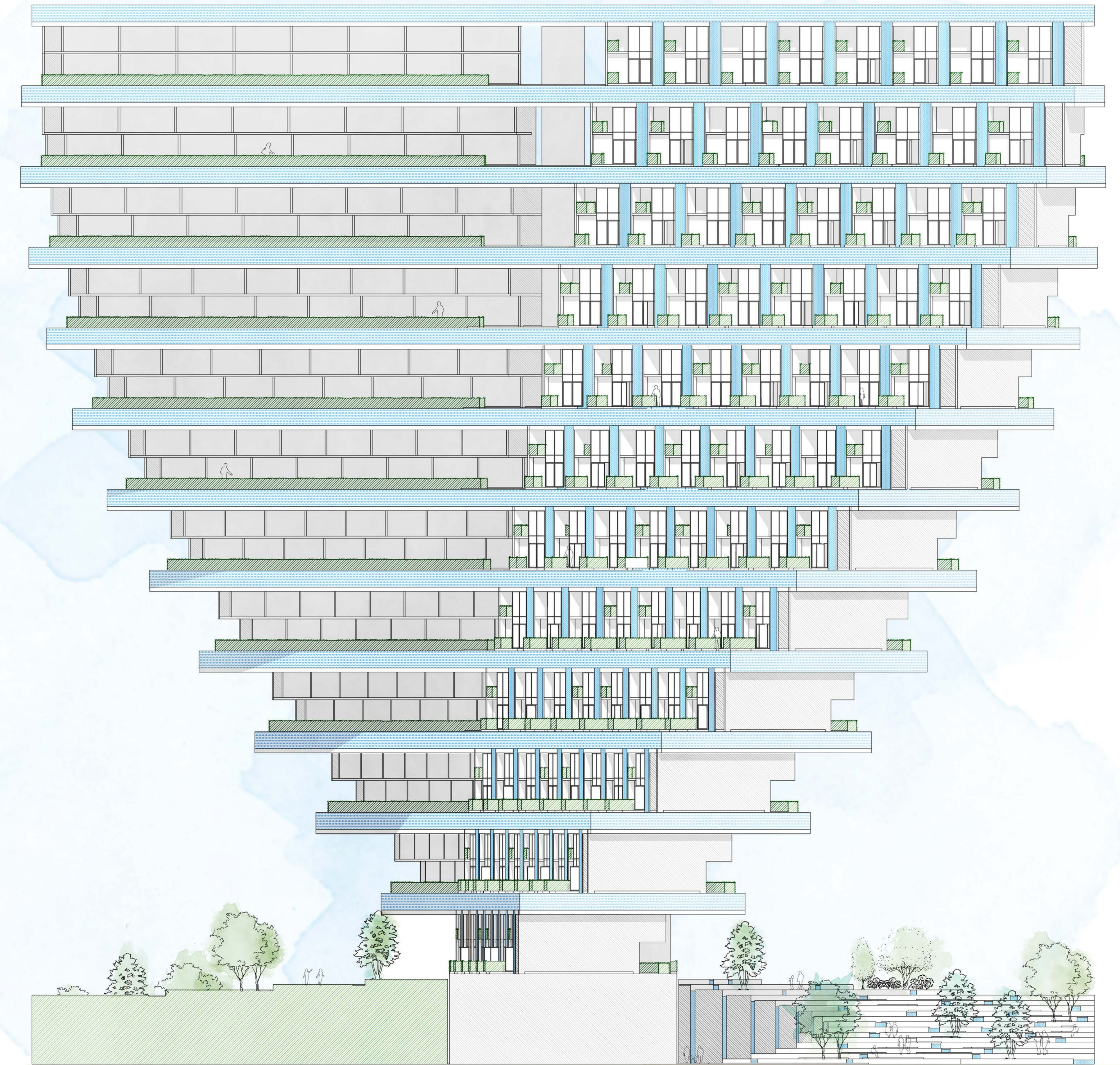


Hydroblock

Twist Tower BM.HT.90

Elevation West-East

1:200



