

**an architecture of daily life**

the continuing evolution of Toronto's residential fabric

by

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**author's declaration**

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

I understand that my thesis may be made electronically available to the public.

**abstract** This thesis envisions a new way of living in the city of Toronto. It is a vision that evolves not from the ideologies on which Toronto was founded, set out over 100 years ago when all multi-family dwellings were called tenements and tenements were considered, among other things, immoral. Instead, it is a vision founded on a city that has seen immense change over the last century, and faces an even greater rate of change over the next. Our city prides itself on its cultural and social diversity, yet, architecturally, we still struggle to adapt within a fabric of single-family homes. The Dutch provide an edifying example of an architecture of daily life, embodied by their attitude toward issues of privacy, toward traffic, toward work and play. Based on a case study of housing in the Netherlands, a country that has successfully and creatively adapted to the demands of housing in a climate of rapid immigration and a diversifying population, this thesis proposes new, high density urban housing typologies for the city of Toronto. This new vision for the city serves not only to add the necessary density to our existing neighbourhoods, but to foster a strong community life and to provoke new ideas about urban living.

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**dedication**

to my family



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**introduction** Much of Toronto's housing was built when cars and gasoline were cheap, when soldiers and immigrants streamed in from Europe after World War One, and when the dense city core was considered ugly, unhealthy and mean. The ideals of privacy and sanitation were valued above all else, and the single family home was the only place considered suitable to raise a family. The only acceptable family was a husband, a wife and a few children. Toronto's health inspector, Dr. Charles Hastings, stated c. 1920, that "if we are going to develop along judicious lines we must make Toronto a city of individual homes."<sup>1</sup> Any dwelling containing two or more families was considered a tenement, and was considered "a breeding ground of physical, moral and social ills."<sup>2</sup> The term tenement was applied indiscriminately and the building type was not reformed, but prohibited.

*Concerns mounted with the gathering of a small apartment boom in the years leading up to World War I. Builders were putting up smaller and cheaper buildings, which, according to the Toronto Globe, were 'in essence tenements,' which could only produce 'stunted children and unhappy adults. [The city's] morals will*

<sup>1</sup> Richard Harris. *Unplanned Suburbs: Toronto's American Tragedy, 1900 to 1950*. (Baltimore: The Johns Hopkins University Press, 1966), p.91.

<sup>2</sup> *ibid*, p. 91.

*suffer as well as its health.' By 1912 opposition was strong enough to persuade the city to ban apartments from all but a few major streets.<sup>3</sup>*

Toronto evolved according to these attitudes, and the city's character has been defined by the single-family home.

Almost a century later, the city's population has increased dramatically and has diversified economically, socially and culturally; however the fabric of the city has largely remained the same, and the single family home is still the status quo. The only other popular housing typology that has been introduced into Toronto's fabric is the high-rise condominium, which is still not considered a suitable place to raise a family, and caters towards singles and young couples. The high rise condominium fulfils people's desire for secluded private space and does little to foster community. Entrenched in these dated ideals, Torontonians have never been able to develop a viable compromise; instead we have continued building the single family house, pushing the city's edge farther and farther.

As urban sprawl is gradually tamed, and the city can no longer build out, a new vision for how people live in Toronto must be established. A city with limited housing options – the single family home or the high rise condominium – needs to diversify, and alternative typologies must be adopted and adapted to the residential fabric of the city. It is predicted that the Greater Toronto Area will absorb an additional 2.7 million residents by the year 2031.<sup>4</sup> Additionally, a green belt around Toronto has been established, limiting the GTA's expansion and forcing the city and its outlying suburbs to intensify development within existing centres. The current housing stock, both urban and suburban, will not meet future demands.

<sup>3</sup> Richard Harris, p. 92.

<sup>4</sup> *City of Toronto Official Plan*, (Toronto: City of Toronto Department of Planning and Development, 2002), p.9.

With such a large expected population increase, the City of Toronto should be formulating plans to ensure that all of its neighbourhoods are ready to incorporate higher densities. If planned for and dealt with thoughtfully, the city can make use of these higher densities to improve quality of life and create vibrant, successful districts. The opportunity presents itself to lay the foundations for this change; to invest in quality buildings and well thought out public space that fosters connections throughout neighbourhoods.

Currently, as large portions of land become available within midtown Toronto, usually former industrial lands, they are developed using suburban building types: the single family house and the big box complex, albeit in slightly denser forms, such as the attached town house. This type of development enables developers to make a larger profit after a greater land investment. The spaces and buildings thereby created are far from urban. They fail to address the streetscape, accommodate different family structures and different income brackets, and though residents are given less personal space, virtually no public space is provided as compared to a traditional urban setting.

This thesis analyses midtown Toronto's urban fabric in order to identify opportunities for development within existing districts of the city. Toronto's midtown consists of a variety of high and low income neighbourhoods, generally well served by public transit infrastructure, but without densities high enough to optimize its use or to support local businesses. The area selected for further study is bound by St. Clair West to the south, Eglinton Avenue West to the north, Bathurst Street to the east and Prospect Cemetery to the west. For past

decades this area has been in decline. Originally post-world war one worker's housing, primarily narrow bungalows; the homes in this area have changed hands many times, passed on from one group of immigrants to another. These groups have not had adequate numbers to invest in the businesses, the culture and the dwellings in the area. With some of the most undervalued property in the city, this area needs a vision, before it's potential is inevitably realized and developers enter with their banal town houses and infill houses, which will only create larger, taller homes rather than increase the area's density.

This thesis investigates the evolution of housing and public space in the Netherlands in order to inform a proposal for the intensification of Toronto's residential neighbourhoods. The Netherlands has distinguished itself by the way in which it has developed housing types. They determine the character and distinctive appearance of the country's urban centres.<sup>5</sup> Like Toronto, Amsterdam is bound on one side by water and surrounded by valuable agricultural and natural land, leaving no room for expansion. However, the two cities differ on how they have historically valued their land. The Dutch strongly identify with their country's struggle against the sea and appreciate the value of every square metre of land, whereas Canada is a country recognized around the world for its vast empty space and untouched wilderness; with a population, 80% urban, that appreciates the land, but in many cases values it little. Amsterdam is a city consciously planned and developed to be efficient and compact whereas in Toronto communities are being rapidly thrown together with no overall vision but financial gain, and with little regard towards healthy living conditions, the community's ability to evolve in the future, or the strain it causes on the infrastructure of the larger city. In addition, the Dutch have long been used to living closer to their neighbours and have seen it as an opportunity to foster community and invigor-

<sup>5</sup> JaapJan Berg, Jean-Paul Baeten and Véronique Patteuw. *Living in the Lowlands 1850-2004. The Dutch Domestic Scene*. (Rotterdam: NAI Publishers, 2004), p.9.

ate public space. The Dutch model proves that quality of life can be improved by a housing type that Toronto has never been comfortable accepting.

This thesis proposes a system of gradual change in Toronto's residential neighbourhoods from predominantly single-family homes to higher density, low to mid-rise dwellings. The scheme will avoid working from 'tabula rasa,' but instead gradually replace the existing fabric with housing clusters composed of a set of housing types and commercial space, that will accommodate a diverse population, and form new connections and opportunities for public space throughout the district.

**methodology, resources and thesis structure** This thesis has been divided into four chapters providing the research and argument to support the proposal for a new way of living in the city of Toronto. The first chapter, the case for an alternative dwelling type in Toronto, establishes the problems that Toronto is facing, provides background outlining why and how the city developed, and discovers the potential of its current situation. The issues and arguments presented in this chapter were gathered from a variety of sources including books, reports, newspaper articles and the internet.

*A Practitioner's Guide to Urban Intensification* provided a foundation for the argument for residential urban infill presented in this thesis. The publication is a collection of articles written by architects, urban planners and critics for *the Intensification Report*, a bimonthly journal produced by the Canadian Urban Institute between 1993 and 1996. Frank Lewinberg's article, "Some Thoughts About Intensification," provides a good introduction to urban intensification and outlines the consequences of continued sprawl. Enid Slack's article enti-



tled “Property Taxation and Urban Sprawl” provides a discourse on municipal property taxes and how they can encourage or inhibit intensification. Additionally, Eberhard Zeidler’s “Main Streets Initiative Handicapped by Building Codes,” outlines a specific example of how the Building Code has shaped the housing typologies built in Toronto.

Current newspaper articles provided insight into Toronto’s real estate market and trends in new housing being development. Particularly, the article “Home suite home,” outlined the lack of affordable family oriented housing in the city, predicting that single family homes will be out of most people’s reach within a few years, at which point people will begin to raise families in condominiums.

Neptis, an independent Toronto-based charitable foundation which researches the architecture of urban regions, published a series of issue papers studying Ontario’s recently launched “Smart Growth” process. In particular, Issue Paper 6, a report called “Smart Growth for Smart Development” written in 2003, proposes that the province’s “Smart Growth” can only be achieved through “smart development” defined as typically denser, more mixed, transit-supportive, and pedestrian friendly. The paper provided insight into the obstacles that developers must overcome to build projects that embody these ideals.

Additionally, Toronto’s *Official Plan* was consulted. Adopted by the city in November 2002, the plan outlines the goals and aspirations that the city would like to see in new developments. “The vision of the Plan is about creating an attractive and safe city that evokes pride, passion and a sense of belonging – a city where people of all ages and abilities can enjoy a good quality of life”<sup>6</sup> Like this thesis, the plan is founded on the belief that that Toronto’s future will rely on rebuilding and reurbanizing the existing urban structure, but where the two



differ is in their attitudes towards Toronto's residential neighbourhoods filled with predominantly single family homes. The plan proposes that these neighbourhoods should see little physical change, whereas, this thesis proposes that select neighbourhoods should go through a long-term physical transformation in order to achieve the density, diversity, and beauty that the plan calls for.

The potential for a new vision of the city has been explored by activist groups that are currently drawing attention to the city's public realm and imagining its future. *Spacing*, a magazine about Toronto's public space and urban landscape, publishes a daily account of urban issues on its website, SpacingWire, which were read on a regular basis. Additionally, A book called *Utopia: Towards a New Toronto* compiles a number of articles and drawings that explore new visions of the future city, some radical, others achievable.

The second chapter of the thesis, lessons learned in the Netherlands, presents the evolution of housing and public space in Amsterdam as a successful model to inform the proposal for Toronto. The Netherlands, and Amsterdam in particular, were chosen based on my personal experience after having lived there for two years. The Netherlands is reported as having the highest average density in the world,<sup>7</sup> and during my time there, I became interested in investigating how so many people live very happily in tight spaces, how the public street life meets the private world within people's homes, and in discovering the social climate in which quality urban housing is desired and invested in by both the public and the government. Books were paired with my personal experiences in compiling the information presented in this chapter.

Geert Mak, a prominent journalist in the Netherlands, wrote *Amsterdam: A Brief Life of the City* which provided an excellent historical account of the city for

<sup>7</sup> Maas, Winy and Jacob van Rijs with Richard Koek, *FARMAX. Excursions on density*, (Rotterdam: 010 publishers, 1998), p. 14.

this thesis. In his book, he captures the anti-monumental spirit that defines the Amsterdam architecturally, discussing the canal house and its evolution from a wooden shack on the edge of a dike to its current multi-functional form, often incorporating several units, both residential and commercial.

A second important text was *Amsterdam: An Architectural Lesson*, edited by Maarten Kloos of the Architectuurcentrum Amsterdam (ARCAM). It is a compilation of lectures given by international speakers (four architects and one urban planner) at the ARCAM during the time leading up to the unification of Europe in 1992. The speakers were asked to lecture on Amsterdam: how it would cope with the reconciliation of a rich past with a still extremely insecure future. By collecting international speakers, the organizers hoped that “they would discover qualities and possibilities which those who claim familiarity with the city, are no longer aware of.”<sup>8</sup> As a result, the lectures provide a provocative glimpse into the varied, personal views of the city physically and historically.

Many books published by the Netherlands Architecture Institute (NAi) were consulted for information about contemporary housing projects in the Netherlands such as the developments in the Eastern Harbour District (Oostelijk Havengebied) and the Dutch European projects. In particular, projects from European 7, a bi-annual Europe-wide housing competition, were consulted in order to inform the design proposal for this thesis. They deal with the transformation of former suburban housing that has been absorbed into major cities in the Netherlands as they continue to expand. The five districts selected across the Netherlands had reached the end of their life cycle and needed to be reinterpreted, resulting in “visions on the spatial , cultural and social future of the Dutch urbanised landscape.”<sup>9</sup>

<sup>8</sup> Maarten Kloos. *Amsterdam: An Architectural Lesson*, (Amsterdam: Thoth Publishing House, 1988), p. 12.

<sup>9</sup> Emmie Vos, *European 7: Suburban Challenge, Urban Intensity and Housing Diversity*, (Rotterdam: NAi Publishers, 2004), p. 5.

The third chapter, surveying Toronto, studies the elements that divide neighbourhoods in the broader city through a series of mapping exercises and explorative walks, which lead to the definition of the study area for the thesis. The study area is then analysed through a second series of maps and walks.

A key book in understanding how Toronto grew at the turn of the century was Richard Harris's book, *Unplanned Suburbs*, which provided specific insight into how the study area and other similar neighbourhoods in Toronto developed. Harris argues against the popular myth that suburbs were built for the prosperous to escape the dirty and slum filled inner cities; instead, he argues that across North America suburbs were more commonly working-class. He uses the expansion of Toronto to make the argument; where blue-collar workers were able to buy cheap land in the suburbs and build their own homes, unrestricted by building codes.

*St. Clair West in Pictures*, published by the Toronto Public Library and written by Nancy Byers and Barbara Myrvold, specifically examines the history of the study area selected for this thesis, providing maps and photographs outlining its development from its beginnings as a Native portage route to its present residential fabric.

The final chapter presents the proposal for an urban intervention on a site at Oakwood and Vaughan within the study area. The scheme has been designed based on the lessons learned in the Netherlands and on concepts and urban theory presented in Jan Gehl's *Life Between Buildings* and Jane Jacobs' *Death and Life of Great American Cities*.

Jan Gehl, an architect and Professor of Urban Design at the Royal Danish Academy of Fine Arts in Copenhagen, writes about how architecture can serve

people. He believes that everyday situations are important; they shape a major part of our lives and should, therefore, shape our cities too. The book urges an understanding of the subtle qualities which relate to the meetings of people in public spaces and how they can become an integral dimension of architecture.

Jane Jacobs' *Death and Life of Great American Cities*, first published in 1961, has long been a primary reference on urban theory, providing a framework for assessing the vitality of cities. It was written as an attack on the principles that shaped modern city planning and rebuilding, in which Jacobs explores why successful city neighbourhoods work in real life and how this knowledge can be used to inform new designs.

Finally, a report published by the City of London, entitled *Housing for a Compact City*, provided an excellent source for examples of high density housing developments across Europe. The report was written as a call for well designed high density projects in order to cope with the enormous expected growth of London, which, in the words of Ken Livingstone, London's mayor, "threaten to undermine [the] city's prosperity."<sup>10</sup> The report first defines density and the public's perception of it, and then presents a series of projects, ranging from 71 to 248 dwellings per hectare, which prove that it can work.



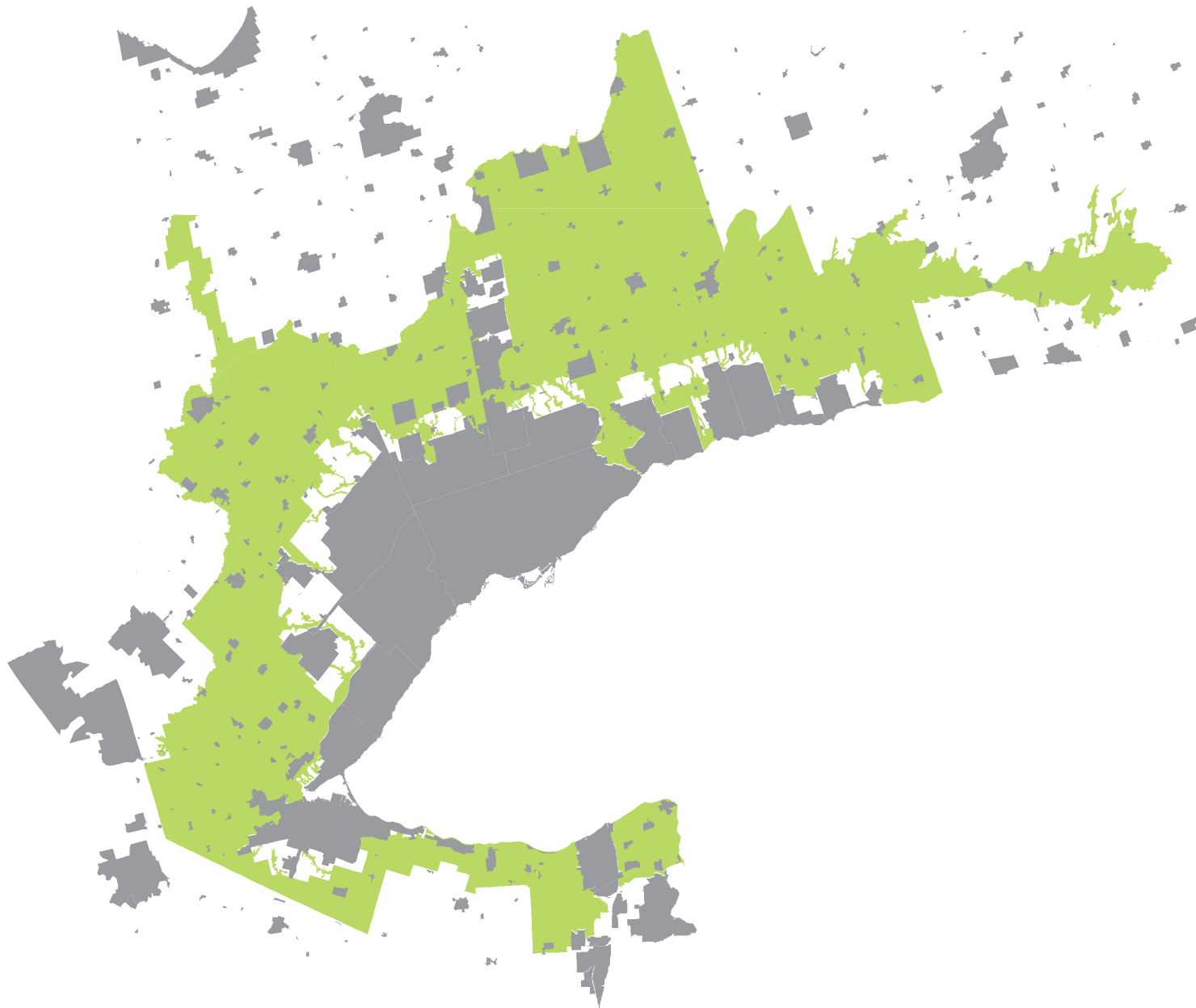
fig 0.2 public space collage



*"Housing is a major part of building production. It accounts for roughly 65% of our entire building economy. It thus has a greater influence on society and the appearance of our cities than individual structures for the arts or cultural purposes. Its huge effect is sometimes underestimated by star architects. Increasing the density of housing can play a major role in the necessary process of urban renewal."*

-Winy Maas, MVRDV. Interview with Detail Magazine, May June 2006

# 01 the case for an alternative dwelling type in toronto





*“we can take advantage of this metropolitan area growth and, with at least part of it, we can begin building up currently unfit city districts, limping along at “in-between” densities – build them up to the point where (in conjunction with other conditions for generating diversity) these concentrations of population can support city life possessing character and liveliness. .”<sup>1</sup>*

-Jane Jacobs, *The Life and Death of Great American Cities*

**1.1 the problem** The population of the Greater Toronto Area is predicted to rise by 2.7 million residents by the year 2031.<sup>2</sup> Additionally the new green belt legislation limits the GTA's expansion, forcing the city and its outlying suburbs to intensify development within existing centres. Toronto's dwellings consist of mainly detached homes and high-rise apartments and condominiums. Our region relies more heavily on high-rise apartments than Montreal and even Vancouver, and much less on the mid-rise forms, such as townhouses or low-rise apartment buildings, which are attractive in their ability to combine high amenity with higher density.<sup>3</sup>

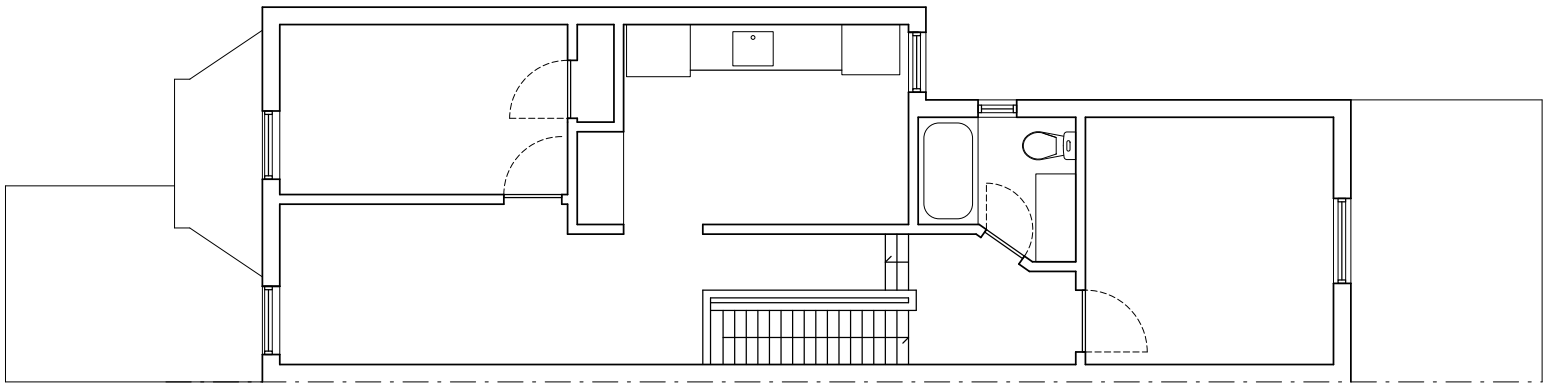
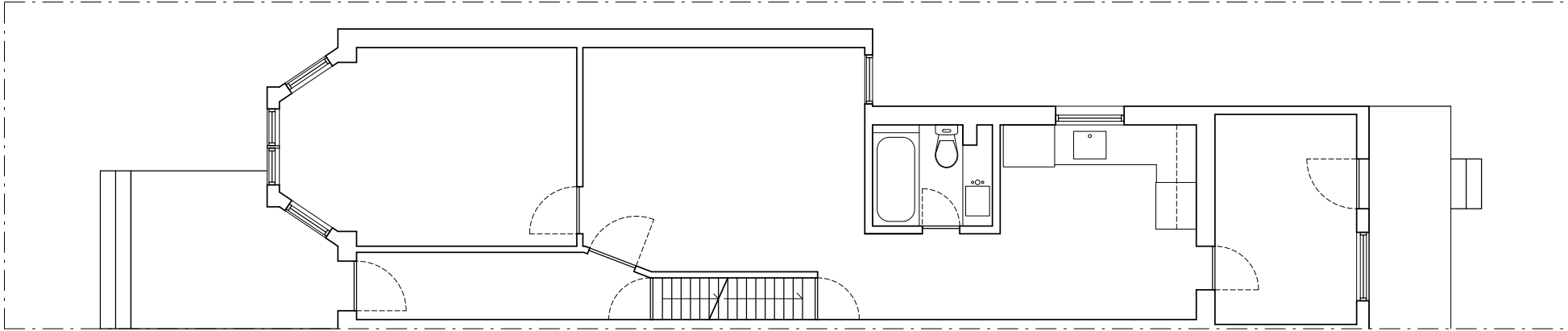
The high-rise condominium market in downtown Toronto is booming, but caters to a very narrow slice of the city's population. “Affordable room to grow is one thing Toronto's rising towers aren't providing.”<sup>4</sup> The condominiums currently being built consist primarily of tiny units suitable only for singles or couples. Of the more than 17 000 units sold in 2005 across the GTA, only 342 had three or more bedrooms.<sup>5</sup> Toronto's swath of single family homes have traditionally been the alternative, providing ample space and a lively neighbourhood to raise a family, but as real estate values continue to escalate, buying one of these houses will no longer be an option for young families.<sup>6</sup>

<sup>1</sup> Jane Jacobs, *The Death and Life of Great American Cities*, (New York: Random House, 1961), p. 219.  
<sup>2</sup> *City of Toronto Official Plan*, p.9.

<sup>3</sup> Pamela Blais, *Smart Development for Smart Growth*, issue paper no. 6, (Toronto: Neptis. The Architecture of Urban Regions, 2003), p.13,15.

<sup>4</sup> Ivor Tossell, “Home Suite Home,” *The Globe and Mail*, real estate section, 18 March 2006.

<sup>5</sup> *ibid*  
<sup>6</sup> *ibid*



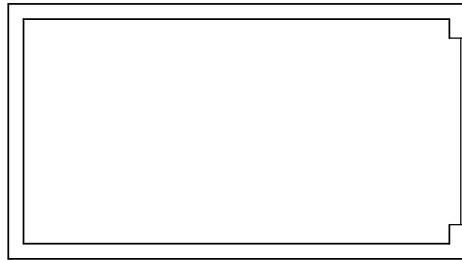


fig 1.2 **shaw street victorian duplex** A former single family home has been divided into two two-bedroom apartments (ground floor, 58m<sup>2</sup>; second floor, 55m<sup>2</sup>), by adding an entry hall on the ground floor and a kitchen on the second floor.

Faced with the cost of buying a house in the city, many people choose instead to purchase a less costly house in the suburbs and commute, but this suburban expansion cannot continue at its current pace. “According to the Urban land Institute, urban sprawl eventually costs from 40-400% more than infill development due to the costs of building and maintaining new roads, sewers, fire stations and schools, not to mention the health and psychological costs of air pollution, traffic congestion and loss of open space. The costs of sprawl are passed on to communities as higher taxes, the deterioration of local businesses, and a declining quality of life.”<sup>7</sup> Additionally, the cost to own and operate just one car consumes approximately 20% of a family’s annual income, and this number will only increase with the rising fuel costs,<sup>8</sup> notwithstanding the environmental impact.

The Victorian residential and industrial fabric of downtown Toronto has successfully adapted over time. Much of it being converted, due to its flexible and sturdy structure, into multiple housing units. However, houses built after World War I have, generally, not been as flexible. Many bungalows were built across midtown Toronto, and the current trend in gentrified areas is to tear them down and infill with a tall and narrow luxury home. Although these new homes are larger, they do not incorporate higher densities into existing neighbourhoods.

Households are no longer necessarily made up of nuclear families, if they ever were. We are beginning to demand more from our housing than mere shelter, as ideas about living and working at or near home take root. Social services are increasingly being located in the home and neighbourhood, yet much of our housing stock seems ill-suited to support anything other than a two-parent, car-driving family. Throw in concepts like intensification and main streets, and we have a rich variety of housing needs poorly served by a limited palette of

<sup>7</sup> Pamela Blais, p.34.

<sup>8</sup> “Transportation Facts - Automobiles,” Best: Better Environmentally Sound Transportation, [www.best.bc.ca](http://www.best.bc.ca) (accessed on 13 June 2006).



fig 1.3 **bungalows and infill houses** The current trend in Toronto, as neighbourhoods become more affluent, is to replace the original bungalows with large, tall and narrow infill single family houses. While this practice updates the residential fabric; it does not add density to existing communities.

housing options.<sup>9</sup>

Most major cities are now facing the reality that their demographic make-up is changing. Dwellings now need to accommodate single people, couples, single-parent families, seniors, extended families and students; demanding more flexibility in new developments. The developers have been slow to respond to these changes, instead opting for “safe” projects catering to only one or two of these groups, and building one of the tried and tested housing types in the region rather than experimenting with a mixed development. “It makes no difference if market surveys show that people prefer lower density single family homes on 60 foot lots. People record their preferences by buying and renting what is produced. They can take only what is offered and what they can afford. What is offered depends on our developers and our regulators.”<sup>10</sup>

Toronto is a unique city in the North American context, because so many people still live in its downtown residential districts. It has not suffered the exodus of residents from the downtown that has plagued the economy of so many American cities. “The desirability of segregating dwellings from work has been so dinned into us that it takes an effort to look at real life and observe that residential districts lacking mixture with work do not fare well in cities.”<sup>11</sup> In downtown Toronto, people live, work, shop, dine and play. Most activities can be reached by walking, cycling or an easy commute by public transit. In the areas of midtown Toronto, not well served by public transit, people primarily live, and use their car to work, shop, dine and play. Some commercial activities do occur along main streets such as Mt. Pleasant, Bayview, St. Clair and Eglinton, but they serve very large neighbourhoods full of detached homes, so many residents still do not walk. These neighbourhoods, previously, were scattered with corner

<sup>9</sup> Russel Mawby, “Rethinking Ownership,” *A Practitioner’s Guide to Urban Intensification*, Emeneau, Janice (ed.), (Toronto: Canadian Urban Institute, 1996) p. 36.

<sup>10</sup> Frank Lewinberg, “Some Thoughts About Intensification,” *A Practitioner’s Guide to Urban Intensification*, Janice Emeneau (ed.), (Toronto: Canadian Urban Institute, 1996) p. 3.

