



The anthropomorphic sculpture of the RED GIANT, speaks directly to people by placing the human figure as the main instrument for change and regeneration. We are faced with the invention of a contemporary archetype, a massive character, geometric, archaic and pop at the same time. It evokes the statues of Easter Island, of Mayan and Aztec imagery, but also Japanese UFO-robots and graffiti. It radiates tangible spiritual energy, a sense of mystery and the pursuit of the meaning of existence. It is an accumulator of energy (the installation produces energy through surfaces made of semi-transparent colored photovoltaic glass), in its massive body we sense the tension of a sprinter at the starting blocks, a creature utterly alert, waiting for the signal to leap forward.

Its position also evokes a careful approach to people and brings back to mind a baby's first movements. A gentle giant. The aesthetic of the artwork is original, bold and timeless, being able to speak a modern language but capable of evoking the attractive mystery and unifying force of thousands years old totem. The geometric rhythm interprets the union of many modules that generates a single powerful form symbolizing the many realities of the territory that have been able to create in Silicon Valley the virtuous center of innovation in the world. The sculpture title reminds also to red giant stars. The concept focuses on a concrete and achievable public art intervention that aims to stimulate the imagination by creating a unique and distinctive landmark without excessively consuming the valuable territory.

A coffee-shop, a library and a gallery, overlooking the park, can be built under the square raising it slightly. The sculpture, ~ 70 ft high, is clearly visible from afar and lights up at night through RGB LED tubes inserted in the structure and powered by the energy produced by the photovoltaic system. The Red Giant is designed to generate the most possible energy with the smallest footprint. It has a high energy yield: the ratio between the energy generated and the space occupied is 5.8 kW/m². The design choices were directed towards the sustainability and real feasibility of the project. The design has virtually no environmental impact: the structure is designed to be made of recycled steel; the structure and the glass parts can potentially be disassembled and re-assembled in other contexts.



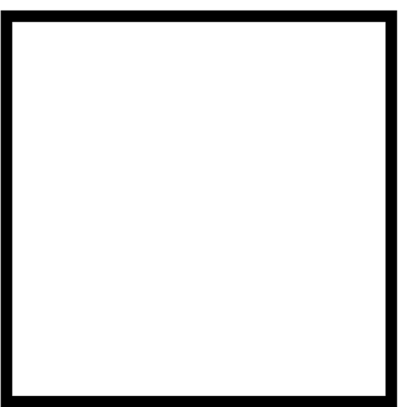
The Red Giant is a sort of huge iconic semitransparent portal that the public can cross. The light that passes through the structure paints the area and passers-by who walk near the sculpture.



The artist's will is to favor the poetic, iconic strength, and communication potential of the work rather than its height dimensions. The idea is to donate a real public artwork to the city, respectful of the natural environment.

