

Visions for future bicycle parking in Malmö

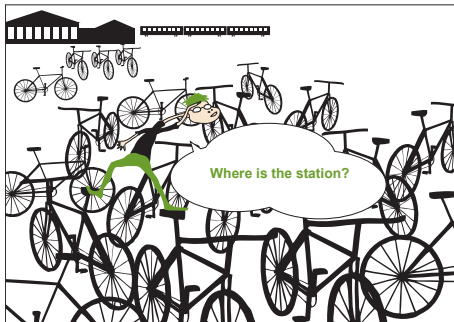
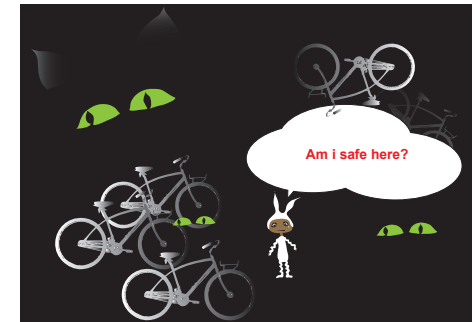
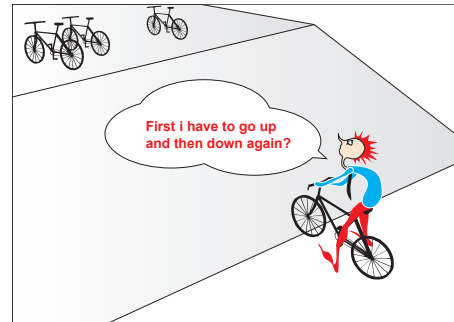
Commissioned by the City of Malmö 2008- 01- 07
UiD in Malmö and Shanghai



INTRODUCTION

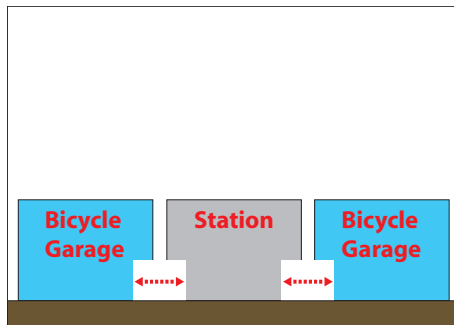
How do you make it more attractive for people to take their bike to the metro station – and thereby making the metro more popular?

You make it as easy and safe as possible to park your bike at the station! You try to avoid these problems ...

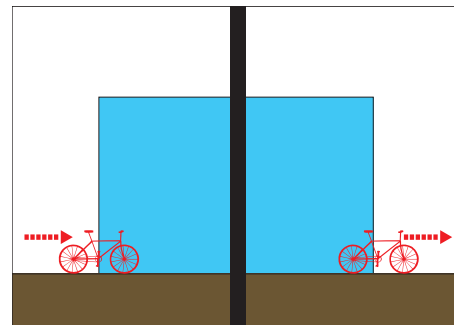


CRITERIA OF SUCCESS

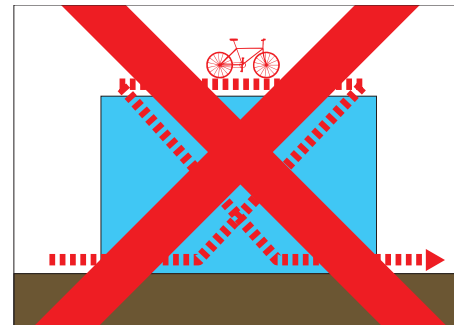
1. The bicycle garage must be located as close as possible to the entrance of the station. For a station with multiple entrances you should have multiple garages in close proximity to each entrance.



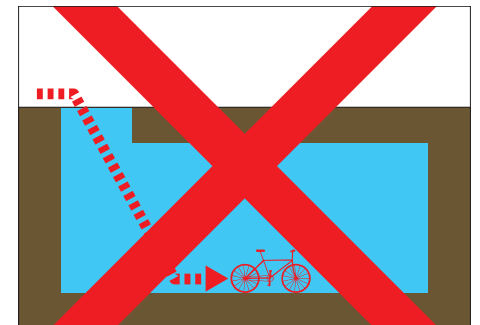
2. When you arrive at the bicycle garage you should be able to find a place to park your bicycle immediately and when you come back to pick it up you should also be able to locate and retrieve it immediately.



