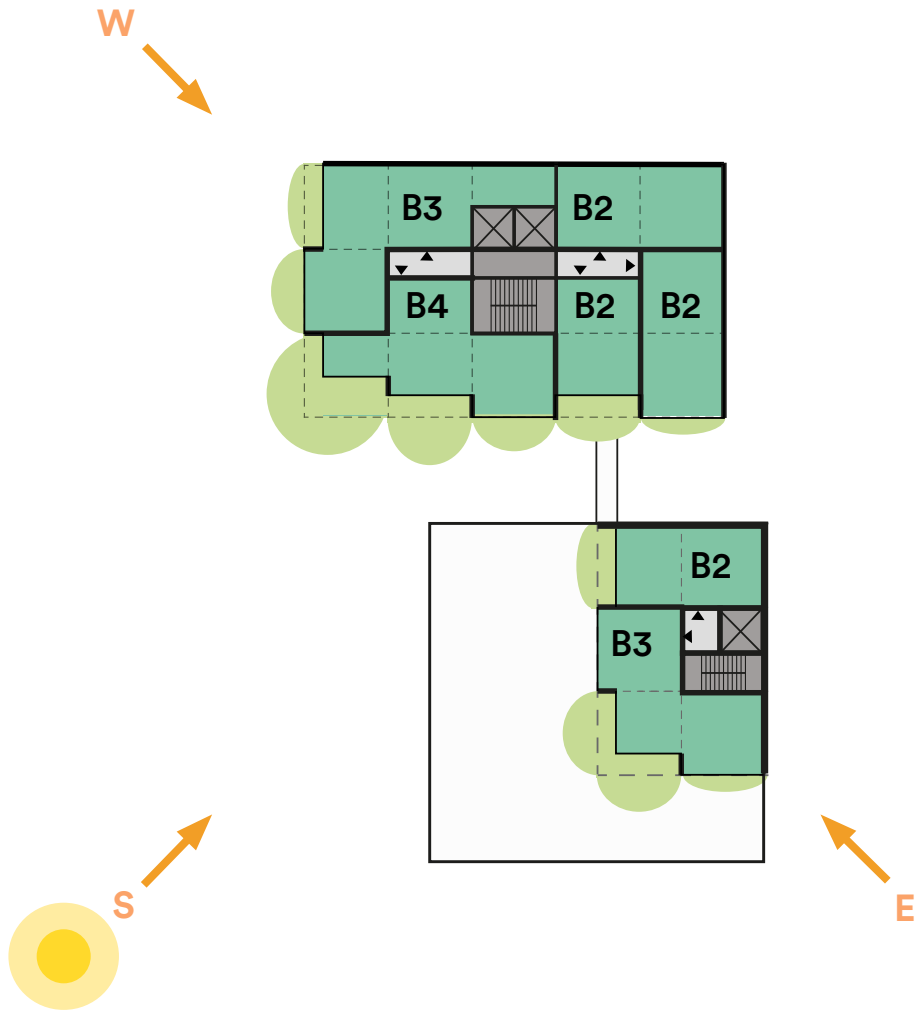
02

Addition of winter gardens

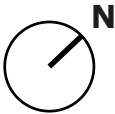


03

Creation of balconies on south facades



RESIDENTIAL
RESIDENTIAL EXTERIOR
CORES& MEP



* Average size 1,000 SF GFA/Unit based on aggregated market data for the Waterfront





