Urban Room:

Dynamic reinterpretation
of Toronto's urban voids

By

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Author's declaration;

I hereby declare that I am the sole author of this thesis.
This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.
I understand that my thesis may be made electronically available to the public.

Abstract;

Over the past few decades, Toronto's downtown core has experienced extreme and rapid intensification, seen through an exponential increase in both employees and residents. This growth has severely outpaced that of public space, in the form of parks, parkettes, and urban squares available to service an ever-densifying area. This thesis proposes a way to alleviate strain on the existing public spaces by identifying intermittent spaces within the urban core that, in aggregate, forms a significant area of underused land. The proposed designs demonstrate ways of realizing the potential of this land for all scales of public gathering through dynamic reinterpretation.

Two main strategies are combined for a holistic design approach. First, a top-down methodology investigates and analyzes the existing urban fabric through mapping to identify existing intermittent space. A subsequent, bottom-up approach brings emphasis to the importance of user experience by documenting select spaces from a pedestrian perspective with a focus on the qualitative assets of each. The results are translated through principles of place-making theory into innovative urban design elements, presented as a kit of building components. Derived from and to be assembled according to a series of guiding principles, these designs aim to create a new social dynamic in the public sphere. The efficient but dynamic reinterpretation of each individual pocket of space will, as a collective whole, contribute a strong and effective network of public space allowing Toronto's wealth of underused land to be accessed, enjoyed, and of support to its vibrant and ever growing population.

Keywords; Urbanism, public space, Human experience, Place making, Toronto

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Table of Contents

Author's declaration iii
Abstract v
Acknowledgments vii
List of Figures x

Chapter 1

Introduction 1
Objectives 3;
Research Objectives and Scope 5
Methodology 7;

Chapter 2

Influential Thinkers and Theories 8
Kevin Lynch 9; Gordon Cullen 11; William Whyte 13; Ray Oldenburg 15; Jan Gehl 16;
Allan Jacobs 19; Jane Jacobs 21; Tactical Urbanism 21; Cedric Price 23;

Chapter 3

Growth and Development of Downtown Toronto 25
Allocated Park Area 26; Residential Development 2003-2018 27; City's Skyline 33;

Chapter 4

City's Reaction to Intensification and lack of Public Spaces 35
Liveability 35; Temporary Pedestrianization of Streets 36; Temporary Events and Festivals 39;
Temporary Structures and Interventions 45; John Street as Cultural Corridor 47;
King Street Pilot Project 49; Rail Deck Park 51; Park's Accessibility 53;

Chapter 5

New York City Public Plaza Program 55
Union Square 57; Times Square 58; Flatiron Plaza 59; Bryant Park 60; Strategy Analysis 61;
Spatial Analysis 67; Bryant Park Analysis 69; Common Elements of Place Making 71;
Paving Strategy 71; Flexible Areas 72; Urban Room 73; Canopy 77;
Maintenance and management 78;

Chapter 6

Kit of Parts 79
Paving System 79; Contained Activity Spaces 81; Panels 83; Canopy 84; Primary Seating 87;
Vertical components 88; Maintenance and Upkeep 89; Construction Sequence 89;

Chapter 7

Site Selection 91
Intermittent Spaces and Opportunities 99
Top-Down Examination 99; Fragmentation 101; Intermittent spaces 103;
Macro Scale Strategy 105; Overall Strategy 107;

Evaluating Viability Of Found Opportunities 109
Examination and walking Experience 109; Segment A 111; Segment B 113; Segment C 115;
Segment D 117; Segment E 119; Segment F 121;

Chapter 8

Interventions 123
Selected Sites 123;

Intervention at King Street and John Street 125
Initial Planning 131; Sections 133; Rendered Views 141;

Intervention at Queen Street and John Street 145
Initial Planning 151; Sections 153; Rendered Views 157;

Intervention on King Street 161
Initial Planning 167; Sections 168; Rendered Views 171;

Conclusion 173

Bibliography 177

List of Figures

Figure 1.1 Map; Greater Toronto Area 5
Ali Mohebali, Toronto, 2018 , Vector File
Figure 1.2 Map; Downtown Core Study Area 6
Ali Mohebali, Toronto, 2018 , Vector File
Figure 2.1 Collage; Thinkers and Books 8
Ali Mohebali, Toronto, 2018 , JPEG File
Figure 2.2 Diagram; Kevin Lynch's 5 Basic Elements of city 10
Kevin Lynch, Elements of the city, "The Image of the City". Cambridge, Mass: MIT Press, 1977, 41-49 .
Figure 2.3 Image; Gordon Cullen's Illustration of Serial Vision 12
Gordon Cullen, Serial Vision , "The Concise Townscape." Oxford: Butterworth Architecture, 1971,17 .
Figure 2.4 Image; William Whyte Documenting Social Life in Public Spaces. 14
Whyte, William H. The Social Life of Small Urban Spaces. New York: Project for Public Spaces Inc, 1980, Cover .
Figure 2.5 Diagram;Third Place; Place for Informal Social Gatherings 15
Ali Mohebali, Toronto, 2018 , Vector File
Figure 2.6 Illustrative Diagram: Quality of Space and public activities 17
Gehl, Jan. Life between Buildings: Using Public Space. Washington, DC: Island Press, 2011, 11 .
Figure 2.7 Table; Jan Gehl's 12 Key Quality Criteria 18
Ali Mohebali, Toronto, 2018 , Table of Information
Figure 2.8 Table; Allan Jacobs - Requirements and Qualities for a Great City 20
Ali Mohebali, Toronto, 2018 , Table of Information
Figure 2.9 Image; Tactical Urbanism - Painting the Sidewalk 22
Tactical Urbanist's Guide , 2019 , http://tacticalurbanismguide.com/public-workshops/
Figure 2.10 Image; Tactical Urbanism - Painting the Street 22
Constant Contact, 2014 , http://archive.constantcontact.com/fs124/1101350241141/archive/1117031454502.html
Figure 2.11 Image; Tactical Urbanism - Simple Parklet 22
Buscaciencia , 2019 , http://www.buscaciencia.cat/esdeveniments/parking-day-menys-fum-mes-salut/
Figure 2.12 Image; Tactical Urbanism - Simple Parklet 22
Byutvikling i praksis , 2016 , https://www.kristiansand-chamber.no/arrangement/byutvikling-i-praksis/
Figure 2.13 Image; Nathan Phillips Sq. , Farmer's Market 24
BlogTo , 2019 , https://www.blogto.com/eat_drink/2014/06/farmers_markets_in_toronto_by_day_of_the_week/
Figure 2.14 Image; Nathan Phillips Sq. , Civic Expression , Remembering Jack Layton 24
The Star, Chalk Tribute , Toronto, 2016 , https://www.thestar.com/news/insight/2016/08/22/chalk-tributes-are-long-gone-but-jack-laytons-legacy-endures.html
Figure 2.15 Image; Nathan Phillips Sq. , Celebration of Raptor's Championship 24
BlogTo , Hector Vasquez , 2019 , https://www.blogto.com/sports_play/2019/06/toronto-raptors-nathan-phillips-square/
Figure 2.16 Image; Nathan Phillips Sq. , Ice skating Rink 24
The Star, Nathan Phillips Ice Rick Celebration , Toronto, 2016 , https://www.thestar.com/news/gta/2016/12/31/thousands-to-ring-in-2017-at-nathan-phillips-square.html
Figure 3.1 Map; Provincial Urban Growth 25
Ali Mohebali, Toronto, 2018 , Vector File
Figure 3.2 Diagram; Park Area Allocation Comparison 26
Ali Mohebali , Toronto , 2017, TOcore reports, "TOgether-Rail Deck Park Technical Briefing" . "PDF." City of Toronto, Toronto, November, 2017, 12-13 .
https://www.toronto.ca/wp-content/uploads/2017/11/99b2-TechBriefing_20171121_final.pdf
Figure 3.3 Map; Development In Downtown Toronto 2003-2007 Completed Projects. 27
Ali Mohebali, Toronto, 2018 , Vector File
Figure 3.4 Map; Development In Downtown Toronto 2018 - Completed Projects 28
Ali Mohebali, Toronto, 2018 , Vector File

Figure 3.5 Map; Development In Downtown Toronto 2007-2013 Completed Projects. 28
Ali Mohebali, Toronto, 2018 , Vector File
Figure 3.4 Map; Development In Downtown Toronto 2018 - Completed Projects 28
Ali Mohebali, Toronto, 2018 , Vector File
Figure 3.6 Map; Development In Downtown Toronto 2018 - Under Construction 29
Ali Mohebali, Toronto, 2018 , Vector File
Figure 3.7 Map; Development In Downtown Toronto Proposed Projects. 29
Ali Mohebali, Toronto, 2018 , Vector File
Figure 3.8 Map; Development In Downtown Toronto Compiled Projects 30
Ali Mohebali, Toronto, 2018 , Vector File
Figure 3.9 Map; Development In Downtown Toronto - High Density Expectations. 31
Ali Mohebali, Toronto, 2018 , Vector File
Figure 3.10 Map; Development In Downtown Toronto - Illustration of Projects' Height. 32
Ali Mohebali, Toronto, 2018 , Vector File
Figure 3.11 Diagram; Toronto's skyline - Past , Present, and Future 2007-2027 33
Steve Ve, Downtown Toronto , 2017 , https://skyrisecities.com/forum/threads/infographics-toronto-skyline.27943/
Figure 4.1 Principles of Liveability[1] 35
Ali Mohebali, Toronto, 2018 , Vector File
Figure 4.2 Image ; Example of Pedestrianization - King Street 36
Toronto Storeys , Christopher Hume, 2017 , https://torontostoreys.com/2017/12/christopher-humes-top-transit-project-2017-king-street-pilot/
Figure 4.3 Image ; Example of Parklet on Street - Yonge Street 36
Urban Toronto , Reclaimed Spce , Craig White , 2012 , https://urbantoronto.ca/news/2012/08/celebrate-yonge-gives-pedestrians-more-torontos-main-street
Figure 4.4 Image; Yonge Street During 'Yonge Street Pedestrian Mall Initiative' 37
Loverlation , Yonge St Mall , 2019 , https://www.loverelation.in/yonge-street-mall-in-the-1970s
Figure 4.5 Image; Yonge Street During Open Street T.O. 38
BlogTo , Amy Grief , 2015 , https://www.blogto.com/city/2015/07/car_free_streets_and_events_in_toronto_this_summer/
Figure 4.6 Image; Yonge Street During Open Street T.O. 38
News Wire , Jamie Simor , 2017 , https://www.newswire.ca/news-releases/open-streets-to-features-its-deepest-programming-lineup-yet-in-2017-639434243.html
Figure 4.7 Diagram; Typology Of Festivals And Events 39
Ali Mohebali, Toronto, 2018 , JPEG File
Figure 4.8 Diagram; Yearly Reoccuring Events And Festivals In Toronto 40
Ali Mohebali, Toronto, 2018 , Vector File
Figure 4.9 Map; Approximate Location of Yearly Events And Festivals In Toronto 41
Ali Mohebali, Toronto, 2018 , Vector File
Figure 4.10 Map; Approximate Areas Of Seasonal Temporary Events 43
Ali Mohebali, Toronto, 2018 , Vector File
Figure 4.11 Map; Approximate Areas Of Seasonal Temporary Events 44
Ali Mohebali, Toronto, 2018 , Vector File
Figure 4.12 Image; STACKT Market 45
Live Nation , Georgina Pilling , 2017 , https://livenationinsights.com/the-power-of-pop-ups-427d9d53ae56
Figure 4.13 Image; Market 707 45
Architizer , LGA Architectural Partners, 2011 , https://architizer.com/projects/scadding-court-market/
Figure 4.14 Image; The Bentway 46
The Bentway , 2018 , https://www.thebentway.ca/about/

Figure 4.15 Image; John Street - Rendered Proposal. 47
City of Toronto , 2018 , https://www.toronto.ca/community-people/get-involved/public-consultations/infrastructure-projects/john-street-corridor-improvements/
Figure 4.16 Map; John Street Cultural Corridor Scope. 47
Ali Mohebali, Toronto, 2018 , Vector File
Figure 4.17 Image; John Street and Connecting streets 48
Ali Mohebali, Toronto, 2017 , JPEG File
Figure 4.20 Image; King Street Pilot Project Poster. 49
City of Toronto , 2018 , https://www.toronto.ca/city-government/planning-development/planning-studies-initiatives/king-street-pilot/
Figure 4.18 Map; King Street Pilot - Scope. 49
Ali Mohebali, Toronto, 2018 , Vector File
Figure 4.19 Diagram; - Means of Travel of Downtown residents 49
Ali Mohebali, Toronto, 2018 , Vector File
Figure 4.21 Image; Photo Documentation of King Street During Pilot Project 50
Ali Mohebali, Toronto, 2018 , JPEG File
Figure 4.22 Image; Conceptual Cross Section of Rail Deck Park 51
City of Toronto , "Rail Deck Park Technical Briefing" 2017 , 27 . https://www.toronto.ca/wp-content/uploads/2017/11/90c6-City-Planning-Rail-Deck-Park-TechBriefing_20171121_AODA.pdf
Figure 4.23 Image; Rendered Aerial View Of Rail Deck Park Proposal. 51
City of Toronto , "Rail Deck Park Technical Briefing" 2017 , 40 . https://www.toronto.ca/wp-content/uploads/2017/11/90c6-City-Planning-Rail-Deck-Park-TechBriefing_20171121_AODA.pdf
Figure 4.24 Map; Location of Rail Deck Park Proposal 52
Ali Mohebali, Toronto, 2018 , Vector File
Figure 4.25 Diagram; Park Area Allocation Comparison 53
Ali Mohebali , Toronto , 2017, TOcore reports, "TOgether-Rail Deck Park Technical Briefing" . “PDF.” City of Toronto, Toronto, November, 2017, 12-13 .
https://www.toronto.ca/wp-content/uploads/2017/11/99b2-TechBriefing_20171121_final.pdf
Figure 4.26 Map; Parks’ Accessibility and Walking Distance 54
Ali Mohebali, Toronto, 2018 , Vector File
Figure 5.1 Collage; New York’s ‘Public Plaza Program’. 56
Ali Mohebali, Toronto, 2018 , JPEG File
Figure 5.2 Image; Union Square After the Intervention. 57
https://www.realtor.com/realestateandhomes-detail/New-York_NY_10003_M49565-53636
https://www.newyorkcity4all.com/wp-content/uploads/2017/10/Screenshot-2019-07-11-at-16.31.07-1024x772.png
https://newyorkaktuell.nyc/app/uploads/2019/03/Union_Square_Park_and_Playground-New_York_City-New_York-5e7aab537370413a8c39ee70b36e1e2b_c-272x180.jpg
http://2.bp.blogspot.com/-SlDkLWbrYvQ/T2sIJ6Nr4HI/AAAAAAAAPDA/_Z7UM8LzD5o/s1600/DSC_0547.JPG
https://www.unionsquarenyc.org/unionsquareblog/2019/4/24/play-fair-in-union-square-park-this-spring-season
Figure 5.3 Image; times Square After the Intervention. 58
https://en.wikipedia.org/wiki/Times_Square
https://2.bp.blogspot.com/_jnPcFrFMNz4/S-i0Svkx3SI/AAAAAAAAJoo/SqSYhYCbA60/s1600/IMG_6483.JPG
https://st3.depositphotos.com/3391755/15225/i/1600/depositphotos_152259208-stock-photo-times-square-at-sunny-summer.jpg
http://blog.cunysustainablecities.org/wp-content/uploads/2010/05/times-square-sb.jpg
Figure 5.4 Image; Flat Iron Plaza After the Intervention 59
Flatiron District, 2017 , "Event Planning and Management service" , "PDF" 2017 , 1 .
https://www.flatirondistrict.nyc/uploaded/files/2017_Holiday_Programming_RFP.pdf
https://virtualofficefaq.wordpress.com/2010/03/19/starbucks-promotion-at-the-flatiron-pedestrian-plaza/
http://loredana-donovan.blogspot.com/2012/03/new-york-city-street-scene.html

https://www.timeout.com/newyork/news/see-winner-of-competition-for-new-flatiron-plaza-public-sculpture-112018
http://www.flatironhotnews.com/tag/mad-sq-eats/
Figure 5.5 Image; Bryant Park 60
OCPM , "Placemaking common approach" , "PDF" 2019 , 9 . http://ocpm.qc.ca/sites/ocpm.qc.ca/files/pdf/P97/8.58_manoeuvres_pauline_butiaux.pdf
PPS, "Great Public Spaces" , 2002 , https://www.pps.org/places/bryant-park
http://elektromain.xyz/bryant-park-christmas-market-hours/
https://i1.wp.com/bryantpark-prod.imgix.net/images/bryantpark_uploads/images/2018-12-19-ColinMiller-Bryant-Park-0005-3771-v2.jpg?resize=800%2C450&ssl=1
Figure 5.6 Diagram; Extension of Sidewalk 61
Ali Mohebali, Toronto, 2018 , Vector File
Figure 5.7 Image; Examples of Extension of Sidewalk - Before and After Images 62
Urbdezine San Francisco , Ryan Russo , 2017 , https://sanfrancisco.urbdezine.com/2017/01/21/sadik-khan-street-fight-review/
https://hehy51.files.wordpress.com/2013/03/broadway-north-of-union-square-after.jpg
http://carfreeamerica.net/2017/05/01/janette-sadik-khan-transforming-dallas-streets/
Figure 5.8 Diagram; Pedestrianization of Street 63
Ali Mohebali, Toronto, 2018 , Vector File
Figure 5.9 Image; Examples of Pedestrianization of Street. 64
New York City Department of Transportation , 2009, https://www.flickr.com/photos/nycstreets/9135791611
New York City Department of Transportation , 2009, https://www.flickr.com/photos/nycstreets/9135789555/
Figure 5.10 Diagram; Extension of Sidewalk and Pocket Programs. 65
Ali Mohebali, Toronto, 2018 , Vector File

Figure 5.11 Image; Examples of Extension of Sidewalk and Pocket Programs 66
Architect Now, Joanna Merwood, 2017 , https://architecturenow.co.nz/articles/lets-take-it-outside/
Mike Boucher, 2010 , https://www.flickr.com/photos/27722079@N04/8400712280
Flatiron District, 2017 , "Event Planning and Management service" , "PDF" 2017 , 1 .
https://www.flatirondistrict.nyc/uploaded/files/2017_Holiday_Programming_RFP.pdf
https://virtualofficefaq.wordpress.com/2010/03/19/starbucks-promotion-at-the-flatiron-pedestrian-plaza/
http://loredana-donovan.blogspot.com/2012/03/new-york-city-street-scene.html
https://www.timeout.com/newyork/news/see-winner-of-competition-for-new-flatiron-plaza-public-sculpture-112018
http://www.flatironhotnews.com/tag/mad-sq-eats/
Figure 5.12 Diagram; Spatial Analysis of Successful Public Spaces 67
Ali Mohebali, Toronto, 2018 , Vector File
Figure 5.13 Diagram; Spatial Analysis of BryantPark. 69
Ali Mohebali, Toronto, 2018 , JPEG File
Figure 5.14 Image; Bryant Park After Renovation and Restoration 70
OCPM , "Placemaking common approach" , "PDF" 2019 , 9 . http://ocpm.qc.ca/sites/ocpm.qc.ca/files/pdf/P97/8.58_manoeuvres_pauline_butiaux.pdf
PPS, "Great Public Spaces" , 2002 , https://www.pps.org/places/bryant-park
http://elektromain.xyz/bryant-park-christmas-market-hours/
https://i1.wp.com/bryantpark-prod.imgix.net/images/bryantpark_uploads/images/2018-12-19-ColinMiller-Bryant-Park-0005-3771-v2.jpg?resize=800%2C450&ssl=1
Figure 5.15 Image; ZighiZaghi Project in Favara, Italy. 71
Architizer , OFL Architecture , Favara , 2016 , https://architizer.com/projects/zighizaghi/
Figure 5.16 Image; Urban Bloom, Experiment in Shanghai, China 71
Archdaily , Urban Bloom , AIM Architecture , 2018 , https://www.archdaily.mx/mx/893837/urban-bloom-aim-architecture-plus-urban-matters?ad_medium=gallery
Figure 5.17 Image; St. James Plaza in Melbourne, Australia 71
World Landscape Architect, Anrew Lloyd , 2013, https://worldlandscapearchitect.com/st-james-plaza-melbourne-australia-aspect-studios/#.XZjuykZKhaQ

Figure 5.18 Image; Outdoor Co-Working Space in Montreal 72
Shared Space, https://www.sharedspace.co.nz/coworking-sydney.html
Figure 5.19 Image; District Park in Darling Quartier, Sydney, Australia 72
Peace Photography, "Urban Green Space", 2017, http://peacephotographics.com/photo/
Figure 5.20 Image; Example of Urban Room 73
Architecture Art Design , PDG architects , 2015 , http://www.architectureartdesigns.com/touching-the-green-an-award-winning-urban-design-project-by-pdg-architects/
Figure 5.21 Image; Temporary Pavillion for Archiwood Exhibition. 73
Behance , Archiwood Exhibition , Natasha Shendrik , 2013 , https://www.behance.net/gallery/7292789/Archiwood-exhibition
Figure 5.22 Image; Urban Telescoop by COOP pe Strada 73
Archello , COOP pe Strada, 2013, https://archello.com/project/urban-telescooptemporary-pavilion
Figure 5.23 Image; Built Urban Environment, Wikiblock Toolkit 74
Smart Magazine "Wikiblock Toolkit" , 2016, https://www.smart-magazine.com/en/wikiblock-urban-furniture/
Figure 5.24 Image; Lidl Design Bookery. 74
Next-DC, Lidl-Design, "Lidl Design Bookery", 2016, https://www.next-dc.com/case-study/lidl-design-bookery
Figure 5.25 Image; Story Pod - Newmarket, Canada 74
Archdaily, Storypod, Atelier Kastelic Buffey, 2015, https://www.archdaily.com/777711/story-pod-atelier-kastelic-buffey
Figure 5.26 Image; L.L. Bean Coworkin Space. 74
Apartment Therapy, "LLBean Space", Whitney Fox, 2018, https://www.apartmenttherapy.com/outdoor-coworking-space-ll-bean-2018-259905
Figure 5.27 Image; Story Pod 75
Archdaily, Storypod, Atelier Kastelic Buffey, 2015, https://www.archdaily.com/777711/story-pod-atelier-kastelic-buffey
Figure 5.28 Image; Display Kiosk - Montreal. 75
Ali Mohebali, Montreal, 2018, JPEG File.
Figure 5.29 Image; Design Build Project- Tu Wien Architecture Masters Student. 75
Archdaily, "Best Student Design-Build Projects 2016" , 2016, https://www.archdaily.com/794566/the-best-student-design-build-projects-worldwide-2016?ad_medium=gallery
Figure 5.32 Image; Folly: Sticks 77
Architizer, Hou De Sousa, "Sticks", 2016, https://architizer.com/projects/sticks/#.WDnW93ZQpvE.pinterest
Figure 5.30 Image; Folly: Sticks 77
Architizer, Hou De Sousa, "Sticks", 2016, https://architizer.com/projects/sticks/#.WDnW93ZQpvE.pinterest
Figure 5.31 Image; Renzo Piano's IBM Pavilion 77
Renzo Piano, "Pavilion Mock-up", 1986, https://i.pinimg.com/originals/8d/eb/e5/8debe5dabb7e0f32f2765f69fafd30e2.jpg
Figure 5.33 Image; Timber Gridshell. 77
Carpenter Oak, "Timber Gridshell", 2018, https://carpenteroak.com/expertise/timber-engineering/
Figure 5.34 Image; Oakley - Promotional Event 78
Oakley, 2013, http://www.4eon.net/wp-content/gallery/promotional-tours/oakley2013-1.jpg
Figure 5.35 Image; Energy Solutions - Promotional Event 78
http://www.garudapromo.com/wp-content/uploads/2019/04/outdoor-display.jpg
Figure 5.36 Image; LED Truck - Promotional Event. 78
https://www.careyandpaulgroup.com/photos/movies/Led-Truck.jpg
Figure 5.37 Image; Coca Cola - Promotional Event 78
https://cpb-eu-w2.wpmucdn.com/blogs.brighton.ac.uk/dist/d/1619/files/2016/04/Trailer_Staff-copy-reuetj.jpg
Figure 6.1 Diagram; Axonometric Representation of Paving System. 79
Ali Mohebali, Toronto, 2019 , Vector File
Figure 6.2 Diagram; Axonometric Detail of Socket Mechanism. 80
Ali Mohebali, Toronto, 2019 , Vector File

Figure 6.3 Diagram; Axonometric Representation of Paving System. 80
Ali Mohebali, Toronto, 2019 , Vector File
Figure 6.4 Image; Constructed Boxus System 81
F3 Design, "Boxus System: Artbox", 2013, https://www.f3design.co.nz/#/artbox/
Figure 6.5 Image; Constructed Boxus System 81
F3 Design, "Boxus System: Artbox", 2013, https://www.f3design.co.nz/#/artbox/
Figure 6.6 Diagram; Step-by-Step construction of an ‘Urban Room’ 82
Ali Mohebali, Toronto, 2019 , Vector File
Figure 6.7 Diagram; Axonometric Representation of Panels. 83
Ali Mohebali, Toronto, 2019 , Vector File
Figure 6.8 Diagram; Solid Canopy Panel 84
Ali Mohebali, Toronto, 2019 , Vector File
Figure 6.9 Diagram; Louvered Canopy Panel. 84
Ali Mohebali, Toronto, 2019 , Vector File
Figure 6.10 Image; Connection Detail, Louis Vuitton Foundation by Frank Gehry. 84
Supermomo, "Detail Des Supports De Charpente" 2014, https://supermomo99.skyrock.com/3247855244-FONDATION-LOUIS-VUITTON-DETAIL-DES-SUPPORTS-DE-CHARPENTE-photo-SM99.html
Figure 6.11 Image; Connection Detail, Jackson Hole Airport by Gensler Architects. 84
Architeizer, Gensler, "Jackson Hole Detail", 2010, https://architizer.com/projects/jackson-hole-airport/
Figure 6.12 Diagram; Axonometric Representation of Constructed Canopy With Louvered Panels 85
Ali Mohebali, Toronto, 2019 , Vector File
Figure 6.13 Diagram; Axonometric Representation of Constructed Canopy With Solid Panels 86
Ali Mohebali, Toronto, 2019 , Vector File
Figure 6.14 Image; Furniture and Paving System - Harvard University 87
Architizer, Machando Silvetti, 2003, https://architizer.com/projects/harvard-university-graduate-student-apartments/
Figure 6.15 Diagram; Axonometric Representation ‘Kit of Parts’ - Furniture 87
Ali Mohebali, Toronto, 2019 , Vector File
Figure 6.17 Diagram; Axonometric Representation ‘Kit of Parts’ - Furniture 88
Ali Mohebali, Toronto, 2019 , Vector File
Figure 6.16 Image; Parisian Chair 88
https://www.fermob.com/en/Products/Furniture/Chairs-stools-benches/Chairs-dining-armchairs/Classic-Chair-Bistro
Figure 6.18 Diagram; Axonometric Representation ‘Kit of Parts’ -Vertical Components 88
Ali Mohebali, Toronto, 2019 , Vector File
Figure 6.19 Diagram; Step-by-Step Construction process of ‘Kit of Parts’ 90
Ali Mohebali, Toronto, 2019 , Vector File
Figure 7.1 King Street Pilot Project, John Street Cultural Corridor 92
Ali Mohebali, Toronto, 2019 , Vector File
Figure 7.2 Map; Building’s Height in Downtown Toronto 93
Ali Mohebali, Toronto, 2019 , Vector File
Figure 7.3 Map; T.T.c Routes in Downtown 94
Ali Mohebali, Toronto, 2019 , Vector File
Figure 7.4 Map; Pedestrian Activity in Downtown 94
Ali Mohebali, Toronto, 2019 , Vector File
Figure 7.5 Map; Vehicular Activity in Downtown 95
Ali Mohebali, Toronto, 2019 , Vector File

Figure 7.6 Map; Seasonal Festival Activity in Downtown 95
Ali Mohebali, Toronto, 2019 , Vector File
Figure 7.7 Map; Forecast of Density in Downtown 96
Ali Mohebali, Toronto, 2019 , Vector File
Figure 7.8 Map; Forecast of Density in Downtown 96
Ali Mohebali, Toronto, 2019 , Vector File
Figure 7.9 Map; Downtown Core Study Area 97
Ali Mohebali, Toronto, 2019 , Vector File
Figure 7.10 Map; Downtown Core Focused Study Area and Scope of Interventions. 98
Ali Mohebali, Toronto, 2019 , Vector File
Figure 7.11 Map; Found Opportunities 99
Ali Mohebali, Toronto, 2019 , Vector File
Figure 7.12 Diagram; Typology of Found Opportunities 100
Ali Mohebali, Toronto, 2019 , Vector File
Figure 7.13 Diagram; Local and Unified 101
Ali Mohebali, Toronto, 2019 , Vector File
Figure 7.14 Diagram; Fragmentation 101
Ali Mohebali, Toronto, 2019 , Vector File
Figure 7.15 Diagram; Unique and Isolated 102
Ali Mohebali, Toronto, 2019 , Vector File
Figure 7.16 Diagram; Network 102
Ali Mohebali, Toronto, 2019 , Vector File
Figure 7.17 Image; Missed Opportunity , Metro Hall Gardens 103
Ali Mohebali, Toronto, 2019 , JPEG File
Figure 7.18 Image; Under Performing Public Space, Metro Hall 103
Ali Mohebali, Toronto, 2018 , JPEG File
Figure 7.19 Image; Hidden Potential , Empty Lot on King Street 103
Ali Mohebali, Toronto, 2018 , JPEG File
Figure 7.20 Image; Careless Coordination 103
Ali Mohebali, Toronto, 2018 , JPEG File
Figure 7.21 Image; Collage of Missed Opportunities 104
Ali Mohebali, Toronto, 2018 , JPEG File
Figure 7.22 Map; Zoning By Law 105
Ali Mohebali, Toronto, 2019 , Vector File
Figure 7.23 Map; Pedestrian Activity 105
Ali Mohebali, Toronto, 2019 , Vector File
Figure 7.24 Map; Third Places, Cafe's 106
Ali Mohebali, Toronto, 2019 , Vector File
Figure 7.25 Map; Third Places, Bars, Pubs, Beer Gardens 106
Ali Mohebali, Toronto, 2019 , Vector File
Figure 7.26 Map; Lack of Parks 107
Ali Mohebali, Toronto, 2019 , Vector File
Figure 7.27 Map; Location of Primary Seating, Benches 107
Ali Mohebali, Toronto, 2019 , Vector File
Figure 7.28 Map; Viable Opportunities 108
Ali Mohebali, Toronto, 2019 , Vector File

Figure 7.29 Diagram; Divided Area of Study 109
Ali Mohebali, Toronto, 2019 , Vector File
Figure 7.30 Diagram; Spatial Analysis - Segment A 111
Ali Mohebali, Toronto, 2019 , Vector File
Figure 7.31 Image; First Walking Experience - Segment A 112
Ali Mohebali, Toronto, 2018 , JPEG File
Figure 7.32 Image; Second Walking Experience - Segment A 112
Ali Mohebali, Toronto, 2018 , JPEG File
Figure 7.33 Diagram; Spatial Analysis - Segment B 113
Ali Mohebali, Toronto, 2019 , Vector File
Figure 7.34 Image; First Walking Experience - Segment B 114
Ali Mohebali, Toronto, 2018 , JPEG File
Figure 7.35 Image; Second Walking Experience - Segment B 114
Ali Mohebali, Toronto, 2018 , JPEG File
Figure 7.36 Diagram; Spatial Analysis - Segment C 115
Ali Mohebali, Toronto, 2019 , Vector File
Figure 7.37 Image; First Walking Experience - Segment C 116
Ali Mohebali, Toronto, 2018 , JPEG File
Figure 7.38 Image; Second Walking Experience - Segment C 116
Ali Mohebali, Toronto, 2018 , JPEG File
Figure 7.39 Diagram; Spatial Analysis - Segment D 117
Ali Mohebali, Toronto, 2019 , Vector File
Figure 7.40 Image; First Walking Experience - Segment D 118
Ali Mohebali, Toronto, 2018 , JPEG File
Figure 7.41 Image; Second Walking Experience - Segment D 118
Ali Mohebali, Toronto, 2018 , JPEG File
Figure 7.42 Diagram; Spatial Analysis - Segment E 119
Ali Mohebali, Toronto, 2019 , Vector File
Figure 7.43 Image; First Walking Experience - Segment E 120
Ali Mohebali, Toronto, 2018 , JPEG File
Figure 7.44 Image; Second Walking Experience - Segment E 120
Ali Mohebali, Toronto, 2018 , JPEG File
Figure 7.45 Diagram; Spatial Analysis - Segment F. 121
Ali Mohebali, Toronto, 2019 , Vector File
Figure 7.46 Image; First Walking Experience - Segment F. 122
Ali Mohebali, Toronto, 2018 , JPEG File
Figure 7.47 Image; Second Walking Experience - Segment F 122
Ali Mohebali, Toronto, 2018 , JPEG File
Figure 8.1 Diagram; Selected Sites 123
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.2 Diagram; Axonometric Representation of Proposed Intervention at King Street and John Street Intersection 125
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.3 Map; Site Plan of Intervention at King St. and John St. Intersection 127
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.4 Image; Space of Intervention 128

