



# *Promoting safe and active travel by doing health impact assessments of residential development projects*

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National Collaborating Centre  
for Healthy Public Policy



# National Collaborating Centre for Healthy Public Policy (NCCHPP)

## Our mandate

- Support public health actors in their efforts to promote healthy public policies

## Our areas of expertise

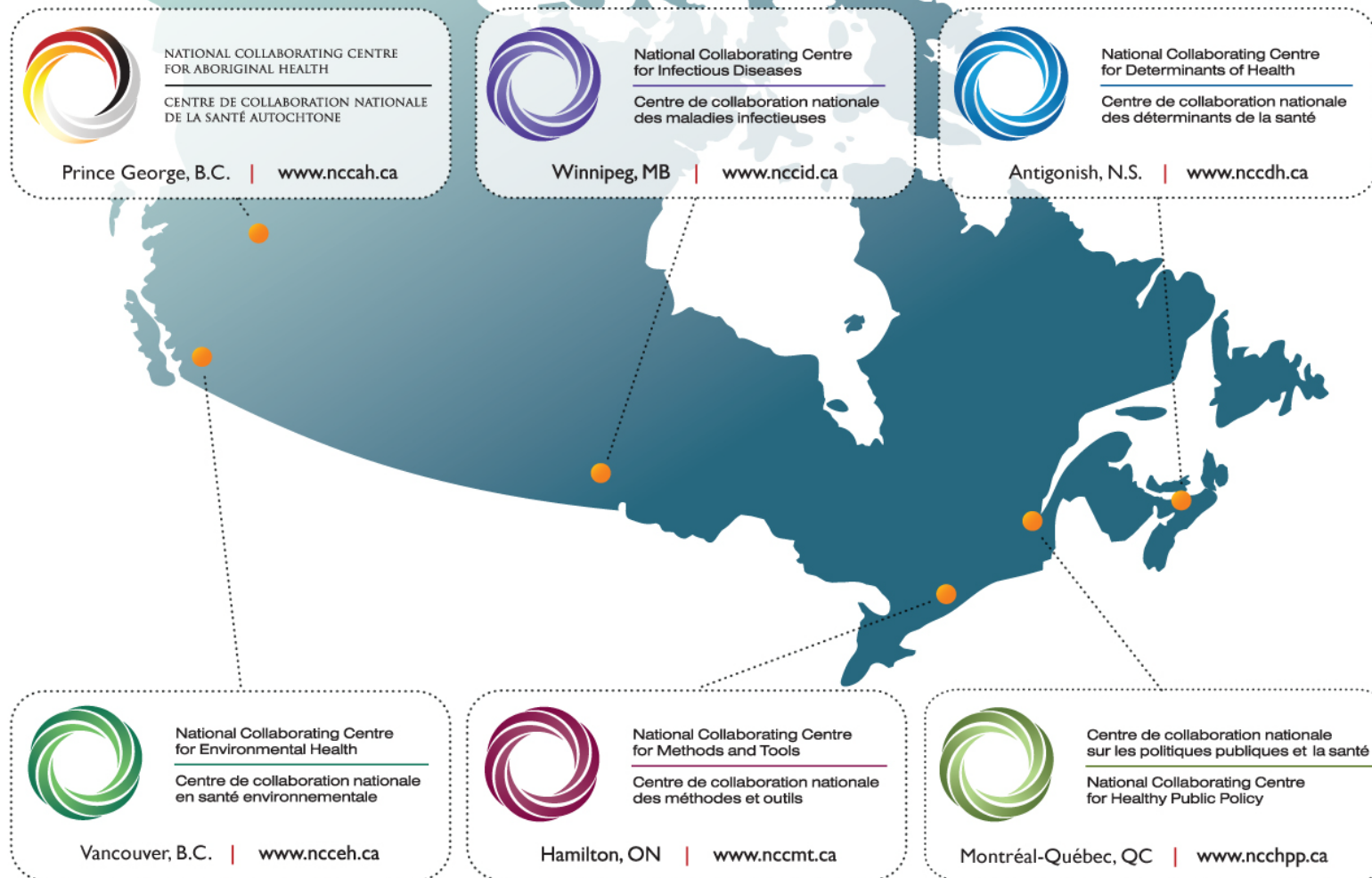
- The effects of public policies on health
- Generating and using knowledge about policies
- Intersectoral actors and mechanisms
- Strategies to influence policy making



