Handout @ 6/18/13
Tree Mtg.
2013-B0075

BILL & MELINDA GATES FOUNDATION CAMPUS

500 Fifth Avenue North, Seattle Washington 98109 | 639,860 sf Office Headquarters

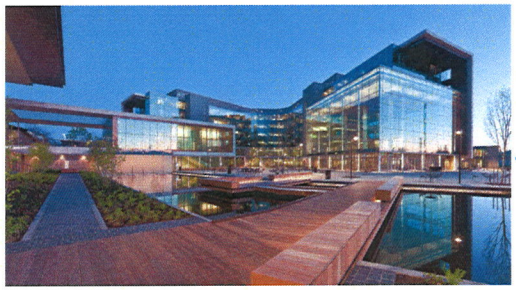
The Bill & Melinda Gates Foundation campus is a global center for innovation, learning and problem solving. It consolidates five offices and brings foundation staff together for the first time in 10 years. The project's main function is to enable the staff to do their best work. In addition, the foundation wanted a campus that would reflect its commitment to its local roots and to its global mission. It was also important to be a good neighbor, provide an enduring public amenity to the city and conserve natural resources.

Extensive research, including client work sessions, best practice tours and observational research, drove the design. To reflect local roots and global mission, the office wings cantilever above the campus and are each rotated in different directions, symbolizing reaching out to the world. The buildings fit within the size and scale of the neighborhood and orient inward to support a more connected workplace.

Floor plates are 65 feet wide, placing staff within 30 feet of daylight and enabling face to face interactions. A curved, glass breezeway is the main circulation corridor, promoting chance encounters and sightlines across the campus. Ten-foot curtain wall modules maximize views and daylight.

The campus includes sustainable systems such as two acres of living roofs and a one-million-gallon underground rainwater storage tank. Potable water use has been reduced by 79 percent and overall energy reduced by 39 percent. The project has received LEED Platinum certification.

The current project is considered Phase 1 of two phases. Phase 1, just completed, includes: Two Office Wings, Conference Center, Entry Plaza, Reception Building, Atrium and Campus Courtyard. Phase 2 will include the addition of a third office wing and a small cafe, sometime in the future. The 5th Avenue Parking Garage, previously completed, completes the campus block and is jointly used by Seattle Center and the foundation.



PLANET
1. Ecology-based land use
2. Energy independence
3. Water balance
4. Ecological material sourcing

PEOPLE
6. Collective wisdom and feedback
8. Healthy human ecology
9. Inspiration

PROSPERITY
11. Durability and adaptability
12. Vibrant communities

BASELINE EUI:
127 kBtu/sf/yr

TARGET EUI 2030 CHALLENGE:
51 kBtu/sf/yr (60%)

PROJECT DESIGN EUI:
64 kBtu/sf/yr

PROJECT CURRENT ACTUAL EUI:
68 kBtu/sf/year

PROJECT WUI (DESIGN):
.78 gal/sf/year
2.32 gal/person/year

INTEGRATED DESIGN PROCESS AND RESULTS

Back in 2005, just after the site was selected, the integrated project team developed a report to the foundation, setting a framework for sustainable design as an intrinsic part of the vision for the campus. Based on foundation values, the recommendations framed three important priorities: a great Human Environment for the staff, grantees and visitors to be their best, a campus that supports a thriving Local Ecosystem, and buildings with greatly reduced energy use, working toward a Climate Neutral future.

Working closely with the foundation, the team refined priorities and developed specific goals, along with evaluation criteria for an extensive list of sustainable design strategies that would be considered.

These priorities influenced some important decision points that shaped the campus. The narrow buildings, with their wonderful views and access to light, provide a better human environment, especially when connected with this extraordinary landscape. The decision to prioritize healthy water cycle function led to the air-cooled mechanical system (no cooling towers consuming water) and to the million gallon rainwater collection tank. The focus on reducing climate impact led to extremely efficient systems, the thermal energy storage tank, and the solar thermal array on the roof.

While an initial commitment was made to align project performance with the City of Seattle's LEED Silver standard in early 2005, strategies beyond that floor were fully integrated into the goals and values of the project, and the rating was secondary throughout. However, as the project design was of longer duration than many commercial projects, the outcomes reflect the continuing movement of performance thresholds in sustainable design over the seven years from initial site selection to occupancy and all involved with the project are proud of the final achievements.

Sustainability Goals

Provide an Effective Human Environment

Create an inspiring work environment that promotes health, comfort, productivity, and community.

Goal #1: Design for environmental health with fresh air, thermal comfort and non-toxic materials

Goal #2: Design for well-being with a connection to nature and access to daylight for all employees

Goal #3: Provide opportunities for personal choice and control

Goal #4: Design to delight the senses and inspire creativity

Protect and Enhance Ecosystem Function

Preserve, protect and improve the natural systems that support life, health and prosperity.

Goal #5: Develop the site to enhance contribution to local ecosystems

Goal #6: Use materials in a way that minimizes negative life cycle impacts

Goal #7: Model water flows on natural hydrological cycles

Goal #8: Maximize conservation and reuse of water on site

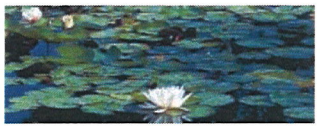
Strive for Climate Neutral Solutions

Reduce the factors that contribute to global climate change.