THE RED GIANT

COLORED PV GLASS ON STEEL STRUCTURE ~ 172,000 kWh ANNUAL ENERGY GENERATION
QUANTITY OF CO₂ AVOIDED EMISSION: 91,118 kg

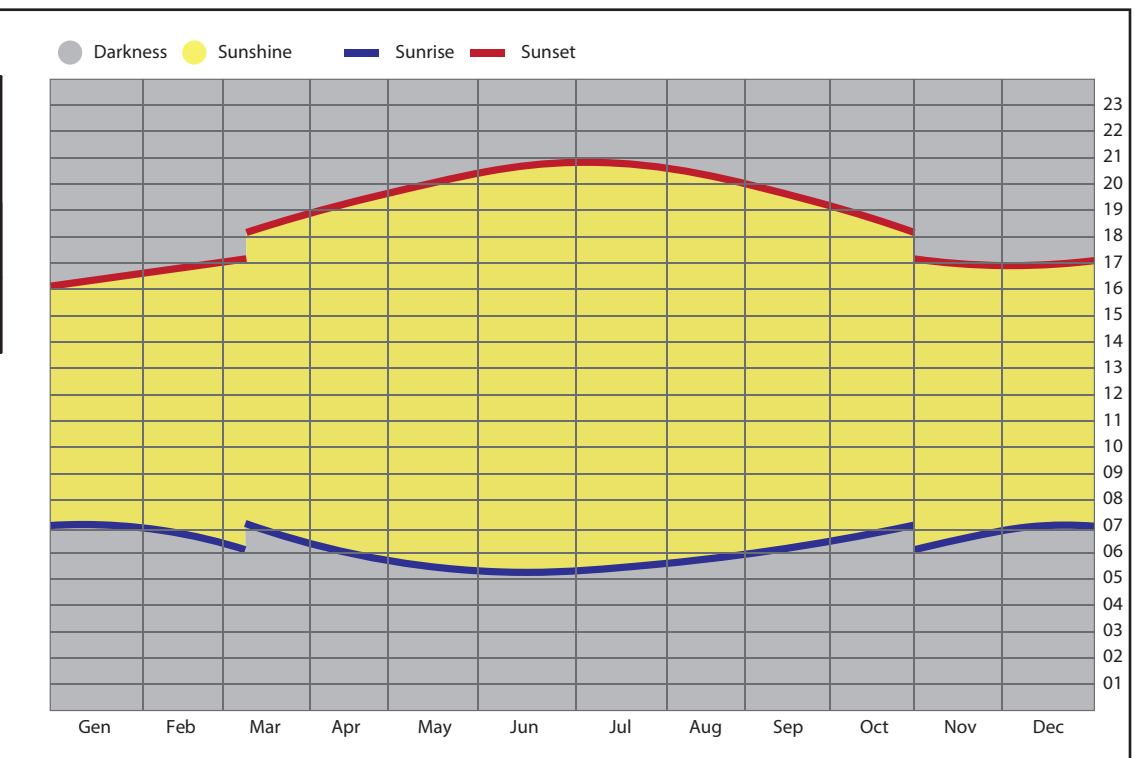


Solar Energy and Surface Meteorology ((San Jose, California))

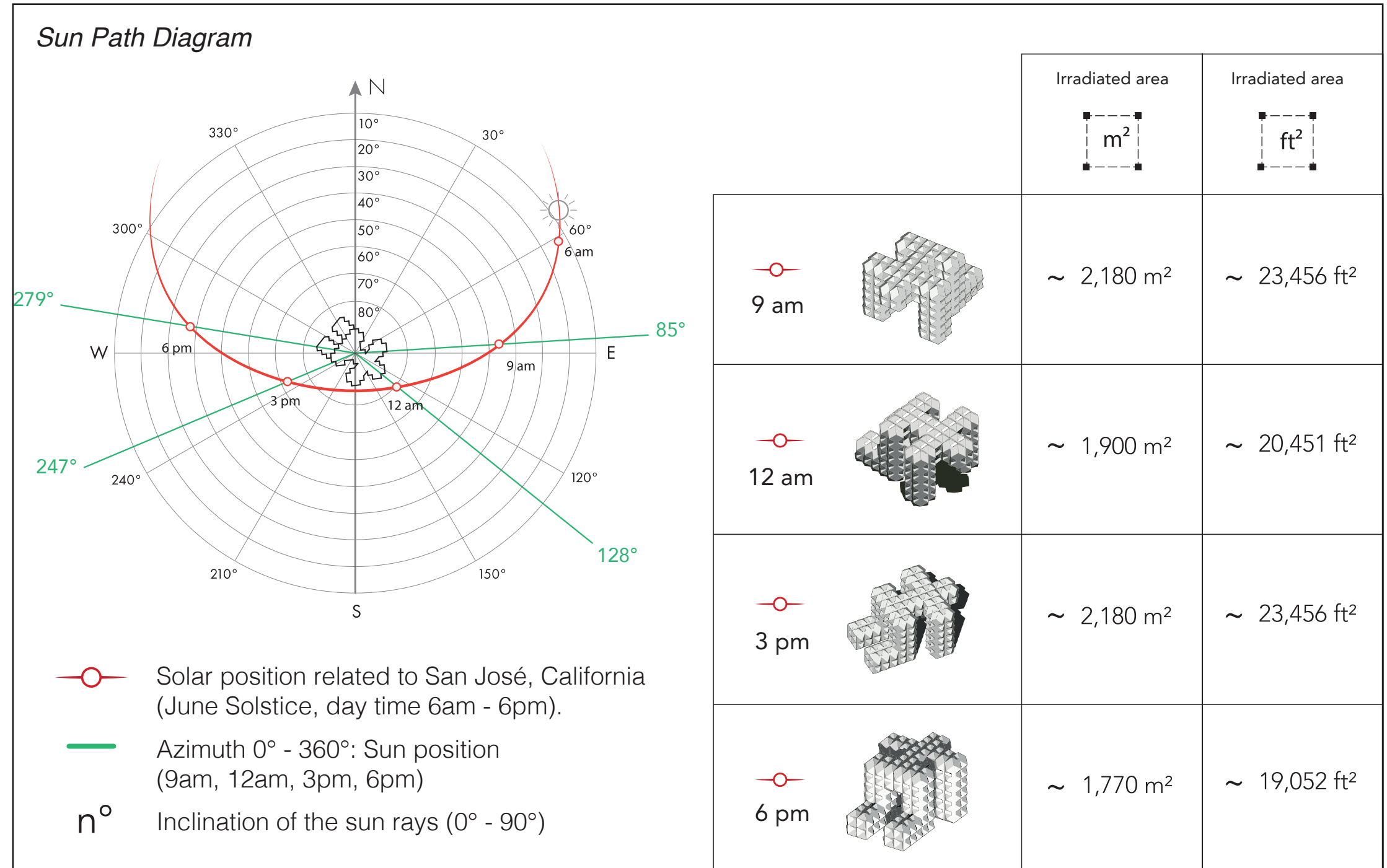
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Average Value
Insolation, kWh/m ² /day	2.21	3.16	4.54	5.91	6.87	7.41	7.08	6.36	5.18	3.84	2.62	1.99	4.76
Clearness, 0 - 1	0.48	0.52	0.57	0.60	0.62	0.64	0.63	0.62	0.60	0.57	0.52	0.47	0.57
Temperature, C°	9.95	10.21	11.43	13.68	17.04	20.36	22.07	21.68	20.51	17.91	12.98	9.98	
Wet days	9.28	.6	9.75	.8	2.10	.8	0.50	.6	1.43	.4	7.78	.8	
Precipitation, mm	81	61	58	30	72		12		62	15	36	2	