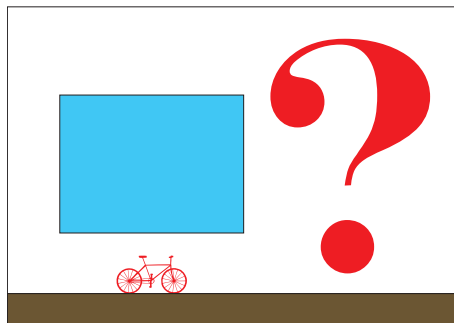
3. If you arrive on your bicycle on ground level you shouldn't be forced to go either up or down to park your bicycle.



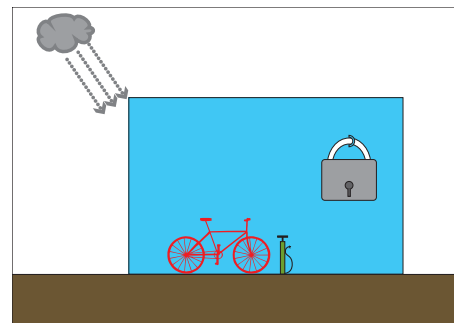
4. And you should avoid all together having to go to an underground parking space, where you will often feel unsafe.



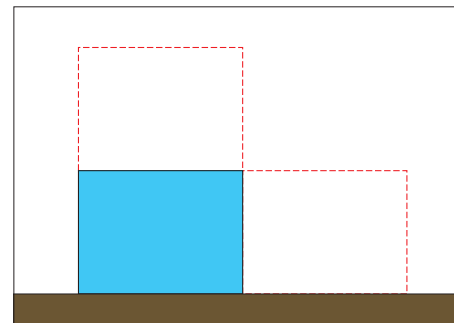
5. You should be able to park your bicycle on ground level, yet the footprint of the bicycle garage on ground level must be as small as possible.



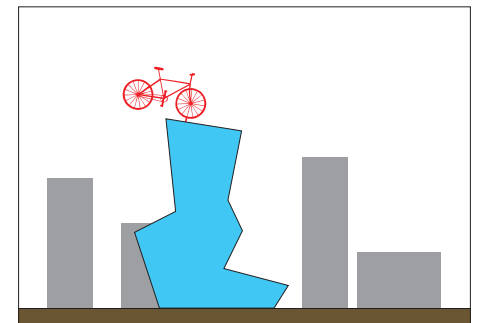
6. While you are away the bicycle must be safe from bad weather, theft and vandalism. But it is a good time to have it repaired.



7. It must be as easy as possible to change the capacity of the bicycle garage in the future.



8. The garage should manifest the importance of the bicycle by enriching the visual image of the city.

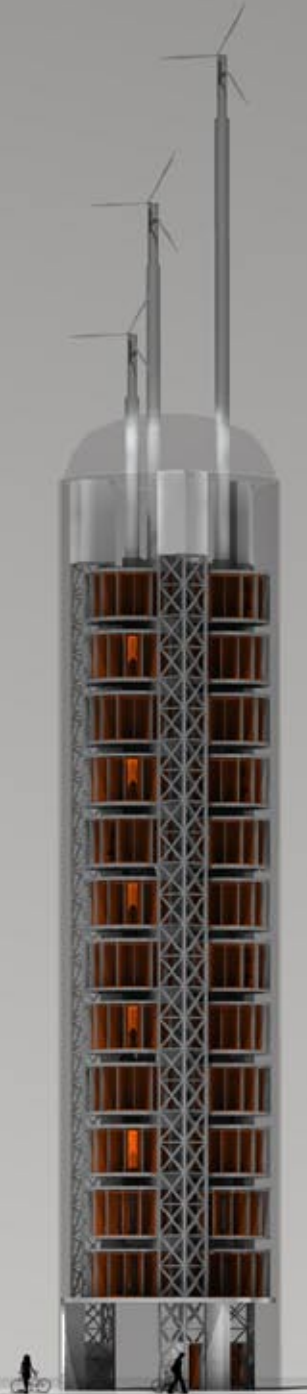


THE BICYCLE TOWER

The Bicycle Tower is our proposal for the future bicycle garage.