<sup>11</sup> Jane Jacobs, p. 175.





fig. 1.4 image of big box complex located on Laird Drive, south of Eglinton Avenue in midtown Toronto

stores selling the essentials, but with the rise in our dependence upon the car, many of these shop fronts now lie vacant. Currently only about a fifth of the land in Toronto mixes work and housing.<sup>12</sup> There are few places in our residential neighbourhoods that attract people as destinations. Jan Gehl writes in his book, *Life Between Buildings*, about the “importance of destinations in the public environment: things and places that the individual can seek out naturally and use as a motive and inducement to go out. Destinations can be outings to particular places, lookout points, places to watch the sun set, or they can be shops, community centres, sports facilities and so forth”<sup>13</sup>

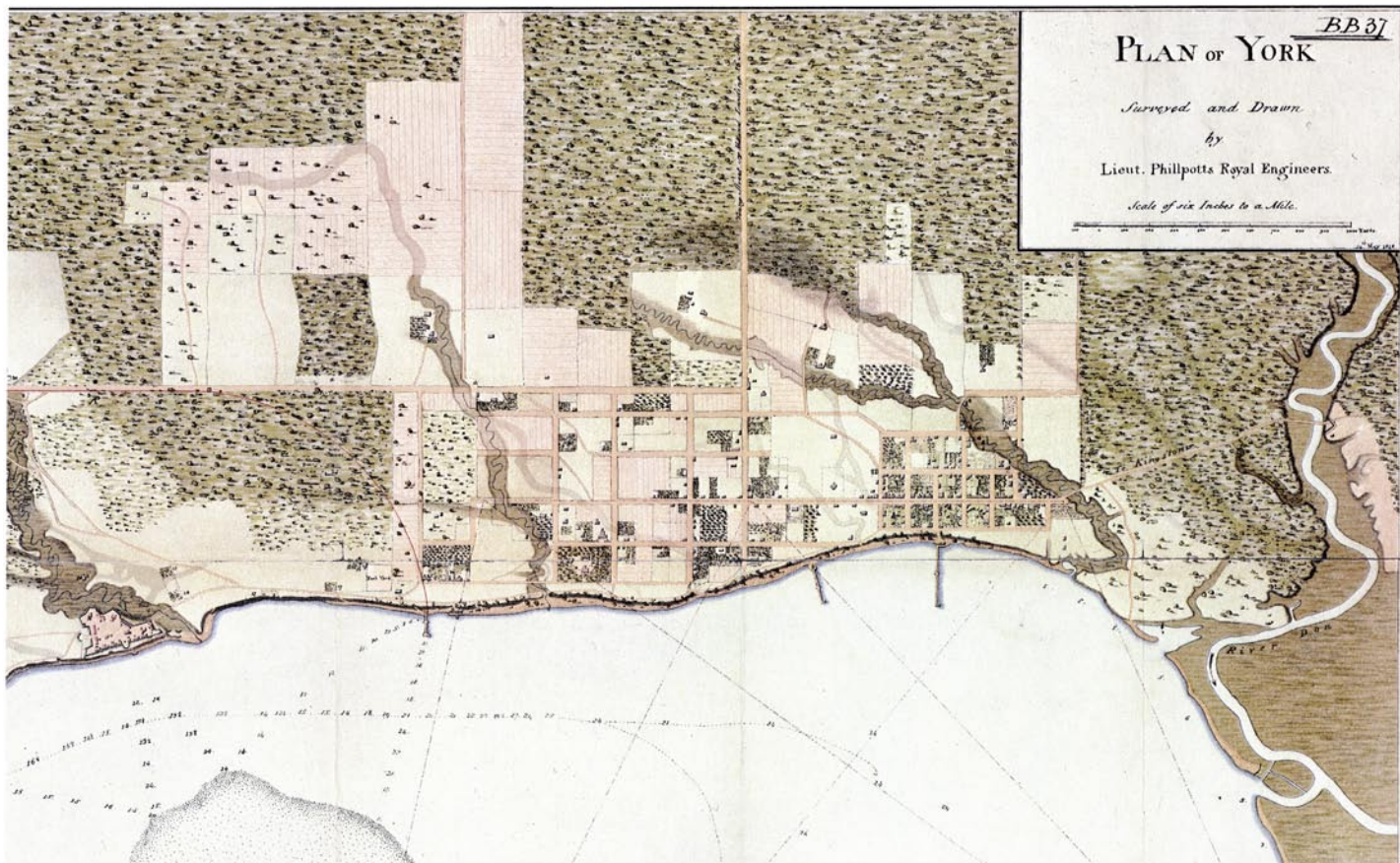
Toronto’s Official Plan, adopted in November 2002, is grounded on the principles of diversity and opportunity, beauty, connectivity, leadership and stewardship. It calls for vibrant neighbourhoods that are part of complete communities; affordable housing choices that meet the needs of everyone throughout their life; a comprehensive and high quality affordable transit system that lets people move around the city quickly and conveniently; green spaces of all sizes and public squares that bring people together; and beautiful architecture and excellent urban design that astonishes and inspires.<sup>14</sup> While some of these aspirations are being realized in the high-profile waterfront developments, rowhouses and big-box complexes do not reflect any of these values, and do nothing to invest in the high quality of life that the Official Plan describes. Instead they perpetuate our reliance upon the car, creating large expanses of asphalt to traverse and repetitive, lifeless architecture that does not inspire walking as an alternative. Their material choices are in most cases low quality, and unsuitable for building longevity, making the developments feel disposable. They are temporary, traditional and unsustainable, valuing the desire for privacy over civic life. They will never become destinations.

<sup>12</sup> Robert Fullford, *Accidental City: The Transformation of Toronto*, (Toronto: Macfarlane Watlter & Ross, 1995), p. 68.

<sup>13</sup> Jan Gehl, *Life Between Buildings: Using Public Space*, (Copenhagen: The Danish Architectural Press, 2001), p. 119.

<sup>14</sup> *City of Toronto Official Plan*, p. 2.





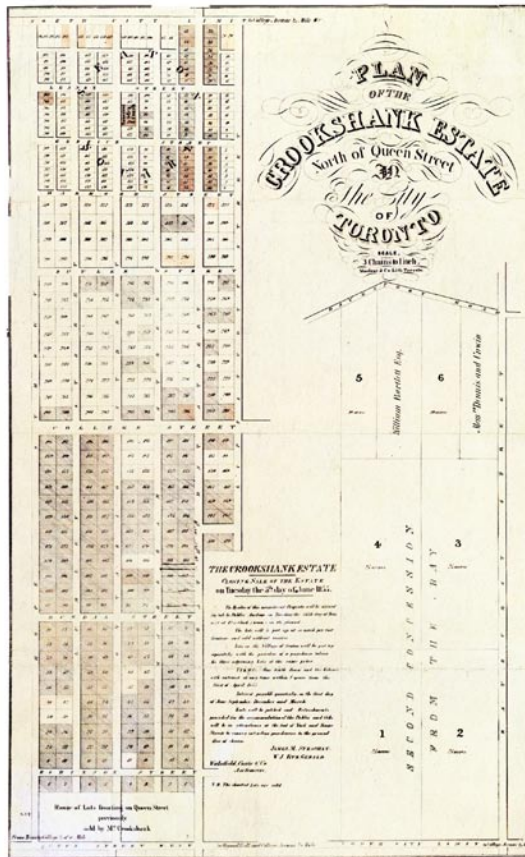
above fig. 1.5 Plan of York Surveyed and Drawn by Lieut. Phillpotts Royal Engineers. Quebec, 24th May 1818

right fig. 1.6 Plan of the Crookshank Estate North of Queen Street in the City of Toronto. Maclear & Co. Lith. Toronto, 1855.



“The population of the Toronto area has grown into a series of ever larger containers. The first one fills, then overflows into the next larger one, and then that overflows.”<sup>1</sup>

- Edward Relph, *The Toronto Guide: The City, Metro, the Region*



**1.2 the background** The first plan for the city of Toronto was completed in 1788; a year after it's purchase by British commander Lord Dorchester from the Mississauga Indians. The plan was carefully ordered and symmetrical and placed along the Toronto shoreline with no regard toward the rivers and ravines that define the area's dramatic topography. The plan consisted of one-acre town lots surrounded by a common green space, which is again surrounded by larger 'town parks' for villas.<sup>2</sup> This plan was never realized and instead Toronto began as ten city blocks located on the Toronto Harbour between the creeks and ravines. “The first structures that lined those unpaved streets of ‘Muddy York’ were unassuming detached wooden dwellings responsive to little more than the fundamental task of architecture, that of shelter.”<sup>3</sup>

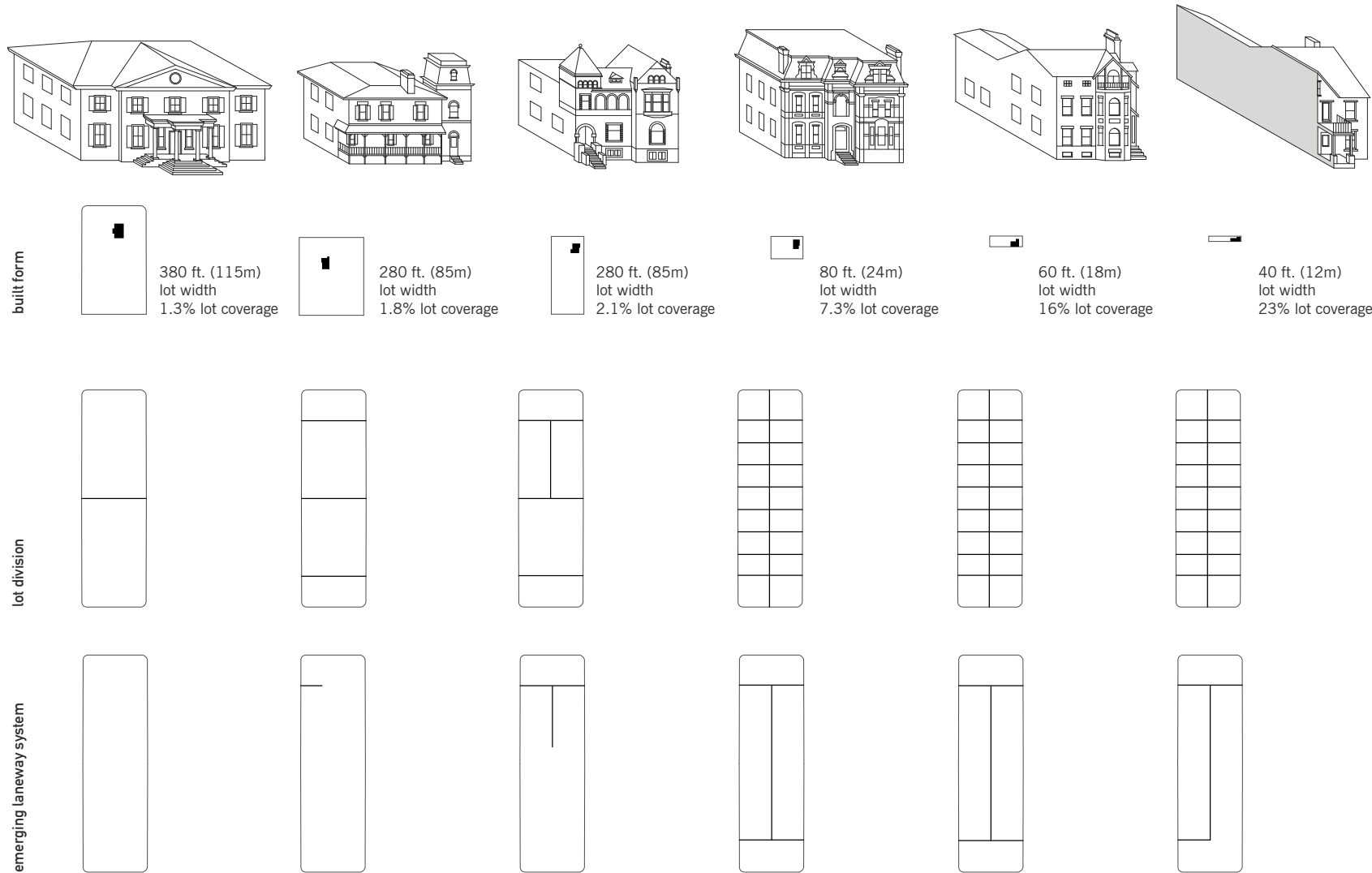
As the city outgrew its boundaries in the early nineteenth century, the surroundings were granted as large 'park lots.' These long and narrow parcels were gradually carved out of the forest as they were developed upon. Originally conceived of as estates for the military and wealthy, these guidelines were abandoned by the mid-1800s as landowners began selling their land to respond to Toronto's increasing urban growth.<sup>4</sup> The long, north-south estates, still visible in Toronto's downtown block structure, were subdivided and sold off as residential building

<sup>1</sup> Edward Relph, *The Toronto Guide: The City, Metro, The Region*, (Toronto: Centre for Urban and Community Studies, 1997) p. 16.

<sup>2</sup> R. Louis Gentilcore and G. Grant Head, *Ontario's History in Maps*, (Toronto: University of Toronto Press, 1984), p. 248.

<sup>3</sup> Patricia McHugh, *Toronto Architecture: A City Guide*, second ed. (Toronto: McClelland & Stewart, 1989), p. 8.

<sup>4</sup> Brigitte Shim and Donald Chong, *Site Unseen: Laneway Architecture & Urbanism in Toronto*, (Toronto: University of Toronto Faculty of Architecture, Landscape and Design, 2004), p. 13.



24 fig 1.7 the subdivision of Toronto's residential lots and the evolution of the 'Toronto house'

lots. The city's housing types developed in relation to the lot.

During the late 1800s the city expanded rapidly in both population and area as peripheral towns and villages were annexed. "In 1919, the Ontario Housing Committee reinforced the housing ideal: the detached single-family home. It was the physical embodiment of healthy family values, preferred over the apartments and tenements of other rapidly expanding North American cities."<sup>5</sup> The duplex was accepted as an alternative, increasing lot coverage, without compromising the ideals of a single-family home. It became the standard residential type for developers during the building boom at the turn of the century, and accounts for much of our current downtown residential building stock.

The streetcar system permitted rapid growth of suburbs in Toronto, and the lines it served had a significant impact on the city's spatial configuration. By 1920 every man, woman and child in the city took an average of 385 streetcar trips per year.<sup>6</sup> Most of these streetcar suburbs served the working class, in areas recently annexed to the city or not yet within city boundaries, where building regulation was nonexistent. It is estimated that as much as 25% of housing built in Toronto between 1910 and 1913 may have been self-built.<sup>7</sup> "Dwelling places were going up just over the line between Toronto and York [Township] that were a disgrace to any civilized community."<sup>8</sup>

The late 1950s marked the beginning of suburban development as we understand it today. The construction of Don Mills, north-east of the city, was marked with new concepts for suburban living: neighbourhoods, a discontinuous road system, a profusion of green space, new house forms and new lot configurations, and a separation of uses and activities.<sup>9</sup> This is how the city has continued to expand since.

<sup>5</sup> Brigitte Shim and Donald Chong, p. 13.

<sup>6</sup> Michael J. Doucet, "Politics, Space and Trolleys," *Shaping the Urban Landscape*, Stelter, Gilbert A. and Alan F.J. Artibise (eds.), (Ottawa: Carleton University Press, 1982), p. 359.

<sup>7</sup> Edward Relph, p. 35.

<sup>8</sup> Richard Harris, p. 158.

<sup>9</sup> John Sewell, *The Shape of the City: Toronto Struggles with Modern Planning*, (Toronto: University of Toronto Press, 1993), p. 82.



26 fig 1.8 the growth of Toronto, 1793-1914



fig 1.9 welcoming streetcar service on Rogers Road near Earls Court Avenue, 29 August 1925.

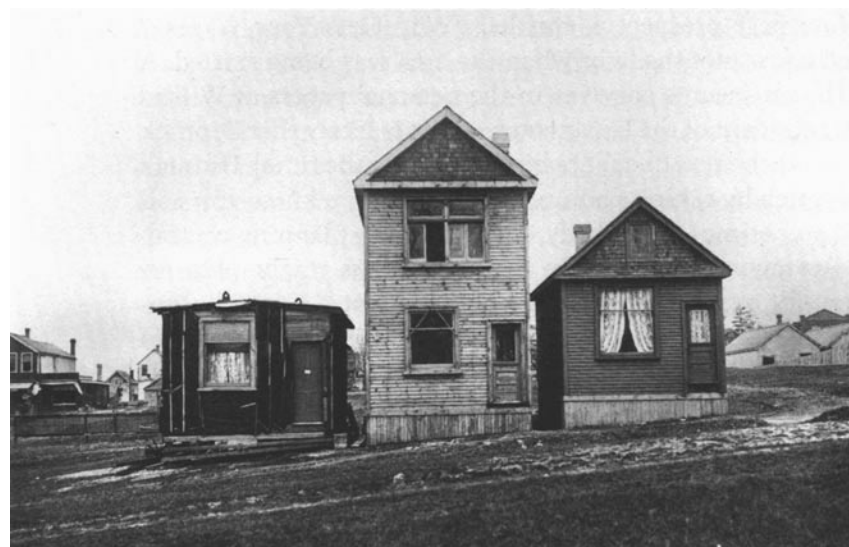
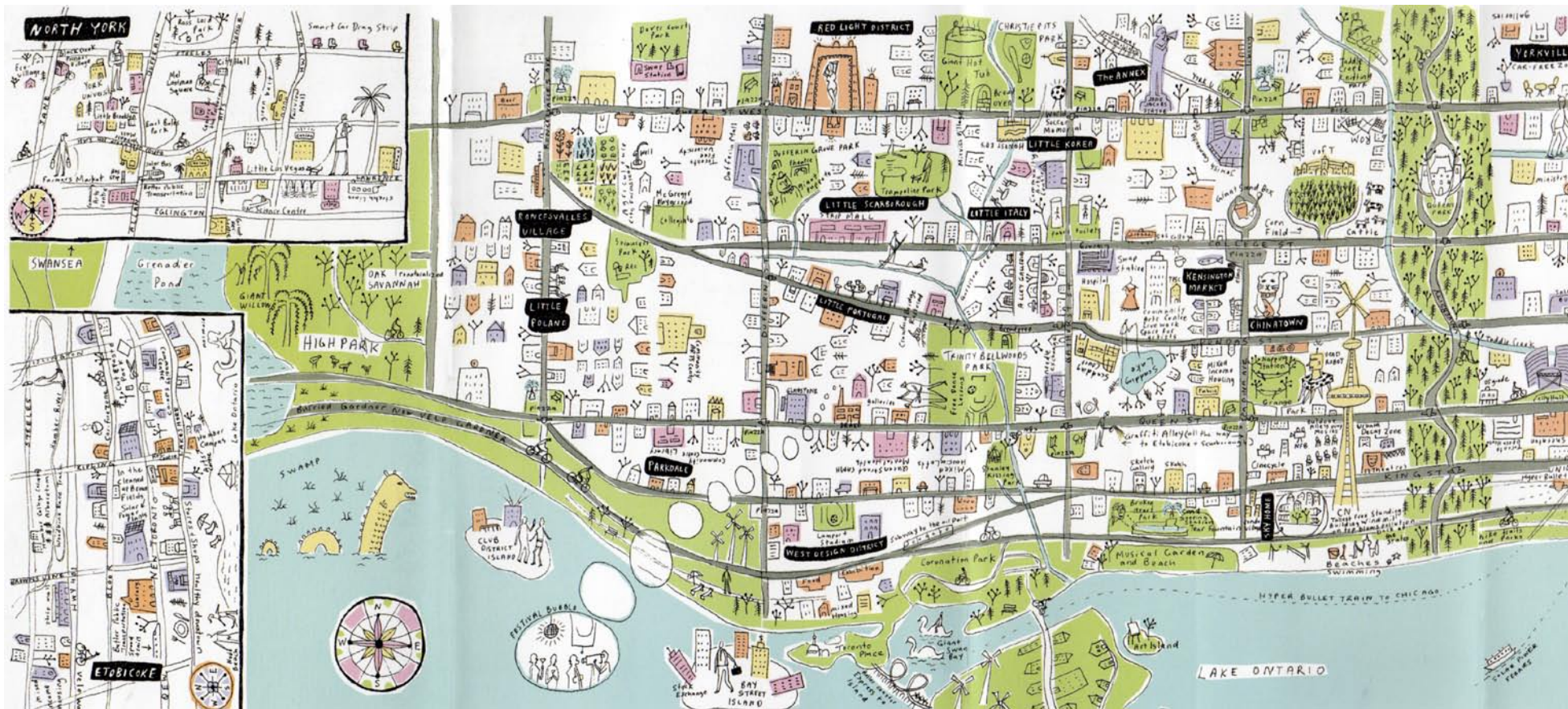


fig 1.10 owner-built homes on narrow lots at Toronto's boundary, Coxwell Avenue, 1912.







“More recently, there has been a different sort of city spirit, rising from people who get off on Toronto not because they should, or because it happens to be where they live, but for the city’s inherent qualities. It’s a Zeitgeisty sort of thing that’s finally wafted into town – and not the result of any particular organization or movement, though, in the way of such things, people have congregated around the casually cohesive groups such as those responsible for Spacing magazine or the Toronto Public Space Committee or the [murmur] project.”<sup>1</sup>

-Bert Archer, *Utopia: Towards a New Toronto*



fig. 1.11 imaginary uTOPIA map of Toronto.

**1.3 the potential** Toronto has recently been receiving a great deal of press. There is renewed confidence in the city. The mayor and a long line of activist groups are endeavouring to make the city a better place to live. Articles and books are being published, and events are creating momentum. Attitudes are changing. Jason McBride and Alana Wilcox, the editors of a recent book, *Utopia: Towards a New Toronto*, write:

*[Toronto] now seems a city of extraordinary possibility...we are contributing to Toronto’s growth by refusing to accept its limitations – or, rather, by turning those imitations into virtues. We are creating culture. We are reclaiming public space. We are transforming neighbourhoods. We are rediscovering or recovering history. We are trying to make home feel more like home. We are telling people that we live in Toronto with a proud smile instead of an embarrassed titter.*<sup>2</sup>

Another group committed to Toronto’s public realm is Spacing. Their journal, launched in December 2003, has become a medium to discuss and debate Toronto’s public space, publishing a wide range of articles about everything from pedestrians in the city, to public transit; hidden architectural gems to public infrastructure.

<sup>1</sup> Bert Archer, “Making a Toronto of the Imagination,” *Utopia: Towards a New Toronto*, Jason McBride, Alana Wilcox (eds.), (Toronto: Coach House Books, 2005), p. 226

<sup>2</sup> Jason McBride and Alana Wilcox, *Utopia: Towards a New Toronto*, (Toronto: Coach House Books, 2005), p. 11.

Public transport accessibility 6 is highest	Location in London	Housing density as habitable rooms per hectare and dwellings per hectare	
<b>6 to 4</b>	Central		650 - 1100 hrh <b>240 - 435 dph</b>
	Urban	200 - 450 hrh <b>55-175 dph</b>	450 - 700 hrh <b>165 - 275 dph</b>
	Suburban	200 - 300 hrh <b>50 - 110 dph</b>	250 - 350 hrh <b>80 - 120 dph</b>
<b>3 to 2</b>	Urban		200 - 300 hrh <b>50 - 110 dph</b>
	Suburban	150 - 200 hrh <b>30 - 65 dph</b>	200 - 250 hrh <b>50 - 80 dph</b>
<b>2 to 1</b>	Suburban	150 - 200 hrh <b>30 - 50 dph</b>	

fig 1.12 **Draft London Plan recommended density levels** London has established a flexible density and parking guideline that allows for different levels of density and number of parking spots based on the projects location in the city and its proximity to public transit.

<b>Car parking (spaces per unit)</b>	High 2 - 1.5	Moderate 1.5 - 1	Low Less than 1
<b>Predominant development type</b>	Detached and linked houses	Terraced houses and flats	Mostly flats



Over time, this increased optimism about the city of Toronto will begin to affect our built environment, although it will be a slow process, as the act of building is shaped by codes, city plans, taxation structure and market strength. The new Toronto Official Plan outlines many positive changes to the city, but unfortunately few projects being built at present are reflecting these ideals. The Official plan calls for sustainability “based on social equity and inclusion, environmental protection, good governance and city-building...It encourages decision making that is long range, democratic, participatory and respectful of all stakeholders.”<sup>3</sup> On a regional scale, this philosophy is also been referred to as ‘Smart Growth.’

Neptis produced a report in 2003 called Smart Growth for Smart Development, which studies the obstacles that hinder us from developing intelligent and sustainable projects. Through workshops that involved developers, they were able to define the major obstacles as being Ontario Building Code regulations that do not cater towards building competitive medium-height, medium-density buildings; municipal fee, development charge, and property taxation structures that do not consider a project’s efficiency; and, parking standards that are not site-specific and discount creative solutions.<sup>4</sup> A study conducted by Royal LePage in conjunction with the Neptis report found that “parking and municipal fees are the two significant levers that can improve the cost structure of smart development to make it more competitive with conventional development. Together, these elements were found to account for 10%-24% of smart development project costs.”<sup>5</sup>

An attempt was made by city officials during the 1990’s to make it possible to increase the height of buildings along it’s main streets. The planning rules were changed to permit five to six-storey apartment buildings along designated

<sup>3</sup> *City of Toronto Official Plan*, p. 2.

<sup>4</sup> Pamela Blais, p. 20-21.

<sup>5</sup> Pamela Blais, p. 22.

streets, parking standards were relaxed, and a competition introduced visions from some of the city's best architects, but little has been built. The city envisioned that our main streets would become more like European high streets lined with small scale shops, offices and apartments. Traditionally, this European building type has an entrance directly off the street that leads to a central shared stair that accesses the upper units, of which there are usually two per floor. While this seems like the perfect solution, the Ontario Building Code has not evolved to make these mid-rise developments feasible. It does not allow us to have ten or twelve apartment units exited by a single stair. Eb Zeidler writes that, "this appears to be a reasonable precaution for life safety. However, the life safety of this single stair type in Europe has been equal to, if not better than ours."<sup>6</sup> This could be a very successful building type, applicable throughout the city, not only because it could be implemented as small-scale insertions, but also because the units are open to two opposite sides, allowing cross-ventilation, reducing cooling loads and permitting either an east-west or north-south orientation. The city and the province should be working together to assure that intelligent solutions, such as this, may be feasible in the future.

High density development needs to be reconsidered in Toronto in the form of low-to-mid-rise multi-unit housing that fosters a mixed community, rather than the much debated high-rise condominiums that are springing up across the city. "No one way is a good way to house a city neighbourhood; no mere two or three ways are good. The more variations there can be, the better. As soon as the range and number of variations in buildings decline, the diversity of population and enterprises is too apt to stay static or decline, instead of increasing."<sup>7</sup> The model for the form of this new housing could come from successful building types historically built in Toronto that have been able to adapt to our changing

<sup>6</sup> Eberhard Zeidler, "Main Streets Initiative Handicapped by Building Codes," *A Practitioners Guide to Urban Intensification*, Janice Emeneau (ed.), (Toronto: Canadian Urban Institute, 1996) p. 74.

<sup>7</sup> Jane Jacobs, p. 214.

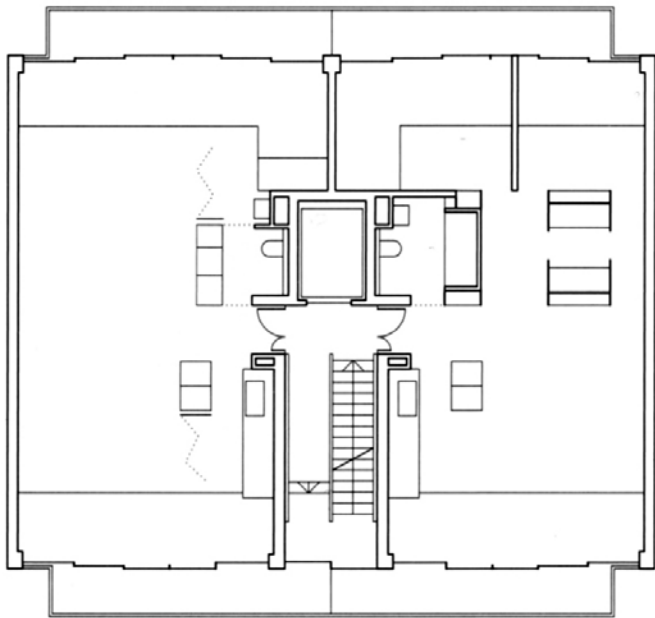


fig 1.13 plan and photo of a contemporary Berlin apartment block by Wolfram Popp Planungen Architect

needs, such as the Victorian duplex; the Rosedale mansion; the multi-storey factory buildings; and the commercial units with apartments above along our main streets.

The benefits of higher densities in urban centres are numerous, and have been recognized for centuries. In 1785 Samuel Johnson wrote “men, thinly scattered, make a shift, but a bad shift, without many things....It is being concentrated which produces convenience.”<sup>8</sup> When more people live in a given area, a diversity of desirable amenities becomes viable. Higher densities also improve a city’s economy. “The bottom line is that more compact patterns of urban development, anchored by relatively high-density central cities, result in greater economic development. The emerging literature is beginning to show that gross domestic product is improved by both larger city size and higher densities.”<sup>9</sup> Higher densities reduce our reliance upon the car, making pedestrian or cycling trips more efficient and enjoyable.

*The average distance of movement decreases as density increases. There will be a great number of ‘criss-cross’ relations: multiple successive movements over short distances. This increase in the number of short distance movements in particular influences the choice of transportation mode; the modal split (i.e. the division among the various modes of transport for the movements) changes. This choice is contingent upon speed, comfort and cost.*<sup>10</sup>

Higher densities foster a more vibrant community life.

*Life between buildings is potentially a self-reinforcing process. When someone begins to do something, there is a clear tendency for others to join in, either to participate themselves or just to experience what the others are doing...A striking illustration of this principle has been found by studying patterns of children’s*

<sup>8</sup> Jane Jacobs, p. 200.

<sup>9</sup> Maas, Winy and Jacob van Rijs with Richard Koek, p. 486.

<sup>10</sup> *ibid*, p. 486

*play in areas consisting of single-family houses and row houses in Denmark. In the row house areas, the “density” of children per acre was found to be twice as high as in the more spread-out areas of detached houses. In areas with twice the number of children, a four times higher level of play activity was found.<sup>11</sup>*

The climate is right in Toronto for us to reconsider the buildings in which we live. With support and co-operation from the city, new housing typologies can be investigated that will add needed density to our residential neighbourhoods, but still respect their human scale. Alternative living arrangements are needed that can serve the city’s diverse population.

<sup>11</sup> Jan Gehl, p. 75.



*“Not palaces or office buildings, not opera houses or memorials, but the collective lived reality inhabited every day by its residents is what determines the character and distinctive look of the Netherlands.”*

- Aaron Betsky and Mariet Willinge, *Living in the Lowlands 1850-2004: The Dutch Domestic Scene*.

## 02 lessons learned in the netherlands





Waterland

Grote Blaauwe Polder

Waterland

Groenendijk Dijkpolder

Overdiemerpolder

Gemeenschapspolder

38

Polder Veenicht

Gemeente

DIEMERBOOS



*“I do not know of any other city in Europe where housing policy has been carried out more efficiently, nor any example in which so much care has been taken of the quality of the architecture.”<sup>1</sup>*

- Oriol Bohigas, *Amsterdam: An Architectural Lesson*. Lecture for the ARCAM Foundation

Amsterdam, approximately 1000 years ago, was an unlikely place to settle. It was a deserted area of small lakes, rivulets, willows, rushes and moorland vegetation at the mouth of the Amstel river.<sup>2</sup> As the settlement grew throughout the Middle ages into a successful city, more land had to be created. Canals were dug and the clay was deposited onto the moorland. It is said that, “making the land suitable for construction must have required almost more effort than the building itself.”<sup>3</sup> Because of the physical constraints inherent in building on a swamp, careful planning was and is essential. Mistakes of the past have educated generation after generation of architects, builders, urban planners and city officials, creating an efficient, vibrant and beautiful metropolis that many other cities should learn from.

**2.1 the dutch house** Amsterdam’s picturesque canals would not be complete without the narrow rows of houses defining them. “Given the small plots into which the city was divided, combined with the fact that good building ground was a rare commodity, the Amsterdam house was, of necessity, a curiously flexible entity.”<sup>4</sup> Originally entire homes, these buildings have been transformed over the centuries to contain flats, offices, shops, cafes and cultural

<sup>1</sup> Oriol Bohigas, *Amsterdam: An Architectural Lesson*. (Amsterdam: Thoth Publishing House, 1988), p.47.

<sup>2</sup> Geert Mak, *Amsterdam: A Brief Life of the City*. (London: The Harvill Press, 1994) p.9.

<sup>3</sup> *ibid*, p.36.

<sup>4</sup> *ibid*, p.144.



40 fig 2.2 aerial photograph of housing in the Pijp, Amsterdam

institutions. The flexible nature of the Dutch housing type has led to its evolution and continued use over the last four centuries.

