Urban Connective Syntax

Re-Imagining the Connective Relationships of
Social Space in Toronto's Downtown Core

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Re-Imagining the Connective Relationshops of Social Space in Toronto's Downtown Core

by

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Derek Smart

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Re-Imagining the Relational Complexities of Social Life in Toronto's Urban Core

Derek Smart
Master of Architecture 2018
Architecture Program, Ryerson University

ABSTRACT

Urban metropolitan city-centers offer the most complex, socially connective environments in the built world. The social structures fundamentally embedded in city life are, however increasingly being overshadowed by an isolating system of city densification. The City of Toronto, as a territory of exploration, is one of many cities that are evolving a dense array of restrictive boundaries that increasingly challenge human connectivity, and the deep-rooted ability of these environments to establish vibrant city life. It is the role of architecture to mediate the relationships between the public and private territories and to understand how these environments are utilized and engaged by the surrounding context. This thesis has extracted critical environmental components exemplified in city, community, and building territories, and has re-integrated these defining characteristics into an alternative design strategy that establishes a balanced symbiotic relationship between the private and public realms of Toronto's future City Core.

ACKNOWLEDGMENTS

I would like to thanks my family and friends for their continued support throughout my architectural education, to my supervisor Yew-Thong Leong for your guidance through this thesis as well as my educational career, to Albert Smith and Cheryl Atkinson for their insightful critiques.

PREFACE

Living, exploring, and experiencing many spaces and places has revealed unto myself that these moments, regardless of beauty, charm, or comfort, are exponentially enhanced if they are experienced with others and in the presence of others. It is in my opinion that a healthy, and happy individual and collective population can be achieved through a balanced relational understanding of exposure and refuge, or of public and private life. The world offers an unending network of unique contextual relationships and experiences between nature, architecture, and people; reaching its highest potential in urban metropolitan city centers such as Toronto. The evolving urban environments are however increasingly isolating and separating the city's social life, diluting and sometimes eradicating necessary opportunity for social interaction to occur. Urban living is evolving a formal, systematic, rigid network of internal efficiency and formal maximization that continue to follow habitual urban development strategies.

This research is guided towards understanding where healthy social life currently prospers in high density urban environments around the world and to redirect these inherent structures and characteristics into a new form of urban architecture that secures the social life a city desperately desires. Urban architecture needs to both push and recede its boundaries to create a smoother transition for a city's public social life to thrive.

To my parents, For your constant support, and for always being an example of hard work and dedication in all life's endeavors.

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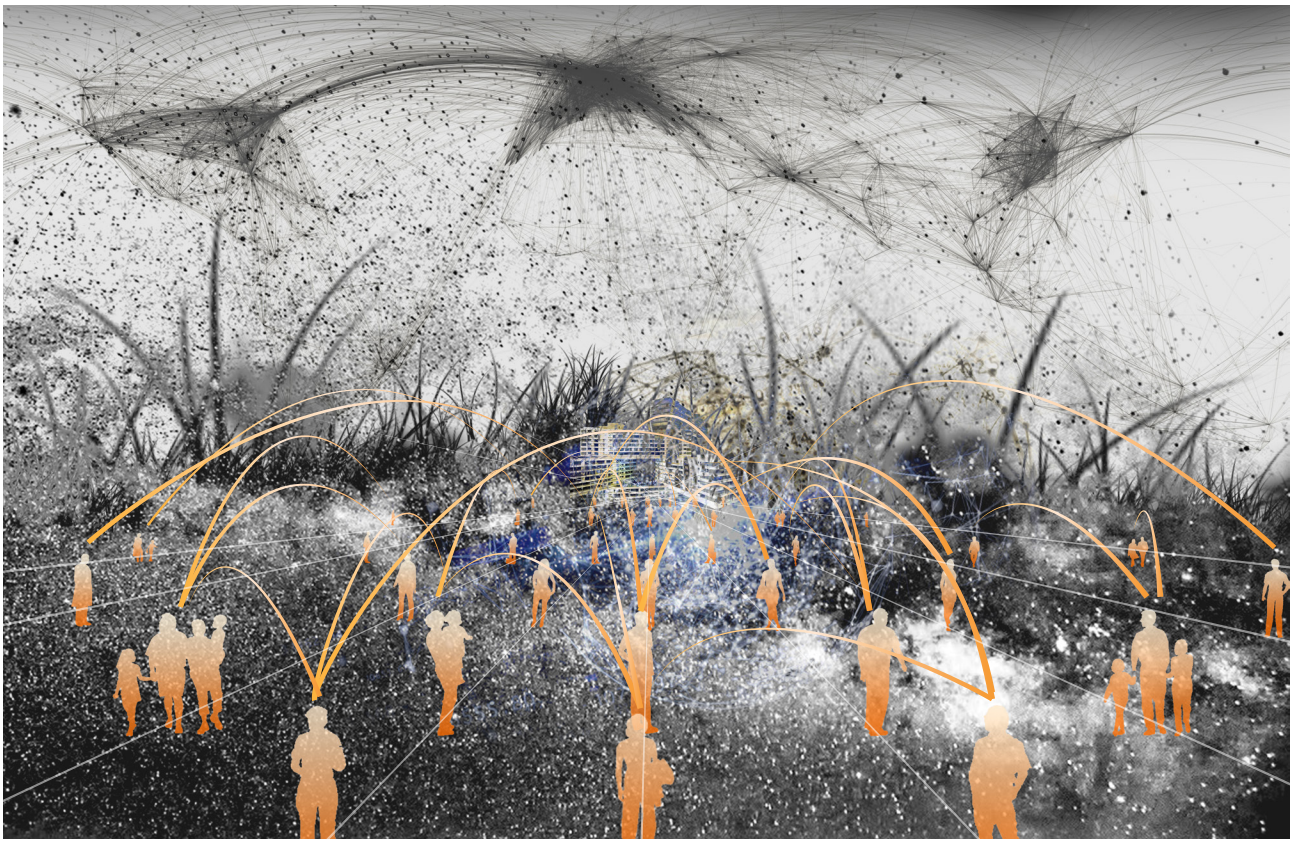


Figure 1 Collective Connection through environment

INTRODUCTION

Toronto's urban core, as it relates to the built context, is rapidly changing both in form and function, it is evolving into a system that progressively supersedes its human inhabitants. The infrastructural network that originally fused itself to the genetic makeup of the city has created a domino effect on the architecture it so desperately craves and controls. If architectures canvas for life is infrastructure, our, human, canvas for life is architecture; its superior always attempting to control the others. However, the trajected future city is reaching a period that requires mutation. The habitual tendencies of urban high-rise architecture and its depriving systems of control not only restrict its integration into the city as a built form, but also its potential for positive influence on city life.

Architecture and people thrive through their ability to form meaningful connections and relationships between one another; they succeed through a balanced negotiation of their independent and connective necessity. In the urban context, a publicly active population relies on the individuals perceived identity, structure and meaning of space. Toronto's 200-year chaotic pursuit for private ownership of space in the downtown core is placing increased strain on the city's collective social life. In a city that is becoming more densified by people, and therefore private architecture, what space is left for the collective body to engage, and are these spaces designed to have the greatest possible effect and influence on the population. A balanced composition between public to private life has yet to reach a critical and negative influence on the city's evolution, however, evidence within this body of work reveals a trajected future city that is predominantly private; completely undermining what it is to be human, and the bases of city living, and city life. As cities like Toronto continue to densify, design solutions for social spaces, require a more fluid and organic approach. The social realm needs to adapt and infuse itself into other important structures of urban life, instead of attempting to create a distinct division between the two.

The high-rise residential building, as it becomes the dominant form of urban living, has within it, a very interesting opportunity to establish a stronger connection between the private and public realms of city life. However, the existing private nature of high-rise residential design often dictates a very clear line of separation; the interior building is private, and the exterior is public, their inevitable connections and thresholds are of secondary concern. A fortunate zoning evolution in the building typology has set an opportune moment for intervention. The podium, or base of high-rise buildings, in its current form, creates an obvious formal separation, but in most instances not a function separation. This thesis re-imagines the residential high-rise building base, its integration and its potential influence on the city. By approaching social space as a cooperative, and integrating element of private design, the rigid boundaries that traditionally isolated city life, become publicly experienced and celebrated.

1.0 **URBAN SOCIAL STRUCTURE**

"the most important psychological effect of the city is the way in which it moderates our relationships with other people" [1]

Charles Montgomery – Happy City

Cities have fundamentally evolved through the desire for human kind to foster relationships with their surroundings; primarily comprised of the dynamic and static territories of people and physical environments.[2] The collective organization of respective governments, cultures, climates, and resources have participated in the unique developing character of cities across the globe, but more importantly, its effect on the active engagement by the embodied population. These two foundational components and their inevitable relationships have evolved into the present physical and sociological conditions that define urban environments and the liveliness of cities.

Today, the city is evolving as an independently responsive machine, controlled by such an overwhelmingly large body of collective thinking, in itself, it emanates freedom to expand in what appears from a sociological prospective, unsustainable. In high density urban environments, space has been so definitively entangled with potential profit, the majority of buildings with urban environments are designed to maximize space for this exact purpose. This perspective and overt driver of architecture is negatively influencing the nature and complexity of urban form, but also the nature of human environmental interaction. Many industrialized metropolitan city centers, as they continue to densify, have been consumed by the never-ending desire to expand and densify. A distant analysis of almost any industrialized north American city reveals a constant vertical and horizontal expansion of built form, all of which typically radiating from a central area. The resultant product is city centers that have evolved to focus on isolated, quantity of units, rather than on unified, quality of units; detracting from the city's ability to foster collective human engagement and interaction.

Like any manufactured product, its success relies on the utilization and interpretation of its user; cities are no exception. An important fact that will remains constant throughout this body of work is that the user and the environment are inseparable components within this product. Understanding how the population identifies, observes, utilizes, and applies positive meaning onto their surrounding environment first requires a deconstructive analysis of the city and its component parts.

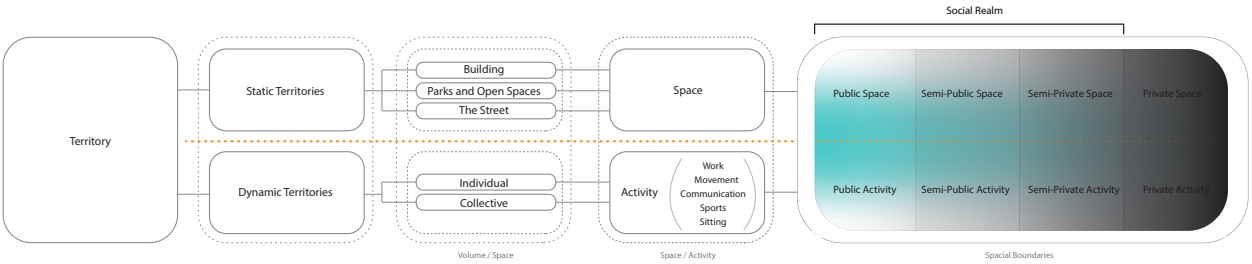


Figure 2 Social Structure Diagram

Figure 3 Peter's Hill approach to Millenium Bridge, London, England.t

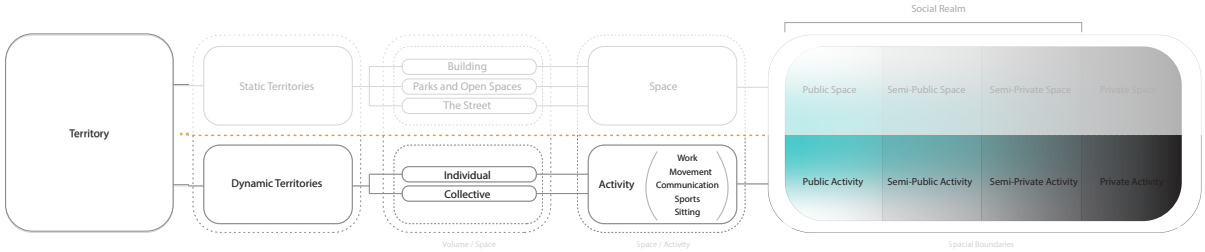


Figure 4 Social Structure Diagram

1.1 DYNAMIC TERRITORIES

"Activity in human life is the greatest attraction in cities" [3]

Charles Montgomery – Happy City

The most important dynamic territories within cities are people; it is their active engagement with the surrounding environment and the surrounding people that have resulted in the evolution of the cities we see all around the world today. The individual has an instilled ambiguity[4] regarding their limits of interaction. They are not restricted by one territory, rather are able to transfer through and between various static territories. The city's inhabitants, both local and temporary are vital to the liveliness of the city; they are the medium through which spaces relate to and are connected to one another. It is when the individual occupies or dwells within space that they apply meaning unto it. Important to understand is, regardless of location, or position within space, the individual occupies a personal territory[5]; this is more commonly understood as someone's personal space, or 'bubble'.

In his book, Public and Private Spaces of the City, Ali Madanipour describes the term, 'territoriality' as "the set of behaviors and cognitions a person or group exhibits, based on perceived ownership of physical space."[6] The perceptions of space have been incrementally engrained throughout the development of an individual's life; what is my room, my home, my school, my community, my workplace. These all embody personal possession, however, the level of control and influence over these spaces vary depending upon preestablished limits engrained in local culture.[7] Every created environment embodies a complex pattern which the population interprets as either being public or private, accessible, or off-limits. It is the role of architecture to mediate the relationships between the public and private territories and to understand how these environments are utilized and engaged by the surrounding context. Maintaining a balance between exposure and refuge, public and private, are vital to the individual and collective happiness of a city inhabitants.

In his book, 'The Image of the City', Kevin Lynch has established three primary components embodied within an individual's interpretation of environment; these components are, the identity, structure and meaning of space.[8] These three components are in constant evaluation by the individual as they navigate any environment. The individual that confronts a space, first analyzes and extracts its

fundamental identity as it related to the context. These buildings or spaces change in its influence depending on location, adjacent program, interior or exterior, etc. Following the establishment of the depicted identity of the space, an evaluating of the patterned structures inherent in its design define the buildings function and interpretation of the connecting spaces. It is at this point where the individual has identified the space itself amongst the context and evaluating the function and experience of the space that they can apply a meaning onto it.[9] All architecture, and forms of environments emanate, intentionally or not, these inherent qualities. In every urban environment, at all scales, these three defining perceptual principles are present and define the type of people, and the types of activity that occurs in and around architecture.

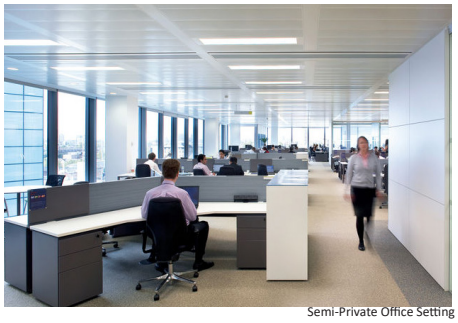
Public Activity

Nathan Phillips Square Winter Skating

Semi-Public Activity

Friday Night Live ROM

Semi-Private Activity



Semi-Private Office Setting

Private Activity

Private Family Dinner within Private Setting

Figure 5 Public to Private Activities

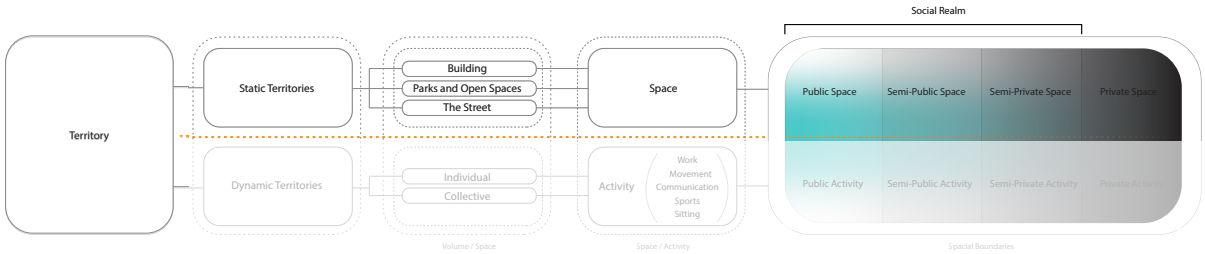


Figure 6 Social Structure Diagram

1.2 STATIC TERRITORIES

> *"The building, city, house, or street seems consciously placed. It generates a place. Where it stands, there is back and a front, there is a left and a right, there is closeness and distance, an inside and outside, there are forms that focus and condense or modify the landscape. The result is an environment."*[10]
>
> *Peter Zumthor – Thinking Architecture*

Static territories can be characterized as the manufactured or naturally built environments that organize, facilitate, and provide space for activities to occur. In the urban setting, varying degrees of social interaction occur in three types of settings: Building Spaces, Parks and Open Space and the Street. These territories of social engagement all have embedded within them socially accepted associations based upon there inherent identity, structure and meaning. These combined components allow the population to anticipate what "types of people and forms of behavior" will take part in different places, therefore, allowing the individual to plan and organize their daily lives in relation to their surrounding context.[11]

The fundamental composition of any manufactured static territory within the urban context are designed using three physically present elements: volumes, spaces, and boundaries. As architects, we design the structure and organization of these environments based upon specific programmatic intent. The product, for example, a residential high-rise building, utilizes volumes and boundaries to subdivide and therefore control who has access and what activity occurs in these spaces.

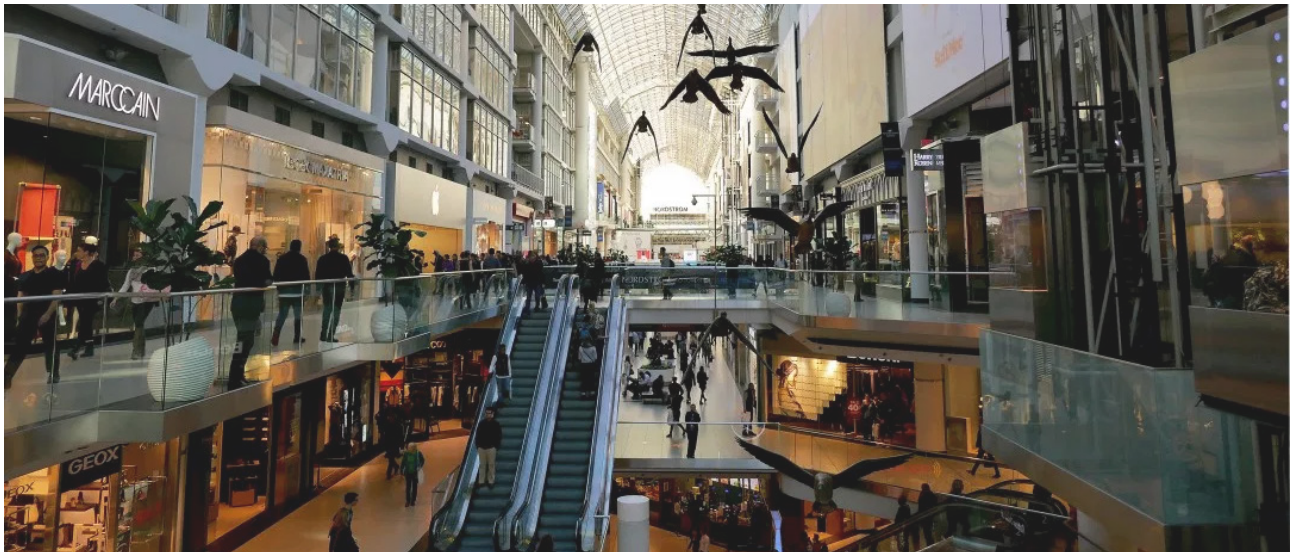


Figure 7 Building: Toronto Eaton Center

Figure 8 Museumplein- Amsterdam

Figure 9 Street: Via Giuseppe Garibaldi- Venice

1.2.1 VOLUMES

The urban environment offers what appears to be, from the perspective of the individual, an overwhelming system of inaccessible volumes placed within the infrastructural network. These implemented volumes inevitably produce a boundary which create a distinction between spaces. Bill Hillier describes in his book, Space is the Machine; there are two distinctions formed when a boundary is drawn, a logical distinction, and a sociological distinction.[12] The logical distinctions can be described as the indisputable volume and boundary created, such as a wall, garden bed, glazing, the entire envelope of a building, that often clearly distinguishes one space from another. For example, a building envelope distinguishes, at an extremely fundamental level, interior from exterior. The second distinction, a sociological distinction, is not as apparent, but is much more complex; it represents a division of immaterial or psychological character. The creation of a boundary establishing an ownership or right to a public or private domain. As a result, there will almost always be a difference in sociological behavior and status between these two spaces. This displacement can be characterized as an action or ideology that is manifesting in one space and not the other. The importance of this theory is that a boundary or volume cannot be formed without also forming space outside of it; when one is drawn, there will always evolve a distinction between one space and another. In other words, every building established within the urban environment creates a distinction between spaces; regardless of the level of participation or interaction, that building will always have influence on the individual.

1.2.2 SPACE

"Space, a biological necessity to all animals, is to human beings also a psychological need, a social perquisite, and even a spiritual attribute." [13]

Yi-Fu Tuan, Space and Place: The Perspective of Experience

As architects, we create space, intentionally or not, through the introduction and manipulation of material things; ultimately generating environments. Space is the fundamental pallet of existence, it is engrained in everything that occurs in the physical human life, yet, in itself, it can be described as the absence of anything, a void. Roger Scruton has identified space as "the obverse side of the physical object, the vacancy left over by the building." [14] In this reason, its effect on the human is always dependent upon its relationship to something else. Space only becomes conceivable when it is connected to an action, orchestrated throughout physical form. [15] If we were to consider a city square and see no activity, no movement, no human action, the common opinion, and verbal response would be "the space is empty". This infers that the human perspective identifies space as a temporal relationship between physical form and embodied action. These actions are most often influenced via an attraction or repulsion of objects, places, or activities. [16] Because of this, one space cannot be experienced without passing through auxiliary spaces, hence, space cannot be interpreted at once but requires movement between and through spaces to experience its entirety.[17] Applying this spatial understanding onto the urban form reinforces the idea that social space is not an independent, and isolated entity, but exists as one element within a complete environmental composition. Within the urban environment, a building is never a standalone object, it embodies connections and relations that far have absolute influence on its external context.

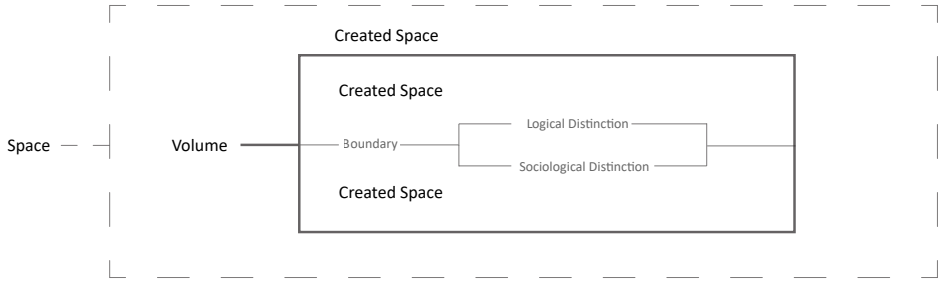


Figure 10 Volume- Space- Boundary Diagram

1.2.3 BOUNDARIES

"the individual has the ability to regulate the balance of concealment and exposure, the balance of access to oneself and communication with others."[18]

Ali Madinipour – Public and Private Spaces of the City

Any environment, especially highly densified territories like cities are entirely dependent upon the boundaries that subdivide space.[19] Understanding how boundaries work, where they are located, and why they exist, directly correlate with the individuals applied understanding and meaning of space. Boundaries allow for different activities to occur in different spaces, with different levels of protection and control. In the urban environments activities often occur directly adjacent to one another, making design exponentially more critical. These boundaries allow the individual to feel comfortable and safe in their homes, meanwhile they are only about ten inches away from their neighbor They also allow the population to feel comfortable and free to explore a public square with hundreds of other strangers. The most important aspect of city composition is its ability to establish clear boundaries that distinguish activity, but also establish relations and connections between these distinguishable spaces.

The most powerful example of a boundary, that has defined the organization of Toronto and almost every other industrialized city, is the establishment of property lines. Controlled by society[20], these once invisible boundaries of control, use these prescribed limits to dictate control of architectural form and human activity. However, the notion that 'my property, is only my property', is slowly beginning to change within the realm of high density urban composition.

At the basic level, a boundary separates interior from exterior, in many instances a door or gateway is used to mediate the transference of the individual between these two spaces. The important characteristic of this access point is its presence and influence on both spaces, interior and exterior. How people interact at that moment of transfer between spaces is critical in establishing a more cooperative relationship

Figure 11 Nyhaven, Copenhagen

between otherwise apposing environments. When architectural boundaries are hard and harsh subdivisions, these moments of transference become arid and lifeless. [21] When boundaries are more ambiguous and articulate, these environments become much a more approachable place for engagement and occupation.

Ali Madanipour describes a more appropriate method in approaching boundaries, “the best way to approach a boundary is to endow it with a certain presumptive validity, and then to identify the circumstances in which its strictness can be relaxed to the mutual advantage of the parties on both sides of the line.”[22] The City of Toronto, and many other cities around the world have evolved a highly utilized approach of the property limits. Commonly known as sheer-wall-syndrome, high rise buildings constantly import harsh boundaries as close to the property line as is feasibly possible. When boundaries are used incorrectly in the urban environment, especially when dividing building from street, its contextual presence can decrease and at times eliminates any opportunity for socialization to occur.

The social spaces that were once the heart and life of the city are being increasingly isolated by privatized building entities. Technological advancement, city densification, and the changing nature of human activity in cities is evolving a fragmentated and disconnected population. These conditions are a symptom of treating space as a commodity and a means of societal stratification. [23]

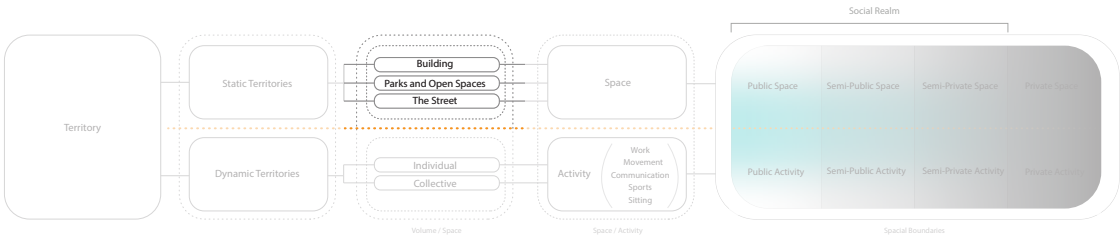


Figure 12 Social Structure Diagram

1.3 TYPES OF CITY SPACE & THEIR COMPOSITIONAL ELEMENTS

The urban environment, from the perspective of city management/builders and its inhabitants, is organized and categorized under three primary types of spaces: Parks and Open Spaces, Streets, and Buildings.[24] It is important to understand these types of spaces from these distinct perspectives because one is responsible for controlling the environment, and one is responsible for utilizing it. A developer or urban planner interprets and responds to a specific property much differently than a citizen walking down the street. The needs of both need to be met in order to produce an accepted alternative architecture.

Many cities, including Toronto utilize these three common identities of city spaces to appropriately allocate resources to their respective parts. A city's social life relies on its ability to organize, arrange, and design these spaces as both independent and interconnected parts. The success of cities depends upon the interconnected relationships formed between these built environments and the people that utilize these spaces. Although these types of spaces differ in form and function, they embody five fundamental elements in their composition. Kevin Lynch identifies these elements as, paths, edges, districts, nodes, and landmarks.[25] These elements exist in all environments, and at all scales in which cities are experienced, from the scale of the city, the scale of the various communities or districts a city is comprised of, to the single buildings or spaces within those communities. Critical to these five elements, are that none of them exist independent of the others; "Districts are structured with nodes, defined by edges, penetrated by paths, and sprinkled with landmarks."[26] Studying the structure and relationships between these elements, as it relates to the three types of spaces in the city, enable a more comprehensive understanding of the form and function of urban social life.

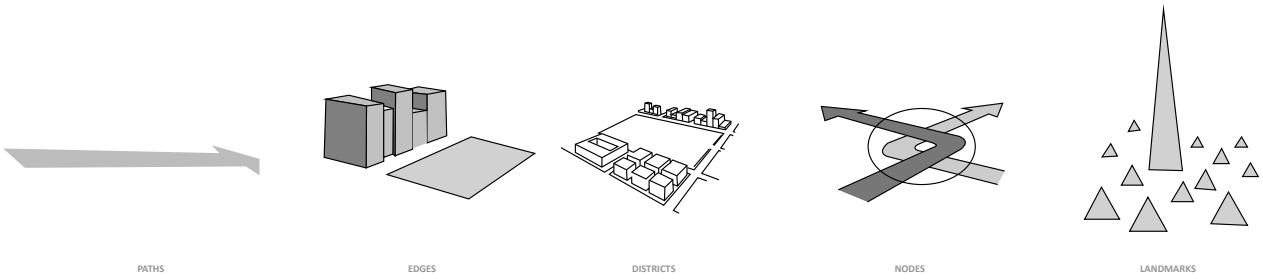


Figure 13 Observer Elements of City Image- Kevin Lynch

Below are the Five Elements as defined by Kevin Lunch:

"PATHS: are the channels along which the observer customarily, occasionally, or potentially movies. They may be streets, walkways, transit lines, canals, rail words. For many people, these are the predominant elements in their image. People observe the city while moving through it, and along these paths the other environmental elements are arranged and related."[27]

"EDGES: are the linear elements not used or considered as paths by the observer. They are the boundaries between two phases, linear breaks in continuity: shoes, railroad cuts, edges of development, walls. They are lateral references rather than coordinate axes. Such edges may be barriers, more or less penetrable, which close one region off from another; or they may be seams, lines along which two regions are related and joined together. These edges elements, although probably not as dominant as paths, are for many people important organizing features, particularly in the role of holding together generalized areas, as in the outline of a city by water or wall." [28]

"DISTRICTS are the medium-to-large sections of the city, conceived of as having two-dimensional extent, which the observer mentally enters "inside of," and which are recognizable as having some common, identifying character. Always identifiable from the inside, they are also used for exterior reference if visible from the outside. Most people structure their city to some extent in this way, with individual differences as to whether paths or districts are the dominant elements. It seems to depend not only upon the individual but also upon the given city."[29]

"NODES are points, the strategic spots in a city into which an observer can enter, and which are the intensive foci to and from which he is traveling. They may be primarily junctions, places of a break in transportation, a crossing or convergence of paths, moments of shift from one structure to another. Or the nodes may be simply concentrations, which gain their importance from being the condensation of some use or physical character, as a street-corner hangout or an enclosed square. Some of these concentration nodes are the focus and epitome of a district, over which their influence radiates and of which they stand as a symbol. They may be called cores. Many nodes, of course, partake of the nature of both junctions and concentrations. The concept of node is related to the concept of path, since junctions are typically the convergence of paths, events on the journey. It is similarly related to the concept of district, since cores are typically the intensive foci of districts, their polarizing center. In any event, some nodal points are to be found in almost every image, and in certain cases they may be the dominant feature."[30]

"LANDMARKS: are another type of point-reference, but in this case the observer does not enter within them, they are external. They are usually a rather simply defined physical object: building, sign, store, or mountain. Their use involves the singling out of one element from a host of possibilities."[31]

Within the urban context, these five principles are rarely designed under one entity. For example, architects predominantly focus on designing buildings, landscape architects focus on designing various types of parks and open spaces, civil engineers and urban planners often design the 'paths' and the infrastructure of cities. Every profession that participates in the construction of the built environment does not necessarily design, for instance, a node, or a landmark; rather, it is the collaboration of the various types of spaces that embody these five elements. A street intersection does not simply become a node, it is the collaboration of the surrounding context that triggers a specific moment in the city to become identifiable as a node or concentration point for activity.

This theory is important because it indicates, once again, that a city's success is not based upon one building, one road, or one park; rather it is the inherent interconnected relationships between Parks and Open Spaces, Streets, and Buildings that establish strong city life.

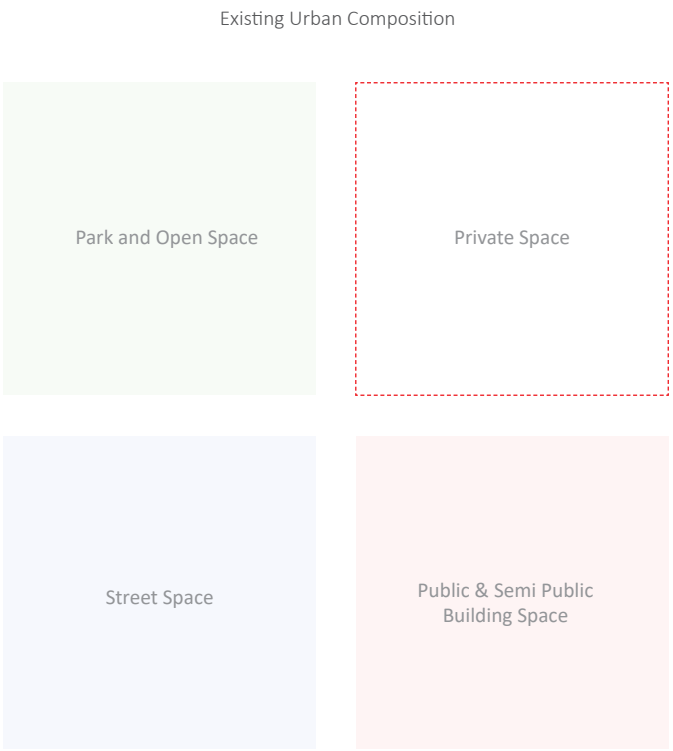


Figure 14 Existing Urban Composition Diagram

Proposed Reinterpretation of Urban Composition

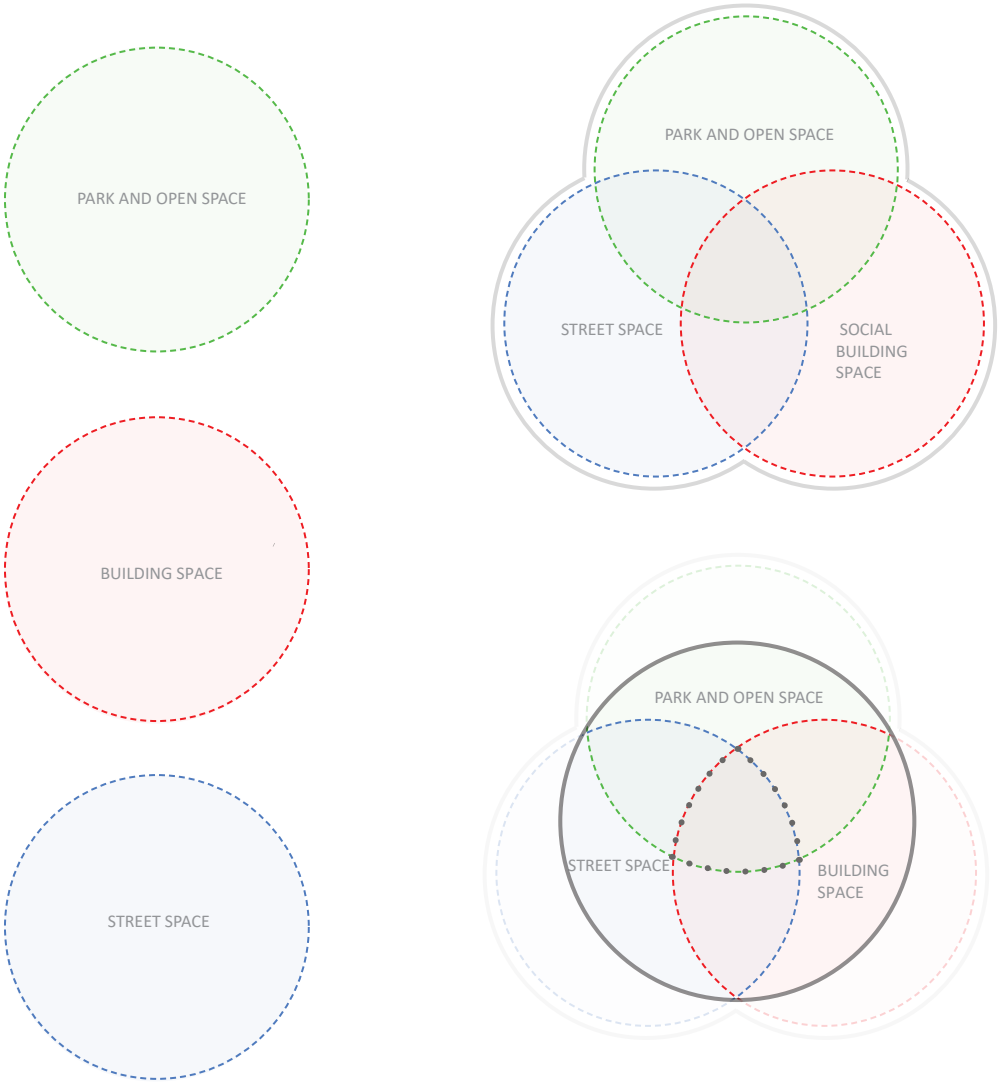


Figure 15 Proposed Urban Composition Diagram

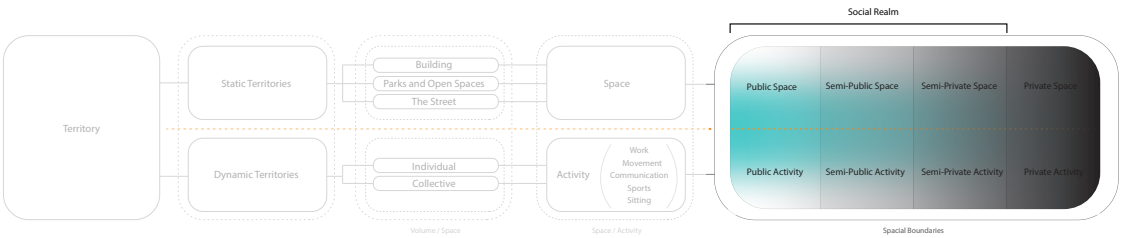


Figure 16 Social Structure Diagram- Different Social Conditions

1.4 SOCIAL DISTINCTION BETWEEN SPACES

As discussed prior, there are two dominant social divisions of space established within cities, Public space, and Private space. However, there exists a gradient in which both realms are almost constantly interacting between. This middle ground is referred to as Semi-Public or Semi-Private Space; they help mediate the transitions and connections between the two primary social classifications of society. An individual rarely transfers directly from private space into public space, there often exists a momentary occupation within a semi-public or semi-private zone. An example of which are vestibules, residential corridors, or the front porch of a single detached house. The entire composition of cities, and its architectures are organized and managed based upon these established social distinctions, rights, and ownerships of space. From the perspective of the city's inhabitants, there is a general understanding of what spaces we can or cannot freely occupy, but more importantly, what activity occurs in these spaces. These social distinctions and divisions of space are identifiable based upon the design characteristics inherent in all city structures. The challenge we as designers confront, is understanding how the population interprets design as either being public (accessible) or private (inaccessible).

