

saint-henri :: design proposal

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URBS 433 – Final Presentation
Winter 2008

URBAN DESIGN BRIEF
SAINT-HENRI

Submitted to Professor Pierre Gauthier
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SAINT-HENRI



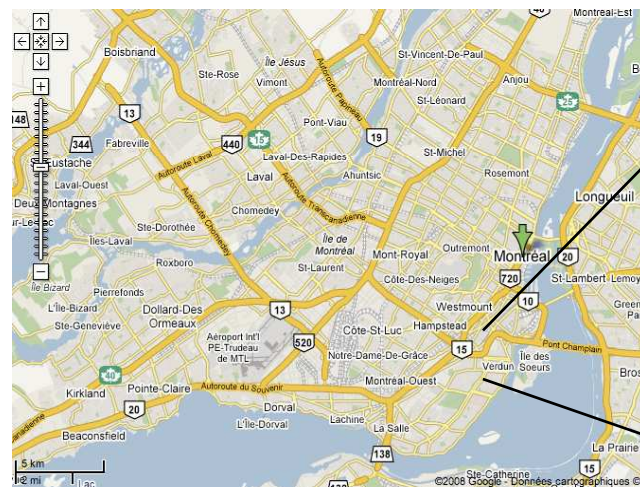
Photos: A. Maubrey

1. GENERAL CONTEXT

1.1 Introduction to Saint-Henri

Saint-Henri is a distinct and unique area within the south-west borough of Lower Montreal Island. Located just along the Lachine canal, this location is at the heart of Montreal's history when goods used to flow through this canal from Europe into continental United States and Western Canada.

However, ever since the deindustrialisation phase in the first half of the twentieth century, many industries, mills and tanneries in the area closed down and simply moved away to other North American cities choosing more peripheral locations along highways and large automobile oriented access routes.



Source: Google map, 2008



Source: Department of GPE, Concordia University

General Context

INTRODUCTION TO SAINT-HENRI

1.1



Photo credit: C. Wang



Photo credit: C. Wang

1.2

L'ouverture de la caserne numero 24 (1901)



Source: Societe historique de Saint-Henri.

1.2 Background Information

History

Saint-Henri was annexed by the city of Montreal in 1905. It is a former industrial neighbourhood with industries of tanneries and textile that were implemented through the 17th and the 19th century. In the 1930s, with the economic crisis, lots of workers were hired and the rate of unemployment grew. When the industries began to close in the 1950s, the neighbourhood became impoverished and social problems appeared. Furthermore, the Lachine Canal was closed to shipping and the neighbourhood is not an advantage for industries anymore (Société Historique de Saint-Henri, 2008). As a consequence, today, the social conditions of the population are relatively low.

Economics and Demographics

From 1986 to 2001, the population of Saint-Henri decrease, and then increase from 2001 to 2006. In the case of Montreal, the population increase from 1991 to 2006. (Statistics Canada, 2006 in CUSP Saint-Henri Profile, 2007)

The average household income in Saint-Henri is lower than those of the other parts of Montreal. For instance, in 2001 the average household income of Saint-Henri was 32,414 dollars compared to the average household income of CMA (Census Metropolitan Area) in 2001 that was 53,725 dollars. The rate of unemployment is also greater than those of Montreal.

In parallel, Saint-Henri is experiencing wave of gentrification, since new high-income condos are being built along the Lachine Canal.

Built Environment

Saint-Henri's built environment has been shaped by various historical events.

Today this historical heritage can be seen through the current pattern of the blocks, the major transportation routes, and the former industrial buildings along the Lachine Canal. The village des Tanneries in the East is also a remnant of the former industrial function of the neighbourhood.

Governance

Saint-Henri is a neighbourhood of the South-West borough of Montreal. Lots of community groups are working within the neighbourhood. These community groups that have been present in Saint-Henri for years, have created a strong social fabric, and are working on different issues: poverty, social housing, illiteracy, education... Solidarité Saint-Henri, Pro-Vert Sud Ouest, Popir are some examples of community groups.

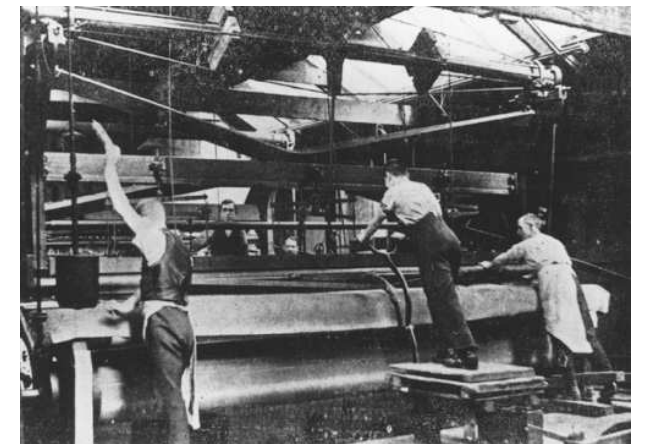
Transportation

Saint-Henri is framed by some major roads: Saint-Antoine, Saint-Jacques, Notre-Dame and Saint-Ambroise streets inside the area, Ville-Marie express way and Atwater avenue around the area. These major roads create barriers, enclose the area and do not favour a pedestrian friendly environment. Saint-Henri is served by two metro station: Lionel-Groulx in the West and Saint-Henri in the centre of the neighbourhood, and nine buses (STM, 2007 in CUSP Saint-Henri Profile, 2007). There are only two bike paths.

Sustainability

High rates of poverty compared to other Montreal district, lack of local businesses, gentrification, contaminated land and lack of public spaces are some of the issues faced by Saint-Henri. Dealing with these issues will improve the sustainability inside the neighbourhood.

Le premier métier de la Johnson Wires and Wearing. vers 1901



Source: Societe historique de Saint-Henri

1.3

1.2 Area of Focus: The Centre

The design proposal will focus on the “centre” of Saint-Henri, going from the Turcot Interchange in the South-West, along the Canadian National (CN) Railway, to the Lachine Canal in the East.

The proposal will focus more particularly on the area around the Saint-Henri metro station, the brownfield site created by the CN railway and the Lachine Canal because it is the area where the most important potentials and opportunities have been identified.

Focus points located in the Centre:

- Place Saint-Henri
- CN traintracks
- Lachine Canal



1.4 Strengths and Weaknesses Analysis

In Saint-Henri, several opportunities and constraints have been identified, grouped into three main points: the permeability and accessibility of Saint-Henri, its social character and its level of facilities.

