

Rivergreen Ecovillage



PRAIRIE
ECOVILLAGE
DEVELOPMENT CORPORATION

A Prairie Tradition - Sustainability

5000 years



100 years



Who had the better solution?

The Evolution of Prairie Homes

1910 Eaton Catalogue House



1977 Regina Conservation House



Both were innovative, and both had shortcomings

The Evolution Continues



Building on Successful Models: Saskatchewan has a history of leadership in sustainable, high performance housing. The Dumont House and the Factor 9 Home are world leaders.



Attractive urban in-fill and live/work projects are emerging across Canada.

What is an “Ecovillage” ?



“A human-scale, full-featured settlement which integrates human activities harmlessly into the natural environment, supports healthy human development, and can be continued into the indefinite future.”

(Source: The Global Eco-village Network).

Typically 50-150 people in urban or rural settings.

River Landing Phase I & II



River Landing Phase II



Centrally located
urban brownfield
site provides a
unique opportunity
for development



Project History



- ✕ Moriyama/Meewasin Report 1978
- ✕ Road Map 2020
- ✕ First Ecovillage Meeting Spring 2005
- ✕ Visioning Workshop Fall 2005
- ✕ PEDCO incorporated 2006
- ✕ Rivergreen Ecovillage Inc. 2007



*Working for a
Sustainable Saskatoon*



A Community Based Design Process Creating the Vision Together Through Workshops and Design Events



Prospective owners, community stakeholders and designers come together to create a vision, goals and strategies for the ecovillage.

Design Charrette

Experts gather to bring a vision into focus



28 people gathered for three days in April 2008 to create the conceptual design for Rivergreen



- ✕ A unique mixed use development located in Phase II of River Landing on the block framed by Avenues B and C and 19th Street and Sonnenschein Way
- ✕ Rivergreen will include 65 to 75 residential units and approximately 25,000 square feet of office/retail space
- ✕ A sustainability target of LEED Platinum
- ✕ Competitively priced, Rivergreen is aiming for a diverse community with a range of incomes, including those qualifying for affordable home ownership





Artist's rendering of the vision of the charrette team



A sheltered, sunny gathering spot for residents and the community

Project Goals

- ✘ A showcase for urban environmental sustainability
- ✘ Stimulate consumer demand for sustainable, high performance housing
- ✘ Demonstrate that sustainable, high performance building is attractive and financially viable
- ✘ Replication of concepts and principals

Sustainable, high performance building will become common place



Best Practice Design

- ✘ Brownfield redevelopment
- ✘ Waste reduction
- ✘ Local/recycled materials
- ✘ 50% reduction in water use
- ✘ Storm water retention
- ✘ Green roofs
- ✘ On-site food production



A Sustainable Lifestyle

Mixed-use development with store front retail space, office areas and live/work

Live, shop and work on site to reduce impacts of transportation

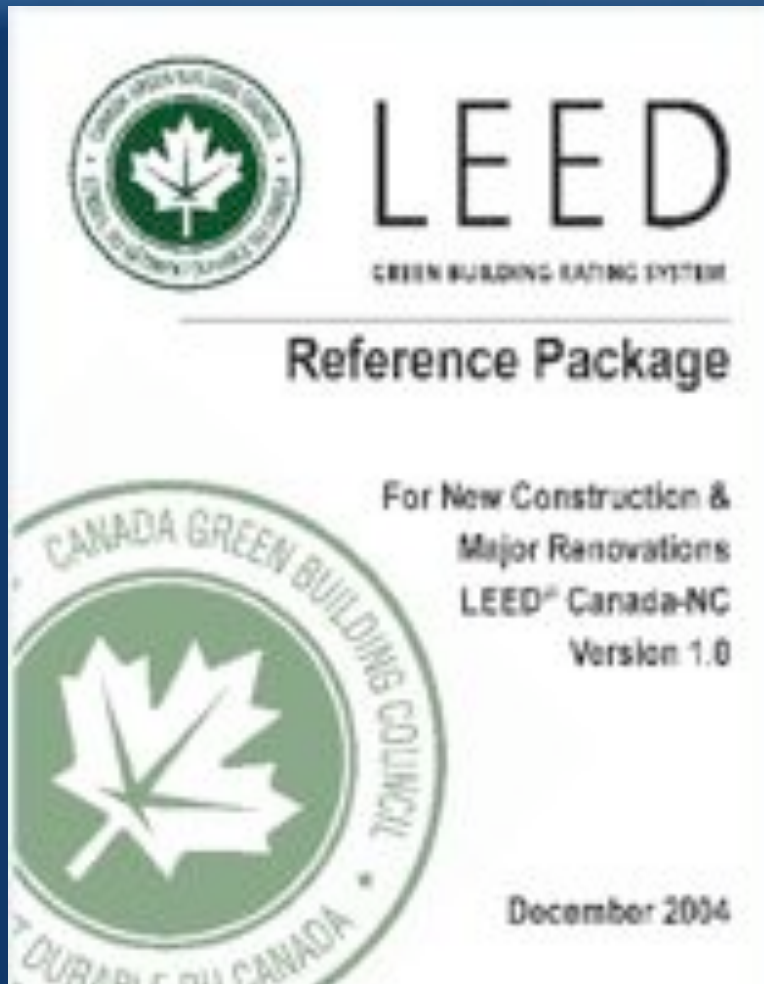
Easy access to the Farmers Market, Riversdale, Downtown, Meewasin by cycling, walking and bus