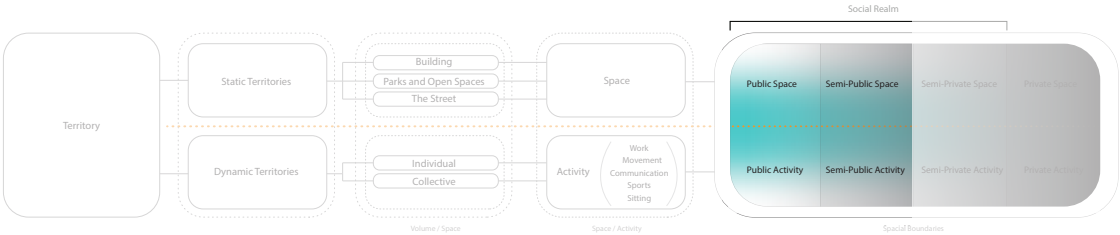


Figure 17 Social Structure Diagram- Public + Semi Public

1.4.1 PUBLIC & SEMI-PUBLIC SPACE

In his book, 'Public and Private Spaces of the City', Ali Madanipour defines public space as a space "controlled by the public authorities, concerns people as a whole, is open or available to them, and is used or shared by all members of a community." [32] Parks and open spaces, streets, and buildings all have the ability to be public. These spaces are designed and construction by public appointed authorities for the specific use and function by a public body, allowing accessibility by the entire community.

Semi-Public spaces are those spaces directly connected to the public realm, however they are under a different form of ownership. These spaces generally instill greater control over the activity that occurs in these spaces. The most common semi-public spaces in a city core are spaces that facilitate the consumption of goods and products. They are privately controlled, however, intended to be publicly accessible. In this reason, specific public ally accessible activity, such as shopping, or dining is permitted within these privately owned spaces.

PUBLIC SPACE

Figure 18 North York Civic Center

Figure 20 Yonge & Dundas Intersetion- Toronto

SEMI-PUBLIC SPACE

Figure 19 Israel's Square- Copenhagen

Figure 21 Street: Via Giuseppe Garibaldi- Venice

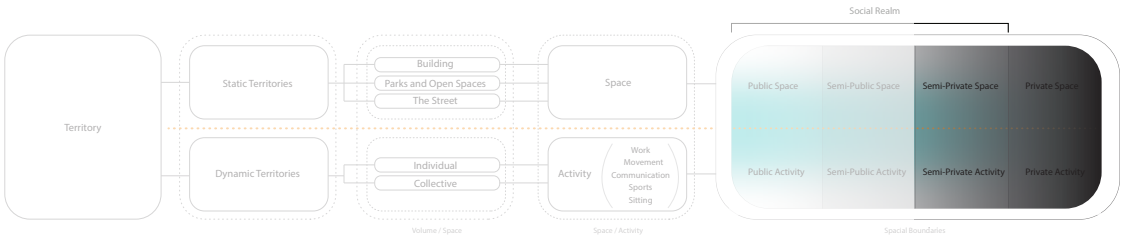


Figure 22 Social Structure Diagram- Semi private & Private

1.4.2 PRIVATE SPACE

Ali Madanipour defines private space as, "a part of space that belongs to, or is controlled by, an individual, for that individual's exclusive use, keeping the public out."[33] There exists one dominant form of private space in cities; these are our private dwellings, or homes. These spaces are considered to be the most socially protected and isolated form of enclosure from the public realm. The individual who owns that space, controls, within legal limits, who has access, and what activity occurs in that space.

Semi-Private spaces are those where only a select body have access to its internal private spaces. An example of which is office or residential buildings where there exists more than one tenant who has access to the building. However, the number of people who have access are limited and under a specified form of control. An example is all the residents in a condominium who have access to their building, the majority of spaces inside are private, however there are select internal spaces that are intended for use by all residents; such as corridors, amenity space, or the lobby. These spaces allow for anyone to enter, under the condition that they have private or semi-private ownership of space inside.

In the context of the urban environment, the majority of spaces are semi-private or private. In this reason, a city's population identifies very few meaning spaces or buildings relative to the cities entire architectural composition. The remaining publicly accessible urban environments become increasingly critical landmarks for social life to operate in an environment that is increasingly being dominated by private formal entities.

SEMI-PRIVATE SPACE

Figure 26 Round House Student Residence- Copenhagen

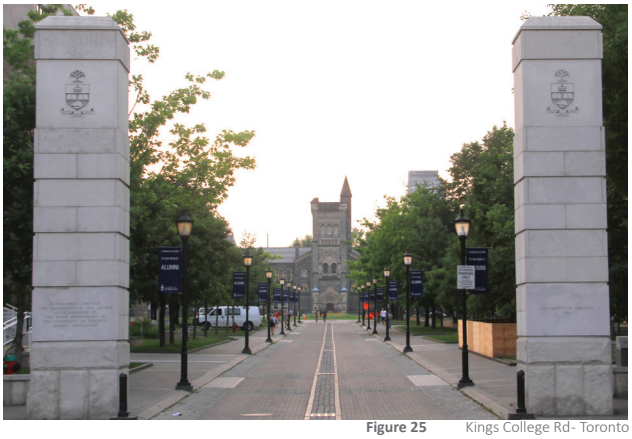


Figure 25 Kings College Rd- Toronto

Figure 23 Seagrams Building Front Plaza- NYC

PRIVATE SPACE

Figure 27 Private Residence Backyard

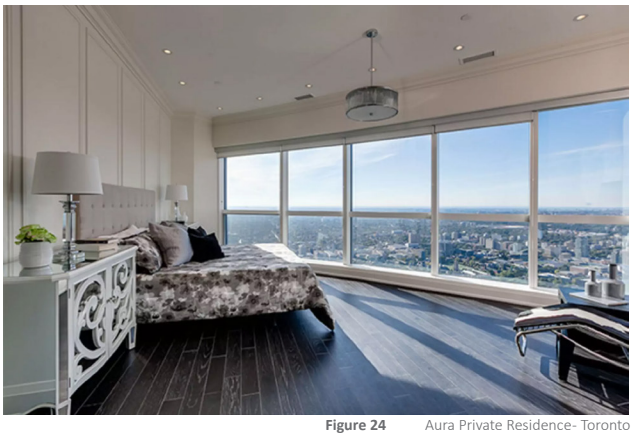


Figure 24 Aura Private Residence- Toronto

1.5 CITY LIFE & CITY LIVING

In the city of Toronto, publicly accessible spaces are increasingly being strained, and oversaturated by an increased concentration of city living. Urban development is experiencing a disproportionate increase in private, detached spaces relative to publicly connective, social spaces.

A simple theoretical example to describe this concerning issue is a community center and its serviceable population. If you have a specific quantity of population, any size, that utilizes a newly built community center for activity, which in-itself has its occupational limits, and you double that population, can that community center maintain an appropriate amount of activity for this new population? Perhaps this building is designed for this increase in population, as it should be. However, if you double the population again, can this space support the new activity load? If this increased population continues to double, at some point in time, that one community center will be unsuitable for its surrounding population. As cities like Toronto are constantly densifying, the public programs and spaces that were designed in the past, may not support a future increase in population. The issues that arise are that these spaces become overpopulated with activity, and/or only a specific quantity of population can utilize these spaces at any given time. This over saturation of activity consequently detracts from the spaces ability to establish a healthy and accessible space for collective city life. The resultant social affect is a population that seeks more private solutions for activity, and the city becomes more isolated and less socially connected.

This thesis primarily concerns itself with public activity, and a collective engagement of the population within their localized territories. In the context of an urban environment, this localized territory is referring to the entire city, community, and single buildings or spaces that have influence on the life of the individual. A critical aspect that remains constant through this entire thesis is the importance of maintaining a balanced environmental composition of public and private capability, where the individual has options instead of forced decisions.

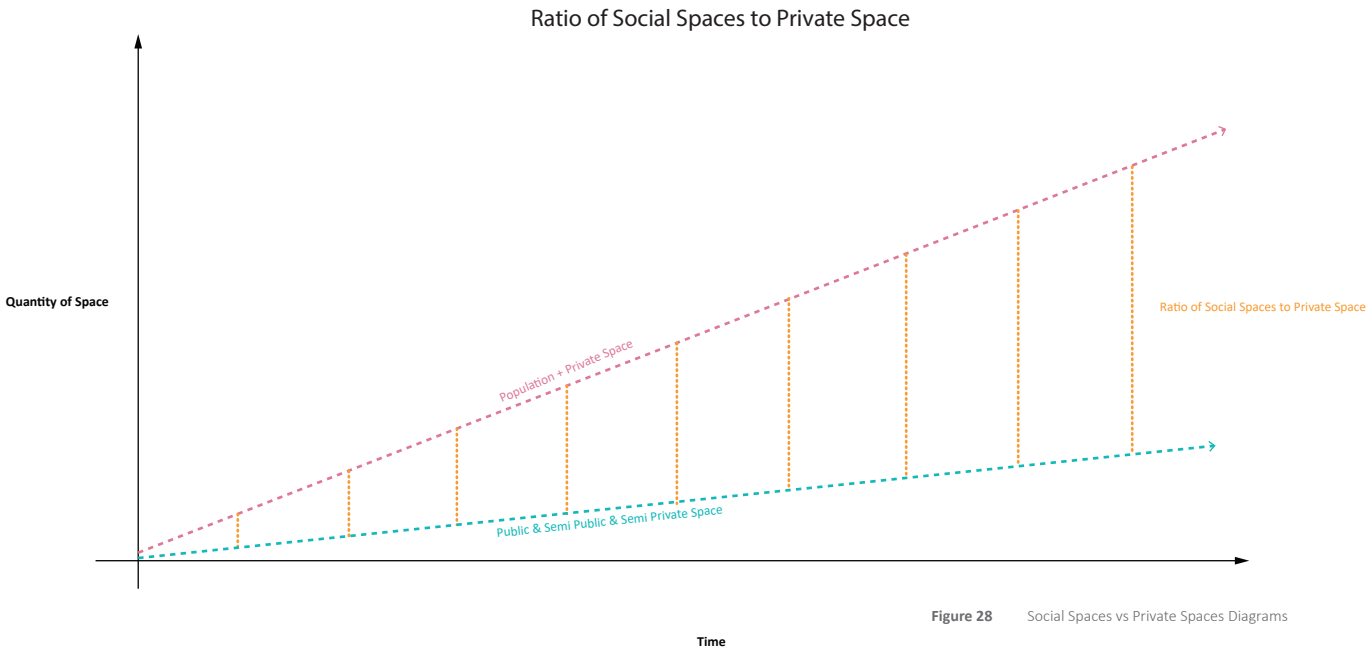


Figure 28 Social Spaces vs Private Spaces Diagrams

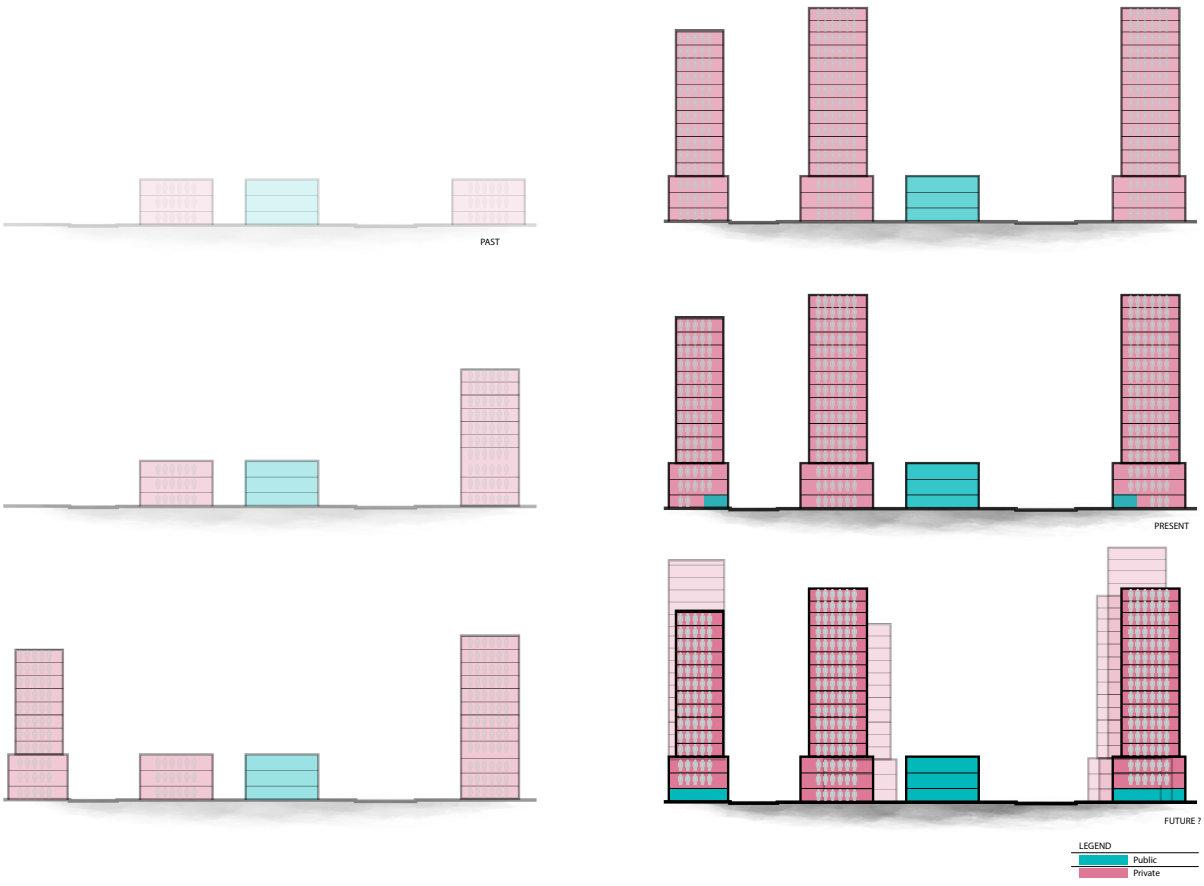


Figure 29 City Living Timeline Diagram

ENDNOTES

1 Montgomery, Charles. *Happy City: Transforming our Lives Through urban Design.* (Canada: Anchor Canada, 2014), 37.

2 Madanipour, Ali. *Public and Private Spaces of the City.* (London, UK: Routledge, 2003), 50.

3 Montgomery, Charles. *Happy City: Transforming our Lives Through urban Design.* (Canada: Anchor Canada, 2014), 150.

4 Kuma, Kengo. *Anti-Object: The Dissolution and Disintegration of Architecture.* England, (London: Architectural Association Publication, 2008), 28.

5 Madanipour, Ali. *Public and Private Spaces of the City.* (London, UK: Routledge, 2003), 22-25.

6 Ibid, 50.

7 Lynch, Kevin. *The Image of the City.* (United States: The Massachusetts Institute of Technology, 1960), 8.

8 Ibid, 43.

9 Ibid, 8.

10 Zumthor, Peter. *Thinking Architecture.* (Berlin: Birkhauser Basel, 2006), 75.

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12 Hillier, Bill. *Space is the Machine.* (CreateSpace Independent Publishing Platform, 2015), 16.

13 Yi-Fu, Tuan. *Space and Place: The Perspective of Experience.* (Minneapolis: University of Minnesota Press, 1977), 58.

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16 Yi-Fu, Tuan. *Space and Place: The Perspective of Experience.* (Min neapolis: University of Minnesota Press, 1977), 12.

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18 Madanipour, Ali. *Public and Private Spaces of the City.* (London, UK: Routledge, 2003), 68.

19 Ibid, .59-60.

20 Ibid, 61.

21 Ibid, 64-66.

22 Ibid, 66.

23 Ibid, 228.

24 City of Toronto Planning Department. *Toronto Official Plan - Building a Successful City.* Planning Report 2015, (Toronto: City of Toronto, 2015), 2-5.

25 Lynch, Kevin. *The Image of the City.* (United States: The Massa chusetts Institute of Technology, 1960), 46.

26 Ibid, 48.

27 Ibid, 47.

28 Ibid.

29 Ibid.

30 Ibid.

31 Ibid, 48.

32 Madanipour, Ali. *Public and Private Spaces of the City.* (London, UK: Routledge, 2003), 134.

33 Ibid, 41.

34 Ibid, 50.

2.0 **CITY AS TERRITORY - METHODS**

The structure of all manufactured and naturally built environments encompass a complex and connective network of relational territories. In his book, Public and Private Spaces of the City, Ali Madanipour defines territory as “the continuous exertion of control over a particular part of the physical space by an individual or a group”.[34] These territories manifest physical relations in terms of control, ownership, right, power; some instances more rigid or loose than others. Call it what you will, but a hierarchy of entitlement exists throughout our entire reality, within plants, tiny organisms, animals, people, buildings, countries, planets, universes, even unto independent human thought. In all conditions, conscious, unconscious, and reactionary, there are always present potential fields of influence. These conditions are, however, especially apparent within the manufactured environments of human kind; the pinnacle of which is the manifestation of cities. Rightly so, cities, are inherently comprised of a dense network of territories that use boundaries as a fundamental structure to organize and control one territories relationship to another. Cities like Toronto, New York, Vancouver, Singapore, Shanghai, and others have rapidly evolved from single or small clusters buildings, into communities and into metropolitan cities that encompass a vast array of complex relational territories. The issues that are beginning to reveal themselves is an urban population that is increasingly disconnected from the public body; their lives isolated into a very strict, privatized, and habitual lifestyle. A primary contributing element of this social demise is the implementation of unwarranted boundaries into the urban fabric.

Kevin Lynch writes in The Pattern of the Metropolis the critical aspects that make up metropolitan form:

1. The magnitude and pattern of both the structural density (the ratio of floor space in buildings to the area of the site. and the structural condition (the state of obsolescence or repair.

2. Capacity, type, and pattern of the facilities for the circulation of persons, roads, railways, airlines, transit systems, and pathways of all sorts. Circulation and intercommunication perhaps constitute the most essential function of a city.

3. The spatial pattern of a city is the location of fixed activities that draw on or serve large portions of the population.[35]

   The most important features of spatial parts are:

a. Grain: the degree of intimacy with which the various elements such as stores, and residences are related.

b. Focal organization: the interrelation of the nodes of concentration and interchange as contrasted with the general background.

c. Accessibility: the general proximity in terms of time of all points in the region to a given kind of activity or facility.

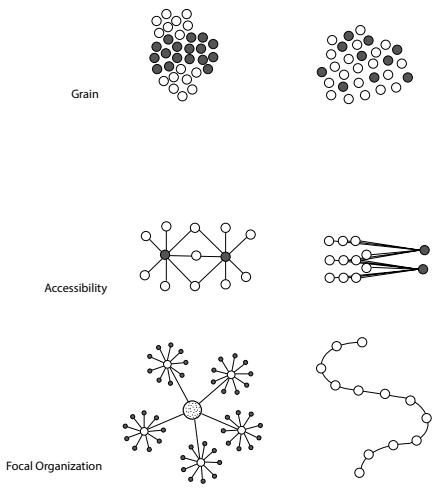


Figure 30 Features of Spatial Patterns- Kevin Lynch

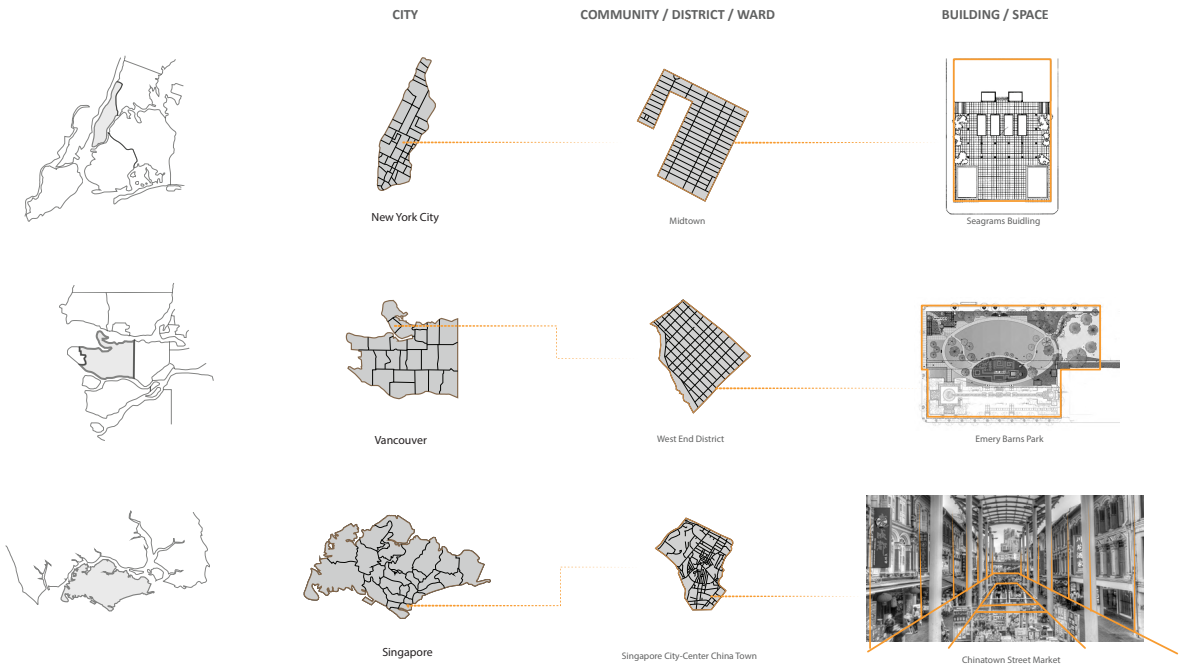


Figure 31 Urban Territories Diagram

There exist two forms of territory within the urban context, static territory such as buildings and spaces, and the dynamic territories of people; within this context, one cannot exist independent of the other. People and their inevitable activity directly influence space and architecture, and architecture and space have direct influence on people and activity. Every person, space, building and activity has engrained within its very nature a territory, and subsequently, a boundary that controls incoming and outgoing territories.[36] The question that arises within this discourse is, how do the static territories of buildings and spaces, and the dynamic territories of people and activities, control their independent and often cooperative parts. The primary objective of this thesis is in pursuing and understanding how these dynamic and static territories of inner-city life operate most efficiently and most cooperatively throughout the various scales in which the public realm operates.

2.1 TERRITORIES OF EXPLORATION

Considering the question, how can you create stronger social life in cities, requires one to acknowledge that public space does not existing independent and isolated from its context. Instead, public space is directly influenced by, and part of a dense interconnected network of varying territories that are built into what can be observed as a city's social realm. In this reason, this body of work analyzes the function of Toronto's public spaces from three distinct scales in which a city's public realm exists and is experienced. Each subsequent scalar territory is a fraction of the one before. The three territories of exploration are: the scale of the city core, the scale of a community, and the scale of a single building or space.

The first scale is Downtown Toronto, as defined by the City of Toronto Planning Department. This territory is bounded by Bathurst St. to the west, Bayview Ave and Rosedale Valley Rd. to the east, Dupont Rd. to the north and the waterfront to the south.[37] Toronto's downtown core has been selected as the canvas in which this thesis will be explored for three primary reasons: First, Toronto is a relatively young city compared to many other metropolitan city centers around the world. This presents a unique opportunity to explore how the city was externally influenced throughout its young and recent evolution, and in turn better understanding what and why it is today. Second, because the city is so young, and is evolving so quickly, the fundamental principles inherent in the cities future architecture are more malleable and capable of change. Third, and most important, this thesis is confronting the issue of how we as individuals, interact with our surroundings, as well as how the city and its architecture currently facilitate these interactions. Placing this thesis within a territory which I, myself, am part of (Church St. & Wellesley St. E) provides the greatest foundational awareness of the existing social condition.

The second territory is centered in the Church and Wellesley community; which for the intention of this thesis, includes all area inside a 1km radius, or 10 minute walking distance of the site. This limiting distance has been defined based on a comfortable walking distance for the average person, as prescribed in Jan Gehl's book Cities for People.[38]

The third territory will be limited to a site located at the north-east corner of Church St. & Carlton St. (70-72 Carlton St, 411 Church St.). This site was recently approved for the construction of two independent high-rise residential buildings which are in the beginning phases of construction. This adjacency of buildings provides an opportunity to explore not only how a building relates to the street, but also how the building directly relates to and influences other buildings. The existing site statistics within both residential buildings, such as lot coverage, GFA, unit count, max building height, will be maintained as appropriately as possible within a newly proposed design intervention. In addition, developer objectives such as unit count are generally dictated in accordance to specific profit margins; maintaining these site statistics ensures any potential intervention will not detract from these developer objectives.

These restrictions have been put in place to establish a firm foothold in current high-rise residential design and construction in Toronto, therefore providing the most appropriate solution for the current and future practice.

Each of the three territories, although they differ in scale, have influence on one another, and have direct influence on how people observe and experience the public realm. As will be revealed within this body of work, the composition of these three scales amount to a complete and more full understanding of the city and its public realm. One aspect that remains constant throughout these studies, are that the more intimate, and localized the scale, the more defined and precise the proposed architectural solution will be. Take for example designing one of the following scales: a metropolitan city, a city core, a community, a single building, or a single space. Concerning oneself with the human scale, the smaller or more intimate the territory becomes, the more detailed, informed, and impactful it has on the human condition. Cities are comprised of a dense network of interrelated spaces; one always affecting the other, understanding a city's public realm requires insight into the various scales in which city life is experienced.

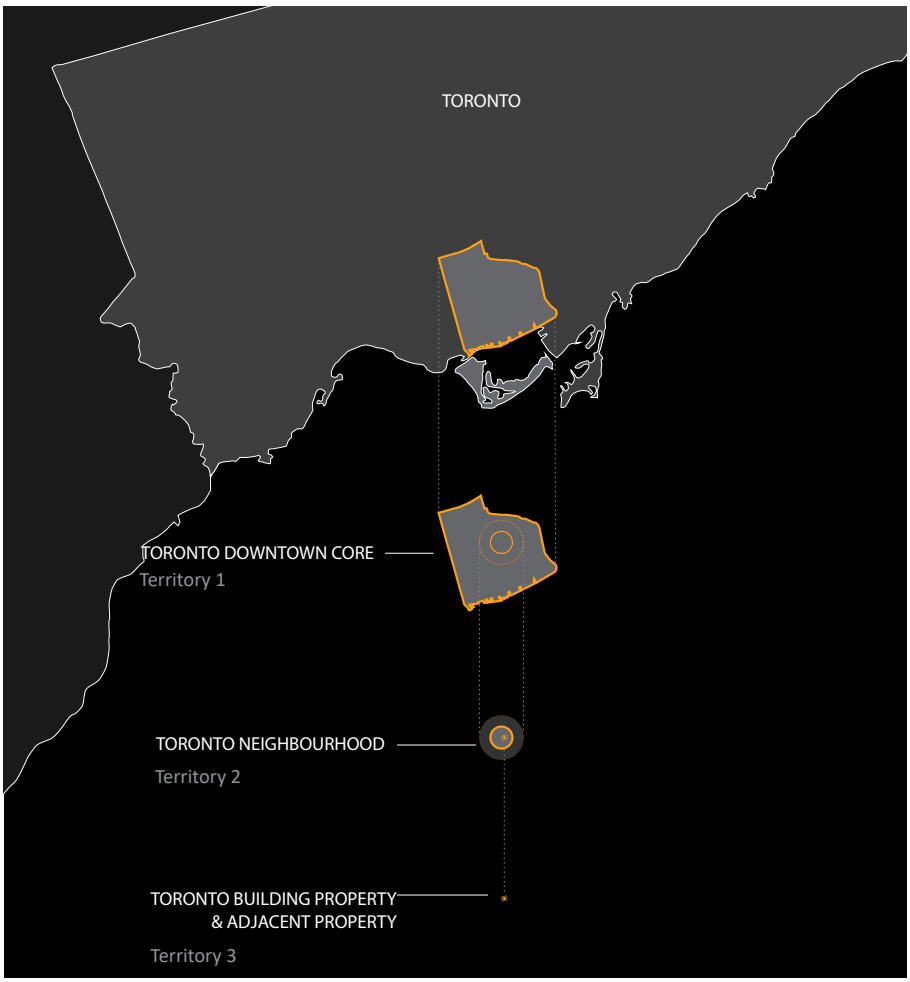


Figure 32 Toronto Territories of Study Diagram

ENDNOTES

35 Lynch, Kevin. "The Pattern of the Metroplis." In *City Sense and City Design*, by Kevin Lynch, 47-64. (Cambridge, Massachusetts: The MIT Press, 1990), 48.

36 Madanipour, Ali. *Public and Private Spaces of the City.* (London, UK: Routledge, 2003), 50.

37 Toronto City Planning Department, Urban Design- G&V. *Proposals Report TOcore Planning Downtown.* City Master Plan Proposal, (Toronto: Toronto City Planning Department, 2016), 1.

38 Gehl, Jan. *Cities for People.* (Washington: Island Press, 2010), 120.

3.0 TERRITORY 1: TORONTO's DOWNTOWN CORE

The City of Toronto is undergoing a rapid and continuous densification of its city core. Its ever-increasing population, and the private environments that support them, are beginning to strain the presently established public realm. Analyzing Toronto and its historic development to date, reveals a projected path in which would only increase the severity of these conditions. This condition is clearly visible by simplify observing the evolving city skyline. Almost all the new structures that pierce the existing building canopy are private or semi-private spaces; the majority of which are office and residential buildings. The evolved vertical stratification of urban living changes the common territorial boundaries of cities, communities, and buildings. Every additional storey added onto high rise buildings, stretch, and strain the defining influence of that site to its internal and external context. The greater the population that interacts with a boundary, the more critical that boundary becomes in the collective meaning of space. This increase in private space is not an issue in itself, until we directly analyze it in comparison to the relative increase in public spaces within the city core.

1.

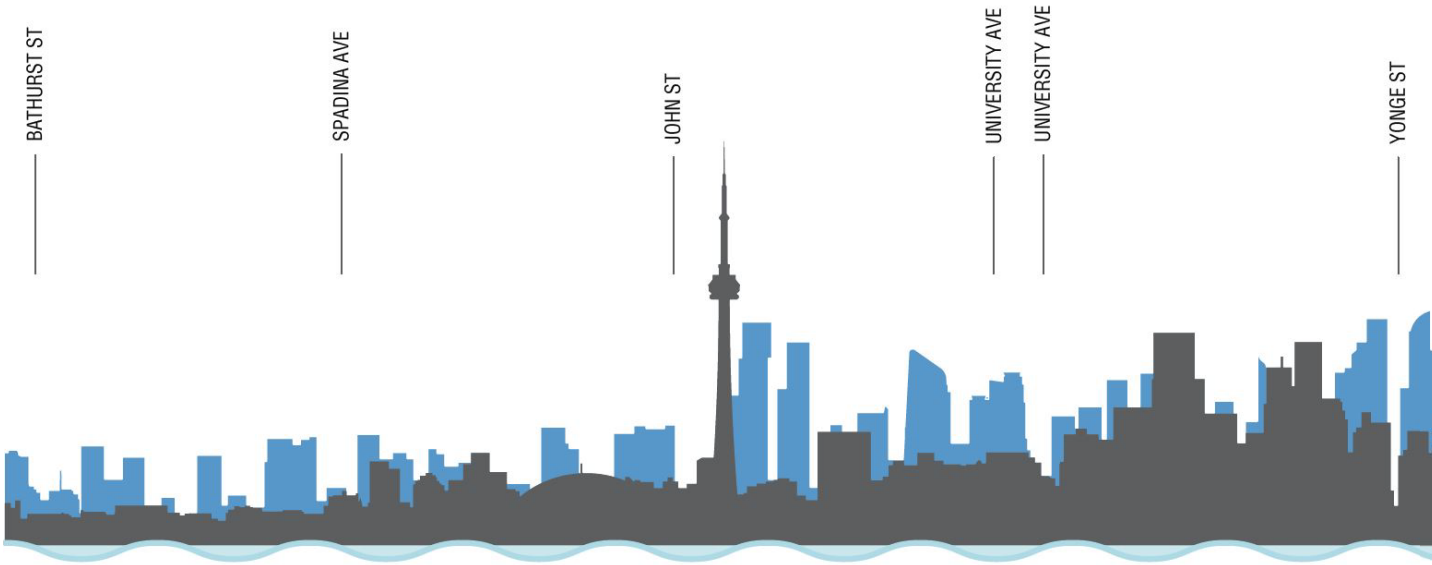


Figure 34 View of Toronto Downtown Core Jarvis and Wellesley St E.

View North from Lake Ontario

Figure 33 Toronto Skyline Evolution

3.1 TORONTO DYNAMIC TERRITORY

TORONTO POPULATION

There are two primary forms of densification occurring within the city of Toronto, the densification of architecture, and the densification of the population. The majority of which is private in nature; meaning only small select groups of the population ever see these new spaces. By its very meaning, densify, as it related to an environment insinuates a space that is compact, or crowded closely weaved together. Toronto has been steadily increasing in population since about the early 20th century, in addition to its necessary living infrastructures. For those individuals living in the city, the dense and diverse nature of urban life are what makes city living so widely appealing. Recent studies reveal that urban living has been increasingly sought after; today, roughly 82% of North American population lives in urban environments. The millennials represent the largest population group since the baby boomers, roughly 50 years ago. Jeff Speck writes in *Walkable City – How downtown can save America, one step at a time*, of this population bubble, 77 percent of them are planning to live within American urban city centers. [39] Today, 44.3% of all Toronto residents live in high-rise apartments and condominiums, the greatest concentration of which are in the downtown core. Supporting data reveals that Toronto high-rise buildings are increasing both in overall building height, and in over number of buildings constructed. Since the 2011 census, private dwellings in Toronto increased by 65,055, of which, 64,050 units were in high-rise apartments and condominiums.[40] It is quite apparent that high-rise living is becoming increasingly sought after amongst our evolving culture; predictions reveal the core of Toronto will almost double in population by 2041, reaching roughly 475,000.[41] These population increases directly contribute to the increase in building density within the overall city and the urban core, and the adverse effects on the public realm. Similar population increases and building conditions are occurring for many industrialized cities across the globe.

