



LEED®
Platinum
Certified.



Brownfield Redevelopment Project.

DOCKSIDE **GREEN**.com

The neighbourhood development plan is one of the **FIRST IN THE WORLD** to achieve LEED Platinum.



THE AFFORDABLE **GREEN**
HVAC SOLUTION DEVELOPING
DOCKSIDE GREEN
LEGACY.



IPS Rep. - Ontario
www.absgoc.com



Excellence Award
Winning Group
Ontario Region



WILLIAMS

Almost a Century Old
Fan Coil Manufacturer.
williams.applied.com



IPS™
INTEGRATED PIPING SYSTEM

WILLIAMS

Building **LEGACY.**

“One Should not abandon Common Sense.”



Team: Busby Perkins + Will Read Jones Christoffersen Stantec Consulting

Williams was proud to have supplied the
Domestic water compatible

IPS-HVAC System & Fan Coils

for Dockside Green

High Profile Development.



Horizontal Series



High Performance Horizontal Series



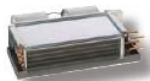
High Performance Vertical Series



Vertical Stack Series

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Horizontal Series



High Performance Horizontal Series



High Performance Vertical Series



Vertical Stack Series

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1) Dockside Green: A Sustainable Community in the Heart of Victoria, B.C.

By Chantal Hunter, February 2010

<http://archive.is/offset=100/www.nrcan.gc.ca>

<http://www.nrcan.gc.ca/com/elements/issues/44/docsid-eng.php>

Dockside Green, one of the most
Innovative Sustainable
Community Development projects in
North America.

This groundbreaking development - which will eventually include 26 buildings and be home to approximately 2,500 people in three neighbourhoods - demonstrates how federal funding can support innovation. [Natural Resources Canada](#) (NRCan) contributed \$2.39 million to Integrated Community Energy Solutions (ICES) for this innovative approach.

The neighbourhood development plan is one
of the **First in the World** to achieve
LEED Platinum.

2) Integrated Community Energy Solutions (ICES) have the potential to significantly improve community energy performance while contributing to the achievement of federal, provincial and territorial governments' energy efficiency and climate change objectives.

For PDF Version –

http://oee.nrcan.gc.ca/sites/oee.nrcan.gc.ca/files/pdf/publications/cem-cme/ices_e.pdf

DOCKSIDE GREEN TEAM

<http://www.sabmagazine.com/blog/2009/06/05/sab-awards-winner-dockside-green/>

- **Architect-** Busby Perkins+Will
[Master Plan and Phase 1
'Synergy']
- **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

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.

A number of **Cutting-edge** technologies
make Dockside Green a model of
Eco-Friendly Design.

<http://oee.nrcan.gc.ca/publications/cem-cme/9190>

ABOUT DOCKSIDE GREEN.

<http://www.docksidegreen.com/Residential/Masterplan.aspx>

In the heart of downtown Victoria, British Columbia, Canada, Dockside Green is shaping up to be a community like no other. Owned by Vancity, Dockside Green is transforming 15 acres of harbor front industrial land into a community of the future, complete with residential, office, retail and commercial space incorporating **THE VERY HIGHEST IN GREEN STANDARDS.**



COMPLETED PHASES

Phase 1 – Synergy (Residential)  • 95 Suites / 3 Commercial spaces • 5 storeys and 8 storeys • 389, 391, 395, 399 Tyee Road	Phase 2 – Balance (Residential)  • 171 Suites • 9 storeys and 10 storeys • 373 and 379 Tyee Road	Wastewater Treatment Plant  • 390 Harbour Road	Biomass Plant  • 354 Harbour Road
Phase 1 – Inspiration (Commercial)  • Retail and office space • 398 Harbour Road	Phase 2 – Prosperity (Commercial)  • Office Space • 388 Harbour Road	Farmer Construction Head  • 360 Harbour Road	Naturalized Creek System  • Phase 1 and Phase 2

LEED PLATINUM.

<http://www.docksidegreen.com/Sustainability/LEEDPlatinum.aspx>

Dockside Green is the first community ever to target LEED Platinum certification for buildings developed in a master planned community.

Phase Type	Phase Name	LEED® Designation	Level Achieved	Score
Residential	Synergy	LEED NC	Platinum	63/70
Residential	Balance	LEED NC	Platinum	63/70
Commercial	Inspiration	LEED CS	Platinum	53/61
Commercial	Prosperity	LEED CS	Platinum	60/70



Victoria's Dockside Green Community ties own LEED Platinum world record score for Phase II - Balance



Victoria, BC, Canada – Dockside Green, a mixed-use residential and commercial real estate development in Victoria, British Columbia has received its second residential LEED Platinum ranking through the Canada Green Building Council (CaGBC) – this time for the two towers known as Balance. <http://www.docksidegreen.com/InTheMedia/IntheNews.aspx>

DOCKSIDE GREEN Cutting-Edge TECHNOLOGIES.