Figure 8.5 Image; Space of Intervention - View from King St. Sidewalk 128
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.6 Diagram; Axonometric Representation of Urban Rooms 128
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.7 Map; Site Map Spatial Organization 128
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.8 Image; View of Metro Hall Facade from the Space of Intervention 129
Ali Mohebali, Toronto, 2018, JPEG File
Figure 8.9 Diagram; Axonometric Representation - Long Seating Arrangement. 129
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.10 Diagram; Axonometric Representation - Green Buffer Zone 129
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.11 Diagram; Solid Canopy Panel 130
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.12 Diagram; Louvered Canopy Panel 130
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.13 Map; Canopy Coverage. 130
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.14 Drawing; Plan. 131
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.15 Drawing; Section A-A 133
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.16 Drawing; Section B-B 135
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.17 Drawing; Section C-C 137
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.18 Drawing; Section D-D 139
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.19 Render; View from King Street Sidewalk Looking towards West. 141
Ali Mohebali, Toronto, 2019 , JPEG File
Figure 8.20 Render; Interior View of Urban Works, Co-Working Space 141
Ali Mohebali, Toronto, 2019 , JPEG File
Figure 8.21 Render; View of Flexible Area from Internal Courtyard 142
Ali Mohebali, Toronto, 2019 , JPEG File
Figure 8.22 Render; View of the Central Flexible Area. 142
Ali Mohebali, Toronto, 2019 , JPEG File
Figure 8.23 Render; View from King Street Sidewalk Looking towards East 143
Ali Mohebali, Toronto, 2019 , JPEG File
Figure 8.24 Render; View of Urban Eat Rooms 143
Ali Mohebali, Toronto, 2019 , JPEG File
Figure 8.25 Render; View from John Street Looking Towards East 144
Ali Mohebali, Toronto, 2019 , JPEG File
Figure 8.26 Render; View of Flexible and Rest Area 144
Ali Mohebali, Toronto, 2019 , JPEG File
Figure 8.27 Diagram; Axonometric Representation of Proposed Intervention at Queen Street and John Street Intersection 145
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.28 Map; Site Plan of Intervention at Queen St. and John St. Intersection 147
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.29 Map; Site Map Spatial Organization 148
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.30 Image; Space of Intervention - View from John St. 148
Ali Mohebali, Toronto, 2018 , JPEG File
Figure 8.31 Diagram; Axonometric Representation of Urban Gallery. 148
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.32 Diagram; Site Features 149
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.33 Image; Outdoor Exhibition - Montreal 149
Ali Mohebali, Toronto, 2018 , JPEG File
Figure 8.34 Diagram; Louvered Canopy Panel 150
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.35 Map; Canopy Coverage. 150
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.36 Diagram; Axonometric Representation - Pergola 150
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.37 Drawing; Plan. 151
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.38 Drawing; Section A-A 153
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.39 Drawing; Section B-B 155
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.40 Render; View from Queen Street Sidewalk Looking Towards East 157
Ali Mohebali, Toronto, 2019 , JPEG File
Figure 8.41 Render; View from Queen Street Looking Towards North 157
Ali Mohebali, Toronto, 2019 , JPEG File
Figure 8.42 Render; View from John Street Sidewalk Looking Towards North 158
Ali Mohebali, Toronto, 2019 , JPEG File
Figure 8.43 Render; Interior view of Urban Gallery Room. 158
Ali Mohebali, Toronto, 2019 , JPEG File
Figure 8.44 Render; View from John Street Looking Towards South 159
Ali Mohebali, Toronto, 2019 , JPEG File
Figure 8.45 Render; View from John Street Side Walk 159
Ali Mohebali, Toronto, 2019 , JPEG File
Figure 8.46 Render; View from John Street Sidewalk Looking Towards South 160
Ali Mohebali, Toronto, 2019 , JPEG File
Figure 8.47 Render; View of Central Flexible Area 160
Ali Mohebali, Toronto, 2019 , JPEG File
Figure 8.48 Diagram; Axonometric Representation of Proposed Intervention on King Street Lot 161
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.49 Map; Site Plan of Intervention on King St. Lot 163
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.50 Map; Site Map Spatial Organization 164
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.51 Image; Organized Walking Tour of Graffiti Alley 164
Blog To, "Graffiti Tour", 2018, https://www.blogto.com/arts/2018/06/graffiti-alley-might-be-be-torontos-most-unexpected-tour-ist-attraction/
Figure 8.52 Image; Space of Intervention - View from King St. 164
Ali Mohebali, Toronto, 2018 , JPEG File

Figure 8.53 Diagram; Axonometric Representation of Urban Livingroom 164
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.54 Image; Space of Intervention - Interaction of Users 165
See Toronto Now, 2018, https://www.seetorontonow.com/my-toronto/toronto-street-art/
Figure 8.55 Image; Interaction with Gum Wall 165
http://isplus.live.joins.com/news/article/article.asp?total_id=19052025&ctg=1300&tm=i_lf_4011
Figure 8.56 Map; Site Features 165
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.57 Diagram; Solid Canopy Panel 166
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.58 Diagram; Louvered Canopy Panel 166
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.59 Map; Canopy Coverage. 166
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.60 Diagram; Axonometric Representation of Planters and Lattice panels 166
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.61 Drawing; Plan. 167
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.62 Drawing; Section A-A 168
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.63 Drawing; Section B-B 169
Ali Mohebali, Toronto, 2019 , Vector File
Figure 8.64 Render; View From King Street Side Walk 171
Ali Mohebali, Toronto, 2019 , JPEG File
Figure 8.65 Render; View from King Street 171
Ali Mohebali, Toronto, 2019 , JPEG File
Figure 8.66 Render; Interior View of Urban Living Room. 172
Ali Mohebali, Toronto, 2019 , JPEG File
Figure 8.67 Render; View From Lane-way 172
Ali Mohebali, Toronto, 2019 , JPEG File

Introduction

Social interactions are vital processes in the organism of the urban landscape, and have a great impact on the success and quality of life of the communities within. Public spaces, the breeding ground for such processes, are thus crucial to maintaining the health of this component. Public spaces, through generating social cohesion among city inhabitants, are able to exert a very significant sphere of influence and create a strong foundation from which the economical, political, and leisure domains of the community are able to flourish and grow. "Social life" is generally an intangible concept, yet it can also be clearly defined by physical means – people inhabit social life through connections made to the physical aspects of the surrounding public spaces. As such, urban public space, comprised of streets, parks, plazas, etc. are invaluable resources to the city and its inhabitants, and must be carefully considered in their design and physical characteristics to be engaging, exciting, and effective.

Streets and public spaces are not only places for socialization, but are also meaningful in their physical design to those who engage with these spaces. Their physical characteristics largely shape and dictate how interaction both with the space and other users within are carried out and sustained.
For the past few decades, a common observation amongst researchers and scholars is that there is a general decline in the appreciation of public spaces, both in terms of how the public spaces are being used and also in the design itself of these spaces. Users have, in turn, become limited to very few possible activities. Over recent decades, a radical shift in the way urban planning objectives and operation has occurred with the emergence of the automobile. The rise of automobile use and subsequent issues of traffic and congestion building up around dense city nodes has turned urban planning focus to prioritize on issues surrounding vehicular traffic. Thus, the modern understanding of streets has become overwhelmed with the design of vehicular efficiency, and has heavily neglected the pedestrian experience.
Another result of this shift has been a reinforcement of the top-down approach to the design of and decisions surrounding the urban landscape. This method reduces the multidimensional urban fabric to two-dimensional figure ground maps, in which people and their experience become invisible.

The urban planning scholars Southworth and Ben-Joseph[1] voice concerns surrounding these authoritative approaches to planning and development. They argue that design standards have been satisfying, first and foremost, the needs of the automobile to generate rigid, unresponsive, and uniform environments. The communities that emerge lack cohesion - the fabric feels disjointed, dispersed, and inconsiderate of the human scale. Similarly, although academically based design guidelines can produce aesthetically pleasing and functional streets, they lack consideration of human interaction and organic patterns of movement, resulting in weak platforms for community ties and social networks.
Criticism of top-down planning began in the 1960s, at the height of the Motorism and Modernism eras.[2] By planners and thinkers who advocated for the opposite: bottom-up thinking. One of the first was Jane Jacobs, who pointed out that planners had forgotten about people in the design process. The top-down process of urban design thinking was challenged with views that public space is more than the provision of space in the form of a large, open stretch of grass or pavement. Nor should it be an afterthought - an aesthetically pleasing scattering of shrubbery on an ill-considered piece of land.
Jan Gehl, another influential thinker beginning his work during this time, discovered that very little had been studied about the interaction between everyday life and built form. He is an urban architect who graduated at the height of the era of Motorism and Modernism. Applying an interest in psychology, his work became an in-depth study of the impact of the built environment on the behavior and well being of people. He is a strong advocate of the importance of public life and a humanistic approach to urban planning. [3]
This humanistic approach, focused on shifting the design of public space from an afterthought to an intentionally designed space, slowly gained popularity among many scholars and opened up the door to a series of new guidelines and academic literature for urban planning that placed a higher priority on people.

The following research and studies gather and investigate the work of several influential thinkers and planners to gather principles and guidelines that aid in the development of the design of public space. The subjects that have been examined in the following chapters can be categorized in three main subjects. First is a focus on the integration of user experience and a bottom up approach with the traditional bureaucratic top down method in planning public spaces. Second is an investigation into the physical attributes that impact social interactions and theoretical concepts of place making. Finally, the role of public spaces is examined in shaping the city and shaping the culture of its usage.

This thesis is an opportunity to think boldly and creatively in working toward creating a new image for downtown Toronto, by shaping and enhancing public spaces to foster liveability through the use of a people-centred lens. The research is approached through the study of primary urban theories and their application in case studies which are based in Toronto and New York. It culminates in the design of public space through a methodological approach: first identifying guidelines that create pro-social public spaces focused on increasing social cohesion among citizens, then developing these findings into a language of built form, and finally, through application, creating livable and adaptable social spaces that are suitable for, and capable of, evolving within a rapidly changing urban environment.

[1] Southworth, Michael, and Eran Ben-Joseph. Streets and the Shaping of Towns and Cities. Washington, DC: Island Press, 2003.
[2] Terminology used by Jan Gehl to indicate the era that prioritized efficiency in automobile movement and flow over people's interest in modern urban planning.

[3] roadtoparis.info. Roadtoparis.info, April 27, 2016. https://roadtoparis.info/2016/03/18/give-the-city-back-to-its-people-qa-with-jan-gehl/.

excerpt from interview;
Jan Gehl: "We've had two very dominating paradigms in city planning. We have had the modernistic idea of separating functions(...) And the other thing has been the invasion by the motorcar and the total obsession with the motorcar.
These two things, modernism and motorism have really been dominating paradigms. They are to me rather technocratic, both of them, and in both cases the people dimension has been completely neglected. The planners and architects were not into the people story, and the motorcars pushed people out, because it was more important that the cars were happy than that the people were happy."

Research Objectives and Scope

Objectives;

The following questions address the objectives of this research.
1- What is a viable approach to creating and enhancing the public sphere in a dense urban area where there is a shortage of available space?
2- What are recent practices that result in successful public spaces?
3- What are viable design practices that allow public spaces to continually adapt to its rapidly evolving role in response to social and physical contextual changes?

Cities are complex organisms where multidimensional approaches are needed to formulate viable and long lasting solutions. Current planning practices, however, are dominated by top-down, figure-ground approaches that naturally emphasize the examination of the built form. Inevitably, this approach becomes negligent of the people who use the space; as a result, the experiential nuances of spaces become overlooked. However, valuable explorations and observations are cataloged in the writings of scholars of urban sociology, who have extensively commented on and advocated for the bottom-up approach, providing a series of principles and ideas on alternative ways in which public spaces can be created and understood. Social urban thinkers, which include Jane Jacobs, Gordon Cullen, Kevin Lynch, William Whyte, Jan Gehl, and Allan Jacobs amongst others, were crucial in bringing forth a human-centric shift in urban planning. They point out the disadvantages of the top-down map-based lens, through which many qualitative and experiential characteristics of space are invisible. Alternatively, they proposed a bottom up methodology that builds upwards from observations of experiential and behavioral patterns of people in spaces. This lens of analysis reveals a plethora of missed opportunities. For example, a small infill lot that is too insignificant to accommodate any form of building development will seem useless and be almost invisible on aerial map focused on figure and ground. However, the perspective of a pedestrian at human scale will reveal that this space is not only visible but can accommodate a “public space”, which, at minimum, could consist of a bench as an outdoor seating option. The creation of a colourful wall mural, an increasingly common feature of public spaces, can add dramatic value and interest to the public sphere using next to no space at all.
Thus, the approach of urban analysis and design via a human-centric lens can reveal many nuanced and minute features that critically support urban design in large, urban metropolitan cores. Not only are micro opportunities revealed but also the design options for these spaces can be significantly elaborated from a standard guideline checklist of “necessary” components. Echoing the theories of Jan Gehl, good urban spaces should not be afterthoughts to design, as is now often the case, especially when city planning bureaucracies use public space contribution as currency for developers to “purchase” density or height increases. These spaces are often designed as empty and static areas populated with some greenery for aesthetic reasons, but completely devoid of activities or any form of user engagement. Case study analyses through a human-centric lens distill, from successful projects in Toronto and similar cities such as New York City, an intricate set of guiding principles and key elements that communicate with its users, and have resulted in successful, well-used, and lasting designs.

Healthy cities, as described by Jane Jacobs, are “organic, spontaneous, and untidy”[1] - appropriately referred to as dynamic living organisms within which people, places, and things move and interact. As with any ecosystem, change and evolution is inevitable. Everything from streets and sidewalks, to government and economy, and to people and lifestyles function co-dependently and evolve synergistically. These ideas bring forth logic in developing solutions that are not fixed interventions, but rather, flexible designs that can change and evolve with the evolving nature of the problems it’s responding to.

[1] King, Katherine. "Jane Jacobs and 'The Need for Aged Buildings': Neighbourhood Historical Development Pace and Community Social Relations." Urban Studies 50, no. 12 (2013): 2409

Research Objectives and Scope

Scope;

The focus area of this thesis is the "downtown core" of Toronto, defined by the bounding lines that follow Bathurst Street to the west, the Don Valley to the east, the Canadian Pacific Midtown Rail Corridor to the north, and Lake Ontario to the south, with a north-eastern border defined by Rosedale Valley Road. These boundaries, defined by the municipality of Toronto, contain contains parts of three municipal words. It is governed by the Toronto & East York District Community Planning District.
As the home of 16 different neighbourhoods, this area is imbued with diversity in all aspects of its makeup, including land use, formal, demographic, socio-economic, and cultural amongst many others. It encompasses the Financial District, King-Spadina, and King-Parliament neighbourhoods, three very significant economic, retail, and cultural hubs in the city that attract an ever-increasing number of employees and residents alike. This area's undeniable vibrancy and continued growth at ever increasing speeds is a perfect context for the exploration of public activities and social life of an intense urban fabric.

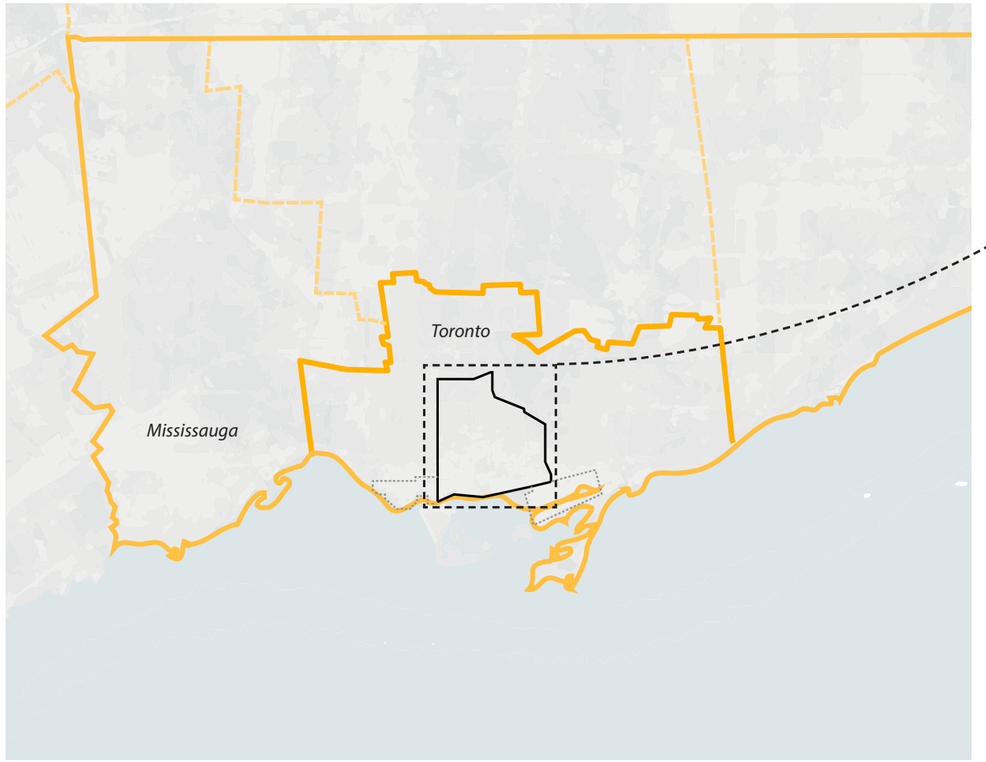


Figure 1.1 Map; Greater Toronto Area

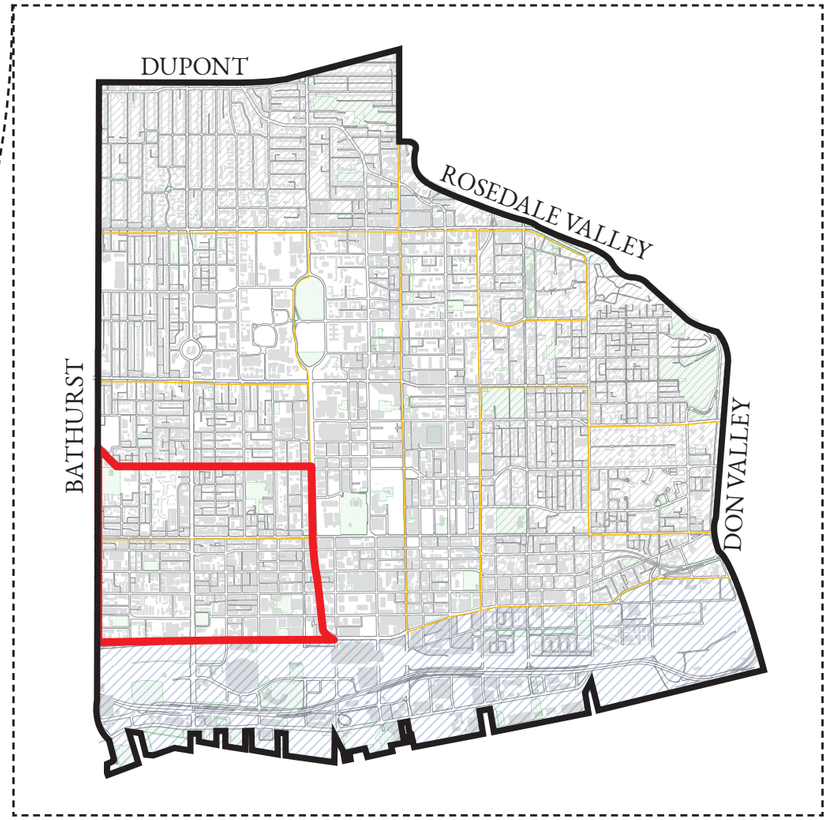


Figure 1.2 Map; Downtown Core Study Area

Methodology

This thesis proposes a public space design on three different sites in downtown Toronto. All proposals rely heavily on the application of principles and guidelines found via studying key scholars and thinkers in the field of urban planning and architecture. These designs are approached by a combination of both top-down and bottom-up methods of examining and studying the urban fabric of downtown Toronto.

Chapter (2) is focused on studying literature provided by human-centric scholars. Each scholar provides a unique approach to the fundamental understanding of the city and the design of public spaces. Highlighted in the findings are required qualities that increase the tendency for a public space to be successful and engaging for users.

Chapter (3) demonstrates the growth and intensification of Toronto and examines the issues surrounding the lack of available space in downtown Toronto. A series of mapping exercises predicts the pattern of city development in the near future based on the available data of current and future developments.

Chapter (4) The city's reaction to the issue surrounding the inadequacy of existing public spaces is also investigated.

Chapter (5) presents a series of mapping exercises of smaller areas for further and finer scale investigation. Case studies of projects in New York City, of a similar urban fabric and dynamic as Toronto, are explored to better understand alternative approaches to enhance the public realm. These are case studies that are carefully selected for their success in adding value to the public sphere of the city without the need for additional fabrication or acquisition of open space, especially where almost no space remains available for grandiose public space projects. It identifies the typology of space organization and highlights the successful urban elements that led to the success of public spaces in the case studies.

Chapter (6) With these findings, this research proposes a language of modular design in the form of a kit of parts. This kit includes urban elements that fulfill the aspects of public space design that is most needed based on the research done in previous chapters of this research.

Chapter (7) comprises six individual studies of segments that form the previously identified area of high need. Through a series of mapping exercises, spaces with the potential to change and enhance the public realm of the city are identified. Within each segment a viable space, informed by walkthroughs and photo documentation of the area, is chosen.

Chapter (8) selects three sites amongst all opportunities determined in the previous chapter. These sites, to be re-imagined and redesigned are further analyzed, and a design intervention is provided for each site. The sites, all of different scales, produce three interesting and uniquely valuable additions and interventions to the city's public sphere.

Influential Thinkers and Theories

Introduction;



Figure 2.1 Collage; Thinkers and Books

Designers and planners have been turning increasingly to urban design research on the conceptual, theoretical, and practical knowledge surrounding the use of urban spaces. Throughout this process of creation and evaluation, significant advances have been made in the research, design, and application of knowledge in producing spaces that can take on essential roles in urban environmental improvement.

This urban design literature provides ideas and principles that establish a framework to guide design to become more intriguing to its users. Several key thinkers and scholars are studied in this section to better understand these concepts. Collectively, these individuals' unique approaches and perspectives on the design of public space provide great insight in understanding the underlying principles that produce great results. While each thinker is specialized within this field, a central value is shared amongst all. This multidimensional approach informs the design and guides the design in a better direction.

Kevin Lynch

Kevin Lynch was a significant contributor to recent city planning and city design. His book, Image of the City, is a 5 year case study investigating the cities of Los Angeles, Boston, and Jersey City.[1] Through his studies Lynch explains what the significant perceptual elements are in the built form of the city. He believes the perceived image of the city plays a much more valuable role than it's physical manifestation.

Characteristics of The City;

According to Lynch a good city has five characteristics, vitality, sense, access, control, and fit. A vital city is one that allows and supports a wide range of activities. A sensible city is one whose elements are legible and easily understood, demonstrating a strong relationship in its form and function. An accessible city is one that allows all demographic groups to use and benefit from the city's resources and services. A city with good control is one that allows its citizens to participate in its management, particularly of city spaces. Finally, a city of good fit is one that exemplifies cohesion between its activities and physical form. Buildings, spaces, and networks exist to support the movements and activities of people within them and vice versa.

Image of the city;

According to Lynch, in order to understand and explain a city, two categories of knowledge is required. First, the physical and built elements that form the city needs to be understood, and second, the psychological and mental perception of the city by its inhabitants. This is because the urban environment is a complex system that consists of the interactions and relationships established between the users and their surrounding objects. Lynch explains the role of mental and cognitive concepts of the urban environment and their corresponding attributes: "A city is the characteristic physical and social unit of civilization. It possesses size, density, grain, outline and pattern as the basic aspects of the city's physical form. The people who live in it shape these properties and are shaped by them" (Lynch 1958)[2]. Thus, the tangible and intangible are densely interwoven, with physical forms of spaces being the directors of people's activities within them.
Lynch believes that individuals engage with the city according to the image they create in their mind based on their perception of the various parts of the city. The more clear the image is, the better the individual understands how it functions and is aware of the activities that take place in it. Lynch calls this image the "picture in mind". The accuracy of this image is dependent on two factors: the legibility of the city and imageability of the city. A city is more legible when its elements can easily be recognized and placed into coherent categories. Lynch's definition for the imageability of the city is: "that quality in a physical object which gives it a high probability of evoking a strong image in any given observer."(Page 9)[3]. This is the shape, color, or arrangement that facilitates the impression of vividly identifiable, powerfully structured, and highly useful mental images of the environment.
"Pictures in mind" are coloured with five basic elements within the city: pathways, districts, edges, landmarks, and nodes. Paths are channels along which the observers move, such as streets, walkways, transit lines, canals, and railroads. Edges consist of linear elements that are not used as paths by the observers; they are boundaries and linear breaks in continuity such as shores, railroad cuts, edges of development, and walls. Districts are medium to large scale portions of the city which observers mentally enter "inside of," and which are recognizable as having some common, identifying character, such as similar themes and building types. Nodes are also areas in the city into which an observer can enter. These strategic points are intensive focus areas and for the user, is the destination to and from which they travel. They may be primarily junctions or concentrated usage areas. Nodes can also identified as breaks in the continuity and pattern. Landmarks are another type of point reference that are external - they do not need to be entered by observers. These are usually standout physical objects such as a building, sign, store, mountain, or piece of public art.
Based on the understanding of Lynch's provided concepts, a successful design would help with legibility and imageability of the city, consequently giving citizens the opportunity to create strong images of the city. As a result increase of engagement will be experienced by people to the city and to their fellow citizens.

Five Basic Elements of The City;

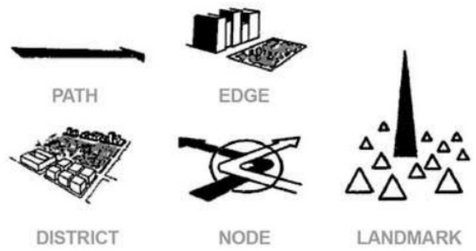


Figure 2.2 Diagram; Kevin Lynch's 5 Basic Elements of city [4]

[1] Lynch, Kevin. "*The Image of the City*". Cambridge, Mass: MIT Press, 1977.
[2] Lynch K., and Rodwin, L. ,*A Theory of Urban Form*, Journal of the American Institute of Planners,1958, 201-214.
[3] Lynch, *The Image of the City,* 9 .
[4] Lynch, *The Image of the City,* 41-49 .

Gordon Cullen

Gordon Cullen, the author of the book, The Concise Townscape[1], was an influential architect and urban planner. His book, containing more than 300 of his sketches, makes the point that townscapes and urban design is a form of visual art.
Urban planning, in its essence, is an art of arranging elements - buildings, streets, paths, nature, trees - in the urban environment to decorate the space occupied by the city. Similar to Kevin Lynch, Gordon Cullen suggests that the city is perceived through a series of images that are captured in movement as one walks through the urban environment. Cullen names this "serial vision", through which an observer creates an emotional attachment to physical aspects of the city.
According to Cullen, there are three main ways in which the urban environment can produce an emotional connection with the observer: optics, place, and content.
Optics refers to how the environment is visually seen in one's movement through the city, producing a continuous stream of connections between the "existing view" and the "emerging view" of the landscape.

"Suppose, however, that we take over this linking as a branch of the art of relationship; then we are finding a tool with which human imagination can begin to mould the city into a coherent drama." (Page 9)[2]
Place refers to how the observer finds themselves in the environment and what is the observers bodily feeling.
"It is an instinctive and continuous habit of the body to relate itself to the environment, this sense of position cannot be ignored; it becomes a factor in the design of the environment... It is easy to see how the whole city becomes a plastic experience, a journey through pressures and vacuums, a sequence of exposures and enclosures, of constraint and relief." (Page 10)[3]
Content refers to the urban fabric of the city - the colours, textures, scale, style, character and uniqueness of the environment. (Page 11)[4]

Cullen mentions that city is composed of two parts - the physical environment and the activities that occur within. These parts work in harmony to produce the city as a whole, the result of which is greater than the sum of its parts.
"A city is more than the sum of its inhabitants. It has the power to generate a surplus of amenity, which is one reason why people like to live in communities rather than in isolation. Now turn to the visual impact which a city has on those who live in it or visit it. I wish to show that an argument parallel to the one put forward above holds good for buildings: bring people together and they create a collective surplus of enjoyment; bring buildings together and collectively they can give visual pleasure which none can give separately." (Page 7)[5]

The townscape theories of Gordon Cullen guides planning process to consider the arrangement of urban elements in such a way that creates comfort for the inhabitants that occupy it.
Understanding the city through movement directs planners and architects to strive for, in the process of design, a fuller understanding of the context and viability of planned spaces and the design needs to adequately support the activities that they host. Furthermore, it guides the language, textures, scale, and styles used in design to better respond to its context and place within the city fabric.

[1] Cullen, Gordon. "*The Concise Townscape.*" Oxford: Butterworth Architecture, 1971.
[2] Cullen, *The Concise Townscape, 9*.
[3] Cullen, *The Concise Townscape, 10*.
[4] Cullen, *The Concise Townscape, 11*.
[5] Cullen, *The Concise Townscape, 7*.

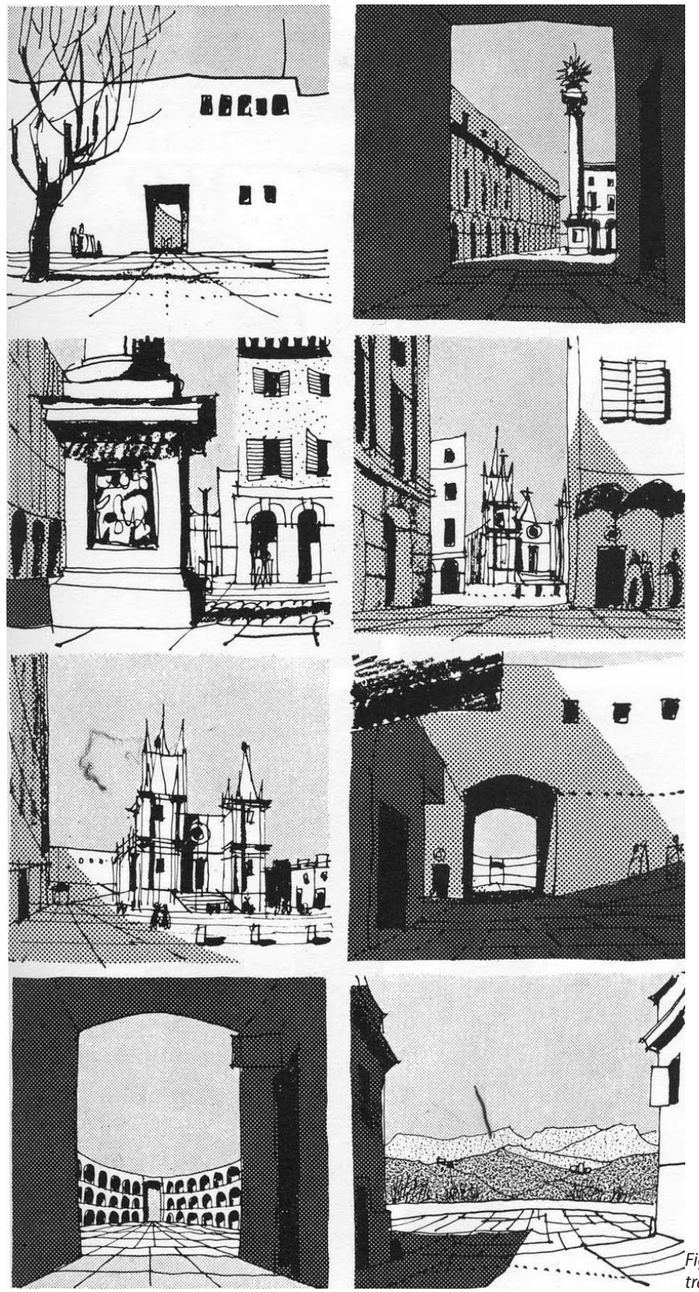


Figure 2.3 Image; Gordon Cullen's Illustration of Serial Vision[6]

[6] Cullen, *The Concise Townscape, 17*.

William Whyte

William Whyte demonstrates his methodology of gathering empirical data and understanding human behavior in various contexts through his book, The Social Life of Small Urban Spaces.[1] Whyte studied the way people use and engage with public spaces and with each other. In his book he gathers numerous studies derived from The Street Life Project he started in 1971. These methods of observation and documentation of human behavior are considered one of the most influential texts on urban sociology and study of public life. Many principles of success in design are clarified in his book, from general knowledge of how to deal with climate, place making, and human behavior to details of where people position themselves in public spaces and relate to others.

Physical Characteristics;

William Whyte believed that every physical space is capable of being a catalyst for public engagement and community interaction, proposing that consideration for such should be a moral obligation for designers and planners. He mentionsthe idea of "supply creating demand" to support the function of a catalyst in relation to public spaces. If an urban environment is equipped with a supply of adequately designed of public spaces, the demand for such places is created. In cases of successful public spaces the physical attributes of space create the attraction for people to engage with and use the space in various ways. He adds, "what attracts people most ... is other people."(Page 13)[2] Contrary to the popular belief that people try to get away from crowds, Whyte observed that in most cases people favor crowds and crowded spaces. In such an environment strangers have the opportunity to interact with each other. He calls this phenomena "triangulation", the process by which an external stimulus provides a linkage between people and prompts strangers to naturally engage in conversation and familiar interaction.

Active and Passive Engagement;

Triangulation is in the category of active engagement, defined as a type of engagement that involves an active experience for the user, with other users or with the physical surroundings. The physical arrangement of components can provide a platform in which these activities take place more often. Physical components that will result in triangulation can be small urban components, such as public art, work or play equipment, viewing/observation points, sculptures, and even well placed stairways and colonnades that can form nodes for meetings, whether impromptu or planned.

