

**Reactivate and Reconnect:
A Strategy for the Reintegration of an Abandoned Military
Community**

by

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Submitted in partial fulfilment of the requirements
for the degree of Master of Architecture

at

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CONTENTS

Abstract	v
Acknowledgements	vi
Chapter 1: Introduction	1
Thesis Question.....	1
Chapter 2: Site	2
Character of the Post-Industrial / Post-Military Waterfront	2
Demographic and Existing Housing Stock.....	6
Building Type	13
Existing Housing Stock in Shannon Park	13
Chapter 3: Program	17
Chapter 4: Method.....	24
Characteristics of Military Developments	24
Isolation and Exclusivity	24
Program and Adjacencies.....	25
Existing Materials and Construction	26
Uniformity and Identity	27
Chapter 5: Design.....	30
Urban Scale.....	30
Programmatic Intervention - Urban Cuts	30
Formal and Material Elements	36
Community Scale	41
Activating the Courtyards	41
Vehicular and Pedestrian Infrastructure.....	43
Courtyard Thresholds	44
Building Scale	47
Variety	47
Front and Back	52
Chapter 6: Conclusion	55
References	58

ABSTRACT

This architectural design thesis proposes the adaptive re-use of 82 walk-up apartment blocks located in Shannon Park, Dartmouth, Nova Scotia, Canada. The uniform military housing community, abandoned in 2004, is reintegrated back into the surrounding neighbourhood network through a series of interventions at several scales. The new neighbourhood will provide housing for the population influx expected as a result of the acquisition of a significant shipbuilding contract. Because the expected influx is temporary, the development must be able to easily fit into the existing urban fabric. A series of strategic design interventions will transform the monotonous, desolate site into a varied community with strong neighbourhood identity.

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CHAPTER 1: INTRODUCTION

Shannon Park is a former military housing community in Dartmouth, Nova Scotia, built in the 1950s to quickly accommodate military personnel and their families. The uniform apartment blocks were situated on the site irrespective of the context or the needs of the families they were intended to house.¹ As a result, the site has fallen into disuse and disrepair which resulted in its abandonment in 2004. The need to deal with sites such as Shannon Park is becoming increasingly prevalent as Canada and the US reduce their military investment. Typically, these sites are demolished and the land re-appropriated for new use, but this is a large expense, unsustainable, and shows little respect for the historical value (however minor) of these sites.

Military communities and developments tend to be strategically isolated from civilians to ensure public safety and security. But to re-appropriate a site for use by the general public, isolation is not necessarily desirable. To re-adapt its site for new use, Shannon Park needs to be woven back into the existing urban fabric. However, there are several social and physical barriers that will need to be overcome to make these connections possible.

Thesis Question

How can an abandoned military housing development be adapted to create a new community for civilian residents?

¹ Sergeant Michel Dubé, Department of National Defence, e-mail message to author, November 8, 2012.

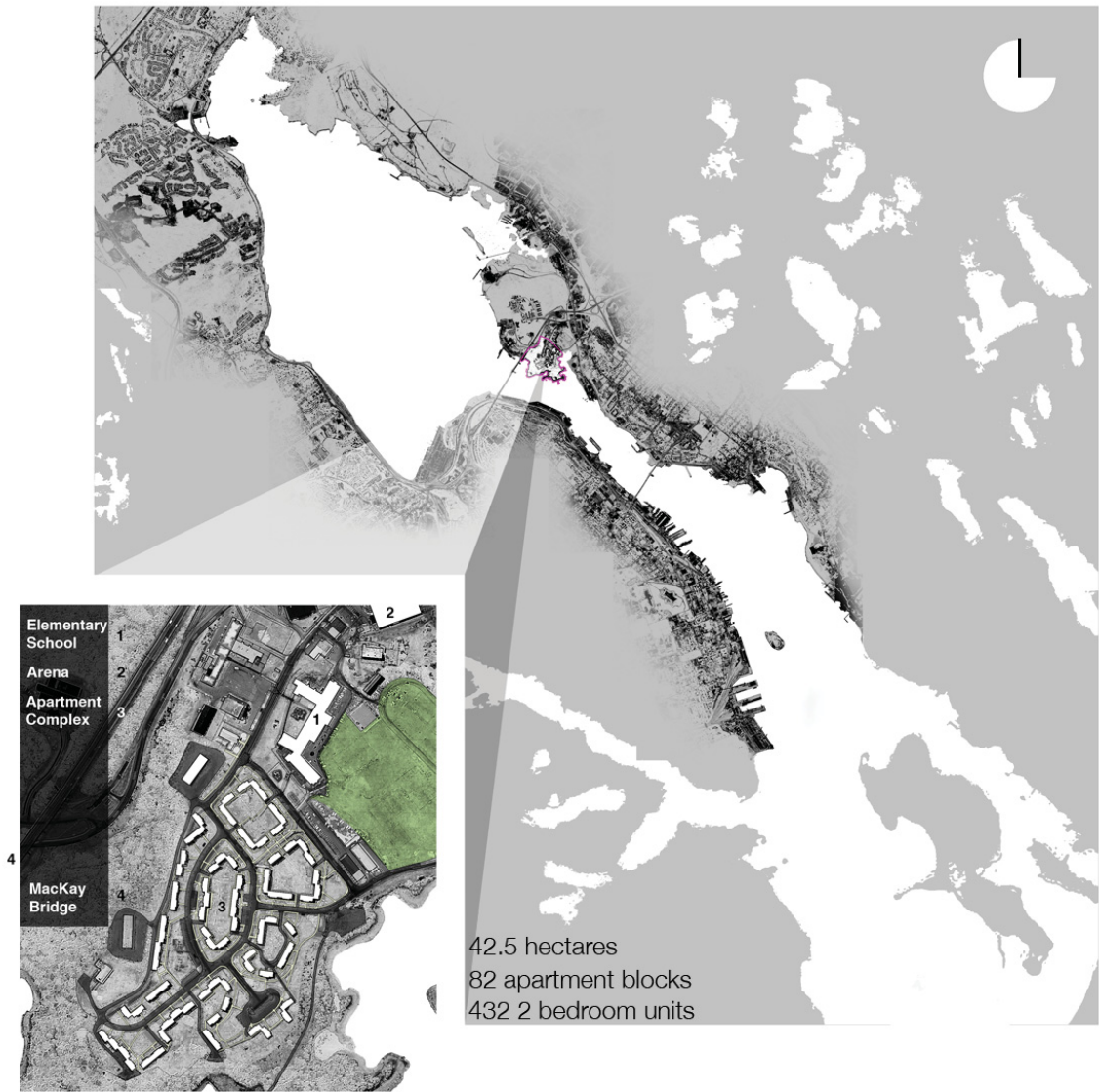
CHAPTER 2: SITE

Character of the Post-Industrial / Post-Military Waterfront

Shannon Park's isolation is reinforced by the shape of the waterfront in Dartmouth. Sandwiched between two large industrial zones, Shannon Park contains the only waterfront access for the north end community. The character of this waterfront has been gradually changing on both the Halifax and Dartmouth sides of the harbour. The Halifax waterfront (formerly a site of major industry) is now in the process of becoming a pedestrian waterfront and is largely zoned as "mixed use." As a result, there is an increase in the number of private dwellings, park space and commercial areas along the waterfront. Dartmouth is still predominantly an industrial waterfront, with the exception of the downtown core. Alderney Landing and the surrounding area include a variety of performance spaces, park space and a small trail system. Shannon Park can reinforce the development of the recreational waterfront, expanding on the existing trails, and creating destination at the water's edge.

Richard Marshall's *Waterfronts in Post-Industrial Cities* looks at the receding industrial waterfront through several case studies. Both Marshall and L. Loures & T. Panagopoulos come to similar conclusions when tackling these sites: "The redevelopment of derelict brownfield sites, which are often located in the core sections of urban areas or sites of high ecological value as rivers, are prime targets for urban revitalization."²

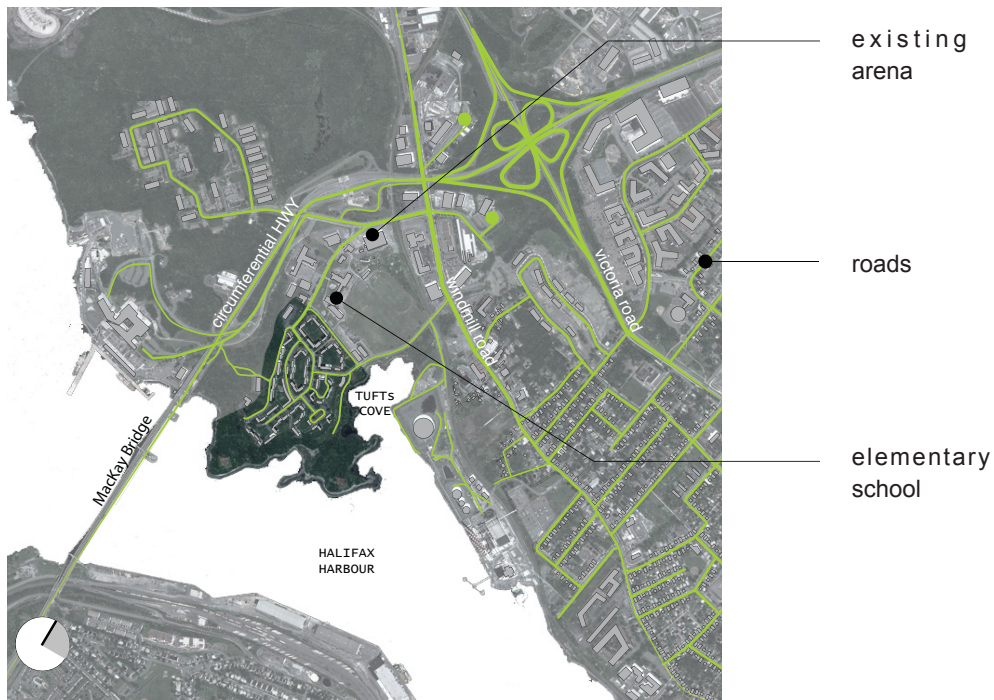
2 L. Loures and T. Panagopoulos, "Sustainable Reclamation of Industrial Areas in Urban Landscapes," *WIT Transactions on Ecology and the Environment* 102 (2009): 791-792.



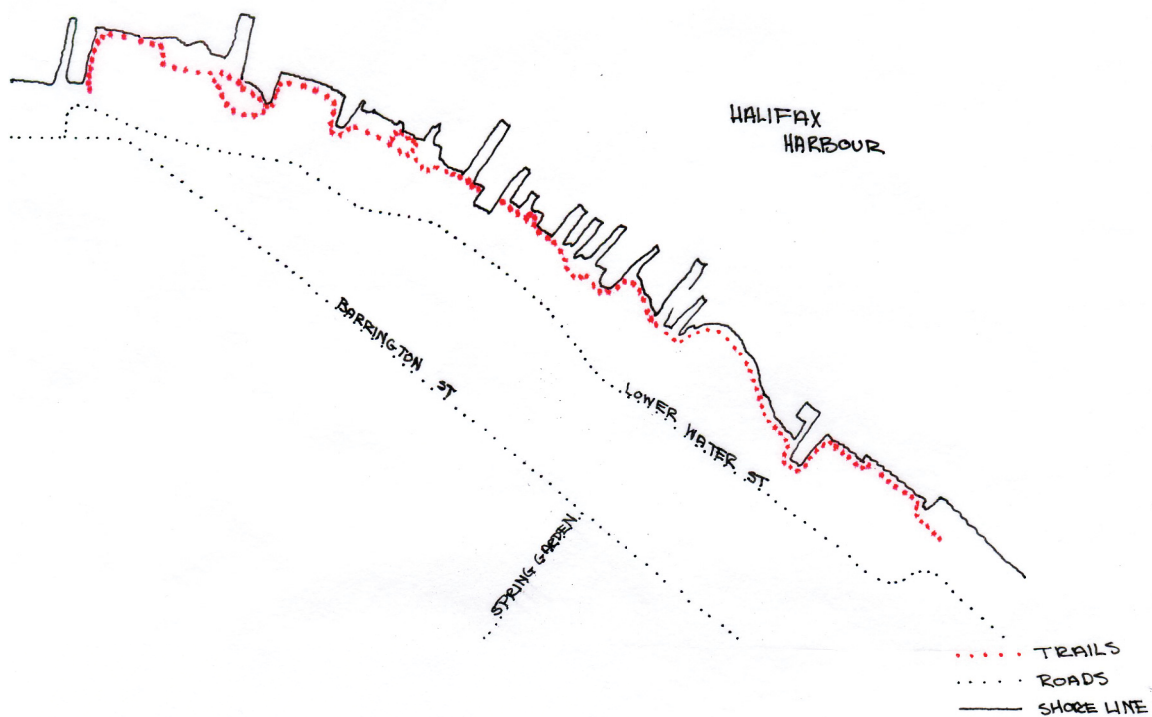
Location map with blow-up of thesis site; base drawing from Google Maps.

While Loures and Panagopoulos are more interested in the development of industrial regions into parks, both recognize the need to preserve the historic integrity of the site (however insignificant). The Shannon Park waterfront lacks the historical richness of Halifax and will have to find its identity in its military history, adjacent community and recreation.

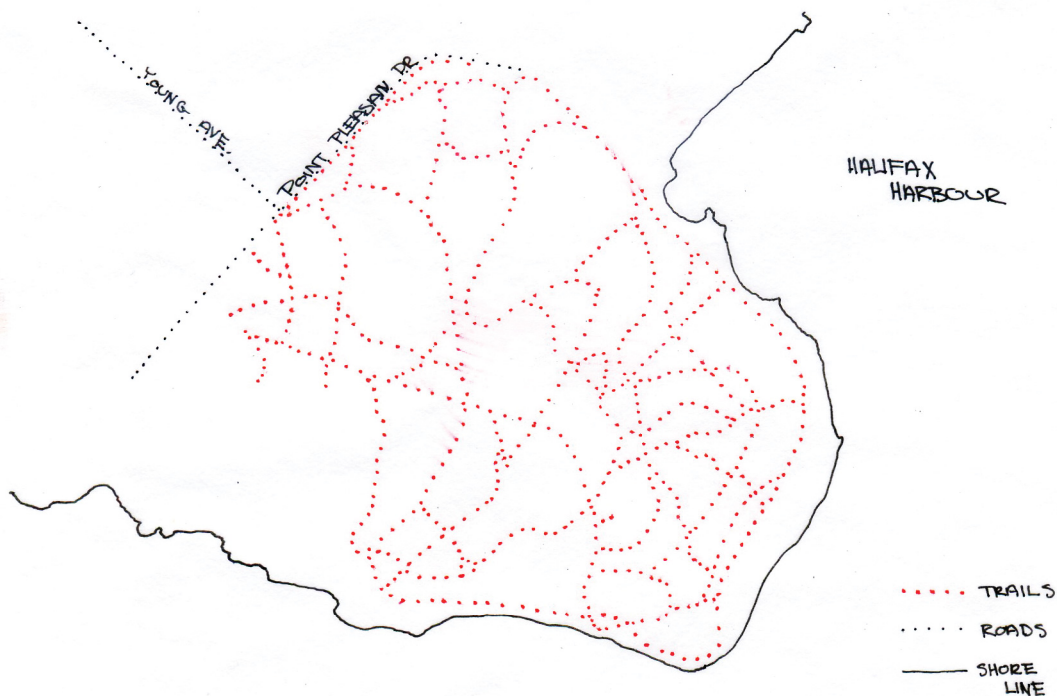
The isolated nature of the site is typical of military bases and developments. It is advantageous for a military settlement to be separated from civilians, but it can also be alienating and unapproachable. The redevelopment of Shannon Park will need to address this isolation and reconnect the abandoned community to the neighbourhoods around it, and reconnect the neighbourhoods to their waterfront.



Map of existing vehicular routes connecting Shannon Park to the surrounding neighbourhoods; from Google Maps.



Existing trail system on the Halifax waterfront; from Halifax Regional Municipality, "Dartmouth Harbourfront Trails", 2012.



Existing trail system in Point Pleasant Park located on the Halifax Peninsula; from Halifax Regional Municipality, "Dartmouth Harbourfront Trails", 2012.

Shannon Park is isolated by the local vehicular infrastructure and by the local geography. The circumferential highway which connects Dartmouth to the Halifax Peninsula borders Shannon Park to the west. Victoria Road which connects Burnside to downtown Dartmouth borders the site to the north. From a vehicular perspective, Shannon Park is well connected and convenient for a commuting population. But at a pedestrian level, it's inaccessible and undesirable.

