A New Role For Student Housing Revitalizing a Mid-sized City Core

by

Katherine Bowman

A thesis presented to the University of Waterloo in fulfillment of the thesis requirement for the degree of Master of Architecture

Waterloo, Ontario, Canada, 2007

© Katherine Bowman 2007

AUTHOR'S DECLARATION FOR ELECTRONIC SUBMISSION OF A THESIS

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

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

ABSTRACT

Of the many urban revitalization strategies currently being implemented, one in particular is gaining in popularity. The revitalizing tactic of establishing a satellite University campus within the heart of a mid-sized city suffering socially and economically is demonstrating a positive shift in terms of urban evolution. The relative newness of these 'Town & Gown' partnerships, however, is simultaneously creating a unique situation with respect to many common University facilities, such as the Student Residence. The establishment of a post-secondary facility in a mid-sized city centre forces defined University boundaries to dissolve into the existing city fabric, rendering the once-conspicuous campus edge non-existent. This has made decisions regarding an appropriate student residential typology exceedingly complicated. The many unexplored opportunities within a mid-sized city setting, for both 'Town & Gown' alike, demand a reconsideration of preconceived student residential roles, prior to the establishment of a residence within a downtown environment. Neither technically on- or off-campus, a student residence would require the characteristics from both in order to flourish in its unfamiliar mid-sized downtown environment. The question then becomes which characteristics would find the greatest success not only for a University and its students, but for the city as well.

This thesis will examine how a student residence located in the heart of a mid-sized city can contribute successfully to the revitalization of its declining downtown, and will then propose a reconsidered approach to the design of a student residence, using the University of Waterloo's School of Architecture's new home, Cambridge, Ontario, Canada, as the siting for the final design proposal.

ACKNOWLEDGEMENTS

Thank you, Rick Haldenby, for your guidance and endless encouragement. Thank you, Jeff Lederer and Lloyd Hunt, for your insight and inspiration.

Thank you, Lily Kim, Somya Singh, and Kristy Wung for your support and friendship.

For Mom and Dad

TABLE OF CONTENTS

		Abstract	v
		List of Illustrations	xv
1.	.0	Introduction	5
2.	.0	Mid-Sized Cities	7
		2.1 A Definition 10	
		2.2 Issues 11	
		2.3 A Creative Industry	
		2.3.1 Town&Gown	
		2.4 Conclusion	
3 .	.0	University-Community Relations	19
		3.1 Early Education	
		3.1.1 TheAcademy 22	
		3.1.2 The Dawning of Higher Education	
		3.1.3 Here Comes the West	
		3.1.4 A Man with a Plan 25	
		3.1.5 20th Century Learning	
		3.2 Current University Status 28	
		3.2.1 21st Century 28	
		3.2.2 Savannah College of Art and Design	
		3.2.3 Laurier-Brantford University	
		3.3 Residence as a Revitalizaing Force	
4.	.0	Cambridge, Ontario, Canada	37
		4.1 A Breath of Creative Air	
5.	.0	A Role in Revitalization	47
		5.1 Where to Begin	
		5.1.1 An Out-dated Typology 54	
		5.1.2 But in a Mid-Sized City Core	
		5.1.3 Can This Work for Student Housing?	
		5.2 Reconsidering Site XL	
		5.2.1 Student Expectations	
		5.2.2 Community Expectations	

	5.3 Reconsidering the Immediate L	
	5.4 Reconsidering Grade M	
	5.4.1 Community Expectations	
	5.4.2 Students & School 70	
	5.5 Reconsidering Residence S	
	5.5.1 Student Expectations	
	5.5.2 School Expectations	
6.0	lew Roles for Student Residences	77
	6.1 The Good	
	6.1.1 Public Servant	
	6.1.2 Event	
	6.1.3 Infrastructure	
	6.1.4 Community Engagment	
	6.1.5 Residence	
	6.2 The Challenge	
	6.3 Summary 88	
	Appendix A	91
	Site Imagery	
	Present Conditions	
	Potential Conditions	
	Appendix B	107
	Plans	
	Elevations	
	Sections 129	
	Appendix C	133
	Section Detail	
	Costing Analysis	
	Epilogue	
	Post Script	
	lotes	140
	Bibliography	148

LIST OF ILLUSTRATIONS

2.1a	Intense Use of Personal Vehicles. Corbis (http://pro.corbis.com/, 2007)	10
2.1b	Celebrating Urban Living. Corbis (http://pro.corbis.com/, 2007)	
2.1c	A City Core in Deep Decline. Author (2007)	
2.1d	An Urban Patchwork. Corbis (http://pro.corbis.com/, 2007)	
2.3a	Increase Density. Flickr (http://www.flickr.com/photos/joescamera/, 2007)	16
2.3b	24-hour Life. Flickr (http://www.flickr.com/photos/thisisforever/, 2007)	
2.3c	A Pedestiran Environment. Flickr (http://www.flickr.com/photos/fritz_da_kat/, 2007)	
2.3d	Interesting & Accessible Public Spaces & Places. Flickr (http://www.flickr.com/photos/, 2007)	17
2.3e	Attracting Youth & Creative Cultures. Flickr (http://www.flickr.com/photos/stephaniejm/, 2007)	
2.3f	Historic Preservation. Flickr (http://flickr.com/photos/mistercgg/, 2007)	
2.3g	"Eyes on the Street". Flickr (http://flickr.com/photos/fermata_daily/, 2007)	
2.3h	Waterfront Development. Author (2006)	
2.3i	A Sense of Community. Flickr (http://www.flickr.com/photos/jamiepaul/, 2007)	
3.1a	Plato. Britannica Online (http://www.britannica.com, 2007)	22
3.1b	Plato and Aristotle at the Academy. Sweet Briar College (http://witcombe.sbc.edu, 2007)	
3.1c	Oxford University. Davidson College (http://www.bio.davidson.edu, 2007)	23
3.1d	Memorial Hall, Harvard University. Flickr (http://www.flickr.com/photos/houben/, 2007)	24
3.1e	Typical Harvard Gate. Flickr (http://www.flickr.com/photos/cyradis/, 2007)	
3.1f	Henry Tappan. Britannica Online (http://www.britannica.com, 2007)	
3.1g	Thomas Jefferson. VisitingDC (http://www.visitingdc.com, 2007)	25
3.1h	University of Virginia. Teacher's Paradise (http://www.teachersparadise.com, 2007)	
3.1i	The Academic Village 'Now'. University of Virginia (http://www.virginia.edu, 2007)	
3.1j	Jefferson's Plan of the Village. The Library of Congress (http://www.loc.gov, 2007)	
3.1k	A WWII Barrack Scene. Navy Historical Center (http://www.history.navy.mil, 2007)	26
3.11	Typical Barracks. Idaho National Guard Resourse Office (http://inghro.state.id.us, 2007)	
3.1m	Typical barracks. AMC Companies (http://www.amccinc.com, 2007)	
3.1n	University 'Life'. Southern Polytechnic University (http://www.spsu.edu/, 2007)	27
3.10	Residence Halls. Northwestern University (http://groups.northwestern.edu/, 2007)	
3.1p	A Main Residence Hallway. Discover ND (http://www.nd.gov/, 2007)	
3.lq	York University Graduate Residences. John McCallum (http://www.jcmit.com/, 1970)	
3.1r	Verducci Hall. San Francisco State University (http://www.sfsu.edu/, 2007)	
3.2a	Rural. Author (2007)	29
3.2b	Suburban. Author (2007)	
3.2c	Urban. Author (2007)	
3.2d	Savannah Revitalization. Victorian Society of America (http://www.victoriansociety.org/, 2007)	30
3.2e	A SCAD Renovation. Archinet (http://www.archinect.com/, 2007)	
3.2f	Select SCAD Residences. SCAD-Savannah (http://www.scad.edu/, 2007)	
3.2g	Map of Downtown Savannah. Author (2006)	31
3.2h	Post House Residence. Laurier-Brantford University (https://www.wlu.ca/, 2007)	32
3.2i	The Carnigie Building. Laurier-Brantford University (https://www.wlu.ca/, 2007)	
3.2j	Grand River Hall. Laurier-Brantford University (https://www.wlu.ca/, 2007)	
3.2k	Downtown Brantford. G.K. York (http://www.gkyork.ca/, 2007)	
3.21	Map of Downtown Brantford. Author (2006)	33

3.3a	Rural. Author (2007)	35
3.3b	Suburban. Author (2007)	
3.3c	Urban. Author (2007)	
3.3d	Mid-Sized City. Author (2007)	
4.0a	Map of Southern Ontario. Author (2007)	39
4.0b	An Early View of the Skyline. McLaughlin (1987)	40
4.0c	Grand River Industry. McLaughlin (1987)	
4.0d	A Typical Textile Machine. McLaughlin (1987)	
4.0e	Map of the City of Cambridge. Author (2007)	41
4.0f	A View from School. Author (2007)	42
4.0g	Main Street, 1972 Flood. McLaughlin (1987)	
4.0h	Main & Water Streets. McLaughlin (1987)	43
4.0i	Cambridge Citizens. McLaughlin (1987)	
4.0j	Contemporary Cambridge. Author (2007)	42-43
4.1a	UW's School of Architecture. Author (2007)	44
4.1b	Map of Downtown Cambridge. Author (2007)	45
5.0a	'Pocket Park' Installation. Gabe Li (2006)	50
5.0b	Mayor's Celebration of the Arts. School of Architecture (2007)	51
5.0c	Riverside Gallery within the School. School of Architecture (2007)	
5.0d	Utilities Included. AlphaProfit (http://www.alphaprofit.com/, 2007)	52
5.0e	Loft or Apartment Typology. 2Modern (http://2modern.blogs.com/, 2007)	
5.0f	Proximity to Amenities. BrandflakesForBreakfast (http://www.brandflakesforbreakfast.com/, 200	07)
5.0g	Hamilton. Flickr (http://www.flickr.com/photos/8613870@N04/, 2007)	53
5.0h	Kitchener. Flickr (http://www.flickr.com/photos/sonja_010676/, 2007)	
5.0i	Burlington. Panoramio (http://www.panoramio.com/, 2007)	
5.0j	Sudbury. Sudbury Photos (http://www.sudburyphotos.ca/, 2007)	
5.1a	Village 1. Author (2007)	54
5.1b	Untitled. Author (2007)	
5.1c	Village 1. Author (2007)	55
5.1d	Untitled. Author (2007)	
5.1e	CLT Residence. Author (2007)	56
5.1f	Untitled. Author (2007)	
5.1g	V1 Student Lounge. Author (2007)	57
5.1h	Untitled. Author (2007)	
5.1i	A Possible Placement. Author (2007)	58
5.1j	Untitled. Author (2007)	
5.1k	A Possible Result. Author (2007)	59
5.11	Untitled. Author (2007)	
5.1m	Untitled. Author (2007)	60
5.1n	Familiar Engagement. School of Architecture (2007)	61
5.10	Untitled. Author (2007)	
5.1p	Architecture at Night. School of Architecture (2007)	62
5.1q	Untitled. Author (2007)	

5.2a	Map of Downtown Cambridge. Author (2007)	65
5.2b	Site Model. Author (2007)	67
5.2c	Ground Floor. Author (2007)	69
5.2d	Second Floor. Author (2007)	71
5.2e	Third Floor. Author (2007)	73
5.2f	Fourth Floor. Author (2007)	
5.2g	Typical Apartment. Author (2007)	
5.2h	Fifth Floor. Author (2007)	75
5.2i	Roof. Author (2007)	
5.2j	Typical Apartment. Author (2007)	
6.1a	Public Servant Render. Author (2007)	82
6.1b	Public Servant Diagram. Author (2007)	
6.1c	Event Render. Author (2007)	83
6.1d	Event Diagram. Author (2007)	
6.1e	Infrastructure Render. Author (2007)	84
6.1f	Infrastructure Diagram. Author (2007)	
6.1g	Community Engagement Render. Author (2007)	85
6.1h	Community Engagement Diagram. Author (2007)	
6.1i	Residence Render. Author (2007)	86
6.1j	Residence Diagram. Author (2007)	
A	Looking North-East along Water Street. Author (2007)	94
В	Looking North along Water Strees. Author (2007)	95
С	Looking South-West along Dickson Street. Author (2007)	94-95
D	Looking South along Water Street. Author (2007)	96
Е	Looking South-East along Water Street. Author (2007)	96-97
F	Public Servant - Looking North-East. Author (2007)	101
G	Event - Looking West. Author (2007)	102
Н	Infrastructure - Looking South-East along Water Street. Author (2007)	103
I	Community Engagement - Looking North. Author (2007)	104
J	Residence - Looking South. Author (2007)	105
	Ground Floor Plan. Author (2007)	109
	Second Floor Plan. Author (2007)	111
	Third Floor Plan. Author (2007)	113
	Fourth Floor Plan. Author (2007)	115
	Fifth Floor Plan. Author (2007)	117
	Sixth Floor Plan. Author (2007)	119
	East Elevation. Author (2007)	121
	North Elevation. Author (2007)	123
	West Elevation. Author (2007)	125
	South Elevation. Author (2007)	127
	North-South Section. Author (2007)	129
	East-West Section. Author (2007)	131
	Wall Section Detail. Author (2007)	134

A New Role For Student Housing

"In the early 20th century...downtowns were centers of highly concentrated activity, with streets and sidewalks that pulsated with human activity, the highest land values in the city, and the full spectrum of economic functions."ⁱ

Introduction 1.0

Realizing the importance of a unifying and centralized city core, mid-sized urban centres across North America are attempting numerous initiatives to revitalize their downtown areas. One such example is happening in Cambridge, Ontario, Canada, the location which serves as the site for this thesis.

In 2004, the University of Waterloo's School of Architecture, in search of improved facilities and more space for its own growing population, relocated to an abandoned silk factory in the heart of downtown Cambridge. This move has acted as a catalyst for the revitalization of the core by providing increased spending and a constant influx of young, energetic minds. But above all, it has brought new opportunities for the school and community to discover levels of communication and engagement which would have never previously been possible.

The potential now lies in creating a central student residence which would further the momentum of the current city revitalization already underway. But because the establishment of a satellite campus in the downtown of a mid-sized city is still a relatively new endeavour, the impact of a student residence on both the University and the city has yet to be evaluated. In fact, specific conditions and requirements for a student residence still need to be fully understood in this unique situation. Universities* have yet to realize the important opportunities which residences hold with regards to community engagement, something most Universities in their mission statements pride themselves on doing, but fail to achieve.

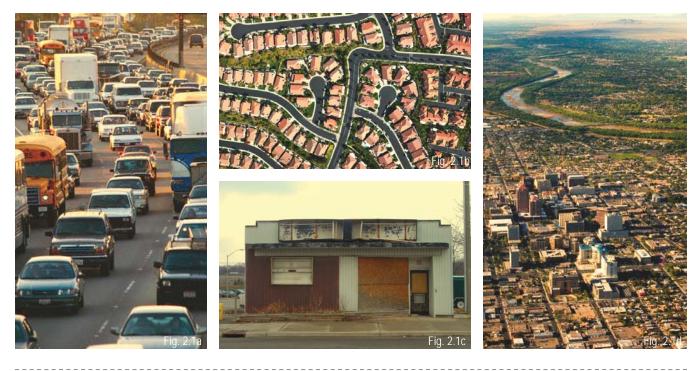
By proposing a student residence for the University of Waterloo's School of Architecture in downtown Cambridge, Ontario, this thesis will attempt to evoke discussion regarding the potential effects of student housing on the downtown core of a deteriorating mid-sized city. * For the purpose of this thesis the term 'University' is not strictly limited to just that. 'University', in this case, is meant to encompass all post-secondary institutions (College, Vocational, etc.) and will only be used for continuity and ease of understanding throughout the remaining paper.

Mid-sized Cities

We live in an evolving society where almost every aspect of our communities is either flexible or dispensable. In fact, few aspects of North American culture can be labelled as permanent. Contemporary economies, culture, values, beliefs, urbanization and technology are advancing at such a rapid pace that constant change relating to not only *how* we live, but *where* we live is unavoidable.

The Mid-sized City, or 'MSC', considered by some to be the backbone communal typology of Canada, is no exception to the destructive nature of progress. Fortunately, a growing recognition of the value of MSCs is beginning to counter-act the 'dispensable' stigma currently associated with these quietly-deteriorating communities.

> In transition. Struggling badly. Failing outright.ⁱ



A Definition

As of the 2001 census, approximately 32% of Canadians called a MSC homeⁱⁱⁱ. Canada has 84 MSCs with 34 located in Ontario. Ranging in population between 50 000 to 500 000 people, MSCs are often treated as micro-versions of their larger metropolitan counterparts^{iv}. The same successful tools used for urban revitalization in metropolises such as Toronto are frequently applied within MSCs and, more often than not, find little success. Current research is revealing that MSCs have their own unique social atmospheres, policy issues and basic needs, perhaps underscoring why progress in revitalizing MSCs has been tedious and slow. However, recent improvement initiatives, such as increasing downtown density through an increase in residential developments, are beginning to prove successful for the community scale of a MSC.

A Mid-sized City Check Listⁱⁱ

2.1

Fig. 2.1aIntense Use of Personal VehiclesFig. 2.1bCelebrating Suburban LivingFig. 2.1cA City Core in Deep DeclineFig. 2.1dAn Urban Patchwork

Issues 2.2

Because of their centralized mass and diverse population, metropolis cities are easily able to adapt to changing market conditions; MSCs cannot. The smaller and more dispersed urban forms of MSCs tend unintentionally to *discourage* economic diversity within their downtowns and *encourage* the various developments to take place at the city's fringe^v. Convincing entrepreneurs to develop their businesses where a majority of the population is located is not difficult.

There was a time when living at the city's edge was impractical because basic amenities were located within the compact city core. But today this situation is reversed. Cambridge, for example, in 2005, estimated that 96 percent of the population lived outside the designated city cores, leaving a mere 3 percent to live within the downtown boundaries^{vi}. The far reach of a personal automobile allows residents unprecedented mobility and choice in virtually all aspects of their lives. Most people now consider living within a MSC centre as inconvenient. What was once valued as the city's economic and political centre is now deemed out of the way, inconvenient and no longer viable.

Beyond the perceived mobility, the seduction of the suburban lifestyle also includes several preconceived notions such as affordable housing, safer communities and a 'laid back' lifestyle. Suburbia now reigns supreme as the residences of choice. The abandonment of MSC centres has created an environment that supports why people believe they had to leave in the first place. Lingering concerns such as personal safety and a lack of street activity and/or cultural activity are common beliefs made by people who avoid the city centre but these elements exist ironically because of the city fringe being the locale of choice in the first place^{vii}.

The decline of MSCs has been partly blamed on "society's emphasis on the individual and private sector"^{viii} but has accelerated with the infinite reach of the automobile. Downtown crime has been both a reason for decline as well as a result of it. The resulting city core is a cold, barricaded and isolated island whose primary use has become that of a 'transportation corridor'. A resulting fear is the inevitable extinction of centralized urban life.

Attempts at reversing MSC core decline have been quietly persistent through the years and the current situation is certainly not due to a lack of support. MSC centres have endured "continuous redevelopment policies and projects [but most] still have serious economic problems and are perceived, particularly by suburbanites as inconvenient, obsolete and even dangerous places."^{ix} MSCs continue to lack a vital interaction between people and objects within their cores that would cause their economy to excel, enhancing their social environment and providing a unique and appealing environment that would attract a diverse population back into their downtowns.

A Creative Industry

What were once the life-blood for North American cities, manufacturing and service trades, are now being replaced by the more lucrative and advantageous creative sector^x, "a fast-growing, highly educated, and well-paid segment of the workforce,"^{xi} that have, until recently, made their home in the larger metropolitan regions. MSCs are now beginning to see value in trying to attract this 'creative class' to their communities instead. But how are they proposing a shift of people from mega-cities to MSCs in the knowledge-based industry?