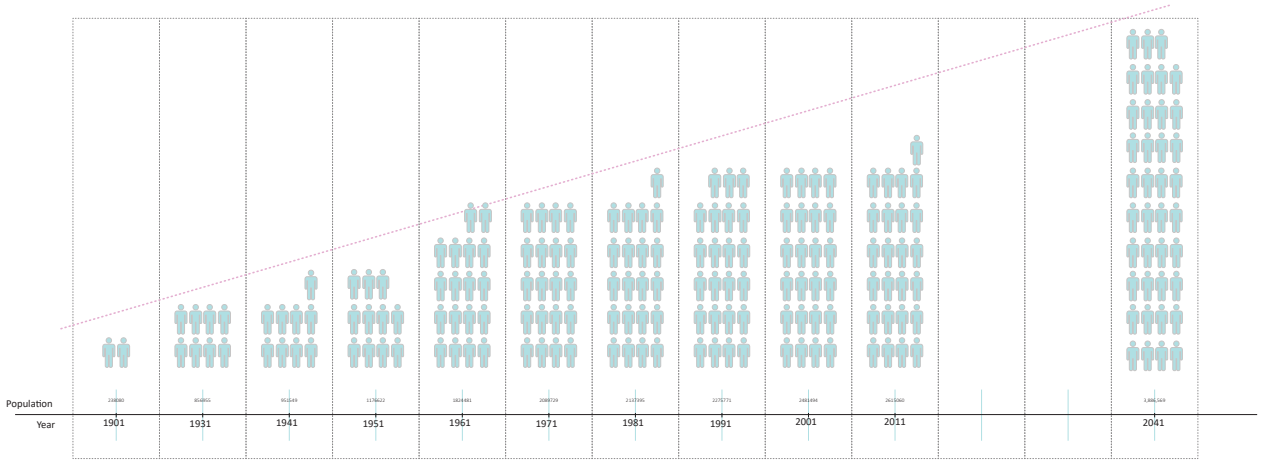


Figure 35 Toronto Skyline Evolution

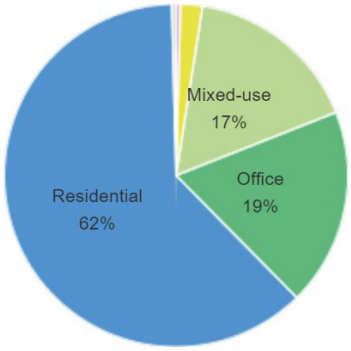


Figure 37 Tall Building Program Type

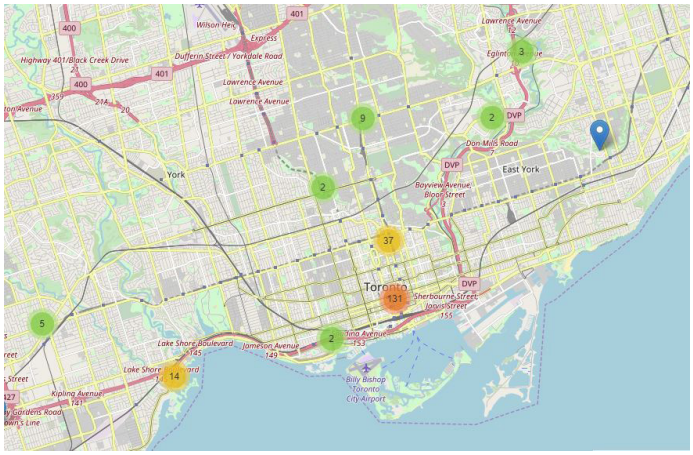


Figure 38 Tall Building Locations

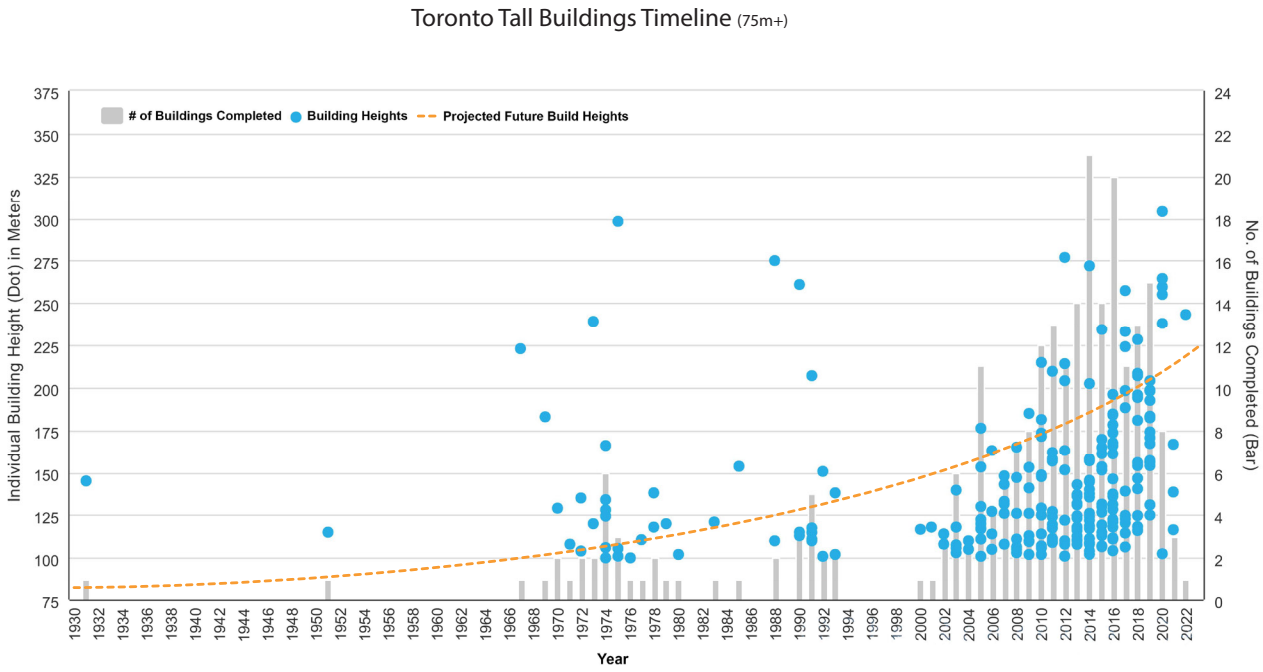


Figure 36 Toronto High-Rise Building Construction

3.2 TORONTO PUBLIC BUILDING's

Expanding on Kevin Lynch's elements of urban structure; nodes and landmarks act as critical anchor points for its population. From the prospective of the individual, the two most important anchor points in the urban city are either the workplace, or the home, the majority of city life occurs within these two locations. Both of which, are private spaces that are often manifested through high-rise architecture. As discussed prior, the life of the city, especially from the standpoint of public life, requires strong, clear, and fluid connections between both private and public spaces. However, the boundaries inherent in typical high-rise architecture have evolved to create harsh and rather isolating edges where the two realms meet. This condition has evolved into the commonly understood term of Sheer Wall Syndrome.

Toronto is experiencing a drastic change in its building and population density. The primary contributor to this vast expansion is a shift in the way people live. The majority of the millennial population has now shifted into the realm of urban living. The result is urban densification; from the perspective of architecture, an increased concentration of residential high-rise buildings. As shown in the Figure X, 62% of Toronto high-rise buildings are for residential purposes. Residential towers, including both apartment and condominium style, often accentuate isolation and privacy as it relates to the building design. The building typology regularly fails to provide appropriate public environments outside and inside the buildings they construct. With few exceptions, Toronto's downtown core is home to a mosaic of residential towers that suffer from these inherent patterns. These private, residential high-rise buildings are beginning to incorporate a more multi-use ground plane, however the existing strategy of adding a public art piece in front of the building or incorporating a few retails stores is not an appropriate response. The changing approaches, scales and density of city living are far exceeding a parallel development of the city's public spaces. The result is a city that is progressively establishes more private building, while not maintaining an healthy balance of public space. This thesis takes a position that every high-rise building in Toronto, residential towers included, have a responsibility to think more critically about how these independent structures integrate themselves into the urban fabric and the public realm.

Our cities, and our lives are defined based on the relationships between public and private spaces, something that architects, and designers know quite well. Why then, in a place so full of people, and so defined by collective engagement, is architecture so private? Why has the residential high-rise building evolved as it has, how and what is the reason for its changing form and function? What controls these buildings in form and function? How can we as a discipline and practice renegotiate the definition of public realm in a private place?

The most memorable and influential social spaces in the city are public or semi- public buildings; this is due to the inherent programmed activity that can take place within these spaces. The most common examples which can be found in many city cores,

including Toronto's, are libraries and community centers. Comparable to public parks and open spaces, public buildings are an essential participant in the establishment and continued management of healthy public living. As much as people enjoy outdoor space, an opportunity for enclosed activity is equally desired.

Toronto Reference Library

Regent Park Aquatic Centre

Fort York Toronto Public Library

Figure 39 Public Buildings Map

Figure 40 City of Toronto Noili Building Diagram

3.2.1 CONTROLLING ARCHITECTURE

There are three primary controlling systems that have direct influence on the design & construction of high-rise architecture in the City of Toronto: Technological Controls, Zoning Regulation, and Financial Controls. This is not to say any other influences are in place, these three represent the ones with greatest possible influence that is general out of control of the architects and designers. All of which directly contribute to the general character and structure of building design, and therefore the character and structure of the city. Understanding where and why these controls came into place, who has power over them, how they were implemented, and what influence they have on architecture, can help establish an appropriate and grounded response to social concerns of described within this thesis.

Figure 41 Toronto Residentail High-Rise Buildings

3.2.2 TECHNOLOGICAL CONTROLS

Given today's level of communication, Technological Controls are the broadest form of control in architecture. Advancements in materials, construction techniques, building function, etc., are regularly changing the discipline and practice of architecture. These technological advancements not only affect how architecture is built, but also its appearance, and its function.

The greatest recent technological influences in high-rise architecture that made building tall, even feasible, but also practical, are generally limited to a few key technologies. From the feasibility end of the spectrum, the introduction of iron frame skeleton construction which was officially patented by architect Leroy S. Buffington in 1888 which quickly evolved into steel frame construction.[42] According to Andres Lepik, author of Skyscrapers, one important event triggered Chicago to arguably become the first city in the world to build a high-rise building. The devastating fire of 1871 destroyed a large portion of Chicago's core, causing two critical problems; a severe lack of available office space, and secondly, land value had becoming increasingly expensive. The investors that financially supported new development demanded maximum potential usage, as they do today, every additional square food of floor area meant more financial return. Taking advantage of the need for additional office space in the city, the Chicago Home Insurance Building (Figure 7), designed by William Le Baron Jenney, and constructed in 1885, is generally considered to be the first high-rise building of its time. This building marked a very critical change in urban living, and from the perspective of developers, an entire realm of untapped real estate; the high-rise was born.

The Home Insurance Building was architecturally revolutionary for one primary reason, this new steel frame skeleton structure allowed the exterior walls to be non-structural. Earlier practices required the walls to be quite thick to act as load bearing walls. This new freedom allowed the building to also increase its total potential height. The first building in Toronto that used this structural system was the 1895 Temple Building, designed by George W. Qouinlock. Climbing to a height of 37m, this was Toronto's first skyscraper. Immediately upon completion, concerns were raised on its potential influence on the surrounding environment and public realm. It was this building that triggered a greater focus on building control in the City of Toronto.

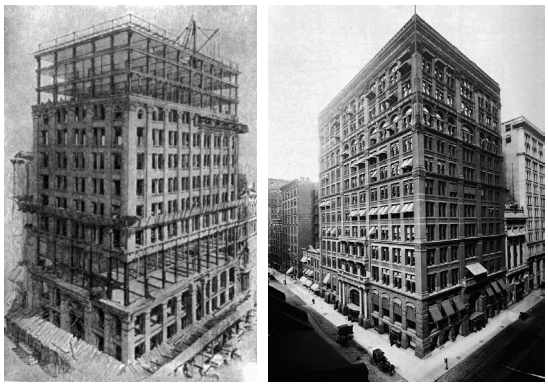
The next three technological advances made building high-rise buildings practical. These were, the elevator, and electricity & the light bulb. Elevators and pully systems changed how materials for buildings were transported but also how people were transported within these buildings. Buildings were reaching such heights that it was extremely difficult to sell the upper floors of early tall buildings; people simply didn't want to climb that many flights of stairs. One of the first human transportable elevators were created by Electric Elevator Co., founded in New York in 1883. The elevator completely changed the value of space, higher was better, it represented more power.

Lighting was another issue with high-rise buildings. Structural walls constructed from solid concrete or stone made interior spaces of building dark due to the sheer size and thickness of the wall; large windows that allowed for deep penetrating light did not exist. The advent of the first commercially available light bulb in 1879, by Tomas Edison, not only changed how buildings were constructed but the utilization of interior space. Every room could now be evenly lit during any period of the day.

These various technology advancements not only made working in high-rise possible, but it also made living in high-rise buildings possible. During early periods of high-rise growth, these buildings were generally restricted to commercial use only. It was these critical technologies, among others, that made living in these skyscrapers feasible and possible.

Feasibility

Steel Frame Construction



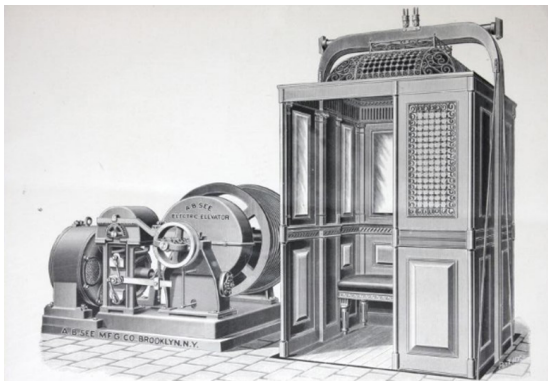
Home Insurance Building, Chicago
1885
10 floors, 55m

Architect: William Le Baron Jenney

Figure 42 Human Insurance Building- Steel frame Construction

Practicality

Elevator



Electric Elevator Co. New York
Electric Elevator Established 1883

Electricity

Commercially Viable Light Bulb, 1879
Tom Edison

Figure 43 Making Buildings Practical for the user

3.2.3 ZONING – BUILDING CODE - REGULATION CONTROLS

As the city began to evolve its architecture vertically, the need for greater control over the building itself became more critical to the success of the entire city. City specified zoning regulation and building code play a critical role in the defining characteristic of basic building design. To propose a future alternative solution for building design within the city, one must first understand where Toronto zoning regulation originated, and where it is today.

ORIGINS OF TORONTO ZONING REGULATION

Between 1900 and 1940 the concept of building construction fundamentally changed, and fast. Building tall was the new monument of urban architecture. The early explorations of high-rise buildings between 1880 and 1900 formalized into design principles seen in many tall buildings today. The earliest "skyscrapers" that surfaced in the 1880s and 90s maintained a relatively appropriate scale, they were tall buildings, but they were not "tall enough to rule the skyline".[43]

With this new building topology quickly arising, issues of massing were revealed. In 1891, Louis Sullivan started formulating theories relating to tall buildings and their effect on the external environments. His critique, and a primary component that has, in turn, shaped Toronto, is based on the original strategy of translating the property line vertically as high as is feasible. The result is a building that severely shadowed other buildings, spaces, and people. Sullivan forecast the increase in high-rise buildings within the city and proposed to adjust the zoning regulations to include a required setback as the building increased in height. The construction of the Singer Tower (1908) and the Equitable Building (1915) (see Figure 10) in New York triggered the changes of building regulations as it related to tall buildings. In 1916, the city of New York passed its first tall building zoning bylaw that prescribed required setbacks in relation to buildings heights. This unquestionably alter the form of the tall building architecture.

> *"this law stated that the more a building receded towards the top, the higher that building could be. And if, after a certain height, its dimensions are no more than a quarter of the ground level floor plan, then its height is entirely unrestricted."*

The setbacks regulations had been refined and formalized into the 1916 New York Zoning Law. Hugh Ferris created massing drawings to reflect the greatest potential of these buildings based on the prescribes zoning law. Below, shows Hugh Ferriss studies on maximizing building potential based on this new zoning law. Figure 9 shows a few buildings that were constructed under these zoning regulations. A very clear comparison can be made between the stipulated 1916 zoning regulation, the drawings that Ferris produced, and the actual buildings constructed in New York and Chicago during this period. It was the iconic successful of New York and Chicago that founded early zoning regulation in Toronto.

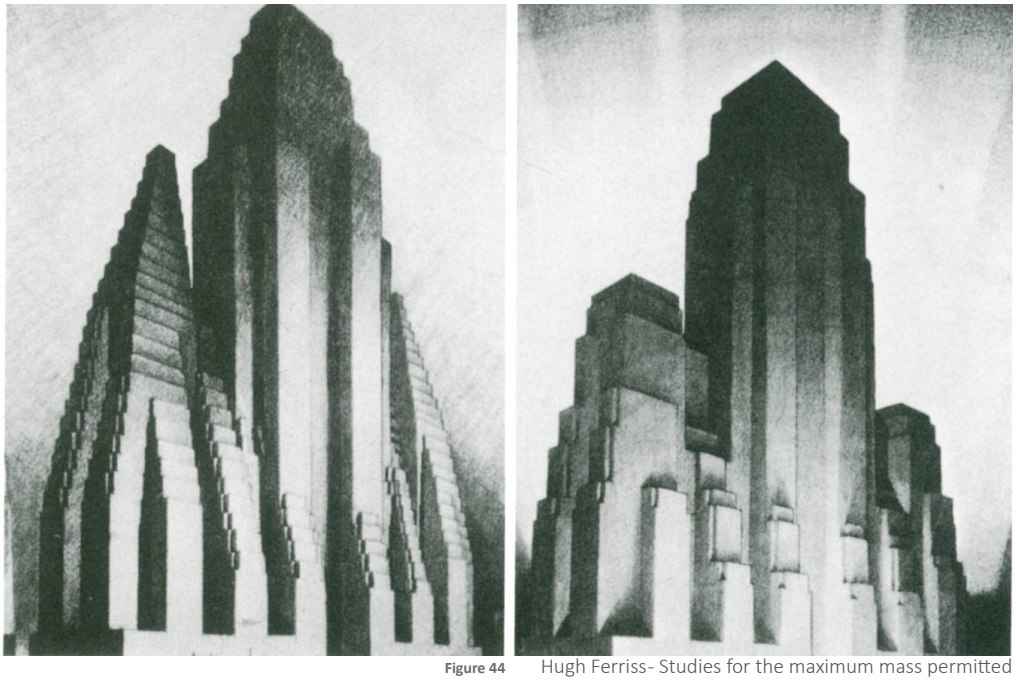


Figure 44 Hugh Ferriss- Studies for the maximum mass permitted by the 1916 New York zoning law

New York Buildings Design in Accordance to that by-law

American Radiator Building, New York, 1930

Empire State Building, New York, 1930

Toronto Building in Relation to New York

Sterling Tower, Toronto 1928

Bank of Commerce, Toronto, 1930

Temple Building, 1895, Toronto,

Richmond & Bay St

Height 37 m, 12 Stories

Bank Office Buildings, 1905-1915, Toronto

Sterling Tower,

Toronto 1928

Bank of Commerce,

Toronto 1929

ZONING: EARLY TORONTO REGULATION

Toronto's early high-rise developments clearly reflected many design principles that were instilled in New York and Chicago zoning and architecture. From this point onward, tall buildings in Toronto increased in occurrence, in addition to constantly objective to build higher. In the early 20th century, Toronto had very little in terms of established regulation and zoning by-law. However, there was a clear increase in high-rise building proposals submitted to the city, and therefore an increased concern for buildings impact on external spaces. As the density of high-rise buildings was increasing in the city, the Municipal Improvement Conference of Toronto decide to meet in 1913 to discuss implementation of control systems for these buildings. They concluded by creating a regulation that stipulated buildings could not exceed double the width of the street, or a maximum height of 130 feet.[44] This regulation stood relatively untouched for ten years until increased building density revealed greater concern.

In 1924, Ontario Architects Association decided to form a committee that was to question the exact issue of building heights. In the same year, the OAA committee decided that any building constructed above the maximum height, was required to setback one foot for every two feet of building height. [45] Four years later, the Sterling Tower, designed by Chapman & Oxley completed construction under these basic principles. At this point in Toronto's high-rise architecture, a clear comparison can be made between architecture of New York and Chicago.

The completion of the Sterling Tower triggered yet another rise of concern for Toronto tall building architecture; in the same year the Toronto Real Estate Board encouraged the concept of a planning board to manage the increased influx of tall buildings within the city. Mayor Samuel McBride appointed an 'Advisory City Planning Commission', which was composed of prominent local businesspeople. Why were they selected? Businesspeople are not in the profession to make architecture, or to plan cities, they are trained to efficiently allocate resources to ensure positive financial return. RAIC also pointed out this inherently flawed selection process, they noted that no architect

Bank of Commerce,

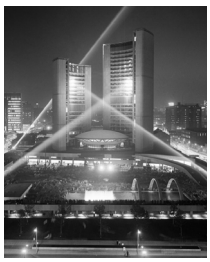
Toronto 1930

Canada Life Building,

Toronto 1931

Toronto New City Hall,

Toronto 1965



Toronto Dominion Centre,

Toronto 1969

or engineer was on the board; after these complaints, the board members were not modified in any way.[46]

Many Toronto tall buildings during this period reflect design strategies used in New York and Chicago. The primary reason of which was because Toronto, as a city, was under constant support by the 'civic boosters' to emulate the metropolitan nature of New York and Chicago.[47] A critical contribution to the New York skyline was the Chrysler Building; acting as a prestigious beacon of success and financial opportunity, its appearance alone ensured full tenant occupancy. From the perspective of a business person, this is what Toronto needed to be. It's not just a coincidence that many buildings after this attempted to emulate these exact conditions. The Toronto Star Building, completed in 1929, Royal York Hotel, completed in 1929, the Bank of Commerce Tower, completed in 1930, Canada Life Building, complete in 1931; all of which are designed to portray power, prestige, and wealth. [48]

The next stage of Toronto zoning development was in 1941 through the establishment of the Independent Committee on Zoning. The committee was comprised of five members: the chair was W.H Basley (Realtor), two engineers, S.R Frost and J.S Galbraith (Civil Engineers), and two architects F.H. Marani and W.L Somerville. This same year they submitted their first report that clearly stated from the start, "the day of the skyscraper is over, and all authorities agree that limitations of height is essential and in the public interest."[49] This report indicated max building heights, setbacks, lot coverages, etc. However, these regulations did not take effect until 1943, at which time it was to be provincially controlled and endorses. This took away necessary control and decision-making ability from the municipality of Toronto. These conditions remained in place until 1951 when the Toronto Planning Board prepared a draft zoning by-law. This new zoning by-law proposed that instead of having the fixed height setbacks on tall buildings, that a 'Floor Space Index' (FSI) be implemented to control the density of building as it relates to the lot size. The initial proposal set a total max floor area to nine times their lot area. An example is, a 9 storey building

could occupy the entire site, whereas an 18 storey building could only occupy half the site. The intent was this additional space on site would allow for onsite parking, to relieve the increasingly congested roads. This was the first zoning proposal that specifically instilled a relatively aggressive by-law that attempted to improve the public realm. Although it didn't work as originally intended, as will be revealed later, in the financial controls section.

ZONING: CURRENT TORONTO REGULATION

Today, there are two primary zoning by-law guidelines that have the greatest effect on new tall buildings in Toronto; the Tall Building Design Guidelines, that pertain to all of Toronto, and the Downtown Tall Buildings: Vision and Supplementary Design Guidelines. A concern is whether these existing zoning controls like the Tall Building Design Guidelines and their guiding principles are achieving what they originally intended. Below is a list of guiding principles that were directly extracted from initial pages of the Tall Building Design Guidelines.

> *TALL BUILDING DESIGN GUIDELINES*
>
> *GUIDING PRINCIPLES*
>
> *The Guidelines primarily Illustrate how the public realm and built form policy objectives of the Official Plan can be achieved within a tall building development and within the area surrounding a tall building site. The Guidelines provide specific and often measurable directions related to the following guiding principles:*
>
> *Promote architectural and urban design excellence, sustainability, innovation, longevity, and creative expression with visionary design, high-quality materials, and leading-edge construction methods;*
>
> *Promote harmonious fit and compatibility with the existing and planned context, emphasizing relationships to lower-scale buildings, parks and open spaces;*
>
> *Conserve and integrate adjacent and on-site heritage properties so that new tall buildings are sympathetic to, and compatible with, the heritage property;*
>
> *Consider relationships to other tall buildings, including the cumulative effect of multiple towers on sunlight, comfort and quality in the public realm;*
>
> *Create a safe, comfortable, accessible, vibrant, and attractive public realm and pedestrian environment;*
>
> *Minimize shadowing and wind impacts, and protect sunlight and sky view, for streets, parks, public and private open spaces, and neighboring properties;*
>
> *Respond appropriately to prominent sites, important views from the public realm, and the shape of the skyline to reinforce the structure and image of the city; and*
>
> *Ensure high-quality living and working conditions, including access to public and private open space, interior daylighting, natural ventilation, and privacy for building occupants.*

Of the eight guiding principles listed, six of them are directly related to the public realm. An obvious assumption can be made that the intent of the Tall Building Design Guideline is create a design foundation in which architects can utilize to ensure positive influence of high-rise architecture on the public realm. However, these initiates are not reflective of the majority of new high-rise buildings in Toronto downtown core. If the question was asked, are residential high-rise buildings public, the majority of the population might say, 'no, but some of these buildings do have a few ground level retail shops'. In a guiding system that is 75% founded based on the protection and creation of public space, how is this question not responded to differently?

CITY OF TORONTO ZONING REGULATION

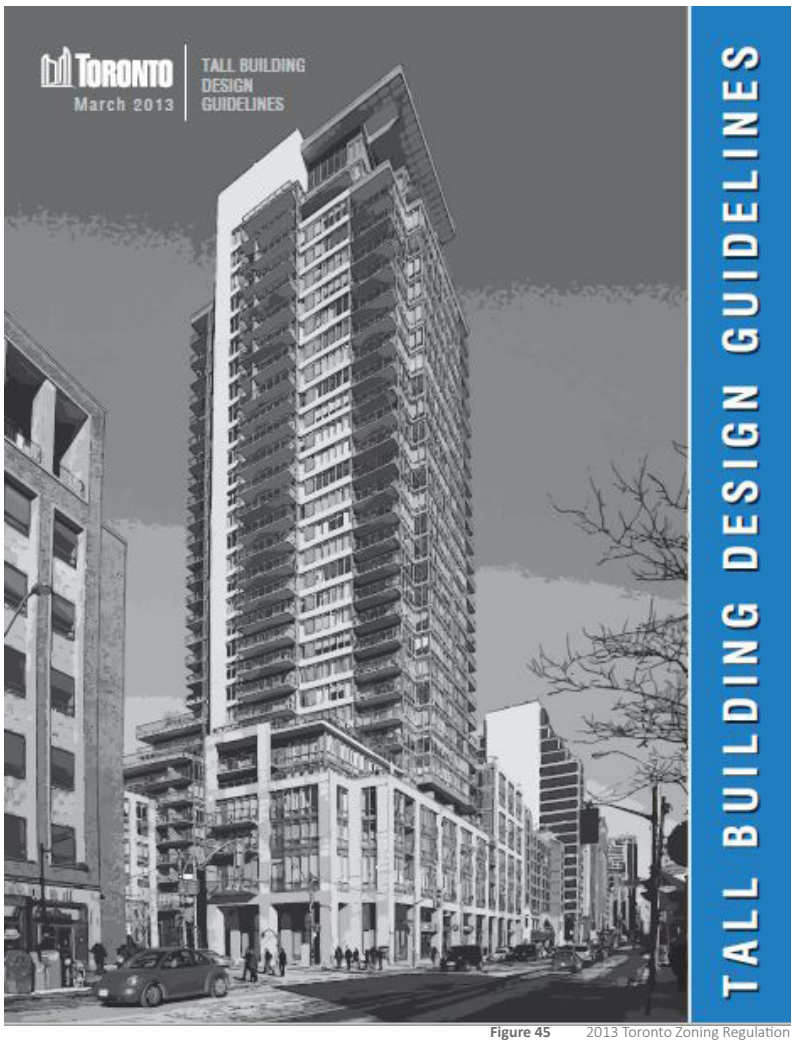


Figure 45 2013 Toronto Zoning Regulation
Tall Building design Guidelines

3.2.4 FINANCIAL CONTROLS

Cities are essentially giant engines of revenue, everything is paid for, even public space is funded from public money. In todays urban context of Toronto, and many cities around the world, design rarely begins without consideration of available funding. It is because of this financial initiative, that cities like Toronto even exist. It is a fact of our reality, and to design without consideration of how finance controls design, completely removes ourselves from the reality of building, especially in high-rise residential architecture. The city itself wants to grow and expand, just like a community wants to become more densified, just like a residential high-rise building wants to grow higher and add more saleable units; the initiative and product is grounded in overall net profit. Because of this; the financial supporters of building also have tremendous control over architecture.

From the perspective of a high-rise building developer, to build is to negotiate. This is why the Tall Building Design Guidelines, are 'guidelines'; they are constantly being overthrown and changed relative to each project. The most consistent deviation in zoning bylaw is building height; more height means more units, which means more profit. The common tradeoff for this increased revenue is greater contribution to public space.

Take for example the third territory in which this thesis is founded upon, the site in which a theoretical intervention will be implemented. The site currently has two independent high-rise residential buildings proposals that are both 38 storey in height. Complaints from the neighboring school yard triggered a battle between the developer and the Toronto District School Board (TDSB), surrounding the proposed building shadowing the schoolyard. At the first Ontario Ministry Board (OMB) hearing, the city, which was leading this fight for the TDSB, proposed a 25 storey design as a solution. However, in 2014, the TDSB agreed to a $1 Million settlement with the developer, and the building proposal was approved by the OMB with no further restrictions on building height.[50] Quite simply, the city wanted one thing, the developer wanted something else, and the developer won.

In this reason, providing a design solution that changes typical design practice for high-rise residential building in Toronto cannot ignore the financial side of architecture. For significant change to take place, financial feasibility must be maintained.

CLIENT INCENTIVE

Land Value is dictated by the total potential goods and services apraised for that piece of land.

Profit Margins are dictated by the Land Value and subsequently define minium required GFA

GFA = $$$

3.3 TORONTO PARKS & OPEN SPACES

The TOcore report, Rebalancing Parks and Public Realm, revealed that in 2016, Toronto's downtown core includes 121 owned parks and open spaces.[51] Toronto's highly diversified body of people, communities and cultures have fortunately created the need to establish unique parks and open spaces scattered throughout the urban core, how the amount of park and open space introduced into the city is not proportionate to the increase in population. The last 10 years of the cities evolution reveals about a 45% increase in downtown population, and a 28% increase in park and open space.52 Although this only accounts for one type of public space within the city, this environment represents the most well recognized public spaces within city limits. The City of Toronto's recent refocus, and reintroduction of green, 'natural' spaces provide a passively programmed venue for the individual and collective to actively engage in their surroundings. These parks offer its temporary inhabitants a place for leisure and recreation, but additionally as it relates to this thesis, a place of interaction. The high density, high-rise trend in which the city has been heading, requires these parks remain in place to substitute the lack of backyards which most of these residents do not have.[53] The preservation and implementation of Toronto parks are a vital city planning strategy that aid in healthy individuals, communities, and the overall life of the city. These parks, regardless of the size, shape, form, and function offer residents and visitors a temporary and necessary escape from the density and rather manufactured nature of the city.

Figure 46 Cloud Gardens

Barbara Hall Park

Allen Gardens Park

Nathan Philips Square

There are 121 parks in Toronto downtown core

Park Space: 911,343m²

Figure 47 Toronto Parks & Open Spaces

3.4 TORONTO STREETS

If we were to momentarily consider the city to be a living organism, much like the people that inhabit them, transportation systems such as TTC are vital to its heath. The veins and arteries, roads and highways, that are embodied within the city have defined the structure and organization of the built environment; they are the means in which a lively city is founded upon. These movement networks have critically influenced two aspects of the city core; the locations in which sites and buildings are located, and the methods in which the pedestrian move through and experience spaces.

These circulatory systems define space and infuse activity and city life throughout the entire city. Raymond Curran writes in Architecture and the Urban Experience, "both planned and spontaneous, these uses, together with access, provide what can be described as the glue that bonds people together as well as all the individual parts that make up a city."[54] In Toronto, this is internally comprised of, Go Train, Toronto Transit System (Subway, Street Cars, Busses), private and service automobiles, and ambulatory function. Understanding how people move through cities, where the go, how they get there, what routes they take will better influence the potential of architecture to create meaningful and useful spaces in the City of Toronto.

The streets of Toronto, and many great cities around the world, are dependent upon the planning, organization, and most importantly, function of the street. As is shown on the images and drawings on right, the most populated city streets by city life are those that offer the greatest diversity of activity to occur. The streets encompass the highest percentage of area and impact of the public realm within the city. Shared between pedestrian, and vehicular traffic, the street is comprised of sidewalks, storefronts, utilities, roads, cars, busses, landscaping, people, etc. It is important to understand that their composition has direct impact on the public's perception, interpretation and use of these arterial spaces. Toronto does not have the fortunate opportunity of 1000 year old cathedral plazas and market squares that have defined many great European cultures and cities[55]; the western world uses streets as their primary place for circulation, social interaction, and public engagement. A study conducted by the city of Toronto reveals that private transportation like cars are allotted 64% of road space in Toronto, however, these cars only move 16% of its population.[56] The streets need to respond to more than the circulation vehicles that have enslaved us, and be redirected back onto the life of the city. Most recent experimentations like the King Street vehicle access restrictions have already revealed an increase in commuter satisfaction, and an increased engagement with pedestrian street life.

Church & Wellesley Village

Kensington Market

Distillery District

Figure 48 Public- non vehicular street life

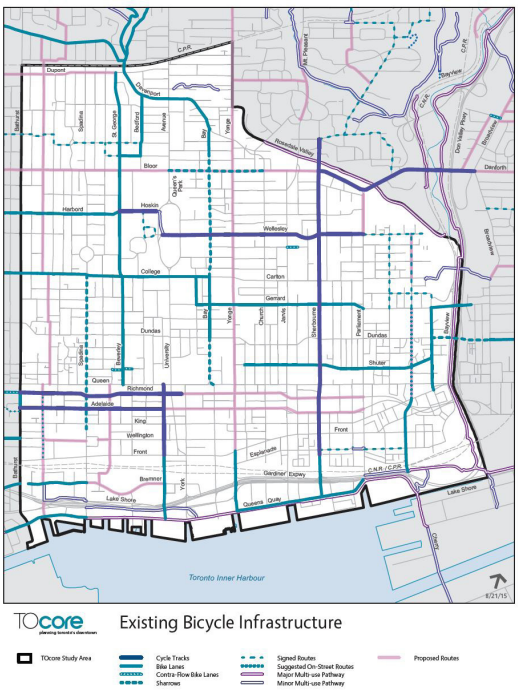


Figure 50 Existing Bicycle Infrastructure

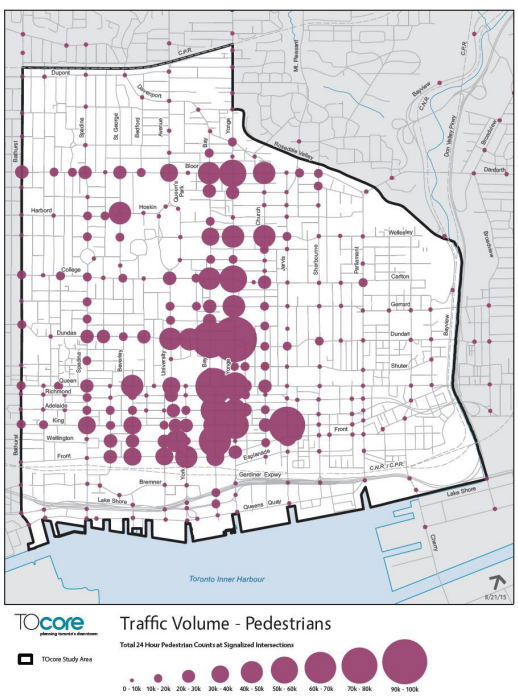
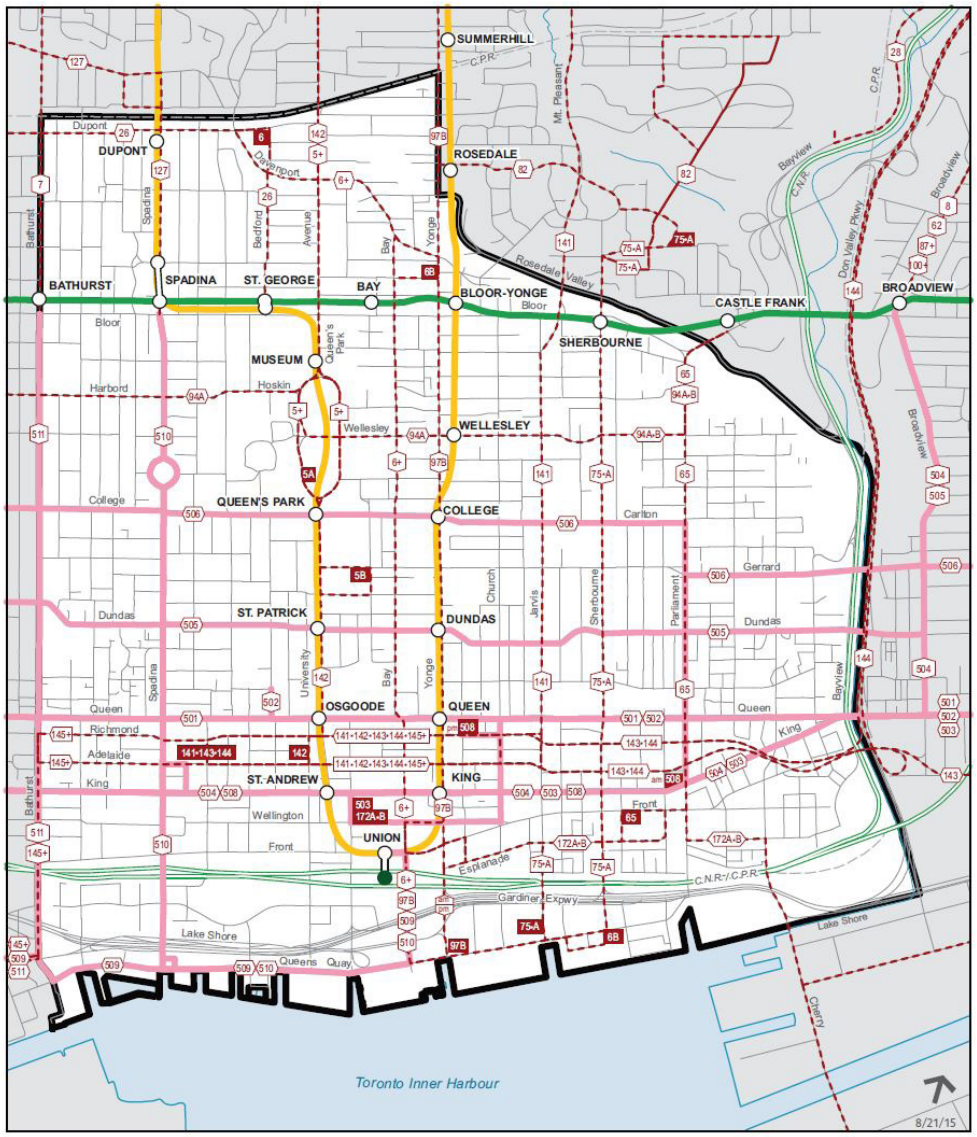


Figure 49 Traffic Volume- Pedestrian

3.4.1 PUBLIC TRANSPORTATION

The introduction of public transportation within the City of Toronto critically expanded the city in form and function. These systems of circulation are vital to a city's evolution and success, but more importantly, as it relates to this thesis, a lively, and healthy public realm.