<http://www.docksidegreen.com/Sustainability/Ecology.aspx>

Dockside Green will function as a total environmental system in which form, structure, materials, mechanical and electrical systems will be interrelated and interdependent – a self-sufficient, sustainable community where waste from one area will provide fuel for another.

Targeting LEED® Platinum certification and striving to be greenhouse gas neutral
Dockside Green projects showcase a variety of

Sustainable Innovations.

- IPS – HVAC System and Fan coils by Williams
- Centralized Biomass Heat Generation Plant
- Water Conservation
- Onsite Stormwater & Sewage Treatment
- Alternative Transportation
- Environmentally Friendly Materials
- Fresh Air-Individual HRV's
- Low-e Windows
- Efficient Lighting / Day Lighting
- Photovoltaic Solar System
- Wind Turbines

And much more...



Built LEGACY

DOCKSIDE GREEN GOALS - The TEAM emphasizes the creation of healthy and inclusive community that supports new economic opportunities and a high quality of life with minimal impact to the environment.

http://www.docksidegreen.com/Portals/0/pdf/sustainability/Sustainability_Report_2011.pdf

IPS – TRIPLE BOTTOM LINE APPROACH

An affordable energy efficient four-pipe IPS fan coil system is used with two of the pipes designated for domestic hot water and two for domestic cold water systems. Improving energy efficiency has resulted in lower operating costs for occupants and future-proofs against rising energy costs in the future.

Human Health & Wellbeing

Dockside Green Goal #30:

Thermal Comfort - comply with ASHRAE (American Society of Heating, Refrigeration, and Air Conditioning Engineers) 55-2004 requirements to meet thermal comfort conditions for human occupancy and provide monitoring systems for temperature control.

Status:

All commercial and residential buildings meet the requirements. A four-pipe fan coil system is provided and residents have 100% fresh air systems and the means to control individual air flow and temperature.



Energy Conservation

Dockside Green Goal #6:

Building Energy - design buildings that are **47%** more energy-efficient than those designed to meet the Model National Energy Code (MNEC)

Status:

The modeled energy savings for the buildings in Synergy and Balance are **53%** higher than those set in the MNEC.



IPS™

INTEGRATED PIPING SYSTEM

 **WILLIAMS**

Built LEGACY



You don't have to
forfeit profitability
for sustainability.

Economic Goals

Dockside Green Goal #54:

Supporting Innovative Environmental BC and Canadian Businesses - support a sustainable economy by focusing on using environmental technologies from British Columbia and Canadian companies.

Status:

Thermal Comfort (Canadian): IPS system that allows two of the pipes in a four-pipe fan coil to be the domestic hot supply and return and other two are domestic cold water supply and return.

Dockside Green Goal #57:

Economic Benefits to Residents and Business

- offer residents and businesses protection against rising utility costs in the future by providing energy and water efficient buildings with strategies that reduce ongoing maintenance costs.

Status:

The water and energy efficiency of our buildings reduce ongoing operating costs to residents and businesses. This approach also protects residents and businesses against rising utility costs. For instance, if utility costs increase by 5% per year, the impact on Dockside Green energy will be less because of the energy-efficient design. The compounded impact of this year over year saves significant dollars.



CanmetENERGY

Leadership in ecoInnovation

COMMUNITY ENERGY CASE STUDIES:

Dockside Green
Victoria, BC



District
Energy



Community



Biomass



Solar



Wind



CHP



Heat Pump

Integrated Community Energy System Application

- Dockside Green site is a mixed-use residential and commercial real estate brownfield redevelopment that applies the principles of "Smart Growth".
- Biomass gasification plant that supplies heat and hot water to buildings within the development.
- All buildings being built to LEED™ Platinum standards, except those that are not eligible.¹

Context

- Victoria City Council was committed to cleaning up the environmental contamination at this site and developing it in a sustainable way.



Archetype Characterization

Archetype:
New Neighbourhood Development

Density:
2.084 Floor Space Ratio (FSR)

Size:
15 Acre

Mix:
*87% residential at full proposed
build-out; 73% residential as of
2008*



Advanced Business Solutions Leading Eco-Friendly Group Of Companies

ABS GREEN Inc., ABS ESCO Inc., ABS Advanced Buildings Solutions Inc.
& ABS Global Traders Inc.

Delivering Genuine & Exceptional Success.

2011 – CGC Top Prestigious Geothermal Excellence
Award Winning Group Ontario Region.



ABS ESCO Inc.
Williams IPS Fan Coil
Rep. - Ontario Region.

IPS-BUILDING
LEGACY.



Horizontal Series



High Performance Horizontal Series



High Performance Vertical Series



Vertical Stack Series

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