MCMURRAY Metis Cultural Centre May 2021 May 2021

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McMURRAY MÉTIS LOCAL



MCMURRAY MÉTIS

Cultural Centre Contract Signing Ceremony

We are very pleased to be partnering with Casman for the construction of the \$44 million Metis Cultural Centre, they are a well-known and respected member of our local business community with a proven track record of success.



Nearly 5,000 views!

CLIMATE LENS ASSESSMENT

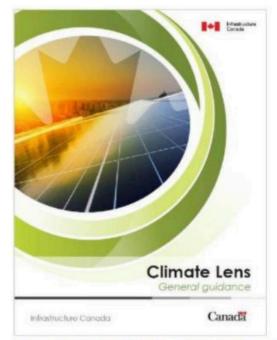
OBJECTIVES OF THE CLIMATE LENS

- The climate lens assesses opportunities to reduce carbon pollution and helps identify when and how a project should be adapting project design to better withstand impacts of climate change.
- There is guidance to support the application of the lens to infrastructure projects.
- Climate change resilience assessments submitted to Infrastructure Canada require a qualified party provide an attestation that the assessment was carried out according to this guidance.

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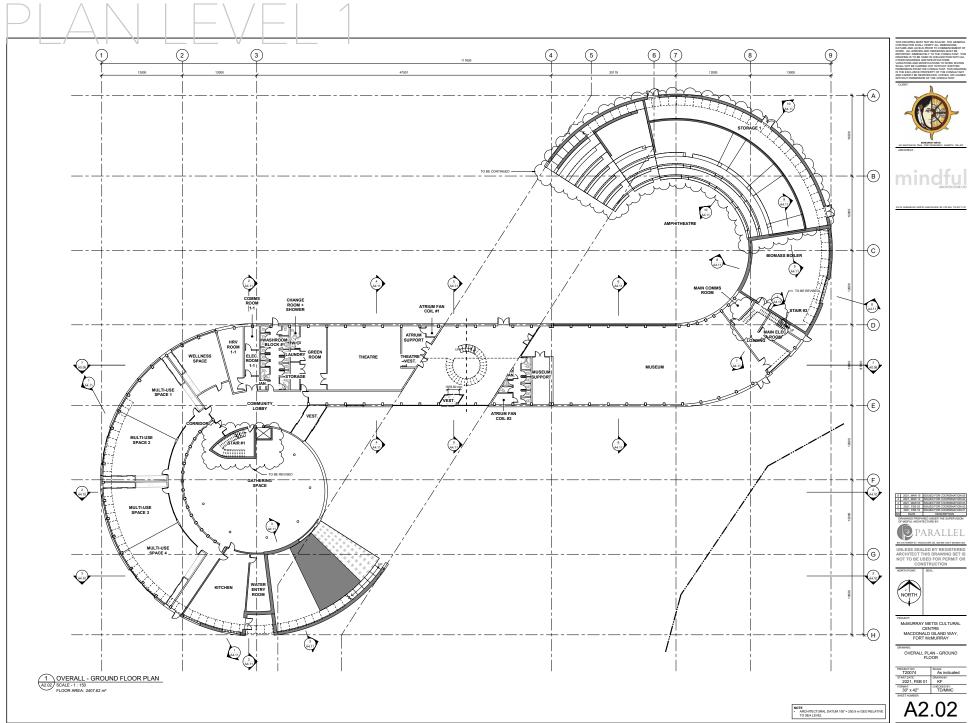