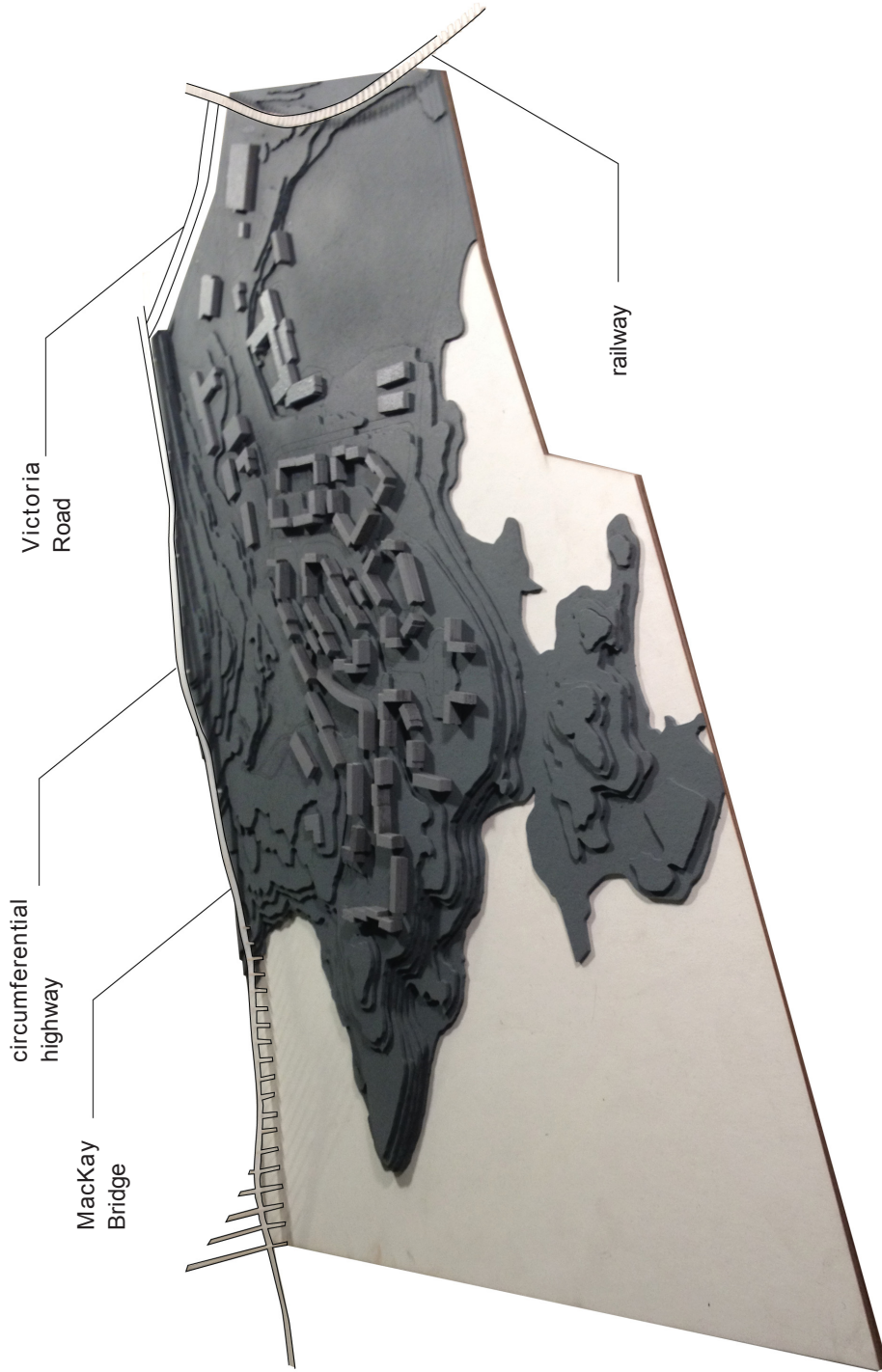
Demographic and Existing Housing Stock

Currently, the population of Dartmouth is in decline, but the acquisition of a major shipbuilding contract by the nearby Halifax Shipyard in October 2011 has brought significant optimism to the region and there is now an opportunity for development in the downtown core as a result of this new financial and population influx. The \$25-billion contract to build new combat ships for the Canadian navy over the next 20 years is expected to bring:

11,500 jobs at peak employment for the combat ships project; \$351 million in disposable [income] to be spent on homes, cars, trucks and in stores; and more than \$350 million in federal, provincial and local tax revenue. More importantly, this project will provide a generation of stability for workers and small business, pump up community and business confidence and turn Halifax into one of Canada's high-growth cities.³

Nova Scotia's acquisition of the shipbuilding contract is expected to bring 11,000 new jobs and, by extension, increase the population in the region. Reinstating the

3 Greater Halifax Partnership, "Shipbuilding in Halifax: A Pillar of Nova Scotia's Economic Transformation" (May 2011), http://www.greaterhalifax.com/site-ghp2/media/greaterhalifax/GHP_Summary_Final%20revised.pdf.



Model showing the extent of Shannon Park, with its boundaries in white.



Photograph of Shannon Park with the Mackay bridge and Halifax Harbour beyond.

existing units in Shannon Park would provide enough housing to support the new population in Dartmouth, with the infrastructure required to sustain them. The duration of the contract is limited, and the number of jobs created by the contract will begin to decline in 2030.⁴ The temporary nature of the influx in population calls for either an incremental approach to the re-appropriation of the site or an approach which is easily absorbed and integrated into the existing suburban fabric.

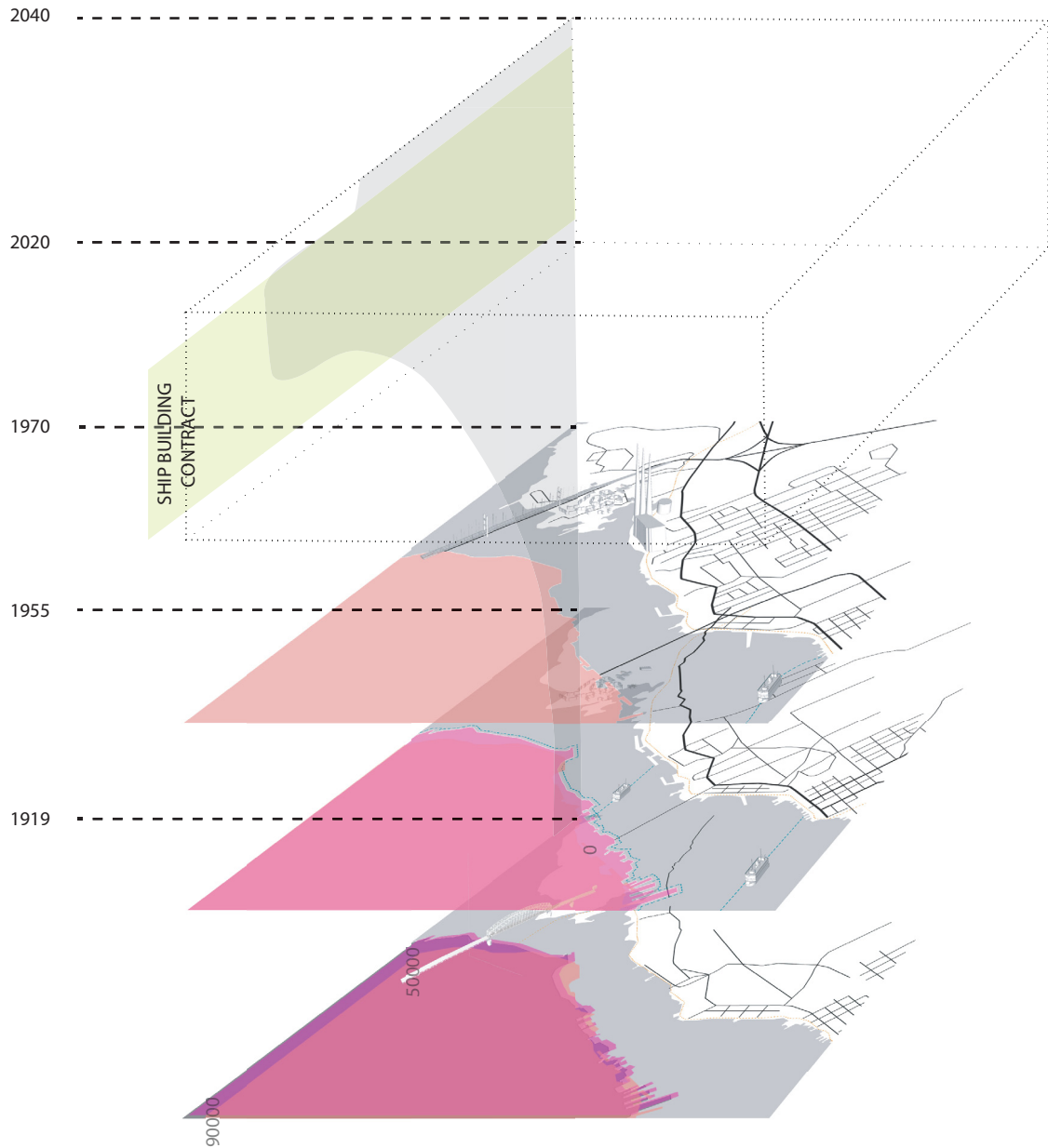
Dartmouth offers more affordable land, and many of the same amenities as Halifax. The downtown area is well supported by metro transit with several means of accessing Halifax, including the ferry and the Macdonald and MacKay bridges. The average cost of owning a home in Dartmouth is \$110,000; however, only 25% of the residents of Dartmouth own their homes, whereas 64% of those living in Halifax Regional Municipality own their homes.⁵ By contrast, HRM is inundated with high and market price rental housing, with an average monthly rental cost of \$754 and the majority of the rental housing stock containing one or two bedrooms.⁶ This is not well suited to the variety of families currently living in the region or expected to immigrate into the community.

Dartmouth North is much more affordable than Halifax and has many of the same amenities. Dartmouth North sports the highest vacancy rate of any of the

4 Ibid.

5 Statistics Canada, "Dartmouth - Cole Harbour, Nova Scotia, Canada" (Code 12003) and "Nova Scotia" (Code 12) (table), 2012.

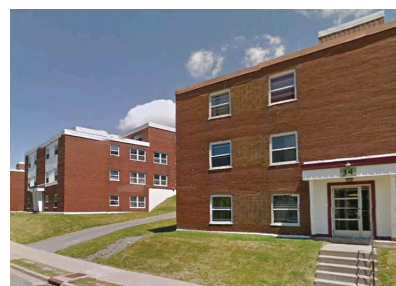
6 Government of Nova Scotia, "Community Profile," *Nova Scotia Community Counts*, 2006, <http://www.gov.ns.ca/finance/communitycounts/profiles/community>.



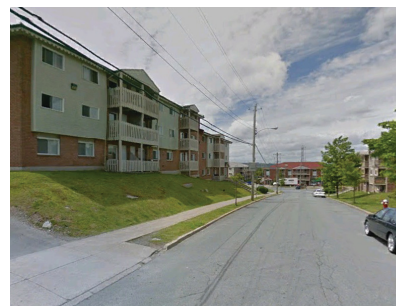
Layered historical maps from 1919 to 1970, highlighting the large infrastructure developments. 2012-2030 frames the duration of the expected economic, developmental, and population impact of the shipbuilding contract. Base map from Google Maps.

neighbourhoods in Dartmouth with adequate access to Halifax and the central business district. With a vacancy rate of 6.7%, Dartmouth seems to have a high number of available residences: 411.⁷ However, of those 411 houses, 37.6% are in need of minor or major repairs.⁸ This can be attributed to the state of the housing stock in existing “Park” developments in Dartmouth such as Maynard Park and Highfield Park.

36% of residents in Dartmouth North live in apartment buildings, many under 5 stories, like those found in Maynard Park and Highfield Park.⁹ The majority of the density in Dartmouth is in the downtown area in the form of low-rise apartment blocks, near Alderney Landing and its surrounding area. Many of these medium density buildings (under 5 stories) are located in “Park” developments. Like Shannon Park, Maynard Park was built in the 1950s to house military families.¹⁰ The development is composed of a series of repeated brick apartment blocks situated along Maynard Lake in Dartmouth. The site is connected to Portland Street, a prominent vehicular route, but lacks variety in program and building type. Highfield Park was built 30 years after Maynard Park, to house a low-income civilian



Typical building in Maynard Park



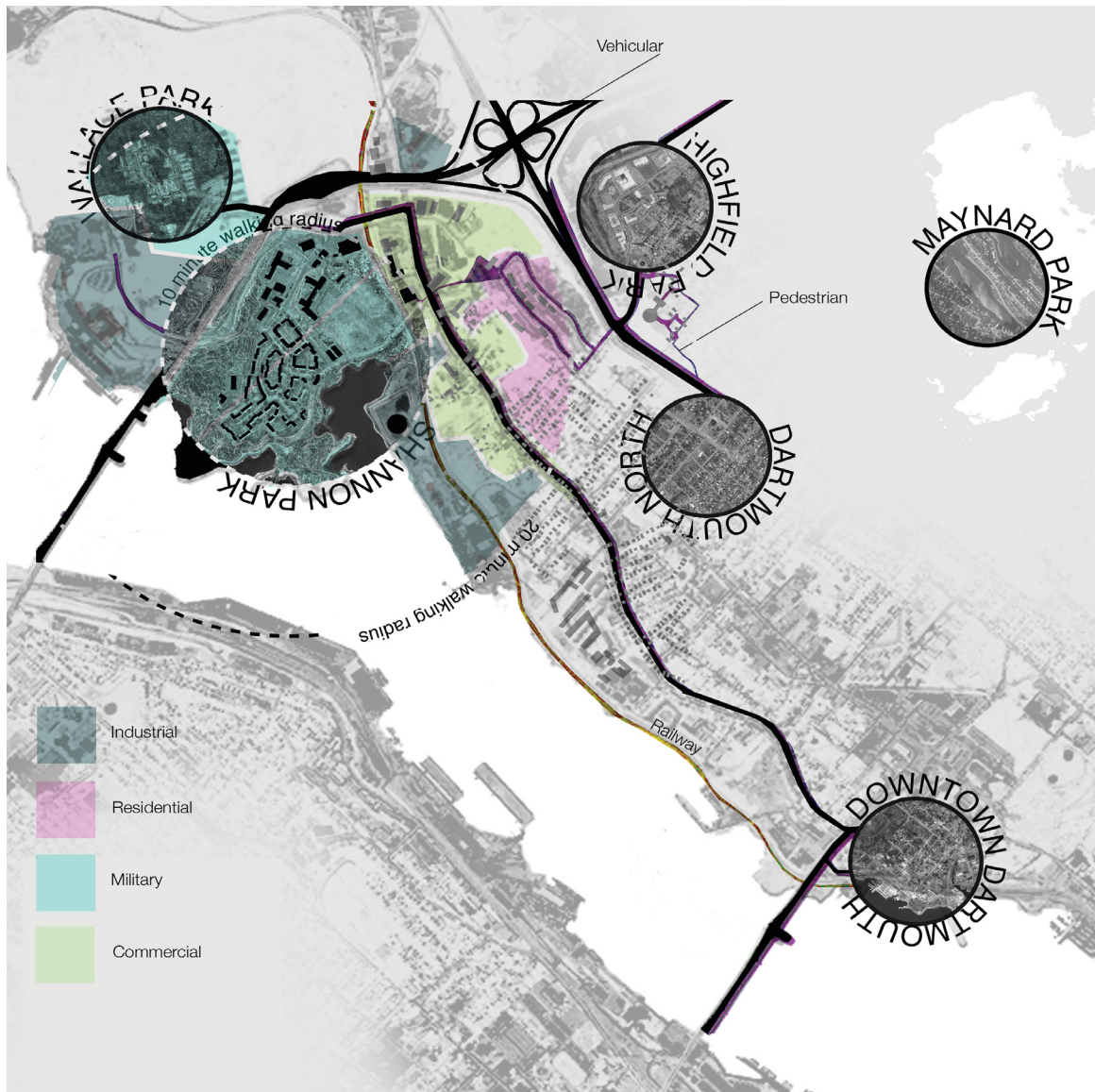
Typical building in Highfield Park

7 Canadian Mortgage and Housing Corporation, “Housing and Market Information,” 2012, http://www.cmhc-schl.gc.ca/odpub/esub/64689/64689_2012_A01.pdf?fr=1358107253484.

8 Greater Halifax Partnership, “Shipbuilding in Halifax: A Pillar of Nova Scotia’s Economic Transformation” (May 2011), http://www.greaterhalifax.com/site-ghp2/media/greaterhalifax/GHP_Summary_Final%20revised.pdf.

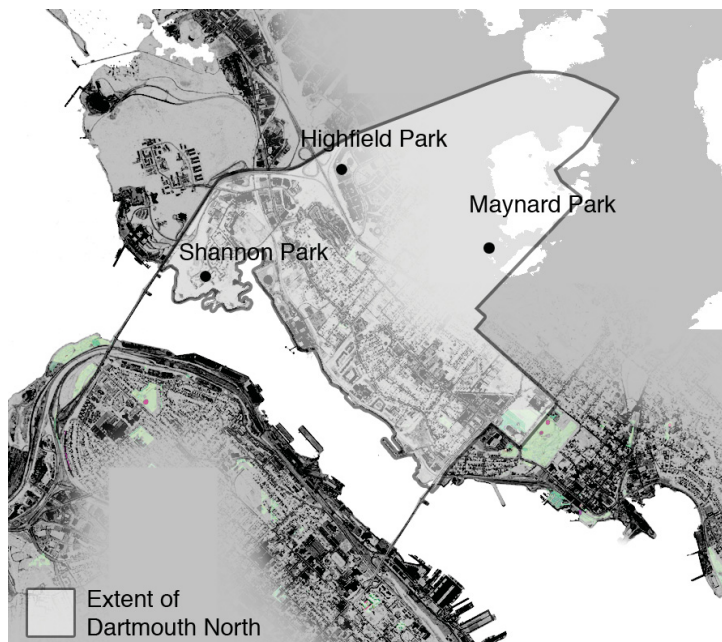
9 Ibid.

10 Caroline Howes, “Urban Resilience: Re-Designing Existing Architecture for the Community of Maynard Lake.” (MArch Thesis, Dalhousie University, 2012), 13-15.



