

The New Local

A Food and Housing Network for Immigrant Integration
in Drummondville, Quebec.

by

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A thesis submitted to the Faculty of Graduate and Postdoctoral Affairs in partial
fulfillment of the requirements for the degree of

Master of Architecture

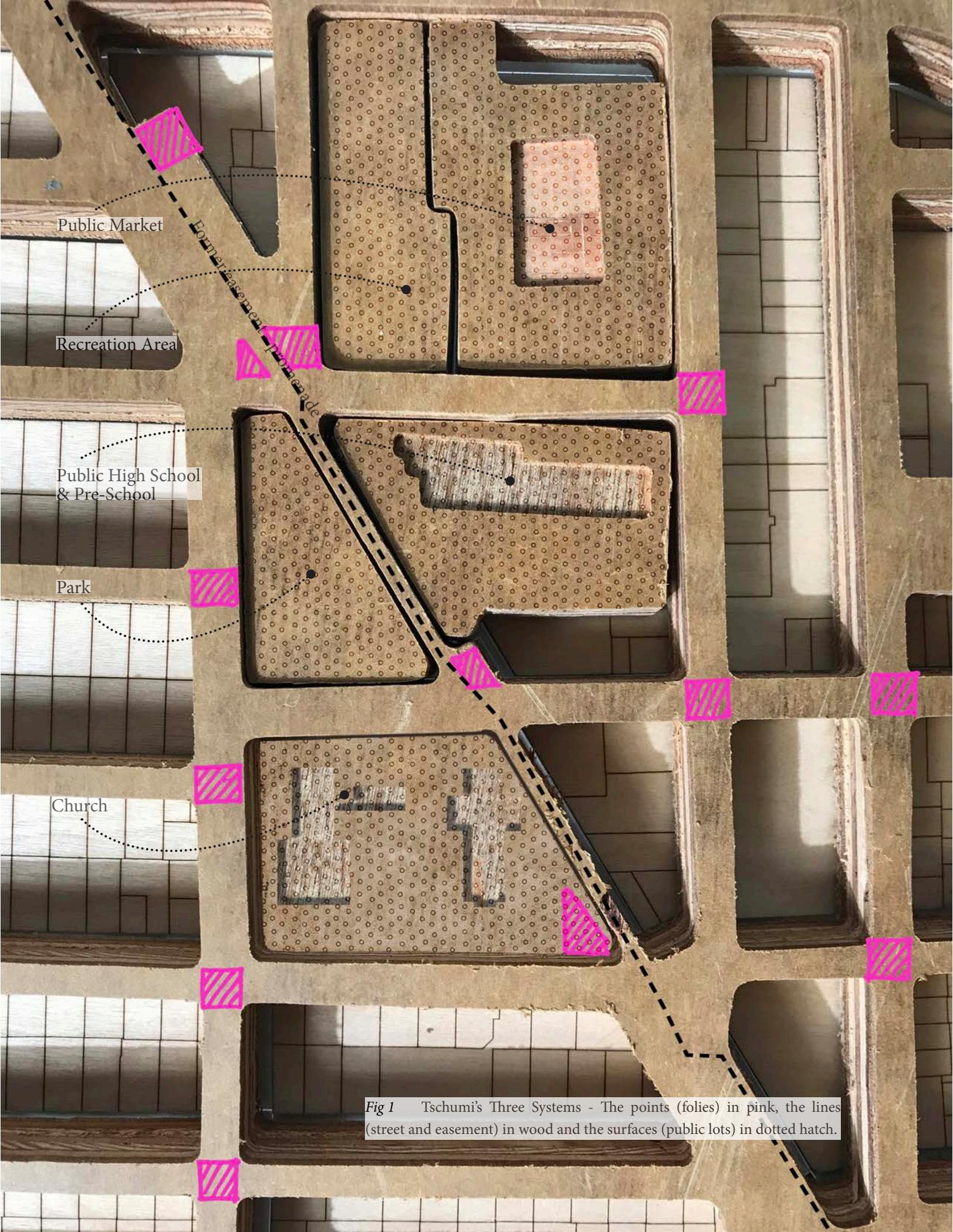
in

Azrieli School of Architecture & Urbanism

Carleton University
Ottawa, Ontario

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The New Local



Public Market

Recreation Area

Public High School & Pre-School

Park

Church

Corner easement promenade

Fig 1 Tschumi's Three Systems - The points (folies) in pink, the lines (street and easement) in wood and the surfaces (public lots) in dotted hatch.

Abstract

This thesis aims to develop housing suited for immigrants in rural areas of Quebec. Many industries in the regional areas of the province are currently under enormous labor shortages due to their aging populations. Statistics show that immigrants and refugees typically have a strong desire to integrate and join an urban workforce, but how can architecture facilitate their integration and social acceptance in small cities where new housing and living costs are more manageable? Could this housing take part in a bigger revitalization project initiated by the municipality? This thesis explores different locations in Quebec province looking for new economic generators and as a test model will explore Drummondville, or more specifically, its Saint-Joseph neighbourhood, as a study site.

This thesis examines design solutions that work as social incubators within the neighbourhood fabric. What kinds of programs and configurations, along with housing, can multiply interactions between newcomers and the host population? Food industries like growing, processing and cooking, can readily provide sources of income to immigrants and help to shape socialization via daily interactions. Hence, by what means can architecture contribute the nourishment of these new people and places?

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Definitions¹

Migrant: Generic term used to describe someone moving to another country. Permanent and temporary migrants with a valid residence permit or visa, asylum seekers and undocumented migrants can be all designated as “migrants”. Canada recognizes four groups of migrants: long-term migrants, labour migrants, family migrants and humanitarian migrants.

Economic immigrant: Person designated by the provincial government for his or her socio professional characteristics and ability to contribute to the economy. This person is destined to an economic activity upon arrival: job, investment, or company management .

Asylum seeker: Someone whose formal claim for asylum is pending. If an asylum seeker is not granted refugee or another protection status, he/she must leave the country. Only a minority of asylum seekers are settled with protection.

Refugee: It is for the Federal government to decide is a person is a refugee as defined by the Geneva Convention. A refugee is either identified/selected after his/her arrival or prior.

Sponsored refugee: Person with a protection status and taken in charge by an NGO or a domestic family upon arrival and for a personalized period once in the host country.

Humanitarian migrant: Someone who has applied for asylum in

¹ International Society of Travel Medicine, “Definitions Matter”, Journal of Travel Medicine, 1 no.3 (2019): 2, doi: 10.1093/jtm/taz005.

a host country and has been effectively granted protection such as refugee status or other. Migrants resettled through humanitarian programs or through private sponsorships are included.

Permanent resident / residency: Status permitting a recognized refugee or immigrant to stay in Canada. As a permanent resident one has the right to apply for Canadian citizenship.

MRC (Municipalité Régional de comté or Regional County Municipality) : There are 87 county-like entities in Quebec Province.

CEGEP (Collège d'enseignement général et professionnel): in English known as "General and Vocational College". Post-secondary institution offering technical programs of three years in length or general and mandatory pre-university programs of two years.

Introduction

My father immigrated to Quebec in 1985 from Lebanon. He arrived as an international student before entering into immigration procedures. During a protocol visit with a social worker, he learned the three general conditions that would be determinants of integration.

First, he had to become financially *dependent* from his host country.

Second, his heart must be there.

Third, he will know he has integrated once he has more memories taking place in Quebec than in Lebanon.

Both of my parents are Lebanese immigrants. They arrived separately, met, and married here. Some may consider them a “successful product” of the immigration process, however, much to their advantage, they did not have to take time for any services offered by the state, such as French and English learning, as they already knew both languages. Thirty years in, their go-to group of friends are still all Lebanese as well, but they do have Canadian friends and coworkers that they see on occasion.

The kind of relations immigrants have with non-immigrants has always been a recurring interest of mine. Do they have any Canadian¹ friends? How is their accent? What is their relationship with their diaspora? Have their degrees been recognized? What is their profession or job? Canada is a land of immigration and

¹ The term Canadian here is used to qualify the native-born Canadians. That includes the second or third generation immigrants.

a demographic ocean. Quebec province, for its French-speaking culture, has drawn numerous people from France's former colonies.

The current aging of the Quebec population is problematic and a source of labor shortages in regional areas. At 5.6%, the unemployment rate is at a low point. In the media this is a very current subject. In Canada, as many as 3,887 articles had the words *immigra** and *région** in their lead in the past two years². These articles discuss recent provincial and municipal initiatives that hope to put “immigrants to the rescue”³ of the regions. Another main subject is the employers' difficulty to find labour as some go great lengths to hire via international ads, provincial job fairs, internal training, etc. This is the case for Olymel, a food-transformation industry, that promises a transportation shuttle to employees residing far from the factory along with competitive salaries and social benefits⁴.

Using this situation as a starting point, this thesis explores design solutions suited for the integration of immigrants. Public space takes on an important role in this design as it may be the most effective way to foster meaningful and productive relationships between newcomers and established community.

Site research has led me to think that Drummondville, or more specifically its Saint-Joseph neighbourhood, is the best area for this design study. Its growing student population, its available jobs, its immigrant recruiting fairs, and its revitalization intentions all made it clear that Drummondville is looking for a change. Two years ago the city welcomed its first university, which added to the already established CEGEP. Drummondville

2 Advanced search results from Eureka.cc, <https://nouveau-eureka-cc.proxy.library.carleton.ca/Search/ResultMobile>.

3 Latraverse, Emmanuelle, “Les immigrants à la rescousses des régions?” *Radio Canada*, May 14, 2018, <https://ici.radio-canada.ca>

4 Montembeault, Maude. “Comment Olymel tente d’attirer un millier de travailleurs”, *Radio Canada*, December 5, 2017, <https://ici.radio-canada.ca>

is situated about one and a half hours from Montreal⁵.

Saint-Joseph is an old working class neighbourhood born from the arrival of the Textile industry, Canadian Celanese Ltd., around 1926⁶. Today, the area shows signs of a poorer demographic with business vacancies, single-parent homes and alerts to youth protection services⁷. The city wishes to revitalize through citizen participation and at the beginning of this research there wasn't anything more than an abstract master plan⁸. In July 2017, the city revealed a vision plan for 2017-2021, which was followed by a public consultation for discussions. Two weeks ago, the city revealed an actual design intervention in response to those discussions: the renovation of an existing multi-use park.

If one considers the streets and the public owned lots, Saint-Joseph holds a considerable amount of public space. A railway used to pass through the neighbourhood, connecting it to the next town. Today the easement is also owned by the city and is named *La Route Verte* or what could be translated as “The Green Route”: a modest bike lane sided by trees that takes people from downtown Drummondville, through Saint-Joseph and further south passed the highway connecting to other towns (Fig 15 on page 39). As many other architects and landscape architects have demonstrated, an easement holds a lot of potential – for pedestrians, cyclists, the fauna, the flora and almost always incidentally for the surrounding real estate. Currently underused

5 A bit of trivia, Drummondville is considered the birthplace of the Poutine, a claim that will later factor into this project.

6 Répertoire du patrimoine culturel du Québec. “Compagnie Celanese”. Gouvernement du Québec, Culture et communications, 2013. <http://www.patrimoinedrummond.ca/recherche/patrimoine>.

7 Atlas des inégalités de santé et de bien-être Mauricie et au Centre-du-Québec, “Drummondville - Saint-Joseph”, <http://aisbe-mcq.ca/centre-du-quebec/drummondville-saint-joseph>.

8 Services à la vie citoyenne. “Revitalisation urbaine intégrée du quartier Saint-Joseph”. Ville de Drummondville, July 2017. https://www.drummondville.ca/wp-content/uploads/2017/07/RUI_du_quartier_Saint-Joseph_WEB.pdf

in many regards, the careful (re)planning of the Route Verte, through built interventions of housing and other programs could potentially change the face of the neighbourhood.

Rather than being a simple means to merely allow the immigrants to live in the city, this proposed housing project aims to tackle a wider range of social issues: waste water, social isolation, and increasing local business activity.

A primary catalyst for altering social issues is food. The ways in which food is grown, distributed and consumed has deeply changed over the years. With the arrival of industrial production systems and supermarkets, many authors argue that our relationship with food has changed⁹. Acknowledging that food is an inherent part of daily human socialization, in what architectural ways can food become the vehicle between immigrant and established resident?

This is a research by design thesis, where I am examining the ways in which architecture can possibly generate social and economic benefits within small rural cities.

⁹ Carolyn Steel. *Hungry City*. (London: Vintage, 2008), 112.

Part 01. Immigration

General Profiles and Data

The following data is taken from a study conducted by the Minister of Immigration of Quebec and presents data from 2011 to 2015. There are three categories of immigrants: economic, family and refugees (Fig 2). These categories are then themselves divided into more specific categories. The data selected and displayed in Appendix A, B and C shows the differences between the economic immigrant system and the refugee system. In fact, the economic immigrant system work on a point basis. 67 points out of 100 are needed to qualify for immigration. The point system privileges specific individuals who collect the points from the following categories: language skills, education, work experience, age, arranged employment in Canada, and “adaptability points”¹. With economic immigrants (Appendix C on page 107), the dominant age group is 25-34. Most immigrants of this category already speak both French and English, have more than 17 years of education and have a Professional competence level². The top three countries of provenance are China, France and Algeria. The main professional category of those immigrants is natural and applied sciences.

1 Government of Canada, “Find your NOC”, May 3, 2018, <https://www.canada.ca/en/immigration-refugees-citizenship/services/immigrate-canada/express-entry/eligibility/federal-skilled-workers/six-selection-factors-federal-skilled-workers.html>

2 Skill level A from the National Occupational Classification (NOC) refers to professional jobs that usually require a university degree (ex: doctors, dentists, architects).

The refugee system does not work on a points-basis and therefore has nothing to do with personal skills, academic background of relatives, but everything to do with “situation of danger”. With Refugees (Appendix B on page 106), the dominant age group is 0-14. Most refugees of this category do not speak French nor English, have 7 to 11 years of education and have a New Worker competence level. The top three countries of provenance are Haiti, Syria and the Democratic Republic of Congo. The main professional category of those immigrants is New Worker³.

There are three categories of refugees: recognized on site, taken in charge by the state and taken in charge by host families. A majority of refugees are recognized on site, meaning they arrive in the country as asylum seekers where they are then given refugee status. Refugees have strong intentions to join the workforce with 69 % being women and 77 % being men. The principal projected professions in order of occurrence are:

- Women: business/finance/administration (20.5%) , natural and applied sciences, social sciences, education, public administration and health sector.
- Men : natural and applied sciences (31.02%), business/finance/administration, social sciences, education, public administration.

Before having their own apartment, asylum seekers are placed in temporary shelters (Fig 3) such as community centers. After 4-6 weeks, still waiting for their claims, migrants are moved to a permanent place to live with the help of various public and private organizations. Organizations helping with the search for apartments rely mostly on private properties for rentals. Ethnic minorities are often pushed away from property owners due to racism, fear of inappropriate use or maintenance of the property, fear of failure of payment, etc.

The wait for official refugee status can take up to one year and

³ *New Worker (Nouveau travailleur) is defined as a person who has the intention to join the workforce, but did not name any profession on his or her claim.

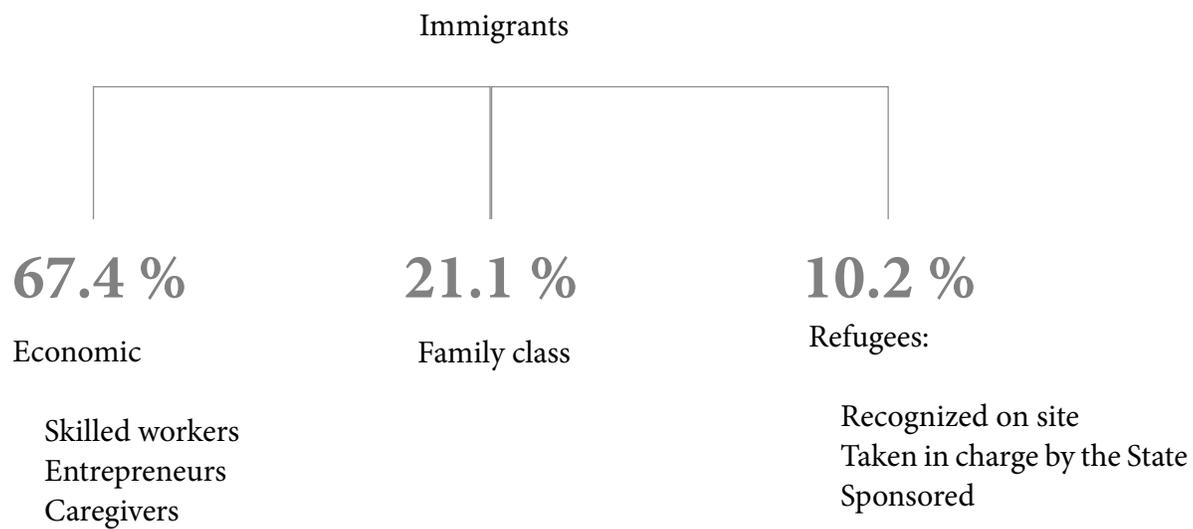


Fig 2 Immigrant Categories in the Province of Quebec

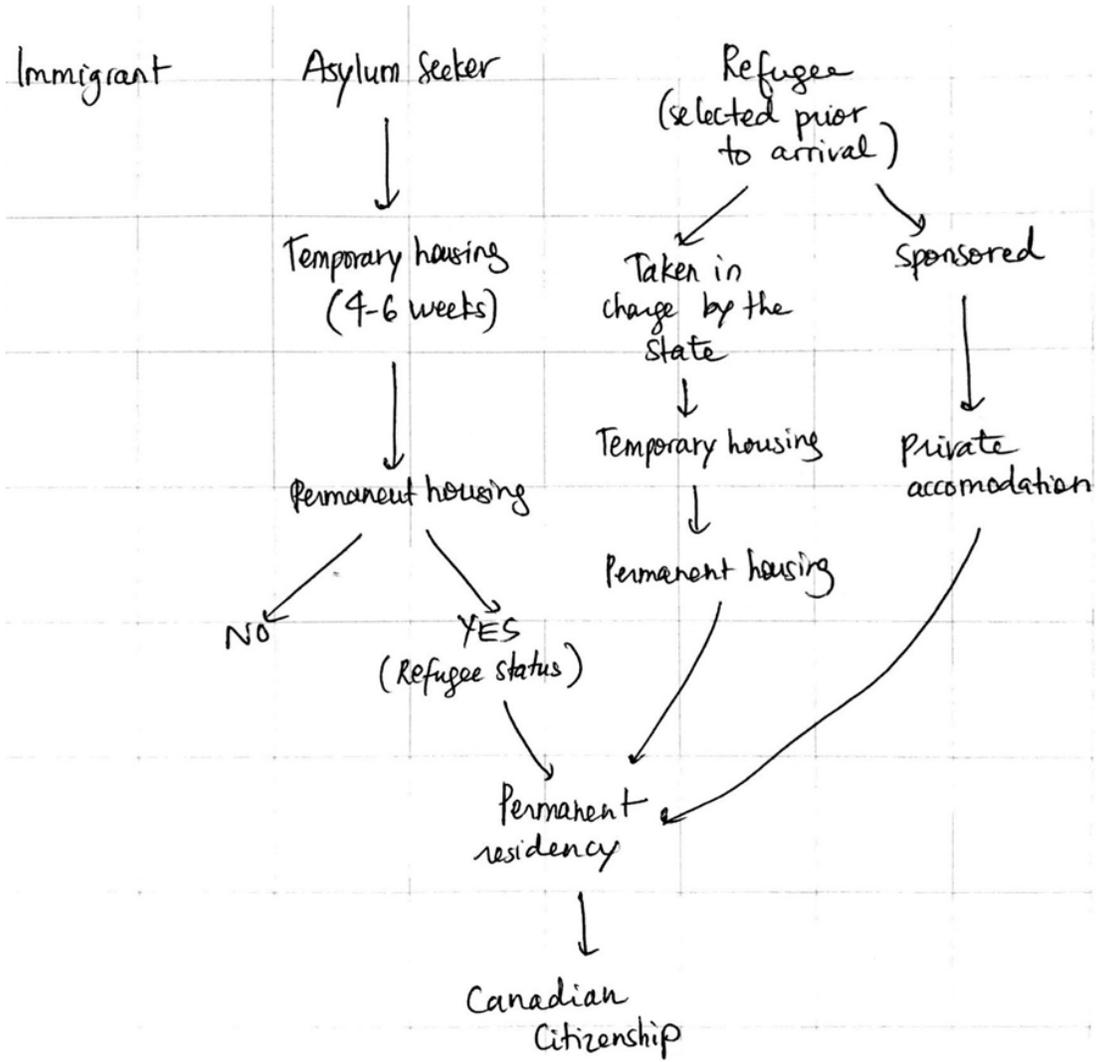


Fig 3 Housing situation of the migrant in regards to his/her status

positive answers are limited. While waiting for their refugee approval, migrants are eligible to financial aid and a work permit once their asylum claims are filed.

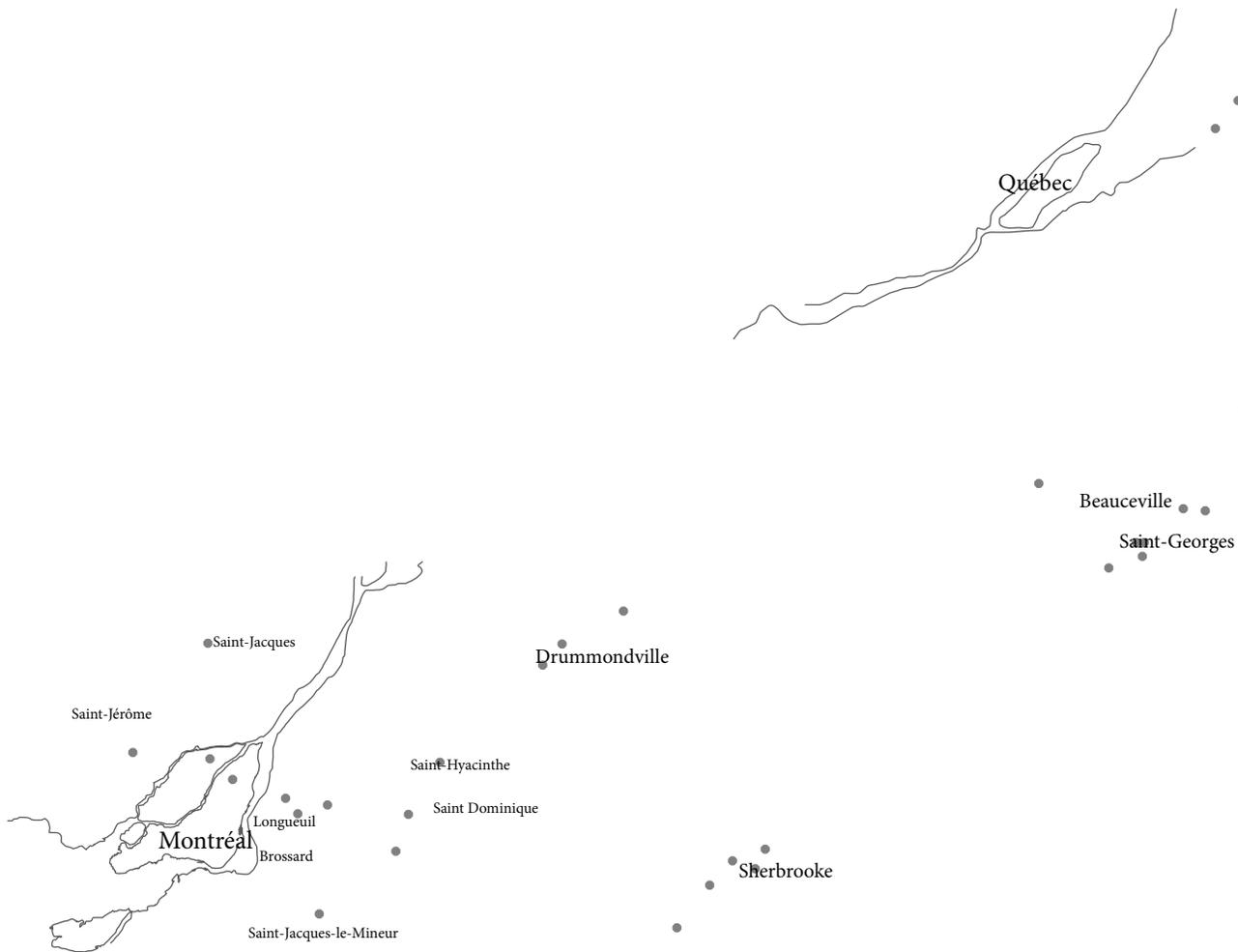
Labour

A study conducted in Sweden by the Royal Economic Society and published in *The Economic Journal* in 2007 has found that early earnings assimilation depends directly on labour market conditions. The study investigated 5 different refugee cohorts who arrived at different national labour markets. The results demonstrate that migrants encountering a bad labour market can leave traces on income and employment for at least ten years⁴. The current labor market condition in Quebec's regions is suitable to economic integration as employers are struggling to find employees.