Goal #9: Minimize contribution to greenhouse gas emissions and ozone

Goal #10: Minimize energy use and maximize the potential for renewable energy options

1. ECOLOGY-BASED LAND USE



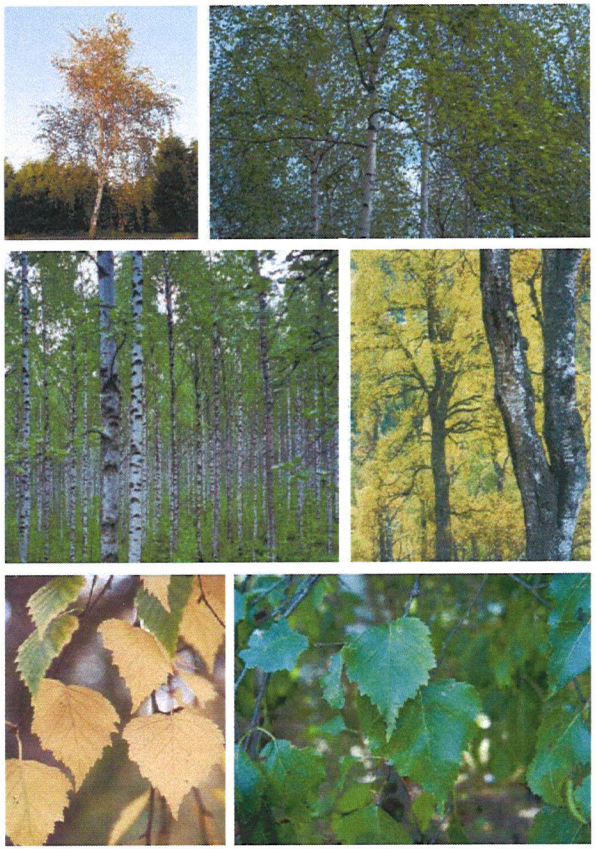
Situated between Lake Union and Elliot Bay, the Foundation site is on a former wetland meadow. Years before Seattle became a city, the campus site was a rich, peaty bog surrounded by native plants, an important stopover for migrating birds. But by the 20th century, the site was used to house trolleys, buses and cars in a sea of asphalt and toxic chemicals, creating a classic brownfield. That meant that contaminated soil had to be removed before construction could begin. The vision was for a sustainable campus that would allow this place to once again regain its ecological place in the community. Today, the site includes living roofs, water gardens planted with cattails and reeds and drought tolerant, native plantings that help restore the heritage of the wetland meadow. Rainwater is captured and filtered by two acres of green roofs. Any runoff from sidewalks and courtyard paving are channeled into a million-gallon cistern, which fills the water gardens and is used to irrigate the site.

The extent and type of landscape development on site has been designed to mimic as much as possible the pre-development characteristics of the site. The central heart of the campus provides a gathering place and outdoor workspace for the foundation, and the water feature is designed to include wetland plantings as well as open water. To encourage absorption and retention of rainwater in the plant root zone, soil enrichment mixes have been designed to match the need. Since opening, birds have begun returning to the area, including a heron that has been spotted perching near one of the dark-water bogs.