Poor permeability and accessibility

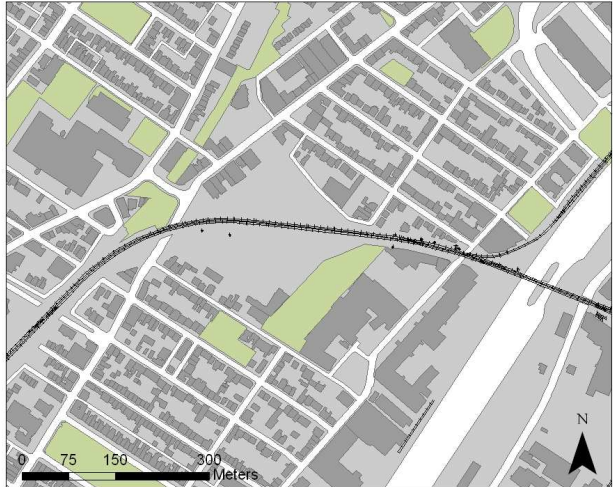
• The CN railway presently cuts Saint-Henri into two and separates the North from the South. It represents a huge barrier, that can not be crossed by foot. The traffic is high on this section, because it links Montreal to the West of Canada. A few roads use underpasses, but most of the roads do not cross the railway and finish as dead ends.

- The presence of the CN railway has created a brownfield site near Saint-Henri metro station. It is currently an empty space, difficult to access and represents an important amount of underused land
- The canal has an important visual quality but it does not benefit the local population as much as it could due to lacks of connections.
- Accessibility to Place Saint-Henri and the metro station is poor. The barrier created by the railway emphasizes this problem.
- The transit network is poorly developed within Saint-Henri, particularly to the West, because of the barrier created by the Turcot Interchange.

Key Points



Photo credit: N.Tremel



Source: Department of GPE, Concordia University

1.4



Photo credit: A.Maubrey



Photo credit: A.Maubrey

A Unique Social Character

• Like many former inner-city industrial neighbourhoods, Saint-Henri is undergoing a process of gentrification, triggered by the Lachine Canal. Located near downtown, near transportation facilities, and a well-known market (Atwater Market), this neighbourhood is under economic pressure. Many profit-driven actors are investing in the development of new luxurious condos on the former industrial sites. One of the main challenges is to ensure social diversity within the area.

• The community groups, very present in Saint-Henri, are concerned about increasing costs of life that might push out the local population.

- Saint-Henri has a strong “sense of community”: local residents identify with the neighbourhood.



Access to facilities

- Notre-Dame Street being the only commercial street in the neighbourhood, is very important for the local residents, especially for those located in the Western part where there are very few facilities (only a few depanneurs). It declined economically as industries and population moved out (many shop fronts indicate “for rent”), but today it is undergoing a process of revitalization with the new private investors taking an interest in the area.

- There is a number of public spaces in Saint-Henri that could be optimized through better legibility and accessibility. Indeed, the current public spaces are small or not clearly defined. For example, the lack of clear separation between public and private spaces along the Lachine Canal, especially near the new condo developments, discourages people from using the banks.

Mixed-use activity along Notre-Dame street



Photo credit: A.Maubrey

Lachine Canal



Photo credit: C.Wang

2.1



<http://www.answers.com/topic/lachine-canal?cat=travel>



http://www.havremontreal.qc.ca/fr/etats_lieux/f_etats_secteurs_requalifies.htm

2. PROJECT DEVELOPMENT

2.1 Aims and Objectives

a) To answer the **population needs**, by:

- Providing social and affordable housing. The buildings have to be different in types and sizes to accommodate every part of the population of Saint-Henri;
- Protecting the built environment and the historical heritage of Saint-Henri

b) To improve the **accessibility** within the neighbourhood and with the surrounding neighbourhoods to the East (downtown Montreal) and West (Turcot Yard) by:

- The introduction of a tramway line
- Improving the bicycle network through better connections

- Reinforcing pedestrian access to public spaces and facilities.

- Create links to the West of Saint-Henri with a potential connection to the future development of the Turcot Yard

- Connecting North and South sides of the neighbourhood.

c) To provide a **healthy** and **sustainable** environment through the development of:

- Public and green spaces

- Public services and facilities

2.2 Policy Intervention

Saint-Henri was identified as having a good potential for a **Transit Oriented Development or Design (TOD)**.

Indeed, TOD principles consists in improving people's quality of life based on the assumption that good pedestrian mobility and accessibility to facilities is essential to a healthy living environment. This can be achieved by:

- Increasing density
- Reducing automobile dependence
- Creating a pedestrian and bicycle-friendly environment
- Developing a good public transportation network.

Potential for such a development has been identified around Place Saint-Henri metro station as it is located strategically at the geographical center of the neighbourhood:

- The metro exits on a site with high historical value: the Place Saint-Henri
- Has access to a variety of community and public services (i.e. CLSC, community organizations' headquarters such as P.O.P.I.R., etc.), and to a food superstore (i.e. IGA)
- Within proximity of Notre-Dame street, a historical and local commercial street
- Adjacent to a brownfield site which offers land available for redevelopment (i.e. can serve to create a denser area)
- As close as 500 meters from the scenic Lachine Canal

“Transit Oriented Design, or TOD, is the creation of compact, walkable communities centered around high quality transit systems. This makes it possible to live a higher quality life without complete dependence on a car for mobility and survival.”

(<http://www.transitorienteddevelopment.org/>)

2.3

2.3 Areas of Interest

For the analysis the central area of Saint-Henri was divided into 3 sites:

- Sector 1: Place Saint-Henri
- Sector 2: The CN Brownfield Site
- Sector 3: The Canal