The rural region of Quebec province is currently facing labor shortages (Fig 4) due to its aging population. Many employers turn to overseas recruitment to fill the gaps, but recruiting internationally takes at least three months or more and some components of the immigration system indirectly stop qualified employees from getting an immigration approval (many potential candidates have the qualifications for the job, but the point system is to their disadvantage). Some enterprises are eager to employ newcomers of Quebec province, but these newcomers are generally located in the Greater Montreal area, as it is the main pole of attraction for newcomers.

Many initiatives, both from the government and from local organizations, have taken place and will continue to take place in order to create a link between qualified and non-qualified individuals and regional recruiting enterprises. This is the case at the Montreal Chamber of Commerce, which currently oversees a three million project per year, or nearly a \$1,000 per

4 Olof Aslund, Dan-Olof Rooth, "Do When and Where Matter? Initial Labour Market Conditions and Immigrant Earnings", *The Economic Journal*, 117 (March): 440.



Drummond:

Olymel, Sixpro, SGT Transports, Soucy Rivalaire inc, Groupe Canimex

Sherbrooke:

Charles River, ixTROM, Dalkotech, Groupe Soucy, Super-métal, Aliments Jardi

Beauce:

Boa-Franc, Structure SBL, Manac, SBC Inc., Bechedor Inc., MAAX Bath Inc.

Fig 4 Companies mentioned in the media to have struggle hiring labor and/or have required to the application of residents overseas

participant.⁵

Adequate employment, along with a sufficient salary, would contribute to the integration of immigrants by making them less dependent on the government. With that in mind, most any local population is more accepting of self-sufficient newcomers who contribute to the economy rather than government-dependent individuals.

Receptivity in Rural Areas

As the integration process is two-fold, receptivity from the local population also has to be taken into consideration when evaluating integration. An ethnographic study of the integration of immigrants in Haut-Lac-Saint-Jean revealed three conditions conducive to social recognition:

1. Work : The host population gives a lot of importance to employment, both when it comes to immigrants and locals. The type of work doesn't matter. All work is honorable. No job is menial because the simple fact of earning an honest salary is enough. With that in mind, the job acts as a generator of recognition and acceptance⁶.
2. Academic background: A common prejudice about immigrants is their alleged lack of education. As soon as people learn about their post-secondary education, immigrants are often better welcomed and seen in a different light⁷.
3. Visibility and implication : While employment and training are strong pretexts for social recognition, the first is not always exposed to the public and the second often requires direct contact with the immigrant. Also, the first could sometimes lead

5 http://plus.lapresse.ca/screens/94cd5240-6262-49ad-aa18-61f31a5cb3a3__7C__0.html

6 Vicky Morin, "Reconnaissance sociale et intégration des immigrants en milieu rural : le cas du Haut-Lac-Saint-Jean", (master's thesis, Université de Montréal, 2012), 94, https://papyrus.bib.umontreal.ca/xmlui/bitstream/handle/1866/9076/Morin_Vicki_2012_memoire.pdf?sequence=2&isAllowed=y.

7 Ibid., 99.

to the image of the ‘parasite’ immigrant and the second to the ‘ignorant’. Voluntary involvement leads to the expansion of the immigrant’s network of contacts and deepens ties with some local individuals. Moreover, involvement gives an additional meaning to its presence on the territory and enriches its sense of belonging and usefulness⁸.

4. Definitive domiciling: Permanent settlement implies that the immigrant appreciates his or her living environment. People in the regions are proud of their environment and the immigrant’s choice to stay is seen as a kind of flattery⁹.

While work stations will easily be filled, what kind of architectural programs could encourage visibility and implication of the migrants within their community?

Refugee Housing Case Studies

Existing or suggested buildings of immigrant or refugee housing do not exist in Quebec Province nor Canada. Although there is a considerable number of refugees and immigrant reaching Canadian territory every year, it is nothing compared to the number of refugees reaching Europe and countries like Germany. In fact, Germany has a number of housing examples from which this thesis can learn.

The first precedent (Fig 5) counts on the mix of residents, both refugees and locals, to accelerate the integration process. The project has small kitchens and bathrooms that share a wall to alleviate cost of construction as well as a bright single-loaded corridor as the climate permits. The second example (Fig 6) is a housing project for asylum seekers whose application were rejected. The intervention is large-scaled and allows for hundreds

8 Vicky Morin, “Reconnaissance sociale et intégration des immigrants en milieu rural : le cas du Haut-Lac-Saint-Jean”, (master’s thesis, Université de Montréal, 2012), 100, https://papyrus.bib.umontreal.ca/xmlui/bitstream/handle/1866/9076/Morin_Vicki_2012_memoire.pdf?sequence=2&isAllowed=y.

9 Ibid., 103.

of people. As it is a short-term accommodation, the layout offers rows of small bedrooms along with shared bathrooms and kitchens at the center of each floor. The third example (Fig 7), features accommodation for both refugees and the homeless. The buildings are designed with a life-span of 40 years. Flexible apartment partitions allow for temporary modifications of unit layouts.

The last example (Fig 8) features a clever circulation space that links residents together as well as acts as a common outdoor space for small encounters.

Most of these architectural examples show a variety of common spaces such as kitchens, and living rooms. These designs keep construction cost to a minimum as well as encourage interactions between the residents, for the duration of their stay. Depending on the length of their stay, shared facilities can become problematic. Small towns of the province are looking to attract newcomers for job contracts but also for their families to appreciate their stay and potentially be a lasting part in the community.

However, these buildings seem to be existing on their own, not connected to anything bigger than their immediate road. Although sometimes allowing rentals to the local population, these buildings do not bring anything else to the community in which they are established. In the hope of benefiting acceptance levels, subsidized housing may have to be presented, and designed, differently than it usually is., for example as an infrastructure or as a sustainable system for the city/neighborhood. or as a benefit for the circulation or even as a reason to open a new business. In all of which housing inserts itself.

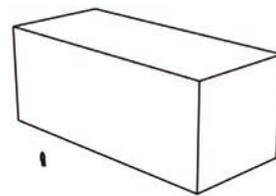
Fig 5 “A Home – For Refugees Too” with common spaces highlighted in pink

Location: Oranienburg, Germany

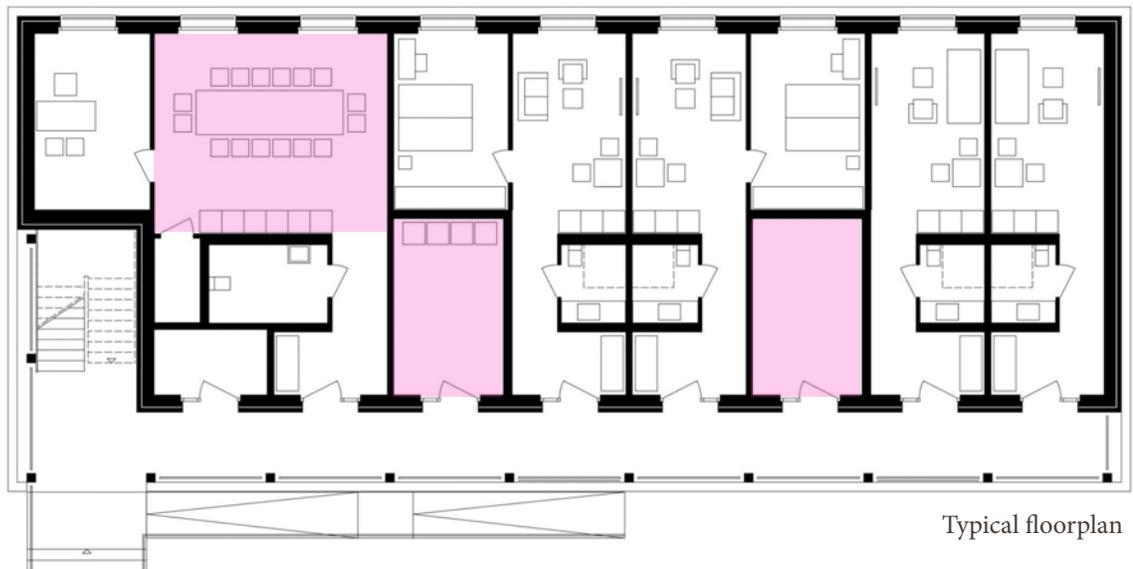
Architect: BBP (Oliver Langhammer), Brümmel

Landschaftsarchitekten International (Andreas Brümmel), Berlin

Residents: Refugees with recognized status¹⁰



Massing



Typical floorplan

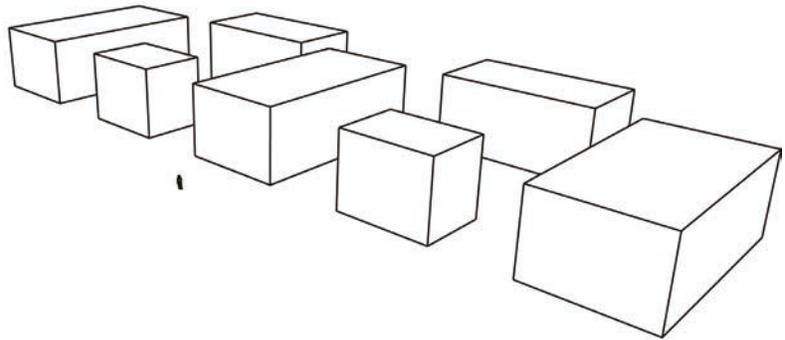
¹⁰ <http://www.makingheimat.de/en/refugee-housing-projects/database/a-homefor-refugees-too-oranienburg>

Fig 6 Refugee Housing with common spaces highlighted in pink

Location: Freiburg, Germany

Architect: ARGE Architekten Freiburg: Franz und Geyer Freie Architekten BDA dwb, stocker dewes architekten bda, jochen weissenrieder architekten bda

Residents: Asylum seekers and asylum seekers whose application was rejected¹¹



Massing



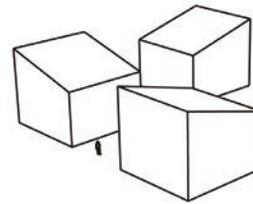
¹¹ <http://www.makingheimat.de/en/refugee-housing-projects/database/fluechtlingsunterkfnfte-freiburg>

Fig 7 Apartments for refugees and the homeless

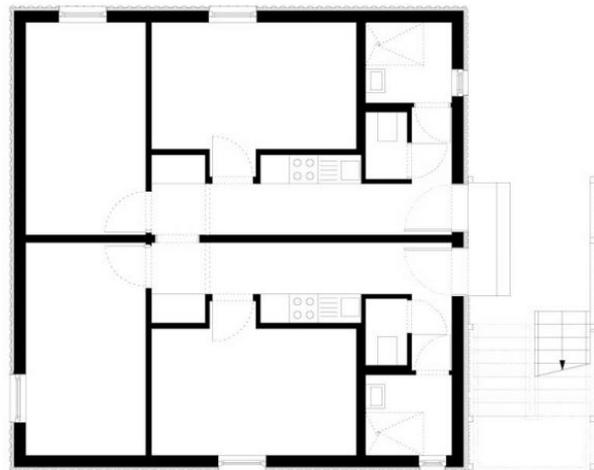
Location: Ostfildern, Germany.

Architect: u3ba Arge camilo hernandez urban 3 + Harald Baumann baumannarchitects, Stuttgart

Residents: Refugees with recognized status¹²



Massing



Typical floorplan

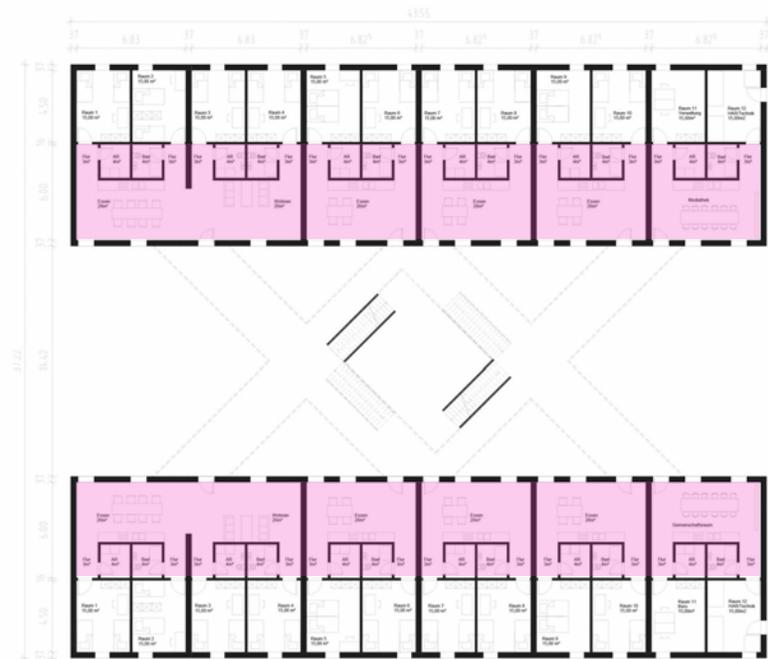
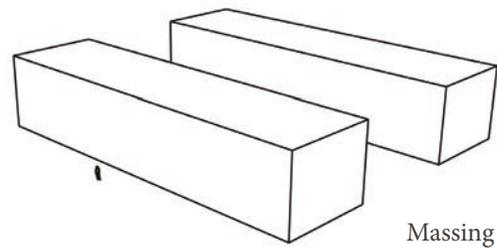
12 <http://www.makingheimat.de/en/refugee-housing-projects/database/apartments-for-refugees-and-the-homeless-ostfildern>

Fig 8 Living room "Refugium" for refugees

Location: Ansbach, Germany.

Architect: hirsch-architekten, Nikolai Warth and Maria Tyroller as intercultural consultant and the engineer for regenerative energies Lisa Schottmann. Support of graphic office # office25

Residents: Asylum seekers and refugees with recognized status. Students, unemployed, mechanics, commuters.¹³



13 <http://www.makingheimat.de/fluechtlingsunterkuenfte/datenbank/wohnraum-refugium-fuer-fluechtlinge-ansbach>

Part 02. Site

Many immigrants choose to live in Quebec or Montreal generally because part of their family is already established in those areas. Other immigrants would prefer to live in Montreal but are willing to move further for better employment opportunities and/or better housing options.

This being said, I think it is important to choose a site that has reasonable proximity, whether through easy transportation or actual nearness, to the Montreal area as well as Quebec city in order to give families and individuals the opportunity to visit their families or simply to have reasonable access to a bigger city (Fig 9). Sherbrooke and Drummondville are both cities with many employment opportunities that are relatively close to both urban areas. From Montreal, by bus, Sherbrooke is 2h30 away and a ticket cost about 38\$, and Drummondville is 1h20 away for about 30\$.

The implementation of new housing for immigrants and refugees has potential to generate a lot of resistance from the host population. Many small towns of Quebec currently have the intention of revitalizing their downtown areas in order to attract new residents (especially families) or to retain their young populations (in remediation to the aging population issue), attracting tourists, and ultimately generating revenue. This is the case for Sherbrooke and Drummondville, which both have strong revitalization intentions within their urban areas.

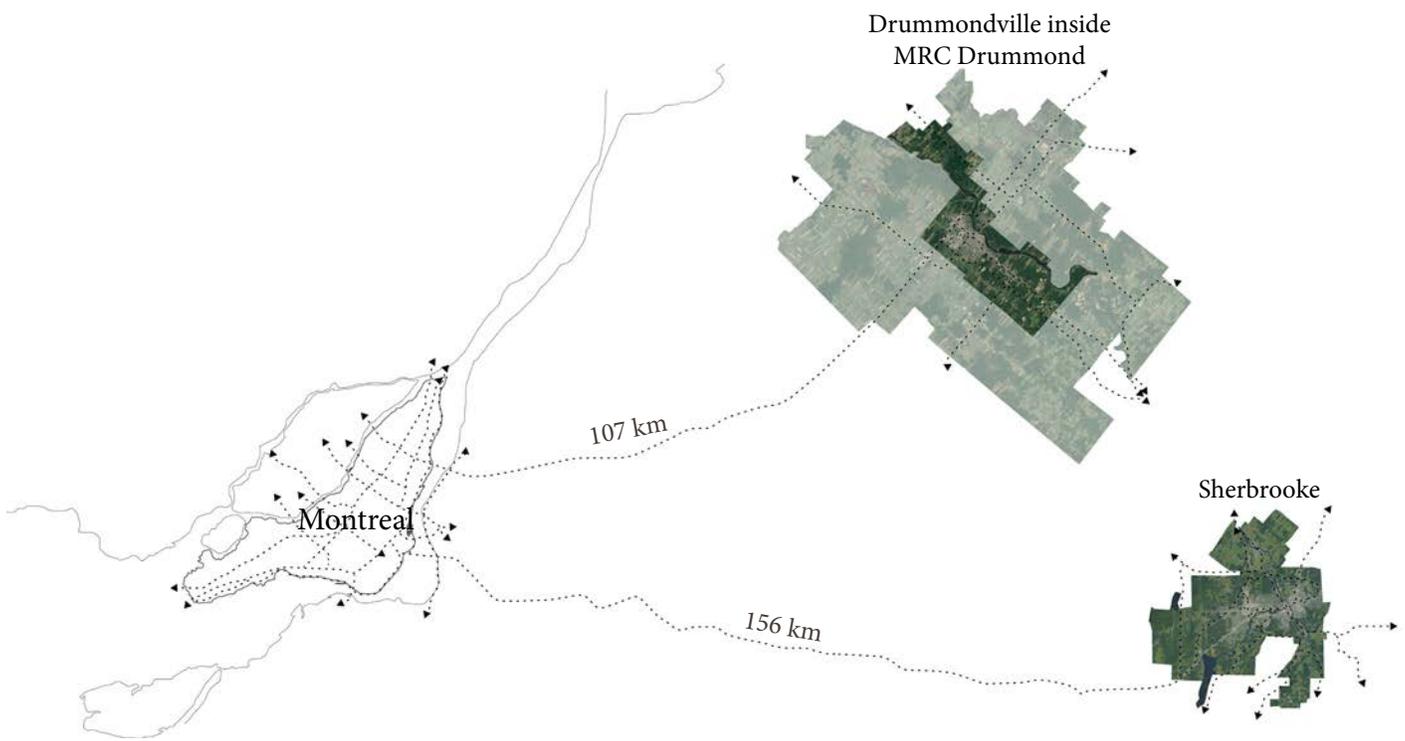


Fig 9 Geographical location of Sherbrooke and Drummondville in relation to Montreal. - Both are less than two hours away in car, train or bus . The dotted lines represent the main roads and highways.

The town of Sherbrooke

Sherbrooke is located in Estrie (Region) and is its own MRC. The municipality has a population of 166,988 with 472.3 inhabitants per square kilometer (Appendix D on page 91 for further socio-economic and demographic details).

Sherbrooke is currently looking to revitalize the South Wellington St. area as part of the bigger picture of uplifting the downtown area. The town of Sherbrooke wants to give a second life to what they now call Le Quartier de l'Entrepreneur, which translates to Business Quarter. In this area there is a high rate of commercial vacancy, a poorer demographic, and a lack of public spaces. The town wishes to develop an area dedicated to entrepreneurship, while including new housing, culture, entertainment, jobs, transportation, outdoor space and universal access. Some interventions have already begun: a cultural incubator, coworking spaces, a social innovation laboratory, an educational nutrition house and an “ephemeral park”, a temporary park located on the former grounds of the Maysen Pub. It offers relaxation areas, free wifi and flexible infrastructure for small events. There is currently a Request for Proposal for the “priority zone” (yellow in Fig 10). The town asks that the promoters projects include: multi-level parking, demolition of existing buildings, and public space.

It would be interesting to take part in this urban renewal project through the integration of housing (both for newcomers and established residents) and with the use of other appropriate programs (small business and/or public space).

The revitalization of the area, named WELL inc. was intended to be the work of a consortium composed of Fonds immobilier FTQ, Groupe Custeau and Sherweb. Last February, the agreement fell short of expectations. The project was mainly a ‘vertical village’ for entrepreneurship composed of one 12 story building and one 5-story building with a public space in between. The city still has the intention to redesign the area, but is waiting on new

developers to make their propositions.

Sherbrooke is known as a university town. It has up to 40 000 students. The university holds renowned professional programs such as Medicine and Law. The majority of students come from outside of Sherbrooke and 13 % come from outside of Canada.

Services and organizations to newcomers include:

- 28 reception classes for new immigrant children
- Service d'aide aux Néo-Canadiens (SANC)
- Service Canada Centre
- Centre interculturel peupléstrie optimum (CIPO)
- Fédération des communautés culturelles de l'Estrie
- Rencontre Interculturelles des Familles de l'Estrie (RIFE)

The town of Drummondville

Drummondville is located in Centre-du-Quebec (Region) and is in MRC Drummond. The municipality has a population of 105,358 with only 65.9 inhabitants per square kilometer (Appendix E on page 92 for further socio-economic and demographic details).

Drummondville is a former industrial town, previously known for its textile industry. Drummondville today focuses on cultural attractions like the Village Québécois d'Antan or the Poutine Festival to bring visitors.

With low-median salaries, business vacancies, single-parent homes, the need for youth protection centers, and lower employment rates, Drummondville's Saint-Joseph shows a low social and economic profile compared to the rest of the city and the Centre-du-Québec région. The area is now part of a RUI (Revitalisation urbaine intégrée). An RUI relies on citizen participation and interest to elaborate a vision that can touch upon many sectors: design, economy, health, education, social development and transportation.

At CEGEP de Drummondville, there are about 2400 students. In 2016, UQTR (Université du Québec à Trois-Rivière) has inaugurated a new campus in Drummondville. It has 800 students, a number rising every year.

In Drummondville there are currently 2,906 immigrants of whom 130 are non-permanent residents. Current services to newcomers include:

Regroupement interculturel Drummond (Language classes, tax clinic)
Drummondville Service Canada Centre
Accès Travail (Employment Center for Immigrants)
Canada Emploi & Immigration, Drummondville.

Both cities, Sherbrooke and Drummondville are viable options as site locations for the aims of this thesis considering their proximity to Montreal, their desire to revitalize, and their desire to fill jobs. However, Drummondville seems to be more suited and more in need of newcomers.

Besides the job vacancy problematic, Sherbrooke is still a prosperous University town and on the rise in innovation and technology fields. Most jobs that need to be filled and that will be created in the near future will require some kind of technical degree , which might not be the best options for unqualified groups of people or unrecognized degree cases.

