

An aerial photograph of a body of water with a small white boat in the upper left. In the lower right, a modern building with a curved, white facade and a glass-enclosed upper section is visible. The building has several palm trees and people on its terraces. The overall scene is brightly lit, suggesting a sunny day.

RAMLET AL-BAIDA FERRY TERMINAL

Complex Projects
P5
Koen Meijman
24 June 2022



**INTRODUCTION
(IM)MOBILITY
DESIGN BRIEF
CONCEPT
FERRY TERMINAL
PASSENGERS
CONCLUSION**

INTRODUCTION
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6.8 million inhabitants



Beirut

2.2 million inhabitants







meke

FEDIN

FARJALLAH
TRUK. CO.

CAMP

Lebanese spend 16% (2,2 hours) of their productive time on the road on average





Lebanon Among Top 25 Countries with Highest Car Ownership

Tamara Kabboul · [Latest News](#) · February 15, 2019



Traffic congestion adds to Lebanon's many woes

Sunday 04/12/2016

**Congestion costs Lebanon approximately
8% (\$3.000.000.000) of its GDP**





NEWS

Air pollution threatens health in Beirut



Middle East

Lebanon is running out of gas — literally

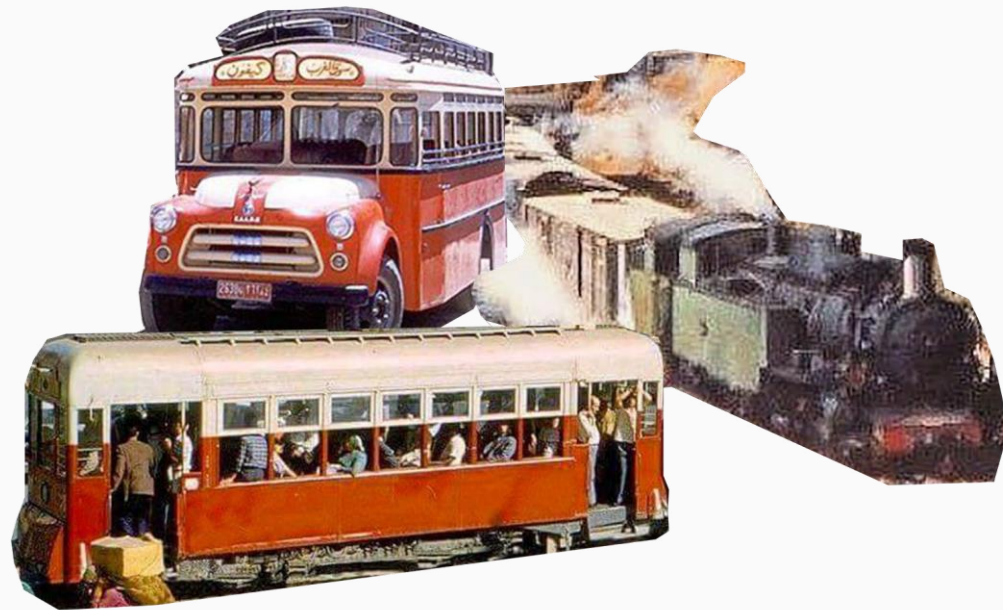




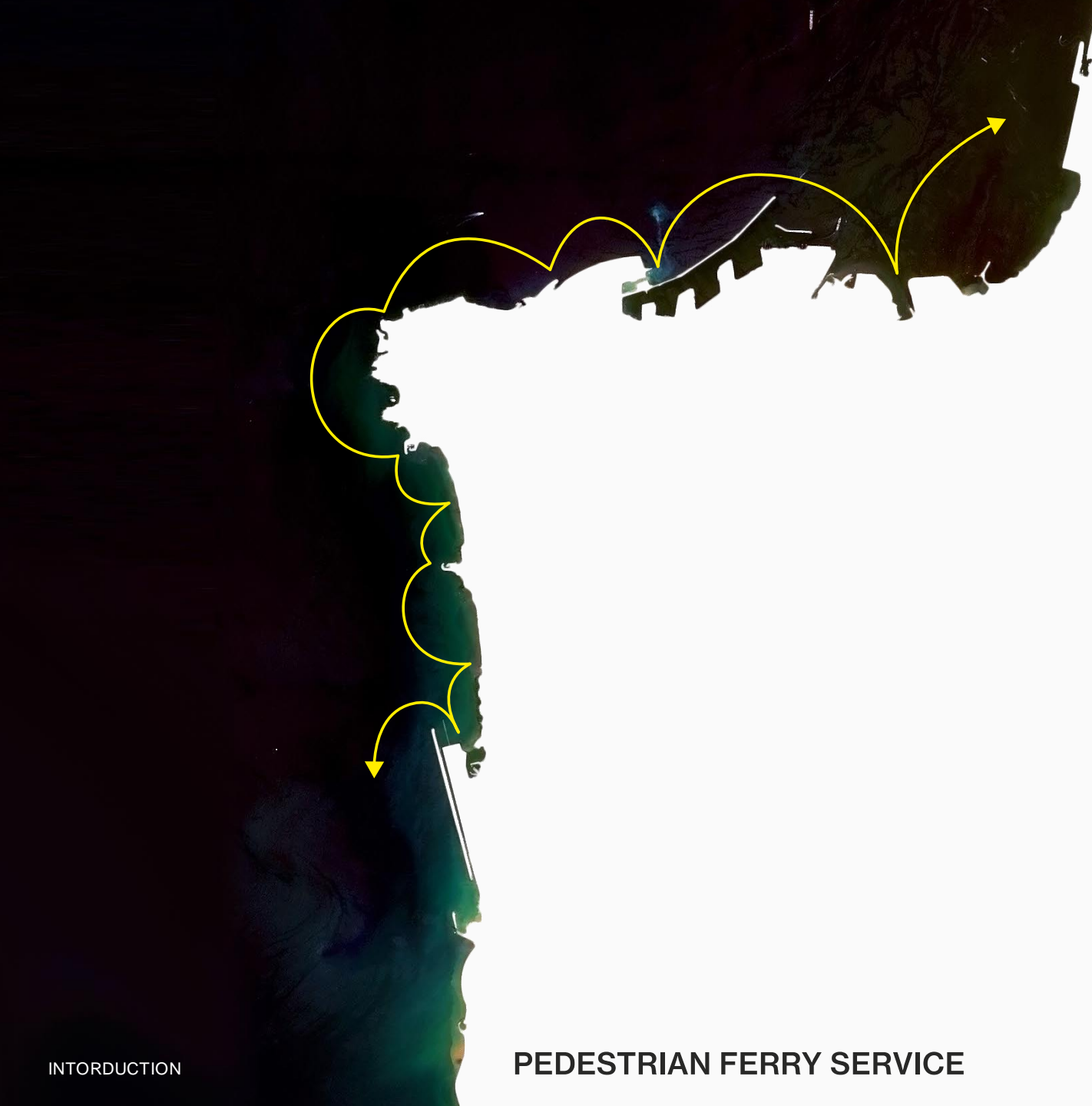
Fueling car in Lebanon now
more than salary

Moving in Lebanon is a
luxury, only public
transport is the
solution

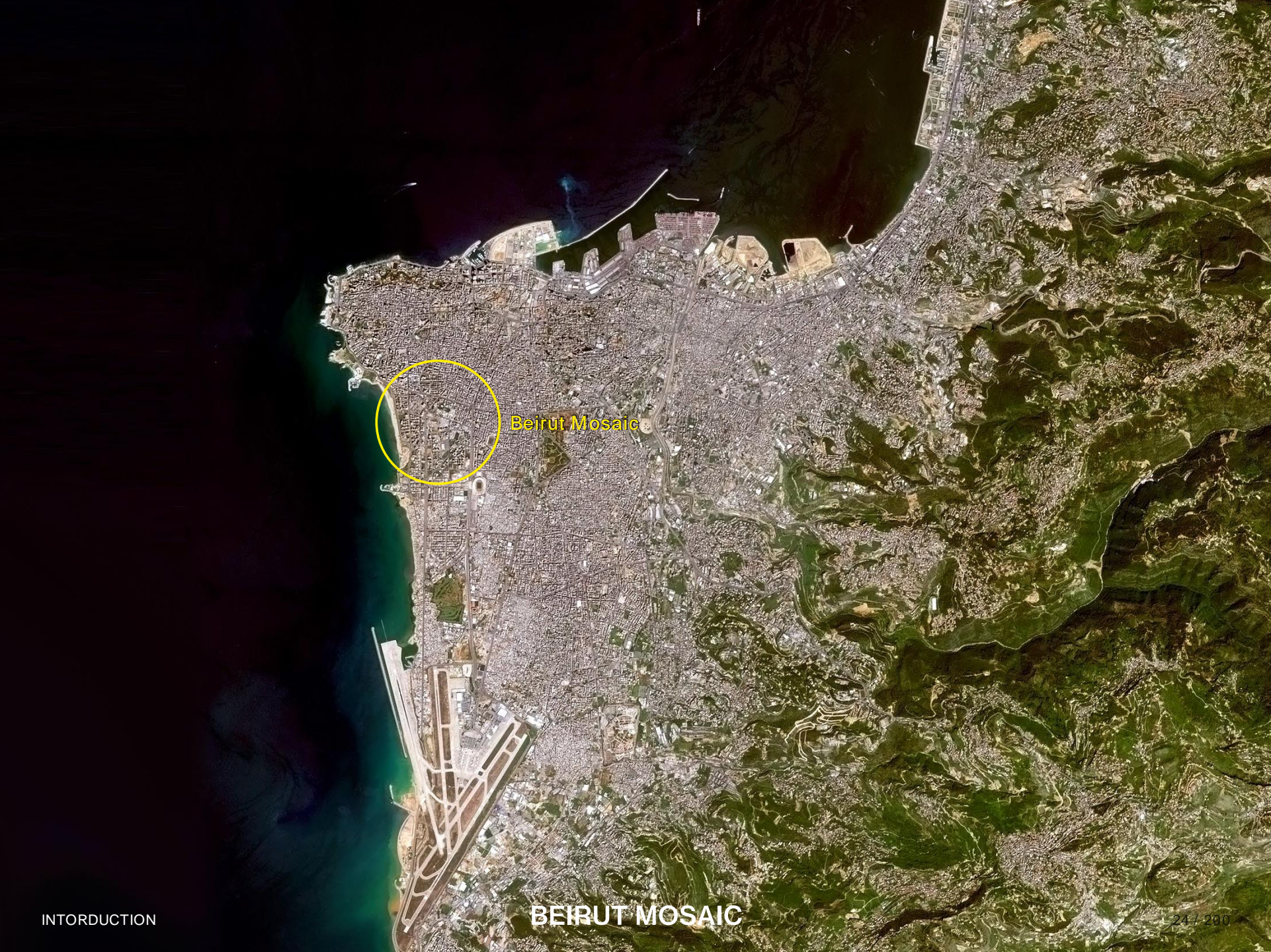












Beirut Mosaic







Enhance
mosaic character



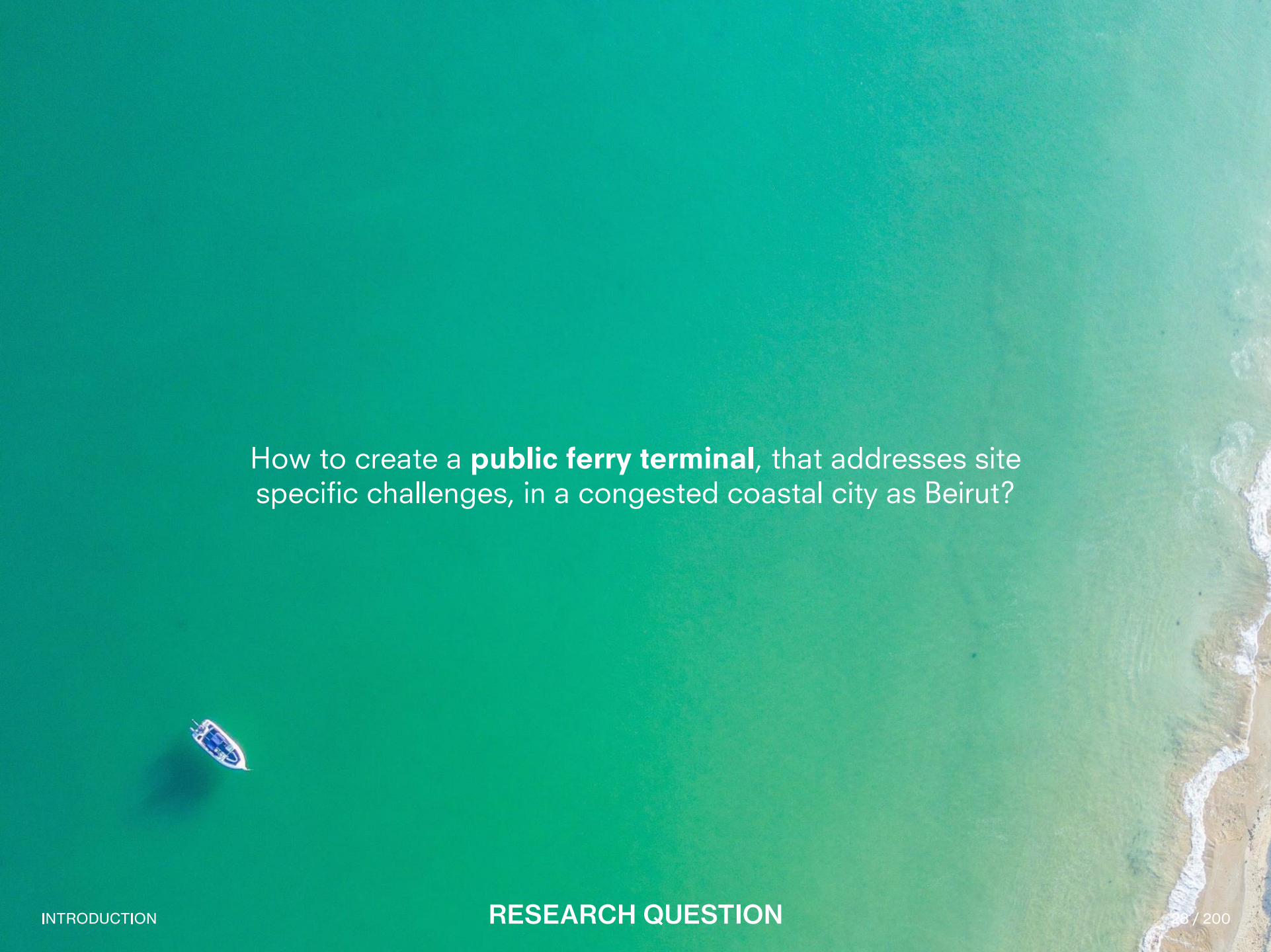
Create
pedestrian friendly
connections



Develop
two key public spaces



Add
affordable housing &
education

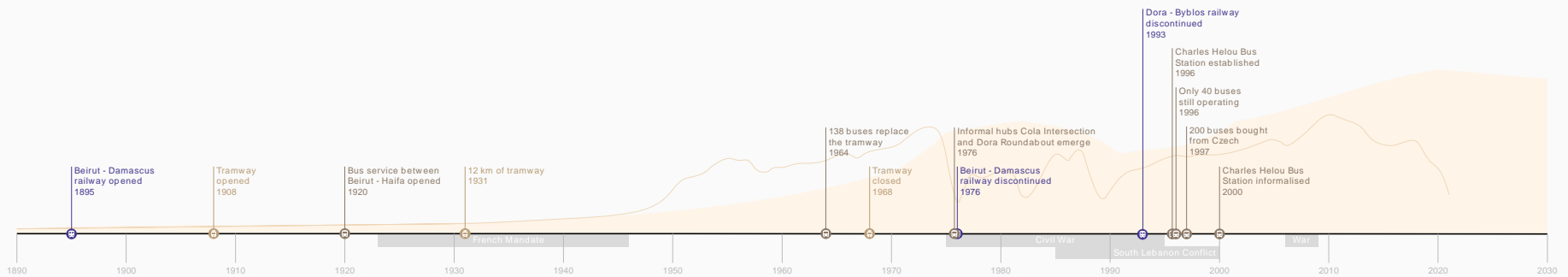
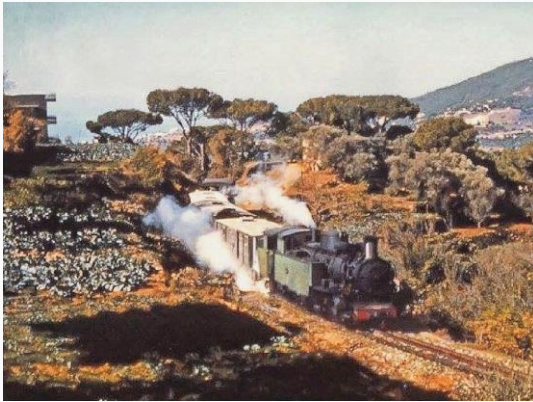
An aerial photograph of a small boat on turquoise water near a sandy beach. The water is a vibrant greenish-blue, and the beach is a light tan color. The boat is a small, white vessel with a blue stripe, moving towards the right. The background is a vast expanse of water, with the beach visible on the right side.

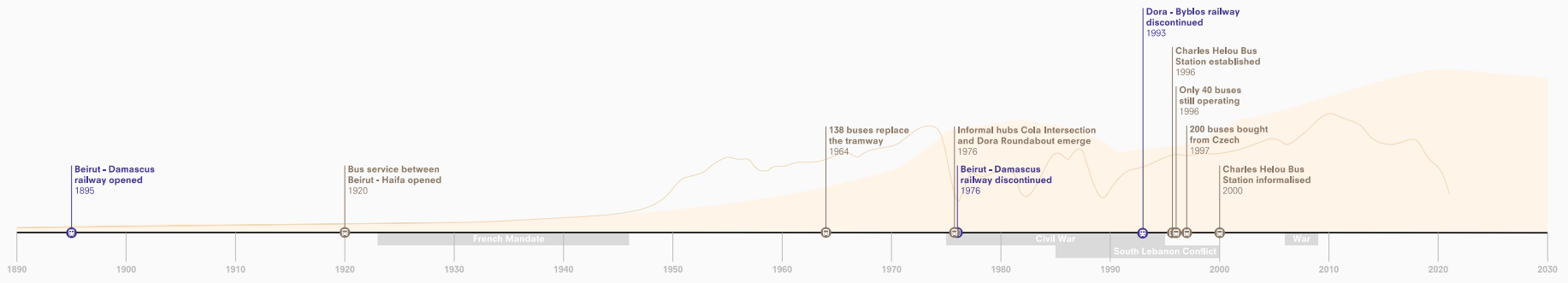
How to create a **public ferry terminal**, that addresses site specific challenges, in a congested coastal city as Beirut?

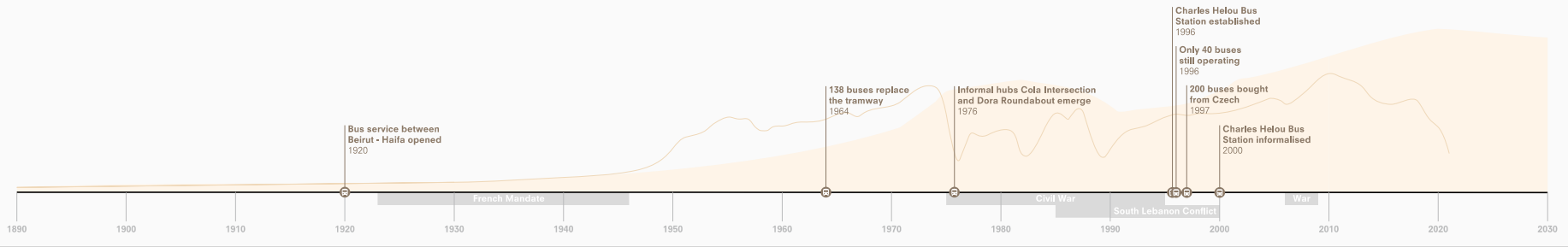


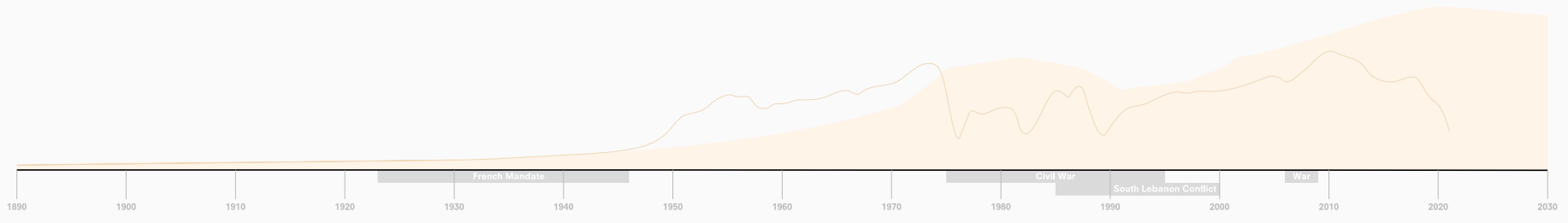
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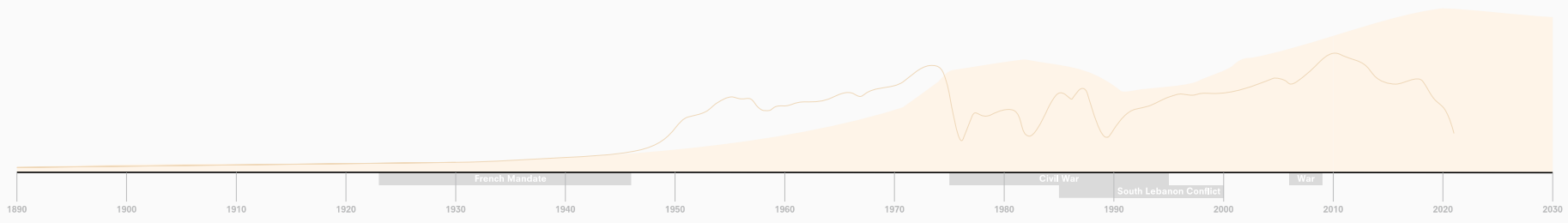




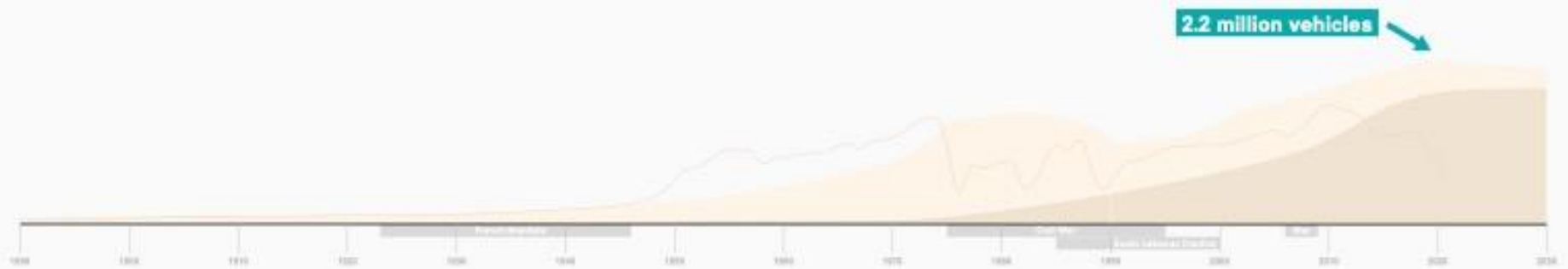








30 × more vehicles!







9 out of 10 Lebanese own a car!