Mapping study identifying the major communities within Dartmouth. Circular areas indicate a 10 minute walking radius from each neighbourhood centre.

population. The development is populated by a series of low-rise brick and vinyl apartment blocks.



Map showing extent of Dartmouth North highlighting Shannon Park, Maynard Park and Highfield Park. Base map from Google Maps

There are very few amenities on the site, which reinforces the popular opinion that Highfield Park is a ghetto. These developments are in a state of disrepair, characterized by high crime rates and substandard living conditions. This indicates a need to address the existing housing stock, to generate more accessible, quality housing for the population expected to immigrate into Dartmouth North over the next 30 years.

Building Type

Existing Housing Stock in Shannon Park

Shannon Park is populated by a single building type repeated across the site: a four-storey building with storage and utility in the basement and six single-family

units on the three floors above. The concrete block and wood-frame building structure is intact and the cladding in relatively good condition. Red brick is applied to the first storey of each apartment unit. The brick appears to be in good condition and is well located at the ground floor to resist the wear and tear of street activity. The upper storeys are clad in corrugated steel, painted in a variety of muted colours. Both corrugated steel and paint appear to be in good condition. The windows and window frames are in poor condition, with many wooden frames rotten and windows broken. Regardless of their material integrity, the fenestration will need to be altered to suit the new or re-arranged program within. Given the generally good state of the materials and structure of the existing buildings, there is an opportunity to reuse these structures, mitigating the need for new materials and reducing the cost of demolition.



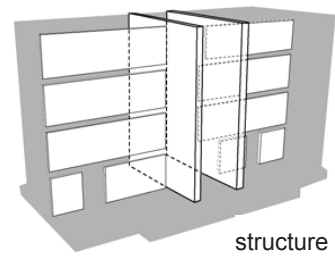
Typical building in Shannon Park

There are two sets of fire stairs at the core of the building, giving a single access point at the front and back of each unit. A load bearing wood stud-wall runs perpendicular to the circulation core, essentially dividing the building into four equal structurally bound spaces. The plans of all of the buildings are identical. Each unit includes a kitchen, bathroom, living room and two bedrooms. Michel Dubé with the Department of National Defence attributes the abandonment of the site to the limitations of the plan in accommodating various sizes of families.¹¹

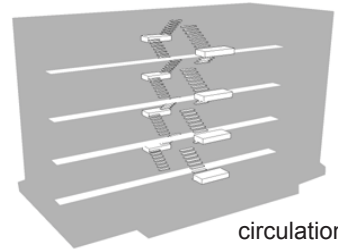
The facade of the building is as uniform as the plan. The uniformity creates a monotonous facade, with no

¹¹ Sergeant Michel Dubé, Department of National Defence, e-mail message to author, November 8, 2012.

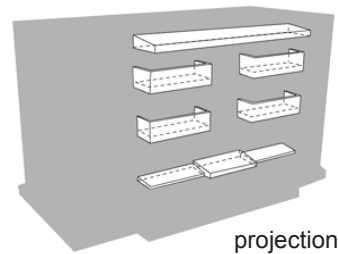
consideration to the building orientation or the urban condition it generates. However, the fenestration is adequate in size, providing good light into the shallow plan.



structure



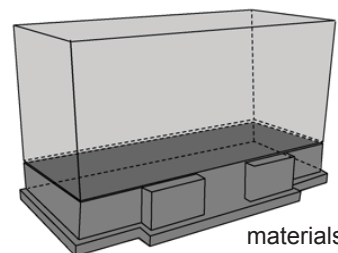
circulation



projections

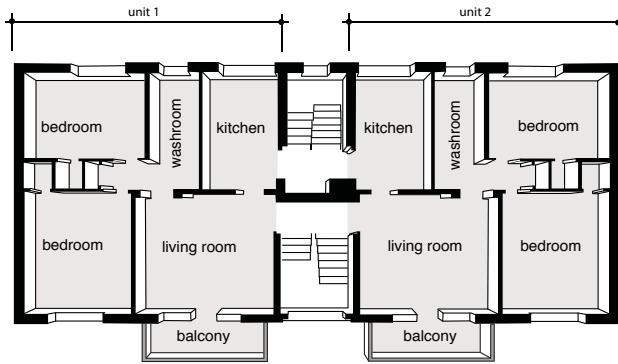


fenestration

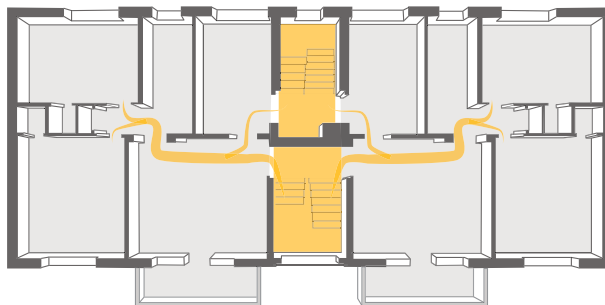


materials

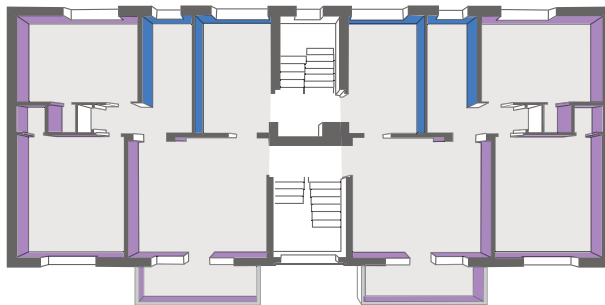
Analysis of the existing building envelope and structure



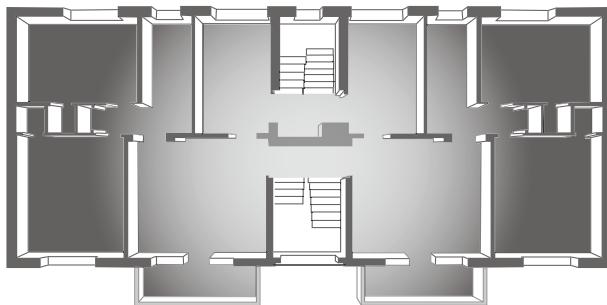
existing unit plans



circulation



served
 service



from public to private

Analysis of the existing plan; Sergeant Michel Dubé, Department of National Defence, e-mail message to author, November 8, 2012.

CHAPTER 3: PROGRAM

Although the military housing has been abandoned since 2004, several nearby institutions continue to operate: Shannon Park Elementary School, the arena, the recreational fields, and the local chapel. To foster a relationship between the surrounding communities and the new development in Shannon Park, there needs to be a mutual exchange of services and amenities. David Weissman’s *Cities Real and Ideal: Categories for an Urban Ontology* investigates the social patterns within a community, paying particular attention to the “reciprocal causal relationships” that connect neighbourhoods to one another.¹² In Shannon Park the existing programmatic elements with the greatest capacity to connect to other neighbourhoods are: school, recreation and commercial. Its commercial district is currently the weakest program and could be strengthened by incorporating a commercial corridor within Shannon Park. This commercial corridor could include amenities missing within the North End including grocery store/market, banking and retail.



Shannon Park Elementary School

12 David Weissman, *Cities Real and Ideal: Categories for an Urban Ontology* (New Brunswick, NJ: Transaction Books, 2010).



arena

41.5 units



financial / office

4 units



daycare

1.5 units



medical clinic

2 units



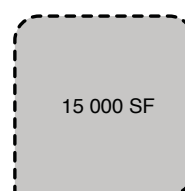
bank

2 units



retail

6 units



grocery / market

19 units

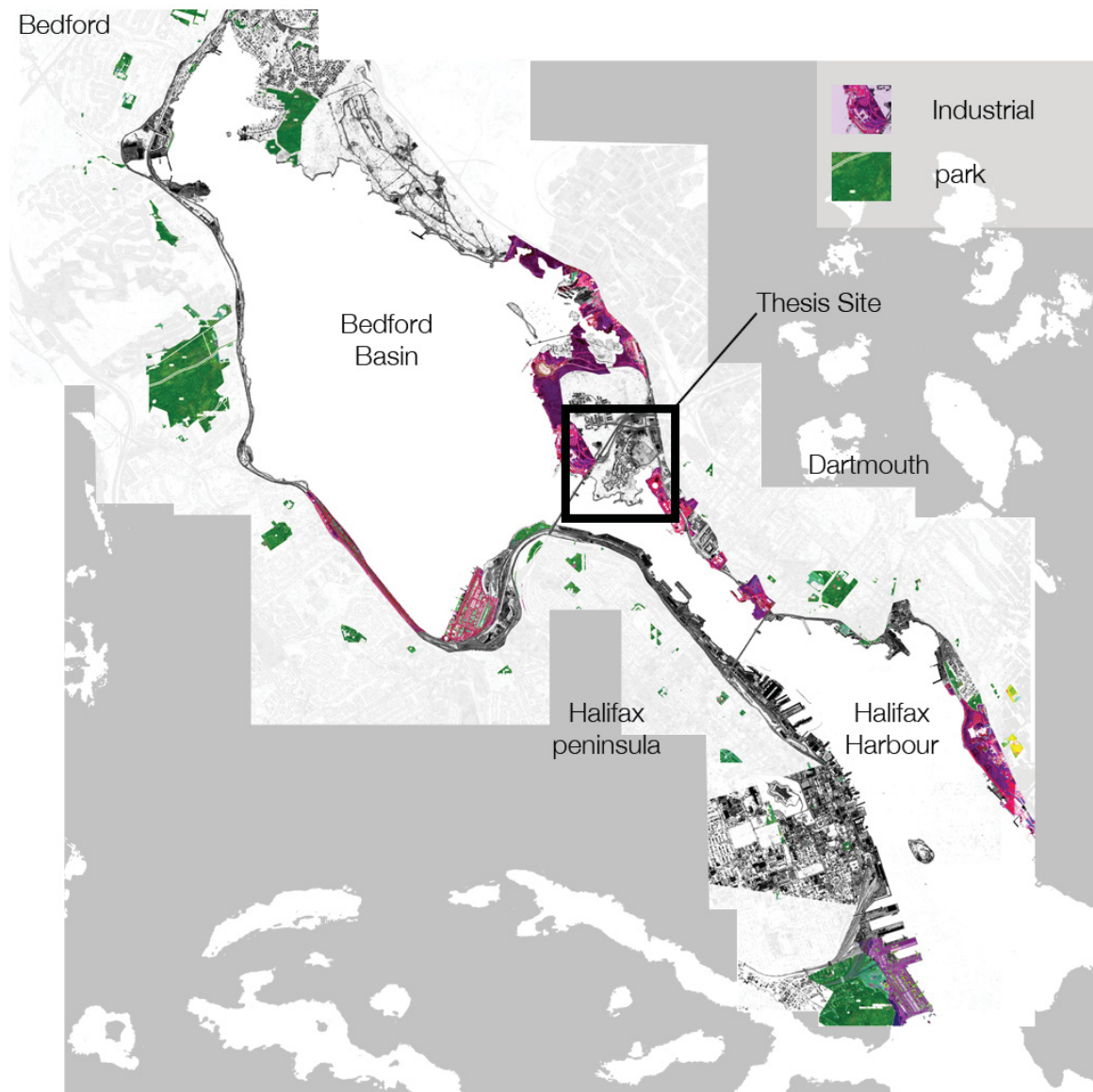
Relative proportion of proposed program, highlighting square footage and the number of apartment units each program would occupy.

Shannon Park Elementary School currently has the strongest program within the existing community, drawing many neighbourhoods together with a range far greater than the community network shown in the neighbourhoods drawing on page 11. Shannon Park Elementary School is currently one of two schools in Dartmouth with a comprehensive French immersion program, so it attracts a large number of families. This thesis proposes to reinforce the connection between the housing and the adjacent school by creating a permeable edge into the community, making the interior of the site more accessible to the school's students and families, inviting them to take advantage of the new commercial corridor, recreation facility and the waterfront.



Photo of Tuft's Cove and Nova Scotia Power facility taken from Shannon Park.

The existing coastline along Tuft's Cove and the Dartmouth North waterfront is primarily utilitarian. Much of the coastline is occupied by industries such as Nova Scotia Power and the Bedford Institute of Oceanography. As a result, the waterfront has either been stripped of vegetation and is now the site of manufacturing or warehouse facilities, or has been left untouched leaving

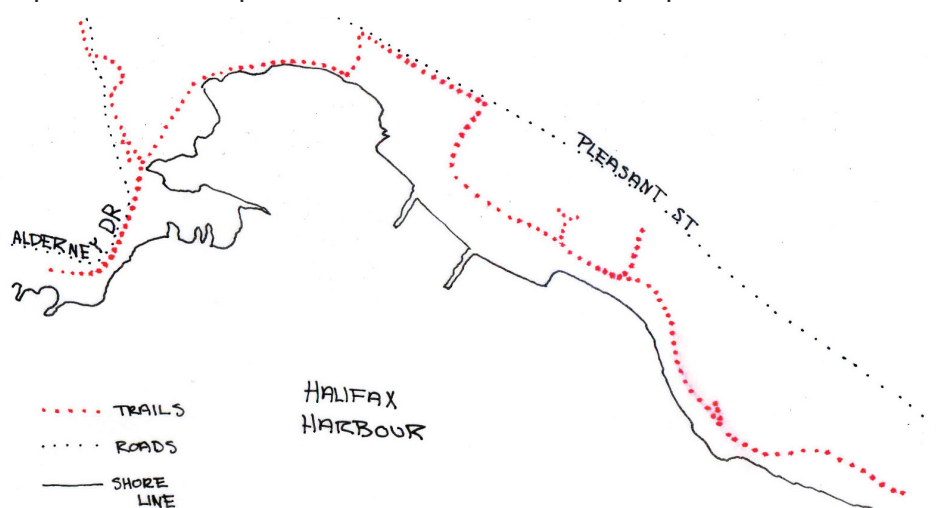


Waterfront Mapping Study

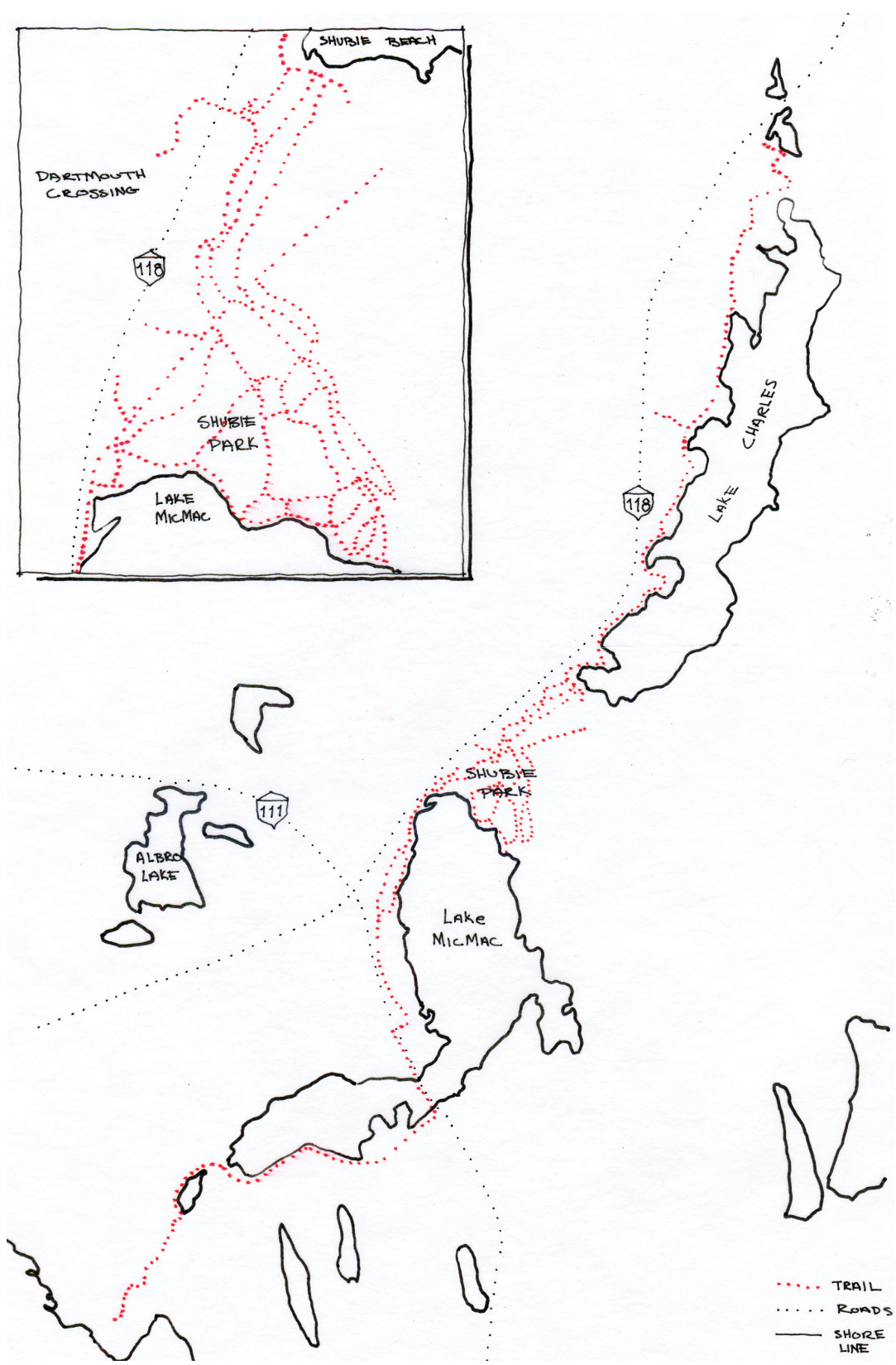
Survey of the existing Halifax / Dartmouth waterfront, paying particular attention to the industrial and formal park program (leisure space). The Halifax waterfront is predominantly leisure space catering to tourists, while the Dartmouth waterfront is still dominated by industrial developments. Base map from Google Maps.

a band of trees between the surrounding neighbourhood and the rocky shore. The industrial development has left small pockets of under-utilized waterfront. Shannon Park is the closest community, though abandoned, with access to one of these small pockets of coastline. By formally programming and making use of the waterfront, the surrounding community can be drawn into Shannon Park and gain access to a vibrant shore.

