

KING STREET CENTER



FLOOR SPACE: 327,000 ft²
BUDGET: \$65 million (\$199/ft²)
BUILDING POPULATION: 1,450
CONSTRUCTION DATES: 1998-1999

OWNER: King County (Lease from National Development Council)
ARCHITECT: NBBJ Architecture Design Planning
DEVELOPER: Wright Runstad & Company
GENERAL CONTRACTOR: Lease Crutcher Lewis
STRUCTURAL ENGINEER: KPFF Consulting Engineers
ELECTRICAL ENGINEER: Cochran Electric
MECHANICAL ENGINEER: MacDonald-Miller Company
GREEN BUILDING CONSULTANT: Paladino & Company

PROJECT NOTES

SITE AND WATER

- **Construction:** 80% of all construction waste recycled, including 3,832 tons of concrete and 2,351 tons of soil.
- **Water:** An on-site water reclamation system collects storm runoff for reuse in toilets, saving 1.4 million gallons of tap water each year.
- **Transportation:** Designated bike room has rack space for 80 bikes to encourage clean commuting.

ENERGY AND ATMOSPHERE

- **Lighting:** Energy-efficient lighting uses .84 watts per square foot and uses sweep sensors, occupancy sensors and day-lighting dimmers to operate at 28.4% below code levels.
- **Natural light:** Office placement maximizes exterior perimeter day-lighting.
- **HVAC:** Systems reduce consumption through variable speed drives.

MATERIALS AND RESOURCES

- **Carpet:** Largest installation in U.S. of reused, renewed carpet tile (32,000 square yards, over six football fields).
- **Recycling:** Several types of recycled-content floor coverings and paints installed in elevator lobbies, used to test product performance.
- **Waste:** Dishwashers installed in every break room to reduce use of disposable plates, cups and utensils. Collection areas throughout building promote reuse of office supplies.

INDOOR ENVIRONMENTAL QUALITY

- **Air filtration:** Roof-top HVAC air intakes provided with enhanced 60% capability outside-air filtration—higher than standard 35%; CO₂ sensors used to balance indoor/outdoor air mixture.
- **Exhaust:** Stacked copy rooms continually exhausted to the outside to eliminate copier toner particulates.
- **Toxics:** Low-VOC paints, adhesives, furnishings, finishes and cleaning supplies used throughout.

When King County's new King Street Center opened its doors in 1999, King County employees found themselves walking on recycled beer bottles in the form of new tile, and flushing toilets with rainwater—a demonstration of cutting-edge environmentally sustainable construction. However, recycled glass-bottle floor tiles and water reclamation are just a part of the King Street Center's extensive sustainable design.



The King Street Center, developed by Wright Runstad & Company, didn't begin as a green project exclusively. Because of its proximity to historic Pioneer Square, the eight-story office building's design was required to harmonize with architectural styles of the past. But the King County Department of Natural Resources and Parks (DNRP), which would share the building with the Department of Transportation, had some additional specifications. To reflect the mission of the agencies, the departments requested that the building include progressive, environmentally friendly approaches in its design, construction and operation.

GIVING GREEN INPUT

That none of these features were budgeted or part of the preliminary design was a challenge—a challenge met by the groundbreaking private-public team of the County, the local developer, and the contractor. The resulting structure preserves the aesthetics of the past while demonstrating to area builders how sustainable building methods can save the resources of the future.

One way in which King Street Center continues to inform the green building community is through its use of experimental recycled materials. Each elevator lobby in the building employs a different form of recycled floor covering and paint. These materials are monitored for wear and tear in these high-use areas.

Also, the project team opted for recycled carpet in the new building. The massive order of 32,000 square yards was the largest installation of renewed carpet yet in the United States.

SAVING ON A RAINY DAY

Another impressive feature is the building's water reclamation system. The system currently collects rainwater, and is designed to also collect groundwater, keeping this runoff from adding an additional burden to the City's stormwater management network. Instead, this water is cycled back into the building and used to flush toilets, saving 1.4 million gallons of water each year.

Also, the building installed the most efficient lighting system available, using only .84 watts per square foot, and further saving power through occupancy sensors and other automatic energy savers. In the two years since the King Street Center opened, the County has saved nearly \$100,000 in energy costs alone.

AWARDS AND HONORS

2001 ENERGY STAR AWARD, ENVIRONMENTAL PROTECTION AGENCY

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