LANDSCAPE PLANTING TYPOLOGIES: NATIVE AND ADAPTED

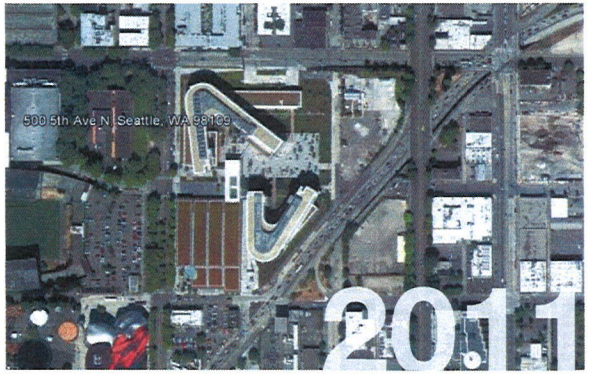
LOCAL GROUND: SHADE

LOCAL GROUND: SUN



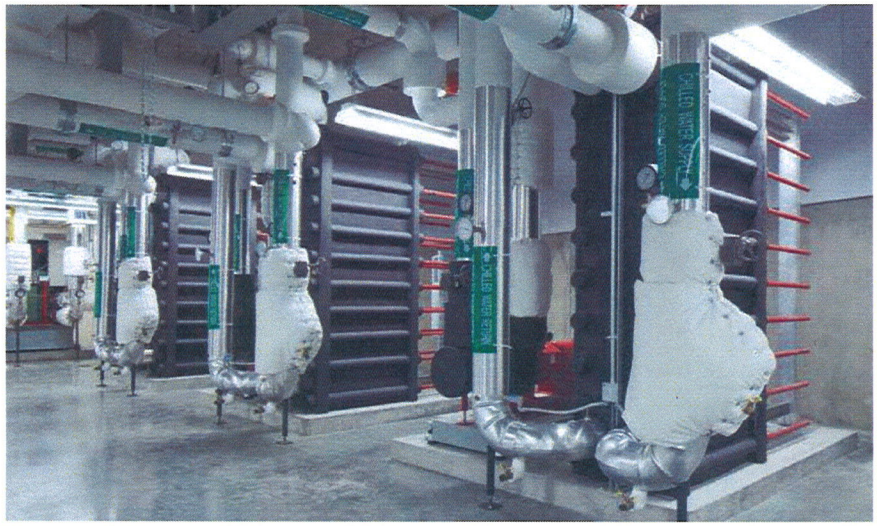
BRIDGE

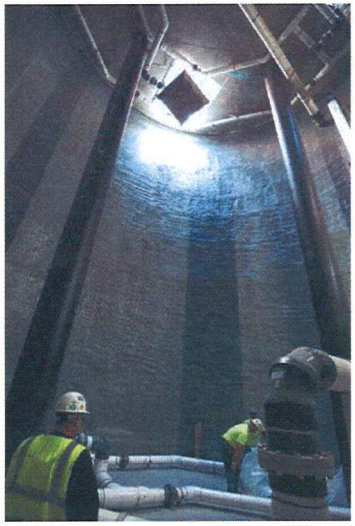
PLANET



COMPLETED CAMPUS - FUTURE

2. ENERGY INDEPENDENCE





Overall energy usage has been reduced by nearly 40 percent. With the early emphasis on restoring water balance to the site, the team early elected not to use cooling towers on the campus, but to install a thermal energy storage system to serve air handling units through heat exchangers. A 750,000-gallon water storage tank serves this purpose, chilling water at night (using less energy) and recirculating coolth during the day when required. To further reduce heat gain on warm days, high performance glazing was used on building windows. Smart lighting is incorporated in offices, automatically dimming when there is enough natural light and when occupants leave the room for extended periods.

Since user power loads are more significant as the building systems become more efficient, the workstation system includes "PowerPincher" smart power strips that link user equipment to occupancy sensors, minimizing the impact of equipment when staff are away from their desks. Ongoing monitoring and measurement will continue to be informative, not only with regard to tuning the new buildings, but also for the load assumptions designed into the Phase 2 building.

The design EUI for the Phase 1 campus is 64 kBtu/sf/year, which includes a data center, server and kitchen in those numbers. When those uses are removed, the office EUI is 42 kBtu/sf/year. Although the buildings haven't been operational for a full year, now that most bugs have been worked out the campus appears to be operating at close to the design predictions.

	EUI (kBtu/sf/yr)	Savings
CBECS Baseline	127	
ASHRAE 90.1-2004 Baseline	102	20%
2030 Challenge Target	51	60%
Design	64	50%
Operating to date	68	46%

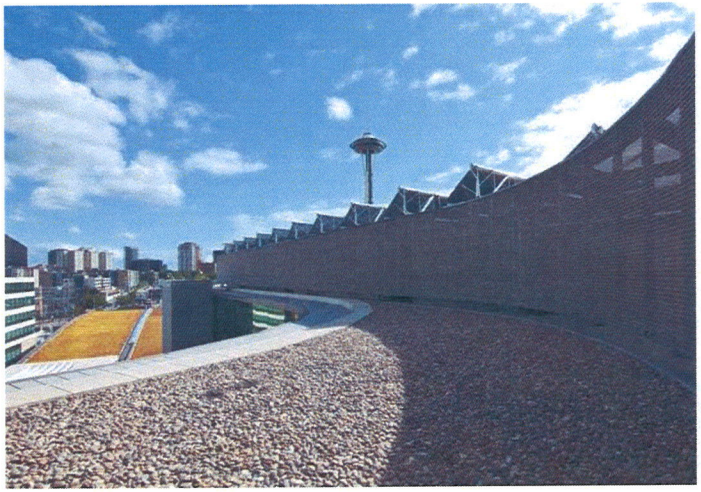
PLANET

RENEWABLE READY

Because the buildings are intended for a very long life, they were originally designed to be "renewable-ready". The wing containing the locker rooms and cafeteria (heavy hot water users) was prepared to receive solar thermal panels and the other wing is ready for PV rooftop panels. One of the interesting "lessons learned" is the challenge of predicting energy costs, even a few years at a time. When the initial cost benefit analyses were done in 2005, the electricity rate forecast made even a 30 year horizon cost prohibitive. This winter, updated projections along with historic rates since 2005 make it clear that predicting energy cost is not reliable. Fortunately, the design team was tracking and updating cost baselines throughout the design process so that as decisions were made on various equipment options, the life cycle cost was aligned with the shifting market. When the possibility of adding the solar thermal panels came up mid-construction, the "renewable ready" strategy made the decision much easier. The panels are currently installed, commissioned and fully contributing approximately 36 percent of the campus' domestic hot water use, and reducing natural gas consumption by 4,750 therms annually.

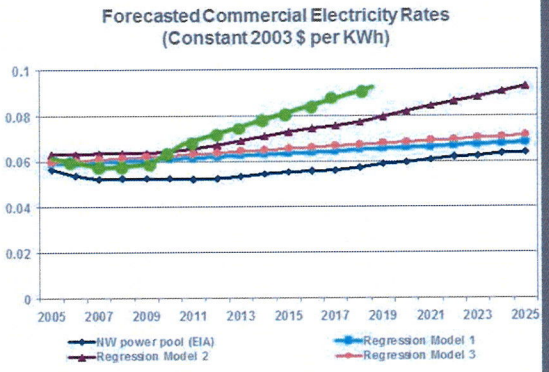
Enhanced commissioning processes are yet to occur, as the buildings have only been occupied for nine months, and a building-focused POE will be conducted shortly as well.