It has been shown that North American communities who successfully maintain a prominent 'creative class' have a multitude of creative-generating elements, such as "a solid mix of high-tech industry, plentiful outdoor amenities, and an older urban center... Creative-minded people enjoy a mix of influences. They want to hear different kinds of music and try different kinds of food. They want to meet and socialize with people unlike themselves, trade views and spar over issues. The most highly valued options were experiential ones---interesting music venues, neighborhood art galleries, performance spaces, and theaters."^{xii} Other common factors often include a pedestrian-friendly environment, public transit and the presence of post-secondary institutions – which is not surprising considering that creative people enjoy being around and inspired by other creative people.

For MSCs, the presence of a post-secondary institution has become the catalyst for urban revitalization. After all, universities are a "treasured part of civilization: exemplary as...social milieu, and as catalysts for ideas, knowledge, and cultural insight."^{xiii} Larger cities have well-established Universities because of the existing creative community that is already there to support it; MSCs are enticing these same institutions in order to attract the creative community *to it*. The result is a variety of unique needs for a university, its students and the existing MSC community.

The 21st century has brought with it a renewed appreciation in the creative sector. Becoming a reliable engine of economic growth, it has "generated roughly 20 million new jobs between 1980 and 2000 [within the US], and is projected to add another 10 million between 2004 and 2014."^{xiv}

2.3

2.3.1

Town & Gown

Many issues concerning the decline of MSC centres are being addressed by regional and local groups. One such organization that is providing research about MSC revitalization is the Community-University Research Alliance (CURA). Working as a sub-group of the governmentally funded Social Sciences and Humanities Research Council of Canada (SSHRCC), CURA is focused on supporting the "creation of alliances between community organizations and [universities] which, through a process of ongoing collaboration and mutual learning, will foster innovative research, training and the creation of new knowledge in areas of importance for the social, cultural or economic development of Canadian communities."xv CURA is promoting the importance of "keeping downtowns distinct from suburbs in terms of dynamics, activities, appearance and markets"xvi as well as creating "magnets to attract people and an appealing environment [in which] to retain them."xvii To date, CURA has been a major player in the development of Community-University (or 'Town & Gown') partnerships and the relocation of some well known Canadian post-secondary campuses to the heart of suffering MSCs.

_ _ _ _ _ _ _ _ _ _ _ _ _ _

"Weaving in rather than walling out."

Higher education is one of the most competitive businesses in the world. As with most major corporations, it wants to attract the top faculty, staff and students. To do so, it must also ensure that the surrounding environment is equally creative and revitalized. After all, a vivacious urban setting comprised of historical buildings, new architecture, commerce, services and a broad range of cultural activities is vital to the success of any larger metropolitan city. For decades, many universities have been "inner-directed, focusing on the school's traditions...[while] largely ignoring the world outside."xix By relocating a campus immediately into a MSC core, this can no longer be the case. The survival of these 'Town & Gown' relationships depends on the "mutually-beneficial exchange"xx. Even if in its conception, the act of relocating a portion of a university into a MSC has been a matter of self-preservation for both parties^{xxi}, the Universities within small, pre-existing communities in their presence are transforming the MSC into an extroverted and committed community partner.

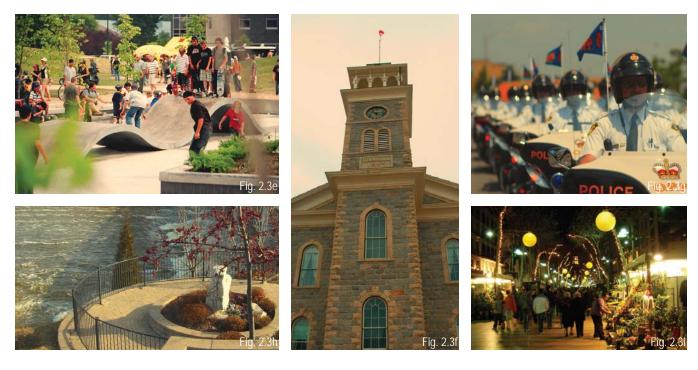
"Post-secondary education is at the heart of Canada's economy and society."^{xxii} The ways in which universities are enhancing MSC's are being better understood; however, fundamental institutional elements and their specific roles within the community remain unexplored. What is clear, however, is that the act of 'weaving' universities into the MSC community is "providing an opportunity for students to serve and learn...allowing them to put their ideas and ideals into practice in a real world context where their actions can make a difference."^{xxiii}



"Because most universities will remain in their current locations indefinitely, their futures will continue to be intertwined with their surrounding neighbourhoods,"^{xxvi} making the reconsideration of each institutional element essential. In the past, the student residence rarely saw a need to consider its immediate integration with and impact on a suffering MSC core. Because of constantly increasing enrollment numbers, contemporary campuses are now having to dissolve into their neighbouring communities in order to provide adequate facilities for their students. The University of Waterloo is an example of this trend and will be discussed further in the next chapter. As a result, new definitions and strategies for some of their most fundamental elements MUST be considered. "As partnerships between institutions of higher education and local communities have become more numerous and have enjoyed a higher profile, more attention has been paid to how they are formed, how they operate, and what they accomplish."^{xxvii}

A Revitalization Check List^{xxiv}

- Fig. 2.3aIncrease DensityFig. 2.3b24-Hour City LifeFig. 2.3cA Pedestrian EnvironmentFig. 2.3dInteresting & Accessible
Public Spaces & PlacesFig. 2.3eAttracting Youth & Creative CulturesFig. 2.3fHistoric PreservationFig. 2.3g"Eyes on the Street"***
- Fig. 2.3h Waterfront Development
- Fig. 2.3i A Sense of Community



2.4

Conclusion

However 'successful' and popular the implementation of community-University partnerships may have become, there has still been little research conducted on the roles and reconsideration of specific university elements and their place within a MSCs downtown context. This thesis is an attempt to begin to evoke discussion regarding the roles and design potential of a university student residence in the revitalization of a mid-sized city centre. What elements should be present in a design which would benefit not only the students residing in the space but the community members as well? How can this be done while maintaining specific university housing standards? What can a student residence contribute to the mid-sized city culture and society? Why do student residences even need to be reconsidered?

By performing and analyzing student and community surveys regarding the existence of post-secondary institutions in a downtown setting, and by proposing a massing strategy and an example residential design, this thesis hopes to initiate new discussions pertaining to the roles of student housing in the revitalization of a mid-sized city centre.

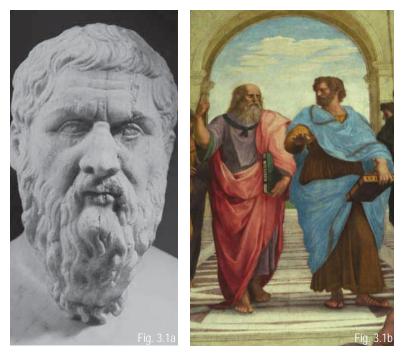
University-Community Relations

3.0

From its earliest beginnings, higher education has been committed to providing students with an all-encompassing learning environment which, for the most part, has included the student residence. Throughout its existence, however, the relationship between universities and communities has varied radically. This shifting relationship has caused the role of the student residence within society to fluctuate from being a necessity to being a nuisance.

The 21st century has ushered in an array of unique issues and opportunities for universities and communities alike, issues such as the mid-sized city core decline (Chapter 2), and opportunities such as the resurgence and strengthening of 'Town & Gown' partnerships. The result is that relocated universities are now being forced to take into consideration that which, through history, was well beyond the walls of the ivory tower – the community. This has also put the student residence into a role which it has never had before: as an agent for downtown revitalization.

In order to hypothesize how student housing can potentially become a contributing member of a society while maintaining its long-standing commitment to provide students with a 'well-rounded' educational environment, it is necessary first to examine the history of University-Community relationships.

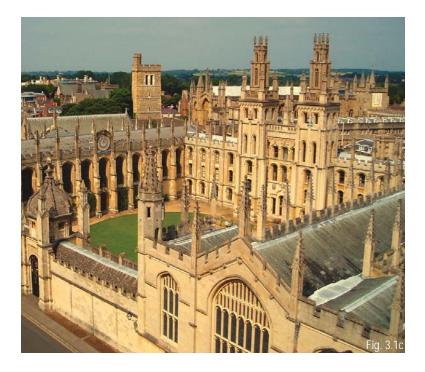


	Farly Education
3.1	Early Education
3.1.1	The Academy

Early Education

- Fig. 3.1a Plato
- Fig. 3.1b Plato & Aristotle at the Academy Plato with his most recognized student - Aristotle as depicted by the Renaissance painter, Raphel.
- Fig. 3.1c Oxford University

Credited with establishing civilization's first locale for higher learning, the Greek Philosopher Plato would lecture and inspire his pupils under the notion that mankind's nature is composed of wonder and investigation, a mantra still echoed by contemporary universities. 'The Academy' (which could more accurately be called Plato's backyard) was the place where the philosophizing mentor would "receive students for the purpose of discussion and argument."ⁱ His teaching encouraged individual thought, expression and opinion, while being surrounded by a society which was rewarding sameness and conformity. This intellectual introversion would eventually lead to the elitist labeling of universities as 'Ivory Towers' - private, high-brow societies, guarded from the rest of population. For present-day universities, overcoming these "ancient, elitist habits and customs dating from Plato's Academy"ii has proven difficult.



The Dawning of Higher Education

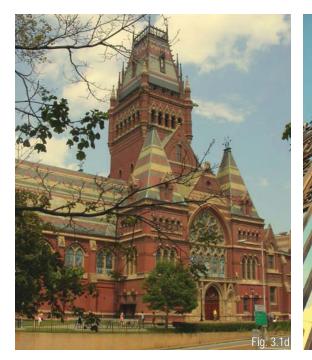
In the Medieval Ages, higher education began to focus more on the "coming together of people with a common aim"ⁱⁱⁱ with meetings initially held in various available rooms or halls within the community. Over time, the almost exponential growth of an institution's reputation, as well as its physical mass, caused the inevitable formation of distinct campus borders within a city (or town) environment. Like Plato's Academy, the exclusion of the community at-large from higher education had become commonplace.

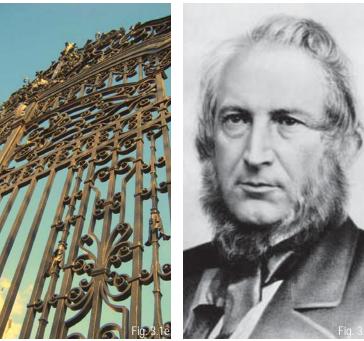
Some of the most long-standing examples of Medieval universities can be found in the United Kingdom. The most notable is the eighthundred-year-old Oxford University, a school closely mimicked in many aspects by Canadian universities. As an historical example of higher education, Oxford was an obvious force in setting early precedents for student housing. First provided for students between 1249 and 1264, residences at Oxford were established not from a purposeful educational formula; rather, they were created to avoid the increasing rioting taking place between their students and the townspeople. Initially, Oxford students found shelter in various boarding houses throughout the community but a growing tension between the two clashing lifestyles living haphazardly amongst one another created an inherent need for Oxford's creation of "primitive halls of residence."^{iv} This decision would become the first step in the complete physical and mental separation of a University campus from the community.

Within a student residence at Oxford was a relatively small body of students who would have become well known to their teachers. Eventually referred to as the 'English System' of housing and labelled the 'Residential College', these were places which claimed to be committed to the "education and development of the total student."^v

"We are all equal at birth and ...our future development is dependent upon the nature and variety of our experiences."^{vi}

3.1.2





3.1.3

Here Comes the West

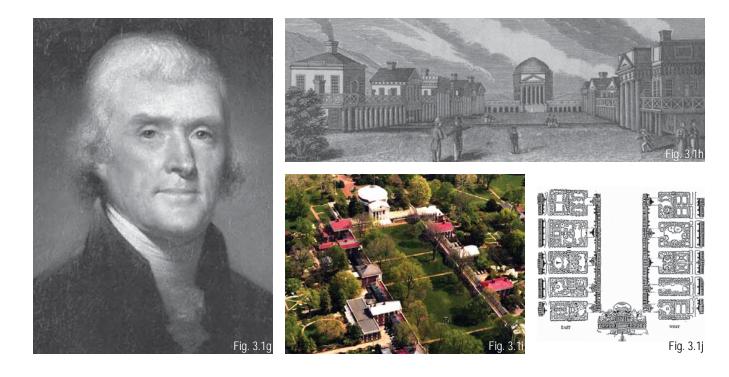
In North America

- Fig. 3.1d Memorial Hall, Harvard University
- Fig. 3.1e Typical Harvard Gate
- Like many similar Ivy League Facilities, Harvard is surrounded by a continuous wall and numerous gates.
- Fig. 3.1f Henry Tappan The first North American educator to voice the opinion that a state University should be a center for advanced study, not merely a place for vocational training.
- Fig. 3.1g Thomas Jefferson
- Fig. 3.1h University of Virginia (1843)
- Fig. 3.1i The Academic Village 'Now'
- Fig. 3.1 Jefferson's Plan of the Village

Following closely in the footsteps of their European ancestors, North American universities would unite educational and residential facilities in the formation of a secluded campus. Like Oxford, Harvard University (est. 1637) – the oldest American university – was "centred on hall buildings and residential colleges"^{vii} where faculty members would live, eat and supervise students in conjunction with their teaching duties. This arrangement, according to Harvard, promoted a democratic atmosphere conducive to intellectual debates. The student residence was now raised from mere shelter to a learning environment which united faculty and students. The community, however, remained at a distance.

In the mid-nineteenth century, Michigan University's first president, Henry Tappan (1852 – 1863), argued against the English system of housing, saying that "by withdrawing young men from the influence of domestic circles and forming them into a separate community, they are often led to contract evil habits, and are prone to fall into disorderly conduct."^{viii} Tappan's solution was the German residential system.

The German system was a typology where universities became "indifferent to students' moral or social development [and instead] focused on instruction and research."^{ix} Veering from the previous residential belief of educating the *whole* student, the German system promoted student housing as having "no longer fulfilled its purpose of being an extension of the classroom, but rather was only a shelter for students."^x Seen then as a waste of energy and resources, the on-campus residential hall waned in popularity. Students were, for the first time, being viewed as adults and were treated as such by being forced to seek independent means of shelter away from the confines of the university.



3.1.4

A Man with a Plan

One of the most determined and influential North American campus planners was Thomas Jefferson. Through his rationalization of the campus and its core elements, Jefferson hoped to "evoke the clarity and potential of man's rational understanding in contrast to the chaos of the natural world."^{xi} Labelling his vision a 'pavilion landscape, university buildings were organized around a large, open space which is commonly referred to today as "the Lawn"^{xii}.

Student residences would be relocated once again to within the confines of the university campus. These 'Academic Villages' promoted campus unification, unlike the German system's ideal of dispersion. Jefferson's introverted campus organization became one of the most adopted university planning strategies in North America.

In Canada, universities were adopting this same planning strategy because most of the young host communities were in the midst of growing and establishing themselves. Having little to offer at the time in terms of student boarding facilities, these communities and their growing universities had no choice but to implement Jefferson's relatively ordered on-campus housing program in order to fulfill every student's needs.



3.1.5

Barrack Living

Fig. 3.1k A WWII Barracks Scene Fig. 3.11 Typical Barracks Fig. 3.1m Typical Barracks 20th Century Learning and Living

The Second World War caused the world to stand still, resulting in virtually all aspects of people's lives being affected in one way or another. It seemed that nothing was able to go unscathed - including universities. During the war, campus construction halted and enrollment numbers plummeted as most of the perspective students were away in combat. Following the conclusion of the War, however, post-secondary education in North America experienced an explosion in popularity which was facilitated by the G.I. Bill of Rights.xiii Designed to provide greater opportunities for the returning veterans, the G.I. Bill of Rights allowed for more people to gain a higher education than some universities were physically prepared to offer. Student residences filled to complete occupancy without difficulty which meant that universities were scrambling for additional shelter for the sudden overflow of students. The solution was the re-use of recently-abandoned structures which were originally intended for war purposes, such as soldier barracks.xiv Bought by schools and converted into cheap and efficient residences, these buildings remained stark places stripped of ornament and frills. Numerous students lived in tight quarters with one-another sharing everything from rooms, to bathrooms, to mess-halls. No longer referred to as 'barracks', thus eradicating any war connotations, the 'Dormitory' was born.xv

"The secret nurseries of every vice and the cages of unclean birds."^{XVI}



During the 1960's Canada experienced its own educational boom which resulted in a shortage of student housing. Educational funding was limited and, as a result, Canadian universities focused a majority of their budget dollars toward what they deemed to be valuable educational facilities (laboratories and lecture halls) and allotted to their student residences monetary scraps. The limited residential budgets resulted in cost-efficient, "multi-floor, large-capacity buildings."^{xvii} The anonymity of the hotel-like atmosphere of rows upon rows of identical rooms lining equally bleak and noisy corridors proved efficient, yet, like the old war barracks, remained emotionless and uninspiring in their design.

As the decades continued, numerous "dormitories were built to house and feed students and to maximize the number of beds constructed for the dollars available, with little or no regard for the quality of students' educational experiences and personal development."^{xviii} It would be a number of years before the student residence would be witness to any major re-tooling in terms of its execution and design.

Dormitory Living

University 'Life' Fig. 3.1n Residence Halls Fig. 3.1o A Main Residence Hall Fig. 3.1p York University Graduate Residence Fig. 3.1q Residence at S.F. State University Fig. 3.1r

Current University Status

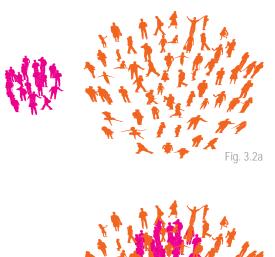
3.2 3.2.1

21st Century

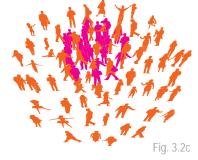
Currently North American universities are often generalized into three categories based on their location: Rural (fig. 3.2a), Suburban (fig. 3.2b), or the locale of focus for this thesis – Urban (fig. 3.2c).

The involvement of universities in urban affairs is by no means a modern concept. Throughout the history of higher education, there have been interactions between 'Town & Gown'. The 21st century's version of University-Community relationships is one which places a university within the immediate heart of a MSC downtown. This has meant that the definition of what is considered to be an 'urban campus' must be revised to include universities within the downtowns of MSCs, not just large metropolitan centres.

While the scale of previous urban 'campuses' and their surroundings allowed a university to look after its own affairs without connections to the surrounding community, an urban MSC campus cannot. The often tired, dilapidated, and relatively small MSC core is physically unable to provide a university the anonymity it would have had in a mega-city. Universities are, therefore, discovering the need to become contributing citizens to the surrounding community, and that, "much like their Medieval predecessors, [they] are making the...everyday life and the world of academic investigation...a vital part of civic life."^{xix}



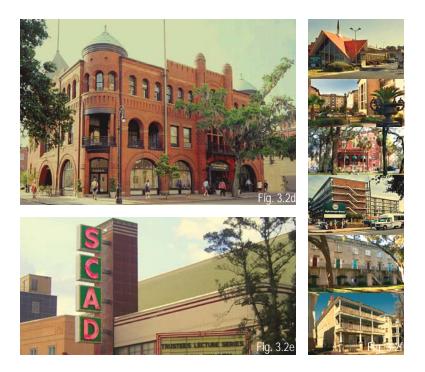




Once an "invisible substance"xx within society, universities are finding themselves experimenting with new expansion strategies in order to keep pace with an evolving society. The establishment of a satellite campus within a MSC centre, has resulted in a university having to redefine what it considers to be its 'campus' and reconsider its position within a community - a role that today goes beyond the mere production of 'tomorrow's leaders'. Expectations for tired cities to be revitalized by a university are also slowly being seen in various examples across the United States and Canada, countries where the long term effects of such a 'Town & Gown' are still relatively unknown. Two examples which do currently exist are the thirty-year-old SCAD in Savannah, Georgia, and the six-year-old Brantford-Laurier University in Brantford, Ontario. Though almost two decades separate Laurier-Brantford from SCAD in terms of realization, both have followed a similar pattern of revitalizing and interacting with their new host communities. Unfortunately, they both have not realized the full potential of this partnership.

