

# BLOOM

EVOLUTION OF NATURE



Golden Maple tree

These trees were specifically chosen because of their ability to thrive in the weather conditions that Mannheim provides.



Acer tree

Their heights and spreads also gear towards our design concept of having the trees bloom at the apex of the flower-like structures.



Birch tree

The average tree height is 18 metres while the average spread is 12 metres.

## BUD CONSTRUCTION TECHNOLOGY

Flower-like structures will bloom (open) as the sun rises through a sun tracker embedded in the solar panels identifying the sun's position throughout the day. Solar panels are placed on the petals of the flower-like structure absorbing natural sunlight and creating energy resulting in an electrical charge used throughout the site. Each structure is estimated to produce 56 megawatts of energy. This technology is called solar photovoltaic, which allows light from the sun to convert to electricity or voltage. Some electrical charges are used at night as these structures light up through LED lights. LED lights are used throughout the site, which consumes less energy and reduces any risk of combustion. These flower-like structures resemble how nature can grow, which could benefit individuals' well-being by producing better air quality for the community; as for the flower-like structures, the form of solar panels resembles a petal. As it opens when sensing the sun, the petal will be tilted along the site's South side to receive more natural light.