Another important reason Drummondville is preferable is that Sherbrooke's initiative to revitalize its Wellington South Street area seems more focused on economic outcomes than on the quality of life of individuals living in the area. In fact, the developer's proposition for the specific priority area, indicated in yellow on the master plan (Fig 11), was composed of 60 rental units, 140,000 square feet of commercial area, and a multi-storey carpark . This proposition is now removed from further consideration for unknown reasons, much to the discontent of the Sherbrooke town committee who seemed to be pleased with

the idea.

On the other hand, Drummondville, is a University town on the rise. The city has had a CEGEP since 1968, with 2,441 students today , a number rising every year thanks to the popularity of the technical training degrees. Operating since 2016, the new UQTR campus now holds 800 students. This may be small nothing compared to the 41,000 students of Sherbrooke, but it is increasing yearly.

Saint-Joseph Neighbourhood

Saint-Joseph's master plan has recently been revealed and includes a renovation of an existing multi-use park (Fig 31 on page 63). Saint-Joseph is an appropriate test model for this design thesis for many reasons. It is at the geographical center of the urban perimeter. Whether working in the agricultural fields outside of the urban perimeter or working within an industrial district, Saint-Joseph is at an appropriate distance from any job in the municipality. It is also halfway in between the CEGEP and the new UQTR campus (Fig 18). The district also has several vacant lots that could be studied and be part of this intervention. Furthermore, the train station, which leads towards Montreal or Quebec city, is within its boundaries. Finally, the downtown Drummondville area is directly adjacent to Saint-Joseph (Fig 19).



Fig 10 General masterplan of Wellington South Street neighbourhood



Fig 11 Well inc. a vertical village for Sherbrooke's revitalization of Wellington Street South developed by the former consortium of architects and developers

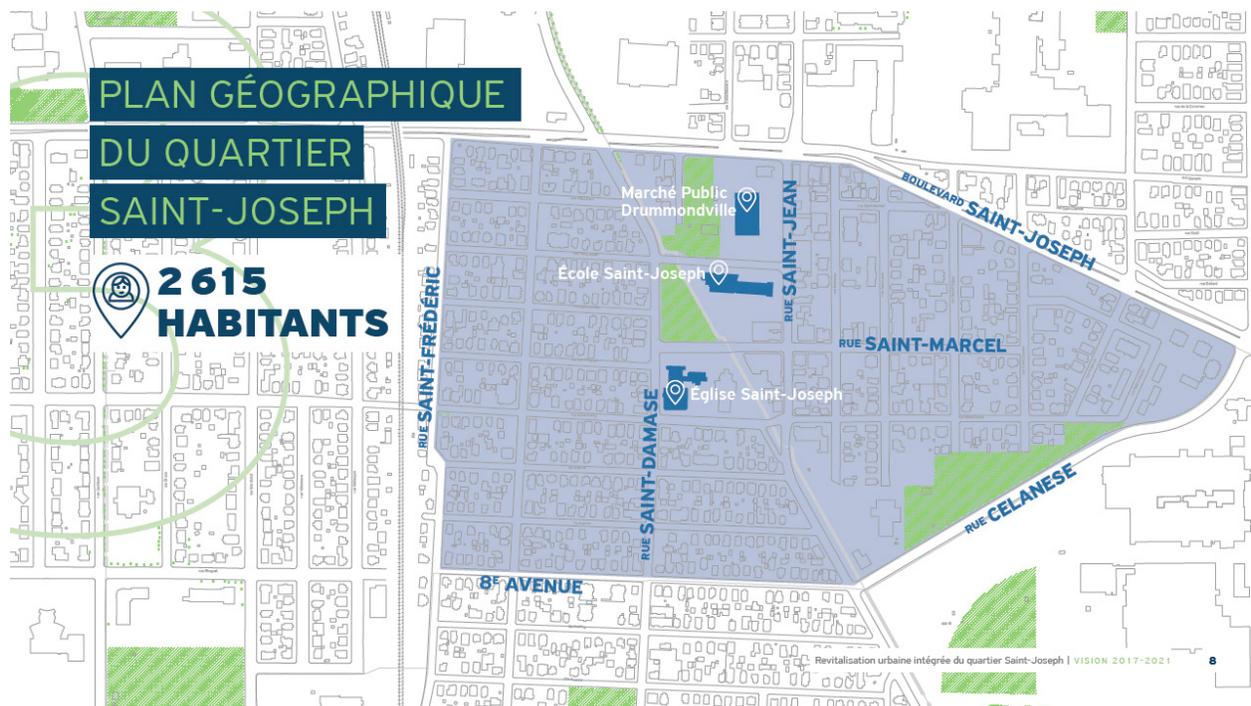


Fig 12 Saint-Joseph neighbourhood inside Drummondville as delimited by the RUI presentation document

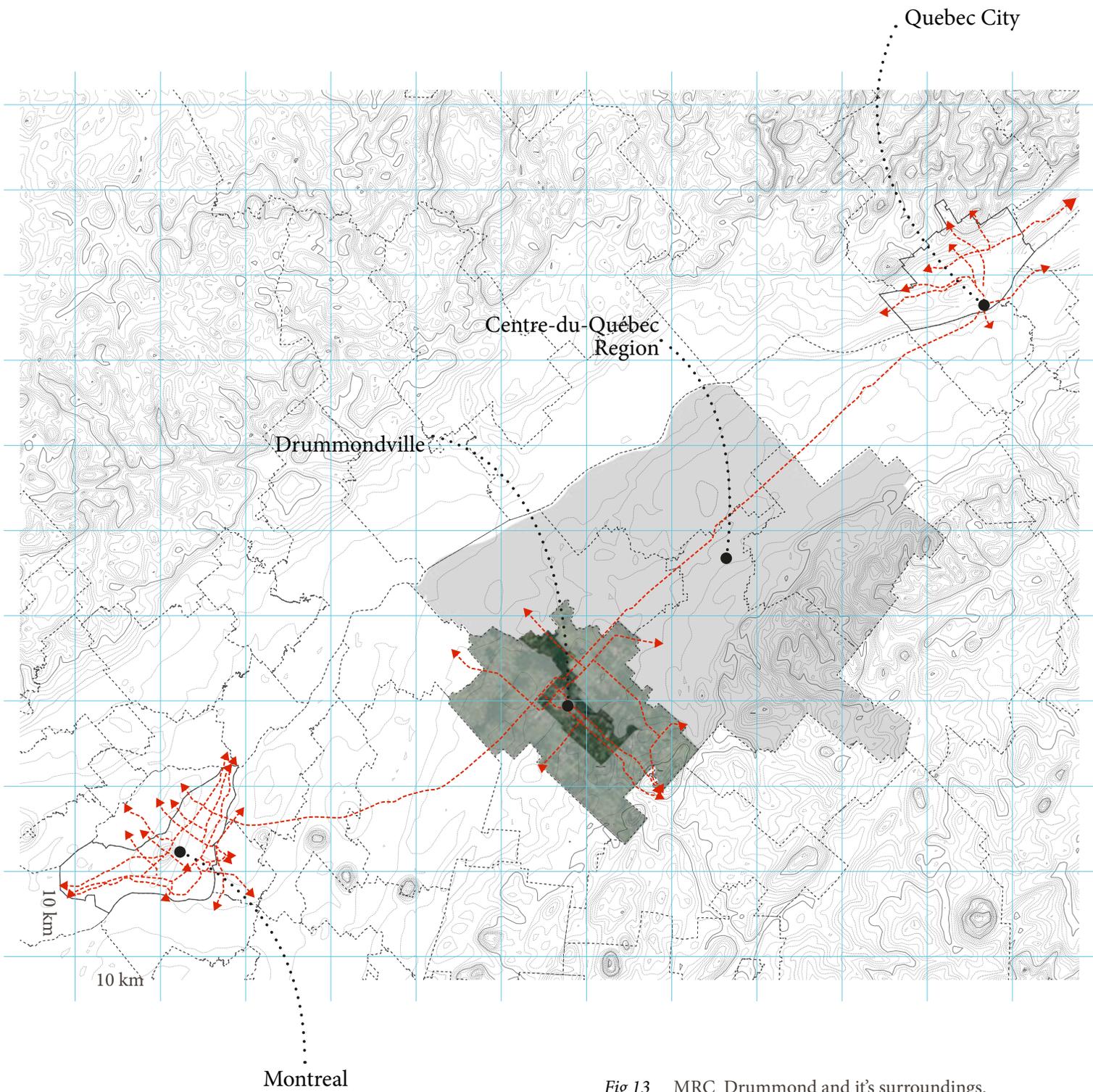
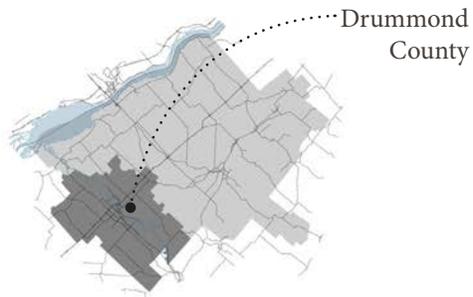
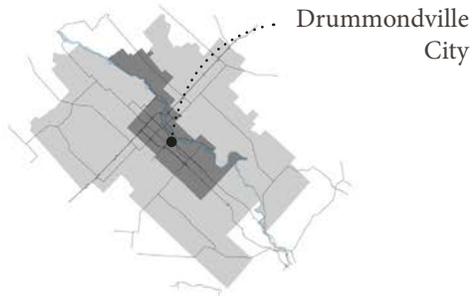


Fig 13 MRC Drummond and it's surroundings.

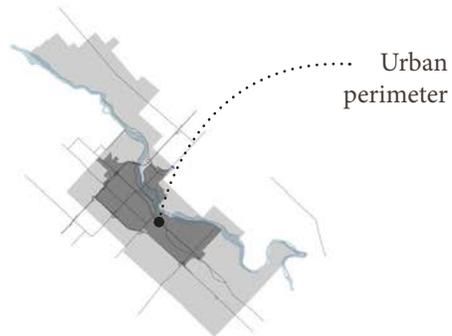
Centre du Quebec
Region
6 921 km²
1 : 2 000 000



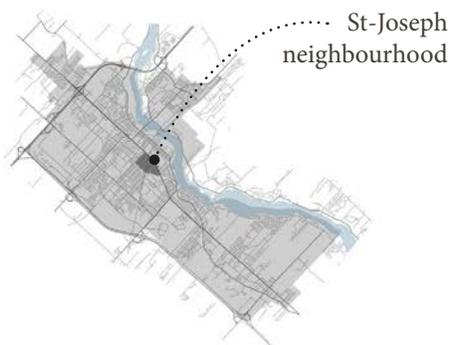
Drummond
County
1 599 km²
1 : 1 000 000



Drummondville
City
260.1 km²
1 : 500 000



Urban perimeter
61.74 km²
1 : 200 000



Saint-Joseph
Neighbourhood
0.506 km²
1 : 20 000

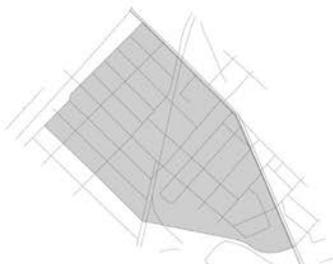


Fig 14 Russian-Doll Mappings of Drummondville Area

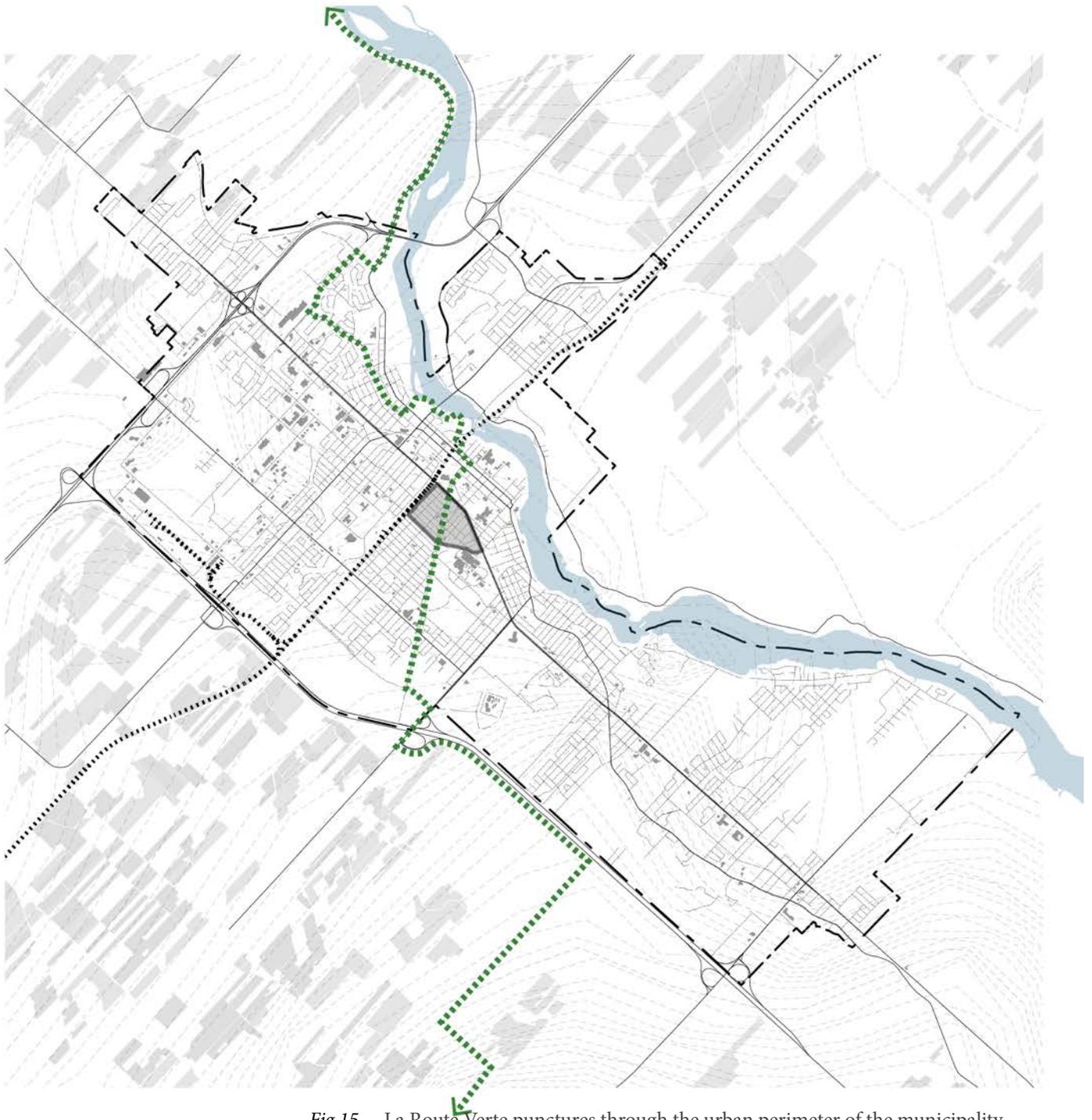


Fig 15 La Route Verte punctures through the urban perimeter of the municipality and links Drummondville to other towns of the region.

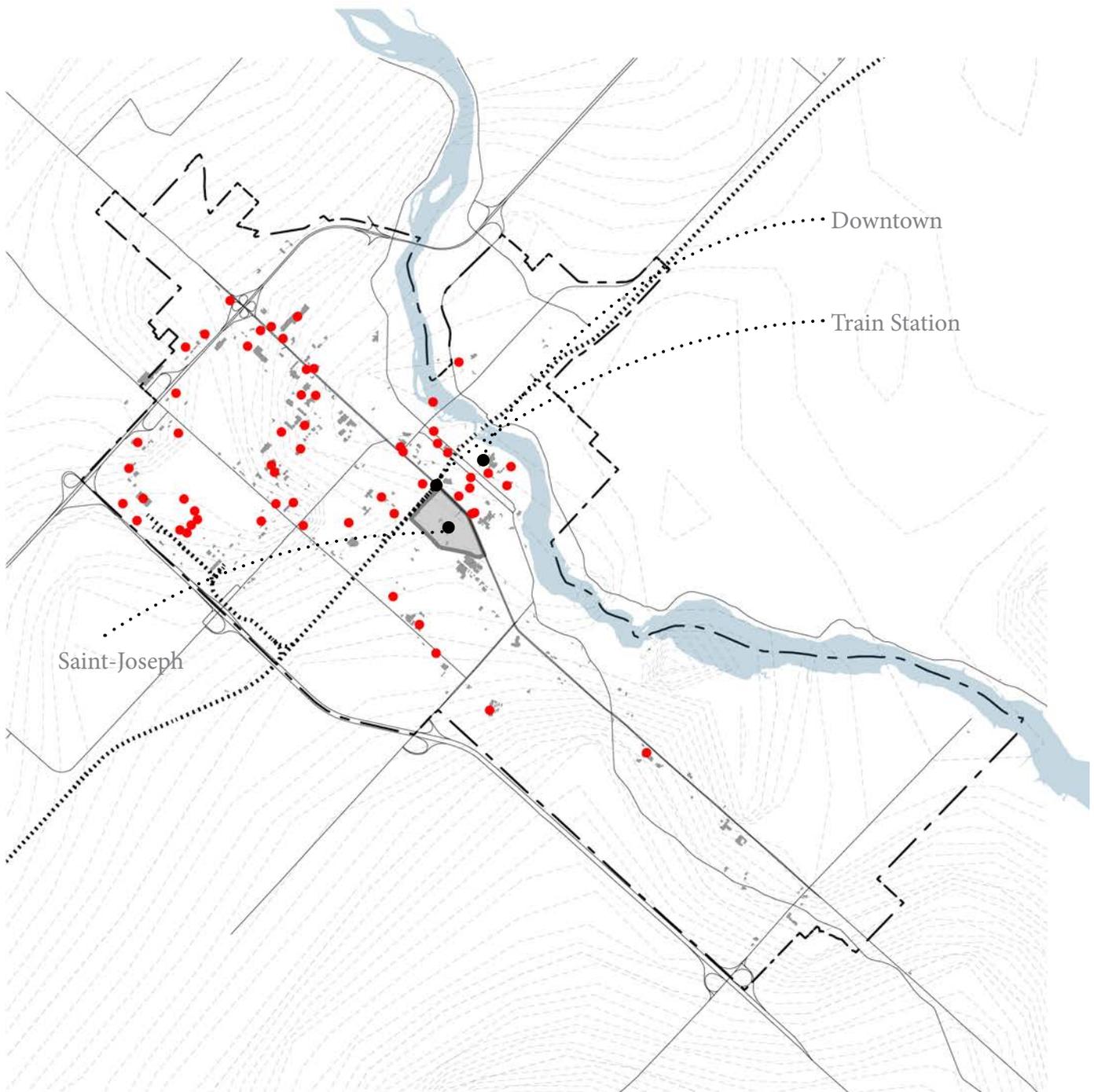


Fig 16 Employment Map - Biggest Employers hiring over 100 people within Drummondville's urban perimeter

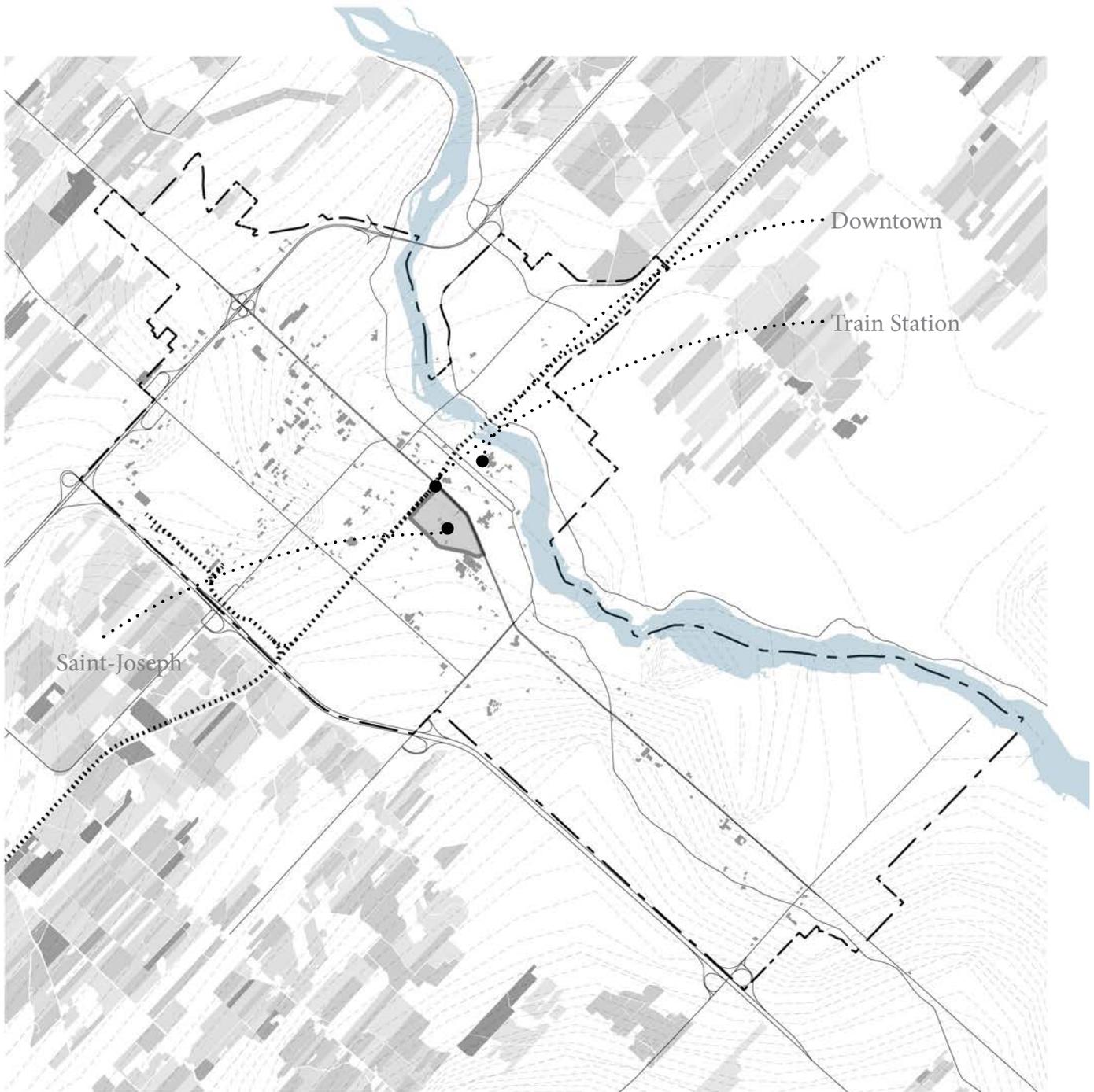


Fig 17 Agricultural Map - Agricultural fields directly outside of Drummondville's urban perimeter. Corn, hay, soy, wheat, oats, barley and other cereals along with vegetables, small fruits and mixed cultures make up the cultivated land.



Fig 18 Access to post-secondary institutions - Saint-Joseph proximity to CEGEP and UQTR (bus lines indicated in red)



UQTR
CAMPUS

DOWNTOWN
DRUMMONDVILLE

SAINT-FRANCOIS RIVER

CEGEP

Fig 19 Saint-Joseph neighbourhood and its surroundings.
La Route Verte is in dotted green.