University Campus

Downtown Rural Fig. 3.2a Suburban Fig. 3.2b Urban ig. 3.2c



Savannah College of Art and Design (SCAD)

Savannah, Georgia

Founded in 1733^{xxi} Savannah is one of America's oldest MSCs. In 1970 Savannah was Georgia's second largest city when, like most other MSCs of the time, its downtown fell victim to the growing popularity of the suburbs and was quickly abandoned to become "severely impoverished and dispiritingly lifeless."^{xxii} Savannah officials were desperately searching for ways to fill the unoccupied storefronts and repopulate their historic streets, when they were approached by SCAD. Founded in 1979 by Paula Wallace, Richard Rowan, and May and Paul Poetter, SCAD was established as an independent school on a very tight budget and was, therefore, an ideal candidate to infill Savannah's seemingly unfillable core.

Since the purchase and renovation of its first building, a derelict armoury, the school has grown to more than 2 million square feet in almost 60 buildings throughout Savannah's historic core. As of 1999, SCAD had a direct impact on its surrounding area with the spending of over 40 million dollars and almost 1000 jobs.^{xxiii} Today, Savannah is a vibrant university town brimming with tourism, culture and a 24-hour city life. Priding itself on its ability to entice "surrounding regeneration"^{xxiv} without heavily altering the downtown aesthetics, SCAD has dispersed itself throughout the historic district and has, without a doubt, aided in the successful rejuvenation of one of America's most mature cities. "SCAD puts people on the street. More than 6 000 students, faculty and staff populate the downtown."^{xxv}

3.2.2

Symbols of SCAD

Fig. 3.2d Savannah Revitalization Fig. 3.2e A SCAD Renovation Fig. 3.2f Select SCAD Residences (from top to bottom) Turner Annex Turner House Pulaski Residence Ogelthorpe Residence Gaston House Forsyth House

"...the SCAD population does not leave the city in the evening. Students, faculty and administrators both live and work in the downtown. Students go between where they live and the library or labs and studios. Students, faculty and administrators particiapte in numberous special evening programs. With up to 5 000 people on the streets in the evening, the streets are safer and now, evening businesses have a base of clientele. All of these infuse the city with people and activity." ^{xxvi}



An opportunity missed by SCAD, however, is closer integration of student residences into the public realm. Many of its educational buildings make attempts to engage the public more intimately than other universities, but its residential projects have failed to demonstrate the same care in terms of public integration and city revitalization. A number of SCAD's residential projects lie in purchasing and converting existing buildings to suit their needs, certainly an admirable endeavor for a school, but, in doing so, have limited core revitalization to whatever preexisting elements the renovated structure would have had in its previous life. These once private buildings (i.e. Hotels) often found on the outskirts of the core - remain inclusive and fail to find public-engaging opportunities. To date, SCAD has established eight residences, many of which are within restored and converted structures throughout the city core. "The disperse nature of SCAD converts downtown Savannah into the SCAD campus. This accomplishes what all of the above strategies aspire to do; it puts pedestrians on the streets. Students moving to classes in different locations, going to the library or just conducting such business as buying books puts...people on the streets daily."xxvii

	1	
Fast Facts ^{xxviii}	i.	
Savannah	Ľ	
> Manufacturing, Tourism, and Creative City	į.	
SCAD	į.	
> Founded in 1979 by Paula Wallace, Richard Rowan,		
May Poetter & Paul Poetter	i.	
> Has had an immediate downtown economic impact of approximately	l	
\$40 million/year	Ľ	
> Offers to the community use of select facilities		
> 2005 enrollment was 6,851 students	I.	
> The direct impact of students upon the downtown include:		
Restaurants \$3.4 million	Ì.	
Housing \$1.0 million	į.	
Transportation \$4.5 million	i	

Green Space Savannah River University Buildings Student Residences

- Weston House 1 Dyson House 2 Turner Annex 3
- Turner House 4
- Boundary Village 5
- Barnard House 6
- Ogelthorpe House 7
- Pulaski House 8
 - Gaston House 9
 - Forsyth House 10



Laurier-Brantford University

Brantford, Ontario

The Wilfred Laurier-Brantford campus opened its doors to students in September 1999. Considered to be a thriving example of a University-Community partnership, Laurier-Brantford has had to put great faith upon the support and generosity of the Brantford community. Like any fulfilling relationship, however, the support has gone both ways.

Prior the University's decision to find new space for its expanding Arts program, Brantford's central community was, much like Savannah, desperately in need of a *long-term* urban renewal solution. Like many mid-sized cities across Canada, Brantford's core was quickly becoming a dissolute place, void of visitors. People were pushing further and further away from the social heart of their hometown.

The introduction of post-secondary education to the city core has meant that Brantford's downtown environment has clearly begun to once again show signs of prosperity. A steadily increasing population, the renovation or demolition of numerous dilapidated structures, and countless development projects are all, without a doubt, a result of the injected educational and youth demographic. This sleepy Ontario town is getting the second chance it so rightfully deserves.

In the early stages of this Town & Gown example, realization that a portion of a university campus in their core may be their last chance at a drastic change caused many members of the Brantford community to step up to the plate and pool their energy and resources in an effort to entice Laurier into their home. The risk has certainly paid off. The campus, which initially took up a long abandoned movie theatre, has expanded to engulf 10 core buildings within only six years. The University has embraced its evolving urban development and "continues to play a key role in helping transform downtown Brantford from a once derelict core into a vibrant centre known for its educational, historical and cultural attractions."^{xxix}

3.2.3

Symbols of Laurier-Brantford

Fig. 3.2h Post House Residence Fig. 3.2i The Carnigie Building

- Fig. 3.2j Grand River Hall
- Fig. 3.2k Downtown Brantfrod



Nevertheless, the Laurier-Brantford campus demonstrates a similar developmental path as SCAD. Though it prides itself on physical urban revitalization, very little is said about its revitalization of the community. The University buildings are mostly for the use of the staff and students and all but ignore the chance to engage the surrounding population. The campus residences, which are only a half decade old and are no more than a seven minute walk to any other campus building,^{xxx} also neglect the possibility of giving more back to a community than a renovated building or an influx in population.

Fast Facts ^{xxxi}
Brantford
> Manufacturing town with an economy in transition
> Said to have been one of the worst-off Downtowns in Ontario.
Wilfred Laurier-Brantford
> Founded in conjunction between Wilfrid Laurier University,
Mohawk College and Nippising University
> Doors opened in 1999
> Enrollment went from 39 to 1500 students over 6 years
> Has so far found success in the reuse of significant buildings
> Has encouraged a significant increase in spending:
Restaurants \$1.1-\$1.5 million
Food \$1.7-\$2.4 million
Housing \$4.2-\$5.6 million
Transportation \$1.8-\$2.4 million
> A 2005 study revealed an Economic impact of
\$32 million/year for Brantford

Green Space Downtown Buildings University Buildings

Student Residences

- Grand River Hall 1 Rizzo Residence 2
- Lawyer's Village 3
 - Post House 4
 - Wilke's House 5

Residence as a Revitalizing Force

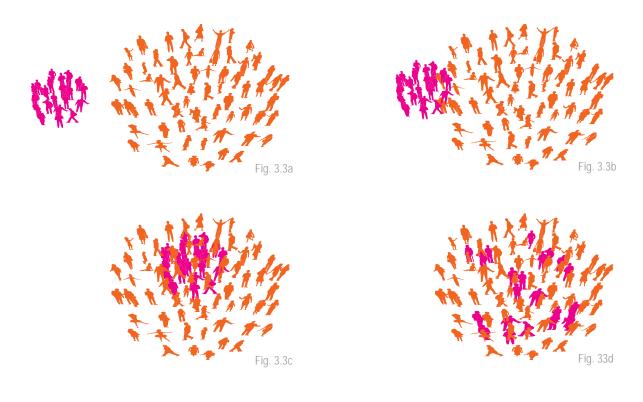
For a majority of its existence, the student residence has been adamantly protecting young minds from the surrounding physical world. Acting as youth-filled incubators, universities and their student residences have maintained an educational force field which has limited a student's personal interactions and experiences to within boundaries of the campus. There has been little reason for them to do otherwise. Larger city centres, being able to sustain themselves, have allowed the urban student residence the luxury of being invisible. Rural and suburban campuses can afford the space to appropriately distance their residences from the dangers of the outside world. A student residence in a MSC can afford to do neither.

MSC revitalization strategies have always stressed the vital role housing plays in the renewal of a suffering city centre. In fact, a university presence and residential development are two elements being credited in reports as potential downtown saviours, but rarely are they mentioned in unison. The obvious application of a university residence as a tool for downtown core revitalization has been left relatively unexplored. The escalating popularity of satellite campuses infiltrating MSCs creates an opportunity to begin to do so.

As previously discussed, existing examples of student residences affecting a MSC can be found as far away as Savannah, Georgia, and as close as Brantford, Ontario, but to date, the student residences or "laboratories for living"^{xxxiii} have yet to realize their potential as contributing members of their respected city centres.

Revitalize:

trans. To restore to vitality; to put new life into. Hence re vitalized ppl. a., re vitalizing vbl. n.^{xxxii}



In order to keep up with the times, student residences must be willing to adapt. The recent escalation in the number of developing community-University partnerships has resulted in the need for exactly that: the reconsideration and adaptation of student residences within their adopted communities-in-need. Inserting a progressive university culture into a declining downtown core has resulted in new issues, needs and benefits for the school, the community and the students alike.

Outside of the classroom, the student residence is the place where students will be influenced and inspired; pushed and pulled; gain and lose friendships and discover exactly how it is they fit into the world. It is without question that a student residence plays a vital role in a person's social and cultural education and is part of the reason why higher education has long been credited with producing the leaders of tomorrow. The relocation of universities and the development of student residences in MSCs provide an opportunity to inspire the leaders of today.

Using the University of Waterloo's School of Architecture, its home, Cambridge, Ontario, and its current lack of organized Student Residences, the following chapters begin to explore the potential of the Student Residences as a MSC revitalizing force within a relatively immature 'Town & Gown' environment.

University Campus

Downtown Rural Fig. 3.3a Suburban Fig. 3.3b Urban Fig. 3.3c Mid-sized City Fig. 3.3d

"The urban University is a much different entity than a business or a government agency. The role or position of the University is unique in the pantheon of urban organizations..[urban] Universities are not simply in the city but of the city, and the importance of activities with their surrounding environment is central to the life of the institutions."^{xxxiv}

Cambridge, Ontario, Canada

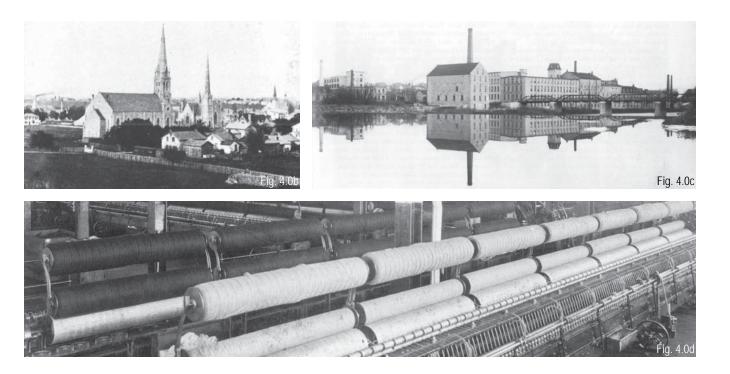


"Ten buildings including two or three log homes, a distillery, and a log blacksmith shop"ⁱ were all that comprised the village of Shade's Mill in 1820. Located along the Grand River, Shade's Mill, still referred to today as 'Galt', would eventually mature into a thriving industrial town. Founded by William Dickson and Absalom Shade, Galt would eventually amalgamate with nearby Preston and Hespeler to form the City of Cambridge.

Ontario Waterway National Border Cambridge Major City

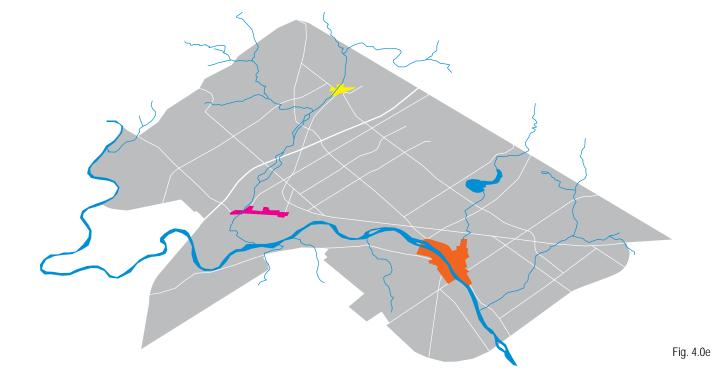
(Kilometres)

1 Sudbury (449) 2 Kitchener-Waterloo (22) 3 Windsor (277) 4 Niagara (124) 5 Toronto (98) 6 Ottawa (534) 7 Montreal (625)



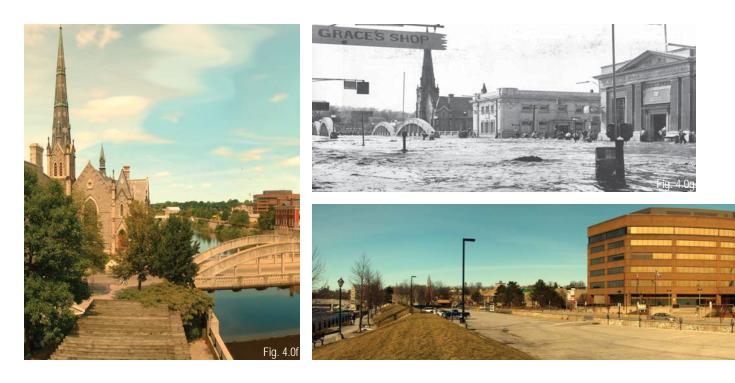
Early Cambridge

Fig. 4.0b An early view of the Skyline Fig. 4.0c Grand River Industry Fig. 4.0d A typical Textile machine Designated thirty years ago (1973) as the city centre of Cambridge, Galt has experienced many highs and lows throughout its twohundred year history. The construction of the Park Hill Dam in 1840 acted as a catalyst elevating Galt from a mere Southern Ontario village to a thriving industrial town. Between 1851 and 1891, the number of factories in Cambridge rocketed from 13 to 162 - a majority of which were located upon the banks of the Grand River. Galt's once leafy, tree-filled horizon quickly filled with recognizable symbols of prosperity and progress: smoke-billowing chimneys and sky-scraping church spires.



Even though these now historic skylines stretched to the nearby towns of Preston and Hespeler, neither of the two were able to rival the industrial success being experienced by Galt. In fact, up to the 20th century, "Galt remained one of the largest and most important towns in the area."ⁱⁱ A kinship between the three towns was unofficially solidified in the late 19th century thanks to the construction of an electric inter-urban railway which transported up to "36 000 passengers a month"ⁱⁱⁱ from town to town.

Success continued up to and throughout the Second World War. Galt, Hespeler and Preston had become one of the major manufacturing trifectas of war-related textiles and were dominant suppliers to Canada and her allies. While countless communities were suffering during the global war, for Galt, Hespeler and Preston, the future looked bright. City of Cambridge Waterway Hespeler Preston Galt



Symbols of Cambridge

Fig. 4.0fA view from the SchoolFig. 4.0gMain Street, 1972 FloodFig. 4.0hMain & Water StreetsFig. 4.0iCambridge CitizensFig. 4.0jContemporary Cambridge

Following the conclusion of the War, however, the increasing popularity of the personal automobile and demand for 'a home to call your own' meant that families were abandoning the confined urban cores in pursuit of the expansive suburban dream. This, in combination with the emerging neon-landscape of Highway 24, meant that the once lively downtown environments would begin to slowly fade from people's daily lives. To make matters worse, 1973 saw the amalgamation of the three towns into the City of Cambridge, which, instead of accomplishing the intended unification of the three communities, seemed to only confuse the new city's identity. "Preston and Hespeler...were insistent that their historical [individuality] not be swallowed up in a 'Greater Galt,"^{iv} which was proclaimed city centre. The result has been 30 years of continual efforts to formalize the urban soul of Cambridge - with little success.



Today, the City of Cambridge is home to approximately 124,000 people^v and, even with its historical significance and enthusiastic community, for years has struggled to overcome its status as just another MSC with an obsolete downtown core. Fortunately for Cambridge, proactive groups, including the Business Improvement Association (BIA) and the previously mentioned CURA, are dedicating efforts toward reversing the unfavourable downtown trend through various revitalization strategies and are beginning to see results.

Fast Facts

Cambridaevi

- > Comprised of three Mill towns along located along the Grand River
- > Was once a thriving manufacturing city
- > Has a compact downtown full of historic limestone buildings
- > Limited retail and office sectors

School of Architecture

- > UW School of Architecture needed space, had no money
- > Opened in September 2004
- > Spectacular learning environment
- > Community use of Gallery and Lecture Hall
- > Students & Faculty are getting involved in community

"History is made every day, but there are some days and events and even moments that change the world. Fifty years from now, historians may very well look back at last night's signing ceremony between the University of Waterloo School of Architecture and the City of Cambridge as the day that proved to be the catalyst for this city's future."^{viii}



4.1

Downtown Cambridge Downtown Boundary Business Improvement Area 20-minute Walking Radius 10-minute Walking Radius 5-minute Walking Radius

Green Space

Grand River

- Attractions 1 Outlet Mall
- 2 Sculpture Garden
- 3 Horticultural Society
- 4 Cambridge Theatre
- 5 Armory
- 6 Centennial Park
- 7 UW School of Architecture
- 8 Queen's Square
- 9 Cambridge Library
- 10 Carnegie Library
- 11 Farmer's Market
- 12 Old City Hall
- 13 New City Hall Art's Centre Civic Square
- 14 Mill Race
- 15 Dickson Park

Fig. 4.1a The University of Waterloo's School of Architecture Cambridge, Ontario, Canada A Breath of Creative Air

In 2004, the University of Waterloo's School of Architecture relocated from its main campus in Waterloo to an abandoned Silk Mill in the heart of downtown Cambridge. The move introduced approximately 300 staff and students to Cambridge's core as well as a much needed sense of progress and energy. Prior to the renovation, the deserted factory stood as a depressive void along the once active river edge. Now it is continuously alive as a 24-hour 'creation factory.' What once easily camouflaged into the dark night now stands proud as a lit beacon demonstrating potential and change. And, for the first time since its formation 30-years ago, the School of Architecture is now in direct and constant interaction with whom the students are taught to serve and enhance, the community. However, still in its freshman years and therefore lacking some fundamental elements, such as a student residence, the School definitely has room to grow.

The Industrial Revolution meant that most cities turned their back on the water because it was then dirty and unhealthy. The School of Architecture now has the opportunity to not only face the metaphoric river of today - the downtown - but to welcome, engage and be part of it. A better understanding of what the School can do for Cambridge and what Cambridge can do for the school is a necessary exercise which could result in a new university building which interacts and, more importantly, enhances a lack-luster downtown environment.