Annelot Wartna

The BlockMaker | The Why Factory Graduation Studio 2016-2017
June 2017

Hydroblock

Twist Tower BM.HT.90

Elevation North-South

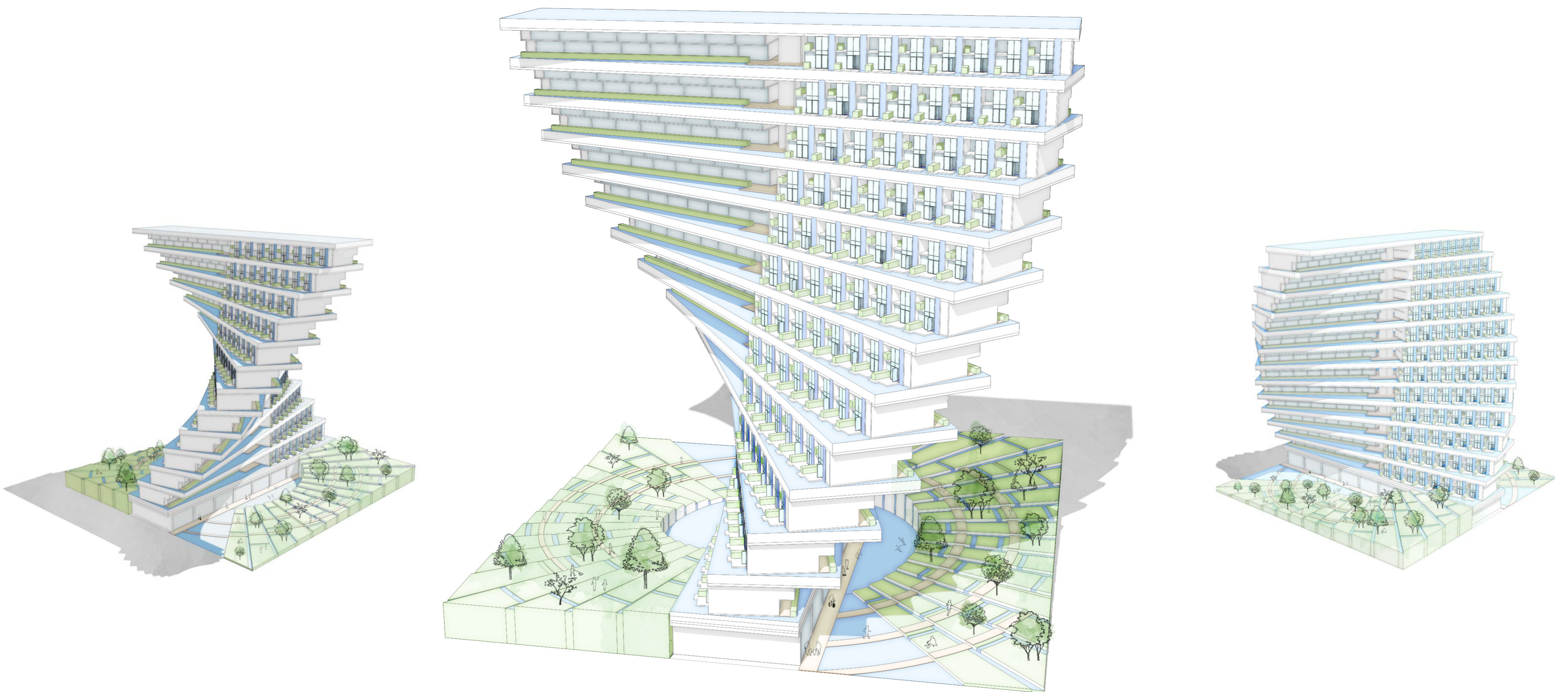
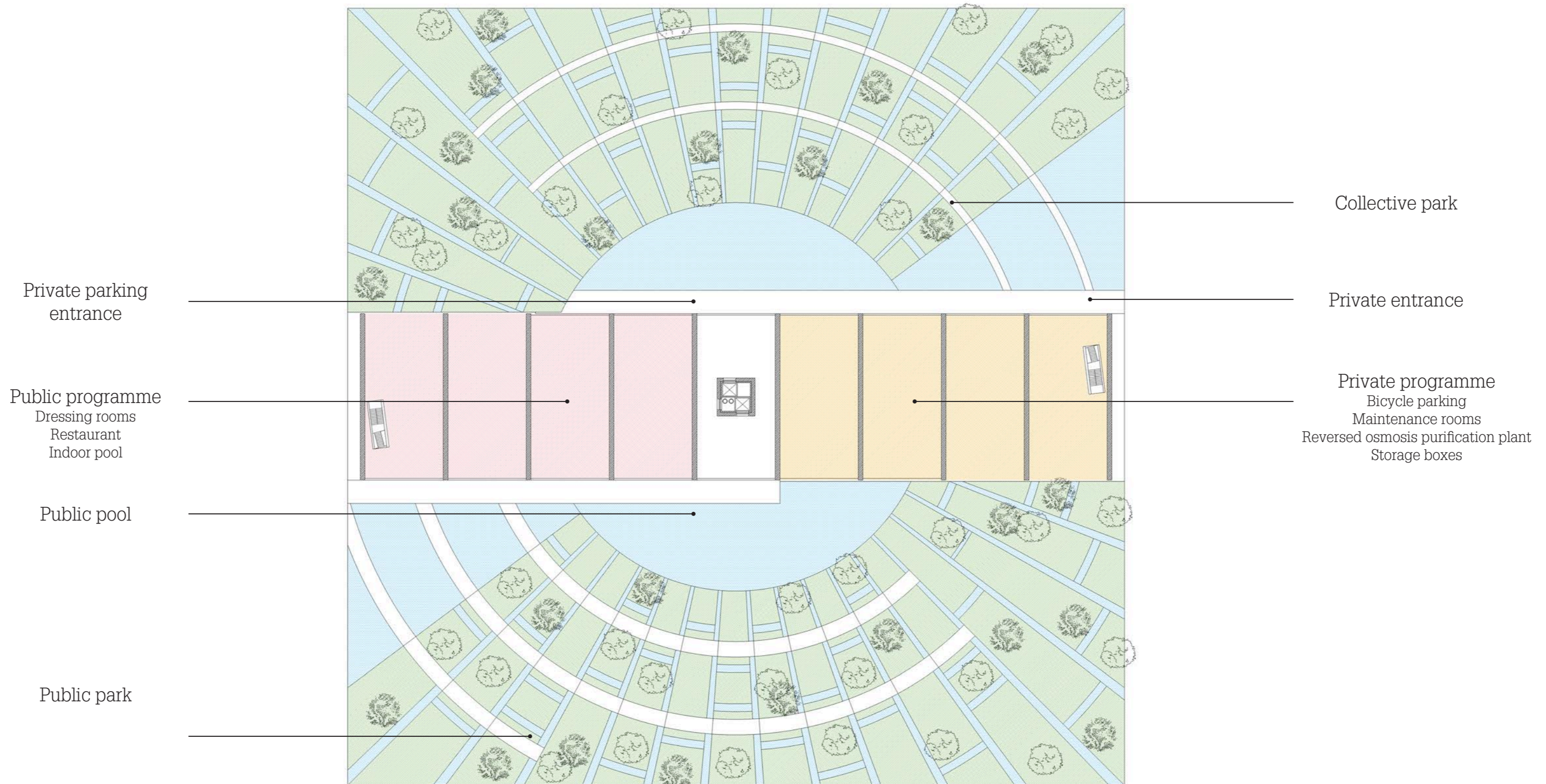
1:200