It is a steel construction of rotating parking wheels connected by small lifts and wrapped in a light, transparent foil. The system is based on proven technologies*. The sculptural quality of the tower is a strong visual manifestation of the bicycle's importance in the city.

Because of its small footprint, the tower can be placed in close proximity to the entrances of the metro station. It makes bicycle parking extremely easy and safe.



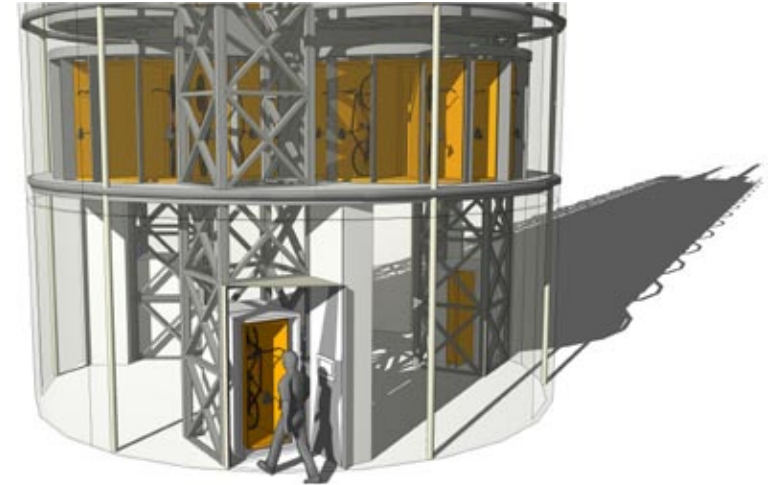
The proposed tower measures 41 meters in height (excluding wind turbines) and 9.5 meters in diameter. It consists of three columns of parking wheels with 12 wheels on each column. It has a capacity of 522 bicycles in total. In addition it contains a space for a bicycle shop on ground level.

The design of the tower can be adapted to meet various capacity needs. Once it is constructed, columns of parking wheels can relatively easily be added or removed to accommodate future capacity needs.

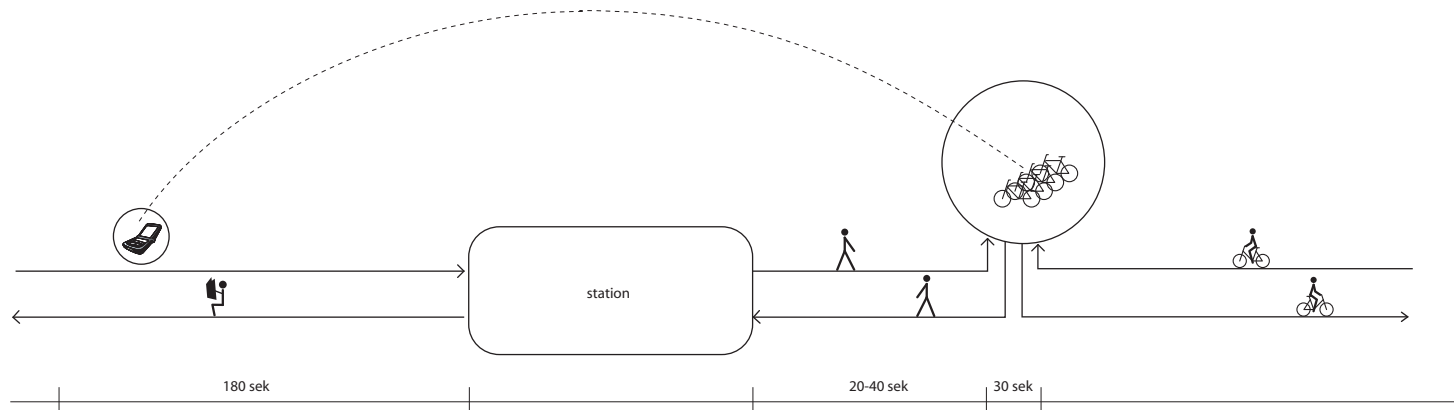
* See for instance: <http://www.bike-parking-systems.ch/>