A Role in Revitalization

5.0

Since its incorporation into higher education, the Student Residence has been portrayed as being a vital component of a well-rounded post-secondary education. More often than not, however, it has been disconnected from forming any worth-while relationship with the city or town in which it stands. Instances in the past when a Student Residence was located within an urban setting often resulted in "feelings of distrust, disinterest, disdain"ⁱ and even violent physical and verbal conflicts between students and members of the community. The unique and distinct lifestyles of the two social groups rarely had an opportunity to interact with one another in a constructive atmosphere even though they were living as neighbours. Whether the Student Residence has been located on- or off-campus, it has constantly been a secret world utilized and understood by its inhabitants, and has ignored the community even though it is the community that students are taught to strengthen.

> "The city then was the centre of social life, the place in which institutions naturally gathered, where ambitious corporations believed they had to have their headquarters... They were where we all looked for the kind of public life that gives cities their special quality...the chance meetings and random, unexpected social accidents of life. They were characterized by the cafe and the court house as well as the cinema and the university. The city centre was also the place that could accommodate the awkward, not always picturesque aspects of urban reality that suburbs find too uncomfortable to deal with..."



The contemporary university has made great strides since its origins in the gardens of Plato's Greek home. The university has been repeatedly erected in rural, suburban and urban settings where it has been able to proudly stand in solitude, unobtrusively off to the side or fade quietly into a city fabric. In all of these circumstances student residences have essentially remained the same. They continue to be social laboratories unfortunately cut-off from the realities and complexities of the outside world. Often uninspiring and horribly outdated in design, the contemporary residence remains remote and static in a civilization on the move. A more recent version of Student Residential layout has begun a new chapter in the history of Student Residences. Seen more and more over the past decade is the abandonment of the familiar *dormitory-style* residence (multi-storied, shared washrooms and sleeping quarters) in favour of the *apartment-style* layout. Students are choosing to live in a more private, more adult-like atmosphere over the traditional typology.

More recently has the move of some university facilities into downtown MSCs raised cause for a reconsideration of the responsibilities of a University and its components within an economically suffering setting. Some of the new roles that universities are having to take on are that of a corporation, a developer and a community enhancer. The new goal for urban universities is to "not only focus on training knowledge workers but to enhance the social, cultural, and intellectual life of the community that chartered it or in which it was founded."ⁱⁱⁱ Though in its infancy in Canada, positive results for Universities and communities are being demonstrated as these newly formed Town & Gown affiliations begin to ripen.



The most obvious example previously discussed is the University of Waterloo's School of Architecture. Its main building demonstrates that universities in MSCs are capable of creating buildings with the community in mind. Almost half of the School of Architecture's building is publicly accessible and, more often than not, is teeming with a mix of staff, students and curious visitors; according to the School's Director, almost 200 000 visitors a year explore the School's facilities. It is this unique learning environment that is providing young architectural students the chance to practice precisely what is preached to them. Projects are constantly being dreamt, designed and executed under the watchful public eye. Inquisitive conversations between the members of the community and members of the University have begun to chip away the ivory tower and have allowed the school to become an extension of the downtown rather than a hindrance. The question then becomes, can a student residence get similar, if not better, results? And can it maintain a necessary commitment of safety to the staff and students which comprise its semipermanent population?

School of Architecture

'Pocket Park' Installation Fig. 5.1a Mayor's Celebration of the Arts Fig. 5.1b Riverside Gallery within the School Fig. 5.1c



Students thrive on the interaction and variety that is unique to city cores. This makes their lifestyle an obvious match for urban living but, because common urban elements such as abundance of people, variety of commercial and retail outlets and cultural events are currently lacking from downtowns of MSCs, making them a desirable place in which to reside for students becomes a difficult task.

According to the CURA survey, a majority of students attending the School of Architecture are living on the extreme cusp of what is considered by the City to be the downtown boundary^{iv}. The lack of students renting within the core is quite simply because there is a lack of rental units that suit their unique needs. Student seek housing which offers 4-month leases and includes utilities, affordability, and proximity to peers^v. These characteristics are not often practical in the downtowns of MSCs. If finding suitable accommodations within a MSC heart is often next to impossible, students simply look elsewhere for more desirable living arrangements. After all, they have no financial or emotional investment within the downtown which would persuade them to commit to living there.

A new, centralized Student Residence is a mediating solution which would benefit all parties involved in a new urban campus. The students would be able to live amongst their peers in an environment designed specifically for their housing needs and financial abilities; the community would gain a much needed boost in its population density and economy; and a school would gain a landmark environment in which students would not only be housed and educated, but would also be thrust into contributing to the community in which the residence would stand. Rather than placing a typical Student Residential typology into a downtown, which is often what happens, the layout, use and accessibility of the structure must be re-thought. A reconsideration of student residences and their potential benefits within a suffering mid-sized city is critical.

Student Residential Desires

Fig. 5.0dUtilities includedFig. 5.0eLoft or Apartment TypologyFig. 5.0fProximity to basic amenities



Organizing satellite campuses within dilapidated MSCs is fast becoming the 21st century revitalization trend of choice. In Ontario, along with Hamilton, Kitchener, Burlington, and Sudbury, are MSCs vying for university programs to relocate into their cores and breathe new life into their once vibrant and active downtowns. But when and if these programs do get established, the student residences will most likely vary little from the common model of introverted student societies. There is now opportunity to evolve the student residence to suit the needs of not only the students but of the MSC community as well. A Student Residence as a tool for revitalization could result in creating a better environment for all.

The following is an outlined design approach which asks: *Can a Student Residence veer from a tradition of seclusion toward community engagement and urban improvement?*

Various Downtowns

Hamilton Fig. 5.0g Kitchener Fig. 5.0h Burlington Fig. 5.0i Sudbury Fig. 5.0j



5.1	Where to Begin
5.1.1	An Out-dated Typology

Student Residences continually display certain traits that, although they have been labelled successful for a number of years, now need to be reconsidered if they are to adequately address the contemporary issue of downtown revitalization.

UW Residence Fig. 5.1a Village 1 Fig. 5.1c Village 1 These introverted student incubators are sometimes found isolated upon campus grounds.



Fig. 5.1b



Other examples consist of identical, clustered models. From above, these 'villages' resemble expanding root systems, slowly expanding in hopes of merging with their surroundings. However, at grade they unite to form a barricade, encasing students into an internalized, introverted environment, void of virtually all real-world interaction.

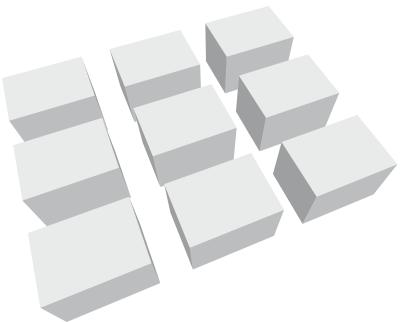
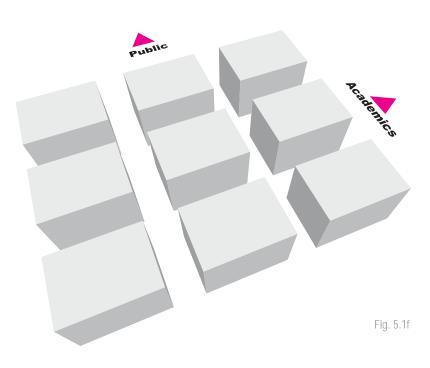


Fig. 5.1d



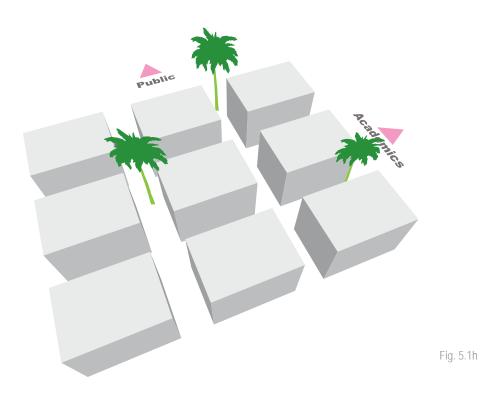
Sometimes the residences are secluded from not only the community but the rest of the campus, as well.

Living at UW Fig. 5.1e CLT Residences Fig. 5.1g V1 Student Lounge





The addition of game rooms, media rooms and cafeterias ensures that these student oases fulfill virtually every need of an average student. Such designs mean the human need to explore, interact and learn from the world goes unfulfilled. A key educational tool is lost.



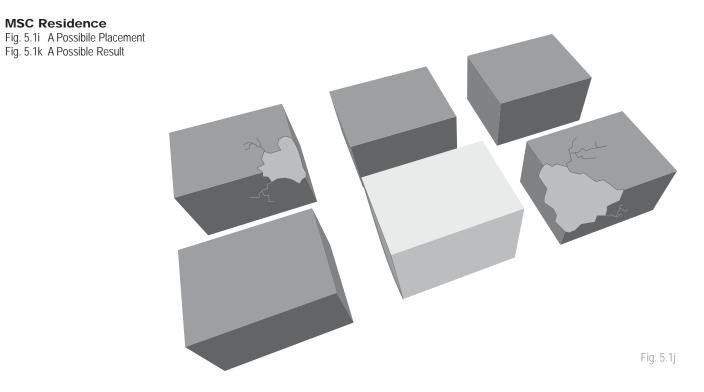


5.1.2

MSC Residence

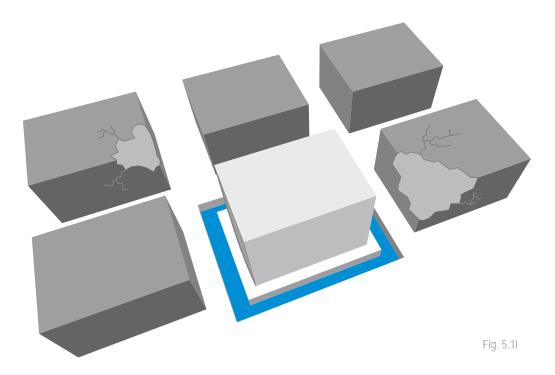
But in a Mid-sized City Core...

Placing the traditional student residential typology in the heart of a MSC is, quite simply, selfish and inadequate.





The Student Residence would ultimately be severed from the surrounding community. Becoming 'just another downtown building', the Student Residence would fail to inspire and influence downtown improvement. Social responsibility is an important obligation that *must not* be ignored.



What if Student Residences were to instead follow the example set by the University of Waterloo's School of Architecture? Its relocation from main campus to the tired heart of Cambridge could have carefully resulted in educational inclusion filtering the Town from the Gown.

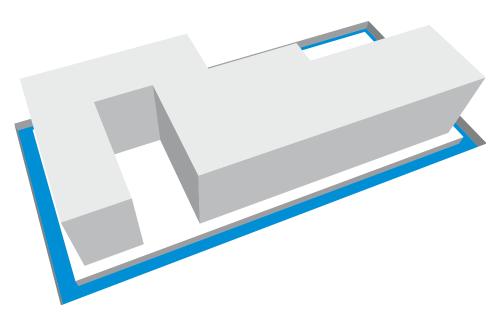
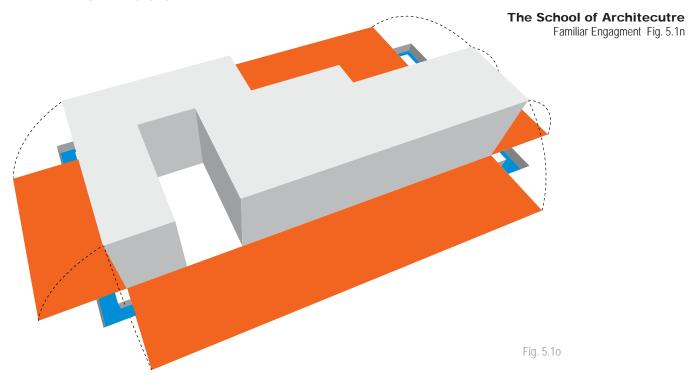


Fig. 5.1m



Instead, the Ivory Tower label was abolished and the School's doors were held wide-open to the public. The result has been a unique learning environment, as well as a satisfying social experiment, where staff, students, and community have amalgamated into a unified community learning and engaging with one another.





Can this work for Student Housing?

How can a Student Residence be reconsidered so that it transforms into a revitalizing public structure which provides safe housing for University students? Can it also maintain an important aspect which has existed in Student Residences for all of their history, which is the fact that they are the locale during a Student's educational career where vital peer relationships are forged and where the Student community is able to support one another? The answer is yes, with a few scaled reconsiderations.

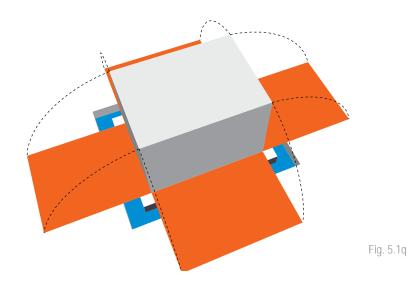


Fig. 5.1p Architecture at Night

5.1.3

The following represents extensive research regarding the desires of students (in terms of education within a MSC) and the community (in terms of revitalization). The information was gathered through various readings and, more importantly, Student and Community surveys, implemented in 2006 throughout Cambridge, Ontario.^v It became obvious that the surveys would be the most important step in the design of any University structure within a MSC core.

Reconsidering Site | XL Determining an appropriate location in a MSC core.

Reconsidering The Immediate | L How to use and improve the existing environment.

Reconsidering At Grade | M Designing for a public life [that world].

Reconsidering Residence | S Designing for a student life [their world].

Downtown Cambridge **Business Improvement Area Proposed Site Grand River Green Space** Main Vehicular Route Attractions 1 Outlet Mall 2 Sculpture Garden 3 Horticultural Society 4 Cambridge Theatre 5 Queen's Square 6 Old City Hall 7 New City Hall/Arts Centre 8 Mill Race Amenities 9 School of Architecture 10 GRT Bus Terminal 11 Main Street Retail 12 Farmer's Market 13 Library 14 Grocery Store 15 Park & Recreation Centre 16 Drug Store 5.2 Reconsidering Site | XL 5.2.1 Student Expectations

Site selection can often be a tedious exercise and selecting the site for a MSC student residence is no exception. It is very important to keep in mind student's needs and desires in housing. According to the CURA survey, students' at the School of Architecture identify proximity to the school and amenities, an attractive and safe location, and accessibility to public transit as the most important residential characteristics. Finding a site that displays each of these characteristics is key because the modern student tends to be very selective, especially when it comes to university residences^{vi}.

Community Expectations

MSCs share many characteristics. Their downtowns are under-utilized, the personal automobile is the transportation of choice, and city streets are more often lifeless than not and are perceived as being unsafe. MSC communities, therefore, have many similar desires for their downtowns, most of which can be addressed with a thoughtfully-located Student Residence.

"In city centres, especially outside shop and office hours, residential uses can help to create a 'living heart'. The twenty-four hour life brought by residents is a crucial contribution to its vitality. More residences result in greater demand for facilities in the city centre; thereby increasing the number and mix of uses. There is a strong perception that 'peopled places' see safer."^{viii}

5.2.2



Proposed Footprint Green Space Pedestrian Path New Pedestrian Path

Points of Interest

- 1 Carnegie Library
- 2 Post Office
- 3 Farmer's Market
- 4 New Civic Square
- 5 Old City Hall
- 6 New City Hall

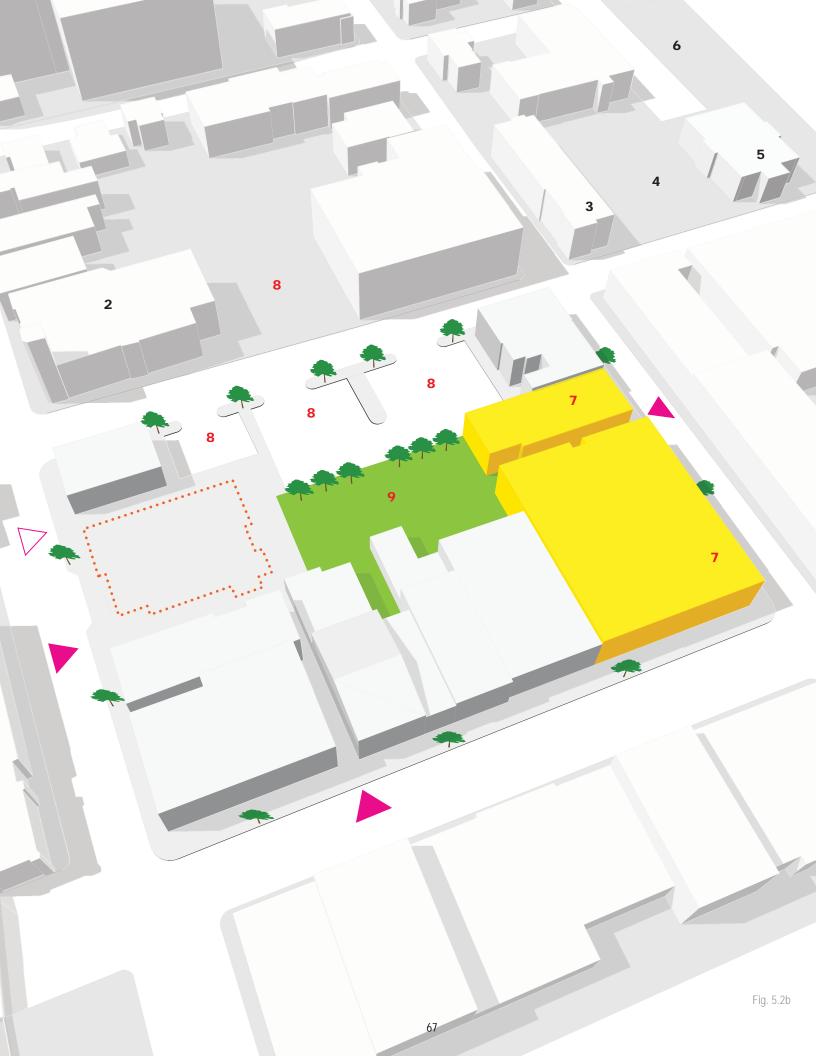
Points of Revitalzation

- 7 Empty Building
- 8 Parking Lot
- 9 'Back of House'
- 10 Enclosed Green Lot

Reconsidering The Immediate | L

The downtowns of MSCs have become increasingly characterized by 'dead spaces': "uninteresting parking lots, ramps, vacant buildings, and blank-walled offices." ^{viii} When a potential site is chosen, therefore, it becomes important to recognize how a Student Residence could positively affect the nearby surroundings by designing to aid, not hinder, future improvements and developments. Nearby imperfections, such as abandoned green spaces and closed buildings, hold the potential to have their own reconsideration and renovation if an increase in density were to occur within close proximity. The site should be far from esthetically perfect, allowing the Student Residence to become an instigator of improvement rather than just a contributor and to eventually encourage pedestrian activity throughout the site rather than just around the residence.