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June 2017

Site Plan
1:500



Hydroblock

Twist Tower BM.HT.90

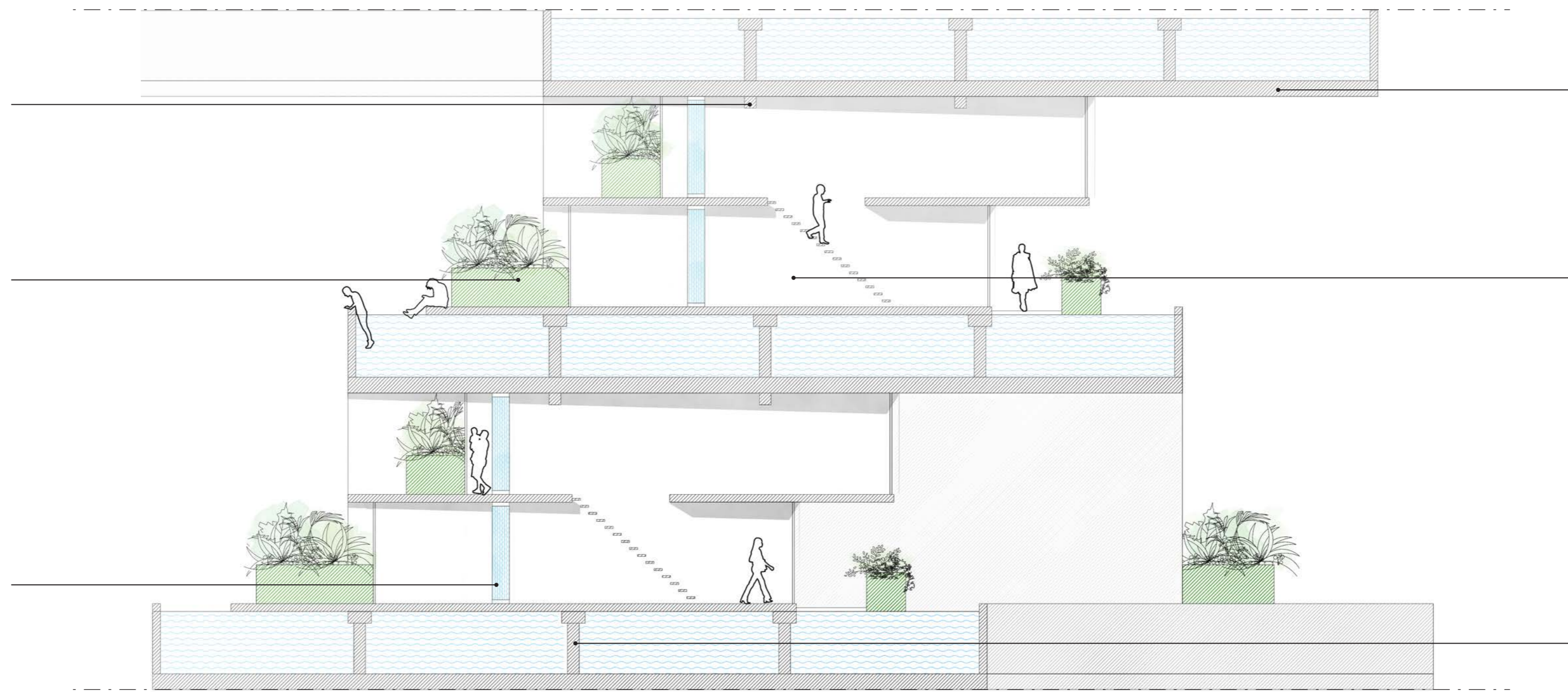
Section of element | Garden & construction

1:100

Diagonal steel beam
Because of the rotation of the elements, the walls of the upper element are not aligned with the ones below. Loads are transported using an additional diagonal beam in between the walls.

Helofyte filters
4 - 6 m². Filters domestic waste water to grey water for laundry and toilet flushing. A small septic tank collects black water.

Storage tank
Grey water storage tank.



Floor slab 400 mm
A cast-in-place concrete floor slab makes the element stiff and prevents it from shearing.

Concrete slabs 300 mm
The element consists of nine concrete slabs, 5.6 m in between. Together with the floor slab, they form a rigid frame.

Concrete column
A series of columns keeps the water volume open. The columns most far from the direction of the rotation are loaded in tension. The columns closest have no direct slab, so the floor slab is locally reinforced.

Section of element | Patio & climate

1:100

Indoor pool and patio
The glass house patio is both a cooling mechanism and the heart of the house, although not literally. It can be part of the terrace, but also part of the bathing area. The open connection with the water below causes air flows used for cooling. The living area upstairs is connected with large openable windows.