HOW IT WORKS

1. When you arrive at the tower, you spot the lift that is already waiting for you on ground level with a yellow bicycle container inside.
2. You place your magnetic card (monthly metro ticket) in the machine next to the elevator, or you drop a coin in the machine and you receive a card key.
3. The lift door opens and you place your bike (vertically) in the container.
4. You continue to the entrance of the metro station. Meanwhile, the lift is placing your bicycle in the tower.
5. On the way back you may send an SMS to the tower, using GPS (and the metro time-schedule) to determine the exact time of your arrival, a computer will make sure that your bicycle is ready to be picked up once you get there.
6. You step out of the metro station and walk the short distance to the tower.
7. You place your magnetic card or key card in the machine, and the lift will release the container with your bicycle. If by mistake you chose the wrong lift, the machine will let you know the correct one.



P.S. On ground level the tower contains a bicycle shop where you can have your bicycle repaired while you are away. The personnel of the shop can assist you if you encounter any problems with the parking system. The tower may also contain bicycles for rents.



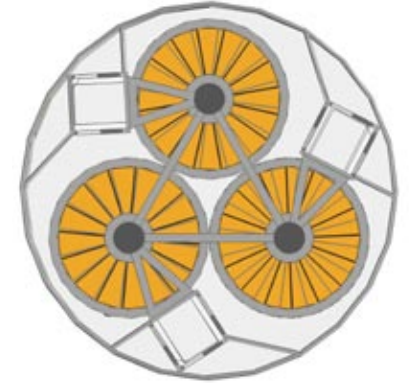
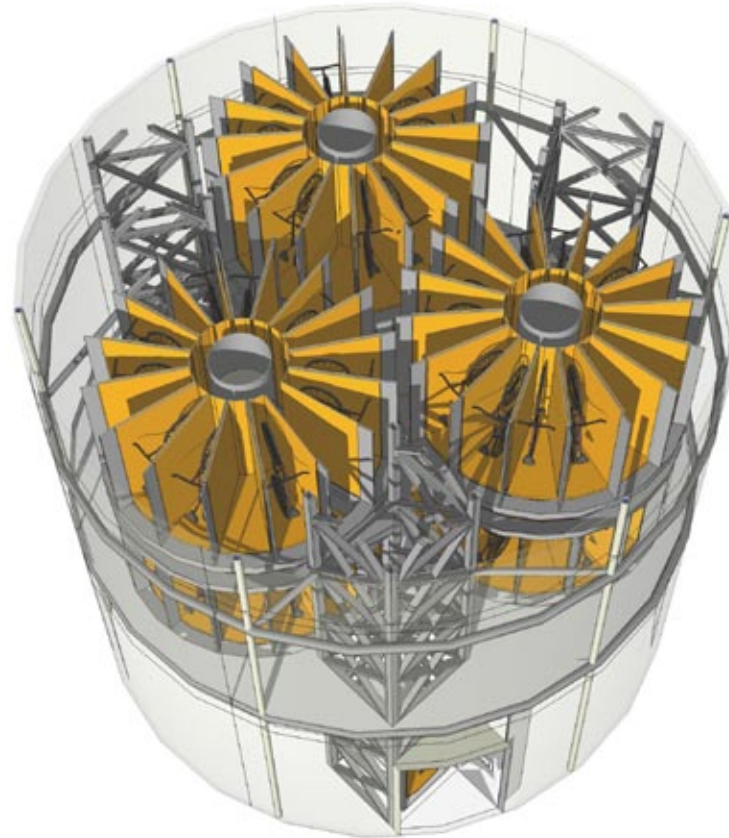
HOW IT IS CONSTRUCTED

The parking wheels are rotating around concrete columns that are carried by reinforced concrete beams on each level. The beams are connected to the three lift-shafts that constitute the main structural support system of the tower.