Place Saint-Henri

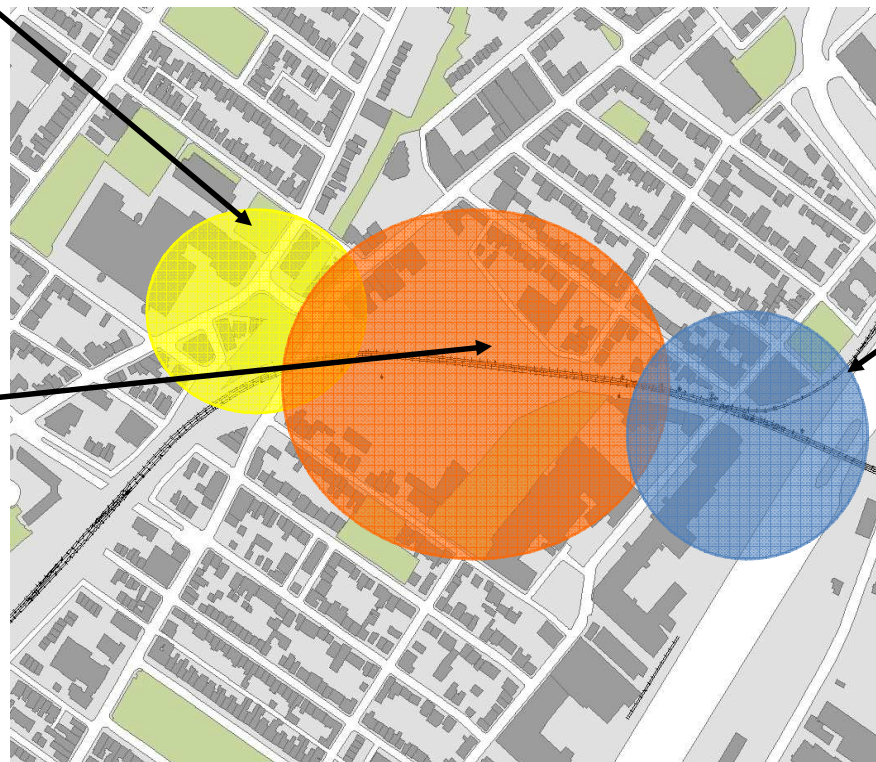


Photo Credit: N. TREMEL

The CN Brownfield Site



Photo Credit: N. TREMEL



Source: Department of GPE, Concordia University

The Canal



Photo Credit: A. Maubrey

3. URBAN DESIGN PROPOSAL

3.1 General Interventions

3.1.1 CN Railway displacement

Since billions of dollars are being invested in megaprojects within and around Saint-Henri, the present urban design proposal assumes that we can use this opportunity (given the scale and money these represent) to remove the Canadian National train tracks from Saint-Henri that currently divides the neighbourhood into two.

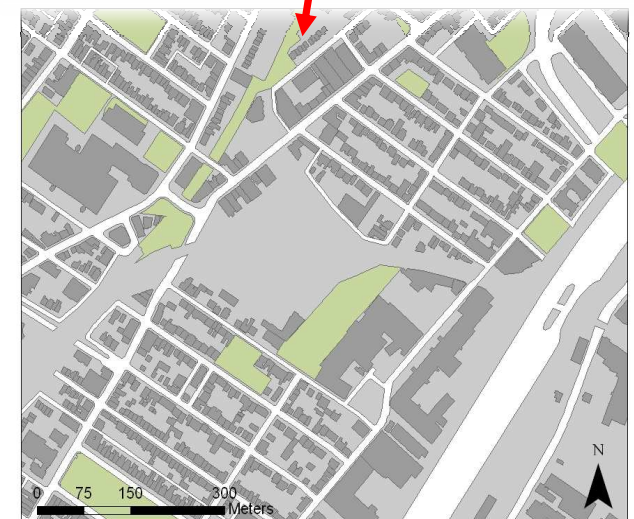
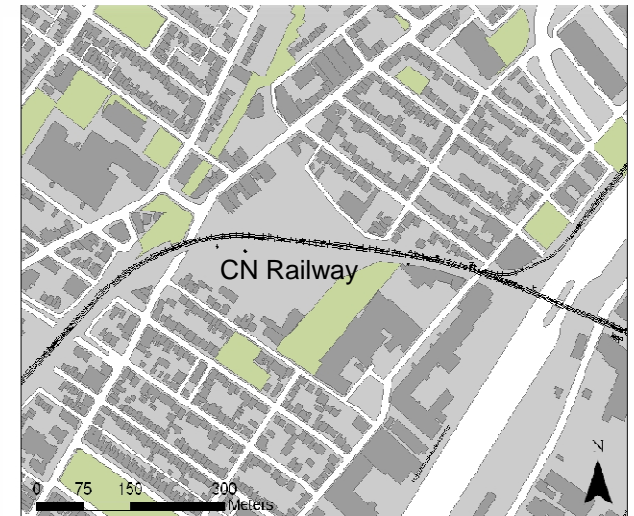
“
Quebec is currently planning to spend \$1.2 to \$1.5-billion on the Turcot Interchange redevelopment project, while the cost for the creation of a new McGill Hospital complex in Glen Yard is expected to add up to \$1.6-billion.”

<http://www.canada.com/montrealgazette/>

In this way, the train tracks could be relocated South of the Lachine Canal, along highway 15 – which already is a physical barrier –, and thus liberate an important amount of underused land that could be redeveloped beneficially.

The CN railway is indeed currently very **detrimental** to the quality of life of Saint-Henri's local residents:

- noise
- pollution
- physical barrier/obstacle
- wasted land
- poor visual urban landscape.



Sources: Department of GPE, Concordia University

3.1

Tramway line in Lyon



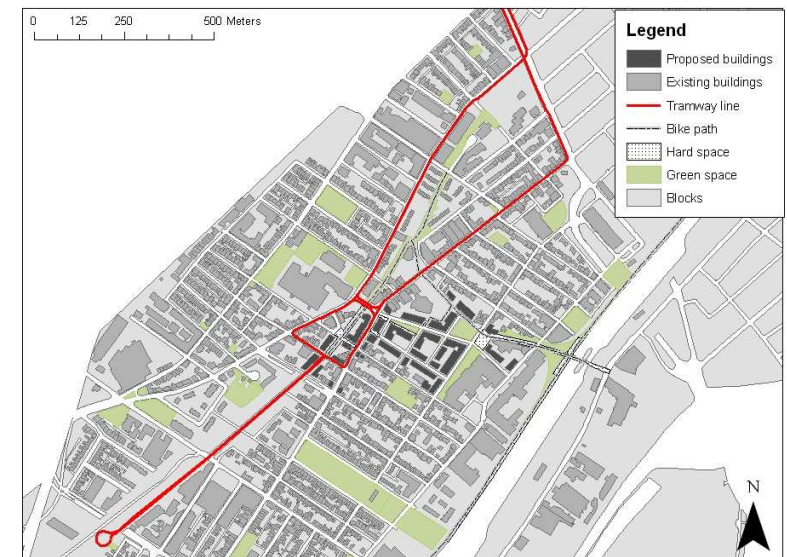
<http://images.nyctsubway.org/logo/title-lyon.jpg>

3.1.2 Tramway Line Proposal:

- **Improving the accessibility to place Saint-Henri metro station and Notre-Dame Street.** The introduction of a tramway line is expected to contribute to the revitalization of this commercial street.
- **Creating better connections to the West and East of the neighbourhood,** and connecting the neighbourhood to downtown Montreal and to the West of Saint-Henri with a potential connection to the future development of the Turcot Yard.
- **Improving pedestrian mobility people especially for people who can not afford a car.**
- **Preserving the character of the neighbourhood:** The tramway recalls the former train line which is highly reminiscent of the neighbourhood's identity.