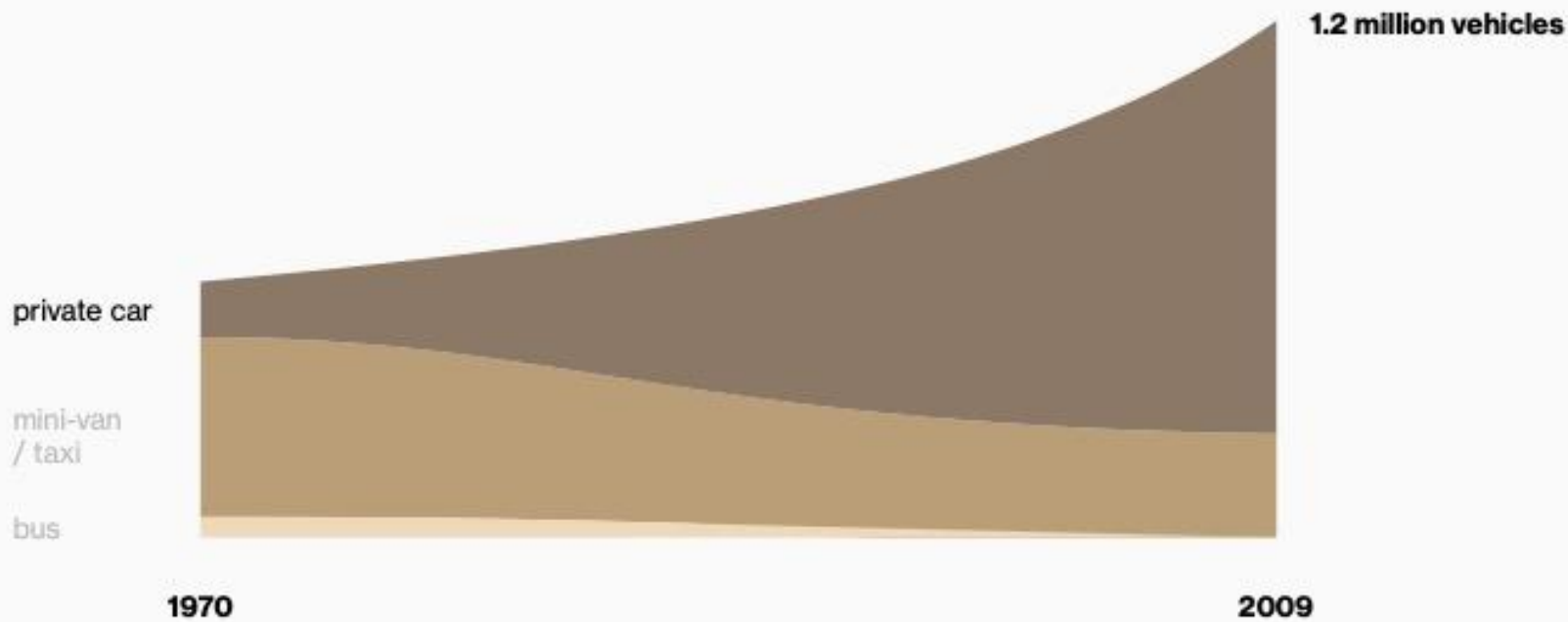
bus

1970

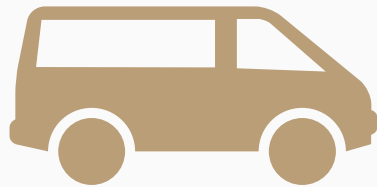
2009







1970



8 passengers

1970



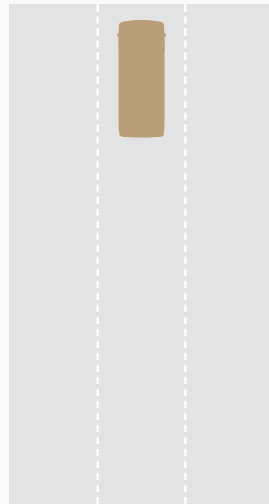
8 passengers

NOW



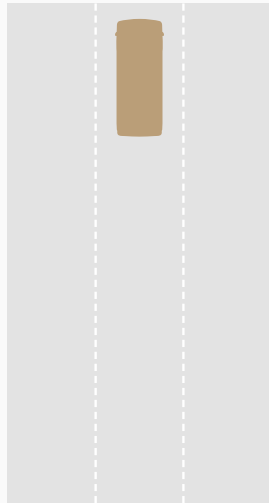
1.2 passengers

1970



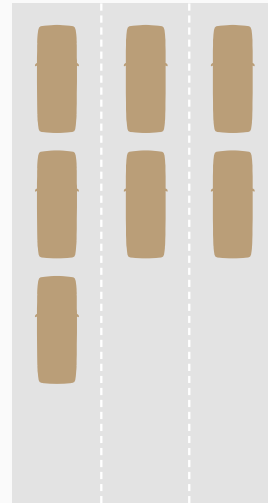
8 passengers

1970



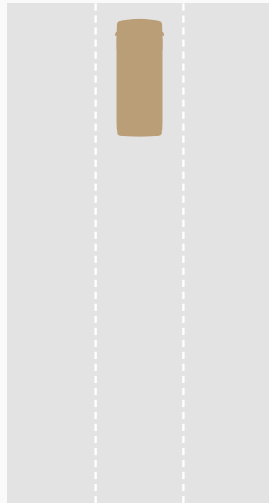
8 passengers

NOW



8 passengers

1970



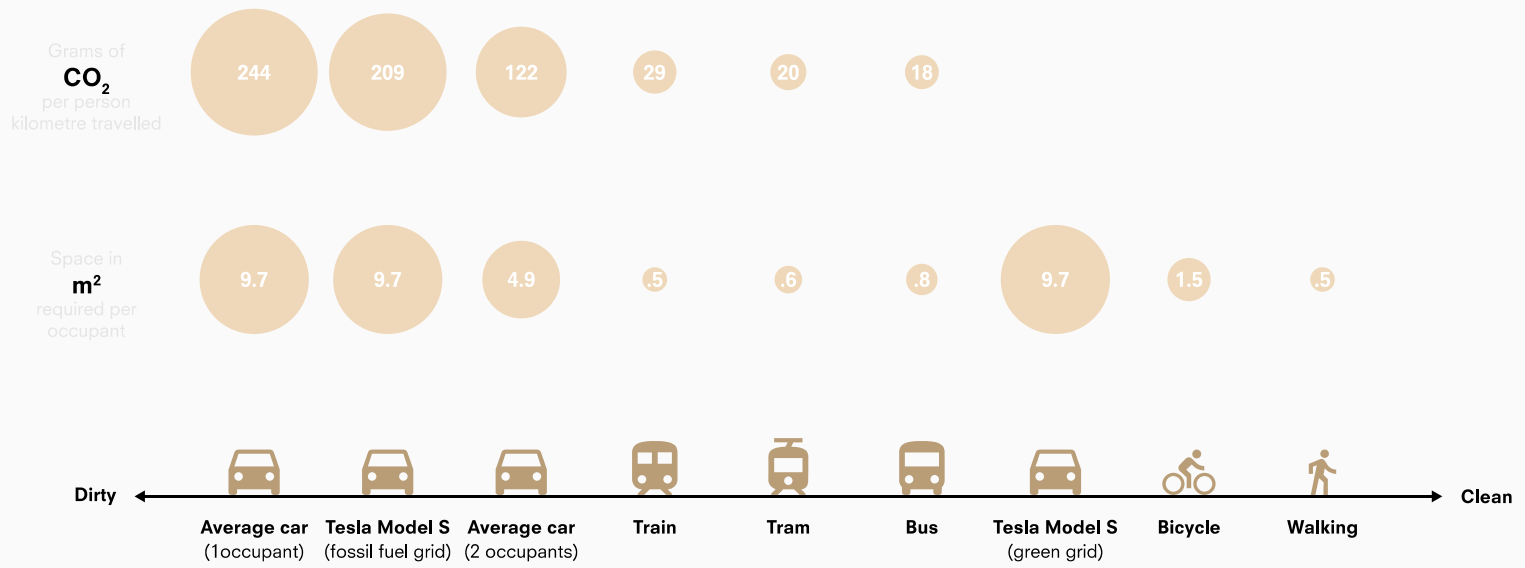
8 passengers

NOW



24 passengers







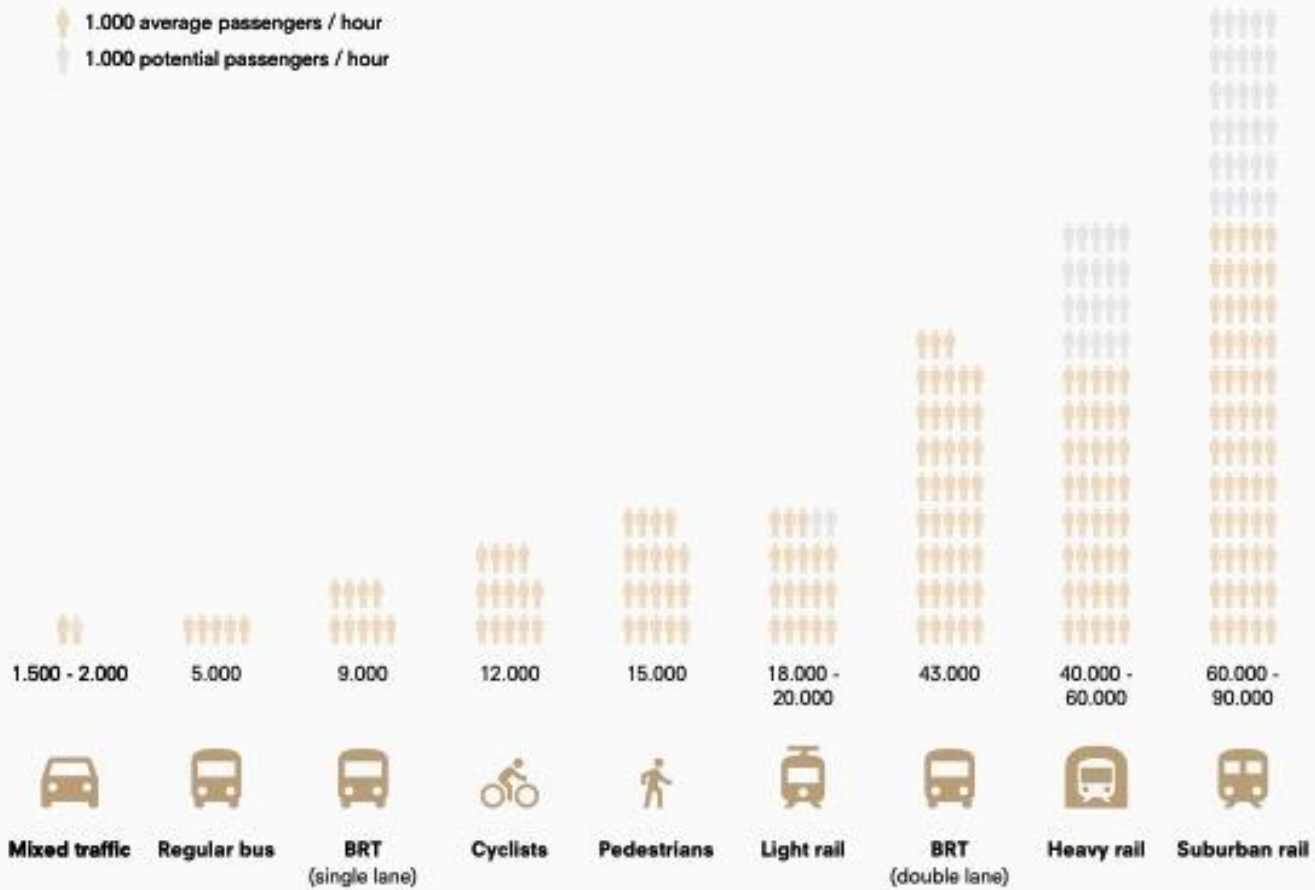
source: Institute for Sensible Transport



Source: Institute for Sustainable Transport



Passengers per hour
on 3.5m wide lanes in the city

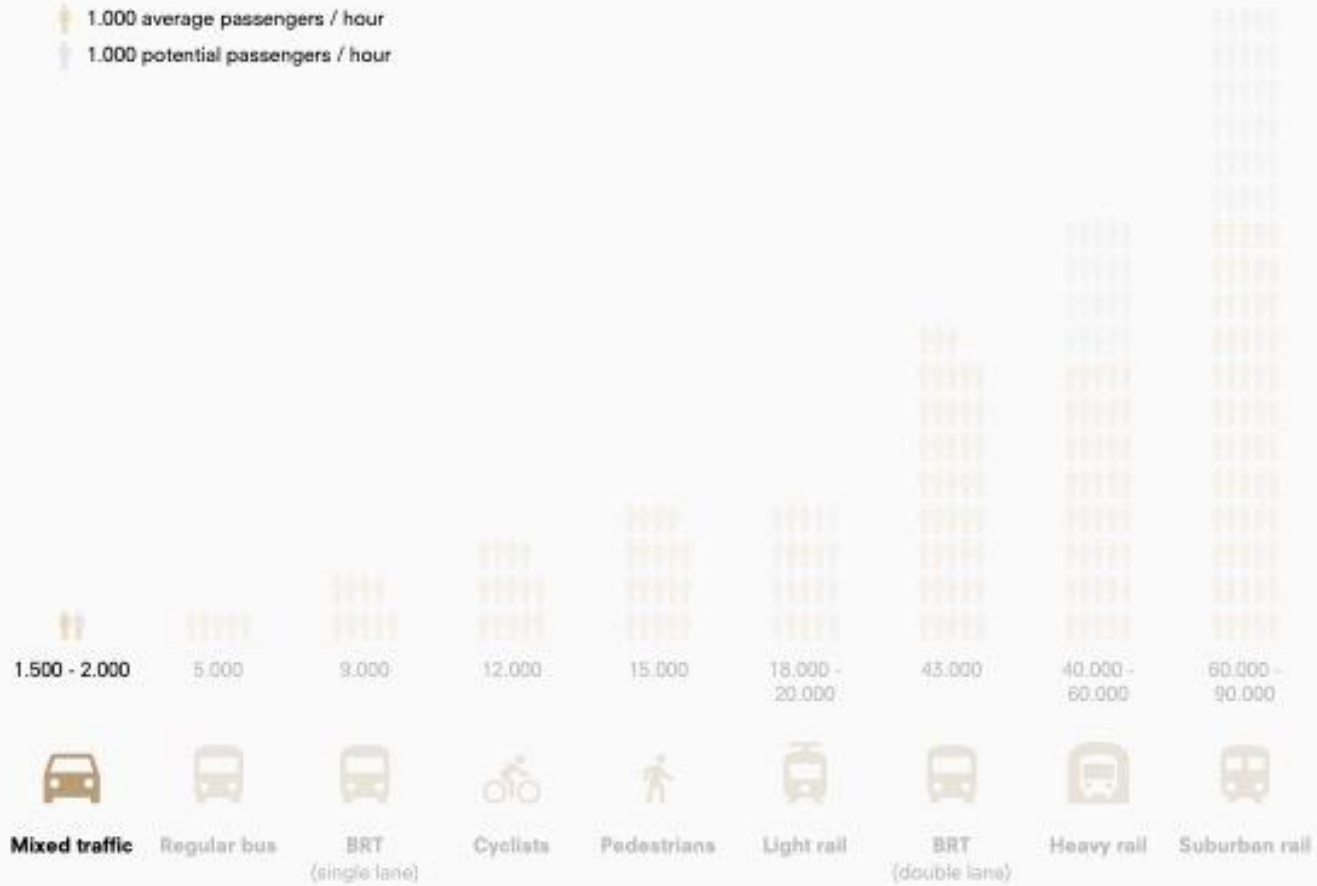
 1.000 average passengers / hour
 1.000 potential passengers / hour



source: Transformative Urban Mobility Initiative

Passengers per hour
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 1.000 average passengers / hour
 1.000 potential passengers / hour



source: Transformative Urban Mobility Initiative



Congestion



Fuel dependence



Space consumption



Deaths and injuries



Pollution



Not inclusive

1. Immobility

2. Privatization of Public Space

‘Mobility is a key condition of **access** to **employment**,
housing, **education**, **culture** and **leisure** and **family**.’

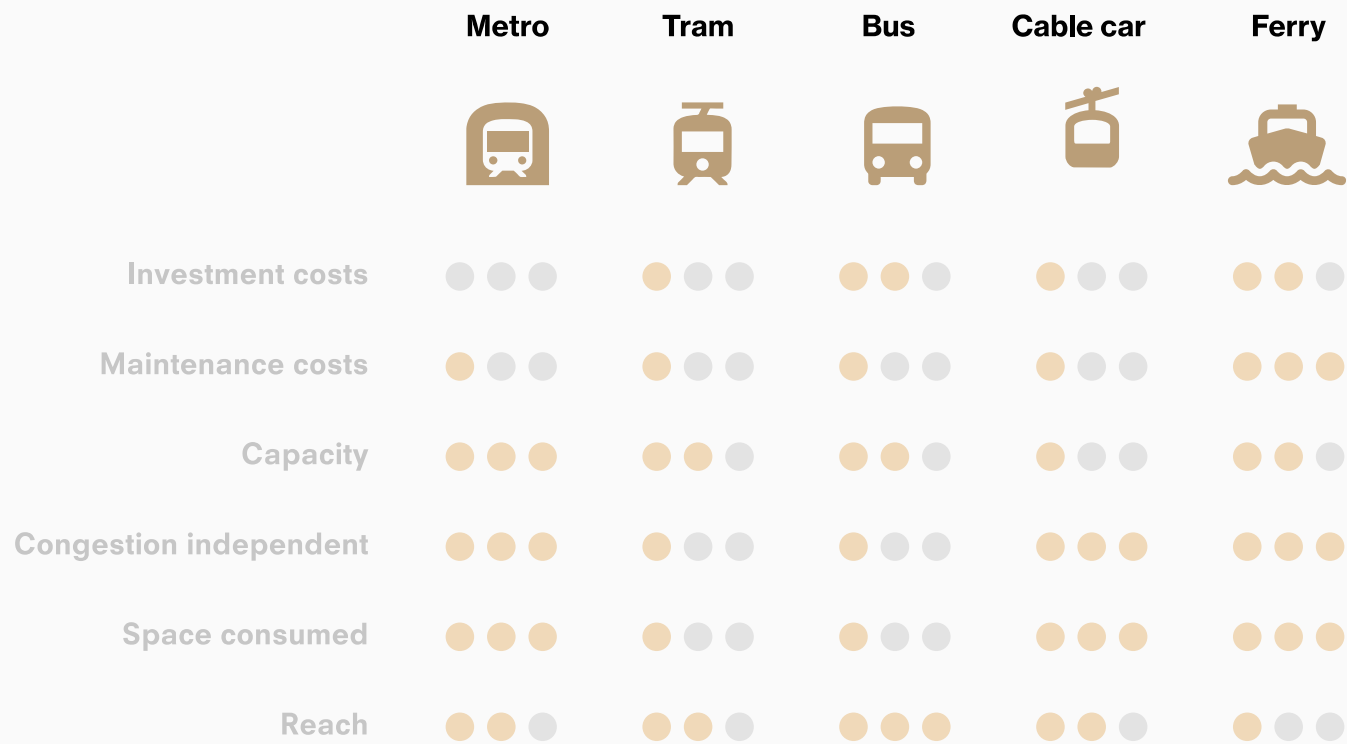
‘It is a **precondition to other rights**.’

Kate Ascher - The Works: Anatomy of a City

Public Transport



Public Space







WATER

The infrastructure (water) is already there and needs no maintenance.



FLEXIBILITY

Existing marinas can be used and the network can easily be expanded.



INDEPENDENCE

The ferries operate independent from the congestion on land.



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INDEPENDENCE

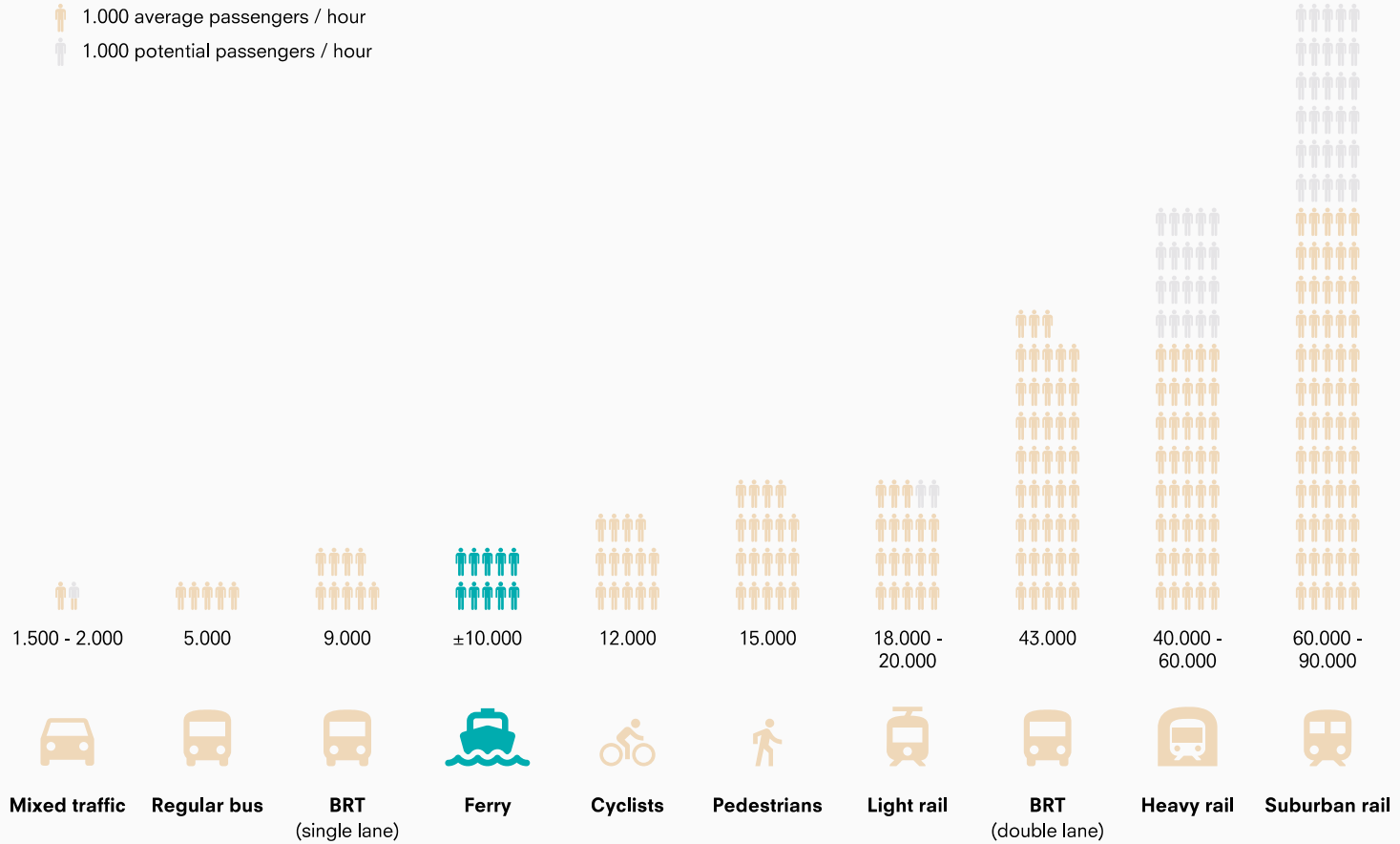
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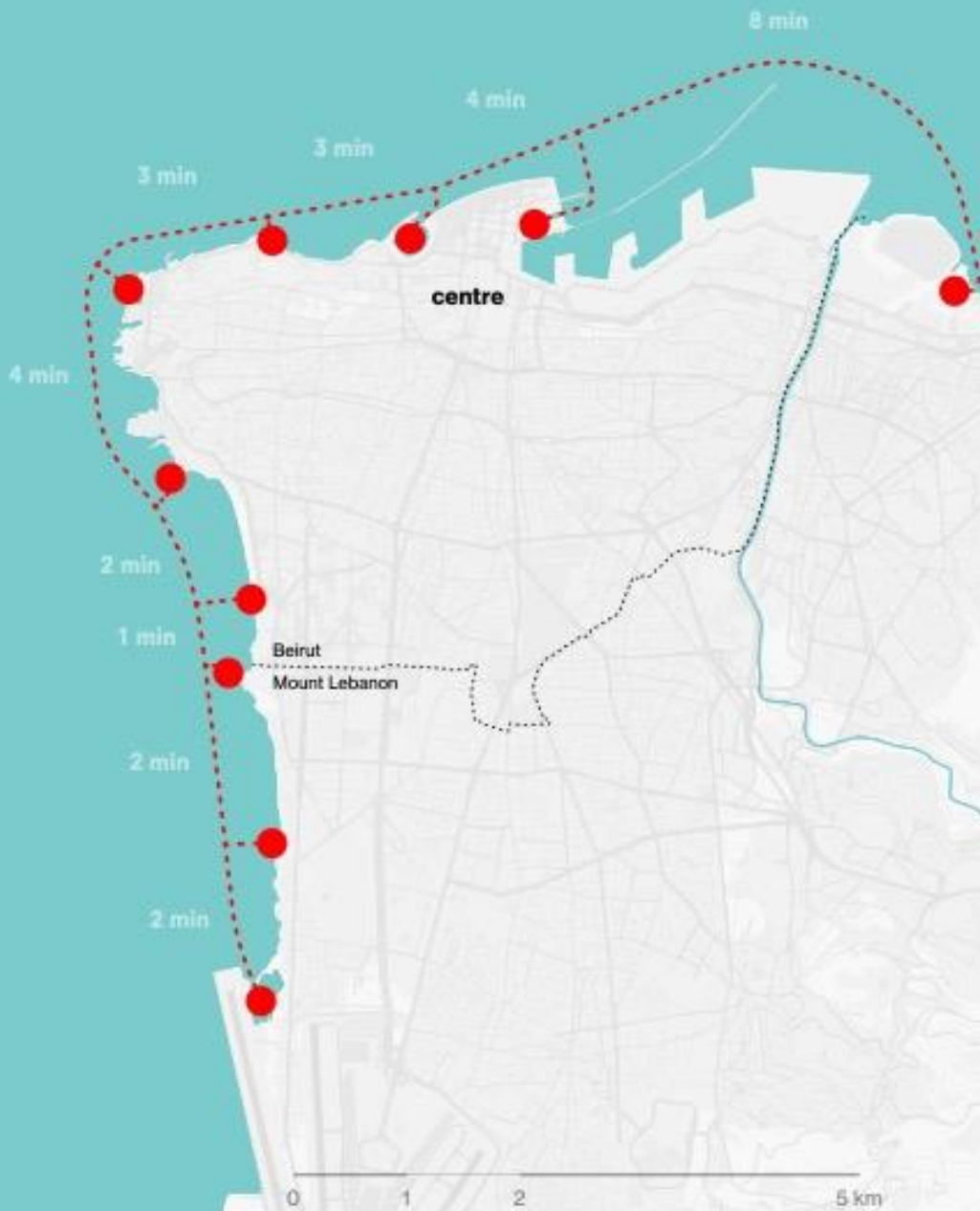


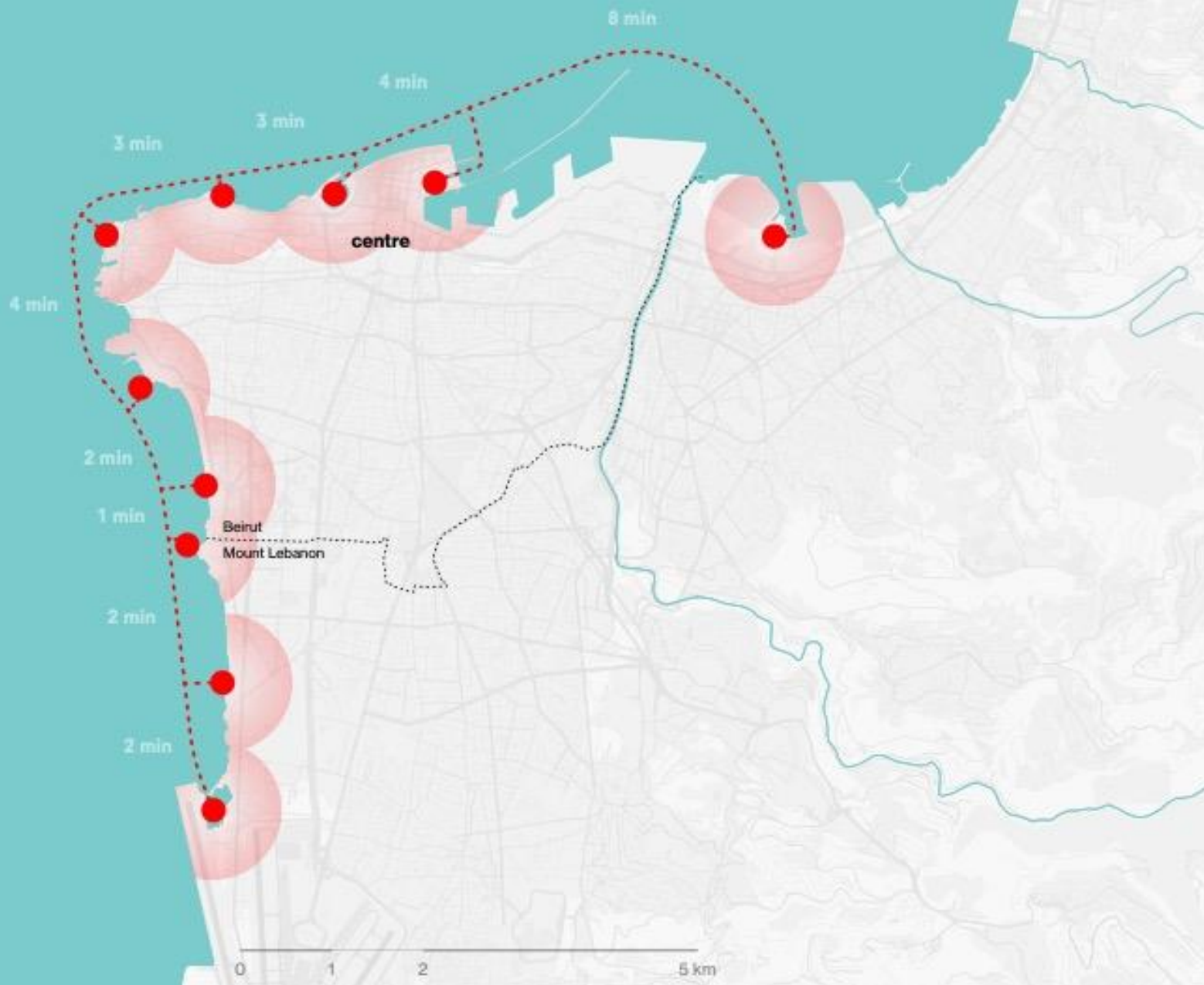


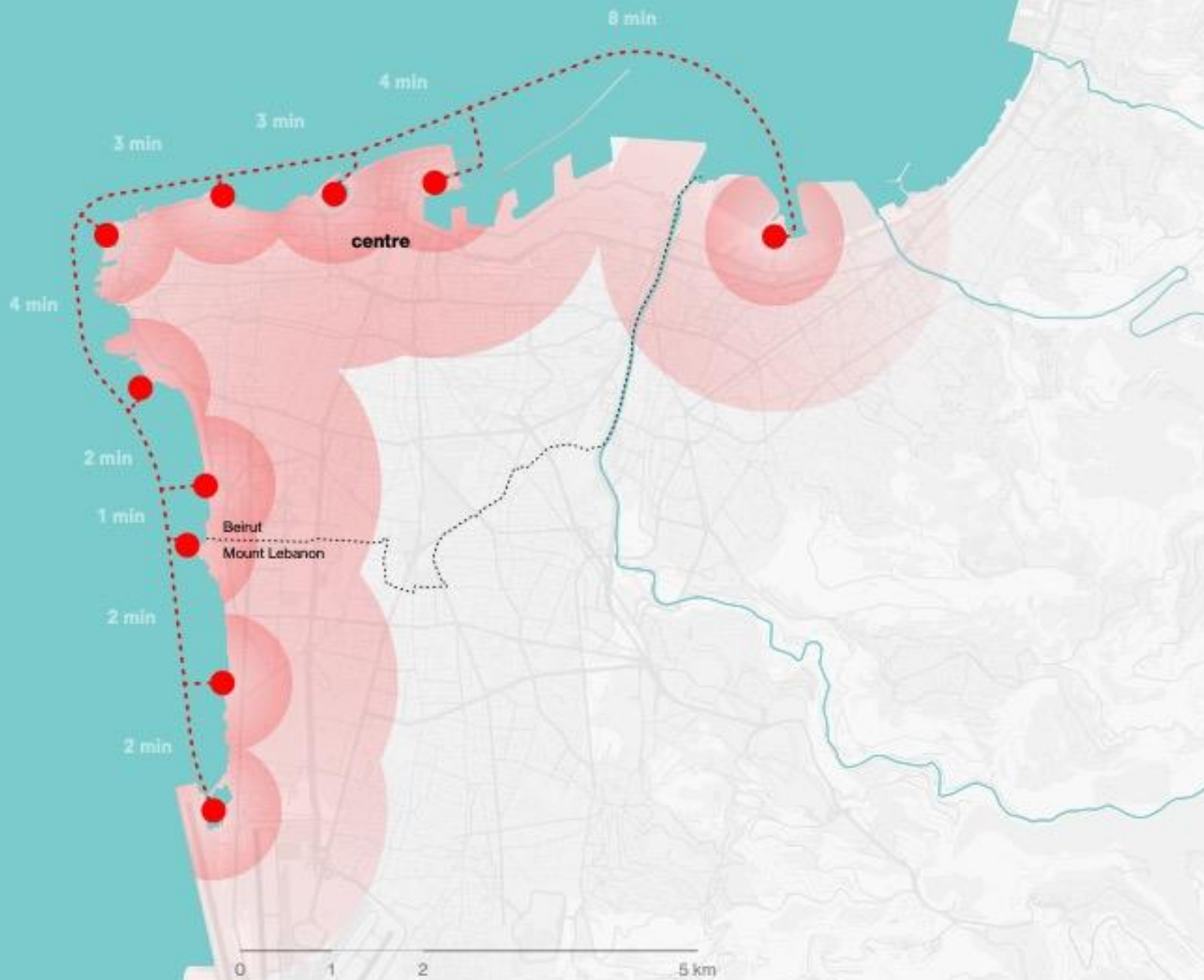
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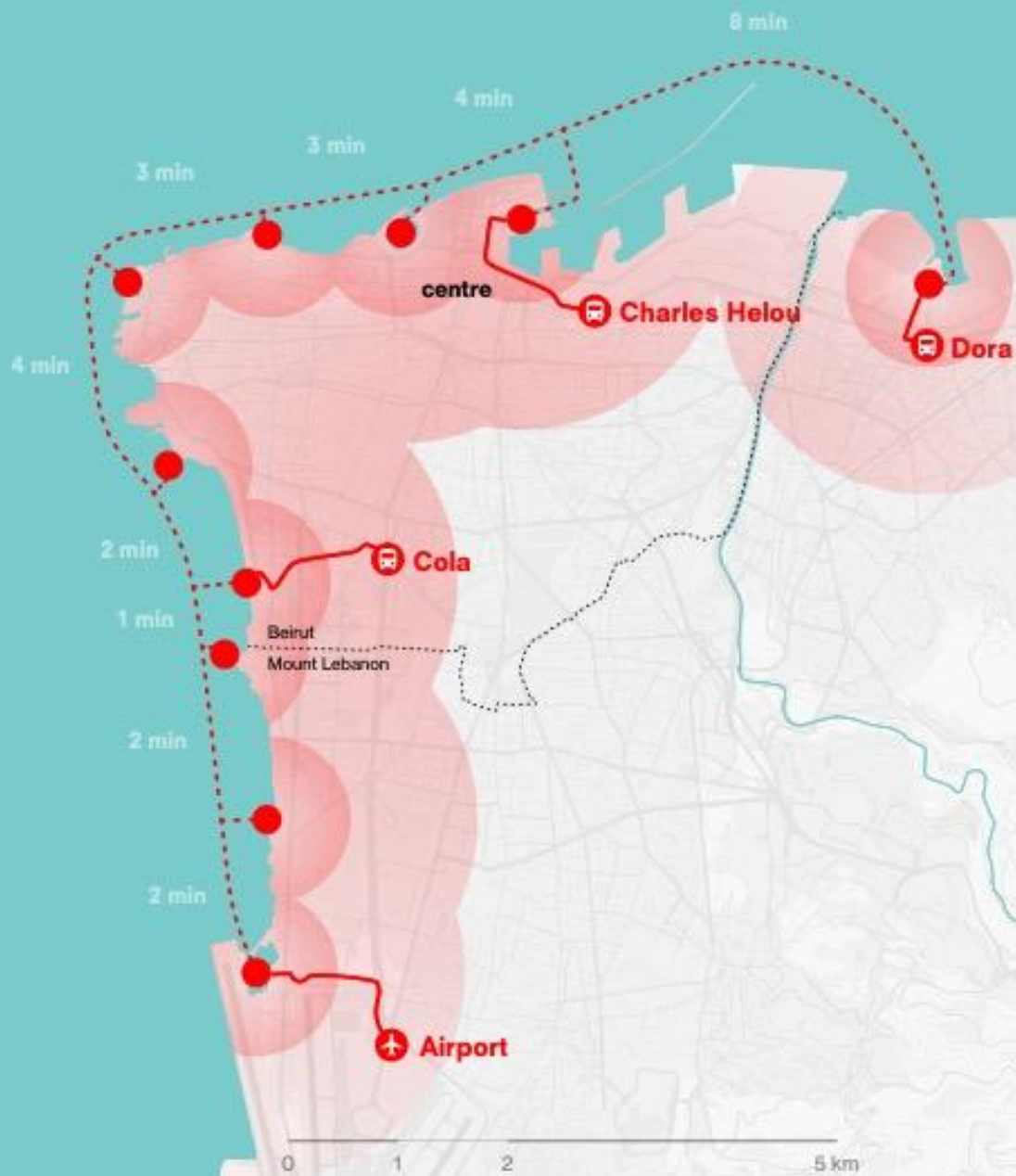
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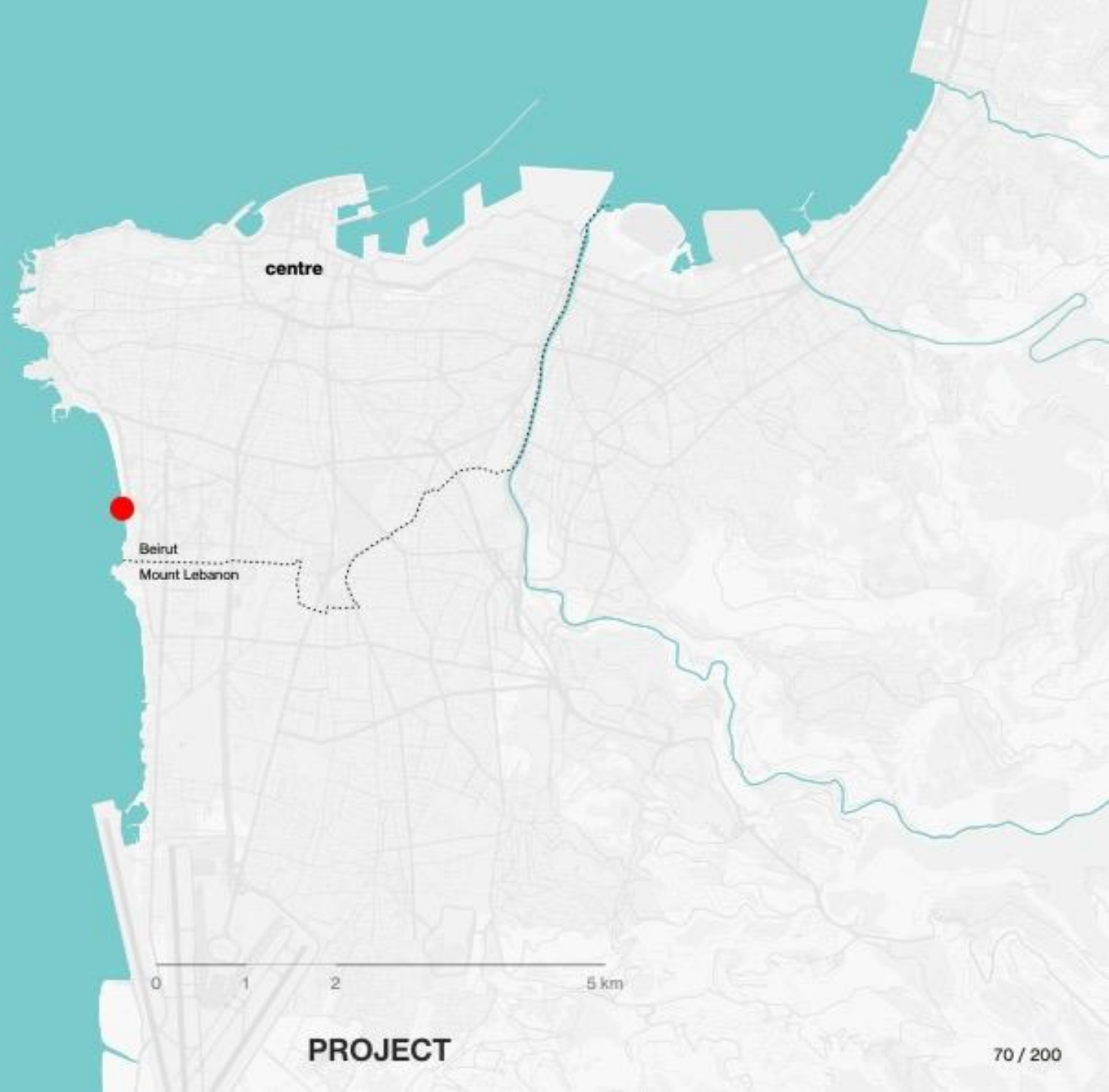