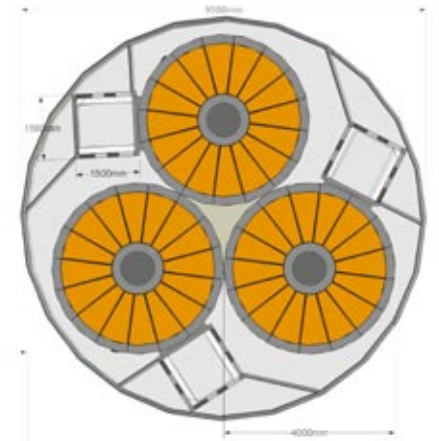
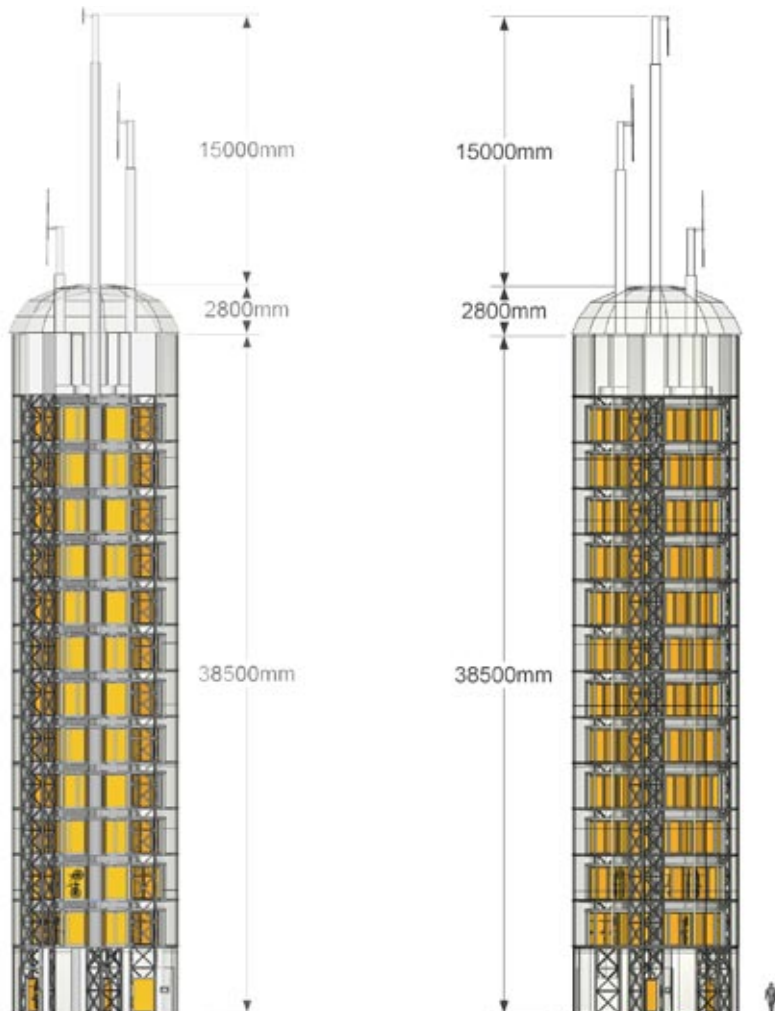
A transparent foil* is mounted on a light secondary support system. Thus, the whole structure is visible from the outside and it is lit from the inside at night.

Technical equipment is placed in the basement and at the top of the tower. Three wind turbines on top of the tower provide energy for the system.

