



CONCEVOIR AUJOURD'HUI LA VILLE DE DEMAIN

# Winter living in an eco-district

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Namur-Hippodrome citizen forum  
Montréal  
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**“My country is not a country,  
it is winter.” - Gilles Vigneault**

*Credit: François Fortin*





**SKI RESORTS**

Source: Wikipedia Commons



**LULEA, Sweden**

Source: embassyvisa.com

Examples of places that rely on northern environments to attract people and tourists



**DAWSON CITY, YK**

Source: Wikipedia Commons



**YELLOWKNIFE, NWT**

Source: Wikipedia Commons





## WINTER CITY DESIGN GUIDELINES



February 2000

Source: Fort St. John Winter City Guidelines



## Winter Design Guidelines

Transforming Edmonton into a Great Winter City

Edmonton

Source: Edmonton Winter  
City Design Guidelines

**LIGHT**



Source: photocase.de

**COMFORT**



Source: rapidcityjournal.com

# Main northern environment issues in development

**ANIMATION**



Source: hellotalalay.blogspot.com

**MAINTENANCE**



Source: emaze.com

## Winter Issues

*LIGHT*

*COMFORT*

*ANIMATION*

*MAINTENANCE*

### Recommendations

**1**

Plan a  
compact  
and mixed  
district

**2**

Connect and  
permeabilize  
the  
pedestrian  
network

**3**

Integrate  
light

**4**

Adapt the  
vegetation

**5**

Create  
wind  
barriers

**6**

Add heat

**7**

Plan activities  
in public  
spaces

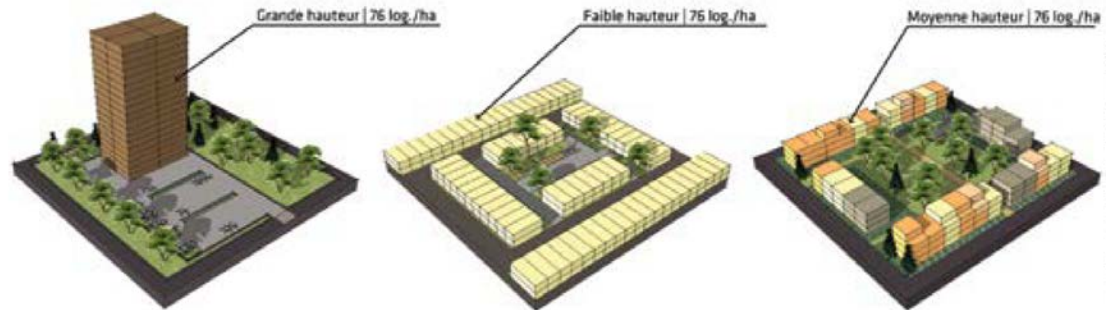


# 1

## Plan a compact and mixed district



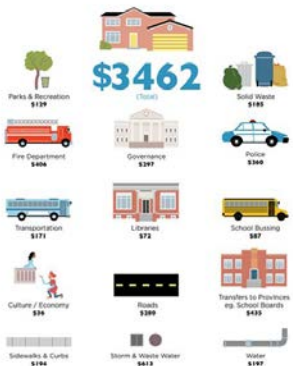
La densité à échelle humaine, possible par la compacité



