Masterplan Marineterrein

01 FORT (OFFICE)

02 WELCOME CENTER

03 HOMELAND HOTEL

04 AMS/ MAKERVIRSITY

05 CODAMN

06 RESTAURANT

07 Codamn

08 New offices space

09 Musem warehouse

10 Military offices

11 Kattenburg housing

01 The Battery Amsterdam

02 waterfront park

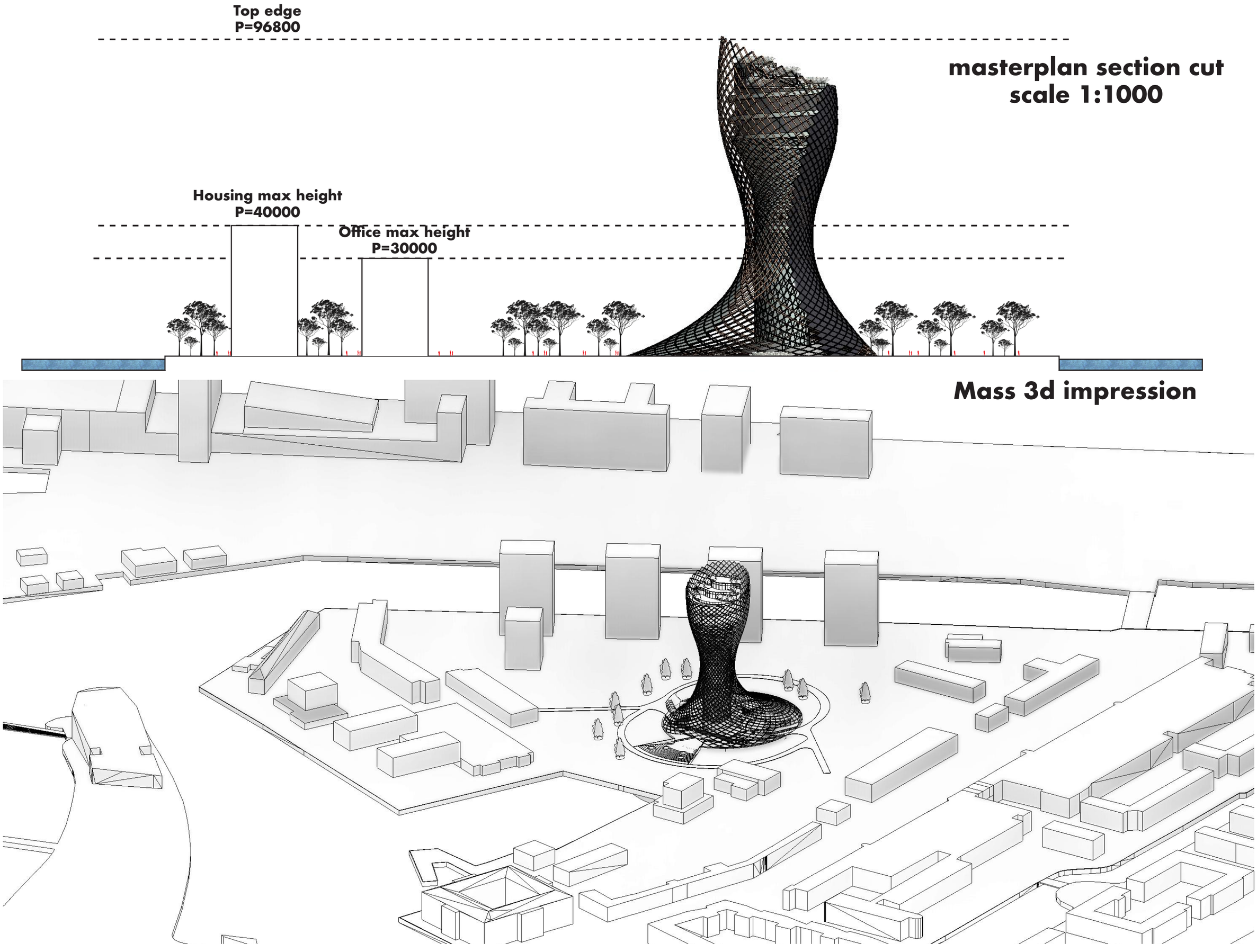
03 Water treatment (recovery)