Costs of the construction of the line will be reduced thanks to the reutilization of the existing train tracks.

Tramways being commonly associated to urban renewal ideals, a strong policy of social inclusion will be enforced by the plan in order to balance and minimize the impact of this tramway on gentrification.



Source: Department of GPE, Concordia University

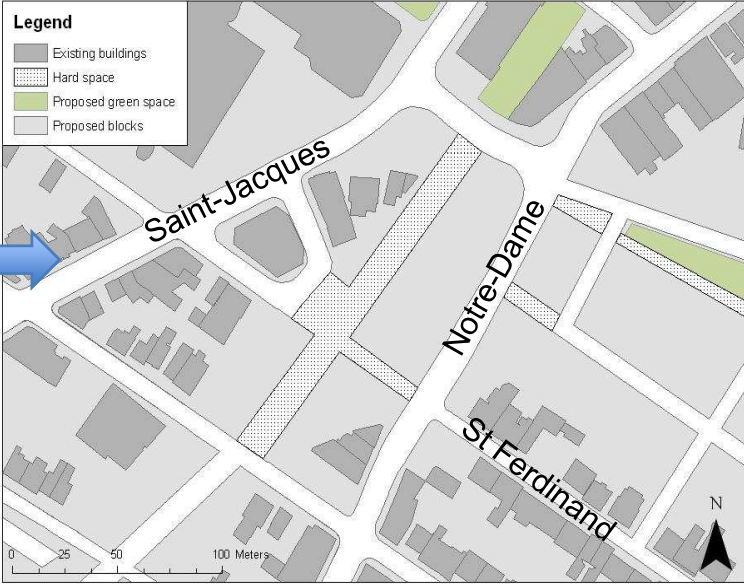
3.2 Sector 1: Place Saint-Henri

Main proposed design interventions to Saint-Henri reconfiguration:

- **Creation of new roads**, such as Saint-Ferdinand, to make connections between South and North sides of Saint-Henri
- **Creation of a public space** for pedestrians and extension of the bike path in order to have a better accessibility to the metro station and to the new stops of the tramway line

- **Creation of a walkable environment.**
The public space will be hard space. Some trees will be planted to separate the public and the new private spaces created by the new buildings along Notre-Dame Street. The Place Saint-Henri will become a legible and symbolic place
- The bus loop is kept to facilitate the buses' traffic

- **Accessibility**
- **Mobility**
- **Sustainability**
- **Public spaces**
- **Green Spaces**



Sources: Department of GPE, Concordia University



3.2

- **Improved legibility**
- **View corridor opened**
- **Pedestrian and bike access facilitated**

Bridge Removal

- The bridge over Notre-Dame street currently services the CN trains. Once the trains will be deviated, this bridge will no longer have any use and will thus be removed and the street levelled so that the tramway can run.
- This will also enable the development of new mixed use buildings along Notre-Dame thus ensuring the street's continuity

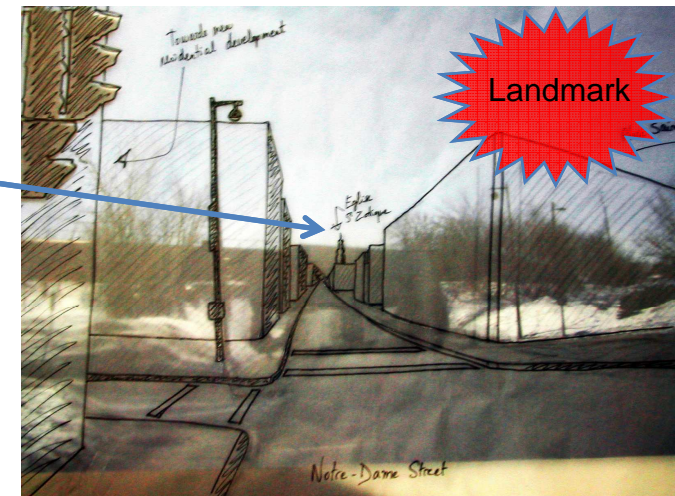
- View corridors will be opened. The Saint-Zotique church is currently hidden by the bridge when looking West from Place Saint-Henri
- The roof of the new building at the corner of Place Saint-Henri and Notre-Dame street will support some kind of landmark for Saint-Henri. The landmark itself has not been determined in this plan for contribution from local residents and artists is expected to decide on the shape it will take.



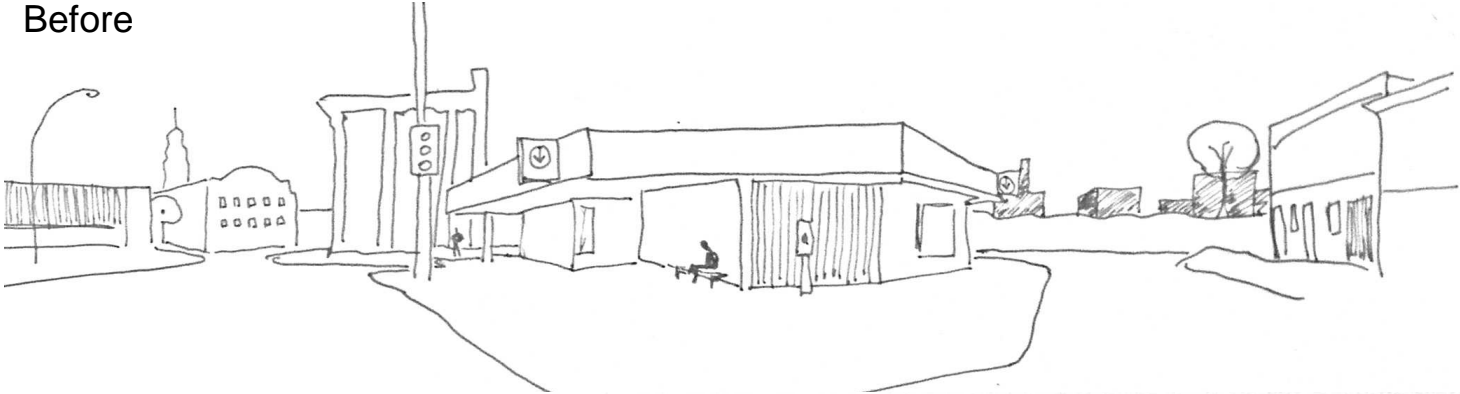
Source: Department of GPE, Concordia University