Project Schedule

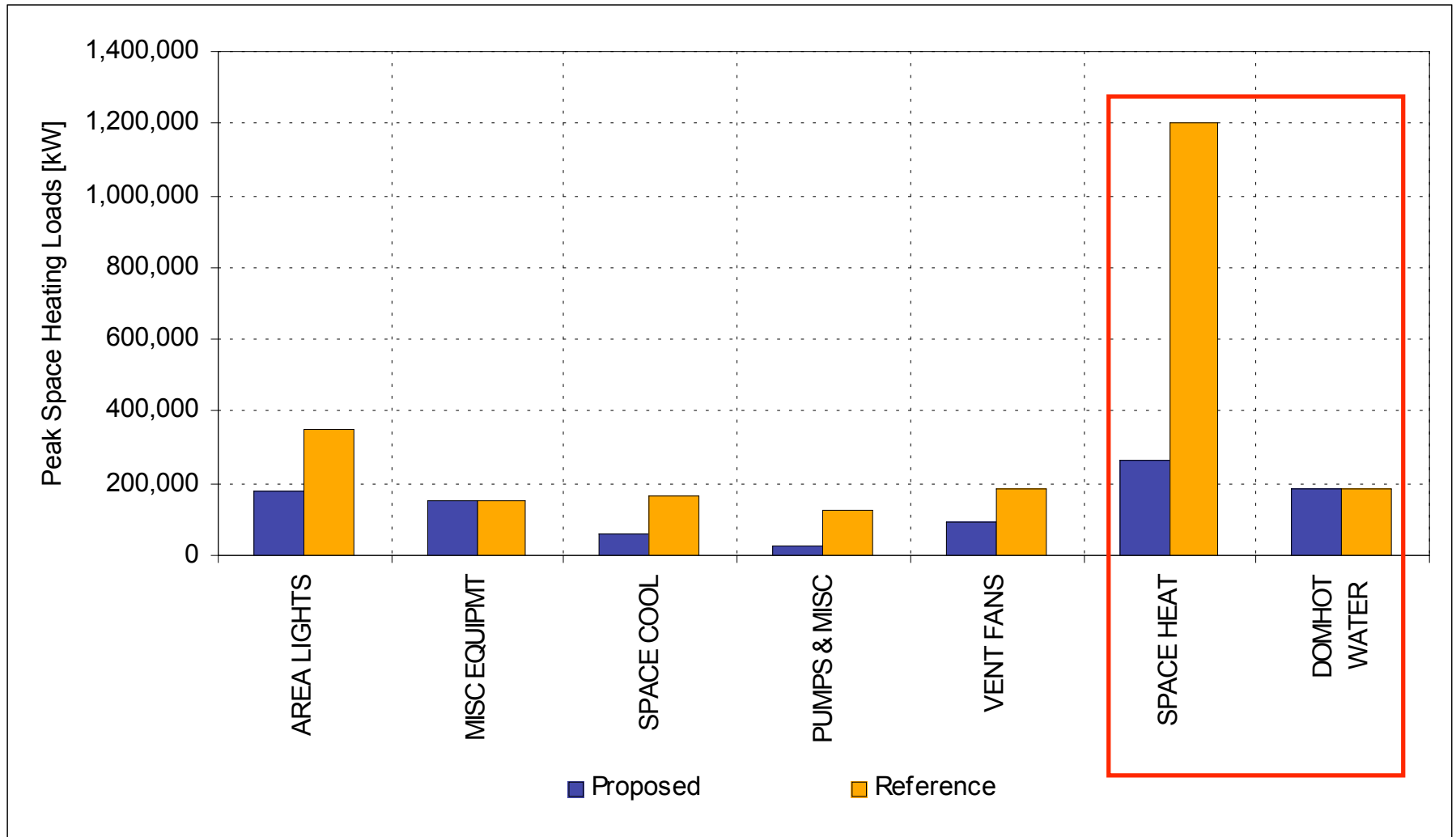
- ✕ Rivergreen centre opened June 2008
- ✕ Began taking deposits Summer 2008
- ✕ Construction to begin in the Spring 2009
- ✕ Completion Summer/Fall 2010