04 New office buidling

05 Flexible Housing

06 New Nemo bridge

10M 50M 25M 100M



masterplan section cut
scale 1:1000

Mass 3d impression

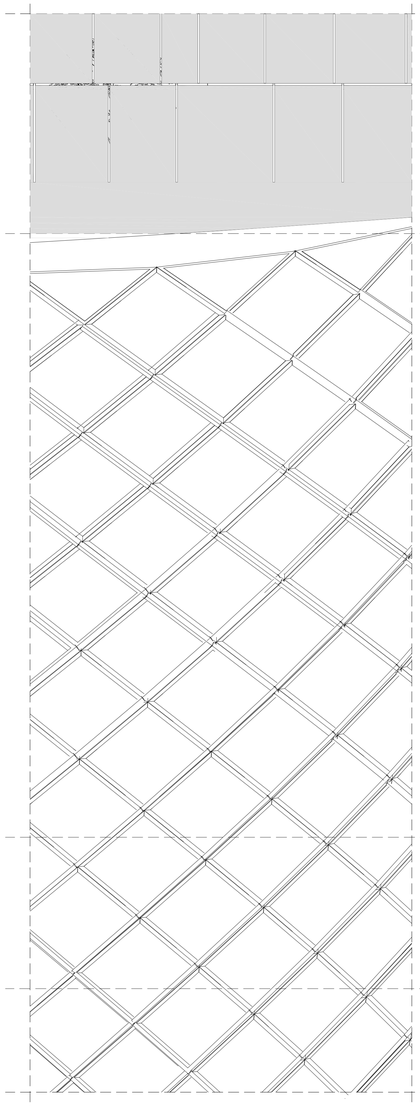
fragment elevation exterior

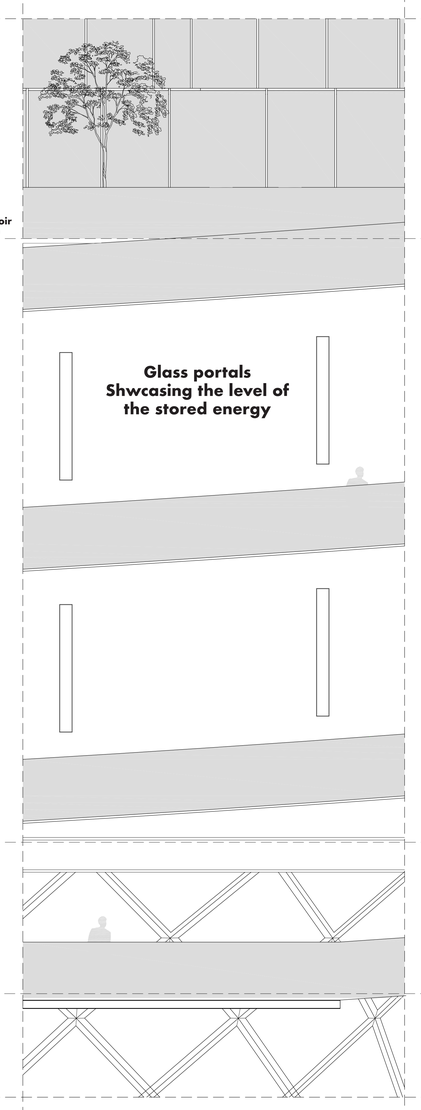
fragment elevation between cores

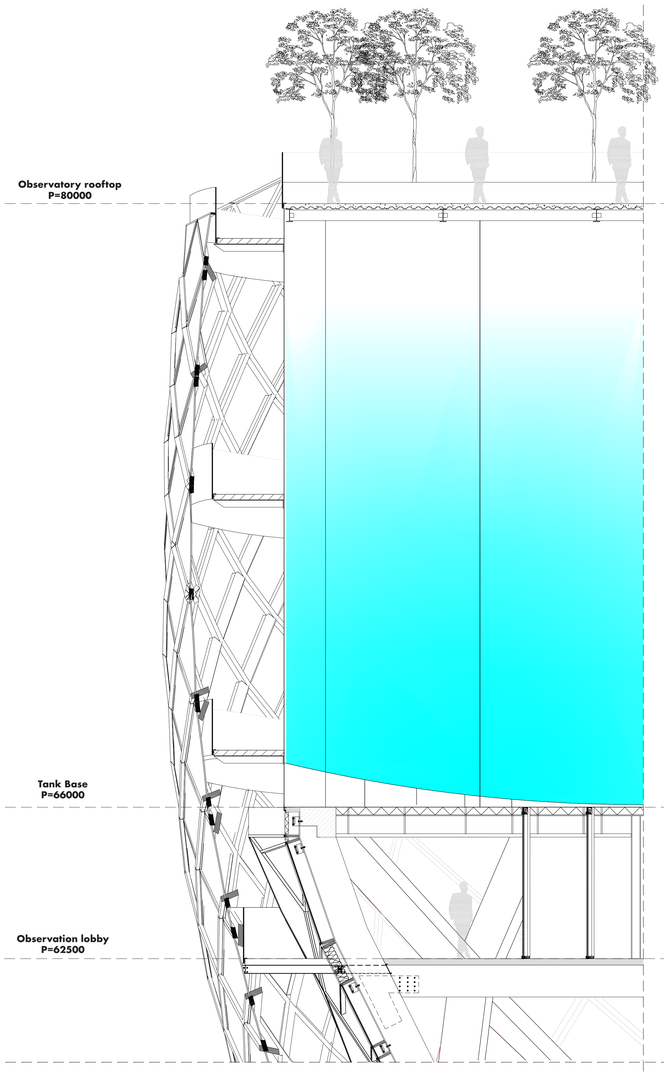
Tank fragment
1: 50