"The vitality and positive image of a downtown often are gauged not by economic indicators, but by the volume of pedestrian activity. Downtowns without pedestrians look lifeless and boring, whatever the quality of the built environment." 1



Cambridge Community School Community Main Entry

Area Label

- 1 Specialty Convenience Store
- 2 Multi-Purpose Public Space
- 3 24-Hour Coffee Shop
- 4 Information & Security
- 5 Residential Entry
- 6 Storage/Office
- 7 Washroom
- 8 Display

5.4 5.4.1

9 New Landscaping

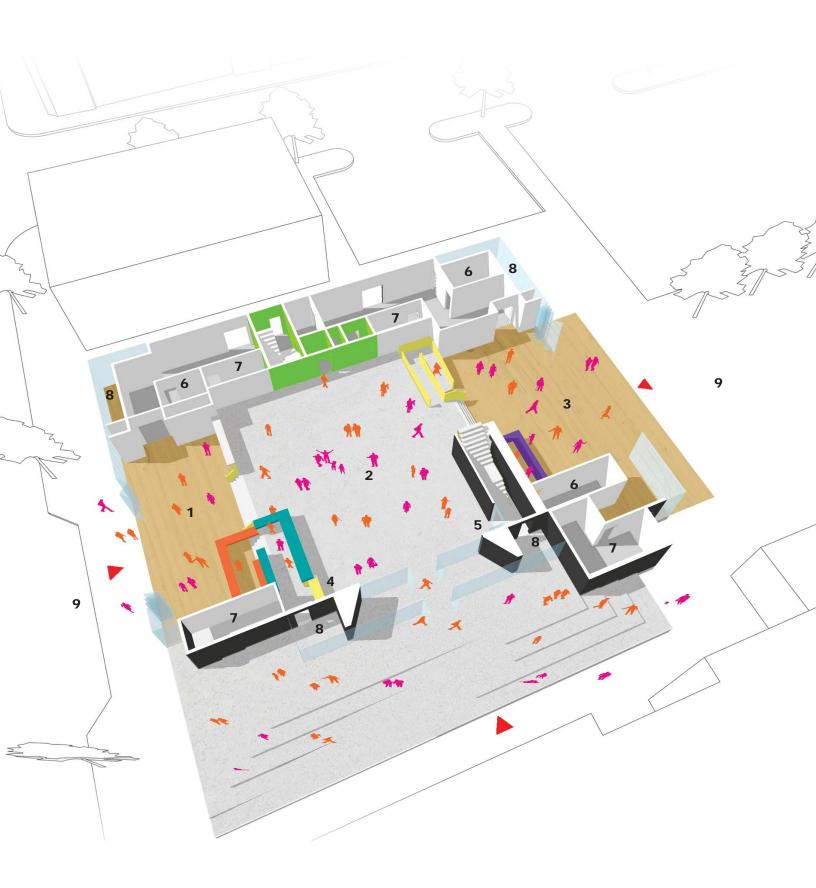
Reconsidering Grade | M

Community Expectations

In order for a Student Residence to become a contributing member of the community it must open its doors for public movement and use. Pedestrian permeability in many MSC building typologies would contribute greatly to urban revitalization by encouraging people movement, visual connections, and social entanglements. It would also prevent 'defensive architecture', an uninviting method of design which counter-acts urban revitalization by hindering pedestrian circulation. Desires for their downtown were expressed by the Cambridge community through the CURA survey and follow the same train of thought. They include increasing the range of downtown activity, providing community amenities, and more retail outlets. To include these within a Student Residence is to provide accessible and enjoyable public spaces. Finally, it is the continual presence of people at street level that would not only bring life to a quiet city core, but would also be the "means by which a space is naturally policed."^x

"The pivotal ground floor. Instead of being enclosed and self-contained, it should be blown open and encouraged to blend with nearby spaces. In doing so, public and pedestrian movement would be encouraged because of new found permeability and the integration of environments."^{xi}

Accessible from front to back, this Student Residence shows virtually no characteristics of 'defensive architecture' and provides the Cambridge community, and the staff and students of the university an environment in which they can shop, rest, socialize or merely observe. As an extension of the street and the public realm, this space has the potential to become an "arena for a diverse group of people to engage in dialogue and debate" and be accessible and used by all,"^{Kii} providing what all cities strive to create for their populous.



Cambridge Community School Community

Area Label

- 1 Quiet Study Area
- 2 Media Lounge
- 3 LED Communication Wall
- 4 Multi-purpose Student Lounge
- 5 Storage/Office
- 6 Washroom

5.4.2

Students & School

Providing a safe living environment for students to interact with one another is important, not only to the students themselves, but to the University as well. It is understood that the Student Residence is an essential place where valuable life-long relationships between peers are formed. It is also where students are able to learn how to be responsible and contributing adults within a community of their own.

"The built environment can serve (like fashion and facial expression) as a form of nonverbal communication that instructs city dwellers as to what is acceptable where." x^{xii}

The student social space within this Residential design example is elevated to the second level yet is able to provide strong visual connections and natural surveillance of the community and the downtown environment by way of outwardly focused spaces and mezzanines.

Though only physically accessible by members of the school community, this student social space provides a visual connection between 'Town & Gown' because it is communication that allows a familiarity between social groups to form. To further this idea, this project includes a massive LED communication wall (3) that, when connected to a digital network, would enhance ubiquitous communication by becoming an electronic bulletin board, accessible by all.



Cambridge Community School Community

Area Label

- Don Suite
 LED Communitication wall
- 3 3-Person Suite
- 4 2-Person Suite
- 5 Laundry Facilities
- 6 Floor Lounge
- 7 Storage
- 8 Bedroom
- 9 Living & Kitchen
- 10 Washroom
- 11 Storage

5.5 5.5.1 Reconsidering Residence | S Students Expectations

Discovering what exactly students look for in housing is an obvious and vital step toward designing a MSC Residence. Part of the CURA student survey was specifically geared toward student residential desires, and the results revealed some very interesting information.

Of the 380 respondents a mere 1.6% expressed a desire to live in a 'Student Residence'; it may be the out-of-date university housing systems many students were adamantly against in their responses. The majority of students also indicated that either apartments or lofts with their own bedrooms would be their living environment of choice over a shared, dormitory style space. Other results indicated such things as little need for parking, higher student spending on restaurants than grocery stores, and a desire to live with one to three other people.

The design of student suites in this design example was driven by these results. Apartment occupancy ranges from one to four people. Considering the high number of times that students eat out, only a small kitchenette is included in each apartment. The individual bedrooms are all organized around the perimeter of the building in order to provide a greater street presence of students and activity.

"With a reconsidered student residence within a MSC comes a greater vitality to a downtown core. The more centralized critical mass of people can improve the safety of the city centre, especially at night, by merely improving building frontage and eradicating the vacant or derelict appearance of upper floors. Outside of store hours, the streets would be under constant suveillance, increasing the sense of security."^{xiv}



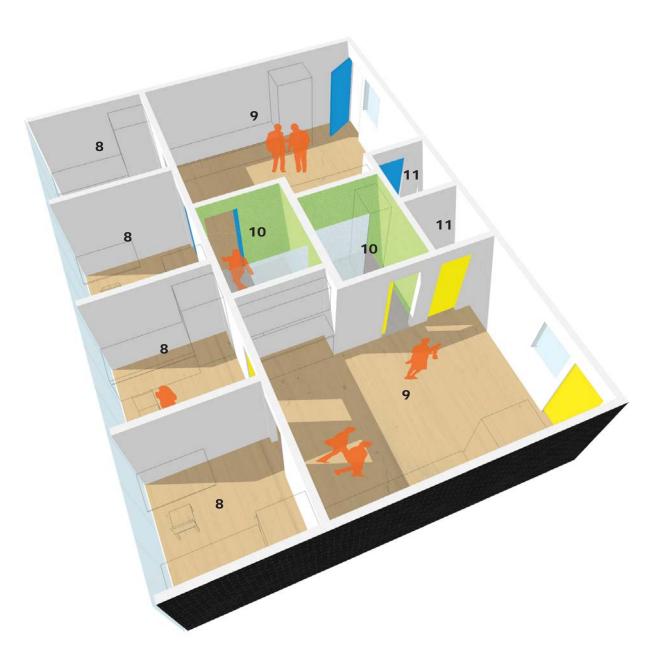


Fig. 5.2f

Undergraduate Graduate Faculty

Fig. 5.2g



Fig. 5.2e

School Expectations

Cambridge Community School Community

2 LED Communitication wall

Area Label 1 Don Suite

3 3-Person Suite 4 2-Person Suite 5 Laundry Facilities 6 Floor Lounge 7 Storage 8 Bedroom 9 Washroom 10 Living & Kitchen 11 Bachelor Apartment 12 1-Bedroom Apartment

5.5.2

A Student Residence in a MSC can potentially take on many new roles. It could become a community centre, an agent of urban revitalization, and a source of constant surveillance. It will always be, however, an important place for staff and students to provide support and give valuble advice to one another. A Student Residence has the ability to create a casual environment in which students can become part of a community and gain an important sense of belonging.

It is common for university residences to be categorized into specific years. Graduate housing and Undergraduate housing, for example. This separation tends to increase a divide between the years that is often difficult to bridge. This project instead suggests a Residence that houses a variety of ages - from undergraduate students to faculty. In doing so, mentorship, guidance, and advice could become valuable daily experiences otherwise unobtainable in the stressful environment of a lecture hall or studio. A Student Residence is a home away from home where everyone is on a level playing field and should, therefore, create a welcoming, comfortable, and safe atmosphere for all of its inhabitants and visitors.

"Of course the feelings that an individual has towards a city are influenced by the degree to which that city fulfills the individual needs... One of the most fundamental of all human needs is the need for a sense of belonging."XV



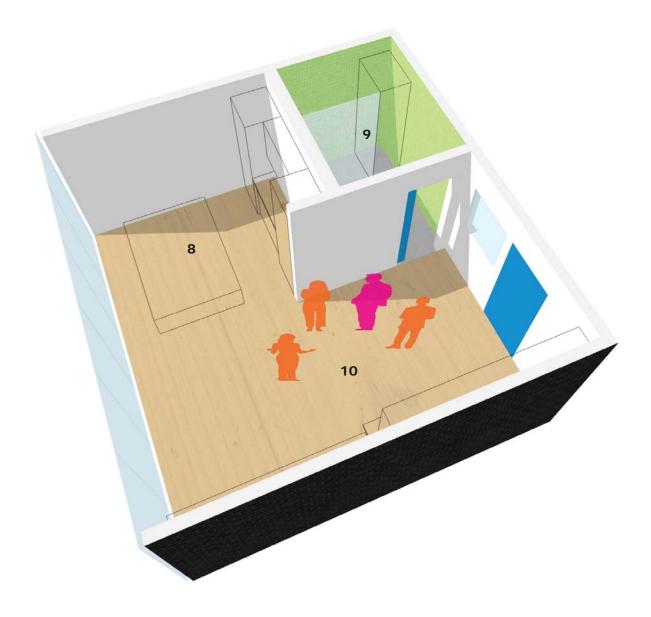
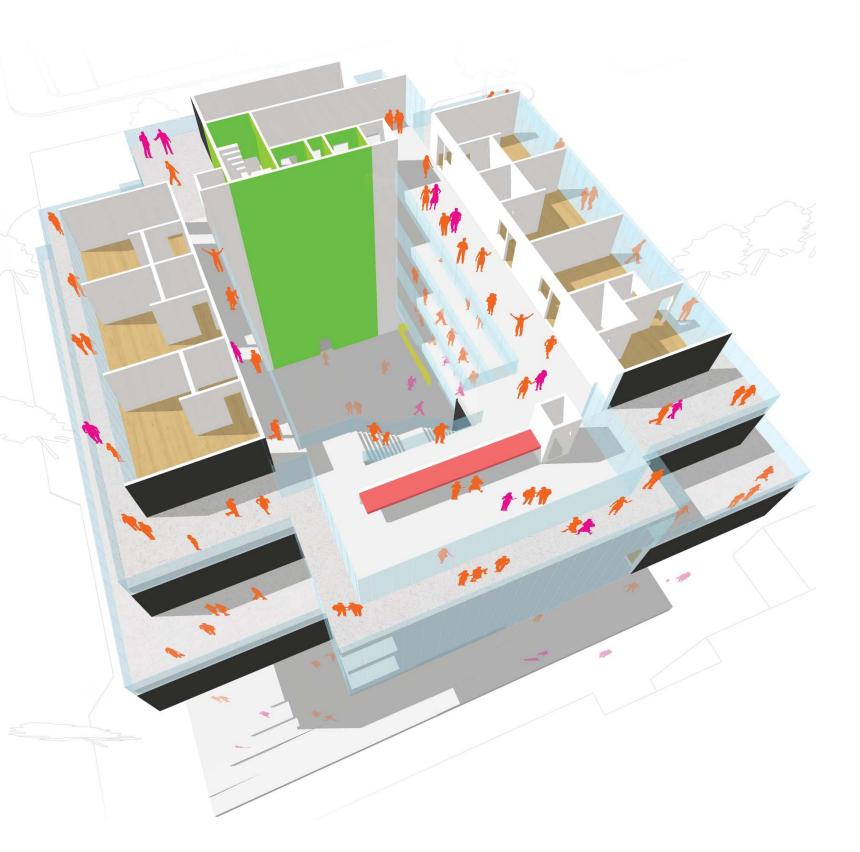


Fig. 5.2i

Undergraduate Graduate Faculty

Fig. 5.2j



New Roles for a Student Residence

6.0

The deterioration of MSCs is an all too familiar urban crisis throughout North America. The exponential growth of globalization and technology are causing MSC cores and their unique downtown environments to reach the brink of extinction. In hopes of reversing this negative trend, numerous revitalization strategies are being implemented, including one which has been demonstrating some success: the incorporation of universities into MSC cores. After all, "universities are perhaps [the greatest] untapped urban revitalization resourceⁿⁱ.

Learning from past experiences, these 'Town & Gown' associations are being redefined to suit the contemporary needs of universities and the cities in which they now reside. "Historically, many institutions have cut themselves off from their neighbours"ⁱⁱⁱ or have arrogantly infiltrated their surroundings forcing tension between distinct social groups – transient students and permanent community members. Such tension now would eradicate any hope of a revitalized MSC downtown. As a result, rather than focusing on self-preservation, universities are willingly collaborating with the community. The resulting enthusiasm, generation of ideas and experience are proving this revitalization strategy to be a successful one. The incorporation of universities into MSCs has exposed uncharted opportunities for urban revitalization. University facilities such as the Student Residence can support this renewal. No longer just an oncampus shelter, a Student Residence located within a MSC core has the ability and responsibility to become a venue for important urban elements such as a much needed residential density and a 24-hour street presence. For the school, it could not only be host to countless occasions for students, faculty, and staff to engage with, and learn from, the surrounding community, but it could also let down the gates to the ivory tower and establish itself as a sincere and committed public servant. All of this, from outside the confines of a lecture hall.

In order for this benefit to be realized, the Student Residence must be thought of as a contributing member of the community. It is important to note that proposing specific rigid design guidelines in an attempt to achieve this would not rightfully address the unique needs and environments of each distinct MSCs. What might work in Cambridge, for example, might not work in downtown Hamilton. Instead, Student Residential principles which hold value in any MSC circumstance should be addressed.

The Good 6.1

The relocation of universities into the hearts of MSCs has provided the opportunity for schools and their components to become rejuvenators of downtowns. The Student Residence has not yet been able to contribute revitalizing benefits to suffering MSC cores even though there is great opportunity to do so. Its traditional role is to be a safe, welcoming, yet temporary home for students. Its contemporary roles extend well into the public realm and include becoming a public servant, an ambassador, community infrastructure or support, an event, and of course, a residence.

See Appendix 'A' for site photos.





Fig. 6.1b

Public Servant

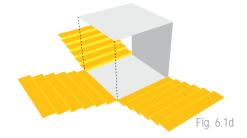
In the heart of a MSC, a Student Residence must recognize the value and importance of the surrounding community if it is truly to become part of it. What does the downtown need? How can its strengths be heightened and its flaws be fixed? Continually addressing such questions can reveal how a Student Residence may be organized in such a way that it provides service to the community and begins to enhance the downtown environment.

Never "underestimate the importance of street level activity. Too much indoor orientation removes pedestrians and eventually business from the street, thereby draining the vitality from the image of downtown."^{III}



Event

For communities to interact, a place of social gathering and activity is required. A Student Residence can become an unbiased environment, inviting to many social groups and encouraging the formation of many casual dialogues. Not only could this provide a place outside main university buildings for staff and students to converse, but it could also blend together the existing downtown community with the school's, in an informal atmosphere. The Student Residence could potentially become a popular downtown destination for interaction and dialogue.



6.1.2

A good downtown is where "people can mix and mingle without feeling socially embarrassed, where to some degree everybody is equal...[and where] the majority of people still feel that the town centre belongs to everyone."^{iv}



6.1.3

Infrastructure

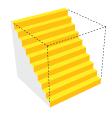


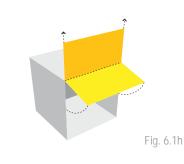
Fig. 6.1f

In a MSC, a Student Residence has the ability to become a requirement for a successful community. Regardless of whether its infrastructure role leans more toward the physical (an extension of sidewalks) or theoretical (a 'system' of communication), it should eventually be so seamlessly integrated into a downtown that it begins to be considered as being an important system or element within a creative-industry based MSC.



Community Engagement

By suggesting such a prominent, centralized downtown location, a Student Residence must accept the role of University Ambassador and must represent proudly the staff, students and faculty. Community engagement is an important step in educating students as well as the surrounding community to be accepting and tolerant of each other. If each social group is able to gain a better understanding and appreciation for each other's lifestyles, then perhaps a more socially satisfying and co-operating downtown core would be the result. As an ambassador, the Student Residence has opportunity to encourage this understanding as well as mutual good-will.



6.1.4

"[Communities] are abandoning their suspicions about the relevance of the University as engaged partners. ... As universities create offices and institutions to provide portals to campus, community leaders are able to navigate the complexities of the academic world to find the right people and the campus connections they need. They have experienced the valuable ways that universities can help to create intellectual and social capital essential to the future of our cities, towns and regions. They are connecting with students and faculty to identify new research agendas and together find solutions to community problems relevant to their culture and place."^V



Residence



The role of a University Residence as a home for students is its first priority. Above and beyond all else, it is vital that the Student Residence provides a safe, comfortable and interesting living environment for students and faculty. By developing the layout that best suits each downtown circumstance, a MSC Student Residence can be a student's home, and also a community. The inhabitants of the residence must live comfortably before they would be willing and able to engage the surrounding community and devote time to revitalizing it.

Fig. 6.1j

6.1.5

The Challenge

"The role of universities in urban areas and economically distressed inner cities remains relatively unexplored"vi and, for the most part, has been discussed in this thesis with positive overtones. What are the negative results of a centralized Student Residence in a MSC downtown? After all, when inserting a relatively foreign element into an already fragile environment, the outcome may not always be entirely positive. For example, in any university town, the gentrification of the existing environment is always a concern. "As universities expend resources on local revitalization projects, they often set other forces in motion that may alter or threaten the cultural and demographic identity of the neighbourhood."vii With such a young venture, "openly discussing university plans with the community can help keep a project on track,"viii allowing the entire community a constant and contributing voice. For a student residence to succeed, this is an imperative step in the development process. A university and all of its parts "cannot be only a real estate developer, it needs to be a community developer as well"ix if it has any hopes of avoiding failing the surrounding community and itself. "Authentic partnerships are best when they are not dependent on the vision of a single individual but when partnerships offer multiple ways for engagement by diverse members of the community and the university."^x Engaging in this process is critical and results in revitalization itself, as both partners explore the possibilities of cooperation and communication.

6.2

Summary

6.3

For centuries cities were "recognized as centers of social exchange, transactions and interaction between people"^{xi} but the recent population shift to suburbia has greatly diminished their appeal. In fact, downtown centres of MSCs have long since been considered centres of little except urban decay. Struggling to stay competitive socially and economically, MSCs are being forced to look beyond traditional means of urban revitalization because they are simply not working. New hope has been found, however, in the rising popularity of the creative industry.

