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SAB Awards Winner - Dockside Green

Phase I "SYNERGY"



Jury comments - The
project sets the future course for high density communities that are fully sustainable and designed to a central plan. It's a model for an industrial site that has self-sufficiency in waste and water handling, and energy generation. The plan is so good that even public spaces feel private, and we can only hope that Dockside

Green becomes the new standard for our cities.

Dockside Green is a 120,000 sq.m multi-phase, mixed use development on a brownfield site in Victoria. The first phase of the project, called Synergy, totals 16,600 sq.m, and includes four detached buildings constructed over a common underground parking structure: two residential towers of nine and six storeys, respectively, a two-storey townhouse building; and a four-storey residential building.

The development features a communal 'greenway' that is both a public amenity and an integral part of the storm water and waste water management systems. Site storm water flows from the buildings and ground level concourses to the greenway where, along with treated black water from the on-site Waste Water Treatment Facility, it is filtered for reuse as grey water for flushing toilets and irrigation.

The project also features an integrated district energy system that ensures the development will be greenhouse gas neutral. Any surplus carbon neutral heat will be sold to neighbouring buildings, making Dockside Green a net energy generator.

The total upfront premium to the developer was about \$100/sq.m but when one factors: value of increased site density permitted by the municipality; value of reduced time for approvals; value of sales premium for green features; value of increased sales velocity; value of reduced condo fees, the actual up front premium was effectively zero. The project sets a new benchmark of performance for a commercial project in Canada.

[Link to Dockside Green article from SAB issue #17](#)





Credits

- » **Client** Dockside Green Ltd. Partnership [Vancity and Windmill West]
- » **Architect** [Master Plan and Phase 1 'Synergy'] Busby Perkins+Will
- » **Structural Engineer** Read Jones Christoffersen
- » **Mechanical/Electrical** Stantec Consulting
- » **Civil Engineer** Komex Civil Engineering / RCL Consulting
- » **Ecology/Stormwater Management** Aqua-Tex Scientific
- » **Landscape Architect** PWL Partnership
- » **Environmental Soil** Quantum Environmental Remediation
- » **Green Building** BuildGreen Consulting
- » **General contractor** Farmer Construction
- » **Photography** Enrico Dagostini, Jonathan Taggart

Materials

- » **Structure** Insulated concrete forms, cast-in-place concrete, poured concrete containing flyash
- » **Exterior** Clay face brick, western red cedar tight knotted stock dressed, and mineral fibre reinforced panels; window wall glazing of sealed units with insulating glass 1in. thick, low "E" coated; CBR stain on exposed wood; Green roof: Soprema SBS inverted membrane roofing Sopralene Flam 180.
- » **Interior** Cabinets of solid wood and 100% recycled fibreboard, solid core doors with agfibre or timberstrand cores, birch veneer; floor underlayment recycled rubber, low VOC paint; building controls by Reliable Controls, energy-efficient lighting by Cooper Lighting
- » **HVAC** Biomass heat routed through the district heating system to a S.A. Armstrong plate and frame high efficiency heat exchanger; circulating water pumps by Grundfos, roof top heat recovery units

Project Performance

- **Energy Intensity** 378MJ/m²/year
Including both base building and process energy
- **Water Consumption** from municipal sources 181 l/m²/year
Including both base building and process consumption
- **Local materials** [800 km radius] by value 24%
Recycled material content 17.8%