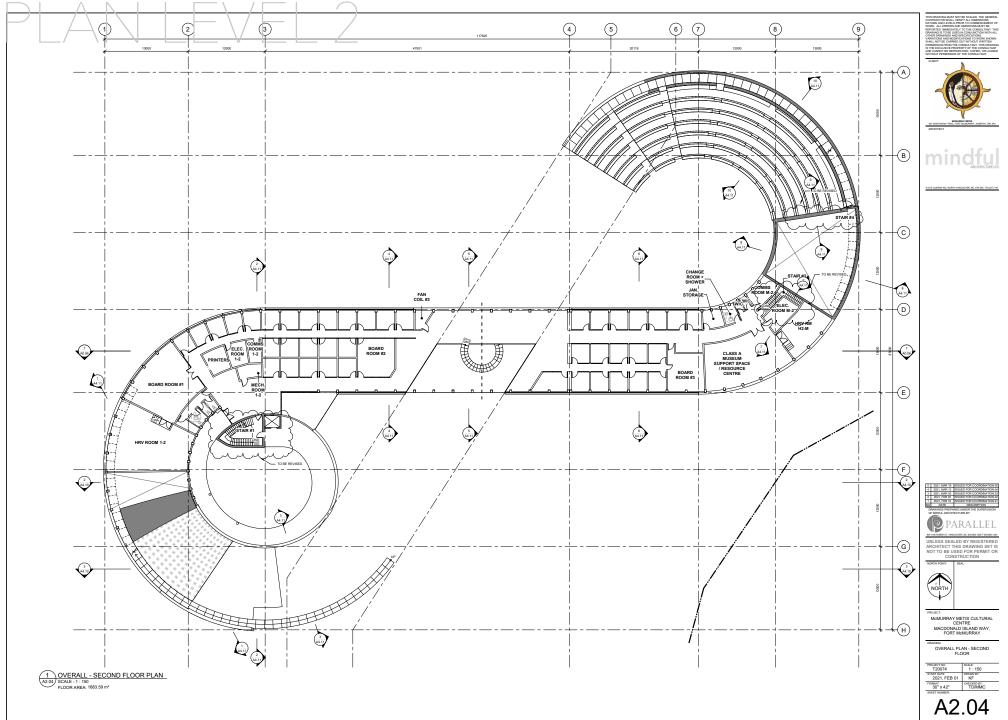
http://bit.ly/INFC_climatelens Please direct questions to: infc.info.infc@canada.ca