Seen recently as a revitalizing asset, universities are being invited into MSC communities throughout North America in hopes of fulfilling the current need for creative people and enterprises within a city centre. This contemporary campus typology has caused the defined campus boundary, often separating school from community, to erode, allowing the public unprecedented access to students, staff, and faculty, a community of creative leaders. And, "unlike mobile corporations…universities are likely to stay in their present locations."^{xii} This relationship, of course, goes two ways. Where a university can aid in urban revitalization, cities are able to provide the university with a "wonderful setting for learning about how society works and how to improve it,"^{xiii} making an education in a MSC an ideal place to live and learn about ourselves and the society around us. It is now imperative that MSCs and their University counterparts begin to make use of the Student Residence as a contributing agent of urban revitalization. The key elements are there, the ability to increase density, and improve the safety, culture, activity, and street frontage of a downtown. By careful design, community engagement, an important aspect of MSC living, can be accomplished by a Student Residence. With the possibility of becoming a valuable venue for dialogue between the community and the school, a Student Residence holds the potential to be an informal space where the public can further appreciate the student lifestyle, and students can learn about the value of being a contributing member of a greater society.

If higher education is to "serve our students with deep learning, our faculty and staff with opportunities for integrated scholarship, and our communities with our creative and intellectual resources, it will require broad support in making possible the kinds of institutional transformation that only engagement can provide."^{xiv} This thesis is intended to instigate further conversation and exploration regarding the new roles of Student Residences in MSC centers. With the fast growing numbers of MSCs inviting Universities into their tired downtowns, that is a conversation which is past due.

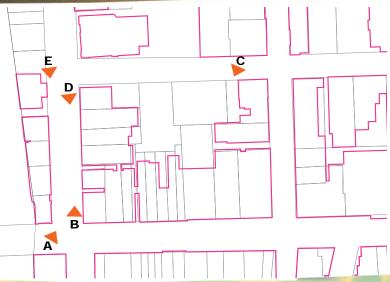
Appendix A

Site Imagery
Present Conditions



Α

- A Looking *North-East* along Water Street
 B Looking *North* along Water Street
 C Looking *South-West* along Dickson Street
 D Looking *South* along Water Street
 E Looking *South-East* along Water Street













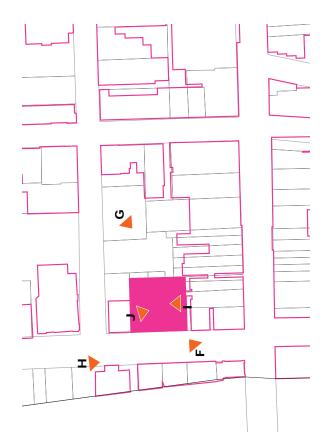




Potential Conditions

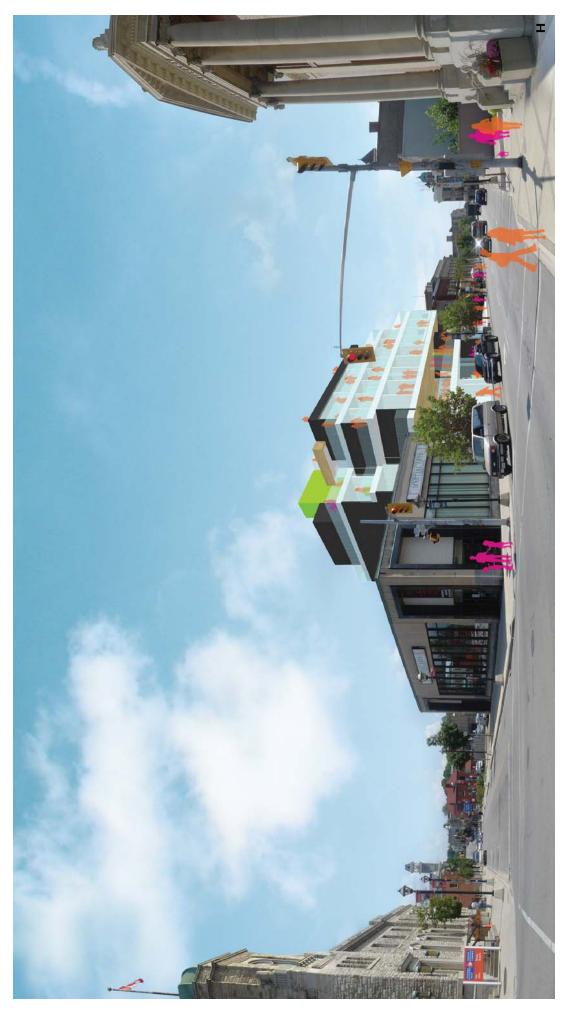


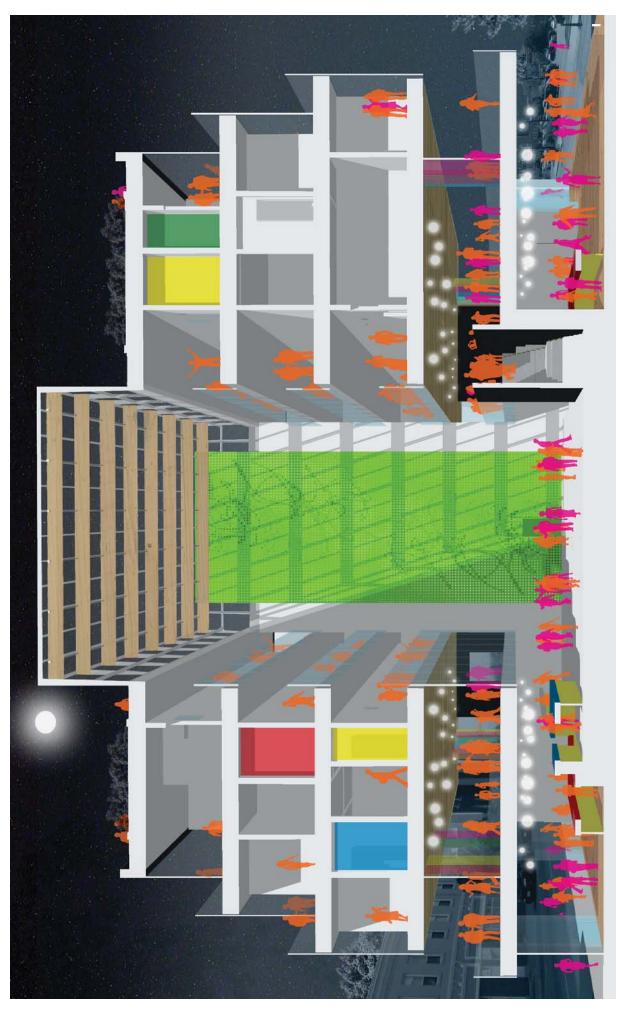
- G Event -Looking West
 H Infrastructure Looking South-East along Water Street
 I Community Engagement Looking North
 J Residence Looking South

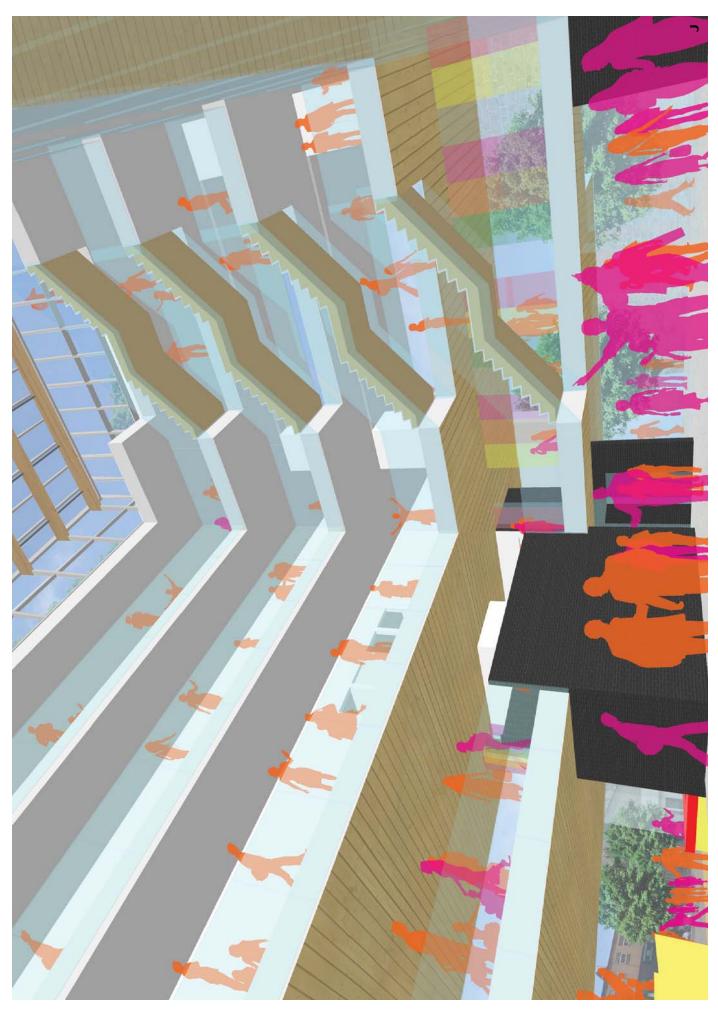








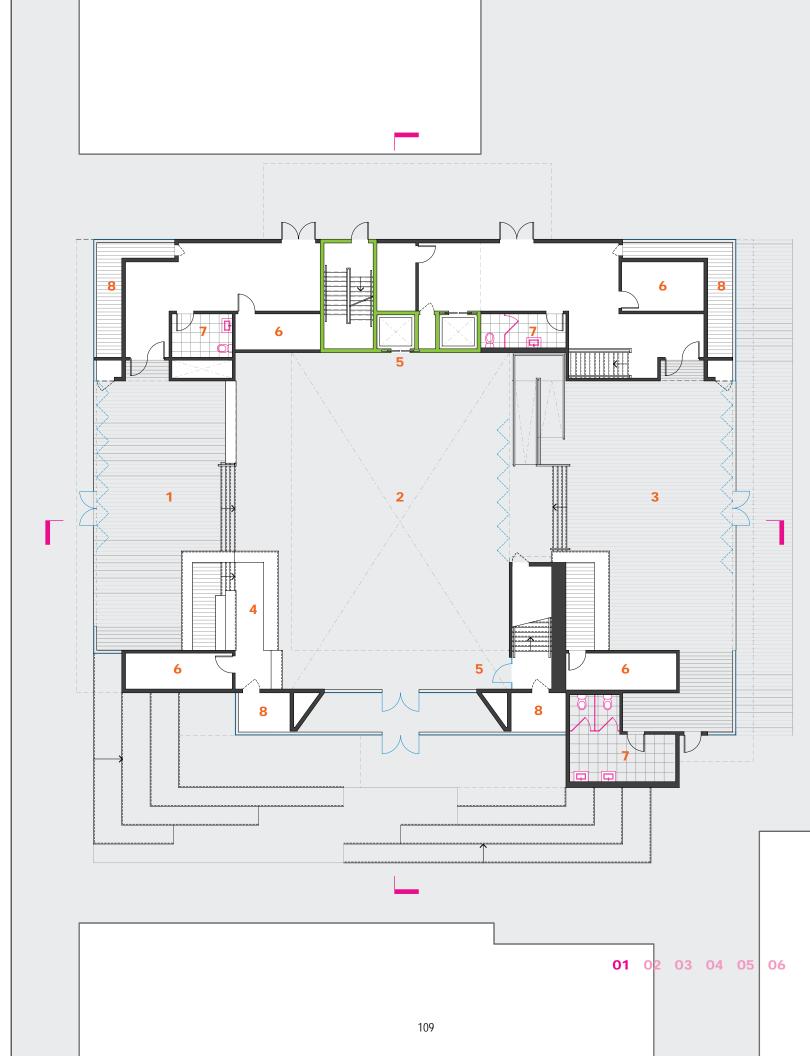




Appendix B

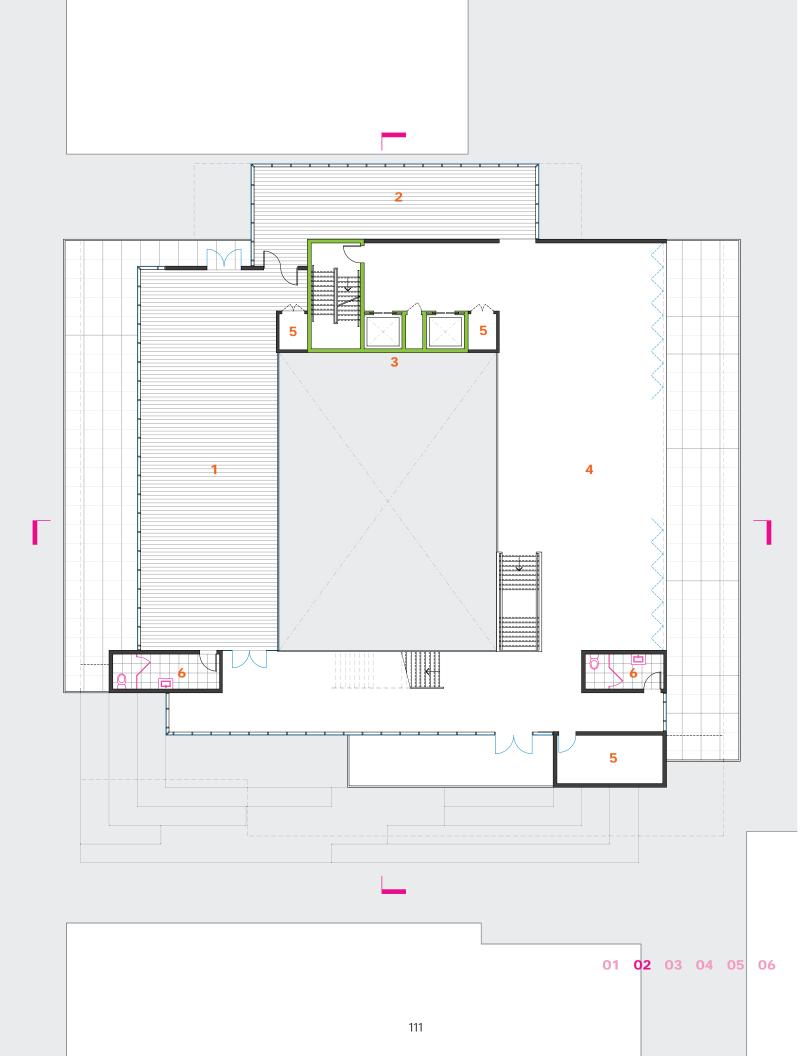
- Specialty Convience Store
 Multi-Purpose Public Space
 24-Hour Coffee Shop
 Information & Security
 Residential Entry
 Storage/Office
 Washroom
 Display
 New Landscapuing





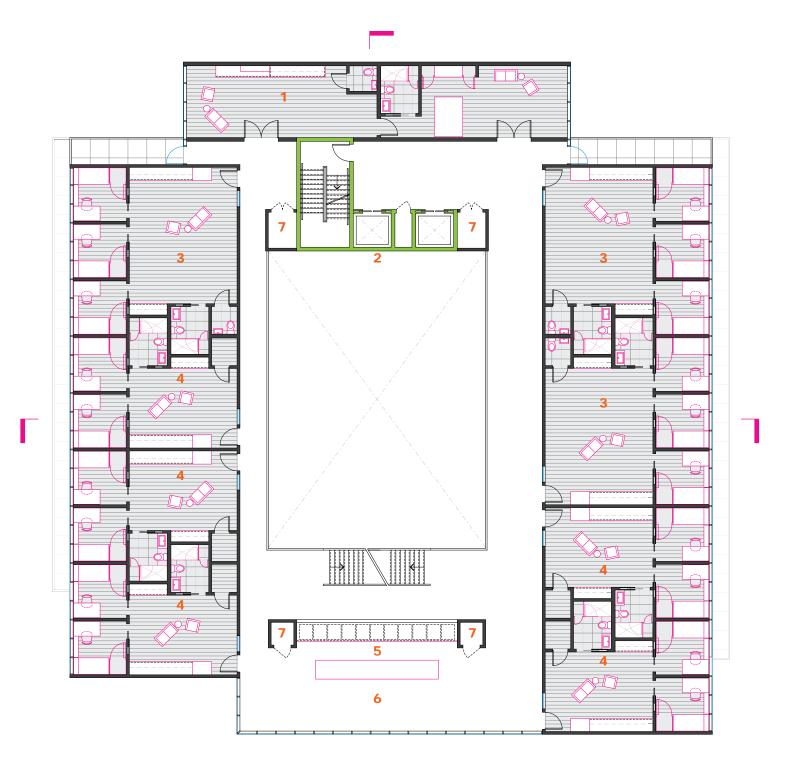
- Quiet Study Area
 Media Lounge
 LED Communication Wall
 Multi-purpose Student Lounge
 Storage/Office
 Washroom





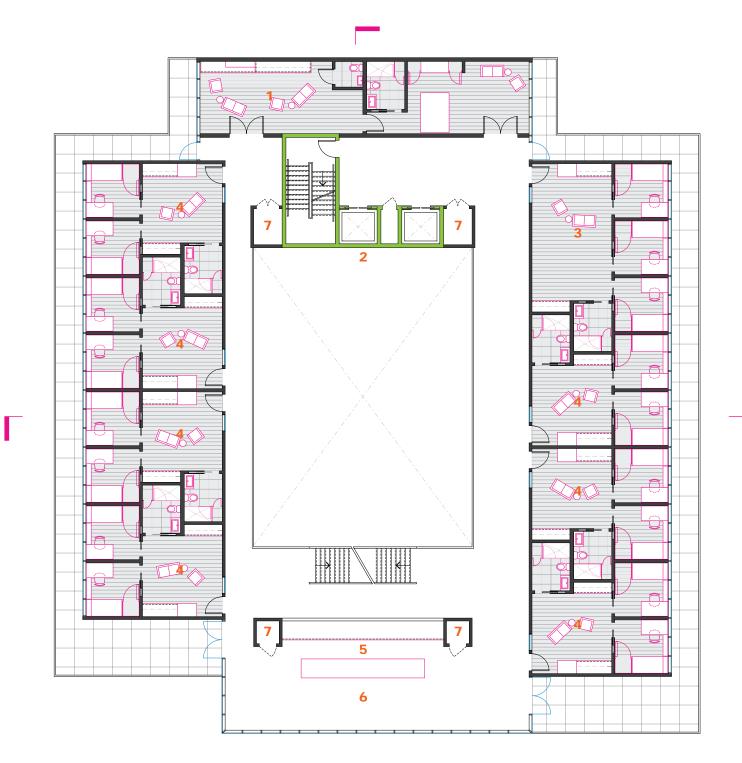
- Don Suite
 LED Communitication wall
 3-Person Suite
 2-Person Suite
 Laundry Facilities
 Floor Lounge
 Storage





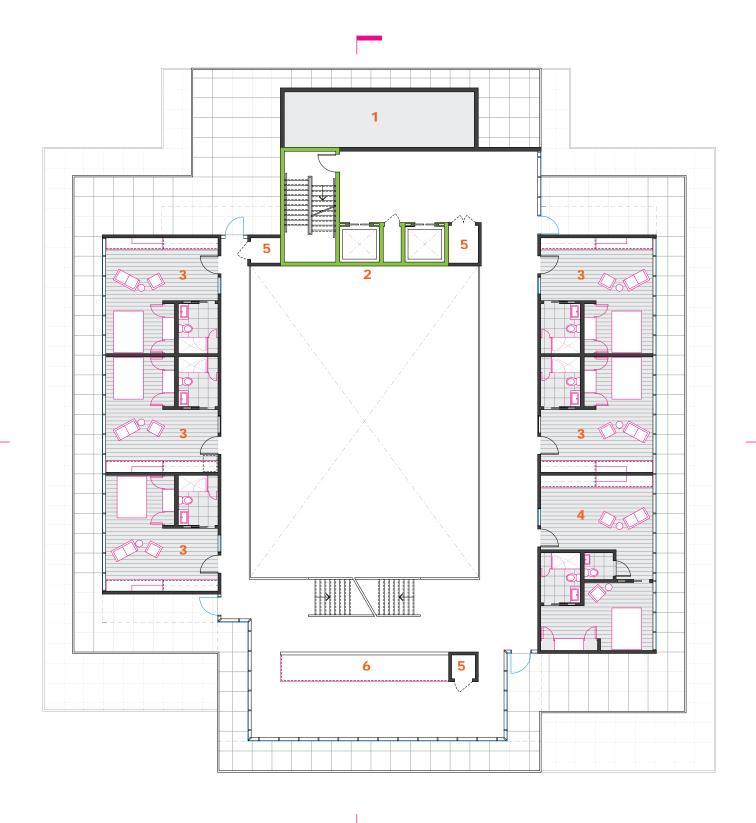
- Don Suite
 LED Communitication wall
 3-Person Suite
 2-Person Suite
 Laundry Facilities
 Floor Lounge
 Storage

