

WATER PETAL CASE STUDY WATERSHED

Due to open in early 2020, Watershed’s ambitious goals and auspicious location (between Fremont’s iconic troll statue and Lake Union) have caught the attention of many local stormwater enthusiasts. As the third building to pursue Seattle’s Living Building Pilot Program, the project team is committed to achieving Materials Petal certification via the Living Building Challenge. In order to qualify for the Pilot Program, the City also requires 75% reduction in potable water use and 25% reduction in energy use below baseline. Beyond these lofty goals, the project is voluntarily opting to treat 400,000 gallons of runoff from the Aurora Bridge before it flows into Lake Union.

SYSTEMS

Based on Seattle 2030 District’s baseline water use data, Watershed is designed to achieve a 77% reduction in municipal potable water usage via efficiency strategies and rainwater harvesting.

WATER EFFICIENCY

The first step to meeting City water requirements is to reduce internal water demand as much as possible. The project team has selected the highest efficiency fixtures, including pint flush urinals and low flow shower heads and faucets.

RAINWATER HARVESTING

The project will collect rainwater from its rooftop and store it in a 20,000 gallon cistern for toilet flushing and irrigation. Ultimately, the project will harvest 200,000 gallons of rainwater (57% of stormwater on site). The rainwater capture is made visible to the public via activated rain leaders on the north facade and a water feature.

STORMWATER MANAGEMENT

As part of Watershed’s site improvements, the project team has installed a bioswale and bioretention planters in the right of way along Troll Avenue. Rainwater from occupied roofs, as well as stormwater from the alley and the Aurora Bridge, is captured and treated via the raingarden and bioswales before being released to a dedicated storm sewer, which releases into Lake Union. As a result of these strategies, the project hopes to “create a tangible narrative of the local water cycle and its importance to the environment and the community.”

LOCATION

SEATTLE, WA

TYPE

OFFICE BUILDING

SIZE

62,000 SQUARE FEET

OCCUPANTS

420 FULL-TIME

RAINWATER HARVESTED/YEAR

> 200,000 GALLONS

WATER USE INTENSITY (WUI)

6.5 GALLONS/SF/YEAR

4.0 POTABLE GAL./SF/YEAR

AVERAGE WUI*

14.2 GALLONS/SF/YEAR

CLIMATE

TEMPERATE MARINE

38 inches of rain/year

155 days of precipitation/year

**Average WUI by building type according to Seattle 2030 District data*

BIOSWALES ALONG TROLL AVENUE (LEFT)



IMAGE CREDIT: WEBER THOMPSON