■ Maison individuelle   
 ■ Plex   
 ■ Walk up   
 ■ Tour d'habitation

Source: Vivre en ville

### Suburban City's Annual Cost, per Household



### Urban City's Annual Cost, per Household

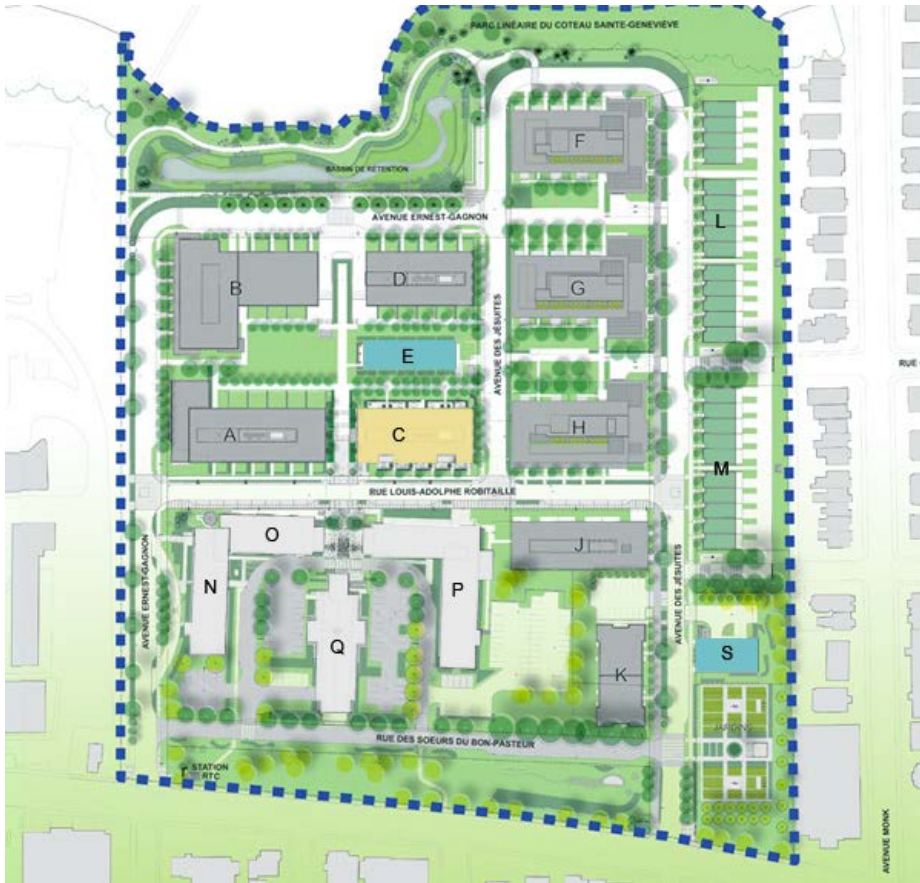


SP Sustainable Prosperity  
For more data and more reports, visit [theosptopics.com](http://theosptopics.com)  
Data based on the 10th Regional Municipality

Source: Sustainable Prosperity Institute



Source: Vivre en ville



Source: SSQ

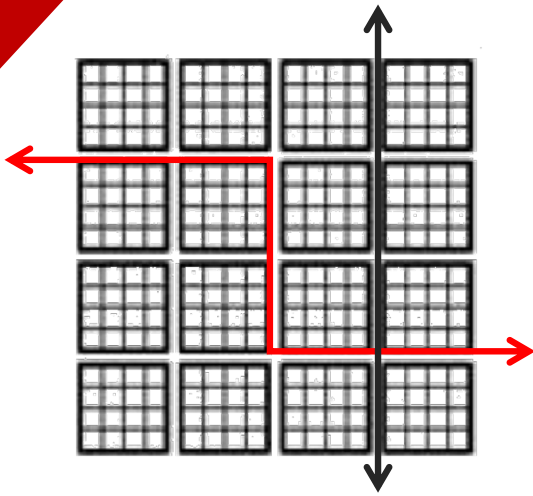


Source: Ville de Québec, SPP Ville Saint-Roch entrance



# 2

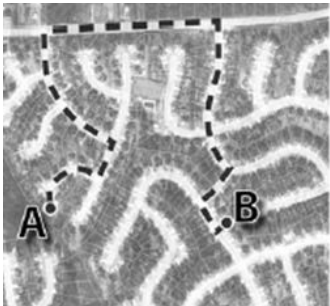
## Connect and permeabilize the pedestrian network (and maintain it!)



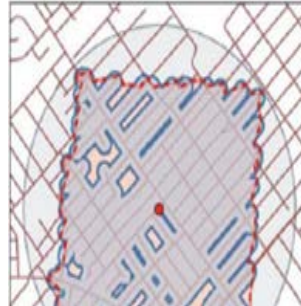
Rieselfeld et Vauban (Freiburg, Allemagne): des quartiers plus faciles à traverser pour les piétons que pour les voitures