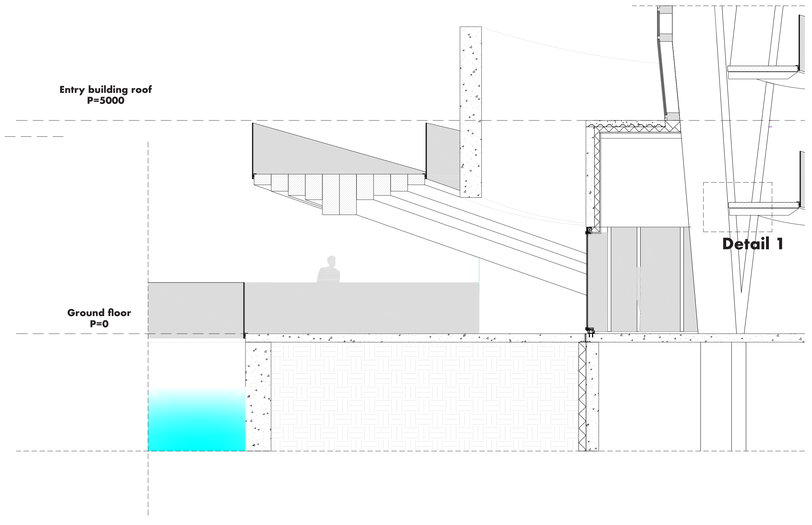
fragment section cut

Building entry fragment
section 1:50

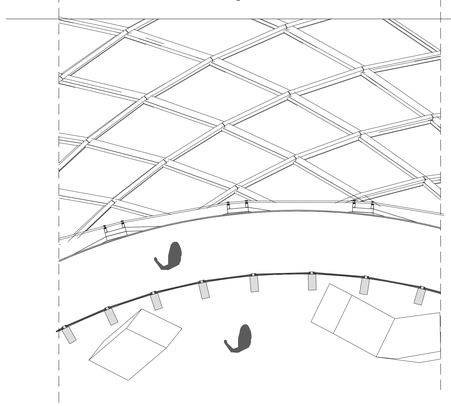




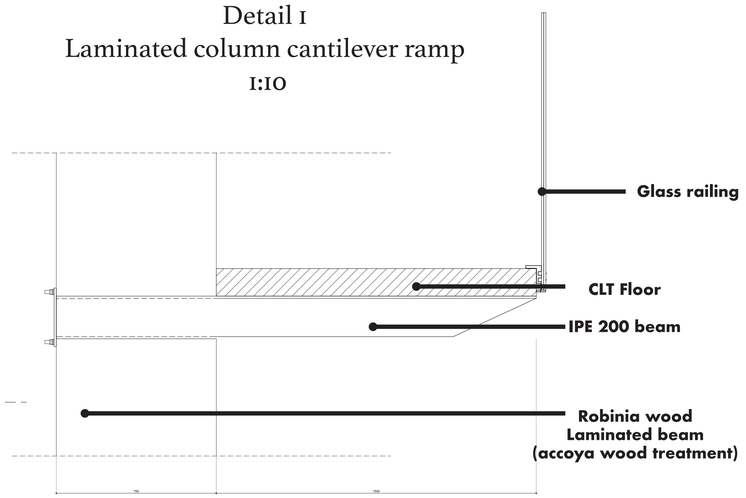


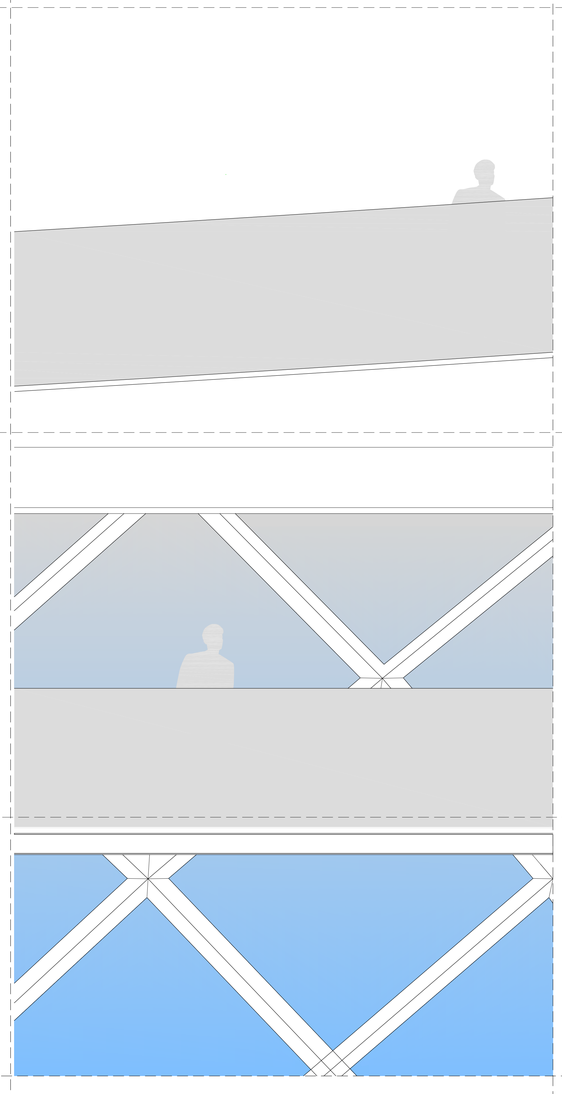


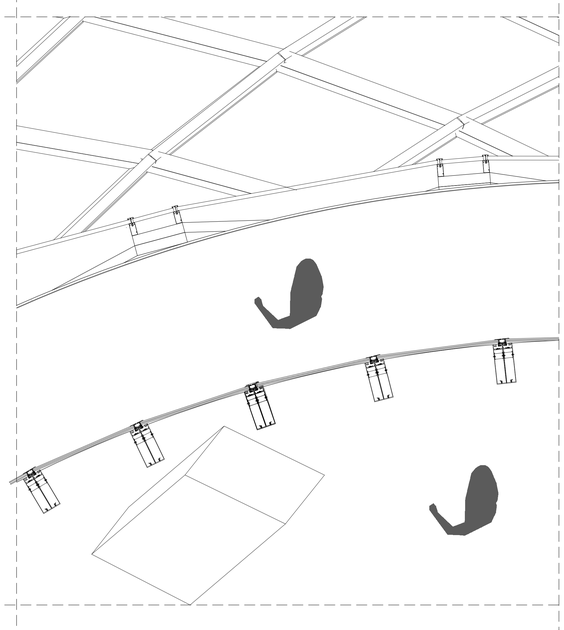
Floorplan



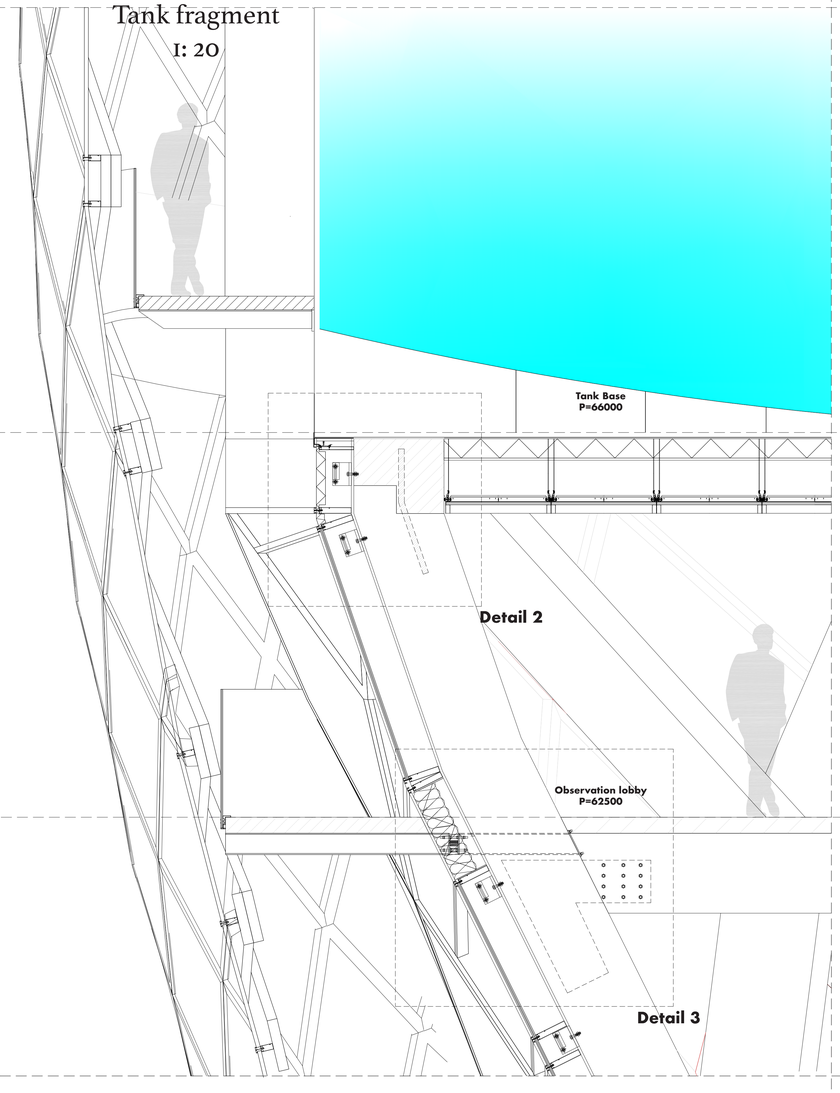
Detail 1
Laminated column cantilever ramp
1:10