These data were obtained from the NASA Langley Research Center Atmospheric Science Data Center; New et al. 2002

Sunrise, sunset, dawn and dusk times, graph

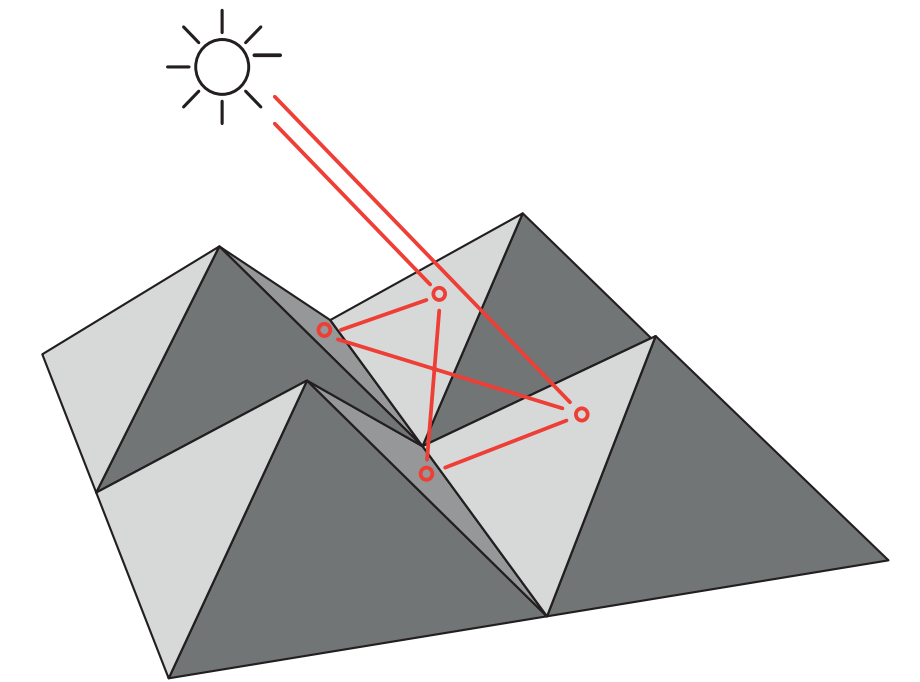


Sun Rays Incidence (San Jose, California - June Solstice)