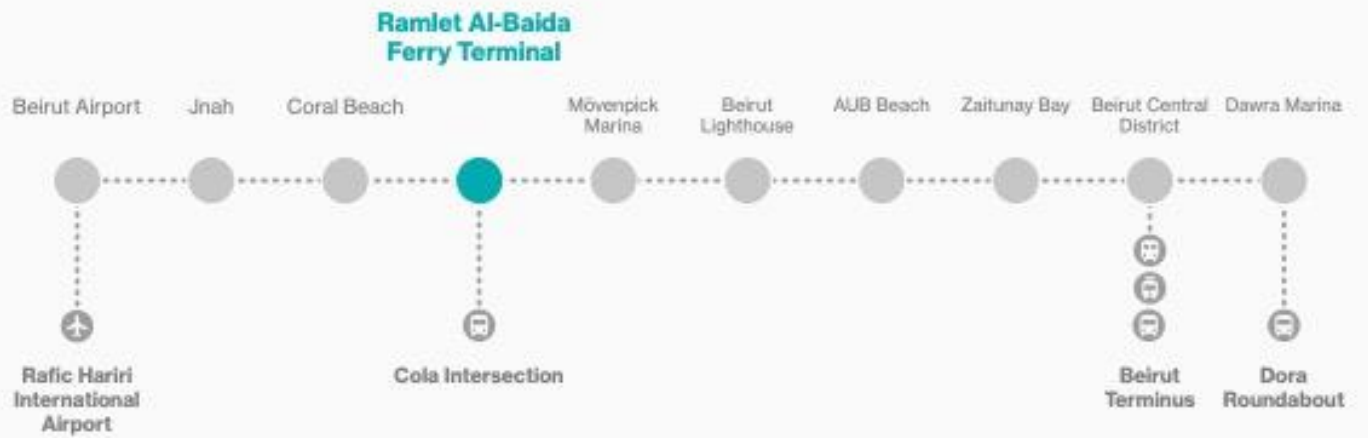




centre

Beirut
Mount Lebanon

0 1 2 5 km



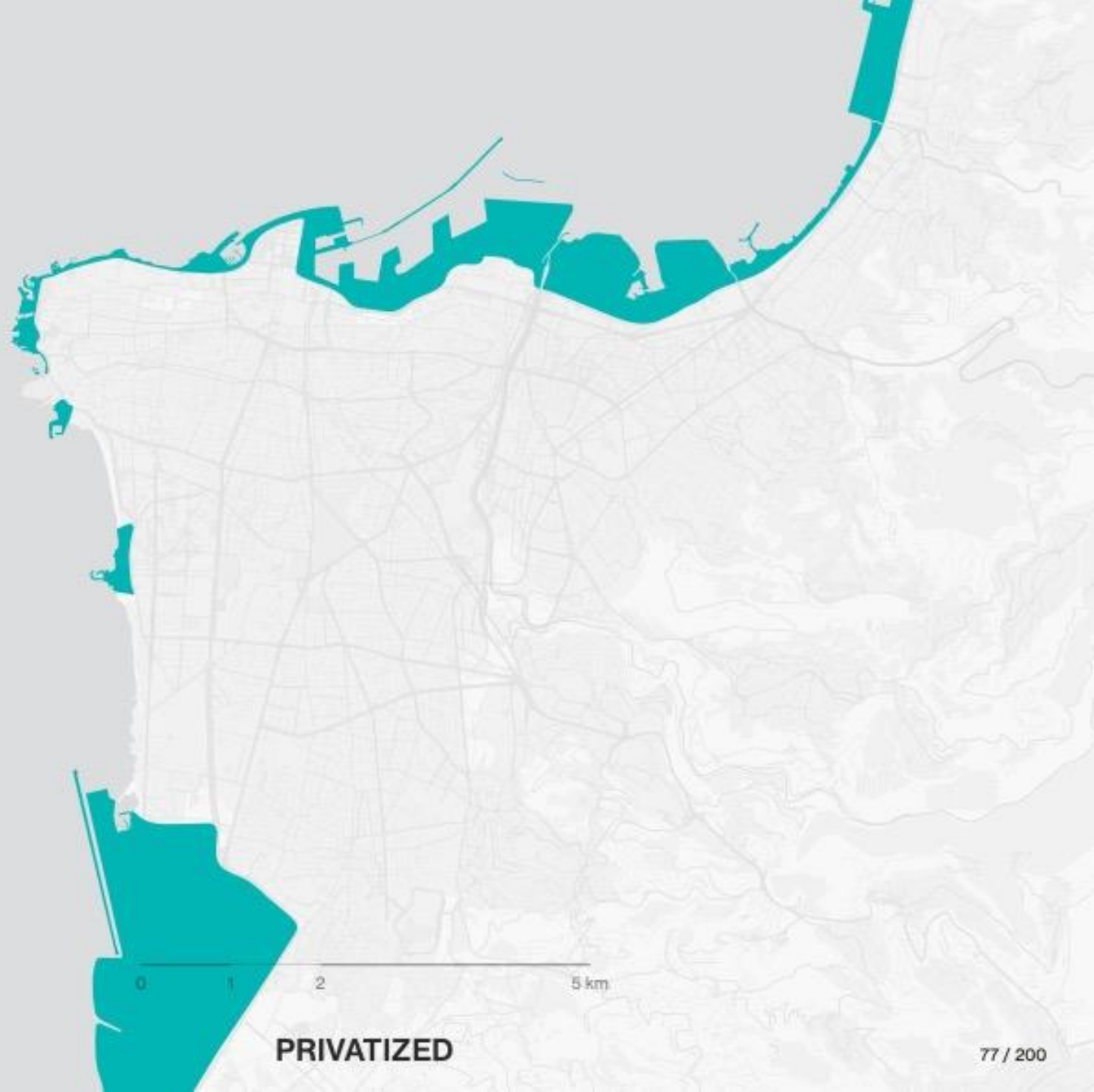




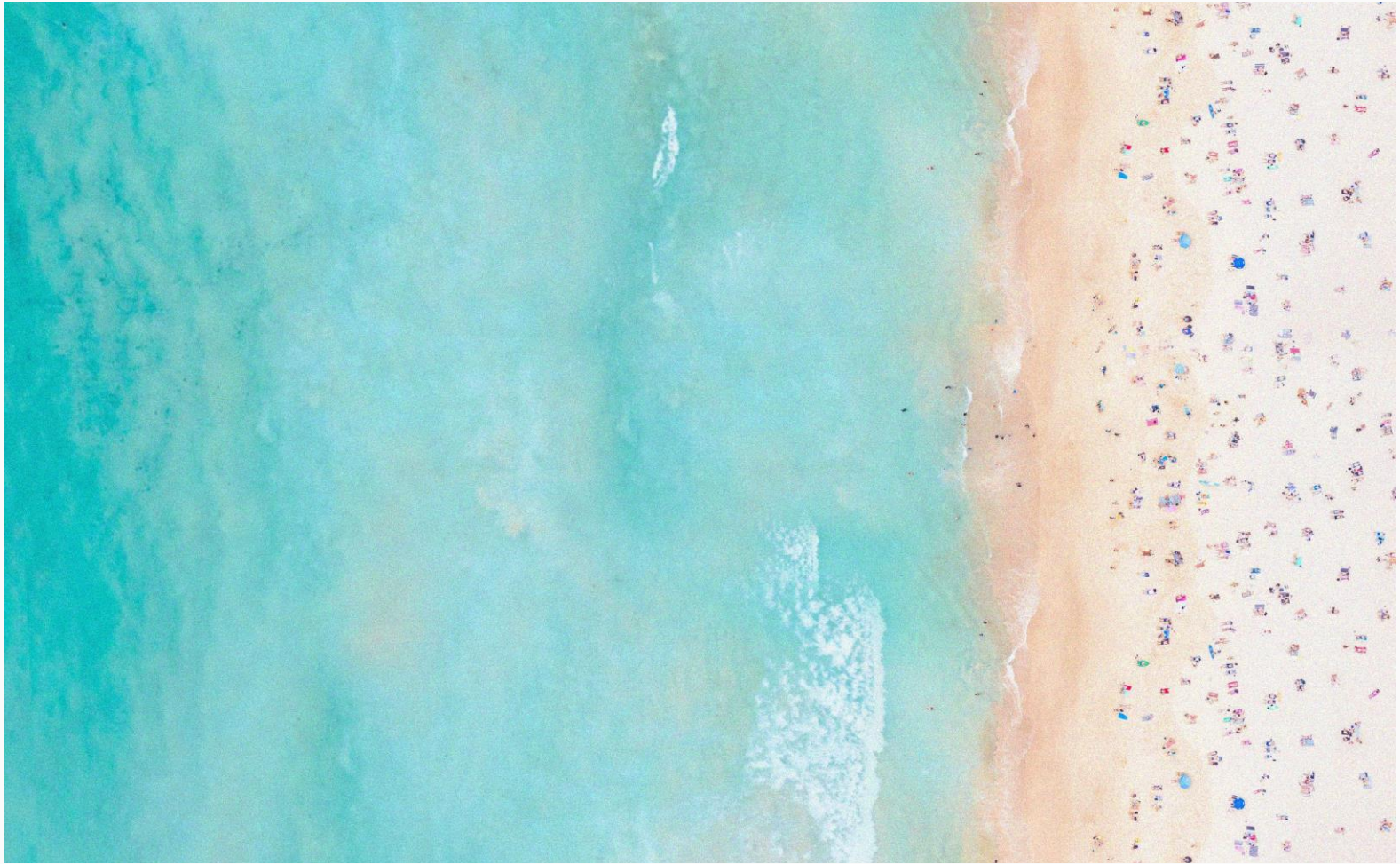


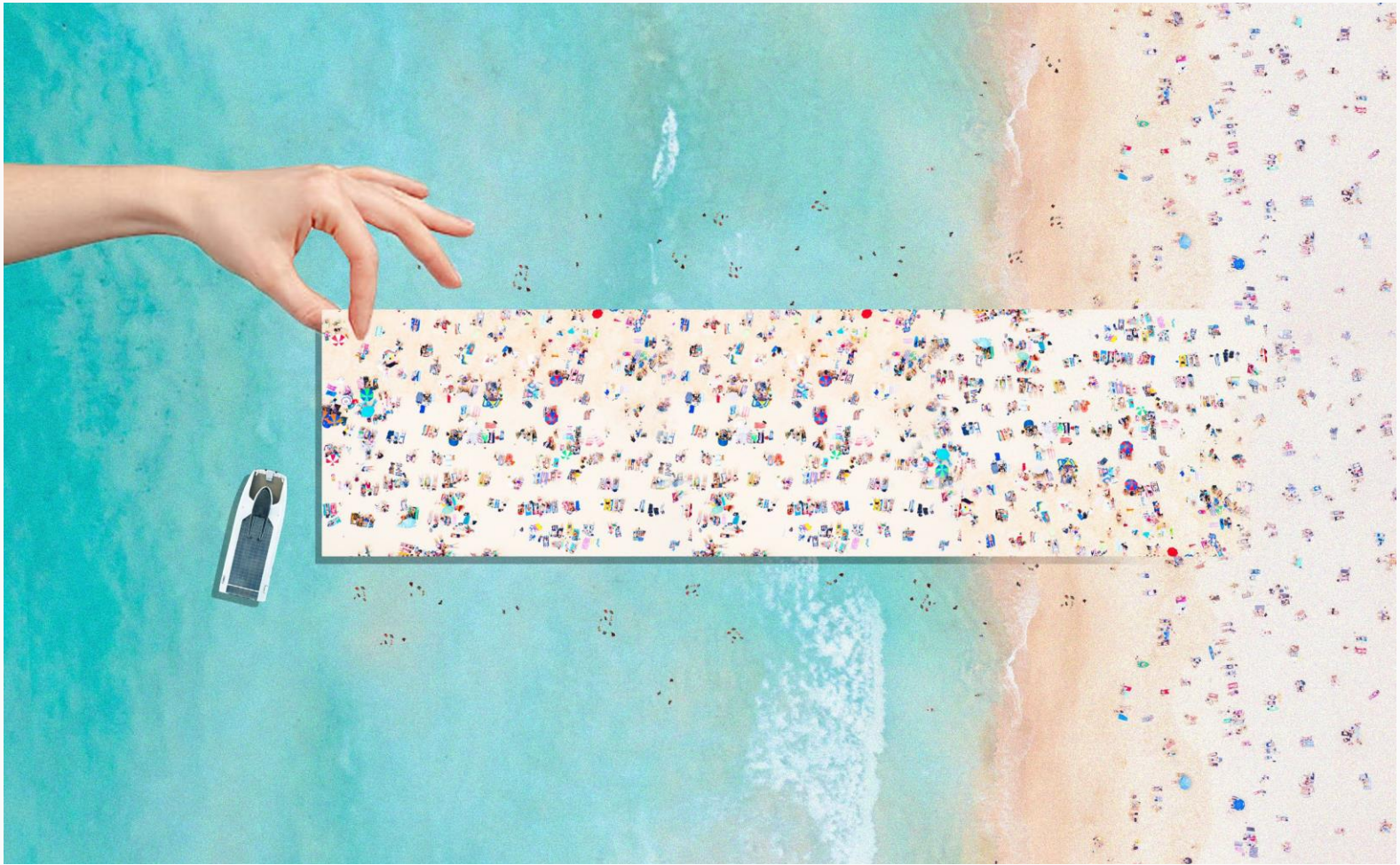














Swimming Pools



Swimming Pools



Food



Swimming Pools



Food



Nightclub



Swimming Pools



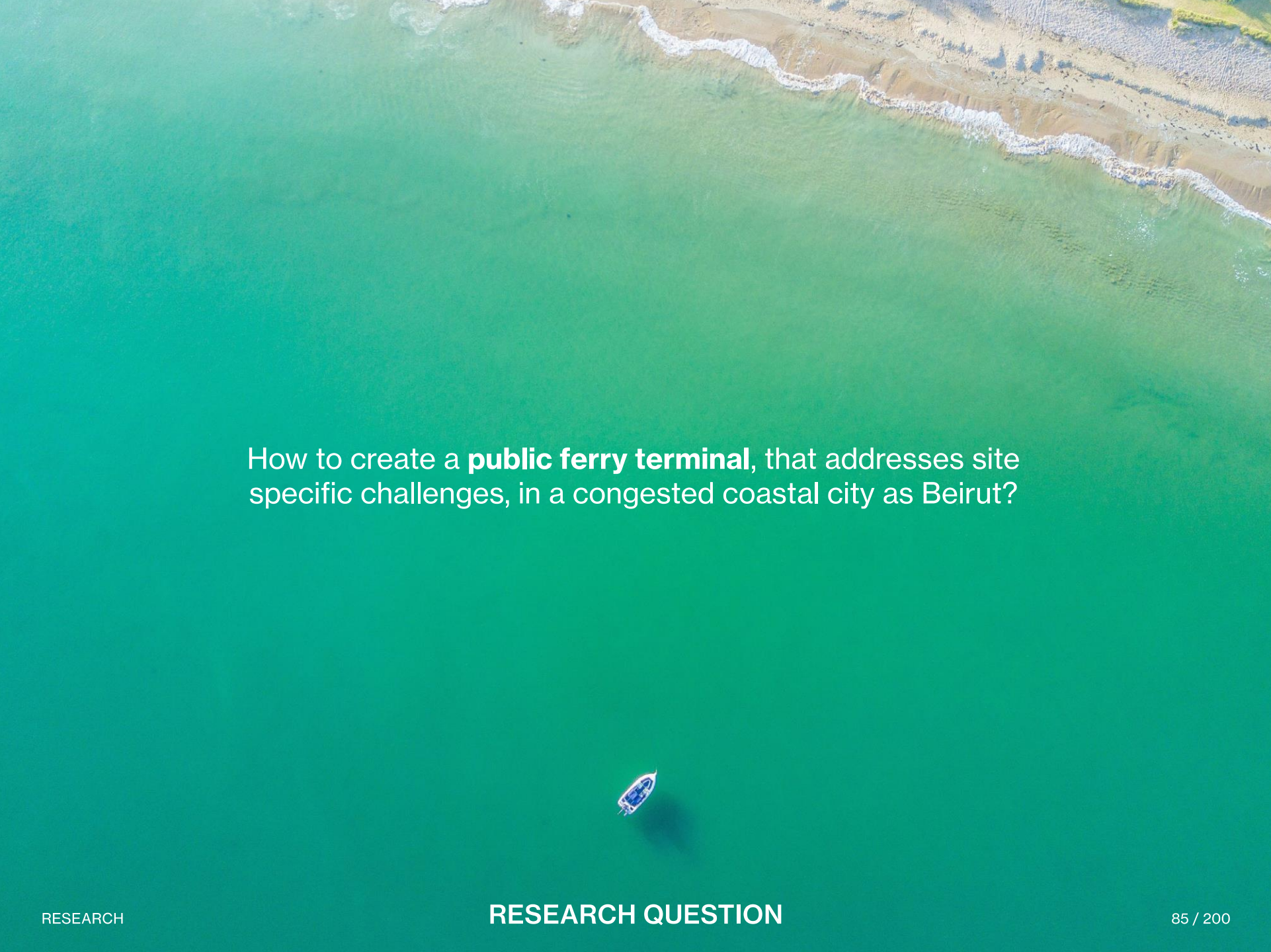
Food



Nightclub



Marina

An aerial photograph of a coastal city, likely Beirut, showing turquoise water in the foreground and a sandy beach with buildings in the background. A small white boat is visible in the water.

How to create a **public ferry terminal**, that addresses site specific challenges, in a congested coastal city as Beirut?

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Beirut Mosaic





SITE



TRANSPORT HUB

Proximity to Cola Intersection ensures that passengers can easily travel further.



DISTANCE

Because the terminal is located inbetween two other terminals, the ferry service is accessible from a bigger area.



PRESERVE BEACH

The location preserves the open vast character of the beach.



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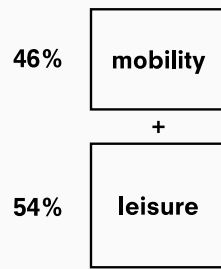


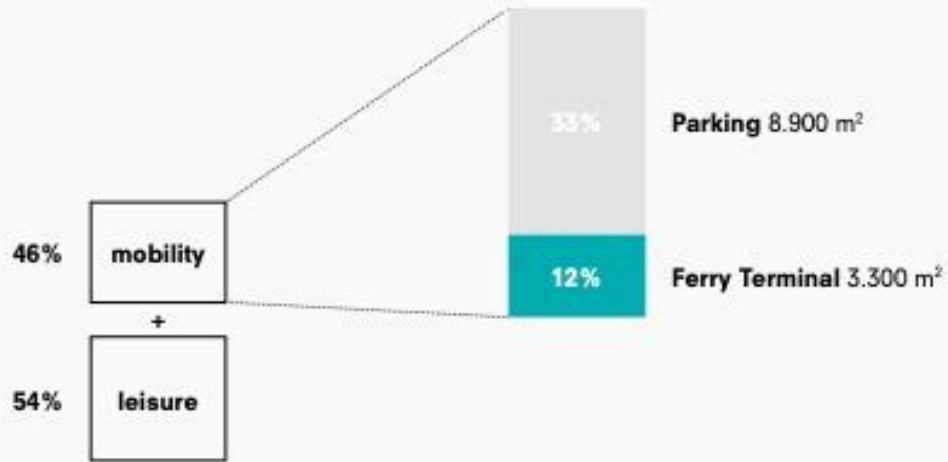
PRESERVE BEACH

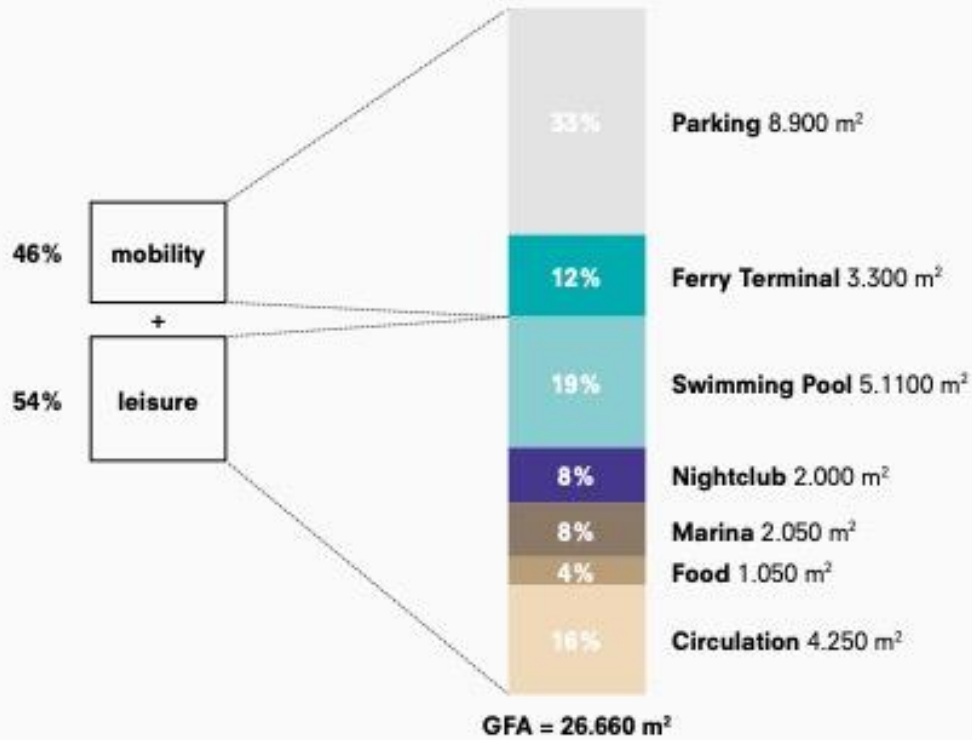
The location preserves the open vast character of the beach.