Source: Vivre en ville



Source: evalanxmeer.wordpress.com



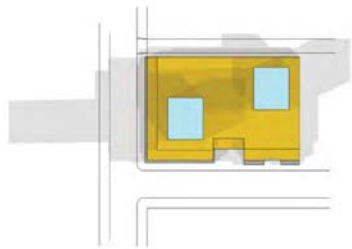
Source: researchgate.net



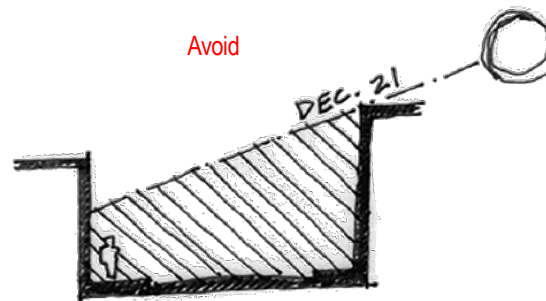
Source: ledevoir.com

# 3

## How can we adapt the urban structure to the climate? Integrate light



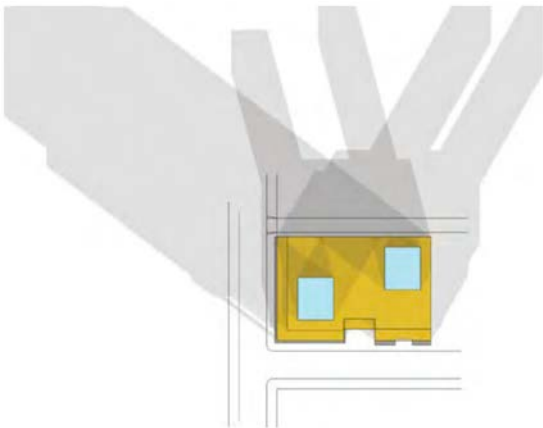
▲ Shadow Diagram: Summer Solstice 0900, 1200 and 1500 hours MST



Avoid

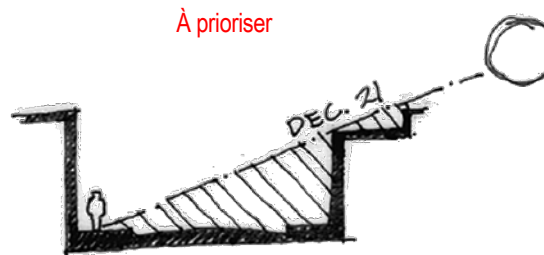


Source: City of Edmonton



▲ Shadow Diagram: Winter Solstice 0900, 1200 and 1500 hours MST

Source: City of Edmonton



À prioriser

Source: City of Fort St. John



Source: Pinterest



**LIGHT**



Source: v2com-newsire.com



Source: gezimanya.com



Source: lucemania.ch



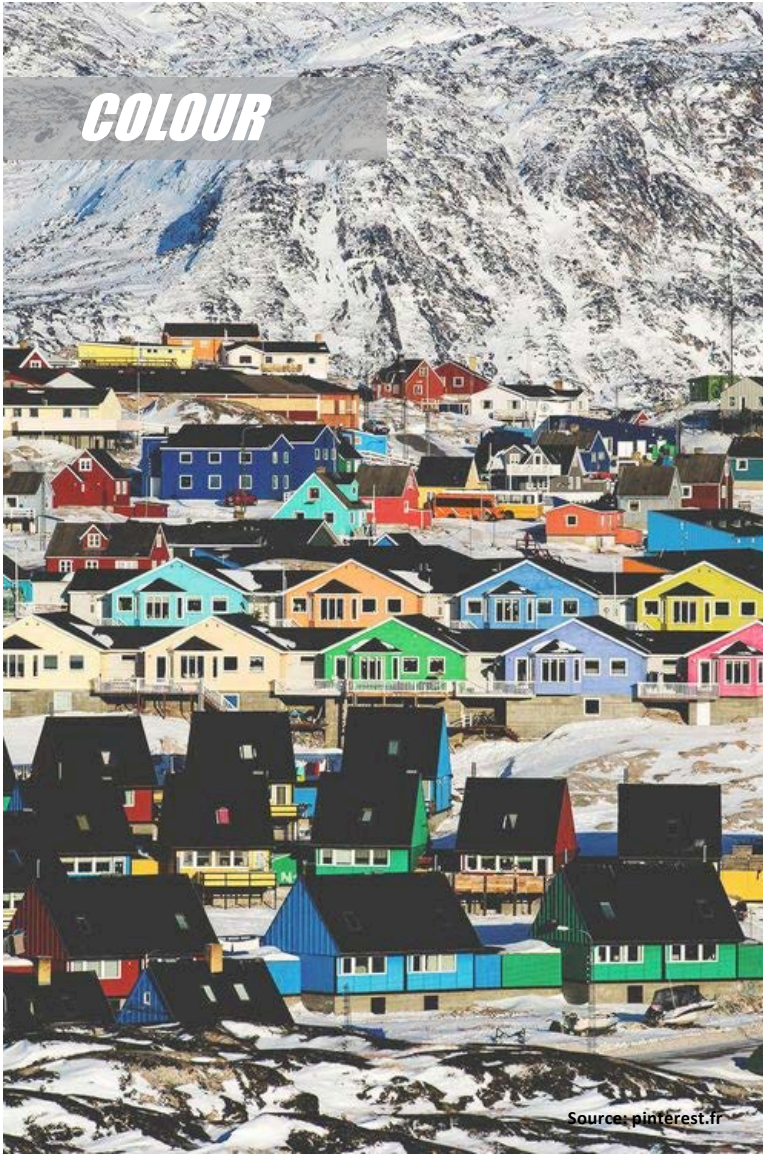
Source: spangleys.co.uk



Source: tourisme.saguenay.ca



*COLOUR*



Source: pinterest.fr



Source: flickr.com/photos/karennfld/32369137995



Source: flickr.com/photos/fibla/40851729694



# 4

## Adapt the vegetation

The right vegetation...

