INTEGRATED WATER CONSERVATION

for the next 100 years

(Above) Illustrative Site Plan showing the final design, including Phase II. The design accommodates the on-going work of the Foundation in Phase I, while allowing for the construction of the third building of the campus and the neighboring highway mega-project, the north portal of the Alaskan Way Viaduct Replacement Tunnel.

(Left) Phase I of The Bill & Melinda Gates Foundation Campus.

(Far Left) Sustainably harvested Cumaru wood was used to create light bridges connecting the Central Heart across the rainwater pool to all campus buildings that surround it. Integrated benches provide opportunities for gathering and discreet and easily maintained locations for various systems, including electrical power and wifi.

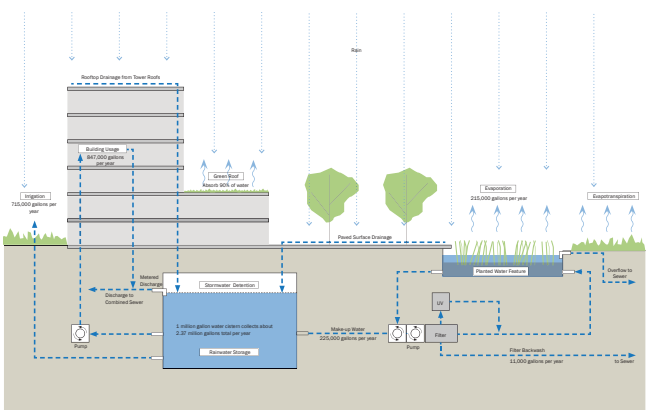
Photo Credits: Timothy Hursley

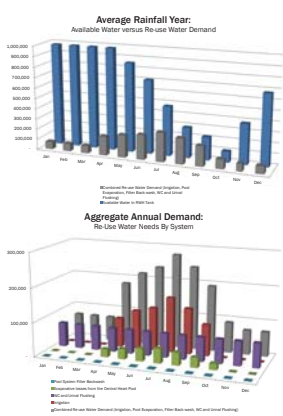
Rainwater Harvesting System

In order to minimize (in most years eliminate) the use of potable water in the landscape, GGN worked with the owner and design team to develop and implement a rainwater harvesting system, the first of its kind in Washington State.

Two key challenges must be addressed to make rainwater harvesting cost-effective and feasible - designing the capacity to store ample water for the time when it is needed and navigating a regulatory environment that will allow for innovation. This rainwater harvesting system design serves irrigation water demands, planted water feature make-up water requirements, toilet-flushing requirements, and stormwater detention needs.

Native and drought tolerant plants were selected to minimize irrigation water requirements further, thus reducing the size of the required cistern. Working as an integrated team, the designers and engineers built the case for the system and optimized the strategies while the Foundation worked with the City and State to gain allowance for urban rainwater harvesting.





GUSTAFSON GUTHRIE NICHOL

Bill & Melinda Gates Foundation Campus
Location: Seattle, WA

Client: Bill and Melinda Gates Foundation
Size: 8 acres (Phase I), 4 acres (Phase II)
Completion Date: 2011 (Phase I), TBD (Phase II)

Architect / Interiors & Workplace:	NBBJ
Lighting / Environmental Graphics:	NBBJ
General Contractor:	Sellen
Development Manager:	Seneca Group
SMEP; AV/Acoustics & IT:	Arup
Civil & Structural Engineer:	KPFF
Certification:	LEED NC 2.2 Platinum

Project Description

With green roofs, a million-gallon cistern, and rainwater-fed pools, the campus is designed to be a rainwater “sponge,” thereby minimizing the amount of water that leaves the site in wastewater pipes. All rooftops and ground surfaces either absorb rainwater or capture it for re-use in the campus. The rainwater harvesting system is modeled to conserve up to two million gallons of rainwater annually. This will provide great operational savings for the foundation, over the life of the project.

The campus is designed to provide a supportive outdoor work environment that is grounded in the character of Seattle’s natural landscape. The materials and functions of the landscape are informed by the site’s distinct natural history, as a dark-watered bog within a wet meadow that absorbed and filtered rainwater. The layout responds to the urban street grid of the surrounding neighborhood.