Targeting LEED Platinum

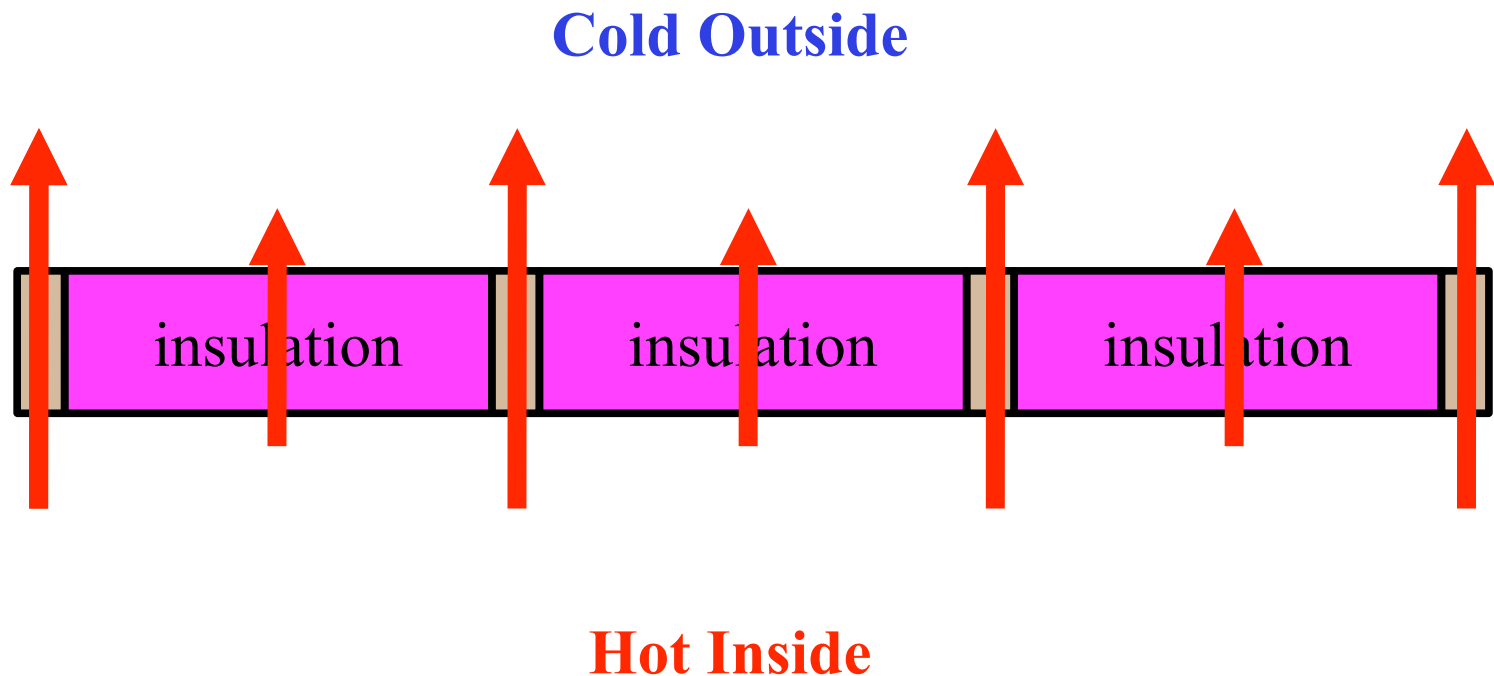


- ✘ 70% energy reduction in space & hot water heating
- ✘ It starts with an outstanding building envelope
- ✘ Utilizes solar energy for heating hot water
- ✘ Extensive day lighting
- ✘ Highly efficient lighting and Energy Star appliances
- ✘ Heat recovery ventilation for superior indoor air quality

