



PROJECT - 09

QUNLI STORMWATER PARK

Infrastructure

Biodiversity Integration Scalable Impact

Architects:
Turenscape

Location:
Harbin, China

Area:
~34 hectares

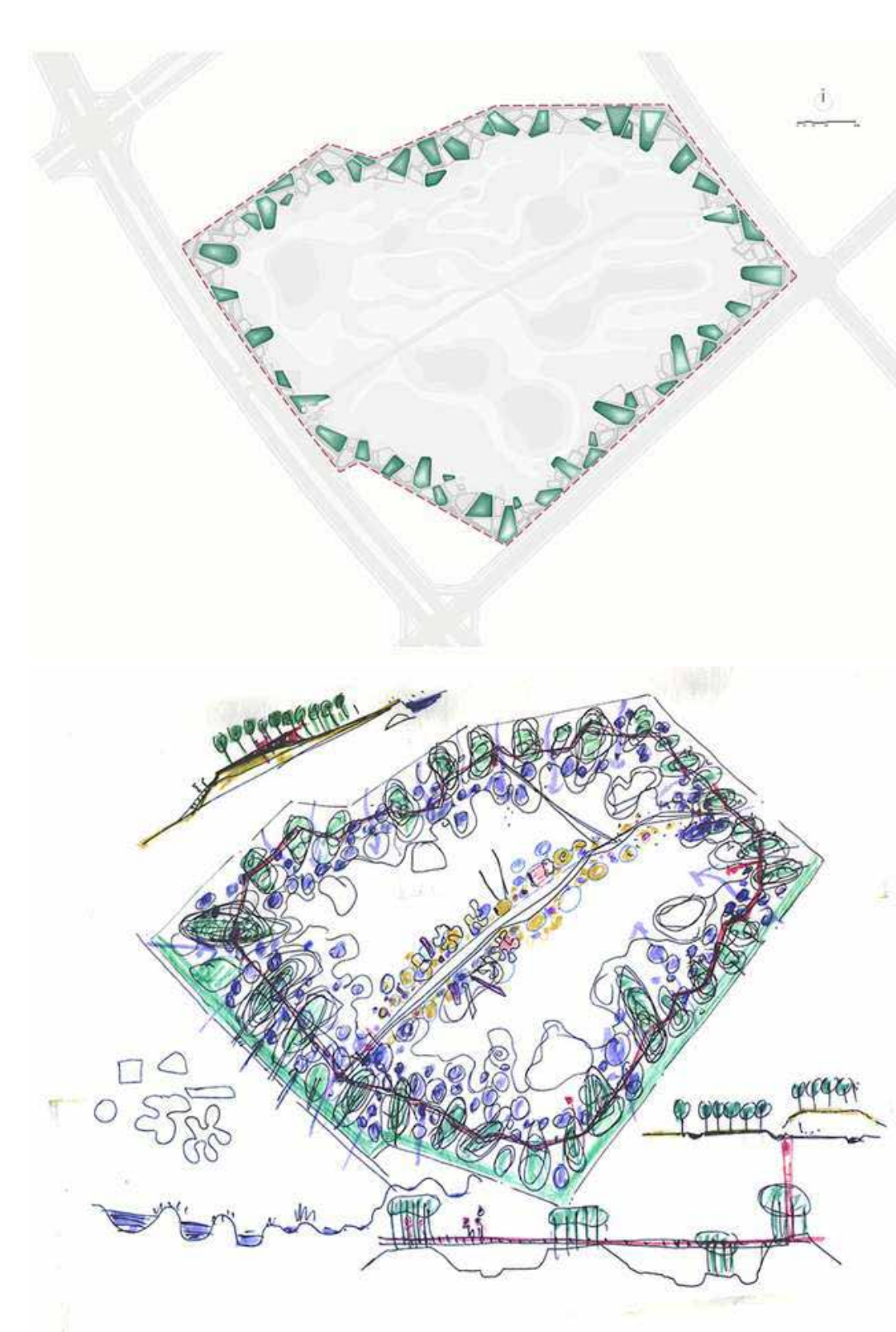
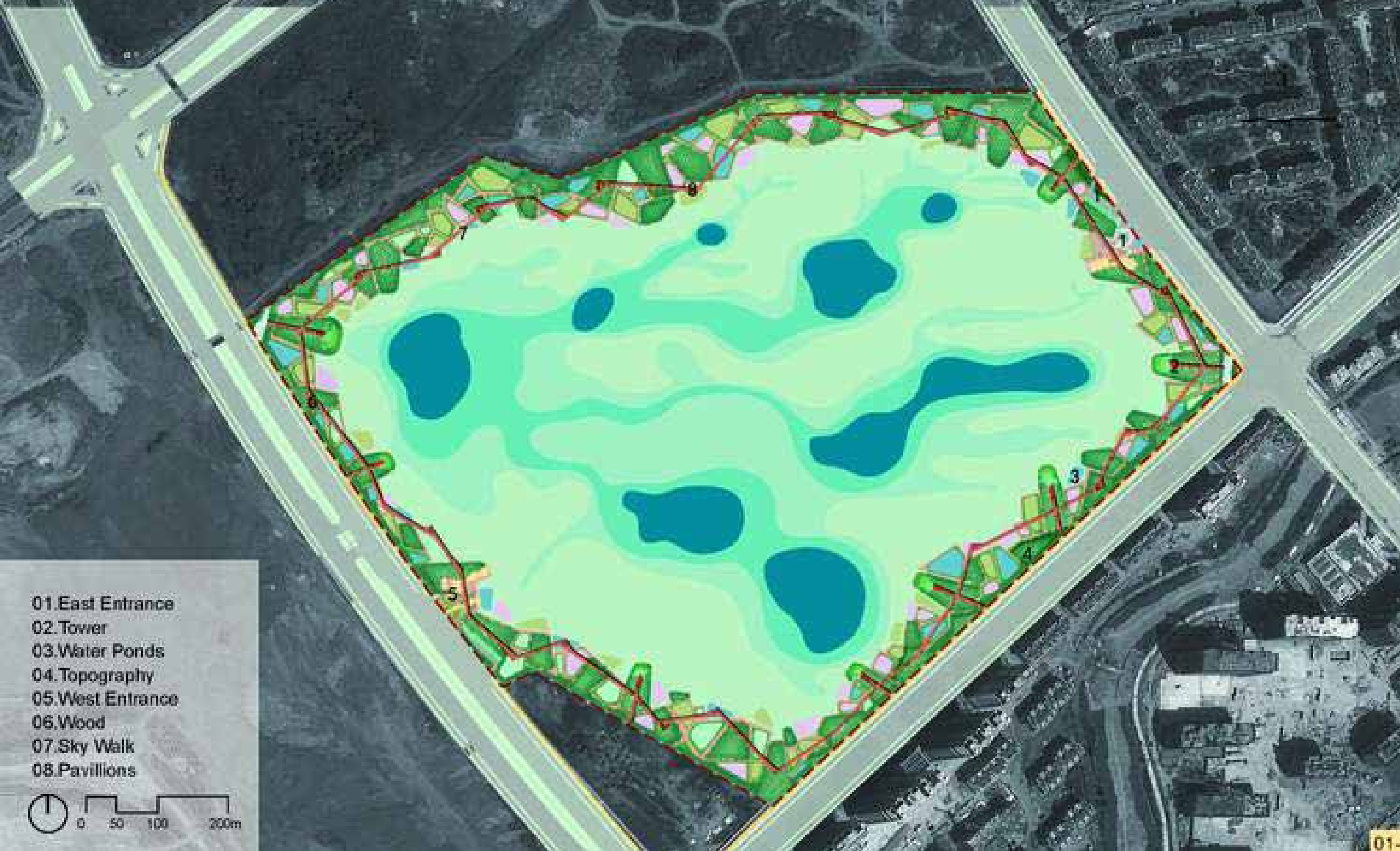
Year of Completion
2011