SOLAR ARRAY



ENERGY PRICE FORECASTS - 2005

- **Regression models revealed higher expected prices than EIA's forecast for NW power pool**
- **Given that SCL is now engaging in more long term power purchase contracts (which have an embedded "risk premium"), unlikely that price levels will fall to historically low levels**
- **Model 3 is statistically preferable: linear regression accounts for 70% of variability**



● 2012 rate update per SCL Financial Forecast Overview January 2012

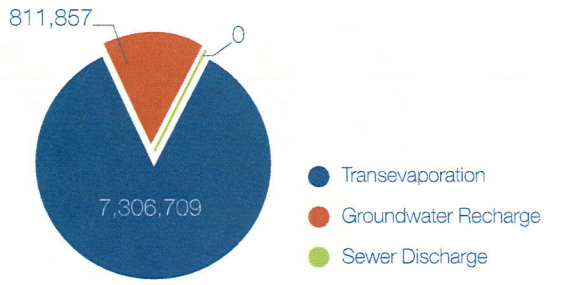
3. WATER BALANCE

One of the focal goals of the Bill and Melinda Gates Foundation campus project was to support and enhance local ecosystems. An early priority was set to restore the campus as closely as possible to its original pre-development hydrological function in order to best support a healthy water cycle, preserve potable water resources and decrease negative impact to the health of Puget Sound through excessive or polluted runoff.

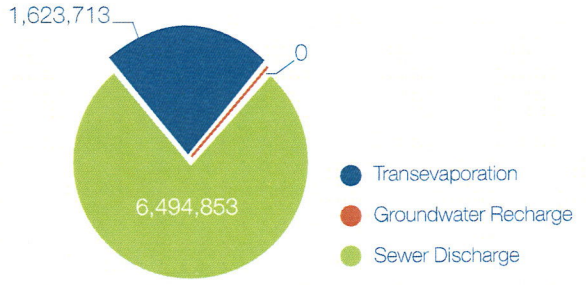
SITE WATER CYCLE

The original site has relatively impervious soils, and the site was maintained (through periodic burns) by native peoples as a marshy wetland and Potlatch meadow. Key decisions were made in early design that supported the water cycle health goals. The non-percolating native soil conditions meant that very little infiltration would be possible, as confirmed by the original hydrological profile shown above. Seattle has a combination of storm sewers (phasing out as they age) and a combined sewer system, and the site is served by the combined sewer system. This system includes combined sewer overflows (CSOs), which, when overtaxed during storm events, overflow a solution of 90% stormwater and 10% sewage directly into Elliott Bay. The impact of this overflow has been reduced over time – from 30 billion gallons in 1970 to 100 million gallons in 2009 – but the target is zero and each project's impact contributes. Therefore, one desired goal was to minimize site runoff to the combined sewer system. The design solution has not eliminated storm runoff completely, but has reduced it by 65% from the previous site use.

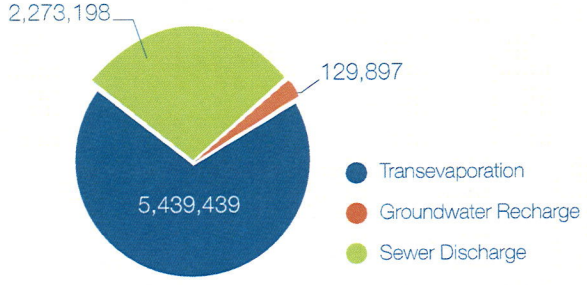
Complementary to maximizing site absorption through amendment, planting and green roofs, much of the stormwater flow reduction has been achieved through a large (one million gallon) rainwater collection tank that receives runoff from building roof surfaces. The rainwater reservoir provides all water needed for flush fixtures on campus. In addition, its presence assures the team and owner that no potable water would be needed to provide for the water feature – an important benefit in a region with a summer drought period and high consciousness of water conservation. Any suspended solids present in the rainwater settle to the bottom of the tank, and even should the tank overflow to the municipal system the water will be clean.



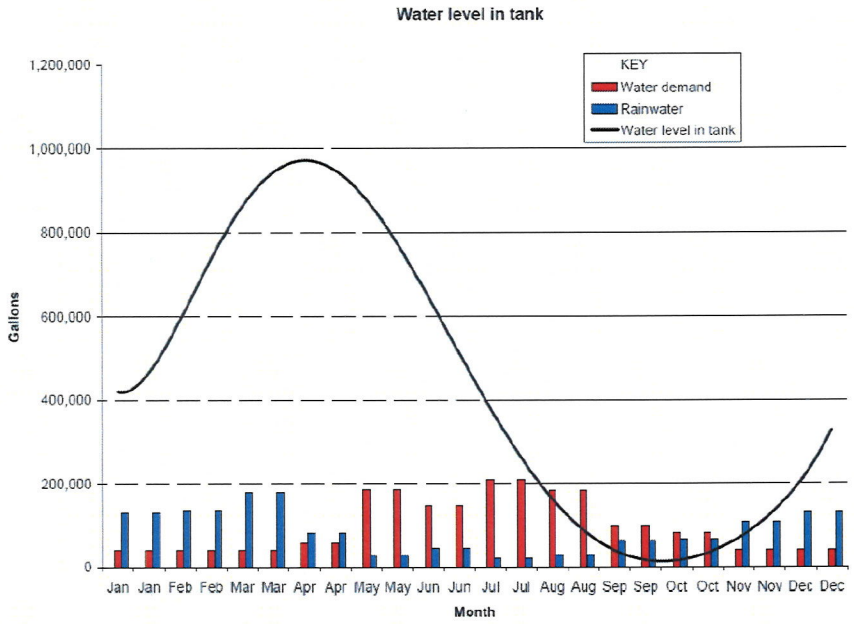
Pre-development: 100 years ago before the area was developed, 351,063 square feet of site was swampy wetland. The majority (90%) of the rainfall on the site would have been returned to the atmosphere as either transpiration from plants or evaporation from open water.