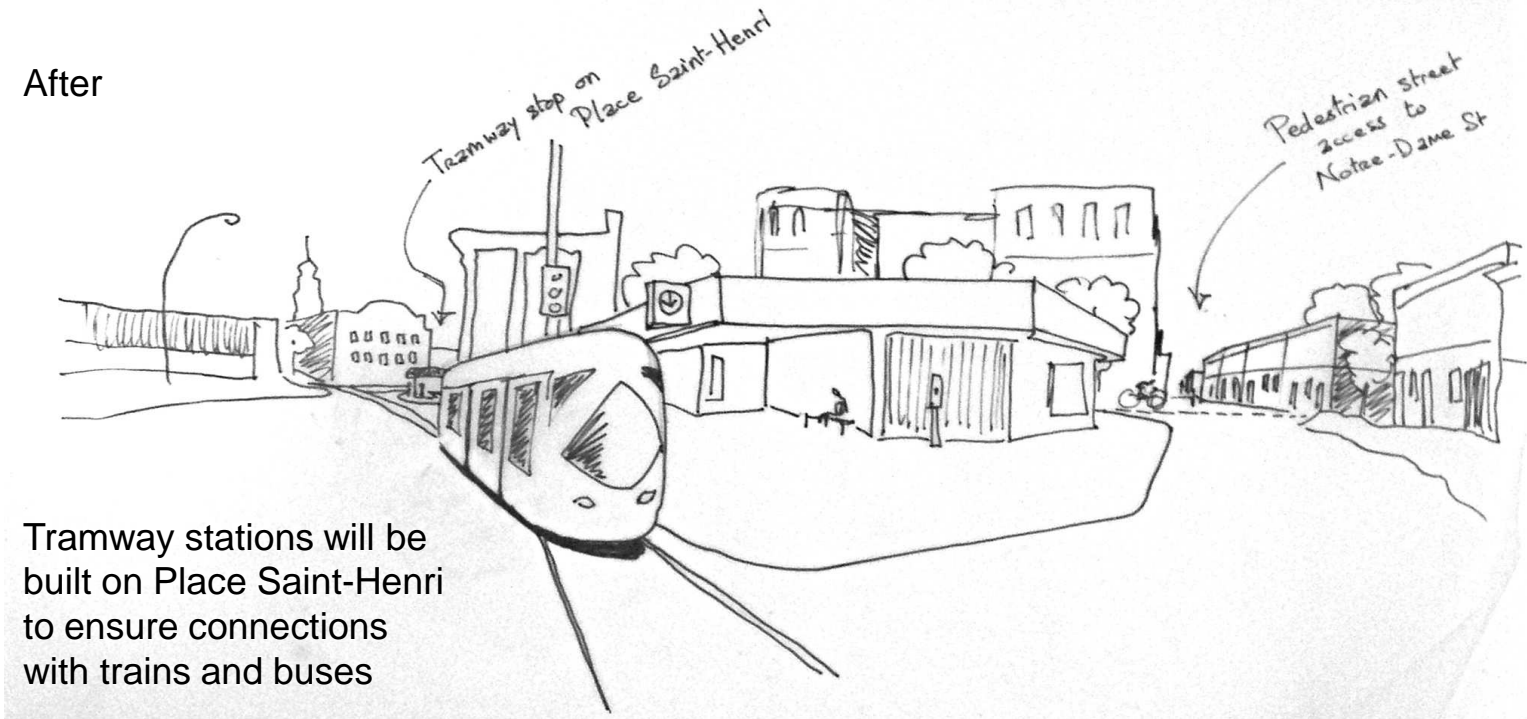
Photo Credit: A. Maubrey



Before



After



Tramway stations will be built on Place Saint-Henri to ensure connections with trains and buses

- **Development of new buildings along the Notre-Dame Street.** It will increase the density of the neighbourhood and create a new frame for the Place Saint-Henri. To keep the commercial character of the street, these buildings will be mixed-use, with commercial activities downstairs and residential apartments upstairs. In order to preserve the pattern of Notre-Dame Street, these new buildings will be 3 storeys high.



Source: Department of GPE, Concordia University

3.3

3.3 Sector 2: The CN Brownfield Site

The Brownfield site of the CN Railway currently consists mainly of empty land. The displacement of the train track transforms this area into a space with important redevelopment opportunities.

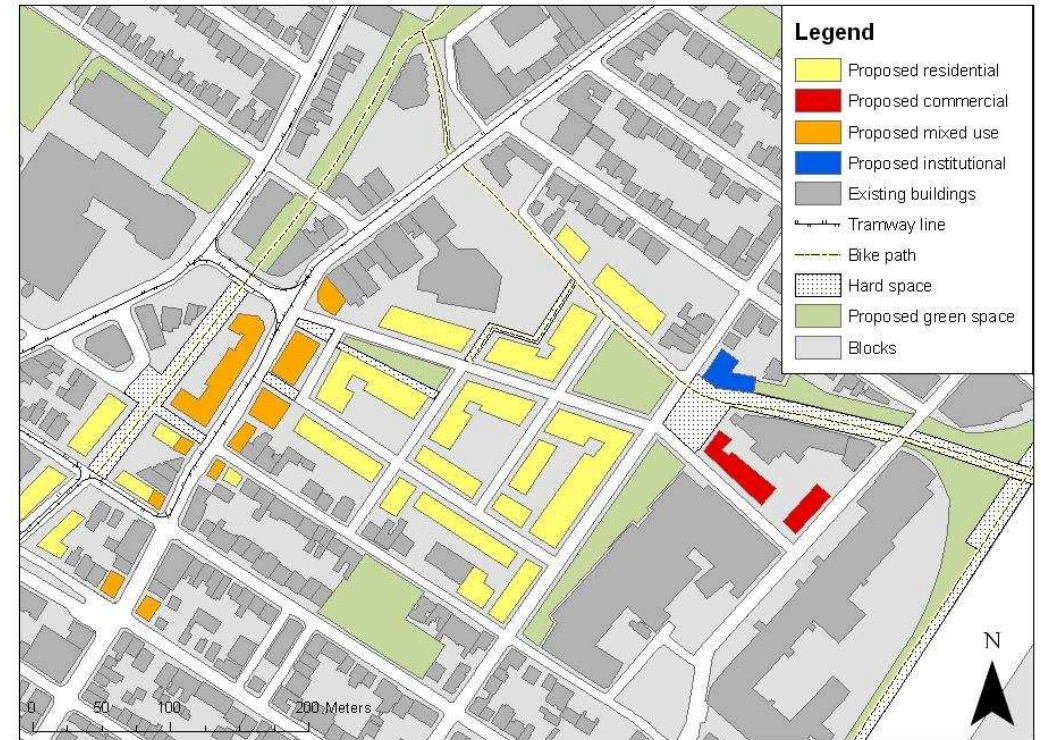


Sources: Department of GPE, Concordia University

Building connectivity

New roads will be built, following the actual pattern of streets and blocks of Saint-Henri. The Saint-Emilie Street, that was “cut” by the brownfield site will be extended, connecting East and West. Permeability will be enhanced by the division of the big existing block into smaller ones.