Centre de collaboration nationale  
sur les politiques publiques et la santé  
National Collaborating Centre  
for Healthy Public Policy

*Institut national  
de santé publique*  
**Québec** 

# The National Collaborating Centres for Public Health



# Built environment: What do we do?

## 1. Knowledge synthesis about interventions on street/road networks



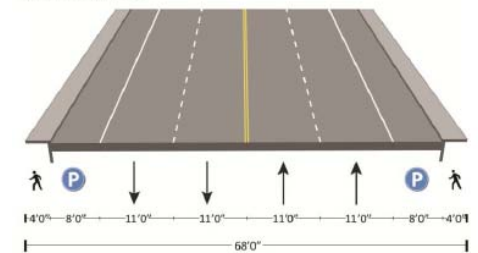
Source:

<http://www.ecologieurbaine.net/exemples/canada/apaisement-de-la-circulation-dans-les-zones-scolaires>

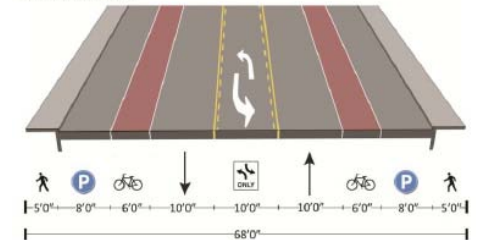


Source: commons.wikimedia.org. Photograph: Brest.

Before Road Diet



After Road Diet



Source: [http://www.ncchpp.ca/docs/RegRoutiersRoadDiets\\_EN.pdf](http://www.ncchpp.ca/docs/RegRoutiersRoadDiets_EN.pdf)

## 2. How to navigate political contexts of interventions?

- Where? When? How? With whom?

# HCBD CLASP: What did we do?

1. Provided input on a health impact assessment (HIA) of a residential development proposal





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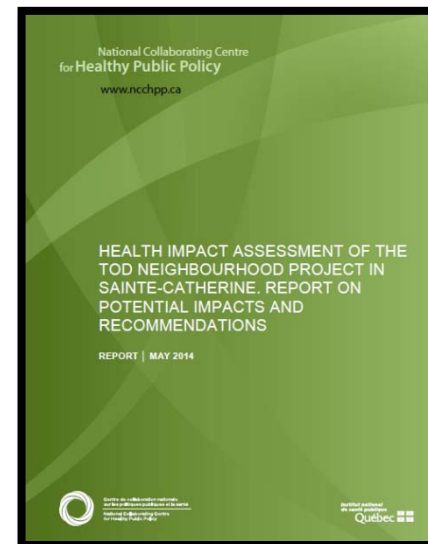
1. Provided input on a health impact assessment (HIA) of a residential development proposal



Credit: Dan Burden, WALC Institute

# HCBD CLASP: What did we do?

1. Provided input on a health impact assessment (HIA) of a residential development proposal
2. Published the report containing the analysis and recommendations



# HCBD CLASP: What did we do?

1. Provided input on a health impact assessment (HIA) of a residential development proposal
2. Published the report containing the analysis and recommendations
3. Developed a simple matrix to guide the analysis and recommendation process

	Development area	Study area
<b>Origins/ Destinations</b>	<b>Supportive of safe AT?</b>	
Density Functional <u>mixity</u> Buildings Parking provision	<b>Detrimental to safe AT?</b>	
	<b><u>Unknowns?</u></b>	
<b>Trips (or routes)</b>		
Connectivity Conviviality Streets; cycle paths; sidewalks		

# Health impact assessment (HIA): What is it?

- A prospective evaluation
- Looking at the main determinants of health a policy/project can impact
- Aims at minimizing negative impacts and maximizing positive effects





# HIA: What is it?

Based on Harris-Roxas and Harris (2011).