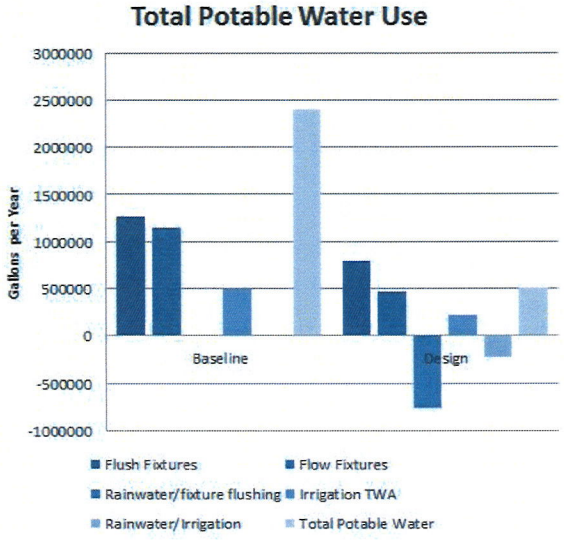


Pre-project, post-development: Five years ago the area was an asphalt parking lot. The majority of the rain would have been diverted to the city sewers while some would have evaporated back into the atmosphere.



Post-project development: The site has been extensively planted, there are green roofs and open water features and a rainwater harvesting system to help irrigate the plant and supply the water features. While the status quo has not been restored it has been balanced more in favor of the original site conditions.





On the water consumption side, potable and non-potable uses were all considered. In addition to selecting efficient flow and flush fixtures, a decision was made early on to use air-cooled chillers instead of cooling towers to eliminate a major – and largely invisible – user of potable water. With these efficiencies, the rainwater storage system has been shown to be adequate to serve all campus water uses save that of potable drinking water.

WATER USE INTENSITY

The campus has not yet been in operation for a full weather year, so a complete water cycle has not been experienced. In addition, some systems took time to operationalize, so data so far are based on design predictions that will be updated and calibrated against actual water use once a reliable year's data is available. The design predictions shown here do not include the cafeteria fixture use, but do include all other water uses.

TOTAL WATER USE:

Baseline: 2416.14 gal/FTE/year
4.53 gal/sf/year

Design: 1239.56 gal/FTE/year
2.32 gal/sf/year

TOTAL POTABLE WATER USE:

Baseline: 2003 gal/FTE/year
3.76 gal/sf/year

Design: 417 gal/FTE/year
.78 gal/sf/yea

4. ECOLOGICAL MATERIAL SOURCING:

With the project focus on human environmental quality and supporting local and regional ecological systems, materials selection was important on multiple fronts. NAUF composite wood and agrifiber materials were used in conjunction with over 115 VOC-compliant adhesives and sealants, 32 paints and coatings, and Green-Label-Plus-certified carpets. The project construction team inspected and documented each wall confirming it was clean of debris and moisture-free before enclosure, provided daily inspections on all HVAC seals and maintained a clean environment at all times.

Over 21% of the project was built with products containing post-consumer and/or post-industrial recycled content and/or from local manufacturers that harvested materials within 500 miles of the site. A $2 million investment in FSC-certified wood products represented over 74% of the overall wood purchased for the project, three-quarters of which came from local forests. End grain alder flooring in the reception lobby, atrium and stairs was regionally sourced from reclained lumber.

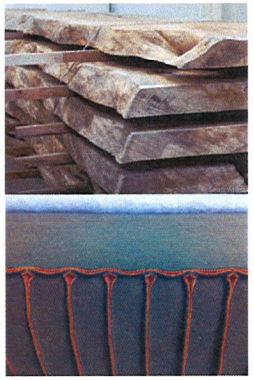
The project team implemented an effective recycling strategy throughout construction. It started with an aggressive Construction Waste Management Plan to recycle a majority of demolition materials such as asphalt paving, light poles, and landscaping debris. A construction waste diversion rate of 96% was ultmately achieved, preventing 15,987 tons of debris from entering a landfill. Strategies included extensive on-site source-separation of waste material (from gypsum, to carpet, to Styro-foam), extensive training and communication and a composting system for food wastes, a construction industry first.

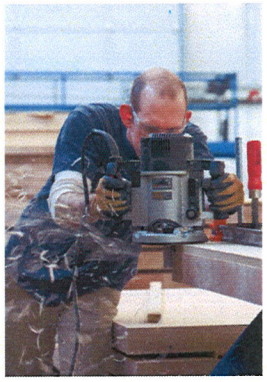
The focus on regional ecology didn't stop with the building construction, but continued well into the furniture and art work. Local crafts people created unique furniture elements for the reception building and the rest of campus.

Felt artist Janice Arnold designed and fabricated custom felt for two benches. One is a 30-foot-long continuous piece, while the other is made of stacks of wool felt sheared from sheep in Centralia, Washington.