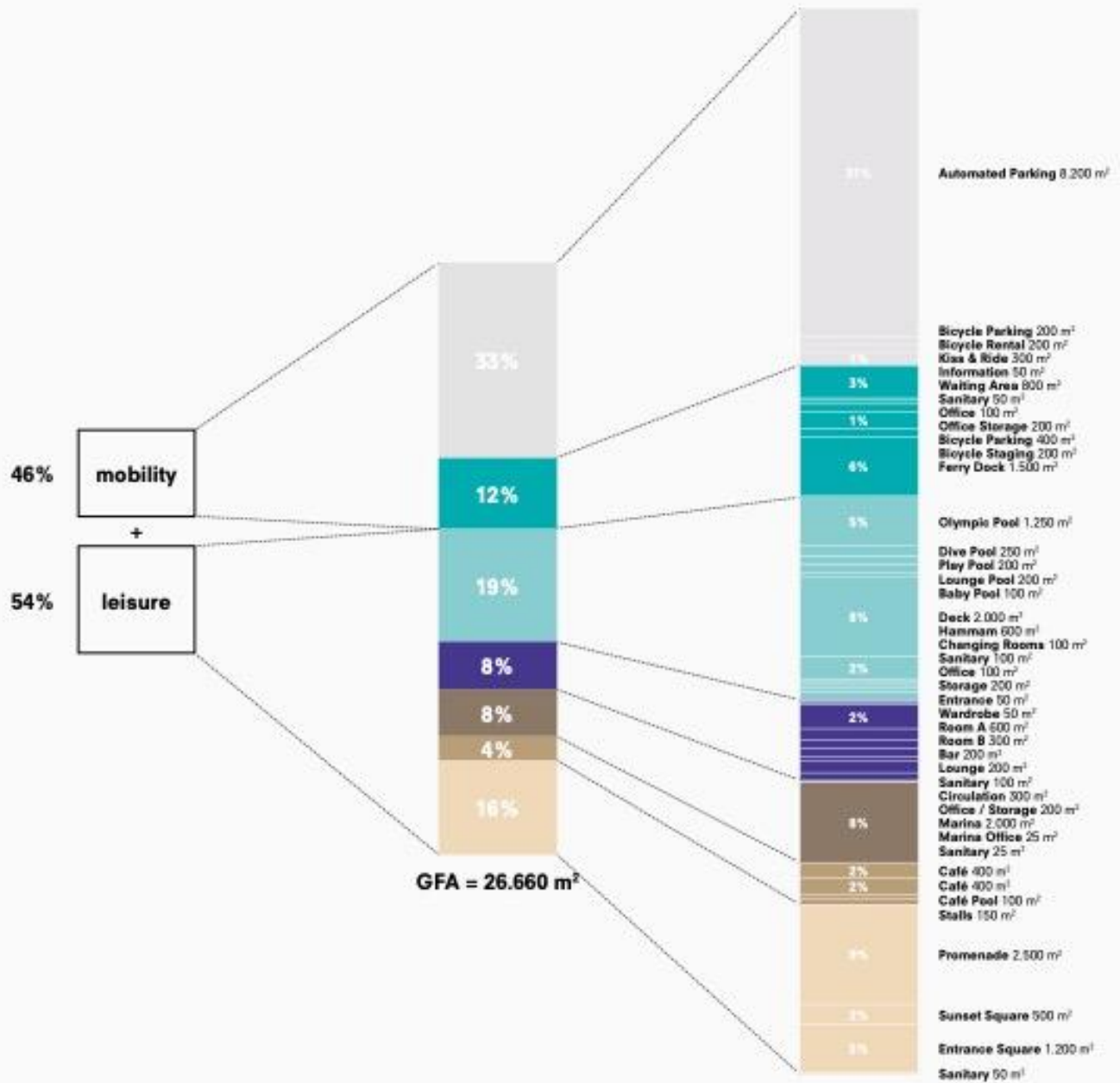
46%

mobility





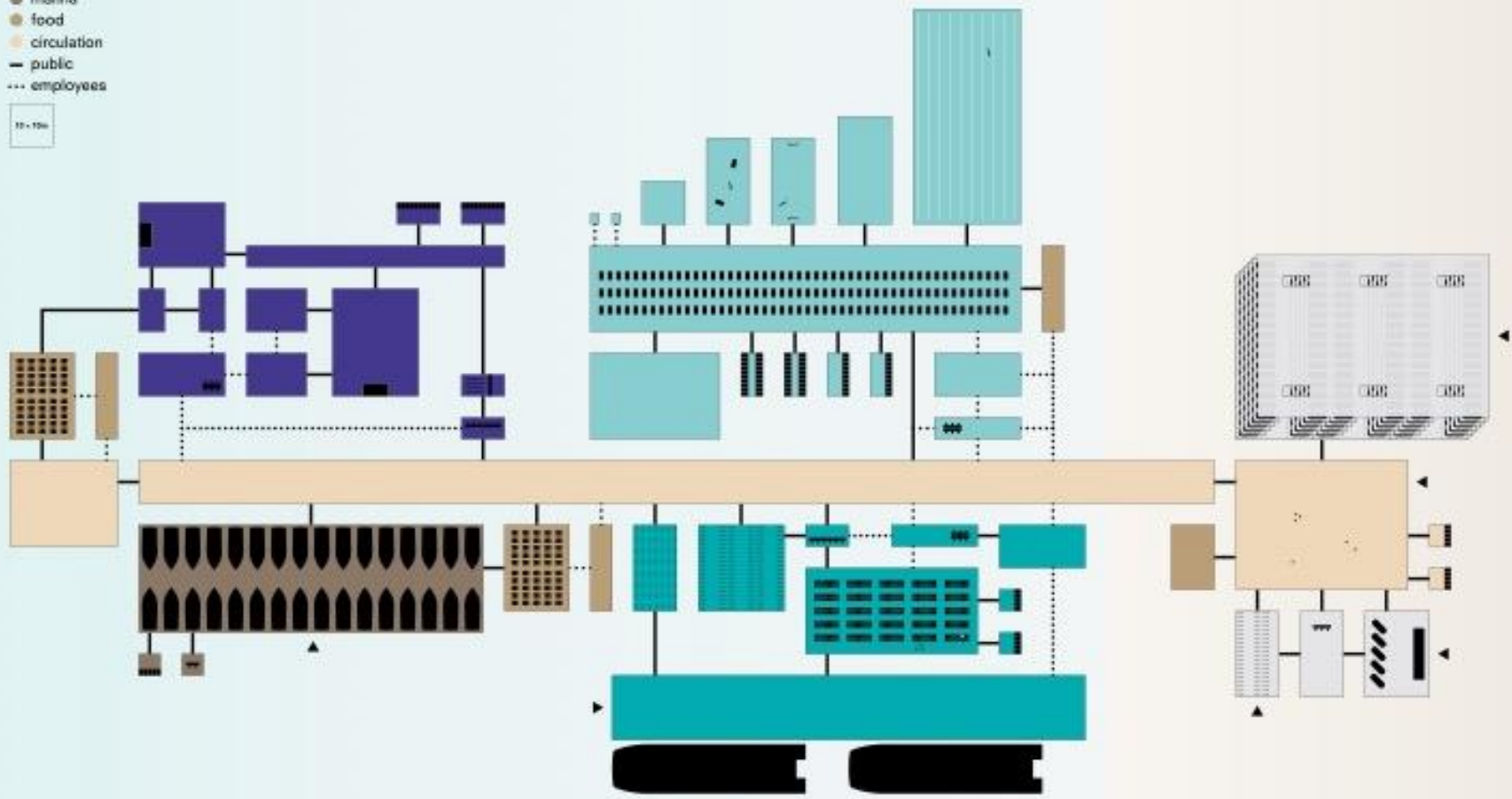




LEGEND

- parking
- ferry terminal
- pool
- nightclub
- marina
- food
- circulation
- public
- employees

10 - 10m









O.C.F.T.C
(Office des Chemins de Fer et des Transports en Commun)



O.C.F.T.C
(Office des Chemins de Fer et des Transports en Commun)

\$ 3.000.000.000 subsidy on fuel



O.C.F.T.C
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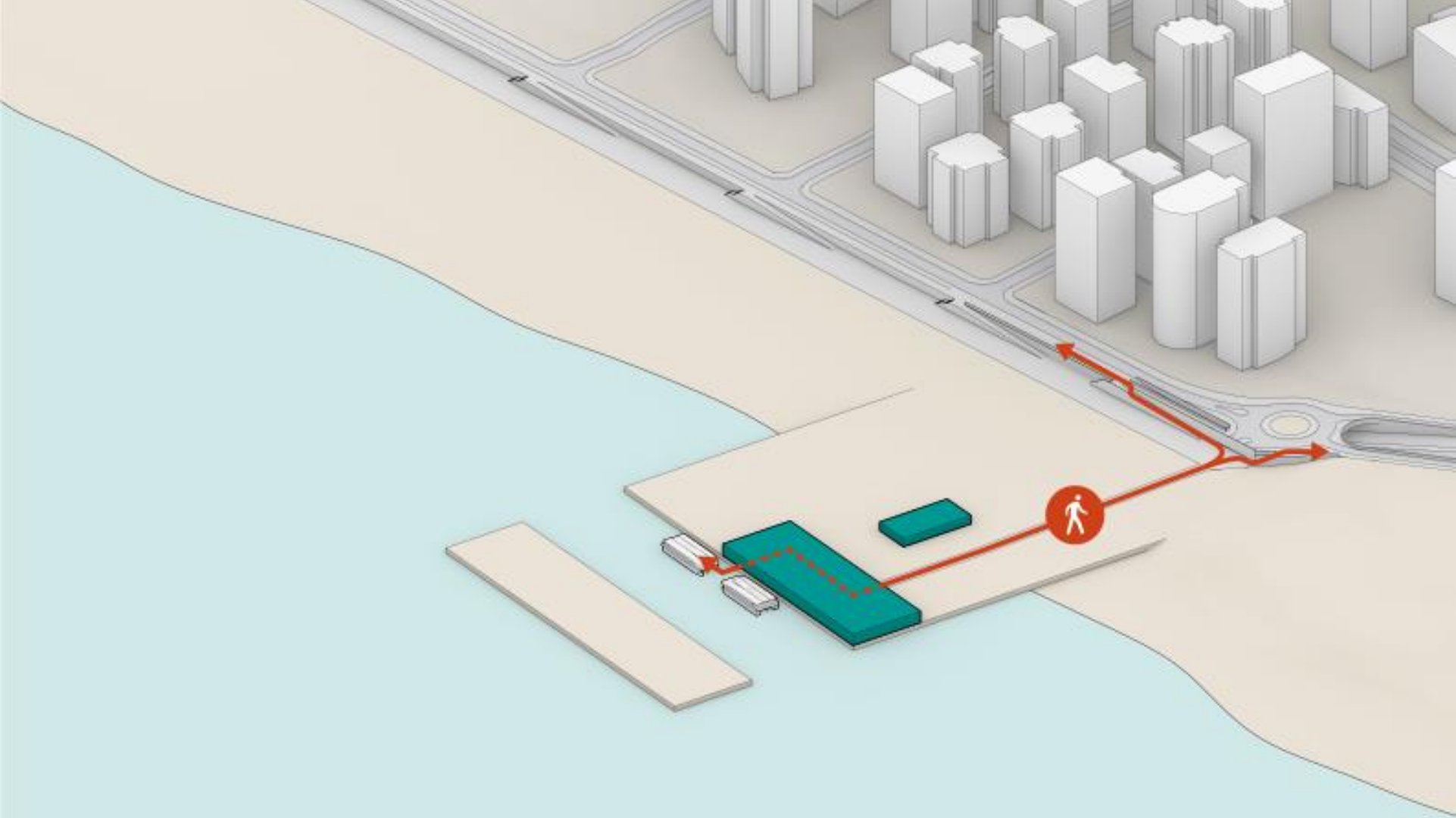
3% = ± \$ 100.000.000

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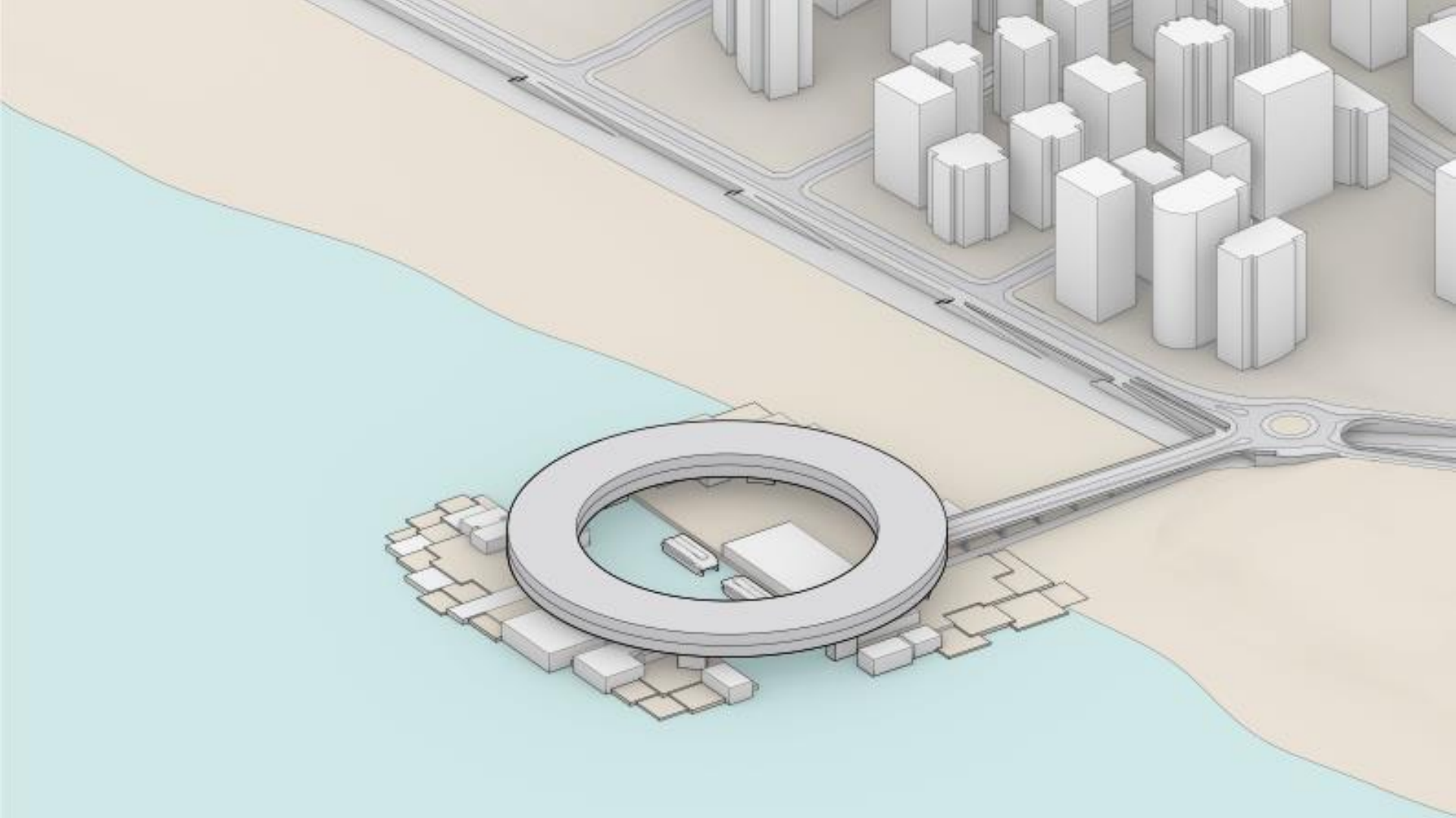