*Change [has occurred] in the city centre – limited replacement of individual buildings, changes in use, and, more rarely in recent times, filling of the canals for streets or public spaces. This process of gradual change and growth of development has enriched the city centre by introducing architectural fragments from each successive period of growth and has created a wider variety of individual works of architecture and diversity of use, changing with each period. It is surprising how well modern buildings can fit in with the character of older areas, without slavishly copying older forms or using materials or architectural stylistic details of another period.<sup>5</sup>*

The 16th Century canal house was reinterpreted on a smaller and more modest scale with the worker's housing in the Jordaan and later the Pijp, which in turn was developed further in Berlage's 1920 extension plan for the city in the famed Amsterdam School style, and is currently inspiring the developments in the Eastern Harbour District and the new islands of IJburg. A favourite pastime in Amsterdam is to wander through the city in the evening peering through the large windows along the streets and remark on how people inhabit their space; whether they removed all of the internal walls converting the apartment into a loft, connected multiple floors to expand their house, or built mezzanines to make use of the soaring ceilings of the piano nobile. Dutch houses have by nature been spatially flexible, defined in Jos van Eldonk's book, *Flexible Fixation*, as a "flat or block of flats [where] the spatial structure can be altered to meet the different and changing demands of the user (breaking-away, building or moving partitioning walls; interior and exterior expansions)"<sup>6</sup> The solid block

<sup>5</sup> Lauren Otis. *Amsterdam: An Architectural Lesson*, Maarten Kloos (ed.), (Amsterdam: Thoth Publishing House, 1988), p.78.

<sup>6</sup> Jos van Eldonk and Helga Fassbinder, *Flexible Fixation: The Paradox of Dutch Housing Architecture*. (Van Gorcum: Eindhoven University of Technology, 1990) p.66.

structural walls support floors with a clear span so that the spaces can be divided into endless configurations and the facades, not supported by a foundation, simply hang off the front. "Over the centuries, countless new façades have been appended to houses, invariably according to the ruling fashion of the day. ...During the second half of the seventeenth century, windows became larger, broader, higher and different in style....Sometimes...the roof of a building was simply pushed up and another floor added in the space beneath."<sup>7</sup> Throughout the 20th Century flexibility in housing was further explored in the work of Rietveld, Duinker, Hertzberger, and Van den Broek and Bakema who studied how the functional lay-out of houses could be changed without any structural alterations.

<sup>7</sup> Geert Mak, p.145.

fig 2.3 prins hendrikkade 153-II third floor A one bedroom apartment (33m<sup>2</sup>) in the historic centre of Amsterdam. Built during the 16th Century, this four storey, long and narrow building was once an entire house, but presently is divided into three apartments with a retail unit on the ground floor. With the adoption of modern plumbing infrastructure, a small bathroom and kitchen were inserted into previous storage space.

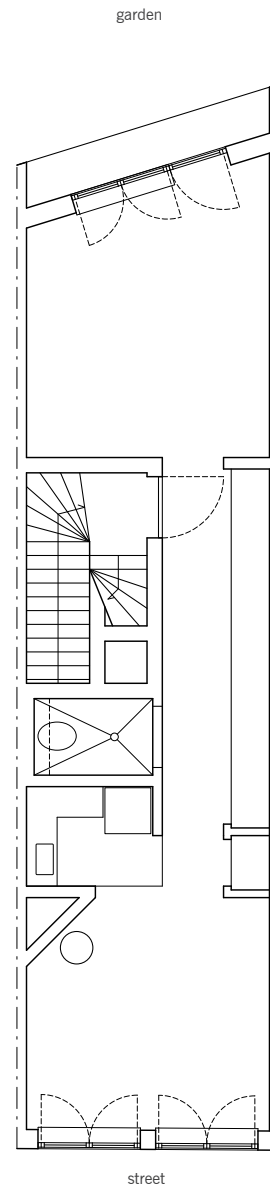


fig 2.4 **ceintuurbaan 440 ground floor and mezzanine** An office/studio for four to five employees (84m<sup>2</sup>) in the Pijp, a 19th Century district of Amsterdam built for the working class to ease the overcrowding in the Jordaan area. The unit is on the ground floor of a four storey building and has a small back garden. It has formerly been home to a café and an ice cream parlour.

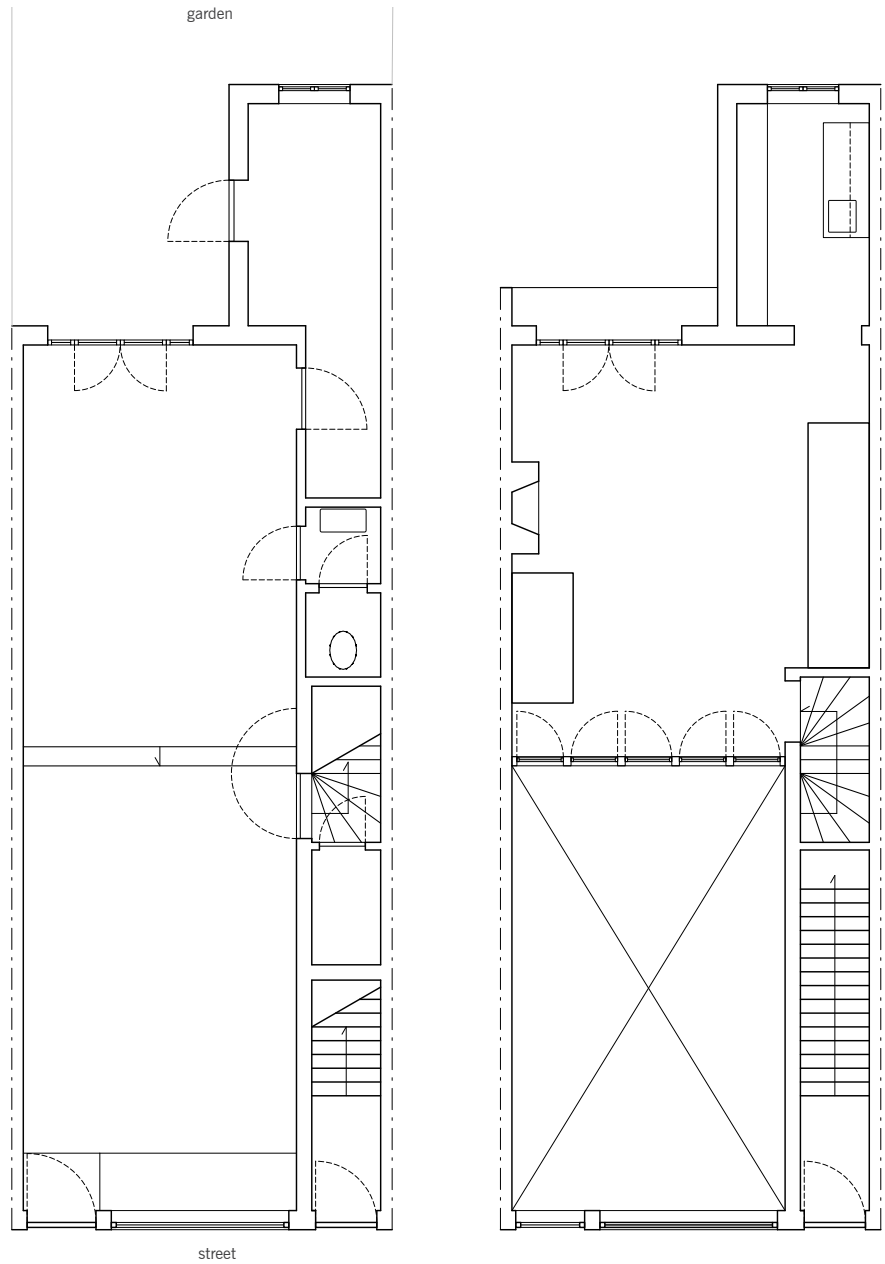
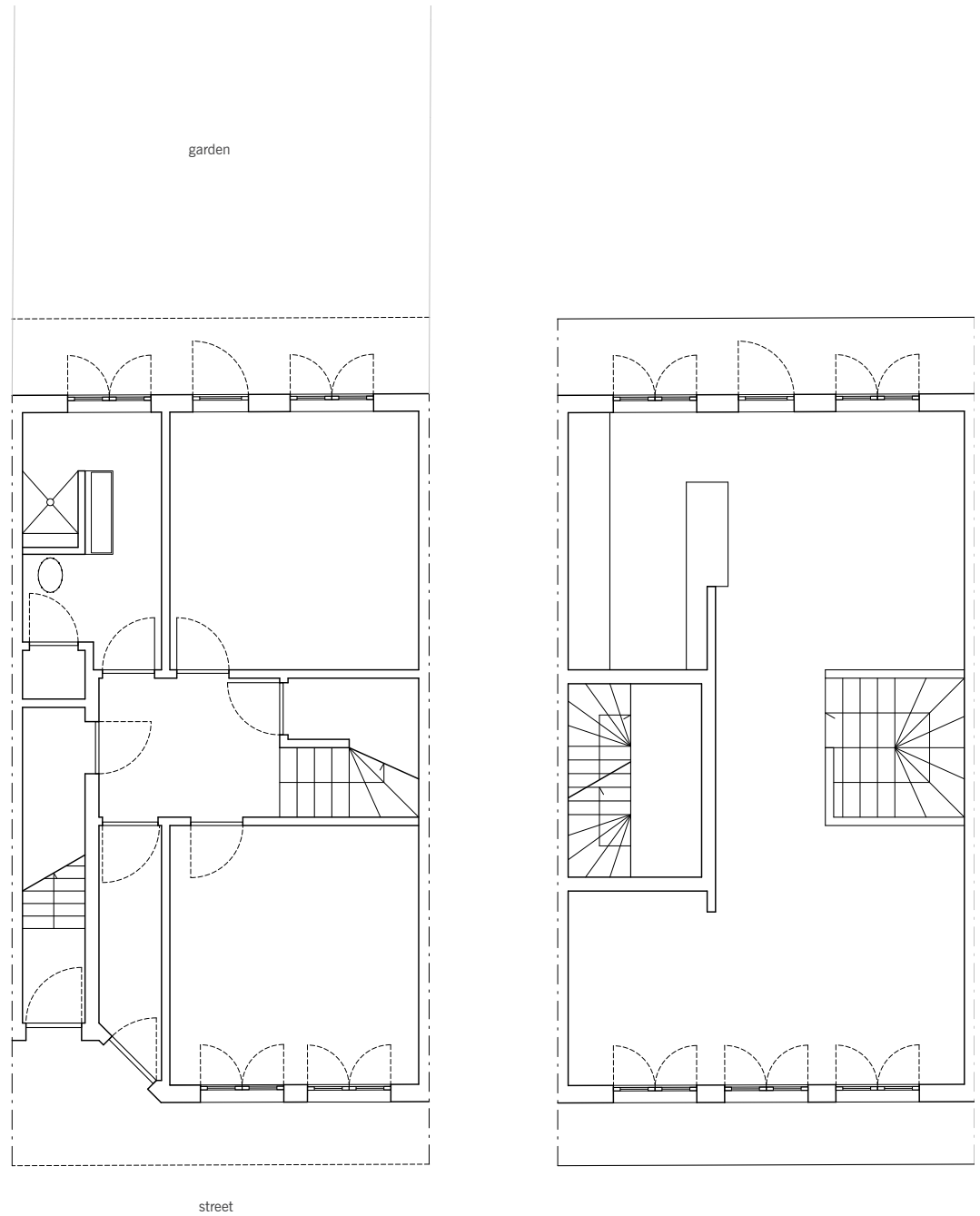
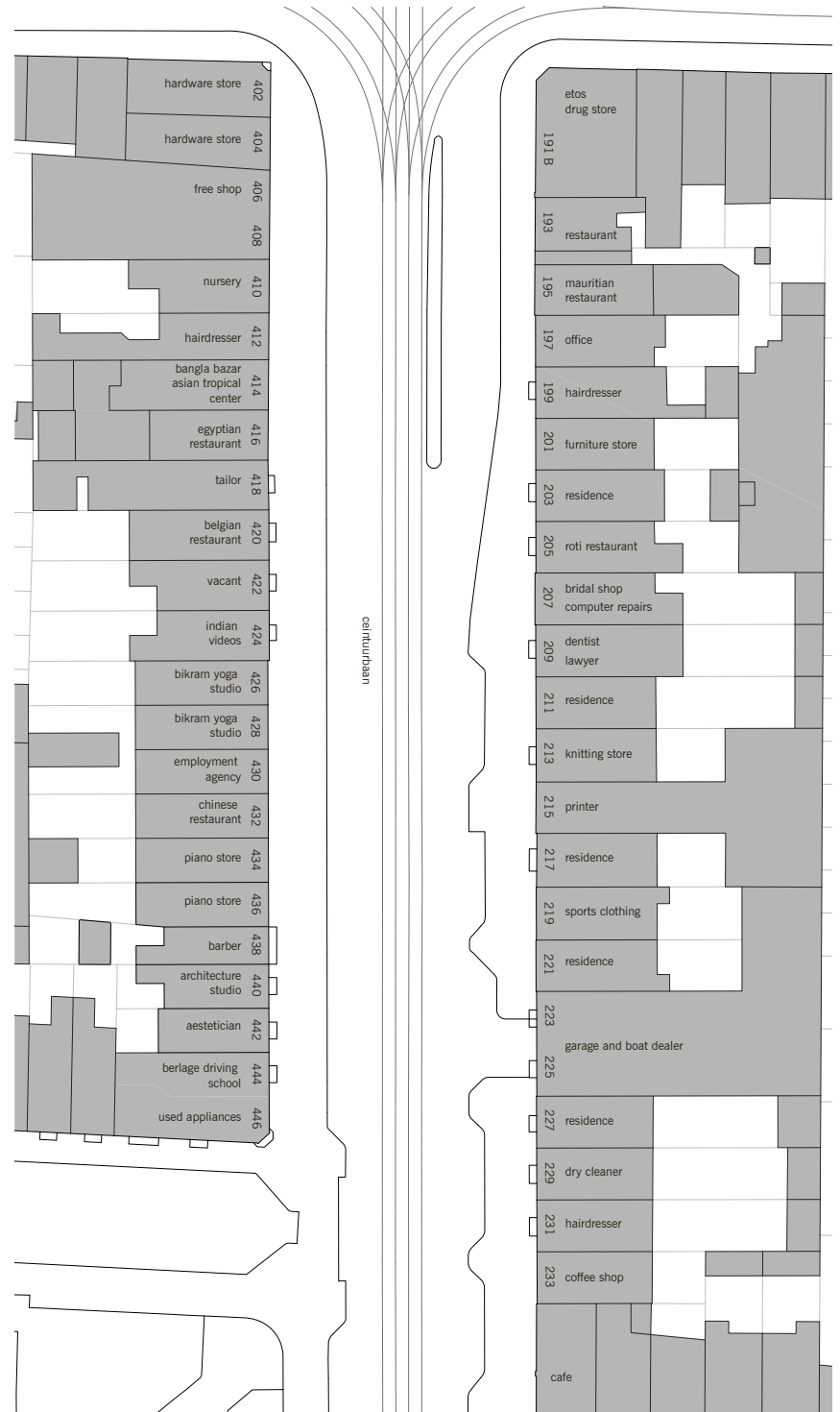


fig 2.5 **orteliusstraat 152-hs ground floor and second floor** A two bedroom apartment (99m<sup>2</sup>) in the Baarsjes, an area built in the 1930s consisting of primarily 45-60m<sup>2</sup> rental dwellings for the private and public sectors. A unit would typically be one level, but currently many of them are being joined vertically to make two to three bedroom homes for families. This apartment is currently using the second bedroom at the front of the house on the ground floor as an architectural office for a sole practitioner.



*“From the very beginning this community on the dykes displayed an important trait in urban life: variation and specialization.”<sup>8</sup>*

fig 2.6 **ground floor building uses** A one block section of the Ceintuurbaan in the Pijp, Amsterdam the 19th Century fabric, originally built for working class housing, now supports a variety of uses on the ground floor; including light industrial, office space, retail and residential.



<sup>8</sup> Geert Mak, p.25.

**figure ground** The four to five storey buildings forming enclosed blocks create neighbourhoods of high density that still maintain a human scale. This building type is found throughout the historic city at varying scales and density. In the Oostelijk Havengebied (Eastern Harbour District), housing is being built on former industrial land. The area has acted as an experimental housing laboratory where architects are attempting to perfect the low-rise, high-density model of the city centre.



fig 2.7 Jordaan, Amsterdam



fig 2.8 Baarsjes, Amsterdam



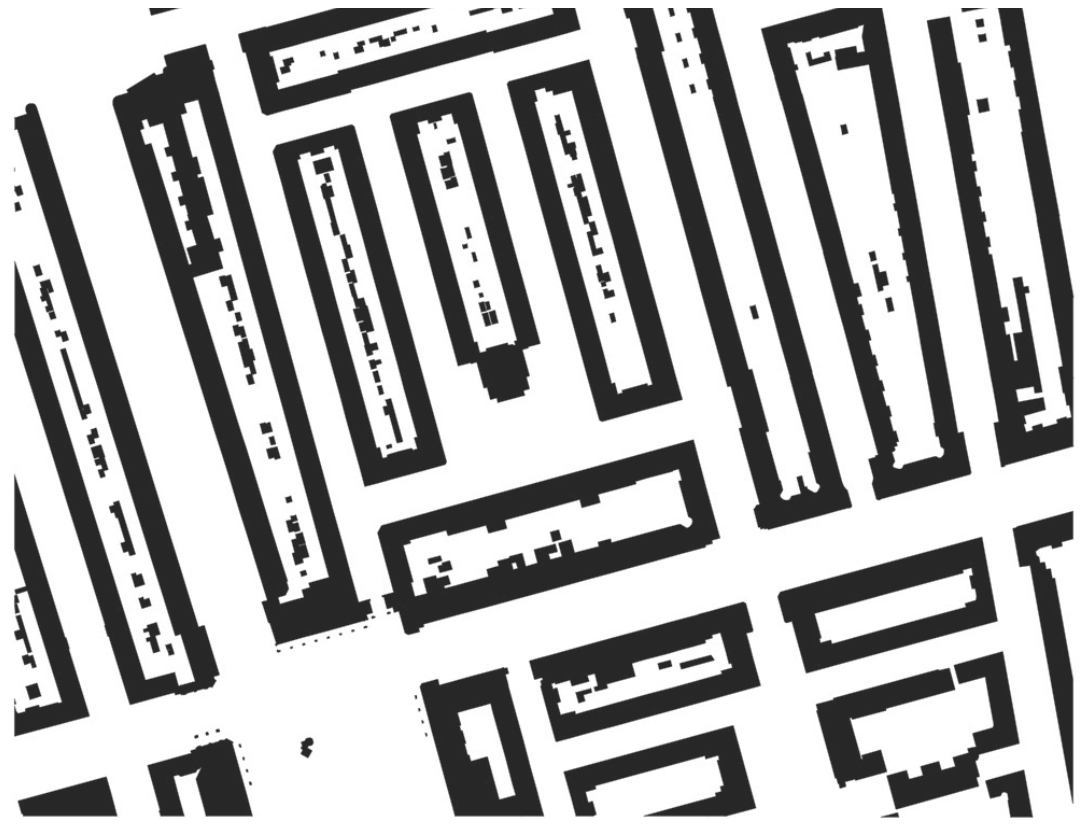
fig 2.9 Oostelijk Havengebied, Amsterdam





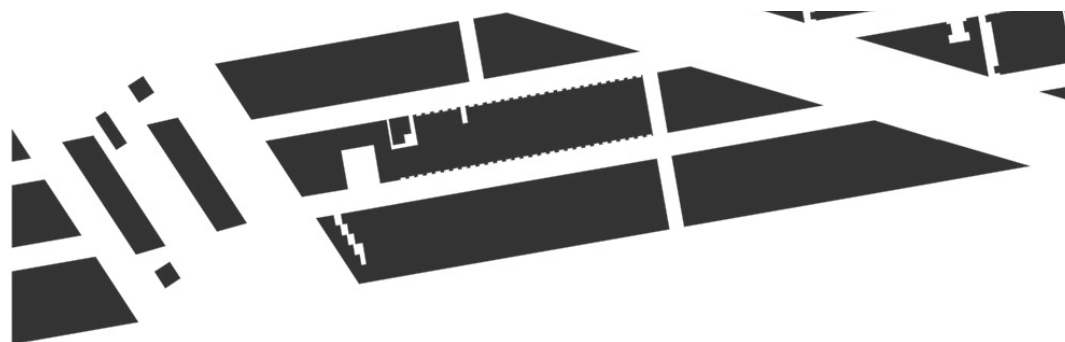
Jordaan, Amsterdam (17th Century)  
296 dwellings/hectare

fig 2.10 figure ground drawing of an area of the Jordaan.



Baarsjes, Amsterdam (1930s)  
 175 dwellings/hectare

above fig 2.11 section through an area of the Baarsjes.  
 below fig 2.12 figure ground drawing of an area of the Baarsjes.



■ Oostelijk Havengebied, Amsterdam (1980s-present)  
100 dwellings/hectare

fig 2.13 figure ground drawing of an area of the Oostelijk Havengebied.

*“The exposed pavement surfaces, streets, canal embankments and bridges are all carefully detailed, articulated, differentiated and related. Where the elements of street furniture, railings, bollards and benches are added with equal sensitivity to the trees and landscaping, the public environment becomes a vast urban park defined and enclosed by the architecture of blocks and delineated by canals”<sup>1</sup>*

-Lauren Otis, *Amsterdam: An Architectural Lesson*. Lecture at the ARCAM, Foundation



fig 2.14 binnenbrouwersstraat, Amsterdam

**2.2 dutch public space** When studying the housing in Amsterdam, the public space created by the buildings and blocks cannot go unnoticed. It is this space, shared by the city’s inhabitants and visitors, that gives the city its character; it allows people to live closely, where many activities take place under one roof, and day-to-day life spills out onto the street through windows and balconies.

The division of public and private within the Dutch house began with the invention of the chimney. Walls were built around the fireplace to retain the heat, creating the “binnenheart” or inner hearth which was intimate and enclosed. The front of the house, known as the “voorhuys” maintained its relationship with the open street. It was high, light and open, where the merchant met his customers, and would close neither shutters nor curtains at night.<sup>2</sup> This division of space is still apparent today; curtains are rarely drawn and on a warm day stoops and sidewalks become extensions of the home. It is not uncommon to see a kitchen table, or simply upturned beer crates functioning as seats out on the street and neighbours enjoying drinks or a meal together.

Aside from the Vondelpark, Dam Square and the Museumplein, parks and squares in Amsterdam tend to be on a small scale, but occur frequently. Side-

<sup>1</sup> Lauren Otis, p.81.

<sup>2</sup> ibid. p.28-29.



fig 2.15 brouwersgracht, Amsterdam



fig 2.16 leliegracht, Amsterdam



fig 2.17 haarlemmerdijk, Amsterdam



*“We want a city with neighbourhoods where living, playing, working, learning and shopping take place close to one another, and where the old and the young live in harmony.”<sup>3</sup>*

-Graffiti on a wall in the Nieuwmarkt quarter of Amsterdam in the late 1970's, when the area was threatened to be razed for a new traffic corridor and modern business district.



fig 2.18 kortespinhuissteeg. Amsterdam

walks expand at corners to accommodate street cafes, wide bridges provide space for Holland's ubiquitous flower vendors and playgrounds are found tucked into interstitial spaces. The latter are legacy left behind by Aldo van Eyck and his myriad of post-war playgrounds from the 1950s and 1960s. Van Eyck and later Hertzberger rebelled against the inhumane modernist projects being built after WWII, most notably the Bijlmer, with its vast empty spaces and homogenous immense structures. While the modernists were proposing the total massive rebuilding of cities, he instead advocated “an ‘incremental’ or ‘infill’ strategy, accommodating immediate user needs and exploiting opportunities offered by the immediately available sites.”<sup>4</sup> This work began with his playgrounds and later in the Nieuwmarkt; where, after a long battle with residents against the city, it became the method for rebuilding the historic neighbourhood after the construction of a new metro line.

The playgrounds were well received by the city and their implementation was unplanned. It simply responded to requests mailed in by neighbourhood residents. “Their anti-elitist, anarchic thinking, that nothing is too lowly, no space in the city too secondary to be considered the domain of architecture or town planning.”<sup>5</sup> They also acted as a continuity within Dutch culture of Kinderspelen, or “children's play,” found in Netherlandish paintings dating back to the 16th Century.<sup>6</sup>

Van Eyck often spoke of place as the ‘realm of the inbetween’, contributing to the dialogue within the city, and making it possible for people to physically come closer without having to overcome barriers.<sup>7</sup> When navigating the city's public spaces today, it becomes apparent that Amsterdammers have embraced the inbetween, making use of unconventional spaces and creating a network that connects people and events throughout the city.

<sup>3</sup> Geert Mak, p. 301.

<sup>4</sup> Liane Lefavre and Alexander Tzonis, *Aldo van Eyck: Humanist Rebel. Inbetweening in a Postwar World.* (Rotterdam: 010 Publishers). p.17.

<sup>5</sup> *ibid.* p.52.

<sup>6</sup> *ibid.* p.57.

<sup>7</sup> *ibid.* p.70.



above fig 2.19 Hasebroekstraat, Kinkerbuurt, Amsterdam-Oudwest, 1954.



above fig 2.21 Laurierstraat, Amsterdam-Centrum, 1956-1957.



below fig 2.20 Hasebroekstraat, Kinkerbuurt, Amsterdam-Oudwest, 1955.

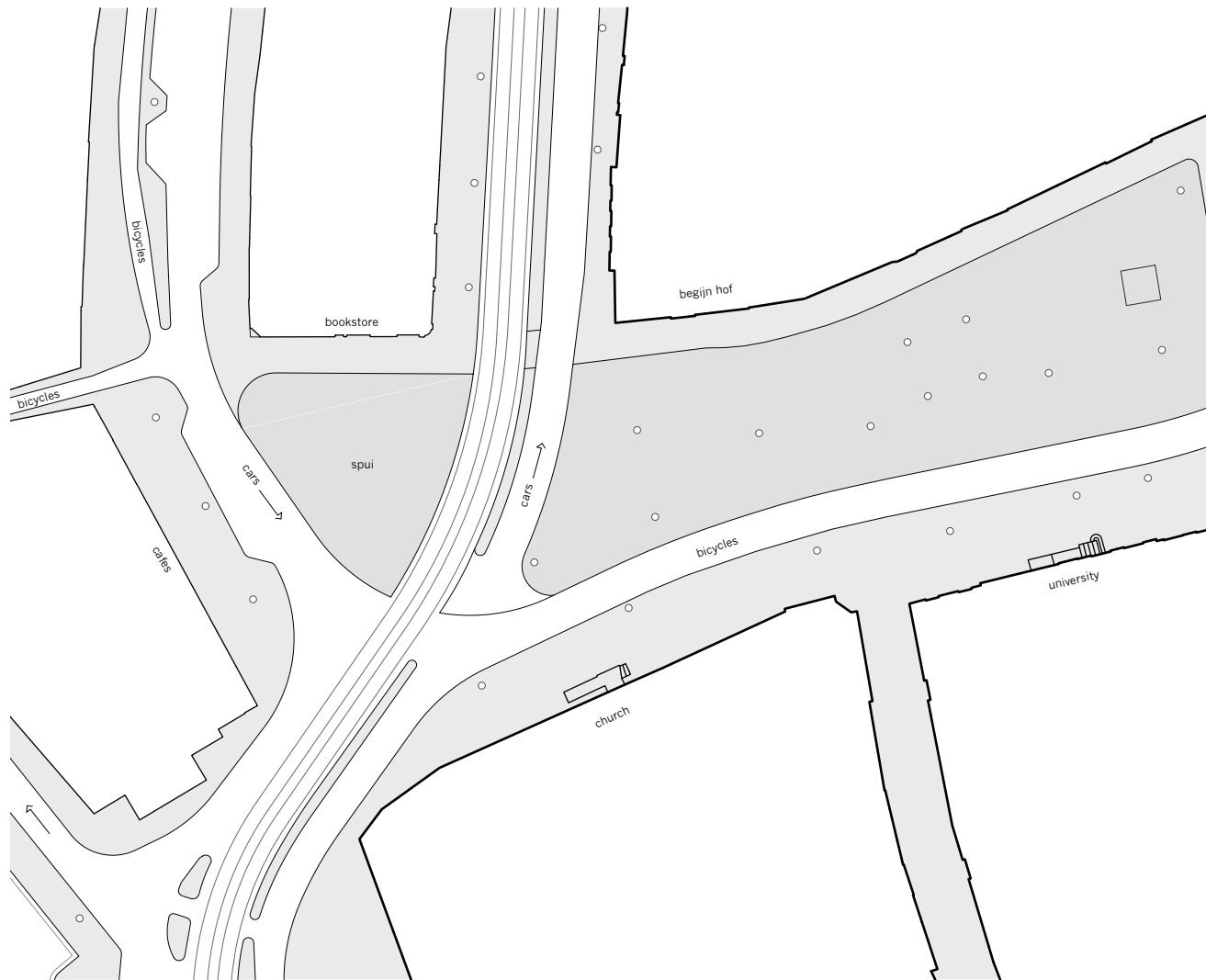


below fig 2.22 Laurierstraat, Amsterdam-Centrum, 1965.



Because much of the city was built before automobiles were invented and before they became such a widely used form of transportation, parking has had to be added to the streetscape as an afterthought. The city centre relies mainly upon parking along the streets and canals which is metered during the day and afforded by permits overnight. There are a few underground and aboveground parking lots around the periphery, but they are generally used for people visiting the city for the day rather than permanent parking for the city's residents. Because the Netherlands is situated so close to sea level and in many areas below it, digging underground lots becomes very difficult, and, in most cases, make the cost hard to justify. Nevertheless, residents of central Amsterdam can wait up to ten years to receive a permit to park on the street and therefore have come to rely on alternate forms of transportation. Cycling is by far the most popular way to travel; in fact the Netherlands has twice as many bicycles as cars,<sup>8</sup> and bicycle lanes are a key component along all of the main streets in Amsterdam. In many cases, cyclists are provided with their own traffic signals.

Public transit within Amsterdam and around the country is very well established. Most commuters arrive in the city via train and either store a bicycle at Central Station, or ride the subway, tram or bus to the office. All trams in the city ride along dedicated tracks that are only shared with taxicabs and buses, so they are not held up by traffic and can adhere to their schedule.