Meyer Wells used Seattle-area urban tree falls to build the wooden table in the reception building, and in conference rooms all over the campus.







6. COLLECTIVE WISDOM AND FEEDBACK

To understand how to design a workplace for the foundation's unique staff, the project team held collaborative work sessions with foundation employees and traveled together to Washington, D.C., London, Boston and several other U.S. and European cities to study the best workplace practices of leading organizations. Observational research demonstrated how staff work, learn and partner. The team even investigated the effect natural daylight can have on reducing jet lag. Staff reported feeling isolated; low-energy from dark, closed-off offices; lacking opportunities to share ideas. In response, the design team developed a building that provides access to natural light, connects people and fosters shared ideas. Now that Phase 1 has been occupied for nine months or so, learning is ongoing to determine the success of these strategies, and of the building systems decisions as well. Phase 2 has been in development – although its implementation date is not yet determined – and learning from Phase 1 are informing minor adjustments, particularly to expectations of user energy loads and acoustical treatments.

During the first few months of occupancy, building systems underwent some adjustments, including the automatic shades and occupancy lighting controls. Extensive ongoing monitoring provides feedback on use of water, electricity and natural gas, allowing ongoing learning about the building. The POE survey regarding thermal comfort and occupant relationship to building systems and features has not yet been administered. Occupants have had plenty of time to adjust to the new layout, adjacencies, and workplace features. Regarding the new organizational work environment, post-occupancy workshops and an online survey were conducted in November 2011. 90% of respondents rated the campus as excellent/good. Other highlights include:

COLLABORATION is on the rise: 90% of survey respondents said the new workspace is very supportive or supportive of their ability to meet spontaneously with others, and informal transactions are on the rise. Specifically, the atrium effectively serves the foundation's need for a quick and informal transaction zone. The foundation believes that the introduction of a more informal culture will allow ideas to be shared more freely and to be moved forward at a faster pace.

STAFF is adopting a more mobile work culture: observational research revealed the amount of staff utilizing workstations outside of their desks has doubled since 2007 due to a variety of work settings that encourage staff to work where it best suits them.

ARTWORK, convening events, and the physical campus reinforce the mission and work of the foundation: 86% of respondents said the new workspace actively encourages a sense of personal inspiration in the foundation's mission and work.

ACCESS to daylight is highly valued: When asked to rank their favorite workplace attributes, survey respondents overwhelmingly chose light / bright / airy as the number one attribute.

8. HEALTHY HUMAN ECOLOGY

"Open work spaces are an example of freeing us to be connected and more flexible to move around campus and interact with colleagues. I feel part of something that is really special again, like I did when we moved into our very first office. "

-Jennifer Hansen, Information Services

CONNECTION TO NATURE

Since providing the best possible work environment for foundation staff, grantees and visitors was an essential priority, safe, healthy materials and excellent indoor air quality were obvious ingredients. In addition, it was clear that a place where staff could see each other – connecting work groups that had been fragmented for the entire life of the foundation – and be connected to the work and the mission was also important. Because many staff travel a great deal around the world, the daily connection to the seasons, the landscape, daylight and weather also provide an essential "re-set" and refreshment factor perhaps even more precious than usual. Floor plates are 65 feet wide, which places workers no more than 30 feet from daylight, reduces energy costs from lighting and enables more face-to-face contact. Operable windows in the atrium and an under floor air filtration system in the workspaces provide occupants with fresh air. Architects designed the atrium for natural cooling using stack ventilation, with doors and hopper windows that open to the heart of the campus and heating provided through a radiant floor.

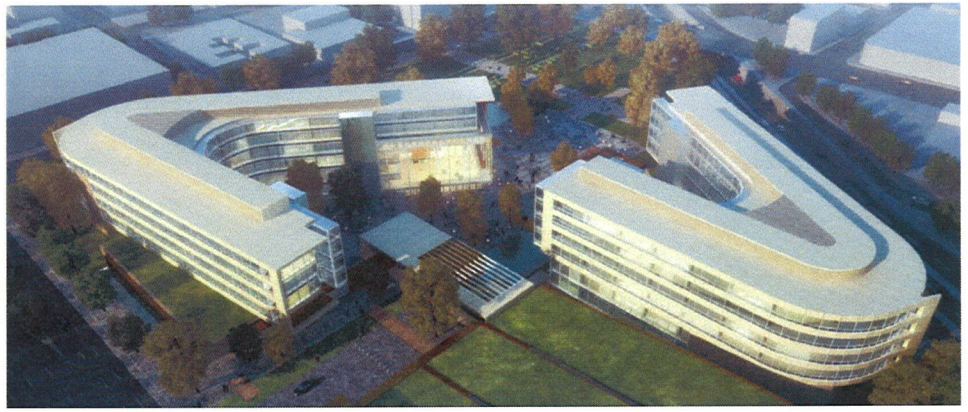
The entire campus serves as an extended workplace with plenty of access to fresh air and the outdoors. A courtyard at the heart of the campus allows employees to turn outdoor benches into personal offices and informal seating areas into team brainstorming zones. A recent survey asked foundation employees what their favorite attributes of the building were and respondents overwhelming described the building's No. 1 attribute as "light, bright and airy".

9. INSPIRATION

The design for the campus needed to represent the aspirations of the Bill & Melinda Gates Foundation's mission: the idea that every person, regardless of circumstance, should have the chance to live a healthy, productive life.