A second type of engagement is passive engagement, which plays just as important and valuable a role as active engagement. Passive engagement is engagement that creates a linkage between users and their environments. This type of engagement is usually associated with the activities of relaxation, pause, and rest. Passive engagement is heavily dependent on suitable physical settings and configurations where there is no need to be actively engaged with the environment. Sitting and resting, seeing and being seen, and even simply hearing others in the environment are the primary forms of passive engagement.

[1] Whyte, William H. *The Social Life of Small Urban Spaces*. New York: Project for Public Spaces Inc, 1980.
[2] Whyte, *The Social Life of Small Urban Spaces*, 13 .

Whyte observes that this form of engagement often takes place next to the pedestrian flow. The most successful spaces are thus ones that provide many seating spaces with diverse options to choose from,such as , a combination of movable chairs, benches, and ledges. He claims that sitting spaces, sun, shaded areas, food, and water are the most important elements in the design of the space. The key characteristic, Whyte adds, that opens the opportunities for both passive and active engagement is the sightline - "if people do not see a space, they will not use it."(Page 58)[3] According to his observations, there are many examples of designed spaces that are visually enclosed and simply neglect this criteria of design.



Figure 2.4 Image; William Whyte Documenting Social Life in Public Spaces.

[3] Whyte, *The Social Life of Small Urban Spaces*, 58 .

Ray Oldenburg

Ray Oldenburg, another urban sociology scholar, furthers William Whyte's theories on activities and engagement types through commentary on their setting, the public space, which he calls "third places". In formulating this perspective approach, he pays careful attention to the conditions that each individual faces in public spaces, especially those found outside the working place. Many of his ideas are based on anecdotal evidence and observation and provide compelling points that define his important contribution to the field of urban sociology.
One of Oldenburg's contributions was the connection between the decline he observed in the quality of public life to the need for public space. He illustrated the cause and effect of insufficient social space leading to a lack of stimulation in cities, ultimately resulting in an increase in urban dullness.
Our modern lifestyle is one spent significantly in varying degrees of isolation in the two places of the home and the workplace. "Third places" [1], the places outside of home and work, are on the spectrum between private and public, and can be considered the most socially vital community spaces. Third places are for informal public gathering; they have loose structures that dissolve social hierarchy and status; they are neutral grounds for everybody to gather. Churches, bars, public libraries, community centres, main streets, parks, and cafes are all examples of third places.
Oldenburg demonstrates the importance of informal social interaction and other social activities for the health of the community. Four points, Oldenburg believes, form the roots of many social problems in North America. First, modern North America suffers from a deficiency of third places. Secondly, the commute between work and home is also unnecessarily long. Thirdly, existing third places are distant and loud. Lastly, people spend their free time absorbed in the consumerist culture of watching television. To a significant degree, all four observations are still valid to this day.

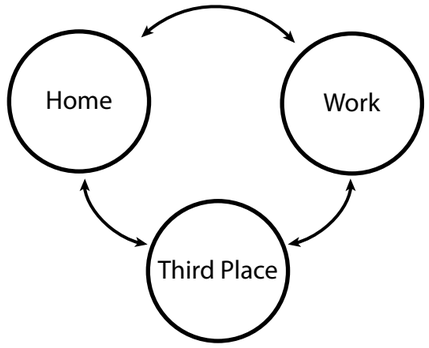


Figure 2.5 Diagram;Third Place; Place for Informal Social Gatherings

* In his influential book *"The Great Good Place"*, Ray Oldenburg (1989, 1991) argues that third places are important for civil society, democracy, civic engagement, and establishing feelings of a sense of place.

Jan Gehl

Jan Gehl is an architect who made a great impact on planning approaches and views towards the city. With his studies in the field of urban sociology he made extraordinary contributions to town planning and public space design. Gehl's book, Life Between Buildings[1], is a classic text in the domain of public life studies and urban planning. In this book he promoted strategic thinking about the city by coupling public life and public space. Gehl developed a series of principals and theories based on this human-centric view of planning public spaces. Similar to William Whyte, Gehl used and developed methods of analyzing and understanding public spaces through direct observation and measurement. He used tools such as photo documentation, counting, mapping, tracking, and tracing human activities in public spaces. Based on his observations, one of the most important attributes of public space is the activity of people. Gehl, similar to Whyte, believes that the main principle in public space design is that people attract each other.
"If given the choice between walking on a deserted or a lively street, most people in most situations will choose the lively street. If the choice is between sitting in a private backyard or in a semi-private front yard with a view of the street, people will often choose the front of the house where there is more to see" (Page 25)[2]

Public Activity Types;

According to Gehl, user activity in public space can be categorized in 3 main types - functional/necessary activities, optional/recreational activities, and lastly, social activities.

Necessary activities include those that are fairly compulsory - going to school or to work, shopping, waiting for a bus or a person, running errands, etc. - activities in which those involved are somewhat required to participate. The unavoidable nature of the activities in this group results in very little influence resulting from their physical framework. (Page 9)[3]
Optional activities, are discretionary pursuits that are engaged with if the desire to do so exists and the time and space are available or accessible to support its occurrence.(Page 9)[3]
This includes activities such as taking a walk for fresh air, standing and sitting to lounge, or sitting and sunbathing. (page 11) [4]
These activities occur when the conditions of space are favorable. These activities are especially dependent on exterior physical conditions.
Social activities are all activities that depend on the presence of others in public spaces. Social activities include children at play, greetings and conversations, communal activities of various kinds, and finally, one of the most continuous and common activities, that of passive contact - simply seeing and hearing other people. (Page 12) [5] These activities are also called "resultant" activities because they occur in connection with the other two types. Jan Gehl believes that "social activities occur spontaneously, as a direct consequence of people moving about and being in the same space. This implies that social activities are indirectly supported whenever necessary and optional activities are given better conditions in public space." (Page 12) [5]

[1] Gehl, Jan. *Life between Buildings: Using Public Space.* Washington, DC: Island Press, 2011.
[2] Gehl, *Life between Buildings: Using Public Space.*25 .
[3] Gehl, *Life between Buildings: Using Public Space.9* .
[4] Gehl, *Life between Buildings: Using Public Space.11* .
[5] Gehl, *Life between Buildings: Using Public Space.12* .

Based on his observations of people's activities in public space, Gehl concludes that "it is possible to influence some aspects of activities, such as how long the individual activities last, which activity types can develop, and how many people use public spaces, through the design and physical settings."(Page 37)[1] He believes that an attractive and meaningful designs can support the simultaneous occurrence of all three activity types in one single space.

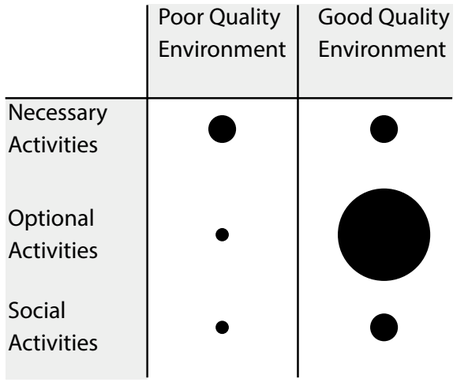


Figure 2.6 Illustrative Diagram of Relationship Between Quality of Space and public activities

Graphic representation of the relationship between the quality of outdoor spaces and the rate of occurrence of outdoor activities. When the quality of outdoor areas is good, optional activities occur with increasing frequency. Furthermore, as levels of optional activity rise, the number of social activities usually increases substantially. (Page 11)[2]

Physical Attributes;

Since physical attributes of space have direct impact on the human activities that take place in them, Gehl provided a series of conditions and requirements categorized in three classes: delight, invitation, and protection. The following table is a summary of important attributes in each category to make a public space a pleasant place to be.

[1] Gehl, *Life between Buildings: Using Public Space. 37* .
[2] Gehl, *Life between Buildings: Using Public Space.11* .

PROTECTION	Protection Against Vehicular Traffic	Protection Against Crime And Violence	Protection Against Unpleasant Sensory Experiences
	-Traffic Accidents -Pollution, Fumes, Noise -Visibility	-Well Lit -Allow For Passive Surveillance -Overlap Functions In Space And Time	-Wind / Draft -Rain / Snow -Cold / Heat -Pollution -Dust, Glare, Noise
INVITATION	Invitation For Walkings	Invitations For Standing And Staying	Invitation For Sitting
	-Room For Walking -Accessibility To Key Areas -Interesting Facades -No Obstacles -Quality Surfaces	-Attractive And Functional Edges -Defined Spots For Staying -Objects To Lean Against Or Stand Next To	-Defined Zones For Sitting -Maximize Advantages -Pleasant Views, People Watching -Good Mix Of Public And Cafe' Seating -Resting Opportunities
	Invitation For Visual Contact	Play, Recreation And Interaction	Day / Evening / Night Activity
	-Coherent Way-Finding -Unhindered Views -Interesting Views -Lighting	-Allow For Physical Activity, Play, Interaction And Entertainment -Temporary Activities -Optional Activities -Zones Of Interaction	-24 Hour City -Variety Of Functions Throughout The Day -Light In The Windows -Mixed-Use -Lighting In Human Scale
	Audio And Verbal Contact	Varying-Seasonal Activity	
	-Low Ambient Noise Level -Public Seating Arrangements Conducive To Communicating	-Seasonal Activities, Skating, Christmas Market -Protection Against Unpleasant Climate Change -Lighting	
DELIGHT	Dimensioned At Human Scale	Positive Aspects Of Climate	Aesthetic And Sensory
	-Dimensions Of Buildings And Spaces In Observance Of The Important Human Dimensions In Related To Senses, Movement, Size And Behavior	-Sun / Shade -Warmth / Coolness -Breeze / Ventilation	-Quality Design, Fine-Detailing, Robust Materials -Views / Vistas -Rich Sensory Experience

Figure 2.7 Table; Jan Gehl's 12 Key Quality Criteria

Allan Jacobs

Allan Jacobs, the author of the book Great Streets, gathers numerous examples of successful streets from around the world.[1] Through these studies, he combines a profound understanding of social life with his exhaustive street analysis to publish a set of guidelines for physical, formal, and social success in street design. Jacobs begins with three basic, physical characteristics: a pedestrian realm, considerations of physical comfort, and well-defined space.

A significant point from his book is that "beyond the functional purposes of permitting people to get from one place to another and to gain access to property, ... the best streets can and should help to do other things: bring people together, help build community, cause people to act and interact, to achieve together what they might not be alone. As such, streets should encourage socialization and participation of people in the community". (Page. 312)[2]

Within Jacob's recommendations he divided these guidelines into two sets. The first set is labeled under Requirements for great streets and the other as Qualities that contribute.

Requirements for great streets is carefully crafted with a focus on identifiable qualities that enhance both the aesthetics/appearance and the function of the streetscape, with the main goal being the creation of a link between the perceived image and perceived experience of the street. The list of requirements may at first appear superficial, but their overall effect on perception is significant. This list, comprised of a place for leisure walking, physical comfort, defined and meandering forms, qualities that engage the eye, transparency, complementarity, maintenance, and finally, quality of construction and design, Jacobs compiles a collection of qualities that engage the eye, creating a sense of curiosity and pleasantness in the space for the observer.

Qualities that contribute is composed of elements that result in lively streets that are more active in creating a deep sense of place for the user. Ten qualities from his streetscape design studies stand out as also being very applicable to the design of public spaces: the use of trees, beginnings and endings (well defined boundaries), many buildings rather than few, special design features, places, accessibility, diversity, density, length and area, and contrast.

Jacobs believed these qualities combined could form the takeoff point for great street design. He adds "By themselves, as a group, the required qualities will not assure a great street ... a final ingredient [is] ... the magic of design."(Page 157-163)[3] The magic of design is the dynamic and relationship between a well built environment and those who engage and interact with it to create a living place.

[1] Jacobs, Allan B. *Great Streets.* New York: Institute of Technology, 1995.
[2] Jacobs,*Great Streets.* 312
[3] Jacobs,*Great Streets.* 157-163

Thirteen Qualities That Contribute
1-Trees
2- Beginnings And Endings
3-Many Buildings Rather Than Few
4-Special Design Features
5-Places
6-Accessibility
7-Diversity
8-Density
9-Length and Area
10-Contrast
11-Slope
12-Parking
13-Time

Eight Requirements For A Great Street
1- Place For People To Walk With Some Leisure
2-Physical Comfort
3-Definition And Meandering Form
4-Qualities That Engage The Eye
5-Transparency
6-Complementarity
7-Maintenance
8-Quality Of Construction And Design

Figure 2.8 Table; Allan Jacobs - Requirements and Qualities for a Great City

Jane Jacobs

Jane Jacobs was William Whytes' mentee and a passionate urban ecologist. In the 1960's she published her book The Death and Life of Great American Cities.[1] In this book she gathers information based on her observations in Greenwich Village in New York City about what it takes to make a vibrant, safe, and multidimensional cities.

Jane Jacobs was one of the few individuals who strongly disagreed with Le Corbusier's and Robert Moses' approach and way of thinking regarding urbanism and was generally in strong opposition to the modernist planning movement. "Streets and their sidewalks are the main public places of the city, they are its most vital organs" (Page 29)[2], voiced Jane Jacobs in drawing attention to the importance and function of streets as public realm in the cities. Her vision heavily focused on public spaces being key to the vitality of urban places, not only in its physical built form but also for engendering a sense of community through opportunities for social interaction. Safety was also crucial, forming her arguments that through providing safer public spaces, social interaction will also naturally increase.

Safe public spaces, according to Jacobs, are established in the presence of three essential qualities. First, to produce a sense of safety, "there must be a clear demarcation between what is public space and what is private space." Second, this sense must be reinforced with "eyes upon the street," giving those in public spaces the comfort of being looked after. Third, to further prevent seclusion, "the sidewalk must have users on it fairly continuously." (Page 36)[3] Dense and crowded urban areas, therefore, naturally and consistently have the third identified quality, especially in vibrant pedestrian streets and other well used public spaces. These areas could, however, benefit from more transparency or visual perforations that would further promote visibility, and therefore, a safer public space.

Jacobs' methodology made heavy use of local experience in formulating spatial understanding, which brought empirical data to the forefront as both a viable, and, in these circumstances, a superior form of data to the knowledge of outside, top-down experts. Since local expertise gathers knowledge through first hand experience which is able to capture otherwise missed nuances in observation, a design that is transformed through user and community engagement can produce exceptional results.

Tactical Urbanism;

This line of thinking is similar to modern tactical urbanism, a form of organic design development that emerges from locals and goes through a process of change and adaptation based on the users' needs. The term describes low-cost and temporary changes or additions to the built environment in the spirit of urban improvement, as opposed to official and procedural public realm infrastructure projects.

The products of this approach are usually short term and scalable designs that are easy to construct, quick to implement, and overall, have very low material or labour needs. Through its inherent temporality and experimentality, tactical urbanism emphasizes creativity with a fast-paced design/construction/installation process. Its ability for rapid design reaction with an iterative process allows many hidden potentials of the design or the site to emerge.

One important advantage to tactical urbanism or any form of intensively iterative design process is its tolerance for user feedback, which allows the design to obtain critical information on the viability of its design moves and evaluate its success. Not only can this information be used to modify the current design, but can also be gathered in cycles to inform best practices for future design or planning efforts. Tactical urbanism is very strongly tied to the urban research and development methods advocated by Jane Jacobs, both stemming from a bottom up approach guided by nuanced local needs. Because local knowledge forms the foundations for these designs, they are automatically customized to and much more successful at responding to the issues it addresses. The feedback which is gathered, although fairly site specific, is extremely powerful in guaranteeing success of more permanent design implementations.



Figure 2.9 Image; Tactical Urbanism - Painting the Sidewalk



Figure 2.10 Image; Tactical Urbanism - Painting the Street



Figure 2.11 Image; Tactical Urbanism - Simple Parklet



Figure 2.12 Image; Tactical Urbanism - Simple Parklet

[1] Jacobs, Jane. *The Death and Life of Great American Cities*. New York, NY: Random House, 1961.
[2] Jacobs, *The Death and Life of Great American Cities*, 29 .
[3] Jacobs, *The Death and Life of Great American Cities*, 36 .

Cedric Price

Role of public spaces;

Public spaces are naturally platforms for public activities, and have, throughout history, been intuitively built into the urban fabric of cities to support a large variety of civic, political, economical, social, and leisure functions. Public spaces continue to fulfill these purposes, yet, their place and role within public life has also significantly shifted. Agoras, for instance, previously functioning as the most significant and concentrated space for everyday civic discourse and dialogue have now been partially replaced by physical and digital mass media. As a result, although many publicly generated activities still exist and are just as prevalent, their need to occupy public spaces has diminished noticeably in scale and frequency. In addition to this long-term shift in use, public spaces also undergo very rapid short-term shifts on a daily, or even a shorter span period basis. Many public spaces today are extremely adaptable to serve a variety of temporary, and specific functions. Nathan Phillips Square in Toronto, for instance, is a platform that hosts many activities ranging from pop-up markets, to live performances, to political demonstrations, to cultural and social events. This demands a high level of flexibility in their design.
These two aspects of public space design is discussed by Cedric Price, an architect and writer, who spoke constantly about the dimension of "time" in design, stating that architecture is slow and therefore requires anticipatory design. (Page 136)[1] Time plays two important roles in Architecture; the potential needs of the built form must be recognized. The architect cannot accurately predicts the uses and changes over time, the architect must acknowledge the impossibility of totalized planning and built to a degree to allow for uncertainties and program. He argues that this flexibility required by anticipatory design could be manifested in physical built form, through an ability of design to change and adapt to its environment. For Price, this flexibility translated into designing with parts that can be put together, dismantled, reinstalled, repaired, and changed, therefore, capable of adaptation as time goes on and requirements or needs of a place changes.
Cedric Price designed an unbuilt project named Fun Palace, where this vision was fully manifest. About this project Price explains that, the structures themselves will be capable of changes, renewal and destruction if any activity defeats its purpose it will be changed. The place is a constantly changing experiment in which the old human categories are forgotten.
'Self-reinforcement dynamics' is defined as a process of positive feedback in which the increase of a particular variable leads to cyclical and continued increase of this same variable.[2] Such is the case with the continuous process of constructing, dismantling, and reassembling in anticipatory design. Their flexibility encourages the adding, removing, and changing of its configuration of pieces as a process of experimentation based on user feedback. As a result, the design's purpose is given a dimension of multiplicity, which, in turn, initiates a self-reinforcing process. Further changes and adaptations will increase the proportion of the design that is responsive to user needs, and also improve the quality of its responses.

[1] Price, Cedric, and Hans-Ulrich Obrist. Re: CP. Basel: Birkhauser, 2003, 136 .

[2] "EGOS 2012, 'Self-Reinforcing Processes in Organizations, Networks and Professions.'" Organizations and Markets, September 24, 2011. https://organizationsandmarkets.com/2011/09/24/egos-2012-self-reinforcing-processes-in-organizations-networks-and-professions/.

Economic



Figure 2.13 Image; Nathan Phillips Sq. , Farmer's Market



Figure 2.16 Image; Nathan Phillips Sq. , Ice skating Rink

Leisure

Civic

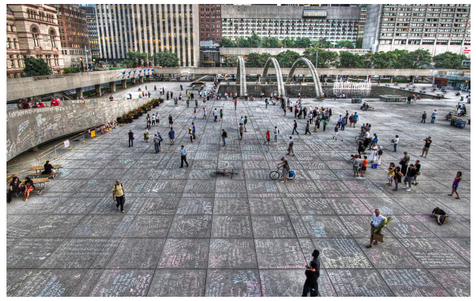


Figure 2.14 Image; Nathan Phillips Sq. , Civic Expression , Remembering Jack Layton



Figure 2.15 Image; Nathan Phillips Sq. , Celebration of Raptor's Championship

Culture

Toronto has seen a tremendous growth in population and density within a short span of the past few decades. The general trend of growth, guided by development policy, has continually drawn development away from low density, detached dwelling neighbourhoods and instead, towards a few corridors that converge in downtown Toronto.

Current zoning bylaw, which places heavy height restrictions outside of the downtown boundary anticipates continued vertical growth within this node for years to come, furthering the exaggeration of its already tremendous height and density within the overall city fabric.

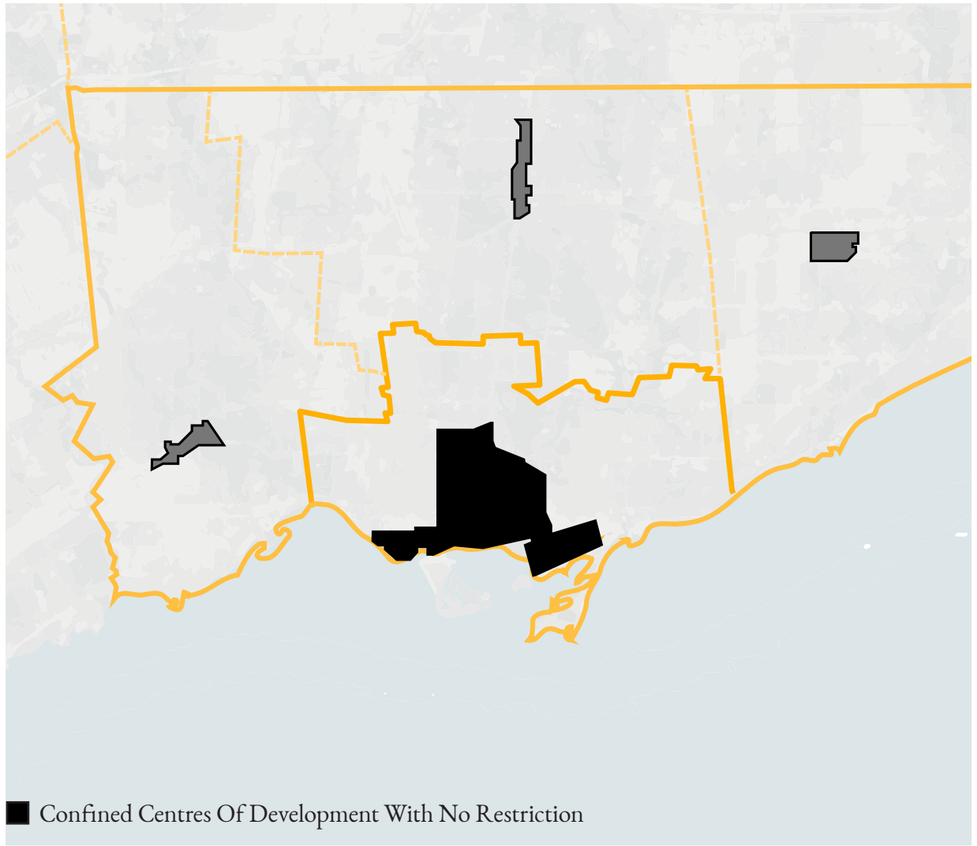


Figure 3.1 Map; Provincial Urban Growth; Areas With No Height Restrictions for development
More than 200 km2 of Toronto is zoned for detached low-rise residential.

Allocated Park Area

Infrastructure provision has become an unceasing issue for this rapidly growing downtown area, as finite spatial resources cannot keep up with an exponentially increasing volume of users. The statistics of park space according to TOcore background studies show that there is only 18sqm of park space allocated to each person citywide. However, the true daytime figure of 4sqm/person is much lower than that due to the employee flux that occurs, dramatically increasing population numbers for the duration of the workday.

The city, however, has been making conscious and serious efforts to add open space, seen in the preparation of proposals such as the Rail Deck Park and other innovative upgrades of large underused patches of land in the downtown and surroundings. This will work in harmony with the city's general efforts to increase and enhance the public spaces in downtown Toronto.

These city efforts, based on local and global policies, are divided and executed through 83 BIAs (or Business Improvement Areas), which are committees made up of commercial and industrial property owners and their non-residential tenants. These individuals join together under a volunteer board of management (the BIA Board), to carry out improvements and promote economic development within their designated area.

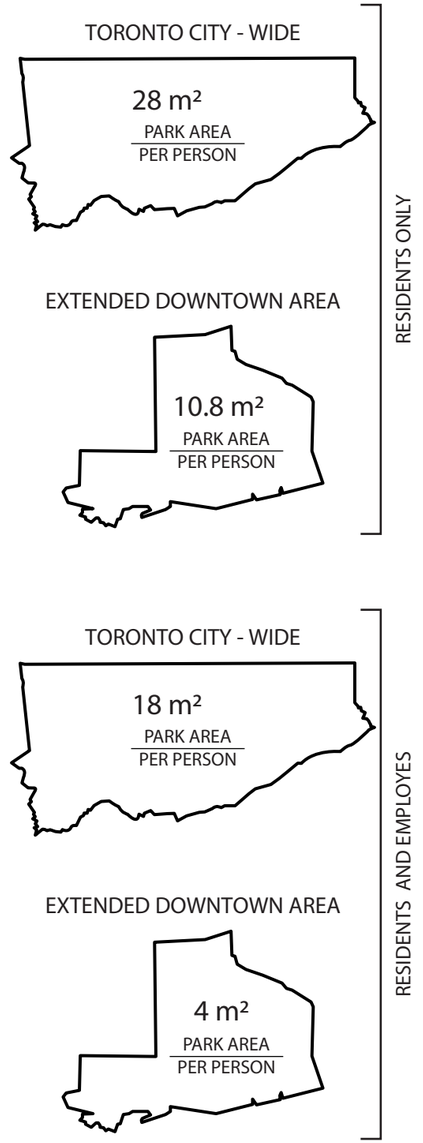


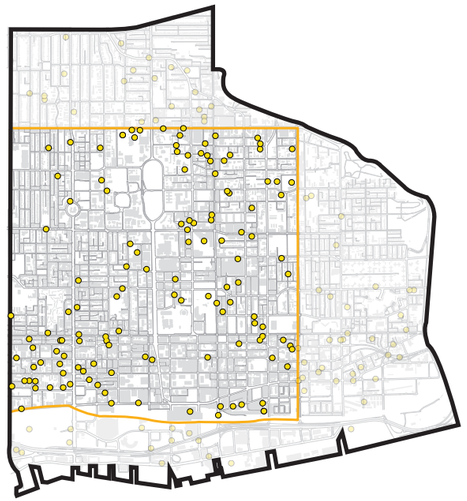
Figure 3.2 Diagram; Park Area Allocation Comparison [1]

[1] TOcore reports, *"TOgether-Rail Deck Park Technical Briefing"* . "PDF." City of Toronto, Toronto, November, 2017, 12-13 . https://www.toronto.ca/wp-content/uploads/2017/11/99b2-TechBriefing_20171121_final.pdf

Residential development 2003-2018

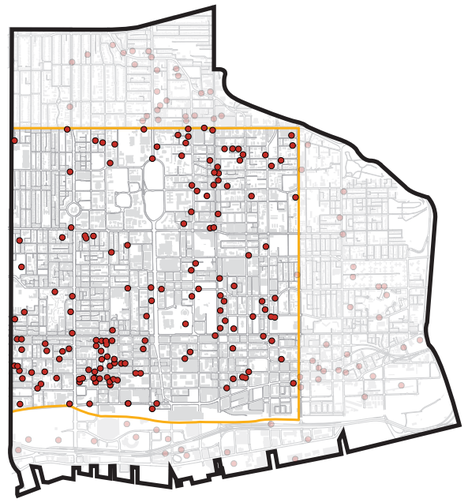
The following series of maps catalogue, within the previously determined scope/study area, residential developments that have been built, are under construction, or have been approved to proceed with construction in the next few years. These maps demonstrate the incessant condo boom that Toronto's downtown core has seen over the past decade. Combined, these development markers show an overall intensity of a decade's worth of change to this area - a high volume of change is visible in the lower left quadrant of the combined map.

Data used to compose following maps are sourced from 3 available data base sources, the city's open data, UrbanTorotno, and Urbanation. [1] UAnd verfied with TOcore reports and studies.



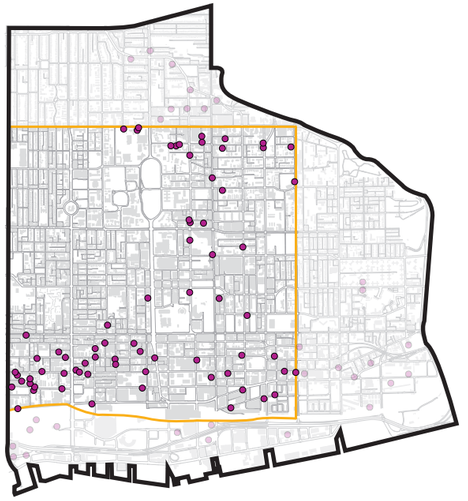
DEVELOPED AND COMPLETED PROJECTS 2003-2007

Figure 3.3 Map; Development In Downtown Toronto 2003-2007 Completed Projects [2]



DEVELOPED AND COMPLETED PROJECTS 2007-2013

Figure 3.5 Map; Development In Downtown Toronto 2007-2013 Completed Projects [3]



COMPLETED PROJECTS IN 2018

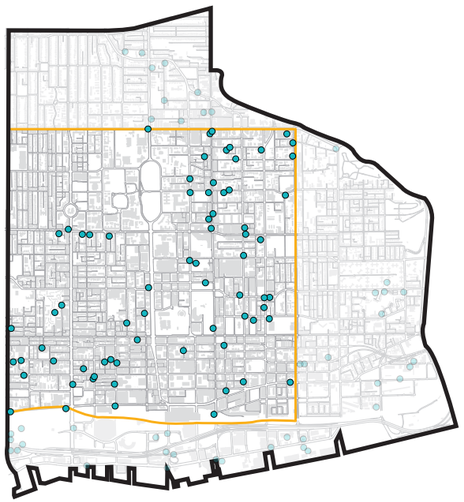
Figure 3.4 Map; Development In Downtown Toronto 2018 - Completed Projects [4]

[1] https://www.toronto.ca/city-government/data-research-maps/open-data/open-data-master-plan
https://urbantoronto.ca/database/projects
https://www.urbanation.ca

[2] Ostler, Thomas. Intensification - City of Toronto. City of Toronto, Toronto , May , 2014 , 42-43 .
https://www.toronto.ca/legdocs/mmis/2014/te/bgrd/backgroundfile-69192.pdf

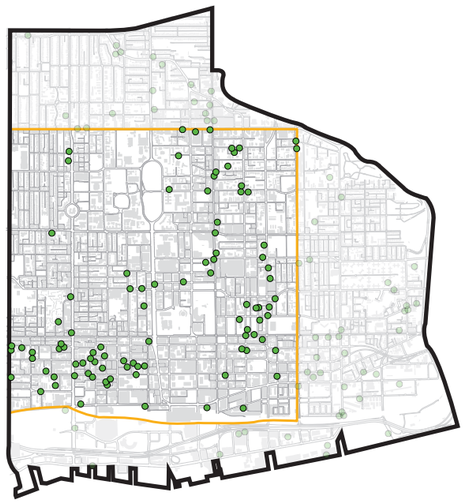
[3] Ostler, Intensification - City of Toronto. 44-45 .

[4] UrbanToronto, CHART Communications Inc , December, 2018 .
Data Source; https://urbantoronto.ca/database/projects



UNDER-CONSTRUCTION PROJECTS 2018

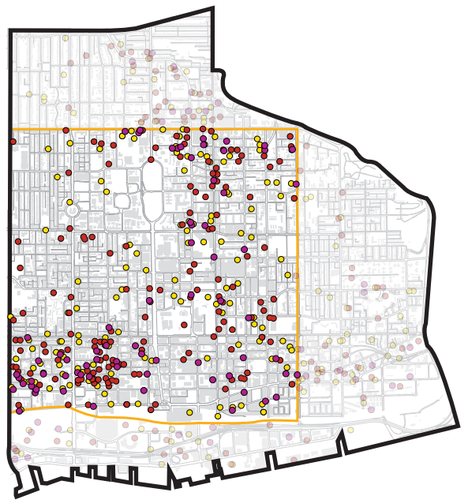
Figure 3.6 Map; Development In Downtown Toronto 2018 - Under Construction Projects [1]



PROPOSALS FOR FUTURE DEVELOPMENT

Figure 3.7 Map; Development In Downtown Toronto Proposed Projects For Future Development [1]

[1] UrbanToronto, CHART Communications Inc , December, 2018 . Data Source; https://urbantoronto.ca/database/projects



COMPLETED PROJECTS IN 2018
DEVELOPED AND COMPLETED PROJECTS 2007-2013
DEVELOPED AND COMPLETED PROJECTS 2003-2007

Figure 3.8 Map; Development In Downtown Toronto Compiled Completed Projects 2003-2018

This final map consolidates all residential development locations between 2003 and 2018. The concentration of clusters shows a definite location trend beginning to form in the lower left quadrant - this cluster is located geographically west of University/Simcoe Street and south of Queen Street.

Condo Boom and Development of Downtown Core

Similarly, in this residential development map showing 2018 and beyond, a continuation of trends of the past 1.5 decades is visible. This will further accentuate two high intensity zones of development, encircled by yellow lines.

As seen in the development heights map, the developments contained within these two boundaries both have high proportions of tall developments. Within the higher bottom left intensity yellow boundary is also a very concentrated clustering of extremely high density points compared to the remainder of the downtown core.