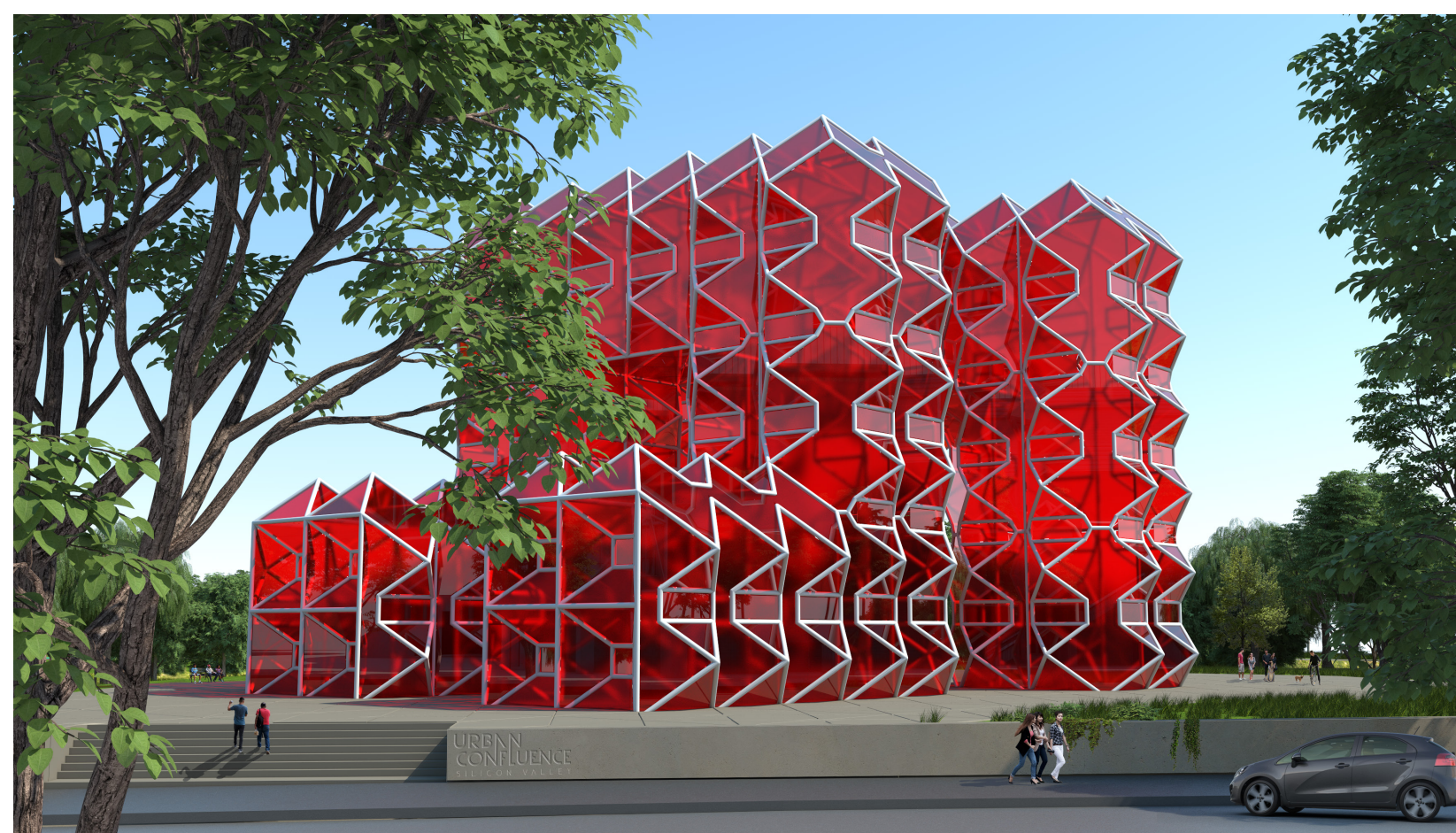
Annual Energy Output Generation

Amorphous PV Glass Panels Efficient Ratio: 28 Wp/m
Average Irradiated Area: 2,000 m²
Peak Power: 2,000 m² x 28 Wp/m = 56 kWp
Sun Light Hours per Year: 3,070 h
(Capacity Factor Utilization = 35%)
Annual Energy Generation: 56 kWh x 3,070 h = 171,920 kWh