The major roads will be two-ways but some roads will only be one-way to reduce noise, to create a safer environment, and to reduce automobile traffic.



Sources: Department of GPE, Concordia University

Building a dense residential area

The area will be residential. The number of units envisioned is seven hundred, with seventy percent of social and affordable housing, in order to answer the population’s needs.

Furthermore, because this area is located near to the metro station, it will provide good mobility and accessibility to low-income population and to people that can not afford a car.

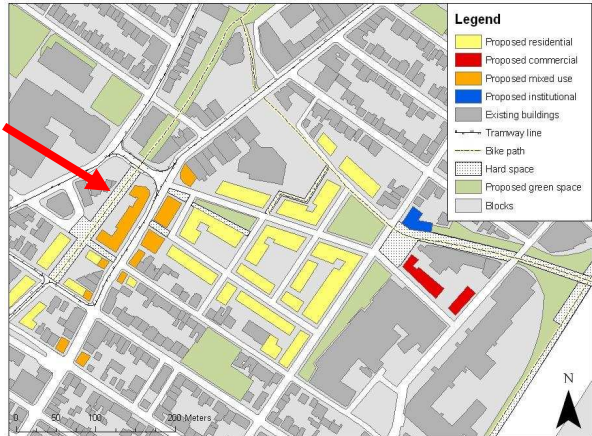
To increase density, the buildings will be six storeys high in the core of the area and three storeys high in the periphery to correspond to the pattern of the existing adjacent buildings.

The sizes of apartments will be diverse to satisfy the population needs: apartments for families, elders, etc... To improve the quality of life, private gardens will be kept around the buildings, with a clear separation between the private and public.

- **700 new units of housing**
- **70% social and affordable housing**
- **6 storey apartment buildings**
- **Triplexes**



Sources: Department of GPE, Concordia University



Sources: Department of GPE, Concordia University

3.3

- Improving connections
- A green corridor
- Improved bicycle access

Existing path created by the former train tracks will be reused to serve as bike paths



Photo credit: N. Tremel

Building a healthy and sustainable environment

Three main green parks will be created inside the new residential area. These green spaces will produce a green corridor from the metro to the Lachine canal.

Proposed green space and bike path network



Source: Department of GPE, Concordia University

Another park along the current commercial buildings in the South of the area will be created to open the space.

The Green network is expected to provide a scenic gateway to the Lachine canal.

New bike paths will be created, connecting the existing ones between Lionel Groulx metro station and Place Saint-Henri, with the canal.

To facilitate its connection with the former bike path, the bridge next to the IGA market which is currently closed, will be reused for cyclists (see photo). Some pedestrian paths will be organized to improve the permeability of the area and the access to the services to Notre-Dame Street, as well as to connect different routes.

Envisioned Housing

Angus, Montreal



Rue Henri-Julien, Montreal



The envisioned buildings will keep the character of Montreal housing. Here are some examples of social housing in Montreal that could be used for the new residential area (Cf. pictures on the left). The interesting feature of these buildings is that they have several independent entrances: this characteristic creates high quality social housing.

The width of the new buildings will be from 18 to 20 meters for the core buildings and about 12 meters for the periphery.



Source: Department of GPE, Concordia University

Example of 3 storey high buildings in Saint-Henri



Photo Credits: A. Maubrey

3.3

Street connectivity and Pedestrian accessibility

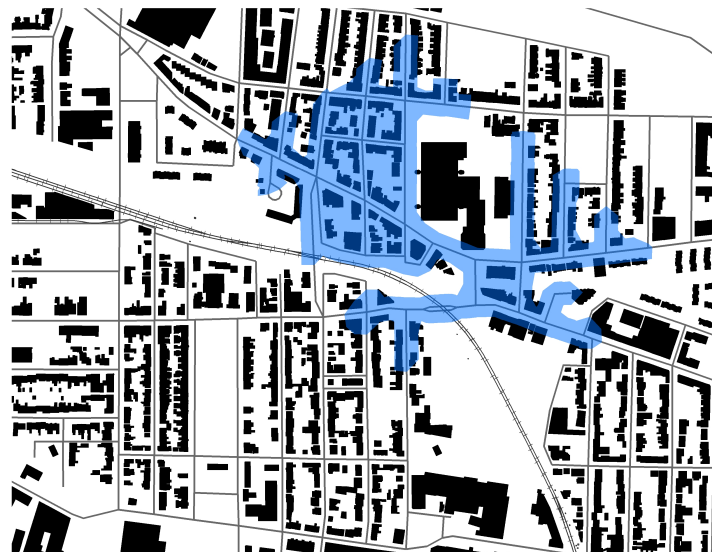
Displacing the CN train tracks will not only liberate a large area of underused land, it will also improve pedestrian activity within the neighbourhood.

An analysis was conducted using ArcGIS software to simulate the impact of the removal of the rail barrier and the proposed street network on the pedestrian activity around the metro station.

Observations:

- enhanced permeability and connectivity
- increased pedestrian activity
- improved access between proposed housing, metro station and canal.

Before



After



Credit: Kent Mc Dougall

3.4 Sector 3: The Canal

The third and final area of intervention is lower Saint-Henri down to the Lachine Canal. There has been a \$77 million government investment for the rehabilitation of the Canal alone (RESO, 2008). However this investment is not necessarily beneficial to the whole population of Saint-Henri. Indeed, development of luxurious condos along the canal has increased, creating a weak link between the Canal and the rest of St. Henri. Some of the funds should therefore go to the benefit of the lower income population.

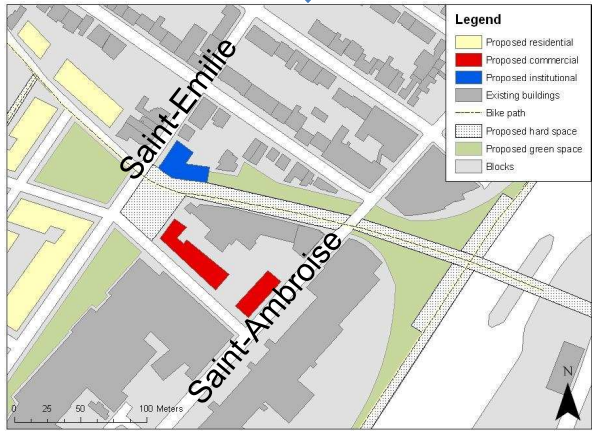
Commercial activities

Next to the current offices, two new commercial buildings will be built that will fit into the existing fabric of the block. Since commercial buildings already exist there, this will be an ideal location to strengthen the local employment market especially with an influx of residents in phase two.