Space Loads

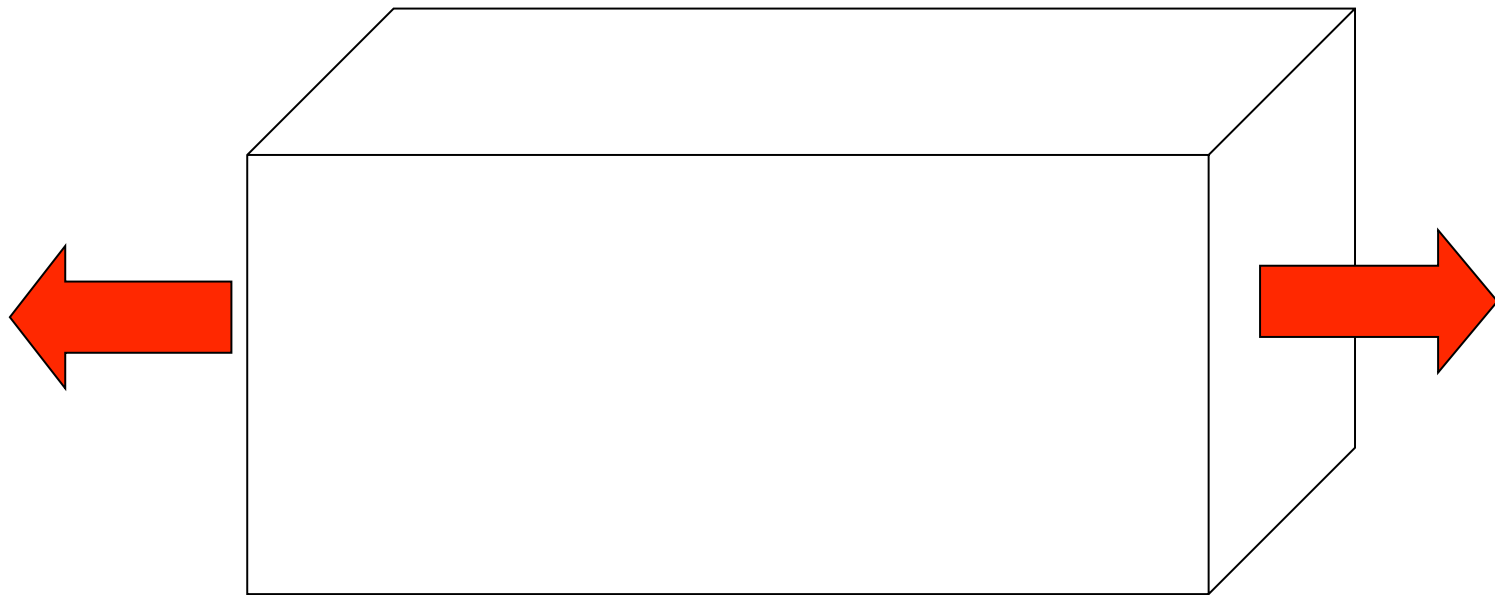


Building Envelope Performance

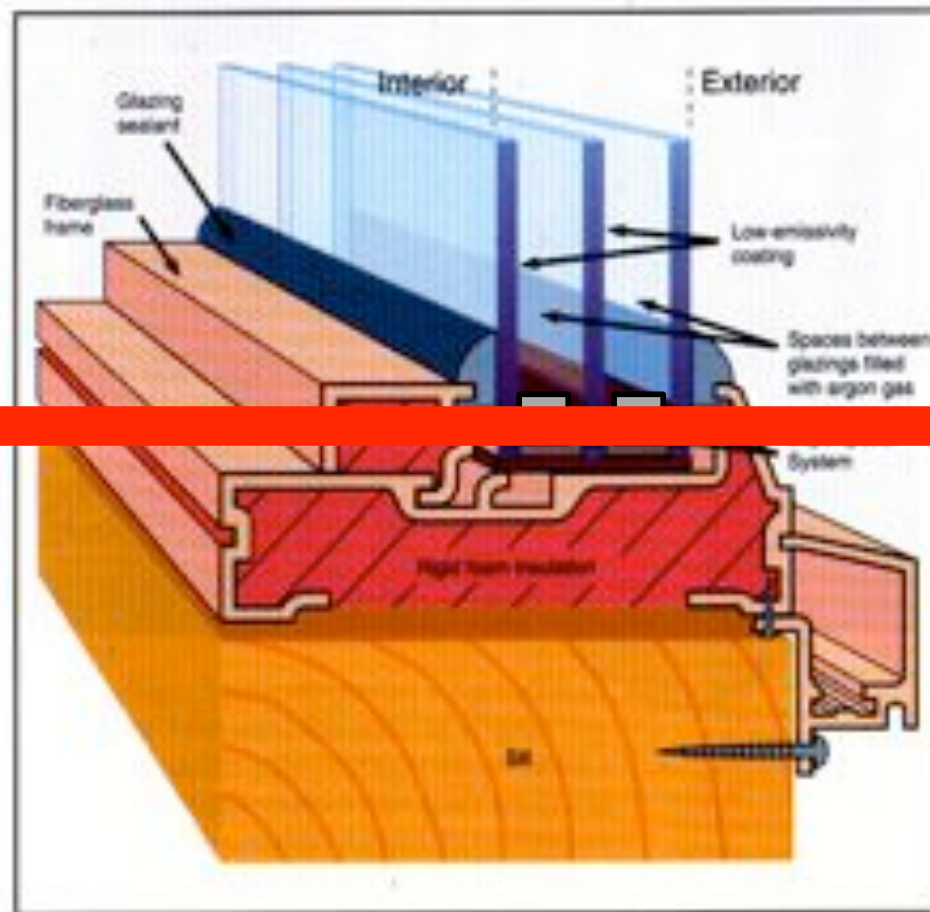


Wood wall with R22 insulation could actually have an “effective” thermal resistance of R13

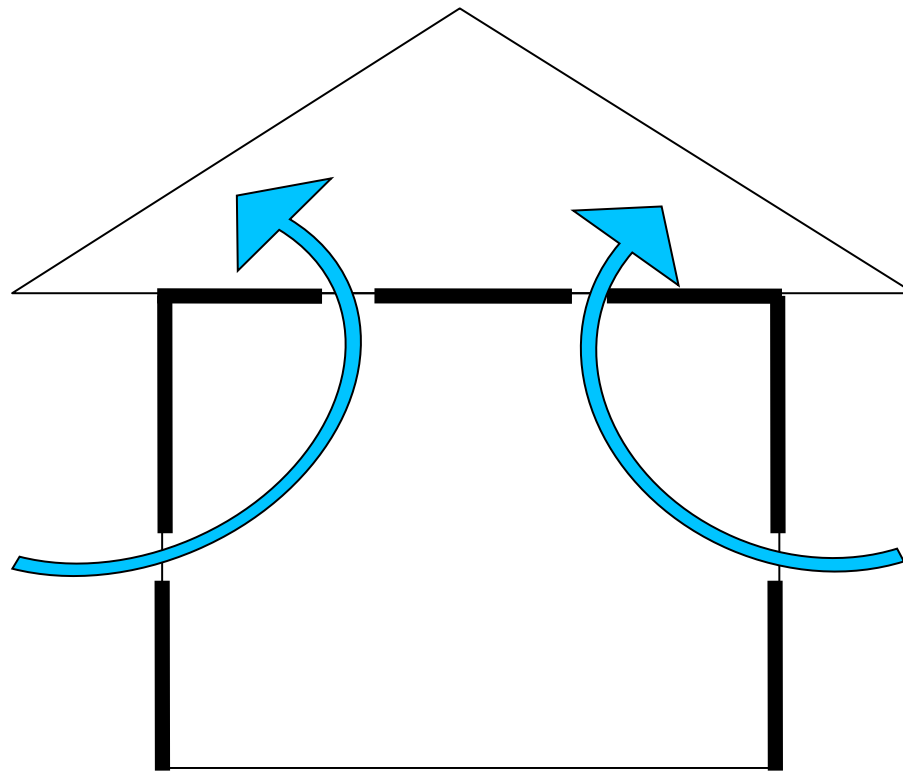
Minimal Exterior Exposure



High Performance Windows



Infiltration



Weather-stripping / Good Windows / Caulking /
Sealing up Attic holes / Plug Ins / etc.

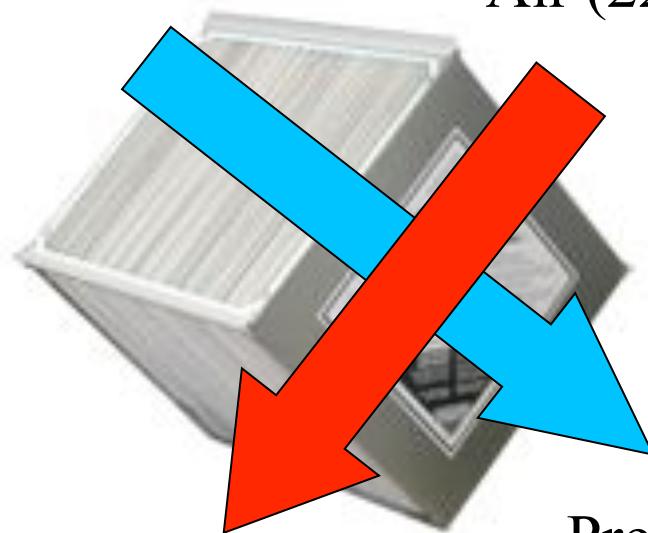
Heat Recovery – Air to Air



Heat Recovery – Air to Air

Outside Air
(-35°C)

