Enterprise Services – 1063 Block Replacement Project   LEED Platinum (goal)

Project Specifics

Gross square footage:	215,000 SF
Design-Build cost:	$65,500,000
Construction cost:	Approx. $287/SF
Projected Operating Savings:	$60,000/yr
Anticipated LEED Rating:	Platinum
Estimated Utility Incentives:	$150,000

Design and Construction Team

Project manager:	Jon Taylor, DES
Architect:	ZGF Architects LLP
General Contractor:	Sellen Construction
Structural Engineer:	KPFF
Mechanical Engineer:	WSP USA CORP
Civil Engineer:	KPFF
Electrical Engineer:	Gerber Engineering

The proposed 1063 Block Replacement project establishes a new standard for State buildings through a set of interrelated strategies and high-performing achievements, including:
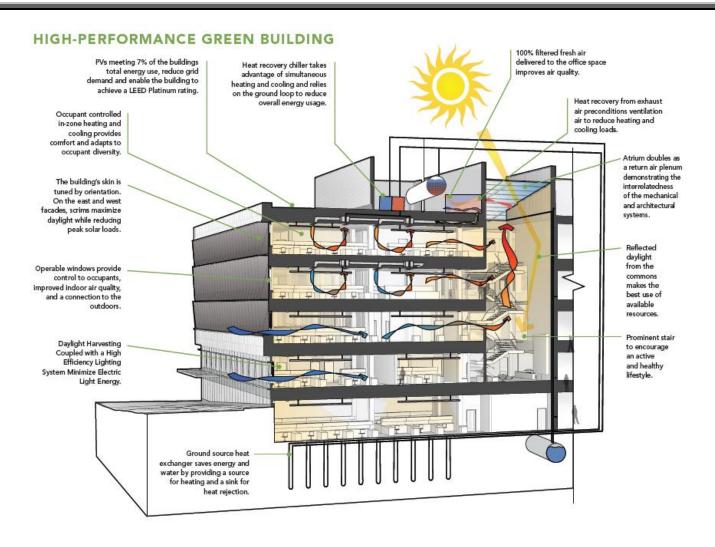
» 100% outside air ventilation system & large windows for daylight improve productivity & reduce the number of worker sick days.

» Building energy performance of 30.1 kBTU/SF/yr (energy use per SF per year).

» A zero emissions renewable solar power roof-top system that will generate 7% of the building's energy, improve the building energy performance and place the building in the top 1% of buildings nationally.

» Energy Star score of 99.

» 35% reduction of potable water through efficient fixtures.

» 50% reduction of irrigation water usage through the use of native or adapted plants and high efficiency irrigation systems.

» 75% construction waste diversion rate through on-site separation of recyclable materials.

» Building's energy efficiencies reduce Green House Gas Emissions by approximately 2.8 million pounds/yr

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HIGH-PERFORMANCE GREEN BUILDING

PVs meeting 7% of the buildings total energy use, reduce grid demand and enable the building to achieve a LEED Platinum rating.

Heat recovery chiller takes advantage of simultaneous heating and cooling and relies on the ground loop to reduce overall energy usage.

100% filtered fresh air delivered to the office space improves air quality.

Heat recovery from exhaust air preconditions ventilation air to reduce heating and cooling loads.

Occupant controlled in-zone heating and cooling provides comfort and adapts to occupant diversity.

Atrium doubles as a return air plenum demonstrating the interrelatedness of the mechanical and architectural systems.

The building's skin is tuned by orientation. On the east and west facades, scrims maximize daylight while reducing peak solar loads.

Reflected daylight from the commons makes the best use of available resources.

Operable windows provide control to occupants, improved indoor air quality, and a connection to the outdoors.

Prominent stair to encourage an active and healthy lifestyle.

Daylight Harvesting Coupled with a High Efficiency Lighting System Minimize Electric Light Energy.

Ground source heat exchanger saves energy and water by providing a source for heating and a sink for heat rejection.

For every dollar invested in the project, an estimated 75 cents will be reinvested back in Washington companies and workers through material and labor costs. "Made in Washington" products and technology will be found throughout the building, further reducing its carbon footprint.

The floor plate will be thinner than conventional office buildings, providing tenants with more daylight and control over their environment through easy access to operable windows that provide passive cooling and increased fresh air. Other sustainable features include:

- » A five-story high atrium that brings natural light into work areas throughout the building.
- » Low energy LED lighting throughout building
- » High-efficiency building systems, including a ground source heat exchange, photovoltaic panels and a smart HVAC system that provides 100% full fresh air.
- » Extensive metering to track, diagnose, and control building performance and energy
- » High-quality, durable exterior building envelope materials to harmonize with sandstone of historic West campus buildings.
- » State-of-the-art wireless and other information technology infrastructure built in.

The building's thoughtful central plant makes double use of the heat recovery chiller. In the winter, these heat recovery chillers pull heat from the ground to heat the building for a majority of the time. In the summer, the heat recovery chillers cool the building and reject heat to the ground, minimizing the use of water consuming cooling towers.

The total building annual energy cost will be almost $50,000 less than a building built to the current Washington State energy code. This cost will be further reduced by the renewable solar power system that will generate almost $10,000 worth of electricity each year.

The building will offer numerous amenities to tenants and visitors including a 5th floor deck with views of Puget Sound and the Olympic Mountains. Generous outdoor plaza areas provide weather protection, landscaping, seating, bike parking, and areas for artwork.

This high-performance building will not only reduce the state's impact on the environment, but with the photovoltaic array will be the first state-owned building to achieve LEED Platinum, making it in the top one percent of buildings nationwide for energy efficiency.

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