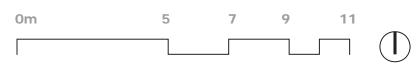


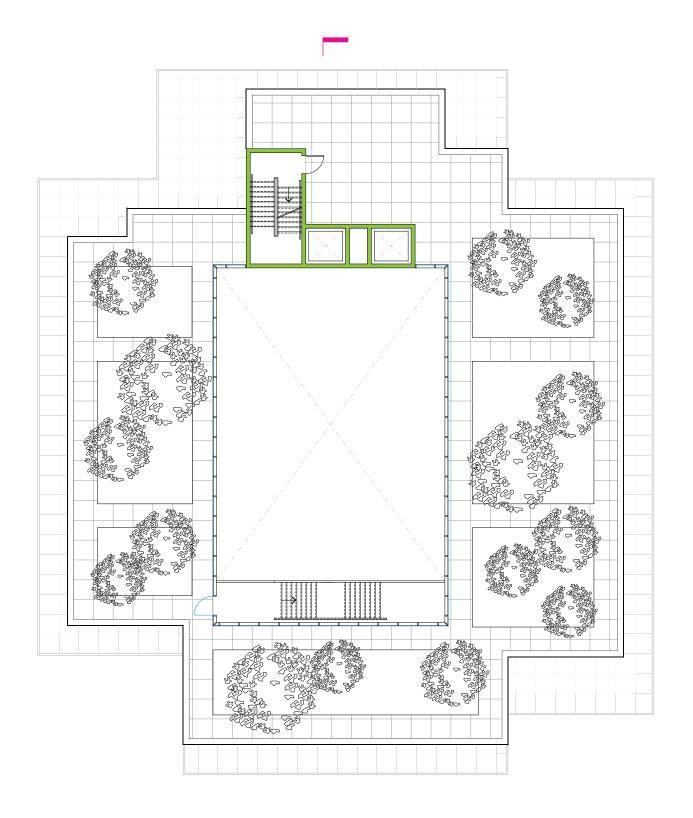


- Mechanical Room
 LED Communitication wall
 Bachelor Apartment
 1-Bedroom Apartment
 Storage
 Floor Lounge







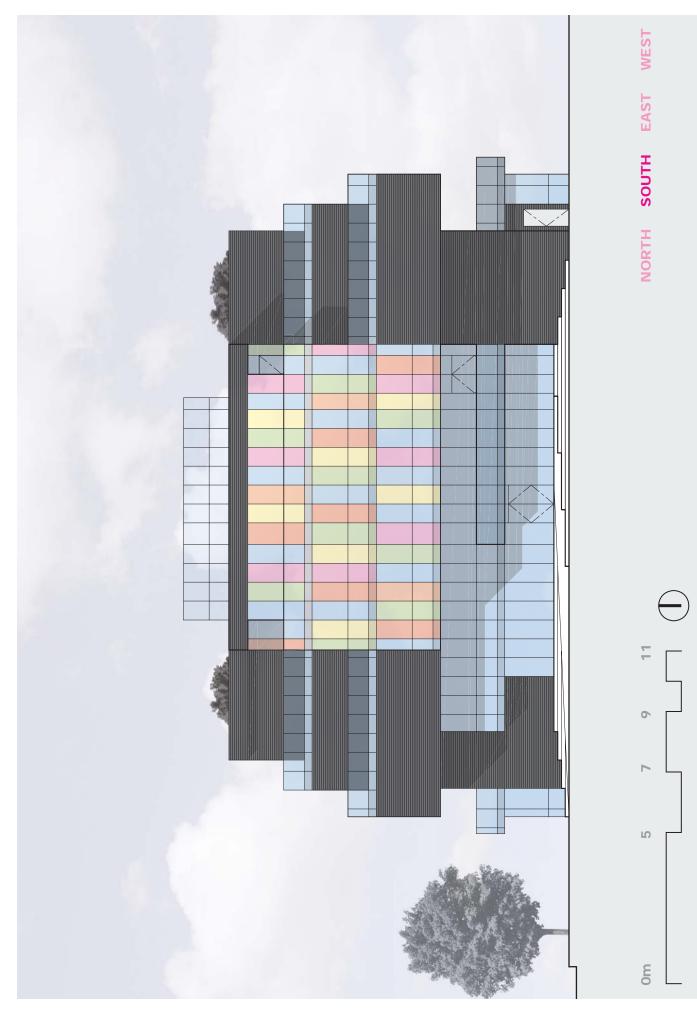




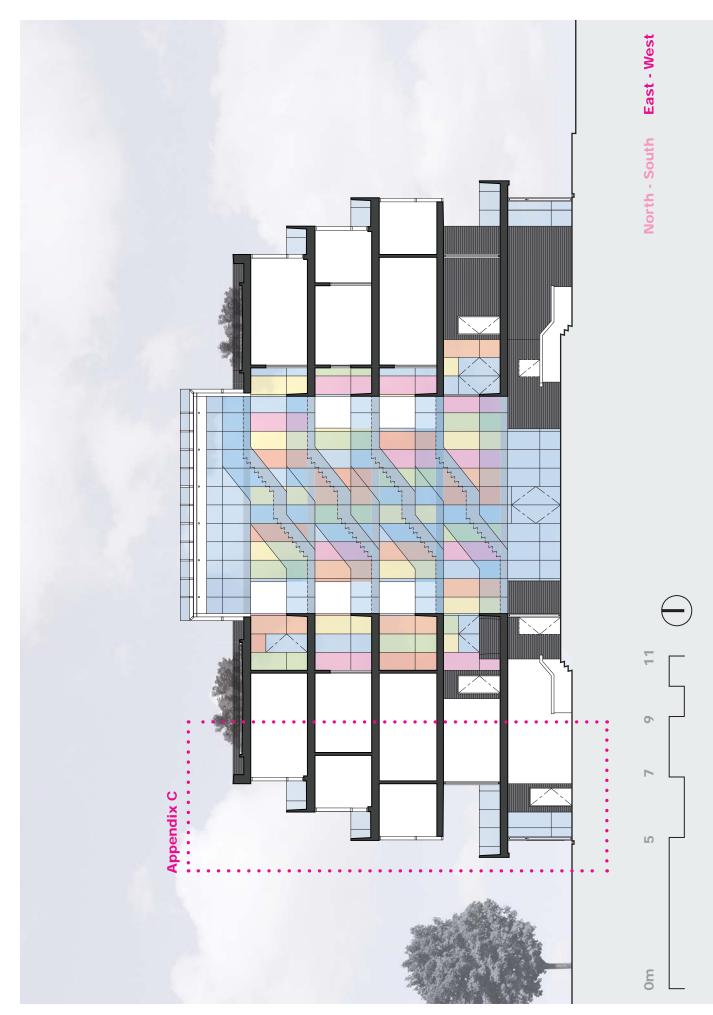




_





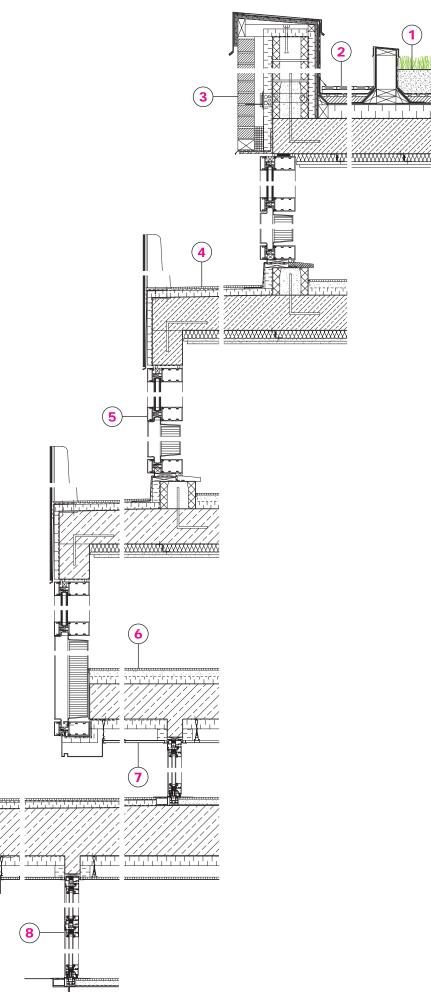


Appendix C

Vegetation Soil / Loam Filter Fabric 50 mm Drainage Board Polypropylene Water Retention 50 mm Rigid Insulation Protection Cover / Root Barrier Air / Vapour Barrier 200 mm Reinforced Concrete Slab Stainless Steel Brackets Batt Insulation 19 mm Double-ply Gypsum Board

1

- 2 Decking Material Wood Sleepers 50 mm High Density Rigid Insulation Air / Vapour Barrier 200 mm Reinforced Concrete Slab
- 3 90 x 380 Black Brick Veneer 5 mm Stainless Steel Bracket 50 mm Air Space 50 mm Rigid Insulation Air / Vapour Barrier 200 mm Reinforced Concrete Slab
- 20 mm Wood Cladding Stainless Steel Sleepers
 50 mm High-Density Rigid Insulation Continuous Vapour Barrier
 200 mm Reinforced Concrete Slab Stainless Steel Brackets Batt Insulation
 19 mm Double-ply Gypsum Board
- **5** Curtain Wall / Spandrel Panel Assembly
- 6 20 mm Wood Flooring 60 mm Concrete In-fill Vapour Barrier 200 mm Reinforced Concrete Slab
- **7** Soffit Assembly
- 8 Nana Wall Folding Facade Assembly



Costing Analysis

Project Statistics

	Gross m ²	# of Residents
Ground Floor *	915	-
Second Floor	859	-
Third Floor	947	20
Fourth Floor	948	18
Fifth Floor	783	6-12
Roof	580	
TOTAL	5,032 m ²	44-50
*Includes 2 Potail Units		

*Includes 2 Retail Units

Elemental Project Hard Costs

Elementar roject nara obsis			
	Cost/m ²	Elemental Amount	% Hard Costs
Substructre	258	1,299,175	8.8
Structure	715	3,445,852	23.4
Exterior Enclosure	440	2,214,036	15.0
Partitions + Doors	293	1,476,024	10.0
Finishes	165	830,264	5.6
Fittings + Equipment	238	1,199,270	8.2
Mechanical	425	2,137,064	14.5
Electrical	200	1,107,018	7.5
Landscaping	367	1,005,466	6.8
TOTAL CONSTRUCTION ESTIMATE	^{\$} 2,954	\$14,714,169	100%

Development Charges		^{\$} 100,000
General Deposits + Fees		\$20,000
Architectural + Engineering Fees	10%	^{\$} 1,471,417
TOTAL PROJECT ESTIMATE		\$16,605,586

Eplilogue



Fig. C

Student Residences are often built based on a budget limited to approximately \$77/sq.ft. At \$295/sq.ft., this design is currently beyond the realities of building in downtown Cambridge. There are however, a few economic strategies that some builders employ in order to turn a fantasy project into a realistic venture. Things such as long-term leases, individual apartment ownership or even time-share units are attractive options to students and their parents. The current economic climate of MSCs means that builder's are more prone to rent. Renting, if all goes well, guarantees eventual increasing revenue. As the mortgage of a building decreases over time, rental rates rise (see fig. 'C'). Though a profit from renting might be further in the future compared to, for example, immediate ownership per unit; in the long run, for a MSC student residence, maintaining the university standard of term-by-term renting is perhaps the most viable financial option available at this time.

As noted on the previous pages, the estimated construction cost is of this design is approximately \$14,714,169 and, assuming that builders expect an annual return of 7-10% of initial expenses, what would have to be charged in rent in order to generate revenue?

Construction cost: \$14,714,169 8% Annual Return: \$1,177,134 Assume the 2 commercial properties pay \$5,000/month in rent: 2(5000 x 12) = \$120,000/year (Return – Commercial Profit): \$1,177,134 - \$120,000 = \$1,057,134 The residence holds 44 people making rent: \$1,057,134 / 44 = \$24,026/year

\$24,026 / 12 = \$2,002/month or **\$8,008/term** (on average)

Given that each student - to live in this proposed residence would have to willingly pay \$5,000 more than what they are currently paying in rent, this is a design proposal that is highly improbable. Without the aide of a philanthropist or the financial ingenuity that brought the School or Architecture into downtown Cambridge in the first place, a residence such as this will most likely remain a proposal.

A large price tag can stop a Student Residential project from ever breaking ground. Recent attempts at developing a University sanctioned student residence in downtown Cambridge have yet to move into a construction phase. Regardless of the reasons as to why these proposals have stalled, it is important to remember that, when a student residence finally receives the go-ahead, that is can be incredibly beneficial to the students, to the school *and* to the community.

Post Script

I entered the master's program with lofty expectations. I thought I would somehow revolutionize my area of focus, though I honestly wasn't completely certain what that 'area' was going to be. I was confident that I was going to finish in four terms. I thought I was going to write a manifesto so powerful and enthralling that not a person in the world would be able to hide their emotions upon reading it from cover to cover. Once the second day rolled around, I realized that none of these things idealistic expectations that never going to happen.

_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _

After two years of researching, writing, designing, re-writing, redesigning and re-re-writing, I'm not entirely sure I can produce a proper definition of what an architectural thesis *IS* (or how to do one for that matter) because it's more than just a bound proposal. I could only do it justice by describing it as walking blindly through a vast field with no compass. However I was quick to discover that I was not the only one trying to navigate this seemingly insurmountable task. My peers became an invaluable contribution to my thesis through not only their scholarly suggestions, but from their constant and unwavering support -- a dominant characteristic of UW's Grad school. The independent thesis is an intimidating project that benefits greatly from such events as peer reviews (which I participated in on a monthly basis) and casual conversations over coffee or a beer. Though you may have varying thesis topics, at least these meetings were a chance to realize that though it's independent work, you're still part of a close-knit community. Following the completion of my defence, I was asked to write this post-script as a sort of thesis 'How-to' but after trying for a couple of days to think of how-to 'How-to', I realized that I simply am unable to properly do it justice. A thesis is an endeavour that varies from person to person. It's what you make of it and how you execute it. There are certainly highs and lows but the two years of conversations within a scholarly community have made it an invaluable experience that is without a doubt, worth the moments of insanity, the days, weeks and months of frustration, and the micro-seconds of clarity.

> Kate Bowman M.Arch December 2007

Notes

i. Kent Robertson *Downtown Redevelopment Strategies in the United States: An End-of-the-Century Assessment*, Journal of the American Planning Association, Vol. 61, Issue 4, (Autumn 1995) p. 429.

Chapter 2.0

- Mark Seasons, Blake Hudema, Karne Hammond, Jeff Lederer, and Glenn Scheels. *Revitalizing the Downtown of Midsize Cities* (Canadian University Research Alliance: APA Conference, April 25, 2006).
- ii. Ibid.
- iii. Statistics Canada. Census 2001.
- iv. Barbara Elve. Centre will study middle-sized cities, Faculty of Environmental Studies Newsletter, (September 2002), http://www.fes.uwaterloo.ca/faculty/newsletter/sept2002/mcrc.html/ (accessed May 8, 2006).
- v. Bunting, T., Filion, P., Frenette, S., Curry D., and Mattice, R., *Housing Strategies for Downtown Revitalization in Mid-Sized Cities: A City of Kitchener Profile* (Canadian Journal of Urban Research, V9) pp. 146.
- vi. Cambridge Core Areas Revitalization Program: Core Areas Monitoring Report, (Cambridge: City of Cambridge Planning Department, 2005)
- vii. Safer City Centres: Reviving the Public Realm. Taner Oc and Steven Tiesdell, (ed.), (London: Paul Chapman, 1997) p. 226.
- viii. John Gilderbloom and R. Mullins, Promise and Betrayal: Universities and the Battle for Sustainable Urban Neighborhoods, (Albany: State University of New York Press, 2005) p. 5

- ix. Downtown Redevelopment Strategies in the United States: An End-of-the-Century Assessment, p. 429.
- x. Richard Florida, Gary Gates, Brian Knudsen and Kevin Stolarick, Creative Class Group, *The University and the Creative Economy*, (December 2006), http://creativeclass.com/rfcgdb/articles/ univ_creative_economy082406.pdf/ (accessed August 15, 2007).
- xi. Richard Florida, *The Rise of the Creative Class*, (New York, NY : Basic Books, 2002), http://www. washingtonmonthly.com/features/2001/0205.florida.html/ (accessed May 8, 2006).
- xii. Ibid.
- xiii. First Thoughts from the Allston Planning Team, p. 1.
- xiv. Richard Florida, Gary Gates, Brian Knudsen and Kevin Stolarick, Creative Class Group, The University and the Creative Economy, (December 2006), http://creativeclass.com/rfcgdb/articles/ univ_creative_economy082406.pdf/ (accessed August 15, 2007).
- xv. Community-University Research Alliance (CURA), (Ottawa: Social Science and Humanities Research Council of Canada, 2007), http://www.sshrc.ca/web/apply/program_descriptions/cura_ e.asp/ (accessed December 15, 2006).
- xvi. Ibid.
- xvii. Ibid.
- xviii. Allegra Calder and Rosalind Greenstein, *Universities as Developers*. (Planning and Development Department Lincoln Institute of Land Policy, July 2001) p. 1.
- xix. Henry Cisneros, *The University and the Urban Challenge* (Maryland: Aspen Systems Corp., 1995) p. 7.
- xx. Barbara Holland, *Characteristics of "Engaged Institutions" and Sustainable Partnerships, and Effective Strategies for Change* (Indianapolis: Indiana University, March 2001) p. 1.
- xxi. Universities as Developers, p. 1.

- xxii. Don Drummond and Craig Alexander, *Time to Wise up on Post-Secondary Education in Canada* (TD Bank Financial Group, March 2004) p. 1.
- xxiii. Henry Cisneros, The University and the Urban Challenge, p. 3.
- xxiv. Mark Seasons, Blake Hudema, Karne Hammond, Jeff Lederer, and Glenn Scheels. Canadian University Research Alliance (CURA). *Revitalizing the Downtown of Midsize Cities.* (APA Conference), April 25, 2006.
- xxv. Jane Jacobs The Death and Life of Great American Cities (New York: Random house, 1961).
- vxvi. Victor Rubin, Evaluating University-Community Partnerships: An Examination of the Evolution of Questions and Approaches. Cityscape: A Journal of Policy Development and Research, Volume 5, Number 1, 2000 (California: U.S. Department of Housing and Urban Development) p. 219.

xxvii. Ibid.