The Shape

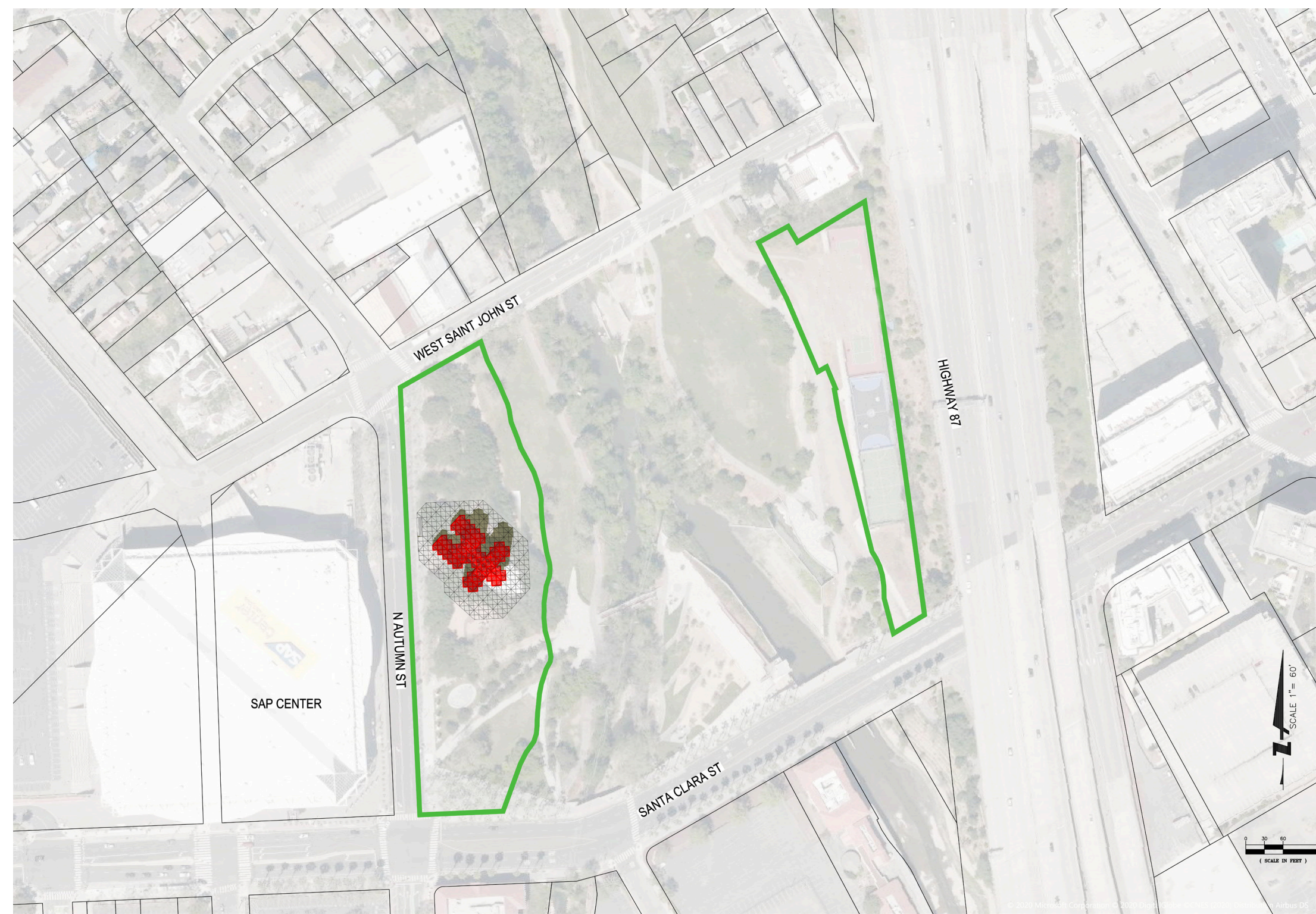
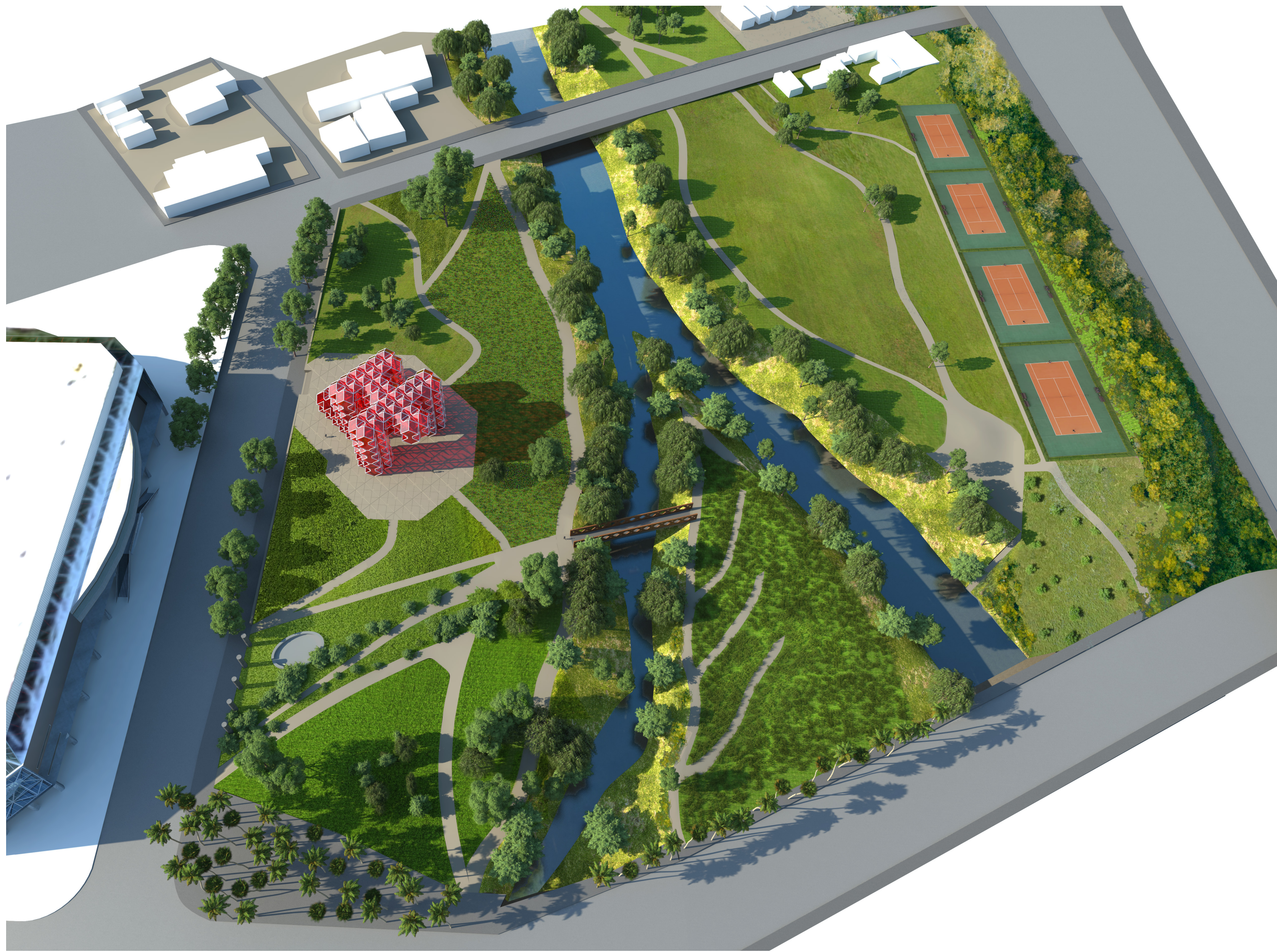
The geometry of the installation provides a greater surface that is struck by the sun's rays. Photovoltaic glass produces energy, not only from the direct sunlight, but also from indirect light coming from the bouncing of sunlight on the different forms of the structure and from the surrounding environment.



The design choice was not to heavily affect the territory of the park, the square on which the sculpture stands is only slightly raised compared to the height of the existing ground.