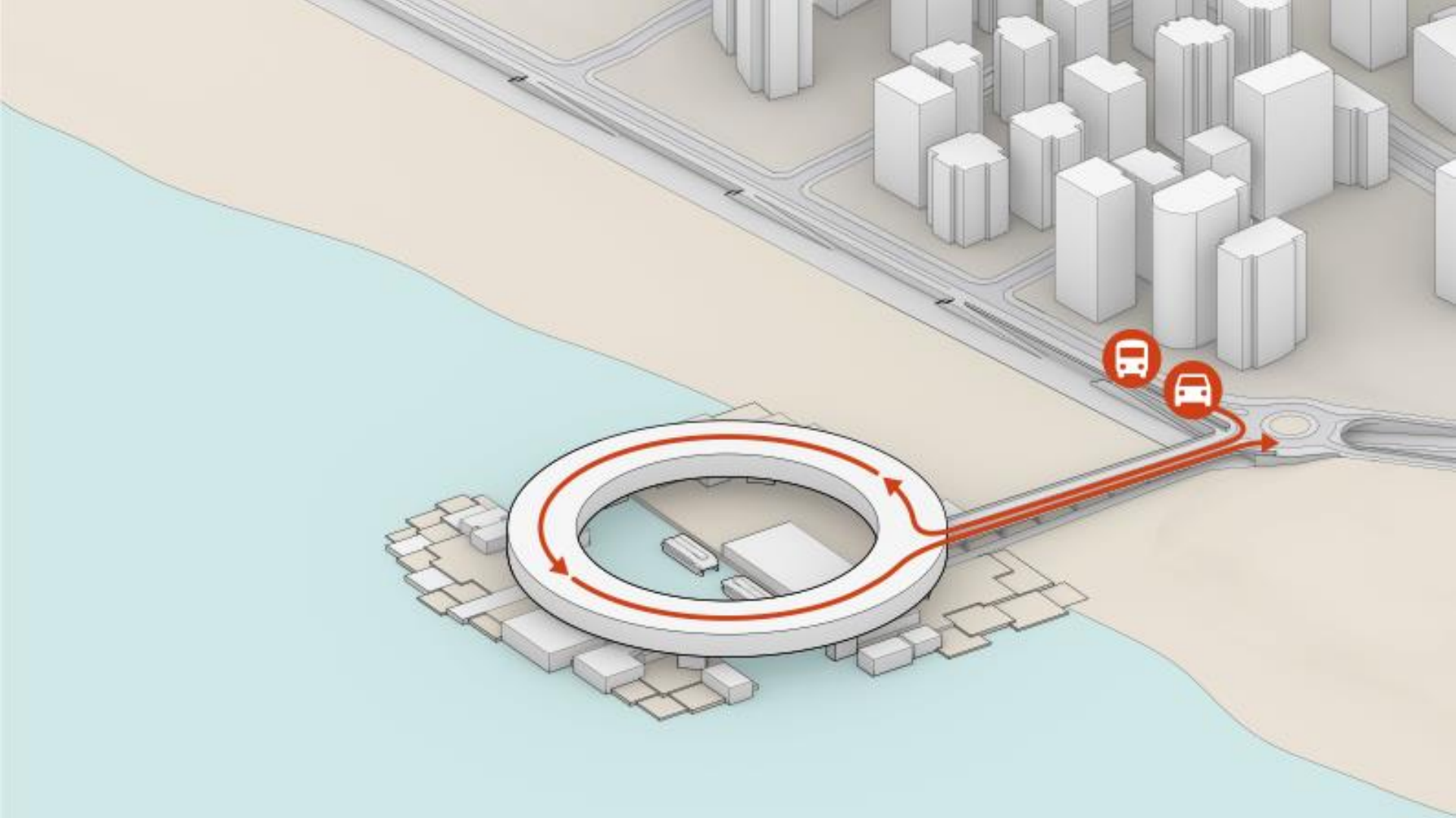


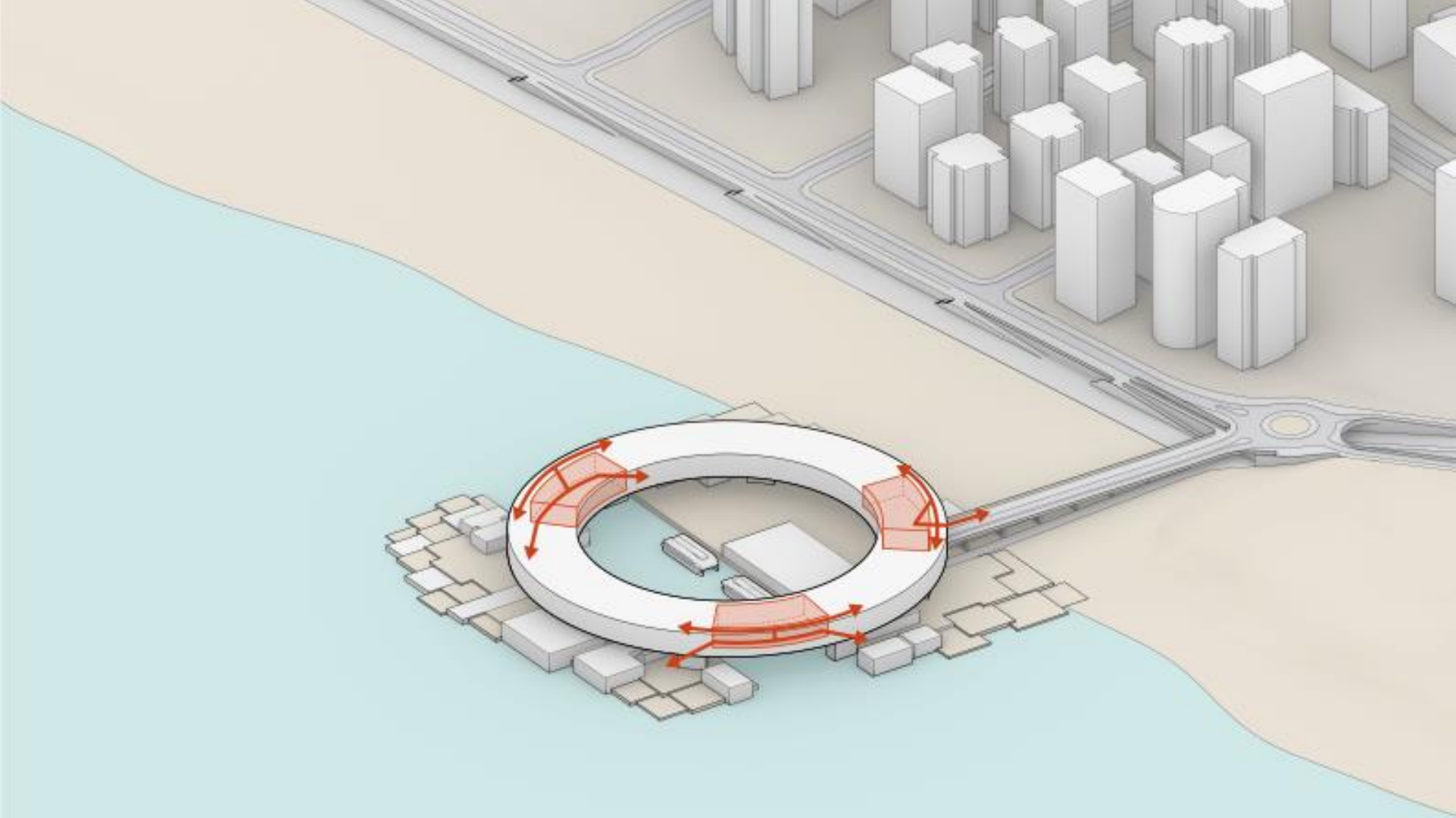


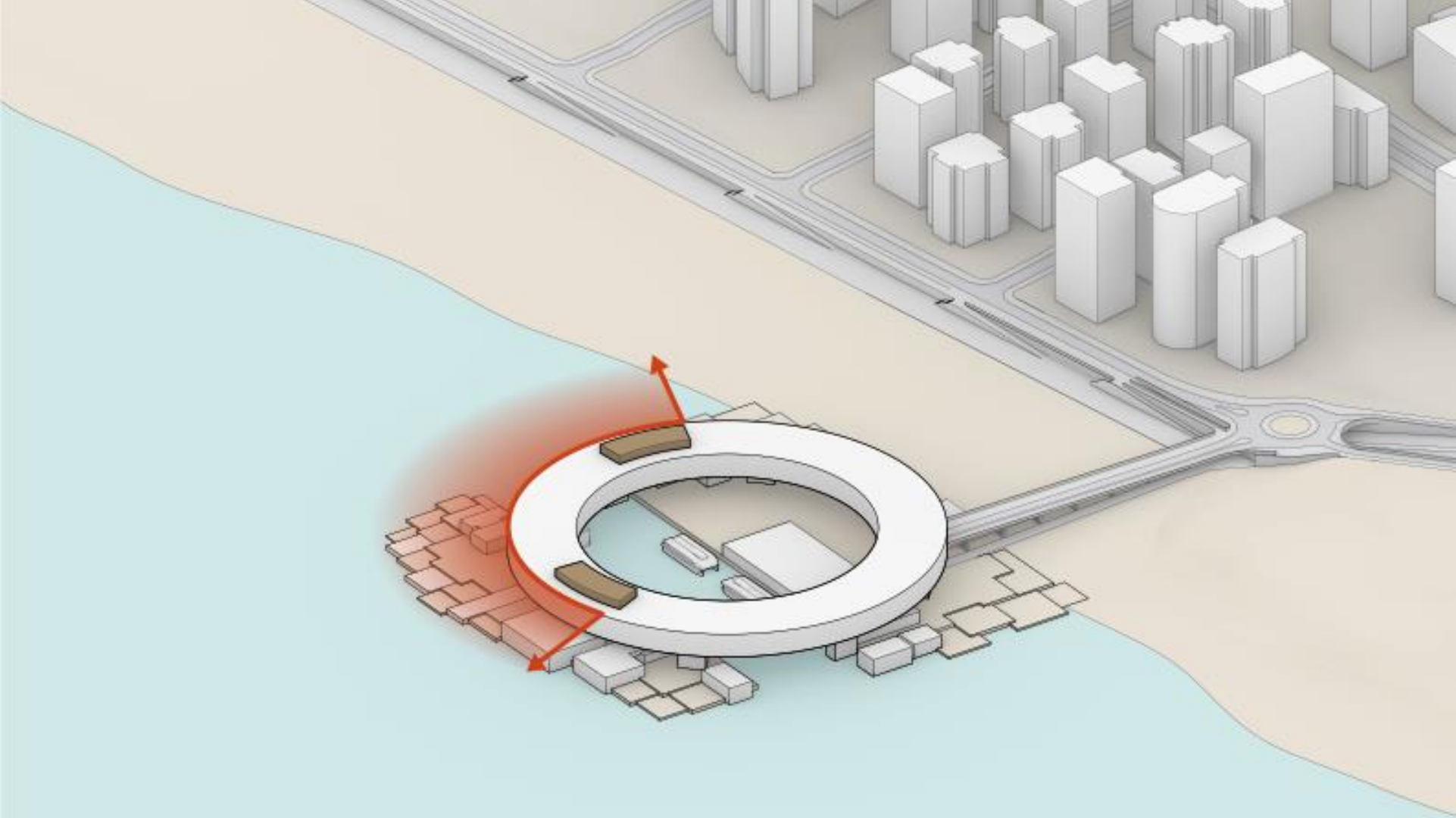


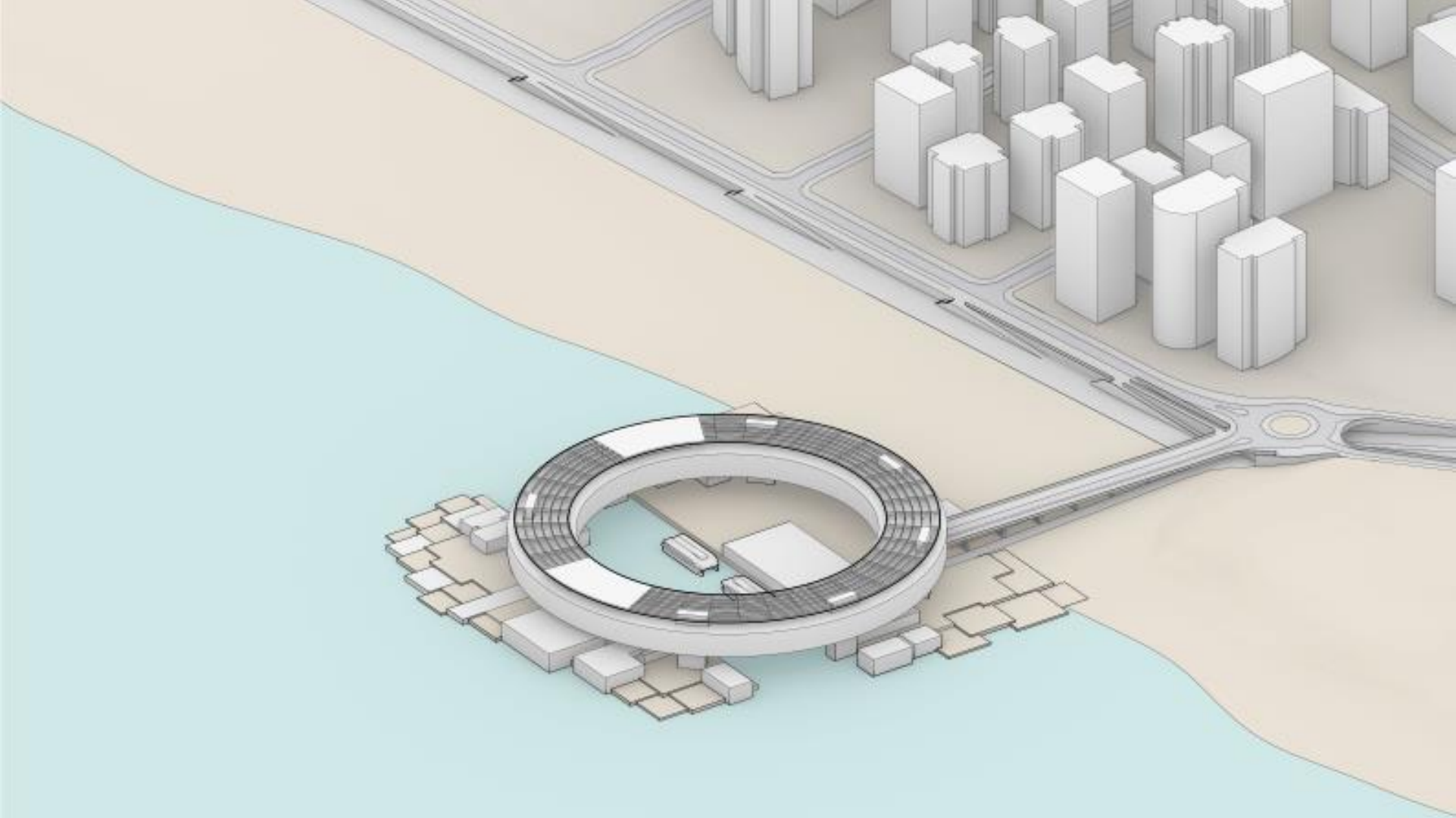


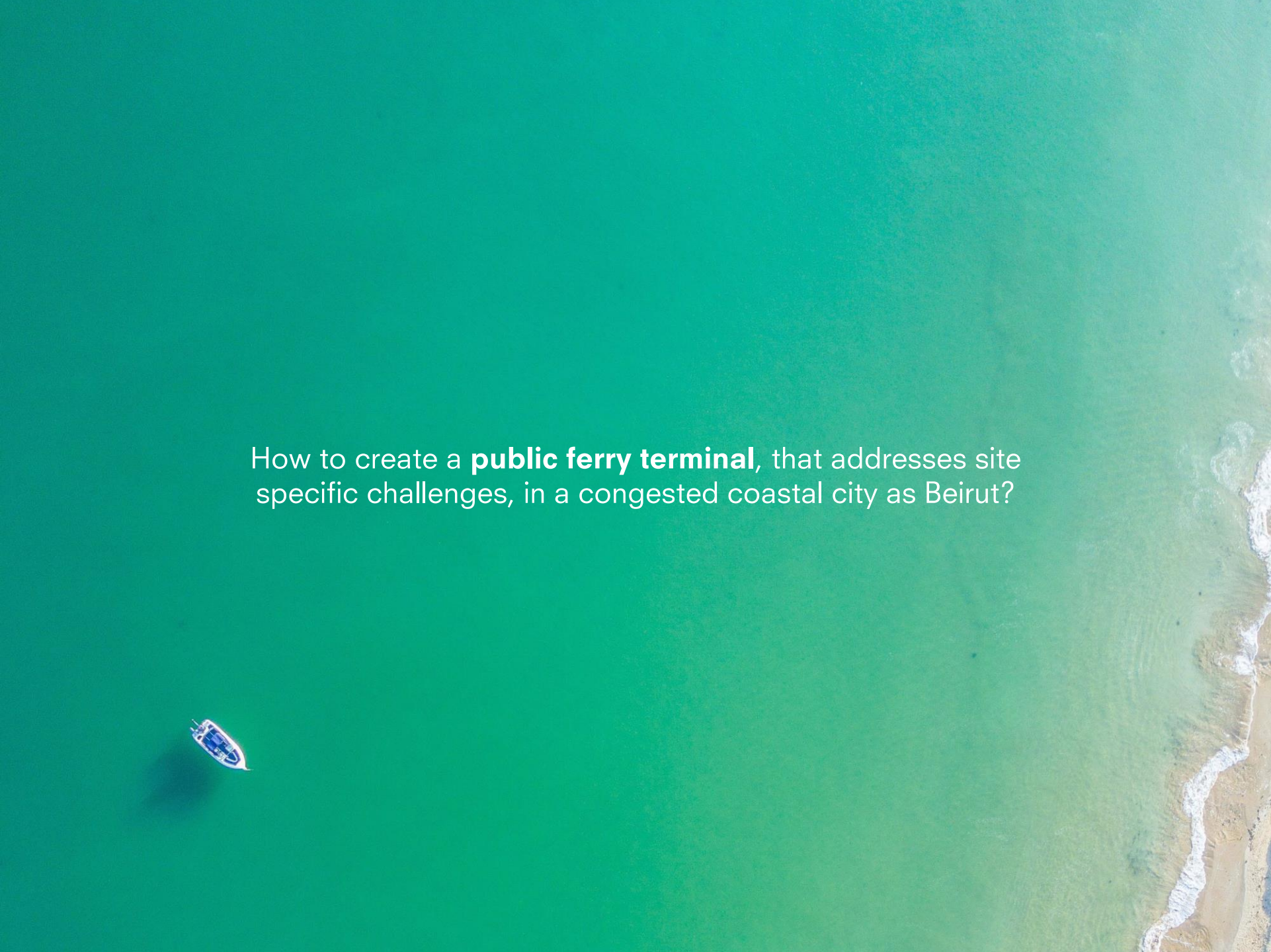






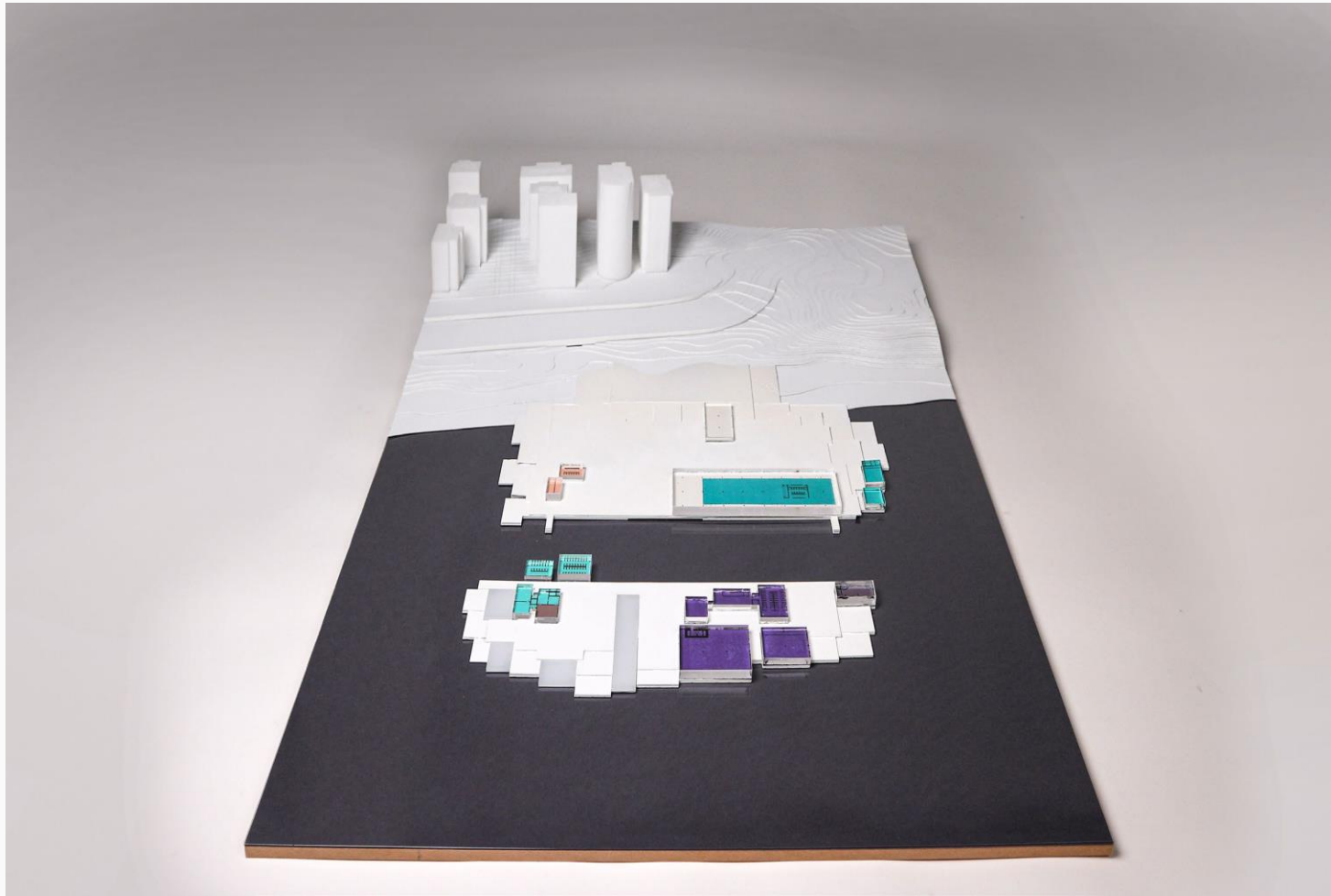


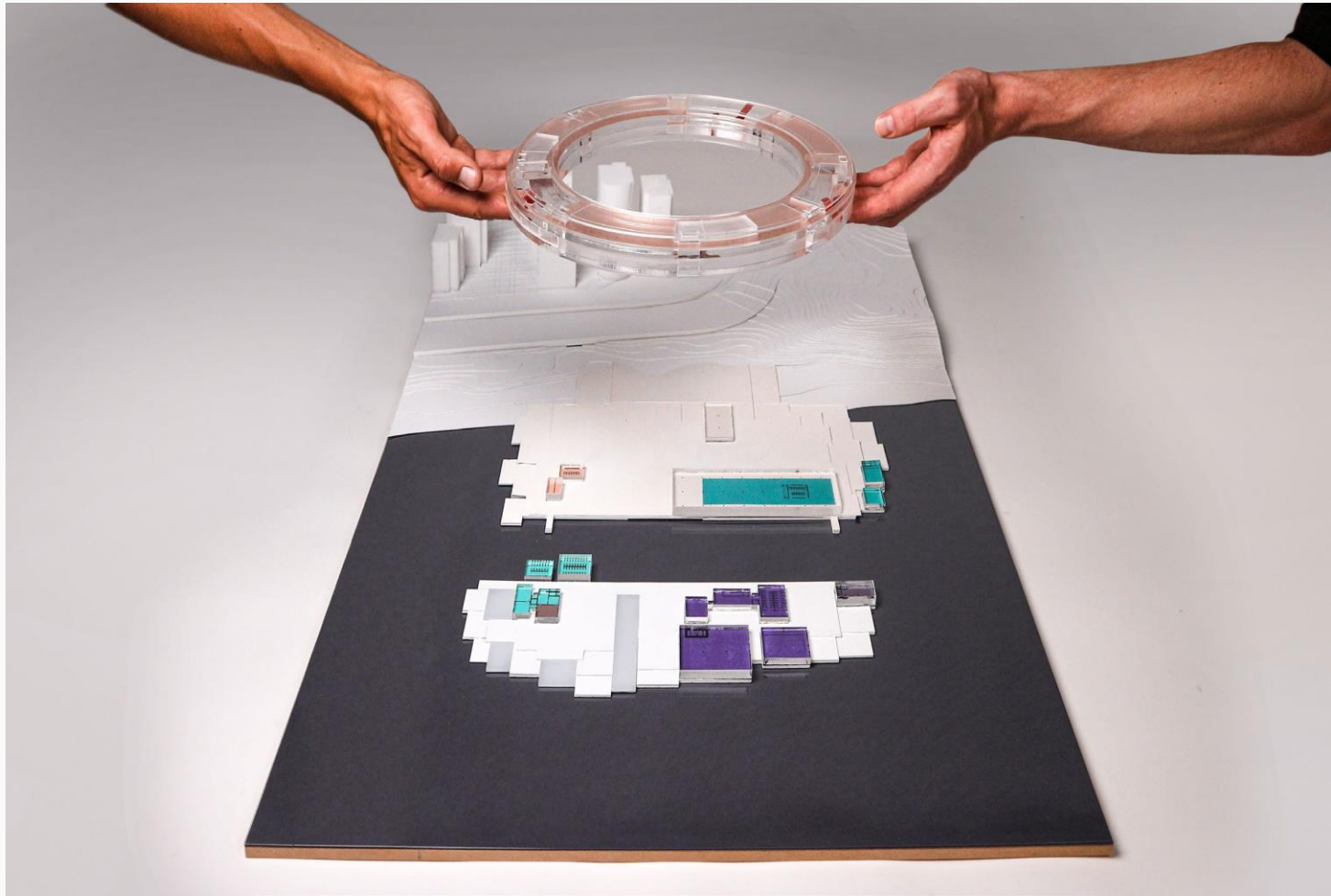


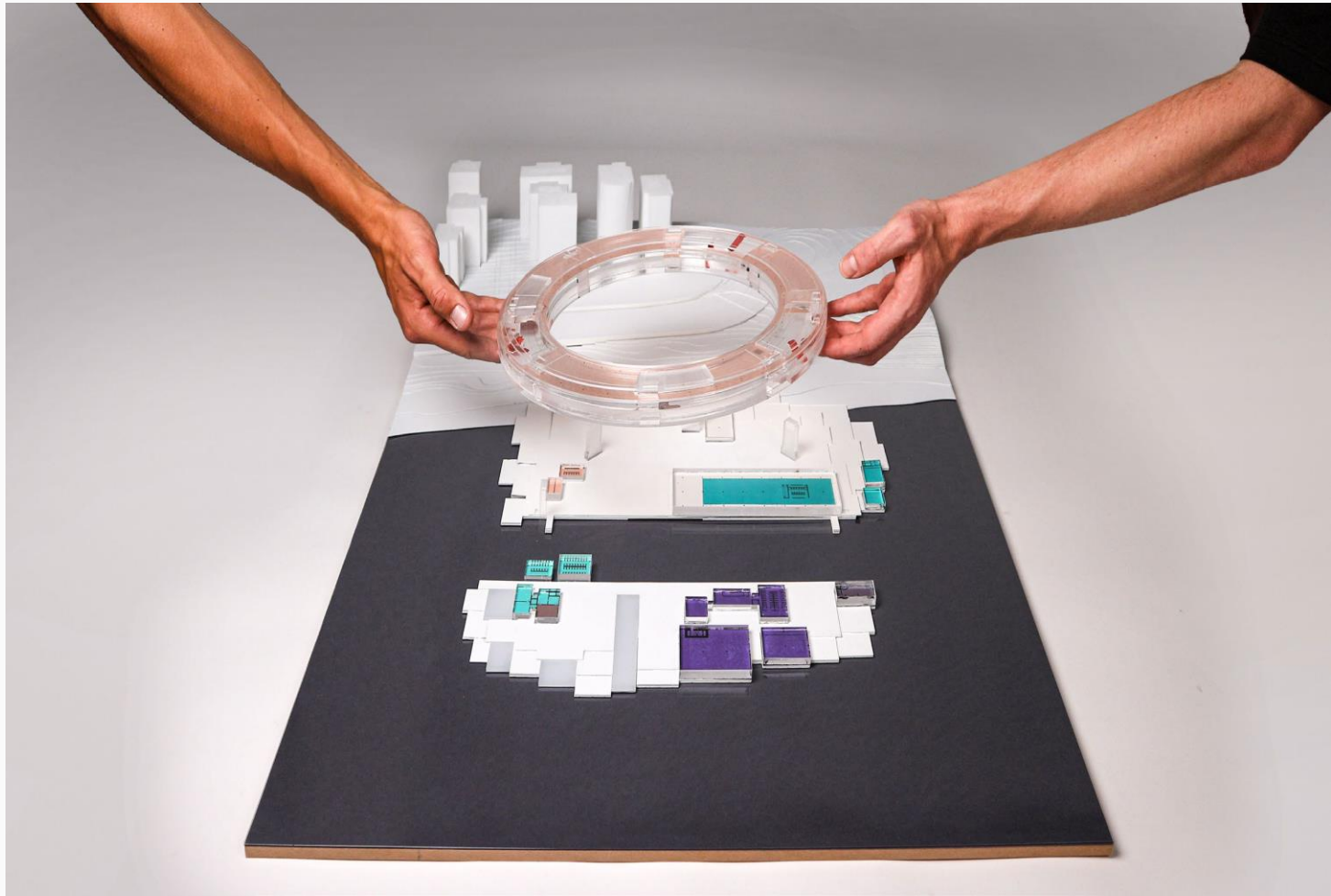
An aerial photograph of a small, white boat with a blue stripe on the water. The water is a vibrant turquoise color. In the bottom right corner, a sandy beach is visible with gentle waves washing onto the shore. The overall scene is bright and clear.

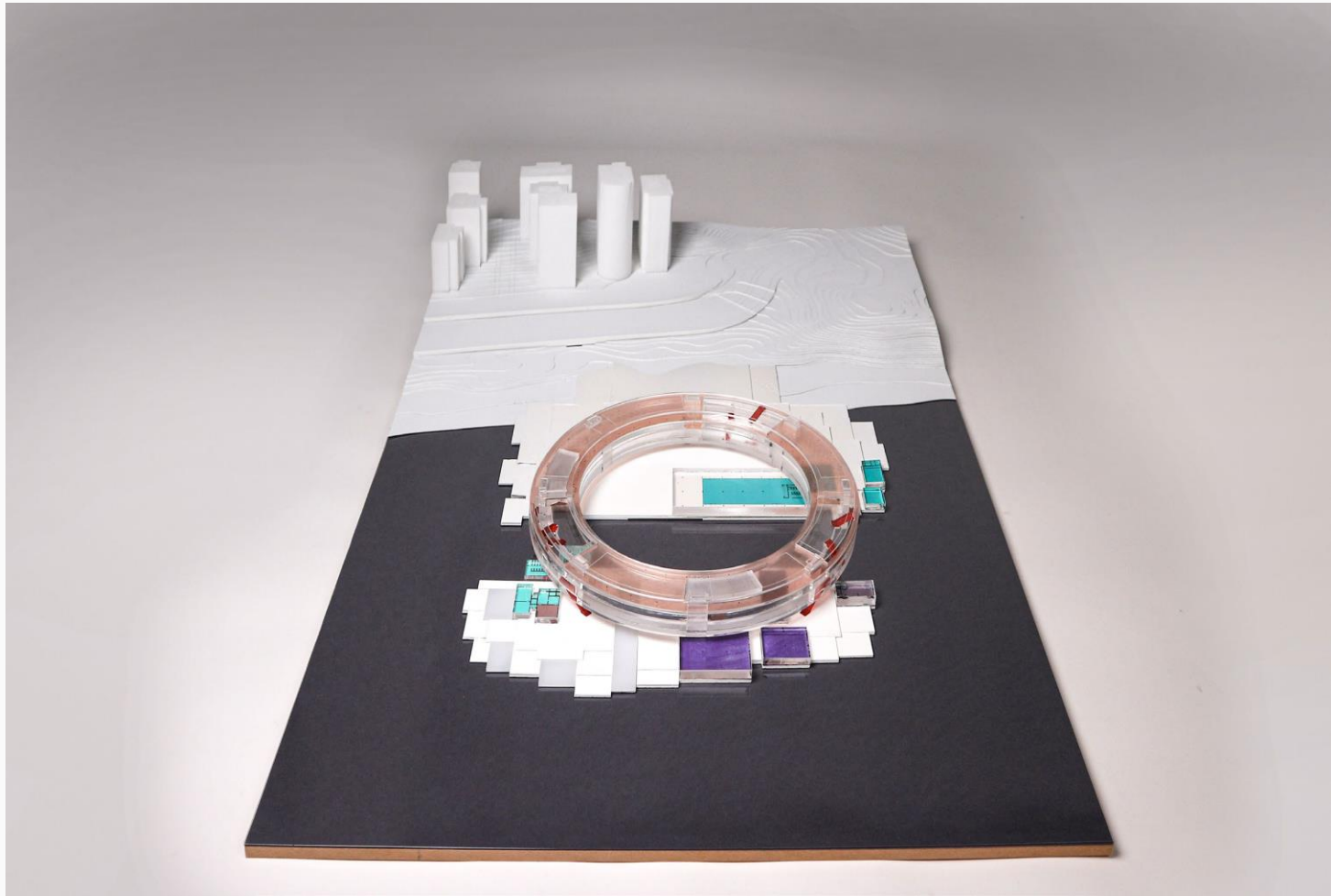
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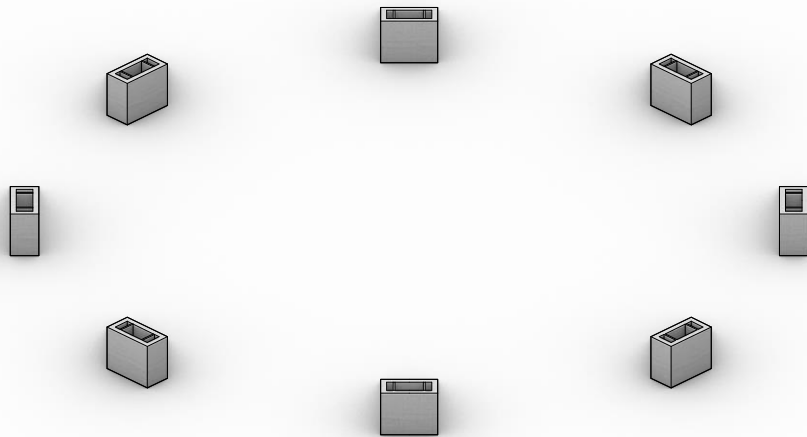