The very first publicly available, on land, method of motorized transportation in Toronto was the 1892 'Belt Line' steam railway. Only lasting a few years due to financial difficulties, this system enticed Toronto to invest resources into public transportation. Beginning with the Belt Line system and soon transitioning to the electric streetcar, [57] provided accessibility to more spaces throughout the city, causing a population boom that has yet to slow down. During the early 20th century, the electric streetcar system remained the primary method of motorized transportation for Torontonians and its connecting towns. Its use, and popularity more than tripled between 1900 and 1910. These transportation systems were directly responsible for the expansion of Toronto's cultural and material environments. These systems evolved into the dense network of public transportation seen in the city today; all of which acting as a vital link between people and their surrounding environments. Today, this street car system, one of many transportation networks in the city, is responsible for transporting an average of 200,000 people every day within the Toronto core[58] (this statistic does not include subway line or busses). When considering the effectiveness of the public realm, it is important for designers to also consider accessibility to these spaces. The success of the public realm relies heavily of this and other forms of public transportation systems. The most used public spaces in the city are often in close proximate of these primary circulation routes.



TOcore planning toronto's downtown

Transit Network

Transit Route Type

- TOcore Study Area
- Bus (excludes Blue Night Network)
- Streetcar
- Yonge-University Subway and Station
- Bloor-Danforth Subway and Station
- GO Rail Lines and Station
- 504 Route and Travel Direction
- 97B End Point of a Line

Figure 51 Public Transportation- City of Toronto

3.4.2 PRIVATE TRANSPORTATION

The next stage of Toronto's transportation boom, the advent of the affordable automobile, and its necessary infrastructure was rapidly being implemented inside the city. Prior use of the automobile was viewed as a "rich man symbol", although it was occasionally utilized as a delivery vehicle within the city.[59] The lack of infrastructure, and paved roadways outside the City of Toronto prevented efficient use of the newly available automobile; which was still primitive in its abilities. Acknowledging this issue, and confronting the primary concern of affordability, Fords Model-T automobile triggered the iconic transportation change which has been engrained in society and the organization of cities today. This personalized vehicle drastically altered the entire concept of the city network; how people moved, where they lived, and most importantly, how they lived.

Jeff Speck interestingly writes in his book, Walkable City, "the automobile is a servant that has become a master".[60] The car that is so sought after today has been unintentionally and unfortunately been given unrestricted freedom in the formation and evolution of our cities. "It is an instrument of freedom that has enslaved us." [61] The car has shifted the way we view space, speed, and time; many things in life are now dependent on the time it takes to get from point A to point B. Although a gradual shift is occurring within the city core of Toronto.

The urban core in being densified by the people who work there; most of the population that lives in the city, also work in the city. The close proximity of the live-work relationships has caused a shift in the way roads are used within Toronto's core. The usefulness of the private automobile during daily routines are ceasing to exist. The existing road networks no longer have to capability to support the drastic increase

in population. The result is a population that is adjusting to the conditions. Most of the population walk, cycle or takes public transit to get to work; 75% of downtown residents prefer this method over the private automobile.[62] Where the roads are restricted to the ground, residential living is not. Roads can no longer support its expanding internal population, in fact, it often hinders them.

What the automobile is causing within the city core, has severe negative effects on the more dominant form of transportation in these environments, walking. How the population moves through space influences the life of the city, just as much as the city influences our movements. Walking and exploring the cities landscapes have the potential to greatly alter the way the world is perceived; roads, highways, etc, only act as barriers for these actions. Charles Montgomery formulated an interesting analysis of roads and their development. What he and his collogues discovered was if you build a bigger road, more cars will drive on it, if you build more bike lanes, more people cycle on it, if you make more public space, you get more public life. Although this is a simplification, it is in-part, true.

The private vehicle has been too densely instilled into the organization of the urban core, it has single-handedly established the greatest negative impact on the social realm in Toronto's core. Fortunate experiments like the recent vehicle restrictions on the King St TTC line are a step in the right direction; this street is already beginning to change, in favor of the pedestrian.

A comparable evolving concern for public space in the city is circulation infrastructure. The population that uses roads, streets, and highways are constantly increasing, and making the experience of private transportation, in some instances, unbearable. The solution, that is clearly not working, is to create more roads and highways; however, this growth is restricted by availability of space and/or available of funding. Instead we need to change how people move between space. Hence the redirection of resources into public transport like trains, subways, streetcars, and buses. This is one of those same conditions, you can't fix a problem by simple making more of it, instead, you need to evolve how these systems function and are utilized.

3.5 THE EXISTING CITY CONDITION

"The metropolis has tremendous economic and social advantages that override its problems and induce millions to bear with the discomforts."[63]

Kevin Lynch – The Pattern of the Metropolis

The initial conception of Toronto as the Town of York, to the metropolitan city it is today, has evolved primary according to efficiency. The city has and continues to evolve as an efficient machine; constantly learning and evolving from its previous condition. Although economic growth is vital to the success of any industrialized city across the globe, the concept of value needs to be redefined and reprioritized away from the independent and often isolated products of urban architecture and onto a more unified and interconnected environment. The increased intigration of high quality interrelated urban environment, goes hand and hand with a lively population, and a successful city.

Urban environments thrive through their ability to integrate a large diversity and quantity of activity into a small area. The typical practice of designing and locating social and private space in different territories, completely disregards the primary reason urban environments are successful. Territories, in this instance are used to describe the mosaic of property lines established within the city. The public and private realm are often considered in opposition to each other, whereas they should be thought of as a collaborative partnership. Their liveliness is founded upon diversity, proximity, accessibility, and their interrelated connections. The nature of a dynamic and active population requires a balanced negotiation between public and private spaces. However, the City of Toronto is increasingly creating greater separation between public-social spaces relative to private spaces. The boundaries that separate the public-social realm and private realm within Toronto's city core needs to evolve a more balanced, and seamless relationships between these competing spaces.

The high-rise building typology has embedded within its structure, a formal distinction between tower and building base, however there often exists little-to-no functional distinction. This presents a unique opportunity to integrate the crucial public-social components of space in cities, and the necessary private spaces into one entity; thereby creating a unified high density, public and private living environment. The building evolves beyond a segregated mass in the city network, and becomes a node of city life, instilling a cooperative influence for both the public and private realm.

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4.0 TERRITORY 2: TORONTO COMMUNITY

TERRITORY TWO - CHURCH & WELLESLEY COMMUNITY

The City of Toronto, like many cities, are an amalgamation of various communities embodies within a complete whole. Although the city formally divides itself into 'wards', a community is typically not limited to these extents. These communities' range in size, scale, density, function, culture, location, and in most instances general esthetic character. Many cities have communities with heightened population or activity, some refer to these as the heart of the city, in the case of Toronto, this node is the financial district. From the perspective of this thesis, this isn't so much the heart of the city but more so the engine, it's the wealth generator. This primary node exists and is supported by the surrounding communities, just as each independent community is also supported by its surrounding communities. Although the city is functionally separated, as shown in the figure 55, communities exist as a tangled, and overlapping network of influence. Kevin lynch refers to communities as districts.

> *"Districts are the medium-to-large sections of the city, conceived of as having two-dimensional extent, which the observer mentally enters "inside of," and which are recognizable as having some common, identifying character. Always identifiable from the inside, they are also used for exterior reference if visible from the outside. Most people structure their city to some extent in this way, with individual differences as to whether paths or districts are the dominant elements. It seems to depend not only upon the individual but also upon the given city."*[64]

The territory or district of focus for this body of work, is the Church & Wellesley Village. This community represents the second scale in which the city is experienced, this territory is limited to the typical daily activity of an individual, which occurs within a 1km radius, or 10-minute comfortable walking distance of the site. Jan Gehl has indicated in Cities for People, that the closer to the center of the radius of influence, the greater day to day influence these spaces have on the individual.[65] Everyone's community is different but is generally focuses around this limiting distance. A widely known community evolves when the collective body engages in specific and regular activity within this limiting proximity. The Church & Wellesley Village community has been chosen as an ideal area of focus within the city because it holds within its limits two highly activated cultures within the city, the LBGT community, and the Ryerson community.

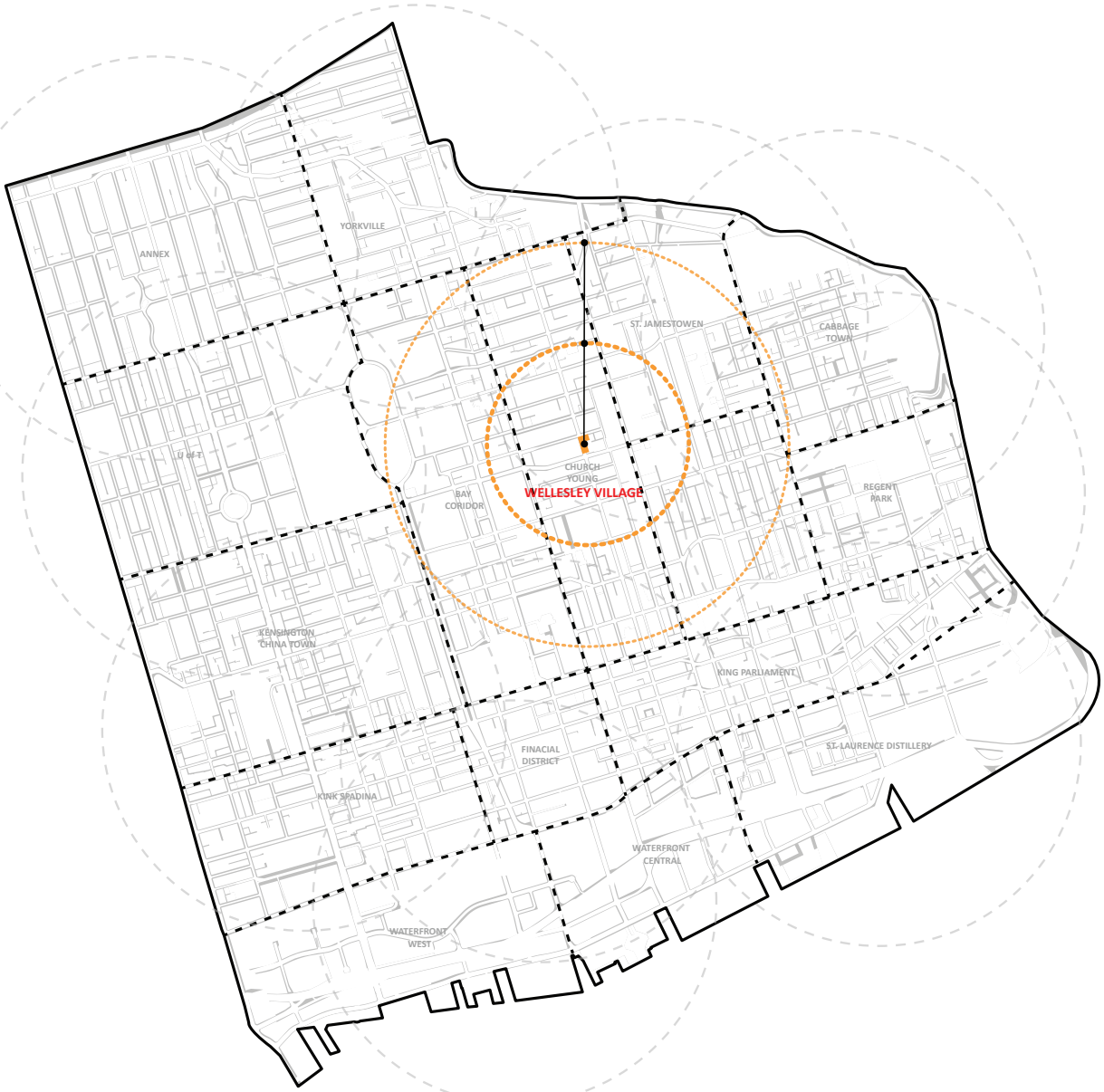


Figure 52 City of Toronto Neighborhoods / Districts Diagram

4.1 ANALYZING THE CITY NEIGHBOURHOOD

The individual, at first, views the district as just a serious of memories or images stored in the mind. Understanding the independent district and its social realm required this person to mentally understand the geometries of that place; the corners of the streets, the red house, the landmarks, but also the paths which allow access to and inside the district.[66] This district knowledge and identity occurs through participation in activity which is comprised of physical objects (static territories), and human activities (dynamic territories). In his book, Site Planning, Kevin Lynch analyses these conditions using 'Land Use Diagrams'. This analytical method is utilized to better understand the Church & Wellesley Village. The Land Use Diagrams which have been produced will help analyses: social distinctions between spaces, linkages to those spaces, density of social space, and the pattern in which these spaces are organized. [67]

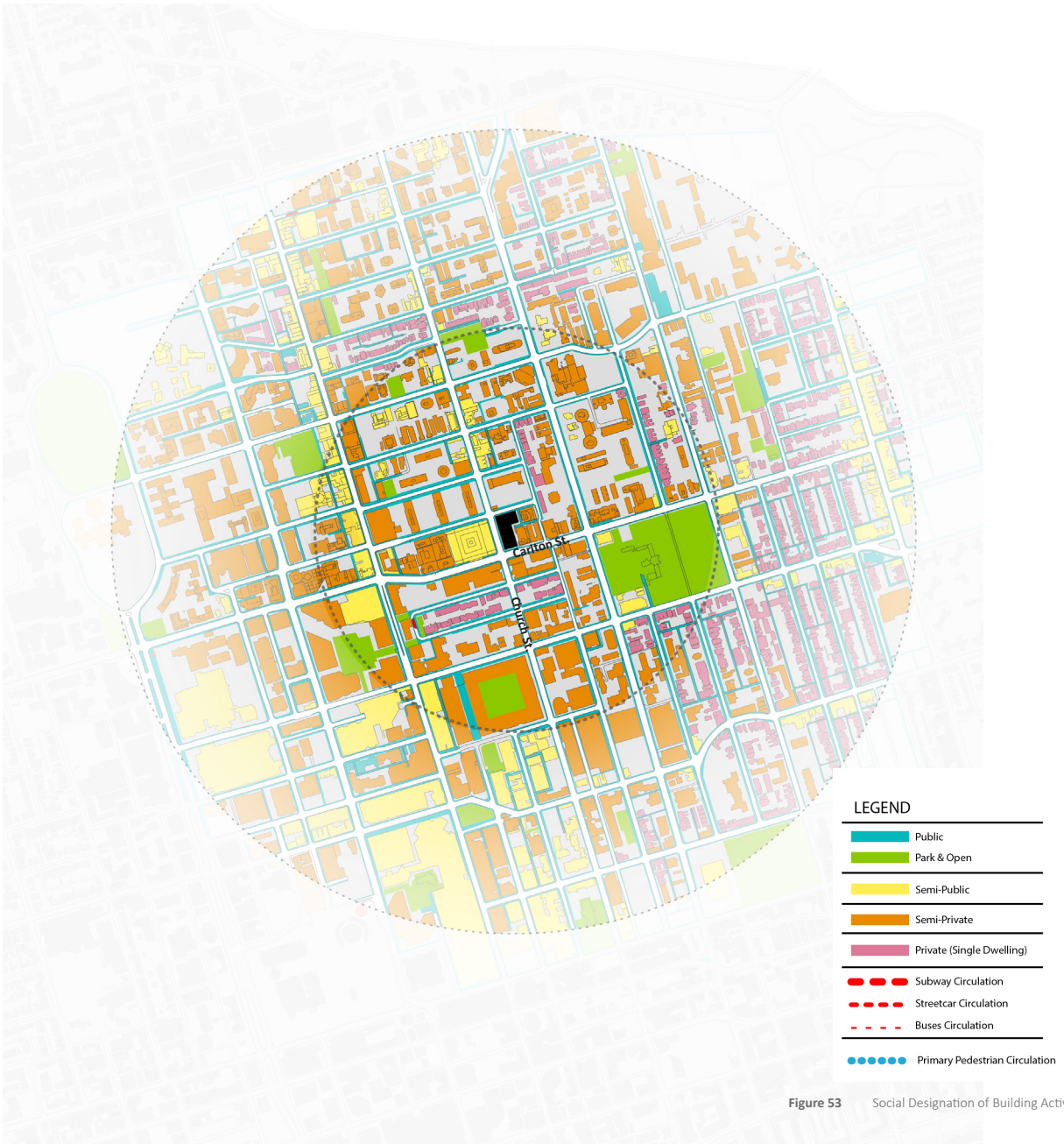


Figure 53 Social Designation of Building Activity

4.1.1 SOCIAL DISTINCTIONS BETWEEN SPACES

This analysis revealed the types of spaces available to the population in the community. The Land Use Diagram is colour coded based on the buildings or spaces primary affect at grade. For example, an office building that came right down to grade, was marked as a semi-private space. If the office building had a ground floor level that was accessible by the public for some form of activity (food, shops etc.) it was marked as a semi-public; as the base was designed specifically to be occupied by the public body.

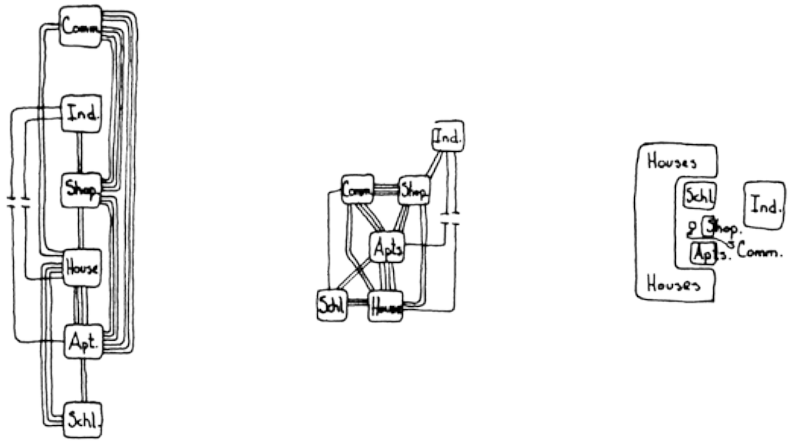


Figure 54 Lynkages Sketch Diagram- Kevin Lynch

4.1.2 PATHS & LINKAGES

The most important aspect of any community is its public circulation, both incoming and outgoing, as well as internal. Incoming and outgoing circulation is generally categorized under aided transportation such as taxis, buses, streetcars, or trains; as described in the previous chapter, Territory three: Toronto's Downtown Core. The most important internal transportation method is pedestrian movement, or walking. With a focus on public realm, circulation within the district is the means by which people have access to public activity. The combination of external and internal circulation directly influences the programmed activity at a specific moment in space, in addition to guiding the introduction of new program.[68] People cognitively map our paths by establishing origin and destination points. "Paths with clear and well-known origins and destinations had stronger identities, help tie the city together, and gave the observer a s sense of his bearings whenever he crossed them."[69]

Society has evolved based on needs and general requirements to live; the result is established basic program components that must always be in connection to each other, some connections require closer proximity or greater accessibility depending on function. The function of society is based upon five types of programable components, Residential, Education, Consumer, Community Facilities and Supply / Business. Their connections of which are sketched by Kevin Lynch in the Figure (x).[70] With the exception of Supply & Business, the remaining four components require as direct and close a connection as possible. Of the five components the public realm consists of, consumer and community facilities, in addition to the connections between, which are typically publicly accessible.

Figure 55 Community Circulation

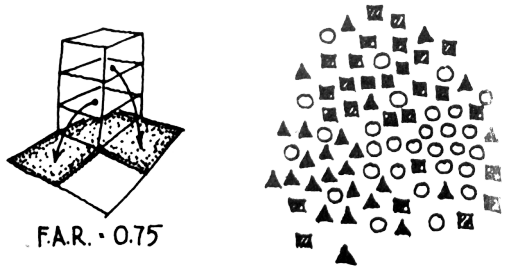


Figure 56 Density Sketch Diagram- Kevin Lynch

4.1.3 DISTRICT DENSITY

The density of a city, community or site has a large impact and influence on the area of study and the quality of life within it. This density is measured through two ways, the measure of physical density of built form, and activity density of the number of people for unit of area. "in the future, as population or activity increases, and as technology weakens the connection of structures to ground or makes possible three-dimensional circulation systems, we may turn to measures of cubic density, intensities per unit volume"[71] The overall city activity, yes can be measured by the cubic density, however, the public realm, in my opinion will always exist most strongly at the level in which circulation is most prominent. Right now, that area is the ground plane. Until regular daily circulation lifts off the ground plane, the concept of public space should always be analyzed under the 2-dimensional density, as it does today. The density of these environments also effects the economic value of the area, in turn raising the value and cost of land, which in turn increase the quantity of spaces required to meet economic profit of a proposed project. "the suitability of the density varies with the situation, the allowable cost, the habits of the group to be served, and the character of surrounding development." (31) Establishing the density of the area is important as it gives scale to the plan. [72] Without conscious understanding of scale, the sizing and quantity and type of program and type of activity cannot be accurately prescribed. Prescribing these variables to be implemented require knowledge of not just the adjacent programs and buildings but also the composition of the community and the city whole. Take for example a large grocery store, in the urban environment, have 2, 3 or more directly adjacent of each other is not a suitable condition for living. Considering what is best for the site, requires consideration of needs and requirements of the community and city. "The site planner cultivates the habit of looking beyond the boundaries of his site to study the density and character of surrounding use and also to learn the place of the site in the larger patterns of the community as a whole. The preferred arrangement of use on the site may depend heavily on outside links, such as a movement to work, convenience to shopping or other facilities."(32) "the land use diagram indicates the final pattern to be achieved when construction is complete, and the site fully occupied." [73]

Figure 57 Pedestrian & Cyclist Activity Diagram

4.1.4 PATTERNS & ORGANIZATION

As architects we identify, consciously and unconsciously, the patterns of architecture, and city organization. Every city, community, and even building offers unique patterns in which they are established. In north America we often see urban environments structured through rectilinear, net style formation; the roadways are the net, and the openings are the buildings. Each of the types of patterns found in cities and communities have varying functional implications; “such as rigidity or flexibility, dispersed or concentrated communication, specialization or repetition of parts.”[74] When applied to a specific location, i.e. church and Wellesley neighborhood, it is then, that they can be appropriately judged and critiqued. Kevin Lynch identifies two crucial components in which these patterns can be judged: “the accessibility provided between units, which is basic to the functioning of the whole; and the sense of form and organization that will be conferred on the final design, which is fundamental to its esthetic quality.” [75] The developed patterns should be catered around the user it serves, as well as its relation to the greater collective; that includes the people and the context of the community and city whole. As prescribed by Kevin Lynch in his book Site Planning, the success or effectiveness of these evolved physical forms can be judged under seven critical objectives or goals of public space in cities: functional adequacy, optimum communication, choice, cost, health and comfort, adaptability, and image quality. [76] These objects of design are expanded upon in the next chapter: Territory 3: Toronto Site & Building.

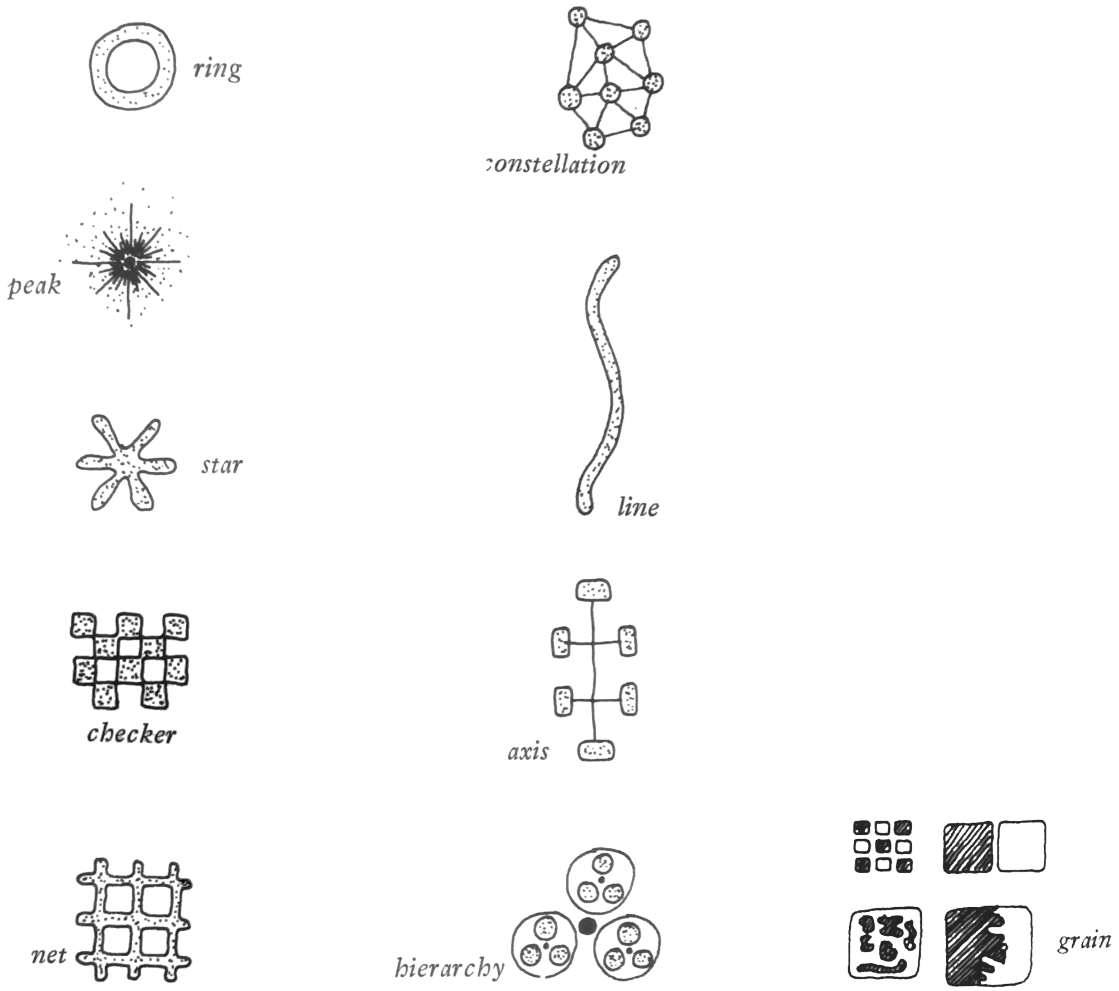


Figure 58 Patterns & Organization Diagrams- Kevin Lynch

4.2 PRIVATE & PUBLIC VALUE OF SPACE

How do community aspects like walkability and activity, esthetic, safety, etc. actually become reality? As much as the discipline tries not to let finance, control design, the practice of architecture, and the success of the community relies on these incoming resources. There are systems in place called BIA- Business Improvement Area that form a relationship between the public city and the private sector. This cooperative relationship is mutually beneficial for both parties.

BIA's are a relatively recent strategy that utilize private resources to improve public spaces within communities. The first BIA was founded in 1970, for Toronto's Bloor West Village. (refer to image) The by-law cooperatively arranged between the public and private sectors that the businesses' in the area pay a specific tax that was to be directly re-introduced back into that community. Although the initial total budget was only $50,000, that money went into improving aspects of the neighborhood such as sidewalks, lighting, vegetations, signage; improve the overall character of the street. In addition, this funding also goes into various community events that promote business, marketing and 'neighborhood beautification projects'. These public space improvements directly influenced the public life in the area, and therefore, increased revenue for these businesses'.[77] Today, there are 82 BIAs that positively influence the city; one of them within the community of this project proposal. The Church & Wellesley BIA includes over 125 businesses composed of restaurants, cafes, retails stores, and services that contribute private money to neighborhood improvement. For every $1 the public city sector introduces into the community, $10 is contributed in private funding. The community itself has evolved drastically in the last decade and will continue to do so under these mutually beneficial relationships. .[78]

It is this cooperative relationship between public and private realms that have the increased the financial value of space, but also the social value of space.

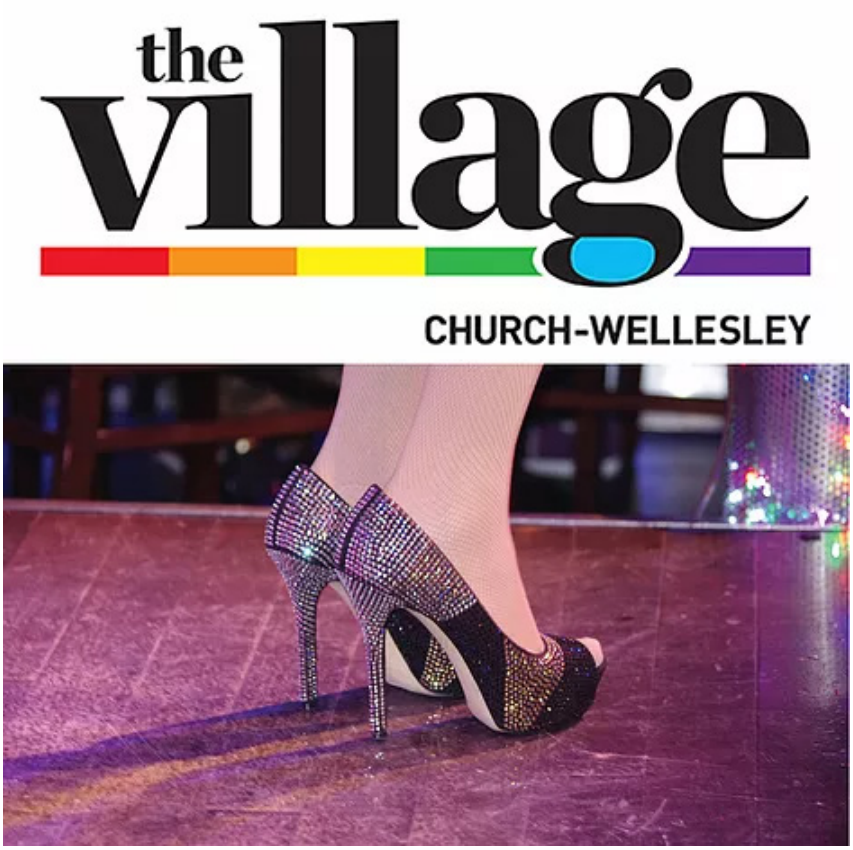


Figure 59 the village - Church-Wellesley BIA

120 Bloor Street East

40 College st

4.2.1 POPS – PRIVATELY OWNED PUBLICLY-ACCESSIBLE SPACES

POPS have been slowly implemented more often into the city core as a result of greater demand for public spaces. The restriction in available publicly owned land makes this almost impossible. POPS are privately owned spaces that are open and accessible to the public, as if they belonged to the public. As of 2014, over 100 of the spaces exist within the city core[79]

This definitely expands the public realm of the city, however, POPS are classified as open spaces, the defining elements of which have no immediate or intentional relation to exterior programmatic influences. If a developer put a bench and a planter down for the public to engage with, that is considered a POPS. The public realm is a composition of building program, parks and open space and the street. The most successful public spaces are conscious and is easily accessible to all these spaces. This project works in favor of Privately Owned Public Spaces, expanding it further to include the other elements of public space in cities. not only designing these privately owned public spaces. The city has established regulation within the city's Office Plan. The primary and important elements are as follows:

(Section 3.2.3 Parks and Open Spaces of the City's Official Plan.)

> *All development will be subject to the dedication of 5 per cent of lands for parks purposes for residential development and 2 per cent for all other uses unless the alternative parkland dedication rate applies.*
>
> *An alternative parkland dedication rate of 0.4 hectares per 300 units will be applied to proposals for residential development and for the residential portion of mixed use development as follows:*
>
> *b) for sites less than 1 hectare in size, the parkland dedication will not exceed 10 per cent of the development site, net of any conveyances for public road purposes;*
>
> *c) for sites 1 hectare to 5 hectares in size, the parkland dedication will not exceed 15 per cent of the development site, net of any conveyances for public road purposes.*

Similar strategies will be used to quantify the amount of public space that the developer is obligated to introduce into the building mass; assuming the building is appropriately located within a potentially activity node within the city.

50 St. Joseph St.

College Park

1,23 Bloor Street East

21 Carlton St

85 Bloor St. East

823 Bay Street

Figure 61 Local POPS Locations

Figure 60 Pedestrian & Cyclist Activity Diagram

ENDNOTES

64 Lynch, Kevin. *The Image of the City.* (United States: The Massachusetts Institute of Technology, 1960), 47.

65 Gehl, Jan. *Cities for People.* (Washington: Island Press, 2010), 120.

66 Yi-Fu, Tuan. *Space and Place: The Perspective of Experience.* (Minneapolis: University of Minnesota Press, 1977), 17-18.

67 Lynch, Kevin. *Site Planning.* (Cambridge, Massachusetts: The MIT Press, 1962), 23-36.

68 Ibid, 27.

69 Lynch, Kevin. *The Image of the City.* (United States: The Massachusetts Institute of Technology, 1960), 54.

70 Lynch, Kevin. *Site Planning.* (Cambridge, Massachusetts: The MIT Press, 1962), 28.

71 Ibid, 30.

72 Ibid

73 Ibid

74 Ibid, 34.

75 Ibid.

76 Ibid, 11.

77 Economy, City of Toronto Business &. *BIA LIST.* 2016. https://www.toronto.ca/business-economy/business-operation-growth/business-improvement-areas/bia-list/ (accessed 03 21, 2018).

78 Village, The. *The Village Church-Wellesley.* 2018. https://www.churchwellesleyvillage.ca/ (accessed 03 21, 2018).

79 Department, City of Toronto Planning. *POPS - Creative Place making to Enhance Urban Life.* Draft Urban Planning Report, (Toronto: City of Toronto, 2014), 2.

5.0 **TERRITORY 3: TORONTO SITE & BUILDING**

"A person is so far formed by his surroundings, that his state of harmony depends entirely on his harmony with his surrounds."[80]

Charles Montgomery - Happy City: Transforming our lives through urban Design

How can specific moments of architecture within the urban context of Toronto create and encourage more public activity and liveliness? It is my opinion and experience that the harmony Charles Montgomery speaks of in his quote above is not as prevalent as it once used to be. People avoid interaction with other people and other architectures outside of their own daily routine. Outside of this, the social spaces, the spaces that are bringing people together, are either disconnected from any other supportive program, accessing these spaces through urban transportation is unreasonably as a daily task, or once there, there isn't a whole lot to keep them interested or engaged. The city is becoming so highly densified, and so formally privatizes, occupying social space, and participating in public activity is not as comfortable and satisfying as it once used to be. The private architecture of the city needs to take greater responsibility for its city life. Establishing stronger relationships between the public and private realm has already proven itself through other scales in which city life operates. These same principles of cooperative relationships and blurring of boundaries have the ability to also improve the scale at which the city affects the population most, the scale of a single building.

A much more radical solution, which this thesis is exploring, is to devote a specific percentage of public accessible space in high-rise residential construction relative to the number and type of units being introduced into the building. Similar to the strategies used within Business Improvement Areas, and POPS (Privately Owned Public Spaces), establishing this relative scale ensures the density of the introduced private building program is matched by a relative introduction of public-social program.

The primary objective of this project is to establish an architectural process that reorients the perspective of a design onto a balanced negotiation between the public and private realms. The intent is to design a space that establishes stronger, more meaningful relationships to the individual and collective, as well as to the building, community, and city.

The design of the developed processes and patterns can be established using general objectives or goals. From the perspective of a public realm in a densely private environment the goals are as follows: [81]

Functional adequacy: given the program introduced, does it embody the general requirements for it to be successful. An example of which is a park or open space. Is there enough light coming into this space make it comfortable for people to inhabit?

Optimum communication: is the design easily interpreted and understood. Does the building feel public, even without signage? Do people first coming to this space generally how the buildings circulation works.

Choice: does the individual or collective user feel the space offers a variety of activities or opportunities, and easy access to these spaces. A space that caters to a variety of users, and that those users feel free to function together.

Cost: is the developed design efficient, both in labor, material usage, and organization. If a specific space of function is unnecessary, its depreciates the over effectiveness of the entire site. An example of which is an amenity space in a building that is almost never used. This is especially important when the majority of building in the urban core are dependent upon the cost of its construction and the cost of its maintenance thereafter.

Health and Comfort: A large percentage of buildings, especially within the urban core are built to satisfy minimum building code and regulation requirements. These are set a base standards of safe living condition, not necessarily focused on comfort. This goal employs a large scope of safety, comfort of all senses.

Adaptability: In an environment that is constantly evolving and changing, independent spaces and environments need to be able to change depending on the condition. A programmed space in a building might be prosperous for 10 years, then suddenly change. This happens quite often and must be considered when designing spaces that depends entirely on an evolving public culture.

Image Quality: the image or esthetic should clearly identify its function, even if the design is not entirely public, it should be a part of the context, instead of an isolated and unique object that does not belong or contribute to the image of the community and city.

