AMERICAN ASSETS TRUST Hassalo on 8th Wastewater Treatment & Reuse System

Portland, Oregon



GBD Architects

Portland's Lloyd neighborhood is a dense cluster of office buildings with little residential space. The area is served by a combined sewer overflow system, in which rainwater is conveyed along with sewage and ultimately treated as wastewater. Envisioned as an "ecodistrict," Hassalo on 8th is an innovative, four-block urban redevelopment project consisting of a retrofitted office tower and three new buildings that An urban redevelopment project treats and reuses water onsite and redirects wastewater away from the city sewer and into treatment and storage.

house 637 apartments and over 45,000 square feet of retail space.

Biohabitats designed an onsite wastewater system to treat and reuse water from the new buildings. This decentralized treatment and reuse system is designed to divert 100% of the wastewater generated in the three new buildings from the municipal sanitary sewer system. This not only lessens the burden on a system that is already operating at capacity, but greatly enhances site sustainability.

The system, which was designed in collaboration with GBD Architects, Glumac, and PLACE studio, treats 45,000 gallons per day to State of Oregon Class A reuse standards through a series of trickling filters and constructed wetlands. The trickling filters are integrated into the design of the park-like pedestrian corridor at the center of the project. Treated, disinfected wastewater is reused for toilet flushing, running the buildings' cooling systems, and landscape irrigation. Excess, unused treated wastewater is injected into dry wells, ensuring that no element of this new waste stream enters the city sanitary sewer system.

SERVICES

Design Green Infrastructure Permitting

conservation planning ecological restoration **regenerative design**



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