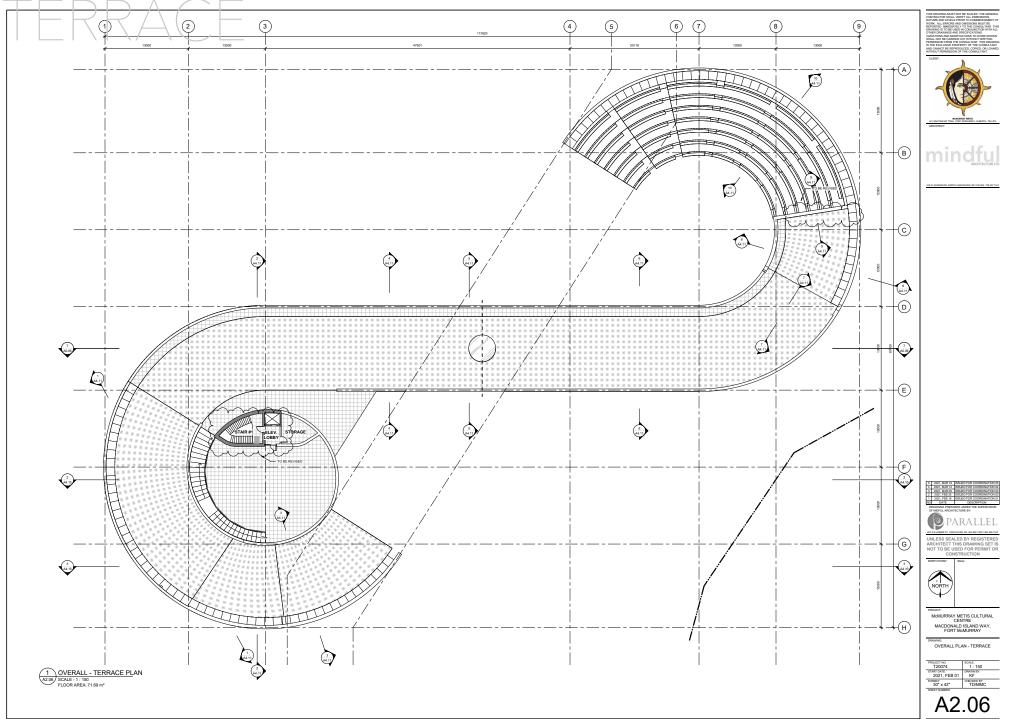


ONE PLANET LIVING

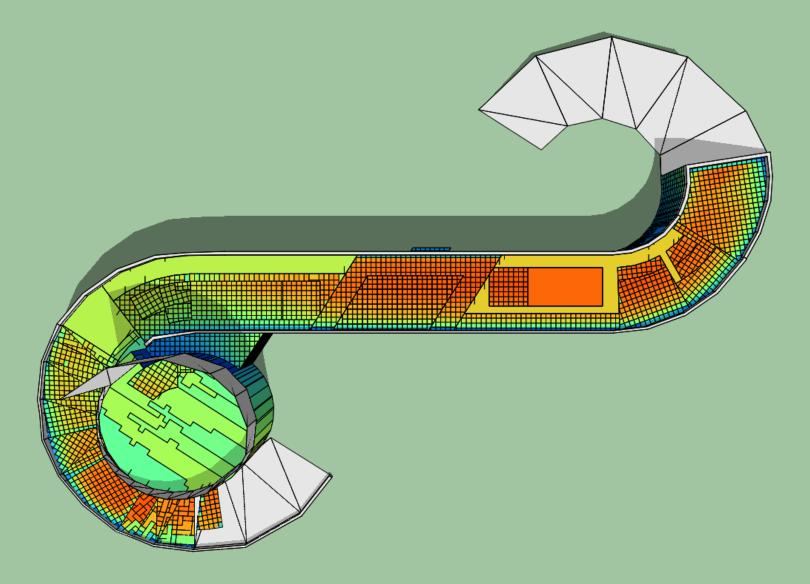
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Health and happiness	Encouraging active, social, meaningful lives to promote good health and wellbeing
Equity and local economy	Creating safe, equitable places to live and work which support local prosperity and international fair trade
Culture and community	Nurturing local identity and heritage, empowering communities and promoting a culture of sustainable living
Land and nature	Protecting and restoring land for the benefit of people and wildlife
Sustainable water	Using water efficiently, protecting local water resources and reducing flooding and drought
Local and sustainable food	Promoting sustainable humane farming and healthy diets high in local, seasonal organic food and vegetable protein
Travel and transport	Reducing the need to travel, encouraging walking, cycling and low carbon transport
Materials and products	Using materials from sustainable sources and promoting products which help people reduce consumption.
Zero waste	Reducing consumption, re-using and recycling to achieve zero waste and zero pollution
Zero carbon energy	Making buildings and manufacturing energy efficient and supplying all energy with renewables







SOLAR POTENTIAL



01/Jan - 00:00 to 31/Dec - 23:00 Hours

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SOLAR PANELS





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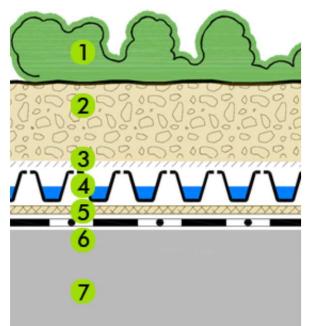
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ASSEMBLY

ZINCO GREEN ROOF ASSEMBLY



- 1. Plant Material (Sedum + Uprights)
- 2. Growing Medium ZinCoblend E Depth 100-120 mm.
- 3. ZinCo Filter Sheet SF
- 4. ZinCo Floradrain ® FD25-E
- 5. Protection mat ZinCo SSM45
- 6. ZinCo Root Barrier WSF40
- 7. Roof Construction with Waterproofing Membrane