## **Mandated**

Within  
Environmental  
Impact  
Assessment

## **Scientific report**

Public  
health duty

## **Decision support**

On a  
voluntary  
basis

## **Advocacy**

To support  
a point of  
view

## **Community led**

To bring  
community  
voice

Scientific data

-

Contextual data

Quantitative

-

Qualitative

# The project

- Transit-oriented development (TOD)



# The project

- Transit-oriented development (TOD)



Bus platform





# The project

- Transit-oriented development (TOD)



Bus platform



Park and ride: parkade



# The project

- Transit-oriented development (TOD)



Bus platform



Park and ride: parkade



Residential





# The project

- Transit-oriented development (TOD)



Bus platform



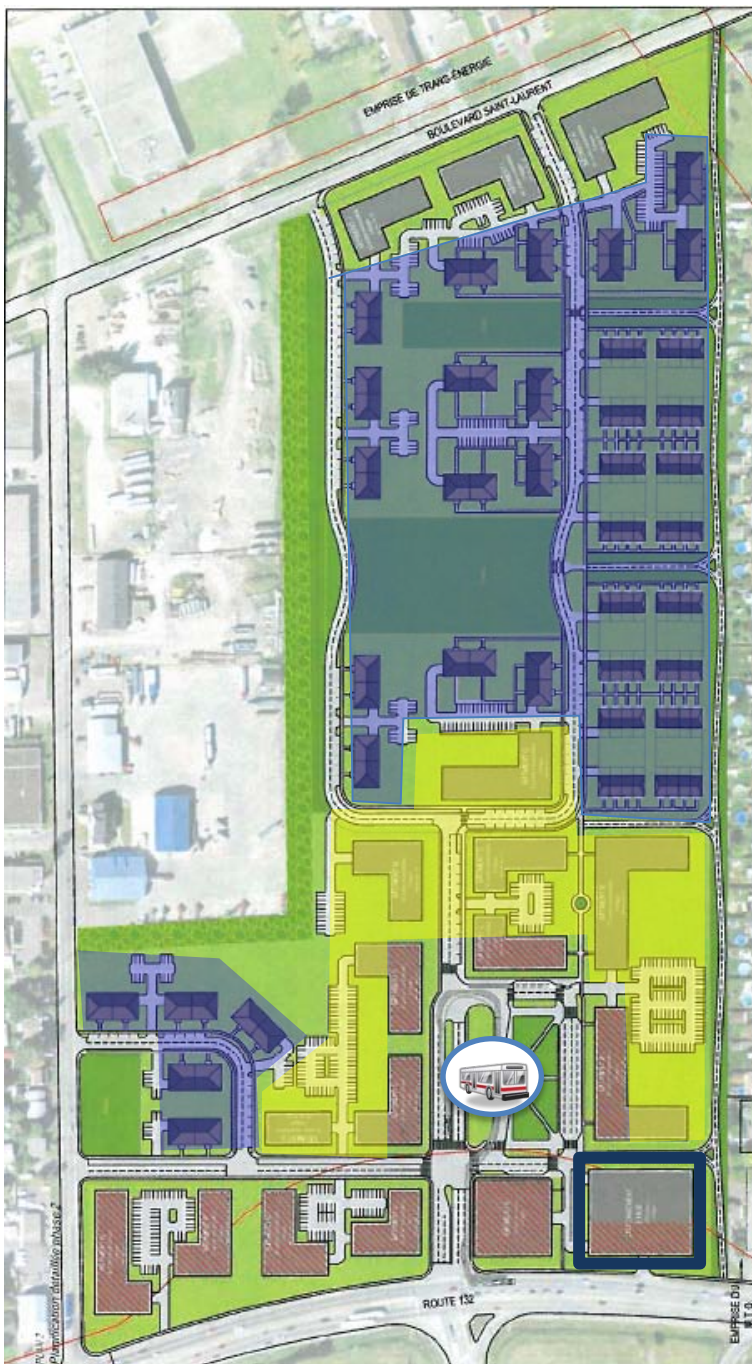
Park and ride: parkade



Residential



Commercial



# The project

- Transit-oriented development (TOD)