There are two major trail systems currently near downtown Dartmouth. The Dartmouth Harbourfront Trail extends from the Woodside Ferry Terminal to Alderney Gate. The trail closely follows the railway along the waterfront through a series of gravel paths, bridges and boardwalk. The trail connects to the Shubie Park Greenway Corridor through downtown Dartmouth. The Shubie Greenway Corridor is a densely wooded trail extending from Forest Hills to Alderney Gate. The two trail systems make use of the forested pockets remaining in Dartmouth but fail to make adequate use of the waterfront. By extending the existing trail system from Alderney Gate to Shannon Park via a boardwalk, the paths can be separated from the rail line and people



Existing trail system in South Dartmouth; from Halifax Regional Municipality, "Dartmouth Harbourfront Trails," *Nova Scotia Health and Promotion and Protection*.



Existing trail system Dartmouth; from Halifax Regional Municipality, "Dartmouth Harbourfront Trails," Nova Scotia Health and Promotion and Protection.

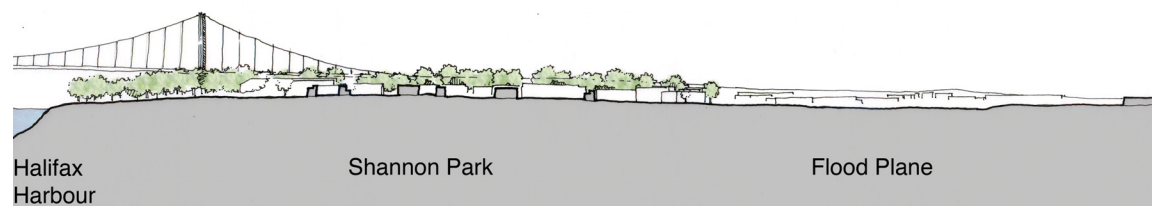
will be able to make better use of the vibrant waterfront.

Shannon Park is highly visible from the surrounding neighbourhood, MacKay Bridge and the Halifax waterfront. The site owes its visibility to the topography within and surrounding Shannon Park's housing. The site is highest to the west where the land rises to meet the MacKay Bridge, approximately 12 m above the housing. This allows passing traffic to view the entirety of Shannon Park from above. To take advantage of this visibility, the commercial and recreational activity is anchored to the west of the housing. Shannon Park is also visible from the surrounding neighbourhood on a hillside to the north of Victoria Road. Because the site directly north of the housing is approximately 3 m lower, Shannon Park remains visible from the recreational fields and surrounding institutions.



Site section from the MacKay bridge to Tuft's Cove.

Shannon Park has excellent views of the Halifax Harbour and Tuft's Cove. After the demolition of several apartment units deemed unnecessary, a greater number of apartment blocks will be able to take advantage of these views.



Site section from the recreational field to the north of the Shannon Park housing to the Halifax Harbour.



Master plan showing building access to desirable views. Base map from Google Maps.

CHAPTER 4: METHOD

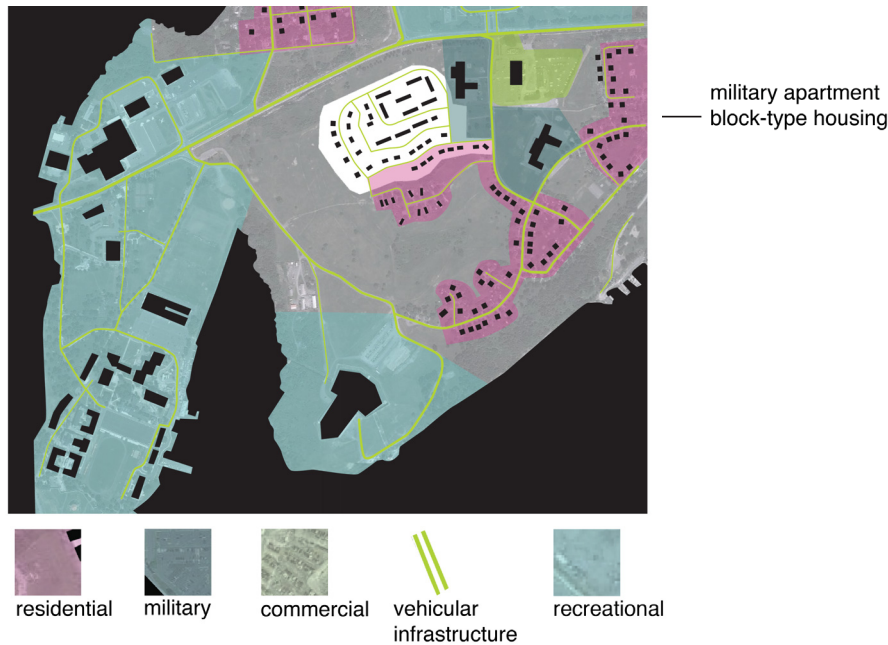
This thesis develops a strategy specific for the re-use of Shannon Park, but its method could be applied to a vast number of similar sites, both in Canada and the United States. By analyzing several active military housing and base developments elsewhere, similar opportunities and deficiencies were evident, common in both Windsor Park in Halifax and Fort Henry in Kingston, Ontario. The military developments are isolated from the surrounding communities by being situated on the water's edge or on a traffic island. Shannon Park is surrounded by both of these types of barriers.

Characteristics of Military Developments

Isolation and Exclusivity

The military development at Fort Henry in Kingston, Ontario is located on a small peninsula, where the Cataraqui River flows into the St. Lawrence River. Water surrounds the military development on three sides, with very few military facilities located beyond the peninsula, where there is a civilian neighbourhood. Fort Henry is geographically isolated, mitigating the need for man-made barriers such as fencing and walls. By contrast, Windsor Park is located in the centre of a civilian neighbourhood in Halifax West. The military program is dispersed throughout the neighbourhood, blending into the urban fabric. Most of the military apartment complexes are located between Windsor Street and Connaught Avenue, so they are surrounded by roads. Because Windsor Park is still in use, a variety of man-made barriers have been erected, separating

the military facilities from the civilian neighbourhood surrounding it.



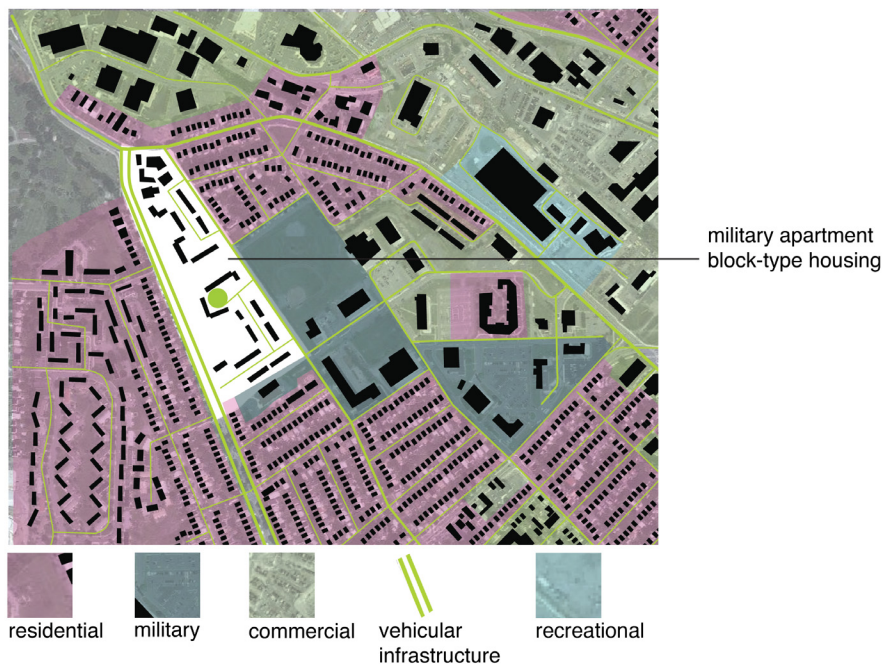
Map showing Fort Henry in Kingston, Ontario; base map from Google Maps

Shannon Park is isolated both geographically and by man-made barriers, though the fence around the housing was put in place only after the site was decommissioned. The man-made barriers are relatively easy to overcome, but the geographic barriers pose a much greater challenge.

Program and Adjacencies

Many of the military buildings of Windsor Park are spread throughout the surrounding neighbourhoods, encouraging the residents of Windsor Park to interact with the civilian community. There are also amenities within Windsor Park that serve the greater community,

including a curling club, auto club, Shriners club and Halifax Independent School.¹³ In Kingston, the military still has a significant presence and is the largest single employer in the region: “Canadian Forces Base Kingston (includes the Royal Military College of Canada and military and civilian personnel) employ 9,642.”¹⁴ The second largest employer is Queen’s University, employing 4,200 residents. The strength of the relationship between the civilian community and the military compensates for the base’s physical isolation.



Map showing Windsor Park in Halifax, Nova Scotia; base map from Google Maps.

Existing Materials and Construction

Both Shannon Park and Windsor Park were built in the 1950s. Though they were hastily built and repetitive,

¹³ Royal Canadian Navy, “CFB Halifax,” last modified January 2006, http://www.navy.dnd.ca/marlant/3/3-e_eng.asp.

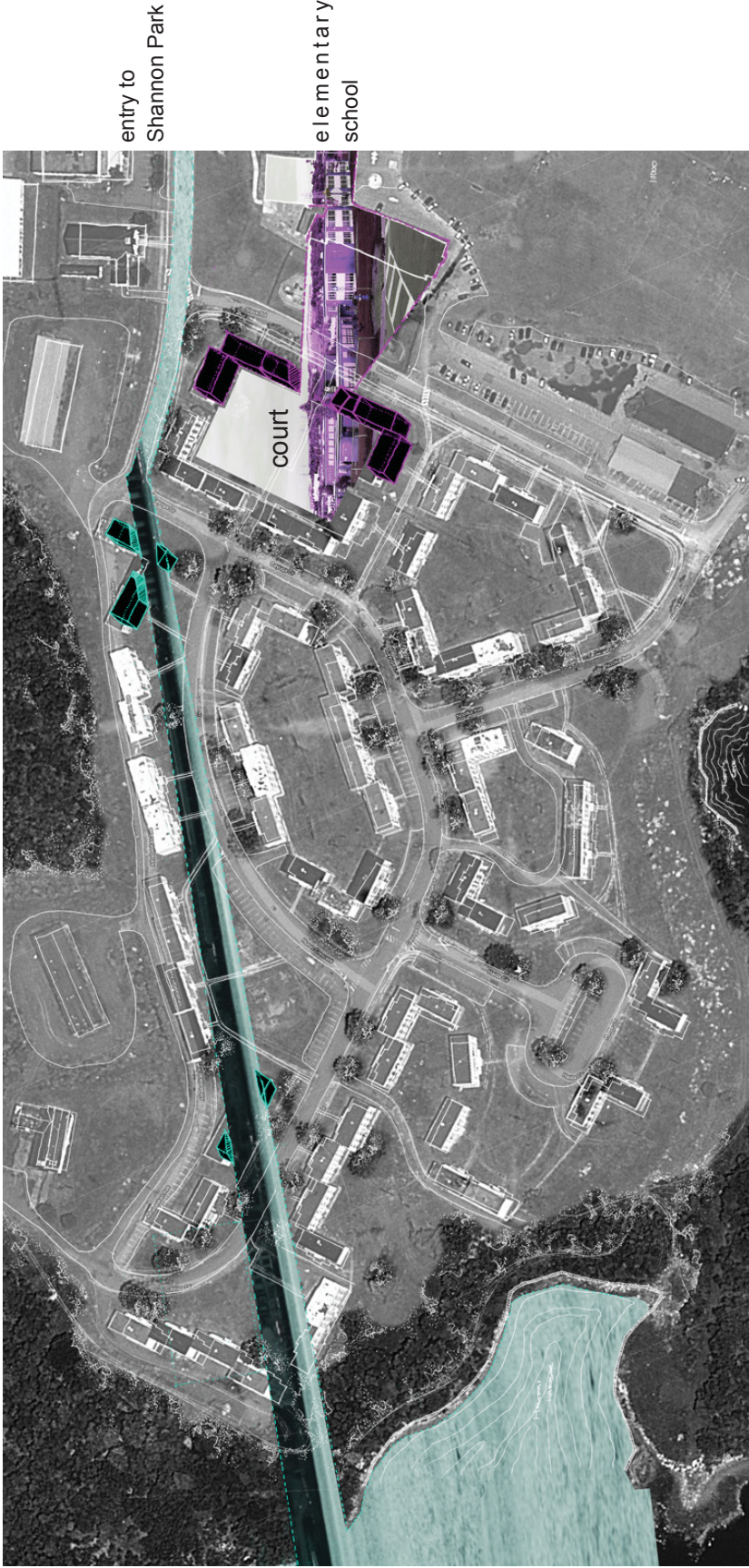
¹⁴ Ibid.

they were built to a fairly high standard of construction, and are still structurally sound. The materials used were durable and are still usable. The steel and brick cladding in Windsor Park still shields its residents from the elements, and it can be assumed that the cladding in Shannon Park is in a similar state. The existing structure is also in adequate condition.¹⁵ Windsor Park is still in use and there is no urgency to demolish Shannon Park as a result of the high quality of structure and materials.

Uniformity and Identity

Kingston, Ontario strongly identifies with its military history and, like Halifax, has preserved much of its historic integrity, making the town a historic destination. Kingston localizes the military program to a given area but the historical military buildings give character to the town and tie the military settlement to the rest of Kingston. Shannon Park and Windsor Park both lack this historical identity. Both were built recently and are uniform, so people do not ascribe historical value to them. They appear monotonous and evoke a negative association with urban ghettos and military encampments.

¹⁵ Chris Lambie, "Big Dreams for Shannon Park," *The Chronicle Herald*, October 16, 2009.



Cuts made to reinforce the program connection between Shannon Park and the surrounding community network. The blue cut shows the connection between the vehicular entry and the recreational waterfront. The magenta cut shows the connection between the rectilinear courtyard and Shannon Park Elementary School; base map from Google Maps.



Section along the connection between the vehicular entry and the recreational waterfront.

CHAPTER 5: DESIGN

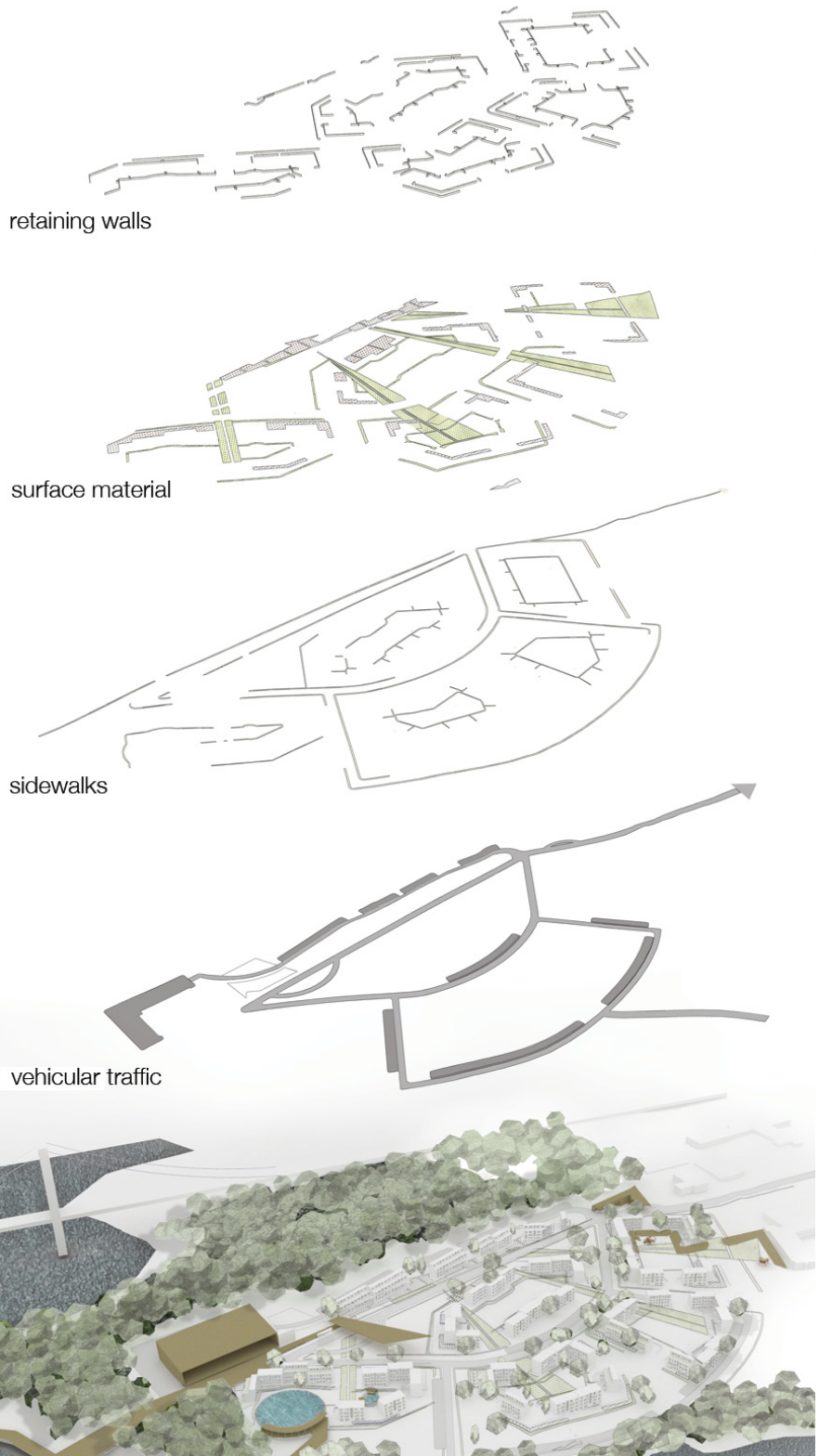
The deficiencies and opportunities outlined in the previous chapter need to be addressed at a variety of scales:

- 1.(Sub) Urban Scale – reconnecting the community to other neighbourhoods and overcoming the physical barriers surrounding Shannon Park.
2. Community Scale – creating new connections between the existing buildings and strengthening or clarifying the existing site plan.
3. Building Scale – creating new connections among the existing buildings and adapting them to accommodate the needs of a civilian population, generating variety in the housing type.