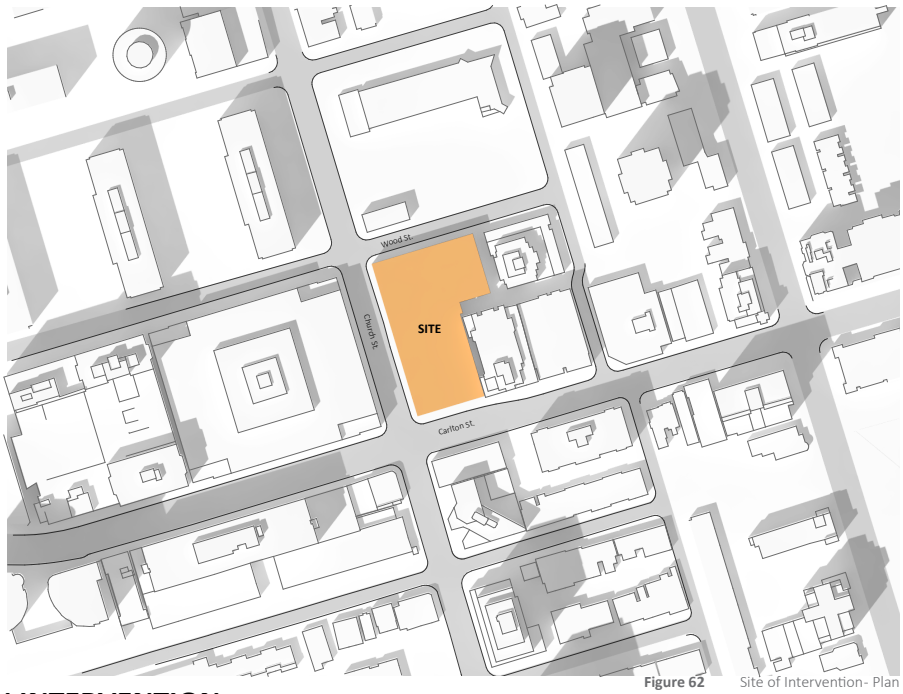


Figure 62 Site of Intervention- Plan

5.1 SITE OF DESIGN INTERVENTION

This site has been specifically chosen for two critical reasons. The first of which is because it historically represents a socially prominent moment within the city of Toronto, that has substantially declined throughout the cities densification. The site sits directly adjacent to Maple Leaf Gardens, now Ryerson's Mattamy Aesthetic Center and home to a Loblaw's grocery store. In 1990, the city designated this building as an historic site due to its important cultural influence on the city. This space once hosted roughly 200 public or semi-public event annually. The increased popularity of the Toronto Maple Leaf's required a larger space for the team operate; in 1999, the team moved to the newly constructed Air Canada Center. Since then, the active role it played in the life of the city has never fully returned. Fairly recent sale to Ryerson university, and its adaptive reuse into the MAC and a Loblaw's has contributed to an increased densification within the neighborhood. Like many neighborhoods in the city, this community is being densified by high-rise residential architecture, of which the site has an existing developer proposal for 2, 36 storey residential buildings. The second, and more important reason this site has been chosen is because of its critical position within Toronto's existing circulation network. The site is located at an intersection of various public circulation systems. This moment of convergence makes this site a primary candidate to implement an active, publicly charged node for the community. Organized in passive cooperation to an existing building proposal on the north end of the village, these two buildings act as anchor points for activity within the entire mediate neighborhood.

70-72 Carlton St. & 411 Church St.

Approved Site Proposal

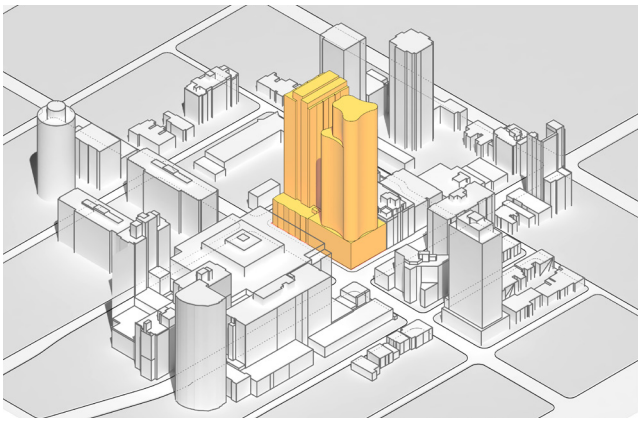


Figure 64 Existing Building Proposal

Existing Site Condition

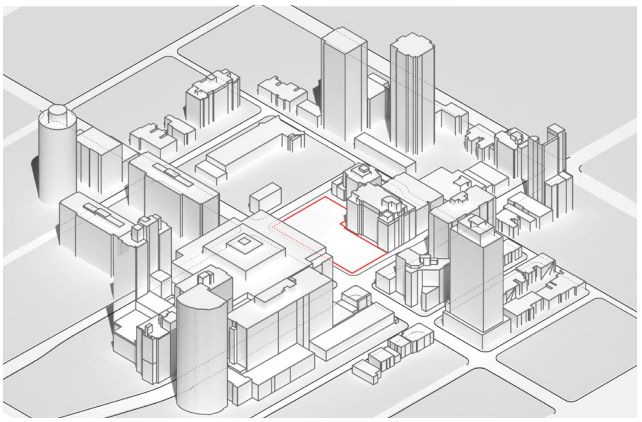


Figure 63 Existing Site Conditions

5.2 TORONTO HIGH-RISE RESIDENTIAL TYPOLOGY

The types of buildings common in urban city centers are often designed to rigidly control incoming and outgoing population and activity. The questions that this thesis concerns itself with is, how well do the traditional strategies used within high-density, high rise living design, translate into an increasingly dense environment, where the majority of volumes are high-rise buildings.

High-rise residential typology has been chosen as a design vehicle because it represents a very prominent style architecture in Toronto and around the world today. The increased population in the city directly correlates with the increase in private high-rise residential buildings. Its increasing concentration within Toronto, and its often-neglected integration into the public realm, makes it a perfect vessel to better understand the potential relationships between public and private spaces.

5.2.1 PODIUM ARCHITYPE

During the period in which high-rise architecture was weaving its way into city architecture, Louis Sullivan subdivided this building type into three distinct component parts: the base, the shaft, and a capital. Very much like the design of a column, the subdivision of this building type established a system that would manage and control its individual parts in relationship to site.[82] This is an important milestone in differentiating the potential influences these components have on the building itself, and the buildings relationship to the public realm and adjacent private realms. Finding its strongest and most influential foothold in Vancouver, this style of tall building was quickly adapted into Toronto's architecture.

Today, the Toronto Tall Building Guidelines also subdivides the tower into three component parts. Of these three building components, the base has the greatest potential impact on the public realm. This is purely a result of the individuals relationship to building; the tower structures formally mean very little to the observer other than acting as a potential landmark for orientation. However, the tower has absolute impact on the esthetic quality and atmosphere of the city. The majority of issues concerning tall buildings typically surround the buildings relationship to its external context, including views, sun exposure, and connection at grade.

Unlike the tower component, the building base is typically scaled in more appropriate relationship to the human dimension, giving it more practical and feasible influence on the public realm. Its position has the potential to exemplify the connection between public and private spaces, and the inherent relationships. Today, the base of these building types is more commonly referred to as the Podium. The podium, which establishes a clear formal distinction from the rest of the building provides a mailable volume for implementing an alternative building function. In a period in which public space is increasingly limited, the podium offers potential real-estate for a necessary instigation of public space into a densifying private city; not only improving the public realm, but its inherent relationships to any connecting parts.

5.2.2 THE MIXED USE PODIUM

To accommodate the evolving density and diversity of cities, the traditional rigid boundaries, established within high-rise podium and point tower architecture need to evolve. There is no doubt public space exists throughout the city core, however, can these public spaces, and the existing strategies used to develop them, handle the increased population that the city will most definitely experience. In an environment that places high value of space, a more cooperative relationship needs to be established between these often-separated environments.

The base of buildings are inherently charged with strong moments of interconnection between realms; these interactions, connections and relationships are vital to the successful nature of city life. As the city scavenges for space to build, more cooperative relationships in architecture are beginning to evolve. Various architectural proposals and existing buildings around the world are integrating public and private life under one building form. Examples are as follows:

The Robinson Tower in Singapore, designed by A+I Asia, has changed the base of a office tower building into a 7 storey retail store, and large open rooftop garden.

Figure 65 Robinson Tower, Singapore

ION Orchard Shopping Mall and residential tower in Singapore, designed by Benoy & Orchard Turn Development Ltd. This building incorporating shipping and parking in the base of the residential tower.

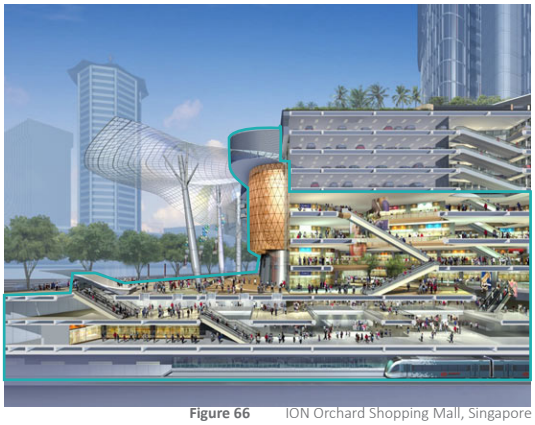


Figure 66 ION Orchard Shopping Mall, Singapore

Hysan Place, Hong Kong Island. Designed by Benoy Architects, this is a hybrid integration of retail and office building translated vertically within a high density urban environment.

Figure 67 Hysan Place- Interior View, Hong Kong

Figure 68 Hysan Place, Hong Kong

IFC Mall – International Finance Centre. Designed by Benoy Architects, is a office skyscraper with a commercial development as the foot of the building. Built entirely on reclaimed land the space evolves beyond a temporary space for people to work, but an environment that a diversity of people can enjoy during its operations hours.

Figure 69 International Finance Center Interior

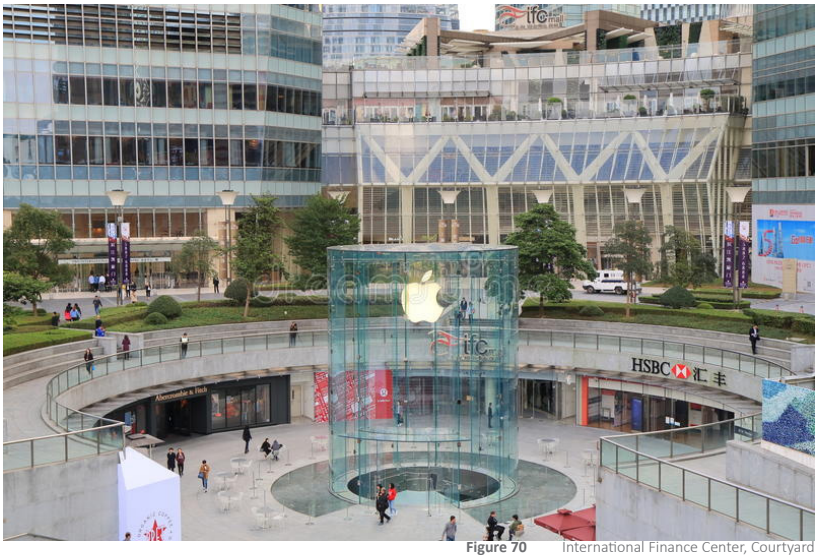


Figure 70 International Finance Center, Courtyard

In Toronto strong historic and new and proposed examples exist as well.

One of the highest density and most widely utilized buildings in Toronto is the Toronto Eaton Center. Designed as a large building complex comprised of three office towers spaced evenly across the site with a building base that is almost entirely public.

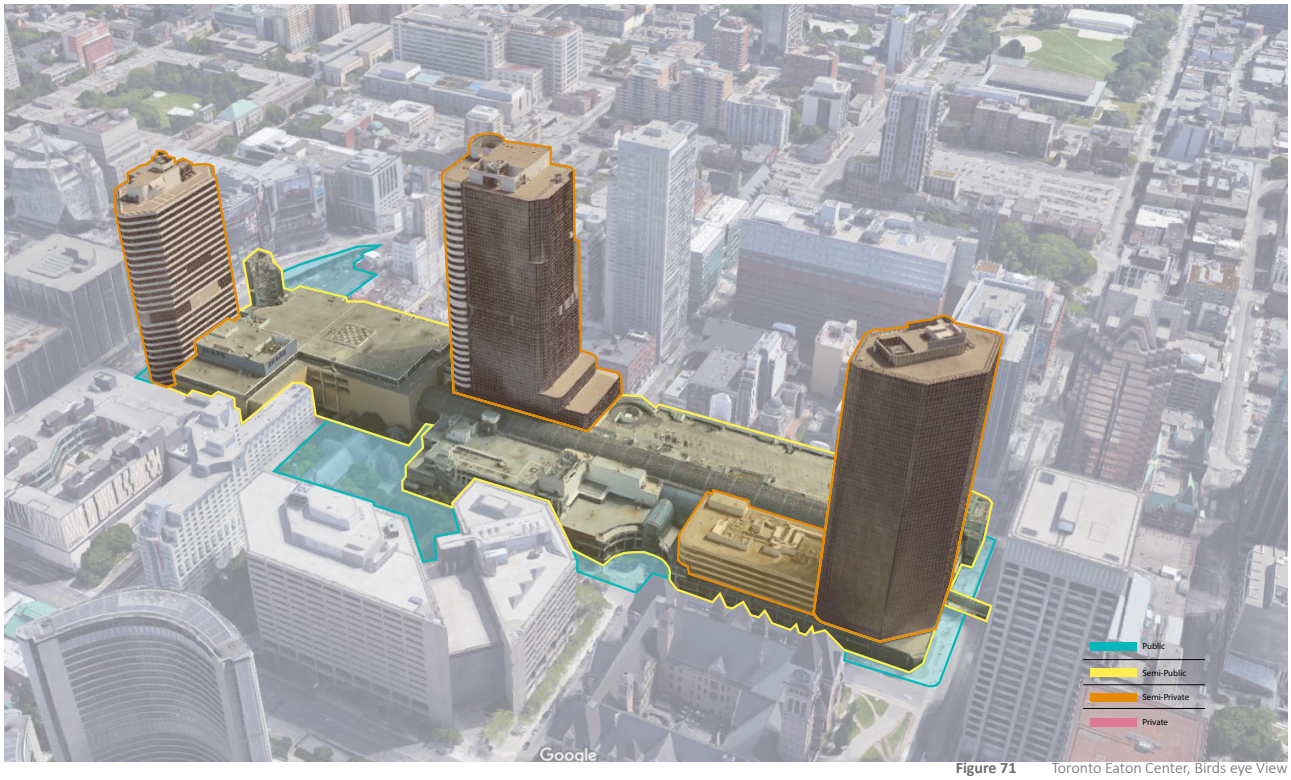


Figure 71 Toronto Eaton Center, Birds eye View

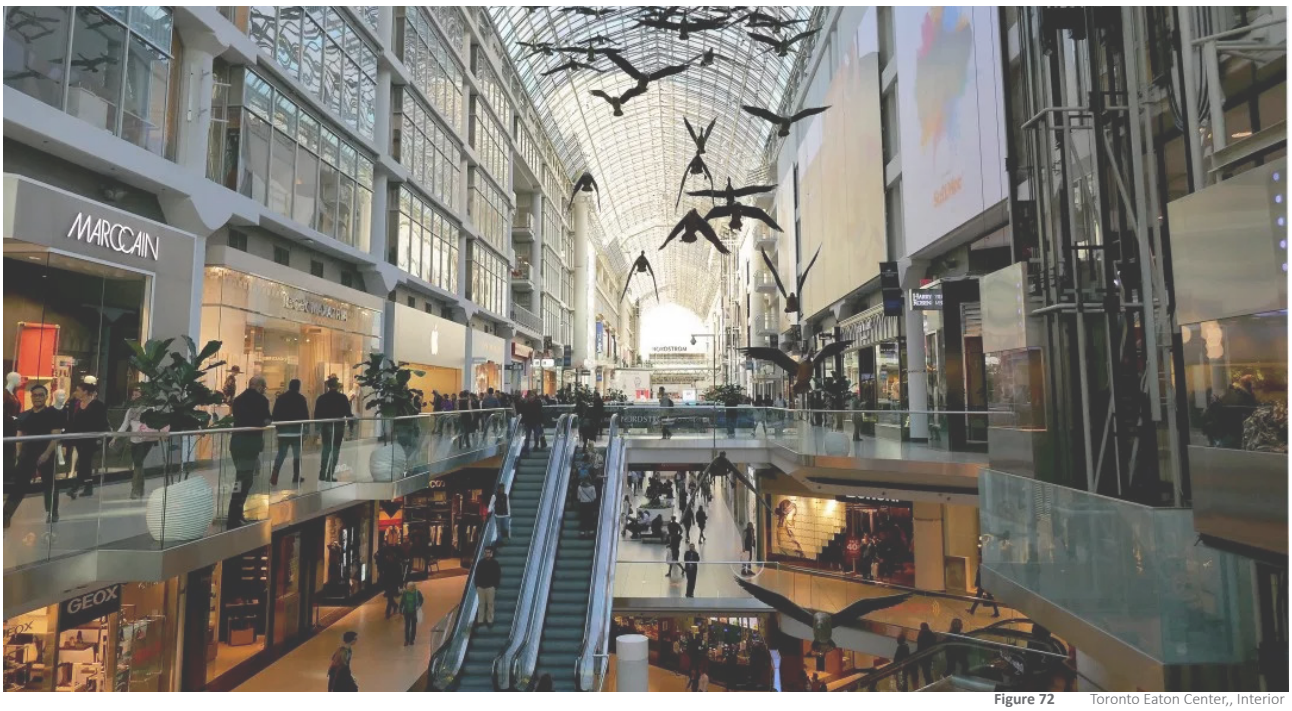


Figure 72 Toronto Eaton Center,, Interior

The One. Designed by Foster + Partners, this 85 storey building incorporates a 9 storey podium base that is almost entirely intended for public use. These 9 floors have retail, restaurant, and gallery space incorporated through its form. Above this public building component is the residential tower. This building has just recently started construction.

Figure 73 The One, Toronto

66 Wellesley St E. Designed by Graziani + Corazza Architects inc. This residential high-rise building features a public two storey atrium that can open and close to the church and Wellesley intersection. This dynamic building feature allows the building to become more or less exposed depending on external and internal context and activity.

Figure 74 66 Wellesley St. E, Podium Closed

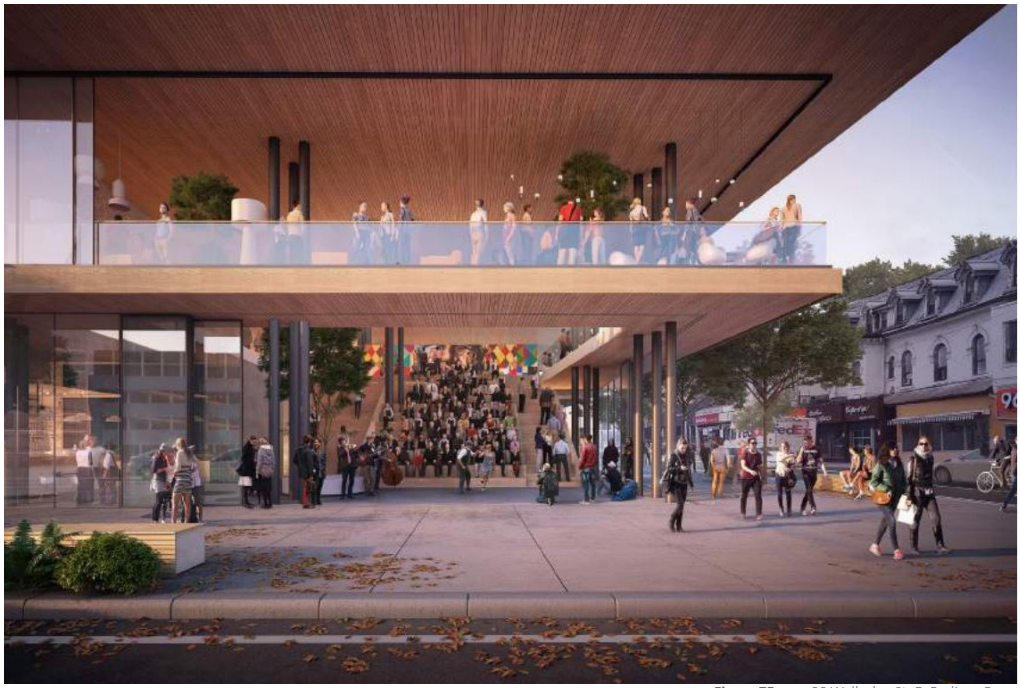


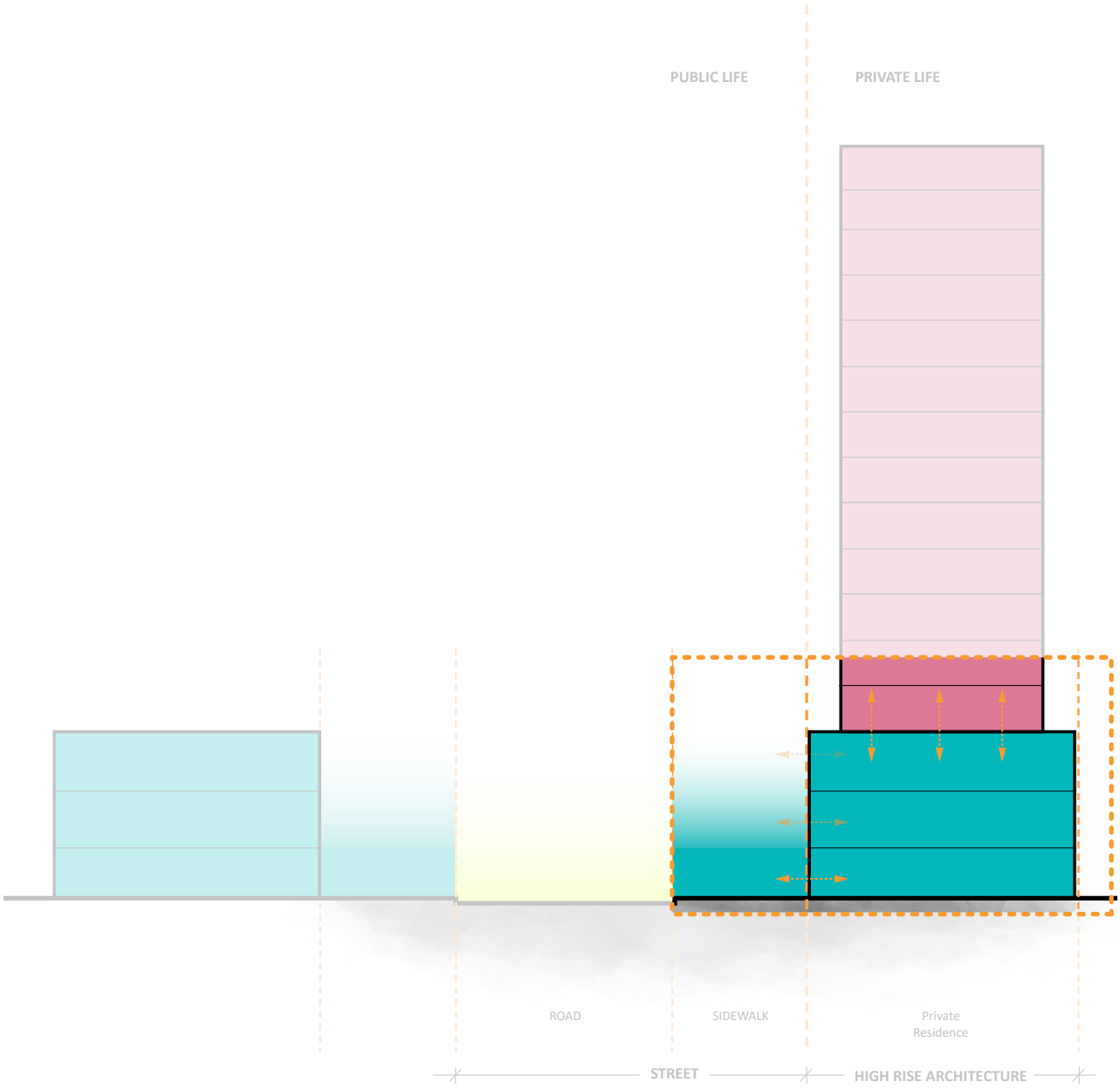
Figure 75 66 Wellesley St. E, Podium Open

5.2.3 PODIUM EVOLUTION INTO SOCIAL MARKET

The typical understanding, and limitations of a podium do not necessarily apply in all conditions. The term podium has embedded within its definition a meaning of something heavy, hard, supportive. It is a termed coined as the base or plinth, acting as a primary supporting component of the piece above. The 'podium' however, has far greater influence on the ground plane than it does on the tower above; the ground plane is ground zero for a thriving and lively city population. Why then is the podium so definitively defined as a private entity, forcing itself into the city fabric butting itself directly against all available property lines. There are two primary reason the podium typology continues to be introduced into urban Highrise buildings. The first of which is this building component has been progressively engrained in our culture as common practice, it is one of the primary components found in the Toronto Tall Building Guidelines. If city authorities say this is how a residential high-rise building should look, that's going to be the easiest way to get the job done. The second, but more influential reason is financial influence; greatest possible floor area to ensure greatest possible return. The cost of land within the city dictates what a developer needs to build in order to have a reasonably return on investment. In almost all instances, a developer is an architect's client, and the client dictates building requirements and therefore, the end product. Jumping back to the first reason of max GFA resulting in max profit does not necessarily hold true in todays evolving cultures.

As seen in the precedent studies prior, podiums do not always have to be closed off from the public, they can be open and accessible; they can become shopping malls, markets, open plazas, etc. From a developer's standpoint this means more work, however around the world, private investors are taking interest in these opportunities. Companies like Tuan Sing Holdings Limited, in Singapour, or Minto Group, in Ottawa invest or have invested in this exact building component. What does this do for the developer? The developed sells the entire portion of the building to one owner, and also he can sell the space for much more if it was just more residential units.

This thesis proposes to be more critical of the form and function of a podium given its contextual position within a city and neighborhood. Podiums can continue to exist, however, architectures response to Highrise building should not always default to this practice. Depending on its contextual, a more appropriate response to the building base may be necessary. This thesis has defined this new building typology as a Social Market Center.


PUBLIC LIFE
PRIVATE LIFE
ROAD
SIDEWALK
Private
Residence
STREET
HIGH RISE ARCHITECTURE

5.2.4 PRIVATE VALUE OF PUBLIC SPACE

At the end of the day, the client, acting as the backbone of 99% of architectural projects will always need a positive net return on their investment. From a developers' standpoint, the return needs to happen quickly to ensure this outcome. This body of work has revealed that the successful city composition relies heavily on its organization and allocation of public and private spaces. Understanding and catering to the needs and requirements of both, ensure a happy and lively environment, and the people investing in its development. The pinnacle of this thesis falls onto the question of whether these same principles are or can be applied to independent architectures such as the high-rise typologies. Is it possible for these public and private relationships to flourish within the confines of a single site? As has been revealed in the precedent students in the previous subsection, there is an increasing concentration of multi-functional high-rise buildings in many cities across the world, including Toronto.

Much like the private neighborhood businesses that willingly contributed to the Business Improvement Area, developers and investors such as Tuan Sing Holdings, Orchard Turn Development Ltd. or Minto Group are seeing the positive financial influences of incorporating and investing into public spaces for the benefit of private building and financial return. The abstract financial breakdown on the opposing page creates a theoretical condition given fixed building areas. The two options, from the investors point of view, are to maintain the existing residential unit space in the building podium, or to replace this floor area with commercial rentable space. As is revealed the initial return on investment is not immediate, detracting from the developer to invest in these spaces personally. However, from an outside investors perspective, immediate return is not as important, time is on their side. As shown in the rough calculations, after ten years of ownership of those commercial spaces, given current rental rates in the Church and Wellesley neighborhood, the owner would have a return of half a million each year.

What does this mean? Quite simply, it means that investing in a podium that is converted into public space is a good investment. This reciprocally encourages developers to incorporate these types of spaces into buildings because they can charge a great deal more for commercial space in comparison to residential space. As mentioned prior, buildings, communities and cities are machines of wealth, if positive financial return is assured, these changes can be implemented without detracting from financial incentive.

Value of Space

Theoretical Conditions

3 Storey Podium
Total Rentable / Saleable Space = 5000ft²

Current Property Value in Neighbourhood

Rentable price at Church & Carlton St.= $95 / ft² / Year
Average Condo Price in Community = $930 / ft²

Option 1
Commercial Rental Space

Podium Converted To Commercial Space

Total Profit @ 1 year	$475,000
Total Profit @ 2 year	$950,000
Total Profit @ 3 year	$1,425,000
Total Profit @ 4 year	$1,900,000
Total Profit @ 5 year	$2,375,000
Total Profit @ 6 year	$2,850,000
Total Profit @ 7 year	$3,250,000
Total Profit @ 8 year	$3,800,000
Total Profit @ 9 year	$4,275,000
Total Profit @ 10 year	$4,750,000
Total Profit Thereafter	$475,000 / Year

Moment of Greater Profit Margin

Option 2
Residential Saleable Space

Podium Converted into Condominium Units

Total Profit @ 1 year	$4,650,000
Total Profit @ 2 year	$4,650,000
Total Profit @ 3 year	$4,650,000
Total Profit @ 4 year	$4,650,000
Total Profit @ 5 year	$4,650,000
Total Profit @ 6 year	$4,650,000
Total Profit @ 7 year	$4,650,000
Total Profit @ 8 year	$4,650,000
Total Profit @ 9 year	$4,650,000
Total Profit @ 10 year	$4,650,000
Total Profit Thereafter	$0 / Year

Figure 76 Toronto Property Value analysis

Data Sources
https://condos.ca/toronto/church-st-corridor
https://spacelist.ca/p/on/toronto/432_church_st/1
https://www.retail-insider.com/retail-insider/2015/11/street-rents

5.3 SOCIAL PROGRAMMATIC STRATEGIES

The various programs introduced into the building design have been strategically chosen based on potential for cooperative relationships. These spaces have been positioned within the building form based upon both internal and external potential. Public space has been placed towards the lower portion of the building, and as the user navigates up and into the building, the spaces progressively become more private. The ground level of the building has a café, restaurant, and flexible space designed for pop up markets. The primary program of the second floor is a Chefs Hall, which spills out onto the adjacent park and open space. Program such as rental studios, and planning spaces are found in the upper two floors of the building, ensuring greater control over incoming occupants. Active community groups and leaders have been provided space within the upper floor. Community leader Kristin Wong-Tam constituency offices, Ryerson Student Life Team, and the Church and Wellesley Planning Teams not only have space to plan social events, but a venue in which to host them. These programs has been selected to integrate city and community cultures into one environmental condition.

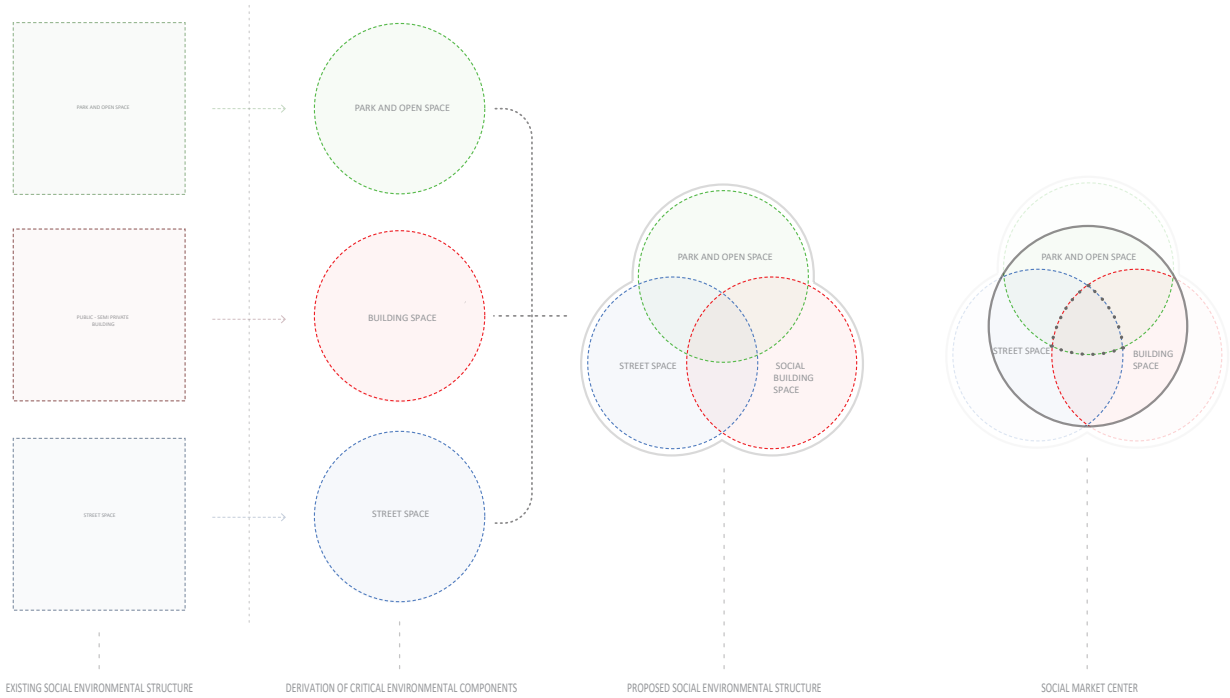


Figure 77 Programmatic Strategies Venn Diagram

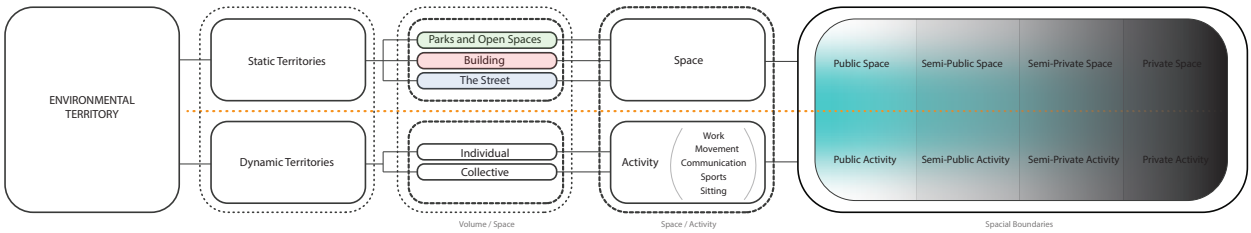


Figure 79 Social Structure Diagram

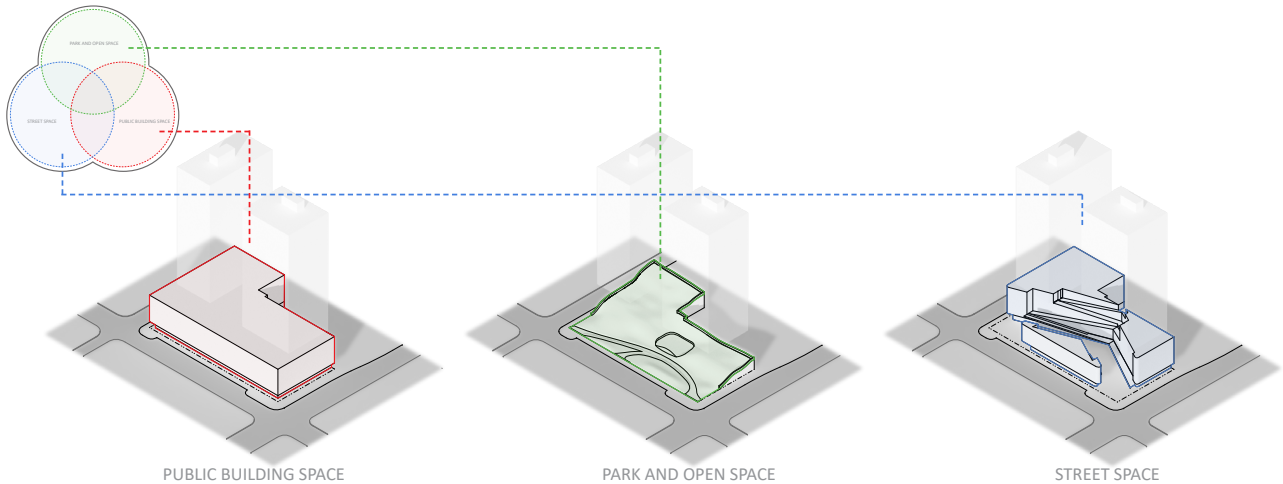
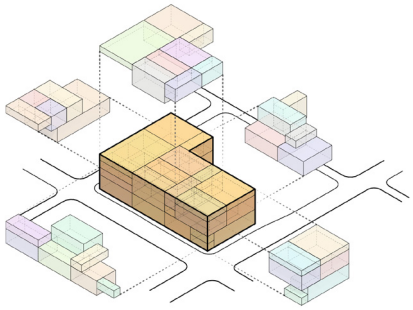
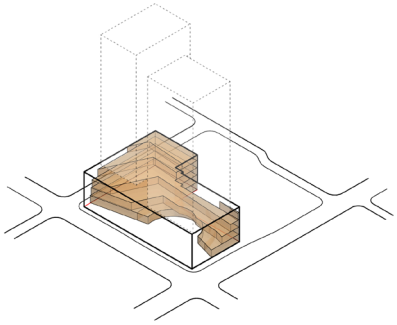


Figure 78 Building, Park & Open space, Street Condition



Diversity of Spaces
Diversity of Population



A Place for all Seasons

How much space?