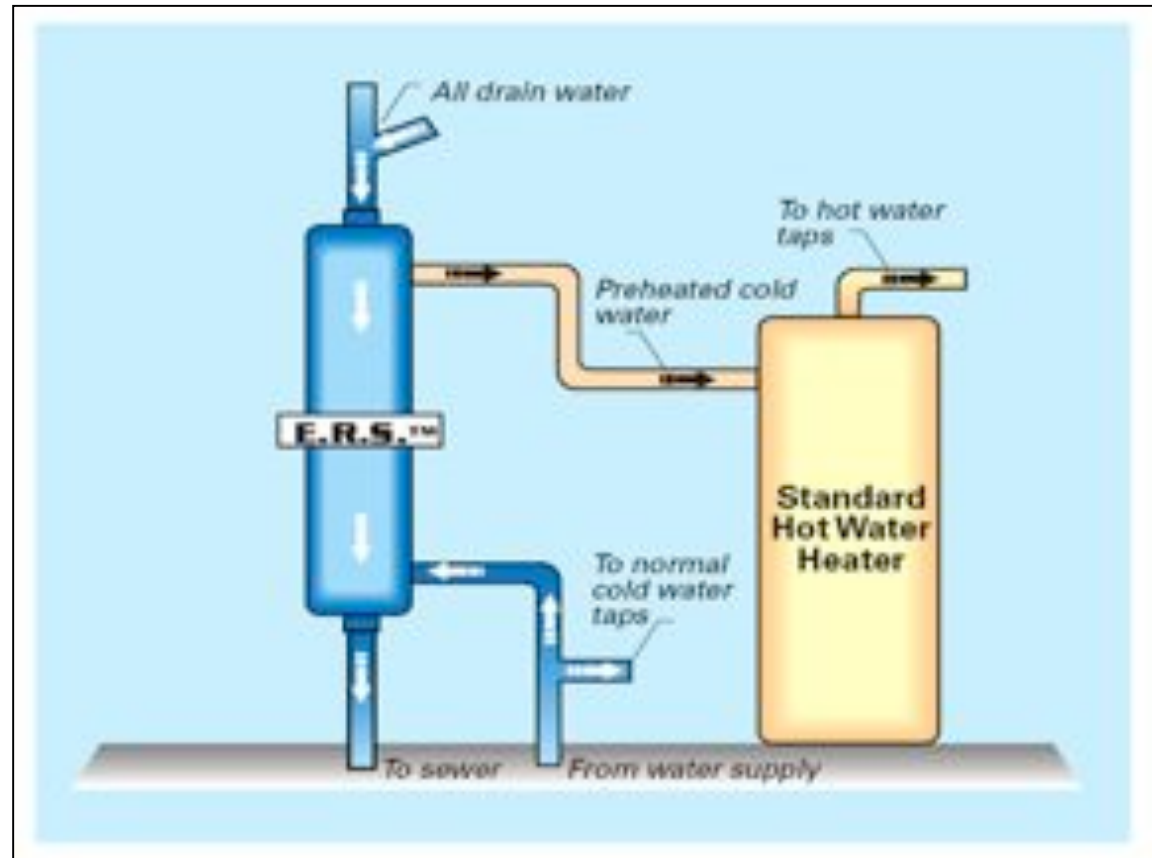
Room
Exhaust
Air (22°C)



Pre-Heated
Air (5°C)