Urban Scale

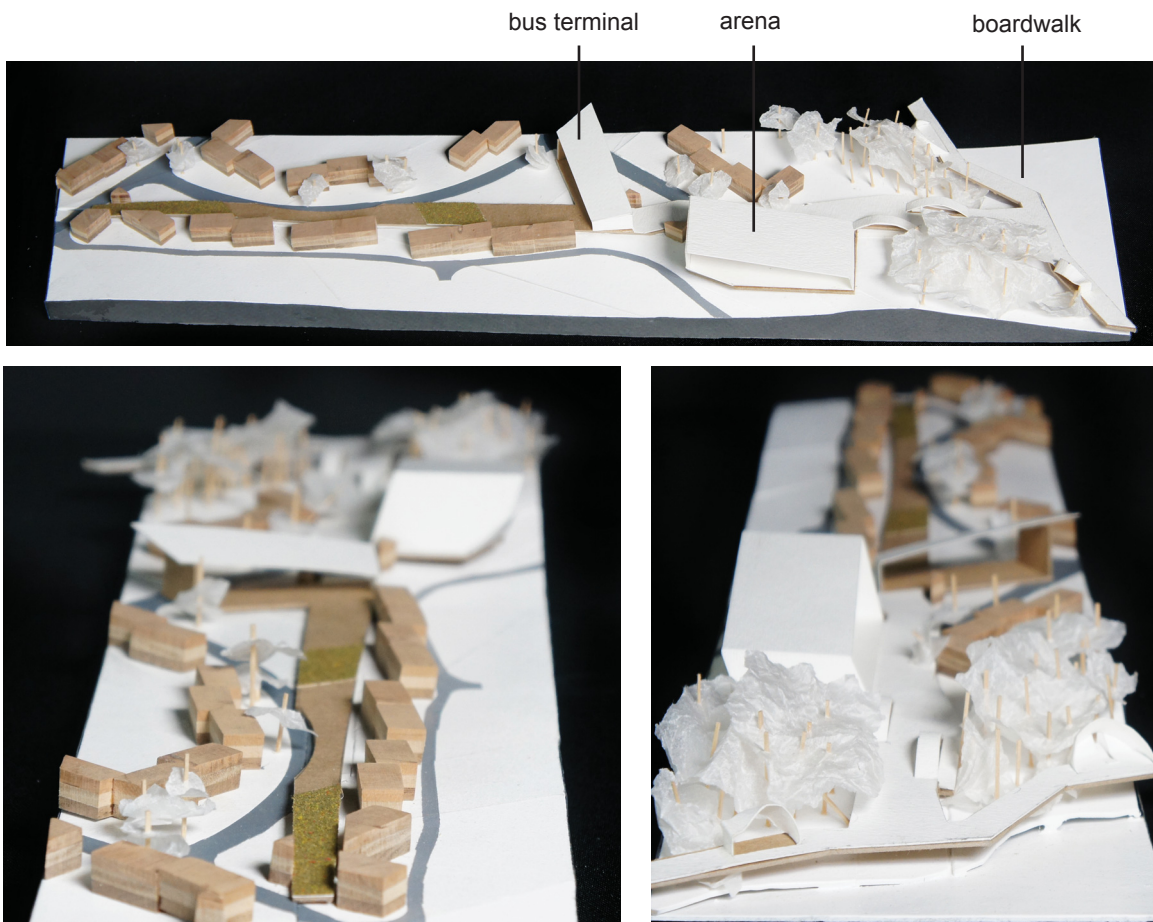
Programmatic Intervention - Urban Cuts

To reinforce the two most trafficked programs near Shannon Park, key to the neighbourhood's identity and connectedness to the surrounding network, two cuts were made through the existing site. One cut extends from the Shannon Park entry to the waterfront. This defines a new spine for the community, where amenities are concentrated to create a market corridor. Along this cut, there is a continuous view to the waterfront. The far end of this cut is framed by a bus shelter, an arena and a recreational waterfront.



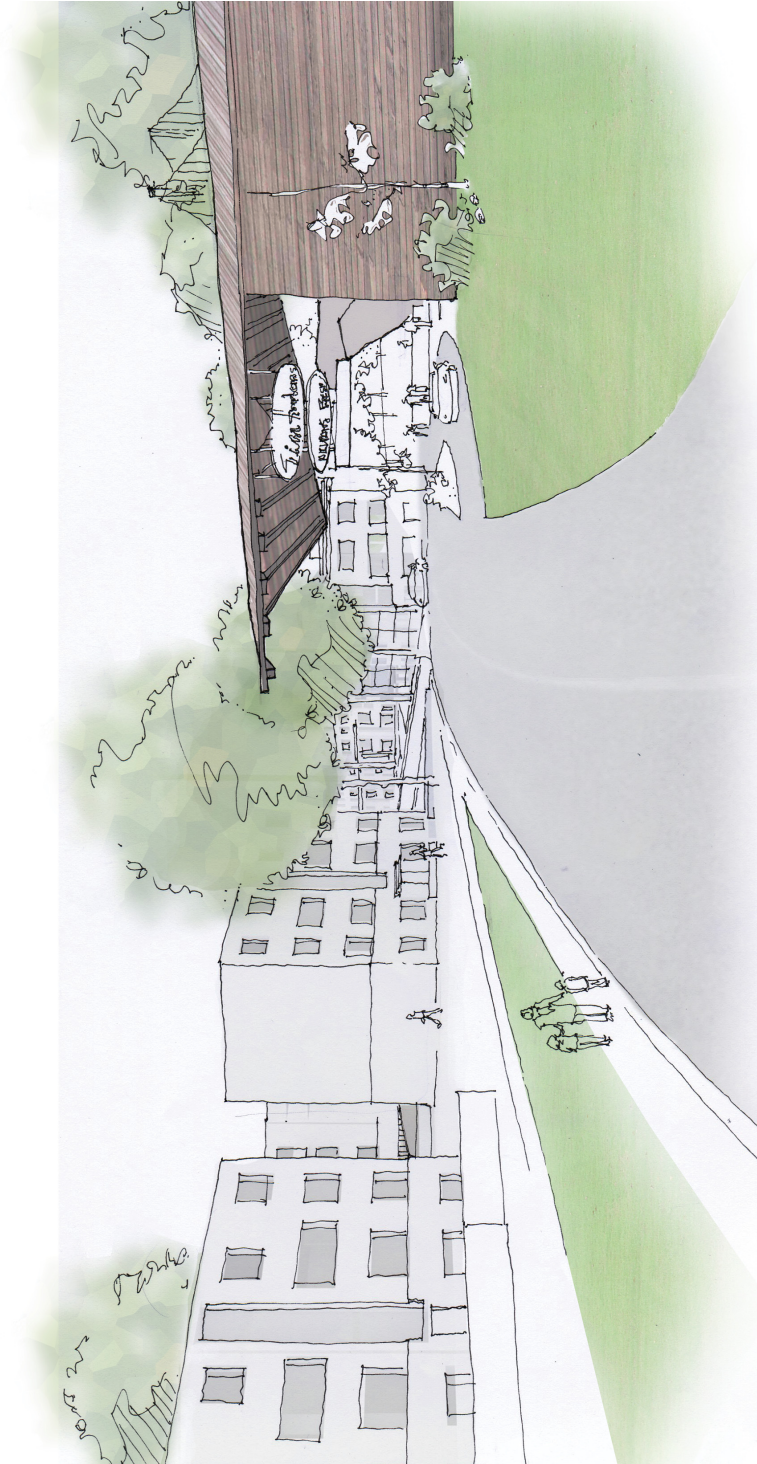
Exploded perspective showing new urban elements in Shannon Park, separated into categories: surfaces, lines and points

The existing recreational facilities along the road leading to Shannon Park have been heavily used by nearby communities, but the arena is in need of repair and frequently closes due to flooding.¹⁶ Expanding the recreation facility and moving into Shannon Park will draw many people into the community. The new arena houses a single rink and requires approximately 3000 square meters.



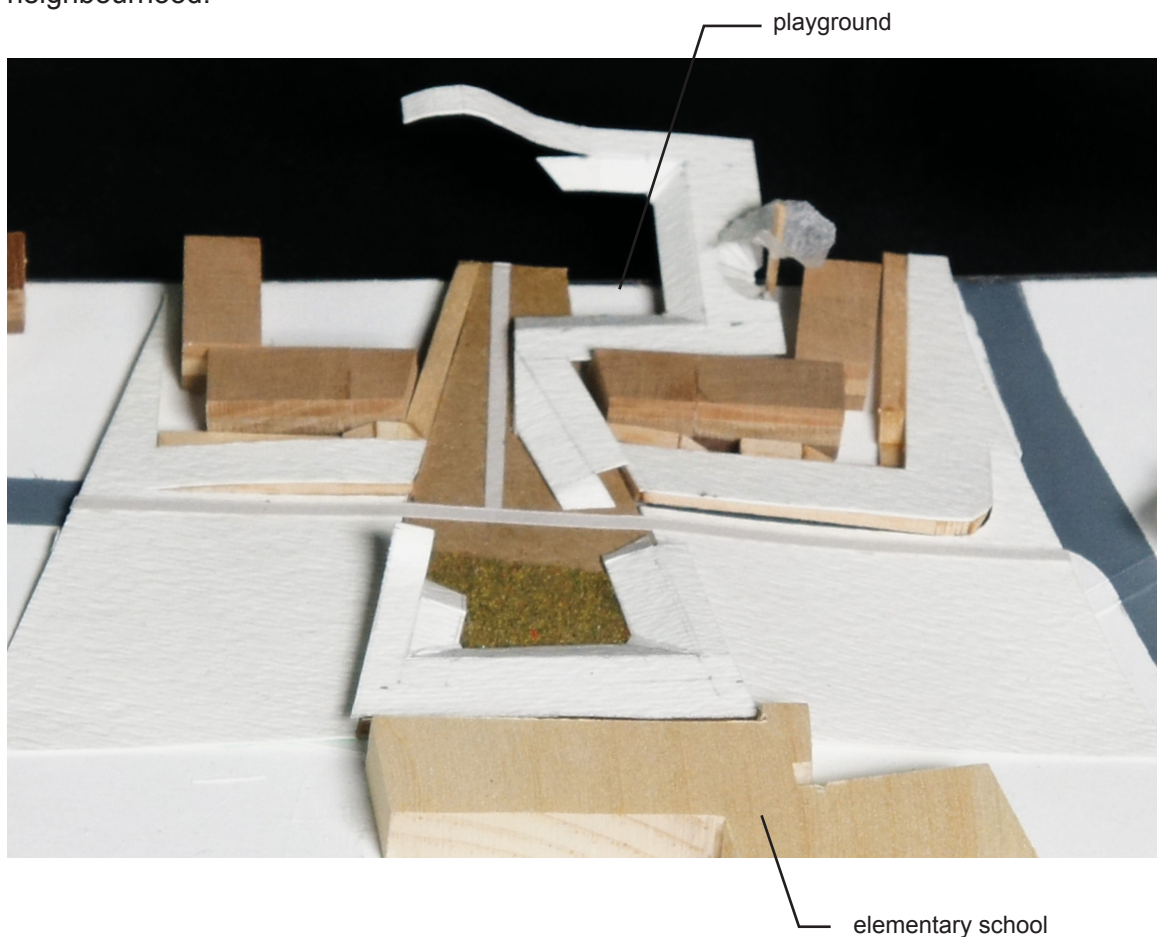
Model showing the architectural intervention along the commercial spine which terminates at the recreational waterfront and arena.

¹⁶ Laura Fraser, "Study: Arena Complex Needed," *Herald News*, August 13, 2012.

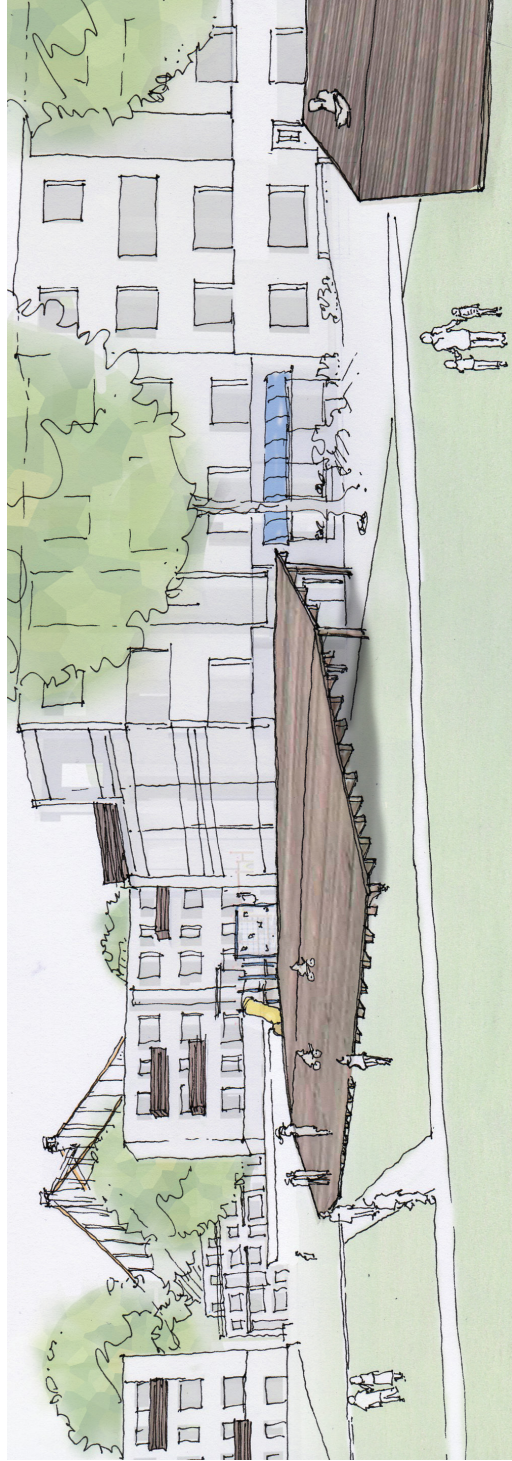


Rendering showing the cafe and flea market at the entry of the commercial spine.

The second cut is between Shannon Park Elementary School and the rectilinear court to the south. Shannon Park Elementary School is located to the north of the housing development and is a point of convergence for a large number of neighbourhoods in Dartmouth North. The school's extensive French program has broadened its reach into the surrounding communities, drawing many of its students from as far away as Lawrencetown, 16 kilometres away. By strengthening the connection between the school and the adjacent housing, pedestrian traffic can be encouraged throughout the neighbourhood.



Model showing cut and intervention to reinforce the neighbourhood's connection to the adjacent school.



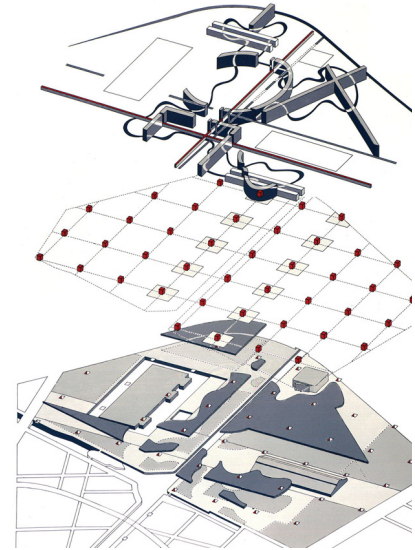
Rendering of the intervention reinforcing Shannon Park's connection to the adjacent school.

Formal and Material Elements

Bernard Tschumi's Parc de La Villette provides an approach to the general application of various architectural and landscape elements to create a large, cohesive park in Paris, France in the 1980s. Tschumi divides the urban elements into surface, line and points. In the Parc de la Villette, the surfaces composed a variety of materials to indicate the activity they serve. Lines generated by an orthogonal grid and points enclose a variety of programs which activate the park.¹⁷ A cohesive kit of formal and material elements are developed and applied to the site. These elements provide a general approach, to be applied to the park's specific environmental and social conditions. This approach is applied also to Shannon Park and includes the following landscape and architectural elements:

Surface - The surface treatment across the site reinforces the urban cuts, pedestrian and vehicular connection. The routes are shown using grass ground cover, interstitial ground material (combination planted and paved, or grass-crete), and paved surface. Each surface implies a type of activity or mode of transportation.