With the campus on a prominent site near the Space Needle in Seattle, the team envisioned an architectural language that represented global reach and local roots. They were inspired by a map of the globe illustrating the pathways of world commerce and travel. To relate this concept of connection to the work of the foundation, they drew lines from a point in Seattle to places around the globe where the foundation's grantees address a wide range of important needs. These initial drawings developed into the sweeping, outward-reaching arms of the three campus buildings (the third building to be completed at a later date). While conceptually connecting the foundation to its global work, these arms are grounded in Seattle: they rest on orthogonal, masonry plinths that stand securely within the fabric of the city.

The Bill & Melinda Gates Foundation is in pursuit of some big goals: eradicating polio, cutting childhood deaths in Africa in half and overhauling the U.S. education system. At its best, the team hopes the design of the new campus has given foundation staff and partners a place to work that feels as dignified as the work they are doing.



PEOPLE

The site itself has had a rich and varied history. The site was used by the Duwamish Native Americans on the path between their Lake Union villages and Elliot Bay fishing camps. They trapped waterfowl here, collected edible plants such as wild onions and berries, and maintained the wetland meadow by setting low-intensity fires.

The wetland was a stopover on the migratory bird flyway, providing them with rest and nourishment between Puget Sound and Lake Union. Among the Duwamish, it was known as "Potlatch Meadow", "The Prairie" or "Baba Kwob". Native American potlatches were gatherings - feasts - hosted by tribal or family leaders for the purpose of exchanging gifts and redistributing wealth.

Over the years, railway trestles were built on top of the wetlands to move lumber from the lake to the bay. Homesteading, farming, housing development and community gardening took place here as well. Later, the site was paved for the Seattle Street Car barn, which became the Seattle bus barns and, eventually, the site became much needed parking for Seattle Center.

It seems resonant for the foundation - the largest philanthropic foundation in the world - to make its home in this symbolically rich location: staff come "home" between their travels to rest, feed their spirits and share knowledge with each other, and grantees from around the world gather here along with foundation staff to work together, enabling the important work of changing the world one grantee project at a time.

"The natural atmosphere of the campus is absolutely beautiful, and has such a calming effect. The open space plan of the new campus gives employees opportunities to connect with each other in ways that didn't exist in the five office buildings."

-Sarah Weber, Program Officer US Program

11. DURABILITY AND ADAPTABILITY

As the largest philanthropic organization in the world, the Gates Foundation wanted buildings that would last. This project began with the intention of establishing a long-term home, and building materials, systems and planning strategies all reflected the goal of long life, durability and enduring timeless value. The Foundation campus is designed to last 100 years and the upfront costs of energy saving measures will be recouped within 30 years.

DURABILITY:

Building structure and façade materials were all selected for timeless value, high quality and the ability to endure gracefully. Exterior building materials and cladding systems were chosen for their long life, low maintenance, and their appearance consistent with the foundation's mission. Jura beige dark and light limestone, high-performance glass, hand-set copper and painted aluminum are the primary façade materials. The majority of the façade is a unitized curtain wall utilizing an open-joint rain screen system providing a crisp, tailored appearance without visible caulk joints and metal flashings, while substantially reducing maintenance.

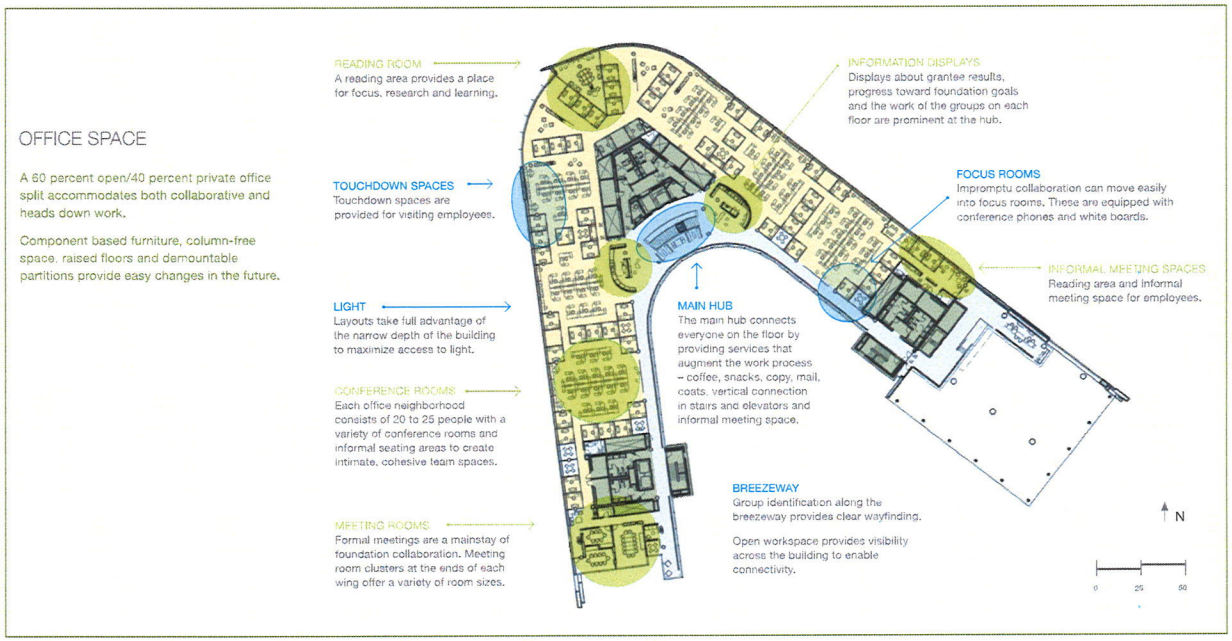
Building energy and water systems were chosen using a 30 year life cycle analysis, allowing the team to select more efficient, higher quality options. Finishes have been minimized, and consist of high quality, durable finishes such as wool carpets, end grain flooring, tile and carpet tile that provide longer life cycles and maintain their beauty well.