Number of Bedrooms: 822 (North Tower), 655 (South Tower)

Total Beds provided by Residential Towers: 1477 People

Recommended Combined Parks & Open Space: 5317.2 m²
Recommended Combined semi-public + Semi-Private Building Space: 6941.9m²
Recommended public building space: 723.73m²
Recommended 'street' space: 8,714.3m²

Recommended Space for Public, Semi-Public, Semi-Private Activity Integrated into Entire Building: 21,697.13m²

PRIVATELY OWNED PUBLIC SPACES

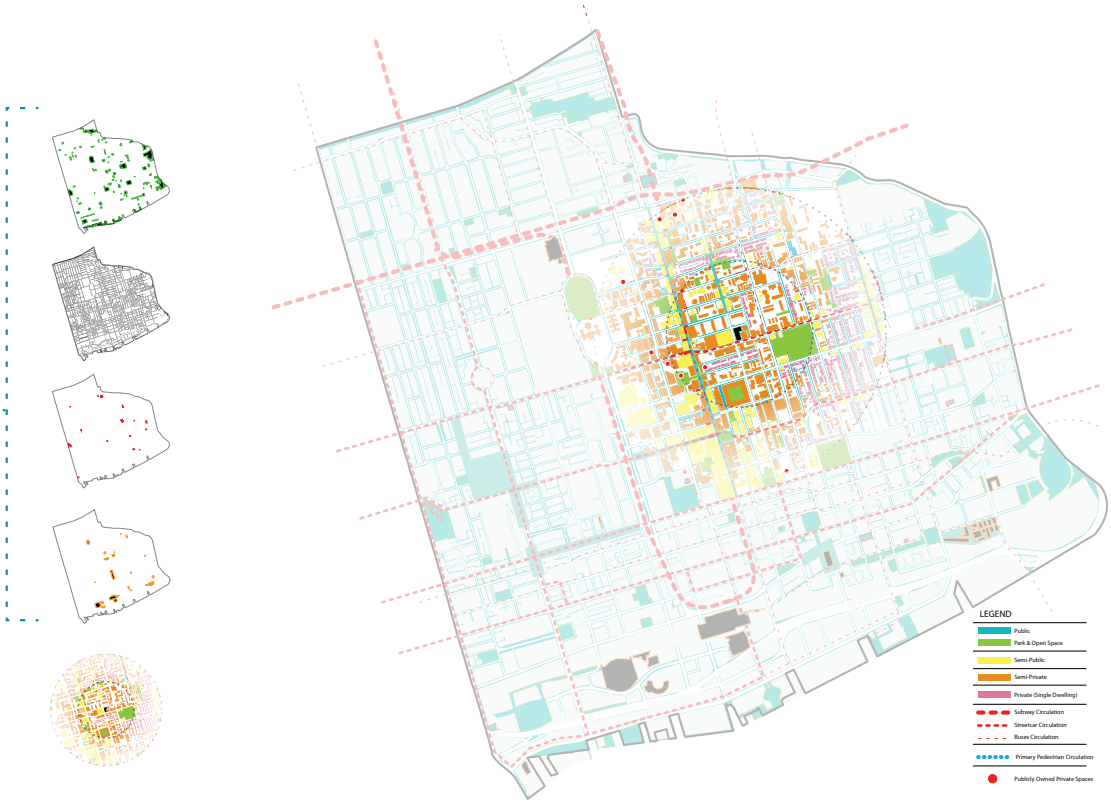
SEMI-PRIVATE SPACES

Residential Building Requirements

Private Lobby
Private Elevator
Fire Stairs
Front Desk
Gym
Games Room
Exterior Space
Patio (seating/eating/etc)
Parking (100 Spaces for each Tower)
Bicycle Parking (556 spaces)

Parks and Open Spaces

Natural Light
Seating/eating Spaces
Open Space for flex Activity (a stage of sorts)
Green Space (vegetation)



What space?

General Considerations

Who? (Students, Workers, Passersby, Families, Children)
Multi-Season (Spring, Summer, Fall, Winter)
Multi-Time (Morning, Day, Evening, Night

PUBLIC SPACES

Semi-Public Spaces

Cafe
Pup/Bar/Restaurant Spaces
Retail Shops
Book Stores
Multi-Purpose Studio (Yoga, Dance, etc.)
Local Artist Gallery
Washrooms

Street

Walkable Circulation Paths (without conflict)
Indoor and outdoor walkways
Vertical Circulation (elevator & stairs)
Store Frontage
Canopy
Lighting
Flex Space for Market
Garbage Disposal
Bicycle Parking

Figure 80 Programmatic selection

GROUND FLOOR

Ground floor program has been infused into the built environment such as retail shops and flexible market spaces that spans out into the adjacent laneway, activating what would commonly be a lifeless and void space. A café and restaurant are also found at ground level to act as immediate visual anchors for social life, in doing so, fostering interest and therefore further social engagement. One of the street lanes has been absorbed into the site with the intention of it acting as a semi-permanent street side seating area; like that of the new king street project, this site harnesses connective strategies already embodied within the city. On site bicycle parking, and an integrated streetcar waiting area is designed to provide a safe, and secure place for these conditions to occur, therefore openly inviting these bodies of people into the designed environment.

SECOND FLOOR

Second floor of the Urban Social Market embodies two critical elements, both of which focus on the creativity of culture. This level is simply programmed with a open gallery space that exhibits local and city wide art. The intention of this space is that it is constantly changing, pieces and shows changing on a regular basis to exemplify the constantly evolve cultures of city life. The second element of this level is an open food hall which too, is constantly changing, exemplifies the cities culinary pinnacles in one space.

UPPER FLOORS - 3&4

The 'building' program has been designed to not only host events and social activities on site, but to also house the body of people that plan these events. The upper two floors of building are devoted to a more destiArch2013

nation-based program. Here are various rooms in which private events can be held, such as a birthday party, yoga class, seminar, etc. This semi-public area energizes the building with intent based program whereas the lower floors are more so catered towards a flexible, more temporary body.

Community bodies such as Church & Wellesley community to the north, and Ryerson university both have social events and planning teams. Ryerson university has the RU Student Life team, and the village community events team host many worldwide known events annually such as pride parade. In doing so, the boundaries of these communities become more blurred, seamlessly integrating themselves into the neighborhood and city.

These floors also have a lecture hall or theater to satisfy various assembly conditions such as community meetings, movie nights, lectures, seminars, etc.

SEMI-PRIVATE SPACE

Community Leader Offices
(Kristin Wong-Tam constituency office) 12

RU Student Life Spaces 11

The Church & Wellesley Planning Spaces 10

SEMI-PUBLIC SPACE

Flex Studio Space
(Rental- Yoga, Dance, Meeting Space, Party, etc.) 9

Chefs Hall
(Privatly & Publicly nominated Toronto Chefs, Restaurants, Baristas) 8

Lecture Hall / Theater 7

Cafe Bar 6

Restaurant 5

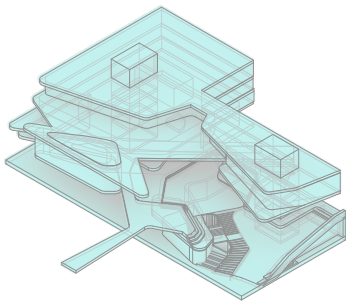
PUBLIC SPACE

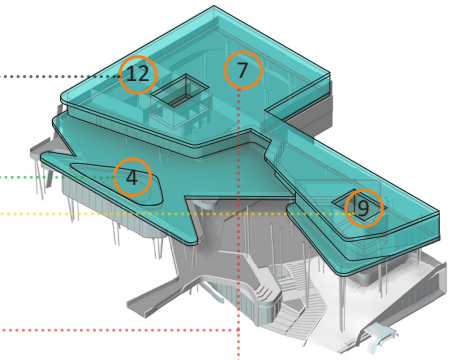
Park Space & Open Space
(seating, shaded areas, stage & area for large assembly, etc) 4

Gallery Space
(Exibition Space for Local Artists) 3

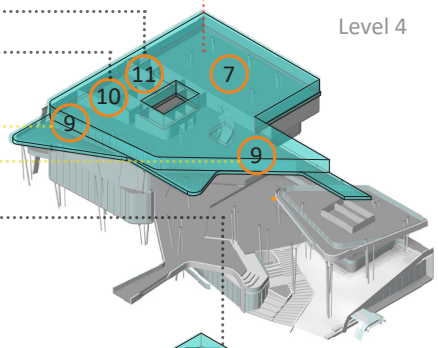
Trasportation Accessibility
(Bicycle parking, TTC waiting area, Vehicle Parking) 2

Street Market 1

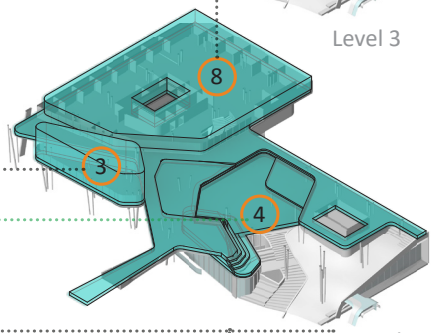




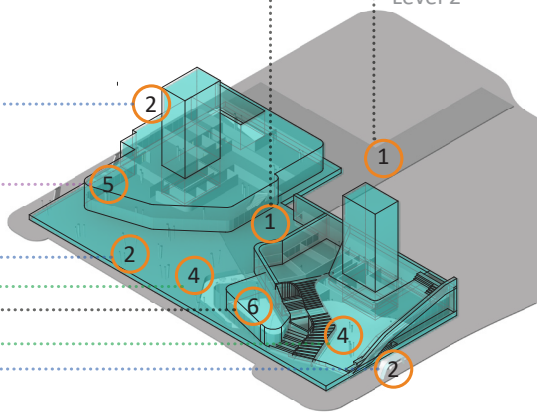
Level 4



Level 3

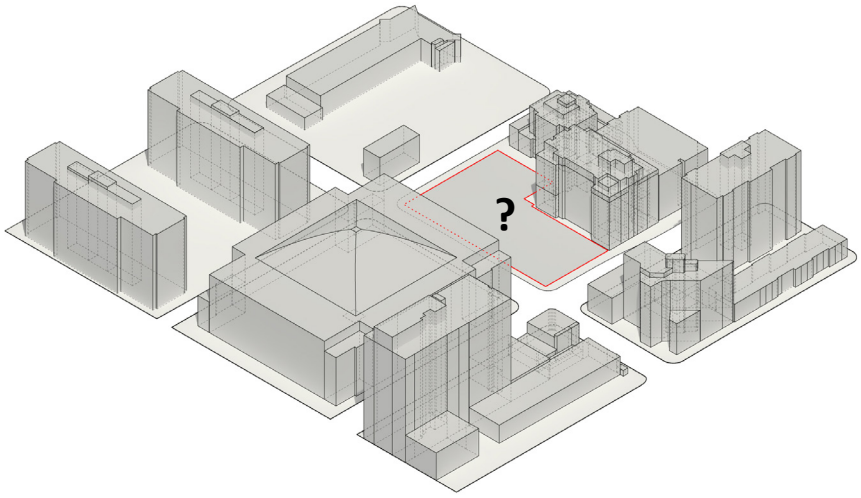


Level 2

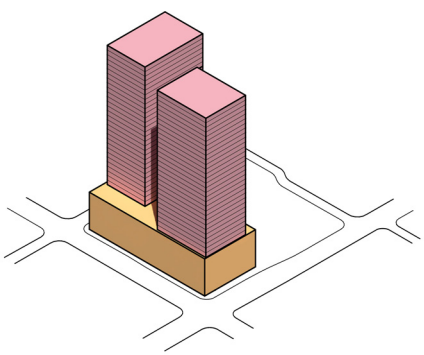


Ground Floor

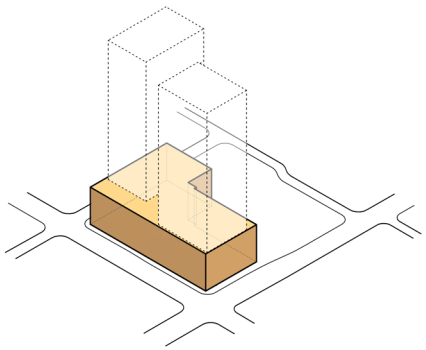
Figure 81 Programmatic Locations



Site



Basic Programmatic Subdivision



Primary Realm of Focus

Figure 82 Massing Process Strategies

5.4 IMAGEABILITY OF PUBLIC SPACE

How do you design space that can be identified by the observer as publicly accessible? What makes space appealing to the individual? Kevin Lynch identifies the term, "imageability: that quality in a physical object which gives it a high probability of evoking a strong image in any given observer." He identifies three primary variables that are vital to the successful imageability of space. These are the shape, colour, and arrangement.[83] These elements are important to consider when designing a public environment because it establishes a vivid identity, a strong physical and spatial structure, as well as instills a positive mental image and meaning into the individual and collective mind. It is important to understand that imageability is not limited to just these three elements, rhythm, stimulus, choice, are also embodied within an environments imageability, however the three listed are the foundation elements that will be of primary focus. [84]The result is a building that a collective population will establish a bond or relationship towards, in turn, creating and active and enriching environment to be part of.

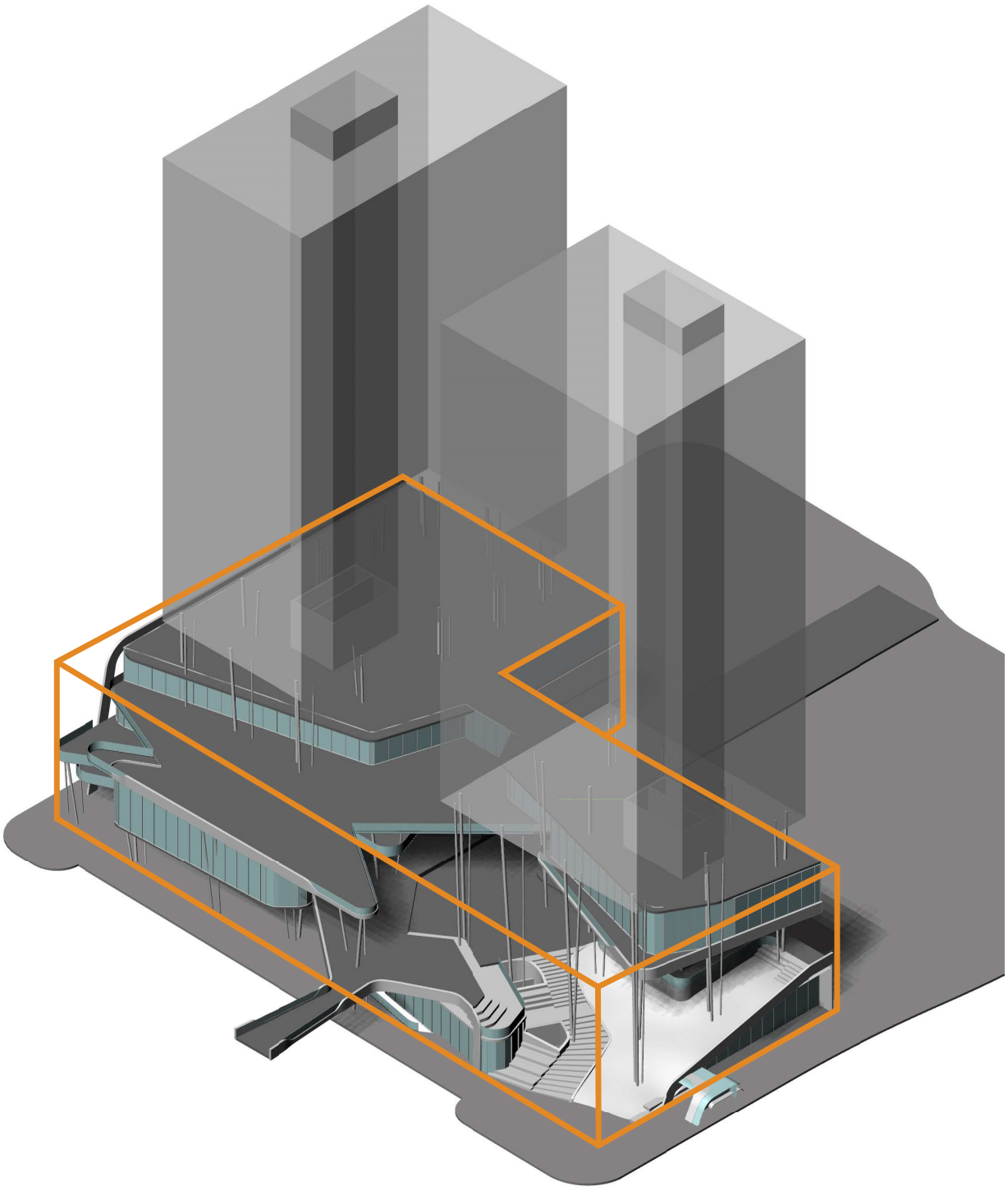


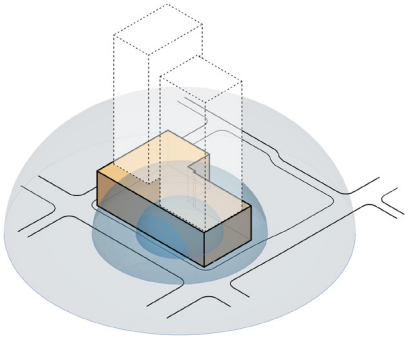
Figure 83 Traditional Boundaries of Podium Design

5.4.1 HUMAN THRESHOLDS

"The essence of the diagram is that a building even at the most basic level embodies two dualities, one between physical form and spatial form and the other between bodily function and socio-cultural function. The link between the two is that the socio-cultural function arises from the ways in which forms and spaces are elaborated into patterns," [85]

Bill Hillier – Space is the Machine

When designing a space, or a collection of spaces for people, understanding how people perceive space, and utilize which senses when, can form stronger and more influential spaces on the individual and collective. In his book, The Hidden Dimension, Edward T. Hall breaks down the human senses and we as a population use them throughout our daily lives. He differentiates between two types of senses, distance senses, and close senses. The distinction is essentially senses that we use to understand the world at a distance; this includes seeing, hearing, and smelling. Close senses are those that are much more intimate and unique to the individual, fewer people, if none, are experiencing the same close senses that you are; these include feeling and tasting. The limits and thresholds of the human dimension can be witness throughout the entire city, however, these basic human standards become truly visible when analyzing how people move through and engage with space.



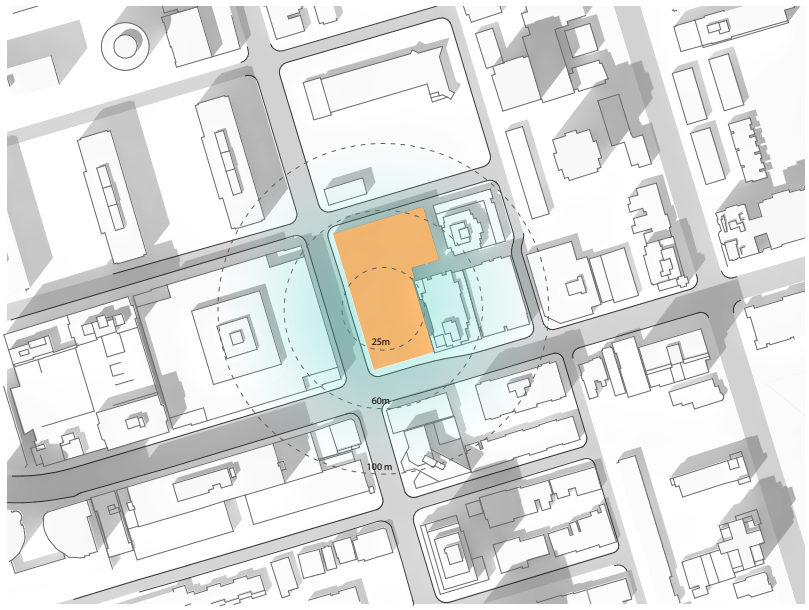


Figure 84 Limits of sensoral Influence Diagram

SENSORAL DISTANCES

In Cities for People, Jahn Ghel also analyses these human threshold standards. At 100m, and individual will begin to recognize basic human body language. At 50-70m the individual can begin to recognize people, hair colour, age, gender. At 25m the average person can begin to interpret facial expressions and emotion. Likewise, people can generally hear activity, and voices at about 50 – 70m. A critical point in which people clearly begin to communicate with each other is at roughly 25m. Although, this is not a detailed conversion, meaningful and more intimate conversation and conducted between 7m and 0.5m. Jan Ghel summarizes these distance senses by concluding that very little in terms of human commination happens between 100m and 25m, however, these distances are important in establishing initial interest and engagement with space. At the 25m space becomes much more personal, detailed, and interesting to the individual. Design in all forms of program that are concerned with the observation of something utilize these understandings of human threshold; spaces like stadiums, arenas, theaters, squares, even food courts to the size of rooms. Everything is or should be based on the understanding of human limits. [86]

When concerning ourselves with urban design, vertical distances are almost as important as horizontal distances. The human body is not as effective at viewing in vertical fashion. Jan Ghel states that visual communication with buildings and people severely dissipate after five storeys. The average person at grade can relatively accurately, and comfortably communicate to someone visually at the 5th floor; beyond this point, this communication becomes uncomfortable and not precise.

PHYSICAL DISTANCES

It is a fact, people do not like stairs. When possible, the majority of the population will avoid staircases unless necessary. Stairs require an increased muscle usage and therefore more energy extorted. People will wait for elevators where they are just going up two flights of stairs, and walking would have been faster. Taking a look at almost any shopping mall, Toronto Eaton center for example; people decide to take he escalator much more frequently than the stairs. (Insert image of Eaton center stair/ escalator) Taking a few minutes to observe these conditions, it becomes very clear, what people prefer. Manual vertical movement thrives most comfortable through the use of ramps, which offer a slow, and gradual incline. (reference Venice ramp vs stairs) In order for people to travel more than a single story, the destination must appeal to them. The greater distance from grade, the more specific and intentional the destination must become.

5.5 PUBLIC INTERPRETATION, UTALIZATION & MEANING OF SPACE

"fundamental principles of spatial organization exist in two kinds of facts: "the posture and structure of the human body, and the relations between human beings. Man, out of his intimate experience with his body and with others, organizes space so that it conforms with and caters to his biological needs and social relations." [87]

Yi-Fu Tuan - Space and Place

How spaces are organized in a public setting is important. The program is not limited to the internal site composition but directly includes contextual conditions within this programmatic assembly. External program include, street side bicycle parking, food truck stop locations, TTC waiting area. There are two main groups of activities that take place within space: moving activities and stationary activities.[88] The program inside and outside the building is first categorized according to the activity specific functions and then organized according to adjacent functions. Adjacent programs either do not interfere with each other, or create a cooperative relationship. Designing a building that feels approachable requires clear and open view corridors to these available program. It is in this reason, during the massing stages of the schematic design, nodes and anchor points were established with the building mass.

Figure 85 South West Corner Street View of Site

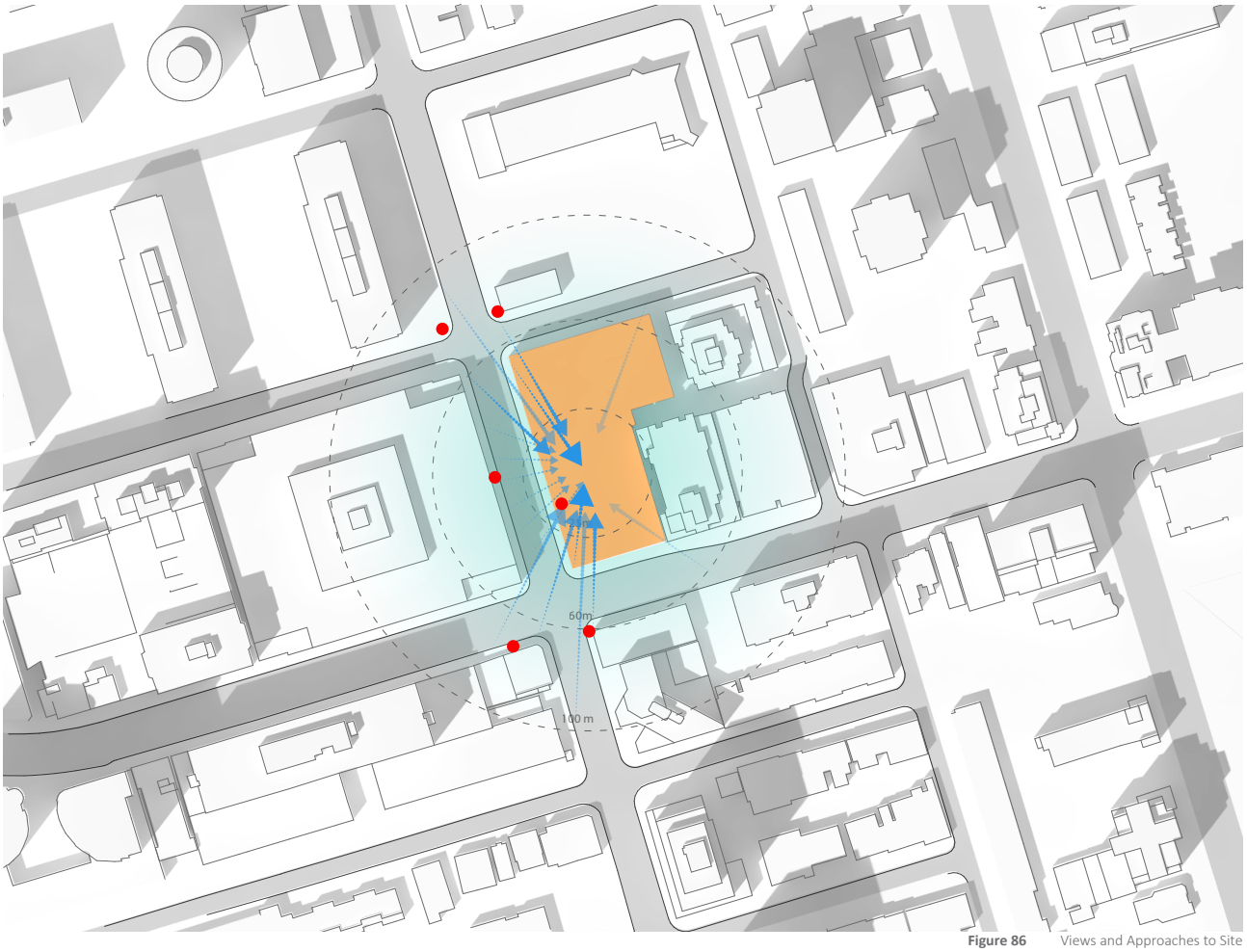


Figure 86 Views and Approaches to Site

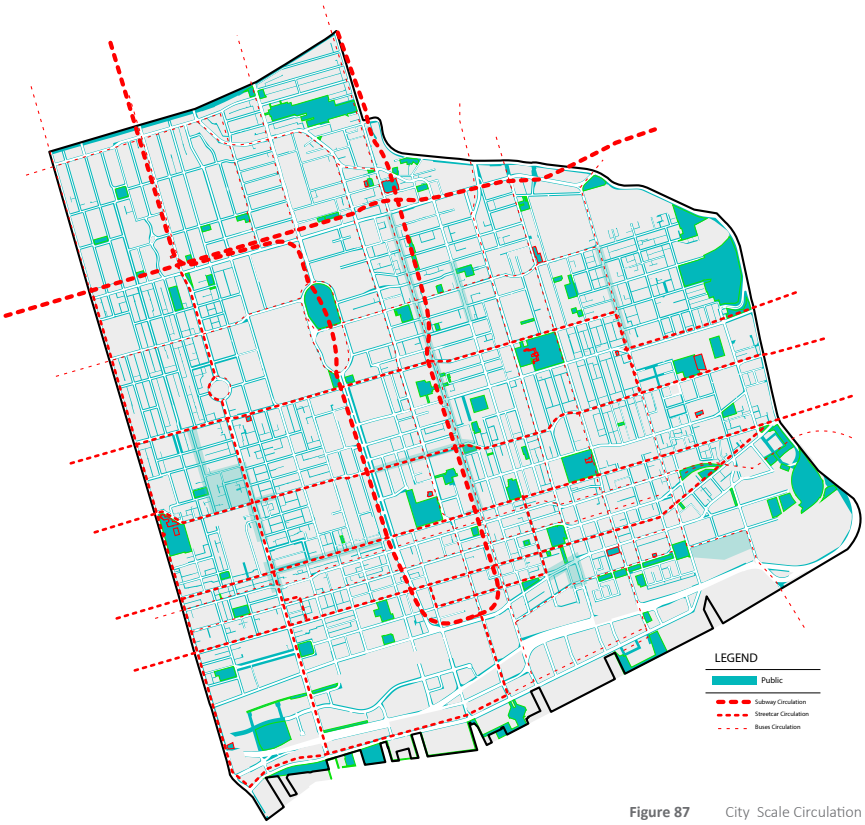


Figure 87 City Scale Circulation Map

5.5.1 PATHS

The building has been designed unilaterally between external and internal connections. First by choosing a site that is within close proximity of primary public transportation networks, so as to maximize the easy of accessible at the city scale. These circulation networks have been integrated into the building design through three primary means. Integrated public transportation access, on site bike share & parking space, and car share programs accessible via the lower level garage.

The main floor of the site has been elevated off the ground plane of the street. Although a ground floor still remains, this second level space acts as the primary entertaining and events area for the site. Elevating this primary space off the ground plane distances the users from the city below. Utilizing similar strategies in which the New York City highline by elevating and creating separation from the city. This aspect is cued from the parks of the city. The populations goes to these parks in order to have but a momentary escape from the intensities of the urban environment. Lifting the ground plane creates this necessary separation while maintaining a strong connection to the surrounding environment. This lifting also creates a new vantage point in which the context can be viewed.

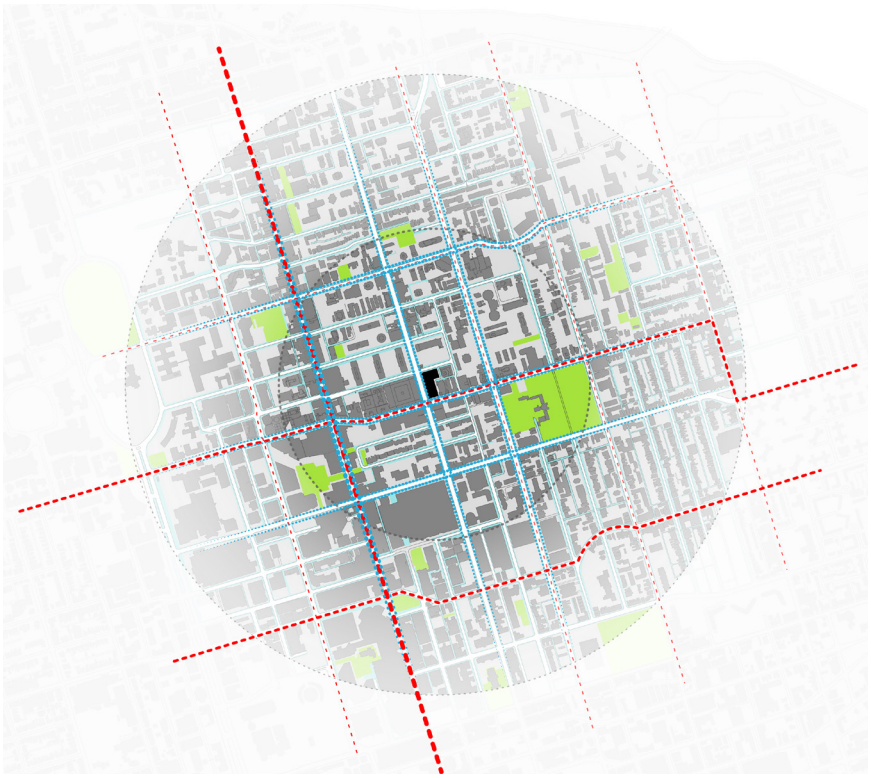


Figure 88 Community Scale Circulation

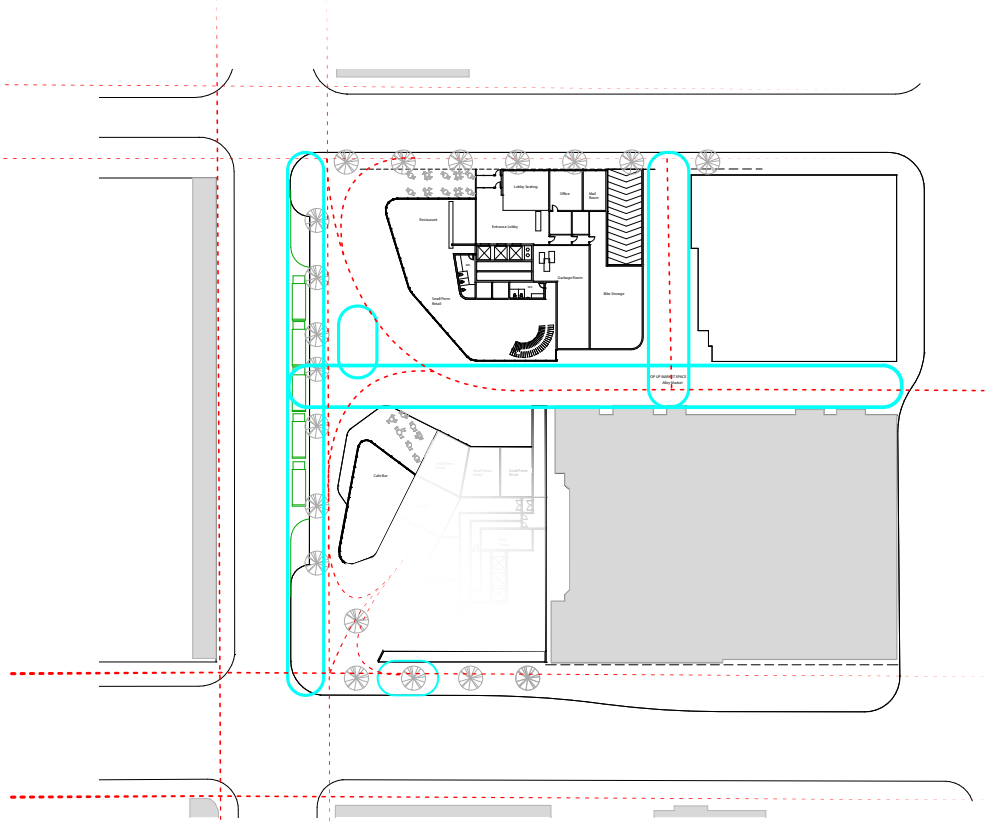


Figure 89 Building & Site Scale Circulation Map

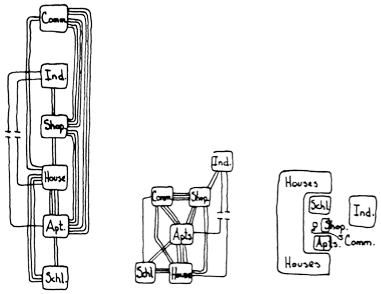


Figure 90 Sketches of paths and Linkages- Kevin Lynch

The upper render shows a Street car waiting area that is integrated into the building form, which exabits similar design tectonics used within the main building. The lower render shows the bike share and bike storage space that has been integrated directly on site. The design choses to engage external path systems by strategically structuring them within the building form.

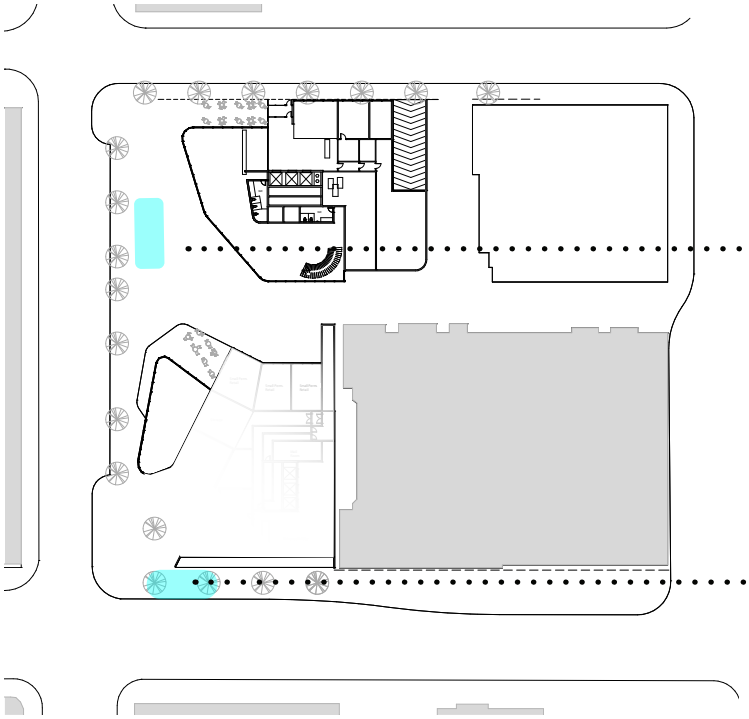


Figure 91 Ground Floor Diagrammatic Plan

Figure 92 Carlton Street View of TTC Wainting Area

Figure 93 On Site Bike Storage Render

5.5.2 EDGE EFFECT

"Edges are the linear elements not used or considered as paths by the observer. They are the boundaries between two phases, linear breaks in continuity: shoes, railroads cuts, edges of development, walls. They are lateral references rather that coordinate axes. Such edges may be barriers, more or less penetrable, which close one region off from another; or they may be seams, lines along which two regions are related and joined together. These edge elements, although probably not as dominant as paths, are for many people important organizing features, particularly in the role of holding together generalized area, as in the outline of a city by water or wall." [89]

The term, 'edge effect' is used by Jan Ghel to describe the patternicity tendencies of people to cluster around the edge of spaces. This occurs for a number of reasons. People generally feel more comfortable being against some form of a boundary, where there backs are protected; this can be anything from a wall, a fence, a planter, or even a chair. Being in close proximity to a grounding object provides a point of reference in which the space around them can be viewed in safety. Depending on the length of stay, the optimal location for these positions in space vary. In addition, the safer and more desirable the space for the individual, the longer they will stay.[90]

The concern within the urban environment is the street and its boundaries are beginning to instill greater concentrations of "smooth facades" or building faces that do not offer places for rest and observation. Today, this building condition is known as sheer-wall syndrome. These types of street level buildings, and the boundaries and edges they form, do not provide safe and comfortable places to stand or sit. Positive examples of building faces that enliven the street are buildings that have "rough facades"[91]; spaces like colonnades, tree lines, stairs, or planters. These volumes in space provide a base point in which activity and city life can be viewed. As Jan Ghel states in his book, Cities for People, "no single topic has greater impact on the life and attractiveness of city space than active, open and lively edges." [92]

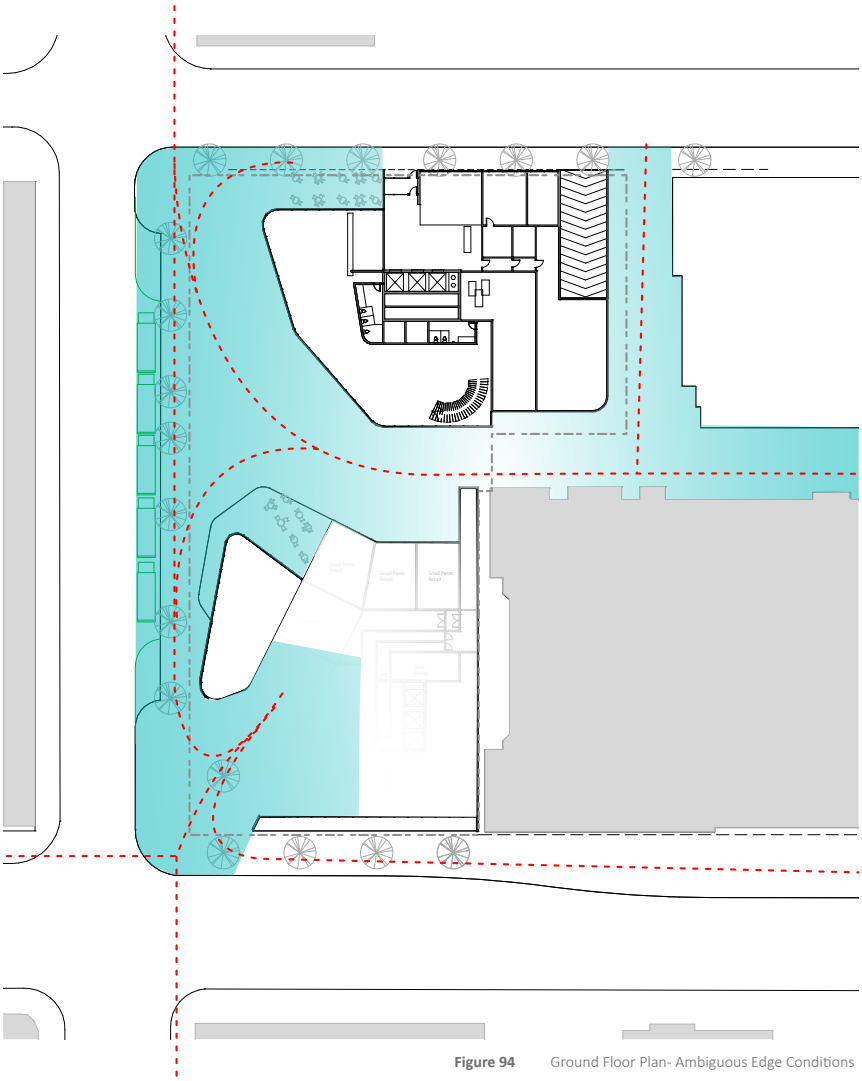


Figure 94 Ground Floor Plan- Ambiguous Edge Conditions

Figure 95 Street View of South West Corner of Site

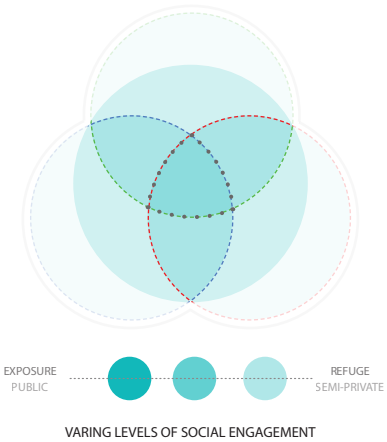
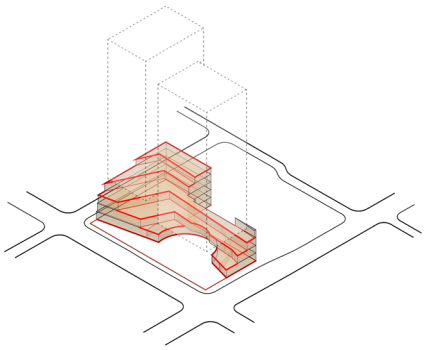


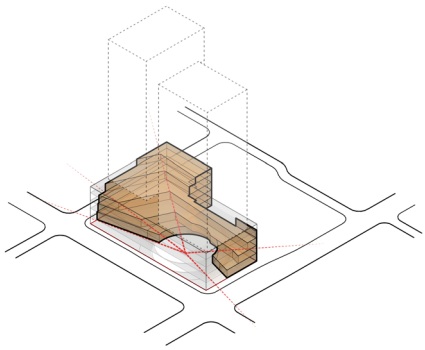
Figure 96 Degrees of Social Intimacy

The spatial composition utilizes edges and boundaries to maintain a constant and strategically oriented relationship with adjacent spaces. These connections, may they be physical, visual, or audible, have instilled within them, three primary techniques used to facilitate varying level of social engagement. The first, is the designed geometries that utilize compression and expansion of space to encourage strategic moments of congregation throughout the building form.