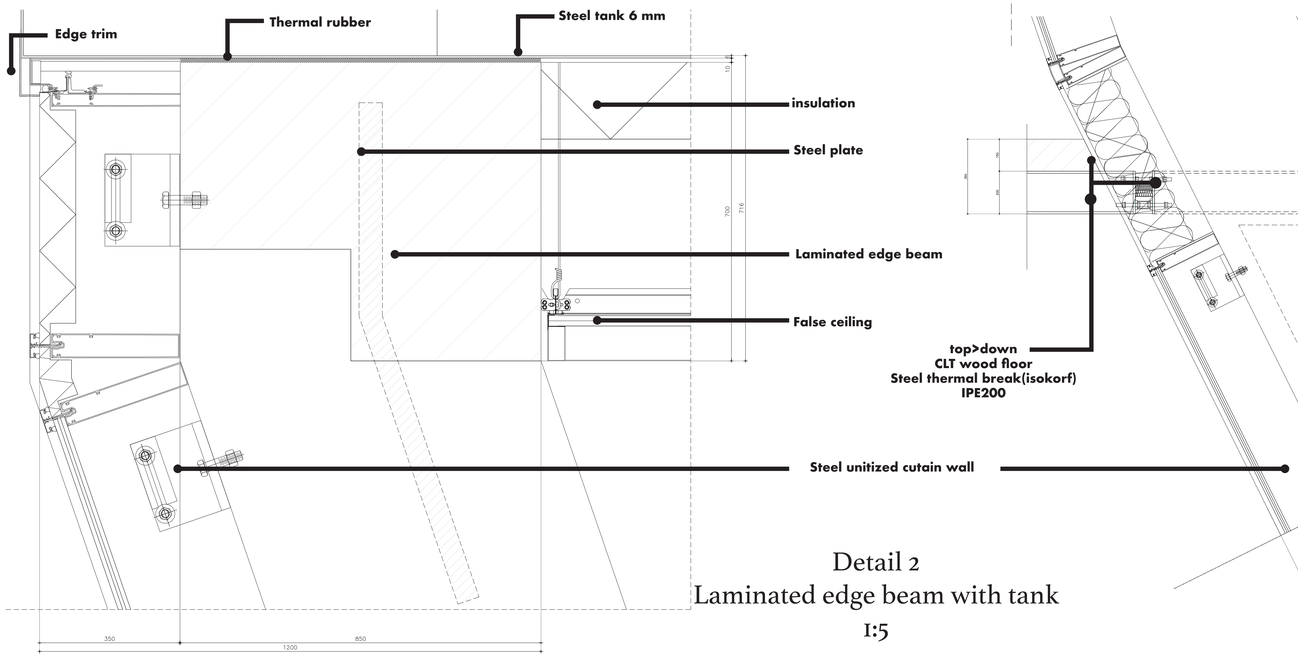




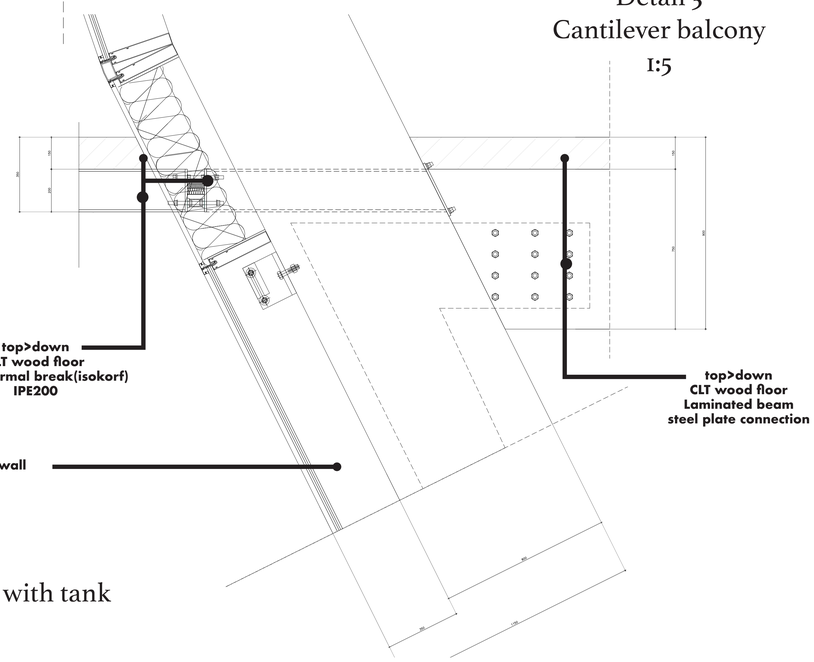


Tank fragment
1: 20



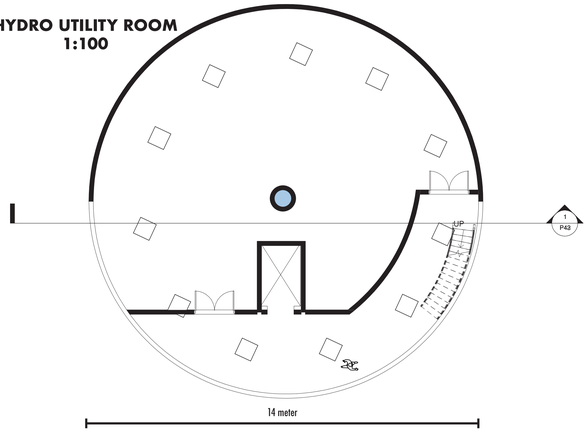


Detail 2
Laminated edge beam with tank
1:5

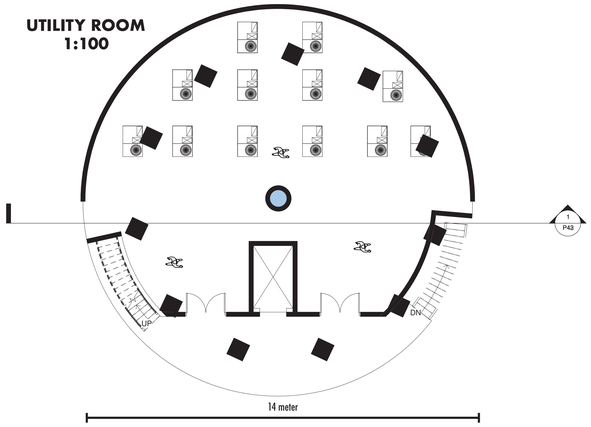


Detail 3
Cantilever balcony
1:5

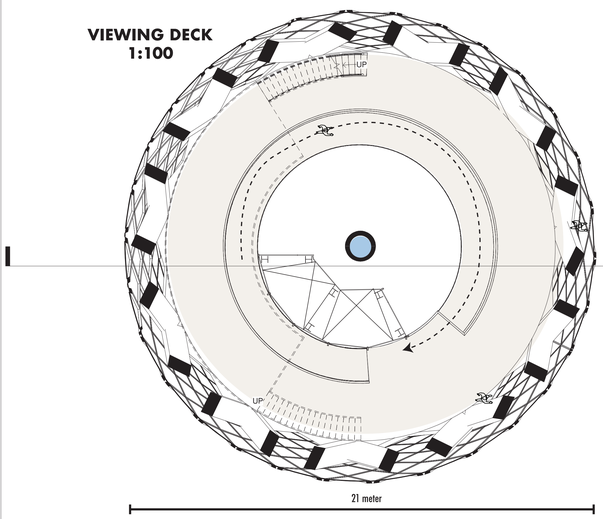
HYDRO UTILITY ROOM
1:100



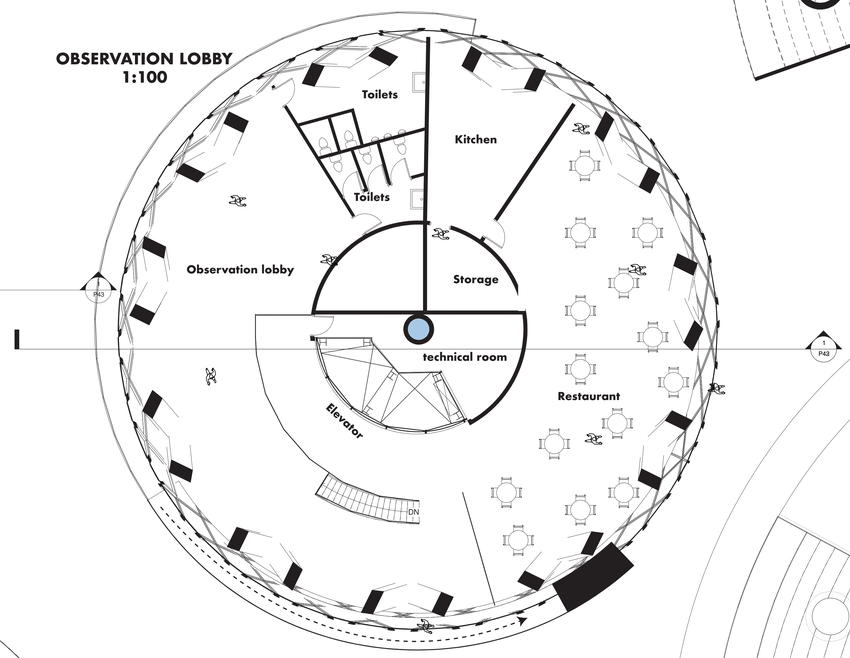
UTILITY ROOM
1:100



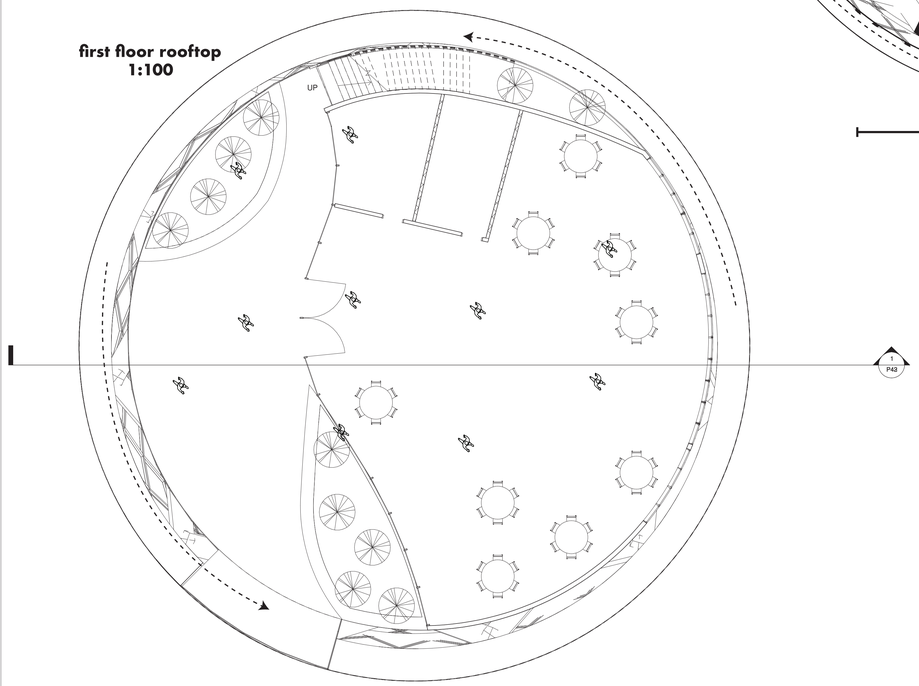
VIEWING DECK
1:100