*Fluoropolymer-material. See for instance: <http://www.ceno-tec.de/ind05are.htm>

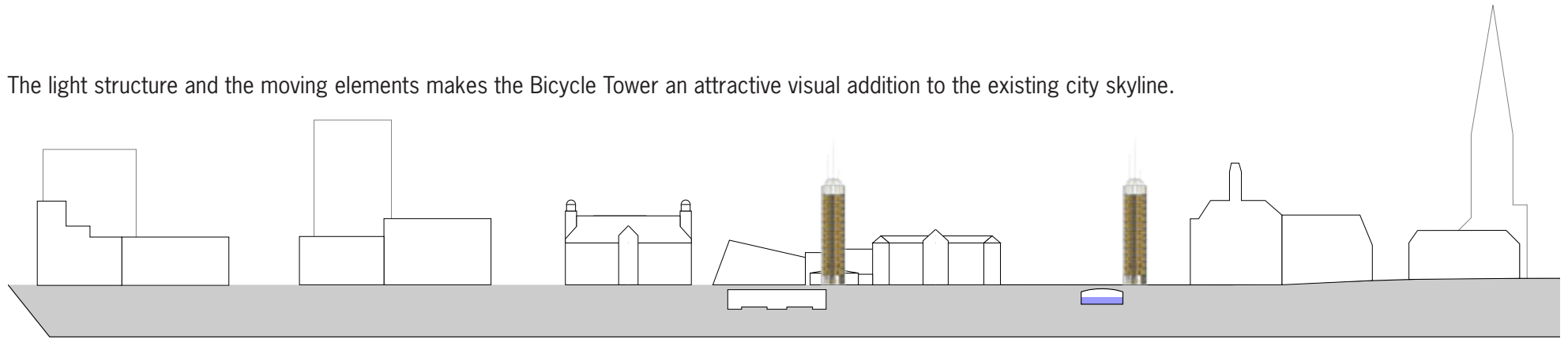


STRUCTURE

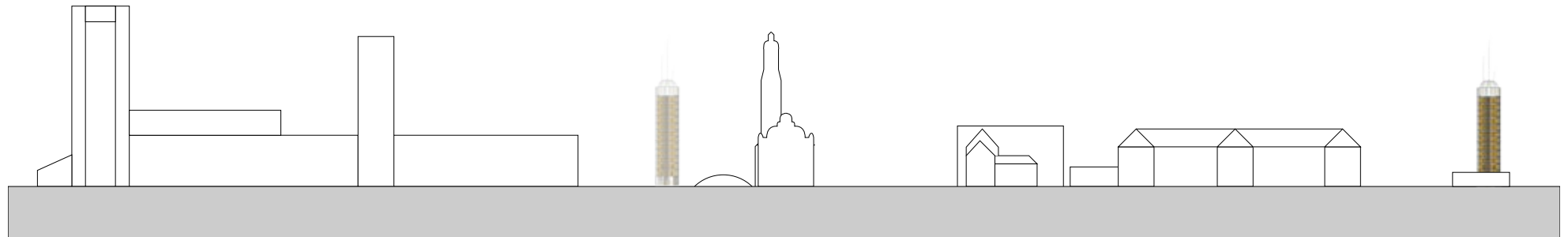


CONTEXT

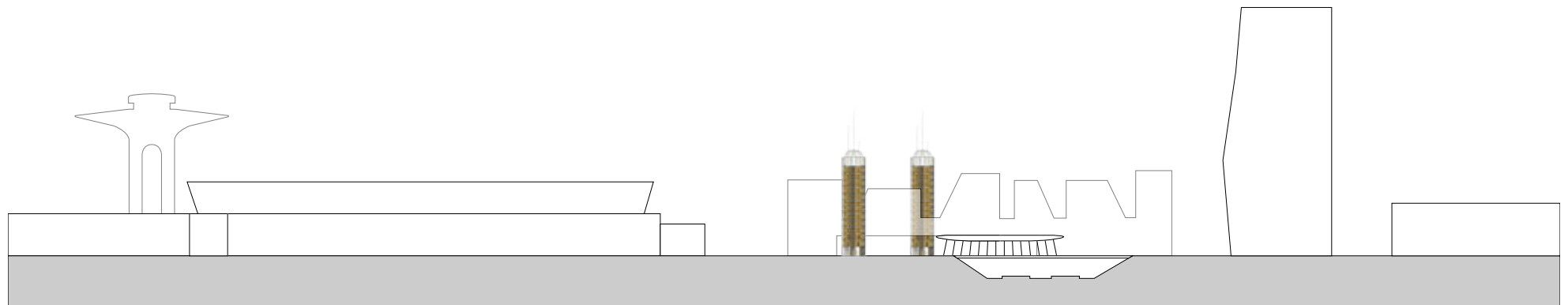
The light structure and the moving elements makes the Bicycle Tower an attractive visual addition to the existing city skyline.



