Building back to the future

by Michael Burnham - 11.7.05

Seattle-based architectural firm Weber + Thompson is preparing to break ground on a naturally air-conditioned headquarters in the city’s South Lake Union neighborhood.

In January, construction crews will begin work on the 40,000-square-foot building at the corner of Terry Avenue and Thomas Street, the heart of Seattle's burgeoning green building community.

The four-story commercial structure is designed to optimize natural lighting and cooling. Building tenants will have control over interior temperatures by adjusting thermostats on hydraulic radiators located under windows that open and close, according to the firm.

A courtyard in the square building’s center is designed to pull cross-breezes through exterior windows and out the open-air core — a throwback to building designs before central air conditioning. High-performance glazing and exterior shading are designed to allow daylight to enter but reduce solar heat gains.

"With our temperature climate in the Northwest, a site with minimal southern exposure, a square configuration and a small building, we strongly felt it was feasible to forego air conditioning," said Scott Thompson, a Weber + Thompson principal.

Computer modeling suggested there may be up to 22 hours a year when the building's interior temperatures are uncomfortable for tenants. Thompson noted, "We are willing to take the risk, and, in a sense, become guinea pigs in the name of sustainability," added Thompson, who projects the passively-cooled building will save tenants about $20,000 annually.

When the building is finished in 2007, Weber + Thompson will occupy the third and fourth floors.

Weber + Thompson plans to register the structure’s core and shell for a LEED (Leadership in Energy & Environmental Design) Gold certification from the U.S. Green Building Council. Other elements in the building include: a shower and changing rooms for bike commuters; a fountain that uses recycled rainwater; and a high-reflectance rooftop to reduce heat.