Bus platform



Park and ride: parkade



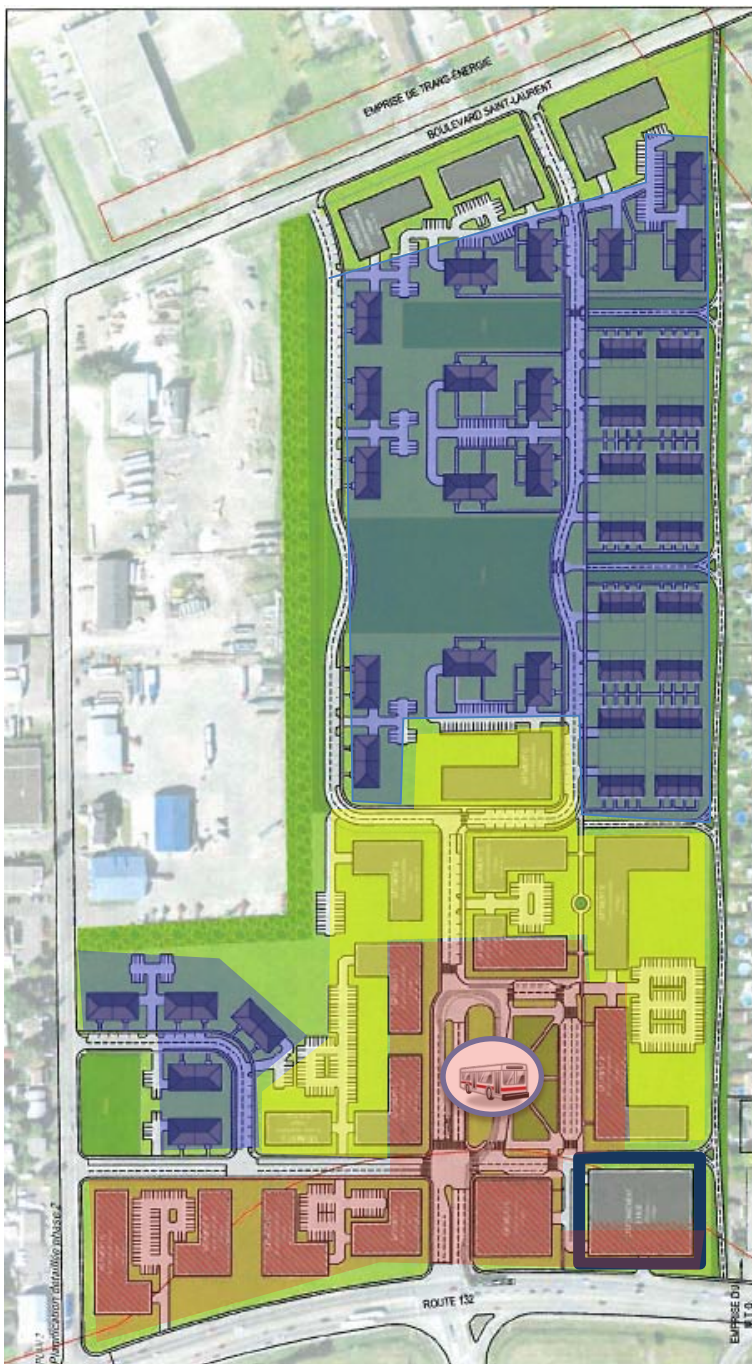
Residential



Commercial



Commercial & Residential





# The project

- Transit-oriented development (TOD)