Edge Effect

Second, two types of railings existing within the building design that further guide the occupants into different spaces, but additionally protect, or expose these users depending upon the intended activity. The solid railings protects, creating a more private environment, and transparent railing exposes the inhabitants, allowing for greater incoming and outgoing visual connections.



Site Lines

Figure 97 Building Form Strategies Diagrams

The third technique uses tree canopies as a natural filter to instill greater feelings of protection. Designing a building that has varying levels of social protection safely and comfortably allow a wide variety of users and activities to occur in close proximity. Instilling these design elements into a social node within the city encourages consistent and continued participation within the built environment.

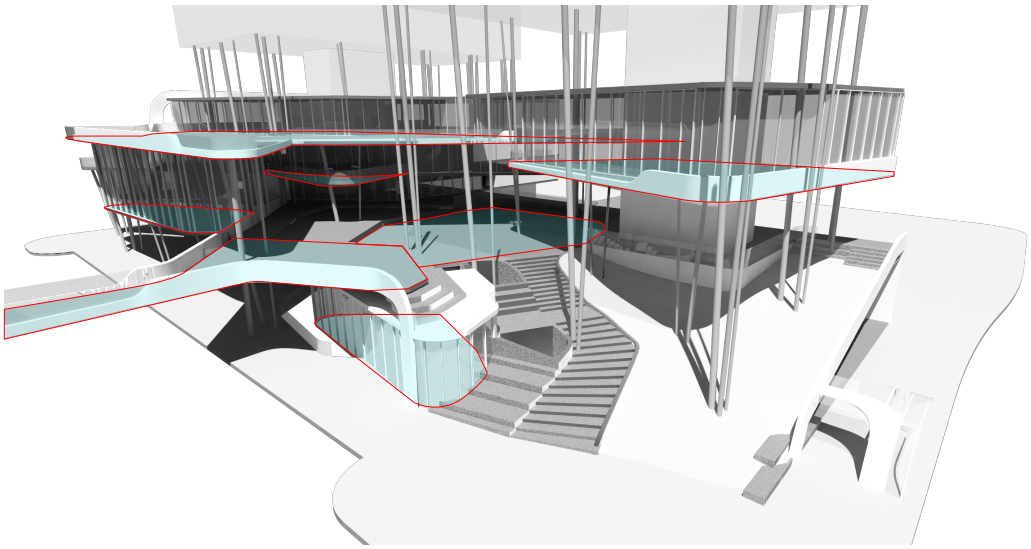


Figure 98 Buidling Geometries Diagram

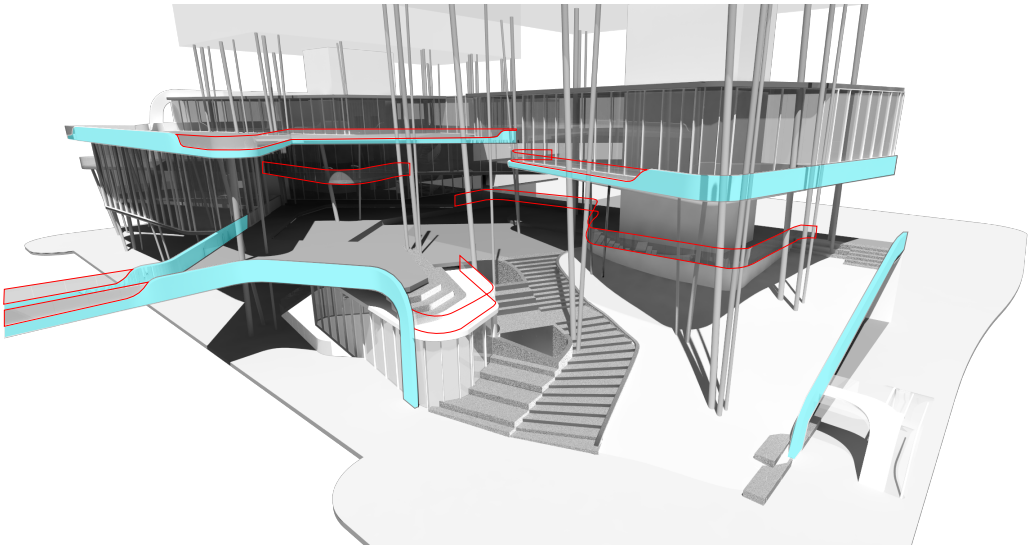


Figure 99 Building Railing Systems Diagram

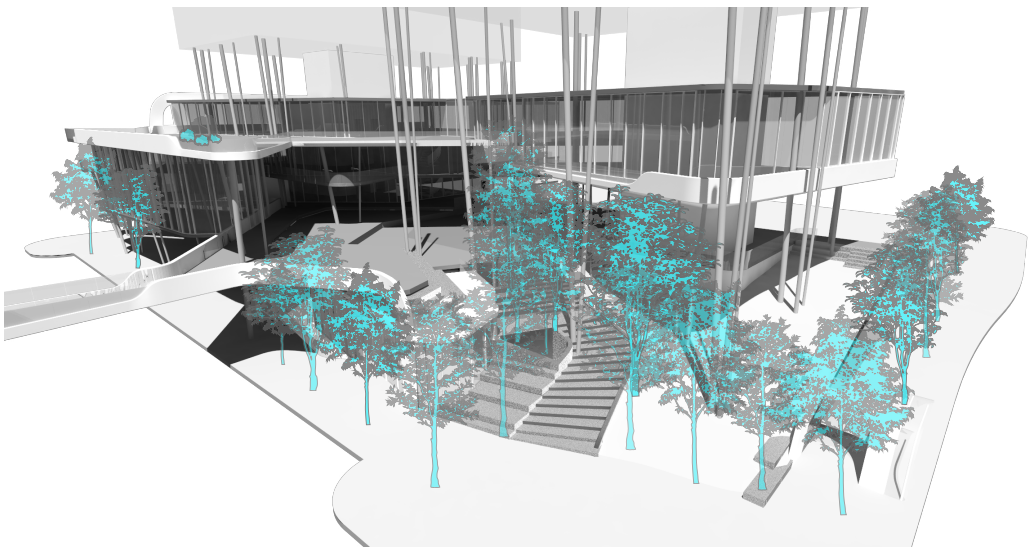


Figure 100 Utalization of Foliage as a Protective Screen

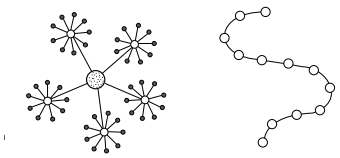
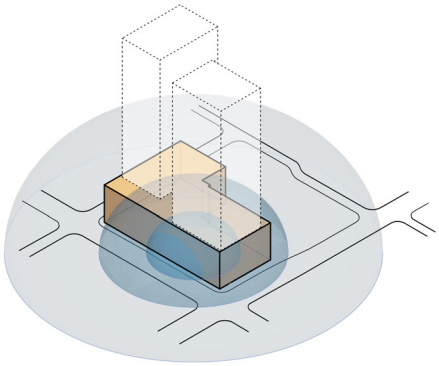
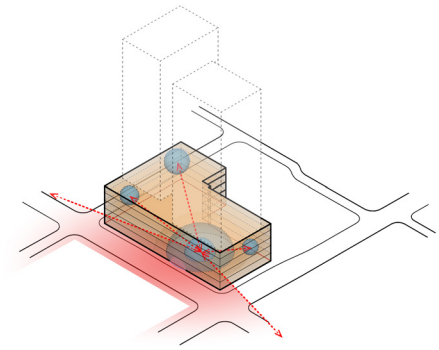


Figure 101 Focal Organization- Kevin Lynch

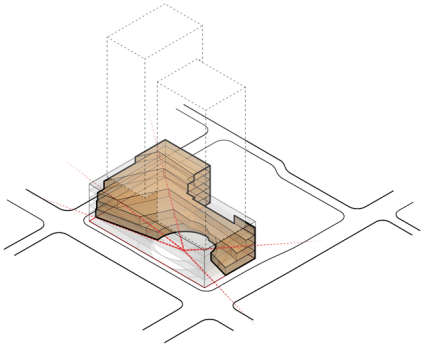
The interior circulation of the building design reflects clear and well-known paths of origin and destination. Programmatic nodes of activity are strategically placed along and connected to these internal circulation systems to enable these points of rest. When approaching and entering the built environment, these clear paths naturally guide the occupant through the site, progressively exposing the embodied programs and activities. As the individual moves along this path system, they are constantly entering and leaving different social conditions.



DESIGN STRATEGY: Sensory Limiting Distance

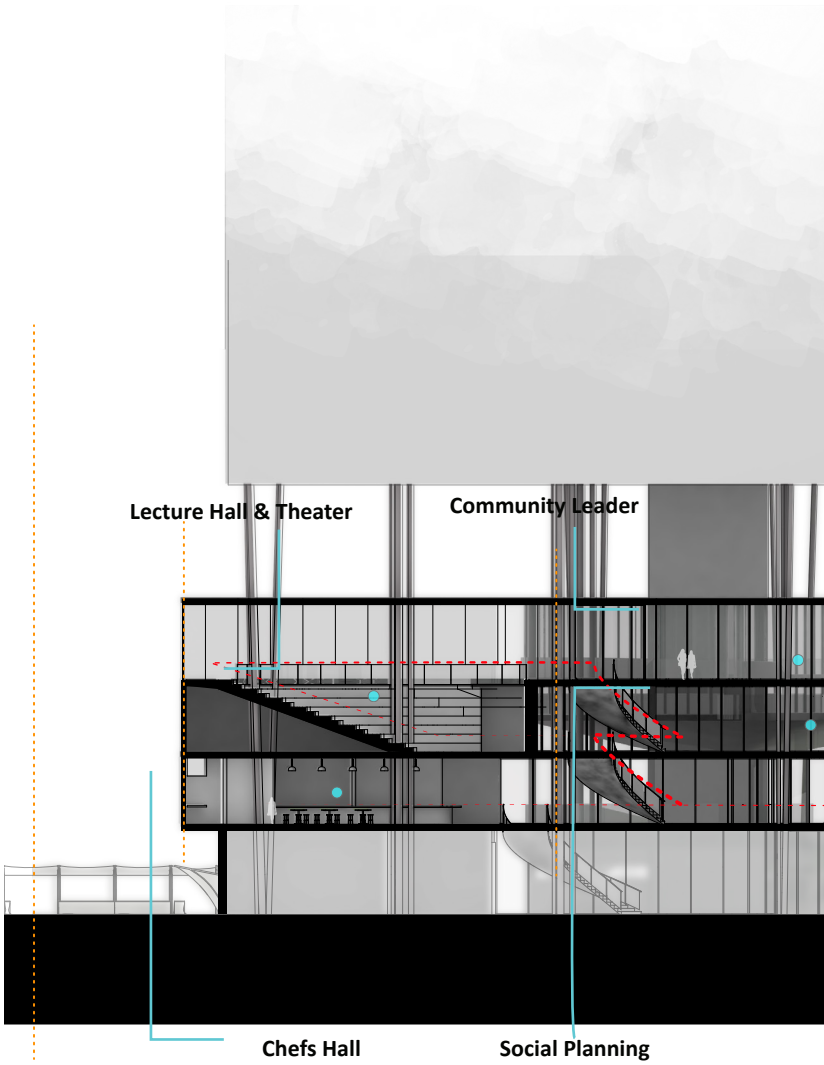


DESIGN STRATEGY: Site lines To/From Nodes



DESIGN STRATEGY: Solid & Void Massing

Figure 102 Building Form Strategies Diagrams



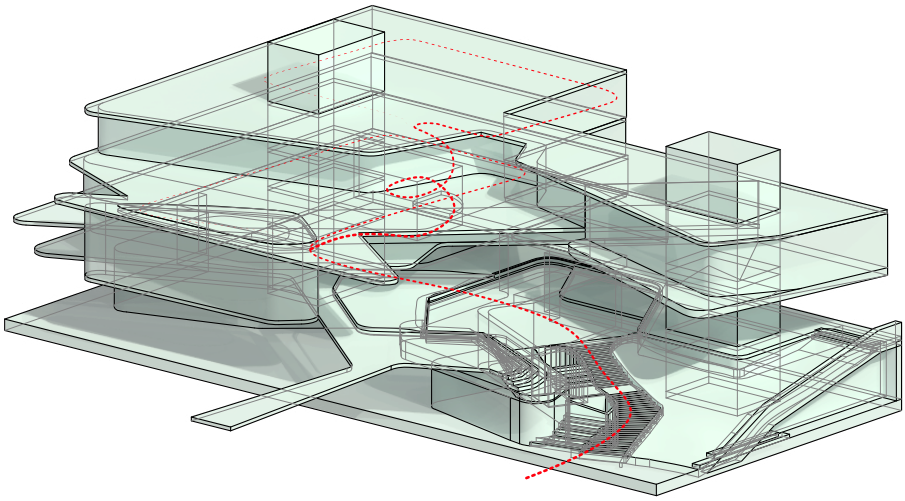


Figure 103 Circulation Experience Massing

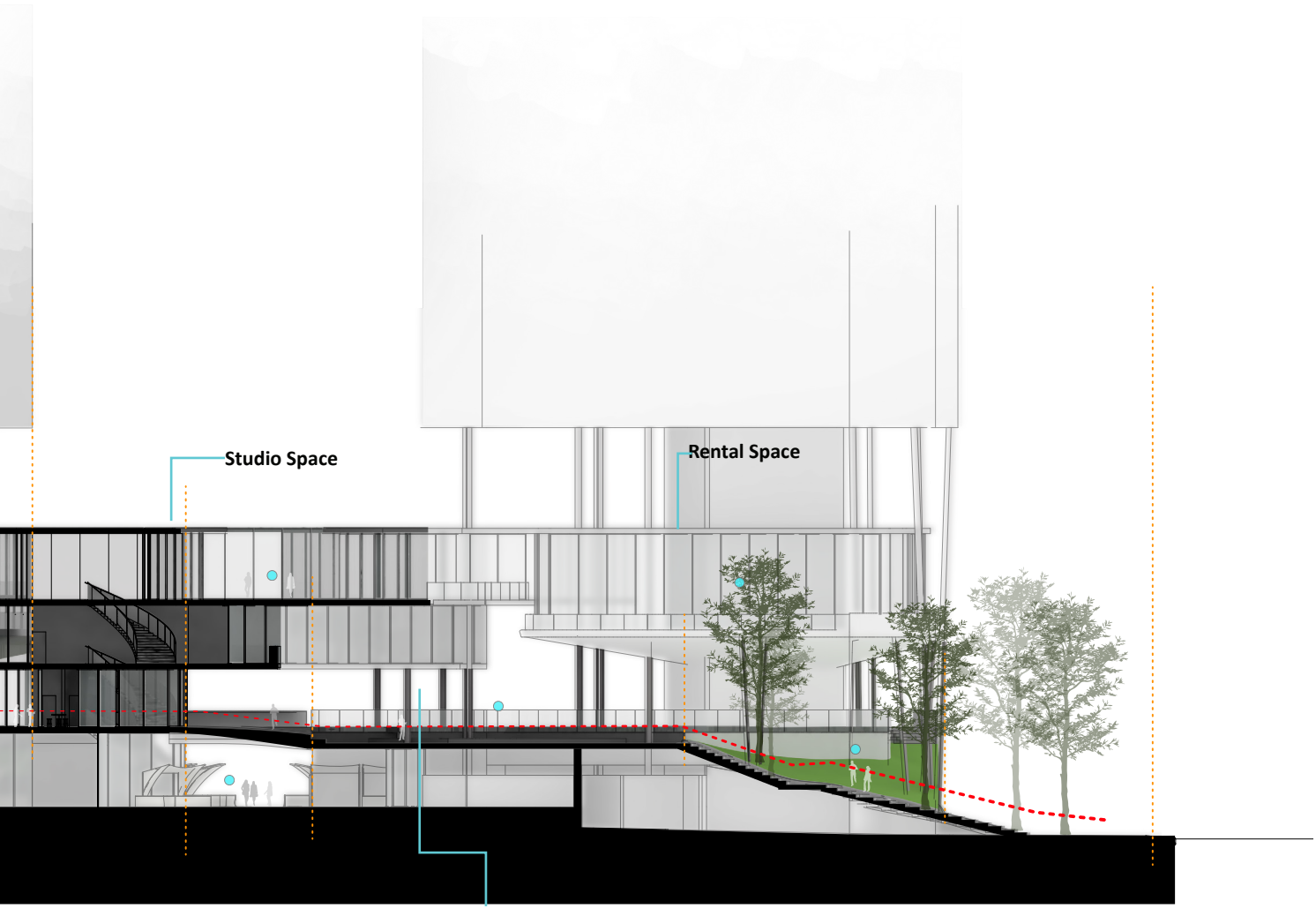
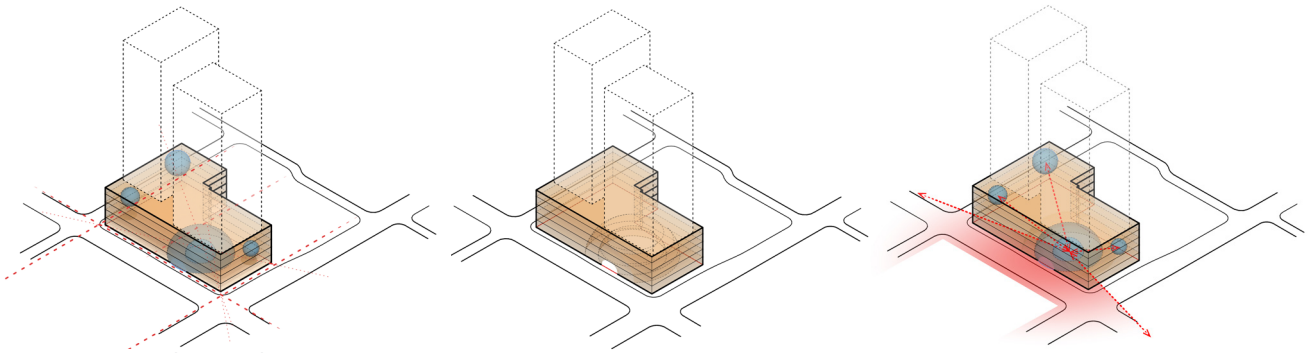


Figure 104 Fragmented Building Section



5.5.3 NODES & ANCHOR POINTS & LANDMARKS

As humans look out onto landscapes or architectures, etc, it is impossible for someone to look broadly and generally over everything. It is in human nature to constantly be searches for "points of rest" [93]

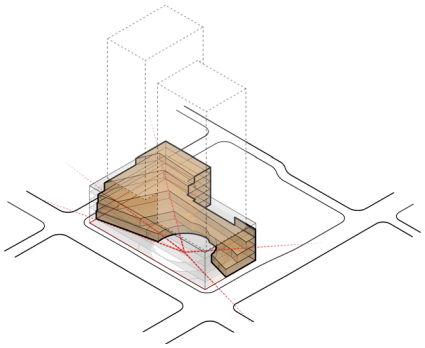
Yi-Fu Tuan – Space and Place

Nodes

"Nodes are points, the strategic spots in a city into which an observer can enter, and which are the intensive foci to and from which he is traveling. They may be primarily junctions, places of a break in transportation, a crossing or convergence of paths, moments of shift from one structure to another. Or the nodes may be simply concentrations, which gain their importance from being the condensation of some use or physical character, as a street-corner hangout or an enclosed square. Some of these concentration nodes are the focus and epitome of a district, over which their influence radiates and of which they stand as a symbol. They may be called cores. Many nodes, of course, partake of the nature of both junctions and concentrations. The concept of node is related to the concept of path, since junctions are typically the convergence of paths, events on the journey. It is similarly related to the concept of district, since cores are typically the intensive foci of districts, their polarizing center. In any event, some nodal points are to be found in almost every image, and in certain cases they may be the dominant feature."[94]

Landmarks

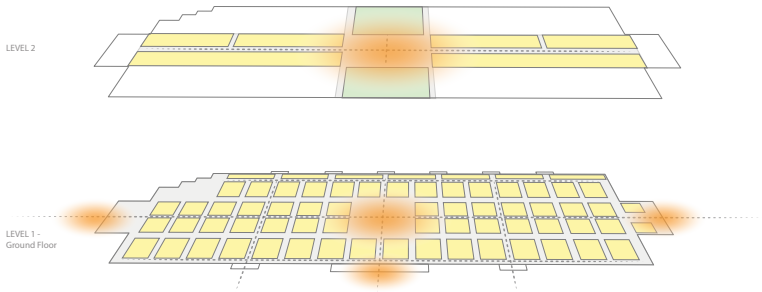
"Landmarks are another type of point-reference, but in this case the observer does not enter within them, they are external. They are usually a rather simply defined physical object: building, sign, store, or mountain. Their use involves the singling out of one element from a host of possibilities."[95]



Solid & Void Massing

Figure 105 Building Form Strategies Diagrams

Pacific Mall



Toronto Eaton Center

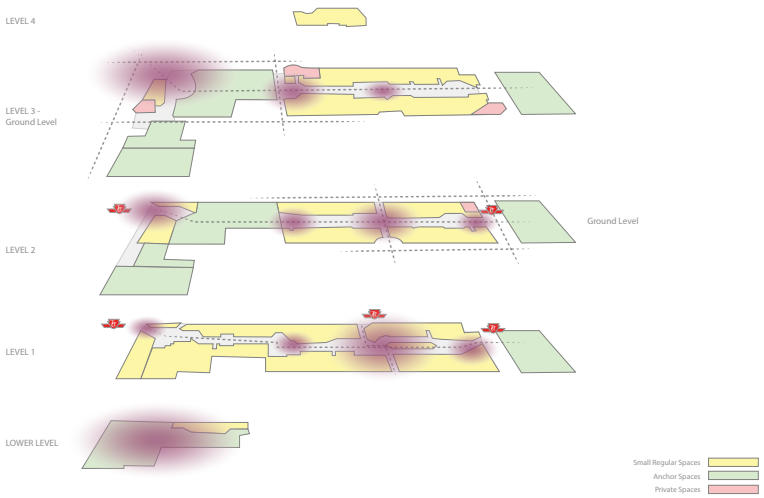


Figure 106 Studies of Nodes within high desnsity social environments

An important and under-utilized contextual condition is the alley at the rear of the building. Typically, only used as loading and receiving, as well as garbage collection, the building form has been designed in direct consideration of this space. This open alley is integrated as a primary formal component that is pulled through the site. This space, originating on site is designed to incorporate flexible pop up market space.

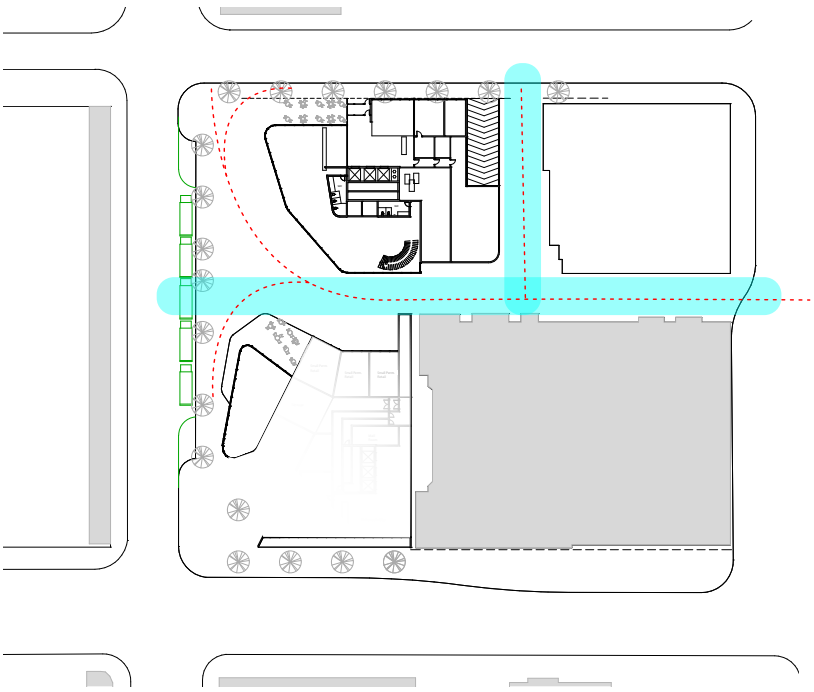


Figure 107 Ground Floor Plan- Location of Alley Condition

Figure 108 Render- Church Street View of Alley Market Though Buidling

Figure 109 Render- iInside the Alley Market

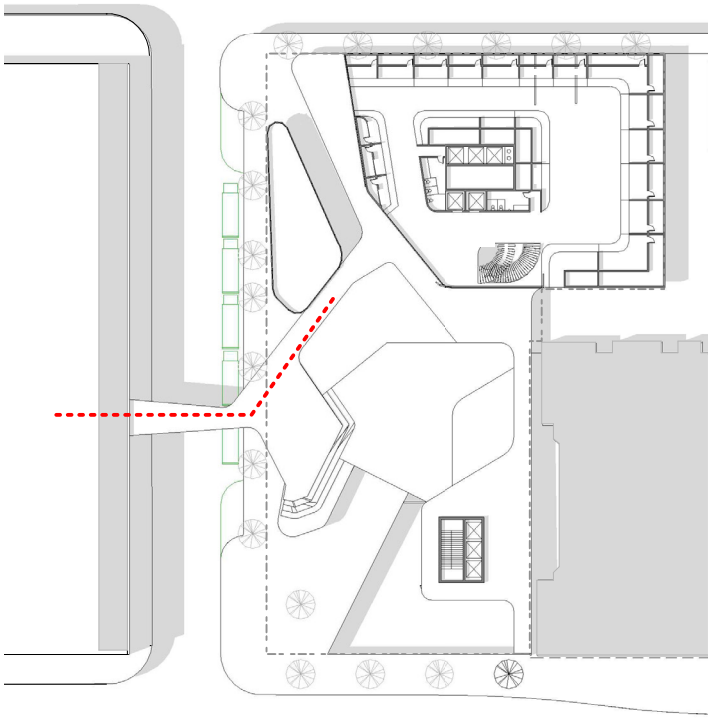


Figure 110 Second Floor Bridge Connection

Further establishing connections to the immediate context, a restaurant has been placed at the north west corner of the site to mirror the adjacent Hair of the Dog patio condition. The design also makes a connection to the Loblaws store to the west, spanning over church street and connecting the second level of both buildings. By doing so, these otherwise disconnected programs now establish a stronger and less interrupted relationship.

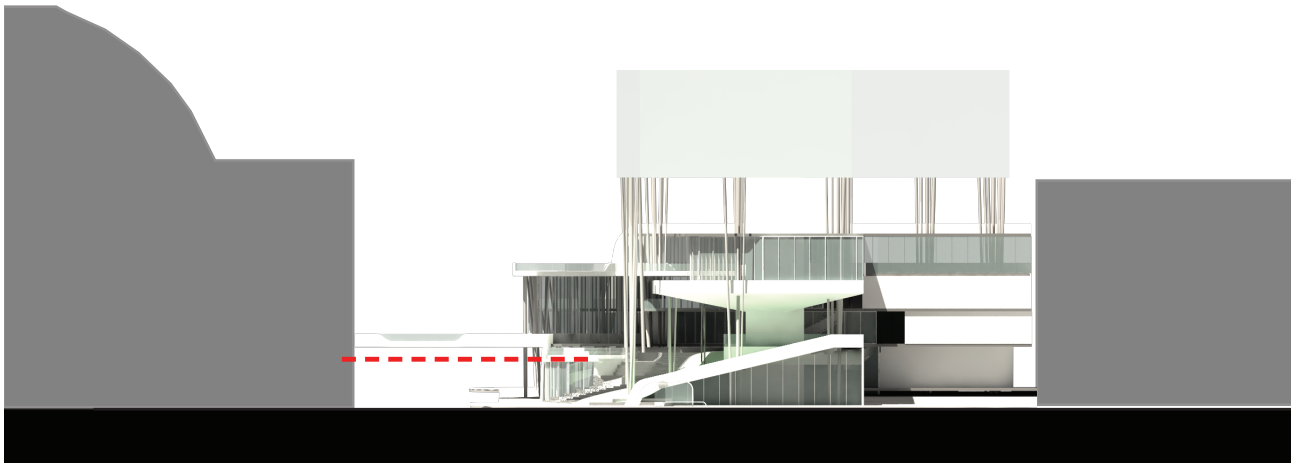


Figure 111 Elevation- Bridge Connection

Figure 112 Street Side Restaurant Render

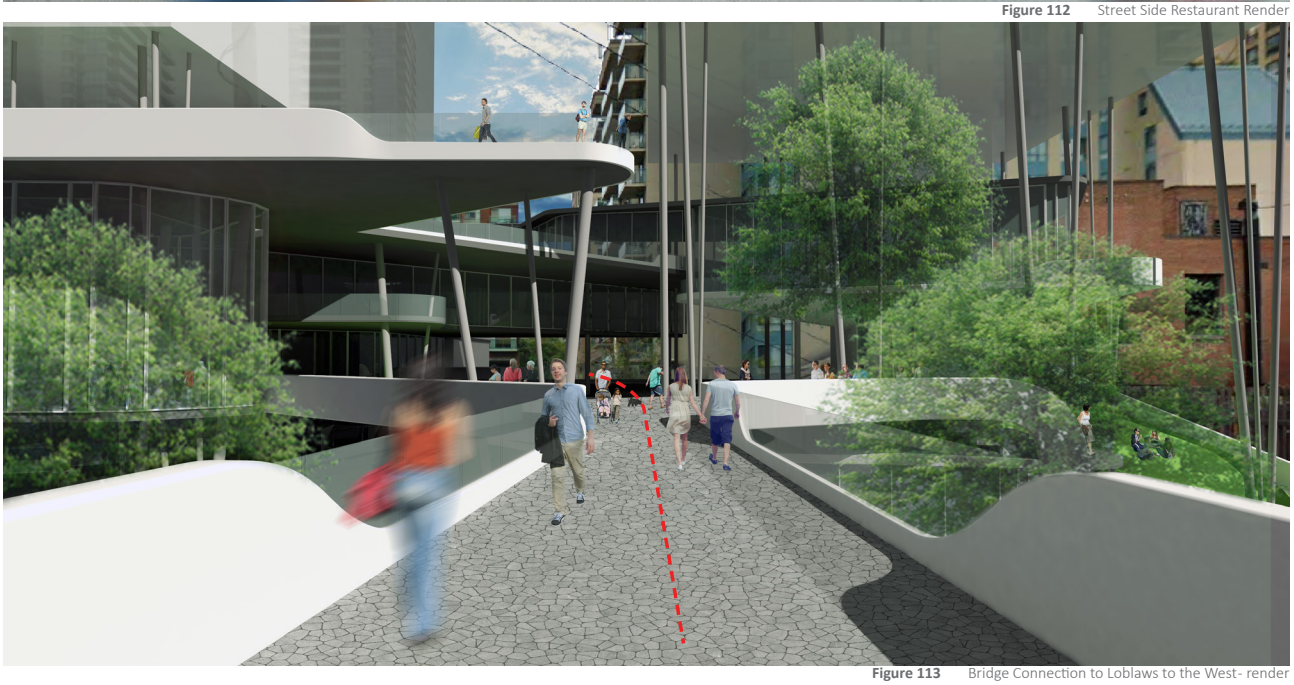


Figure 113 Bridge Connection to Loblaws to the West- render

The interior circulation of the building design reflects clear and well-known paths of origin and destination. Programmatic nodes of activity are strategically placed along and connected to these internal circulation systems to enable these points of rest. When approaching and entering the built environment, these clear paths naturally guide the occupant through the site, progressively exposing the embodied programs and activities. As the individual moves along this path system, they are constantly entering and leaving different social conditions.

The lower render depicts the primary social node and entertainment area within the building form. This space acts as a common connecting spatial condition for all the building program. Ryerson University, and Church & Wellesley Village planning teams are able to host various events and activities within this environment. It is intended that space acts in a very similar manor to that of Dundas square, in the sense that it is privately owned, however the space predominantly emanates a public open space. The second render is glimpse into the interior condition of the Chefs Hall. This program has been introduced into the building to provide a place for local chefs, restaurants and baristas to present their unique foods in one setting. The intention is that these vendors will be privately and publicly selected for the leasable spaces. This not only exemplifies the constantly changing food cultures within the city, but a building that responds to public opinion, therefore instilling feelings of participation in the evolution of available environments and activities within the city.