Lines - CMU (concrete masonry unit) block can be salvaged from the demolition of selected apartments to create a series of retaining walls. These retaining walls delineate the public and private spaces, laying claim to green space for residents in some areas and for public congregation in others. The CMU block can be planted



Axonometric showing Tschumi's surfaces, lines and points; from Alain Orlandina, *Le Parc de la Villette de Bernard Tschumi*.

¹⁷ Alain Orlandina, *Le Parc de la Villette de Bernard Tschumi*. (Paris: Somogy Editions d'art, 2001).

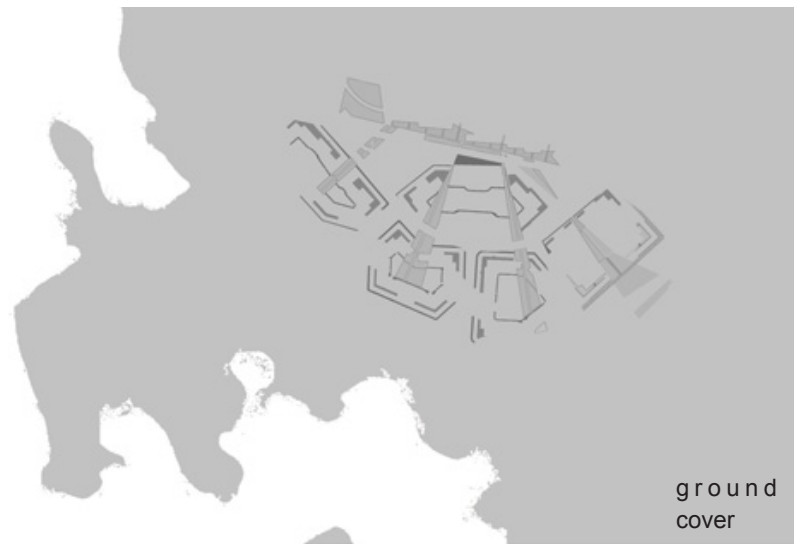
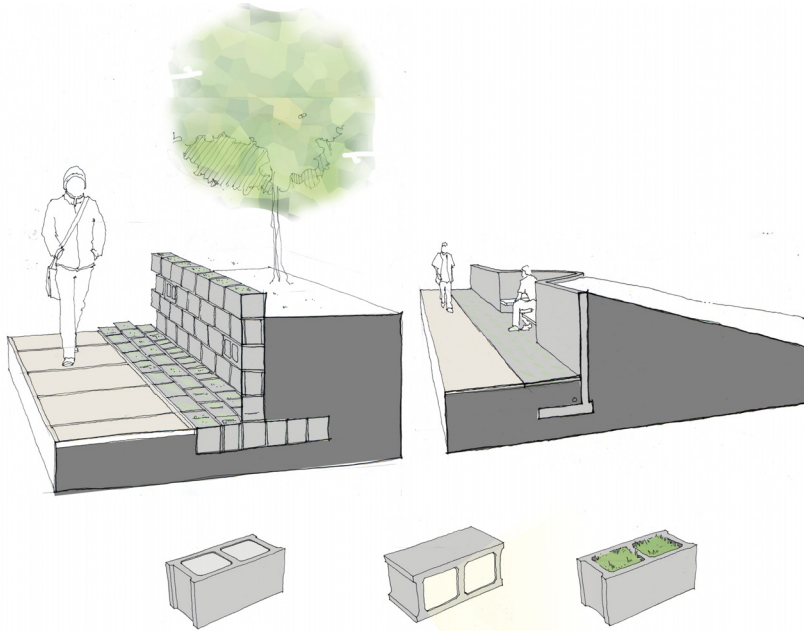


Diagram showing surfaces (ground cover) with proposed shown in black and existing in white. Base map from Google Maps.



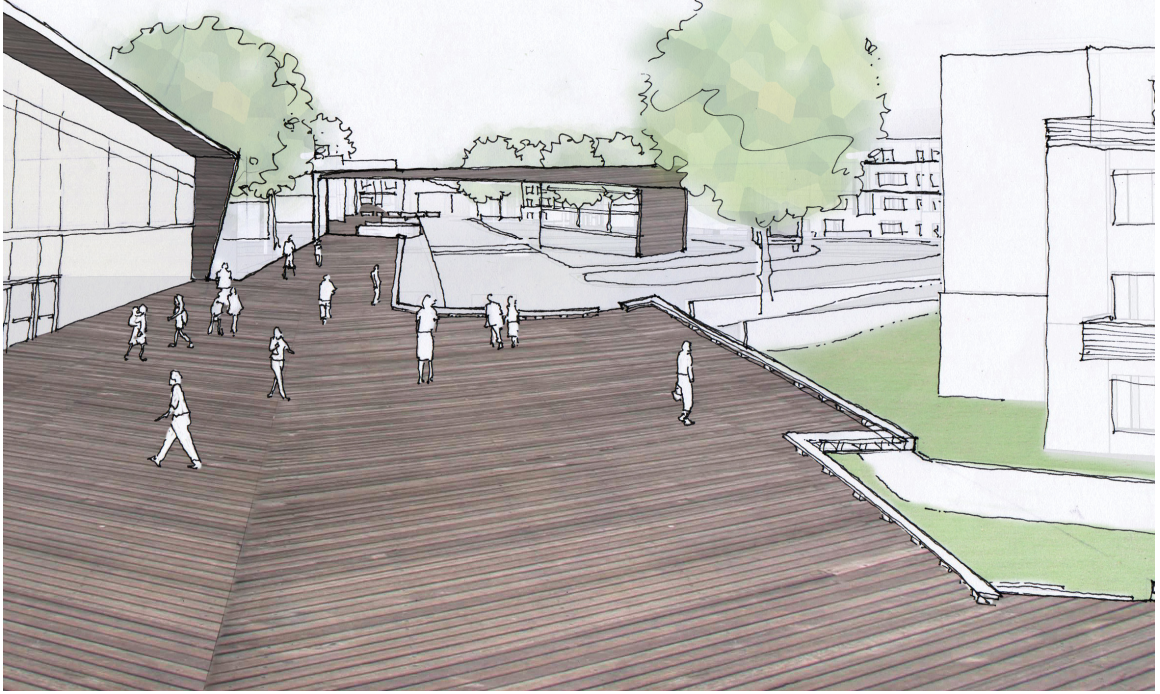
Diagram showing lines (retaining walls) with proposed shown in black and existing in white. Base map from Google Maps.

to create a surface for seating or reoriented to provide a housing for street lighting.

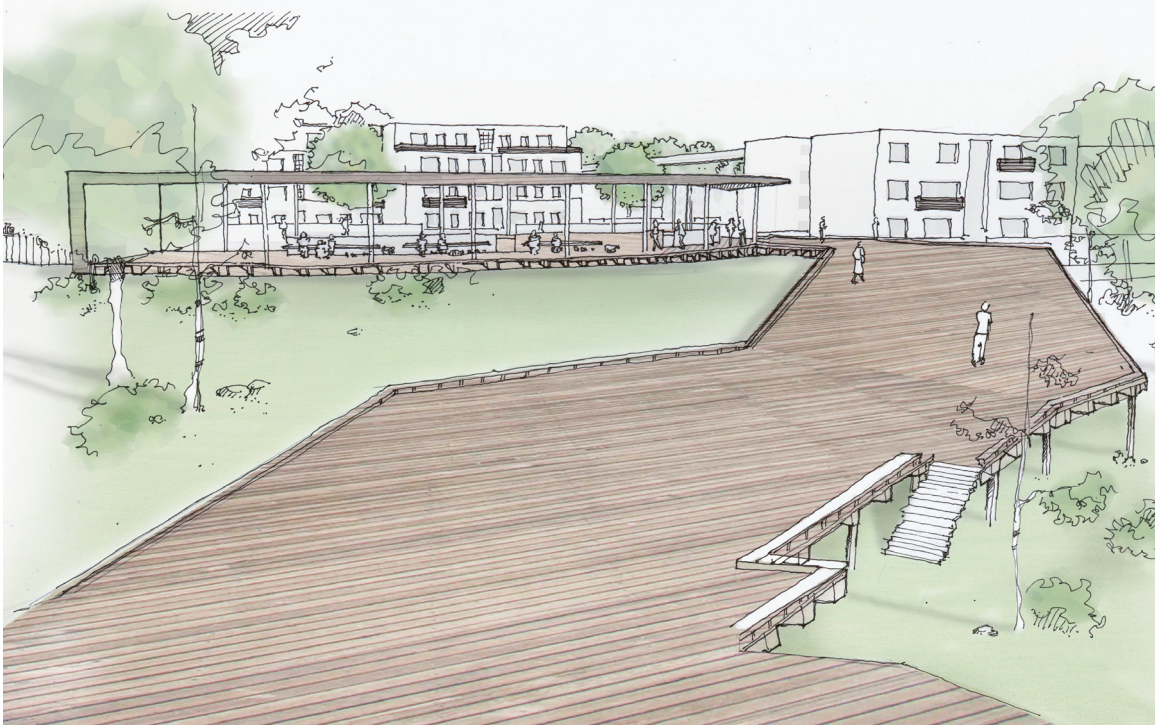


Proposed “lines” made from salvaged CMU block.

Points - The arena, park, market, corridor and transit terminal are the “points” within Shannon Park. These programmatic elements activate the site, encouraging a diverse group of users to engage the site and connect to the surrounding neighbourhoods.



Rendering showing the architectural intervention at the Shannon Park waterfront.



Rendering showing the architectural intervention in the recreational courtyard adjacent to the proposed arena.



Proposed master plan for Shannon Park, with the "points" shown in brown.

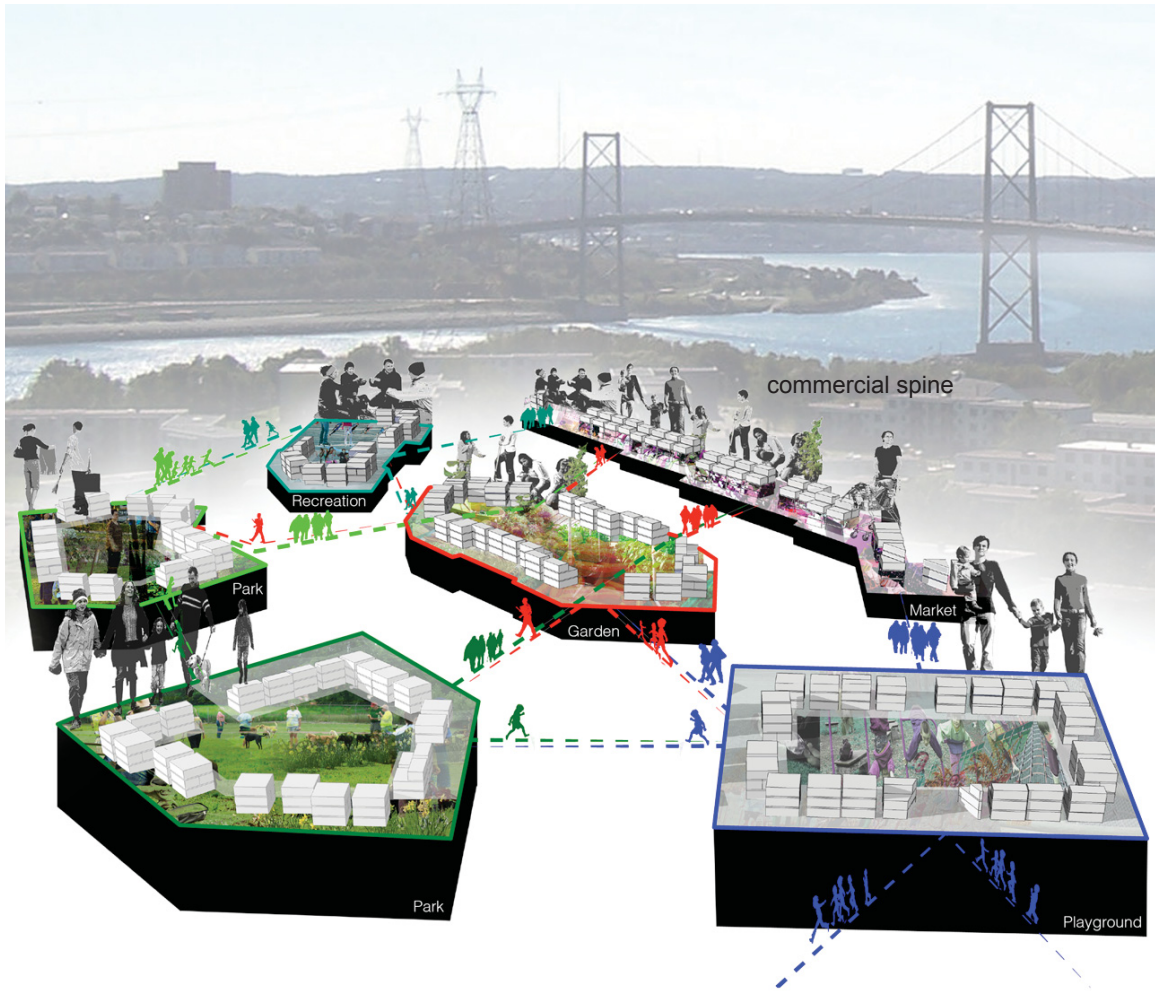
Community Scale

The existing organization of Shannon Park is composed of a series of small courtyards and a linear arrangement of apartment blocks with their back to the bridge. If the buildings on the site are to be reused, then the arrangement of the site will have to be maintained as well. The existing arrangement could be strengthened through a series of additions and subtractions.

Activating the Courtyards

The apartment blocks to the east of the linear arrangement create a series of courtyard spaces of varying geometry. These courtyard arrangements will house the majority of the dwellings but will need a variety of programs to activate each courtyard. Jane Jacobs spoke extensively about the nature of the courtyard within enclosed building blocks, advocating for “functional physical diversity among adjacent uses, and hence diversity among users and their schedules.”¹⁸ The existing courtyard spaces within Shannon Park were used in two basic ways: for recreation in the form of open green space and play structures, and as a utilitarian space with scattered clothes lines for drying garments. A new program for each court is devised according to its location. The court adjacent to the new arena will have an outdoor skating rink; next to the new market will be a garden court; and the rectilinear court adjacent to the existing school will have a play structure. The two remaining courts, facing Tuff’s Cove, will be an extension of the proposed trail

¹⁸ Jane Jacobs, *The Death and Life of Great American Cities* (Toronto: Random House, 1961), 97.



Drawing showing the commercial spine, the five courtyards, and pedestrian traffic between courtyards.

system to allow the surrounding forested area to enter the court.

The proposed commercial spine situated along the primary vehicular route into the site will become a highly trafficked route, by both vehicles and pedestrians. Filling in the gaps in this series of buildings will create a wall against the circumferential highway and bridge, where the majority of noise is generated. This area will become the market corridor, a spine of amenities for the neighbourhood. The prominence of this corridor is reinforced by the large urban cut through the existing buildings and the application of surface materials.

Vehicular and Pedestrian Infrastructure

The current vehicular and pedestrian infrastructure is in various states of decay, with the sidewalks slowly dissolving into the ground-cover. Rearranging the roads and sidewalks can reinforce the existing geometry of the courts, bring traffic through the neighbourhood in a more controlled way, and help to define the connections to

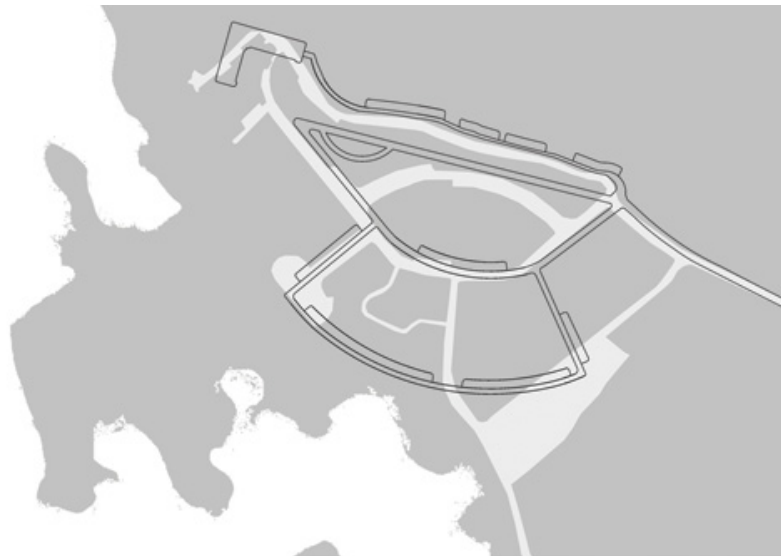


Diagram showing proposed roads in black and the existing paved surfaces in white. Base map from Google Maps.

the community. The new network of sidewalks connects each court to the commercial spine and the new roads create a clear spine connecting the entry into Shannon Park directly to the waterfront.