...at the right place!

### ARBRES FEUILLUS



*Acer ginnata*  
Érable de l'amur



*Betula alleghaniensis*  
Bouleau jaune



*Betula papyrifera*  
Bouleau à papier



*Tilia cordata*  
Tilleul à petites feuilles



Rosier



*Lilium davidiana*  
Ornithogale



*Miscanthus sinensis*  
Roseau de Chine

### GRAMINÉES



*Larix laricina*  
Mélèze laricina



*Picea glauca*  
Épinette blanche

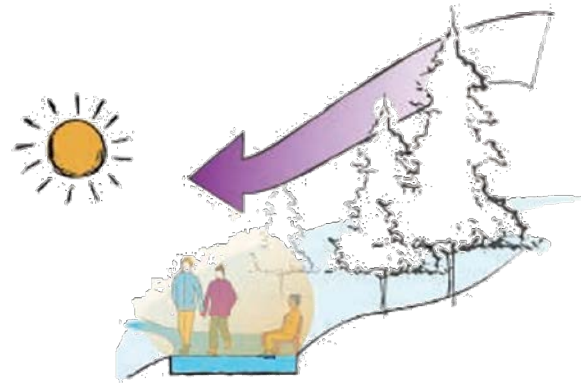


*Picea pungens*  
Épinette de Colorado

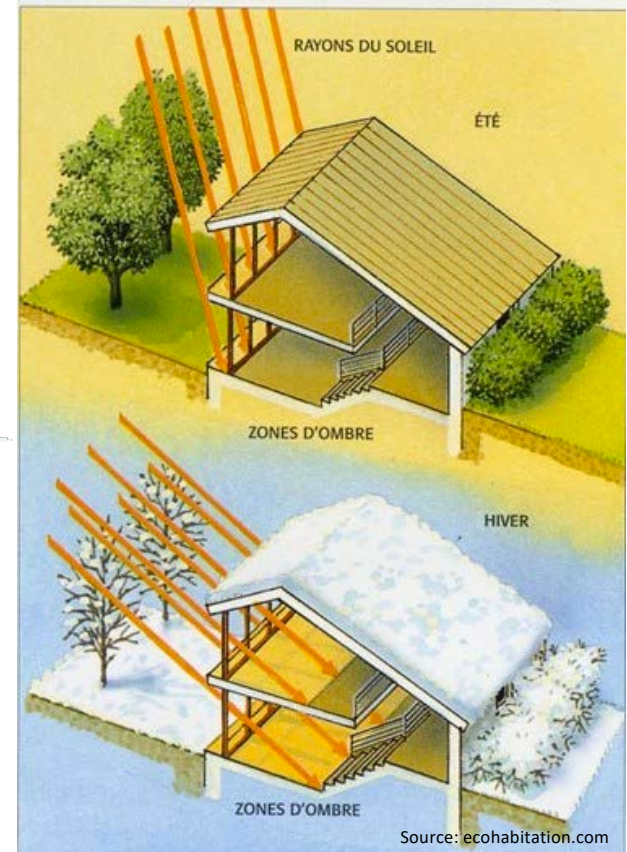


*Pinus resinosa*  
Pin rouge

### ARBRES CONIFÈRES



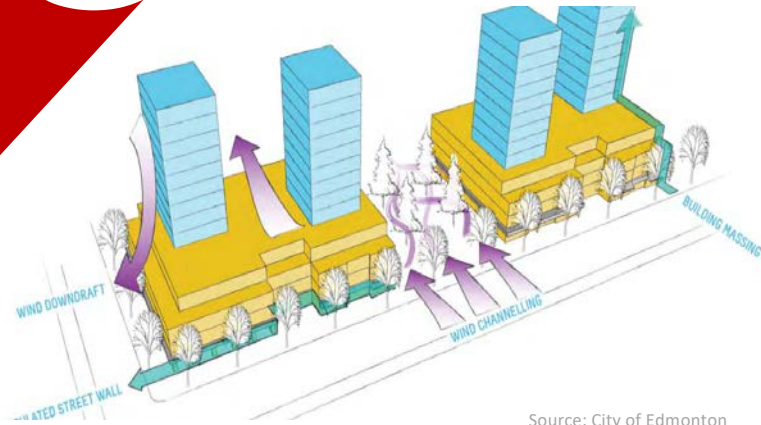
Source: City of Edmonton



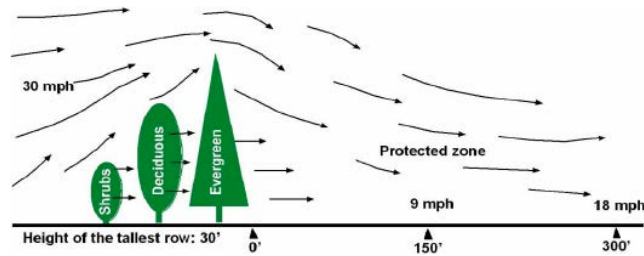
Source: ecohabitation.com

# 5

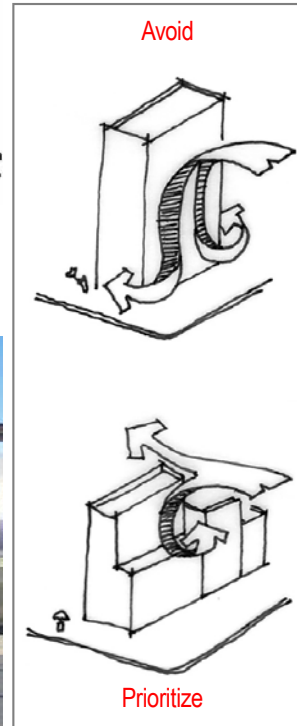
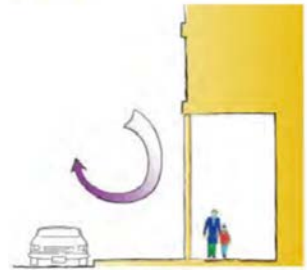
## Create wind barriers



Source: City of Edmonton