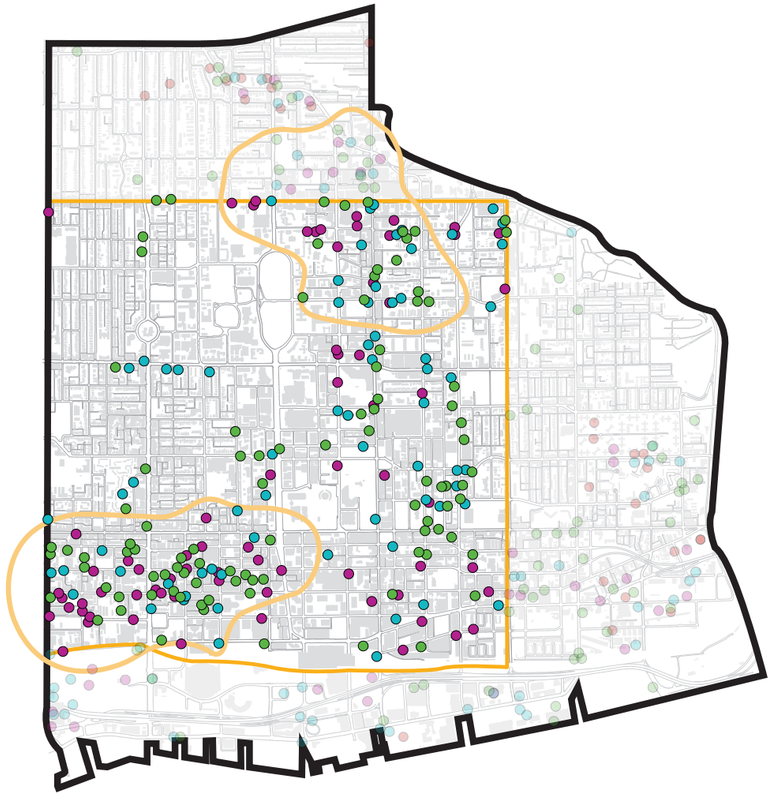


Figure 3.9 Map; Development In Downtown Toronto - High Density Expectations

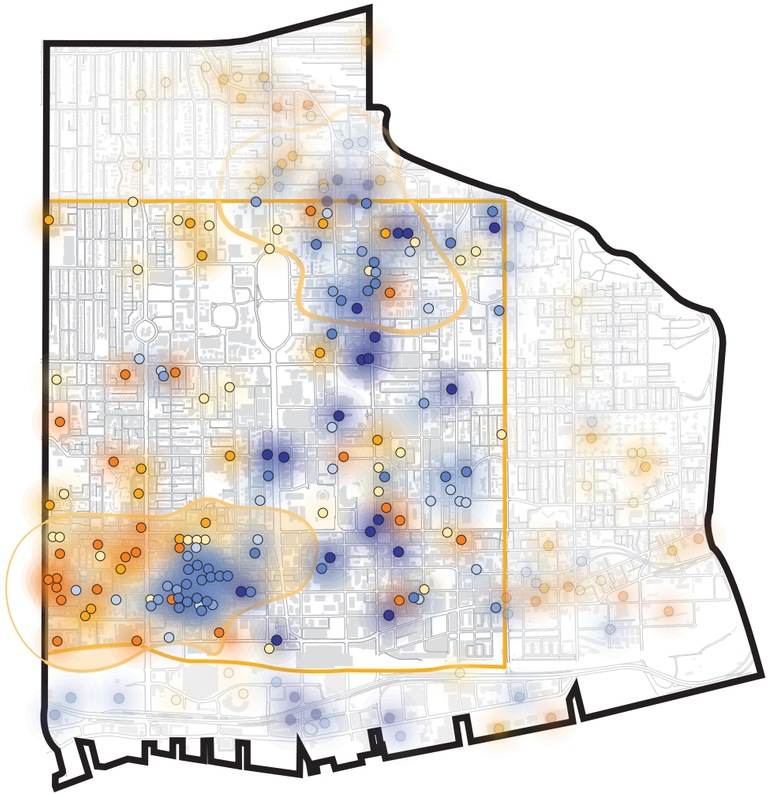
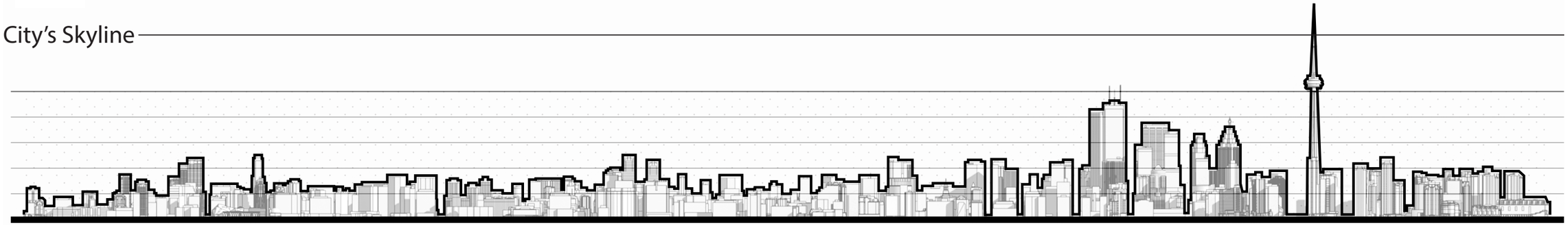


Figure 3.10 Map; Development In Downtown Toronto - Illustration of Projects' Height [1]

[1] Ostler, Thomas. Intensification - City of Toronto. City of Toronto, Toronto , May , 2014 , 46-47 . https://www.toronto.ca/legdocs/mmis/2014/te/bgrd/backgroundfile-69192.pdf

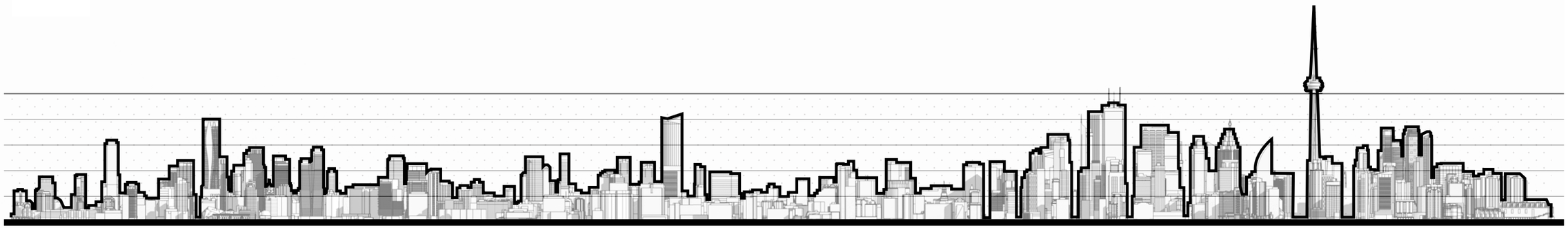
City's Skyline



2007

This area can visually be identified as the city's "downtown" by its height distinction from the surrounding urban fabric.

Downtown Toronto



2017

Noticeable Densification

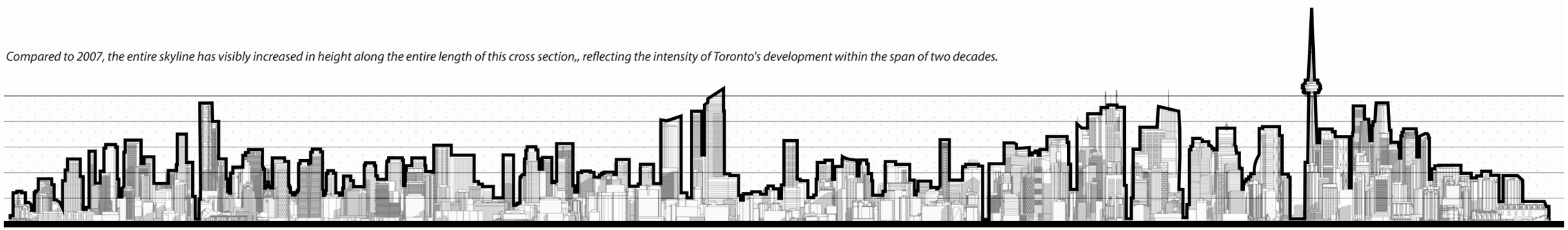
Noticeable growth

There is a rise in building heights within this region, producing a skyline that is comparable to that of the city's "downtown".

Downtown Toronto

The "downtown" appears to spread outwards, especially to the east, with growing building heights.

Compared to 2007, the entire skyline has visibly increased in height along the entire length of this cross section,, reflecting the intensity of Toronto's development within the span of two decades.



2027

Figure 3.11 Diagram; Toronto's skyline - Past , Present, and Future 2007-2027

City's Reaction to Intensification and lack of Public Spaces

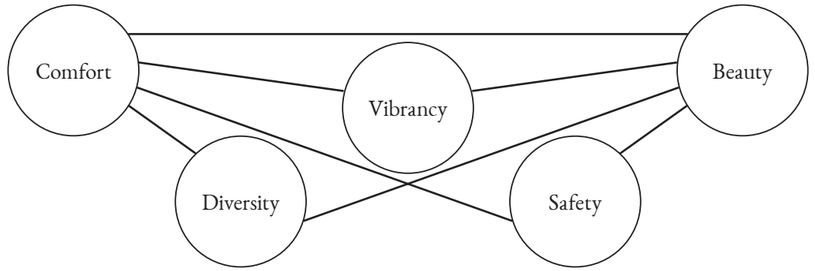


Figure 4.1 Principles of Liveability[1]

The imbalance between infrastructure growth and population growth resulting from rapid rates of high intensity development (especially residential) has brought many new issues to the forefront of city building that aim to address the worsening of current consequences and the anticipation of new ones. The dominating concern is for the shortage of public space to support citizen wellbeing.

Efforts have repeatedly been made by the city to address this concern and support its resolution. This can be seen from proposed land use changes and beautification initiatives. New opportunities for public space development have quickly been acted upon and maximized, producing exceptional examples of capturing previously unusable land using new development methods and technological advances.

The following are a series of goals and approaches that the city has adopted in reaction to the issues surrounding public spatial shortage, and examples of events, projects, or initiatives that have taken place in the city that exemplify these values.
They are varied in size and approach, ranging from big new projects such as Rail Deck Park, or others that look to improve existing infrastructure, such as the John Street Cultural Corridor initiative or the King Street Pilot Project.

Liveability

Liveability is an assessment of how suitable a city is for living based on key factors of stability, healthcare, culture, environment, education, and infrastructure. This assessment draws from all fundamentals within city planning to ensure a high quality of city living.
Currently, the recommendations for Toronto's downtown plan aim to guide development towards positive growth. These policies include, but are not limited to:

-The prioritization of a "Land First" approach, emphasizing parkland development, with strategies such as exchanging development incentives for parkland provision to guarantee the creation of public open space in parallel with high rise development;
-The prioritization of walking, cycling, and transit use in downtown streets; The retention of cultural spaces and those that support these uses, such as for live music and filming.

The liveability assessment holds a strong influence on these guidelines, bringing to the forefront the wellbeing of the city population in a holistic and multi-faceted way.

[1] Perkins+Will, TOcore Building for Liveability . "PDF." City of Toronto, Toronto, April 2018, 8 . https://www.toronto.ca/wp-content/uploads/2018/04/8de1-city-planning-tocore-attachment-6-exec-summary-liveability-aoda.pdf

Temporary Pedestrianization of The Streets



Figure 4.2 Image ; Example of Pedestrianization - King Street



Figure 4.3 Image ; Example of Parklet on Street - Yonge Street

Pedestrianization of Streets

The products of urban design have continuously been targeting the goal of the perfect street – one that is all encompassing in providing users with a complete, enjoyable, and high quality realm. However, beauty alone is not sufficient if there is no further enticement for people to stay. Vibrancy, in turn, cannot be generated with an inadequate supply of participants.

Many outdoor events involving sizable pedestrian gathering occur on the streets of Toronto throughout the year. These areas, completely closed to vehicle use during this time, allow for mundane urban infrastructure to momentarily be transformed into a "stage" on which an exciting show of lively and animated activity is performed.

The novelty and excitement generated by the pedestrianized street experience clearly demonstrates how Toronto is a city of automobiles that pushes pedestrian space needs aside as lower tier concerns. Streets, however, are equally spaces for cars and for pedestrians.
Thus, instances of street pedestrianization, although limited in number and time, are invaluable as examples of pedestrian activity prioritization over the usual car dominance. They are important learning tools to examine the motives of pedestrian gathering, whether organized or spontaneous, and the healthy social impacts of these events on the rest of the city.

Many Toronto city initiatives recognize the importance of making room for increased occurrences of these events and the need to modify and diversify them to work with different needs and limitations within the city.





Figure 4.4 Image; Yonge Street During 'Yonge Street Pedestrian Mall Initiative'

Yonge Street Pedestrian Mall

"Street" is a term that is strongly associated with the concept of a thoroughfare. Its function, however, does not have to be limited to servicing this singular program. Many well known examples of spaces such as piazzas and shopping streets demonstrate that a street is, in itself, a public space.

In the 1960s, a counter-movement to the rise of the automobile was spearheaded by many urban advocates such as Jane Jacobs. Momentum was built in support of human focused urbanism and a return of city streets to citizens. This brought into fruition a unanimous city council public works decision in August 1970 to establish a subcommittee to plan a temporary pedestrian mall along Yonge Street. The leading figure was Alderman William Archer, described as "a man deliriously in love with the city."

The process culminated in Toronto's first fully pedestrianized street in 1971 that closed off four city blocks along Yonge Street to vehicular traffic. This open pedestrian mall was a huge success, quickly becoming Toronto's most popular public space, attracting up to 50,000 visitors daily. This initiative was maintained for three consecutive years, and throughout its run, brought a new sense of dynamism to ordinary life – time was spent strolling and enjoying the outdoors, and joyous events of community celebration, such as street corner concerts, became regular impromptu happenings.



Figure 4.5 Image; Yonge Street During Open Street T.O.



Figure 4.6 Image; Yonge Street During Open Street T.O.

Open Streets T.O.

Inaugurated in 2014, Open Streets Toronto is a very unique and one of the city's largest annual free recreational programs. The event temporarily closes sections of two major downtown streets to automobile traffic, for the purpose of opening them completely for pedestrian use. The main motive here is simply pedestrianization, which in turn, creates the perfect setting to host entertainment, food, and other planned recreational activities. For its duration, the two event routes (Bloor Street and Yonge Street), which normally bustle with foot and vehicular traffic, are filled effortlessly with crowds attracted by both the wide selection of outdoor programming and also the freedom and accessibility of such a large outdoor public space. Open Streets Toronto has been wildly successful in encouraging healthy and car-free recreation.

"Celebrate Yonge", a similar precursor project from 2012, also focused on pedestrian street occupation. This was a month-long partial pedestrianization initiative that closed two lanes of vehicular traffic along Yonge Street between Queen and Gerrard Streets.

The project incorporated promotions and events from various businesses along this portion of Yonge Street with the physical extension of patios, installation of public seating and outdoor furniture, and recreational activities such as a life-sized chess game.

Both events show that pedestrian ownership of public streets is just as exciting, relevant, and well received now as it was almost five decades ago with the Yonge Street Pedestrian Mall. Not only is it a platform for activities to happen and businesses to thrive, but also an accessible means of maintaining aspects of health and recreation. As people of all ages, abilities, and social, economic, and ethnic backgrounds participate to enjoy this large temporary "paved park", the intermingling of diverse demographic groups present unlimited opportunities of social city building and connection of diverse neighbourhoods and people from all reaches of the city.

Temporary Events and Festivals

Festivals; A Temporary Third Place

Interesting phenomena occurs within festivals and big events that produce an elimination of any barriers for age, social status, and social role, similar to how Ray Oldenburg describes “third places”. Festivals are temporary “third places” on a very large scale but with limited duration. There are many types of festivals in Toronto, most of which take place in streets by closing off the area to vehicle traffic.

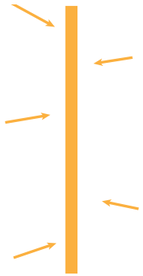
When this happens, streets change their ordinary function to become places of gathering of people.
The limitation of these events, however, lies in their duration as their often outdoor settings are heavily impacted by weather and climate conditions.

Regarding public social life Rey Oldenburg mentioned: "Life without community has produced, for many, a life style consisting mainly of a home-to-work-and-back-again shuttle. Social well-being and psychological health depend upon community. It is no coincidence that the 'helping professions' became a major industry in the United States as suburban planning helped destroy local public life and the community support it once lent."[1]
Later he emphasizes, “Most needed are those ‘third places’ which lend a public balance to the increased privatization of home life. Third places are nothing more than informal public gathering places.” The phrase ‘third places’ derives from considering our homes to be the ‘first’ places in our lives, and our workplaces the ‘second.’ These temporary informal gatherings of people regulates the balance of social activity of residents of the city.



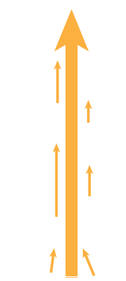
1 - Dispersed + City-wide
This type of event occurs in many locations simultaneously throughout the city, such as Nuit Blanche or TIFF.





2 - Centralized
This type of event takes place within one contained location and attracts participants from all over the city, for example, The Taste of the Danforth.





3- Directional/Parades
This type of event consists of a march along a predetermined route between a start and end point. Parades in Toronto include Pride and Caribana.



Figure 4.7 Diagram; Typology Of Festivals And Events

[1] Hendershott, Anne, and Ray Oldenburg. “The Great Good Place: Cafes, Coffee Shops, Community Centers, Beauty Parlors, General Stores, Bars, Hangouts, and How They Get You Through the Day.” Contemporary Sociology, vol. 20, no. 1, 1991, p. 78. doi:10.2307/2072095.

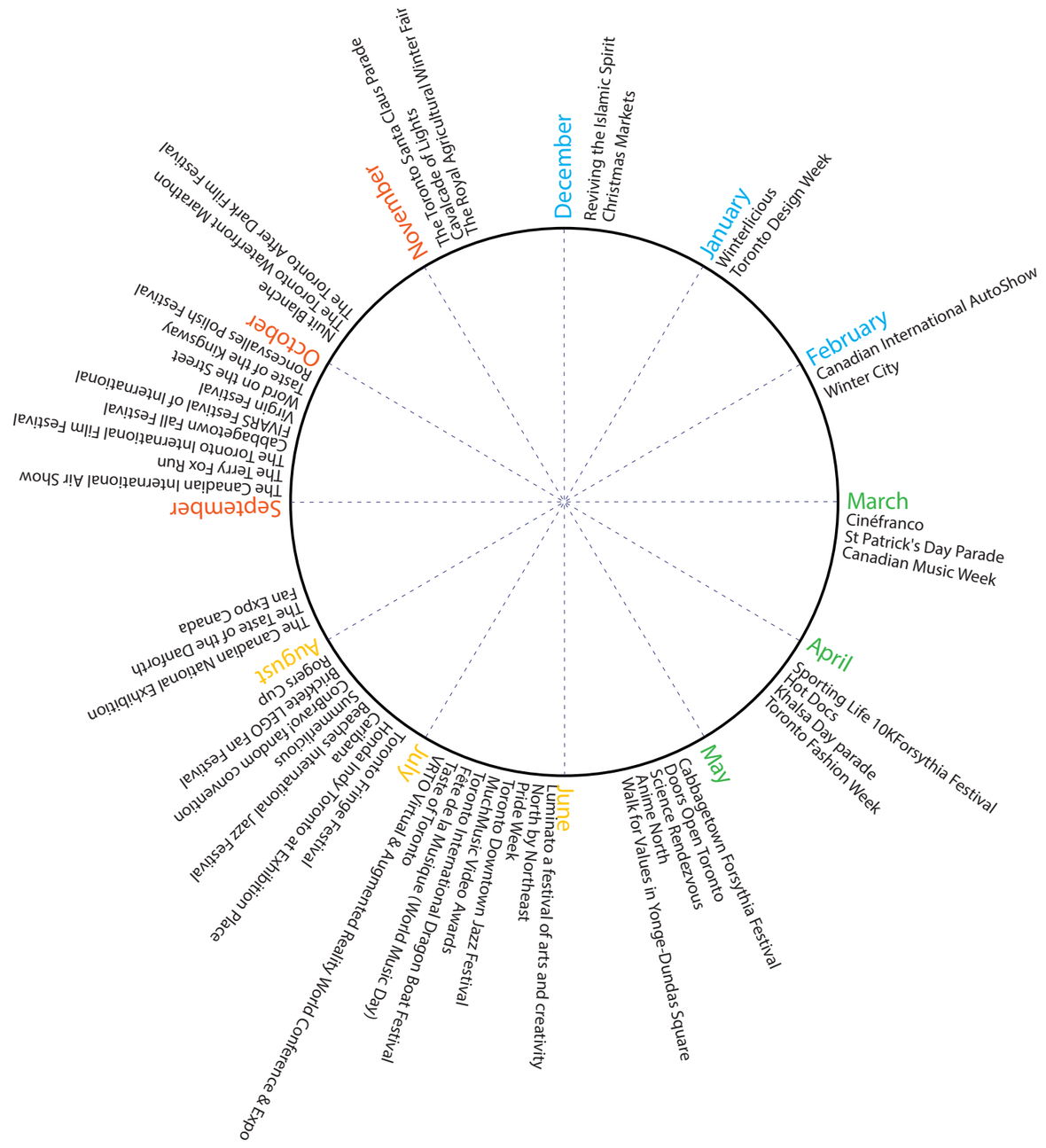


Figure 4.8 Diagram; Annually Reoccurring Events And Festivals In Toronto

Temporary Events and Festivals

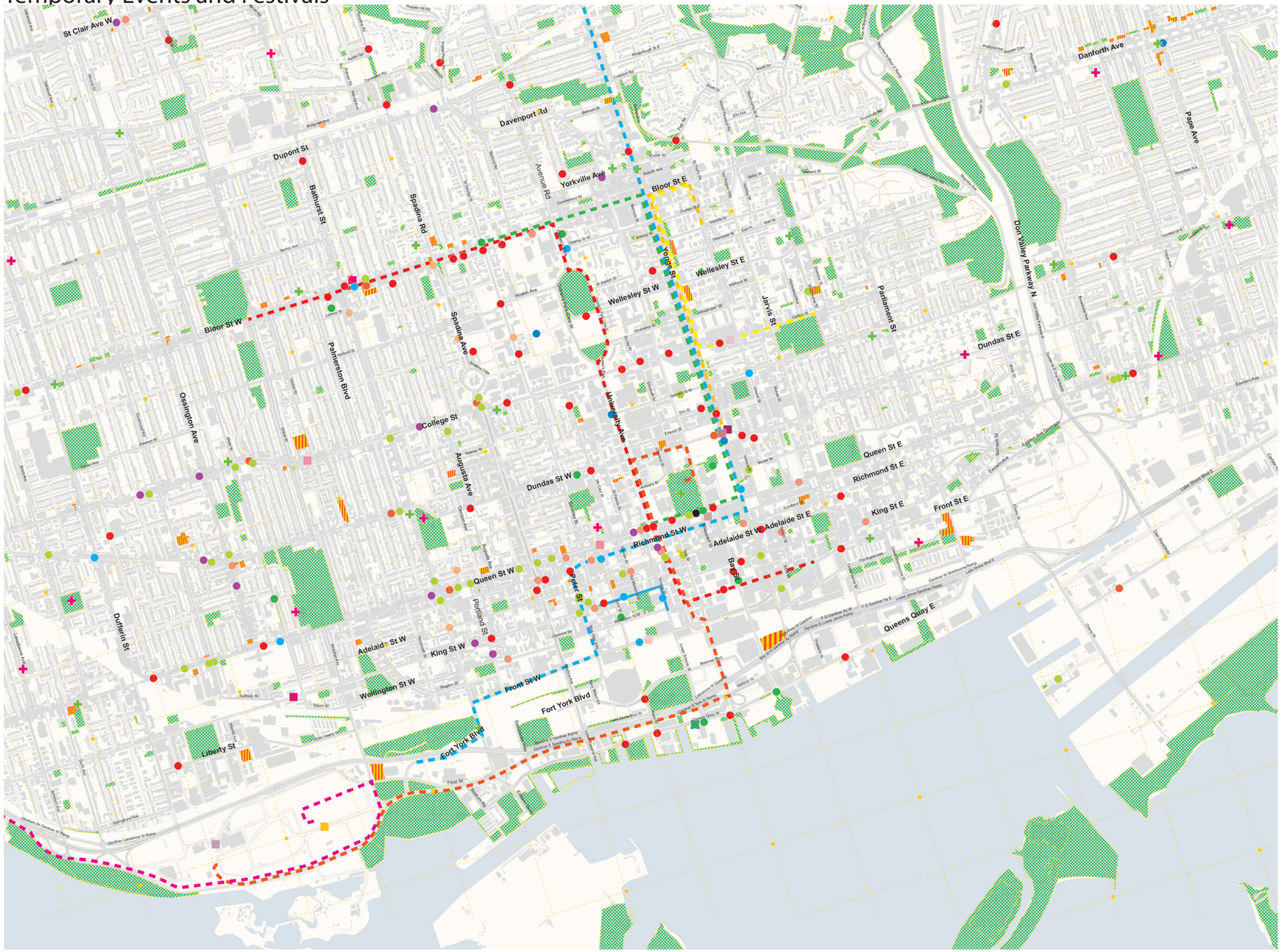


Figure 4.9 Map; Approximate Location of Yearly Events And Festivals In Toronto

Dispersed

- Anime North
- Canadian Music Week
- Doors Open
- North by North-East
- Nuit Blanche
- Science Rendevous
- Summerlicious
- T.I.F.F
- Fringe Festival
- Winterliciuos

Centralized

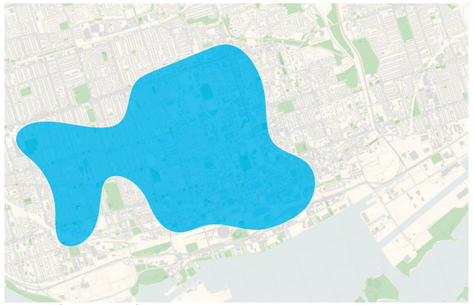
- Canadian international autoshow
- Cinéfranco
- Hot docs
- Toronto Fashion Week
- Walk for Values
- Luminato
- Toronto Downtown Jazz Festival
- MuchMusic Video Awards
- Fête de la Musique
- Taste of Toronto
- V.R.T.O.
- Honda Indy Toronto
- AFROFEST
- ConBravo!
- Brickfete
- Rogers Cup
- The Canadian National Exhibition
- Fan Expo Canada
- FIVARS
- Word on the Street

Parades

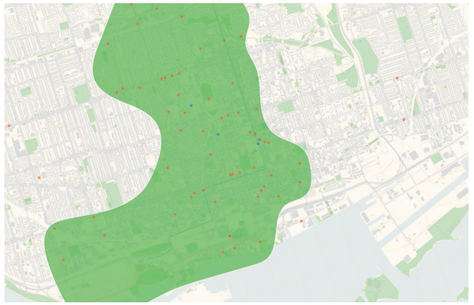
- Taste of Danforth
- Caribana
- Pride Weak M1
- Pride Weak M2
- St. Patrick
- Sporting 10k
- Khalse
- Santa Claus Parade

Temporary Events and Festivals

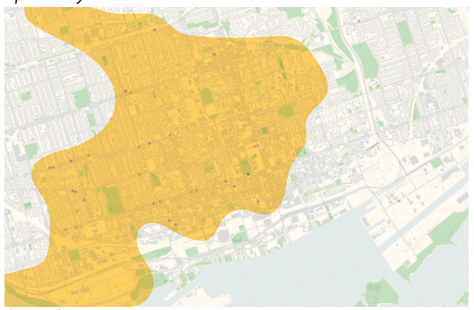
The following maps graphically display the locations and physical relationships that exist between the different event locations and routes from a catalogue of events that take place in Toronto throughout the year. Shaded zones outline the geographical boundaries of events that occur within each three month period in the downtown core. The dotted, heavy red line shows the region of overlap of all four seasons of events within the downtown core.



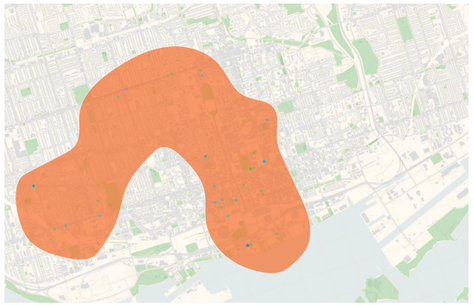
December - March



April - May



June - August



June - August

Figure 4.10 Map; Approximate Areas Of Seasonal Temporary Events



December to March

April to May

June to August

September to November

Most Active Area With Temporary Events

Figure 4.11 Map; Approximate Areas Of Seasonal Temporary Events In Downtown Core of Toronto





Figure 4.12 Image; STACKT Market

S.T.A.C.K.T.

STAKT is an innovative Toronto marketplace that features restaurants, retail, showrooms, studio spaces, an outdoor cinema, a craft brewery, and other forms of recreation and entertainment. Its structure is unique in that it is entirely constructed out of shipping containers, stacked to form various configurations of courtyards surrounded by rooms for retail, studios, and workshops.
This form of urban intervention of repurposing large modular components has become increasingly popular in large cities such as Toronto, as they are economical and easy to install. While some are permanent or long term spaces such as STAKT market, many others, of similar configuration, function as temporary and portable "pop-up" spaces. The result is a means of urban activation that is extremely versatile in accommodating for a variety of time-lines and spatial limitations.



Using Modified Shipping Containers



Using Modified Shipping Containers

Figure 4.13 Image; Market 707

Market 707

Market 707, located near the intersection of Dundas and Bathurst Streets is a row of up-cycled shipping containers that line and front the sidewalk offering a variety of services and cuisines. The attractive and colourful shipping containers were retrofitted by the design company Storstac.

The market presides over the Scadding Court neighbourhood, and gives users of the nearby neighbourhood community centre access to one of the most eclectic collections of start-up businesses in the city. Three simple but effective elements are seen to contribute to Market 707's success – the vibrancy of its physical appearance and its support of community business and economic development through this market platform, which, in turn, animates and enlivens this area of the city.

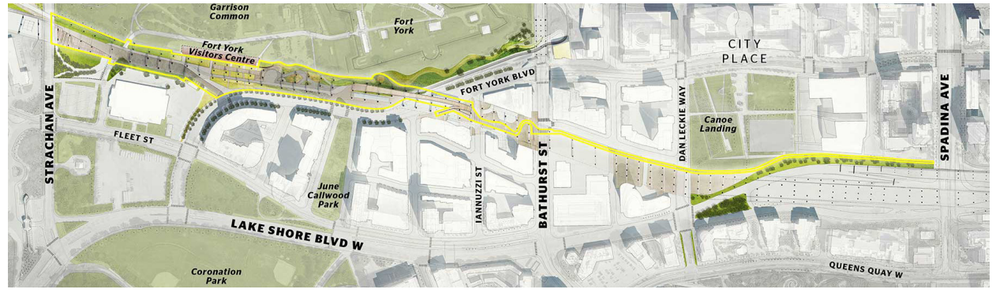






Figure 4.14 Image; The Bentway

The Bentway

The Bentway is a 1.75km length of space underneath Toronto's Gardiner Expressway that has been transformed into a large and extensively programmed public space. The currently completed portion stretches from Strachan Avenue to Bathurst Street. This move, being bold in both location and design, is the beginnings of bridging a major divide in the city resulting from the Gardiner Expressway overpass.

This unique and innovative project near historic Fort York is equipped to host a wide range of artistic, cultural, and recreational activities and events. They include, but are not limited to, community gardening, a skate trail, public markets, theatre and musical performances, and interactive public art exhibitions. The Bentway's accessible and participatory programming is inclusive and engaging, and a great outlet for participants to explore the site's unique histories, features, and possibilities.



Figure 4.15 Image; John Street - Rendered Proposal - Final Design of the John Street Cultural Corridor

Since its designation as one of four "cultural corridors" in 2001, the City of Toronto has been working towards transforming John Street into a pedestrian oriented thoroughfare. This project aims to use the redesigned stretch of John Street between Front and Stephanie Streets as a catalyst in improving the presence of entertainment and culture in this area.

A six month pilot project, the John Street Pedestrian Initiative, was organized by the Toronto Entertainment District Business Improvement Area in partnership with the City of Toronto to demonstrate how pedestrian-friendly and accessibility improvements could accommodate the many events and festivals held along this street.



Figure 4.16 Map; John Street Cultural Corridor Scope

The redesign of the streetscape aims to improve John Street as:

-An access point for significant cultural assets along the street such as the AGO, OCAD, NFB, CBC, CTV, TIFF, Rogers Centre, CN Tower, and Ripley's Aquarium;

-A place for public events, parades, and street festivals;

-A connector and promenade for pedestrians between significant parks and open spaces;

-An integrated and improved access point to the city-owned facilities and open spaces adjacent to Grange Park as one moves towards Toronto's Park District.



John Street's parklet, Creates a Micro Oasis for Pedestrians to Rest



John St. & Richmond St. Intersection , Wide Streets and Sidewalks



John St. & Richmond St. Intersection , Wide Street with Bike Lane



John St. & Queen St. Intersection , Looking South



Figure 4.17 Image; John Street and Connecting streets



Figure 4.20 Image; King Street Pilot Project Poster

This pilot aims to improve transit reliability, speed, and capacity. The pilot launched on Sunday November 12, 2017, with the implementation of new traffic rules prohibiting private vehicles to drive continuously along King Street between Jarvis Street and Bathurst Street. Instead, they are required to turn north or south off of the street at each major intersection, ultimately giving priority to streetcars. The Pilot will explore ideas of achieving goals such as increasing the efficiency of transit, reinforcing the economic strength of the area, and improving the street's attributes of place-making.

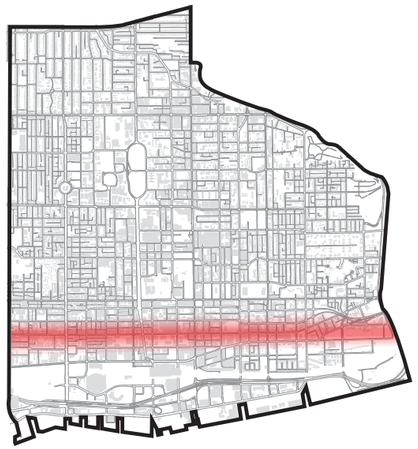


Figure 4.18 Map; King Street Pilot - Scope

King Street is a vibrant, dynamic, and often crowded street, so the limitation of vehicular traffic provides opportunities such as increasing total pedestrian area. As downtown residents mostly travel on foot, these changes will enhance the experience of walking on the street.