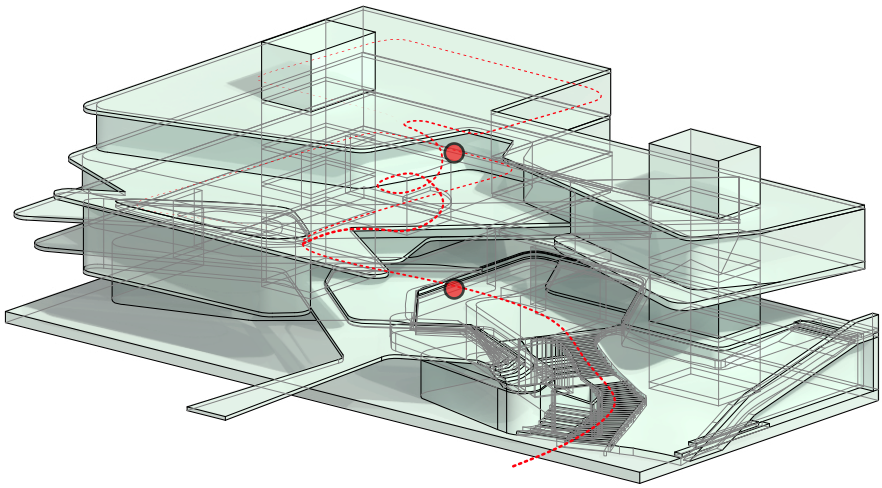


Figure 114 Path of a single Circulation Experience for the Individual

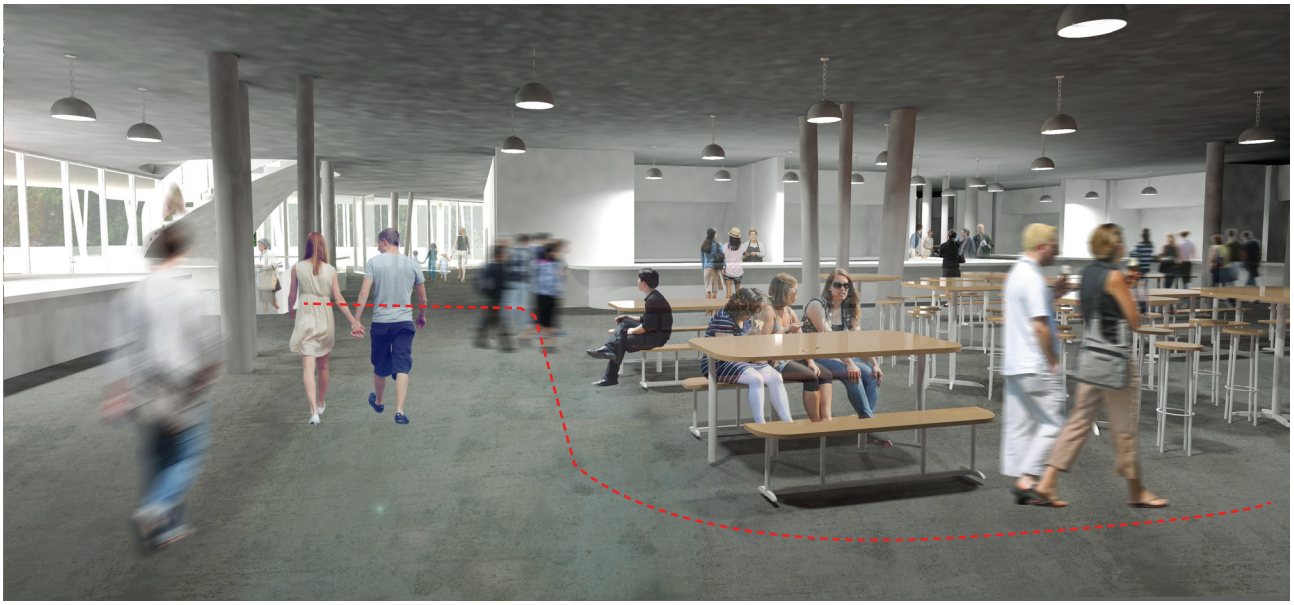


Figure 115 Chef Hall Render

Figure 116 Primary Node & Entertainment Space

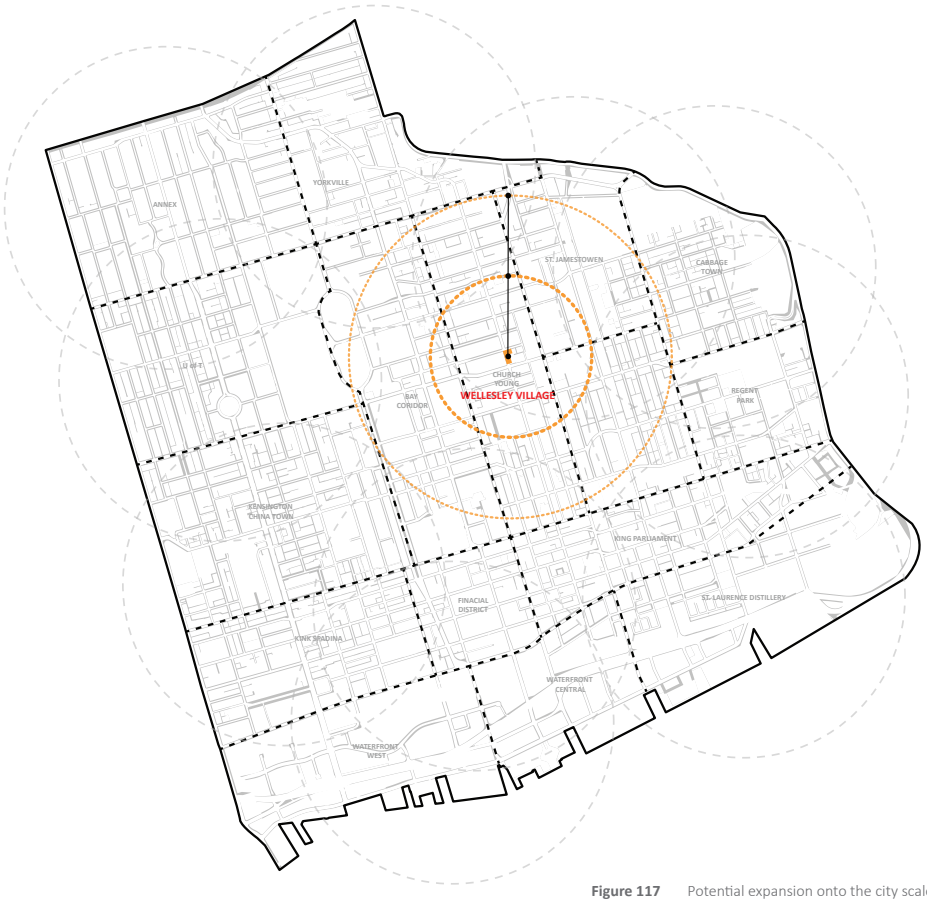


Figure 117 Potential expansion onto the city scale

5.5.4 LANDMARKS

The last observer element of city image that is described by Kevin Lynch is landmarks. The strategies and tactics used to develop this contextually integrated environment have establish a unique environmental condition that weaves itself into the existing urban fabric. This building has been directly influenced by the city and community scale, as well as responding to the user, and how the individual and collective body, observe, utilize and identify social environments. The building both stands out, and blends into its context, therefore creating a unique building form in relation to other spaces throughout the city. By examining the existing social environments of the city, and integrating them into one environmental condition, the resultant response is a spatial condition that the downtown population is already familiar with. The intention of thesis is to utilize these evolved building strategies to integrate numerous socially charged environments, such as the one designed, placed critically throughout the entire downtown core. It is the role of architecture to mediate the relationships between public and pirate territories and to understand the potential of these interconnecting environments to create healthy and a balanced city social life.

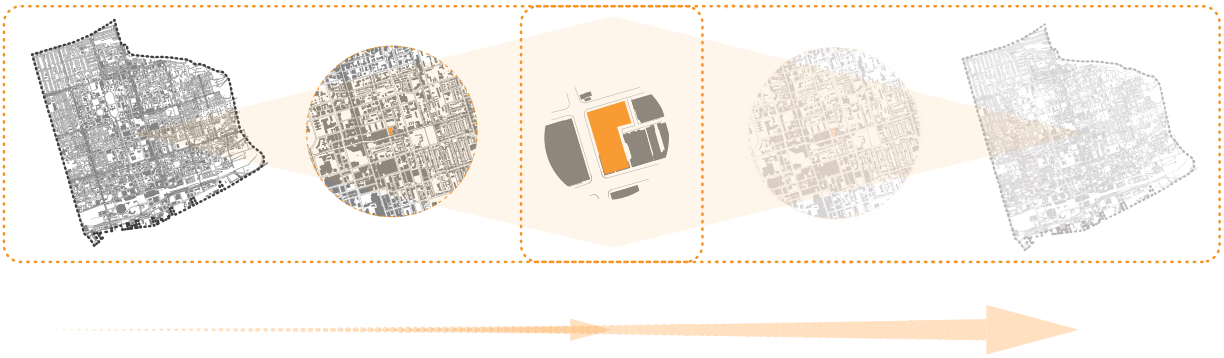


Figure 118 City influences building, building influences City

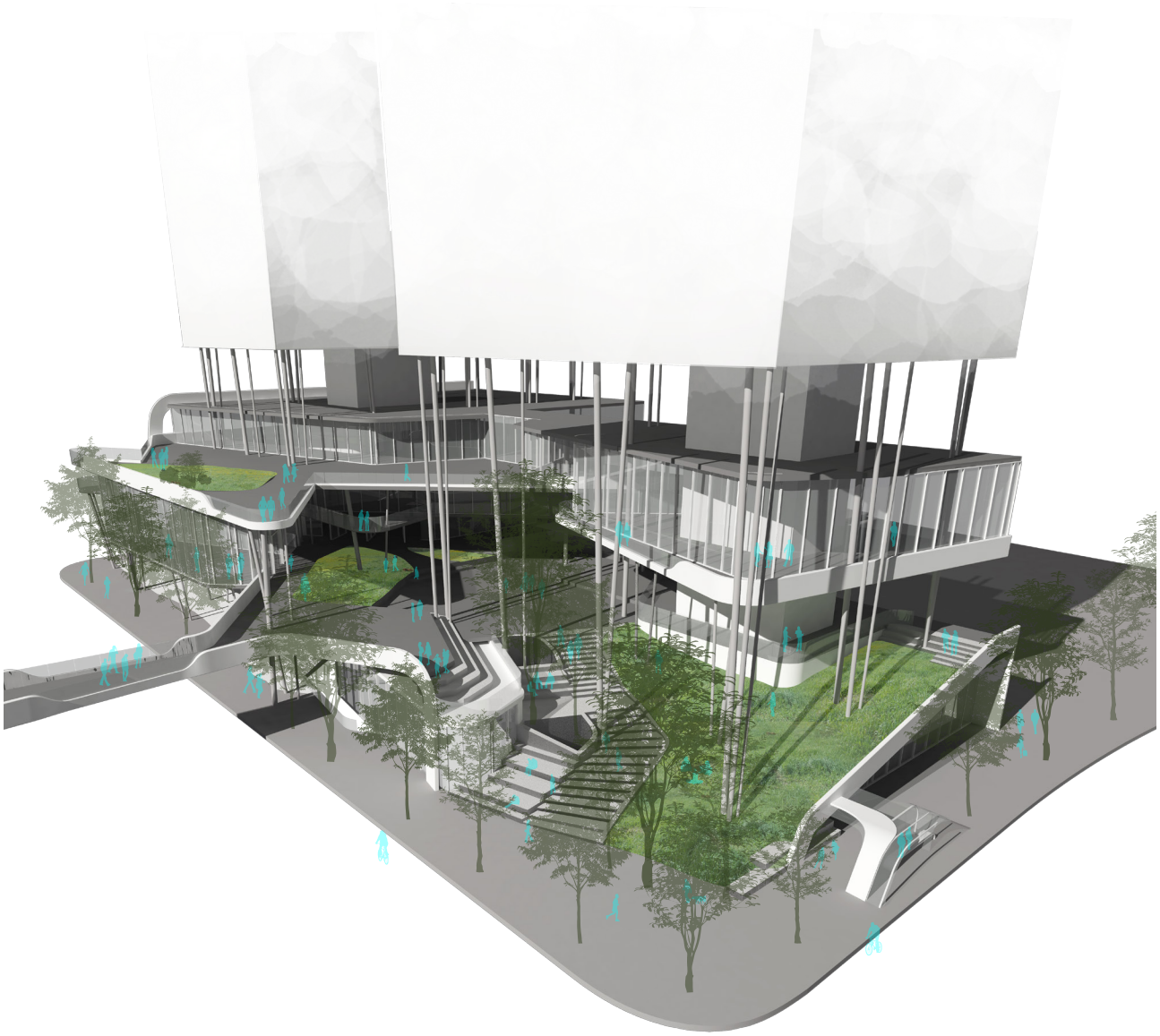


Figure 119 Birds Eye View of Proposed Design

ENDNOTES

80 Montgomery, Charles. *Happy City: Transforming our Lives Through urban Design.* (Canada: Anchor Canada, 2014), 3.

81 Lynch, Kevin. *Site Planning.* (Cambridge, Massachusetts: The MIT Press, 1962), 11.

82 Lepik, Andres. *Skyscrapers.* (New York: Prestel Verlag, 2008), 9.

83 Lynch, Kevin. *The Image of the City.* (United States: The Massachusetts Institute of Technology, 1960), 9-11.

84 Ibid, 10.

85 Hillier, Bill. *Space is the Machine.* (CreateSpace Independent Publishing Platform, 2015), 17.

86 Gehl, Jan. *Cities for People.* (Washington: Island Press, 2010), 33-41.

87 Yi-Fu, Tuan. *Space and Place: The Perspective of Experience.* (Minneapolis: University of Minnesota Press, 1977), 34.

88 Gehl, Jan. *Cities for People.* (Washington: Island Press, 2010), 134.

89 Lynch, Kevin. *The Image of the City.* (United States: The Massachusetts Institute of Technology, 1960), 47.

90 Gehl, Jan. *Cities for People.* (Washington: Island Press, 2010), 136-137.

91 Gehl, Jan. *Cities for People.* (Washington: Island Press, 2010), 137.

92 Speck, Jeff. *Walkable City: How Downtown can save America, One Step at a Time.* (New York: North Point press, 2012), 240.

93 Yi-Fu, Tuan. *Space and Place: The Perspective of Experience.* (Minneapolis: University of Minnesota Press, 1977), 161.

94 Lynch, Kevin. *The Image of the City.* (United States: The Massachusetts Institute of Technology, 1960), 47.

95 Ibid.

6.0 **CONCLUSION**

This body of work has orchestrated all critical research, data, and theory as it relates to the individual and collective body and their inseparable connection and relationship between the public and private realm. What has been revealed, from the onset of the thesis, is that the public realm cannot be considered separate from the private realm; the two are in constant influence of each other. The critical, and fundamental principle of city life operates through the negation and relationship between these two social distinctions of space. The ideas, concepts and theories present within this thesis have culminated into a proposal that seeks to create a balanced relationship between these environment within urban environments.

The typical understanding of public space, and public activity is that its free, therefore, there is very little profit in developing it. However, this body of work has revealed the opposite; financial investments into public space of the city, community, and building, if allocated properly, have the potential to increase the overall value of both public and private realms.

The environmental composition of cities, and the inevitable boundaries that plague human and environmental connectivity require evolution. Architecture needs to more consciously understand the influence of building boundaries on the human condition. Instilling greater ambiguity and softer edges, as well as making both internal and external programmatic connections, has the potential to create a more fluid environment in which a healthy private and public life can be sustained within high density, high rise environments.

Appendix A

Model Photos

Figure 120 Site Model

Figure 121 Design Intervention Model

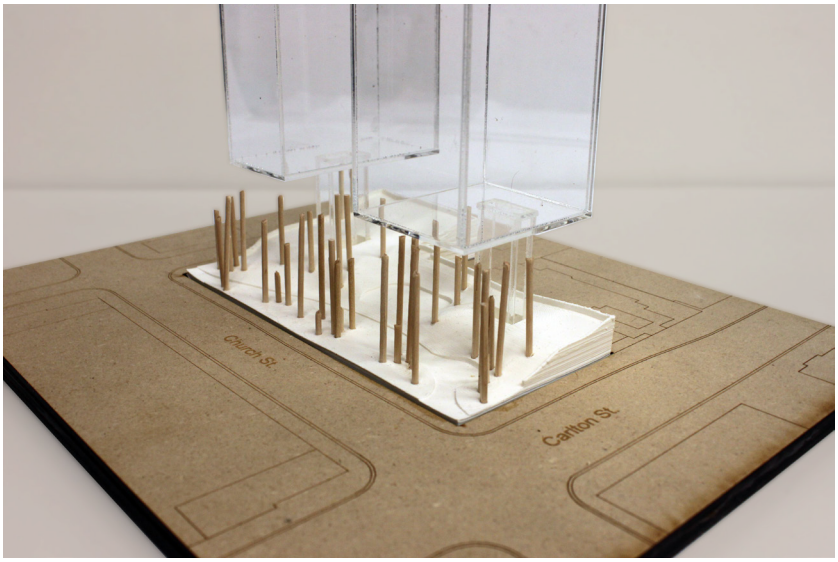


Figure 122 Process Model- Park & Open Space

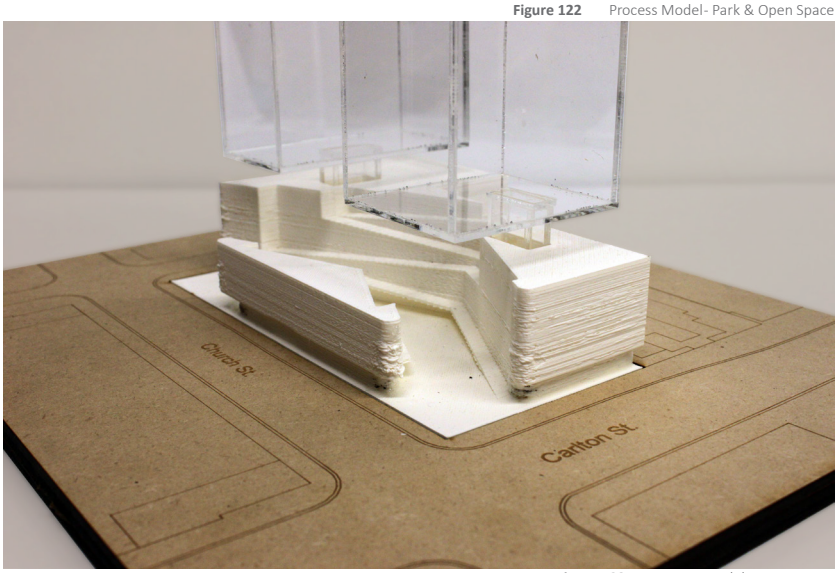


Figure 123 Prccess Model- Street Space

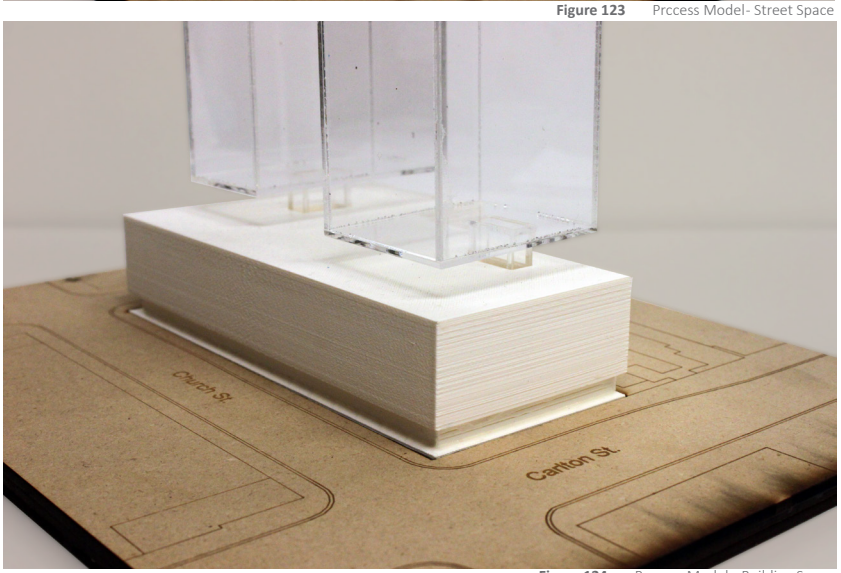
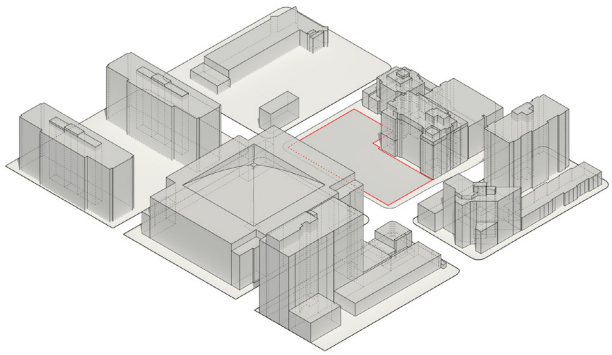
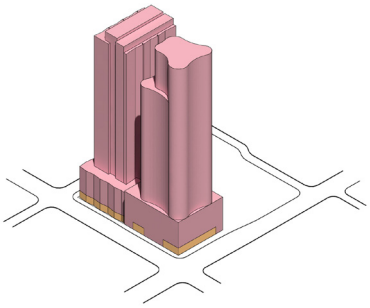


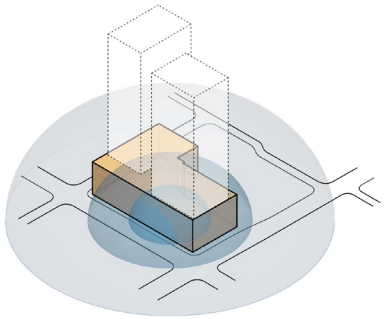
Figure 124 Process Model - Building Space



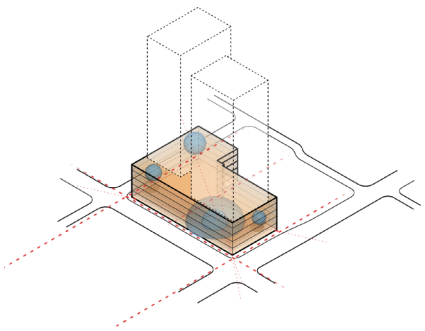
Site



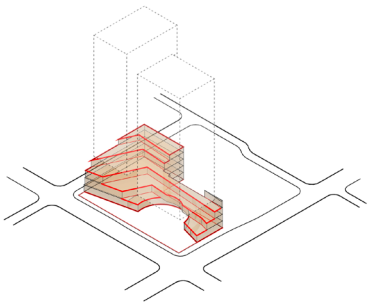
Existing Site Proposal



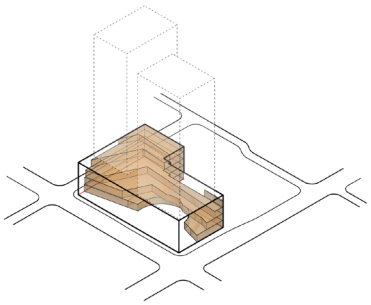
Sensory Limiting Distance



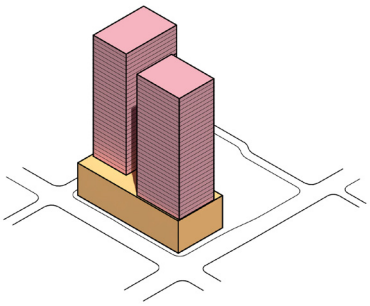
Paths & Nodes



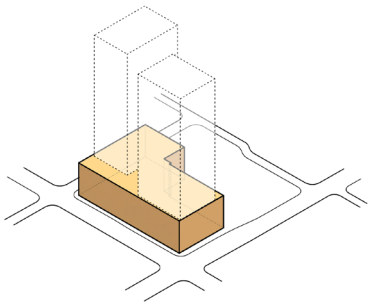
Edge Effect



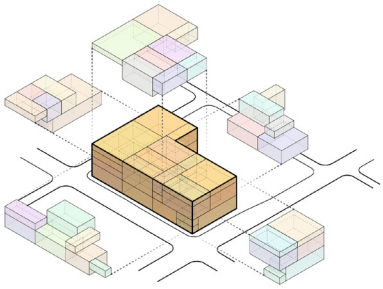
A Place for all Seasons



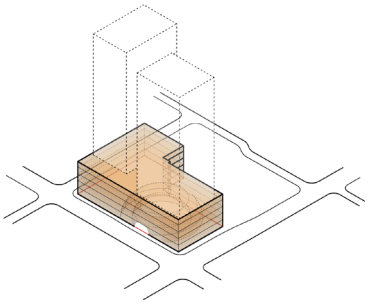
Basic Programmatic Subdivision



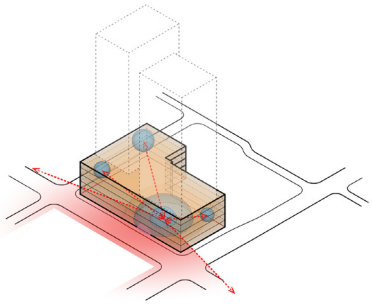
Primary Realm of Focus



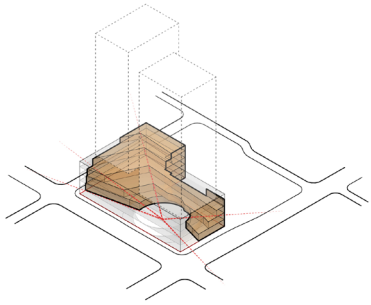
Diversity of Spaces
Diversity of Population



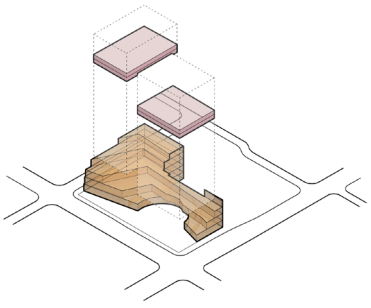
Primary Exterior Node



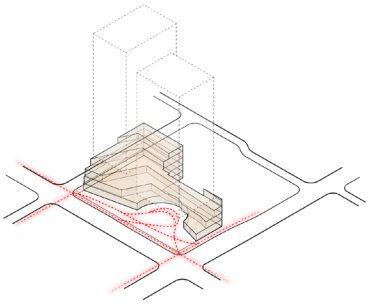
Site lines To/From Nodes



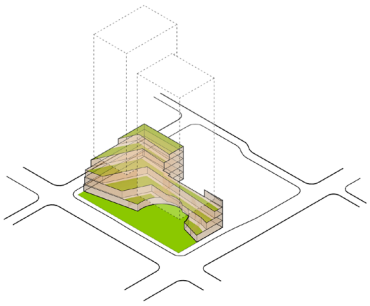
Solid & Void Massing



Semi-Public & Semi-Private Space



Extension of Street Scape



Park & Open Space

Figure 125 Massing Design Strategies

Appendix B

Schematic Design

Figure 126 Interior atrium View- Paths

Figure 127 Interior atrium View Edges

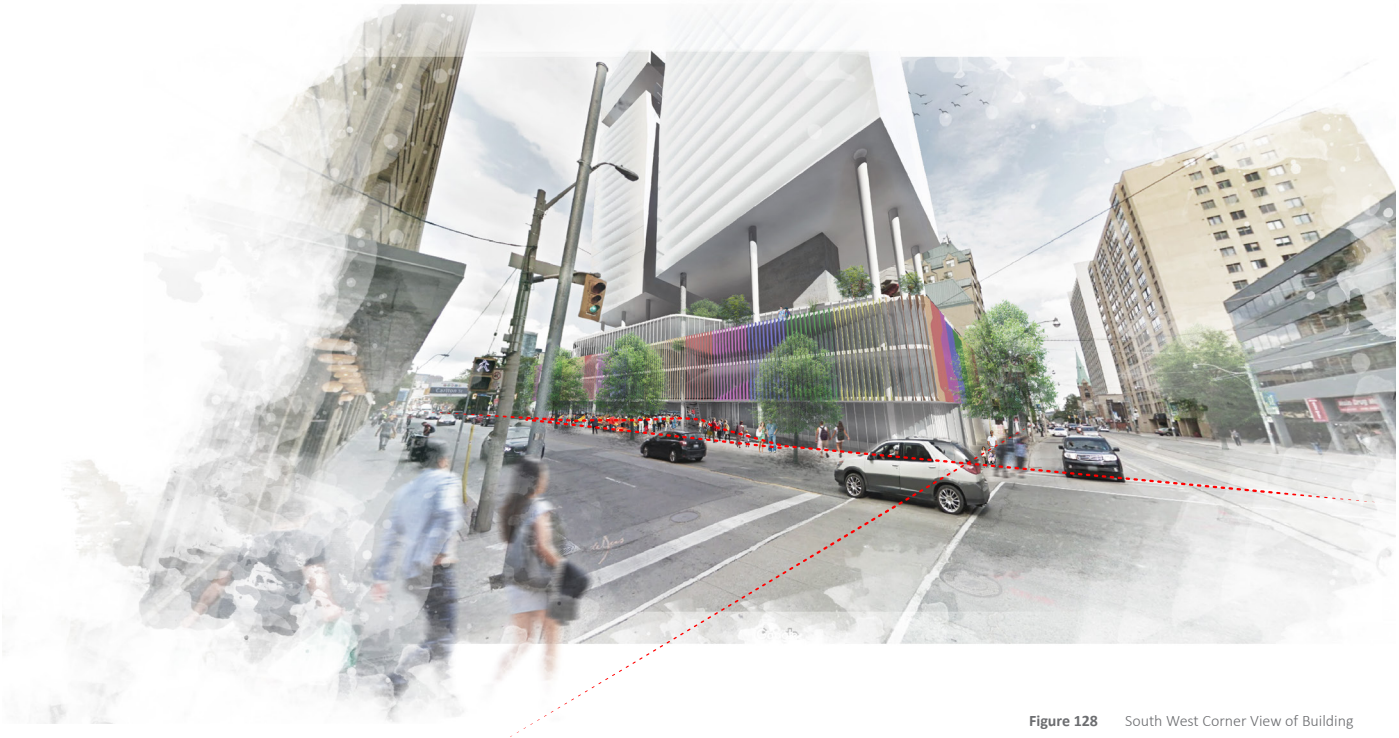


Figure 128 South West Corner View of Building

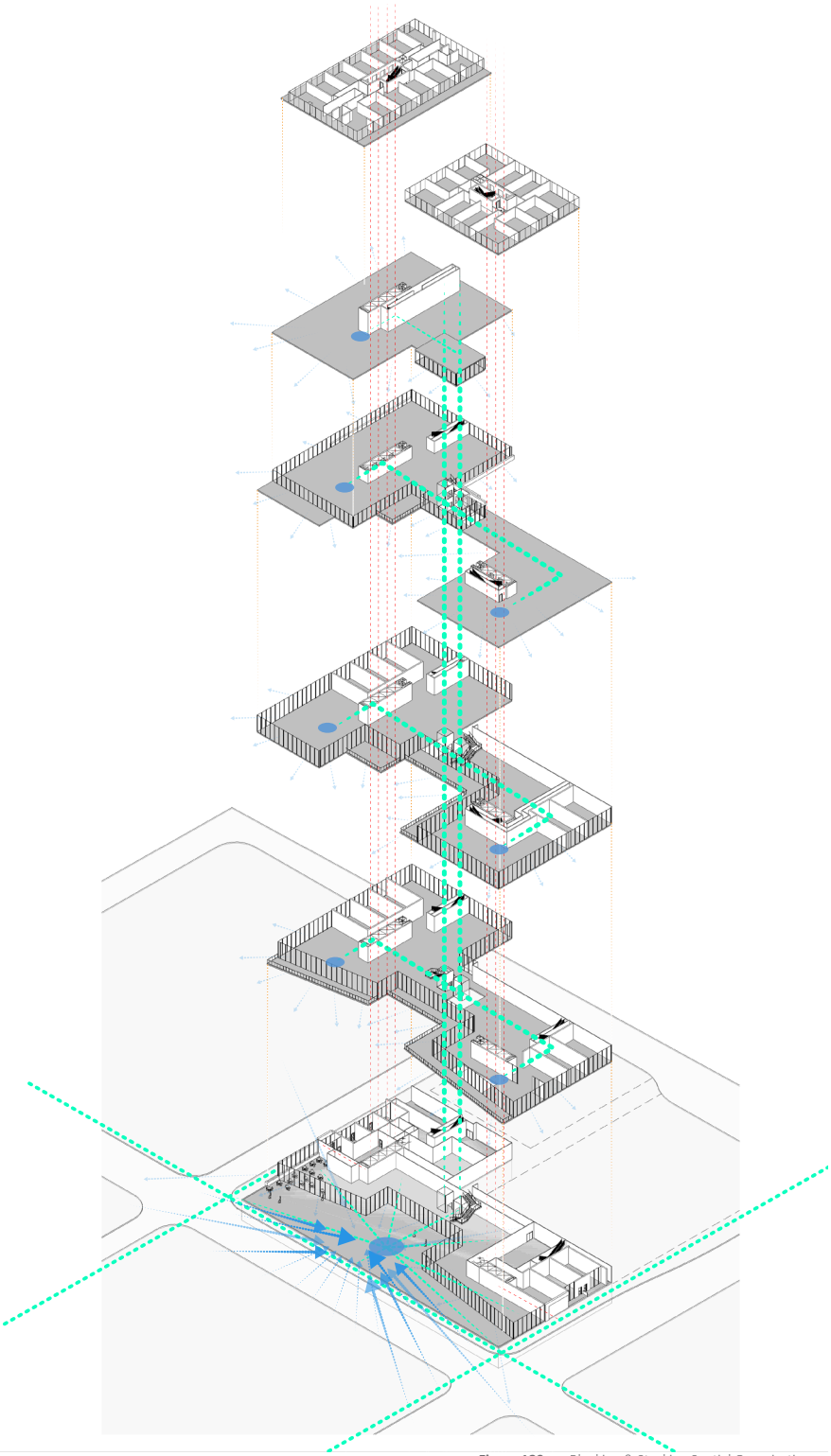
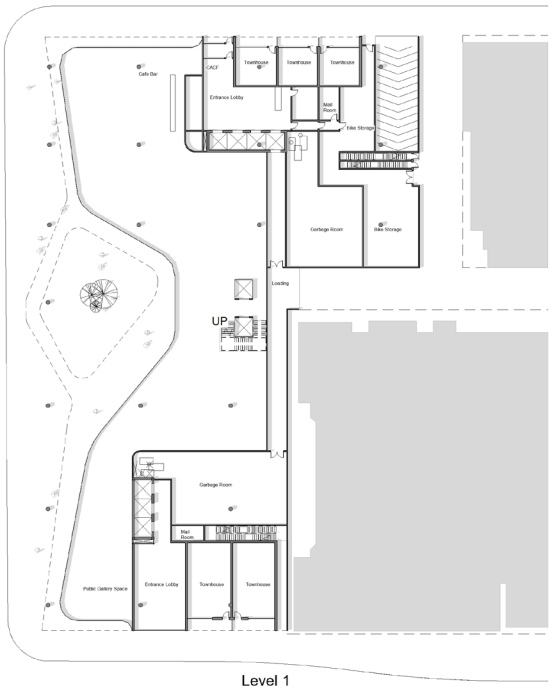
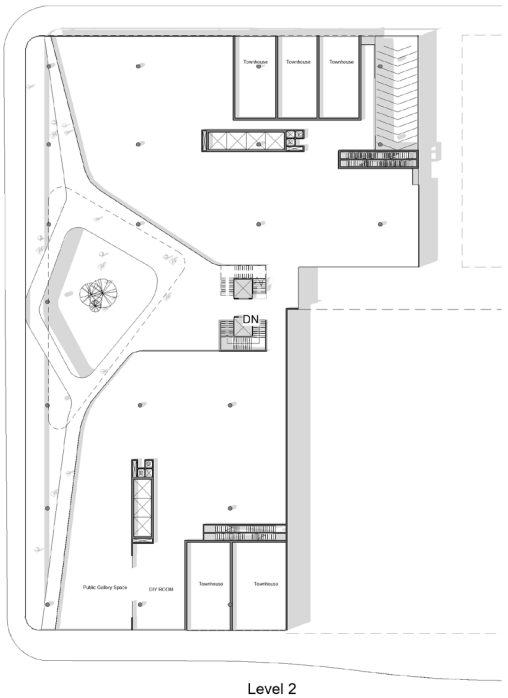


Figure 129 Blocking & Stacking Spatial Organization

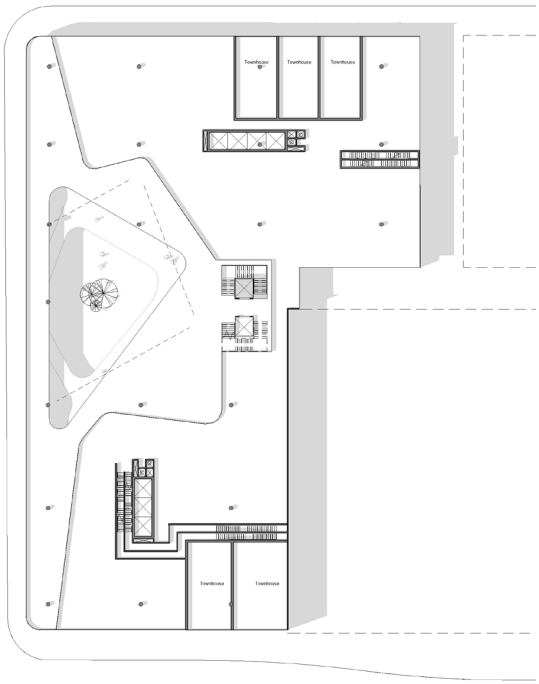
Figure 130 Model Photo



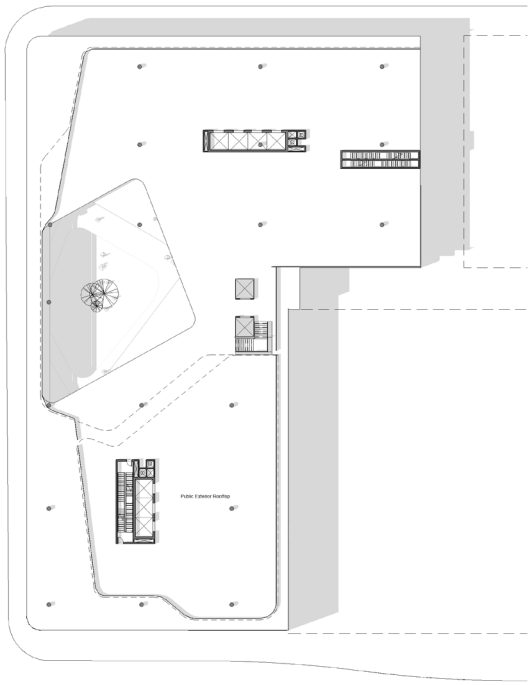
Level 1
1 : 500



Level 2
1 : 500



Level 3
1 : 500



Level 4
1 : 500

Figure 131 Schematic Floor Plans

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