Fig 20 Architectural character and density of Saint-Marcel street, main commercial road

Square box vernacular
Vernaculaire boîte carrée

American Vernacular
Vernaculaire Américain

Utilitarian commercial
Commercial utilitaire



Utilitarian commercial
Commercial utilitaire

American Vernacular
Vernaculaire Américain

Picturesque
Pittoresque

Square box vernacular
Vernaculaire boîte carrée

Part 03. Made in Quebec

Food and Integration

As a recent field in academia, the definitions and measures for “immigrant integration” are still being defined and debated. In many research cases, integration is measured through socio-economic pointers (income, education, host language aptitudes and home ownership). However, one cannot safely say that economic achievements necessarily mean emotional attachment and identification with the host society. In contrast, food is a tangible way to measure and define integration¹. Part of our quotidian, food shapes our identities and connects it to a place. Food is also important for a nation, as nations often proudly proclaim their national cuisines, which benefit the consolidation of their people². In order to achieve “identificational assimilation³”, what does an immigrant need besides economic solidity?

A common issue with immigrants and second-generation immigrants is the feeling of half-belonging whereby they don't totally identify with their host country nor with their home country; it is a kind of in-between status that I too feel personally at times as a second-generation Lebanese immigrant. Ayumi Takenaka discusses this situation with the example of the Nikkei community in Peru. Socio-economically well integrated into the Peruvian's society and now on to their fourth generation,

1 Ayumi Takenaka, “Immigrant integration through food: Nikkei cuisine in Peru”, *Contemporary Japan* 29, no. 2 (2017): 119.

2 Ibid.

3 Ibid

this former Japanese community proudly identifies as Nikkei Peruvians and made their hybrid identity their “integration strategy⁴”. The immigrants of Drummondville may find identification to their host country challenging, but identification should not mean total assimilation. The Nikkei have succeeded in making their ancient culture into a hybrid one that is unique. A tangible example of their cross identity integration is the recent popularity of their Japanese and Peruvian fusion cuisine⁵.

To be assertive of ones heterogeneity is a proof of identification to ones host country and can be easily practiced and revealed through food. The integration of immigrants in Drummondville should be achieved through the dissemination of their identity, including their culinary identity, until a hybrid identity is formed, capable to stand on its own and then to evolve over time.

Authenticity and Fusion

Eating out was first intended for travelers. Whether in inns or taverns, visitors would eat whatever they were served by their host, and most probably what was going to be eaten on the domestic table anyways⁶. Today, eating out is for everyone. Sometimes for convenience, other times for indulgence. Most recently, food has become a vehicle of knowledge. Through the simple mean of eating, people can immerse themselves in other cultures without the necessity to travel. Knowing and trying food has become a validation of one’s consciousness towards other ethnicities⁷.

Fusion cuisine is often thought of as a recent phenomenon, yet most of what we assume as authentically Italian or British is

4 Ayumi Takenaka, “Immigrant integration through food: Nikkei cuisine in Peru”, *Contemporary Japan* 29, no. 2 (2017): 121.

5 *Ibid.*, 121.

6 Robin Fox, “Food and Eating : An Anthropological Perspective.” Social Issues Research Center, http://www.sirc.org/publik/food_and_eating_2.html.

7 *Ibid.*

actually fusion by definition⁸. The reality is that cultures have a long-standing status of being mixed, and not just recently with the popularity of fusion cuisine and the foodie wave, foods and cuisines have been mixed for hundreds of years already. In the book, *Sapiens*, Yuval Noah Hariri argues that there is no such thing as an authentic culture. Going into an Indian Restaurant, we expect almost all dishes to contain peppers, yet peppers actually come from Mexico and were brought to India after colonization. Another example are tomatoes, also of Mexican origins, which are now in close association with Italian dishes and culture⁹.

Whether old or new, the interest towards foreign cuisine remains and translates itself into the popularity of ethnic restaurants in North America. For a long time already, selling cooked meals is a readily available source of income for new immigrants as well as a method of integration into society. Providing a kitchen incubator program would be beneficial for both the new immigrants and the local population.

Human Sociability

In the book, *Hungry City*, Carolyn Steel argues that food, how we produce it, distribute it and consume it, shapes human sociability. Historically, city centers used to act as physical support for buying and selling food¹⁰. It was the case for famous public spaces such as the Roman Forum and the Athenian Agora¹¹. Today, supermarkets, by settling along the peripheries for their own comfortable and strategic advantages, go against the traditional concept of a city center¹².

8 Charles Spence, “Contemporary fusion foods: How are they to be defined, and when to they succeed/fail?”, *International Journal of Gastronomy and Food Science* 13 (2018): 102.

9 Yuval Noah Hariri, *Sapiens: a brief history of humanity*, (Paris, Audiolib: 2017), Audiobook chapter 22.

10 Carolyn Steel. *Hungry City*. (London: Vintage, 2008), 112.

11 *Ibid.*, 122.

12 *Ibid.*, 112.

Two supermarkets are located very near the Saint-Joseph neighbourhood (Fig 23). One marketplace, located in the center of the neighbourhood, offers local produce year-round along with seasonal outdoor markets. The arrival of supermarkets, has made grocery shopping impersonal. With their specific convenience, large aisles, little to no interaction with distributors or producers, large parking lots to fit every single-one of us, supermarkets benefit the individual lifestyle. The supermarket is practical, but the market is cultural, social and recreational. In order to encourage the use of the existing public markets and to encourage a local economy, it would be interesting to imagine a new urban food production system inside the Saint-Joseph neighbourhood. Also, this could be a way of inducing street corner markets that could be of value for helping socialization.

The Social Enterprise

Quebec's international and exotic bio-food imports reached a value of \$7 billion in 2017. Every year, the food industry imports a variety of products. The import of products that are not available in Quebec, such as exotic fruits, raw sugar or cocoa, are of important added value to import companies and food distributors, simply because many of those products are not "competitors", and in fact, they meet a demand that is difficult to meet under Quebec's climatic conditions¹³. Not surprisingly, there is a high demand for global food products, and thus there is certainly a potential market for exotic produce, such as fruits and spices.

A big portion of Quebec's regularly grown crops are thought of as traditional. However, many of these were introduced hundreds of years ago only to adapt eventually to the local growing conditions¹⁴. "Naturalized" is the term to define the plants that

13 Gouvernement du Québec. "Importations Internationales," Ministère de l'Agriculture, Pêcheries et Alimentation, 2019, <https://www.mapaq.gouv.qc.ca/fr/md/statistiques/Pages/Importationsinternationales.aspx>.

14 S. Kell, A. Rosenfeld, S. Cunningham, S. Dobbie and N. Maxted, "The benefits of exotic food crops cultivated by small-scale growers in the UK," *Renewable Agriculture and Food Systems* 33, no. 6 (2017): 569.

have been introduced from elsewhere but have adapted and can now grow on their own without human intervention. The reality is that most of what is consumed is “exotic” in the sense that it is not naturally local. Other produce, like bananas and chocolate, are exotic and imported but are so embedded into our diet¹⁵ that we might not give them the same curious attention as many spices like turmeric or curcuma.

A small-scale growing business for exotic produce (Fig 27) could expand the diversity of Drummondville’s food industry. This potential business could not realistically compete with the enormous quantities of imported produce grown with the most efficient industrial systems. There are, however, some significant social benefit associated with the practice of growing foods locally. Food plays a big part in cultural identity and ways of life. Immigrants growing their own crops could benefit from familiar foods to cook with along with less dependence on specialty produce coming from food outlets¹⁶. Another benefit for the individuals tending to the crops is exercise and well-being from cultivation. Last small-scale growing of crops relies upon sustainable approaches.

Exposure

There is currently a trend towards “satellite universities”¹⁷ in the province of Quebec whereby renowned universities of larger cities open small campuses in more remote areas in order to add more students to their institution. The new UQTR in Drummondville (Fig 18) is what we may call a “satellite university campus” considering that the area previously lacked a

15 Ernest Small, *Top 100 Exotic Food Plants*. (Boca Raton: CRC Press, 2012), xxix,

16 S. Kell, A. Rosenfeld, S. Cunningham, S. Dobbie and N. Maxted, “The benefits of exotic food crops cultivated by small-scale growers in the UK,” *Renewable Agriculture and Food Systems* 33, no. 6 (2017): 576.

17 Patrick Lagacé, “MBA zé bobards,” *La Presse*, February 4, 2019, <http://plus.lapresse.ca>

university¹⁸, but also considering its scale and limited offering of programs. The UQTR's main campus is actually located in Trois-Rivière. Currently, there is no agricultural program at UQTR nor at UQAM (Université du Québec à Montréal). Agricultural Sciences are offered in Quebec City at *Université Laval* and in Montreal at *McGill University* and urban agriculture is taught, to some extent, at *Université de Montréal* by means of immersive summer programs. This being said, cultivating crops in the urban area of Drummondville might draw other Universities' attention towards this small town.

18 Federica Rossi, Valentina Goglio, "Satellite university campuses and economic development in peripheral region," *Studies in Higher Education* (August 2018): 1, DOI: 10.1080/03075079.2018.1506917.



Fig 21 Grocery Stores

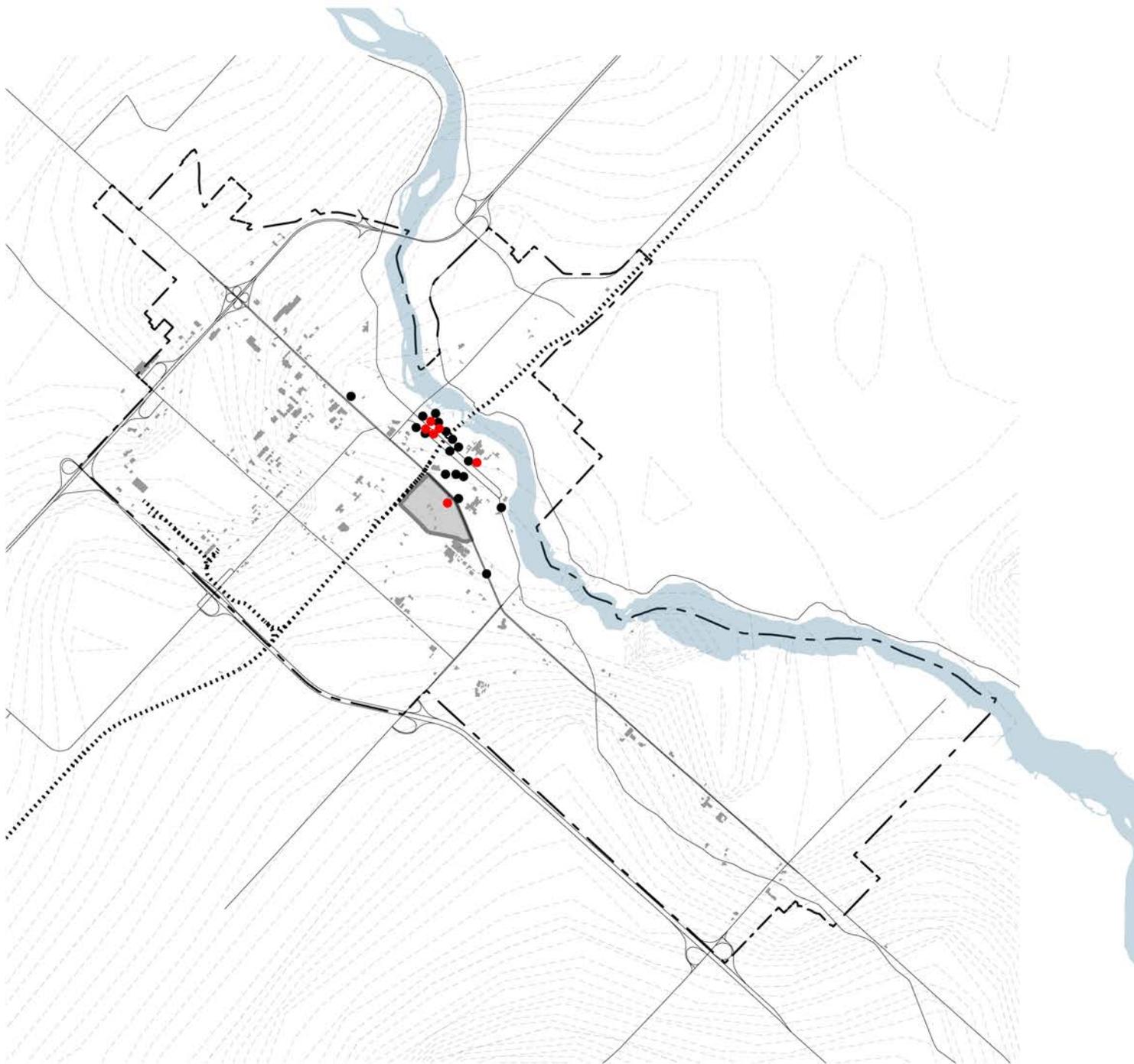
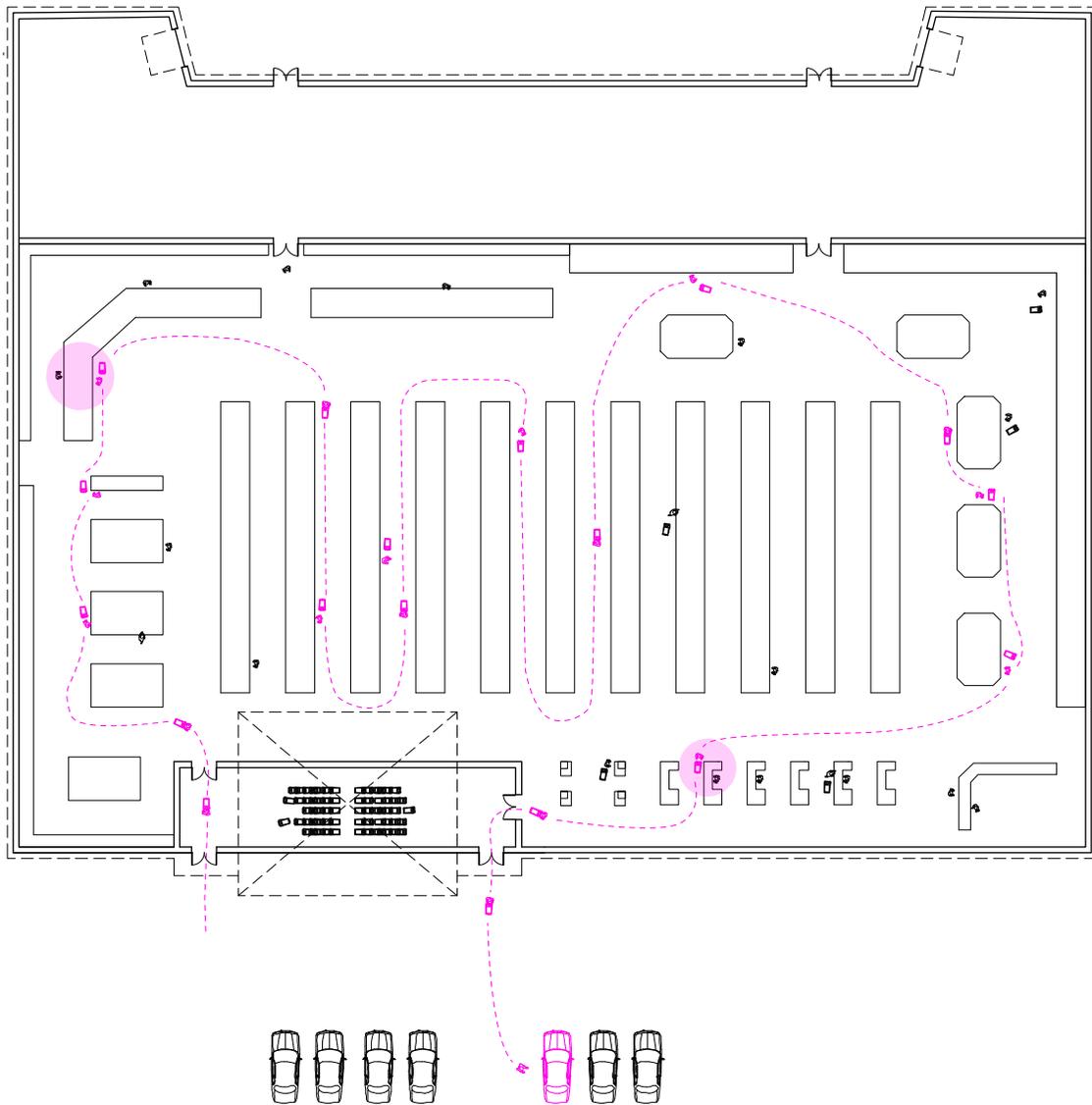


Fig 22 Restaurants - Ethnic restaurants in red



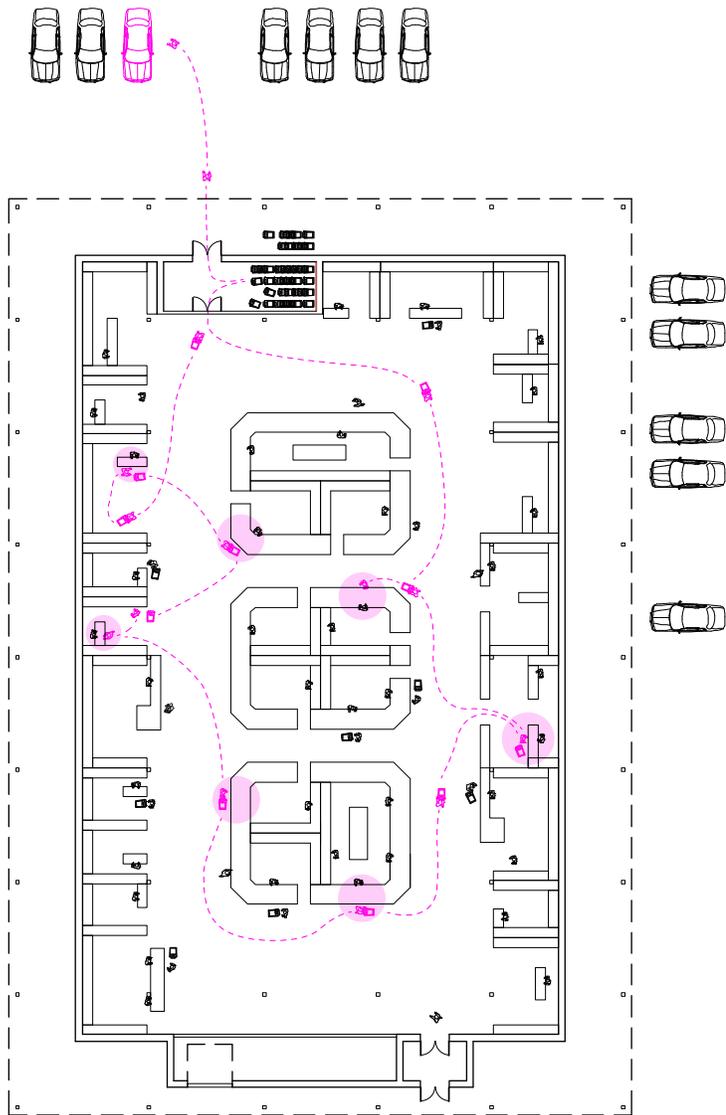
Fig 23 Grocery Stores in order of proximity from the core of the neighbourhood



“Supermarkets today are impersonal filling stations: pit stops designed to service the flow of life. They support the individual lifestyles, not sociability; a characteristic they share with iPods and computers.”

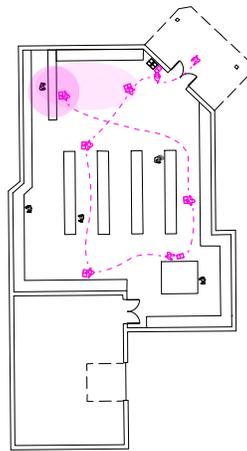
- Carolyn Steel in Hungry City

Fig 24 Supermarket Typology - IGA Extra Marché Clément des Forges inc
Social interactions circled in pink.



“[Food markets] connect us to an ancient sort of public life. People have always come to markets in order to socialise as well as to buy food, and the need for such spaces in which to mingle is as great now as it has ever been - arguably greater, since so few such opportunities exist in modern life”
 - Carolyn Steel in *Hungry City*

Fig 25 Market Typology - Marché Public de Drummondville
 Social interactions circled in pink



“Twenty years ago, if you needed to buy a few basic items [...] you would probably have nipped down to your local shop to get them. Today, the chances are you would buy them from the supermarket. Independant food shops in Britain are currently closing at a rate of more than 2,000 a year..”