The removal of parking pace along the street will also add a total of 2,700sqm in surface area. This area can take on many roles and f functions: it can be a space for parklets, form better connection from sidewalks to public transit, become extended patios for cafes and restaurants, and also add seating in the freed up spaces at congested nodes.

The lack of private cars on the street reminds residents and passers by of their right to the city with a street that values the fine-grain, human, and pedestrian experience

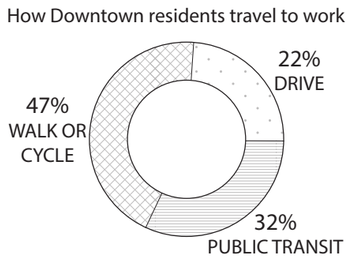
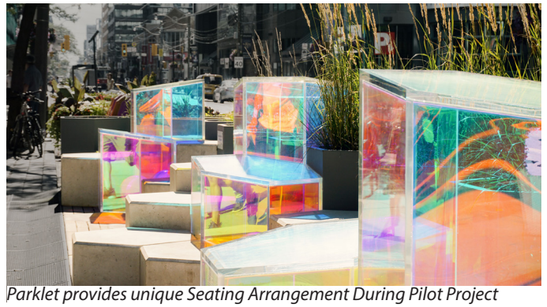


Figure 4.19 Diagram; - Means of Travel of Downtown residents



Parklet provides unique Seating Arrangement During Pilot Project



Layer of Trees and Metal Structure that visually and Physically Disconnects Sidewalk from the Space Hidden behind it



King St. & John St. Intersection - Food Stand



King St. Parklet Provides Additional Seatings During Pilot Project



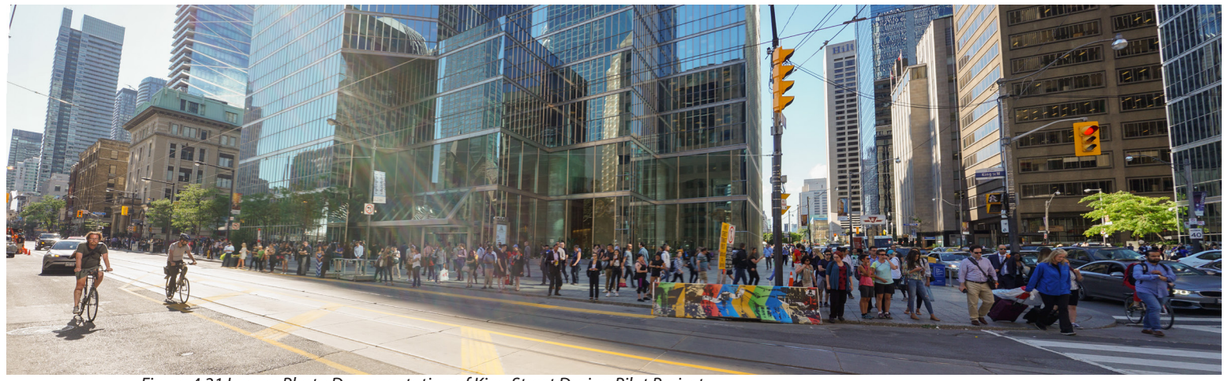


Figure 4.21 Image; Photo Documentation of King Street During Pilot Project



Figure 4.22 Image; Conceptual Cross Section of Rail Deck Park

A Proposal To Create More Public Land

Within the boundaries of downtown Toronto, the Rail Deck Park project is one of the largest efforts to create and change the public dynamic of the area. Rail Deck Park came to fruition to increase the area and presence of public space in downtown Toronto. This is a smart solution that creates usable land where there is no land, by covering the rail track. Not only would this create a massive downtown park, but also bridge over the rail tracks, which are another major linear arterial, like the Gardiner Expressway, that severs a large zone in Toronto's urban fabric.

However, despite its relatively large area, the proposed Rail Deck Park may only be able to properly service a small amount of downtown residents. This speculation comes from William Whyte's theories that the general population, as pedestrians, will walk for up to 3 blocks or approximately 10 minutes to access a public space

Figure 4.23 Image; Rendered View Of Rail Deck Park Proposal

Illustrating the walking radius on a map of the extended downtown area shows that the reaches of the park will only extend to become a regularly visited public space for a small area of residents and employees. For those outside of this radius, but still within the downtown core, the park may become an occasional destination, more suitable for weekend visits when longer spans of recreational time are available.

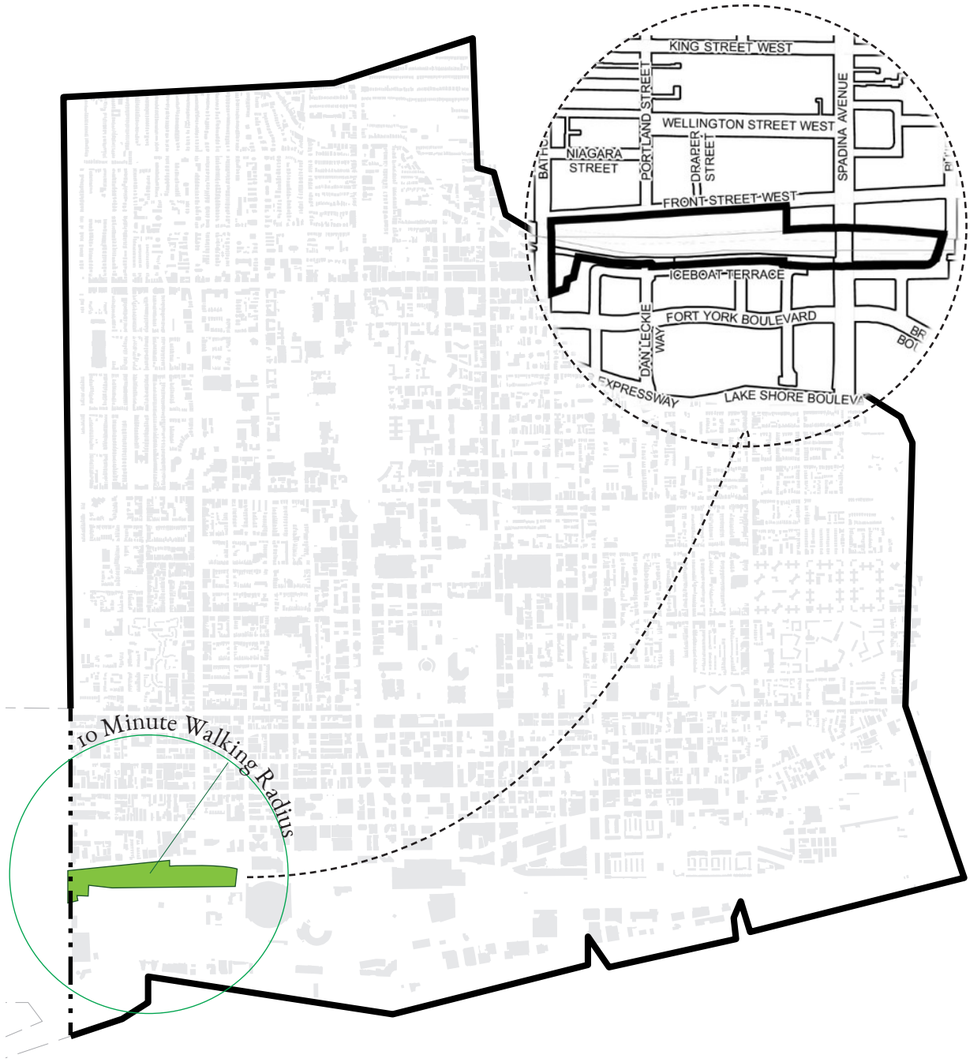


Figure 4.24 Map; Location of Rail Deck Park Proposal

Parks' Accessibility

William Whyte's metric of analysis demonstrates that the common top-down approach of searching for large swathes of land to dedicate to parks and open space is neither easy nor efficient, especially within the tight urban fabric of downtown Toronto. Rail Deck Park is an example of such.

Furthermore, this demonstrates how the addition of public space outside the downtown core, although necessary and healthy, is too out of reach to be considered a contribution to the liveability of downtown. Although it is much easier to find underused land, public spaces located beyond the 10 minute walking radius loses its desirability to be frequented daily or regularly enough for one to gain a sense of ownership or belonging to it.

Based on the previous principle, the following map shows the 5 and 10 minute walking radii outward from existing parks in the downtown core. The areas lacking park service, marked by a yellow hatch on the map, can be those in which future parks and parkettes are designed. Although increasing density is an issue, in terms of number and distribution, downtown Toronto, in reality, is quite thorough in providing green space for the recreational health of its residents.

Thus, this research and design proposal will not be focused on providing new park space within the city or any removal of existing built form to accommodate for such. Instead, the following section explores alternative opportunities found within the urban fabric and and the possibilities that they provide.

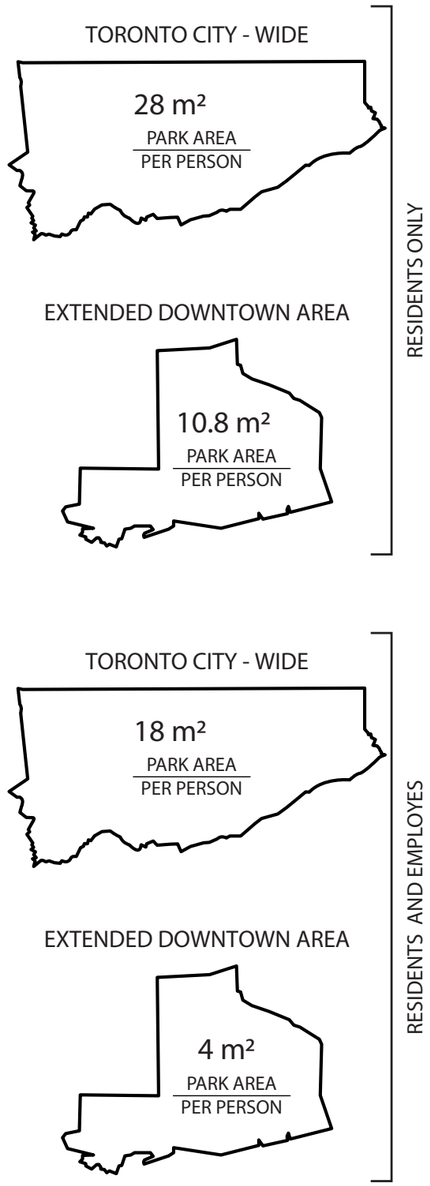


Figure 4.25 Diagram; Park Area Allocation Comparison [1]

[1] TOcore reports, TOgether, Rail Deck Park Technical Briefing . "PDF." City of Toronto, Toronto, November, 2017, 12-13 . https://www.toronto.ca/wp-content/uploads/2017/11/99b2-TechBriefing_20171121_final.pdf

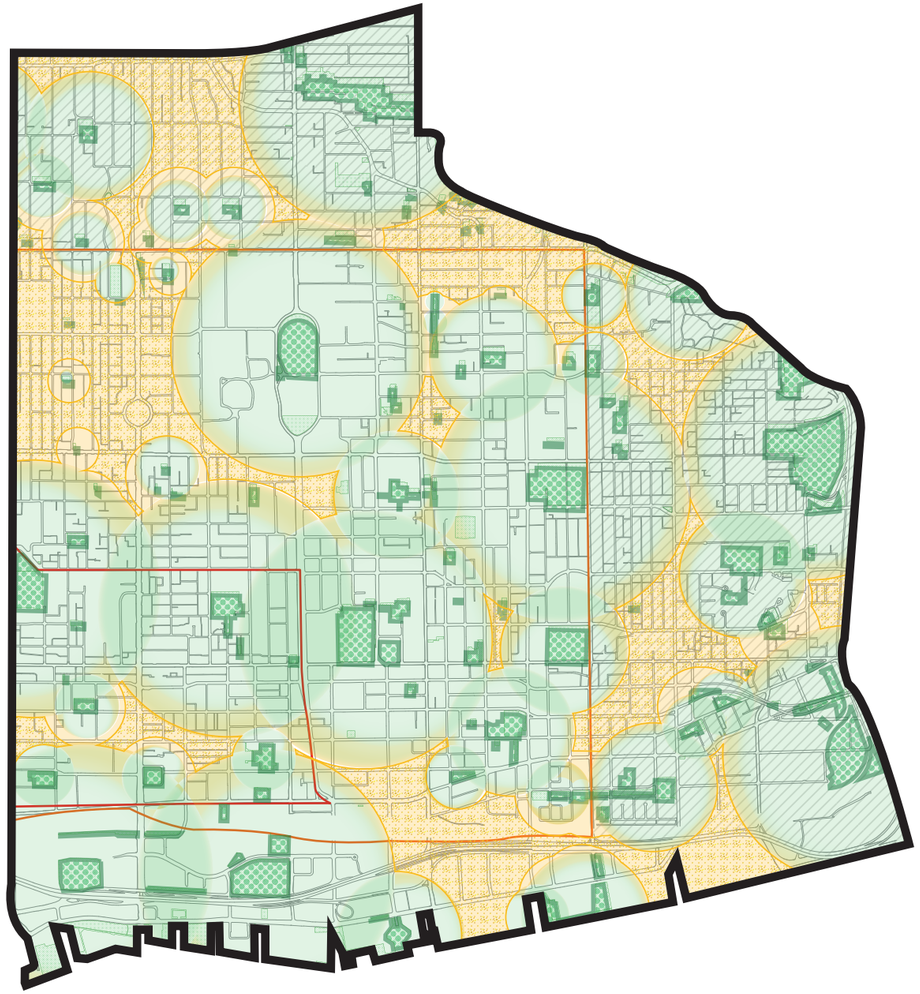


Figure 4.26 Map; Parks' Accessibility and Walking Distance [2]

[2] TOcore reports, "*TOcore Phase 1 Background Report : Downtwon Parks*" . "PDF." City of Toronto, Toronto, March, 2016, 2 . https://www.toronto.ca/wp-content/uploads/2017/11/9757-CityPlanning-TOcore-Phase1-Background-Report-Downtown-Parks.pdf

New York City Public Plaza Program



An Alternative To Parks As Public Spaces

Overview;

The New York City Plaza Program stemmed from an urban analysis conducted by the office of architect and urbanist Jan Gehl, which identified missed opportunities within the city fabric that had the potential to be developed into public space. In 2007, NYC Department of Transportation, through the New York City Plaza Program, introduced a program to partner with community organizations across New York City and created 73 new plazas in neighbourhoods that lacked open space.

The missed opportunities identified by Gehl mostly comprised of a recurring urban condition – the street infrastructure in New York City had created numerous traffic islands separated from building edges with unused right turn lanes. If retrofitted into a public plaza, this condition was the perfect opportunity to give back an underused space to the public without any disturbance to main traffic flows. The Plaza Program allowed community groups to apply for these retrofits (of standard city furnishings) to connect the traffic island and sidewalk, which would be approved if the group demonstrated an ability to maintain the plaza. Priority was given to communities lacking in open space. Most newly generated plazas were simply temporary additions of street furniture, while several popular ones, such as Times Square, have gradually evolved into permanent public space interventions.

Similar to the premise outlined in the research conclusions of the previous section, the goal of this New York City initiative was to ensure the accessibility of a maximum 10 minute walk to a public space for every New York City resident. Altogether, the strengthened network of these spaces produced a much greater result than the sum of its parts – these urban interventions helped to connect destinations, form a collection of unique activity spaces ranging from passive resting to interactive theatre, and ultimately, created district identities and actively expressed neighbourhood culture.

Examples of Public Plaza Program

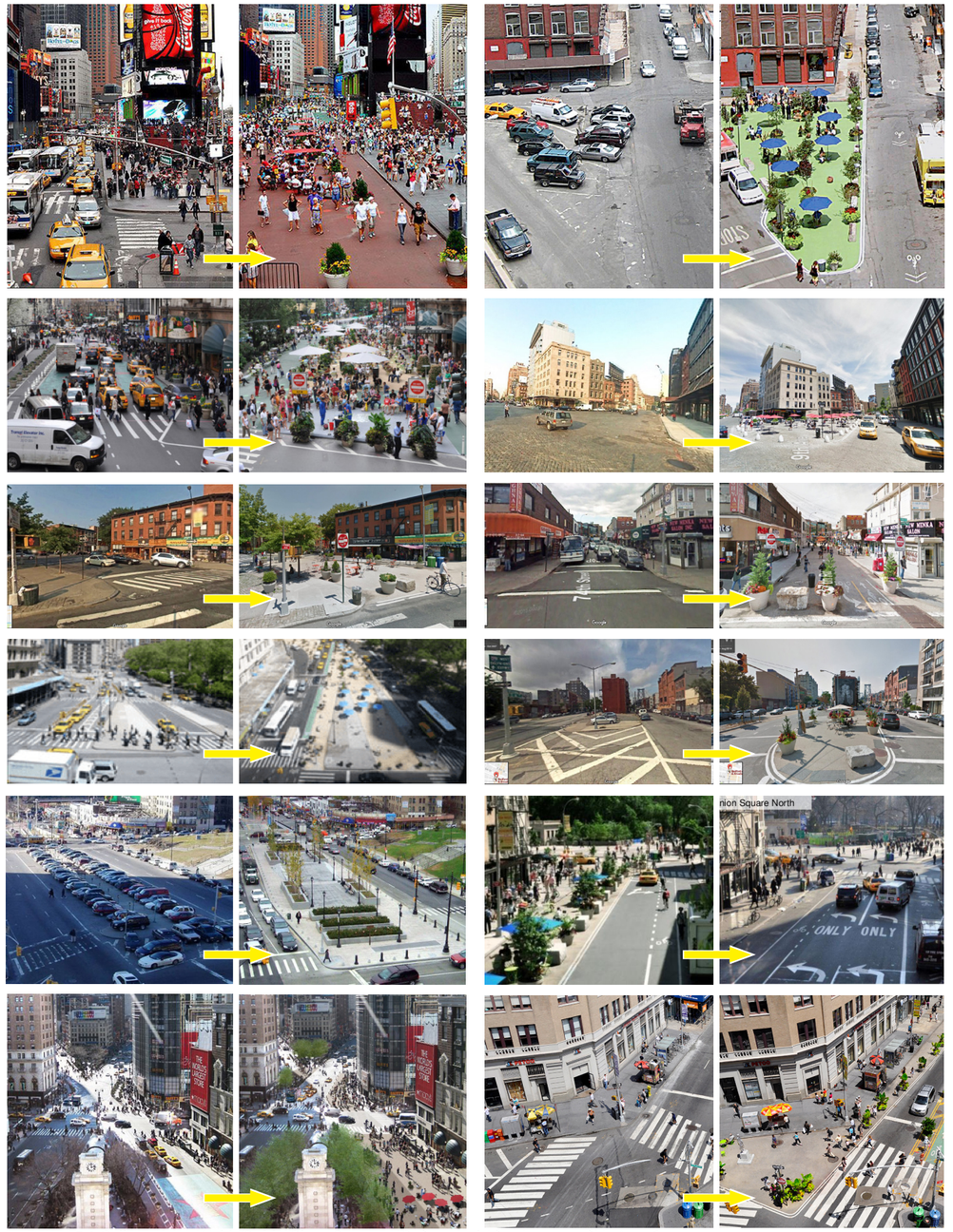


Figure 5.1 Collage; New York's 'Public Plaza Program' Before and After Images of Various Sites

Place Making In Successful Public Space Design

Union Square





Union Sq. Extended Area for 'Pedestrian only' Zone



Temporary Markets Attracts an Immense Crowd to Square





Temporary Place-making for younger ones

Figure 5.2 Image; Union Square After the Intervention

Times Square



Simple set of movable chairs and tables changes the atmosphere drastically, even in a busy Times Square

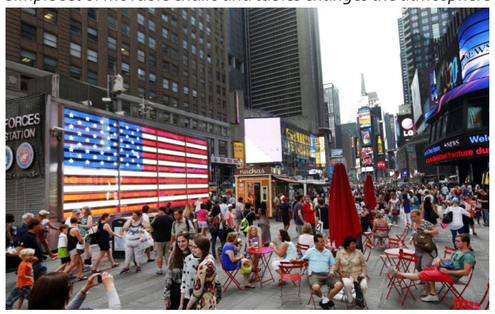




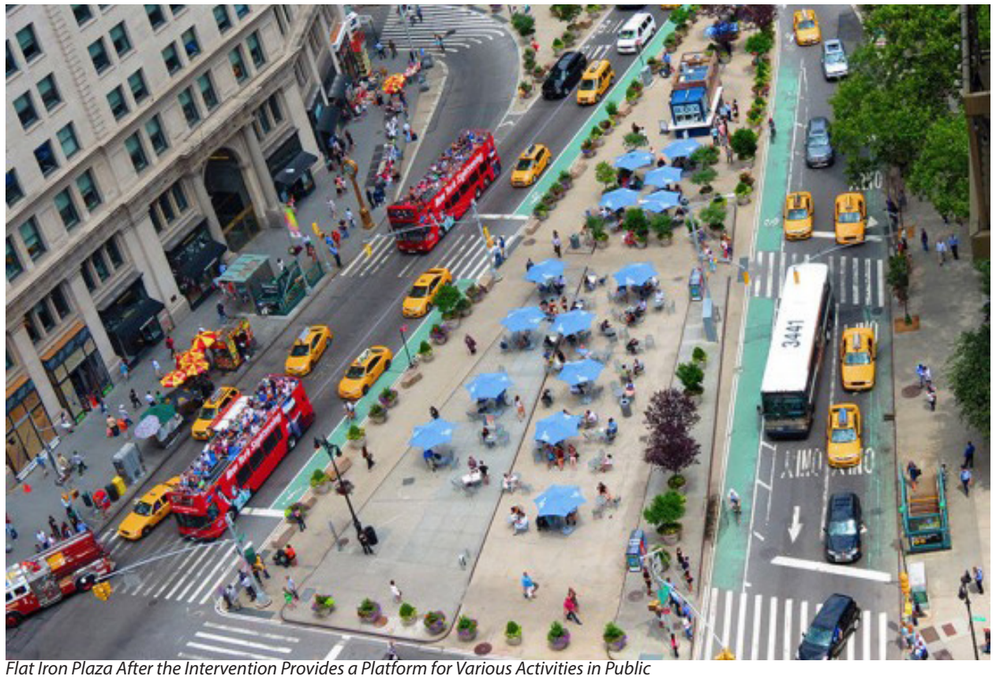




Figure 5.3 Image; times Square After the Intervention

Place Making In Successful Public Space Design

Flatiron Plaza



Flat Iron Plaza After the Intervention Provides a Platform for Various Activities in Public



Starbucks Coffee Giveaway



The Addition of Chairs and Tables Creates Pedestrian Area





Figure 5.4 Image; Flat Iron Plaza After the Intervention

Bryant Park



Bryant Park Became One of the Most Successful Parks After its Renovation and Restoration



Central Green Lawn Can Host Variety of Activities



Chairs and Tables on the perimeter of the Lawn Provides the Opportunity to See and To Be Seen





Figure 5.5 Image; Bryant Park

Strategy Analysis

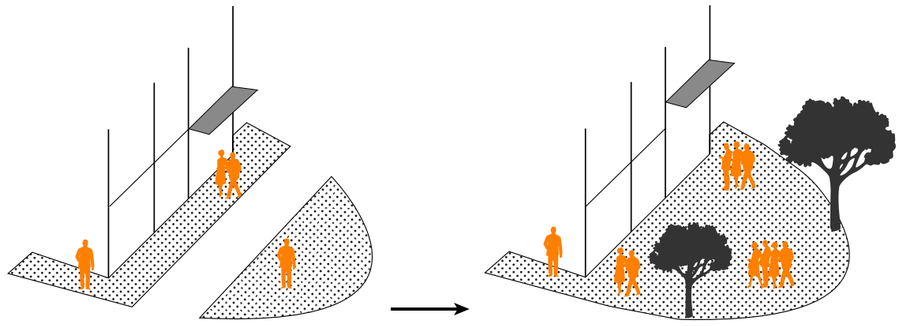


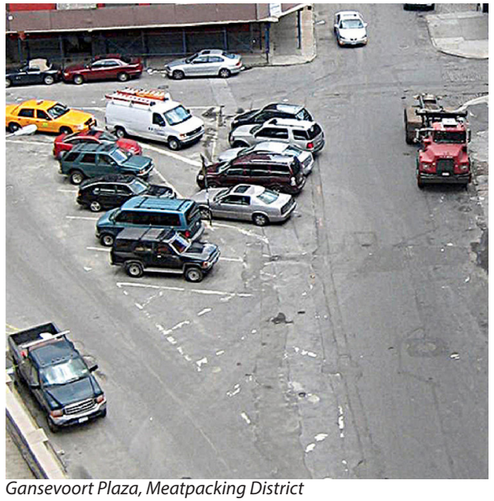
Figure 5.6 Diagram; Extension of Sidewalk

From the public plazas generated by the New York City Plaza Program, three common approaches can be derived, illustrated through the following diagrams and case studies.

Bridging of Sidewalk to Traffic Island

Being the initial opportunity observed by Jan Gehl to reclaim underused public space, this strategy involves the reconnection of a traffic island to an adjacent sidewalk, eliminating a significantly underused or completely unused right turn lane. This results in a large protruding spillover zone that can spatially accommodate street furniture and other permanent interventions such as greenery and means of shelter to provide an opportunity for gathering that does not intercept the pedestrian flow on the sidewalk.

This approach is categorized as embodying the notion of sidewalk extension to expand its function beyond being a mere route for walking. In doing so, this change brings purpose back into adjacent underused street or traffic lanes and provides pedestrians with the spatial opportunity for gathering, pause, and interaction. The result is the formation of pockets of social activity integrated into regular public circulation.



Gansevoort Plaza, Meatpacking District





Broadway Avenue





Union Square



Figure 5.7 Image; Examples of Extension of Sidewalk - Before and After Images

Strategy Analysis

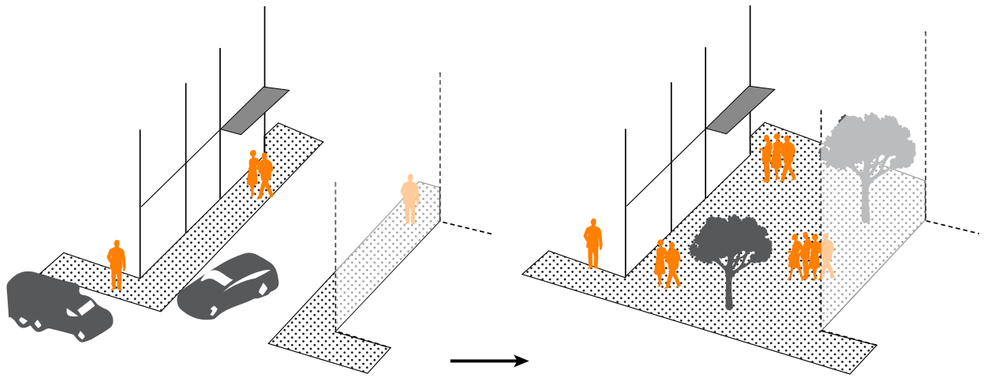


Figure 5.8 Diagram; Pedestrianization of Street

Bridging of Sidewalk to Sidewalk

Similar to the above strategy, but at an increased scale, the bridging of two sidewalks results in the elimination of a vehicular right-of-way, this time, the redirection of traffic from a functional street. This strategy results in significant change to the road infrastructure of a city, and thus, requires careful consideration and study. It is suitable and successful often in short spans over very low traffic laneways and one way streets, or over higher traffic areas that have a significant pedestrian presence, as in the case of Times Square, which has been able to fully realize its potential as a pedestrian scaled commercial and cultural corridor with the removal of vehicular traffic.

Generalized, this strategy is the action of street pedestrianization. It should be noted that this should only be applied when and where alternative ways to accommodate displaced traffic is available, and should not interfere with emergency vehicle and responder access since the full occupation of a street by pedestrianization effectively eliminates its use as an emergency vehicle thoroughfare.



Herald Square





Herald Square





Times Square



Figure 5.9 Image; Examples of Pedestrianization of Street

Strategy Analysis

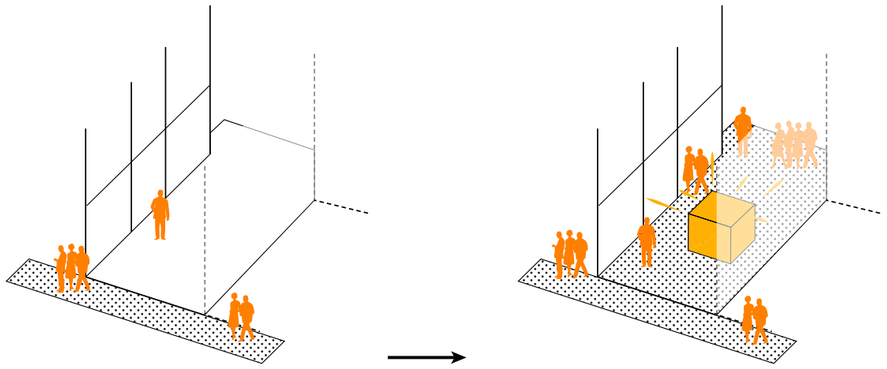


Figure 5.10 Diagram; Extension of Sidewalk and Pocket Programs

Extension of Sidewalk into Adjacent Lots

This strategy, carried out through the occupation of small pockets of underused space adjacent and connected to existing sidewalks produces a protrusion for public gathering and recreational use, similar to the first strategy of reclaiming severed traffic island space. A scattering of these intervention types produce a very powerful result – it requires fairly minimal change and no change to the existing street infrastructure while reasserting the place of the pedestrian. Establishing places of belonging specifically at a human pedestrian scale relays an open invitation for pedestrians to return to and reclaim their portion of sidewalks and streets, which, arguably, forms the largest public space network in any urban city.

This approach can be typified as the introduction of a physical attractor or element that establishes a human-scaled ambiance.

Paley Park, a powerful example in New York City, attracts people not for simply being an extension of the street, but rather, for being a small and quiet "oasis" in the middle of city noise and chaos. It provides seating, an intimate tree canopy, and the muting of exterior noise with a water feature.

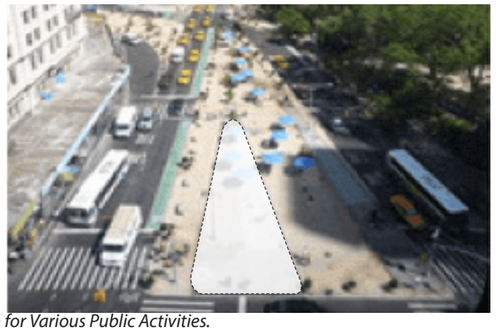
The Flatiron Plaza, on the other hand, is both a street expansion and an opportunity pause and appreciate the popular and formally unique landmark.





Small Artificial Waterfall Induces a Sense of Calmness
Paley Park provides a Relaxing Resting Opportunity Away from New York's Chaos





Transformation of a Traffic Island to a place to Rest and a Platform for Various Public Activities.

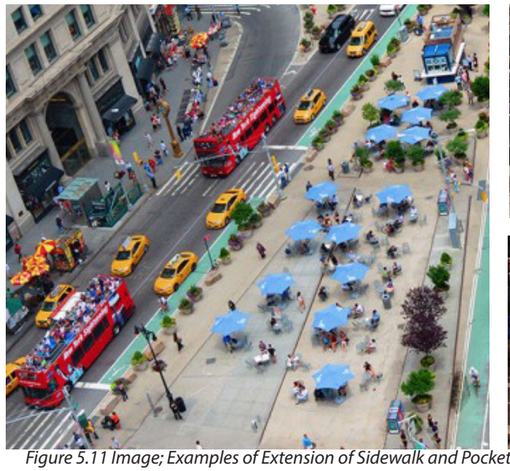






Figure 5.11 Image; Examples of Extension of Sidewalk and Pocket Programs

Common Strategies Of Place Making In Successful Public Space Design

Spatial Analysis Within Each Intervention

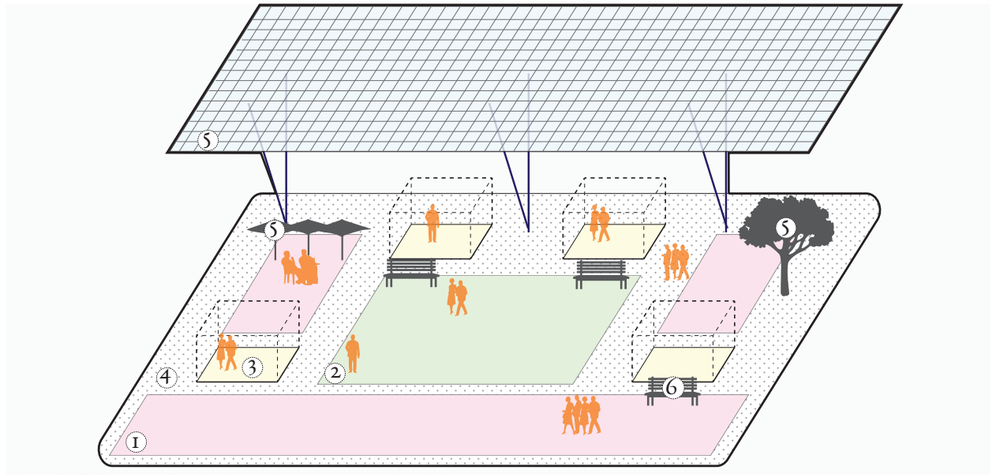


Figure 5.12 Diagram; Spatial Analysis of Successful Public Spaces

1-Passive Engagement And Pause
2-Flexible Area
3-Programmed Area
4-Transitional Area
5-Prottective Elements
6-Urban Components

The following is a breakdown of commonalities in spatial arrangement identified from the various New York Public Plaza Program case studies:

Boundary and Definition

The greater boundaries of the space are well defined through various means. Each defined public space is an assembly of varied zones, organized strategically to optimize programmatic experience and flow. A transitional connective tissue allows for overlap between zones, and in many cases, the sharing of a common buffer zone. This results in a natural user progression from one zone to another, resulting overall, in a dynamic space filled with movement and activity.