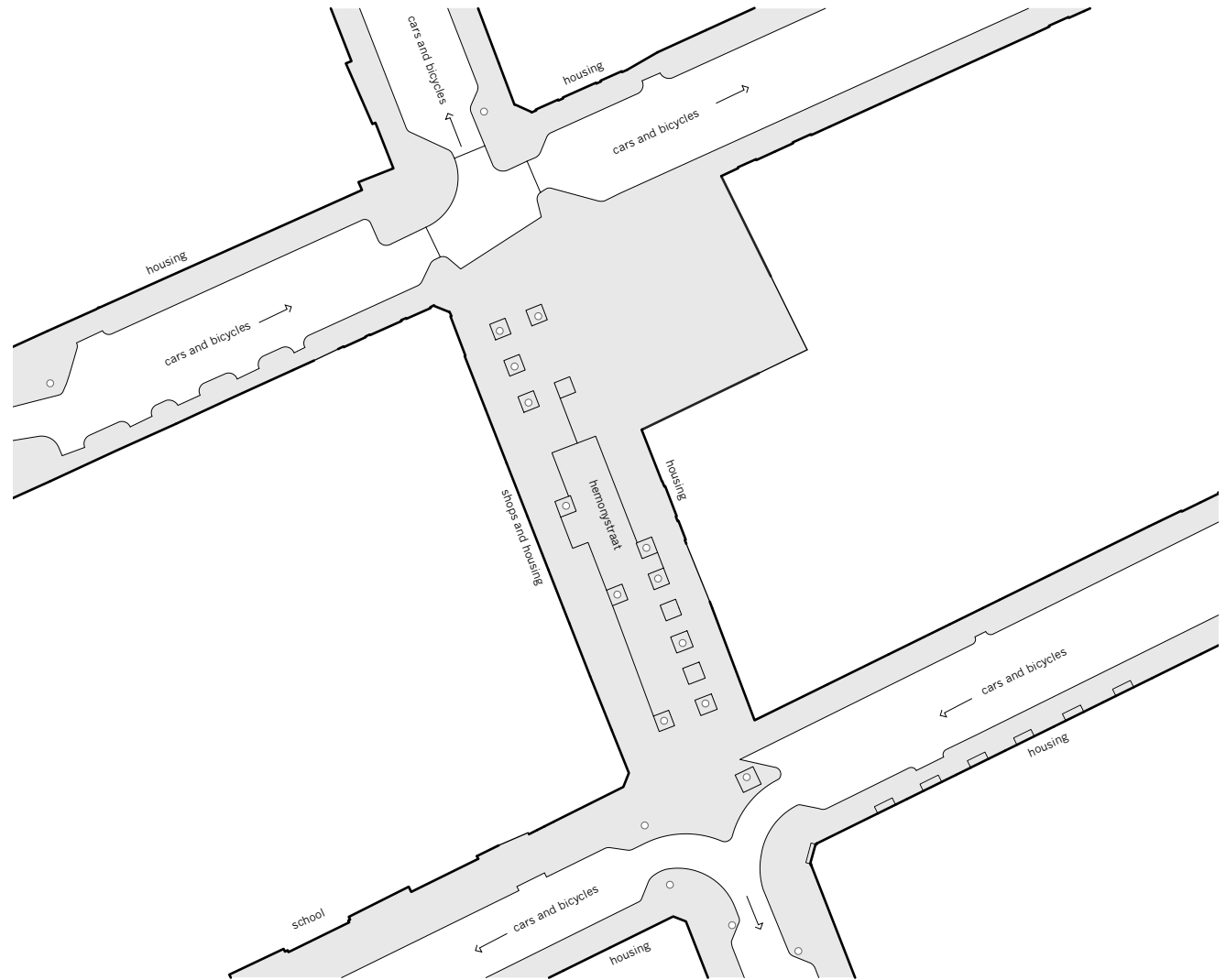


**defining public space** the Dutch are masters of organizing various modes of transportation; allowing bicycles, trams and cars to pass through a square and yet still making it feel pedestrian. The intricate modelling of the street edge accommodates people walking and cycling, space for trees, parking for cars and bicycles, and broad corners for cafes to spill outwards.

In residential areas, the short streets at the end of long blocks, as in the hemonystraat, are occasionally pedestrianized in order to control traffic, creating neighbourhood squares where children can play a few moments from home. These areas then become ideal for local commerce.

■ squares and sidewalks

above fig 2.23 plan of the Spui. 1:750



**the lessons** Housing and public space in the Netherlands has been studied in order to inform the introduction of mid-rise, multi-unit housing in Toronto that this thesis proposes. The quality of life within a city can be significantly changed by different housing types and by the character of the streetscape. A major lesson learned in the Netherlands is the importance of flexibility in urban housing, as illustrated by the evolution of the canal house. Another, is the importance of creative approaches to the public realm that make it possible for a number of different activities to go on simultaneously: public spaces carved out of blocks, and bicycle paths woven throughout the city. Finally, the approach to the threshold between the private and public realms was a key lesson in understanding how attention to threshold can create a comfortable environment, despite the higher density and closer living conditions.



*“Street after street of thick red brick  
houses, with their front porch pillars like  
the off-white stems of toadstools and their  
watchful, calculating windows.”*

-Margaret Atwood, Cat's Eye

## 03 surveying toronto



60 fig 3.1 aerial photograph of the city of Toronto



In order to study the development, quality, and character of Toronto's residential neighbourhoods, two methodologies have been employed: mapping and walking. Mapping exercises provided insight into why the city expanded the way it has, and the elements that delineate neighbourhood boundaries. Walking provided a more intimate understanding of neighbourhoods, allowing an investigation on a much smaller scale.

**3.1 mapping** Toronto's topography, in addition to political factors, has shaped the way that the city has developed. The city's most defining natural feature is the series of rivers and creeks that flow through ravines to Lake Ontario. Throughout Toronto's development, most of the smaller creeks have been buried and absorbed by the city fabric, but many large ravines still divide neighbourhoods and act as green corridors for wildlife and recreation. The city was originally situated between the mouths of the Don River and the Humber River, but has since expanded beyond their boundaries. These were great obstacles and restricted development until massive infrastructure, such as the Bloor Street Viaduct, could connect the outlying areas back to the city. A second natural

feature that cuts across Toronto is a large ridge running east-west that was once the edge of Lake Ontario (Iroquois) formed during the last ice age. Many well-off neighbourhoods straddle this ridge as it affords panoramic views over the city's downtown toward the lake.

In addition to the city's natural features, transportation infrastructure, including railways, highways, and the subway, has shaped where people settled in the city; often creating barriers to pedestrian and automobile movement. The railway built along the waterfront in the 1850s and the Gardiner expressway have long been blamed for Toronto's weak connection to its shoreline, and the Allen expressway was halted in 1971 when community groups feared that it would divide and disrupt neighbourhoods. The subway acts as an attractor, adding value to neighbourhoods within its proximity, making it easy for their residents to traverse the city using public transit.



fig 3.2 Toronto's topography, rivers and green space

- public green space
- private green space
- rivers and streams
- buried rivers
- watershed boundaries



fig 3.3 Toronto's transportation infrastructure

- subway
- ..... railway
- === highway



fig 3.4 average market value of a dwelling (2001 census)

- \$1 032 - 1 419 (thousands)
- \$675 - 1 032
- \$450 - 675
- \$225 - 450
- \$150 - 225
- \$91 - 150

**3.2 walking** In order to gain a more intimate understanding of Toronto's neighbourhoods that could not be discovered in maps, a series of explorative walks were conducted through the neighbourhoods being considered for further study in this thesis. The walks were unplanned and usually took place over the course of an afternoon. They were documented through a series of photographs and notes.

The walks provided insight into the character and liveliness of the specific neighbourhoods, as well as elucidating specific elements that affect their quality. The walks were an attempt to answer certain questions: *How is public space inhabited, and who inhabits it? What makes one street active and the next one tired? Where and how could an intervention occur?* Observations regarding the main factors that determine the quality of the streetscape were its scale, the materials of the housing and their state of repair, whether or not the houses had public elements engaging the street such as porches, the proximity to amenities, and the number and maturity of trees along the street.



bickford park



harbord street

**fig 3.5 photo series of first walk** This walk took place on the 5th of June, 2005, through an area east of Christie Pits park straddling Bloor Street East. The walk began and ended at Bickford Park, a mid-sized park defined by one of Toronto's creeks, which despite the hot, sunny weather, was empty. Aside from Christie Pits, all of the parks along this walk were surprisingly void of people. Some of the earlier streets encountered along this walk, such as Jersey Avenue, felt particularly deserted, as one side of the street consisted of only garages from the houses fronting on Grace Street, one street to the west. Further along the walk a new development was found in the rear of low-rise apartment buildings along Clinton Street. This area would have





jersey avenue



formerly been used for parking. Although the architecture is not remarkable, it is a good example of small-scale infill in an existing residential neighbourhood. The residential areas north of Bloor street were well treed and taken care of. It was noted that Christie is a confused street, with a mix of low-rise commercial buildings, parking lots, and detached residential homes, all with differing setbacks. It would be an ideal street to be redeveloped with commercial along the ground floor and housing above.

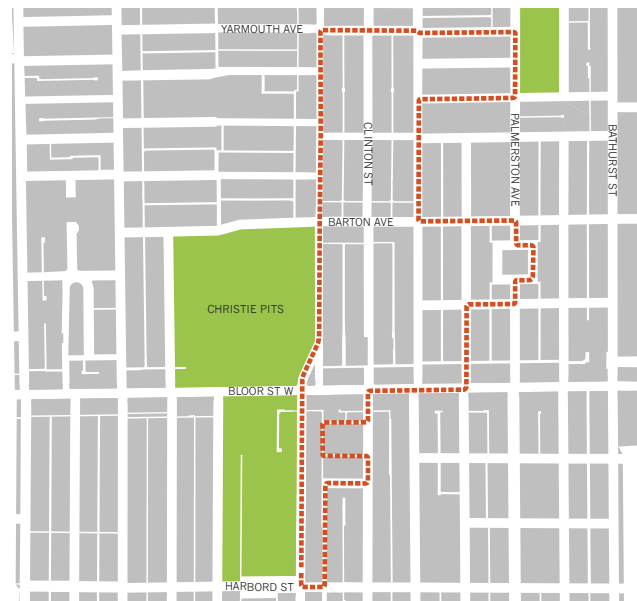


fig 3.6 map of first walk, 5 June 2005.





clinton street



nancy pocock place





clinton place



bloor street



euclid avenue park



euclid avenue - london street



palmerston square







barton avenue



manning avenue



vermont square





clinton street



christie street





christie pits









st. clair avenue west





No Frills parking lot



oakwood avenue



O'Leary Avenue



rogers road

earlsdale avenue



dundurn crescent



fig 3.9 **photo series of third walk** This walk took place on the 13th of August, 2005, through an area north of St. Clair Avenue West straddling Dufferin Street. The walk began along Rockvale Avenue, a gloomy street of patchy houses with virtually no trees, which was typical of most streets in the area. The walk continued west, crossing Dufferin Street, to an area known as Earlscourt South. It had an urban fabric more typical of Toronto's downtown with alleyways running down the centre of most blocks. The housing was generally small and not well maintained, many houses with unkept gardens full of junk. Walking north along Boon Avenue, the street was so badly in disrepair that all of the asphalt had worn away to expose the street's red brick foundation. Further north, the topography of the area became very dramatic, creating streets with extremely steep hills and vistas through the gaps between houses. Dufferin is a wide north-south street similar to Oakwood and Christie on the previous walks with a mix of low-rise commercial buildings and detached homes, that could handle a much denser, mixed-use building type, creating a more continuous facade.



rockvale avenue



rogers road

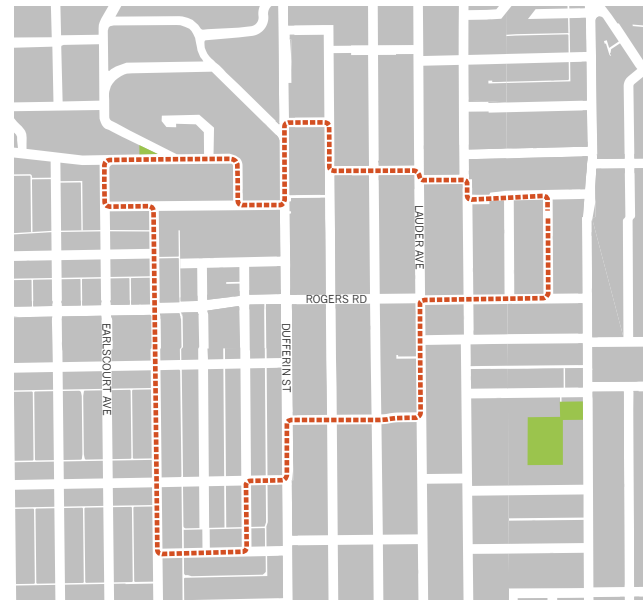


fig 3.10 map of third walk, 13 August 2005.



lauder avenue



rosecliffe avenue







dufferin street



sellers avenue



goodwood avenue



boon avenue - hope street



boon avenue





heatherly road



dufferin street



holmesdale crescent



martin street



genesee avenue



**fig 3.11 potential development nodes**

Based on the information in the preceding maps and walks, possible development nodes are identified as areas in the existing residential fabric that are ideal for urban development. The criteria used in speculating the nodes are proximity to public transit, real estate values, and building type and quality. The primary nodes embody all of these criteria. They are areas easily accessible on the current public transit infrastructure, with undervalued commercial and residential real estate in relation to the rest of the city, and consisting primarily of poorly built, inflexible housing. The secondary nodes are similarly undervalued and poorly built, but would require more public transit infrastructure.

The nodes all tend to be in the east and west ends of the city, as the central areas along the Yonge street subway corridor are already highly valued and are currently undergoing redevelopment through high-rise condominiums and luxury infill houses in existing residential neighbourhoods. Some

areas along the Bloor and University-Spadina subway lines have not yet begun this process of gentrification.

The primary nodes are at the intersection of Oakwood and Vaughan and the neighbourhood north of Christie Pits in Toronto's west end, and at the intersections of Woodbine and Mortimer, and Main Street and the Danforth in the east end. The urban fabric in all of these areas consists of primarily small, poorly maintained bungalows, ideal for redevelopment. A second thing to consider at the Main Street node and some of the secondary nodes in the west end is that they are also served by existing Go Train (Toronto's suburban commuter train) stations. This means that these areas could not only support increased residential density, but also become commercial hubs, accommodating businesses with employees commuting to the city by train.









88 fig 3.12 aerial photograph of study area

**3.3 the study area** The study area for the thesis was selected from the primary nodes identified on figure 3.11, and contains a large number of undervalued and underdeveloped properties. It is bound by St. Clair Ave West to the south, Bathurst to the east, Eglinton to the north and Prospect Cemetery to the west. The topography of the area is defined by three watersheds, the Don River, the Humber River and the Toronto creek system; and consists of rolling hills which begin to rise steeply in the north-western corner of the site (Earls Court North). Cedarvale Ravine crosses the north-east corner of the study area and forms a natural barrier between neighbourhoods. Large houses on large lots are found north-east of the ravine; higher density housing is concentrated along St. Clair, Eglinton and Vaughan Road; and the rest of the area is covered predominantly with small, single-family homes.

As the rest of Toronto goes through a residential building boom, and real estate values continue to escalate, the properties in this area have remained in comparison, reasonably priced considering its central location and access to public transit. Much of the urban fabric is physically decaying. Most of the housing on the western half of the site consists of narrow one storey bungalows built with a wood frame structure and clad with brick, or more commonly vinyl siding or

Insulbrick; shingles are disintegrating and porches are sagging. Many of the houses are rented out by absentee landlords, leaving no one to care for the property. A great deal of the commercial properties found at main intersections are under-built employing suburban typologies which should be replaced by denser, more urban buildings that form a consistent street edge.

There is very little in the way of public space. A prominent corner at a busy intersection is used as a parking lot rather than a public square. There are few neighbourhood parks, so most green space is found in resident's private gardens. A local school yard that could be used by the public is paved entirely in asphalt and enclosed with chain link fence. Some of the streets are tree lined, but many are not. During the summer months there is no relief from the sun and the sidewalks become uninviting.

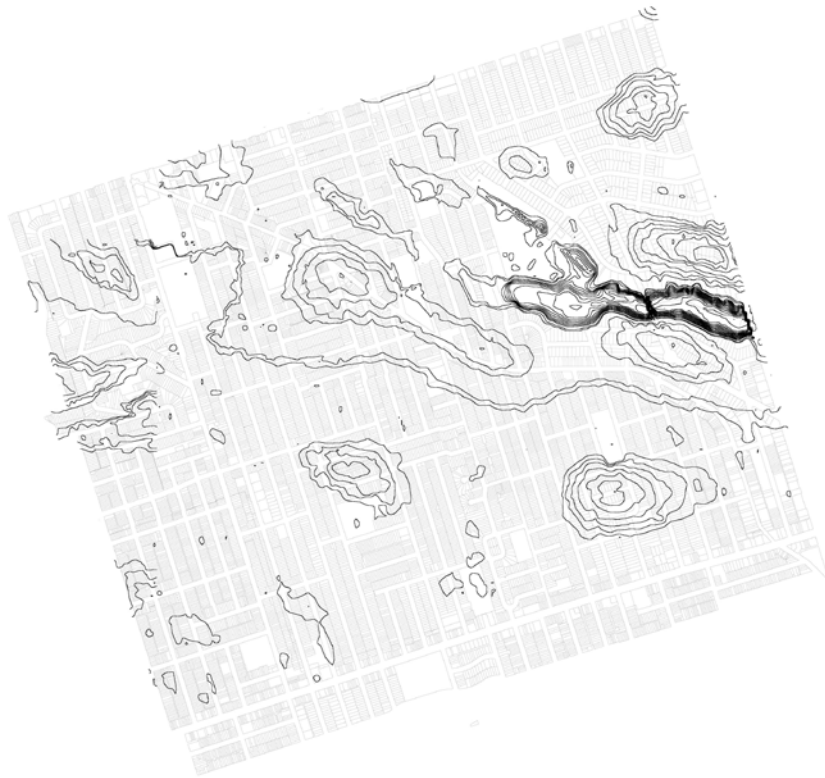


fig 3.13 **topography** The study area has topographic conditions common to midtown Toronto, such as a deep ravine and rolling hills. A significant landmark is the high-point that occurs at the intersection of Oakwood Avenue and Vaughan Road which divides Toronto's three watersheds.

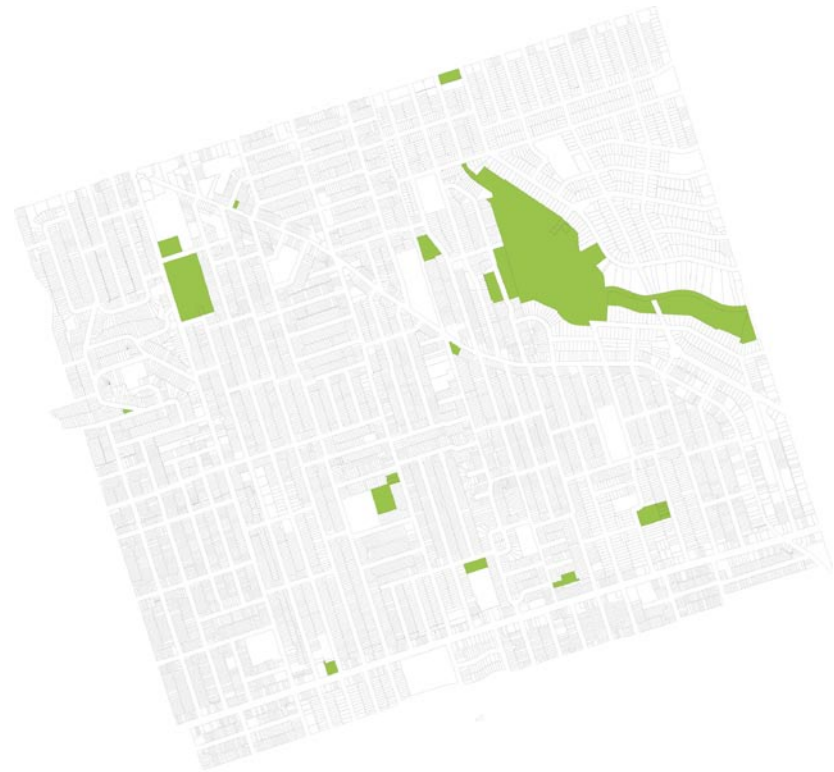


fig 3.14 **public green space** Aside from a large community park, there are few neighbourhood-scale parks throughout the western half of the site.





fig 3.15 **public transit** The area is well served by public transit, with several neighbourhood buses, a streetcar along St. Clair, and two subway stops along the TTC's University-Spadina line. However, the area's desirability could be improved by connecting the western half of the site more efficiently to the subway stations.

- bus line
- ▄▄▄▄▄ streetcar
- - subway



fig 3.16 **institutions**

- community
- secondary school
- primary and middle school
- religious



fig 3.17 building typologies

- high-rise apartment
- low-rise apartment
- ground-floor commercial
- commercial
- single-family house



fig 3.18 property values (price/square foot)

- \$ 300 plus
- \$ 251-300
- \$ 201-250
- \$ 176-200
- \$ 151-175
- \$ 126-150
- \$ 101-125
- \$ 100 and less



fig 3.19 existing building typologies The detached and semi-detached houses are found throughout the site at varying scales. The ground floor commercial building is found along St. Clair Avenue and along Oakwood Avenue at large intersections. The low and high-rise apartment buildings are found primarily at the north and south ends of Vaughan Road, and in some cases along St. Clair.



detached house



semi-detached house





low-rise apartment building



ground floor commercial



high-rise apartment building





**3.4 history of the study area** The Canadian economy boomed at the beginning of the 20th century, and with the settlement of the west, the demand for farm machinery and consumer goods exploded. As companies moved out of their downtown properties to build larger factories in the suburbs, the workers followed. The suburbs provided them opportunity to buy cheap land and build their own homes. The areas of Fairbank and Earls court, both a part of the study area, were located just north of the City of Toronto's official boundary where no regulations regarding the quality and construction of homes were set. It was said that "dwelling places were going up just over the line between Toronto and York [Township] that were a disgrace to any civilized community."<sup>1</sup> A carpenter told a reporter during the time that "several shacks going up...are being built by workingmen who are not carpenters by trade, but who wield the mallet with vigour, if not with skill during spare hours."<sup>2</sup>

The land upon which the study area is located has gone through a gradual transformation over the last two-hundred years. Originally a dense forest, the land was granted in 1790 to government officials, soldiers, and other friends of the state. As people began to inhabit the area, the forests were cleared for

left fig 3.20 Earls court, 1916

<sup>1</sup> Harris, p. 158.

<sup>2</sup> ibid, p. 205







fig 3.22 Parson's Estate, 1910.



fig 3.23 opening ceremony of streetcar service to the Township of York, 1924.

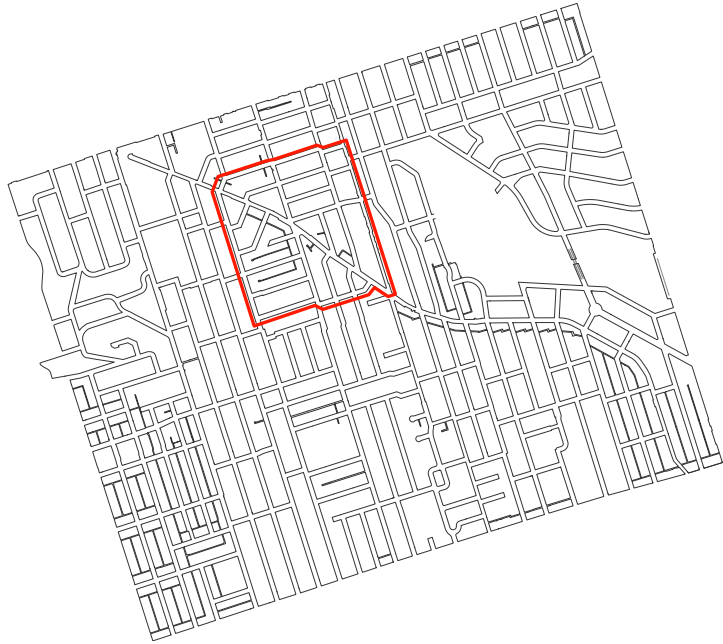




*“liveable density does not arrive by happy accident, but as the result of careful and painstaking design. Design is not the only ingredient of good higher density housing – allocations, social mix, tenure and management are other crucial issues – but higher density housing will not work without it. To be a world class city, we need to aspire for world class design in new housing developments”*

-Ken Livingstone, Mayor of London. In *Housing for a Compact City*, a publication developed by the Greater London Authority.

## 04 the design proposal



102 **above** fig 4.1 outline of design site within the study area

**below** fig 4.2 panoramic photo of intersection of Oakwood and Vaughan. At the left of the picture Oakwood runs south and at the right Vaughan runs south-east.

This thesis envisions a new way to live in Toronto; new housing for old neighbourhoods, neighbourhoods found scattered throughout the city that were never built to last and never cared for. A proposal for the incremental transformation of the existing housing stock has been prepared for a design site within the study area. By weaving new components – housing, commercial space and public space – into the existing residential fabric, the intervention will significantly increase the density of the area, providing for a diversity of people and functions.

**4.1 the design site** The site chosen to explore a design scheme is the intersection of Oakwood Avenue and Vaughan Road and the surrounding blocks, located centrally in the northern part of the study area. It was selected because of its potential to become a central hub for the entire community. Oakwood and Vaughan are both confused streets in terms of the typologies they support, alternating between pockets of single family homes, apartments with ground floor commercial and single-storey commercial or light industrial buildings. The opportunity presents itself to transform these streets into commercial avenues, similar to European high-streets, that will provide amenity to the increased housing built along the residential streets. The houses on the surrounding residential streets are primarily long and narrow bungalows, mixed with some semi-detached houses and two-storey infill houses built over the past twenty-five years. In most cases the houses are not well cared for and built from poor-quality materials; porches are sagging and covered in junk, shingles are decaying, and paint is peeling. They have passed their due-date and several are beyond repair.

Following is a series of site photographs and analytical diagrams.





fig 4.3 site photos



Vaughan-Oakwood rent-all



● parking and retail on south-east corner



● garage on north-west corner





fig 4.4 site photos



alley



● storefront church (currently vacant)



● ground floor commercial with apartments above



fig 4.5 site photos



Vaughan Road Academy



● abandoned gas station



● typical bungalows





fig 4.6 site photos



D'Arcy McGee School



● local fire station



● two-storey infill houses



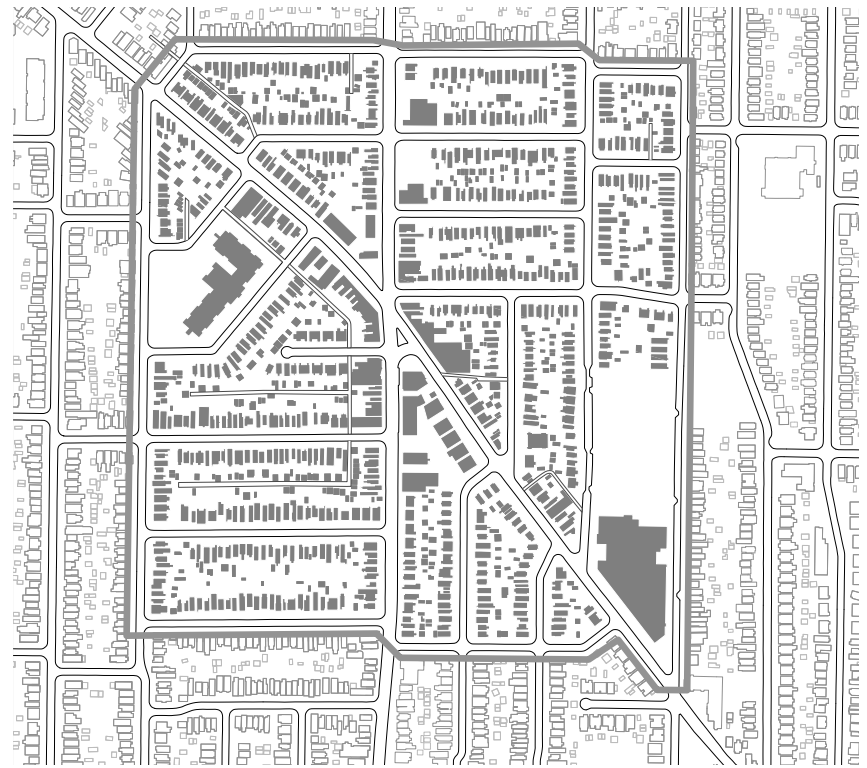


fig 4.7 building form - existing

⊗ ■ building footprint

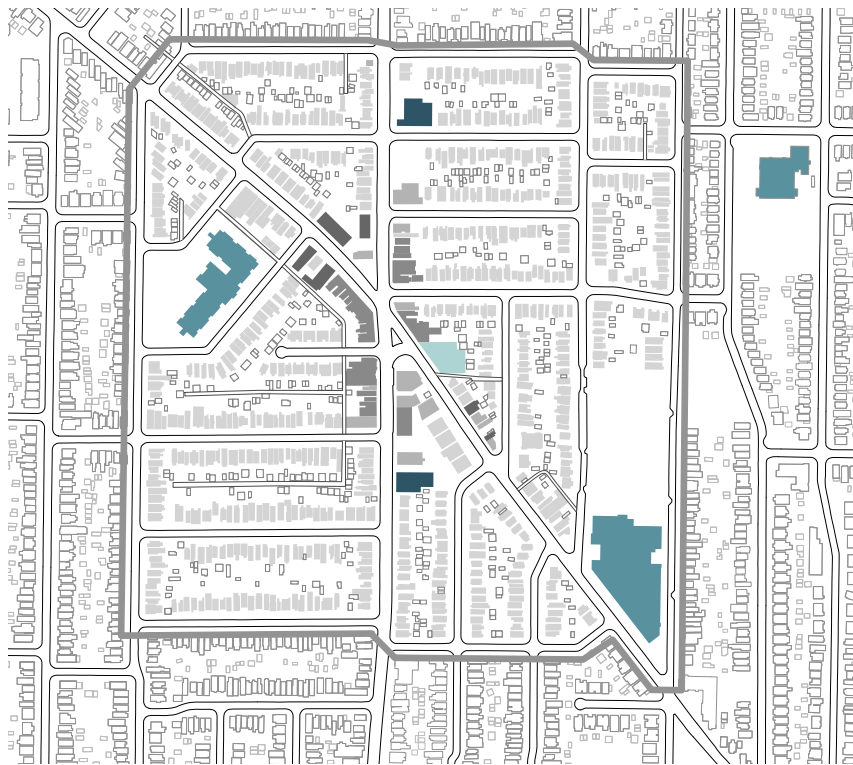


fig 4.8 building uses - existing

- ⊗ municipal buildings
- schools
- religious buildings
- apartment buildings
- ground floor commercial
- commercial
- single-family house



fig 4.9 open spaces - existing

- ⊗ public
- schoolyards
- private

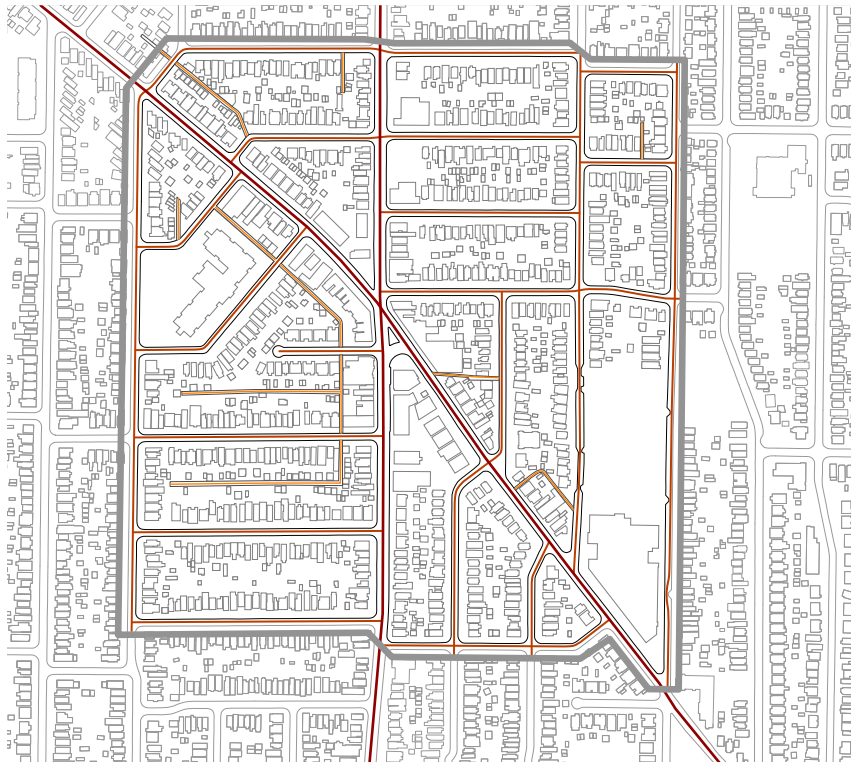


fig 4.10 circulation - existing



-  main road
-  secondary road
-  alley



fig 4.11 parking - existing

-  private garages
-  surface parking





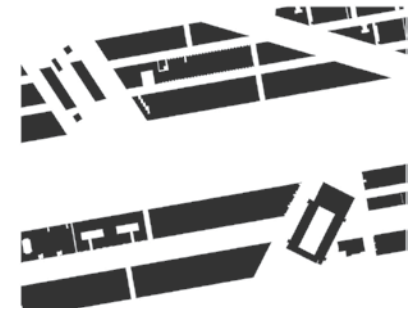
 design site, Toronto  
 35 dwellings/hectare

fig 4.12 **figure ground** when compared with the Amsterdam figure ground drawings (right from top to bottom: Jordaan, Baarsjes, Oostelijk Havengebied), the building footprints on the design site are much more scattered, although the block sizes and road widths are very similar (especially when compared to the Baarsjes). The density only reaches 35 dwellings/hectare, significantly less than Amsterdam's range of 100-175 dwellings/hectare. This occurs because the buildings on the design site are predominantly one or two storeys.