Bus platform



Park and ride: parkade



Residential



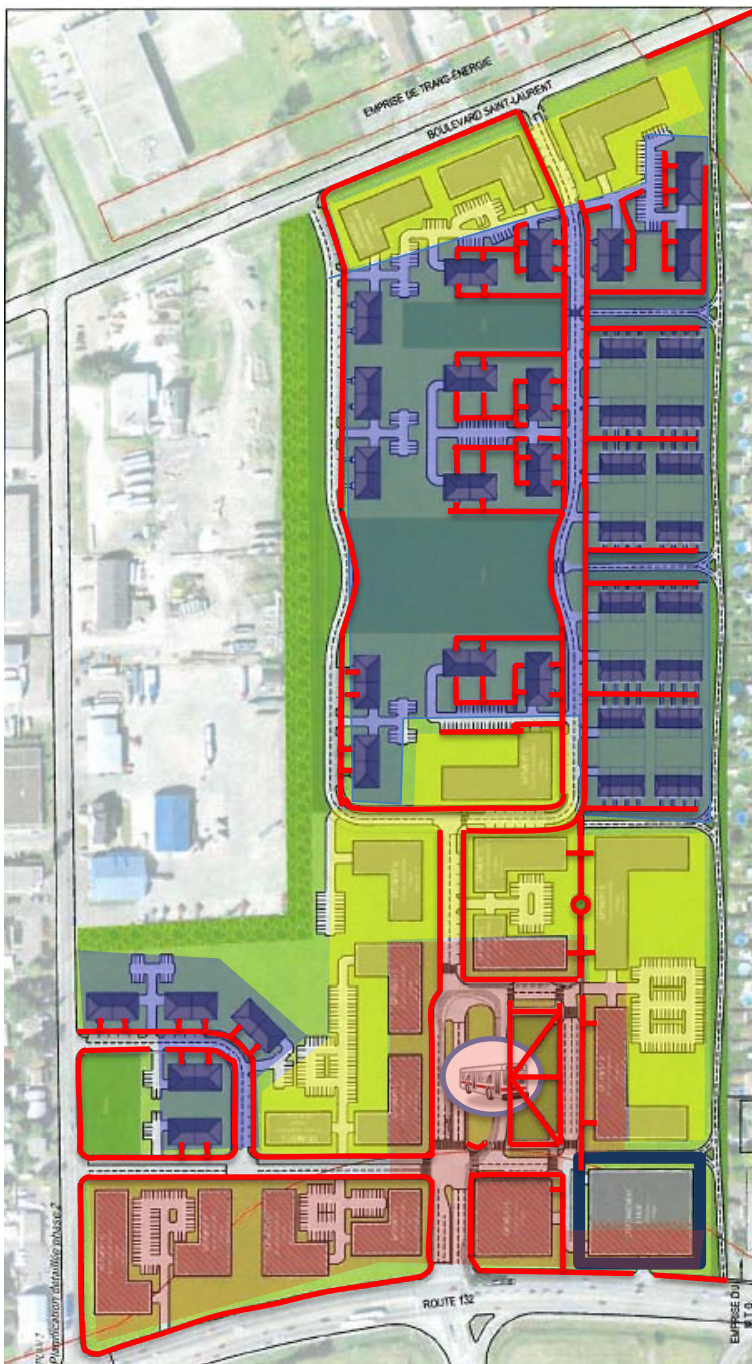
Commercial



Commercial & Residential



Sidewalk



# The project

- Transit-oriented development (TOD)