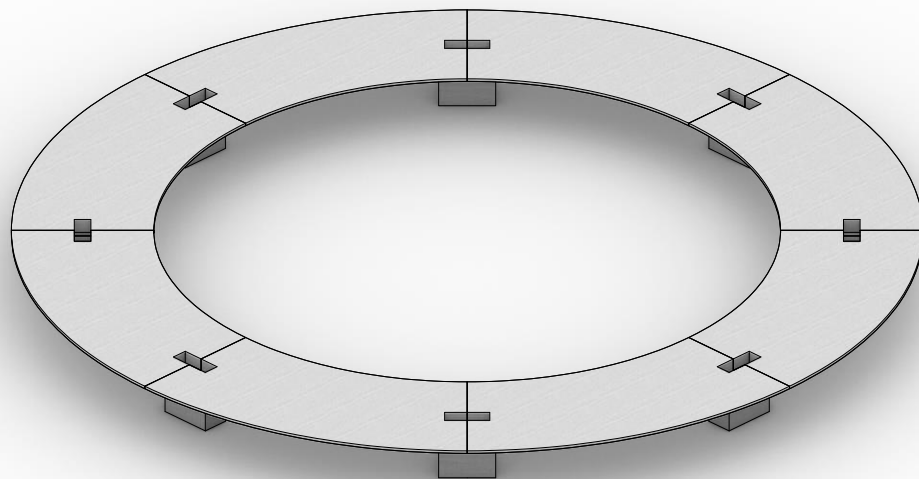


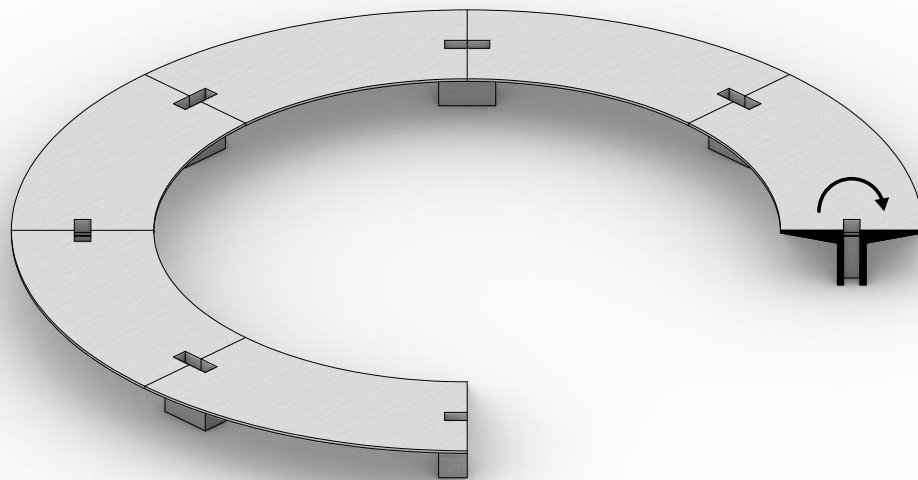


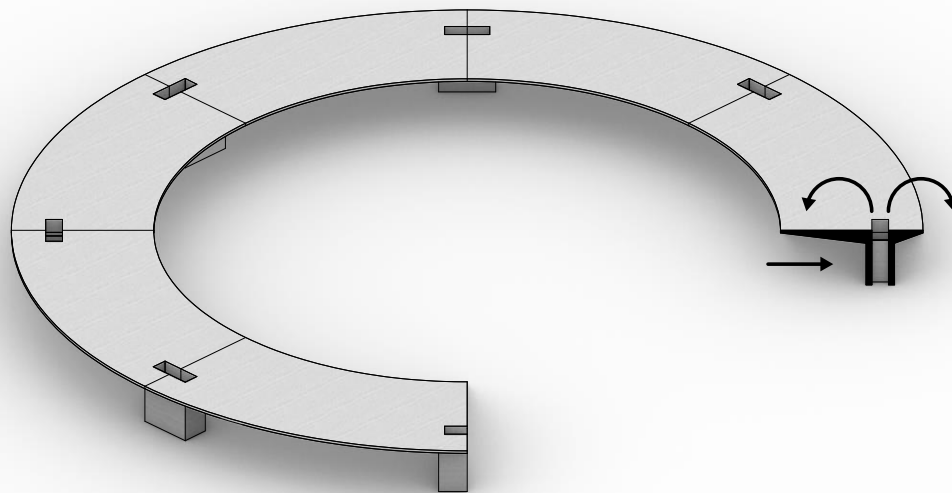


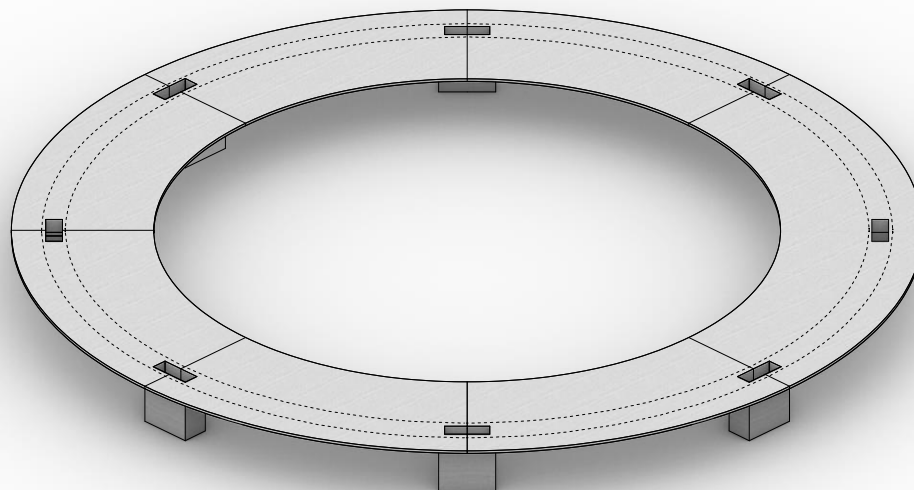




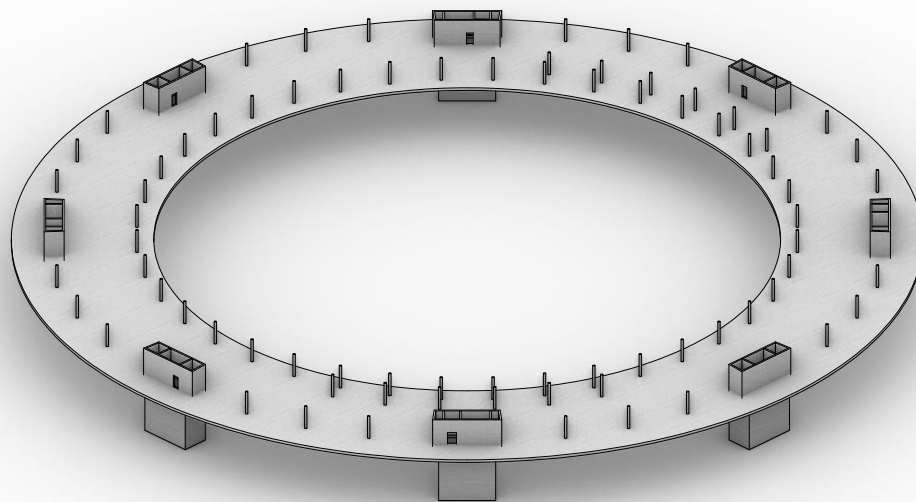


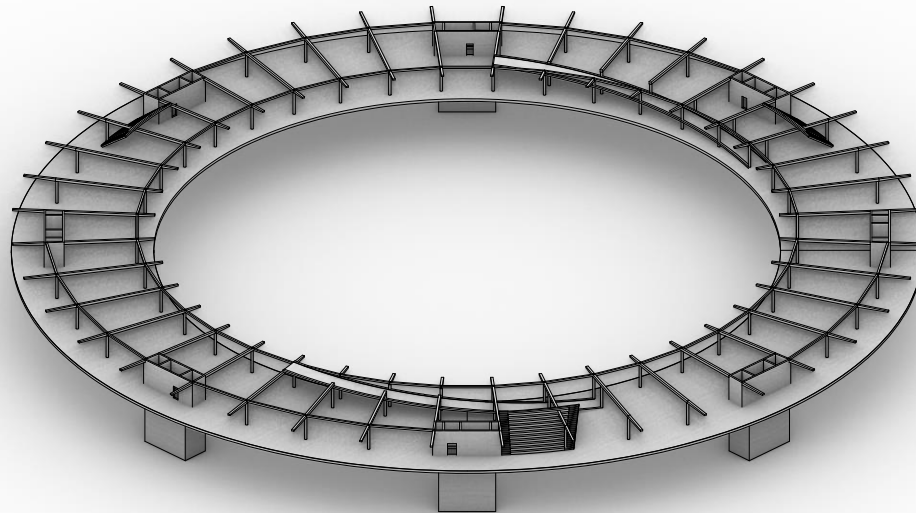


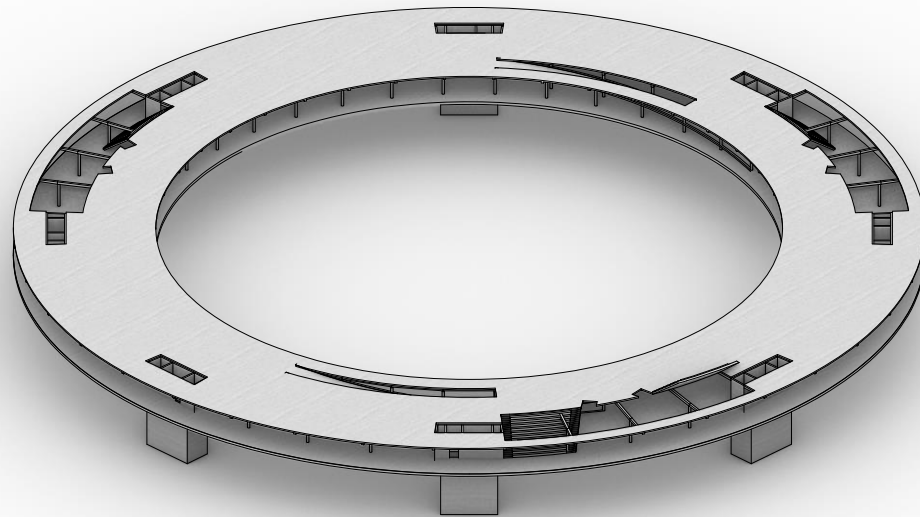


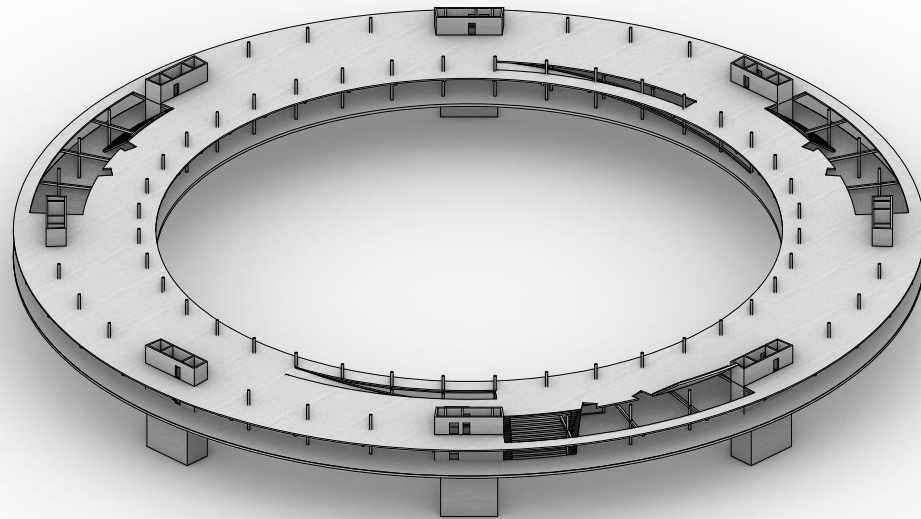


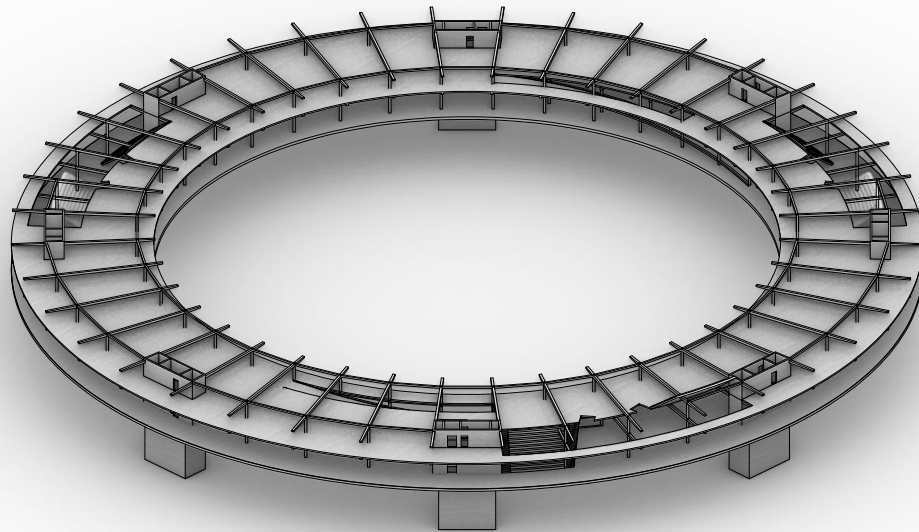


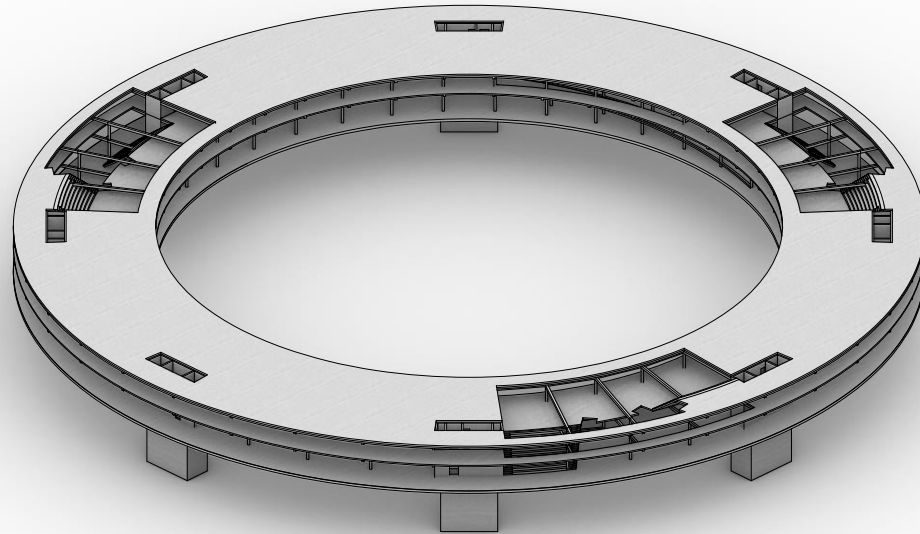




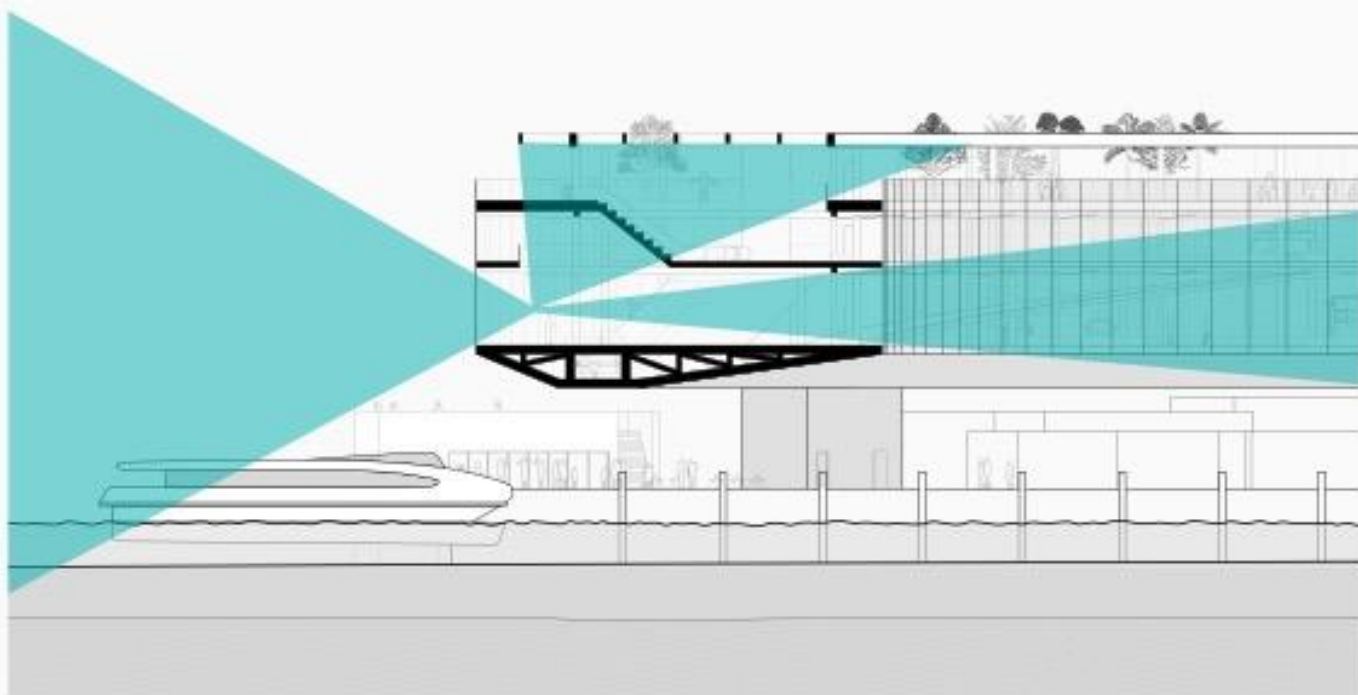


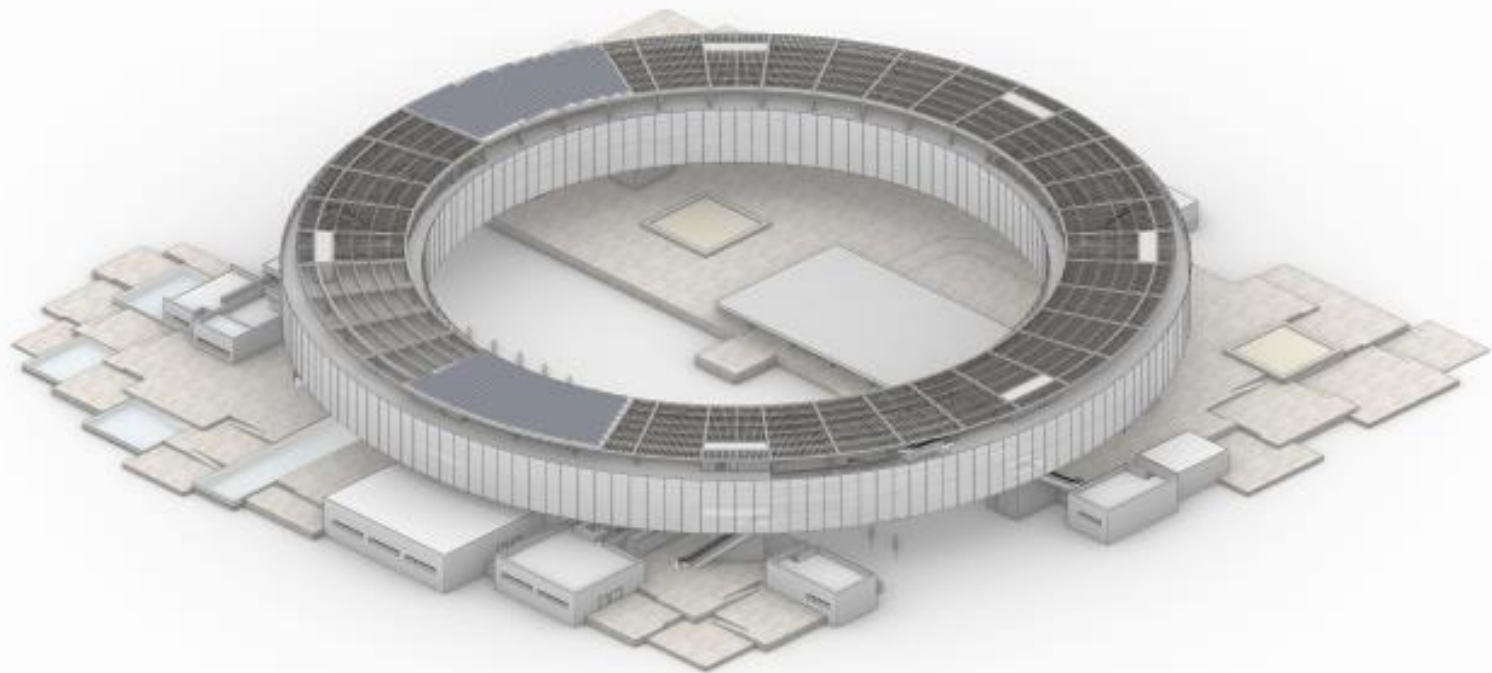


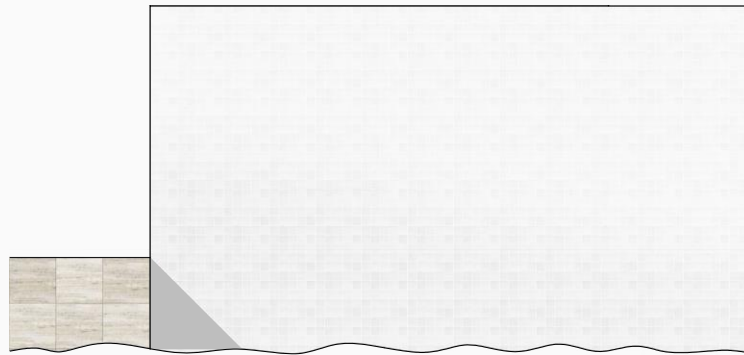


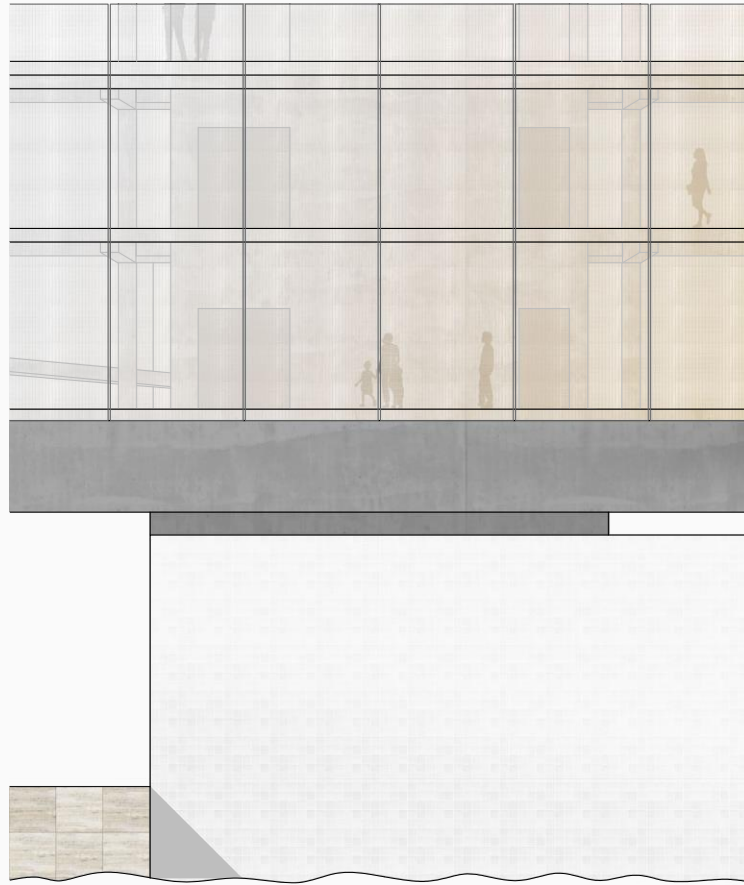


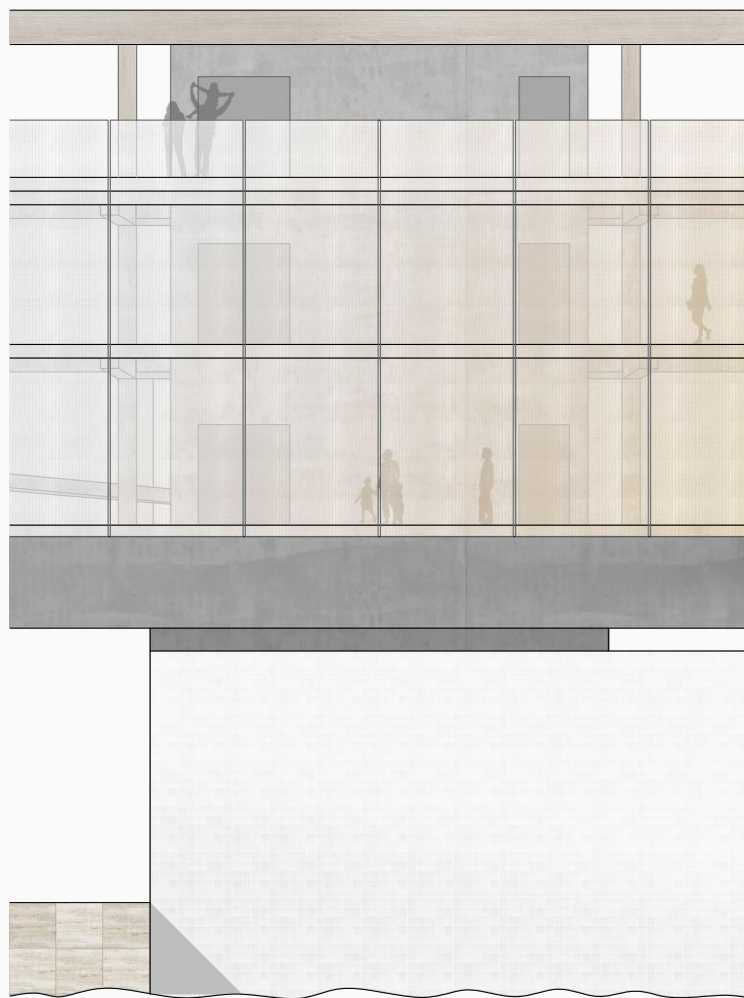














Views



Views



Saline water



Views



Saline water



Wear and tear



Views



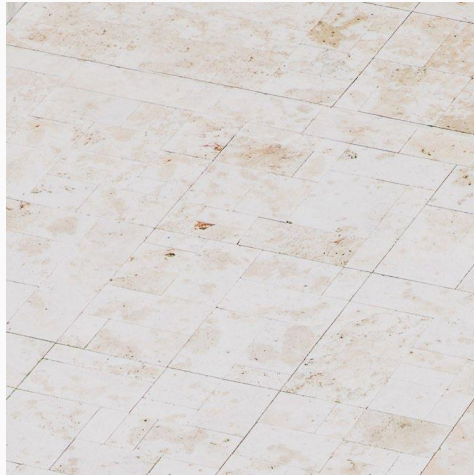
Saline water



Wear and tear



Comfortable climate



Lime stone
Floor

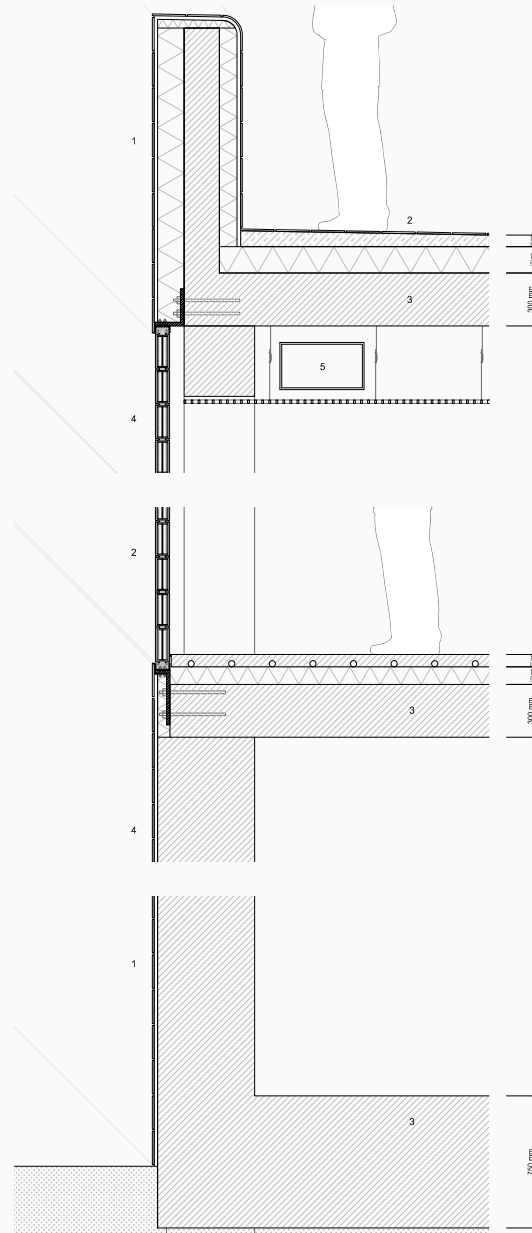


Glazed ceramic tile
Opaque facade