Malmö Centralstation



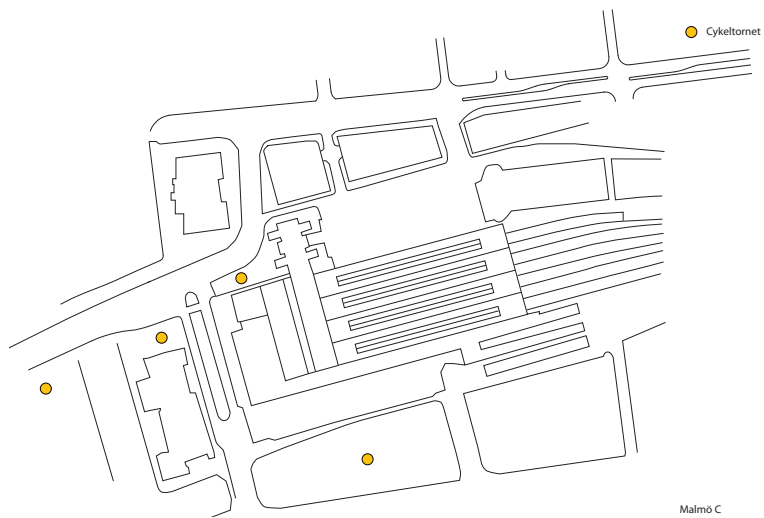
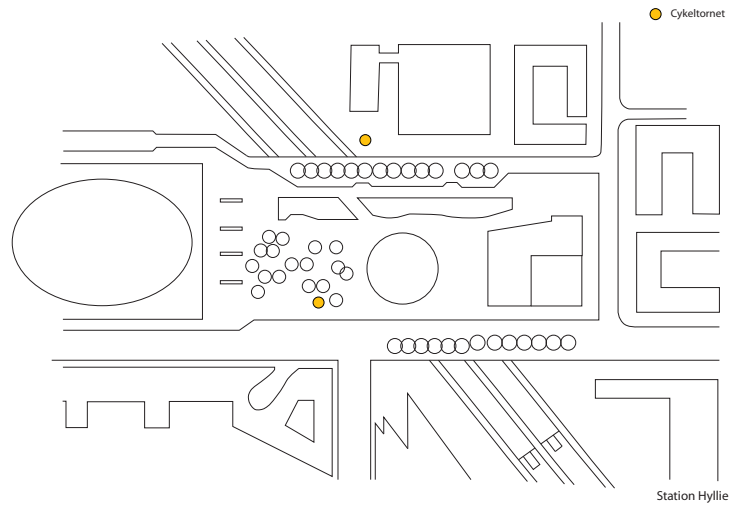
Station Triangeln



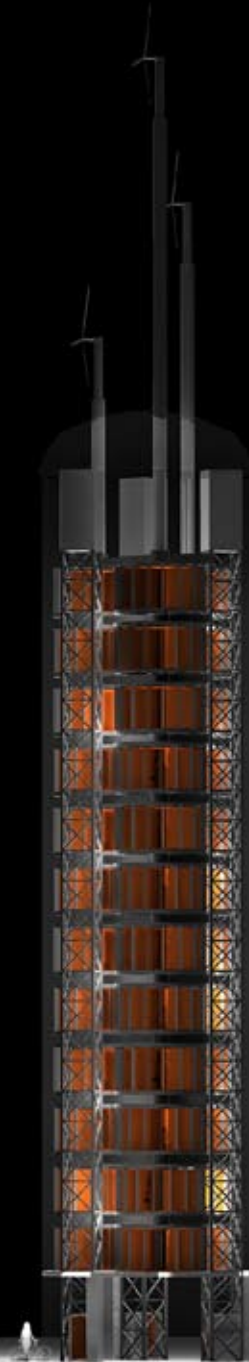
Station Hyllie

CONTEXT

The small footprint of the Bicycle Tower makes it easy to place near the station entrances. And leave space for other activities and facilities.



CONTACT INFO



UiD Öresund
Lantmannagatan 41 A
S - 214 48 Malmö
Sweden
<http://uid.dk>

Fredrik Fritzson, Managing Director
M +46 70 4017197
Skype: uidfre
ff@uid.dk