Source: researchgate.net



Source: City of Fort St. John

Source: City of Edmonton



Source: City of Edmonton



Source: edmontonrailings.ca



# 6

## Add heat





# 7

## Plan activities in public spaces



Source: hips.hearstapps.com



Source: hips.hearstapps.com



Source: lafabriqueculturelle.tv



Source: edmonton.ca

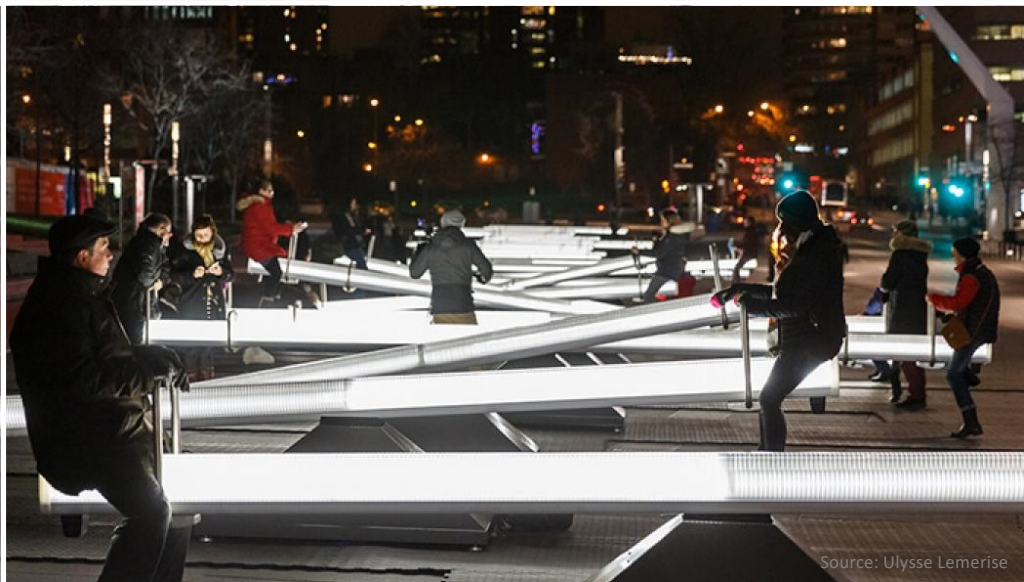


Source: noeljoliette.com



Source: journaldemontreal.com









Example



A photograph of a snowy forest landscape. The ground is covered in a thick layer of white snow, with shadows cast by the trees. Several tall, thin trees stand in the foreground and middle ground, some with bare branches and others with green needles. The background is a dense forest of similar trees under a clear blue sky.

**Thanks for your attention!**