Cultural centre

Along the green network, just below the Brownfield site, a cultural centre will be constructed. This cultural centre will provide a space for entertainment and activities for the local population – the youth in particular – and thus answer needs of the new residential area.

There will be a pedestrian square in front of the centre for outdoor activities. Furthermore, this cultural centre could serve as a landmark or a focal point to the neighbourhood, like an entrance to Saint-Henri. It can be seen from the Lachine Canal and people that will walk along the canal will know where they are. It will be a landmark for people inside the neighbourhood too. The cultural centre can also be seen from Saint-Ferdinand Street in the West.

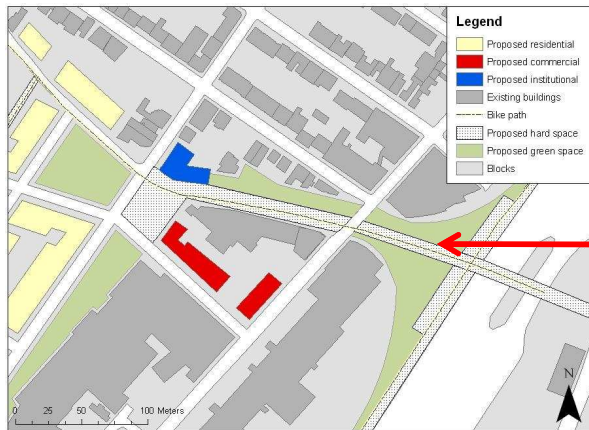


Sources: Department of GPE, Concordia University

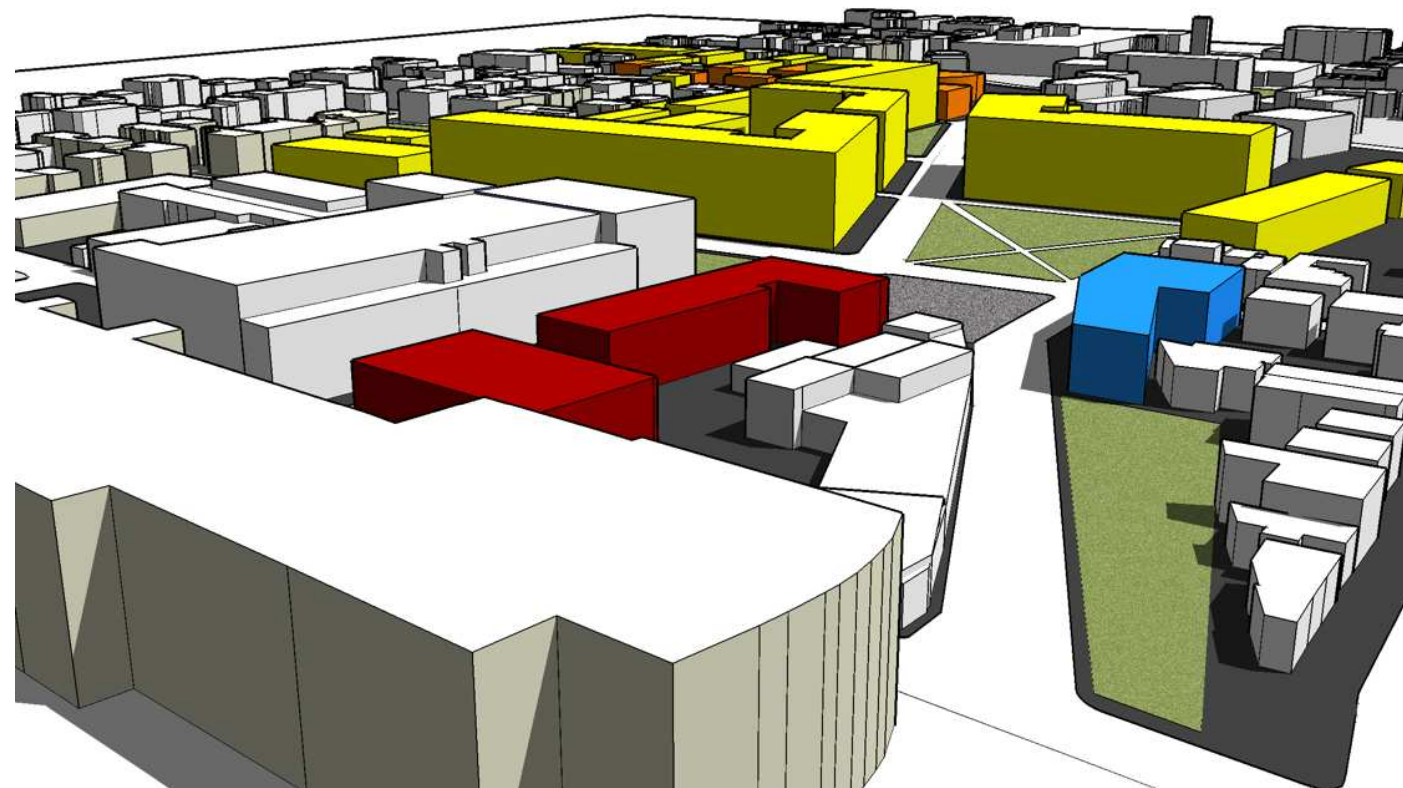
3.4

Greening

The objective here is to create a healthy pedestrian environment and to fit with the principles of sustainable environment. new bike and pedestrian paths to attract people.