- Carolyn Steel in Hungry City

Fig 26 Independant Store Typology - Marché d'alimentation Verville
Social interactions circled in pink

Common Name	Food Type	Yield	Latin name	Plant Type	Height (m)
Ginkgo	Nut	Fruit	<i>Ginkgo biloba</i>	Tree	30
Gum Arabic	Base ingredient	Pods	<i>A.nilotica</i>	Tree	20
Macadamia Nut	Nut	Fruit	<i>M. tetraphylla</i>	Tree	10
Cashew	Nut	Fruit	<i>Anacardium occidentale</i>	Tree	10
Lychee	Fruit	Fruit	<i>Litchi chinensis</i>	Tree	7.6-30
Horseradish Tree	Veg and Spice	Pods	<i>Moringa oleifera</i>	Small Tree	5 to 10
Allspice	Spice	Fruit in clusters	<i>Pimenta dioica</i>	Tree	7.6
Kumquat	Fruit	Fruit	<i>Fortunella japonica</i>	Small Tree	2.4-4.5
Okra	Vegetable	Long Pods	<i>Abelmoschus esculentus</i>	Schrub	1-2.4
Horned Melons	Fruit	Fruit	<i>ucumis metuliferus</i>	Vines	1.5 - 3
Palm Heart	Vegetable	Center "cord"	<i>Bactris gasipaes</i>	Small Tree	1.5
Zedoary	Spice	Flowers and rhizome	<i>Curcuma zedoaria</i>	Perennial	1.5
Lemongrass	Culinary Herb	Leaves	<i>Cymbopogon citratus</i>	Tall Grass	0.7-1.5
Turmeric	Spice	Rhizomes	<i>Curcuma longa</i>	Perennial	0.45-1.2
Ginger	Spice	Rhizomes	<i>Zingiber officinale</i>	Herb. Perennial	0.3-1.5
Caper	Spice	Flower buds	<i>Capparis spinosa</i>	Schrub	0.6
Cumin	Spice	Seeds	<i>Cuminum cyminum</i>	Herbacious	0.5
Black Cumin	Spice	Seeds	<i>Nigella sativa</i>	Herbacious	0.3-0.45
Chinese artichoke	Vegetable	Root	<i>Stachys affinis</i>	Herb. Perennial	0.3-0.5
Cilantro	Culinary Herb	Leaves	<i>Eryngium foetidum</i>	Herbacious	0.3
Saffron	Spice	Pods	<i>Crocus sativus</i>	Perennial Herb	0.15-0.3

Fig 27 Inventory of possible exotic crops

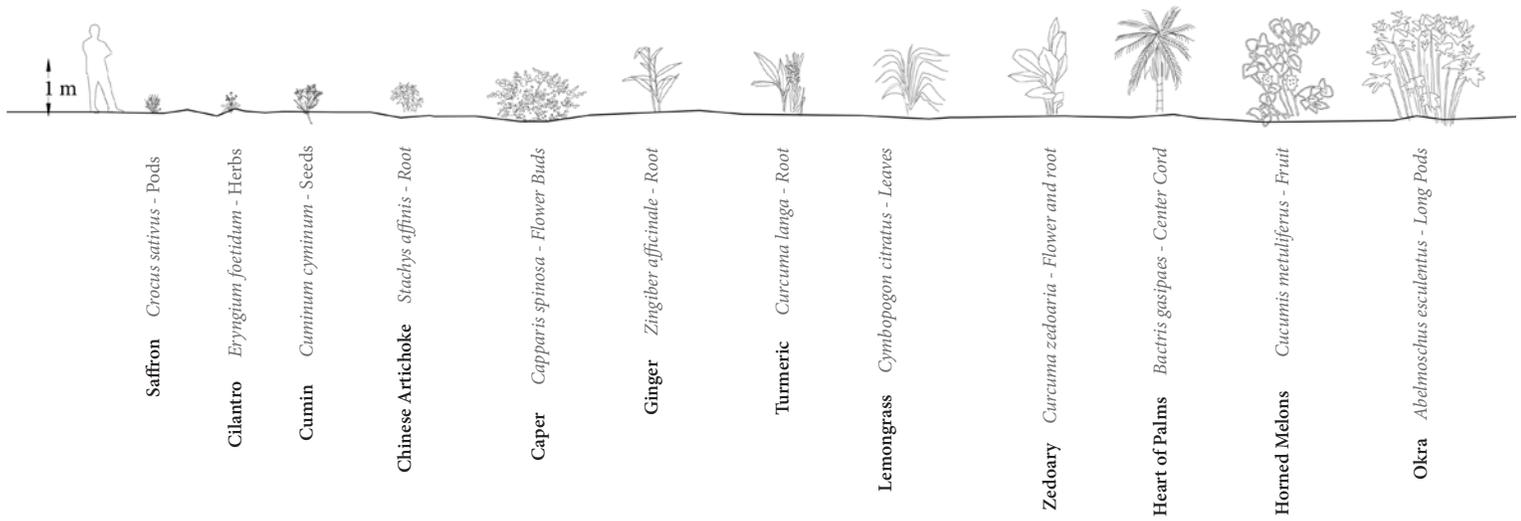
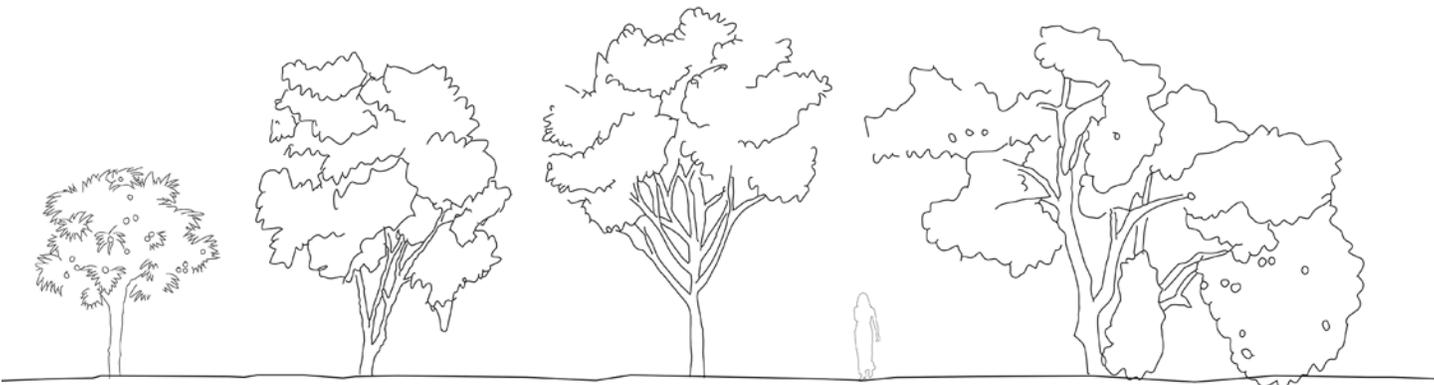


Fig 28 Visual inventory of possible exotic crops



Kumquat *Fortunella japonica* - Fruit

Allspice *inanta dioica* - Fruit

Horseradish *Moringa oleifera* - Fruit

Lychee *Litchi chinensis* - Fruit



Cashew nut *Anacardium occidentale* - Fruit

Macadamia nut *Macadamia tetraphylla* - Fruit

Part 04. Les Folies de Saint-Joseph

Public Space Study

The roads and sidewalks owned by the city of Drummondville along with the lots owned by institutions like the Public School Board or the local Parish, make up a large part of the surface area of the neighbourhood (Fig 30).

Among the publicly owned lots is the former railroad easement, today renovated as a bike path. This lane punches through the core of the neighbourhood, where one can find commercial activity, public market of local produces, park and public school. The lane continues north to reach downtown Drummondville, connecting it to the most active part of the municipality (Fig 30).

For environmental reasons and for improved local street life of the neighbourhood, it would be beneficial to architecturally engage with this existing infrastructure.

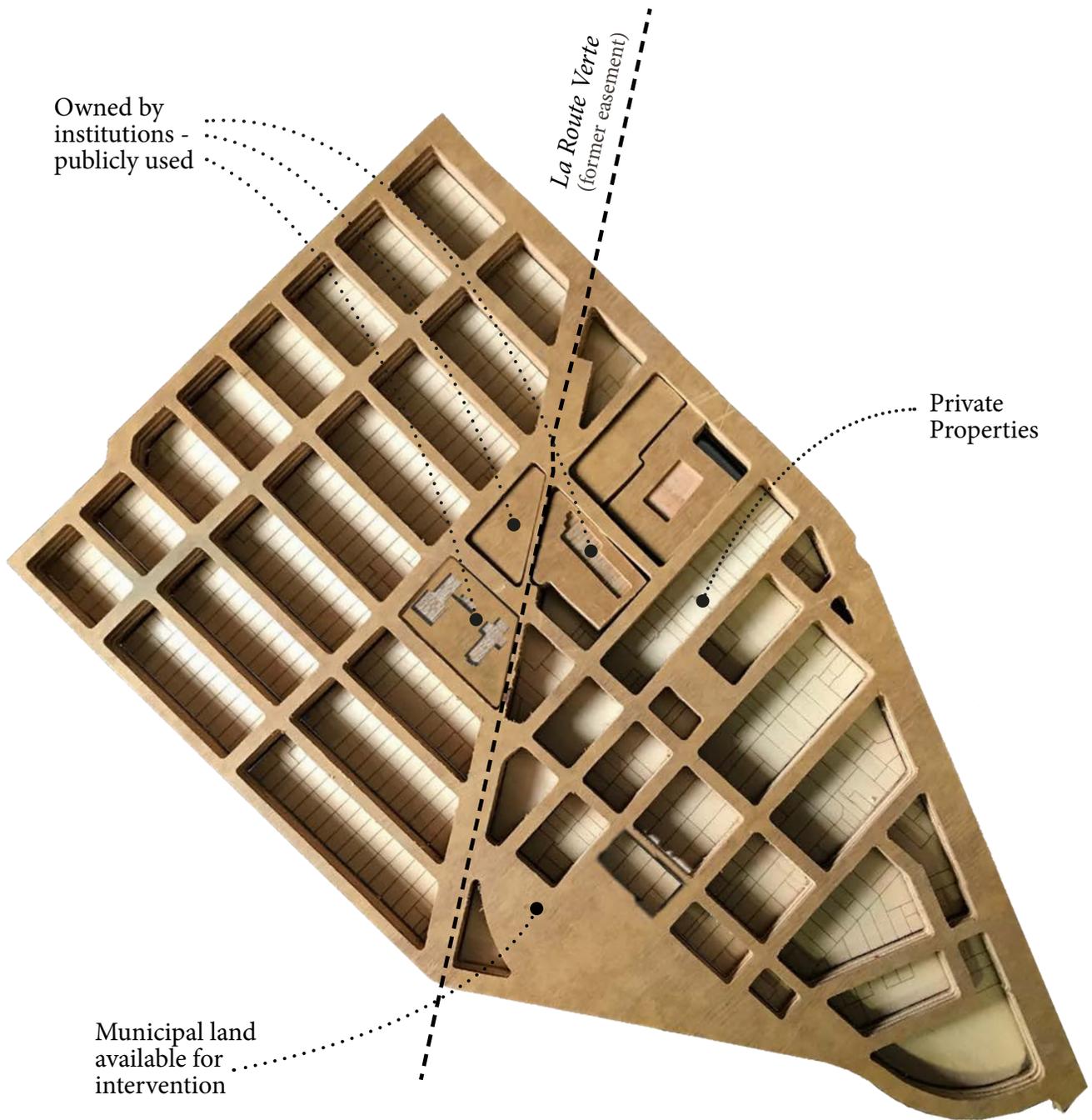


Fig 29 Extruded Model Map of Saint-Joseph's city-owned property (streets and surfaces).



UQTR
CAMPUS

DOWNTOWN
DRUMMONDVILLE

SAINT-FRANCOIS RIVER

CEGEP

Fig 30 The former easement / bike lane connects Saint-Joseph to Downtown Drummondville

The Master Plan (critique and alternative)

At the beginning of this research, the revitalization intentions of the Saint-Joseph neighbourhood were still ambiguous. The main goal of the RUI, which translates to Urban Integrated Revitalization, is “to improve the civic and collective experience of the residents and visitors of the neighbourhood”¹, and called for four very broad main axes. By the end of the research, on March 14th 2019, the City revealed its actual intentions for Phase 1 and 2 of the RUI. The recreational area, located at the corner of Saint-Albert and Saint-Damase, will be renovated, at the cost of \$ 3.6 M to offer better and more recreational options to the citizens, such as a pool, skatepark, water play area and green space (Fig 31). The renovation also includes an upgrade of Saint-Albert Street to sidewalk level. Because the street would now be shared with pedestrians, motorists will be encouraged to travel slowly. Phase 2 of the project involves reconfiguring the entrance to the public market and greening the premises.

As mentioned previously, the Saint-Joseph district was founded following the arrival of the Canadian Celanese Textile Factory located just outside its borders (Fig 32). Most working-class cities or districts have built their social identity on the basis of the close spatial relationship between place of residence and place of work. As a result of this proximity, the working-class populations have developed strong territorial anchors within their district, meaning residents would find sufficient quantities of services to meet most of their needs, creating common habits and ties that bind them to the neighbourhood²

Today, the Celanese group is no longer active in Drummondville or the province of Quebec and the residents of Saint-Joseph necessarily have more diversified jobs that are located outside of the district. As for neighbourhood anchors, the area now

1 Drummondville.ca. Quartier Saint-Joseph: une vision d'avenir alliant l'environnement physique, social, communautaire, économique et commercial (July 11 2017), <https://www.drummondville.ca/quartier-saint-joseph-vision-davenir-alliant-lenvironnement-physique-social-communautaire-economique-commercial>

2 Sylvie Fol, “Mobilité et ancrages dans les quartier pauvres: les ressources de la proximité”, *Regards Sociologiques* 40 (2010): p.29.



Fig 31 Suggested design plan of Parc Gérard-Perron, an existing multi-use park. The new design suggest taking over private properties (highlighted in red)



Fig 32 Canadian Celanese Limited Co. employees of Drummondville, posing in front of the factory circa 1934

has only one convenience store, but still has a local market. Unfortunately, it competes with food retail giants such as IGA and Maxi located a few hundred meters away. That being said, the inhabitants of Saint-Joseph have no choice but to leave the neighbourhood limits to get most of what they need.

Saint-Joseph is surrounded by significant roads (Fig 35 on page 71) that act as physical limits from the surrounding area. Although this is not a problem for motorists, it impedes travel for pedestrians and cyclists. In a small town within a regional setting, the vast majority of people do indeed drive a car, but this is not the case for children, adolescents and some elderly, who are more and more numerous every year. The plan proposed by the city (Fig 31) responds to the requests of the residents of Saint-Joseph, as stated during the public consultation held last September, during which people discussed their ideas to the designers.³ However, the renovation of the park is not enough to revitalize the neighbourhood as it only responds to current programmatic needs. The suggested plan does not directly address spatial isolation which may be linked to the poorer demographics of the area. The imposing roads surrounding Saint-Joseph create a barrier that negatively impact the inhabitants' ability to convey towards adjacent areas. The true improvement of the neighbourhood lies in rectifying this connectivity issue.

La Route Verte is a significant infrastructure, not in size but through its inherent function. It has the potential to collect pedestrians and cyclist from all corners of the neighbourhood and guide them outside of its boundaries. The revitalization of the neighbourhood should pass by the re-making of the city's Green Route by creating a more affirmative urban gesture. This move will make way for a more comfortable promenade that would be valued and used by the inhabitants of the neighbourhood as well as the visitors. In this design thesis, the renovation of the recreational park with new programs is secondary; The

³ <https://www.drummondville.ca/quartier-saint-joseph-vision-davenir-alliant-lenvironnement-physique-social-communautaire-economique-commercial/>

CN Railroad



INDUSTRIAL

CANADIAN
CELANESE LTD.

CN Railroad

Saint-Joseph boul.

Fig 33 Urban Forces on Saint-Joseph Neighbourhood: 1964

CN Railroad



CN Railroad

Saint-Joseph boul.

Fig 34 Urban Forces on Saint-Joseph Neighbourhood: 1978

CN Railroad



La Route Verte

Saint-Joseph boul.

Fig 35 Urban Forces on Saint-Joseph Neighbourhood: 2015



CN Railroad

La Ligne Verte

Saint-Joseph boul.

Fig 36 Urban Forces on Saint-Joseph Neighbourhood: Speculation

primary intervention relates to the betterment of the bike lane/former easement and is supplemented by food production systems spread over the vicinity.

The walk is an intervention that can be sustained over time by being an ever more active participant in urban life. The recreational park, on the other hand, only responds to an immediate need for specific programs that may or may not be of value in the next ten or twenty years.

Les Folies du Parc de la Villette

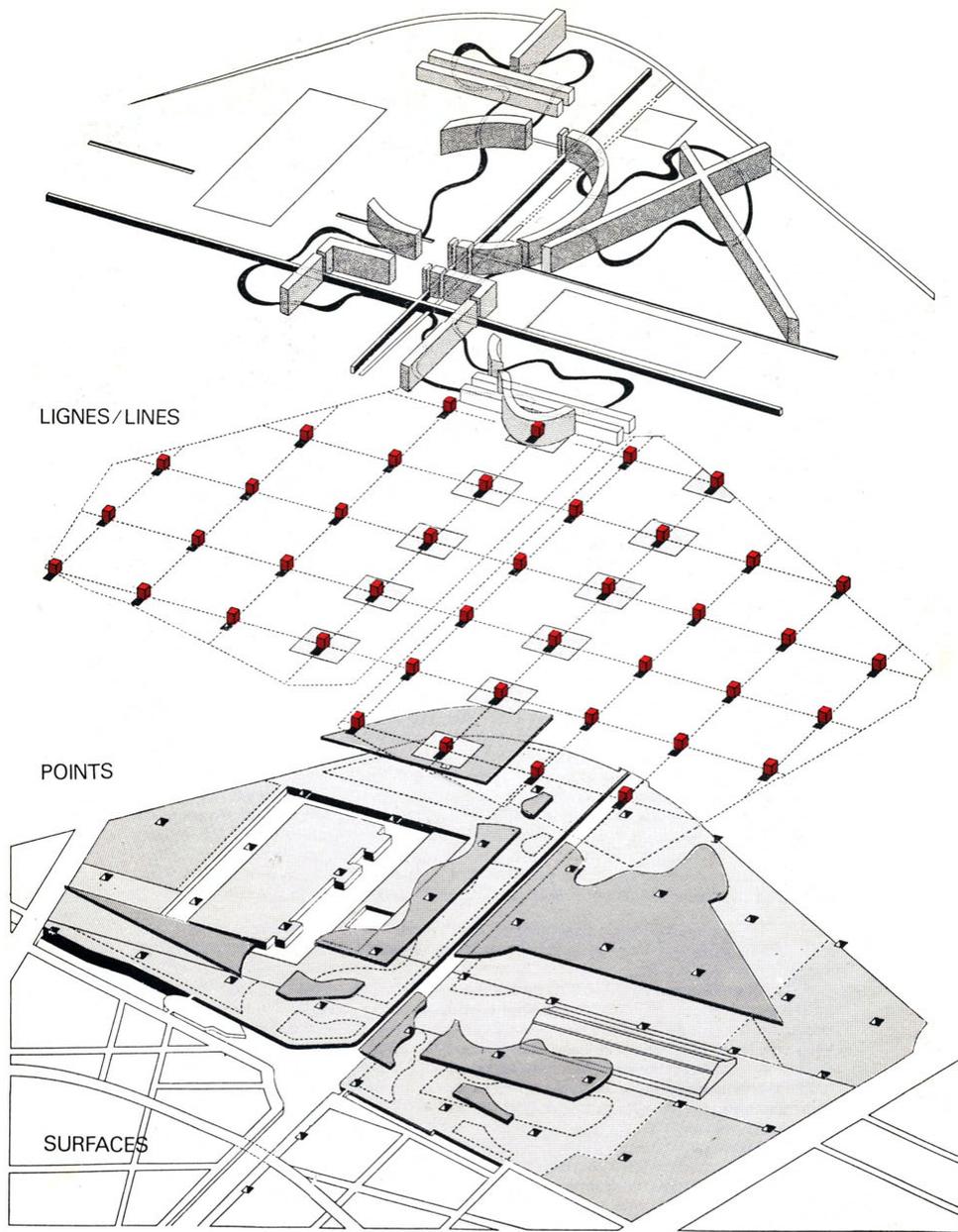
With Parc de la Villette in Paris, Bernard Tschumi, along with other advocates for landscape urbanism, argues that the park is no longer this natural haven and enclave seen numerous times after Olmsted. Rather than being the antithesis of the city, the park *is* the city. Parc de la Villette is intended to act as a catalyst for the daily habits of citizens.

Parc de la Villette's planning is a juxtaposition of three different systems (Fig 37): objects (points), movement (lines) and space (surfaces). The points are the folies, distributed in a grid all over the extents of the park, as derivatives of red cubes. Each folie is a non-programmed space allowing for a variety of events. As the city and the needs of the citizens change over time, the folies support public life, however it may manifest. The lines are sinuous paths. A walkway that has no other purpose than itself is there for aimless circulation. Its sinuous shape corresponds to the experience of the purposeless walk. The surfaces are the grass fields of different shapes in between the folies and the paths and can welcome multiple program and practices⁴.

Les Folies de Saint-Joseph

The master plan proposes a series of Folies (in pink in image) as extensions of a linear infrastructure (dotted in image). Just like

⁴ Saint-Denis, Bernard. "Histoire et théorie de l'architecture du paysage II" (lecture, Université de Montréal, Montreal, QC, March 10, 2016).



THE SUPERIMPOSITION OF THE THREE SYSTEMS (POINTS, LINES, SURFACES) CREATES THE PARK AS IT GENERATES A SERIES OF CALCULATED TENSIONS WHICH REINFORCE THE DYNAMISM OF THE PLACE. EACH OF THE THREE SYSTEMS DISPLAYS ITS OWN LOGIC AND INDEPENDENCE

Fig 37 Bernard Tschumi Parc de la Villette - Layering of the three systems

Parc de la Villette, three systems make up the intervention.

Lines: La Route Verte within the limits of Saint-Joseph, renamed la Ligne Verte in reference to the former easement. The bike lane is restored as a more comfortable promenade for bikes and pedestrians in order to reaffirm the relationship between Saint-Joseph and other areas.

Points: The food production folie as elevated structures over the streets. They extend all over typical intersections in a grid-like manner allowing for the program to be distributed past the core, and possibly past the neighbourhood boundaries. There are three main variations of folie. The first is located at the typical intersections of the main commercial artery, Saint-Marcel Street (Fig 46 on page 93). The second is a smaller-scale nod of fewer units located at typical residential intersections that responds to their narrow street and smaller buildings (Fig 47 on page 94). The third variation are public purpose nods forming pauses along the Ligne Verte. As they meet the Ligne Verte, the folies adapt to its orientation and its distinctive grid, which make them site-specific, a characteristic that Tschumi's folies do not have. (Fig 48 on page 95). The folies also fulfill rain collection and snow management purposes. Rain water is collected from the roof and redirected underground where it is stored and pumped for irrigation and toilet flushing. The intersection is complemented by permeable heated sidewalks to redirect melted snow and alleviate pressure on the current sewer system.

Surfaces: The existing lots like the marketplace, the park, the recreational area and the property of the Church (Fig 39) make up already present surfaces to engage with. The Ligne Verte punches through these surfaces, making them better carriers of public life.

These three systems feed and support each other and aim to support cohabitation (“*cotoïment*”) in the public realm. Perla Serfaty Korosec, sociologist and author interested in the sociability and appropriation of urban public spaces, defines



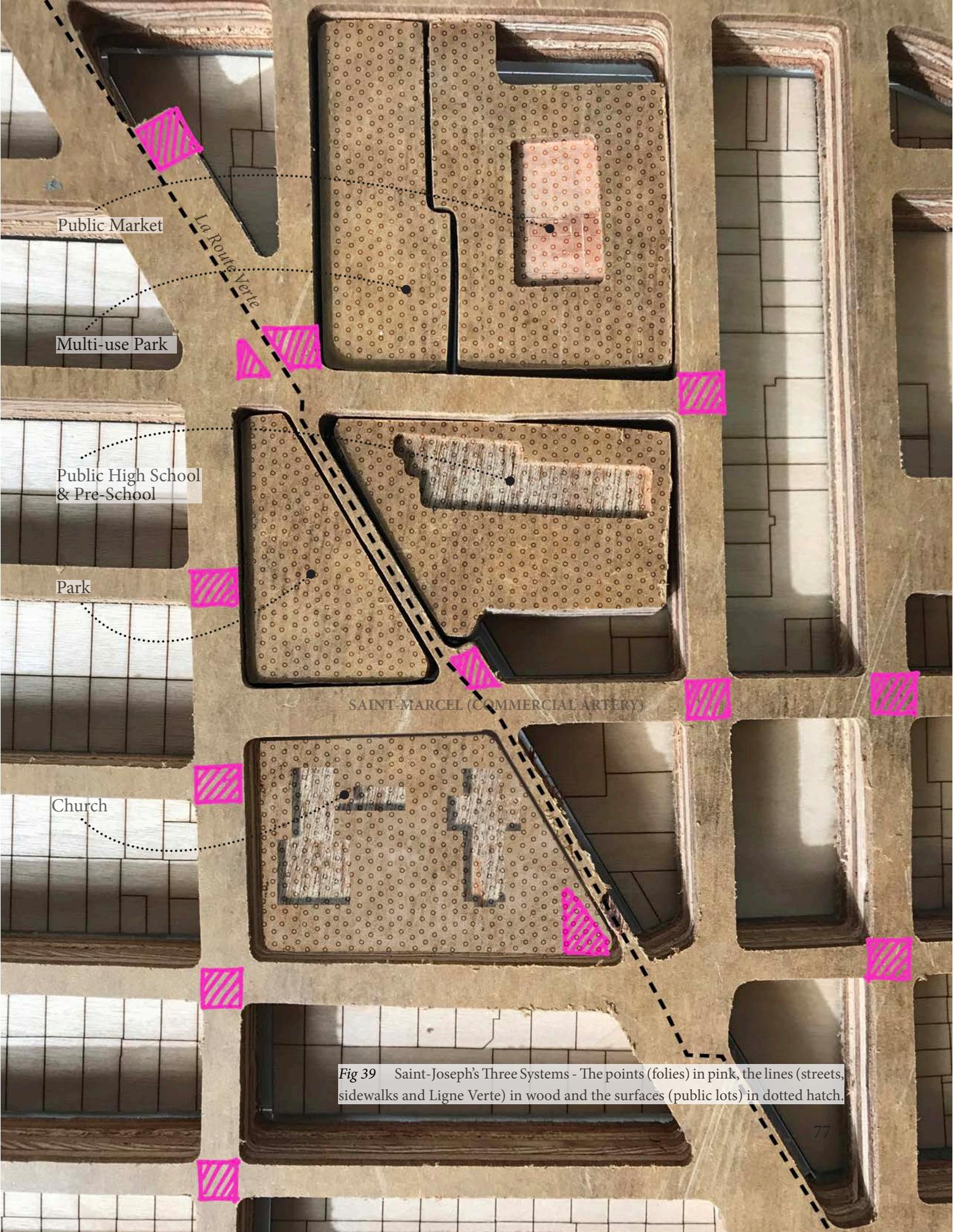
UQTR
CAMPUS

DOWNTOWN
DRUMMONDVILLE

SAINT-FRANCOIS RIVER

CEGEP

Fig 38 Speculation: The presence of Folie beyond the extent of the neighbourhood and renewal of the Ligne Verte promenade to the river edge



Public Market

La Route Verte

Multi-use Park

Public High School & Pre-School

Park

Church

SAINT-MARCEL (COMMERCIAL ARTERY)

Fig 39 Saint-Joseph's Three Systems - The points (folies) in pink, the lines (streets, sidewalks and Ligne Verte) in wood and the surfaces (public lots) in dotted hatch.

public sociability today as a place where it is comfortable to see and be seen and where only brief, informal and playful conversations take place. For a small-scaled neighbourhood, “animated calm” can be observed through the appropriate distance between users: glances and courteous few words that both stay within the limits of anonymity⁵. Along the easement or at each urban corner, the project hopes to create regulated encounters (“*rencontres policées*”): tactful encounters where there is a desire to engage in the game of being together without necessarily imposing personal preoccupations to others⁶. During these ephemeral encounters, local population and new immigrants have moments of cohabitation, which are valuable for long-term acceptance and integration.