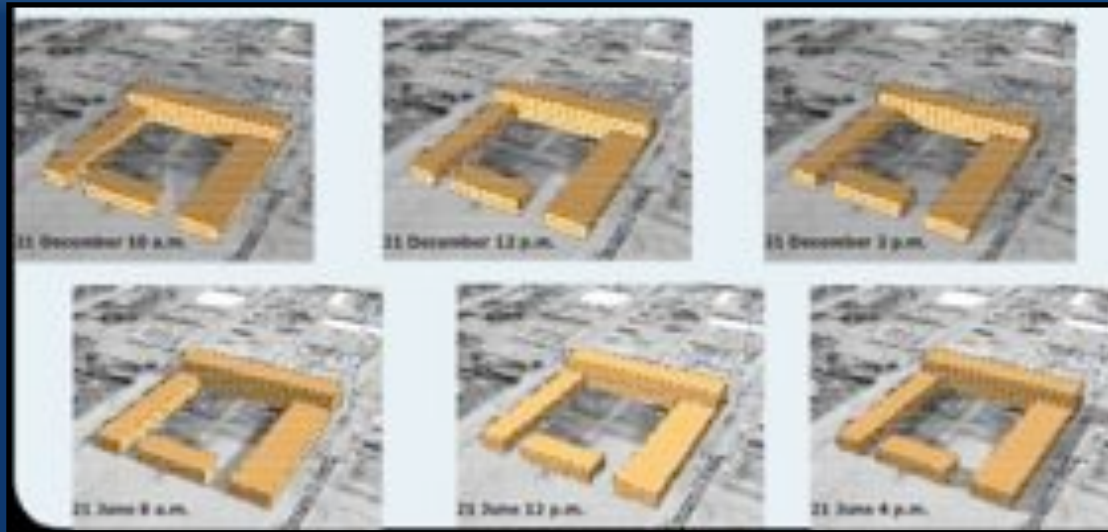


Wastewater Heat Recovery

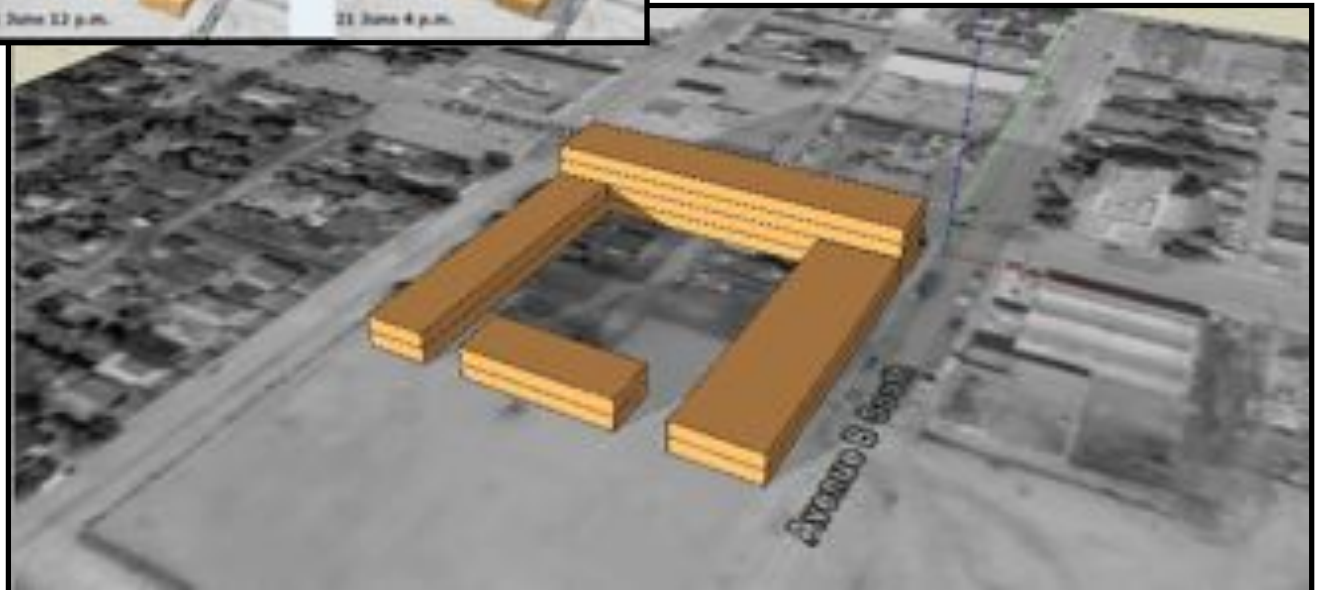


Lasts “forever” & no moving parts.