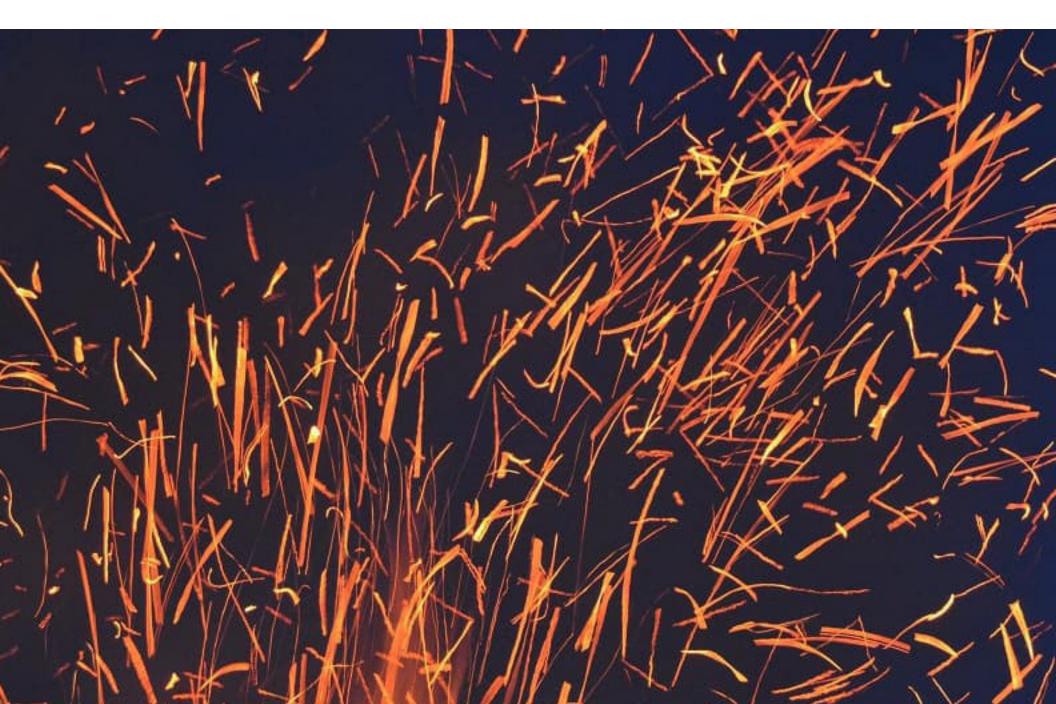
INSULATION



British Columbia Institute of Technology

https://commons.bcit.ca/greenroof/

FIRE PREVENTION



THERMAL COMFORT



THREE HEATING SOURCES

PASSIVE SYSTEMS

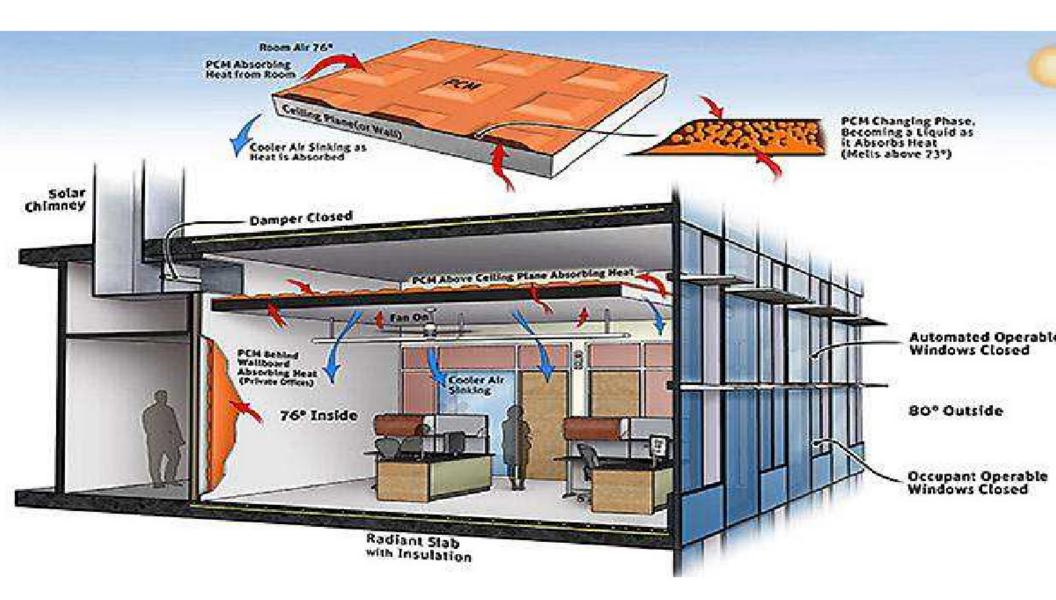
ACTIVE SYSTEMS

BIOMASS BOILER

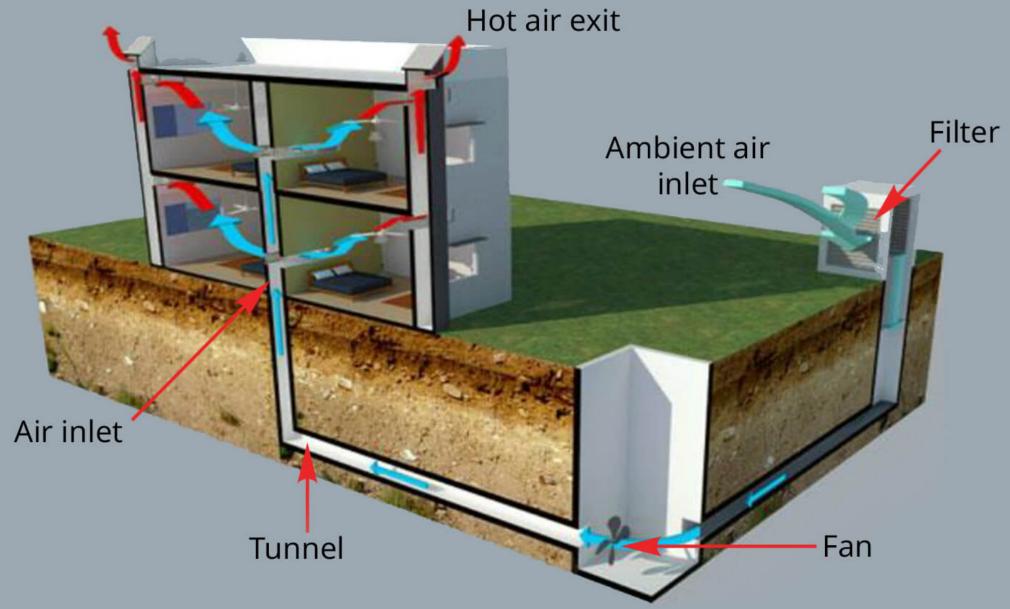
PASSIVE SYSTEMS ORIENTATION



PASSIVE SYSTEMS ATRIUM

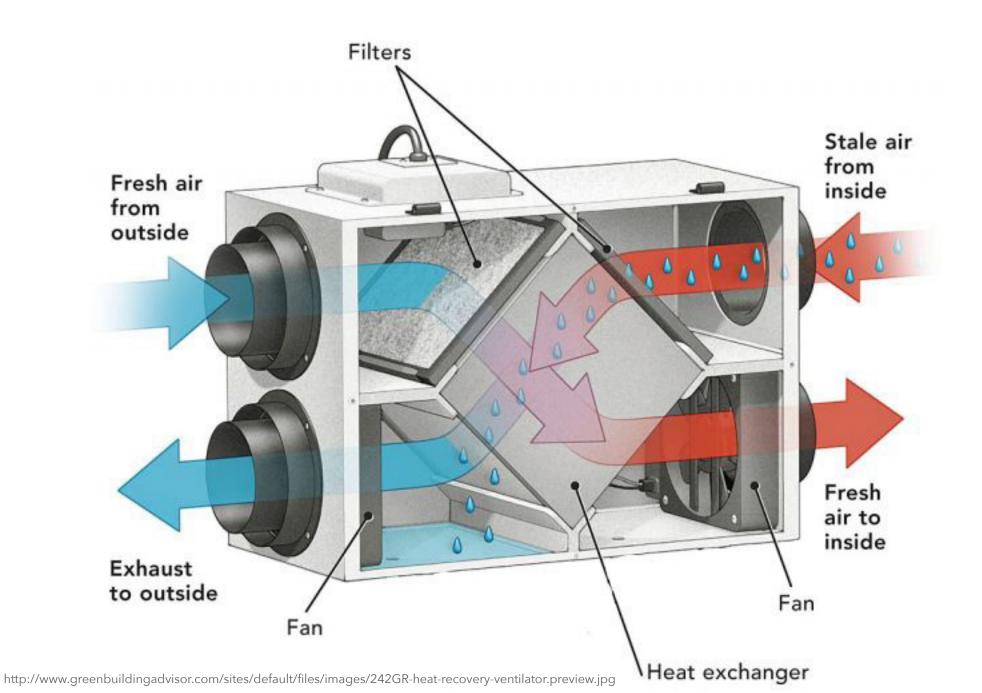