Sources: Department of GPE, Concordia University



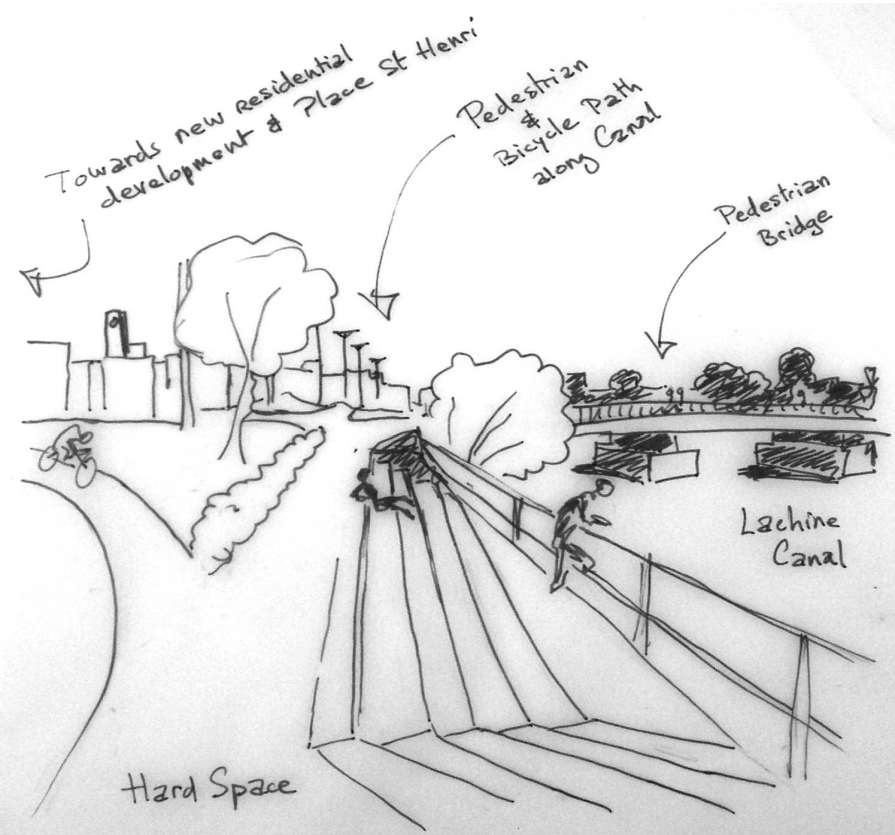
Sources: Department of GPE, Concordia University

Furthermore, the green corridor leading up to the Lachine Canal will be visible all the way from Saint-Henri metro station and the pedestrian path between the new residential area and the canal will attract people as well as favour walking and biking practices.

The banks of Lachine Canal will be greener, ending this green corridor. The CN railway bridge will be kept and turn into a pedestrian bridge. A landmark somewhere in front of the bridge could be useful indicating the entrance to the banks of the canal.

In addition, clear separation between private and public spaces will be created.

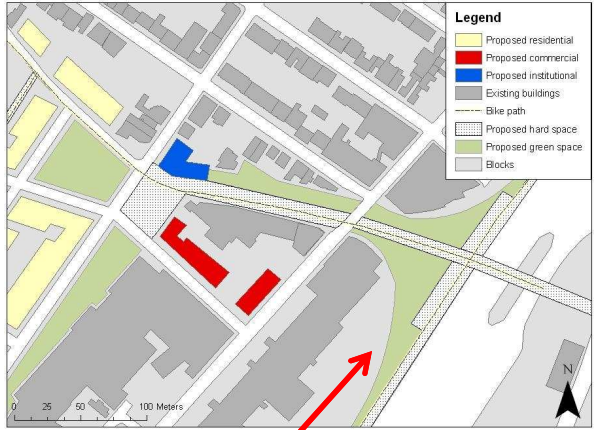
Some examples around the world can be followed to build the new shape of Lachine Canal.



The Rhône banks, Lyon



Photo credit: G. Collomb,



Source: Department of GPE, Concordia University

3.5

3.5 Master Plan

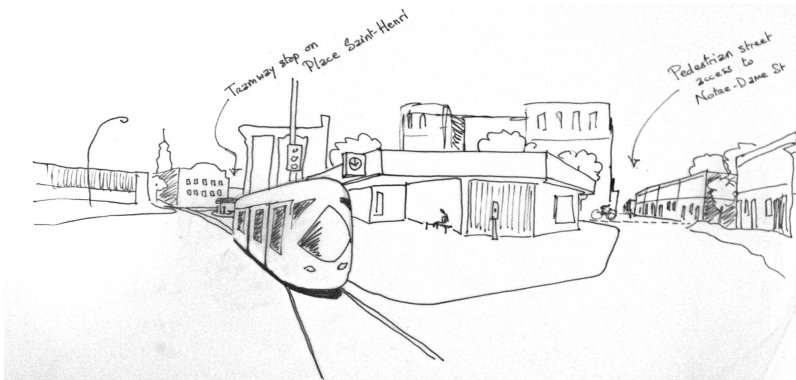


Source: Department of GPE, Concordia University



4. CONCLUSION

With the development and restructuring of the area around the metro, Place Saint-Henri becomes *Place* Saint-Henri. The central place it deserves to be. Along with the tramway, the metro will be a lot more accessible to the population, access between the north and the south of Saint-Henri will finally be more permeable, without a large vacant rail yard in between. The area itself will become denser. Introducing new roads that fit the existing grid pattern and character of the neighbourhood will suit the area taking away the empty Brownfield site.



800 new units of housing (including 100 units located in Place Saint-Henri sector and 700 units located in the brownfield site) will help increase the area's population, economical growth and social activity. 70% of the housing will be affordable housing and social to answer the needs of the local population. The steady flow of connections between the Place, the Metro, the residential area and the Canal will make it much more pleasing to walk and cycle.

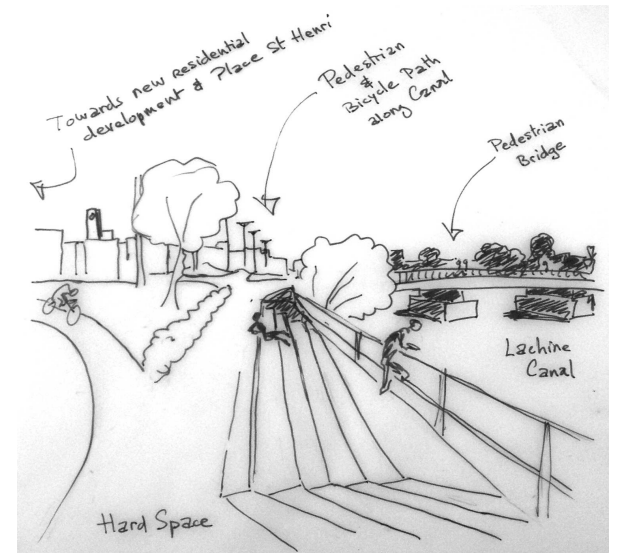
The introduction of a green corridor as well as the creation of public spaces provide better opportunities for people to convene and events to take place.

Among other things, this proposal has demonstrated that Saint-Henri presents multiple opportunities resulting from the theoretical displacement of the CN railway which would benefit the local population and possibly have positive spin-offs for the neighbouring areas.

Conclusion

SAINT-HENRI

4.0



Source: Department of GPE, Concordia University

Acknowledgments

A special thanks to:

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CUSP – Concordia United Student Planners

Kent MacDougall



5. ACKNOWLEDGMENTS AND REFERENCES

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