

# Park 20/20: A Cradle to Cradle Inspired Master Plan

## Haarlemmermeer, Netherlands

Park 20/20 is the first large-scale urban development project in the Netherlands that adopts the “Cradle to Cradle” design philosophy, introduced by William McDonough, to guide master planning. This approach to sustainable development essentially models the processes and organization of healthy, natural ecosystems. By protecting and enriching natural nutrient circulation, Park 20/20’s Cradle to Cradle design seeks to create environmental, economic, and social systems that are productive, efficient, and essentially waste-free.

Located within a man-made “cultural landscape” of a Dutch “polder,” which is land reclaimed from the sea, the project site is challenged by rising sea levels that are exacerbated by increasing global temperatures. A major goal of the project is to create a model of urban development that mitigates climate change by integrating renewable and passive energy sources to minimize carbon emissions. To accomplish this, the designers analyzed the site to determine optimal building orientation that takes full advantage of solar heating and wind direction. This minimizes energy demands and maximizes natural ventilation. Photovoltaic arrays on top of green roofs also provide clean, renewable energy to the community.

Before Park 20/20 was created, agricultural use had stripped the land of much of its native vegetation, wildlife habitat, and biodiversity. Newly created green space reconnects the community to a regional network of parks, greenways, canals, and wetlands by re-introducing a broad range of native plant species into street-side landscapes, a centrally-located canal garden, green roofs, and landscaped parking lots.

Aligned to the waste-free Cradle to Cradle design philosophy, the master plan integrates a centralized wastewater treatment center that uses solar power to purify and recycle building waste water. Once purified, greywater is reused for toilet flushing. The

treatment process yields electricity and clean hot water, which is redirected to the new hotel planned for the site. Green roofs and other landscaped areas absorb rain water by using the natural filtering and purifying capabilities of plants and soils. Runoff and overflow are directed to on-site storage, reducing the burden on regional stormwater infrastructure.

The Park 20/20 master plan includes mixed-use zoning that attracts a diverse mix of people and cultures for business, shopping, and recreational purposes. An interconnected network of sidewalks, public plazas, canal boardwalks, and community gardens enhances opportunities for active transportation options such as walking and bicycling. These corridors also offer safe and convenient access to existing high-capacity bus and rail stations, providing easy connection to the greater Amsterdam region and Schiphol International Airport. The attractiveness and accessibility of the area helps create a productive, economically viable community by attracting and retaining new businesses and workers.

## Project Resources

### MASTER PLANNING & ARCHITECTURE

#### William McDonough + Partners

William McDonough, FAIA; Kevin Burke, AIA;  
Diane Dale, ASLA, JD; John Easter;  
Will Grimm, AIA

### MASTER PLAN LANDSCAPE ARCHITECT

#### Nelson Byrd Woltz

Warren T. Byrd, Jr., FASLA, Principal in Charge;  
Kennon Williams, Senior Project Manager /  
Designer; Staff Designers: Zuzana Ponca;  
Jeremy Jordan; Evan Grimm