09

Qunli Stormwater Park by Turenscape is a globally recognized example of ecological infrastructure that demonstrates how landscape architecture can address urban flooding, biodiversity loss, and environmental degradation within rapidly urbanizing cities. Located in the Qunli New Town district of Harbin in China, the project transforms a threatened wetland into a resilient urban sponge system that integrates ecology, public space, and water management.

As urban expansion rapidly consumed natural wetlands around Harbin, the site faced severe risks of flooding, habitat destruction, and stormwater overload. Instead of relying on conventional engineered drainage systems, the project preserved the remaining wetland and converted it into a functioning ecological park capable of absorbing, filtering, and storing stormwater naturally.





At the heart of the design is the concept of the “sponge city,” where natural landscapes perform critical environmental infrastructure functions. The park acts as a stormwater retention basin that captures seasonal rainwater and urban runoff, reducing flood risk while replenishing groundwater and improving water quality. Native wetland vegetation filters pollutants biologically, allowing the landscape itself to become a living water-treatment system.

The design organizes the wetland through a network of ponds, mounds, boardwalks, and elevated pathways that allow visitors to experience the restored ecology without disrupting sensitive habitats. Aerial walkways weave through the marshland, creating immersive public spaces while preserving biodiversity and hydrological performance.



Ecological restoration is central to the project's success. Native grasses, aquatic plants, and wetland ecosystems support birds, insects, and aquatic species, re-establishing habitats that were rapidly disappearing due to urbanization. The landscape also mitigates the urban heat island effect while improving air quality and microclimatic comfort within the dense city environment.



Beyond environmental performance, Qunli Stormwater Park serves as an important civic and educational space. The project reconnects urban residents with natural systems, demonstrating how public landscapes can foster ecological awareness, recreation, and community well-being. The integration of accessible pathways, viewing areas, and open green spaces transforms infrastructure into an engaging social environment.



The project illustrates how ecological thinking can shape resilient and people-centric urban development. It proves that sustainability is not only about minimizing environmental harm, but also about restoring natural systems and integrating them into everyday urban life.



Qunli Stormwater Park has become an internationally influential model for climate-responsive urbanism and nature-based infrastructure. Its innovative approach has informed broader “sponge city” strategies across China and globally, highlighting the role of landscape architecture in addressing climate change, flooding, and ecological resilience.

Ultimately, the project demonstrates that cities of the future must work with nature rather than against it — positioning landscape as essential infrastructure for environmental sustainability, social well-being, and urban resilience.