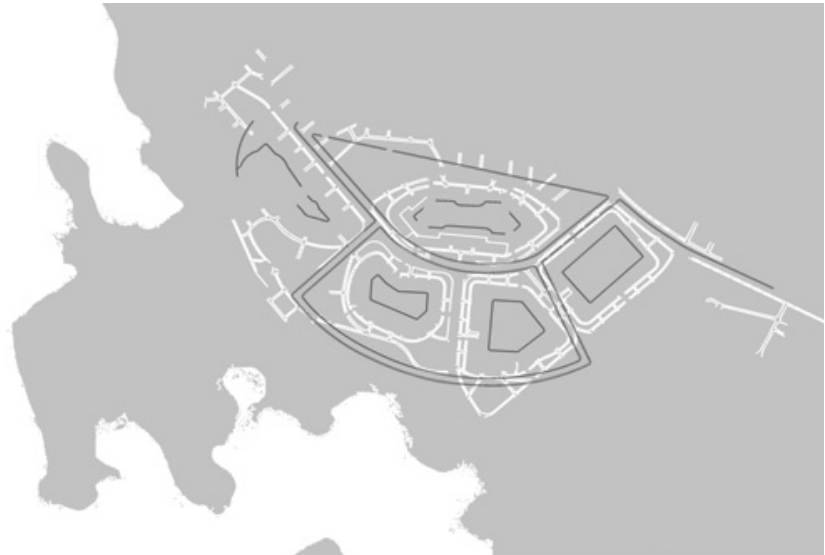
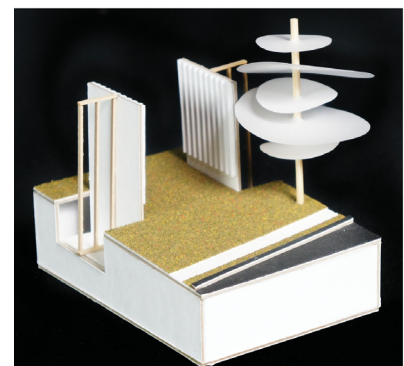
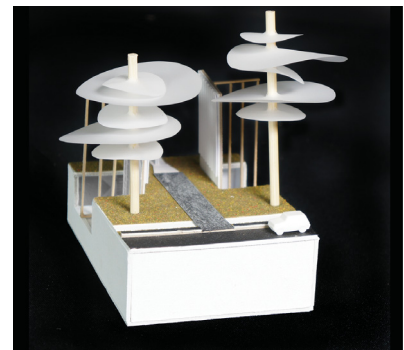


Diagram showing proposed sidewalks in black and the existing sidewalks in white. Base map from Google Maps.

Courtyard Thresholds

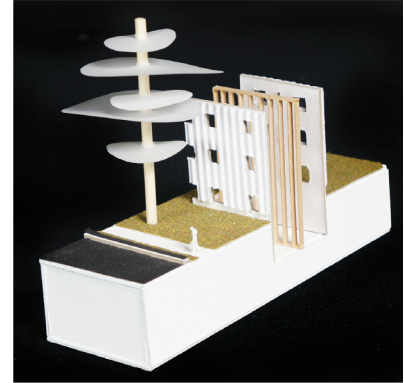
The success of the community, including the generation of life on the street and within the courtyard, are dependent on the condition of the building program and building edge: “The treatment of the city’s edges, particularly the lower floors of building, has a decisive influence on the life in a city space. This is the zone you walk along when you are in town, and these are the frontages you see and experience close up and therefore intensely.”¹⁹ In their current state, the thresholds into each court within Shannon Park are not well defined. They do not give a

¹⁹ Jan Gehl, *Cities for People* (London: Island Press, 2009), 75.

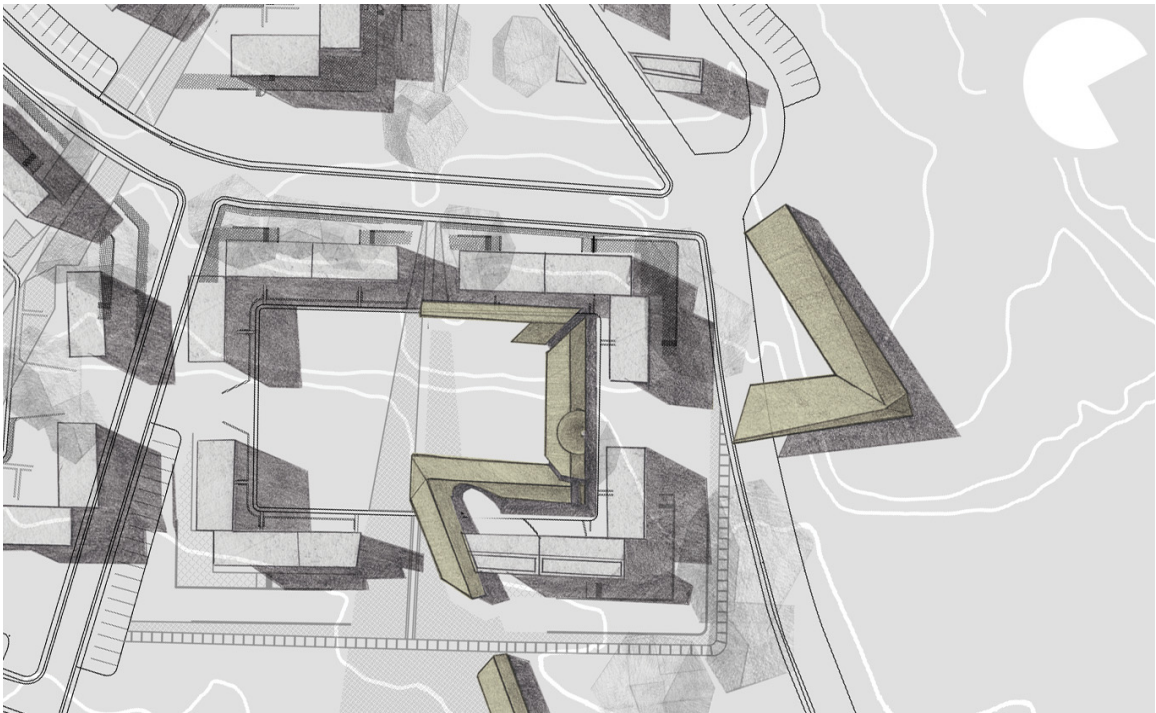


Existing, typical thresholds between courtyard and street

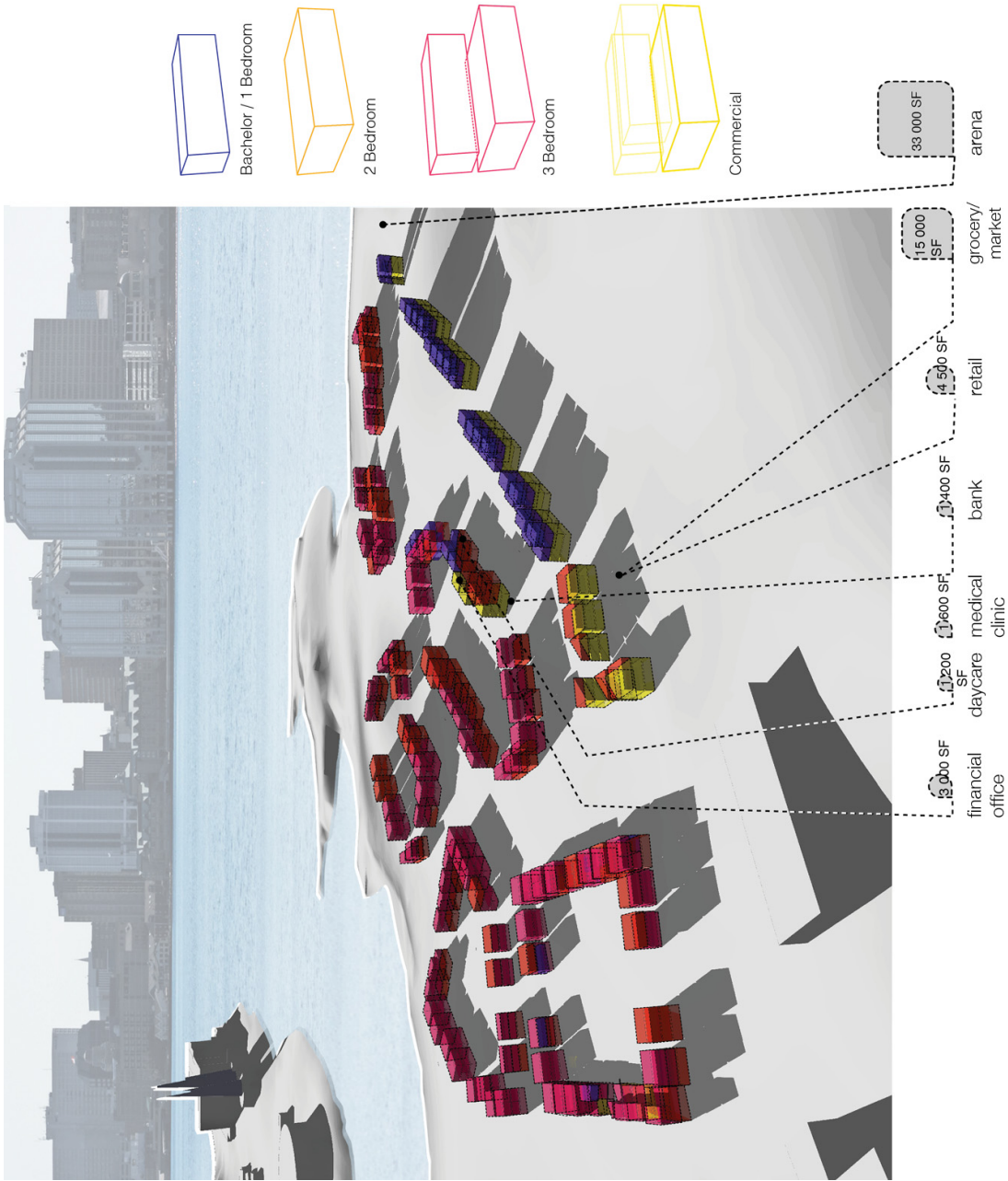
sense of procession or any indication as to whether the court is public or private. The permeability of this edge will determine the type of interaction at the level of the street and courtyard, and will also influence the program of those spaces, whether they are more public or more private. The thresholds will be formalized using a variety of ground materials and retaining walls (surfaces and lines). These elements break where the court becomes permeable and are solid where areas are to be claimed as private space for the Park's residents. Some of the walls allow the ground to be built up, creating soft edges that can be inhabited or used to create a sense of procession from public to private.



Existing, typical threshold between courtyard and street



Detail of the proposed master plan, focusing on the courtyard adjacent to Shannon Park Elementary School.



Distribution of new unit types and amenities.

Building Scale

Variety

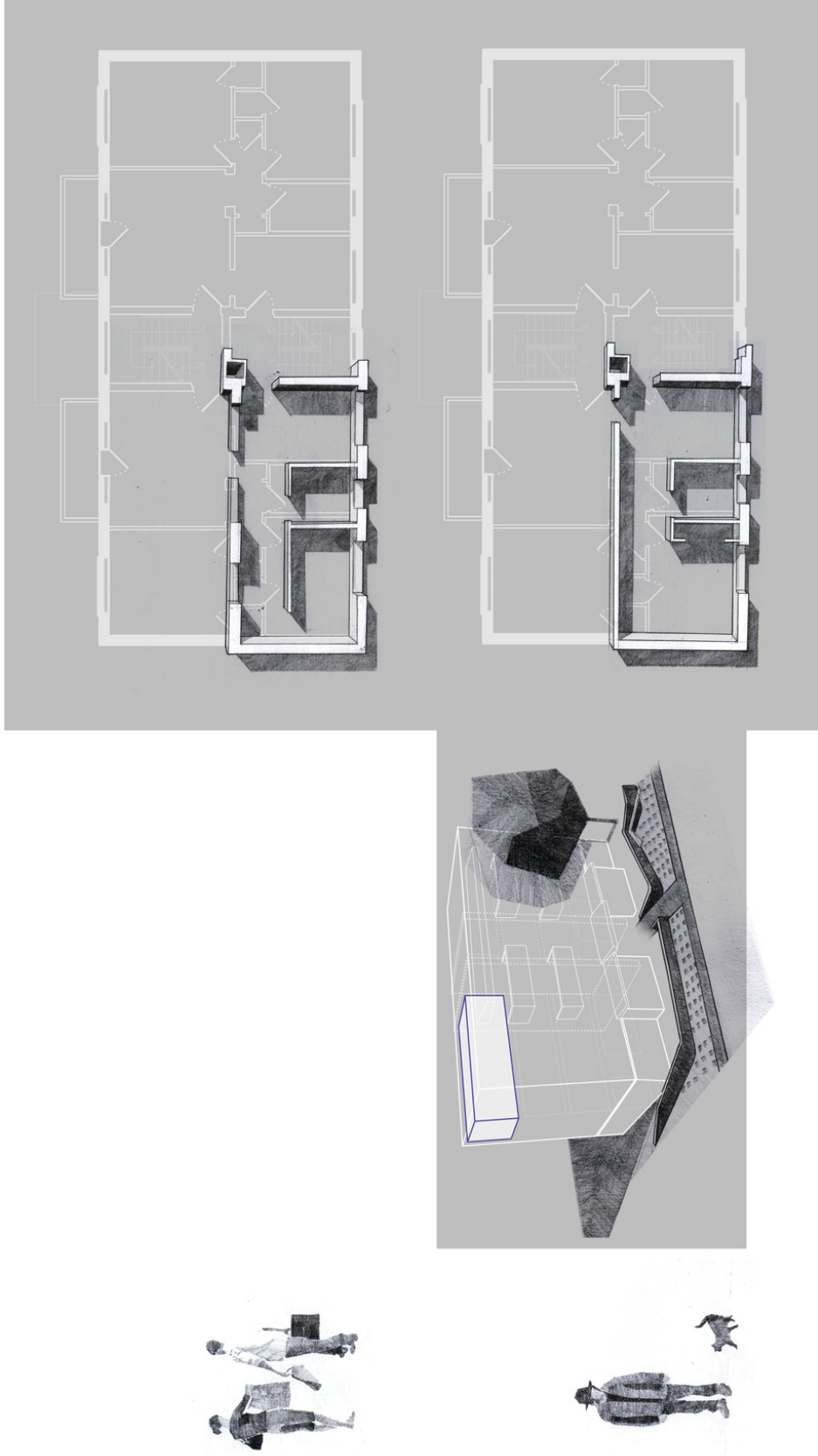
The repetitive application of the single apartment block across Shannon Park creates a monotonous facade, and provides an inadequate variety of living accommodations. By manipulating the partition walls, a variety of unit types can be generated to better suit the demand without disturbing the load-bearing structure, circulation core or plumbing. The new, re-arranged spaces require a different fenestration pattern which will reflect the variation in unit types. The variety of dwelling types, as opposed to the one-size-fits-all approach initially used in the Shannon Park 1950s development, creates diversity in the building fabric. The proportion of units types required are: 60 single/bachelor units, 130 two bedroom units and 112 three bedroom units.²⁰

Addressing the lack of unit variation creates a more compelling building fabric, but there is also a lack of programmatic variation needed to generate activity on the site throughout the day. The amenities and commercial program along the primary vehicular route form a spine of services and amenities, referred to as the “commercial spine.” Distributing program in this way clearly distinguishes public and private within Shannon Park.

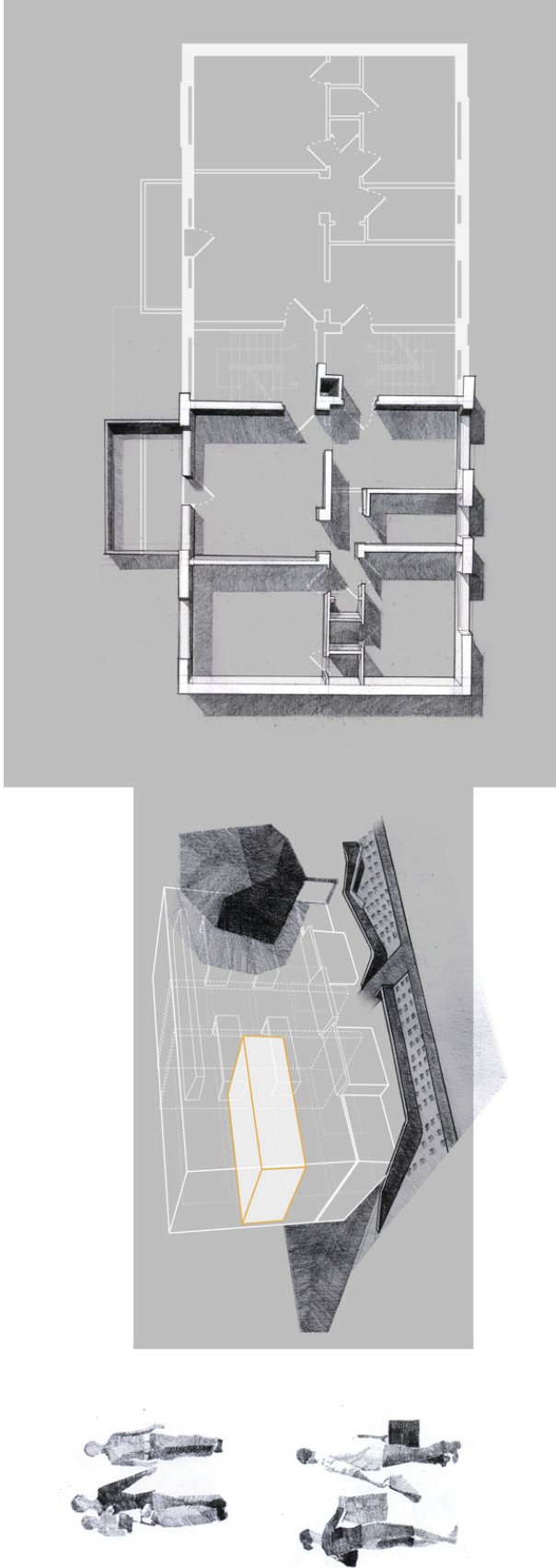


Model of proposed commercial unit with architectural interventions.