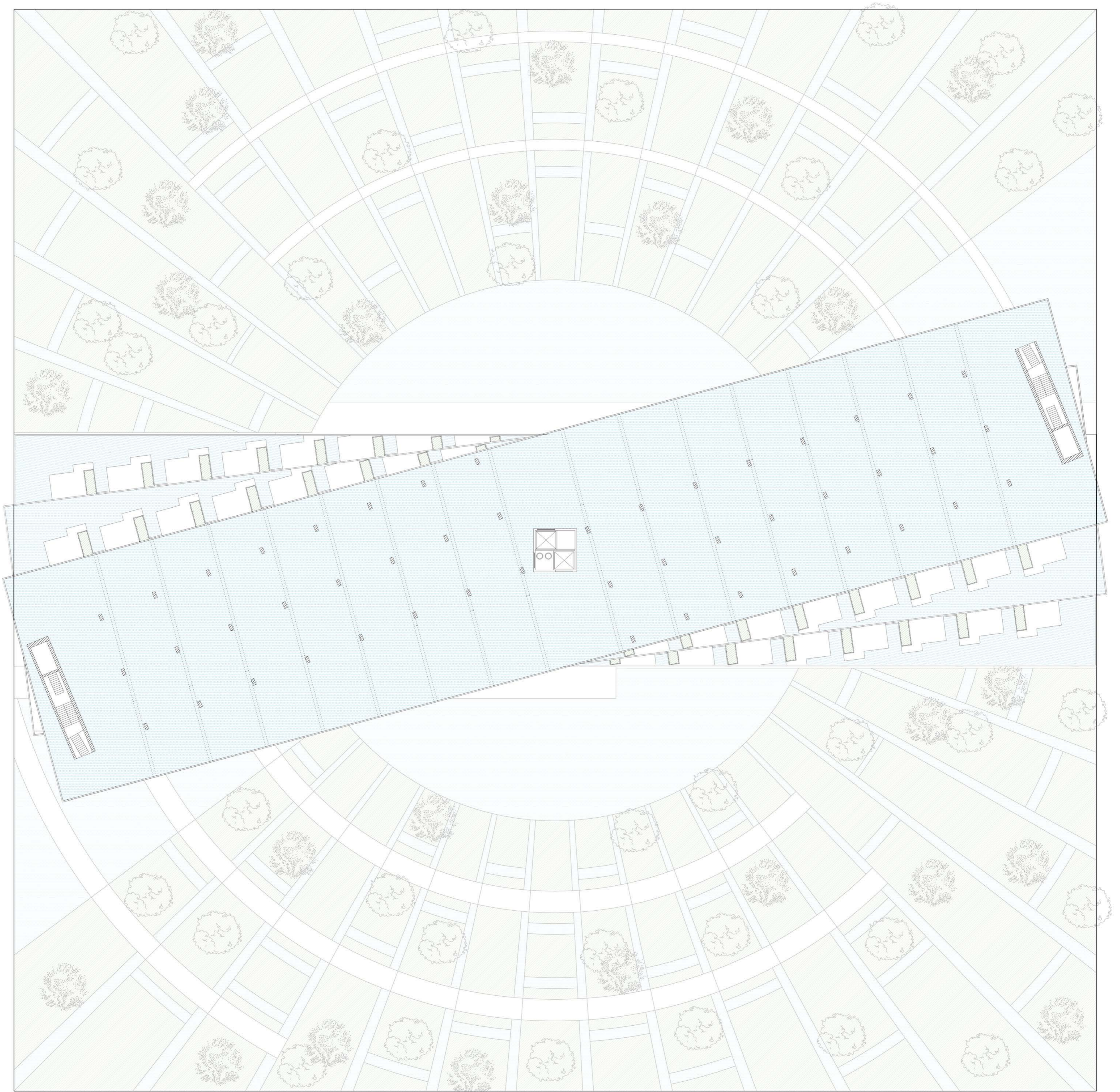
Waterfall
5.2 m, 43 200 Lph, 0.56 kWh
In the water circulation system of this hydroblock, water runs down via waterfalls. Every waterfall has a dynamo in the collector basin. On average, a Spanish person uses 0.62 kWh.



Closed veranda
During warm summer days, the water on the shaded side of the building produces cool air flows. The closed veranda is a privacy buffer as well as a climate buffer.