Program

The redevelopment of the *Ligne Verte* within the neighbourhood will be accompanied by three new programs spread throughout the area. The first, is transitory housing for new Canadians and students. Housing would be given priority to individuals employed in the region as well as students from either CEGEP or UQTR. In order to meet the demands of these two different groups, the units are of varying sizes from 23 to 87 sq. m. (484 to 936 sq. ft.), which allows for studios, one bedrooms, two bedrooms and three bedrooms. Each cluster of housing units is complemented by a greenhouse dedicated to the cultivation of exotic crops (Fig 27). Under the management and supervision of a paid specialist (agronomist or other), residents of the cluster will tend, a couple hours per week, to the needs of the crops along with any other volunteers. The third program is a kitchen incubator/restaurant along the *Ligne Verte*. In this facility, members of a new immigrant family can join together and cook meals for additional income. Part of the profits could be assigned to the maintenance of all three programs.

5 Perla Korosec. “La sociabilité publique et ses territoires”. *Architecture et comportements* 4, no.2 (x): 126.

6 *Ibid.*, 127.

The Ligne Verte is punctuated by greenhouses that also form rest areas. Just as the kitchen incubator is linked to the Ligne Verte via a greenhouse, one could imagine, in another phase of the project, that other greenhouses along the Ligne Verte would be complemented by a new program necessary for the benefit of the new immigrants or the local community.

Many other learning situations could arise from these programs. For example, one could imagine that the local primary and secondary schools could be involved in harvesting and caring for plants. Similarly, these school children or adolescents could learn about foreign cuisine with the help of the new residents.

Urban Street Corner 2.0

Urban street corners are traditionally about visibility and openness. The extension of the city of Barcelona in 1856 was based upon those perimeters. By chamfering the corners of the blocks, Catalan civil engineer and planner Ildefons Cerdà was hoping to increase hygiene, but also increase visibility of motorist and pedestrians at street intersections.⁷ By doing so, traffic would take on a faster pace, and mobility would be improved.

Building over the streets is an unconventional approach towards re-activating street life as it will impact sunlight and view of adjacent properties. The building's structure and circulation cores will also impact visibility and openness. There is perhaps a way for an architecture of compensation to emerge.

One could speculate that adding density to street corners has the potential to re-activate street life. With more people at intersections, and potentially fewer automobile users due to the narrowing of the road, it is possible that business activity could be restored. Likewise, part of the proposed housing infrastructure created a series of amenities for all citizens such as snow melting, and traffic control.

⁷ Barcelona, "Plan Cerdà," History of Barcelona (Blog), February 2015, <https://historyofbarcelona.weebly.com/plan-cerda.html>.

The previous analysis of grocery stores demonstrates that independent grocery stores, often present at corners, are slowly disappearing. Currently, out of the eighteen (18) grocery stores closest to Saint-Joseph Core, there are four (4) independent grocery stores and three (3) convenience stores in contrast to six (6) supermarkets (Fig 23). A simple “grocery store” search into google maps points to many independent stores that are closed today, which may be attributed to the increasing number of “major” supermarkets around the city. What if this street corner infrastructure re-activated street corner activity? What if having a business by a heated sidewalk, shaded in the summer and protected from the wind had an appeal? Other elements of compensation include a slower traffic, the burial of electrical cables during construction, and architectural lighting.



Fig 40 General axonometric of the intervention(s) showing folies, in pink, at typical intersections and along the diagonal Route Verte. The existing bike-lane is now made wider for an assertive connection path to the adjacent neighbourhoods. Parc Gérald-Perron is renovated and offers new programs, as asked by the community, but following the diagonal gesture of the stitch.

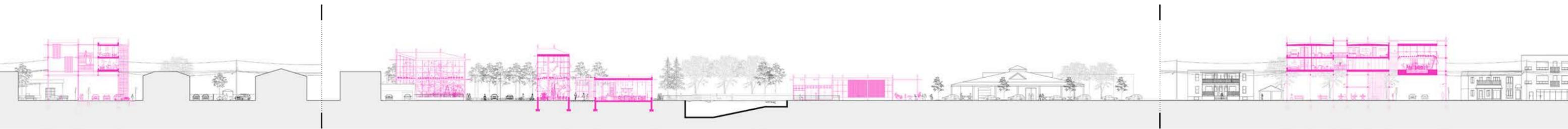


Fig 41 Urban section of the intervention showing variations of nodes within the urban fabric

Collected from the roof,
rain is stored in cisterns and
pumped for irrigation.

Smaller-scale housing clusters
populate
the narrower residential intersections

Permeable pavers and
heating tubes manage the
snow at street corners

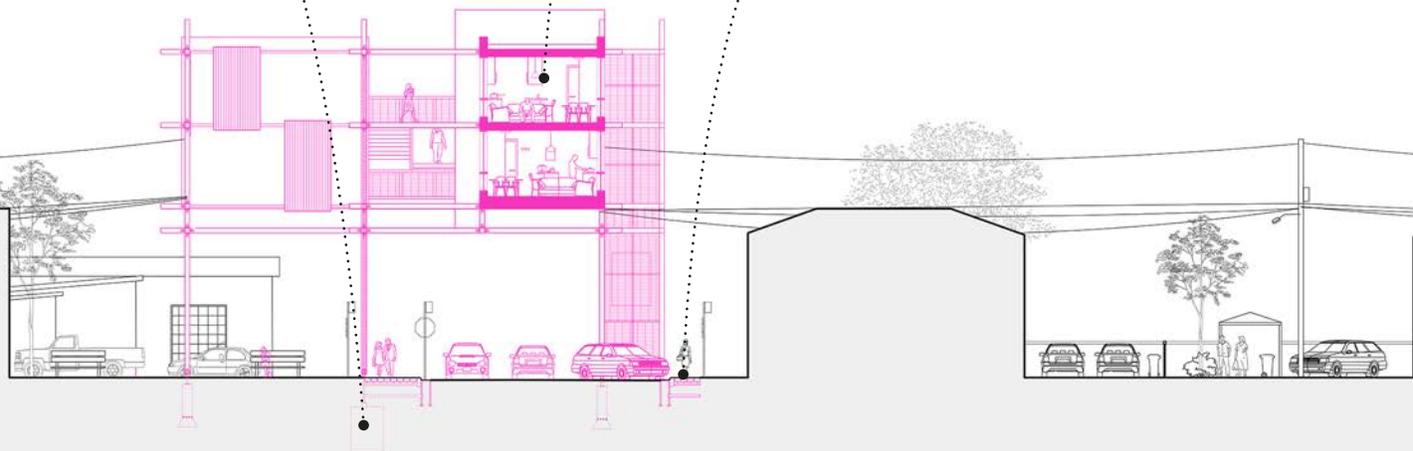
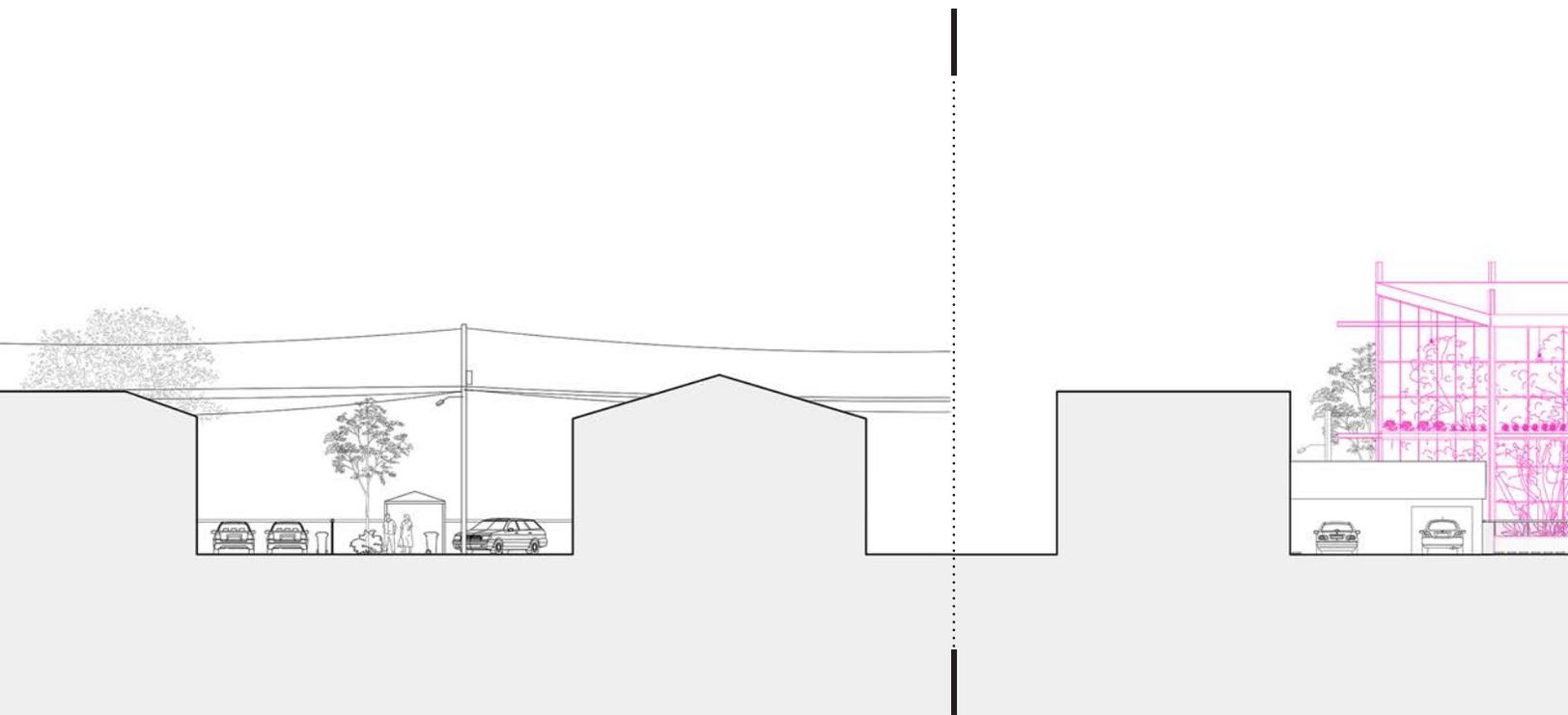
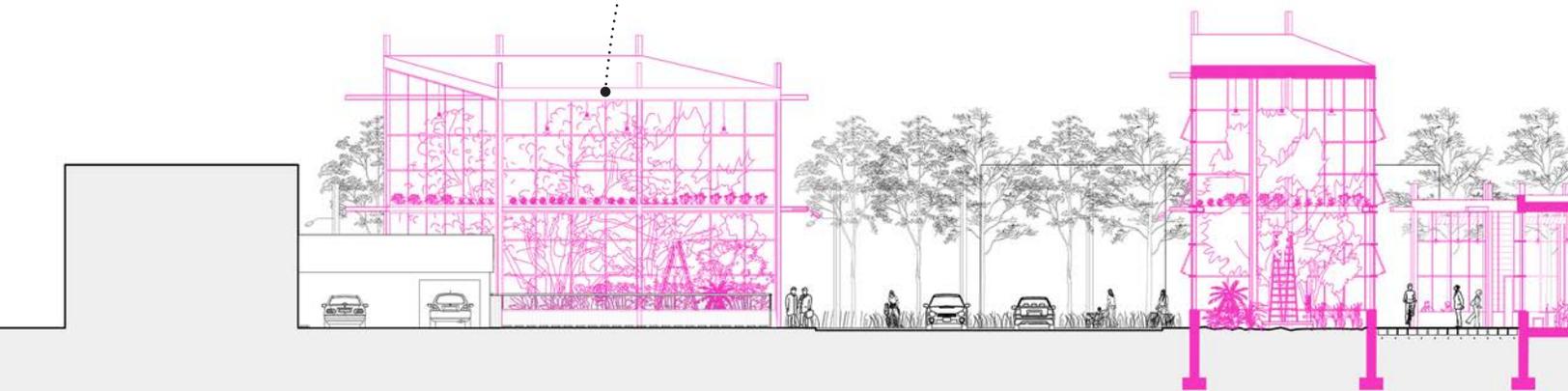
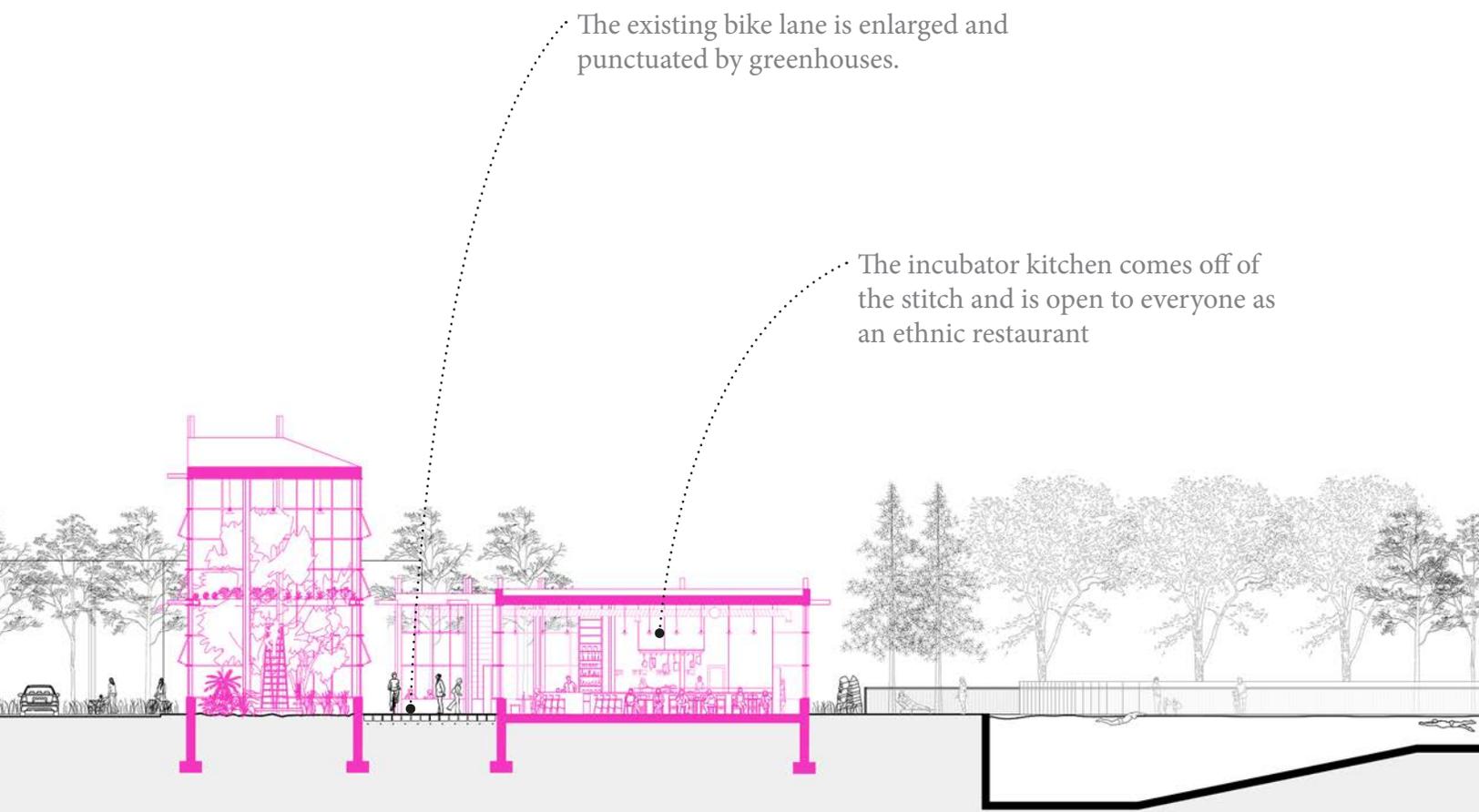


Fig 42 Section of Folie variation B - Residential intersection



Greenhouses drop to the ground as they meet the surfaces and allow for the planting of trees.





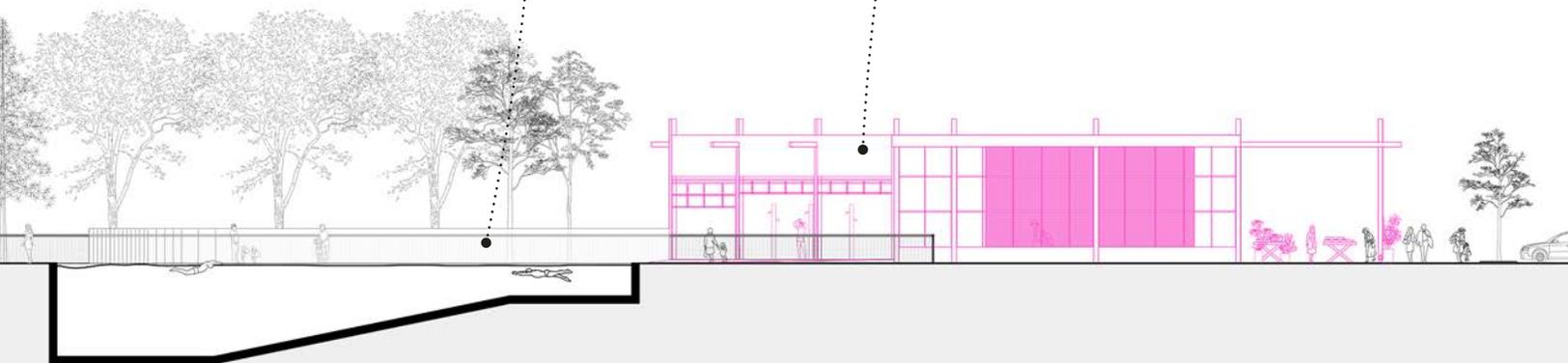
The existing bike lane is enlarged and punctuated by greenhouses.

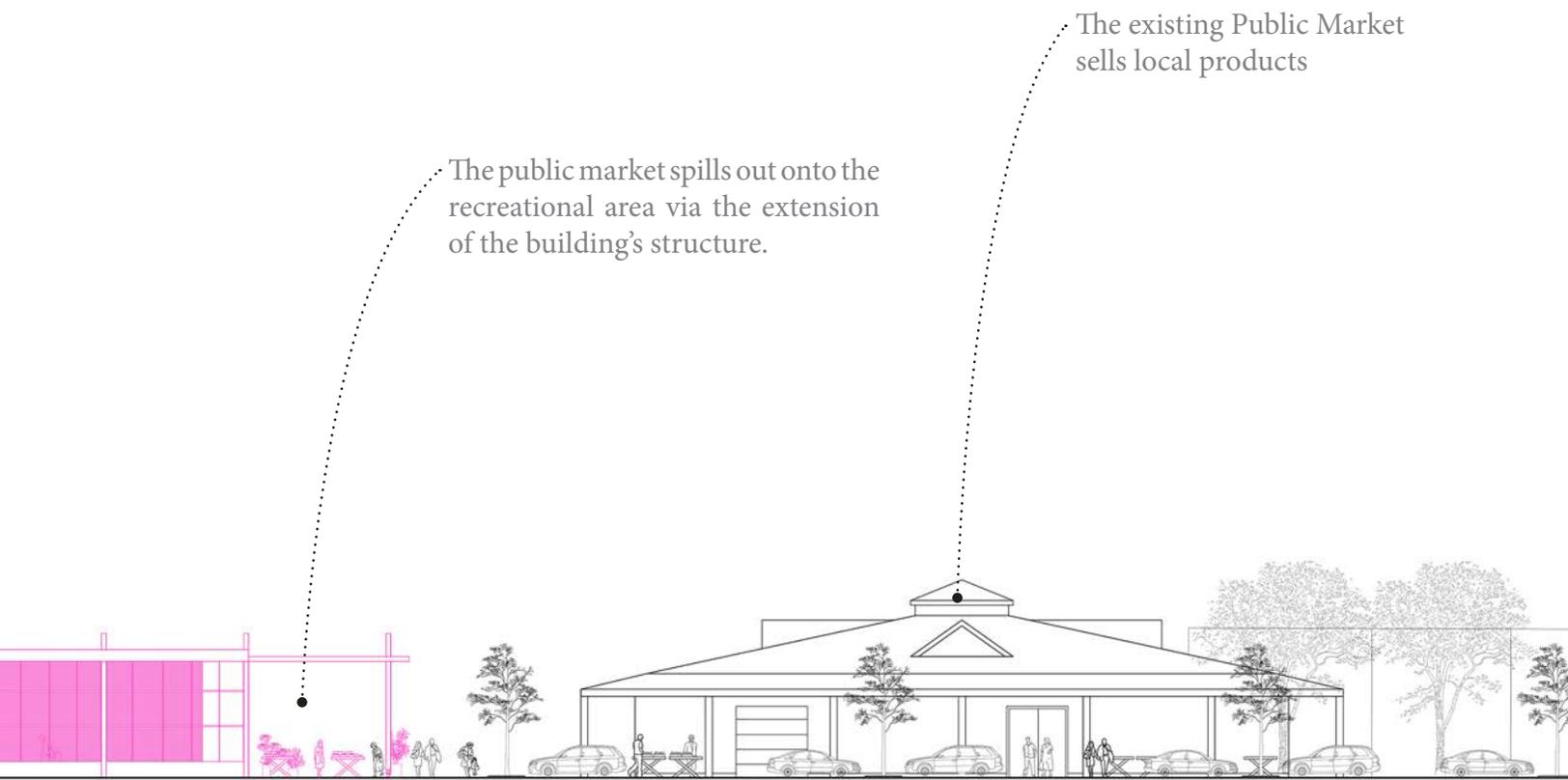
The incubator kitchen comes off of the stitch and is open to everyone as an ethnic restaurant

Fig 43 Section of Folie variation C - Diagonal intersection

Multi-use park: pool, water playground, skateplaza and skating rink

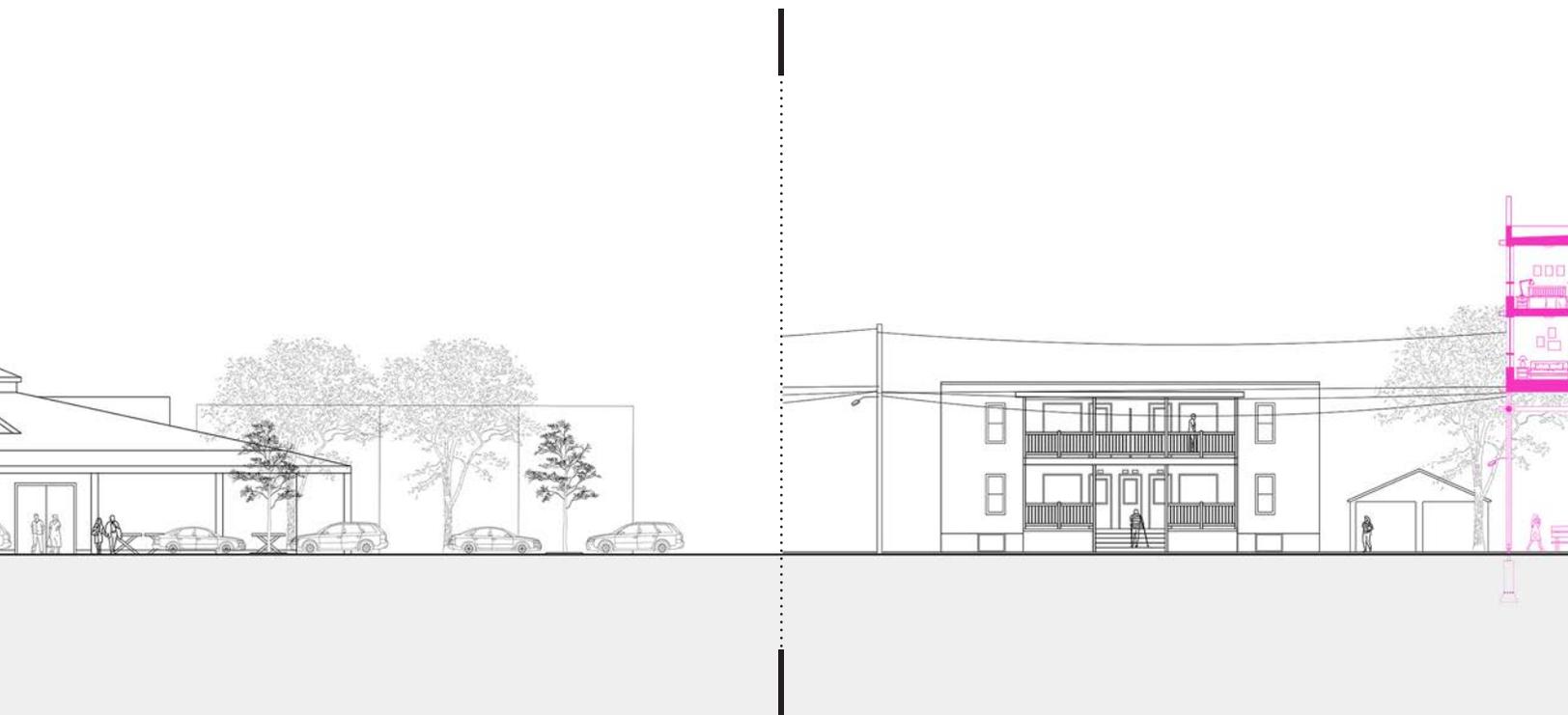
The recreational building offers changing rooms and storage for the programs of the park





The public market spills out onto the recreational area via the extension of the building's structure.