**defining density** Density could be defined as the amount of available space per person.<sup>1</sup> It is usually expressed as dwellings per hectare or habitable rooms per hectare. Until now, this thesis has measured density as dwellings per hectare, which works when a neighbourhood is composed of a single type of unit. However, when an area is made up of a mixture of housing types, this measurement does not take into account the size of each unit or how many people it can accommodate. The following block study introduces floor area ratio (FAR) as another way of calculating how efficiently land is being used. FAR is the ratio of the total liveable floor space of a built area to the total size of its lot. This measurement is useful when a development is mixed rather than purely residential.



above fig 4.13 photographic record of block

below fig 4.14 plan of block





**block study** A typical residential block within the design site consists of a mixture of bungalows and two-storey homes from a number of eras. This study was undertaken to understand how much liveable space is on a block, and on an individual property. Over 60% of the housing in the block is only one storey, most of these buildings providing less than 100 square metres of living space. The smallest home measuring 66m<sup>2</sup> and the largest building, a two-storey apartment building measuring 279m<sup>w</sup>. The average floor area ratio is 0.44, and measures the relationship between the amount of built space to the size of the property. The FAR of the housing in the Baarsjes in Amsterdam is 1.88, the Colosseum is 2.78, La Defense in Paris is 4.0, Manhattan is 6.5 and parts of Hong Kong reach 12.0.<sup>2</sup>

street name	street		no. of stories	total area (m <sup>2</sup> )	lot area (m <sup>2</sup> )	floor area ratio (FAR)
	number	footprint (m <sup>2</sup> )				
bude	59	91.8	1	91.8	222.1	0.41
	57	81.7	1	81.7	241.3	0.34
	55	88.4	1	88.4	241.3	0.37
	53	83.5	1	83.5	290.0	0.29
	51	95.9	2	191.8	290.1	0.66
	49	76.4	1	76.4	195.2	0.39
	47	74.4	1	74.4	231.2	0.32
winona	45	80.2	1	80.2	211.8	0.38
	628	83.1	1	83.1	176.5	0.47
	626	66.3	1	66.3	176.5	0.38
	624	80.1	1	80.1	211.7	0.38
	622	88.4	1	88.4	167.6	0.53
	620	81.5	1	81.5	169.8	0.48
	618	81.6	1	81.6	200.6	0.41
	614	85.4	2	170.8	313.3	0.55
	612	66.6	1.5	99.9	313.3	0.32
	610	72.9	2	145.8	313.3	0.47
	608	71.2	2	142.4	313.3	0.45
	604	71.7	2	143.4	313.3	0.46
	602	104.2	2	208.4	313.3	0.67
600	93.7	1	93.7	313.2	0.30	
belvidere	598	69.6	2	139.2	255.3	0.55
	596	62.8	2	125.6	239.1	0.53
	594	64.5	2	129.0	239.0	0.54
	20	136.9	2	273.8	258.3	1.06
alameda	24	87	3	261.0	210.3	1.24
	65	62.1	2	124.2	299.0	0.42
	67	62.1	2	124.2	361.5	0.34
	71	92	1	92.0	405.3	0.23
	73	79.6	1	79.6	326.7	0.24
	75	99.1	1	99.1	393.0	0.25
	77	93.6	1	93.6	392.7	0.24
	79	86.7	1	86.7	392.4	0.22
	83	135.5	1	135.5	392.7	0.35
	85	85.9	1	85.9	389.4	0.22
91	96.1	1	96.1	176.0	0.55	
<b>averages</b>				116.6	276.4	0.44

<sup>2</sup> Maas, p. 4-9.

below fig 4.15 FAR table. Dark grey represents the largest values and light grey represents the smallest.



*“The streets must be of a strict architectural design, but itinerary inflections, monumental interruptions, communicative penetrations, differences in volume and architectural character must be produced, based on the very specific morphology of the block, especially in the implied differences that are imposed by the shape of the corners.”<sup>1</sup>*

-Oriol Bohigas, Amsterdam: An Architectural Lesson. Lecture for the ARCAM Foundation.

**4.2 applying lessons from amsterdam** The following is a proposal for the design site based on the lessons learned in the Netherlands. Its desirable state is reached as entire blocks are re-built with a continuous band of five storey flexible walk-up units. The block interiors are converted into shared semi-private space with several punctured openings through to the street, allowing a continuous network of pedestrian paths where people can take short-cuts and vary their routes through the blocks. Small scale public spaces are scattered on corners throughout the site, allowing children and adults an outdoor social space located close to their home. Commercial activities will be concentrated in the ground floor units along Oakwood Avenue and Vaughan Road, while the ground floor units on the residential streets will be maisonettes with their front doors directly on the street. A streetcar will be added along Oakwood, connecting to the St. Clair West and Eglinton West subway stations, and bicycle paths will line all of the streets in the district. Parking per unit will be significantly less than what currently exists because of the increased alternative transit methods in the area. It will be accommodated on the streets with permits and in underground lots.

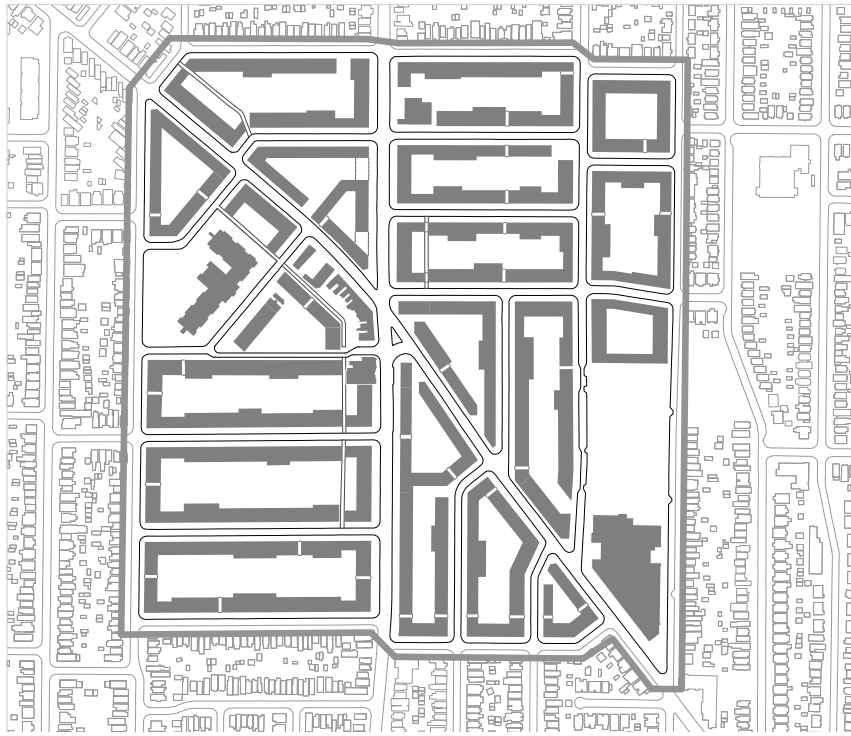


fig 4.16 building form - proposed

⊗ ■ building footprint

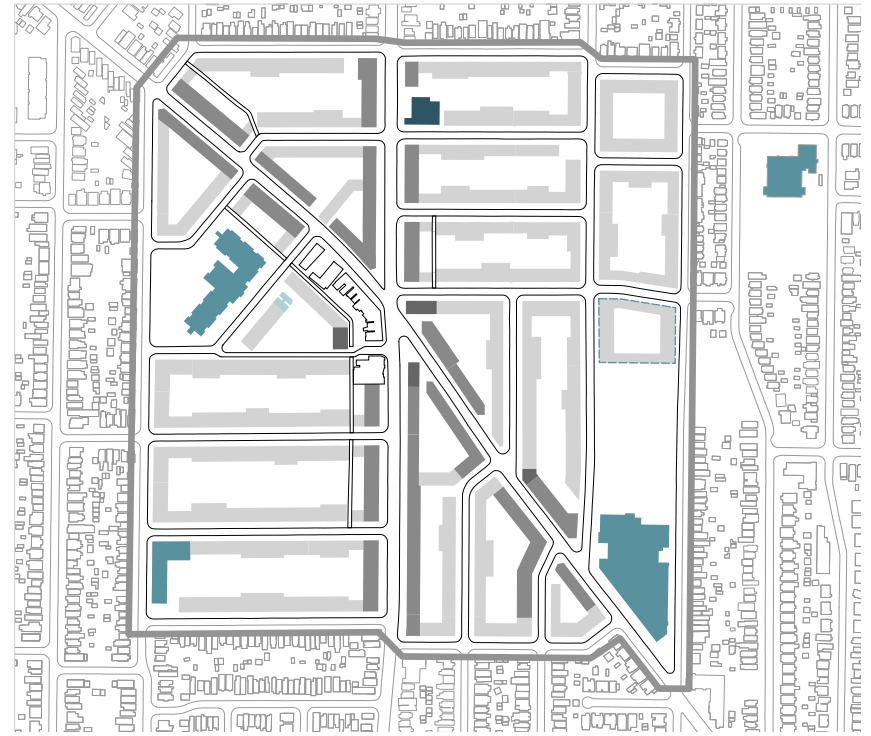


fig 4.17 building uses - proposed

⊗ ■ municipal buildings  
 ■ schools  
 - - - possible school extension  
 ■ cultural buildings  
 ■ 15-20 storey residential/commercial tower  
 ■ 6 storey residential with commercial ground floor  
 ■ 3-5 storey multi-unit residential with maisonette or live/work ground floor



fig 4.18 open areas and pedestrian access - proposed

- ⊗ public
- schoolyards and playgrounds
- semi-public
- private
- pedestrian openings

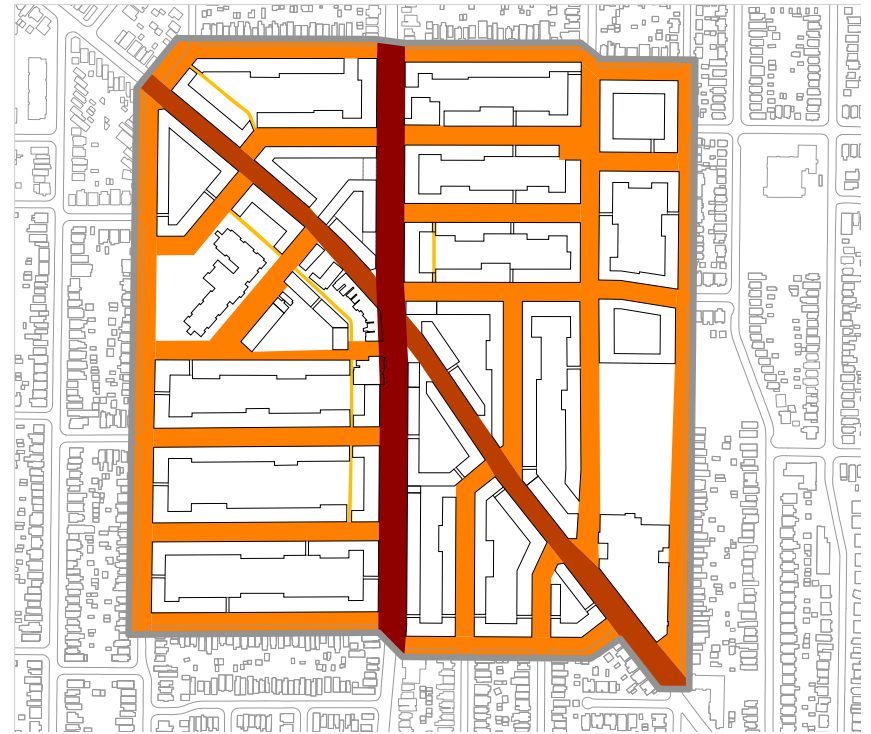


fig 4.19 circulation - proposed

- ⊗ two-lane + streetcar
- two-lane
- one-lane
- shared parking access route

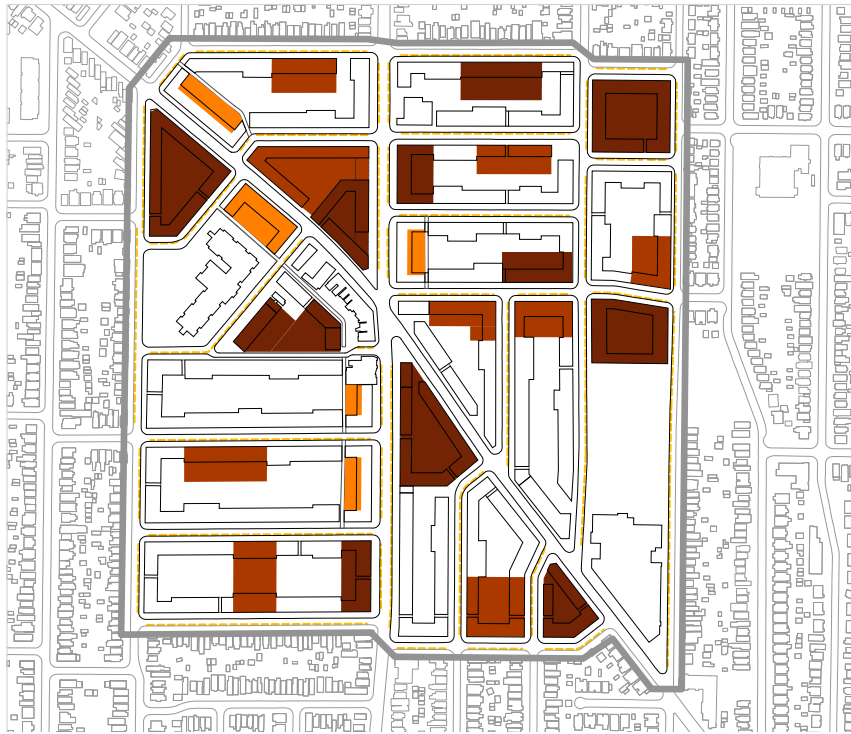


fig 4.20 parking - proposed

- ⊗ collective underground parking
- collective partially sunken parking
- collective covered surface parking
- - - street parking

Although this project is desirable, it is not suited to the nature of infill within the existing fabric of Toronto. It is not likely that the opportunity will arise for entire blocks to be razed and re-built in the city centre. Instead, any re-building will need to occur in a much more fragmented, incremental process, calling on a wider variety of typologies, to create a hybrid neighbourhood that acknowledges and evolves Toronto's historic fabric of individual homes.





**4.3 the proposal** The design will consist predominantly of two housing typologies new to Toronto – stacked flexible walk-up flats and an urban villa – that can be built on properties assembled from four or more lots. They will range in height from five stories along the existing residential streets to six or eight stories along Vaughan and Oakwood. There will also be a few select places where 15-20 storey towers can be considered as landmarks within the fabric.

In *The Death and Life of Great American Cities*, Jane Jacobs writes about the importance of small blocks in fostering a vibrant, pedestrian, and economically successful district. Long monotonous blocks segregate residents in a neighbourhood, providing only one route when arriving or leaving home, whereas, with shorter blocks, routes can be varied and new areas can be discovered. Even a walk to the corner store becomes an urban experience. “Long blocks...thwart the principle that if city mixtures of use are to be more than a fiction on maps, they must result in different people, bent on different purposes, appearing at different times, but using the same streets.”<sup>1</sup>

Rather than changing the existing block structure on the site, causing huge disruptions and expense, the proposal shortens the blocks, leaving openings between buildings, and allowing more fluid movement through the neighbourhood. The internal space within each block, a space that was formerly individual backyards, will begin as one garden behind one development, but will continue to branch and expand throughout the block as more housing is built. Because of the height and density of the new housing, this space becomes a necessary outdoor retreat, a social space to interact with neighbours, a place for children to play, a plot to cultivate a garden, a centre of activity and community life.



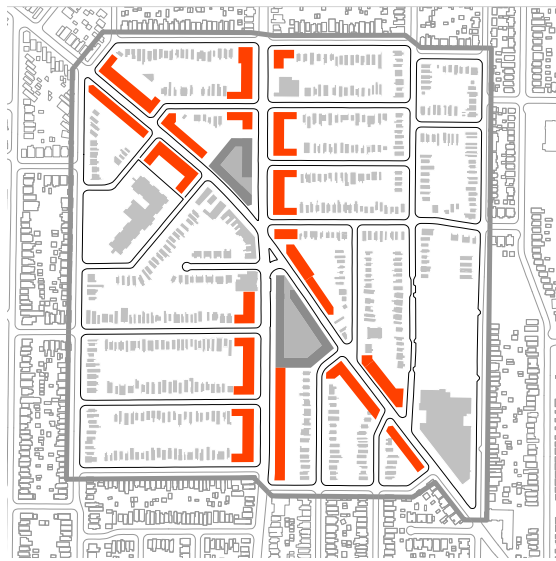
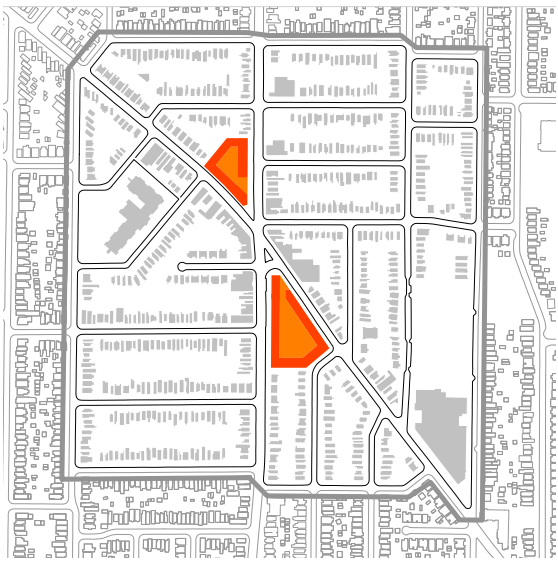


fig 4.22 evolution of the site over time

Currently, the north west and the south east corners of the intersection are large lots that are under-built. A mechanic's garage with an open lot in front of it occupies one corner, and a single storey strip commercial building fronted with parking occupies the other. The lots have enormous potential as initial large-scale developable properties that can anchor the neighbourhood.

Approximately 20% of the commercial units around the intersection are vacant and therefore valued at a significantly lower amount than similar properties around the city. The second phase of the project will build upon the first two developments by rebuilding commercial units along Oakwood and Vaughan with residential apartments above, similar to the high streets of Europe or a denser version of Toronto's main streets.

The site will reach it's maturity as new multi-unit residential buildings begin to creep along the residential streets, mix with the existing housing, and create permeable blocks with a formal street edge and a communal interior.



fig 4.23 **woonerf** transformation of a street in the Netherlands into a woonerf. The Dutch definition of a woonerf, taken from their Traffic Regulations is as follows: "Pedestrians may use the full width of the highway within an area defined as a woonerf; playing on the roadway is also permitted. Drivers within a woonerf may not drive faster than at a walking pace. They must make allowance for the possible presence of pedestrians, including children at play, unmarked objects and irregularities in the road surface and alignment of the roadway."<sup>1</sup>

**4.3.1 the components** A set of housing typologies and street sections have been designed which can be applied throughout the site. The buildings can be added incrementally and handled by a number of different developers, as demand increases, resulting in a hybrid neighbourhood with a great variety of living options and a beautiful and vibrant streetscape.

The streets have been redesigned in order to create more space for pedestrians and cyclists, while providing space for impromptu social gatherings and safer areas for children to play in the street. Along the main streets, all traffic; bicycles, cars, streetcars and pedestrians, is divided into separate lanes. Within the residential areas, vehicular traffic has been restricted to one-way with angled parking along alternating sides of the street. The bends that this creates along the road will slow traffic. The street section is inspired by the Dutch 'Woonerven,' a space literally translated as 'living grounds.' "In these Woonerf areas, automobiles are permitted to drive right up to the front doors, but the streets are clearly designed as pedestrian areas, in which cars are forced to proceed at low speeds between the established staying and play areas. Cars are guests in the pedestrians' domain"<sup>2</sup>

The two housing typologies developed both accommodate a number of different units, appealing to a broad range of potential residents. The first, stacked walk-up flats, are inspired by the long and narrow houses in Amsterdam, but modified to meet the standards in Toronto, such as the ability to access two means of egress. Like Amsterdam, front doors and living spaces open onto the street to activate the public realm. The second, the urban villa, is more like an overgrown mansion that one might find in Toronto's Annex or Rosedale neighbourhoods, that has been divided up into a number of separate flats. This type is also built directly to the street edge and contains maisonettes on the ground floor.

<sup>1</sup> *Woonerven – Minimum Design Standards and Traffic Regulation*, RVV no. 179. The Hague: Ministry of Transport and Public Works, 1976.)

<sup>2</sup> Jan Gehl, p. 113

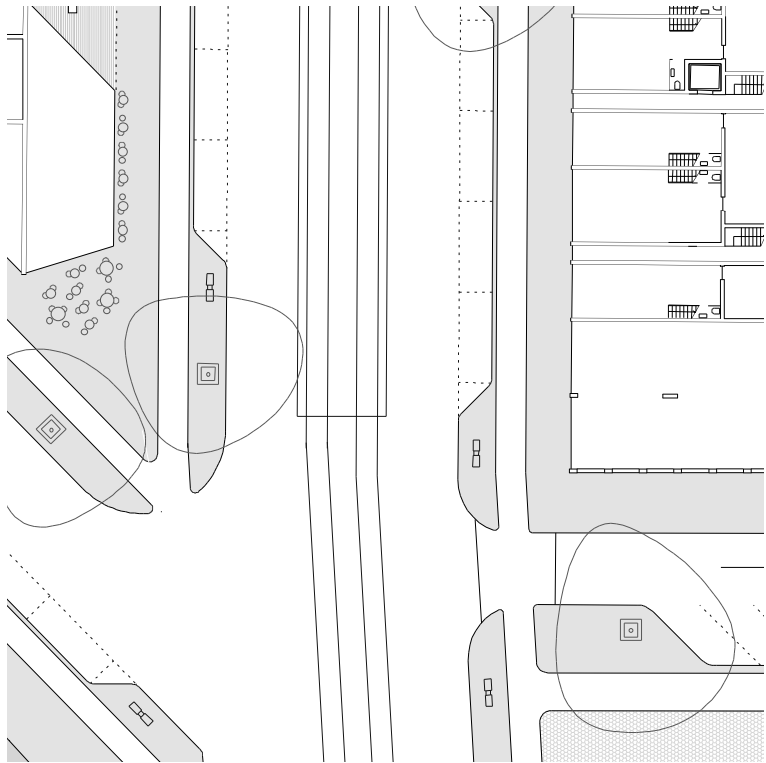


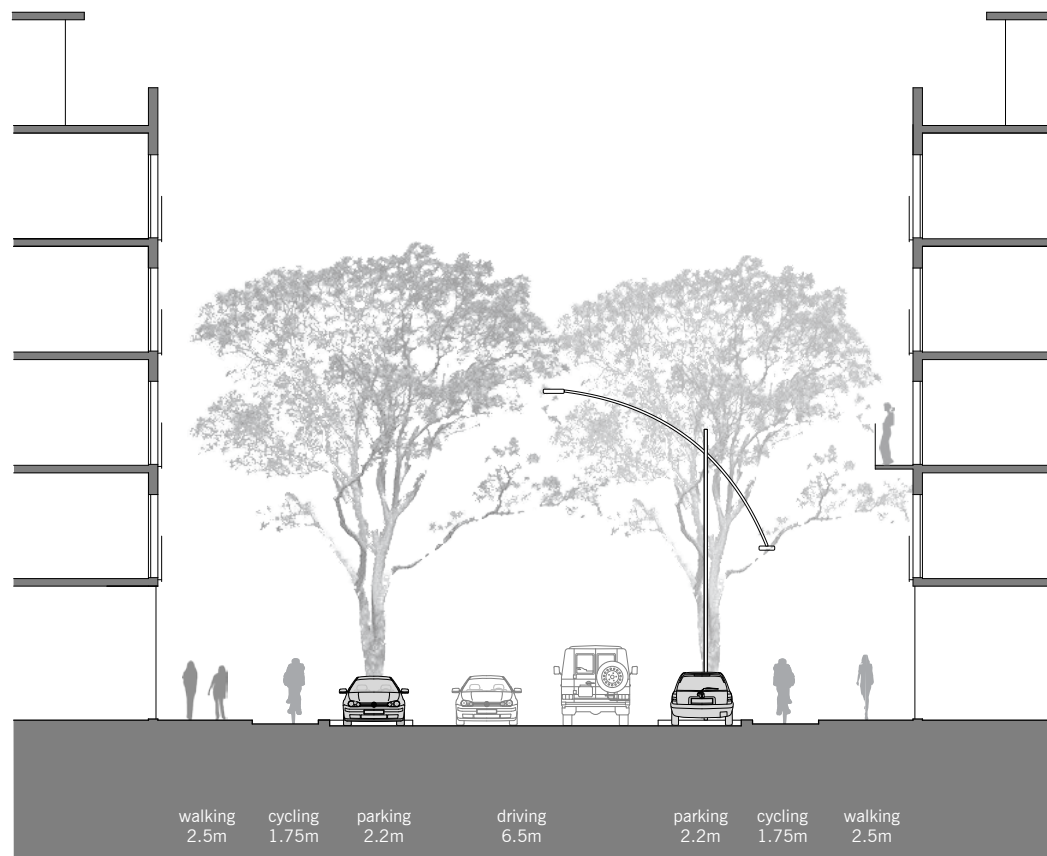
fig 4.24 **Oakwood Avenue street section**  
 30m wide - a new streetcar is proposed along Oakwood Avenue, connecting to the St. Clair West and Eglinton West subway stations in order to make the neighbourhood more accessible by public transit. The streetcar right-of-way is raised slightly above the road with steep curbs that can still be crossed by a car. Similar to Amsterdam, the tracks become visibly separated from the road, but can still be used by emergency vehicles and taxis, or for navigating around stopped cars. A bicycle lane is added in both north and south directions, separated from both driving and parking cars. Ground floor retail units open onto a generous 2.9m sidewalk. New light standards that illuminate both the street and the sidewalk are added.

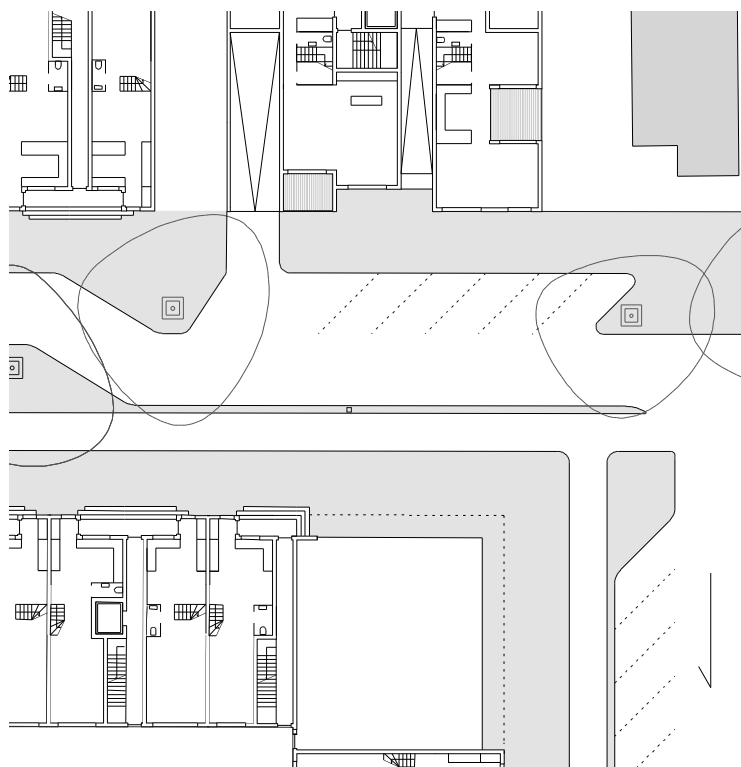






fig 4.26 Vaughan Road street section 20m wide - also a main street, Vaughan's section is similar to that of Oakwood, but without the streetcar right-of-way. It too contains bicycle lanes separated from vehicular traffic, and a generous sidewalk. The ground floor units of the adjacent buildings will be either retail space or live/work studios.





132 fig 4.29 plan fragment of a residential street, 1:500

fig 4.28 residential street section 20m wide - the residential streets have been designed as social spaces for the neighbourhood. Like the *woonerf*, bicycle and pedestrian movement take precedence over vehicular traffic, which becomes one way.

*"The street is not only a means of access but also an arena for social expression."*<sup>3</sup>  
 -Peter and Alison Smithson, Team 10

<sup>3</sup> Cliff Moughtin, *Urban Design: Street and Square*, (Oxford: Architectural Press, 2003), p. 130.



**stacked walk-up flats** the individual flats making up this typology have been designed as a kit of parts that can be mixed and matched to fit within a single continuous volume. The following is a selection of units designed for the thesis, but as the structure of the type is inherently flexible, any number of alternate units could be designed in the future. Additionally, the length and width of the structural bays can vary from building to building in order to make it fit within existing conditions.

Access stairs for the upper units are entered from the street and occur every second unit. An elevator may occur in every stairwell, or every second stairwell, as the 5th floor patio units span the width of two units. Units have entrances directly into the stairwell, but alternate stairwells can be accessed by balconies on the rear of the building in the case of an emergency. When there is no underground parking, the basement of the building can be divided into storage lockers for the residents and accessed by the shared stairwells.