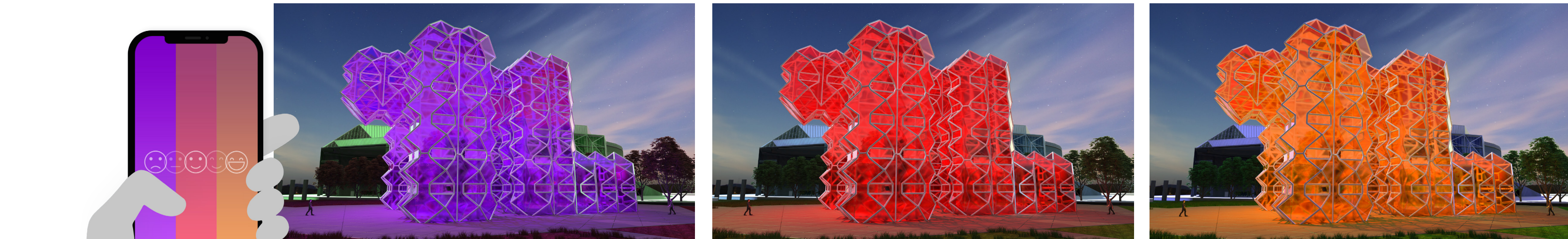
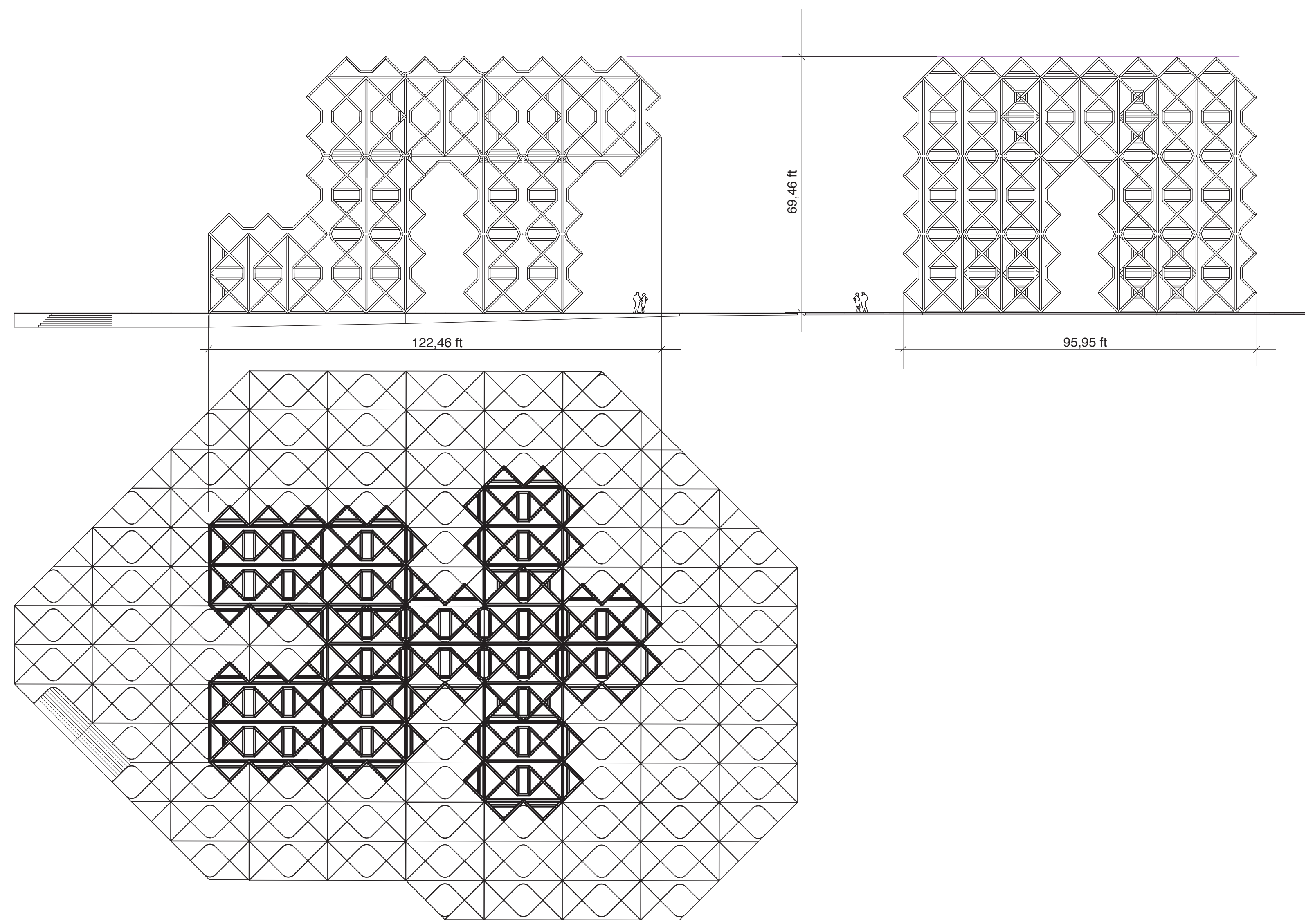
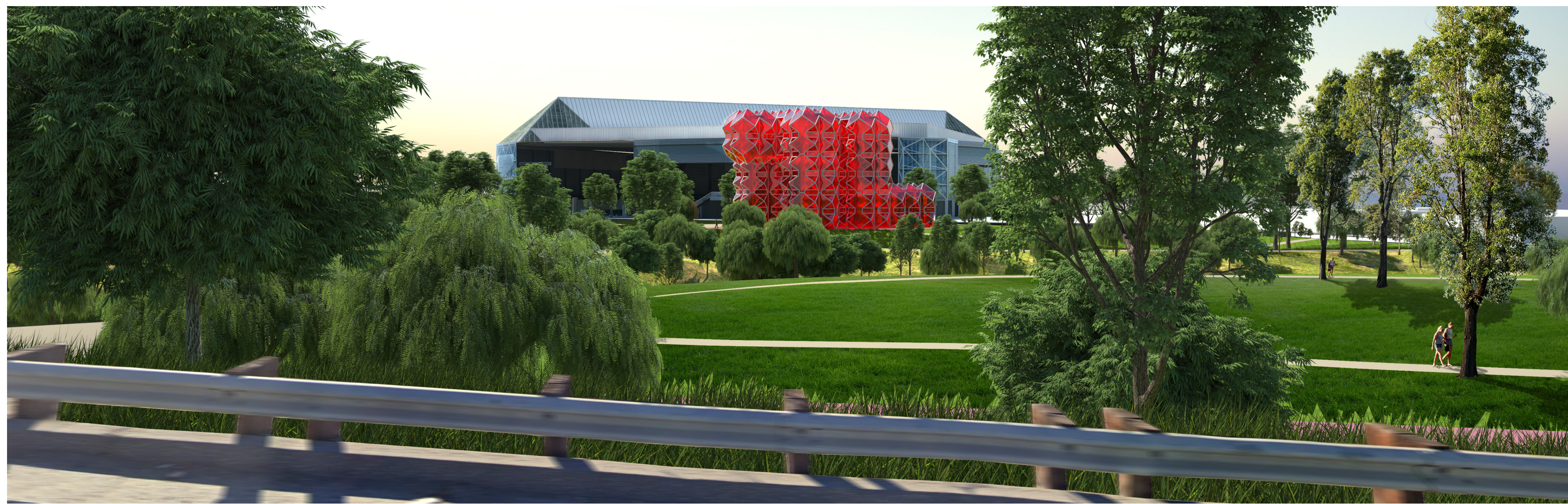
The Red Giant is internally equipped with a led lighting apparatus which makes it a luminous sculpture that is lit at sunset.



Footprint ~ 0,7% of the walkable park area

Walkable area of the park: ~ 49,000 yd (~ 40,000 MQ)
 Installation footprint ~ 349 yd - (~ 292 MQ)

It was decided to limit the installation footprint to a minimum, according to the designer the work of art had to occupy less than 1% of the walkable area of the park to leave the maximum space for the park's usability. Despite its small size, the Red Giant, thanks to the particular shape of its surfaces, can produce a considerable amount of energy.



The RGB LED tube system allows a chromatic variation from orange to red to purple. The output light color could be controlled through an app that reveals, for example, the average mood of citizens or other data. It is also possible that the color of the light has a controlled dynamic variation which gives the sculpture the iridescent reflections of a gemstone.