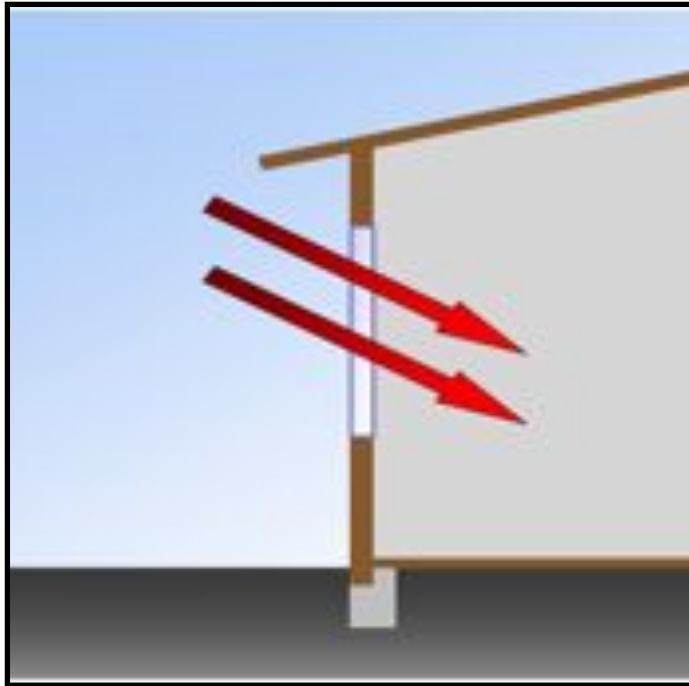
Designing For Solar Access



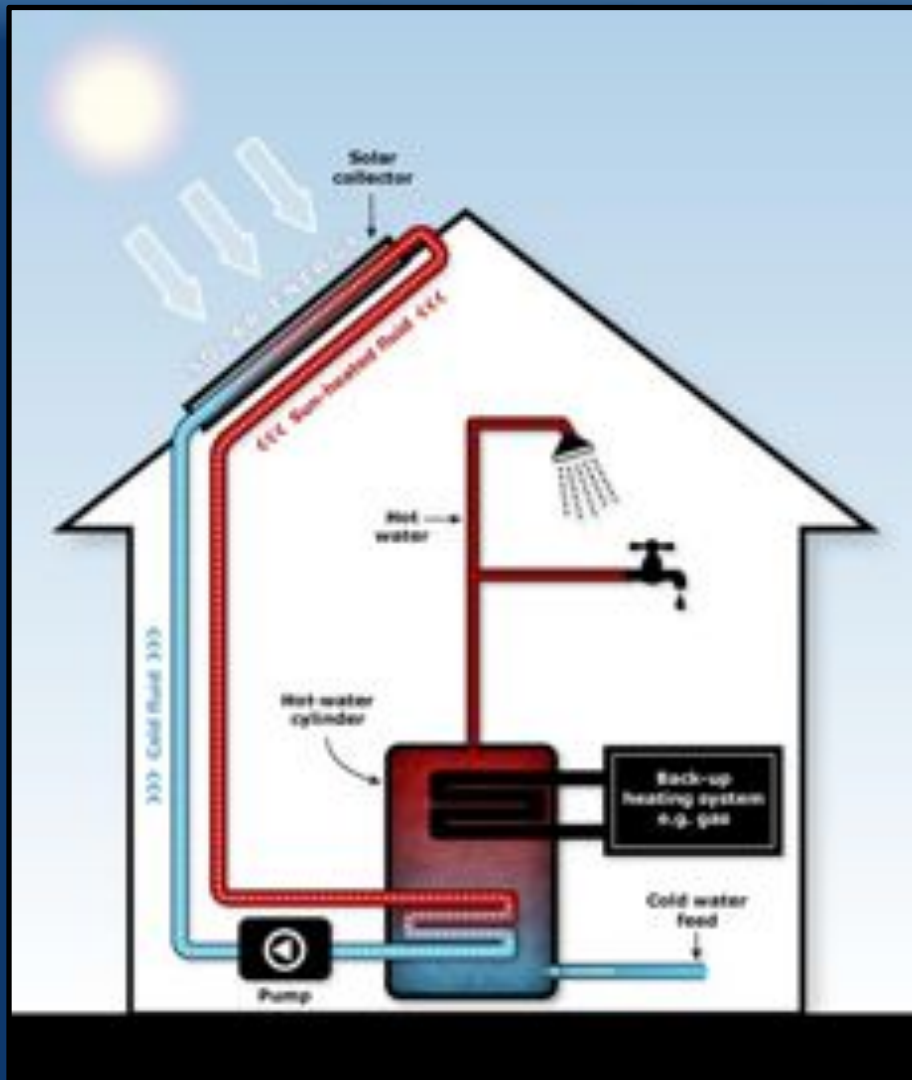
**Using
Computer
Models.**



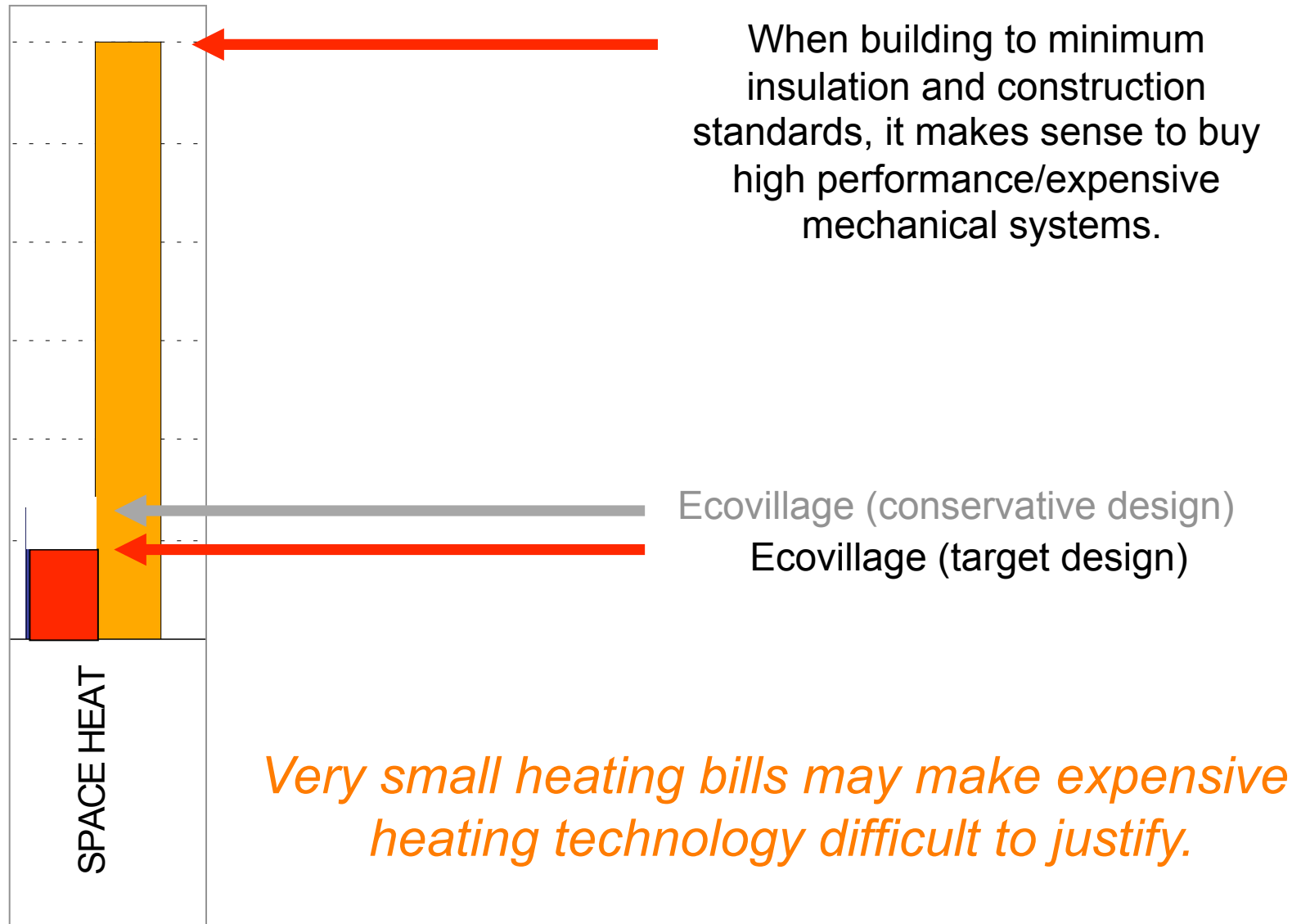
Passive Solar Heat Gain



Solar Water Heating



Space Heating Load



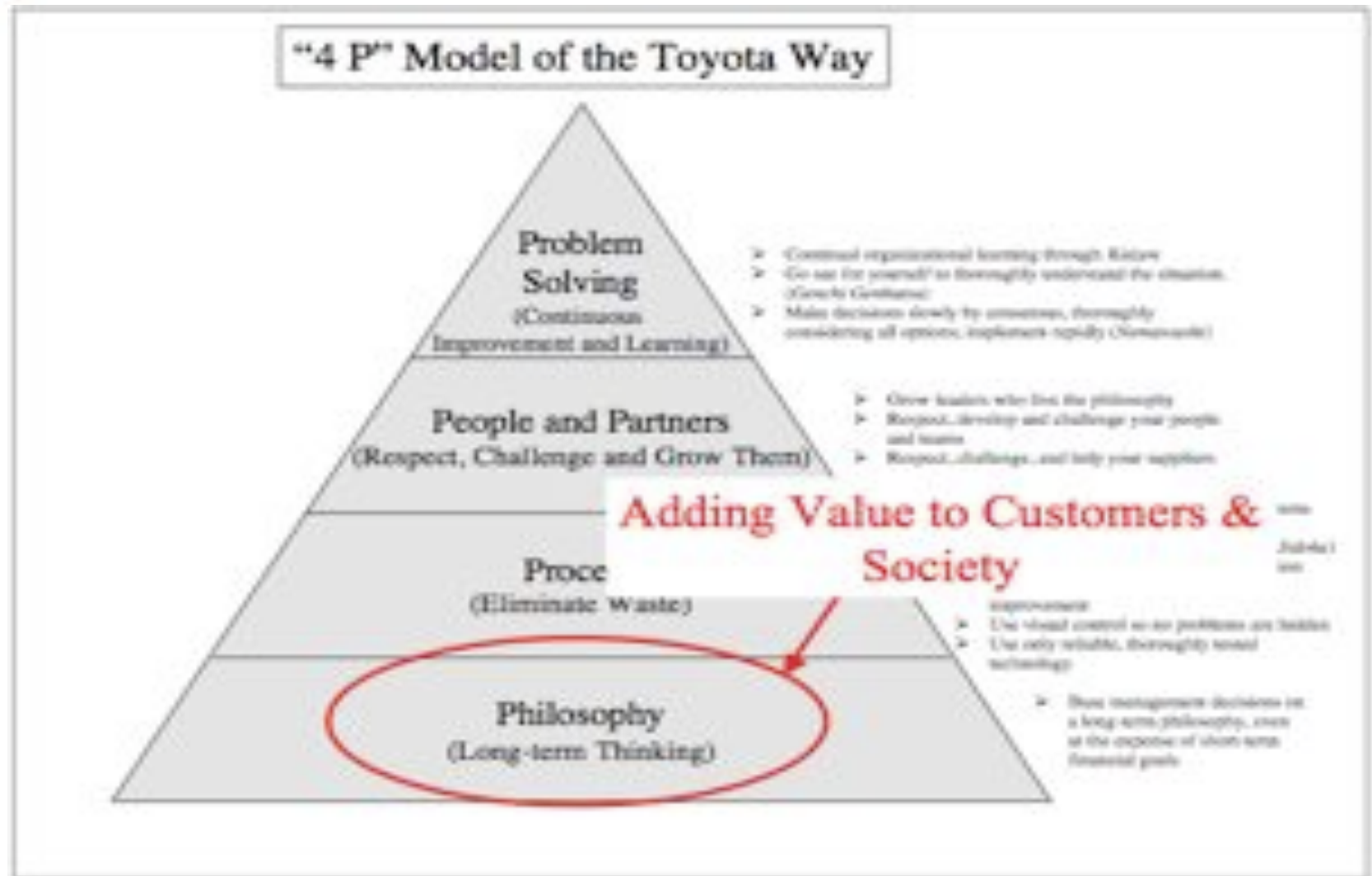
How do we put it all together?



The Building Industry Is Wasteful



Can We Learn From Toyota?





Integrated Project Delivery (IPD)