FUTURE-PROOFING:

The only clear prediction for the future of our buildings is that it will be different than the past. The most enduring strategies helping to prepare for this unknown future is to build in passive survivability to the greatest extent possible. While currently operating with air conditioning and electric lighting, the massing and narrowness of the buildings have helped to "future proof" the campus against an unknown energy future. The building does not now have operable windows for safety reasons but its narrow wings and glazing articulation will allow for operable sections to be retrofit in the future, should priorities change. Most of the building (60%) provides daylight autonomy now. With the addition of the planned-for renewable energy sources, greater independence from the energy grid is a possibility in the evolution of the campus' life.

ADAPTABILITY:

Adaptability strategies were paramount in the workplace environment itself. The project team called for all offices and workstations to be 10' x 10' to allow for easy moves and adjustments when teams or work groups change in the future. Underfloor air delivery allows for personal tuning of workstation conditions. All offices are built of demountable partitions tied into a ceiling system that allows the Foundation to take down or reconfigure offices more readily, and with minimal material waste during reconfiguration. They have already flipped some door locations and changed wall panels from wood to whiteboard, to meet specific needs.



12. VIBRANT COMMUNITIES

While the Foundation is a global institution, it is also adamant about maintaining its roots and home in Seattle, and about being a good citizen and neighbor. Contributing to an improved community experience, the campus welcomes visitors with wide pedestrian walkways, public artwork, benches and landscaping. The campus is designed to fit within the size and scale of the surrounding community and to be a good steward to the neighborhood by conserving resources and returning more than 40 percent of the site back to green space.

Access to the campus itself is secured. The entrance overlook provides a sense of welcome and visual access deep into the site, with interpretive panels at the railing describing both the campus itself and the work of the foundation. It points to the adjacent newly-opened Visitor Center, which welcomes local residents and tourists alike, inviting them to explore the work of the foundation - and more importantly, to consider their own part in the story.

PROSPERITY

A public/private partnership between the Gates Foundation and Seattle Center resulted in a two-acre underground shared garage (replacing previous site parking capacity) with five stories and 1,020 spaces of naturally-lit parking. Employees and Seattle Center visitors park there on weekdays and event patrons use the garage in the evenings and on weekends, greatly reducing the amount of required parking for the two constituencies of the block. The garage is LEED Gold certified and houses the 15,000-square-foot ground floor retail space that is home to the Gates Foundation's visitor center.

The foundation has also implemented a Transportation Management Program, partnering with the City to reduce its SOV rate to 50% by 2017. The foundation provides incentives to employees to choose alternate forms of transportation such as bus, light rail or carpool/vanpool. The success of this strategy paired with the initial selection of this active urban location is evident in the early commuting patterns, showing about 60% of staff are biking, taking the bus or walking to work

PROSPERITY


SUSTAINABLE FEATURES
1 ATRIUM
The central gathering place for staff, this airy space uses radiant heat and passive ventilation to conserve energy.
2 LIVING ROOFS
Living roofs—1.4 acres on the garage and more than half an acre on campus buildings—insulate, reduce the heat-island effect, limit rainwater runoff, and add a bird-friendly habitat.
3 RAINWATER STORAGE
A one-million-gallon underground tank stores rainwater for use in reflecting pools, irrigation, and toilets.
4 THERMAL ENERGY STORAGE
A 750,000-gallon underground tank minimizes energy used to cool buildings. It stores water chilled at night for recirculation during the day.
5 WINDOWS
Highly engineered windows conserve energy while letting in exceptional daylight and views.
6 LANDSCAPE
Plantings feature native and non-invasive drought-tolerant plants and trees.
7 ENERGY CONSERVATION
Energy- and water-efficient systems reduce the load on regional power supplies.
8 SMART LIGHTS
Electric lights automatically dim in natural light and inactive spaces.
9 VENTILATION
Under-floor air ventilation saves energy and simplifies future space modifications.
Explore the campus in greater detail at www.gatesfoundation.org/newcampus.
WELCOMING STREETSCAPE
A wide sidewalk and large wooden benches invite neighbors, bus riders, and visitors to take a pleasant stroll or relaxing break.
PUBLIC PARKING GARAGE
We partnered with the City of Seattle to build the LEED® Gold certified Seattle Center Fifth Avenue North Garage. It serves Seattle Center, our staff, and the Foundation's Visitor Center.
DIGITAL ART
Enjoy the work of international artists on a digital screen, starting with Korean artist Kimsooja's "A Needle Woman" and "To Breathe."
POETRY
Find inspiration from around the world in poems running along a bench-height wall.
VISITOR CENTER
Visitors can explore the work of our grantees and discover local and global issues of personal interest. Opens at end of 2011.
Phase 2
MERCER ST
Reception Building
Entry Plaza
5TH AVENUE N
HARRISON ST