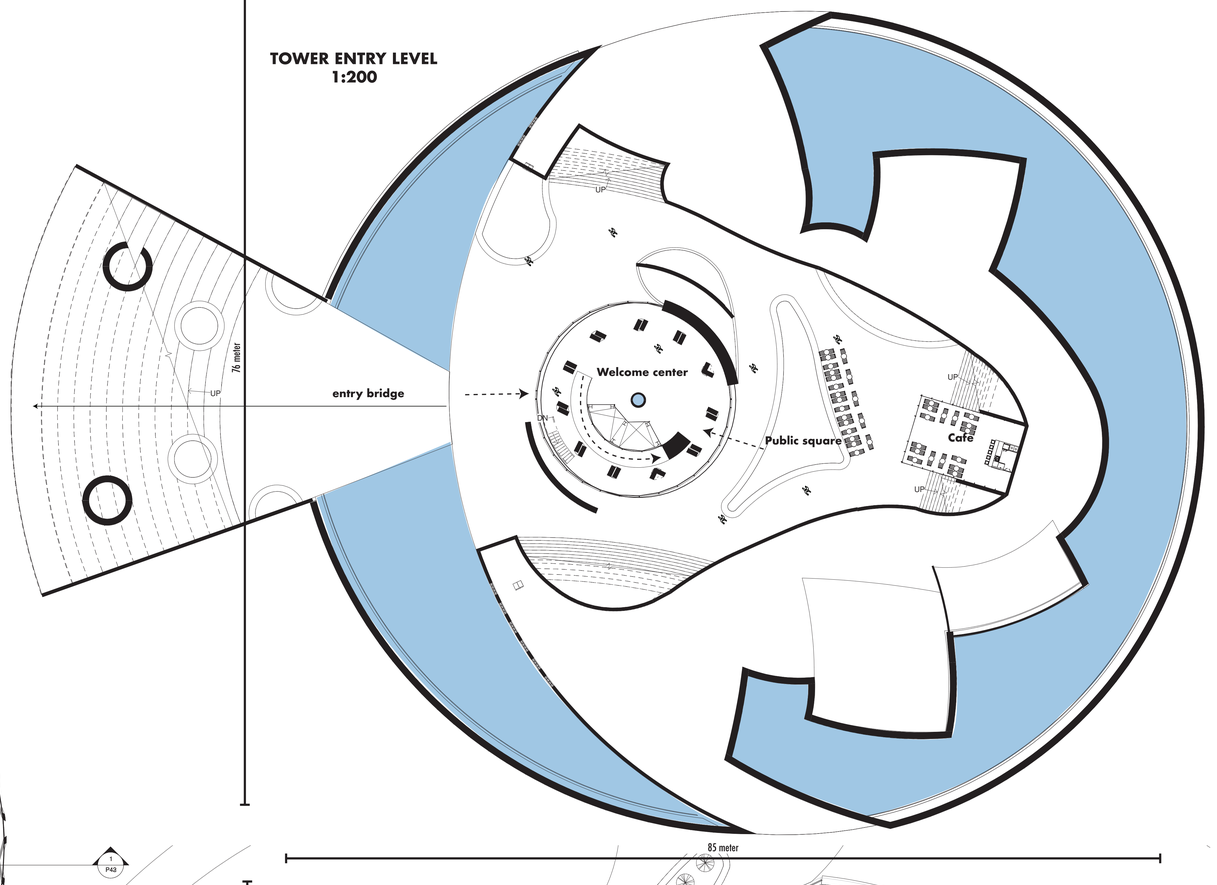
OBSERVATION LOBBY
1:100



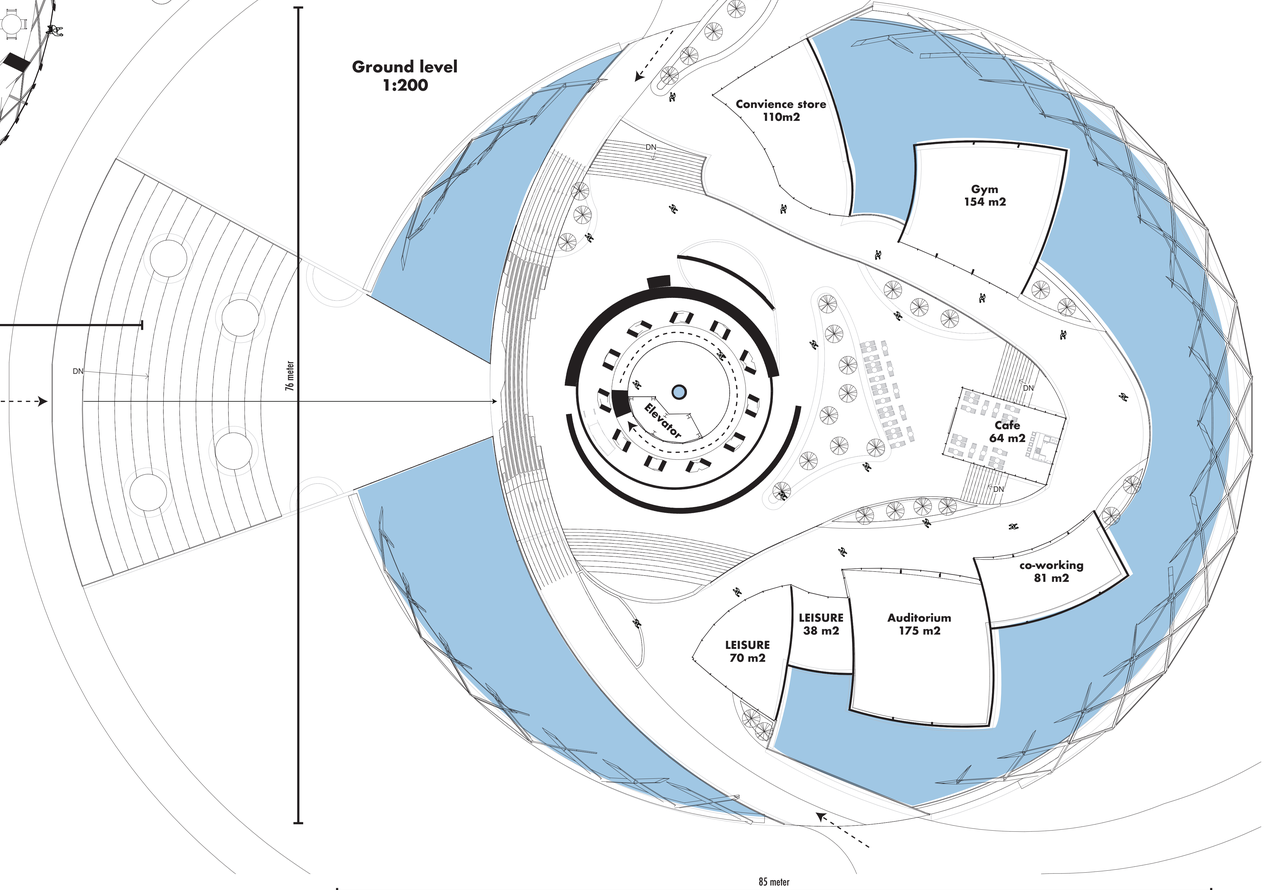
first floor rooftop
1:100



TOWER ENTRY LEVEL
1:200

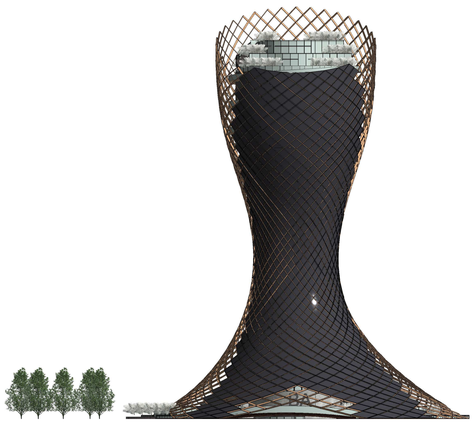


Ground level
1:200

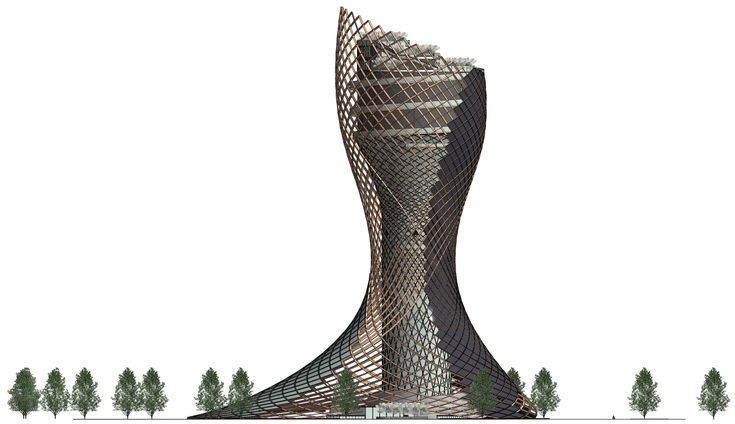


Elevations 1:500

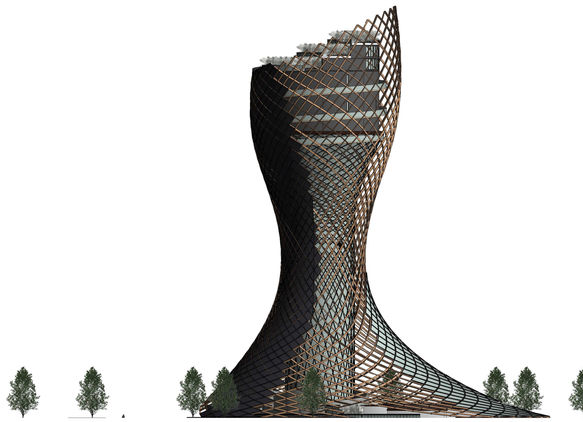
South-southwest



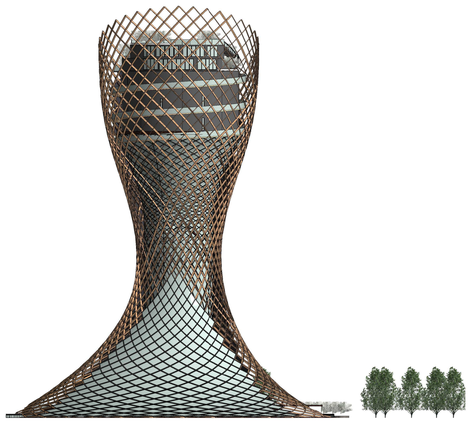
west-west north



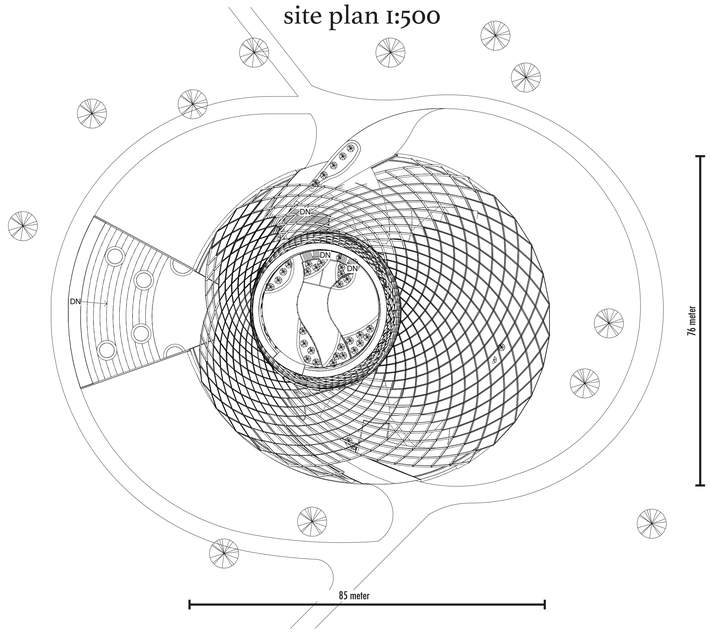
East-south east