Unprogrammed and Flexible Areas

Unprogrammed spaces, seen in the previous case studies, are one of the most effective strategies in attracting users. These spaces allow for many possibilities of use, giving an increased sense of approachability for user personalization.
In addition, flexible spaces are catalysts for user initiated activities or events, such as exercise clubs and other group activities. With very little to no fixed furniture, social and cultural activities, such as installations, temporary markets, art displays, and pop-up performances can easily be set up and then removed to return the space to the public after the event. In the spirit of non-permanence, there is also opportunity to generate a small sum of income through the rental of time slots to local businesses that could make use of the space as patio extensions or promotional kiosks. This revenue would greatly help in maintaining the upkeep and quality of the space while building community and supporting local economy.

Passive Engagement and Pause

These areas, often located just within the outer boundaries of a public space, form thresholds that allow one to exit from the pedestrian flow of the sidewalk and enter into the activity zones within. These areas encourage a change in pace with options for passive engagement and rest, providing opportunities for idling, resting, gathering, and waiting - they are spaces for seeing and to be seen.

Programs and Activities

The programs assigned to each public space ranges from passive to highly interactive, and from general to highly specific. These designations and corresponding design provisions have the objective of creating unique points of attraction within each space.

Most spaces begin at a base point of seating for pause and rest, and adds levels of enhancement to this program, such as water features, theaters, and opportunities for art. Elements that require active user participation are used to excite a sense of curiosity and encourage interaction with others also participating in the use of the space.

Transitions Between Program Zones

The programming of public spaces will often contain multiple zones of varied use and function. The blurring of these zone boundaries, through the elimination of physical boundary demarcations, the use of buffer zones as transitional space, or the overlapping of one activity zone with another, aids in establishing an active flow throughout, resulting in a more interesting and dynamic public space.

Prominent Displays of Elements and Physical Attributes

Effective public spaces are ones that experience frequent interaction and use. Thus, successful spaces are designed to attract the attention of the passerby – their attention is gained with an eye-catching provision that is lacking from the sidewalk or surrounding area, a feature that looks interesting and invites further attention. In some cases, even the use of a creative paving design or material can attract users into a space.

Urban Components

In conjunction with eye-catching design elements, the urban components within a public space are the elements that exert staying power for the user. Simple components of comfort include sheltering devices such as umbrellas and canopies; means for rest, such as benches, movable chairs, or ledges; and leisure activity opportunities, such as tables and plaques.

More complex components often have the objective of active user engagement, as is the case with installations, displays for art and culture, performance spaces, and aesthetic or interactive features that entice users to be creative.

Finally, there are components of deliberate engagement, often in the form of very specific program designations that may be temporary or permanent. This includes playgrounds, market stalls, food stands, or communal gardening programs that require an entrance into the activity or a form of active contribution or exchange for participation.

Common Strategies Of Place Making In Successful Public Space Design

Bryant Park Analysis

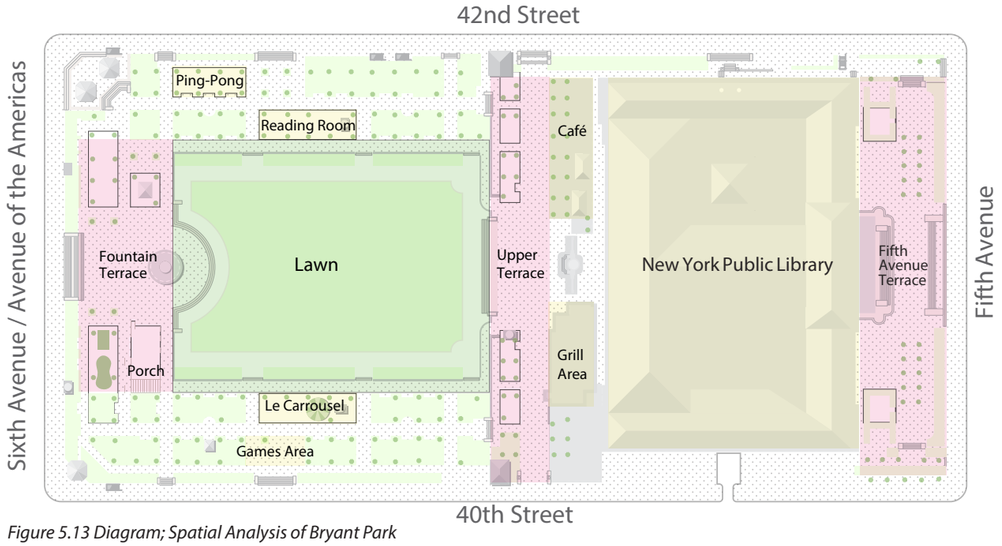


Figure 5.13 Diagram; Spatial Analysis of Bryant Park

Application of Principals

Most of the strategies identified in the spatial urban space analysis can be found in Bryan Park, the multipurpose public space and park adjacent to the New York Public Library.

The park, based on a courtyard typology, features a large central lawn surrounded by smaller programmed areas. These areas provide various backdrops, for the central lawn, with the most stunning being the grandiose New York Public Library facade preceded by a theatrical set of stairs. Bryant Park is an exemplary demonstration of architect and urban theorist Camillo Sitte's model of successful spatial organization, which emphasizes the importance of a passive central space with dynamic surrounding elements that form strong, complementary relationships with one another.

Despite the size of the park, the experience is intimate, calm, and separated from the surrounding chaos of Manhattan. This is achieved through park boundaries that are screened from the city by a continuous line of buildings and trees, providing a sense of shelter and enclosure. The variety of activities available in the park -cinema, skating, markets, and a massive selection of seating types- also creates countless overlaps on both macro and micro scale. In turn, a sense of busyness is generated, resulting in the formation of constantly shifting sensory zones that establish and temporary bubbles of social intimacy. The figures in this spread illustrate the division of space and examples of various activities within the park's flexible space. Bryant Park generates a revenue stream by renting designated kiosks and flexible areas (using both time-share models and fixed-price contracts) to different businesses, organizations, and even to the city itself. The revenue is spent for management and continuous maintenance.



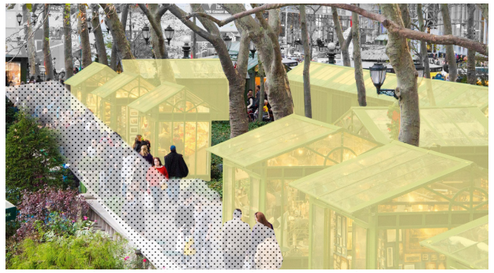
The central lawn, an unprogrammed flexible area, provides many options for usage configuration



The upper Terrace and central courtyard with a circulation corridor littered with tables, chairs and other options for pause to slow and redirect pedestrian movement.



The New York Public Library is a major attraction within the city, and complements the public space program below by being a destination point for a fair amount of park visitors.



Winter markets are also seasonal programmed activity zones set up to give more weather appropriate variety when summer activity options are not desired.

Various Activities in Flexible Area









Figure 5.14 Image; Bryant Park After Renovation and Restoration

Common Elements Of Place Making In Successful Public Space Design

Overview;

Further to spatial organization, commonalities also exist within the physical elements introduced into successful public space design. The following is a description and examples of each:

Distinct Paving Strategy

Paving is a very prominent feature of public spaces, as it occupies a large proportion of the visual experience. Unique design of paving is thus very effective in distinguishing spaces with very minimal physical boundary. The advantage of this design strategy is that it easily transforms any surface or ground cover with vivid and vibrant spatial qualities.

This strategy is extremely flexible in cost, scale, and permanence – intervention methods can range from a simple coat of fresh paint on existing ground to the use of a variety of materials or even the embedding of "smart" technology based systems.

In design interventions, an endless range of design options and a wide range of functions exist. Paving can be a unique expression within itself. It can also be used to visually categorize spaces, such as the grouping of several disjointed pieces into an activity unit through visual continuity. Furthermore, paving can be designed to guide movement through a space, and its continuity can contribute to the dissolving of visual boundaries that exist between different conditions, such as the threshold between open and enclosed spaces. Altogether, paving design is a very versatile tool in guiding interaction and movement both within and outside of public space design, and a great contributor to the formation of dynamic and diverse social zones.



Figure 5.15 Image; ZighiZaghi Project in Favara, Italy



Figure 5.16 Image; Urban Bloom, Experiment in Shanghai, China



Figure 5.17 Image; St. James Plaza in Melbourne, Australia

Flexible Areas

Another common denominator in many precedent studies is the provision of flexible, unprogrammed, or easily adaptable spaces that are critical in enhancing user engagement. They not only provide opportunity for informal gathering but are key to establishing user control and ownership. A basic requirement to be met by public spaces is the ability to host a variety of activities. Furthermore, observation by onlookers of activities in progress is, in itself, an attractive factor for a public space.

The unique provisions of each design's "flex" zones create potential for a wide range of user initiated social functions such as installations, pop-up performances, markets, and art displays. In addition, to generate revenue for ongoing maintenance, this zone can be rented on a flexible schedule to adjacent businesses for uses such as patio extensions or promotional kiosks.



Figure 5.18 Image; Outdoor Co-Working Space in Montreal



Figure 5.19 Image; District Park in Darling Quartier, Sydney, Australia

Common Elements Of Place Making In Successful Public Space Design

Urban Rooms;



Contained activity spaces

Contained activity spaces are well defined spaces within the defined public space boundary that provide setting for a variety of types of user interaction, categorized as the following:

Spaces can contain passive observational activities that can be experienced at a distance and draw users to engage by building curiosity. Examples can include gallery exhibitions that culminate in a short occupation of the space, such as a walking tour to view the different displayed items.

Type 1



Figure 5.20 Image; Example of Urban Room



Figure 5.21 Image; Temporary Pavillion for Archiwood Exhibition



Figure 5.22 Image; Urban Telescoop by COOP pe Strada

Another form of space provides engagement through physically interactive activities and an active decision made by the user to participate. Users can also be drawn through the building of curiosity, or by an intentional seeking out of this activity. Examples include the obtaining of services or goods through food vendors, information kiosks, or kiosk libraries, which involve active interaction and most often, a longer occupation of the space.

The last form of space is one that, in itself, is the sought-after service. The user will often approach with the predetermined intention to commute to and participate in this activity, may have flexibility in defining the use of the space, and has the intention of a predetermined, and much longer-term occupation of the space. Of the three, these spaces give the user the greatest sense of ownership. Examples of such include work stations, community gardens, or exercise rooms.

Type 2

Figure 5.25 Image; Story Pod - Newmarket, Canada



Figure 5.23 Image; Built Urban Environment, Wikiblock Toolkit

Type 3

Figure 5.26 Image; L.L. Bean Coworkin Space



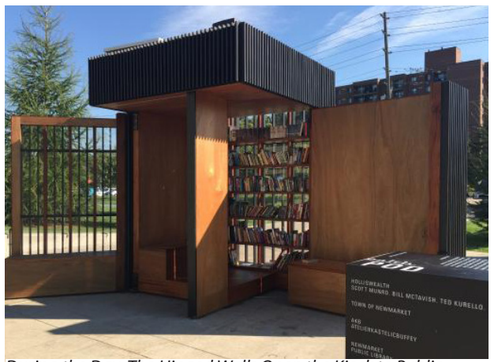
Figure 5.24 Image; Lidl Design Bookery

Common Elements Of Place Making In Successful Public Space Design

Design

Simple and versatile design is the most appropriate design approach for all of the above elements, especially in the case of the “Urban Room” . A method to achieve this is by small, stackable, and modular design. Small dimensions in the base module will provide flexibility for modification and equal accommodation of different intervention sizes, such as parking lots or pedestrianized street lanes. It also provides the ability to adjust to changing user needs or even a cycling through different activity types over a period of time.

The social space created by “Urban Room” is similar to the the structure and concept of the "third place" developed by Ray Oldenburg. In regards of necessity of their existence in public sphere Oldenburg mentions that “Most needed are those ‘third places’ which lend a public balance to the increased privatization of home life. Third places are nothing more than informal public gathering places. The phrase ‘third places’ derives from considering our homes to be the ‘first’ places in our lives, and our work places the ‘second.”[1]



During the Day, The Hinged Walls Open the Kiosk to Public
Figure 5.27 Image; Story Pod

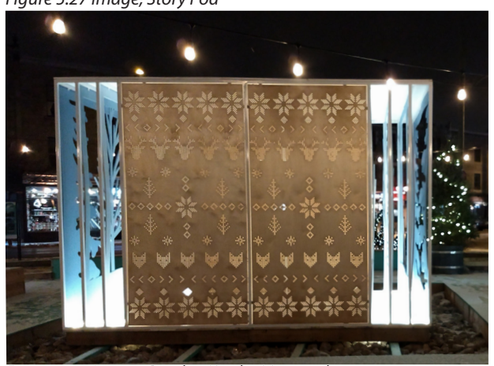


Figure 5.28 Image; Display Kiosk - Montreal





Louvered Walls Provide Passers By With an Understanding of the Type of Activity that is Occurring. This Transparency Induces a Sense of Safety for the Users.
Figure 5.29 Image; Design Build Project- Tu Wien Architecture

[1] Hendershott, Anne, and Ray Oldenburg. “The Great Good Place: Cafes, Coffee Shops, Community Centers, Beauty Parlors, General Stores, Bars, Hangouts, and How They Get You Through the Day.” Contemporary Sociology, vol. 20, no. 1, 1991, p. 78., doi:10.2307/2072095.

Appreciation of small spaces

Many downtown cores of urban metropolises around the world face a similar issue of lacking sufficient urban space to balance out rapid population growth. In response, there has been a great variety of examples employing innovative methods to make use of the smallest available spaces. These solutions, often quirky, novel, and of cheap, fast, and light material construction have been greatly appreciated by visitors, employees, and residents of these dense areas alike. Some examples that begin as pilot or temporary projects become so popular that they become integrated as permanent public spaces.



Provided Good Conditions, Even Small Spaces During Harsh Weather Conditions is Being Used.



Figure . Image; Demonstrating a parkette in use Located in a Rather Quiet Street

Common Elements Of Place Making In Successful Public Space Design

Canopy

Canopies can elevate the experience of a public space by providing shelter from the elements, an attribute that distinguishes this space from the public realm of the street. However, within the dense downtown core, a lack of open space is already a prevalent issue, and therefore, the design and formal appearance of overhead structures should enhance the experience and openness of the area it shelters.

Sufficient height and porosity or transparency of material can be combined towards achieving such an effect. Also, the reduction in number and density of vertical support elements also increases the openness of space. However, while height can be raised to increase openness with vertical space, excessive height results in a canopy that is too far removed to achieve its intended purpose of shelter. Space frames can also increase column spans, but their general bulkiness can be visually disruptive if excessively used. A delicate balance of these design choices is key, as the canopy, to fully fulfill its function, needs to be designed to the human experience and scale.



Figure 5.30 Image; Folly: Sticks



Figure 5.31 Image; Renzo Piano's IBM Pavilion



Figure 5.32 Image; Folly: Sticks



Figure 5.33 Image; Timber Gridshell

Maintenance and Management



Figure 5.34 Image; Oakley - Promotional Event



Figure 5.35 Image; Energy Solutions - Promotional Event



Figure 5.36 Image; LED Truck - Promotional Event



Figure 5.37 Image; Coca Cola - Promotional Event

All public spaces experience damage and material degradation, sometimes as a result of vandalism, and other times, simply from the continued wear and tear of regular use. To enable its maintenance, a small stream of income is required, which can be achieved through temporary or time-slot based space rental to private and public organizations. Rooms and kiosks can be suitable for hosting promotions or demonstrations while larger open spaces can be used for temporary assembly events. Specific rooms, rented through a time-share manner can also pass on maintenance responsibilities to the temporary owner, which would reduce the demand on district Business Improvement Area organizations that are supported by the public sector.

Kit of Parts

Development Of A Modular System;

The previous series of case studies have analyzed the usefulness of repeated urban components that have key functions in providing successful and desirable settings for public space users.

These findings, in combination with a modular approach, are developed here into a logical kit-of-parts design system. The modularity of each component within this system allows for faster construction and for greater flexibility and efficiency in assembly. This kit is capable of being dismounted, disassembled, replaced, and reused as a whole or as individual modules.

Paving System;

The modular paving system is developed with a design similar to the architectural raised access floor. The structure chosen is galvanized steel, to ensure use and durability in exterior conditions. Also, this allows for shallower structural height and thickness needed to provide stability. The resulting deployment of the system at street level is then able to match the height of the curb and sidewalks, creating a seamless transition from the sidewalk onto the paved surface.

Additionally, the smaller building blocks of the galvanized metal system provide more space under the paved surface, giving room for a variety of surfaces such as pipes or tubing for water, wiring for electricity and communications, and the addition of floor heating systems if needed.

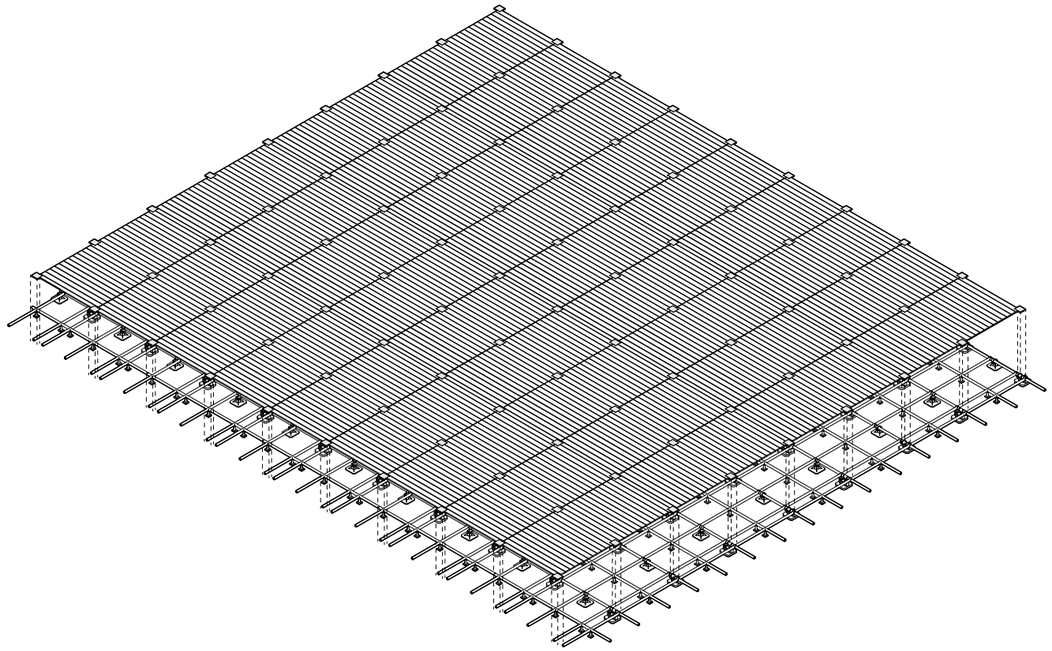


Figure 6.1 Diagram; Axonometric Representation of Paving System

Paving System Design Features:

-Operable Module
Having an operable module allows ease of access to the services contained within the space beneath the platform

- Vertical Connection via Socket System
These embedded sockets are rigid connection points for the installation of vertical components such as columns, vertical paneling structure, and vertical poles.

-Small Rectangular Design
The paving surfaces can be broken down into small parts, providing ease of transportation and allows for use in small narrow spaces such as for parklets and on sidewalks.

-Wooden Top Platform

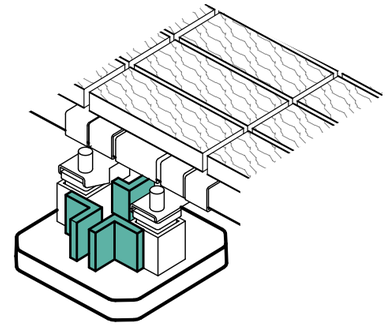


Figure 6.2 Diagram; Axonometric Detail of Socket Mechanism

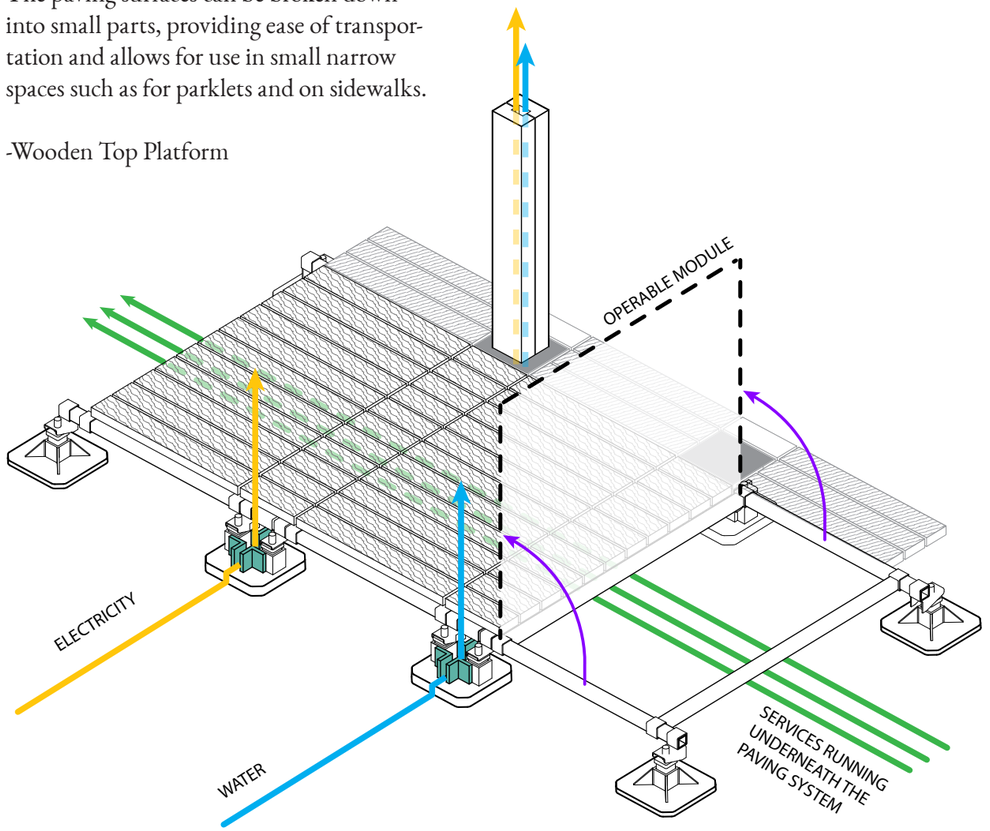


Figure 6.3 Diagram; Axonometric Representation of Paving System

Kit of Parts

Flexible Areas;

Flexible areas form the core of the proposed design interventions. These spaces provide the most flexibility in their function, and can have a variety of surface treatments or even no treatment at all.

This variation of surface coverage, ranging from artificial grass, natural grass, paint, gravel, or the paving system, uses materiality to help support and achieve the desired outcome.

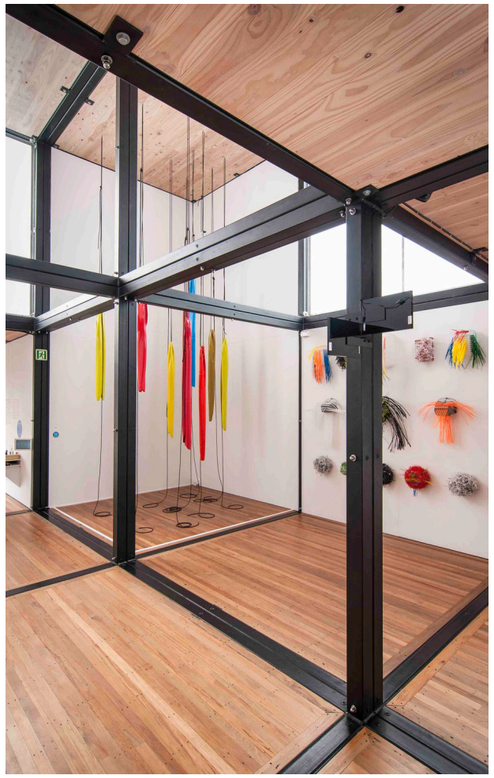


Figure 6.4 Image; Constructed Boxus System

Contained Activity Spaces;

Contained activity spaces, also referred to as "Urban Rooms", are built on top of the modular paving system, sharing the platform as their base surface. The socket inserts of the paving system provides a foundation for the structure of these rooms.

Aside from structure, these rooms are "clad" with vertical and horizontal panel, attached to the structural framework - a design inspired by the Boxus system modular building concept by F3 Design. At least one solid panel is required as lateral bracing for structural stability.

The modular formation of these urban rooms allows for their extension or contraction in area through structural framework expansion. The variety in paneling options also adds to their versatility - these panels can be combined in different groupings appropriate for the intended program.

The following diagrams demonstrate the installation of the frame structure and various paneling options.

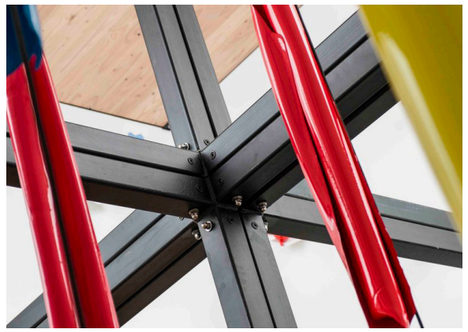


Figure 6.5 Image; Constructed Boxus System

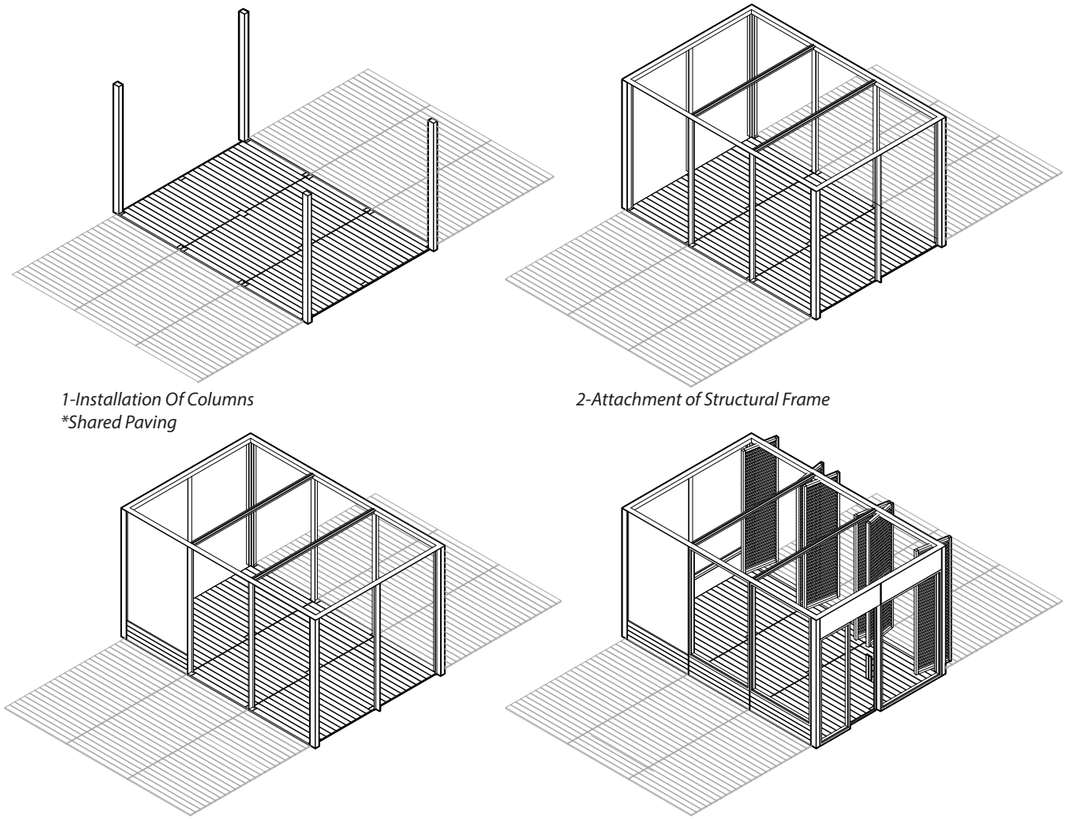
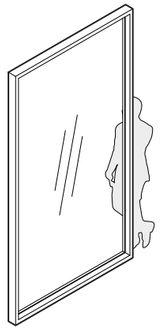


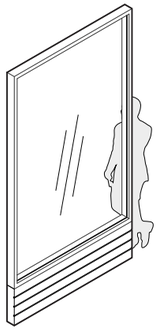
Figure 6.6 Diagram; Step-by-Step construction of an 'Urban Room'

Kit of Parts

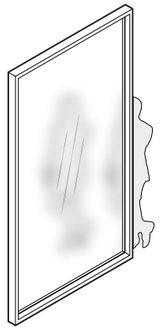
Panels;



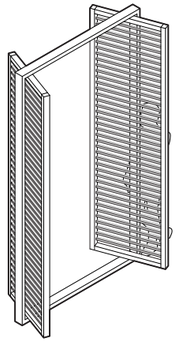
Transparent Glazing



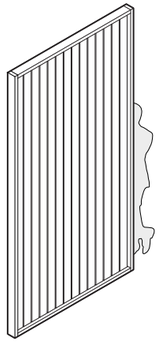
Transparent Glazing With Solid Bottom



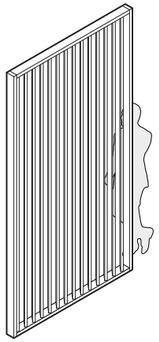
Translucent Glazing



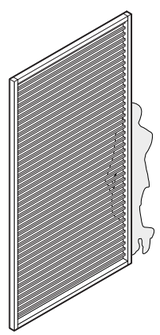
Folding Louvered



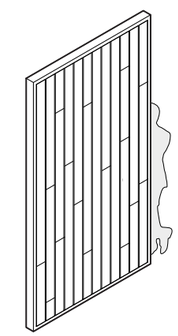
Vertical Louvers



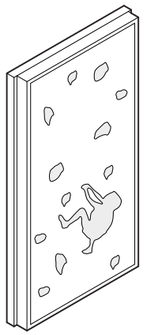
Vertical Spinning Louvers



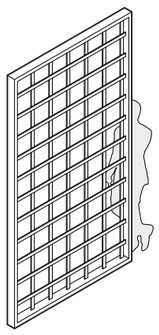
Horizontal Louvers



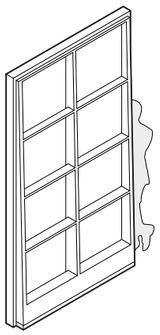
Solid Wooden



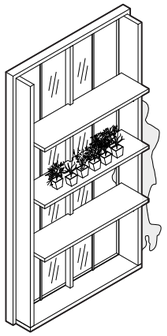
Indoor Interactive



Lattice



Wooden Living wall



Wooden Shelves

Figure 6.7 Diagram; Axonometric Representation of Panels

Canopy;

The purpose of the canopy is to provide shelter and protection from undesired climate conditions, such rain or snow, and shade from the sun. They are usually simple in design - a few components that comprise of vertical columns, horizontal space frames, and panels that are supported by these frames.

The design proposed within this kit of parts makes use of the sockets embedded within the previous paving system for fast and easy deployment. This canopy will consist of laminated wood reinforced with metal connections and metal plates. The columns have a C-section profile to accommodate electrical wires or piping; and along fold lines of the canopy, gutters are integrated for water removal. The columns are then connected to the horizontal space frame using connections inspired by Frank Gehry's structural details for the Louis Vuitton Foundation and the Jackson Hole Airport structure designed by Gensler.

Two options are available for canopy panels: the first has a solid but transparent surface to help protect against rain and snow; the second is filled with louvers to provide shading and interesting visual patterns.

The solid panels not only shelters from precipitation but also weighs down the entire system against wind forces since the paving, rooms, and canopy are all connected as one. The lighter louvered panels can then be used to expand the reach of the canopy for larger overhangs without the need to add a significant amount of structure since they do not take on much additional wind load or dead-loads from rain or snow.