IPD The Next Level of Building

IPD can reduce project delivery costs by 10%



LEED Platinum 6% - 10% Premium

A New Project Delivery Process



Integrated Project Delivery

IPD  integrated
DESIGNS

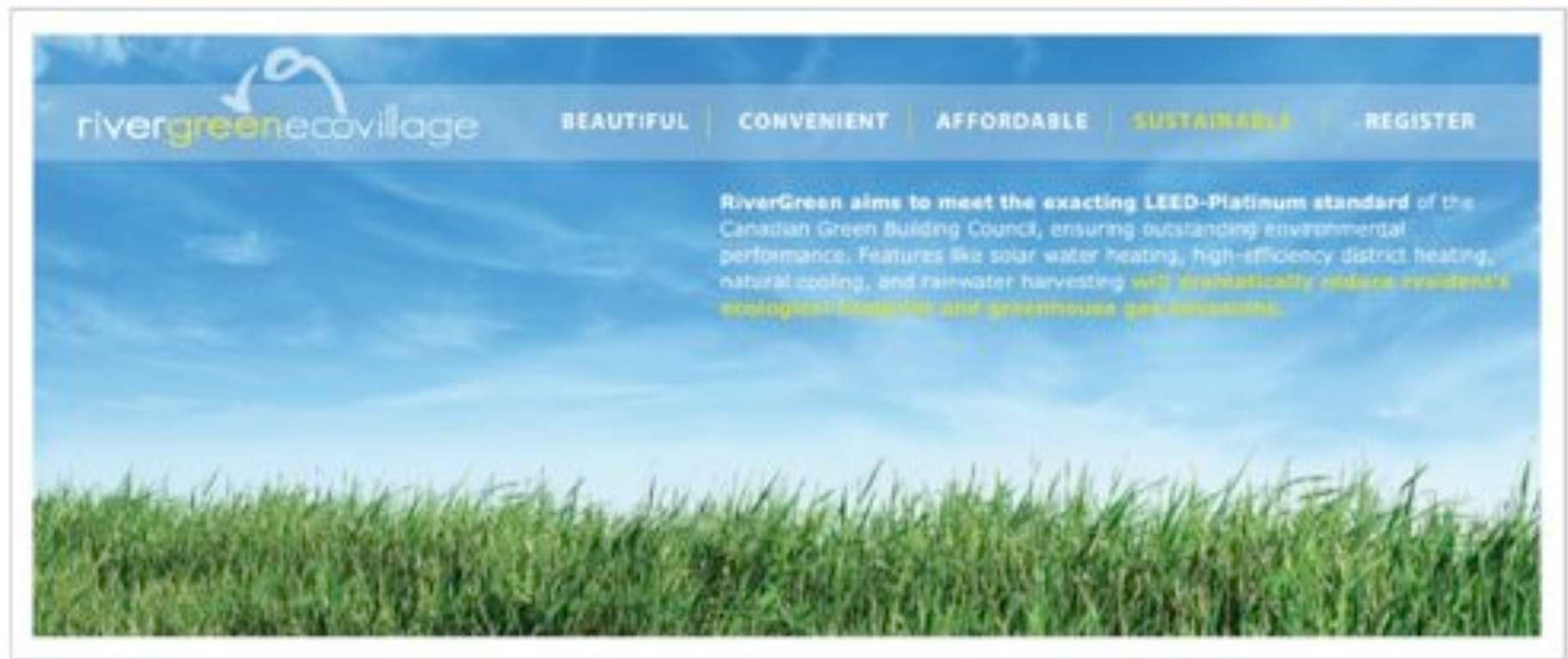
We only have one planet!



Want More Information?

www.rivergreen.ca

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SASKATCHEWAN MINISTRY OF THE ENVIRONMENT