Bus platform



Park and ride: parkade



Residential



Commercial



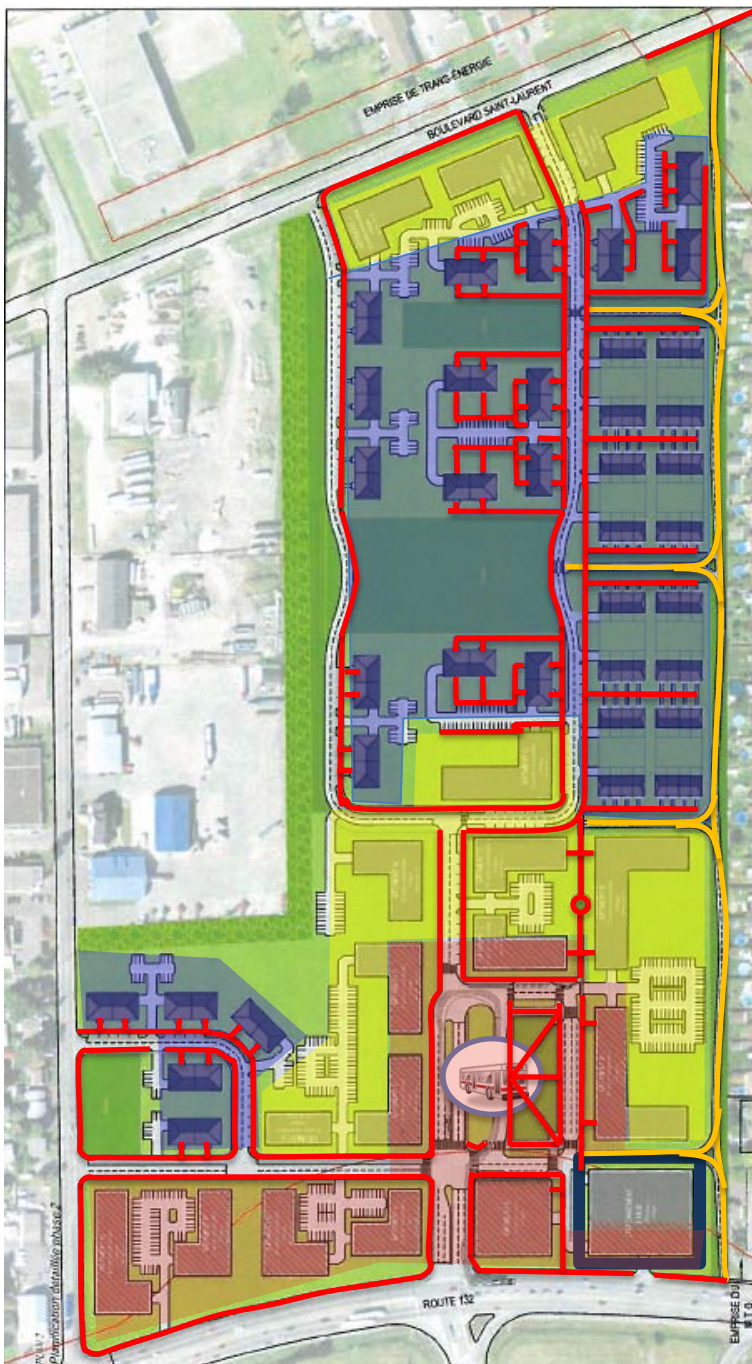
Commercial & Residential



Sidewalk



Bike path





# Situated...



Credit: Ville de Sainte-Catherine & Plania

Map data: Google, Cnes/Spot image, DigitalGlobe, 2014



# Situated...



— Sidewalk



Credit: Ville de Sainte-Catherine & Plania

Map data: Google, Cnes/Spot image, DigitalGlobe, 2014



# Situated...



-  Sidewalk
-  Bike Path

Credit: Ville de Sainte-Catherine & Plania

Map data: Google, Cnes/Spot image, DigitalGlobe, 2014



# Situated...



-  Sidewalk
-  Bike Path
-  National Road





Credit: Ville de Sainte-Catherine & Plania

Map data: Google, Cnes/Spot image, DigitalGlobe, 2014



# Situated...



-  Sidewalk
-  Bike Path
-  National Road
-  Power Centre

Credit: Ville de Sainte-Catherine & Plania

Map data: Google, Cnes/Spot image, DigitalGlobe, 2014



# Situated...



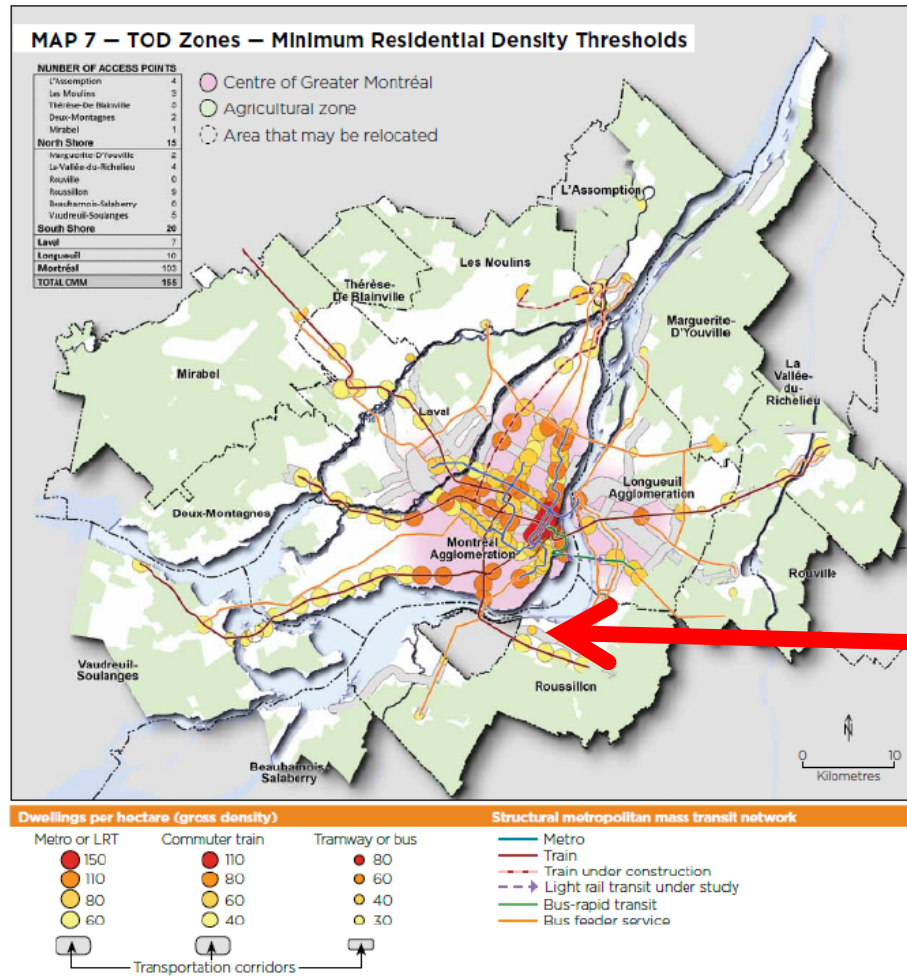
-  Sidewalk
-  Bike Path
-  National Road
-  Power Centre
-  Industrial Zone