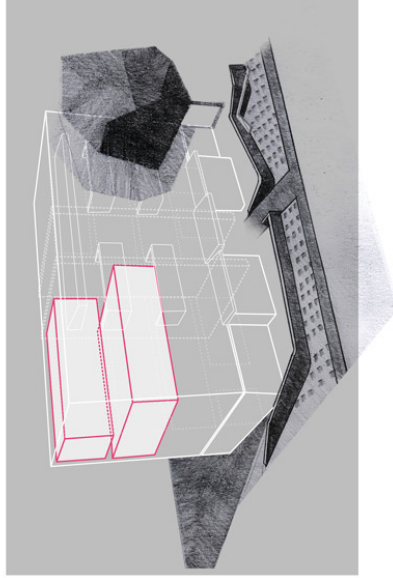
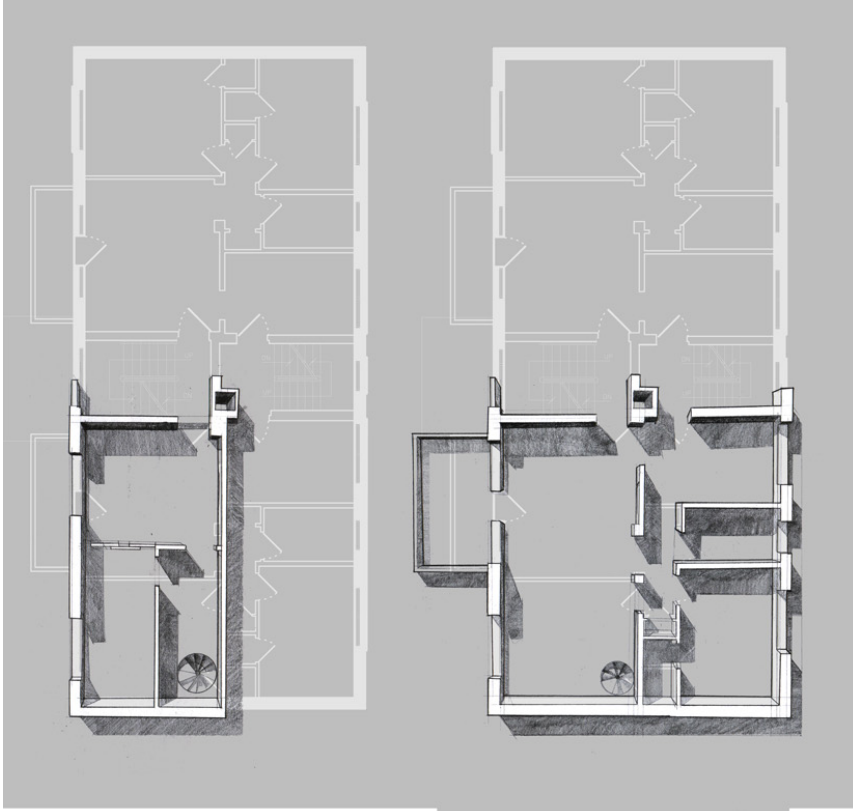
20 Government of Nova Scotia, “Community Profile,” *Nova Scotia Community Counts*, 2006, <http://www.gov.ns.ca/finance/communitycounts/profiles/community>.



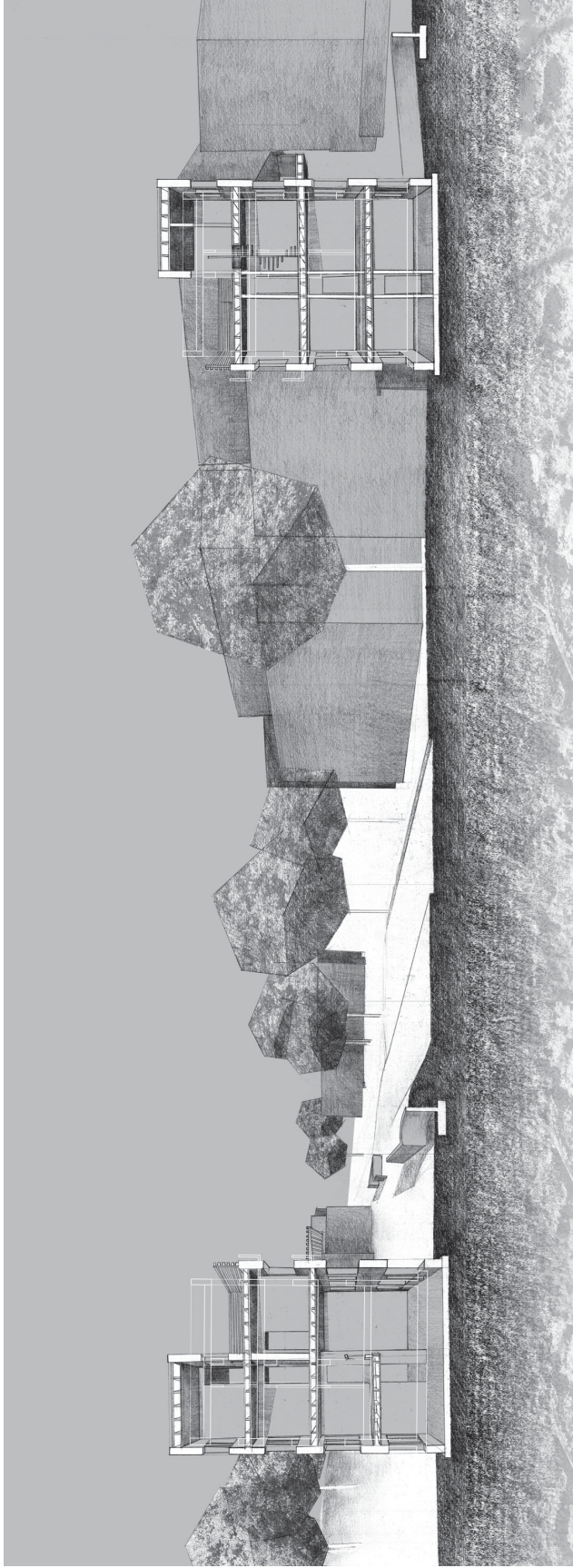
Proposed one-bedroom and bachelor units. Original plan is shown in white; from Sergeant Michel Dubé, Department of National Defence, e-mail message to author, November 8, 2012.



Proposed two bedroom unit. Original plan is shown in white; from Sergeant Michel Dubé, Department of National Defence, e-mail message to author, November 8, 2012.



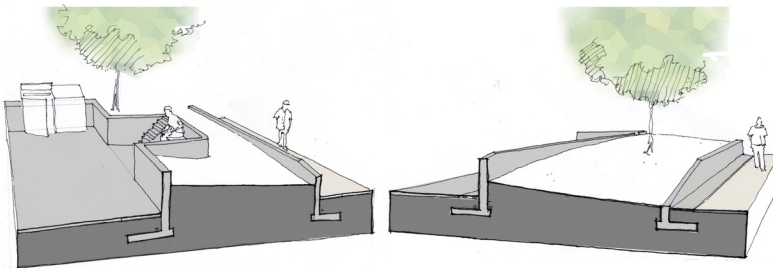
Proposed three bedroom unit. Original plan is shown in white; from Sergeant Michel Dubé, Department of National Defence, e-mail message to author, November 8, 2012.



Street section through proposed commercial and residential unit. Original section is shown in white; from Sergeant Michel Dubé, Department of National Defence, e-mail message to author, November 8, 2012.

Front and Back

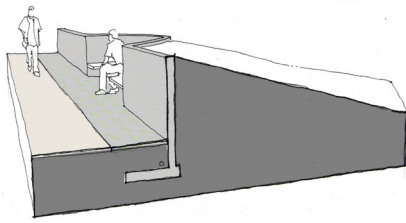
The existing building type is currently oriented with the front of each building facing the street and the back facing the courtyard. To encourage activity in the courtyards, the orientation of the building is flipped, with its front to the court and its back to the street. This is achieved by manipulating the ground plane surrounding the buildings to create distinctly different entry conditions on each face.



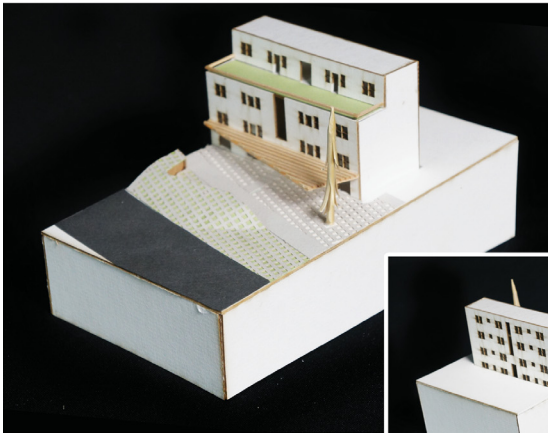
Proposed intervention at the back of residential units.

The back of the building is defined by a series of barriers in the landscape and a relatively un-altered facade. The sidewalk is pushed closer to the rear elevation, followed by a band of interstitial ground material and a retaining wall. Beyond the retaining wall, the ground is lifted and then falls back down to grade 3 meters from the back entry. On the ground plane at the front of the residential buildings the procession is much different but employs the same kit-of-parts. Beginning closest to the building entry, a retaining wall claims 4-7 meters of the court for private use. This gives the residents green space for play, gardening and social congregation.

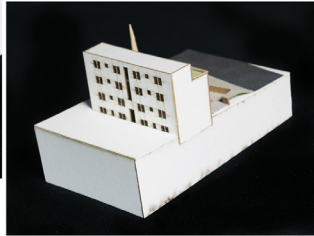
Beyond the retaining wall is a band of interstitial ground cover followed by the interior sidewalk. Aside from the landscaping interventions, the terraces, porches and awnings are oriented to the courtyard. This encourages the majority of the overflow activity from the dwelling to concentrate within the courtyard.



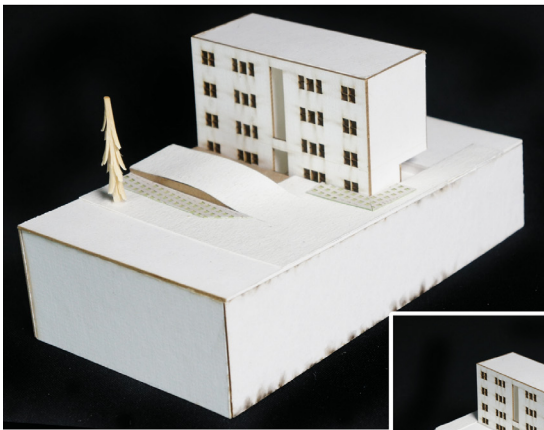
Proposed intervention at the front of residential and commercial units.



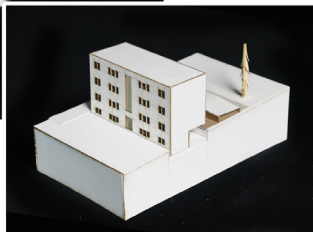
commercial front



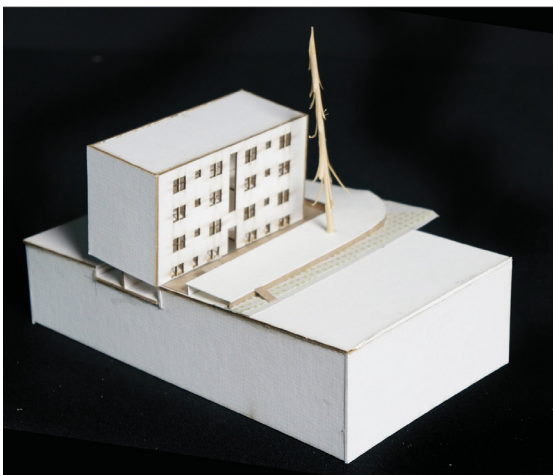
back



residential front



back



residential back

Proposed front and back threshold conditions for commercial and residential units.

CHAPTER 6: CONCLUSION

This thesis aims to develop a method which is specific to the adaptation of Shannon Park but may also be applied to many similar military developments. The issues and criticisms identified in the analysis of Shannon Park are found in a variety of active military developments such as Fort Henry in Kingston, Ontario or Windsor Park in Halifax, Nova Scotia. The deficiencies identified are as follows:

1. Monotony – lack of social, programmatic or landscape variety.
2. Identity – lack of clear programmatic definition in the facade or ground plane surrounding the uniform buildings.
3. Isolation – social and physical isolation from the surrounding neighbourhood.

Architectural and landscape interventions are made where they can effect the greatest change. The interventions are made using existing materials and infrastructure to generate or reinforce the following characteristics:

1. Threshold - identify major thresholds between public and private program, and the back and front building entries.
2. Unit Variety - create a variety of dwelling types and amenities. Varying the program and unit mix creates a more dynamic street and courtyard boundary.

3. Destination - reinforce connections to existing institutions and incorporate new program which can benefit the surrounding neighbourhood.

The architectural response to these deficiencies and opportunities are specific to the siting of the development and the condition of its built environment. For Shannon Park, the intervention called for a new unit mix, new program and several new structures, while maintaining much of the existing built infrastructure and character.

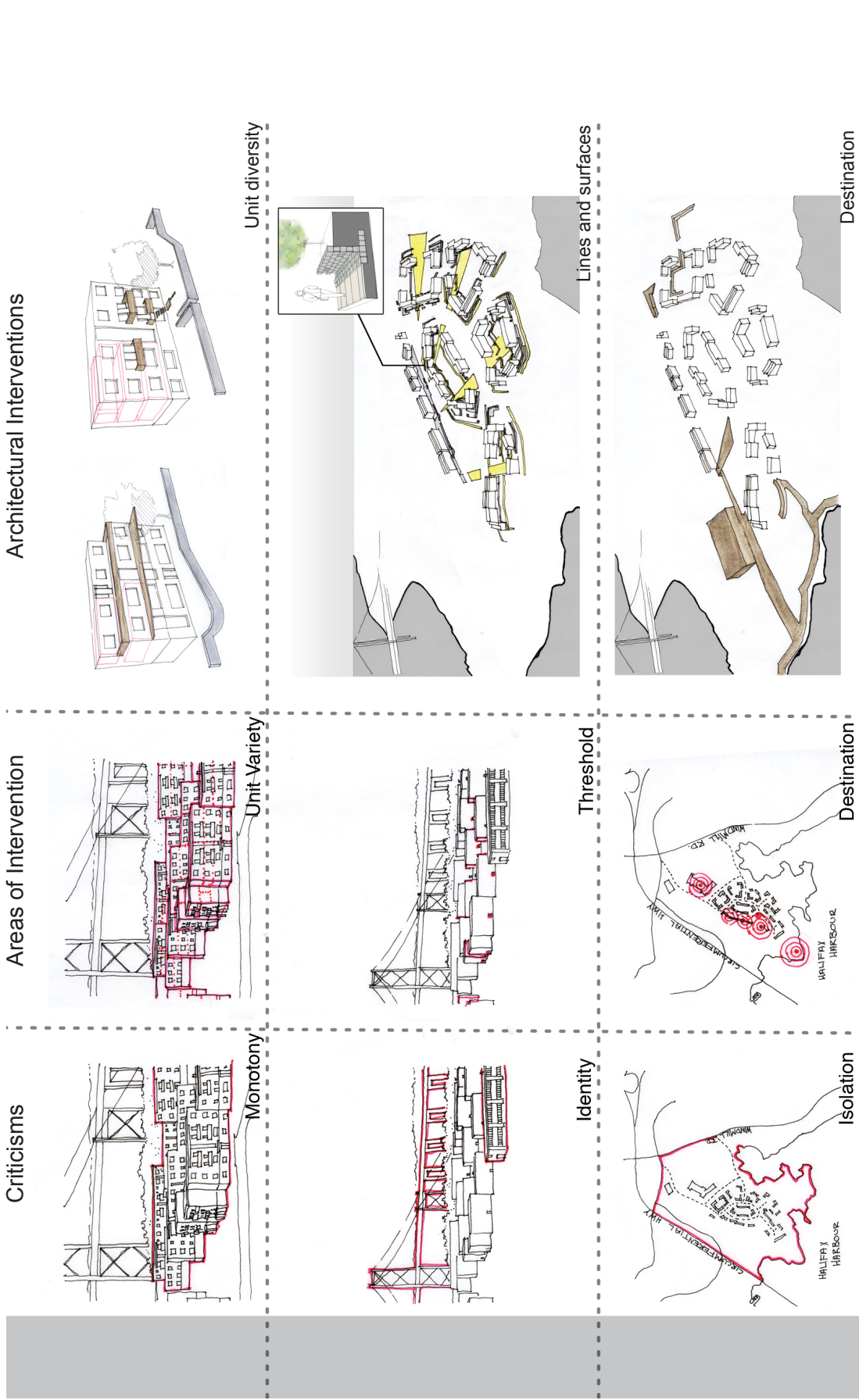


Diagram showing the general criticisms of Shannon Park, areas of intervention and the resulting architectural interventions.

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