PASSIVE SYSTEMS EARTH TUBES

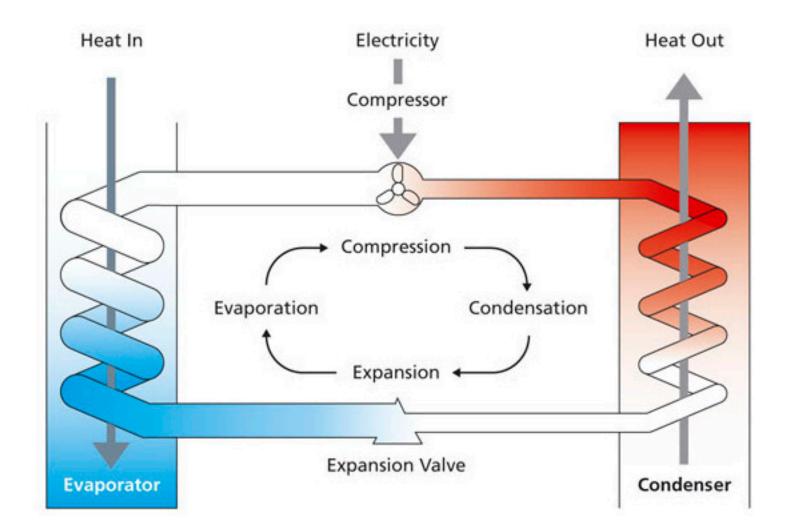


https://www.beepindia.org/technologies-n-tools/earth-air-tunnel/

ACTIVE SYSTEMS HRV



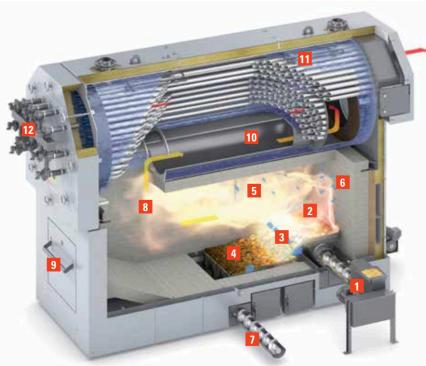
ACTIVE SYSTEMS HEAT PUMPS



ACTIVE SYSTEMS SEWER HEAT RECOVERY

https://www.huber.de/solutions/heating-and-cooling-with-wastewater/heat-from-wwtp-eflluent.html

ACTIVE SYSTEMS BIOMASS BOILER



[†] Efficiency based on the higher heating value of the fuel.

- Infeed auger (with light barrier)
- 2 Burner trough with internal grate
- Sloped grate
- 4 Moving grate
- 5 Secondary air flow
- 6 Igniter
- Deashing system
- 8 High-temperature burnout zone
- Gombustion chamber door
- 10 Triple-pass heat exchanger
- Safety heat exchanger
- 12 Pneumatic cleaning system



Portable boiler enclosure (pellet silo field supplied)