Chapter 3.0

- i. Martin Pearce University Builders. (Chichester : Wiley-Academy, 2001) p. 8.
- ii. James T. Harris III and Ira Harkavy Colleges, *Universities and Communities Advancing Social and Economic Justice* (Clearinghouse Review, July-August 2003) p150.
- iii. Martin Pearce University Builders, p. 10.
- *iv.* A Brief History of Oxford (University of Oxford, 2007), http://www.ox.ac.uk/about_the_University/ introducing_oxford/a_brief_history_of_the_University/index.html/ (accessed March 1, 2007).
- Roger B. Winston, *Student Housing and Residential Life* (San Francisco: Jossey-Bass, 1993) p. 168.
- vi. Martin Pearce University Builders, p. 11.

- vii. Martin Pearce University Builders, p. 10.
- viii. Roger B. Winston, Student Housing and Residential Life, p. 169.
- ix. Ibid.
- x. Ibid.
- xi. Martin Pearce University Builders, p. 11.
- xii. Ibid.
- xiii. Roger B. Winston, Student Housing and Residential Life, p. 172.
- xiv. Ibid.
- xv. Ibid.
- xvi. John Brubacher and Willis Rudy *Higher Education in Transition* (New York: Harper & Brothers, 1958) p. 41.
- xvii. J. Bland University Housing in Canada (Montreal: McGill University Press, 1966) p. 9.
- xviii. Roger B. Winston, Student Housing and Residential Life, p. 172.
- xix. Martin Pearce University Builders, p. 13.
- xx. Martin Pearce University Builders, p. 15.
- *xxi.* SCAD History (Savannah College of Art and Design, 2007) http://www.scad.edu/about/college/ history.cfm/ (accessed May 15, 2007).
- xxii. Adaptive Learning (Metropolis, October 2005) p. 54.

- xxiii. Savannah College of Art and Design: Its Growing and Complex Contribution to the Chatham County Economy (Savannah: Bureau of Business Research and Economic Development, August 2001) p. i.
- xxiv. Adaptive Learning (Metropolis, October 2005) p. 56.
- xxv. Savannah College of Art and Design: Its Growing and Complex Contribution to the Chatham County Economy, p. i.
- xxvi. Savannah College of Art and Design: Its Growing and Complex Contribution to the Chatham County Economy, p. 33.
- xxvii. Ibid.
- xxviii. Savannah College of Art and Design: Its Growing and Complex Contribution to the Chatham County Economy
- xxix. Tracy Arabski, et. al *Century Strategic Plan Laurier Brantford* (Prepared for: Brantford Divisional Council, April 15, 2005) p. 1.
- xxx. Housing/Residential Life (Laurier-Brantford, 2007) https://www.wlu.ca/page.php?grp_ id=1983&p=668 (accessed June, 2007).
- xxxi. Mark Seasons, Blake Hudema, Karne Hammond, Jeff Lederer, and Glenn Scheels. *Revitalizing the Downtown of Midsize Cities* (Canadian University Research Alliance: APA Conference, April 25, 2006).
- xxxii. William R. Trumble, Angus Stevenson, Lesley Brown, *Oxford English Dictionary* (Oxford; New York: Oxford University Press, 2002).
- xxxiii. David J. Neuman *Building Type Basics for Colleges and Universities* (Hoboken: John Wiley, 2003) p. 161.
- xxxiv. John Gilderbloom and R. Mullins, *Promise and Betrayal: Universities and the Battle for* Sustainable Urban Neighborhoods

Chapter 4.0

- i. Kenneth McLaughlin *Cambridge: The Making of a Canadian City* (Windsor: Windsor Publications, 1987) p. 33.
- *ii.* A Short History of Galt p. 6.
- iii. Kenneth McLaughlin, p. 77.
- *iv.* A Short History of Galt p. 12.
- *v. Frequently Asked Questions* (Cambridge: City of Cambridge, 2007) http://www.city.cambridge. on.ca/faqs_detail.php?qid=7&did=8 (accessed October 9, 2007).
- vi. A Short History of Galt
- vii. From an editorial in the Cambridge Reporter Mar. 16, 2001.

Chapter 5.0

- *i.* Promise and Betrayal: Universities and the Battle for Sustainable Urban Neighborhoods, p. 6.
- *ii.* Safer City Centres: Reviving the Public Realm, p. 1.
- *iii.* Promise and Betrayal: Universities and the Battle for Sustainable Urban Neighborhoods, p. 7.
- iv. C.U.R.A. Report: Effects of the School of Architecture in Galt City Centre (CURA, 2007), p XX
- v. Ibid.
- vi. Blake Bumprecht *Fraternity Row, The Student Ghetto, and the Faculty Enclave* Journal of Urban History, Vol. 32 No. 2, January 2006.
- vii. Safer City Centres: Reviving the Public Realm, p. 156.

- viii. Downtown Redevelopment Strategies in the United States: An End-of-the-Century Assessment, p. 430.
- ix. Ibid.
- *x.* Safer City Centres: Reviving the Public Realm, p. 162.
- xi. Ibid.
- xii. Safer City Centres: Reviving the Public Realm, p. 224.
- xiii. DJ Walmsley Urban Living: The Individual in the City (New York: Longman Scientific & Technical; Wiley, 1998) p. 79.
- xiv. Safer City Centres: Reviving the Public Realm, p. 165.
- xv. Urban Living: The Individual in the City p. 7.

Chapter 6.0

- i. James Bow Cities finding Universities Perfect Partner: Building Satellite campuses helps revitalize their downtown cores Business Edge, Vol. 6, No. 15 (Calgary/Red Deer Edition, 2006)
- *ii.* Evaluating University-Community Partnerships: An Examination of the Evolution of Questions and Approaches, pg. 1.
- iii. Downtown Redevelopment Strategies in the United States: An End-of-the-Century Assessment p. 429.
- iv. Safer City Centres: Reviving the Public Realm, p. 224.
- Mary Jane Brukardt, Barbara Holland, Stephen L. Percy and Nancy Zimpher Calling the Question: Is Higher Education Ready to Commit to Community Engagement? (Wisconsin: Milwaukee Idea Office, University of Wisconsin-Milwaukee, 2004) p. 4.

- *vi.* Leveraging Colleges and Universities for Urban Economic Revitalization (Philadelphia: Greater Philadelphia Regional Review, Spring 2003) p. 1.
- vii. Universities as Developers, p. 2.
- viii. Evaluating University-Community Partnerships: An Examination of the Evolution of Questions and Approaches
- ix. Ibid.
- x. Calling the Question: Is Higher Education Ready to Commit to Community Engagement? p. 9.
- xi. Safer City Centres: Reviving the Public Realm, p. 222.
- xii. Leveraging Colleges and Universities for Urban Economic Revitalization p. 1.
- xiii. The University and the Urban Challenge p. 3.
- xiv. Calling the Question: Is Higher Education Ready to Commit to Community Engagement? p. 18.

Bibliography

Articles

Alexander, C. & Drummond, D. TD Economics: Time to Wise Up On Post-Secondary Education in Canada. TD Bank Financial Group, 2004.

- Brukardt, M., Holland, B., Percy, S. L. & Zimpher, N. Calling the Question: Is Higher Education Ready to Commit to Community Engagement? Milwaukee, Wisconsin: Center for Urban Initiatives and Research, University of Wisconsin-Milwaukee, 2004.
- Calder, A. & Greenstein, R. University as Developers. Planning and Development Department, Lincoln Institute of Land Policy, 2001.
- Cox, D. N. Developing a Framework for Understanding University-Community Partnerships. Tennessee: University of Memphis, Date Unknown.
- Davis, G. and Roizen, R. Architectural determinants of student satisfaction in college residence halls, in ERDA 2: Proceedings of the Second Annual Environmental Design Research Association Conference. J. Archea and C. Eastman, eds., Dowden, Hutchinson and Ross, Stroudsburg, Pennsylvania, (pp. 28-44), 1970.

Finnemore, Melody. Defining Vision.2000.

Flansborough, E. New-Wave Student Housing, Planning for Higher Education, V19 N3 (pp.1-10), 1991.

- Gad, G. and Matthew, M. Central and Suburban Downtowns, in T. Bunting and P. Filion, eds., Canadian Cities in Transition: the Twenty-First Century, Oxford University Press, Toronto. (pp.248-273), 2000.
- Hahn, A. Colleges and Universities As Economic Anchors: Profiles of Promising Practices. Heller Graduate School of Social Policy and Management: Brandeis University, Date Unknown.
- Hecht, A. & Meyer S.P. University Growth Poles in Canada: An Empirical Assessment. Waterloo, Ontario: Department of Geography, Wilfred Laurier University, Date Unknown

- LaMore, R. L. & Link, T. Renewing People and Places: Institutional Investment Policies That Enhance Social Capital and Improve the Built Environment of Distressed Communities. Date Unknown.
- Legault, L.A. The Changing Demands on Today's Residences, University Manager, Winter, 2000.
- Leveraging Colleges and Universities for Urban Economic Revitalization: An Action Agenda. (Unknown).
- Mullins, R.L. and Gilderbloom, John I. Urban Revitalization Partnerships: Perceptions of the University's Role in Louisville, Kentucky, Local Environment, V7 N2, (pp163-176), 2002.
- Presiser, W.F.E. Behavioural design criteria in student housing, in EDRA 1: Proceedings of the 1st Annual Environmental Design Research Association Conference, H. Sanoff and S. Cohn, eds., Dowden, Hutchinson and Ross, Stroudsburg, Pennsylvania, (pp.243-259), 1970.
- Reardon, K. M. Straight A's?: Evaluating the Success of Community/ University Development Partnerships. Department of City and Regional Planning: Cornell University, Date Unknown.
- Rubin, V. Evaluating University-Community Partnerships: An Examination of the Evolution of Questions and Approaches. Berkeley: University of California, 2000.
- Student Housing at Ontario Universities : Study, Report and Recommendations. Toronto: Council of Ontario Universities, 1989.

Books

Alexander, Christopher. A Pattern Language: The Timeless Way of Building, Vol. I A Pattern Language, Vol. II, The Oregon Experiment, Vol. III. [New York: Oxford University Press], 1977.

- Blakey, M. Student Accommodation, in S. Hazelgrove ed., The Student Experience. [SRHE/Open University Press, Buckingham], 1994.
- Bland, J. University Housing in Canada. [Montreal: McGill University Press], 1966.
- Bourne, L.. The Geography of Housing. [Arnold, London], 1981.
- Boutilier, Terry H. Siting of a Major Regional Airport: A Hypothetical Case". [s.l.: s.n.], 1974.
- Bromley, R. Universities as Adaptive Re-Users of Historic Downtown Buildings. [Geography and Planning Department, University of Albany, State University of New York], 2001.
- Brothers, J. and Hatch, S. Residence and Student Life: A Sociological Inquiry into Residence in Higher Education, Tavistock Publications, London], 1971.
- Canada Mortgage and Housing Corporation, and P. Filion. Impact of Restrictive Covenants on Affordable Housing and Non-Single-Family Uses of Homes: A Waterloo Region Case Study.1992.
- Canadian Mortgage and Housing Corporation.: Phoenix Strategic Perspectives Inc., "CMHC Student Housing Study". Ottaway: Phoenix Strategic Perspectives Inc, 2004
- Dober, Richard P. Campus Planning. [Massachusetts: Reinhold Publishing Corporation], 1963.
- Filion, P. Suburban Mixed Use Centres and Urban Dispersion: What Difference Do They Make? [Electronic Version].
- Filion, P. Towards Smart Growth? the Difficult Implementation of Alternatives to Urban Dispersion [Electronic Version].
- Filion, P. and Bunting, T. Core Area Housing: A Feasibility Report. [Kitchener: City of Kitchener, Department of Planning and Development], 2000.
- Filion, Pierre, and Trudi E. Bunting. City of Kitchener : Inner-City Housing, Market Study, Final Report. [Kitchener: City of Kitchener, Dept. of Business and Planning Services, 1998.

Fukuda-Parr, Sakiko, Carlos Lopes, and Khalid Malik. Capacity for Development : New Solutions to Old Problems. Sterling, Va.: Earthscan Publications, 2002.

Gilderbloom, John Ingram, and R. L. (Robert Lee) Mullins. Promise and Betrayal : Universities and the Battle for Sustainable Urban Neighborhoods. Albany: State University of New York Press, 2005.

Hapgood, M. Homes for Students. [Conservative Political Centre, London], 1975.

- Hudnut, William H. Cities on the Rebound : A Vision for Urban America. Washington, D.C.: ULI--The Urban Land Institute, 1998.
- Jackson, Kenneth T. Crabgrass Frontier: The Suburbanization of the United States. [New York: Oxford University Press], 1985.

Jacobs, Jane. The Death and Life of Great American Cities. [New York: Random House], 1961.

- McLaughlin, Kenneth. Cambridge : The Making of a Canadian City, [Windsor, Ontario: Windsor Publications], 1987.
- Moyer, Bill. This Unique Heritage: The Story of Waterloo County, [Kitchener: CHYM Radio], 1971.
- Neuman, David J. Building Type Basics For: College and University Facilities. [Massachusetts: John Wiley & Sons, Inc.], 2003.

Newman, Oscar. Defensible Space: Crime Prevention Through Urban Design. [New York: The Macmillan Company], 1967.

Oc, T. and Tiesdell, S. Safer City Centres: Reviving the Public Realm, Paul Chapman, London], 1997.

Lasun, Denys. Architecture in an Age of Scepticism. [Great Britain: William Heinemann Ltd.], 1984.

Mayne, Thom. Fresh: Morphosis 1998-2004. [New York: Rizzoli International Publications, Inc.], 2006.

Pearce, Martin. University Builders. [Great Britain: Wiley-Academy], 2001.

- Pencer, Irwin & Williams, John L. A Comparison Among Student Residences at the University of Waterloo. [Waterloo: University of Waterloo Press], 1971.
- Pocklington, T. & Tupper, A. No Place to Learn: Why Universities Aren't Working. [Vancouver: University of British Columbia Press], 2002.
- Robertson, K. Downtown Redevelopment Strategies in the United States: An End-of-the-Century Assessment [Electronic Version].
- Seasons, Mark L. (Mark Lawrence). Strategic Planning in Local Government: An Application to Local Economic Development. [Waterloo, Ont.: University of Waterloo], 1989.
- Smith, Helen Miller. Student Accommodation : A Study of some Aspects of Student Accommodation at the University of Glasgow. Edinburgh: Oliver & Boyd, 1969.
- Tiesdell, S., Oc, T. and Heath, T. Revitalizing Historic Urban Quarters, [Architectural Press, Oxford, United Kingdom], 1996.
- Walmsley, D. J. Urban Living : The Individual in the City. Harlow, Essex, England : New York, NY: Longman Scientific & Technical ; Wiley, 1988.

Winston, R. B. Student Housing and Residential Life. [San Francisco: Jossey-Bass Publishers] 1993. Hill, Nicholas. A Heritage Conservation District Plan for the City of Cambridge (Galt). [London: Prepared by Author], 1984.

Zeller, William. Residence Life Programs: The First-Year Experience, Second Edition. [South Carolina: University of South Carolina], 1996.

Calder, A. and Greenstein, R. Universities as Developers, Land Lines, [Lincoln Institute of Land Policy, Boston MA.], 2001.

Dissertation

Lederer, J. Mid-sized Cities: Educating the Downtown. The Role of University in Urban Revitalization. (Doctoral Dissertation, University of Waterloo, 2006).

Journal

- Beauregard, R. Urban Form and the Redevelopment of Central Business Districts, Journal of Architecture and Planning Research, V3 (pp.183-198), 1986.
- Bowden, M. Growth of Central Districts in Large Cities, in L. Schnore ed., The New Urban History, Princeton University Press, Princeton, New Jersey, (pp. 79-80), 1975.
- Bunting, T., Filion, P., Frenette, S., Curry, D., and Mattice, R. Housing Strategies for Downtown Revitalization in Mid-sizedd Cities: A City of Kitchener Profile, Canadian Journal of Urban Research, V9 N2 D'00, (pp.145-175), 2000.
- Bunting, T. and Filion, P. Assessing Urban Renewal: The Changing Geography of Mainstreet and the Public Sector Connection, in J. Andrey and G. Nelson, eds., Public Issues: A Geographical Perspective, University of Waterloo, Department of Geography, Publication Series No. 41, Waterloo, Ontario, (pp.159-180), 1994.
- Christie, H., Munro, M., and Rettig, H. Accommodating Students, Journal of Youth Studies, V5 N2 (pp.209-235), 2002.
- Filion, P. Fordism, Post-Fordism and Urban Policy-Making: Urban Renewal in a Medium-Size Canadian City, Journal of Urban Research, V4 (pp.43-72), 1995.
- Gilderbloom, J.I. and Mullins, R.L., Jr. The University as a partner: rebuilding an inner city neighbourhood, Metropolitan Universities, V6 N3 (pp.79-96), 1995.
- Grayson, J.P. Place of Residence, Student Involvement, and First Year Marks, The Canadian Journal of Higher Education, V-XXVII-1 (pp.1-24), 1997.

- Hackney, S. The University and its community: past and present, Annals of the American Academy of Political and Social Science, V488 (pp.135-147).
- Hudnut, W.H.III. Breaching the Wall (Exploring ways cities and Universities can cooperate to revitalize communities), Urban Land, V59 No11-12 (pp.88-95), [Urban Land Institute, Washington D.C.], 2000
- Koch, D., Wesse, D. and Stickney, R. New Trends in Student Housing, Facilities Manager, V15 N3 (pp.39-42), 1999.
- Luzzo, D.A. and McDonald, A. Exploring Students' Reasons for Living on Campus, Journal of College Student Development, V37 N4 (pp.389-395), 1996.
- Robertson, K. Can Small-City Downtowns Remain Viable? A National Study of Development Issues and Strategies, Journal of the American Planning Association V65 (pp. 270-283), 1995.
- Robertson, K. Can Small-City Downtowns Remain Viable? A National Study of Development Issues and Strategies, Journal of the American Planning Association, V65 (pp.270-283), 1999.
- Rugg, J., Rhodes, D. and Jones, A. Studying a Niche Market: UK Students and the Private Rented Sector, Housing Studies, V17 N2 (pp.289-303), 2002.

"Journal of Architectural and Planning Research." Journal of Architectural and Planning Research. (1984): ad>.

Newspaper Article

Groarke, L. (2002, Februrary 14). What Laurier Brantford means for downtown, The Expositor Brantford, "The Editor's Page"

Pender, T. (2005, December 6). Progress by degrees: WLU satellite campus gives downtown Brantford a big boost. The Kitchener Record, page unknown

Romano, L. (2006, January 9). Urban Colleges Learn to Be Good Neighbors: Universities Also Reap Benefits From Investing in Their Communities. The Washington Post. p. A01

Websites

Bow, J. (2006, July 20). Cities finding Universities Perfect Partners: Building Satellite Campuses helps revitalize their downtown cores. Business Edge, Calgary/Red Deer Edition, 6(15). Retrieved September 26, 2006, from Canada's Technology Triangle Web site: http://www.techtriangle.com/viewnews.cfm?newsid=381

Chrisafis, A. (2000, October 24). "Two Square Miles of Housing Hell", The Guardian Unlimited. Retrieved August 10, 2006, from Web site: http://www.guardian.co.uk/Archive/Article/0,4273,4080599,00.html

Unknown. (2006). About Oxford University. Retrieved August 28, 2006, from Oxford University Web site: http://www.ox.ac.uk/aboutoxford/

Unknown. (2006). New Schools and New Houses. Retrieved August 10, 2006, from The Harvard Guide: History, Lore, and More Web site: http://www.news.harvard.edu/guide/intro/hist2.html

Unknown. (2006). Residences. Retrieved August 8, 2006, from The University of Waterloo: Housing and Residences Web site: http://www.housing.uwaterloo.ca/residences/index.html

Unknown. (2006). Student Housing: History. Retrieved September 5, 2006, from College Town Life Web site: http://www.collegetownlife.com/college/CT_Student_Housing_Hist.htm