The existing Public Market sells local products



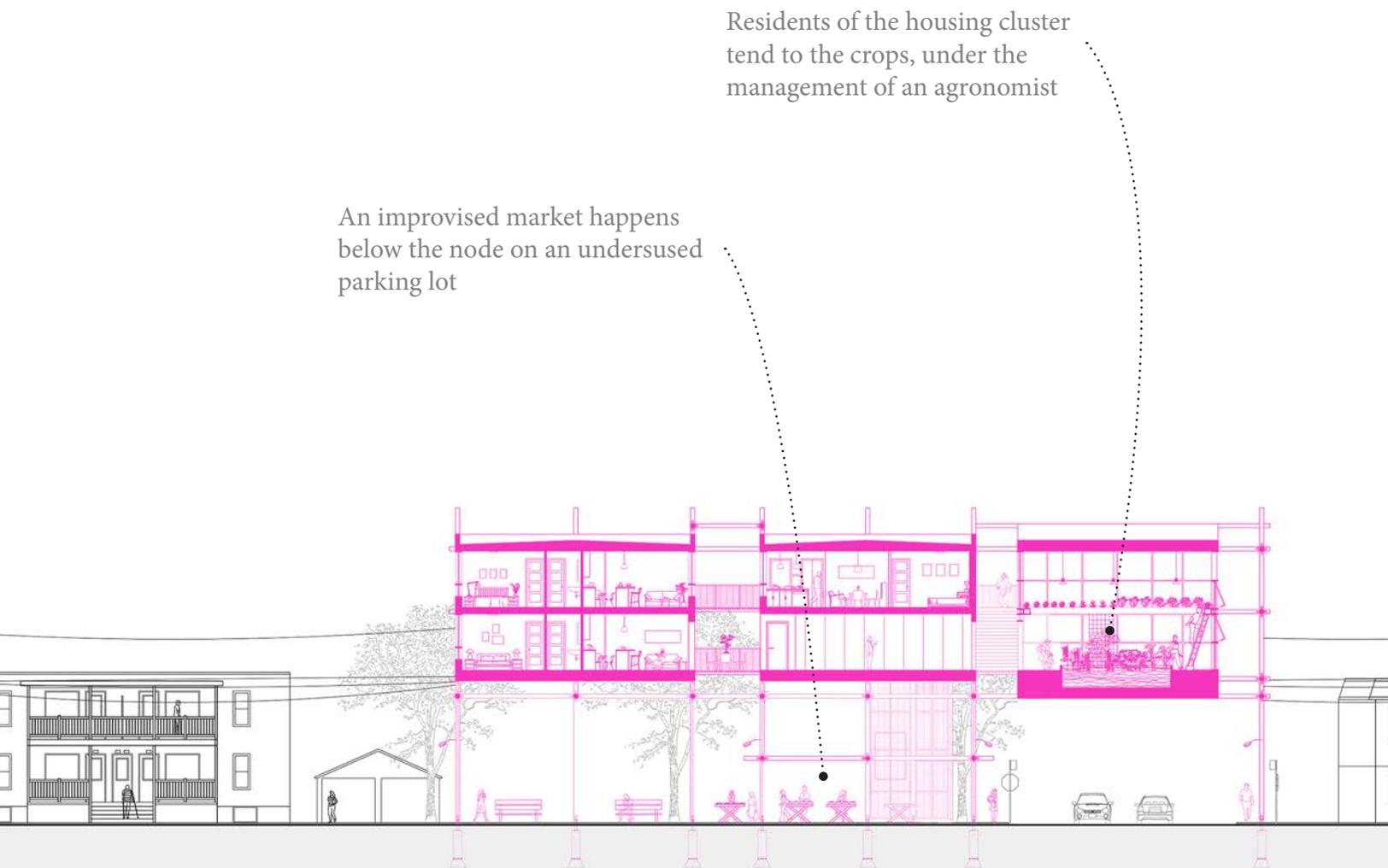
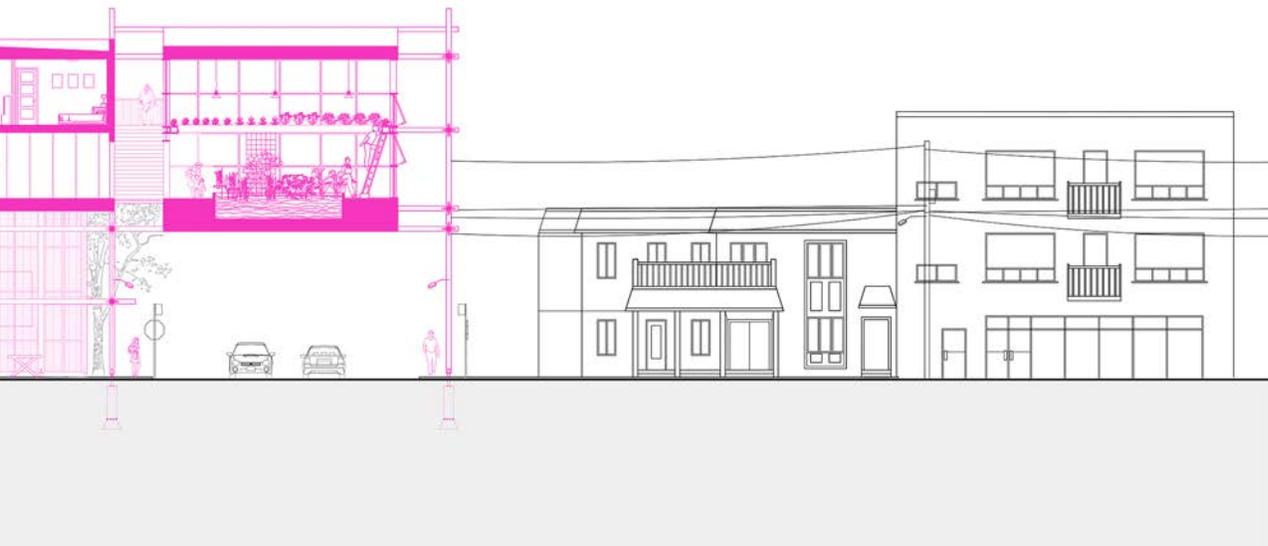


Fig 44 Section of Folie variation A - Commercial intersection





Studio
23 sq. m.
248 sq. ft.

Three bedrooms
87 sq. m.
936 sq. ft.

Two bedrooms
69 sq. m.
742 sq. ft.

One bedroom
45 sq. m.
484 sq. ft.

Fig 45 Floor plans of four typical unit types



Fig 46 Plan of Folie variation A, at commercial intersection. The circulation core is located on a neighbouring under-used lot, which is a parking lot for the adjacent funeral centre. Using the extended structure of the node onto the parking lot, an improvised market can take place as the lot is leased on certain days of the year.

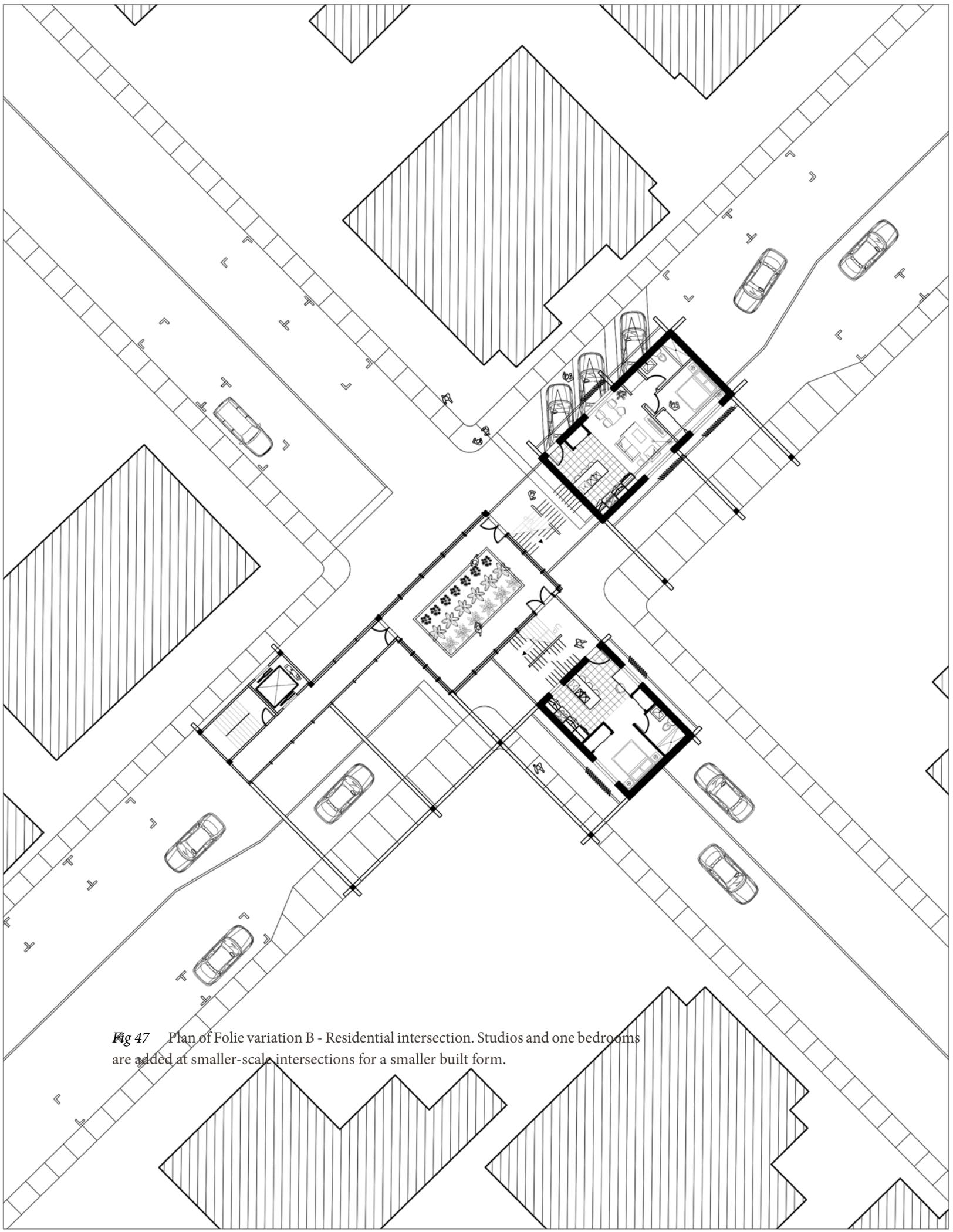


Fig 47 Plan of Folie variation B - Residential intersection. Studios and one bedrooms are added at smaller-scale intersections for a smaller built form.



Fig 48 Plan of Folie variation C/ Easement intersection -Public programs, such as the incubator kitchen and greenhouses, drop to the ground and onto the surfaces near the diagonal. Pauses and slowdowns are signaled through a change of material on the ground.

Conclusion

The thesis began as an exploration into the ways in which a housing project could contribute to both the integration of new immigrants and neighbourhood revitalization. In rural towns like Drummondville, housing *is* sufficient to accommodate new immigrants and students. Therefore, this thesis is not about solving a housing problem per se, but rather increasing opportunities for social cohesion between immigrants and the local population.

With the joining of housing with ethnic food harvesting, this thesis suggests a creation of relationships through a new economic enterprise. This food enterprise acts as a generator of a potential hybrid food culture that can benefit the current food scene of the municipality. The project hopes to knit relations between the ones tending to the crops (students and new immigrant families) with the ones purchasing the yields (established families and local immigrant population), foods or cooked meals prepared by new Canadians. With such incentive to get involved in the local community, immigrants might get better social recognition leading eventually to an accelerated emotional attachment and identification to the host society.

The project evolved to become an architecture of infrastructure, bringing snow management and rain collection systems into the equation, but also directly engaging with existing city infrastructure such as *La Route Verte* – a former train easement turned bike lane – and the public streets, sidewalks and parking.

The decision to build at intersections was a way to spread the intervention evenly throughout the neighbourhood and potentially past its boundaries. While many private properties

are vacant, these have the chance to be developed on their own as the neighbourhood changes over time. I decided to explore design solutions outside of conventional thinking. In other words, I looked for alternate site solutions that didn't involve purchasing land, as I presume the city has a limited budget and very little help from the provincial or federal government when it comes to housing. Designing at typical intersections was also a way to think about prototypical architecture, and how this thesis could apply to other rural towns. Whatever their demographic or architectural context, each town has street intersections and these crossroads are typically supports for greater public life.

While the decision to use "free" existing city streets allowed for savings on cost of the land that could redirect budget towards addressing less conventional architecture and greenhouse systems, this decision created challenges when it comes to elementary parts of the interventions. The first is circulation. How can one integrate circulation cores without interfering with visibility of motorists and pedestrians at intersections? The second is scale. How does one accommodate enough dwellings with a restricted amount of storeys for minimum shadow impact? The third is a matter of architecture as "public compensation". Are the services and landscape provided by the architectural system of one folie enough to address general public concern relative to impacts upon private property?

Recent political events, such as the new Provincial government and their reduced acceptance of immigrants, has led me to think that a lot of individuals believe immigrants do not integrate well into society. However, I believe immigration plays two parts. On one hand for the immigrant, on the other for the host individual, and each have responsibilities when it comes to acceptance. To this end, it seemed critical to fund general costly amenities, such as snow removal, street improvement, signage, street furniture as well as a re-imagining of *La Route Verte*, as they are infrastructures that benefit the neighbourhood first and foremost and into which housing then inserts itself. All of which results into thinking about a new typology for street corners, a kind of architecture that acts as a system to offer different services needed at the confluence of streets. A kind of architecture that could possibly regenerate street activity through the bringing of density, amenities, and new program.

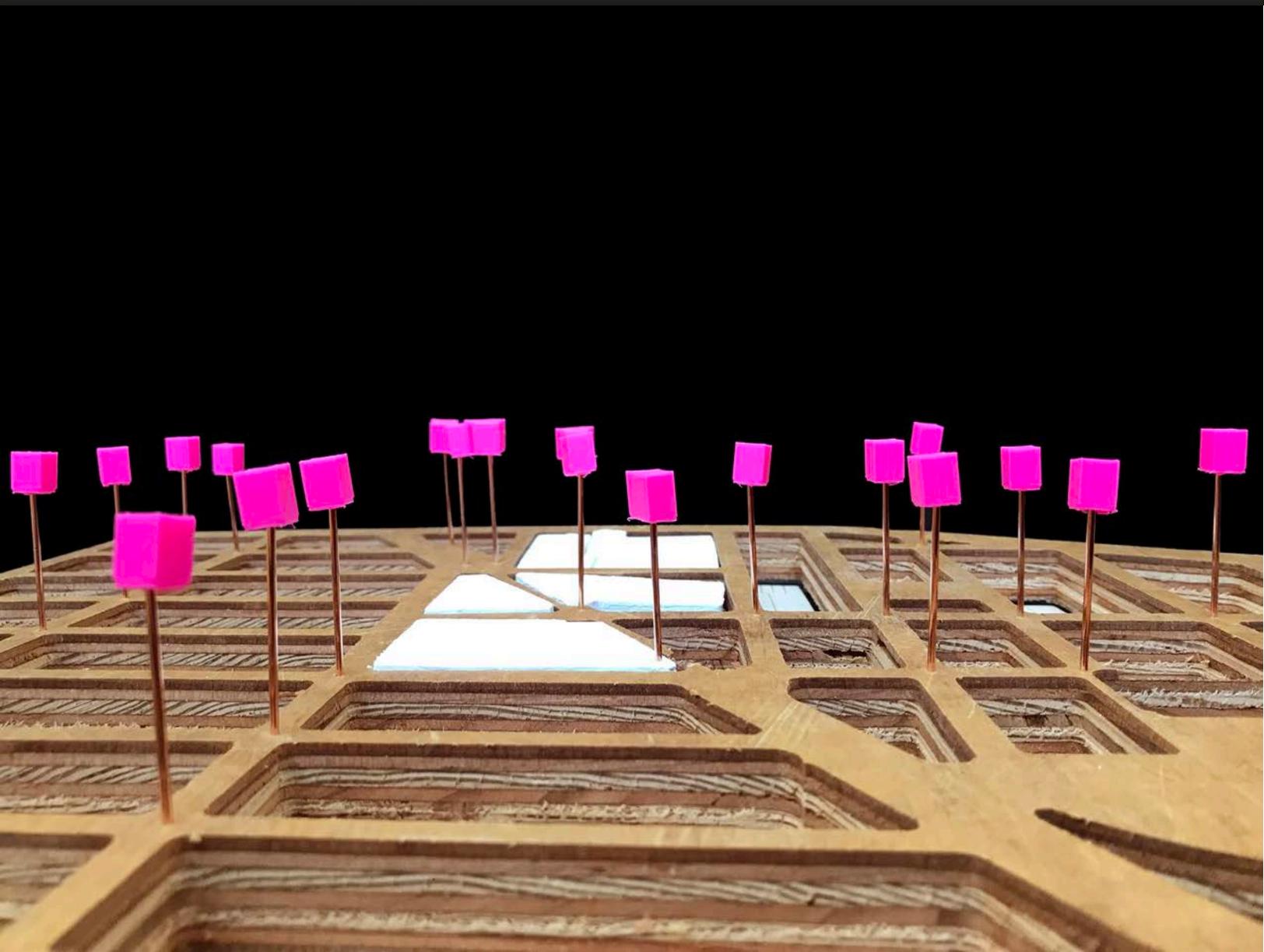
Although, I referred to Tschumi for a main idea of the project, his intervention and mine are quite different. In fact, Bernard Tschumi's folies can bend to all kinds of events and eventualities due to their architectural flexibility. The folies of Saint-Joseph are specific to two programs, the urban greenhouse and housing, without however negating the fact that the building may change its role in the near future and according to the changing needs of the community. A next step of the design would be to think about other programs that could also benefit the involvement of new Canadians into the community. As some individuals may not be keen to tend to plants on a voluntary basis, what other programs could there be? The "middle piece" of the housing cluster may have to become something else like a kindergarden, a community event space or even sewing workshop in order to respond to the interest of many more.

Going forward, I hope that this design thesis pushes people to think differently about immigrant integration, more specifically, the ways in which it can be achieved. Other than thinking about sufficient language classes¹, the perfect number of immigrants admissions² or the most appropriate "Quebec Values Evaluation"³ but rather through socialization and creating relationships, whether ephemeral or lasting.

1 A large proportion of immigrants admitted to Quebec already know French because it is their mother tongue. Of the 75,360 immigrants whose mother tongue is French, 58,994 are still present in 2015. This is an absence rate of 21.7% that language learning cannot explain (Danny Braun for *Radio Canada*, June 30 2016).

2 During the election campaign and even to this day, one of the most polarizing subjects in Quebec is the integration of immigrants, including the number of yearly accepted immigrants. The new Provincial Government argues that admitting 20% less immigrants , 40,000 instead of 50,000 will help with the proper integration of immigrants given that resources for this purpose are limited (Marie-Michèle Sioui for *Le Devoir*, May 16th, 2018).

3 During the election campaign and even to this day, one of the most polarizing subjects in Quebec is the integration of immigrants, including the number of yearly accepted immigrants. The new Provincial Government argues that admitting 20% less immigrants , 40,000 instead of 50,000 will help with the proper integration of immigrants given that resources for this purpose are limited (Marie-Michèle Sioui for *Le Devoir*, May 16th, 2018).



