

WAVES

OF LIFE (Return to the source)

The smart waves cover over about 13,500 of 20,000 square meters of the park. The freeform structure made out of cold-formed steel supports the network of curved midribs to create the WAVES design that resembles the Gulf waves. The floor (substructure) is made out of concrete for the main walking areas, and there would be a large portion of green, meadows, and ponds to improve microclimates. The hard surfaces are in bright colors with a high thermal mass capacity to reduce the heat gain of the park.

The shads have an intertwined design with multiple layers and have constant transitions of heights to diversify the spatial experience and resemble the gulf waves. The smart shades forms correspond to the transformation of landscapes. The shades are composed of transparent and flexible silicon PV and photochromic layer installed underneath.

These freeform waves act as the shading device for the trails, gardens, ponds and gathering spaces. The smart shades harvest solar power and are used to operate WAVES park equipment such as lighting and irrigations systems. The major part of the electricity is stored or connect to the power grid. An additional layer of photochromic glass provides 80% shading during day time while it would be 10% transparent during the night time. So residents can enjoy the night sky and be protected from the sun.



RAISED LANDSCAPE
to prevent east and west heatwave to WAVES project.



INTERTWINED PATHS
similar to the Gulf waves create diverse spatial experience.



GREEN PATHS
reduce outdoor temperature.



PONDS
create micro-climate and reduce outdoor temperature.



CANOPY STRUCTURE



SMART WAVES
provides shades and generate electricity