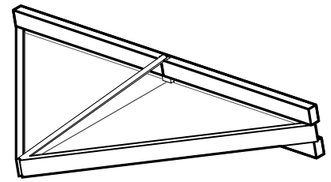


Figure 6.8 Diagram; Solid Canopy Panel

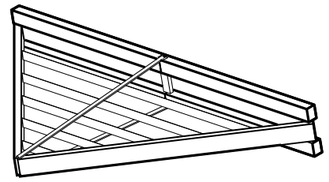


Figure 6.9 Diagram; Louvered Canopy Panel



Figure 6.10 Image; Connection Detail, Louis Vuitton Foundation by Frank Gehry



Figure 6.11 Image; Connection Detail, Jackson Hole Airport by Gensler Architects

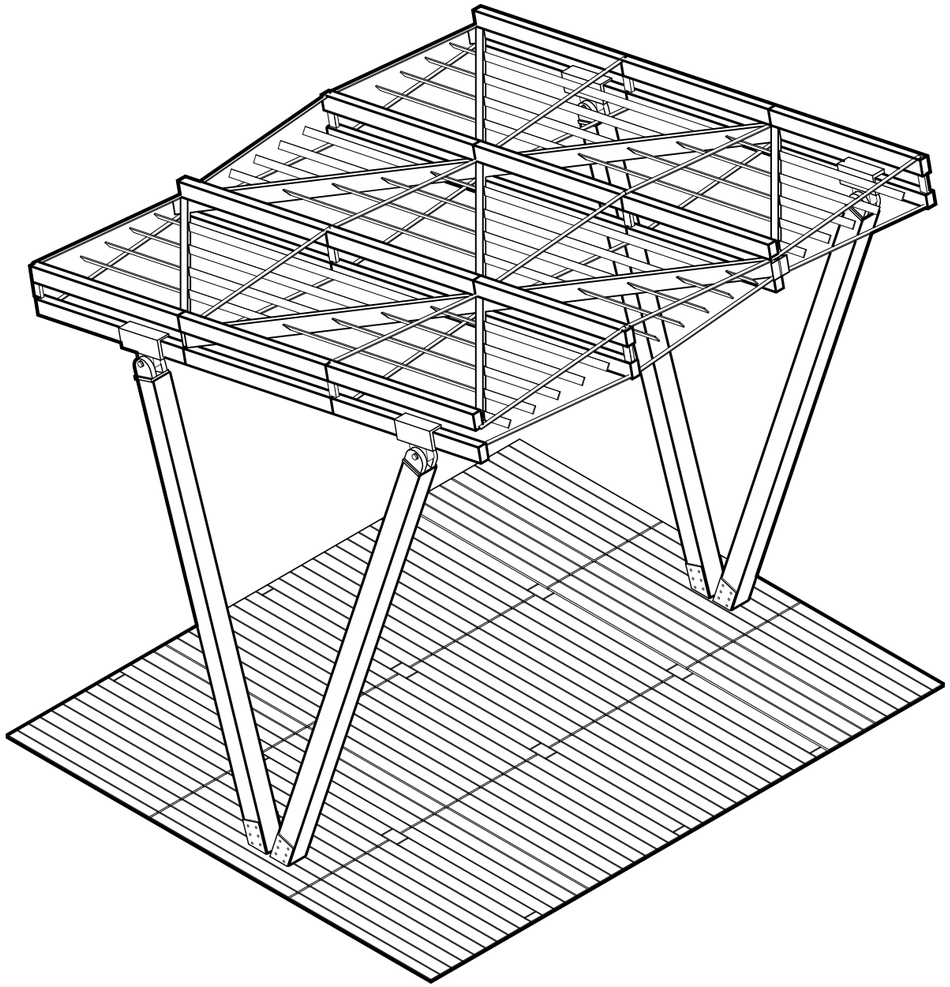


Figure 6.12 Diagram; Axonometric Representation of Constructed Canopy With Louvered Panels

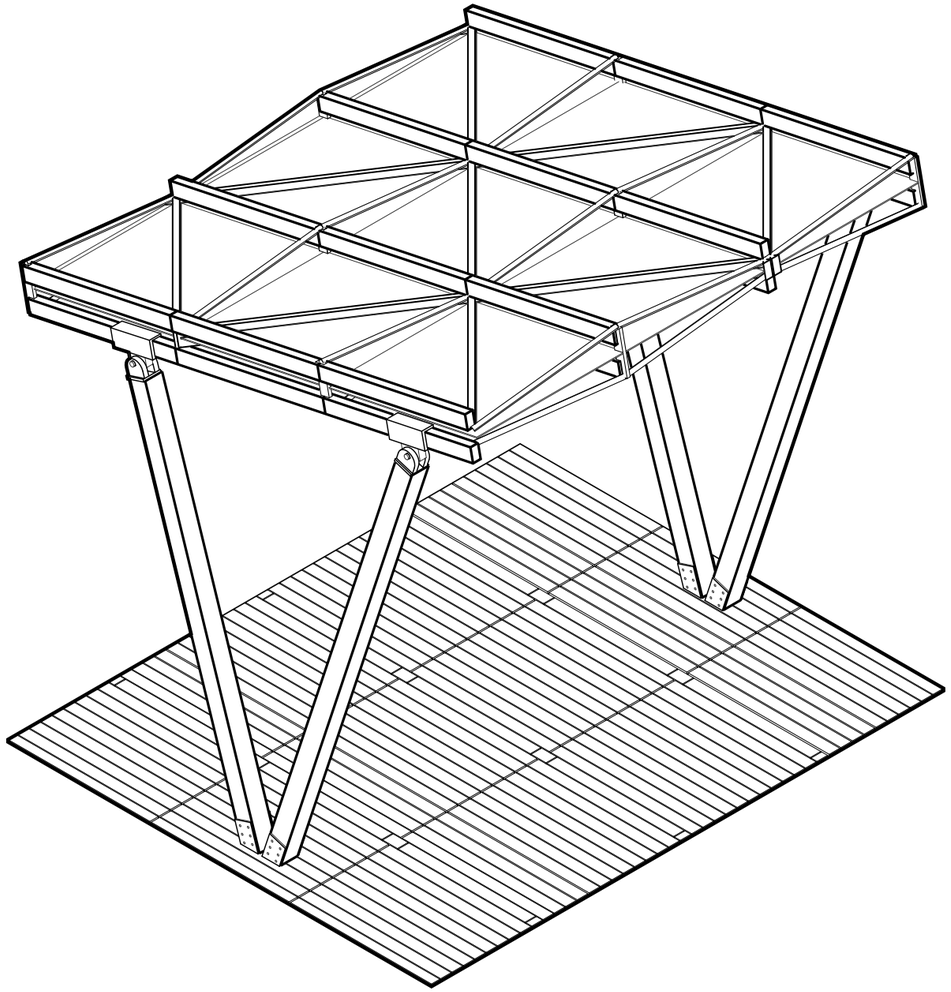


Figure 6.13 Diagram; Axonometric Representation of Constructed Canopy With Solid Panels

Kit of Parts

Primary Seating;

Primary seating can be categorized into two types, small and movable, and larger and multi functional. The designs for larger areas of seating can accommodate large groups of people and incorporate other elements such as planters.

The seating options are proposed to have simple designs in line with the materiality and language of the wooden planks from the paving system. Planter boxes follow suit in their design. Both are based on modular dimensions, and make use of the socket inserts in the paving to be affixed to the platform. Separate vertical inserts, such as umbrellas, heaters, misters, lighting devices, etc. can also be incorporated into the design in a similar way.

A unique component to this kit of parts is the Parisian folding chair, which is included for its value as a lightweight and easily movable seating option. It is especially suitable for more flexible, participant defined spaces as they are quick and easy to move and reconfigure.

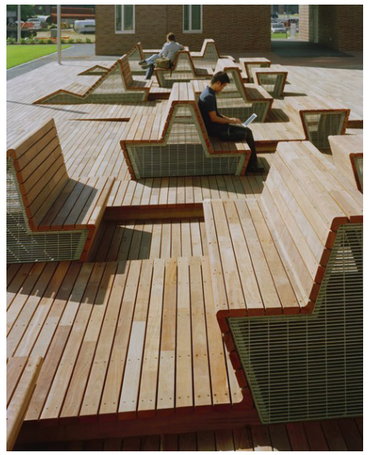
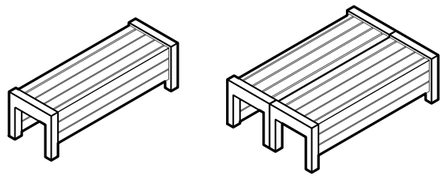
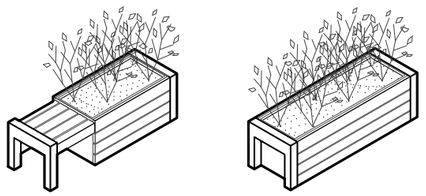


Figure 6.14 Image; Furniture and Paving System - Harvard University One Western Ave.

Simple Bench



Bench + Planter



Bench With Backers

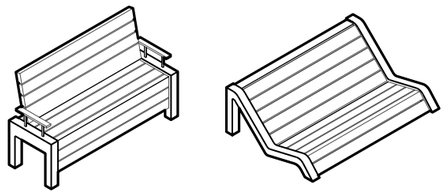
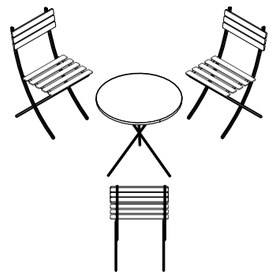


Figure 6.15 Diagram; Axonometric Representation 'Kit of Parts' - Furniture



Figure 6.16 Image; Parisian Chair

Movable Chairs and Tables for Outdoor Purposes



Movable Chairs and Tables for Indoor Purposes

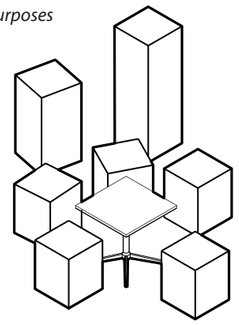


Figure 6.17 Diagram; Axonometric Representation 'Kit of Parts' - Furniture

Vertical Components;

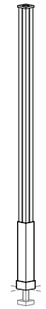
Vertical components are auxiliary posts to provide the kit of parts with extended functionality. These posts are connected to the socket mechanism embedded in paving system.

The purpose of the posts is to provide vertical support at points where the load bearing needs are at a minimum. In addition, posts can be used to mount elements such as, lighting devices, heaters, misting fans, and umbrellas to optimize the physical conditions of human comfort.

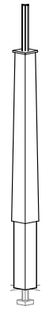
Base Post



Post + Lights



Post + Heater



Post + Umbrella

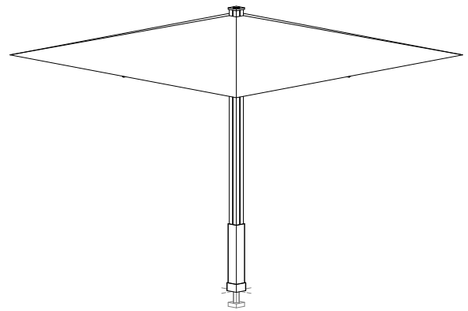


Figure 6.18 Diagram; Axonometric Representation 'Kit of Parts' -Vertical Components

Kit of Parts

Maintenance and upkeep;

This kit of parts is designed to be more robust and durable in the material choice and connection joints used in areas subject to higher wear and tear. Elements that are further from reach, such as the space frames and canopy panels, can be of more delicate materials or complex construction as they are not constantly being touched or as prone to vandalism.

Furthermore, the design of the kit of parts as small modules also allows for easier management and maintenance. The pieces that are damaged can simply be dismounted and replaced or repaired with little to no disruption to surrounding components.

This procedure for repair and maintenance can also be supported by revenue generated through the temporary renting or timeshare ownership of these spaces that produces a self sustaining system of maintaining the demand for and use of these public space interventions.

Construction Sequence;

Step 1: Installation of paving structure

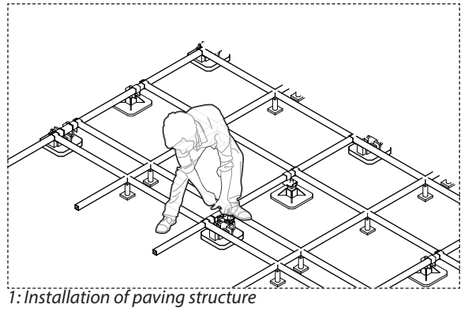
Step 2: Addition of columns

Step 3: Attaching the canopy space frame; laying in canopy panels

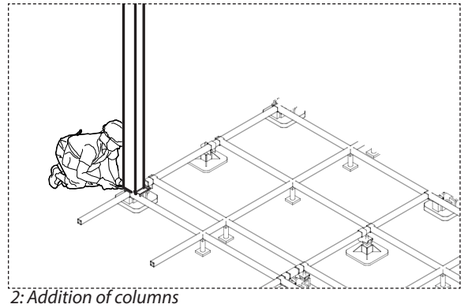
Step 4: Determining and erecting structural framework (columns and bracing panels) of the urban rooms

Step 5: Attaching room panels (roof and wall)

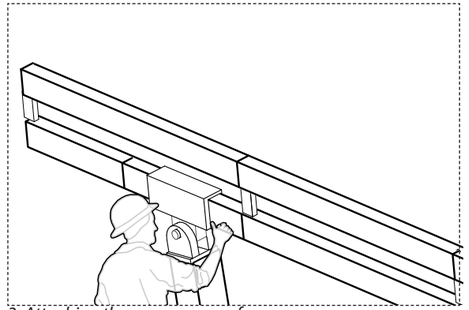
Step 6: Attaching wooden cladding and signage of rooms



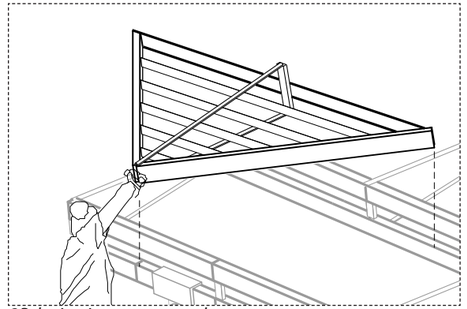
1: Installation of paving structure



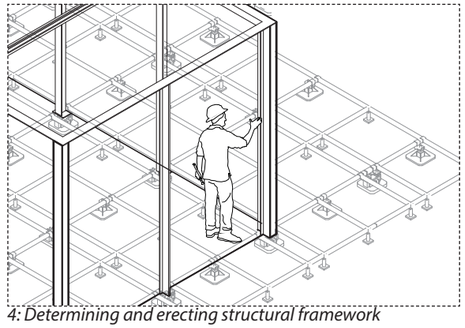
2: Addition of columns



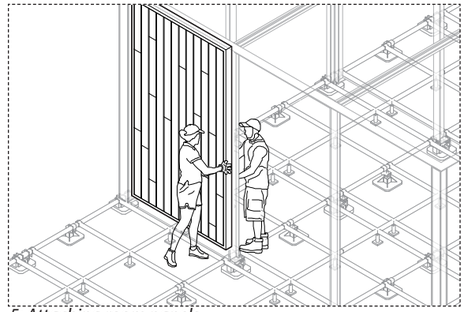
3: Attaching the canopy space frame



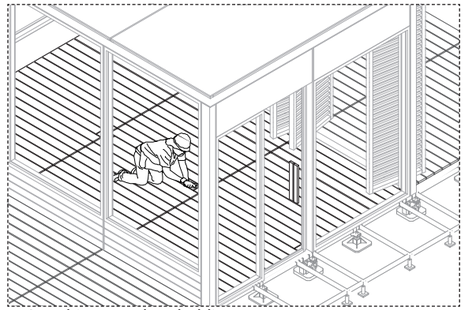
3B: laying in canopy panels



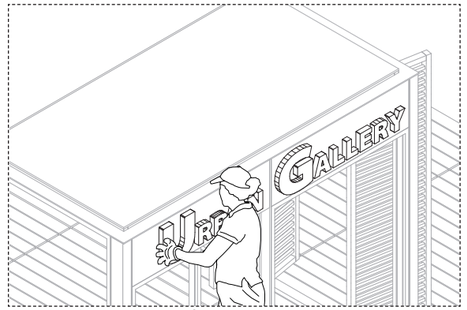
4: Determining and erecting structural framework



5: Attaching room panels



6: Attaching wooden cladding



6B: Attaching signage of rooms

Figure 6.19 Diagram; Step-by-Step Construction process of 'Kit of Parts'

Site Selection

"Spaces are produced socially."
Henri Lefebvre [1]

Overview; Pro-social Public Spaces

As previously suggested in the liveability factor, a crucial pillar to healthy living quality is the aspect of socialization and belonging to communities and spaces outside the domains of the workplace and the home. Pro-social programs throughout the city will thus improve residents' quality of life and collectively form social cohesion within the city.

Well planned public spaces fulfill these needs, providing, at a minimum, a good quality setting for basic activities such as walking, standing, and sitting in the pedestrian realm. With these basic supports in place, thoughtful planning could provide ground for further development to accommodate more complex activities.

Availability of Space;

The availability of public spaces in downtown Toronto, however, is very limited in quantity and variety. As the demand for living in the downtown core continues to increase and is met by rapid high density residential development, the ratio of public space area per person will continue to decrease. Although there is an inevitability to this worsening situation, this high density and greater diversity of needs moving into the downtown core can also be viewed as an opportunity to trial new solutions and innovations which can easily be absorbed into such a highly responsive, rapidly evolving, and socially excitable environment.

Yet despite downtown Toronto being an optimal setting for innovation and experimentation of the design and deployment of spaces using the proposed kit of parts, the lack of available space is still a massive obstacle to overcome. Site investigation and selection is thus another crucial component to the design proposal to overcome this major obstacle from the initial design problem.

City planning has responded to this issue with urbanism initiative proposals, however, they have often been met with size or permanence limitations being placed on their solutions. These limitations have been found to significantly hinder their ability to shift the overall public space ratio and have lasting impact on the lifestyle of downtown inhabitants. Thus, many new public programs have had to seek space outside the downtown core, which is then met with an accessibility obstacle for downtown residents due to distance and travel time.

This proposal attempts to find alternative ways to fulfill this need for space by applying a bottom-up approach to discover overlooked opportunities. Although the discoveries may appear insignificant and only capable of contributing small fractions of improvement, they are combined with appropriate design systems that altogether result in an impactful, yet feasible solution. This approach is highly derived from the bottom-up methodology previously studied in several urban scholars' work.

These small resulting interventions are easily modified, and are not financially demanding to execute. Furthermore, modifications made to (or even total elimination of) any intervention will be neither laborious nor financially demanding.

[1] Lefebvre, Henri, and Donald Nicholson-Smith. The Production of Space. Blackwell, 2009.

Key Intersection

The area outlined below is considered to be a key node within this proposal. Investigations within use the process of systems thinking to seek out and provide a selection of urban design possibilities that are in line with the city's vision for the area. This especially includes exploring ideas in improving both mobility and public life – the ease of transportation and pro-social programming are the priorities of this proposal.

The results of this investigation thus aim to produce a functional catalyst that is also useful in enhancing other parts of the city. This product will:

-Improve the walking experience of the streetscape and the accommodation of alternative transit modes

-Improve the day-to-day public life through streetscape improvements, while maintaining its potential to be a vessel for larger public gatherings, such as festivals and parades

-Providing designated areas for rest and pause within the active circulation of streets

-Provide district related programming that strengthens the harmony within each individual intervention and also to each other

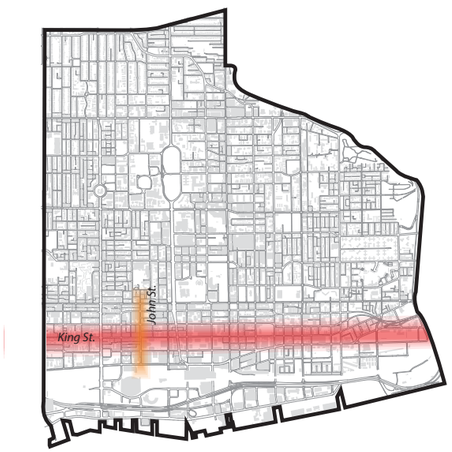


Figure 7.1 King Street Pilot Project, John Street Cultural Corridor

Site Selection

With the aim of identifying an appropriate site(s), the following maps and diagrams undergo a broad, top-down investigation, identifying connections and patterns between major high-rise development and main circulation arteries, especially public transit, within the city's downtown core.

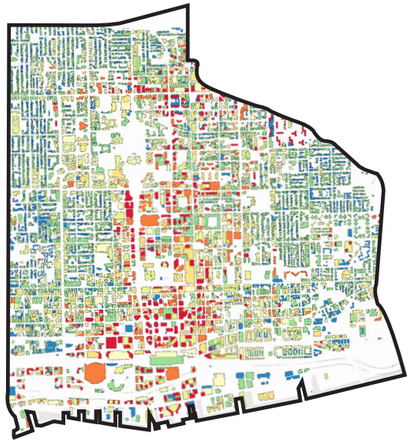


Figure 7.2 Map; Building's Height in Downtown Toronto [1]

This building heights map illustrates the trends in occupancy density, showing a sharp incline in building height and subsequently, density, moving inwards to the center of the map.

[1] *"Transforming Open Data into Knowledge."* Council for Canadian Urbanism, March ,2017 . http://www.canadianurbanism.ca/transforming-open-data-into-knowledge/

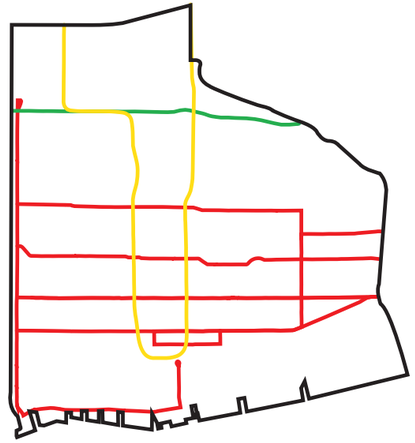


Figure 7.3 Map; T.T.c Routes in Downtown

A map of the city's public transportation infrastructure confirms a correlation between high density development and transit accessibility, as this makes locations more desirable for potential residents and employees.

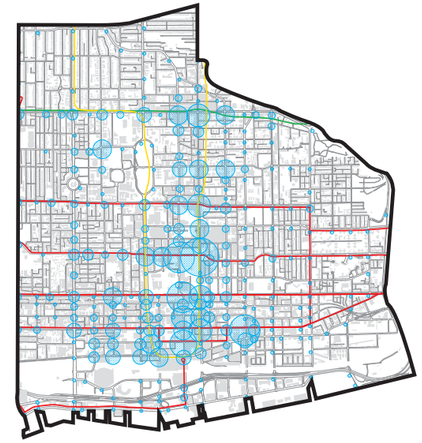
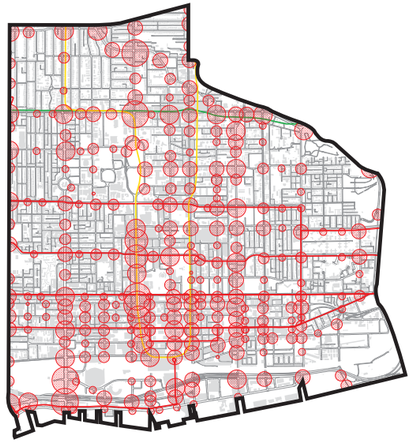


Figure 7.4 Map; Pedestrian Activity in Downtown [2]

Pedestrian activity levels also correlate to levels of development density. The heavy pedestrian activity in the higher development density areas creates a suitable environment for pocket space interventions that will constantly be used and engaged with by frequent passers-by, and supported by the most dynamic and active portion of the urban fabric.

[2] TOcore reports, *"TOcore Phase 1: Taking Stock Transportation Summary"* . "PDF." City of Toronto, Toronto, December, 2015, 27. https://www.toronto.ca/wp-content/uploads/2017/10/906b-City-Planning-TOcore-TOcore-Phase-1-Taking-Stock-Transportation-Summary-Brief-FINAL-s.pdf

Site Selection



VEHICULAR ACTIVITY

Figure 7.5 Map; Vehicular Activity in Downtown [1]

In contrast to the surges in pedestrian activity, vehicular activity maintains a fairly level, albeit heavy, presence within the area.

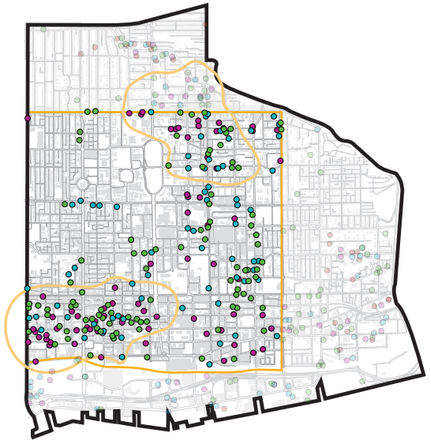


December to March
April to May
June to August
September to November
Most Active Area With Temporary Events

Figure 7.6 Map; Seasonal Festival Activity in Downtown

The area bounded by the dotted red line is a zone of overlap in location of Toronto's recurring annual events and festivals. This zone places further emphasis on the high density urban fabric and transit/pedestrian zones of the previous maps – not only does the area support a considerable amount of residents and employees, but also is a major attraction for visitors from all over Toronto and tourists to the city.

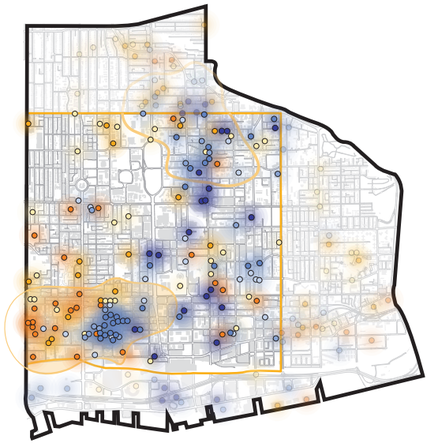
[1] TOcore reports, *"TOcore Phase 1: Taking Stock Transportation Summary"* . "PDF." City of Toronto, Toronto, December, 2015, 32. https://www.toronto.ca/wp-content/uploads/2017/10/906b-City-Planning-TOcore-TOcore-Phase-1-Taking-Stock-Transportation-Summary-Brief-FINAL-s.pdf



COMPELETED PROJECTS IN 2018
UNDER-CONSTRUCTION PROJECTS IN 2018
PROPOSALS FOR FUTURE DEVELOPMENT
HIGHEST DENSITY OF DEVELOPMENT

Figure 7.7 Map; Forecast of Density in Downtown

This map shows a plethora of recently completed residential developments and those scheduled for completion in the near future. These developments provide more housing opportunities and further increase the residential density within and in close proximity to the previously highlighted high density zone.



NUMBER OF STOREYS
Less Than 5
5 to 11
12 to 19
20 to 29
30 to 39
40 to 49
50 and 50+

Figure 7.8 Map; Forecast of Density in Downtown

In conjunction with the previous map, it can be seen that the recent and near future developments will have the largest density impact on the lower bounded area, which also shares the greatest overlap with the existing high density zone.

Site Selection

In combining the findings regarding existing density, public transit, future development/density increases, and pedestrian activity, it is concluded that the area bounded in red will experience the most rapid growth, placing an immense strain on its limited parks and public spaces.

For these reasons, this area is selected to be the target area for further investigation. The following breakdowns document findings obtained through various lenses of site analyses.

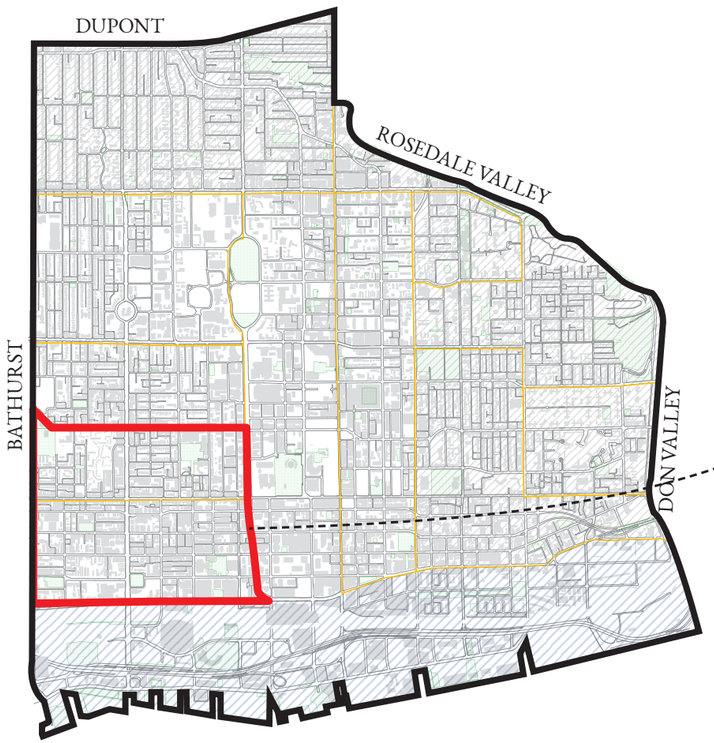


Figure 7.9 Map; Downtown Core Study Area

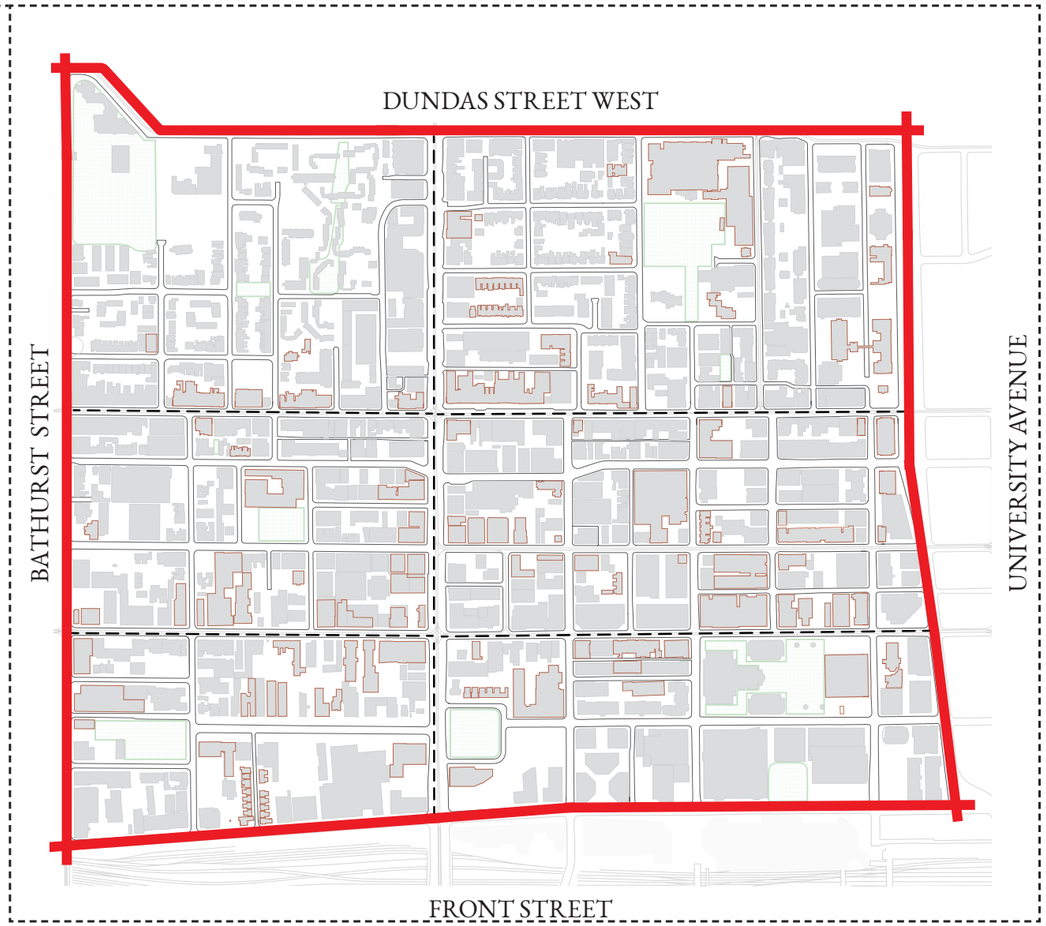


Figure 7.10 Map; Downtown Core Focused Study Area and Scope of Interventions

Intermittent Spaces and Opportunities

Top-Down Examination



Figure 7.11 Map; Found Opportunities

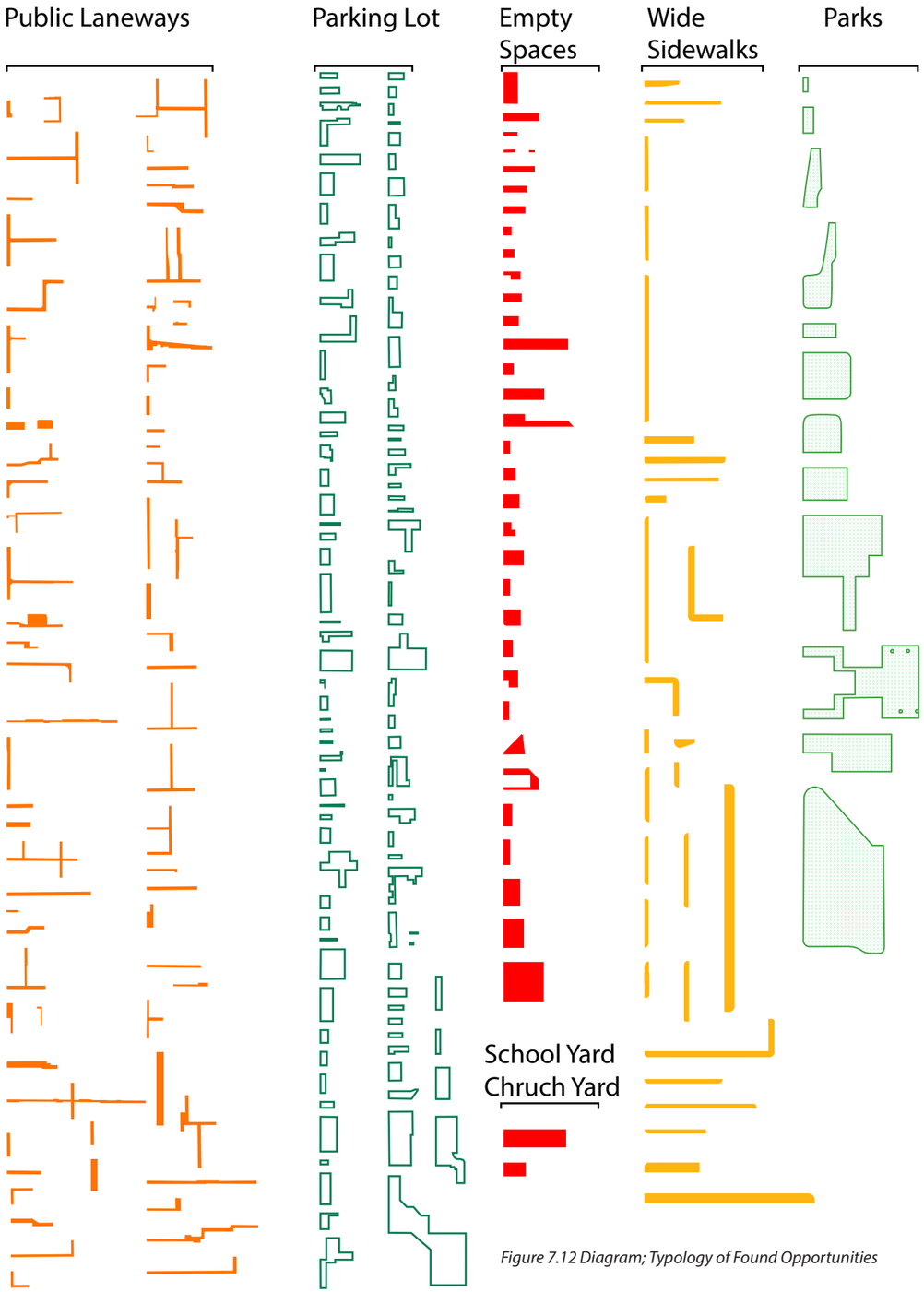


Figure 7.12 Diagram; Typology of Found Opportunities

Top-Down Examination;
Response To Limitations Through Fragmentation

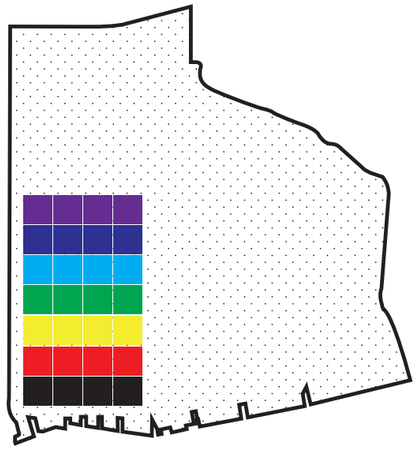


Figure 7.13 Diagram; Local and Unified

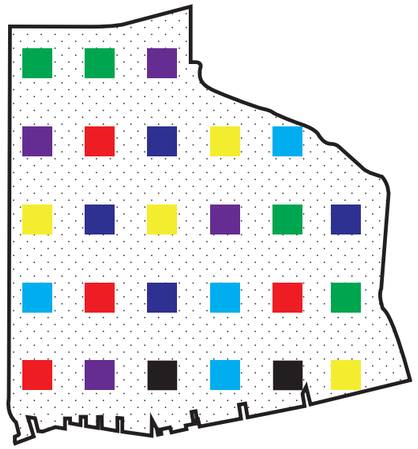


Figure 7.14 Diagram; Fragmentation

In the tight urban fabric of Toronto, land has become so valuable that there is no logic in reserving any large empty lots for public space use in place of large scale development. The proposal for Rail Deck Park, for example, relies on land that does not yet exist, and when created, cannot easily support any other form of development. Even so, being one large unified piece gives the park the disadvantage of having a limited reach of walking accessibility. It can be seen that in viewing the city through a top-down lens, effective solutions cannot be found within the downtown core. The only available opportunities appear outside of this area towards the suburban neighbourhoods, and are so far from walking distance that they would not be of much contribution to downtown residents.