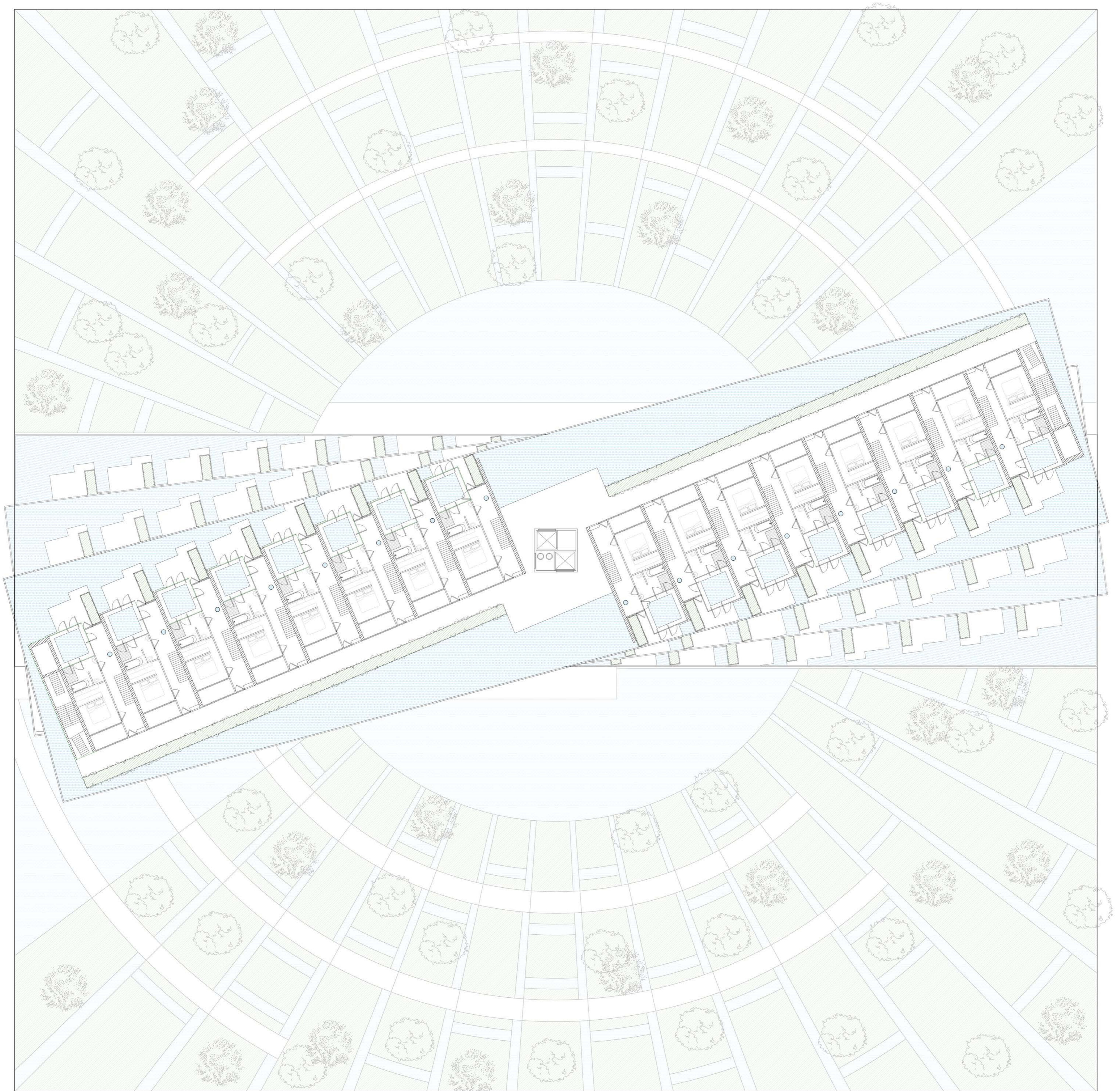
Floor Plan of Element | Water basin

1:200 ☺



Floor Plan of Element | First floor

1:200 ⊖



Hydroblock

Twist Tower BM.HT.90

Floor Plan of Element | Second floor

1:200 