Glass block
Transparent facade



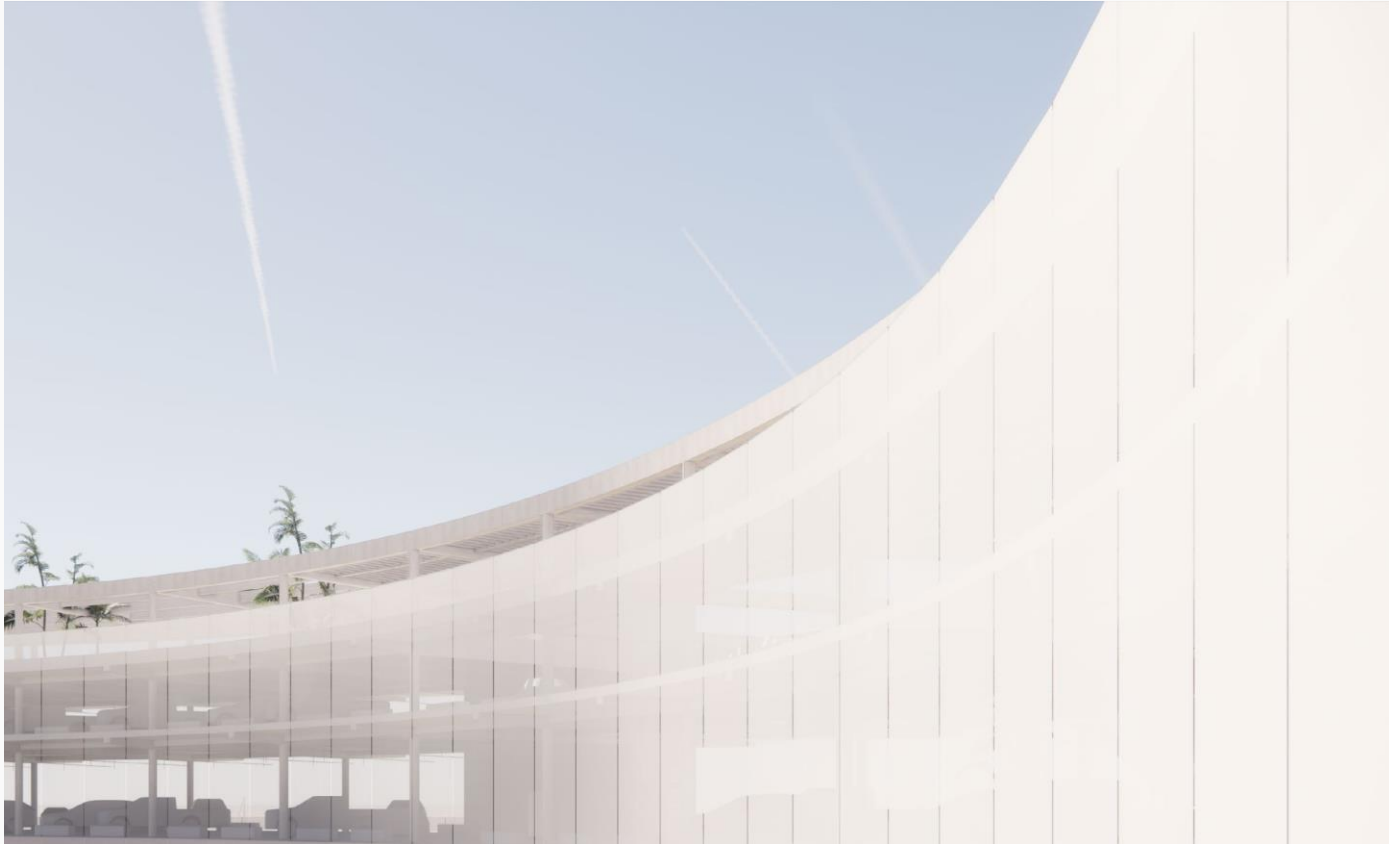


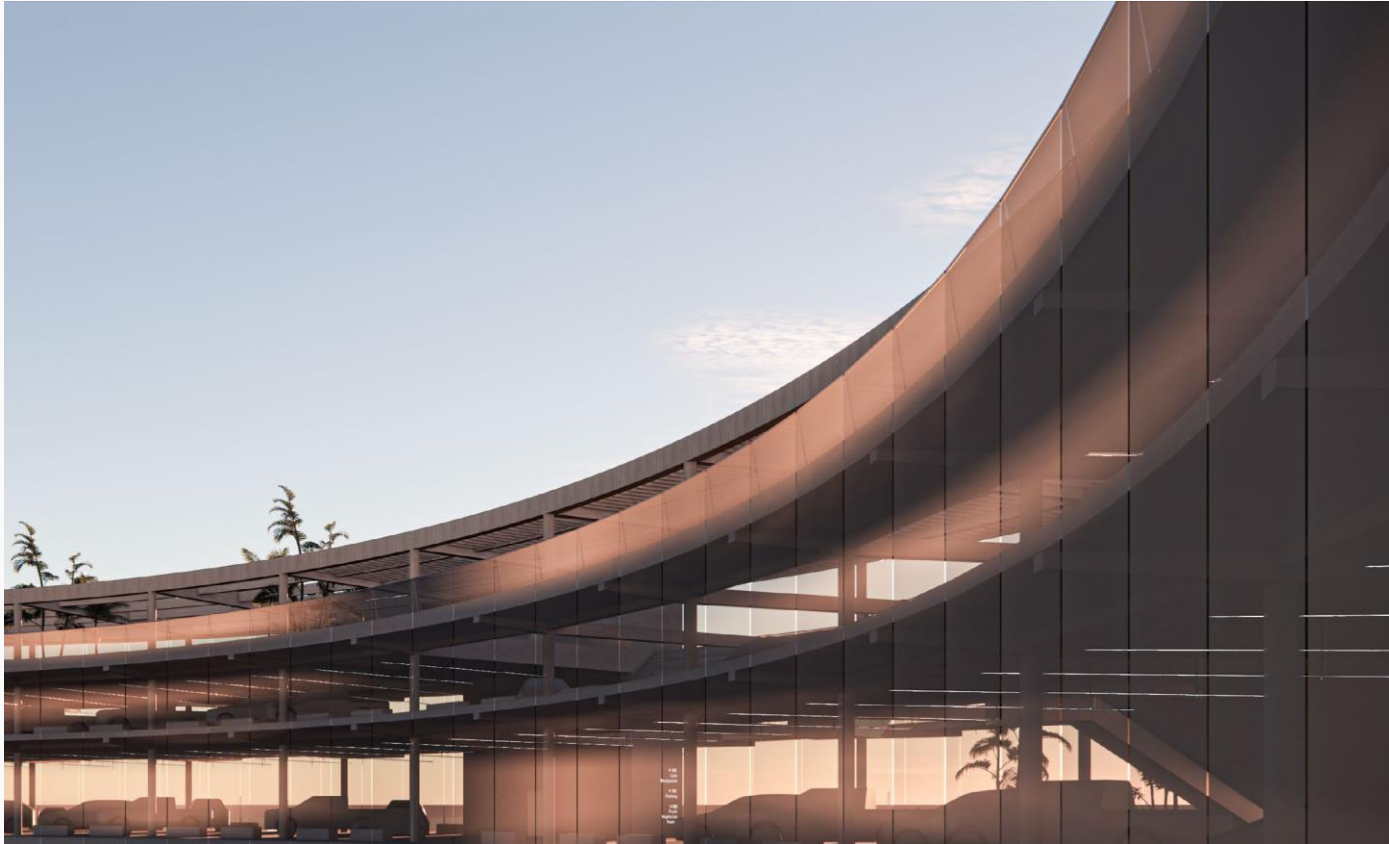


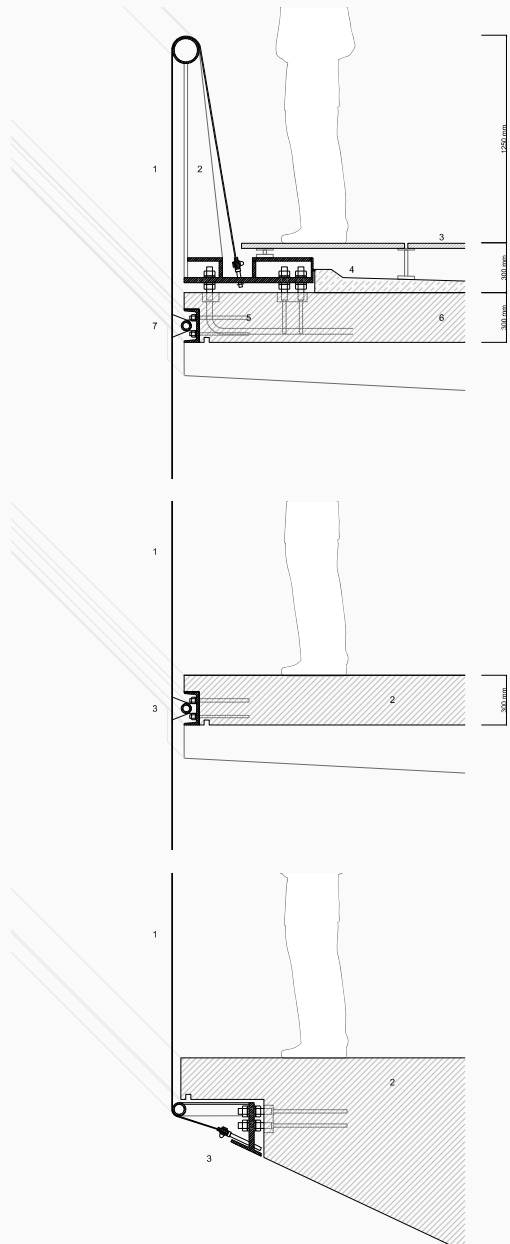
Metal mesh
Facade

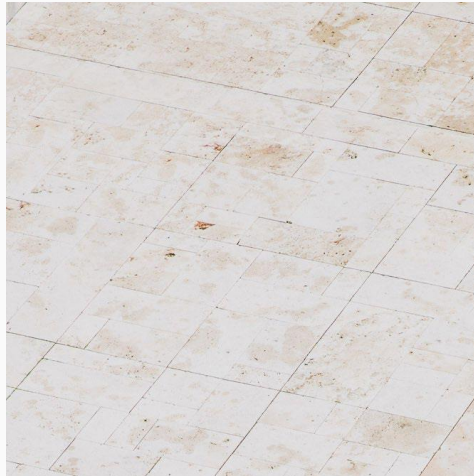


Exposed concrete
Structure









Lime stone
Floor

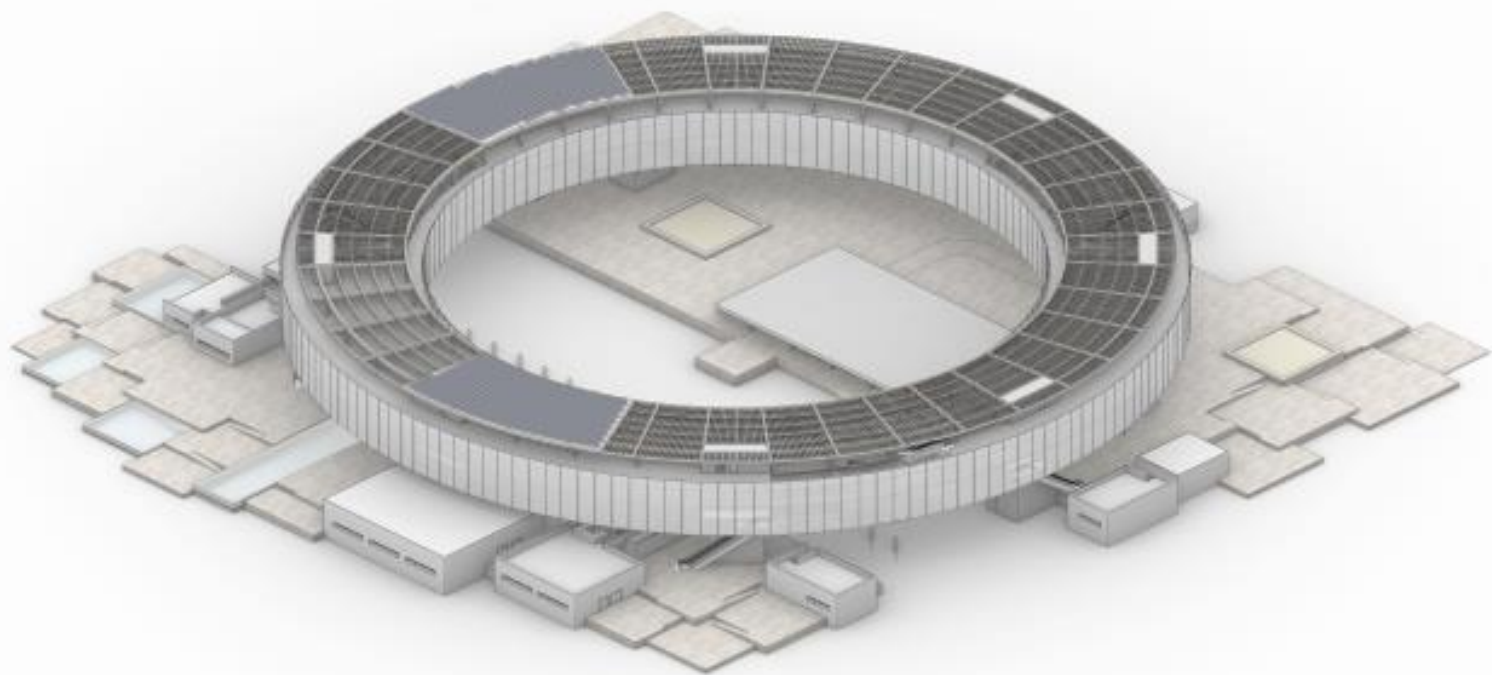


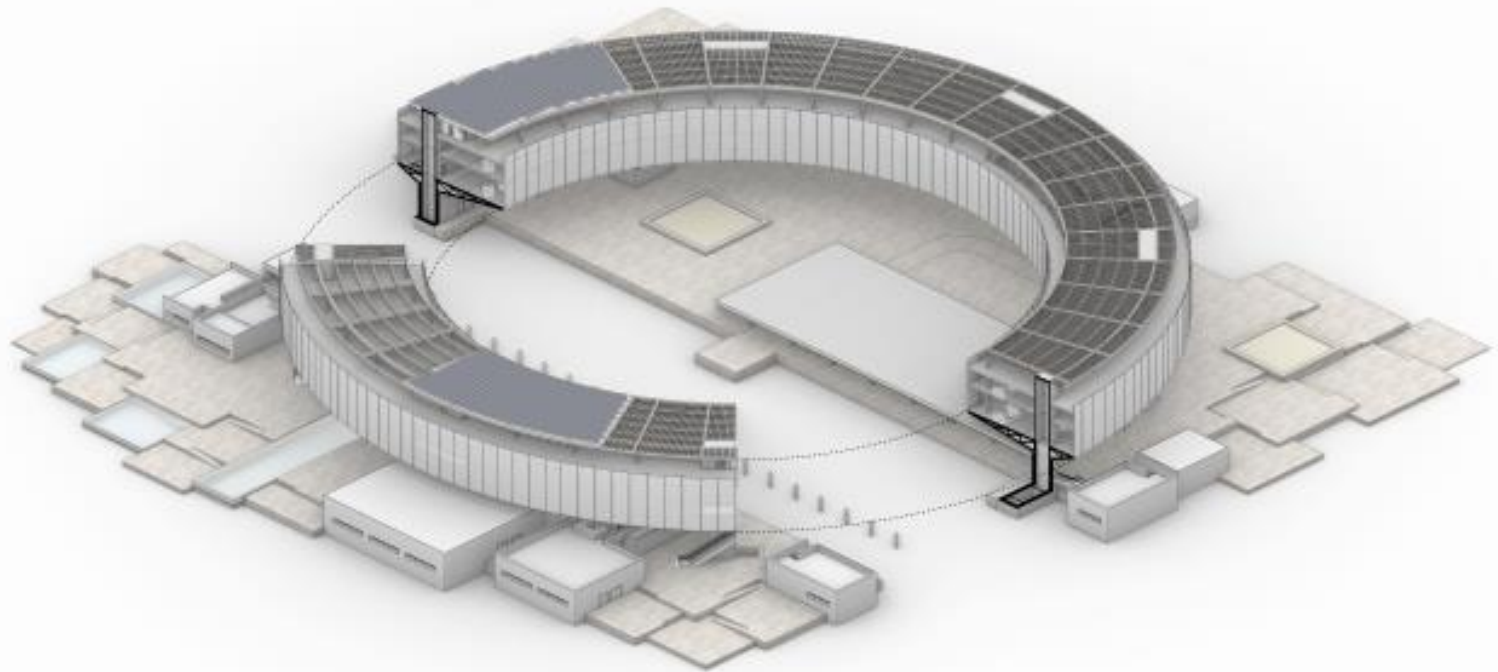
Wood
Canopy / structure

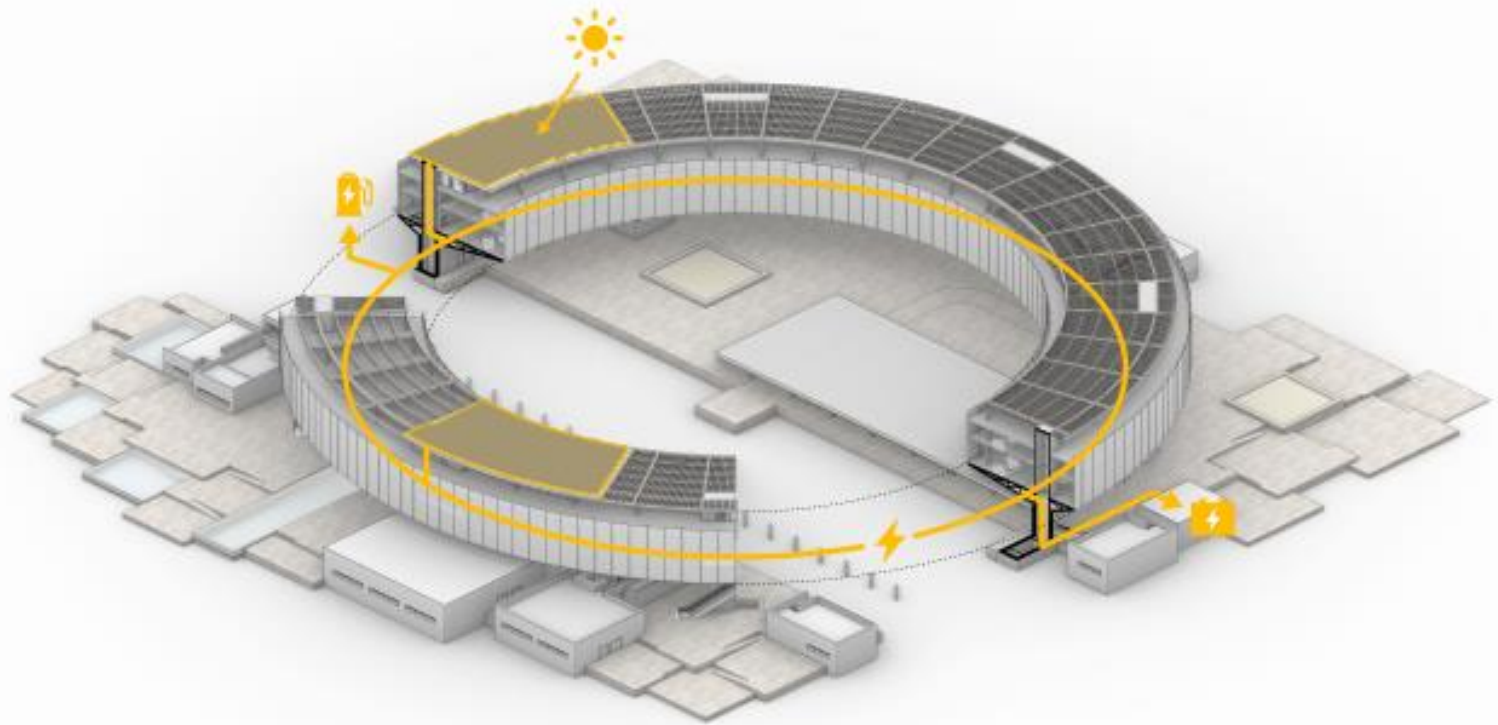


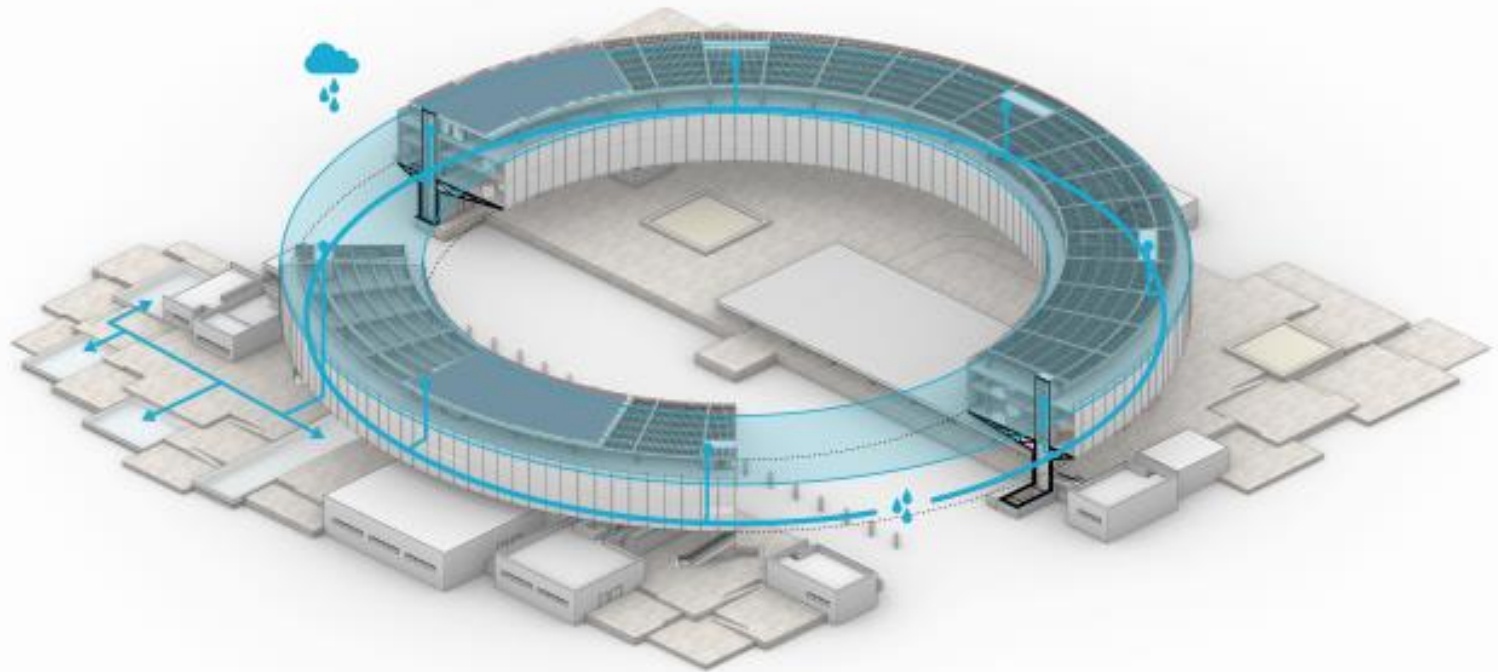
Glass
Open facade

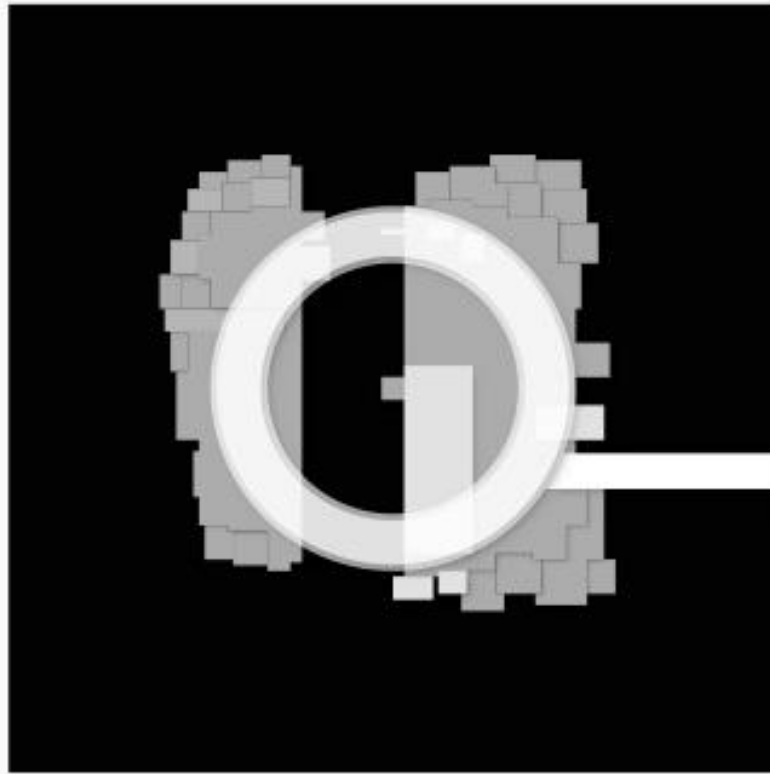




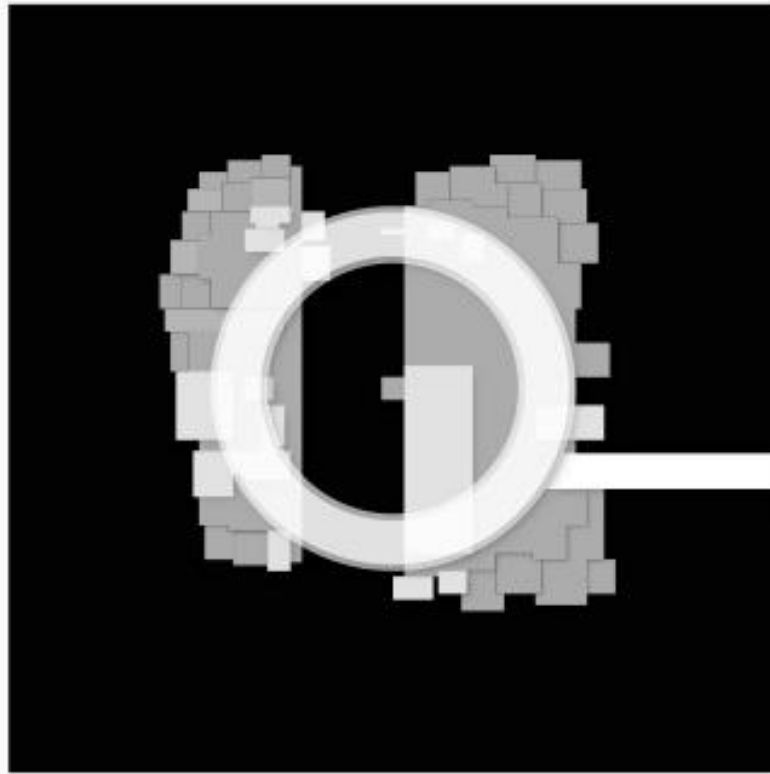




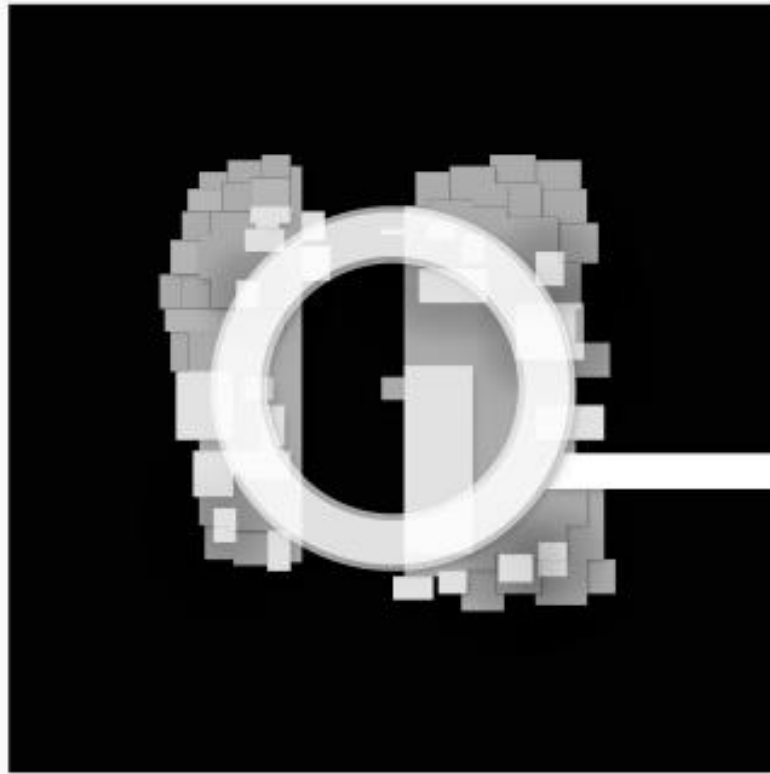




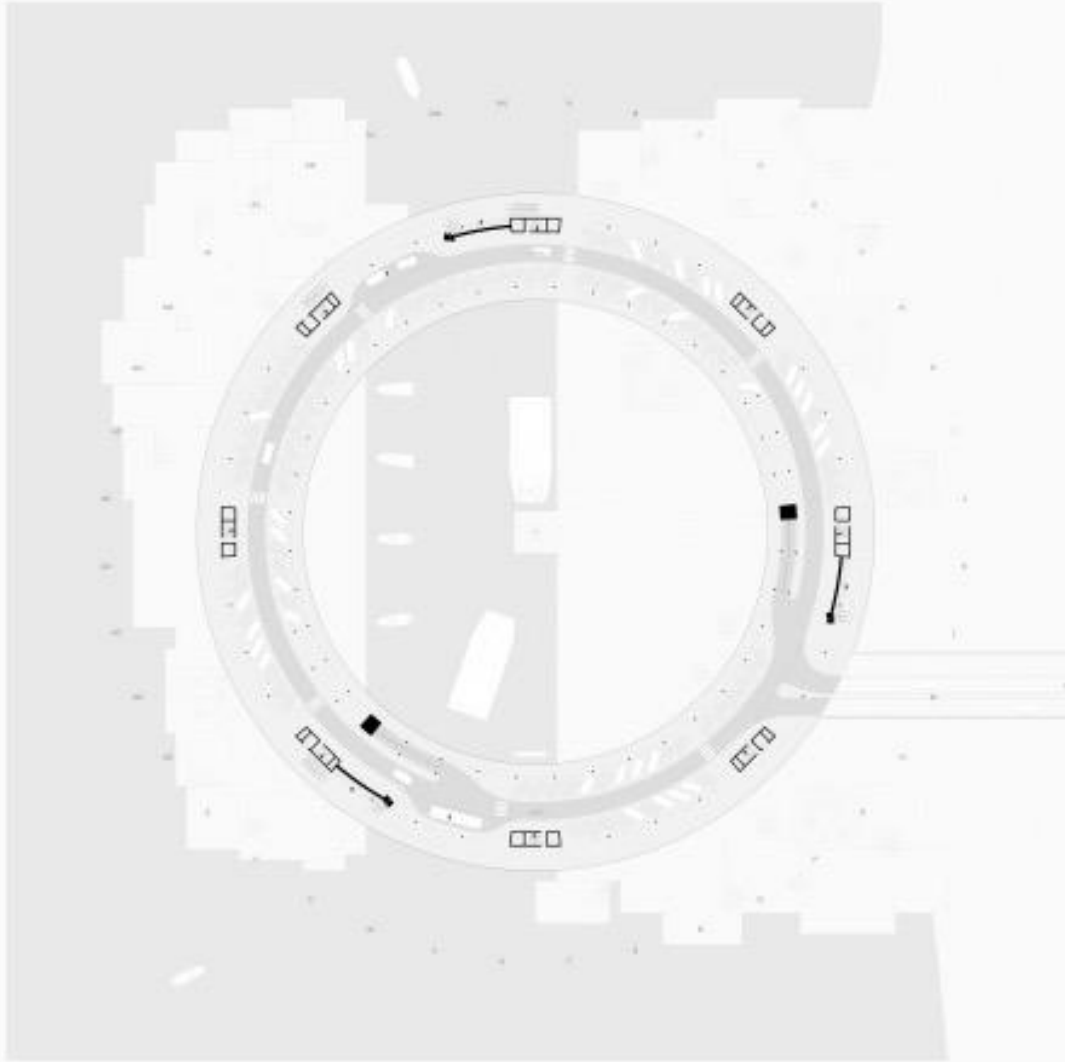
Terminal



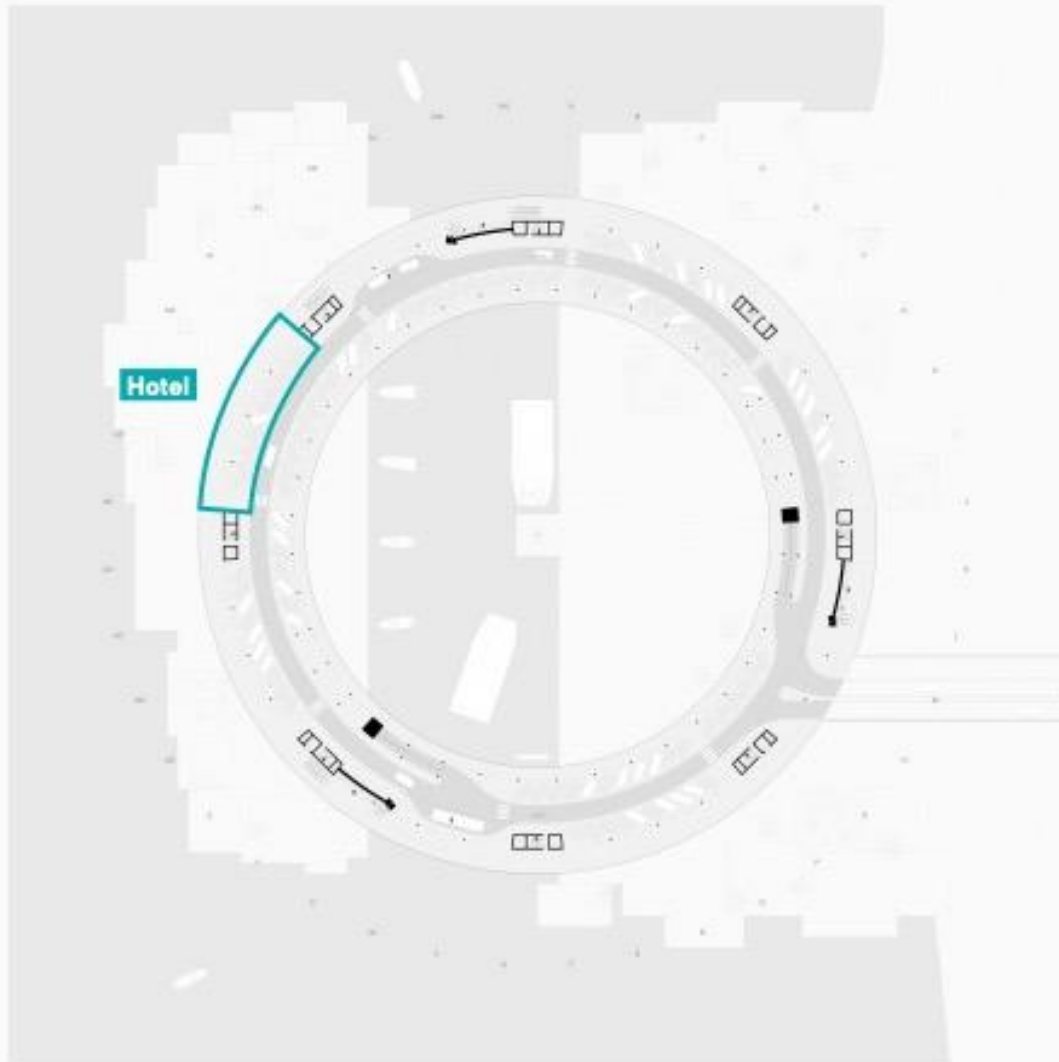
Terminal + Leisure

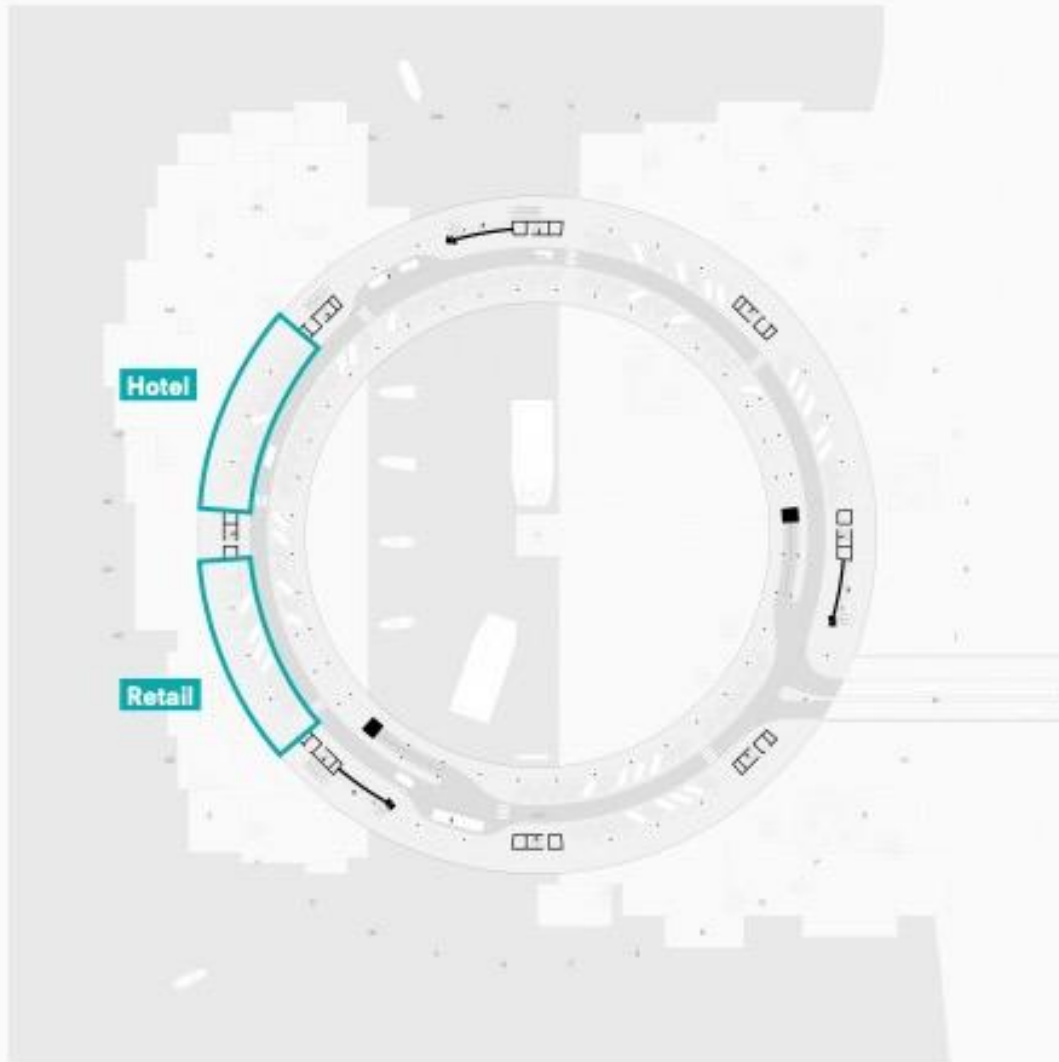


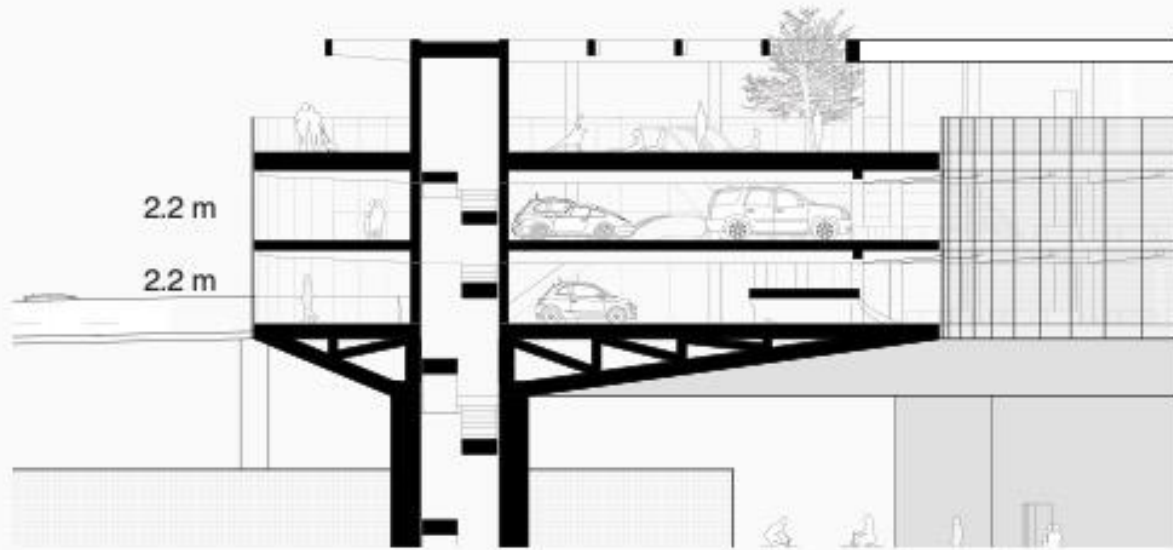
Future

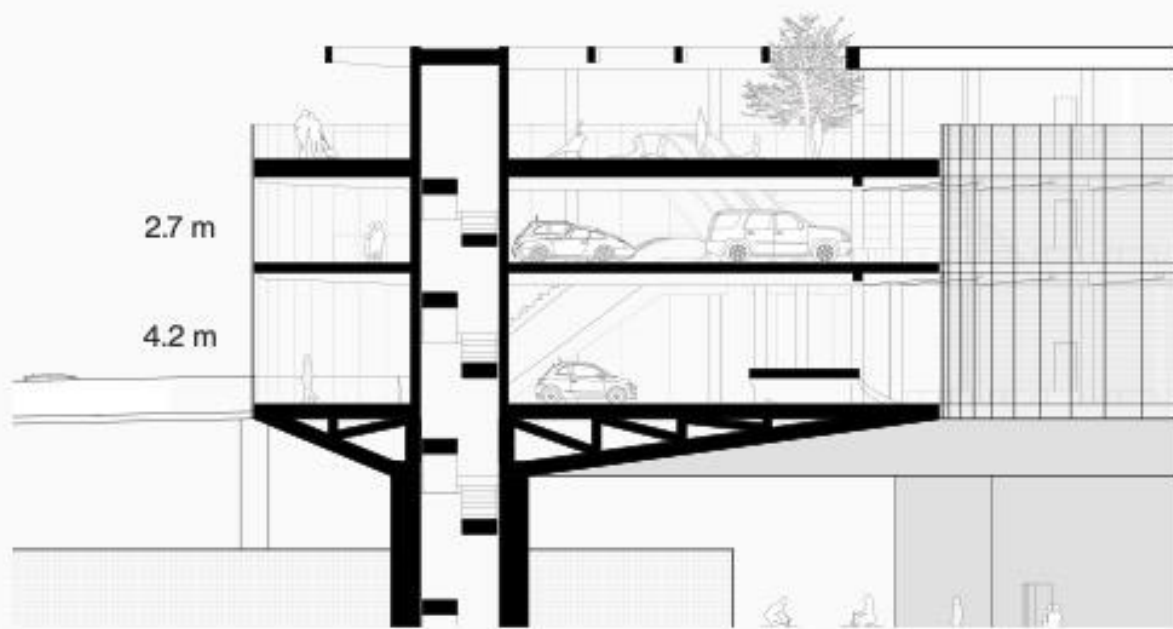


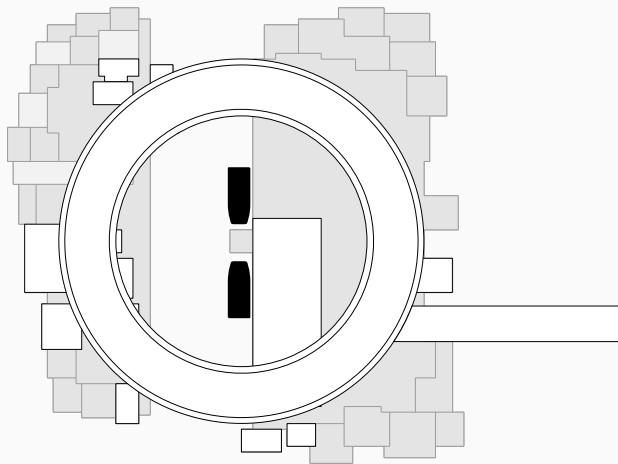




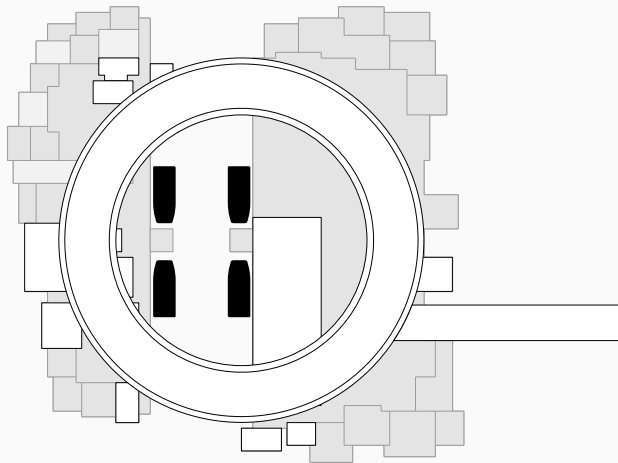