Credit: Ville de Sainte-Catherine & Plania

Map data: Google, Cnes/Spot image, DigitalGlobe, 2014



# Situated...

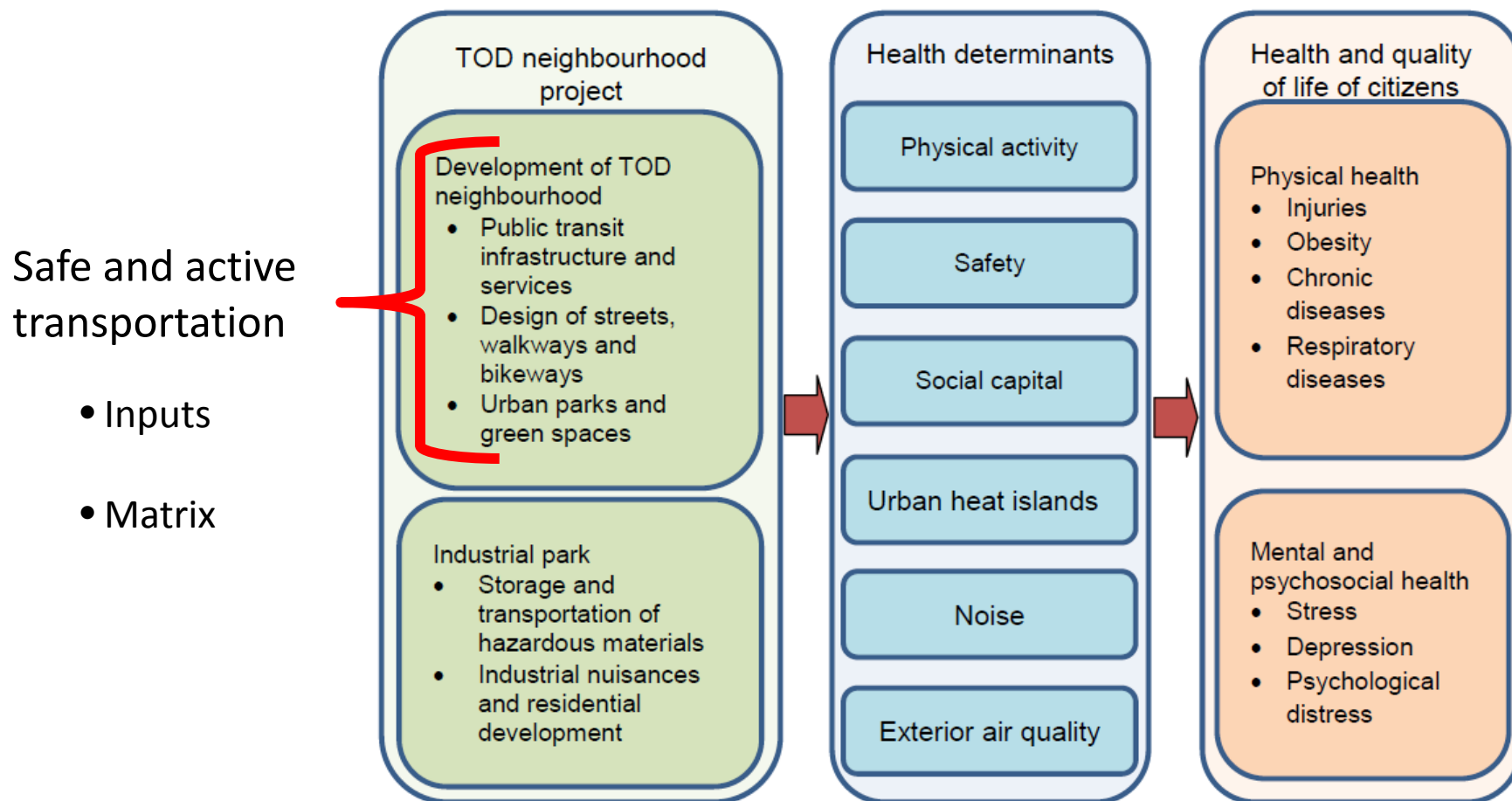


Source: Communauté métropolitaine de Montréal (CMM), 2012, p. 87.