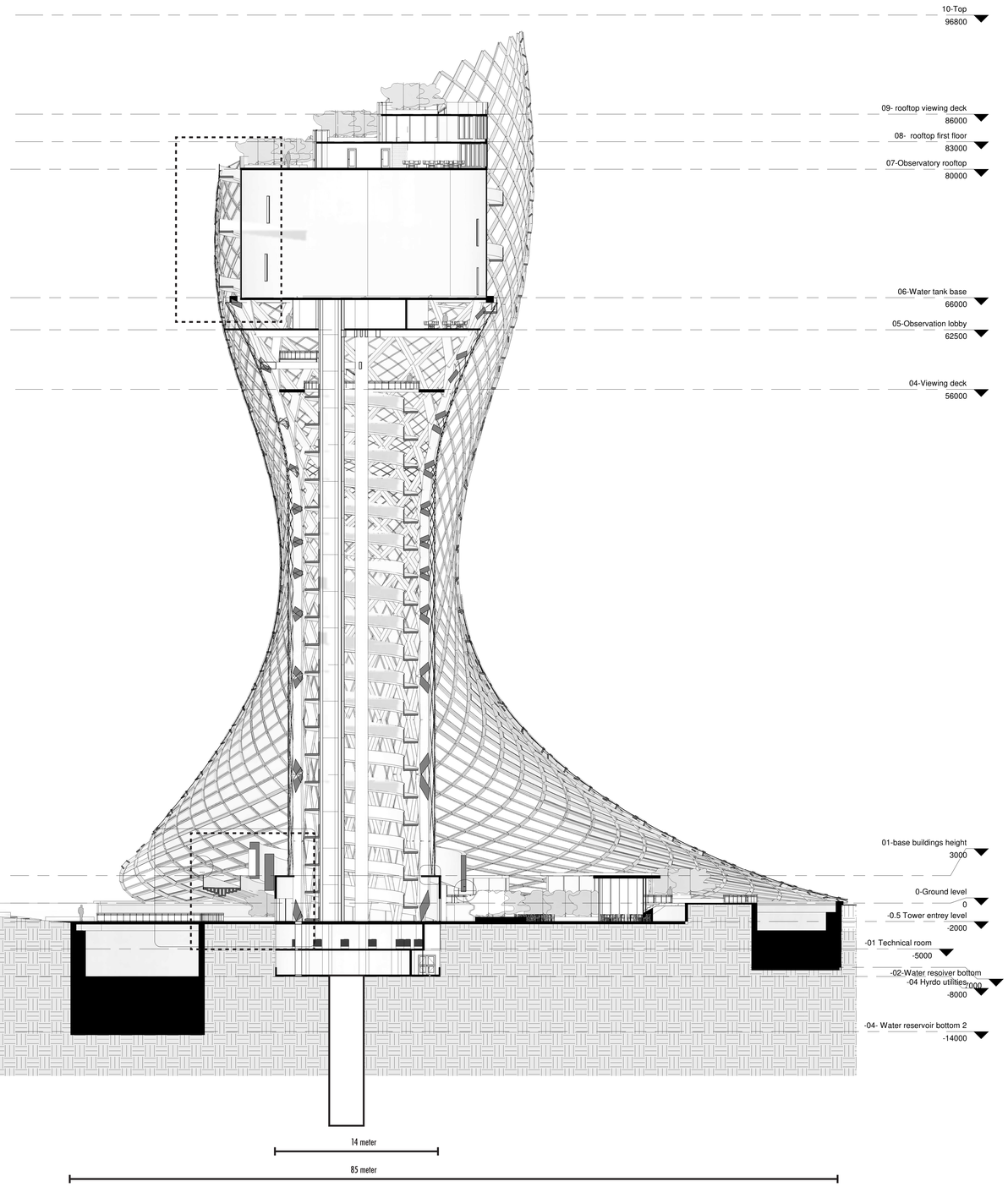
North- north east



site plan 1:500



section 1:200



Battery Amsterdam

A hydro energy storage facility in the hart of Amsterdam

P=96800+

P=80000+

P=62500+

P=-7000

P=-14000

Highest observation deck
in Amsterdam.
incorporating 440 m2
of event space

Kattenburg housing
Water tank

Able to power all
Housing on Kattenburg

Observation Deck
&
Restaurant

4640 m2 of solar panels
on wooden outercore structure

BA Springs
A place for shopping and