BIOMASS REQUIREMENTS

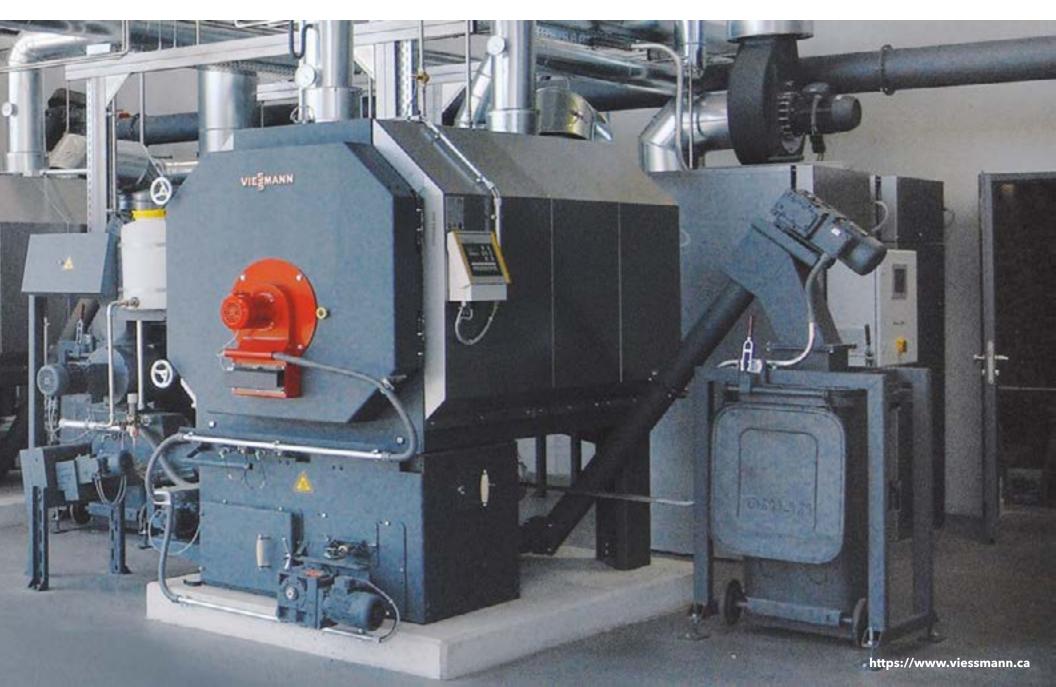
200 tonnes of biomass per year (5 - 6 trucks/year)

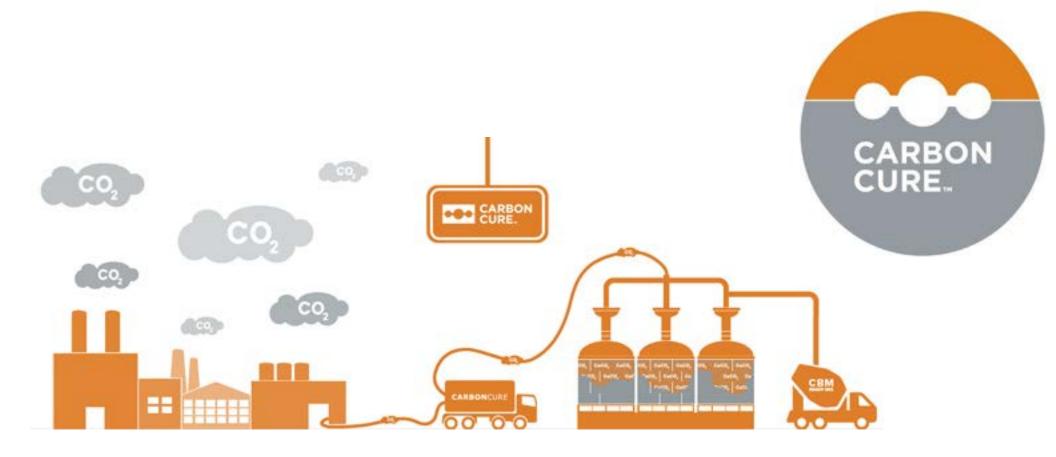
Log storage for about 6 months to dry

A Chipper



BIOMASS BOILER









ID 606bb79174 April 27, 2021

Carbon Savings Estimate

For the MCMURRAY METIS CULTURAL CENTRE in FORT MCMURRAY, ALBERTA Estimate assumes 10000 m³ of concrete

Concrete for this project made with CarbonCure can potentially save:

...which is equivalent to:



207,599 Kgs of CO₂



109.7 Hectares of trees absorbing CO₂ for a year



About CarbonCure

The CarbonCure Technology is installed in concrete plants to inject waste CO_2 into fresh concrete. Once injected, the CO_2 becomes converted into a mineral and permanently embedded in the concrete.

The mineralized CO₂ improves the concrete's compressive strength, enabling concrete plants to adjust concrete mixes to achieve further carbon reductions without compromising the concrete's quality. The resulting concrete meets the same strength, durability and fresh properties as the original mix, but with a reduced carbon footprint.

Our Impact With CarbonCure



MCMURRAY MÉTIS Municipal Permits

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- Grading Permit
 - Approved on March 31, 2021
- Development Permit for the Metis Cultural Centre
 - Approved on April 13th.
- Building Permit Foundation
 - Submitted.



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McMURRAY MÉTIS CULTURAL CENTRE

MCMURRAY Questions?

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