([http://cmm.qc.ca/fileadmin/user\\_upload/pmad2012/documentation/20120813\\_PMAD\\_eng.pdf](http://cmm.qc.ca/fileadmin/user_upload/pmad2012/documentation/20120813_PMAD_eng.pdf))

It is forbidden to reproduce this map without the authorization of the CMM.

# The logic model for the HIA



**Figure 7** Representation of the potential impacts of the TOD neighbourhood project on citizens' health and quality of life

# Matrix: why? (1)

- The presence of sidewalks has a slight positive effect on the tendency for adults to take walks, but has no effect on the frequency of those walks. If people in communities without sidewalks (about one-third of the population), were to walk at the same rate as they do in communities with sidewalks, an additional 2.8 million adults would join the ranks of the walking.

Are there sidewalks?

☐

Yes

☒

No

Recommendation: Add sidewalks on every street.

# Matrix: why? (2)

Photograph: wattle\_leaf.  
Source: <http://is.gd/laefBN>



Need sidewalks?

Are there sidewalks?



Yes



No

➔ Recommendation: Add sidewalks on every street.

- Not very good at contextualizing
- Not very good for discussion with urban planners and traffic engineers

# Matrix: what?

## 1<sup>st</sup> axis:

- Origins and destinations



Home



Bus platform



Work

- Trips

— Cycling

— Bus





# Matrix: What? (2)

2<sup>nd</sup> axis:

Development area



45 D/ha

Credit: Ville de Sainte-Catherine & Plania

Map data: Google, Cnes/Spot image, DigitalGlobe, 2014



# Matrix: What? (2)

2<sup>nd</sup> axis:

Development area

Study area

45 D/ha

15 D/ha

# Matrix: What? (3)

	<i>Development area</i>	<i>Study area</i>
<b><i>Origins/ Destinations</i></b>  <i>Density</i> <i>Functional <u>mixity</u></i> <i>Buildings</i> <i>Parking provision</i>	<b><i>Supportive of safe AT?</i></b>  <b><i>Detrimental to safe AT?</i></b>  <b><i><u>Unknowns?</u></i></b>	
<b><i>Trips (or routes)</i></b>  <i>Connectivity</i> <i>Conviviality</i> <i>Streets; cycle paths; sidewalks</i>		



# Some recommendations from the report

## Development area

1. Place the main entrances of residential and commercial buildings facing the streets (not the parking lots).
2. Design *woonerfs* between parking areas to increase connectivity in the northern sector and facilitate east to west travel for pedestrians and cyclists.
3. Design streets in the TOD neighbourhood based on the *Zone 30* concept (30 km/h design speed, 30 km/h speed limit, horizontal deflection, raised crosswalks, etc.).



# Some recommendations from the report

## Study area



1. Install two crossings for pedestrians & cyclists connecting the TOD neighbourhood to the neighbourhood on the east, one near the north end of the project and one near the south end of the project.
2. Redesign the main entry point of the TOD neighbourhood to strike a balance between traffic fluidity and the safety of drivers, cyclists and pedestrians
  - Roundabout?
  - Crossing times at 0.9 m/s?

Credit: Ville de Sainte-Catherine & Plania

Map data: Google, Cnes/Spot image, DigitalGlobe, 2014

# Lessons learned?

- HIA: who is at the table?

- Urban planners?
- Traffic engineers?



Source: www.lumaxart.com

- Recommendations:

- Density, mixity, connectivity?



- Street/bike path/sidewalk design?

- Lack of expertise
- Design norms seen as immutable standards





# Questions:



Source: [www.lumaxart.com](http://www.lumaxart.com)

- What role could you see yourself taking in such a process?
- How could we help you help us?
- Collaboration?



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