One sided docking



Two sided docking

INTRODUCTION
(IM)MOBILITY
DESIGN BRIEF
CONCEPT
FERRY TERMINAL
PASSENGERS
CONCLUSION





Boat



Walking



Bicycle



Car





PASSENGERS

TERMINAL

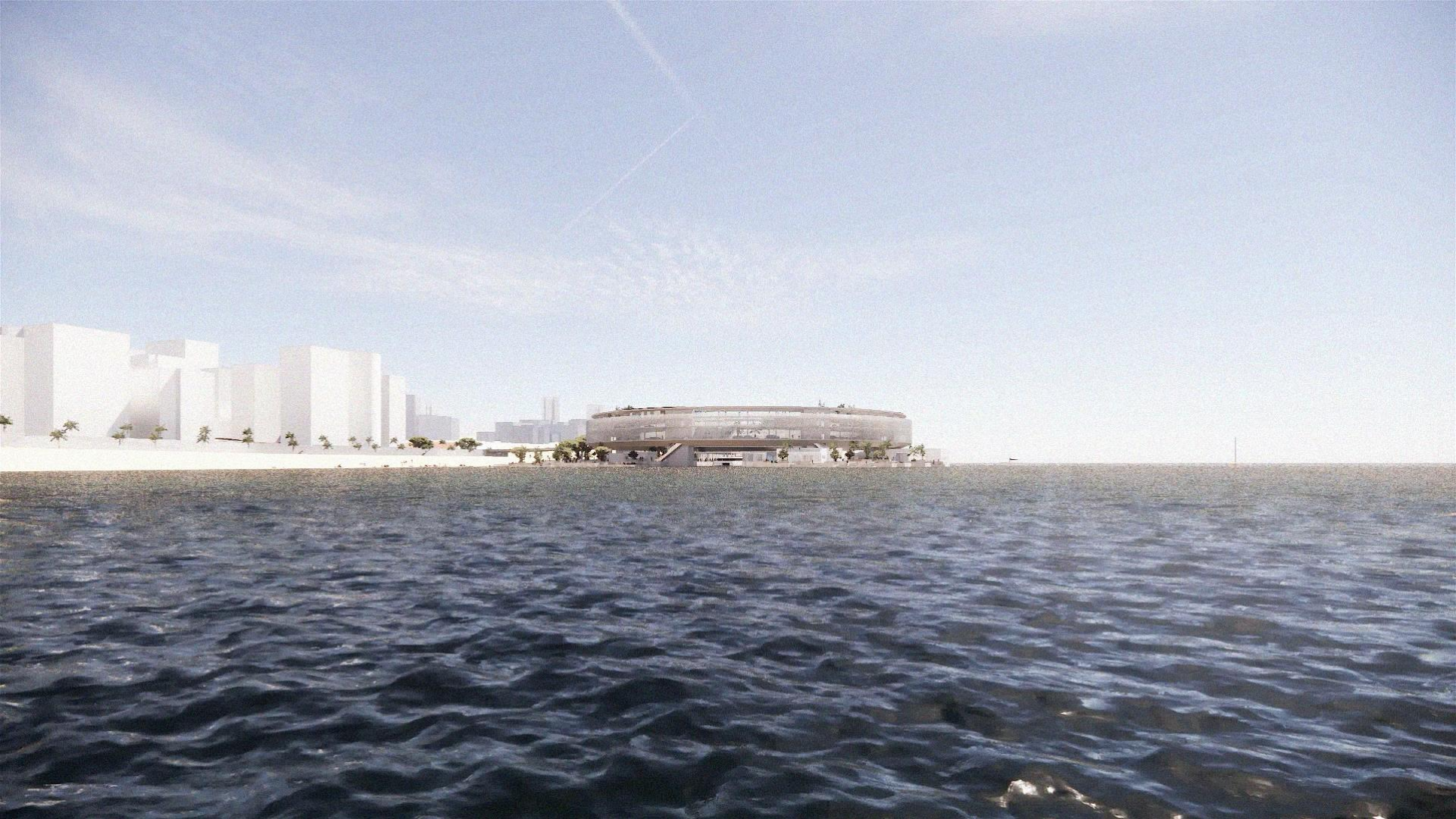
179 / 200

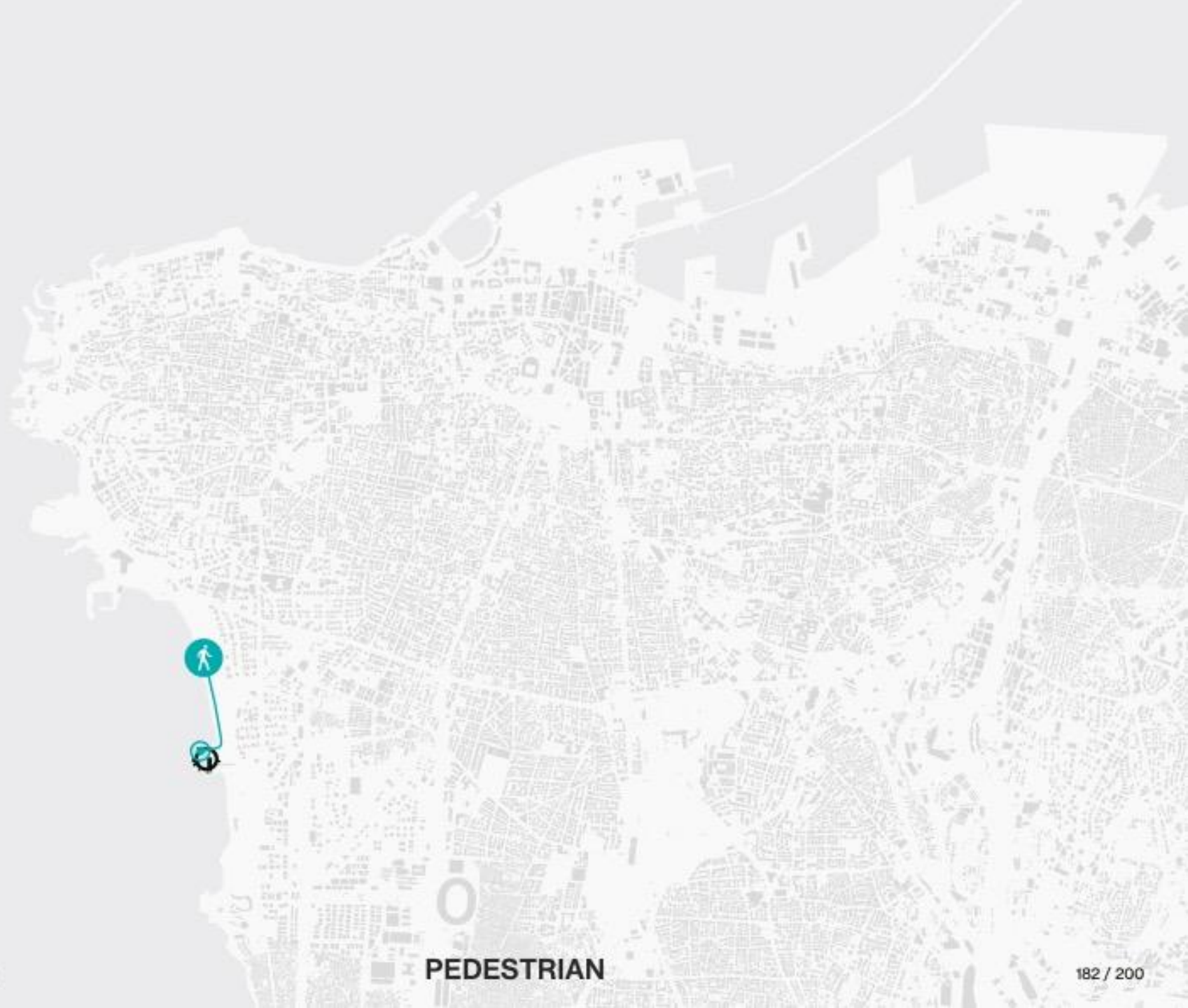


PASSENGERS

FERRY

180 / 200





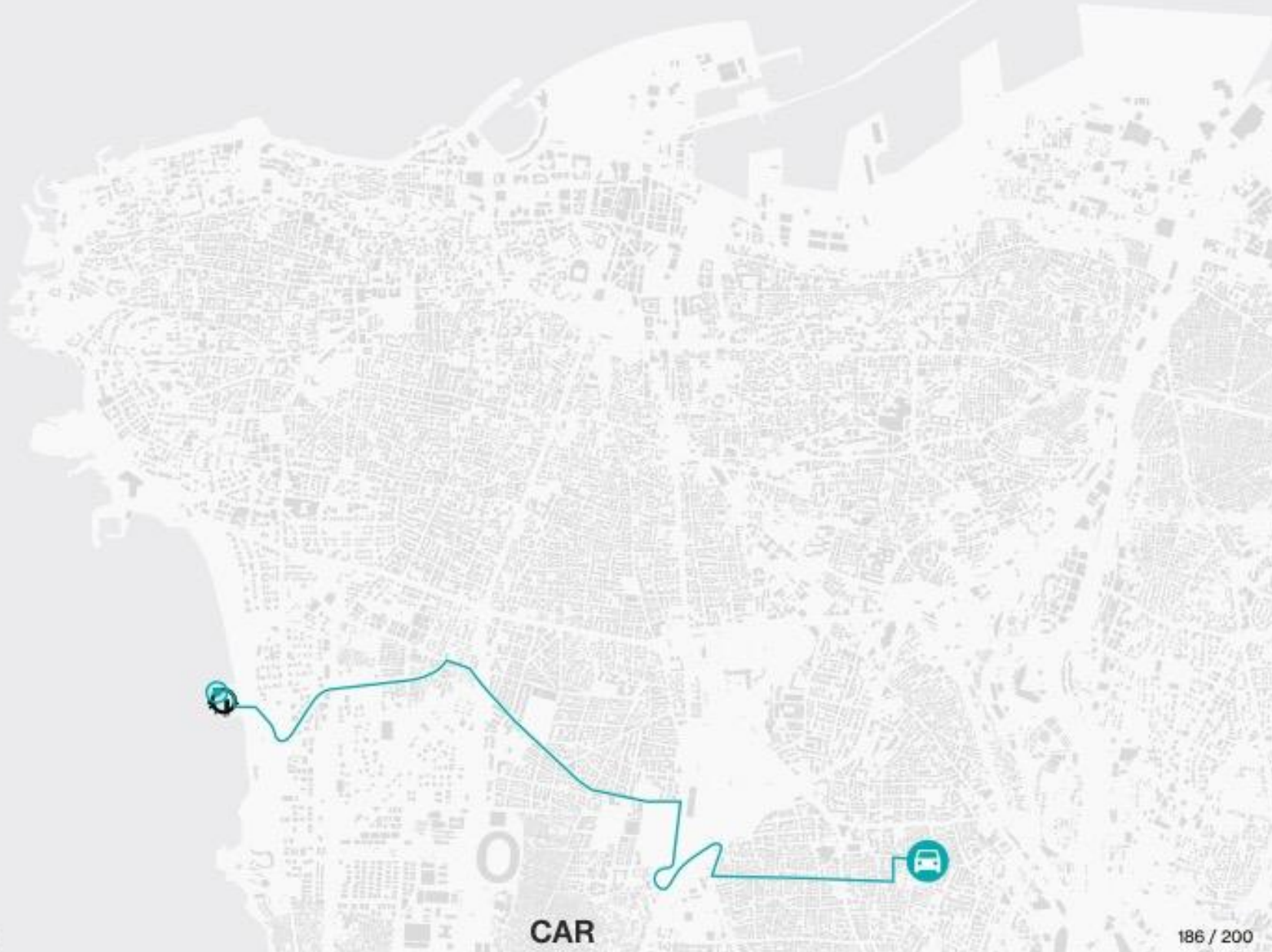




PASSENGERS

BICYCLE



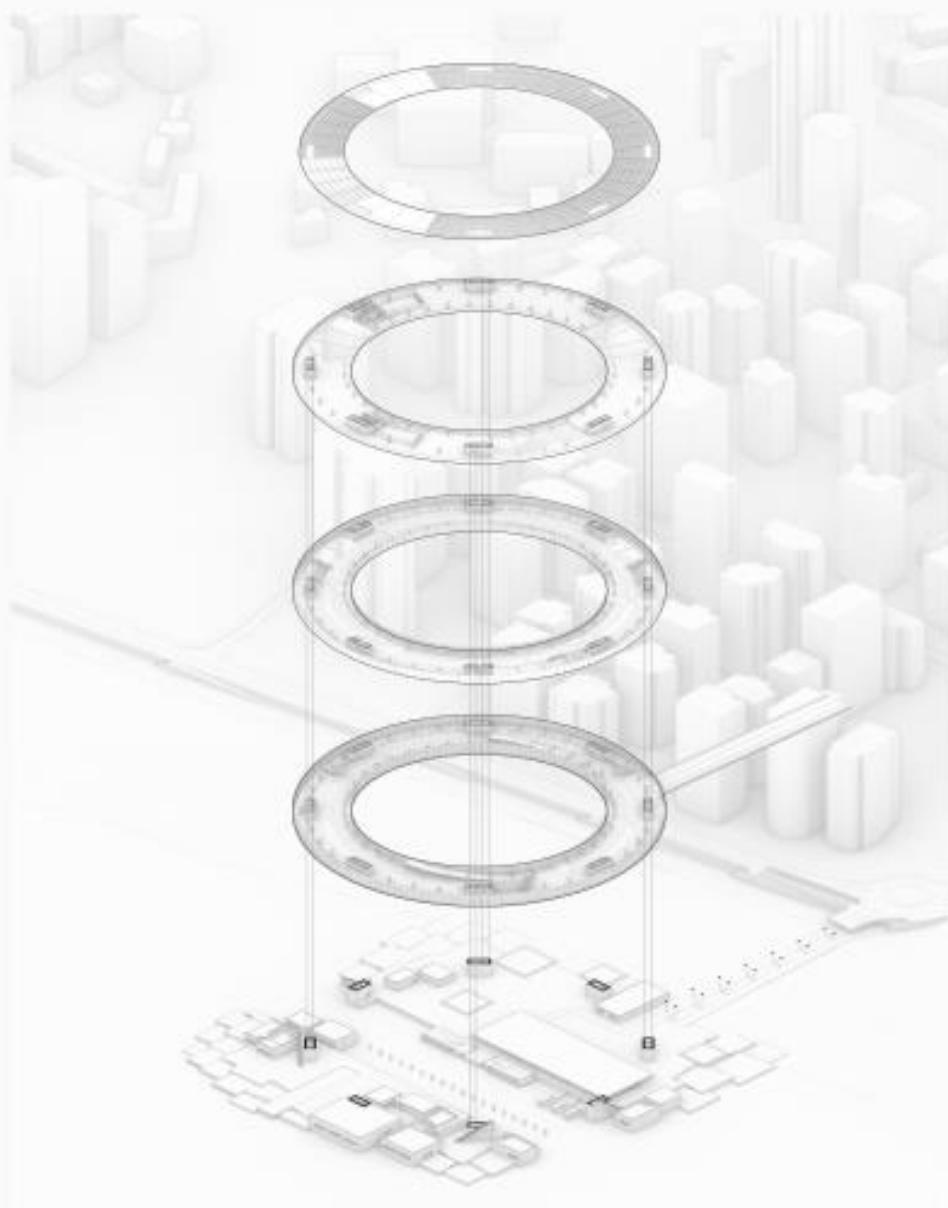


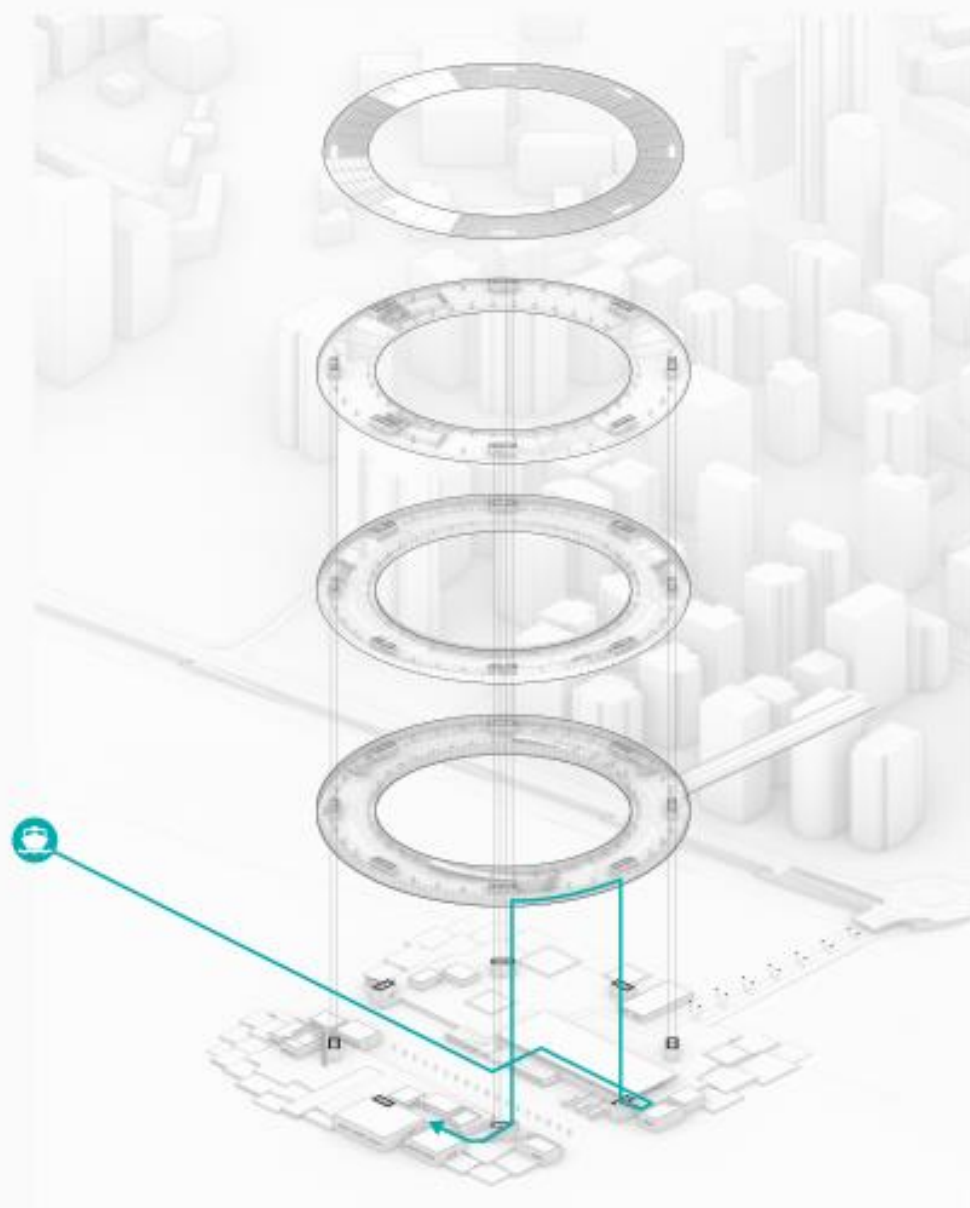
PASSENGERS

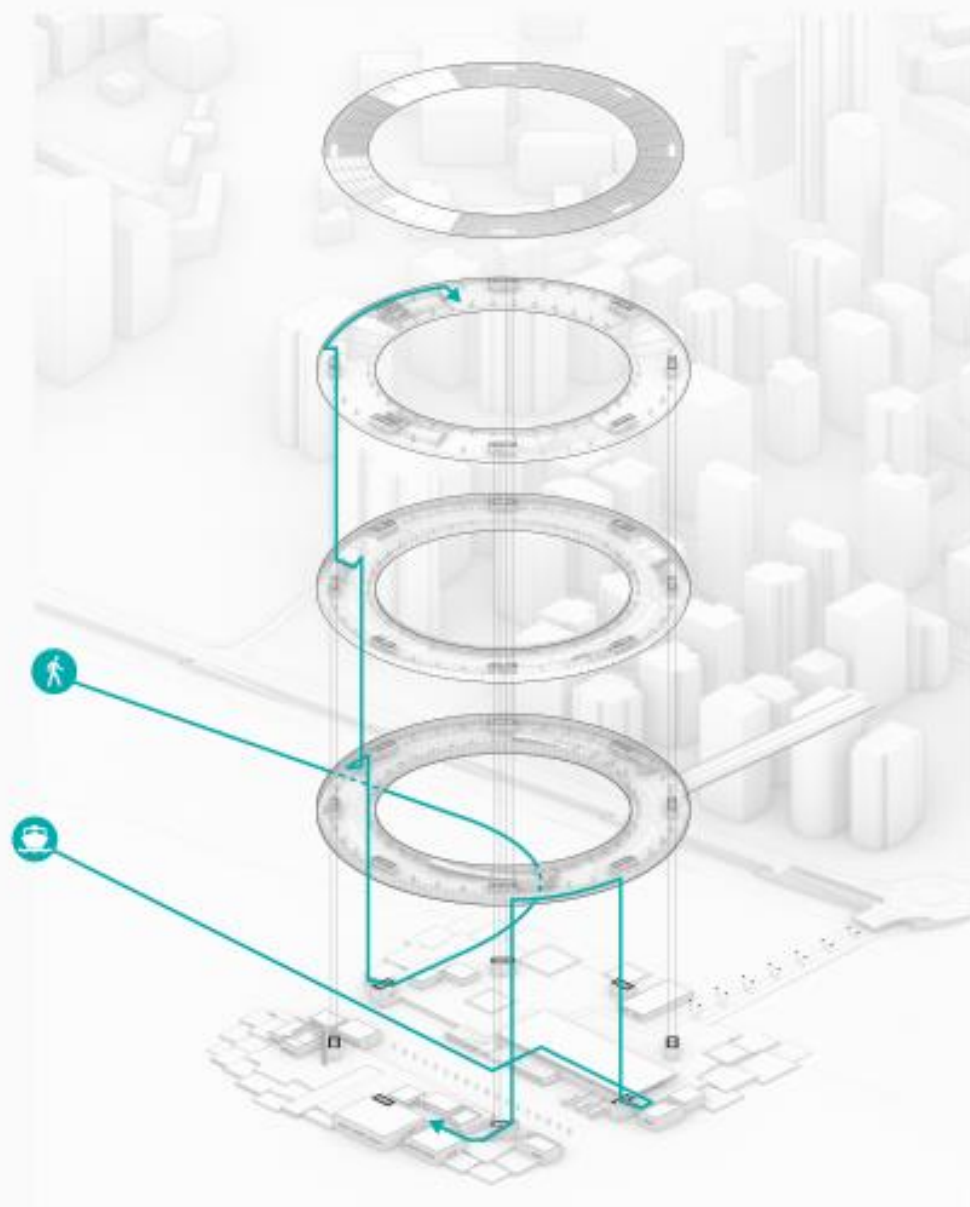
CAR

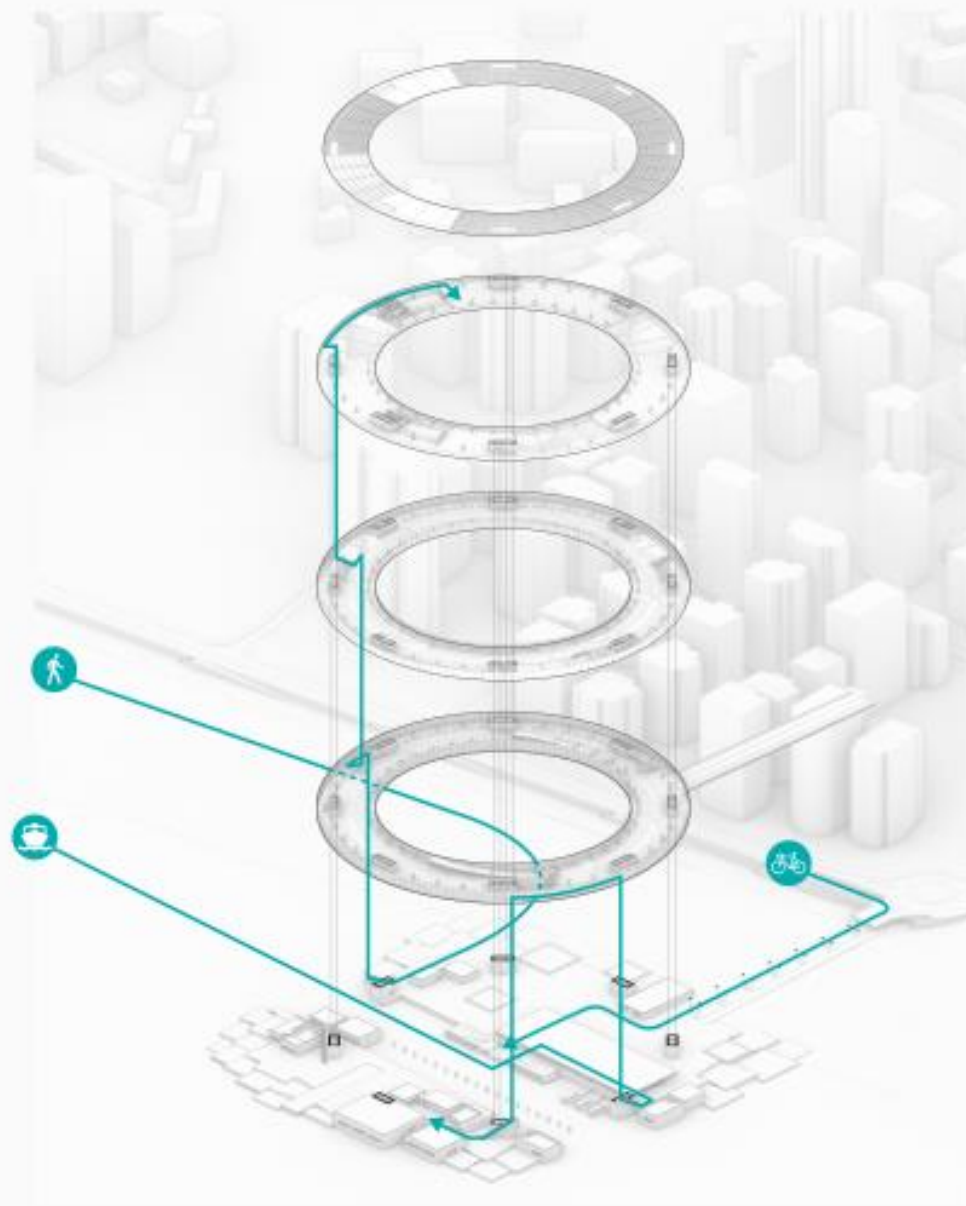
186 / 200

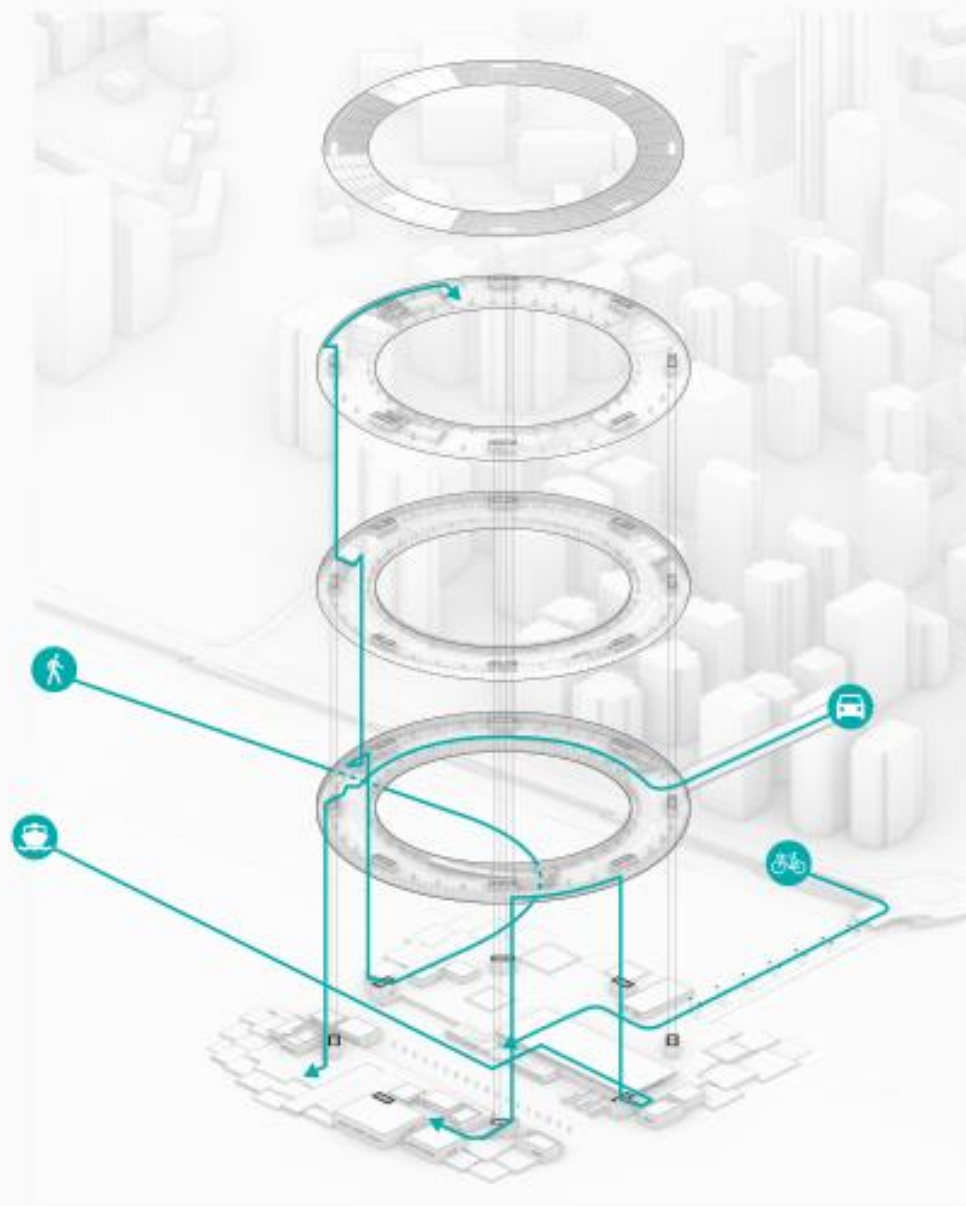












INTRODUCTION
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FERRY TERMINAL
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54.000 passengers / day
same as Beirut Football Stadium



54.000 passengers / day

same as Beirut Football Stadium

1/10th of rotterdam metro



THANK YOU