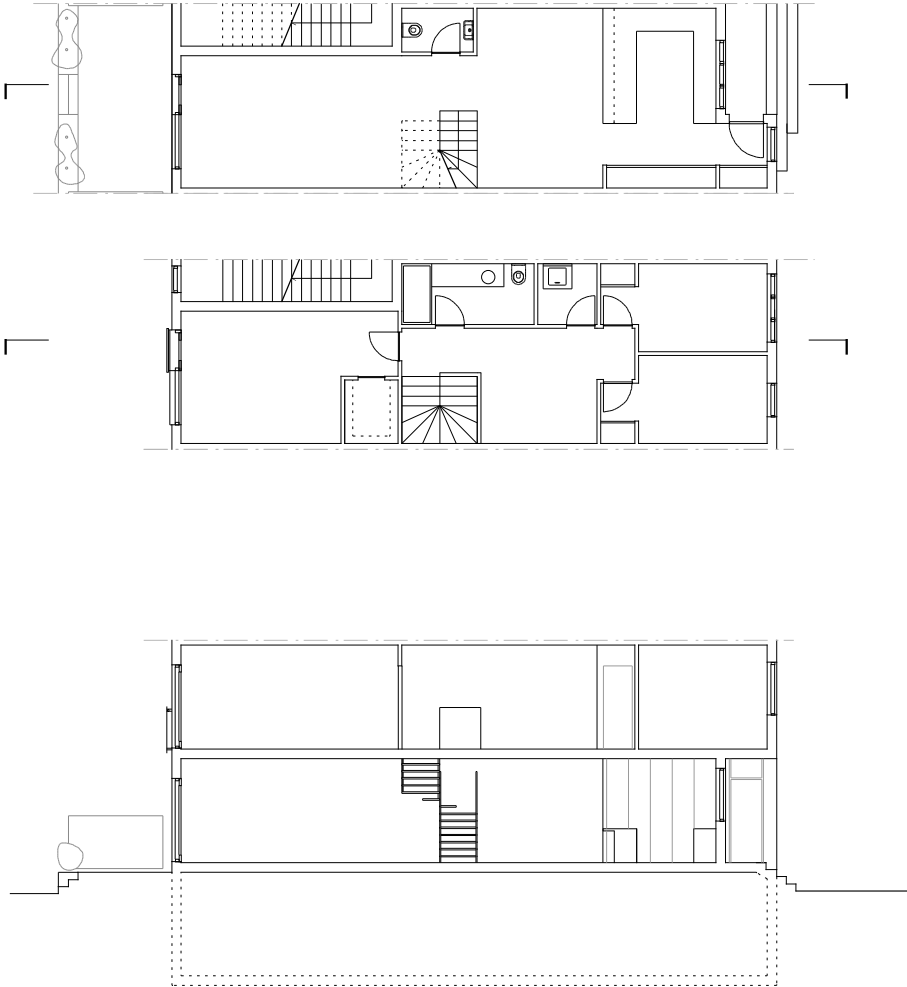


fig 4.30 **maisonette** 1:200 - 128m<sup>2</sup> a two or three bedroom unit that can be used at the ground floor or on upper levels. On the lower level is an open living space; on the upper, the master bedroom occupies back of the house and the front can be divided into one large bedroom or two smaller ones. The area at the top of the stairs can be used for any number of uses - an office, a playroom, a reading corner - or, it could be partitioned off and used as storage. The ground floor units will have a private terrace at the rear that opens onto the shared internal greensapce.



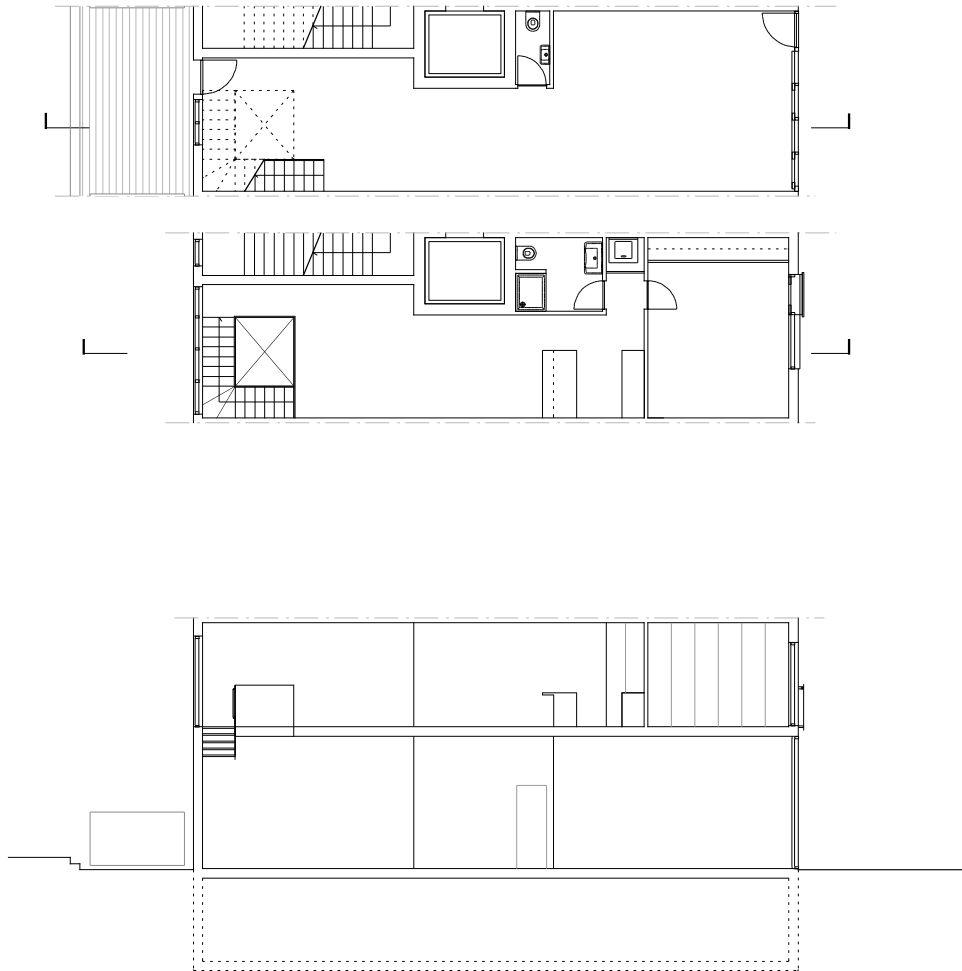


fig 4.31 **live/work studio** 1:200 - 122m<sup>2</sup>  
 a one bedroom unit that can be built at the ground floor. The lower level can be a retail space, an office or a workshop. The rear of the space is double height with a stairwell that leads to the living space upstairs. When the unit backs onto the shared internal green space, there is a terrace that extends the workspace outdoors. In other cases, the ground floor of the unit may back onto a covered parking area or a large retail unit. An opening adjacent to the stair connects the spaces vertically and allows light and air to move between the upper and lower levels.

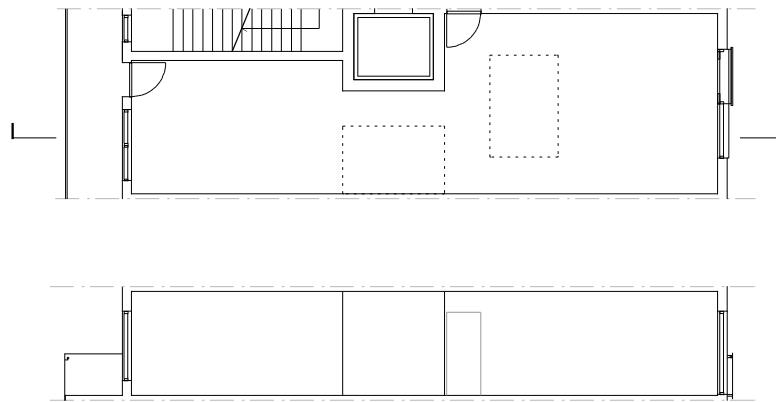


fig 4.32 **free plan flat** 1:200 - 62m<sup>2</sup> a one bedroom unit that can be built on any of the upper floors. The kitchen and bathroom can be installed in different locations in order to divide the space between living and sleeping areas.

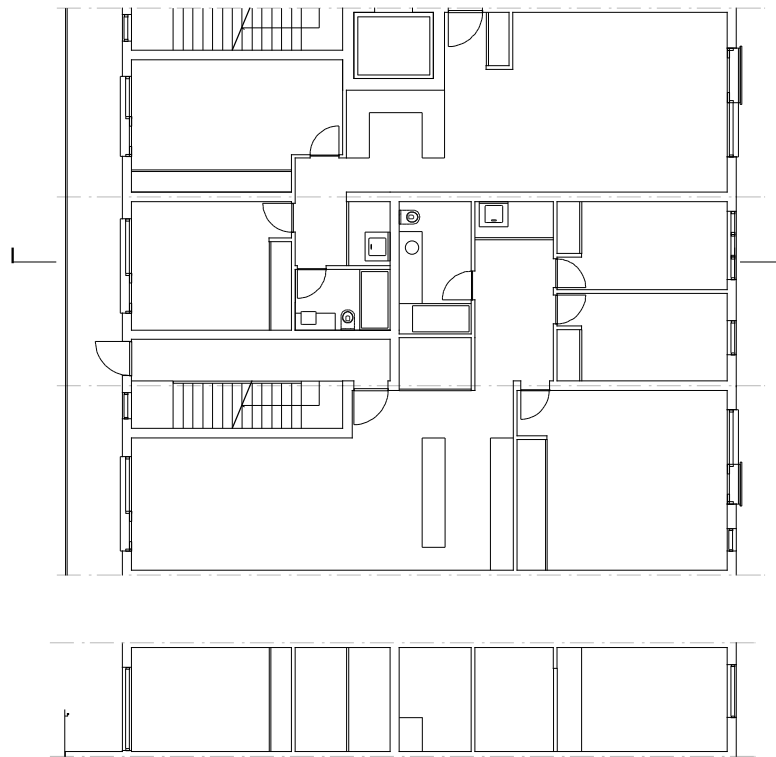


fig 4.33 **suspended bungalow** 1:200 - two bedroom - 88m<sup>2</sup>, three bedroom - 110 m<sup>2</sup> a two bedroom and a three bedroom flat that can be built on any of the upper floors. The two flats interlock in plan to form larger, more family friendly units that occupy only one level. The L-shaped plans create separation between the living and sleeping spaces.

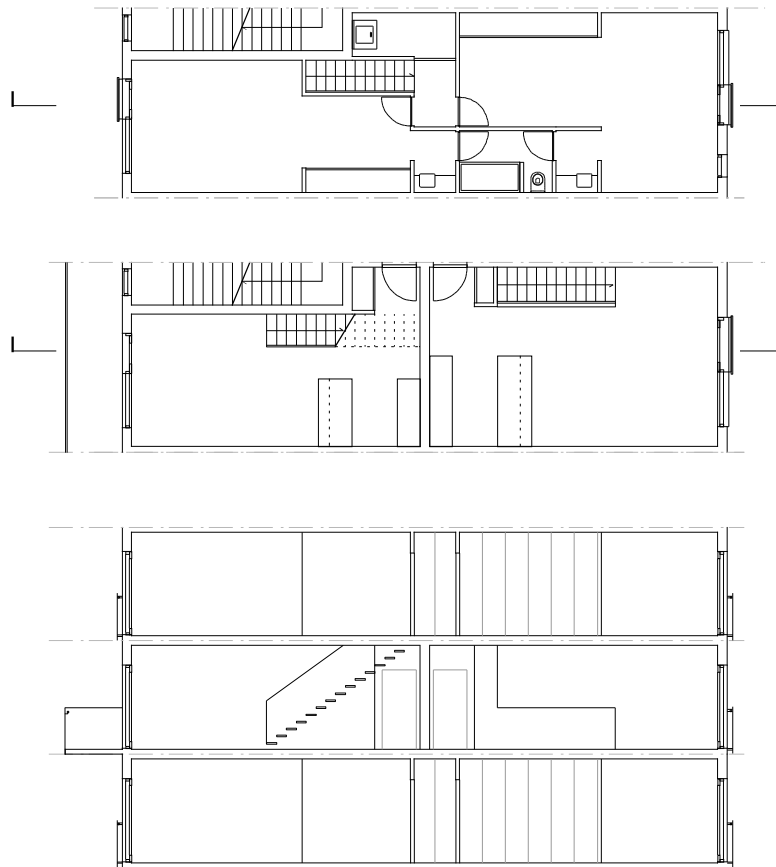


fig 4.34 **roommate flats** 1:200 - 95m<sup>2</sup>  
two bedroom units that can be built on any of the upper floors. Two units interlock in section, over three floors, to create flats that accommodate roommates sharing a two bedroom apartment. The shared living spaces occur on the middle floor. Two bedrooms are situated above and below; they are generously scaled to incorporate some private living space for each of the residents.

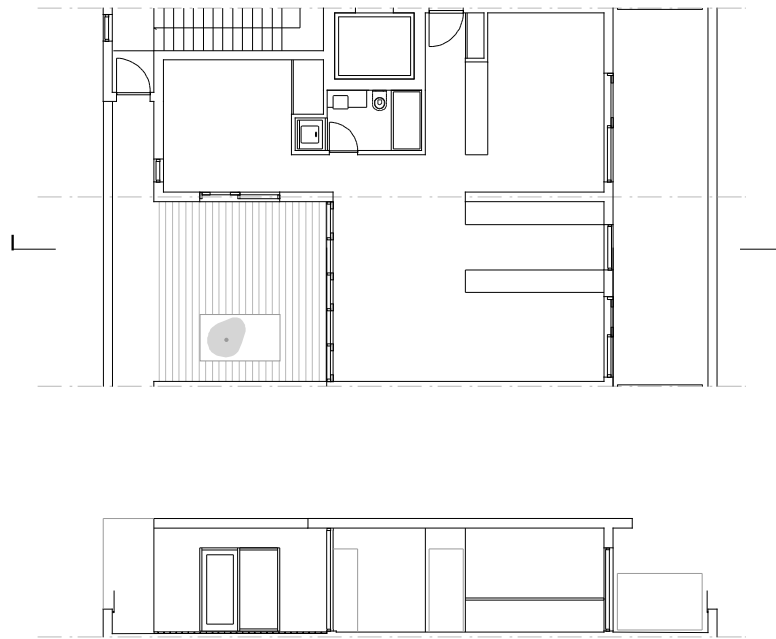
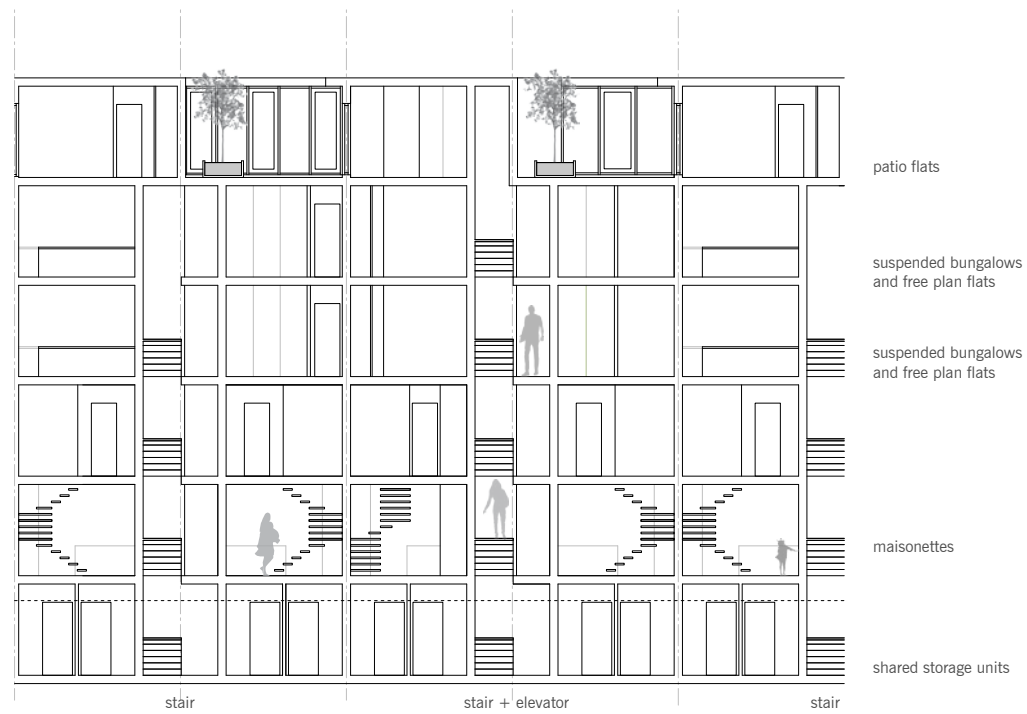


fig 4.35 **patio flat** 1:200 - 80m<sup>2</sup> a large one bedroom flat that is built on the fifth floor or rooftop level. Each unit spans two bays in order for each to have elevator access. The unit is pulled in from the rest of the building at the front and back, in order to diminish the perceived height of the building at street level and to create large terraces for the unit. Additionally, the plan is L-shaped, creating a protected, private outdoor space. The bedroom and living space open onto this patio, and there is an additional room at the front of the unit near the entrance that can remain open as an office or den, or be enclosed to form a second bedroom.

fig 4.36 longitudinal section 1:200





**urban villa** The urban villa has been designed as a self contained building that can be inserted on an assembly of four or more residential properties. It is intended to stand separately from the stacked walk up flats, providing openings along the sides that allow people to access the green space within the block. The type provides a mixture of maisonettes, bachelor apartments, and large one bedroom and three bedroom apartments. The maisonettes have their living spaces on the ground floor and their bedrooms on the second, and the apartments occur on the third, fourth and fifth floors. Each of the units have terraces carved out of them to create private outdoor space and allow light to penetrate into all of the rooms.

A courtyard at the rear of the building between the two wings opens towards the communal central block, providing a larger exterior space that the building's residents can share. A single level underground parking lot, able to accommodate up to twenty cars, may be added to the project.

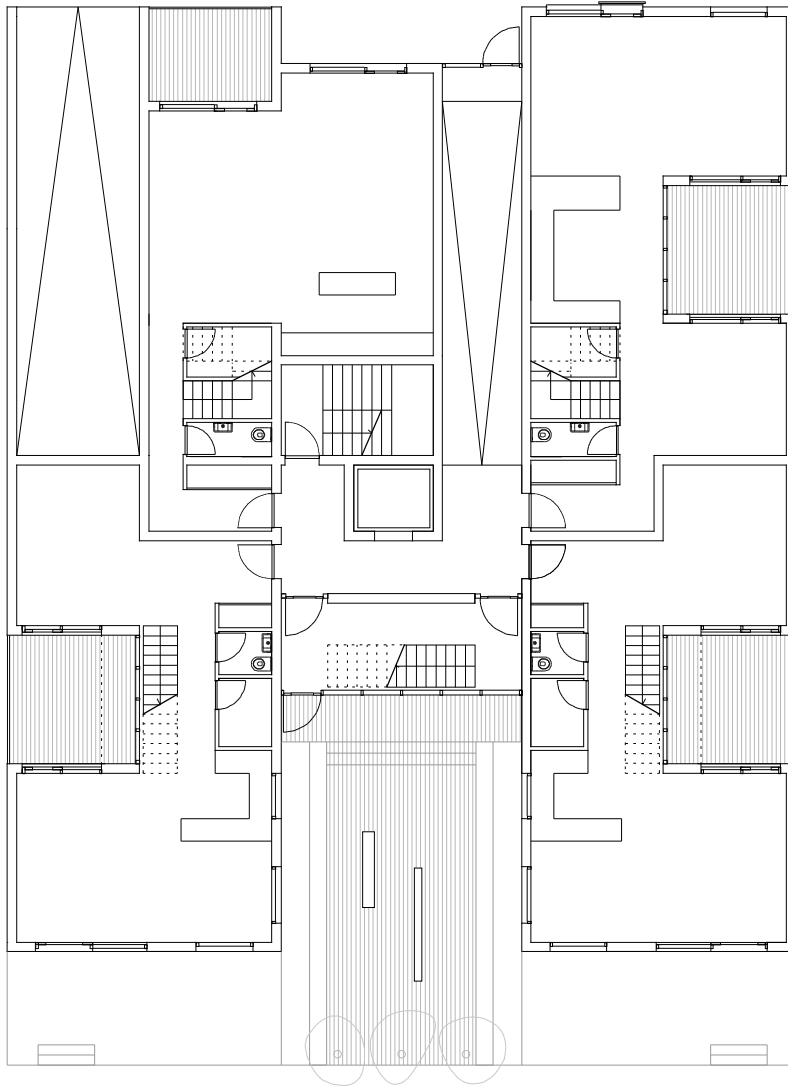


fig 4.37 **ground floor** 1:200 four 136-144m<sup>2</sup> maisonettes, each with a terrace. Two units have living spaces facing the street while the other two face the back garden. The courtyard between the wings of the building will be shared by all of the building's residents.

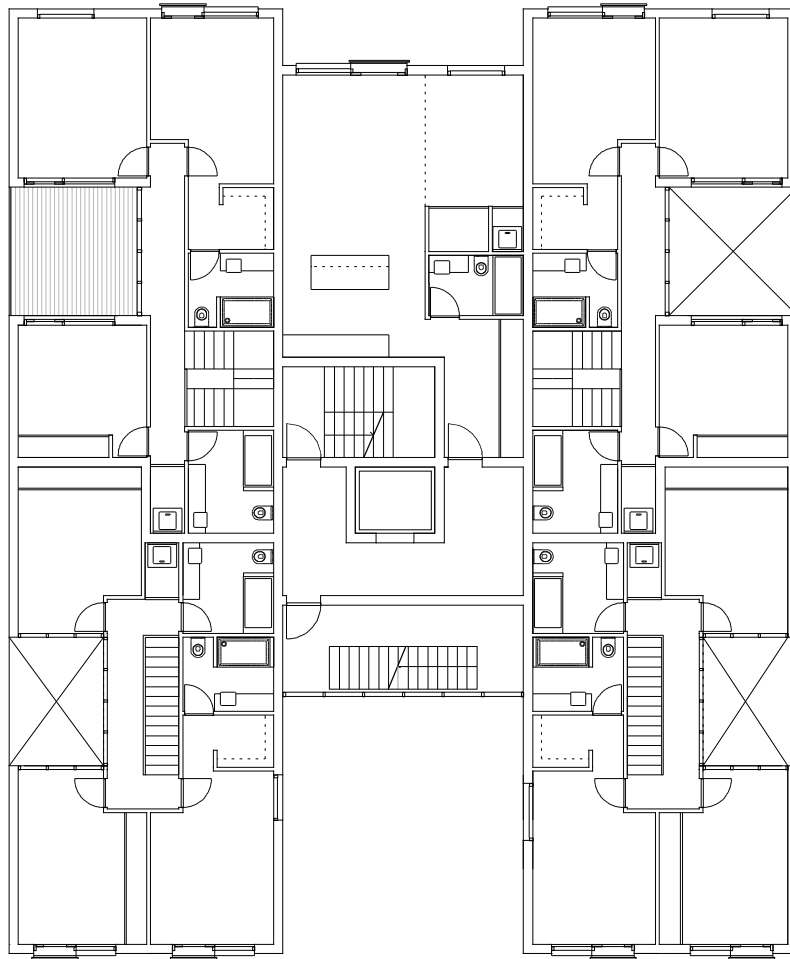


fig 4.38 **second floor** 1:200 the upper floors of the four maisonettes each contain three bedrooms. The terraces below are double height in order to bring light into the bedrooms. A 53m<sup>2</sup> bachelor apartment is added between the maisonettes in the central bay.

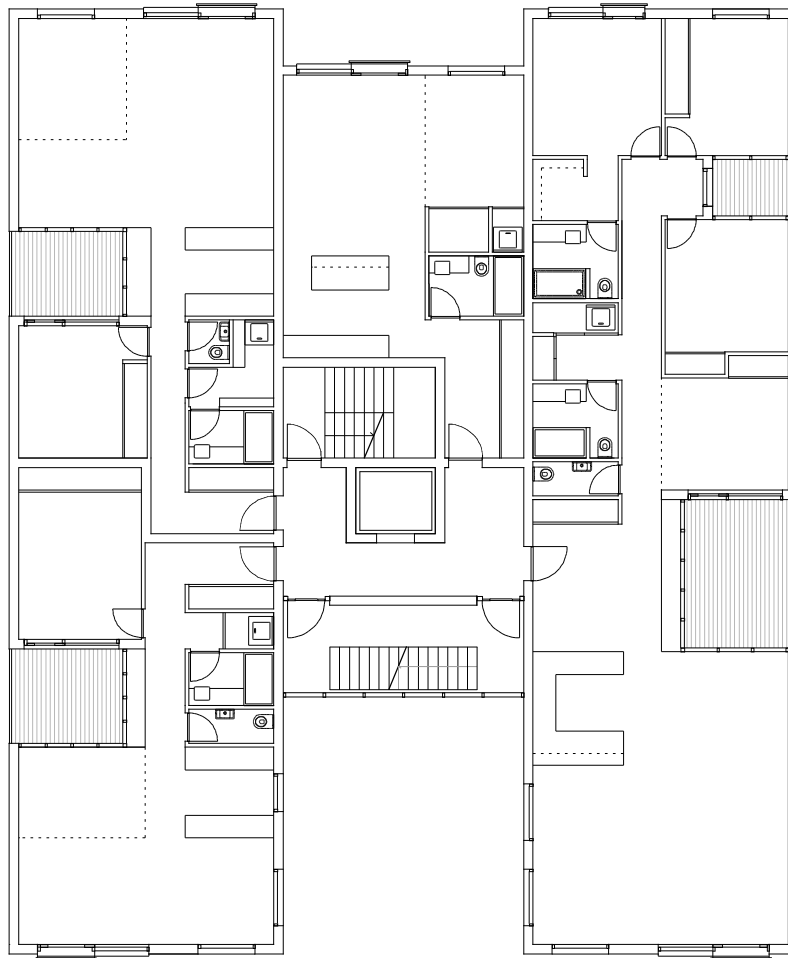


fig 4.39 **typical upper floor** 1:200 53m<sup>2</sup> bachelor, 70-78m<sup>2</sup> one bedroom apartments with 7m<sup>2</sup> terrace, 150m<sup>2</sup> three bedroom apartment with two terraces measuring 15m<sup>2</sup> combined. The two side wings on the upper levels can either be divided into two large one bedroom units that have the option of adding a second bedroom, or one three bedroom apartment. The combination can change from floor to floor. The central bay accommodates the circulation space and a bachelor apartment facing the street. This unit could also be connected to one of the side bays to create an even larger apartment.

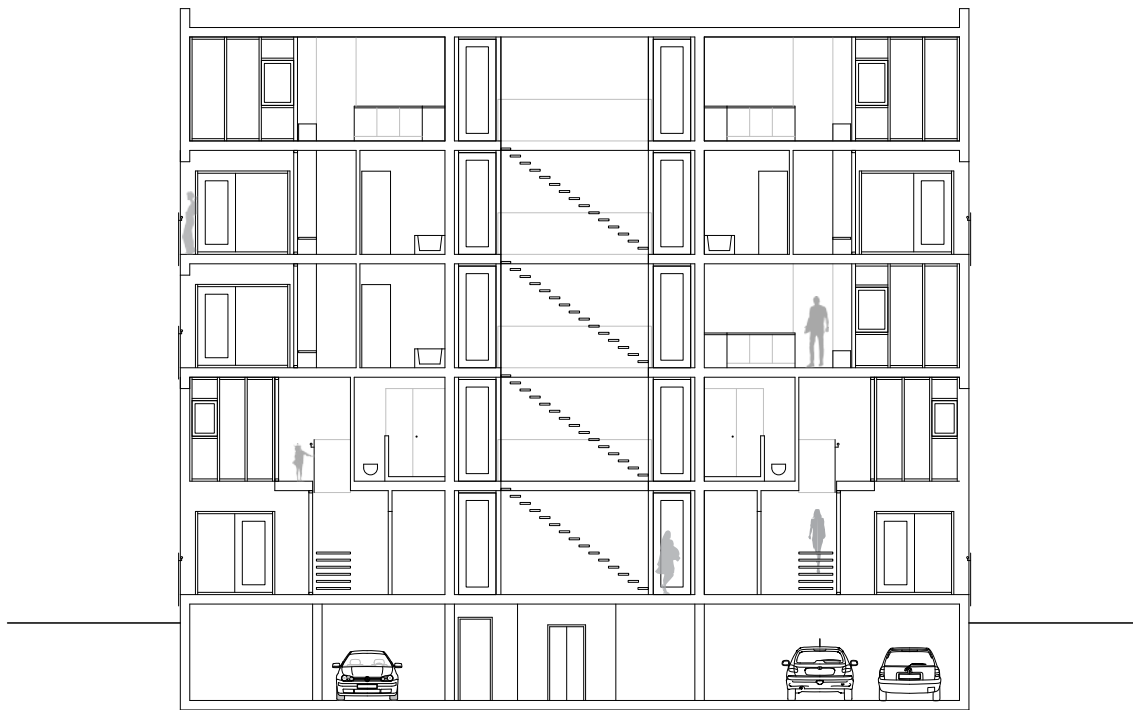
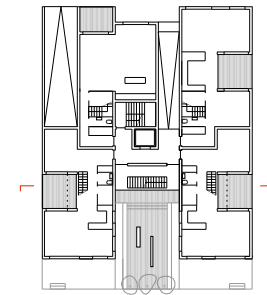


fig 4.40 cross section 1:200











**4.3.2 the economic case** In order to develop housing on property within the study area, and to study its feasibility, I entered an ideas competition offered by the Boston Society of Architects with Tavis McAuley, a Master of Architecture candidate studying the economic case for sustainable architecture. The competition, entitled *In the Pursuit of Housing*, was open to students and recent graduates and aimed “to examine and address the complex issues of providing housing for young people in today’s highly inflated real estate markets.”<sup>1</sup> The brief requested originality in defining a development opportunity, feasibility of the proposed intervention in terms of material, labour and other strategies, and the potential for wider applicability of the project approach.<sup>2</sup> It was the perfect opportunity to test the feasibility of the ideas presented in this thesis.

The program includes nineteen residential units, and a live/work unit and a commercial unit at the street level. Because there was no alley access at the rear of the site, parking is entered off the street, and is located half a level below grade. The residential units are split into two buildings with a central courtyard between them. Each unit is accessed from shared balconies that wrap around the courtyard.