leisure.
700m2 of
commercial space

Kattenburg energy
7 meters deep resevoir

FLES
14 meters deep resevoir

Hydro facilities
& technical rooms.

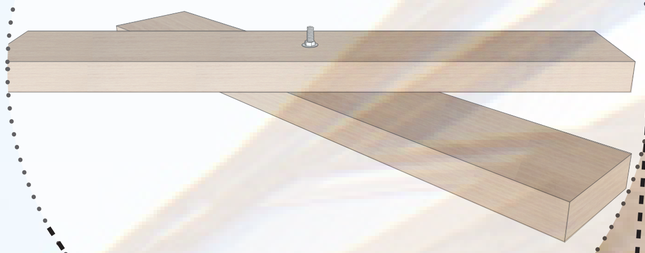
District heating and
cooling production systems

Where mankind interacts with clean energy

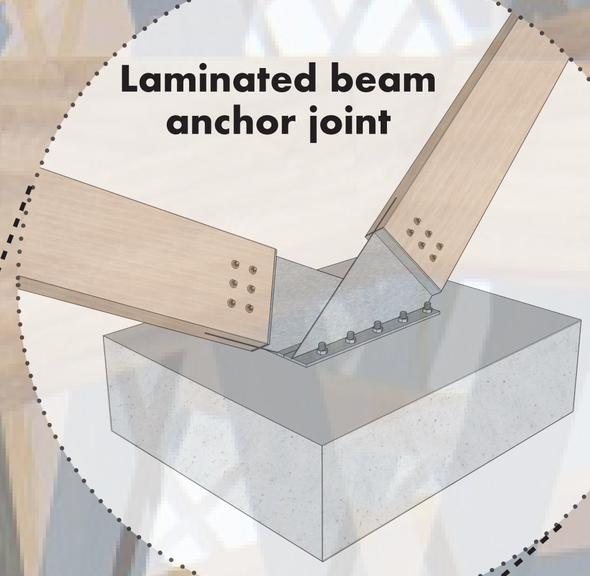
Battery Amsterdam

The highest timber structure in The Netherlands

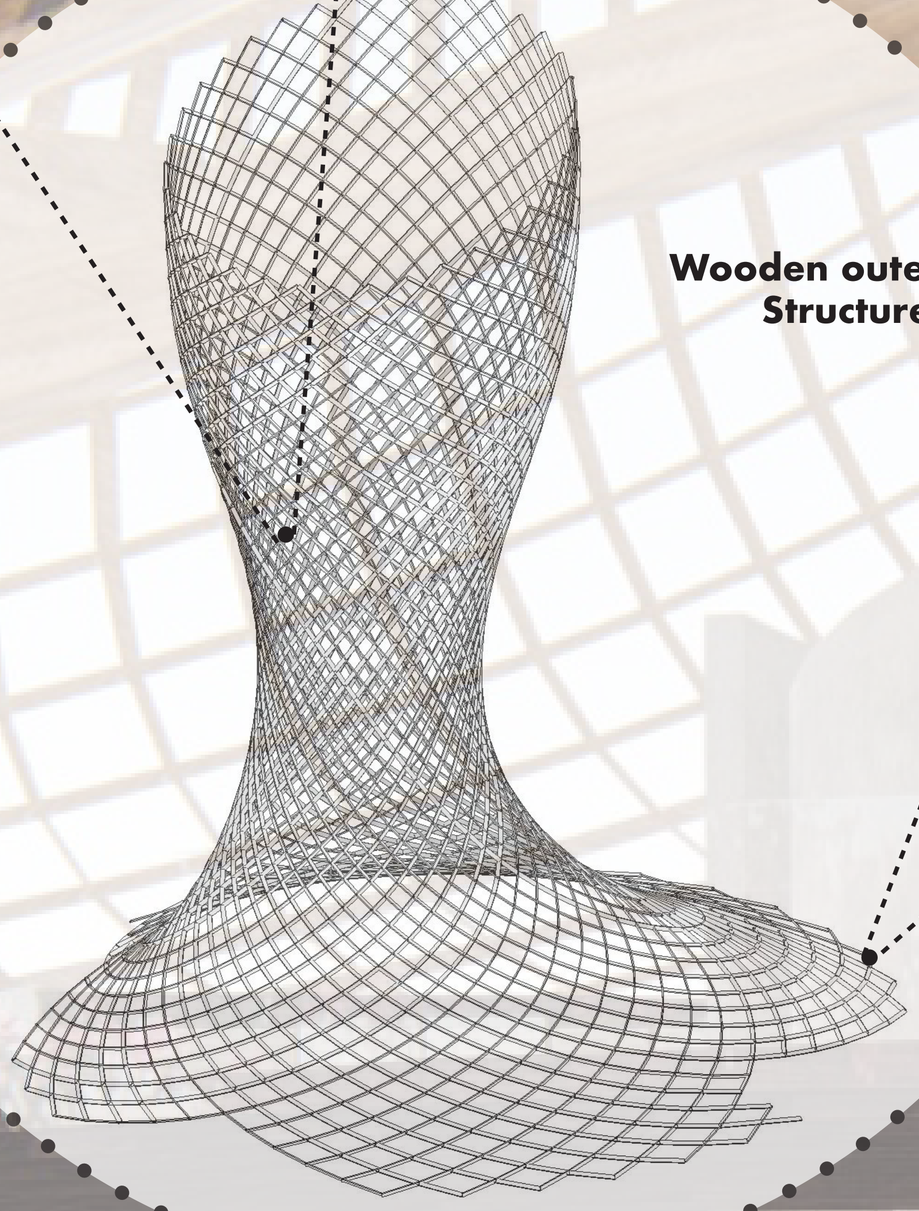
Laminated beams connected with a screw thread