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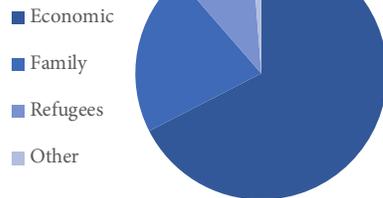
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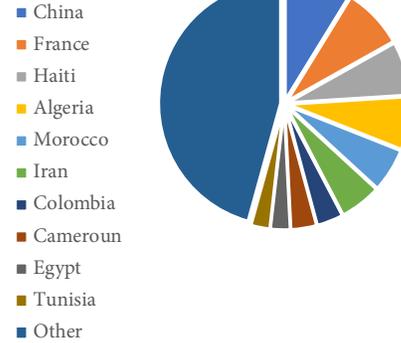
Appendix

Appendix A: Statistical Portrait of Immigrants¹

Categories



Native Country



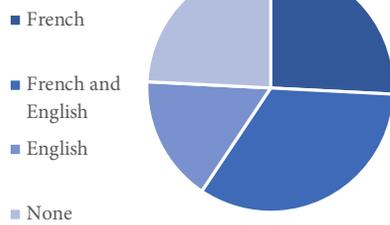
Age Groups



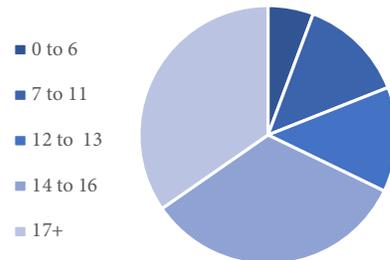
Competence level



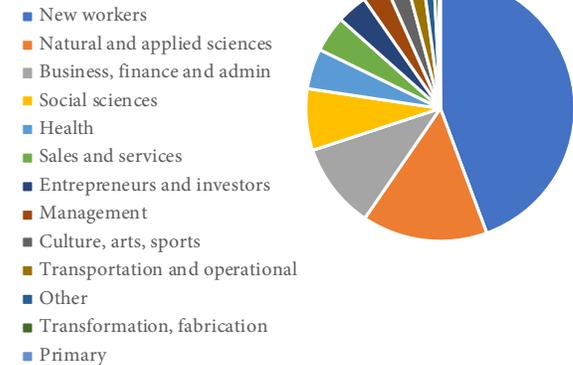
Language



Years of scolarity (>15 y/o)



Prof. category

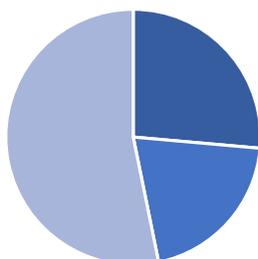


¹ Ministère de l'Immigration, de la Diversité et de l'Inclusion. *Portraits statistiques: L'immigration permanente au Québec selon les catégories d'immigration et quelques composantes.* p.8-11.

Appendix B: Statistical Portrait of Refugees¹

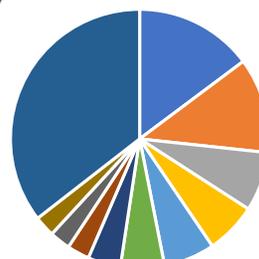
Categories

- State
- Sponsored
- Recognized on site



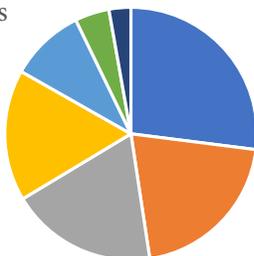
Native Country

- Haiti
- Syria
- Congo
- Mexico
- Colombia
- Afghanistan
- Iraq
- Bhoutan
- Pakistan
- Burundi
- Other



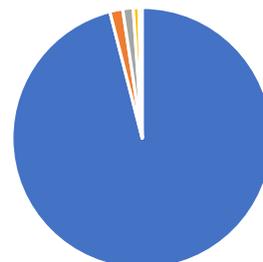
Age Groups

- 0-14
- 15-24
- 25-34
- 35-44
- 45-54
- 55-64
- 65+



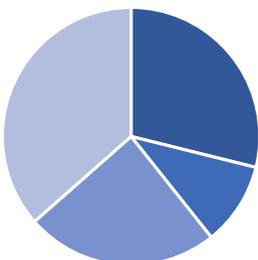
Competence level

- New worker
- Intermediate
- Other
- Tech. and paraprofessional
- Professionnal



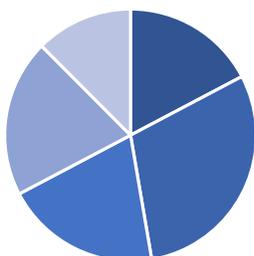
Language

- French
- French and English
- English
- None



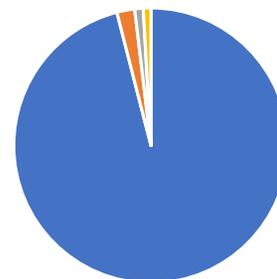
Years of scolarity (>15 y/o)

- 0 to 6
- 7 to 11
- 12 to 13
- 14 to 16
- 17+



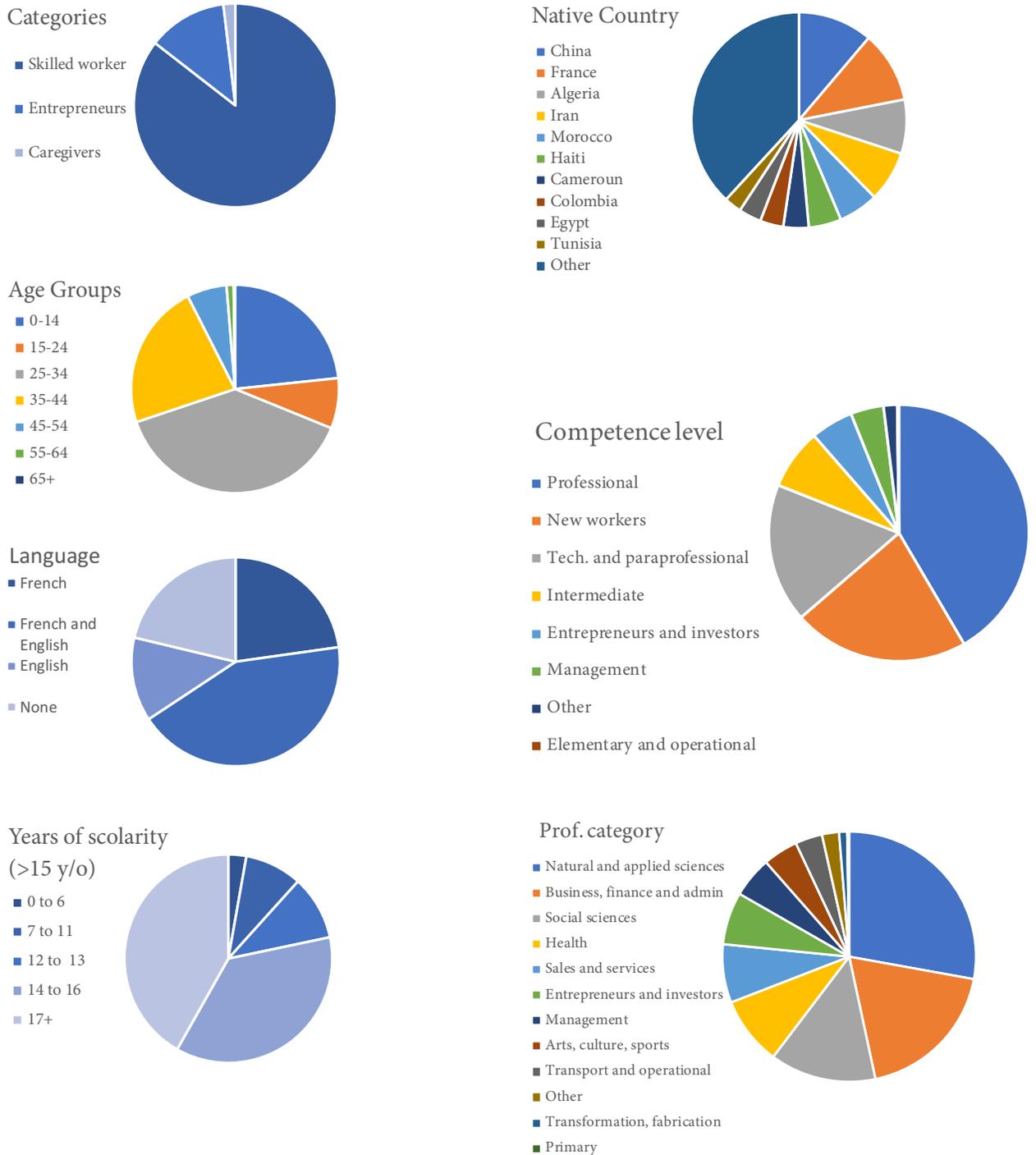
Prof. Category

- New workers
- Other
- Sales and services



¹ Ministère de l'Immigration, de la Diversité et de l'Inclusion. *Portraits statistiques: L'immigration permanente au Québec selon les catégories d'immigration et quelques composantes*. p.62-65.

Appendix C: Statistical Portrait of Economic Immigrants¹



¹ Ministère de l'Immigration, de la Diversité et de l'Inclusion. *Portraits statistiques: L'immigration permanente au Québec selon les catégories d'immigration et quelques composantes*. p.18-22.

Appendix D: Demographic portrait of MRC Sherbrooke¹

Superficie en terre ferme (2016) : 354 km²

Densité de population : 472,3 hab/km²

Population totale (2017) : 166 988 hab.

0-14 ans 25 631 hab.

15-24 ans 20 942 hab.

25-44 ans 46 296 hab.

45-64 ans 42 521 hab.

65 ans et plus 31 598 hab.

Solde migratoire interrégional (2016-2017) -24 hab.

Perspectives démographiques (variation de la population 2036 /2011) : 15,8 %

Travailleurs de 25-64 ans (2016) : 61 925

Taux de travailleurs de 25-64 ans (2016) : 74,8 %

Revenu d'emploi médian des 25-64 ans (2016) : 39 324 \$

Taux de faible revenu des familles (2015) 8,1 %

Revenu disponible par habitant (2016) : 25 288 \$

Valeur totale des permis de bâtir (2017) : 282 094 k\$

Valeur foncière moyenne des maisons unifamiliales (2017) : 227 994 \$

¹ Institut de la statistique du Québec. "05- L'Estrie ainsi que ces municipalités régionales de comté (MRC)" *Gouvernement du Québec*, 2015, http://www.stat.gouv.qc.ca/statistiques/profils/region_05/region_05_00.htm

Appendix E : Demographic portrait of MRC Drummond¹

Superficie en terre ferme (2016) : 1 599 km²

Densité de population : 65,9 hab/km²

Population totale (2017) : 105 358 hab.

0-14 ans : 17 013 hab.

15-24 ans : 11 275 hab.

25-44 ans : 26 755 hab.

45-64 ans : 29 157 hab.

65 ans et plus : 21 158 hab.

Solde migratoire interrégional (2016-2017) : 759 hab.

Perspectives démographiques (variation de la population 2036 /2011) : 17,0 %

Travailleurs de 25-64 ans (2016) 40 454

Taux de travailleurs de 25-64 ans (2016) : 74,5 %

Revenu d'emploi médian des 25-64 ans (2016) : 37 368 \$

Taux de faible revenu des familles (2015) 6,9 %

Revenu disponible par habitant (2016) 25 177 \$

Valeur totale des permis de bâtir (2017) : 228 914 k\$

Valeur foncière moyenne des maisons unifamiliales (2017) : 193 968 \$

¹ Instiut de la statistique du Québec. “17- Centre-du-Québec ainsi que ces municipalités régionales de comté (MRC)”
Gouvernement du Québec, 2015, http://www.stat.gouv.qc.ca/statistiques/profils/region_17/region_17_00.htm

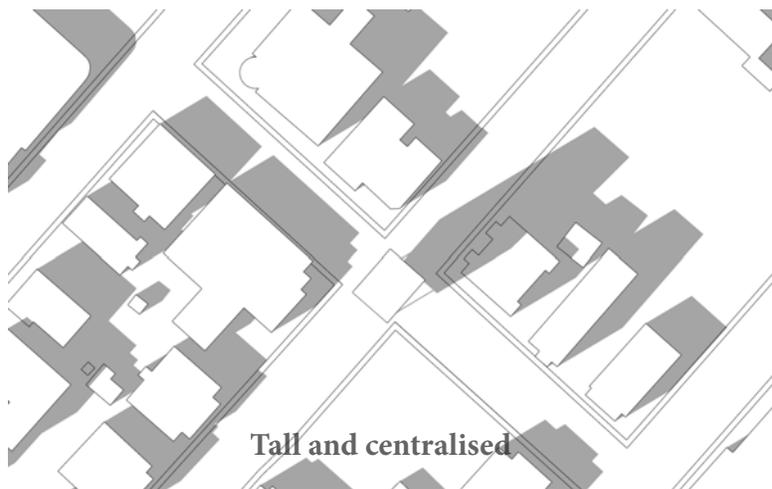
**Appendix F : Photographic Inventory of Saint-Marcel street
North side**



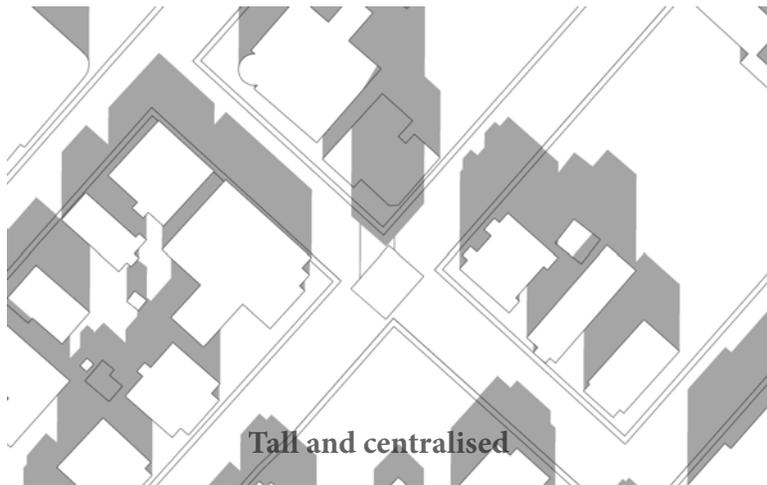
**Appendix G : Photographic Inventory of Saint-Marcel street
South side**



Appendix H : Sun and shadow Study
September 21st 6:00 PM



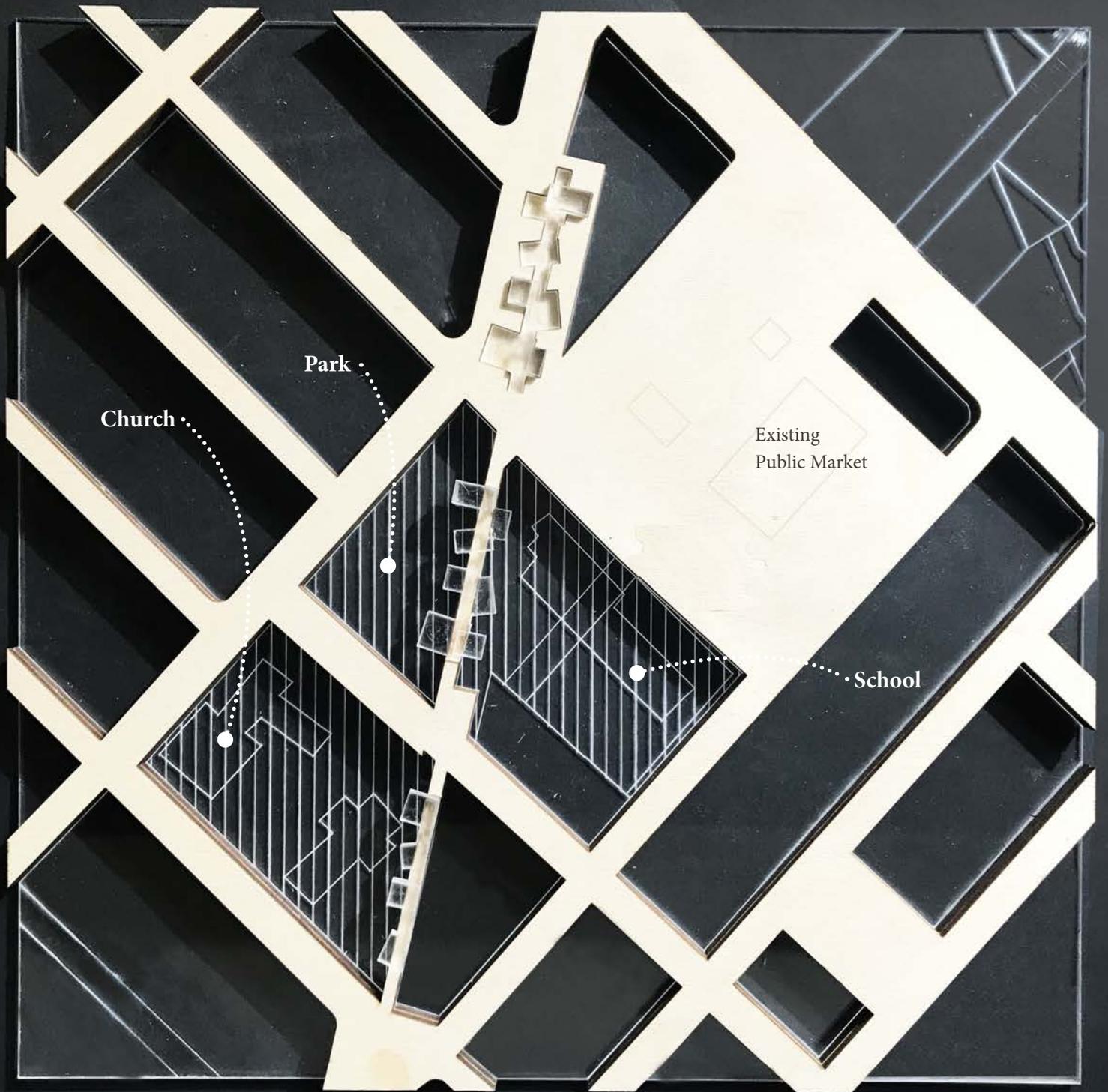
Appendix I : Sun and shadow Study
December 21st 3:00 PM



Appendix J : Sun and shadow study
June 21st 8:00 PM

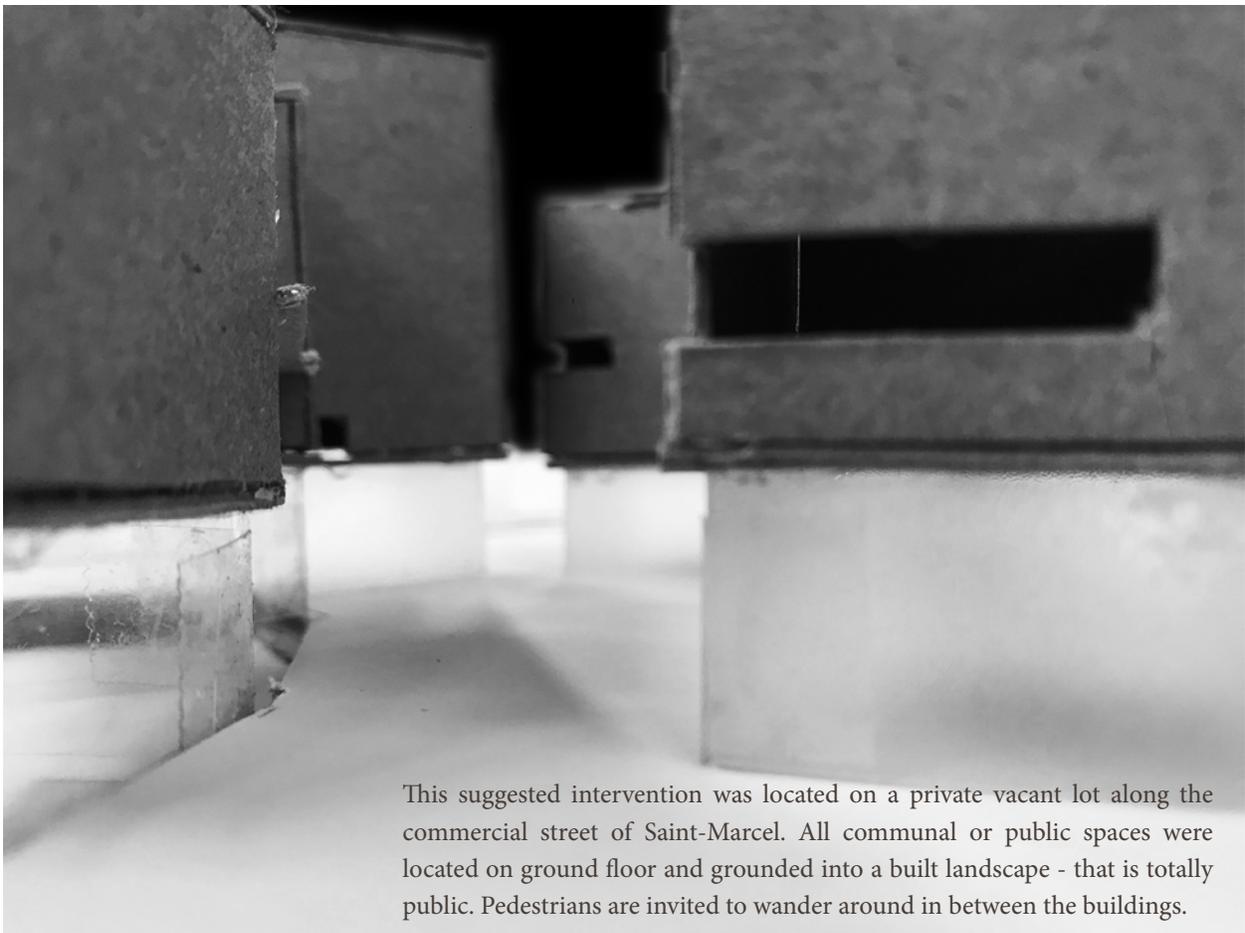
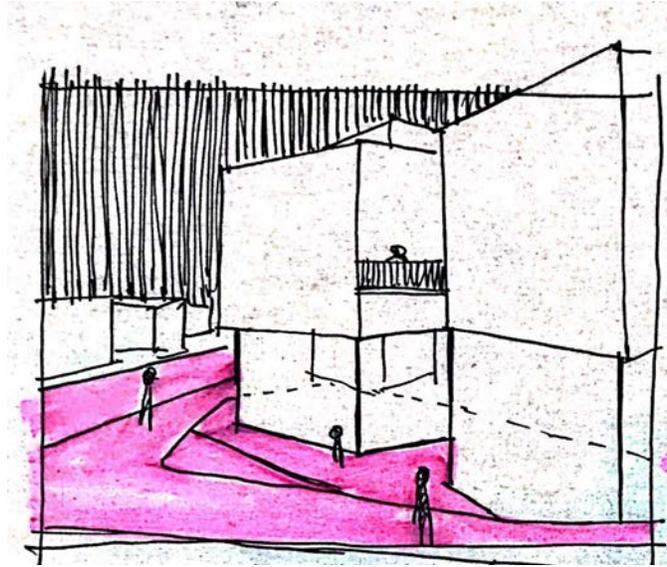
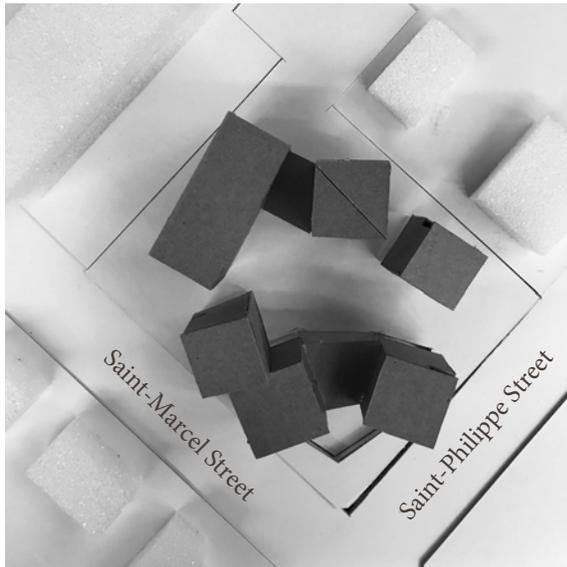


Appendix K : Previous design attempt - Colloquium II



This suggested intervention was located on the lot of the easement, replacing the bike lane with a longitudinal greenhouse. Housing units were elevated from the ground and would negotiate air space over private lots that are of public purpose (Park and Church lot owned by Parish and Public School owned by the School Board).

Appendix L : Previous design attempt - Colloquium I



This suggested intervention was located on a private vacant lot along the commercial street of Saint-Marcel. All communal or public spaces were located on ground floor and grounded into a built landscape - that is totally public. Pedestrians are invited to wander around in between the buildings.

The New Local

A Food and Housing Network for Immigrant Integration
in Drummondville, Quebec.

by Kim Coussa