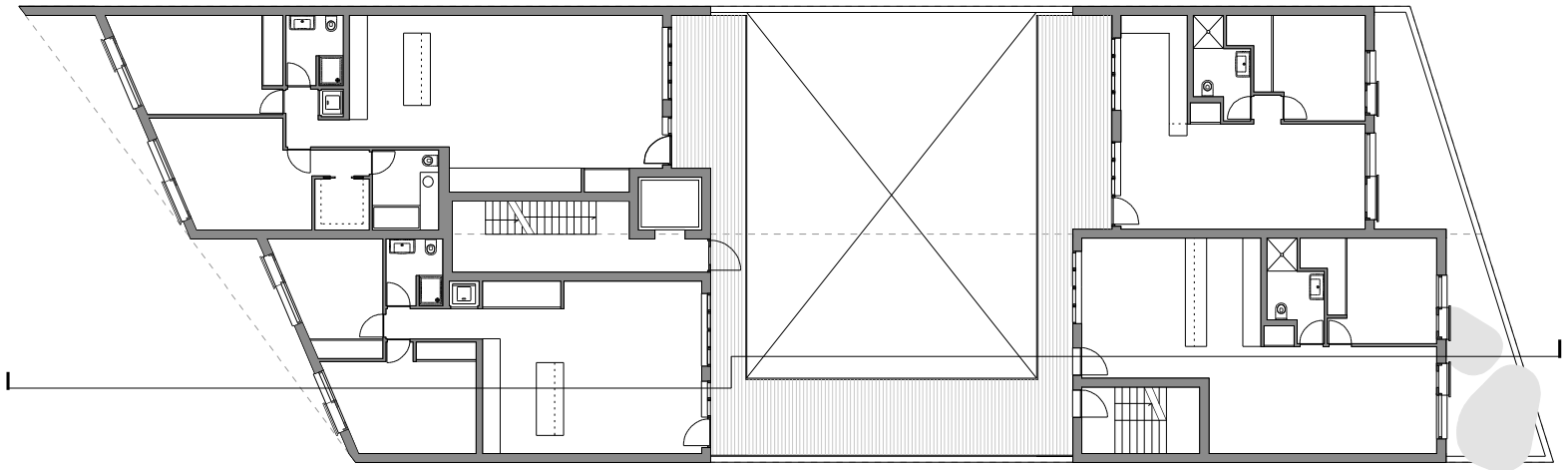
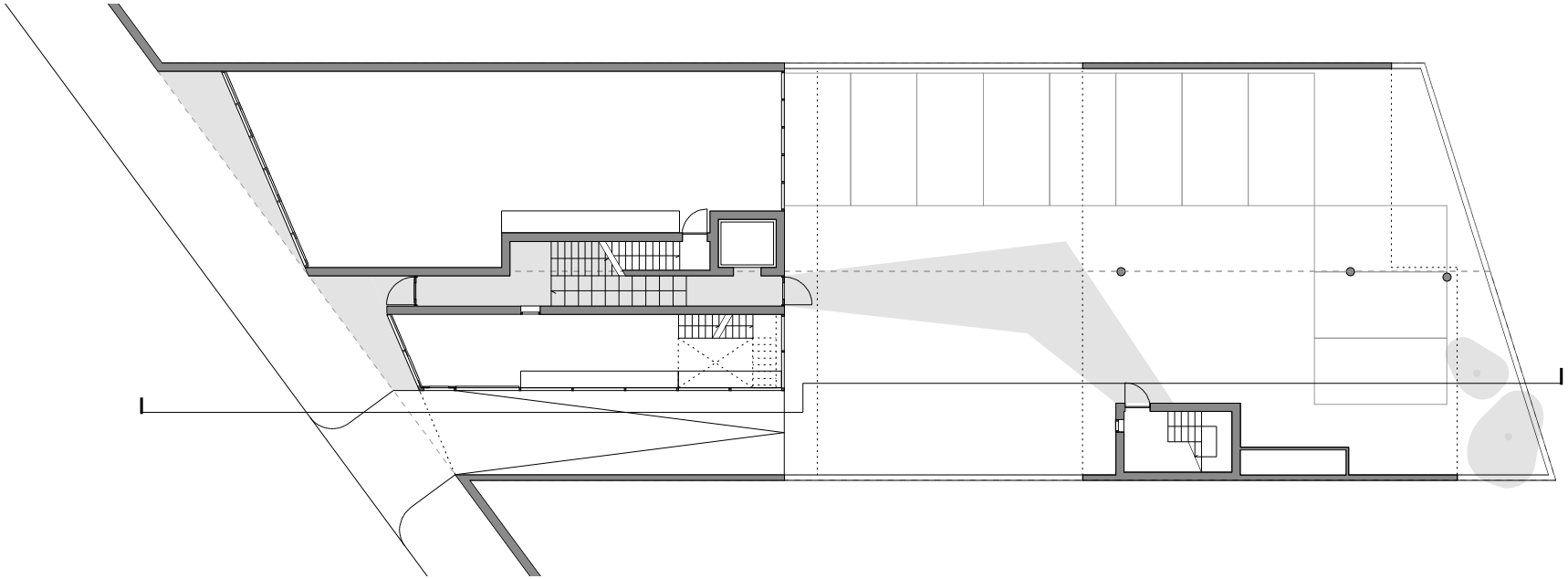
The design attempts to adhere to the Ontario Building Code as closely as possible in order to study the dilemmas faced by developers and architects when trying to make affordable, efficient and beautiful mid-rise multi-unit housing. The two lots at the intersection of Vaughan and Oakwood were for sale at the time of the competition, so accurate property values were known and a cost analysis was completed to assess whether or not the project would be attractive to a developer.

left fig 4.41 view of courtyard

above 4.42 site plan

<sup>1</sup> *In the Pursuit of Housing*. Competition brief. (Boston: Boston Society of Architects, 2006) p.1.

<sup>2</sup> *ibid.* p.1.



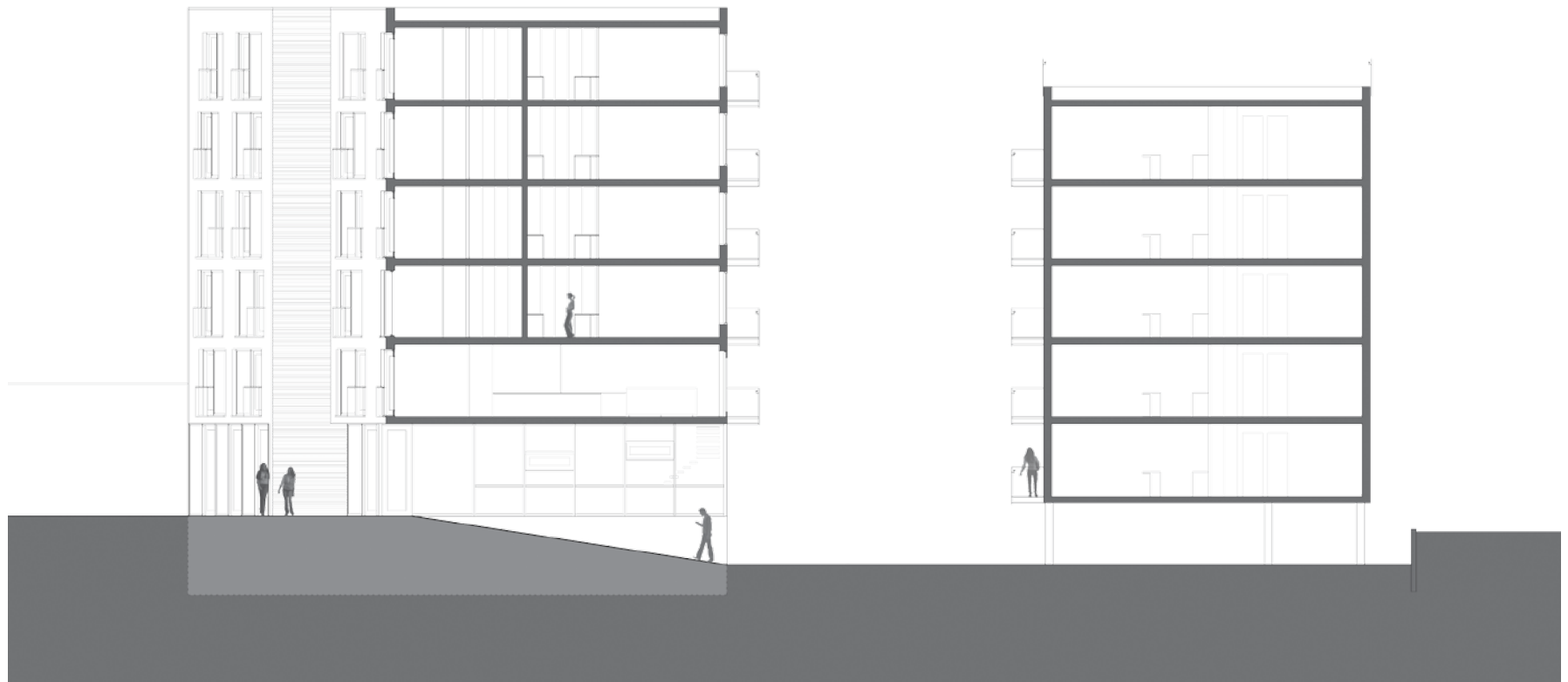


fig 4.45 section, 1:250

project statistics	gfa sf	nsa sf	efficiency %	no. units
ground floor	2,370	1,871	79%	2
second floor	4,239	3,882	92%	3
third floor	4,289	3,933	92%	4
fourth floor	4,289	3,933	92%	4
fifth floor	4,289	3,933	92%	4
sixth floor	4,289	3,933	92%	4
<b>total</b>	<b>23,767</b>	<b>21,485</b>	<b>90%</b>	<b>21</b>

\*includes one retail unit

elemental project hard costs	cost /sf gfa	elemental amount	% hard costs
substructure	\$14.25	\$338,676	12.4%
structure	\$22.27	\$529,285	19.4%
exterior enclosure	\$13.69	\$325,366	11.9%
partitions and doors	\$8.86	\$210,573	7.7%
finishes	\$5.18	\$123,112	4.5%
fittings and equipment	\$7.36	\$174,923	6.4%
mechanical	\$14.95	\$355,312	13.0%
electrical	\$7.13	\$169,457	6.2%
total building cost	\$93.69	\$2,226,704	81.4%
site work	\$2.00	\$47,533	1.7%
ancillary work - excluded	\$0.00	\$0	0.0%
general requirements and fee	\$10.00	\$237,667	8.7%
contingency 10%	\$9.37	\$222,670	10.0%
<b>total construction estimate</b>	<b>\$115.06</b>	<b>\$2,734,575</b>	<b>100.0%</b>

project budget	cost /sf gfa	budget Amount	% proj. budget
land	\$24.82	\$590,000	12.6%
municipal fees	\$9.50	\$225,720	4.8%
construction direct (includes hard costs above)	\$126.91	\$3,016,241	64.6%
design consultants	\$5.40	\$128,237	2.7%
general and administrative	\$3.98	\$94,500	2.0%
marketing and sales	\$11.74	\$278,982	6.0%
finance	\$11.28	\$268,137	5.7%
interim building operations	(\$0.97)	(\$23,000)	-0.5%
government taxes (excludes buyer cost)	\$0.00	\$0	0.0%
contingency	\$3.81	\$90,487	1.9%
<b>total project budget</b>	<b>\$25.86</b>	<b>\$4,669,304</b>	<b>100.0%</b>

project revenue	number units	avg. nsa sf	projected revenue/unit	projected revenue
1 bedroom	10	805	\$201,250	\$2,012,500
live/work	1	1389	\$347,250	\$347,250
2 bedroom	4	983	\$245,750	\$983,000
2 bedroom plus den	5	1341	\$335,250	\$1,676,250
comercial	1	1409	\$309,980	\$309,980
<b>total project revenue</b>	<b>21</b>	<b>1,185</b>	<b>\$287,896</b>	<b>\$5,328,980</b>

**total projected budget (capital cost) \$4,669,304**  
**ROI on capital cost 14.1% \$659,676**







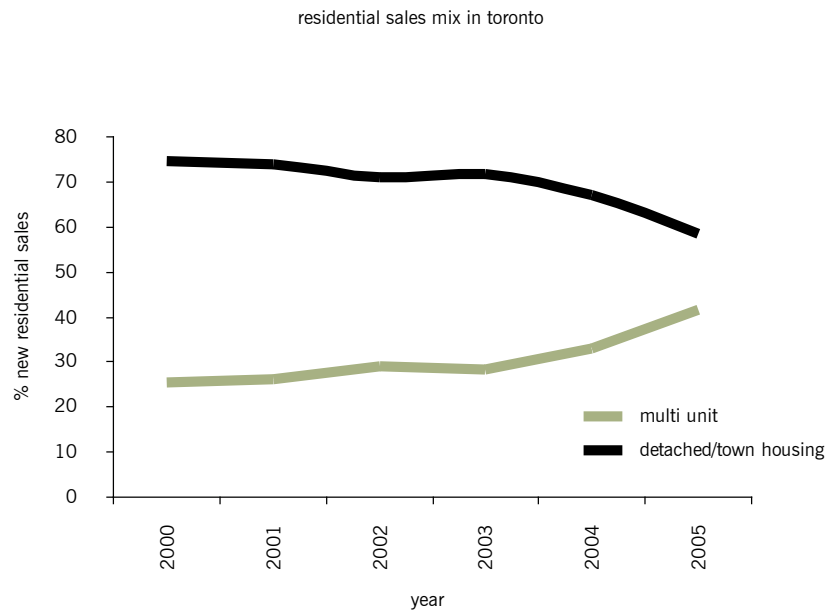
fig 4.48 view from vaughan road



**project feasibility** The project budget from the competition entry proves that it would be possible for a developer to make the standard profit, but the project involves greater risk as it is small in scale and requires non-standard construction methods for its size (concrete block vs. timber frame). It was concluded that some of the risks would be reduced if the project could be executed at a larger scale. For instance, by doubling the land assembly from two existing lots to four, construction would be more efficient and a slightly smaller building would be more economically feasible.

Aided by McAuleys in depth research into sustainable architecture, the two of us decided to further pursue the feasibility of building dense, sustainable housing in midtown Toronto.

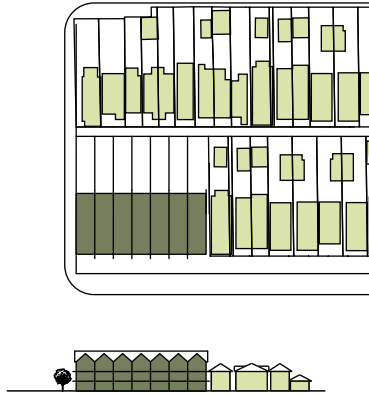
*Alongside a financial imperative for higher residential densities, several independent factors are challenging current assumptions in the residential development paradigm. Firstly, residential unit sales in Toronto are at an all time high, reflecting strong economic and population growth. In this type of climate, new types of development can be introduced and gain exposure to a relatively large market. Secondly, over 40% of new unit sales in the GTA are in multi-unit buildings; this growth trend is inversely proportionate to a decline in the sale of detached units. These realities are indicative of the market trend, especially among first time home buyers, towards living in urban areas. Lastly, growing public awareness of environmental policy and the impact of rising energy costs have already had a significant impact on the automotive and manufacturing sectors in Ontario. These factors will soon become important and necessary considerations for new home buyers, as neighbourhoods that demand a primary reliance on the car become less attractive or financially feasible.<sup>1</sup>*



154 fig 4.49 residential sales mix in Toronto

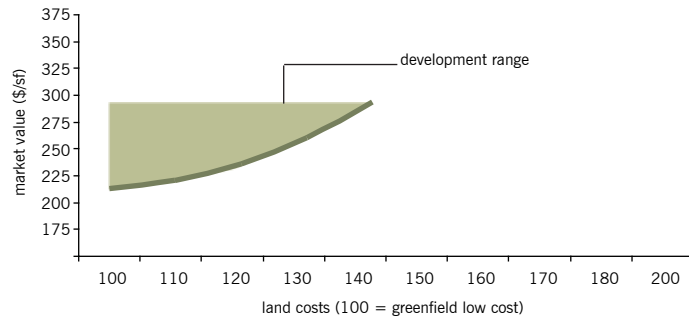
<sup>1</sup> Tavis McAuley, *regeneration of the midtown: the economic case for sustainable design*. research panel completed for the M1 studio, April 2006.

fig 4.50 row house development

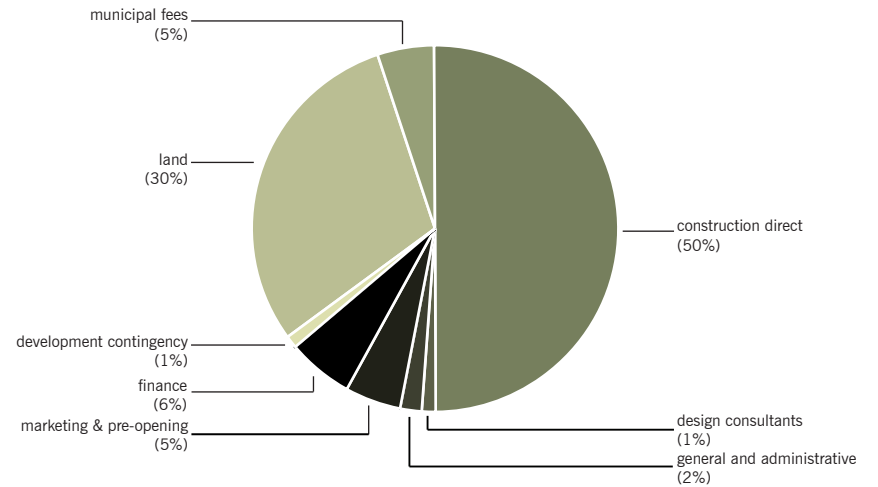


market value	\$/sf	\$210 - \$280
construction hard cost	\$/sf	\$95 - \$110
units per development property/building	no.	8 - 100
floor area ratio	sf site/sf gfa	0.5
net development density	units/hectare	40 - 60
gross development density	units/hectare	25 - 35
typical land cost range	\$/unit buildable	\$80,000
typical 2 bedroom (1200sf) unit cost	\$	\$320,000
family income to support typical unit	\$/a	\$90,000

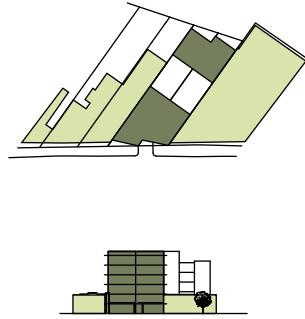
land cost vs market value



% project budget

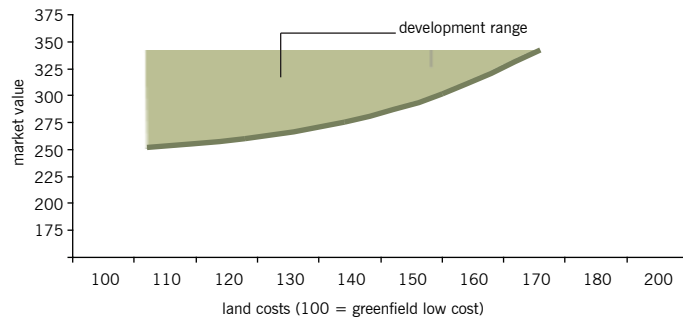


4.51 mid-rise development



market value	\$/sf	\$250 - \$390
construction hard cost	\$/sf	\$120 - \$150
units per development property/building	no.	50 - 75
floor area ratio	sf site/sf gfa	1.4
net development density	units/hectare	160 - 190
gross development density	units/hectare	75 - 100
typical land cost range	\$/sf buildable	\$30 - \$60
typical 2 bedroom (1200sf) unit cost	\$	\$350,000
family income to support typical unit	\$/a	\$98,000

land cost vs market value



% project budget

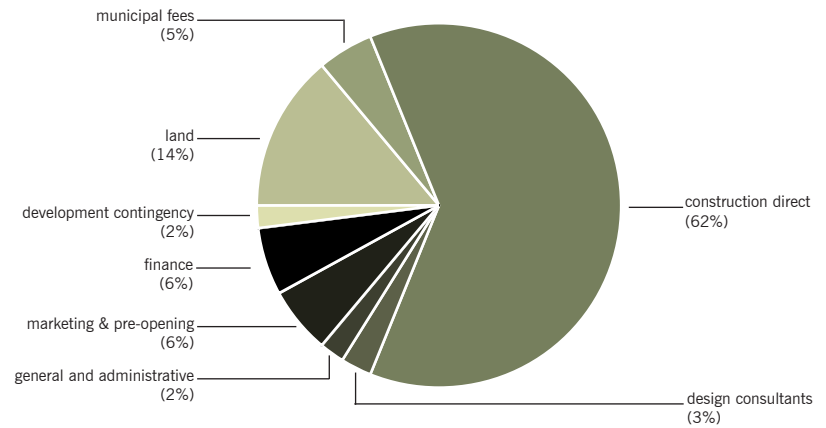
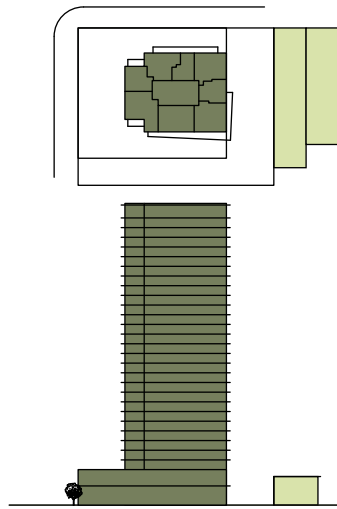
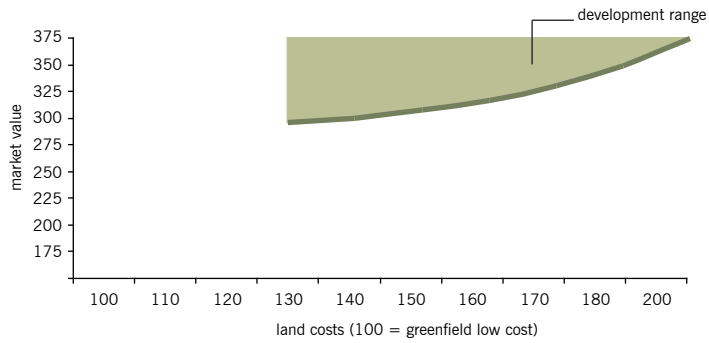


fig 4.52 high-rise development

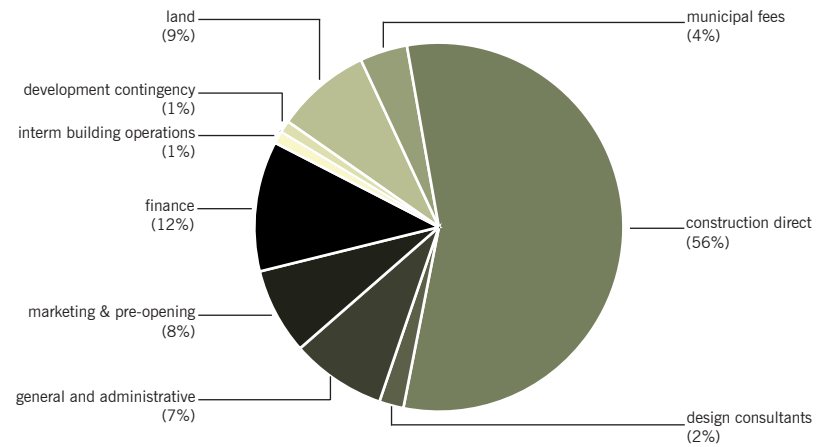


market value	\$/sf	\$300 - \$425
construction hard cost	\$/sf	\$140 - \$160
units per development property/building	no.	350 - 450
floor area ratio	sf site/sf gfa	7.34
net development density	units/hectare	500 - 525
gross development density	units/hectare	190 - 250
typical land cost range	\$/sf buildable	\$30 - \$75
typical 2 bedroom (1200sf) unit cost	\$	\$410,000
family income to support typical unit	\$/a	\$137,000

land cost vs market value



% project budget



The preceding analysis shows that within the current real-estate and building climate, mid-rise housing would be a feasible development strategy if the land costs are kept to a minimum. This reason heightens the urgency of regulating the development of the potential nodes identified in the surveying toronto chapter before the fabric is renewed by individual infill houses as has been the trend in other Toronto neighbourhoods, causing their value to increase significantly.

The city will need to be involved in order to make steps to encourage this kind of development. It is an area where Toronto differs greatly from Amsterdam, and can stand to learn more about.

*In the borneo project [in the eastern harbour redevelopment in Amsterdam], there was clearly the needed professional expertise “in house”: designers who worked for the city could evaluate design proposals. This responsibility has not been “outsourced” or relinquished. In contrast, we often find US housing authorities with no professional design staff; they have ceded that responsibility to the development community and have gotten out of the business of participating actively in the design of public services. At this juncture, the erosion of rights for all citizens can occur. The city is, after all, our collective public space. Work such as this does not happen of its own accord. It is nurtured by support, in this case almost entirely public. Designers are commissioned to undertake public work and given the means and time to do that work. Most important, they are brought in at the beginning of the process. There is the confidence that design is not decoration, but fundamental to the rethinking of public institutions and public space. Not only are funds made available but governmental agencies actively engage emerging designers, allowing them to develop international opportunities and alliances through work on Dutch consulates overseas. Architecture, landscape architecture, and industrial design are seen as viable*

<sup>2</sup> Mark Robbins, *Residential Waterfront. Borneo Sporenburg, Amsterdam. Adriaan Geuze, West 8 urban design & landscape architecture, Rodolfo Machado (ed.)*, (Cambridge, Massachusetts: Harvard University

Graduate School of Design, 2005), p.26.

right fig 4.53 panoramic photograph of housing on Borneo Island, Amsterdam





*exports, and ambassadors abroad.*<sup>2</sup>

The City of Toronto can begin to motivate the type of development that this thesis proposes by first changing zoning bylaws to allow mid-rise buildings and higher densities, and second, by addressing the structure of municipal taxes and development fees to provide incentives for mid-rise construction.

Currently, the municipal property tax system in Toronto works on the premise that citizens who own higher valued properties pay more taxes regardless of their impact on municipal infrastructure. Built into this system is a disincentive for building improvement, which would be subject to additional taxes. An alternative that has been successfully implemented in more than a dozen US cities as well as in Australia and New Zealand shifts a tax structure that focuses not on real estate values, but on the size of the land, regardless of what is built. The tax burden to home buyers and especially commercial properties is the most significant operational cost of building ownership. Property taxes that are proportionate to the actual cost of providing municipal services are the most effective tool for encouraging both home buyers and commercial tenants to live and work within existing urban areas.

Development charges are a second means of acknowledging the impact of land use patterns, and directly rewarding developers who build in areas with lower infrastructure costs, such as within the existing urban fabric. With their current structure, development charges do not recognize the amount of land consumed. For example, the development charge for a detached home is the same if it is on a small lot or a large lot. As a result, development charges can discourage more efficient land use patterns. In addition, clear and reasonable development fee policies for innovative development could recognize the benefits of mixed-use buildings or sustainable buildings.

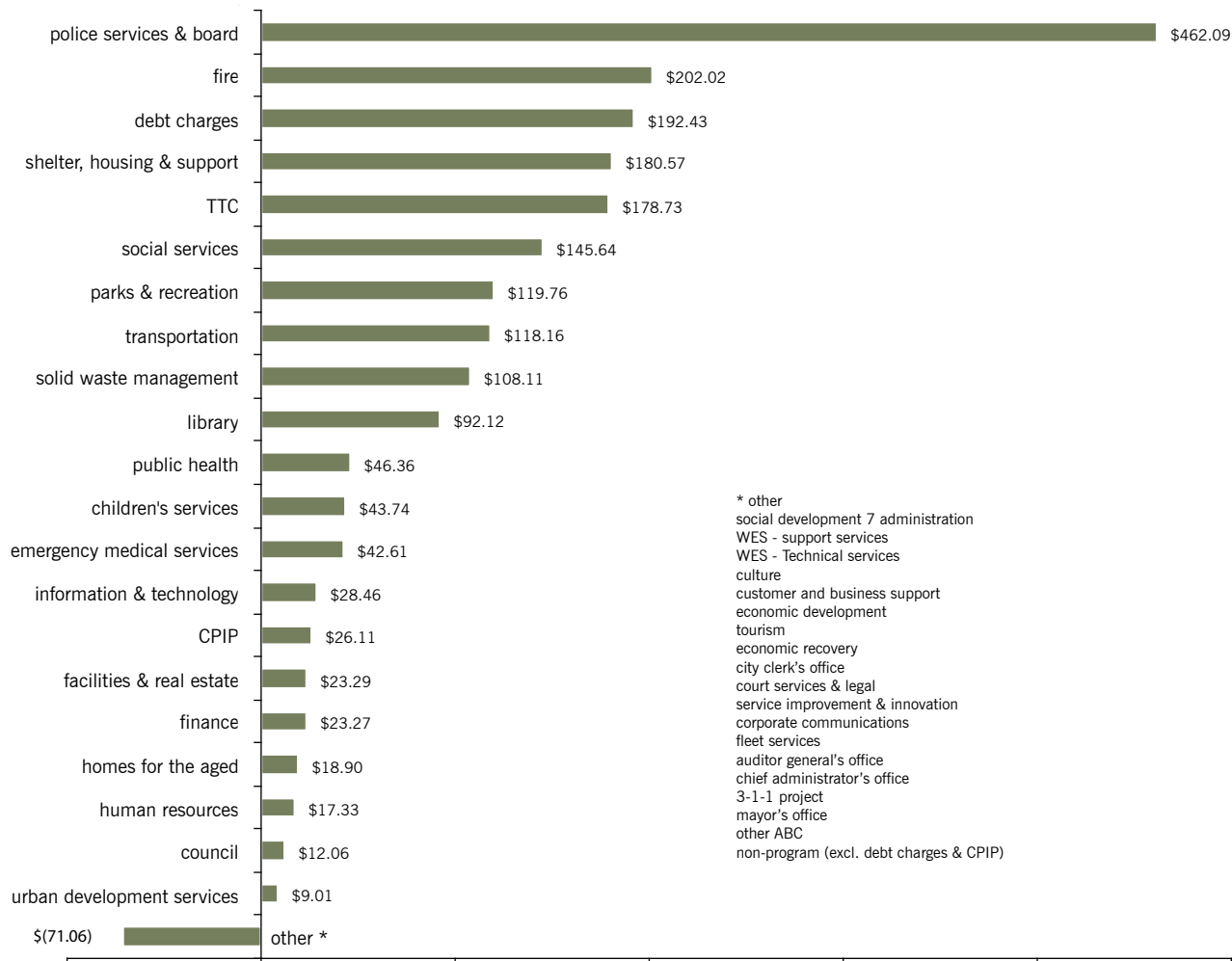


fig 4.54 municipal tax dollar apportionment based on property tax of \$2,019.70 for an average house with an assessed value of \$330,700.

By far the largest portion of municipal property taxes go towards policing the city. The city could consider the benefits of building denser, more vibrant, and therefore safer communities in areas, such as the thesis site, that currently have high crime rates. Good design, as proven by the St. Lawrence development downtown, can reduce the need to rely on heavy policing for years to come.

**4.3.3 the implementation** The following drawings illustrate the design site in a mature state. They do not represent a master plan, but rather the development of the site over time based on a set of principles originating from the lessons learned in Amsterdam and the evolution of Toronto's neighbourhoods. Exterior spaces become more public and varied with organized, formal streets and communal gardens within the blocks. Housing becomes more dense and mixed with increased commercial space.

The south-east and north-west anchor blocks at the intersection have been built, as have the edges of the blocks along Oakwood and Vaughan. New housing has begun to infiltrate the residential streets, mixing with the old and opening up the blocks to the community.