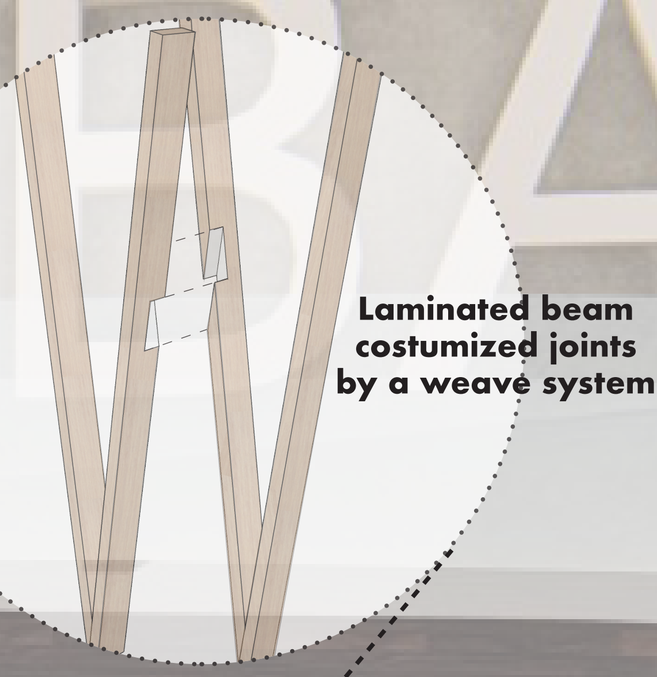
Laminated beam anchor joint



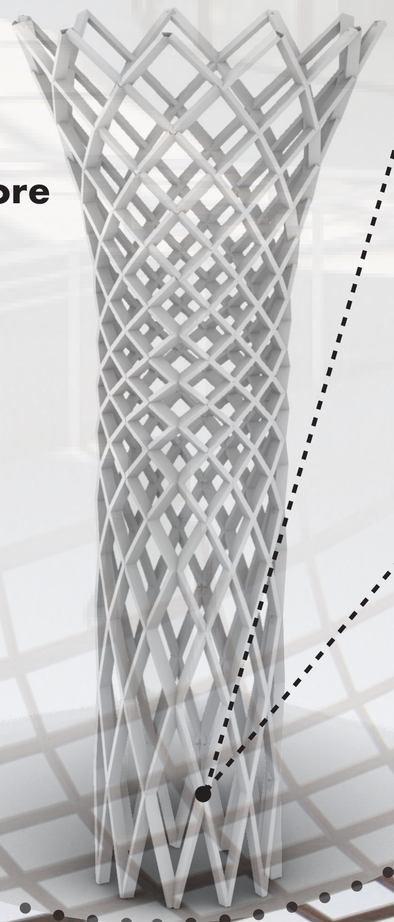
Wooden outercore Structure



Laminated beam costumized joints by a weave system



Wooden innercore Structure



Battery Amsterdam

A beacon of sustainability on Marineterrein

Producing 4 times the energy it consumes

District renawable battery

Acting as Kattenburg's district campus building

Performance

Producing 756,320 Kwh yearly from solar panels

Renewable battery capable of powering Kattenburg and other districts.

District cooling and heating using Thermal energy from surface water.

Battery Amsterdam

Where mankind interacts with clean energy

BA Springs

Where people can come to interact and shop while simultaneously being within a power plant. Making energy tangible for citizen becoming aware of where our energy comes from.

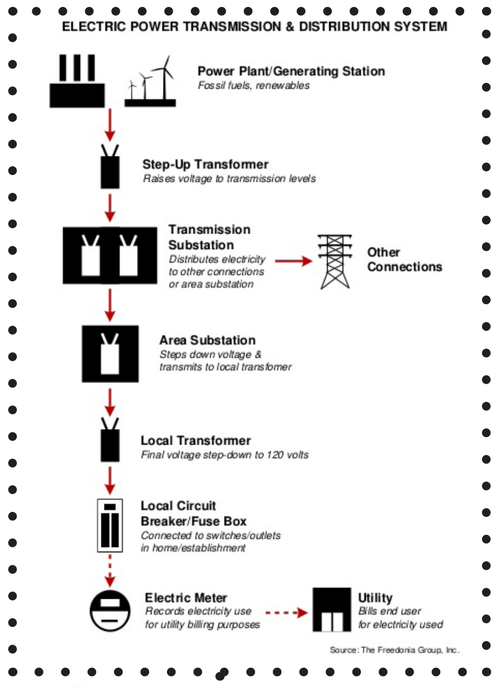
MarineTerrein

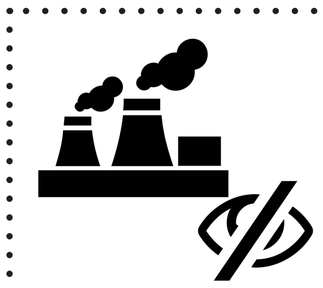
The first step in to a new future for marine terrein. Creating a new sustainable future for MArineterrein , and propelling Amsterfdam towards their goal of a sustainable city.

The future of Power Plants

Shawn Zimmerman
4641744

How will secure, clean and efficient energy be perceived within our future society?





Either renewable or conventional power plants, they are mostly seen as private buildings without connection to the outside world.

EU societal challenge

Energy drives the modern economy but even just maintaining our standard of living requires a huge amount of energy. As the world's second-largest economy, Europe is over-dependent on the rest of the globe for its energy – energy derived from fossil fuels that accelerate climate change.

The EU has, therefore, set itself ambitious climate and energy targets. EU funding through Horizon 2020 will play a key role in achieving these goals

The past

The future

Perception

With new renewable technologies, each production system has become its own Distributed generator, contributing on its own to the net. This means, that the perception of power plants will change in the future, as each building can become a producer in contrary to a consumer of energy.

The Big picture

we must look at buildings as an opportunity to create energy, not only fulfilling its own needs but as an opportunity to produce energy for the community. Therefore, we must look at our energy problem from a district state of mind and not from a singularity state of mind.

Research continuation

Thus, to design a greener future, we must look upon nature for energy production , finding green solutions for our energy crisis. creating a system that fits within our city and society.
Asking the question:
How can we ecologically produce electricity?

Battery Amsterdam

Where mankind interacts with clean energy

A new way of thinking

With innovations and smarter technologies, we can reinterpret the ways we see and use renewable energy production appliances within the built environment. By using more ecological appliances, we can apply these systems within a context without creating boundaries, as it would be a space that people could live and interact, therefore changing the way we look upon power plants.

MarineTerrein

Can Marine terrein is transformed into a new type of powerplant, where people can live and interact with one another, without realising that there within a powerplant. Integrating future sustainable technologies so seemingly, withouth harming the Marineterrein area.