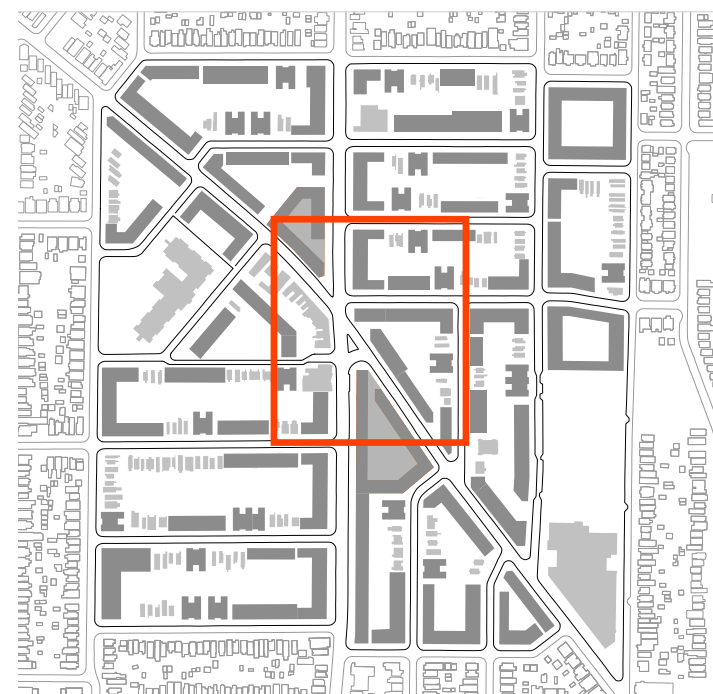


fig 4.55 hypothetical neighbourhood plan based on the strategies and components of the proposal 1:1000

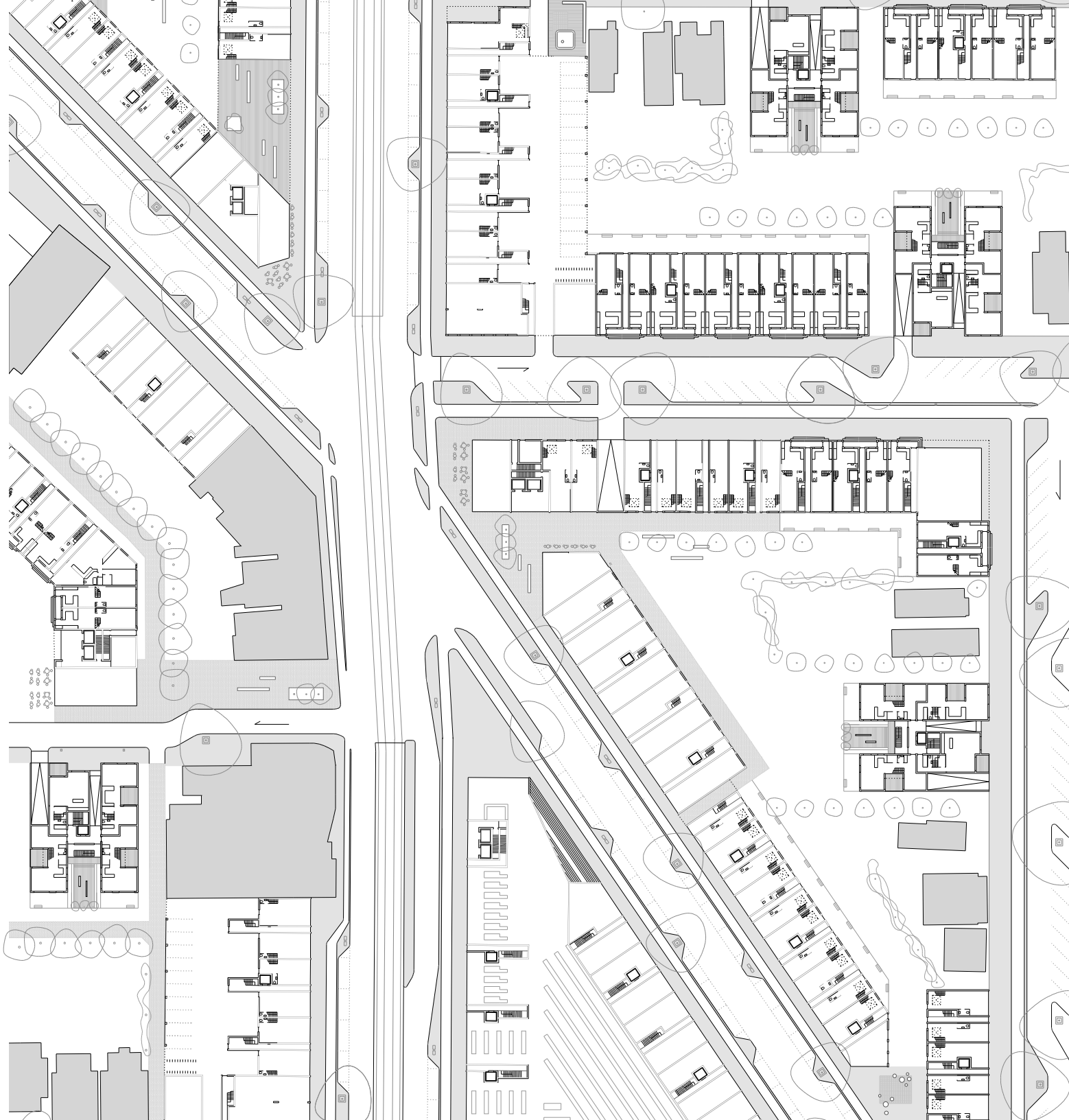
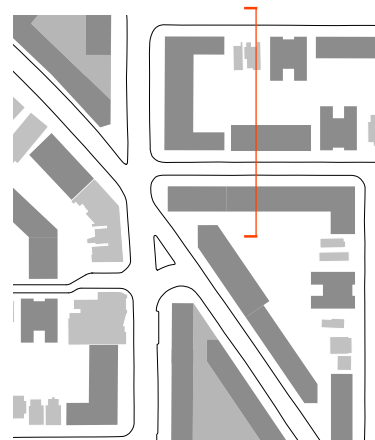
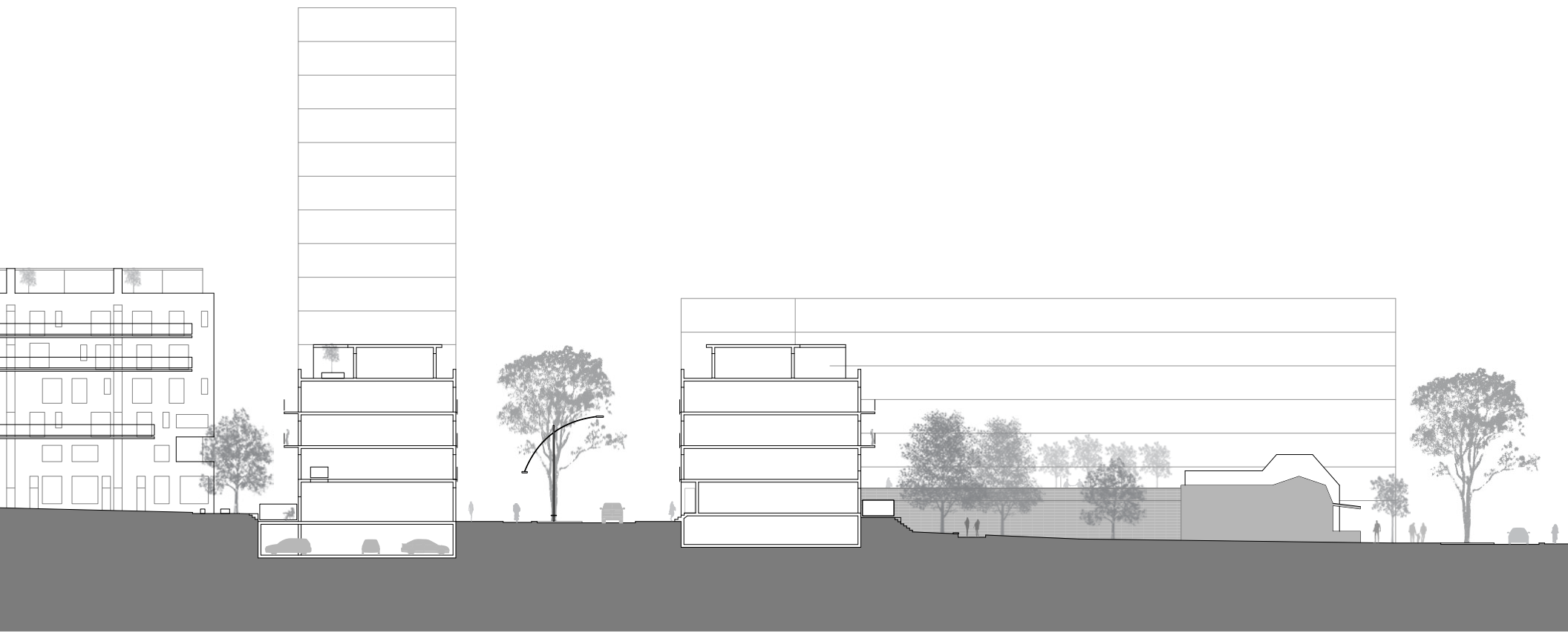


fig 4.56 section through neighbourhood 1:500

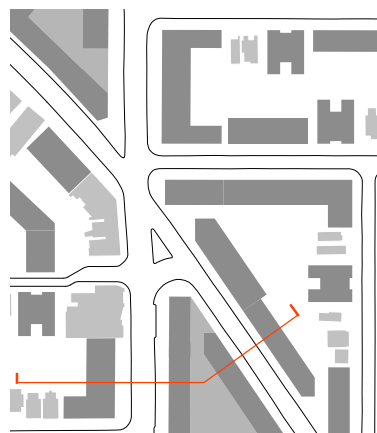


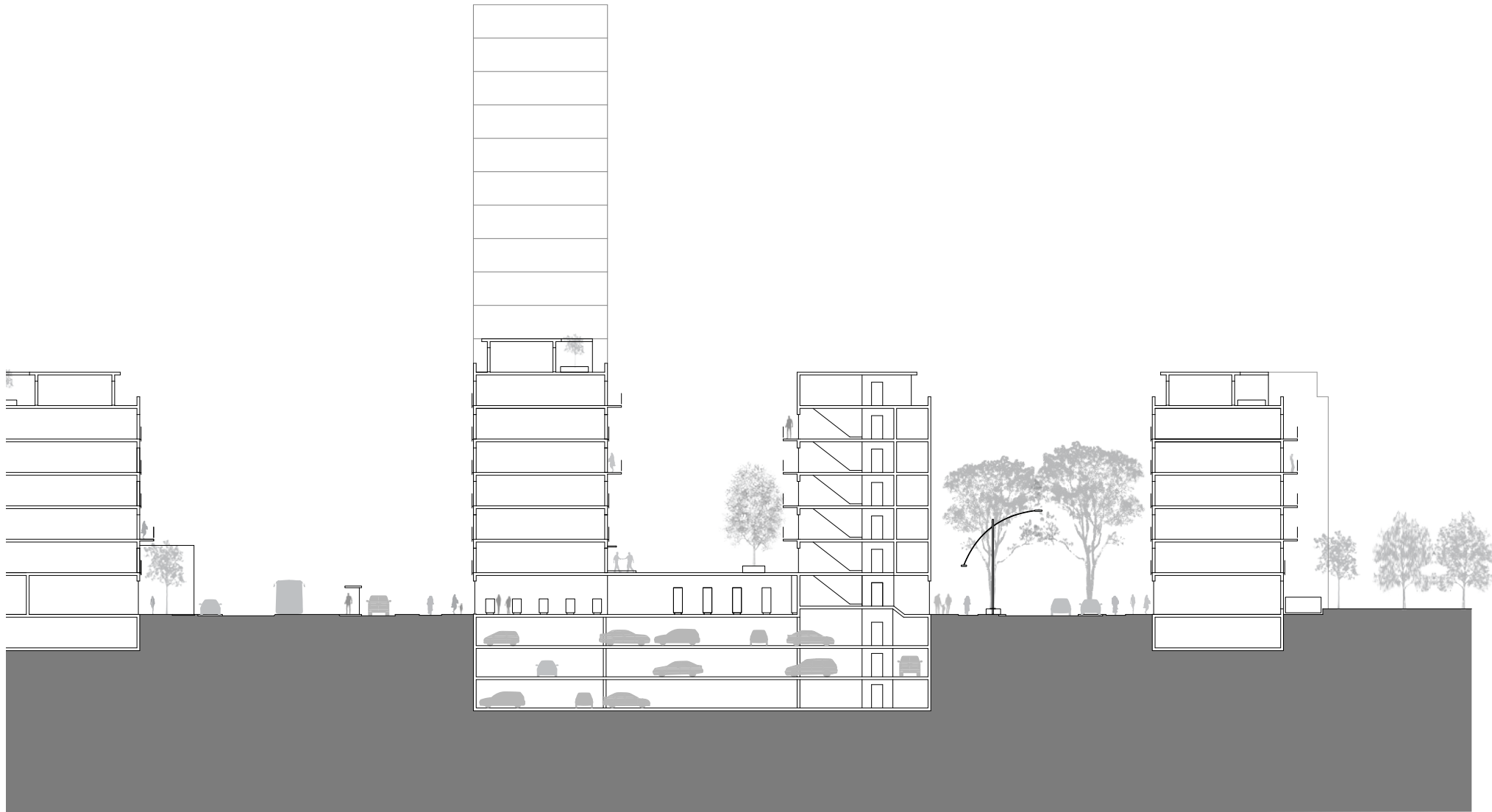




**parking** As this is a proposal for a new way to live in Toronto, priority will not be given to vehicular traffic, but rather to public transit users, cyclists and pedestrians. However, during the area's transition, parking will need to be provided. Parking for residents will be accommodated through permitted on-street parking and underground lots. Underground lots will be necessary to provide enough parking to support the higher density of housing and commercial activities on the site, and aside from on the streets, to keep cars out of the public realm. The two large initial developments will have significant underground parking lots to support the housing and the supermarket on the ground floor of the south-east corner (as seen in this section). In the later projects, developers will have the ability to choose whether to incorporate underground parking or not, depending on the size of their property. Parking spots that are built can be sold by the developer to anyone in the community who is interested in purchasing a space.

fig 4.57 section through neighbourhood 1:500





**block transformation** The following are a series of diagrams that show the evolution of one block on the site. The west side of the block edges on Oakwood and will therefore be developed first. Further insertions of new housing along the residential streets will follow. The provision of open space around the new housing will be prescribed by the municipality. Each new development will be allowed four metres of private garden in the rear for the ground floor units, and the rest of the property must remain open for public use. As more of the built fabric of the block is replaced, more green space becomes available for the community to enjoy, and passages open for pedestrians to cut through the blocks.

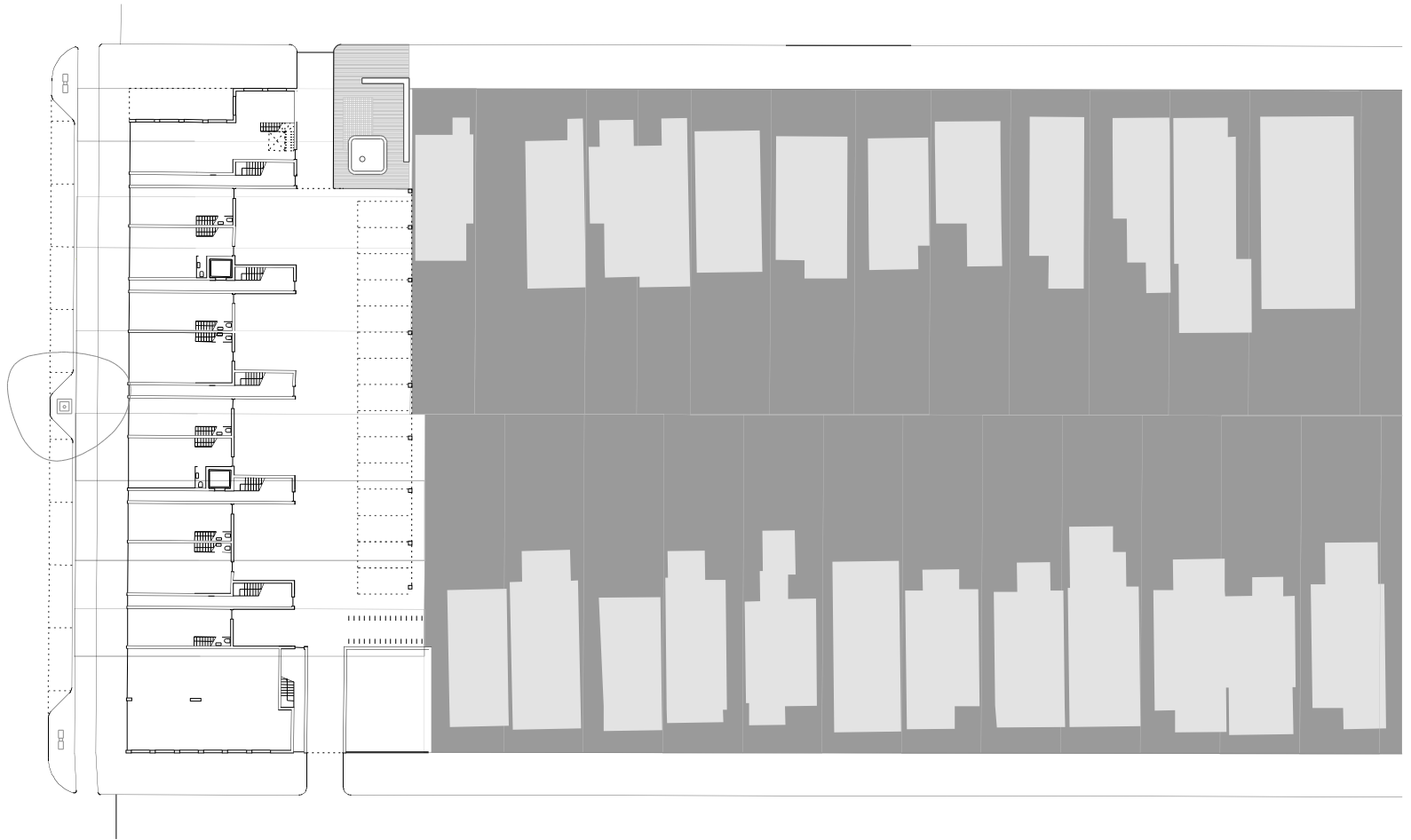


fig 4.58 first insertion





fig 4.60 third insertion





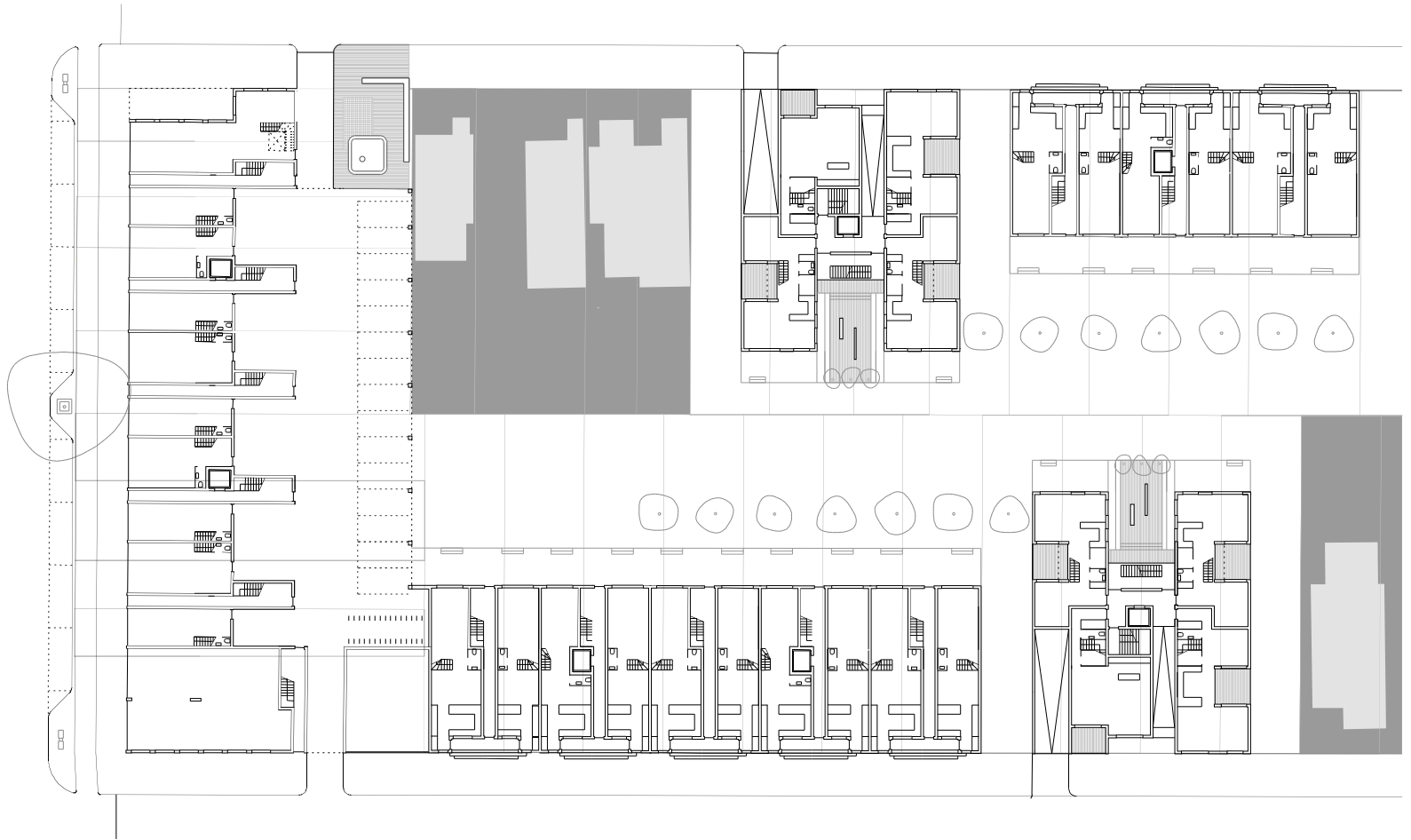


fig 4.62 fifth insertion

fig 4.63 **vaughan road collage** View of a public space inserted between two building developments providing access to the internal courtyard.



fig 4.64 **alley collage** The former alleys on the site will be converted into green pedestrian and cycling paths. They will be paved in turfstone and their perimeter will be planted. In some cases they will still be used to access parking areas, but as in the Dutch woonerven the vehicles must move at a pedestrian pace.





fig 4.65 collage of public square looking  
into a shared courtyard North east corner  
of Oakwood and Vaughan





fig 4.66 view from a patio flat









**conclusion** Toronto can no longer be a city of single-family homes. The city's population is projected to increase by 2.7 million by the year 2031, growing too large to be accommodated within its traditional urban fabric. High-rise condominiums have become the accepted solution for housing more people in the city's core, but they only cater to a narrow bracket of the population and encourage social isolation. There are few alternatives for those who cannot afford to live in a single family home but who still desire to live in a vibrant and diverse neighbourhood. Toronto prides itself on its multiculturalism, but does not consider the urban environments that so many of these new citizens come from. Most of these immigrants have moved from cities in other parts of the world that are extremely dense, in which they could function without the luxury of a car, and where they had many close neighbours to rely on for support. Our current housing typologies are based on mono-cultural, turn-of-the-century attitudes toward privacy, sanitation, and the family, that no longer reflect the contemporary, cosmopolitan culture of the city.

Toronto needs to invest in housing that is well built and flexible, that is immediately effective and that will remain appealing to the next generation. We need an imaginative utopian vision to propel the way we think about new developments in the city, before stepping down to study the existing city and conceive of its actual implementation. We must acknowledge the habits that hinder us and develop new modes of thinking that allow us to imagine and embrace new ways of living. The fabric of our city needs to reflect, in its shape, the diversity of its citizens, and provide high-quality urban living for all. We require low-to-mid rise developments to add density to our neighbourhoods in order to foster more humane and vibrant communities.

This thesis looks to the Netherlands to understand the development of the country's urban building typologies and public spaces, but perhaps Toronto must too learn from the Dutch attitude that no place in the city is outside the realm of architecture or city planning. The Netherlands has had a long history of government involvement in housing and city planning, whereas in Canada these types of projects have mainly been controlled by private developers. The city of Amsterdam, in fact, owns much of the land upon which it stands, meaning that they have more control over what is built. This government involvement means that the responsibility for evaluating design proposals is not outsourced to private companies, but is instead taken care of by design professionals employed by the city itself. Dutch cities actively participate in the design of their public realm. Toronto has grown out of a different culture of private development, however, and it must determine its own solutions for enabling the creation of the developments that this thesis suggests. Establishing these solutions, first, demands a change in attitude, prioritizing long-term over short-term thinking,



and the quality of individual and community life over expediency and economy. The political powers governing the city are constantly changing, which can generate new ideas and create new energy, but can also cause long-term city-building projects to lose momentum. Perhaps partnerships between city officials and professional architects and urban designers could create more continuity and facilitate a beneficial exchange of ideas.

Introducing a scheme such as the one this thesis suggests into Toronto's built fabric will require much more than the development of a design itself. Currently, there are large hurdles to overcome in regards to our building economy, our building code, our parking requirements, our development fees and our municipal property tax structure. There are opportunities for the city of Toronto to exert control over what is developed in the way in which they deal with these issues. The control will need to be carefully balanced, so as not to hinder creative and innovative projects, but to encourage all projects contributing to the public realm of the city to rise to certain standards. Can these rules be made more flexible? Can they be reassessed more often? Can we learn from each new development?

This thesis pairs the lessons learned in the Netherlands with the existing culture and fabric of Toronto to create a hybrid community, changing Toronto's neighbourhoods by introducing new housing amongst the old. The transformation of the neighbourhoods will be slow and incremental, working not from tabula rasa, but instead weaving specific and sensitive insertions within the existing fabric. Jane Jacobs writes in *The Death and Life of Great American Cities*, that:

*"large swatches of construction built at one time are inherently inefficient for sheltering wide ranges of cultural, population, and business diversity. They are*

*even inefficient for sheltering much range of mere commercial diversity...*

*Neighbourhoods built up all at once change little physically over the years as a rule...The neighbourhood shows a strange inability to update itself, enliven itself, repair itself, or to be sought after, out of choice, by a new generation.”<sup>1</sup>*

When Amsterdam faced the task of developing housing on its former industrial port lands, it recognized that while the site was a tabula rasa, the process of growth needed to occur step-by-step. Each new development should be able learn from the successes and failures of the previous ones.

This thesis proposes a redevelopment strategy which is applied to a neighbourhood at Oakwood Ave. and Vaughan Rd. in Midtown Toronto. It is a neighbourhood of decaying and under built homes, and seemingly overvalued properties, both in need of regeneration. The intention of the thesis is not to produce a master plan, but instead to introduce a set of components and principles for redevelopment, adding much needed density within the city through infill development and making use of existing infrastructure and services, rather than simply adding more housing to the periphery. These components and principles could then be applied to other neighbourhoods in the city with similar characteristics to the study area. Perhaps more importantly, though, as this thesis looks to Amsterdam for lessons in housing and public space, Toronto should begin a conscious process of learning from past projects. The successes and failures of the Vaughan and Oakwood application should be considered before moving on to the development of any new site. Lessons could even be learned over the incremental process of developing the intersection of Vaughan and Oakwood, perhaps modifying the components and principles or developing new ones over time. The

success of Amsterdam's Eastern Harbour district is proof this iterative, learning method can work.

The ideals upon which this city was built no longer serve us. Architecture can catalyze a re-evaluation of those ideals, but we must first allow architecture this opportunity. This thesis charts a path of incremental change that will transform the way we view life and the way we live life in the city.

## **a1 chronology of study area**

**9000 BC** Paleo-Indians periodically inhabited the area. Vaughn Road was a native trail along the edge of the Cedarvale Ravine.

**1790** Land in the area was granted to government officials, soldiers and other friends of the state, but none of them immediately settled there.

**1820** The Bulls of Tipperary, Ireland were the first family to settle in the area. A community of landowners and farm labourers grew - mainly of English and Irish origins. As the forests were cleared for timber, the land was used to produce fresh fruits and vegetables.

**1860** Sand, gravel and clay were extracted from the area to be used as building materials for the growing City of York to the south.

**1878** By this time, many prosperous farms functioned along St. Clair Avenue. Most were between ten and thirty acres.

**1887** William Shield's farm was sold to become Prospect Cemetery.

**1890** The Ontario Industrial Loan and Investment Company of Toronto bought lots 31 and 32 north of St. Clair and laid out the south-west corner of Earls court with cheap, small lots.

**1900s** – Working-class immigrants flowed to the area, attracted by the neighbouring industry in the West Junction. Most immigrants still came from the British Isles, but small groups began to appear from Italy, Poland, the Ukraine and Macedonia. Areas outside of Toronto represented home ownership, beyond immigrants means in most cities back home. The land was cheaper, and building restrictions and permits were almost non-existent, which allowed self-building. The areas became known as shack towns, as often the first dwellings built on the lots were shacks clad with tarpaper, before a more permanent home

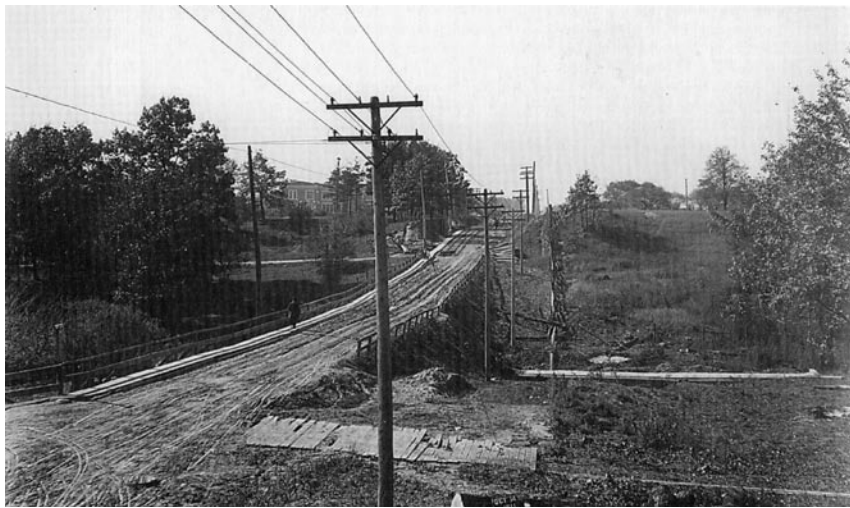


fig a1.1 St. Clair Avenue West, looking west from Winona Drive with evidence of Garrison Creek, 1911.

could be built.

**1910** January – Earlscourt and Dovercourt were annexed to the City of Toronto and builders began to have to deal with city inspectors and building permits. The regulations permitted frame construction with clapboard or shingle siding.

**1910** Dovercourt Land, Building and Savings Company established the Parsons Estate (north-west corner of study area). The brochure described it to be “just the right sort of place for a man with a family to bring up his children. Children, as well as grown people, thrive better on the air that sweeps fresh and free over the meadows and woods of the country...Besides that, there are open fields where children can roam and play in safety, and where they can work out their boundless spirits without harm or mischief. Freedom from contamination and vice that is inevitable in the more densely populated city helps them grow up to be useful and high-standing citizens.”<sup>1</sup>

**1911** September – construction began on the St. Clair streetcar route running from Yonge Street to Caledonia Road.

**1924** Streetcar service extended north along Oakwood Avenue to Eglington Avenue and west along Rogers Road.

**1951** The census showed that 70% of the neighbourhood’s residents were of British origin. Italians and Jewish people made up the second and third largest groups.

**1961** The census records Italians making up 42% of the residents in the area.

**1980s** Italians begin to move to neighbourhoods further north in the city. They only make up 26% of the area’s population and are replaced by Portuguese, Caribbean, Spanish and Vietnamese residents.<sup>2</sup>

<sup>1</sup> Nancy Byers and Barbara Myrvold. *St. Clair West in Pictures: A history of the communities of Carleton, Davenport, Earlscourt and Oakwood*. (Toronto: Toronto Public Library, 1997), p. 46.

<sup>2</sup> All factual information for timeline was found in Nancy Byers and Barbara Myrvold’s, *St. Clair West in Pictures: A history of the communities of Carleton, Davenport, Earlscourt and Oakwood*.





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