A different strategy can be taken to break the optimal area to be added into a collection of smaller pieces. These smaller and more manageable chunks can easily be slotted into pockets of intermittent spaces that litter the urban fabric, also performing a dual function of taking advantage of these residual and “wasted” pieces of land. Collectively, these spaces sum up to a significant added area that is also highly woven and incorporated into the existing urban fabric. This idea of fragmentation is key to this proposal.

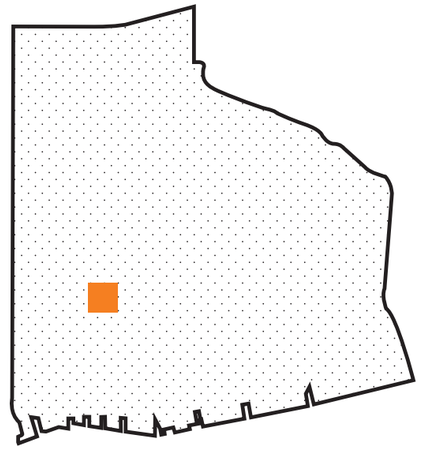


Figure 7.15 Diagram; Unique and Isolated

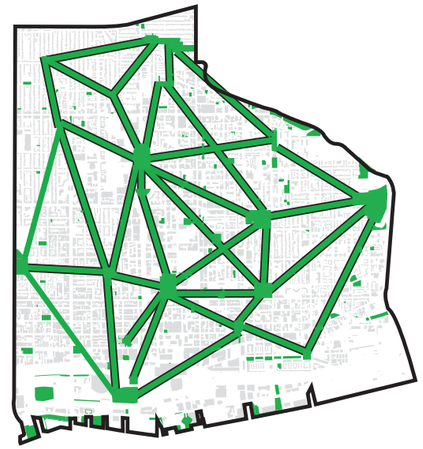


Figure 7.16 Diagram; Network

Even within the limitations of a small space, opportunities for activation can be captured through design to produce highly significant and effective spaces. Paley Park in New York City is a good demonstration of this potential, as is Toronto’s Graffiti Alley. With the latter, it can be seen that when previously "invisible" possibilities are presented to the public, a momentum will build to sustain a cycle of further improvement and engagement.

Fragmentation not only makes use of otherwise useless opportunities but also has the innate ability to form networks. A scattering of small public space fragments throughout downtown Toronto will produce a collection of pieces that function simultaneously as distinct autonomous parts but also complement one another as a strong, connected, and embedded network in the urban fabric. This network further impacts the city by bringing social and community cohesion, producing a strengthened sense of wholeness within downtown Toronto.

Intermittent Spaces

The following is a list of opportunity types available and suitable for implementing the idea of fragmented public spaces.

Immediate

Missed Opportunities

Missed opportunities, such as streets, infrastructure corridors, unprogrammed spaces, and leftover spaces can all be re-purposed into public assets that return this space the public to help elevate the quality of public life.

Under Performing

Under performing spaces have programs that are not suitable in its context or are designed without the dynamic traction for the space to be occupied to its maximum potential.

Temporary Available

Temporarily Vacant Spaces

Significant portions of the urban fabric that take on crucial designated function are occasionally, for short spans of time, available to be contributed to the public pedestrian sphere. Examples of such are streets and lane-ways, vacant infill lots and parking lots, privately owned public spaces, and publicly accessible concourses and walkways. These spaces form a large network of pieces spread out all over the city that, if used, would result in a powerful collective impact.

Future Coordination

Careless Organization

Necessary urban elements, such as street-scape furniture and infrastructure, are often installed in haphazard arrangements that could highly benefit from more efficient organization. Many of these elements do not require buffer space, and thus grouping them in more compact yet accessible clusters would return space to the public realm in small but important improvements to help an urban fabric currently struggling with shortages of space. This is a long term process that would require coordination between various planning parts in the city.



Figure 7.17 Image; Missed Opportunity , Metro Hall Gardens



Figure 7.18 Image; Under Performing Public Space, Metro Hall



Figure 7.19 Image; Hidden Potential , Empty Lot on King Street



Figure 7.20 Image; Careless Coordination

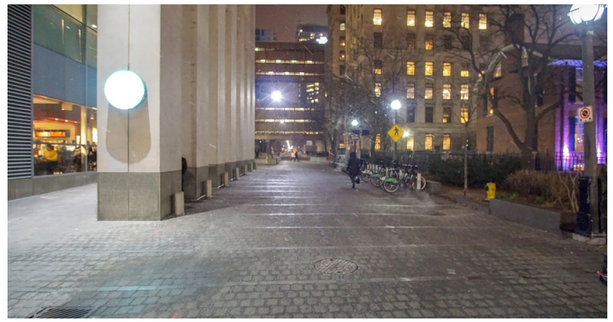














Figure 7.21 Image; Collage of Missed Opportunities

Macro Scale Strategy

Top-Down Examination - Existing Patterns

The following maps dissect the area of investigation into its notable characteristics and components. This provides a general understanding of the area, zones of public activity, established third places, and needed features to formulate a criteria that guides the decision making process of selecting viable opportunities for intervention. These interventions aim to work in concert with the already established patterns of people's activities in the area.



Figure 7.22 Map; Zoning By Law

Zoning by Law

Areas of mixed use provide stronger foundations for public space intervention due to their existing support of program and user diversity.

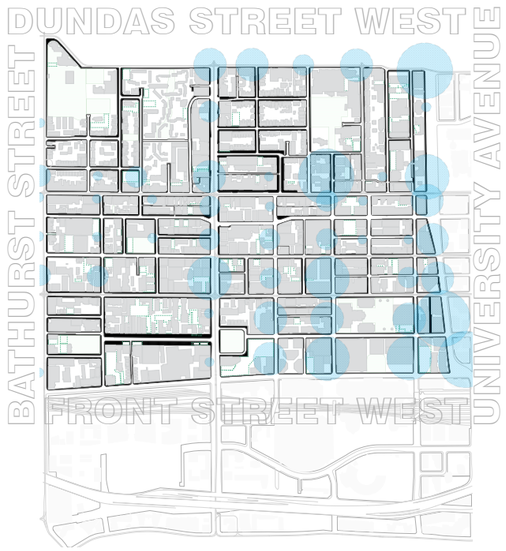


Figure 7.23 Map; Pedestrian Activity

Pedestrian Activity

This map, illustrating the volume of public transportation use in the area, helps to identify points and street intersections of high pedestrian presence and activity.

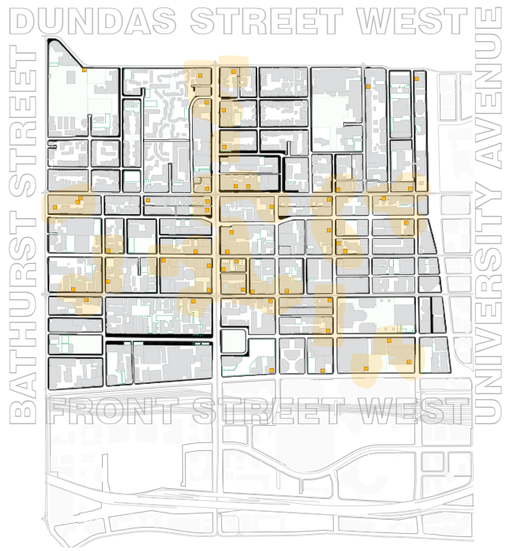


Figure 7.24 Map; Third Places, Cafe's

Third Places

The "third places" described by Ray Oldenberg are identified in these two maps that show patterns of distribution of hospitality sector establishments that function as casual gathering and meeting spots.

Cafes, identified here, can host informal gathering throughout the day, often from early morning to early evening.



Figure 7.25 Map; Third Places, Bars, Pubs, Beer Gardens

Bars, pubs, and fast food/varied dining establishments often open from mid or late afternoon to late night to support informal gatherings during this time.

Macro Scale Strategy

Top-Down Examination - Existing Patterns



Figure 7.26 Map; Accessibility to Parks

Park Accessibility

The locations of public parks are identified in this area. It can be seen that the area has no extreme geographical shortage of parks and green spaces, so the design proposal effort is focused on enhancing their accessibility and providing conditions that encourage a better circulation flow to the already existing park space in the area.

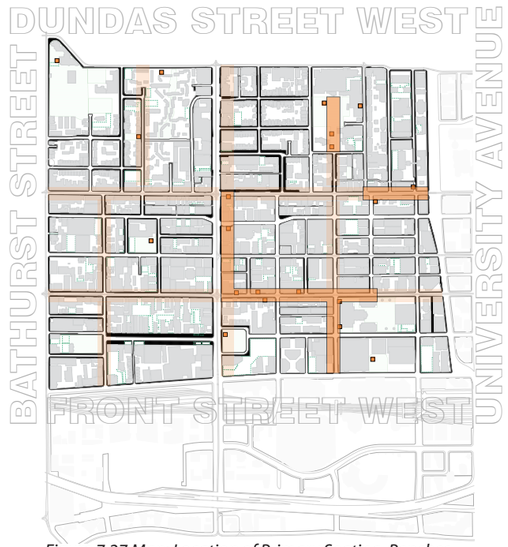


Figure 7.27 Map; Location of Primary Seating, Benches

Benches and Primary Seating Arrangements

This map identifies the locations of primary seating arrangements which mostly take the form of benches. This map shows how inadequate the provision of seating is in the area. The proposed designs aim to increase the volume of seating to increase the comfort of this public realm.

Overall Strategies

Several planning strategies are in play as building blocks for this proposal's ultimate aim to enrich the pedestrian experience. The main basis here is the creation of a pedestrian network that creates a flow of pedestrian movement to connect already established and functioning parts of the area. Within this network, pockets of spaces configured with basic design components increase the walk-ability of the aisles and corridors of pedestrian connection. Throughout the network, small hubs, found in underused or intermittent spaces within each segment, function as pops of interest, distributed to provoke and invite residents to join pro-social activities, achieving an ultimate network activation.

These locations are carefully chosen through a spatial analysis of the area and observations and walking experiences of the area documented in the following section - the investigation area is broken down into six segments by major streets and avenues with an in-depth investigation of each. By combining a topical, map-based, understanding of each segment with a very experiential, fine grain, and bottom-up exploration, a well-rounded, multi-dimensional image of each segment can be formed through an approach that strongly adheres to the methodology discussed in previous sections. The result is a plethora of qualities discovered in each segment that can be used to inform the activation strategy of the area and the formation of connections to the neighbouring segments.

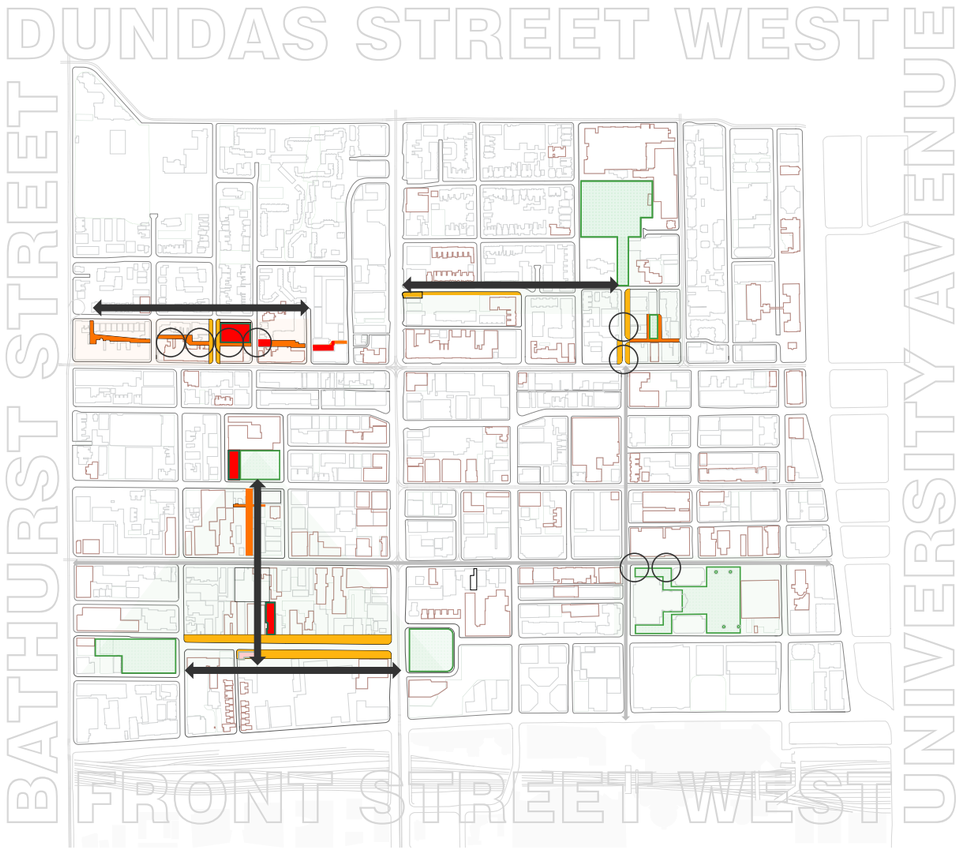


Figure 7.28 Map; Viable Opportunities

Aims:

-Establish a pedestrian prioritized network
-To feature and emphasize the already existing pro-social activities
-Enhance existing intermittent spaces
-Establish and create an inviting threshold for existing parks
-Test the proposals' abilities to relate to the public and enhance the spirit of each segment

Evaluating Viability Of Found Opportunities

Examination - Walking Experience



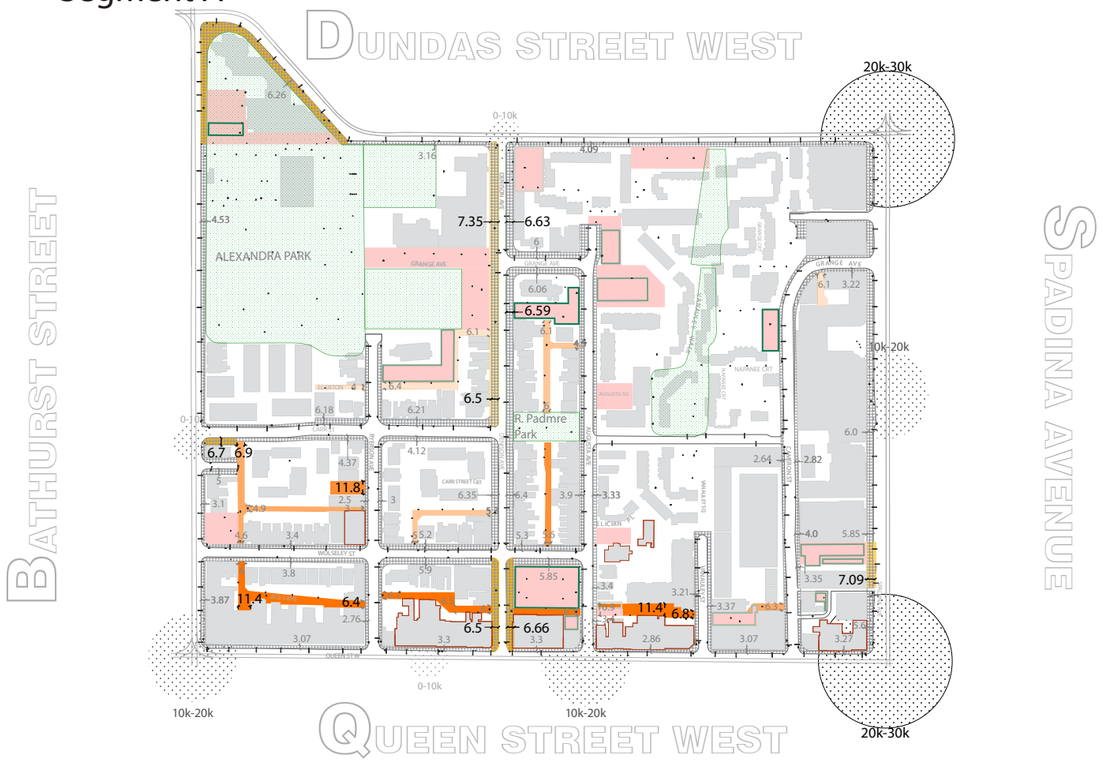
Figure 7.29 Diagram; Divided Area of Study

As such, the found opportunities in the area need to be analyzed for viability and suitability for intervention.

The following investigations adhere to a methodology of mapping exercises (aerial map analysis and identification of existing program provisions) in conjunction with a bottom-up approach geared towards pedestrian experience. Gordon Cullen's method of observation through "serial vision" is adopted for its ability to distill a nuanced set of desired qualities from the physical experience of a space to eliminate the need for a standardized and quantitative component checklist.

This map illustrates the division of segments - their function as a connected fabric within the city was previously explore, and the following studies will zoom in on the unique qualities of each individual segment.

Segment A



Alexandra Park has a very strong presence within this area, generating a high level of foot traffic. Food kiosks exist along the northern side of the park and provide a great platform for small urban interventions and other design implementations while supporting local economic development.

The remainder of this area is primarily of residential occupancy and thus has a much lower level of pedestrian activity compared other more commercial segments Queen Street. The alleyways and laneways parallel to Queen Street are possible opportunities for generating residential pedestrian flow.

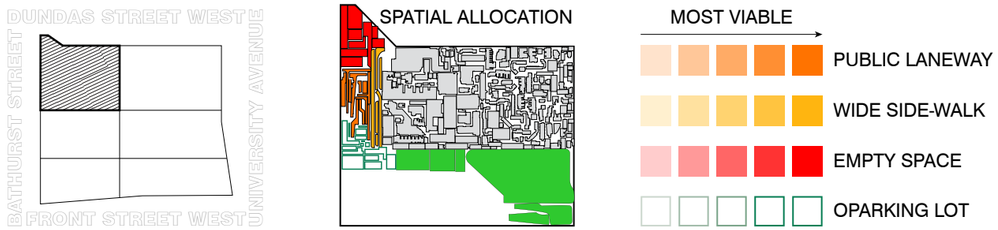


Figure 7.30 Diagram; Spatial Analysis - Segment A

Walking Experience













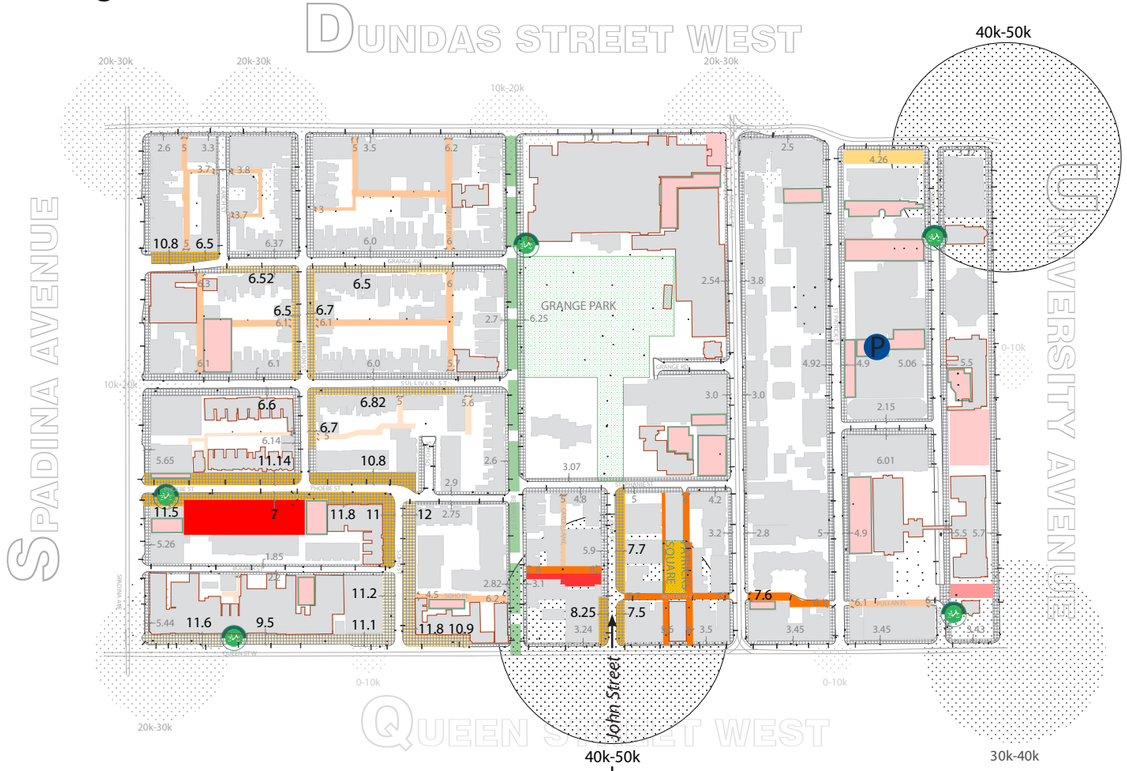


Figure 7.31 Image; First Walking Experience - Segment A



Figure 7.32 Image; Second Walking Experience - Segment A

Segment B



The presence of the Art Gallery of Ontario, OCAD University, and Grange Park makes this area a point of pause for many visitors from all over Toronto. With the upcoming transformation of John Street as a cultural corridor, this segment will see an even greater surge in foot traffic as it establishes itself as a pedestrian destination.

Important considerations for this area involve the creation of optimal spaces for visitors to linger and pause in addition to strengthening this segment's relationships to these neighbouring institutions and community spaces. In doing so, the public space can borrow off of these existing themes that define this neighbourhood and take advantage of their already established cultural traction.

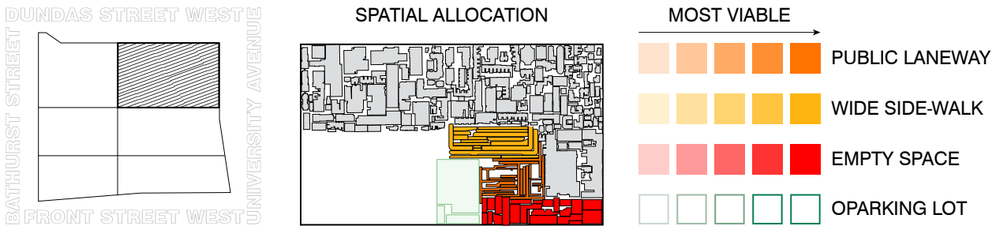


Figure 7.33 Diagram; Spatial Analysis - Segment B

Walking Experience













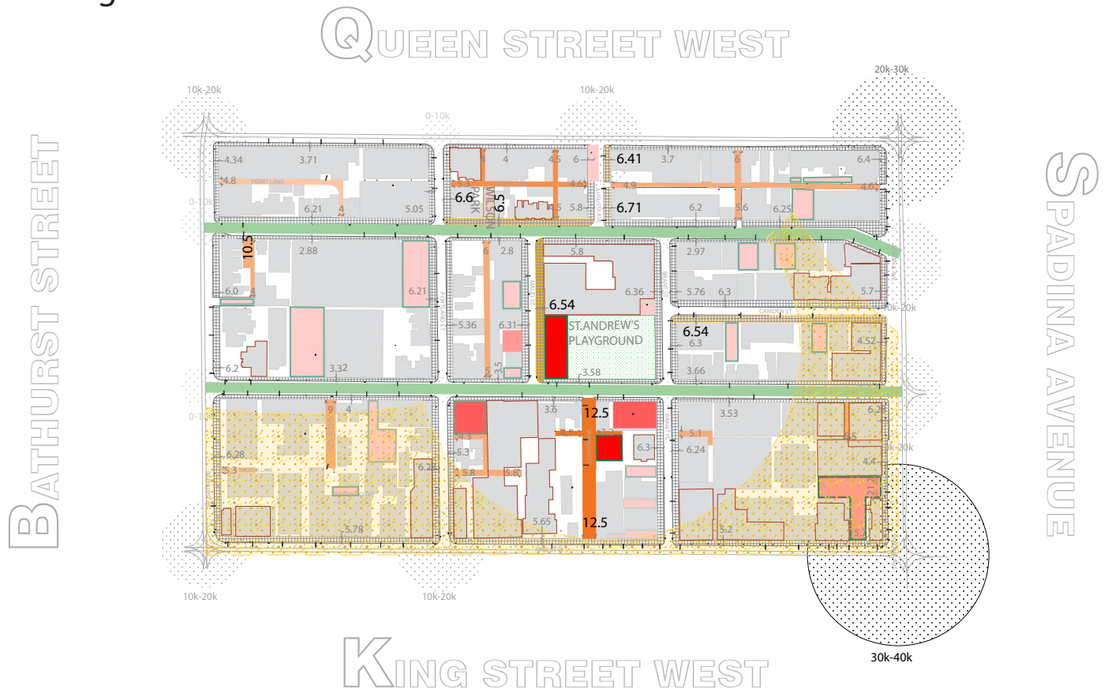




Figure 7.34 Image; First Walking Experience - Segment B

Figure 7.35 Image; Second Walking Experience - Segment B

Segment C



This segment contains many valuable opportunities for creating great pedestrian connections to the segment located directly south of it. Contained within this area is St. Andrew's Park, the first of three parks that have the potential to be connected through wide public laneways running southward from this park.

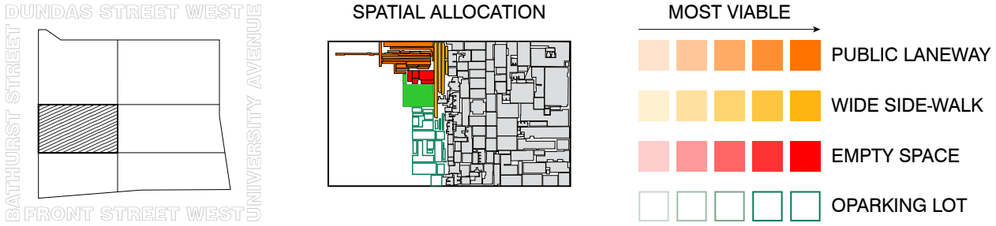


Figure 7.36 Diagram; Spatial Analysis - Segment C

Walking Experience













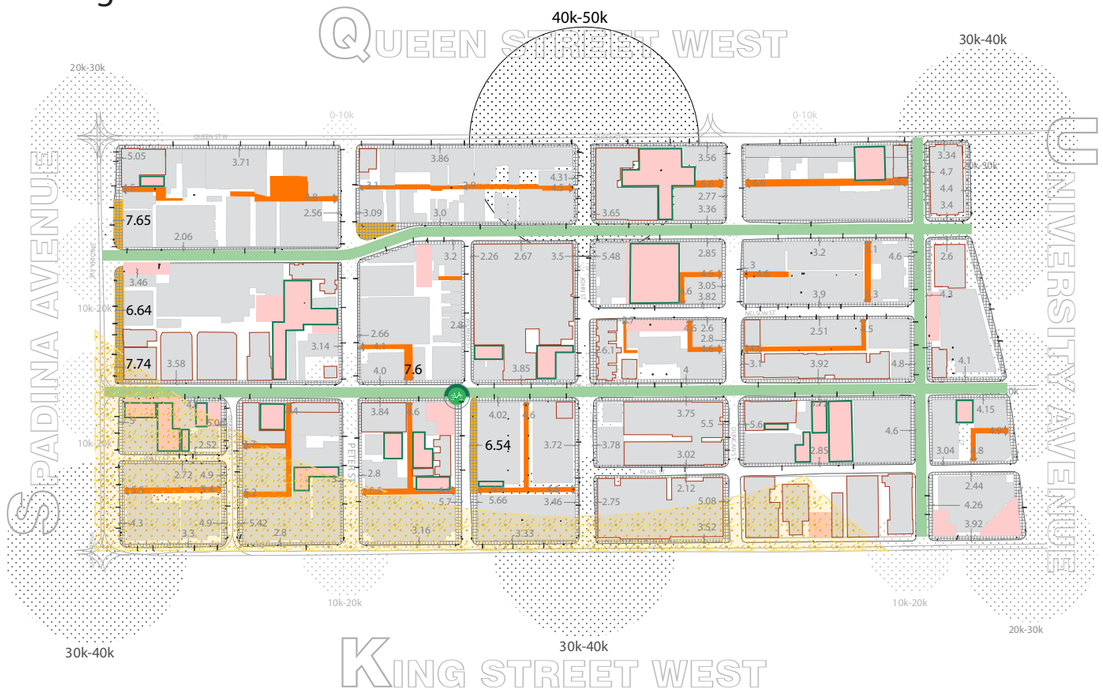




Figure 7.37 Image; First Walking Experience - Segment C

Figure 7.38 Image; Second Walking Experience - Segment C

Segment D



The most prominent feature of this segment is the dedication of Adelaide and Richmond Streets to bicycle traffic. North-south directional streets are wide and present opportunities for temporary intervention to support pedestrian activity surges corresponding to future events on the soon to be completed John Street Cultural Corridor.

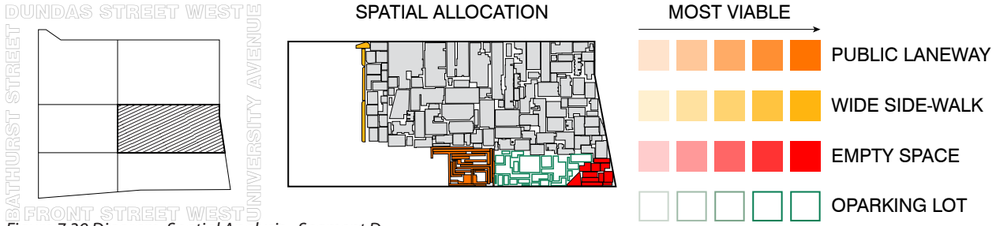


Figure 7.39 Diagram; Spatial Analysis - Segment D

Walking Experience











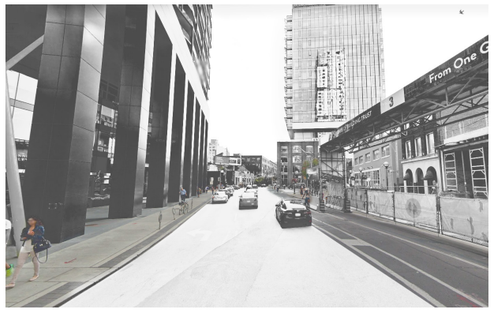




Figure 7.40 Image; First Walking Experience - Segment D

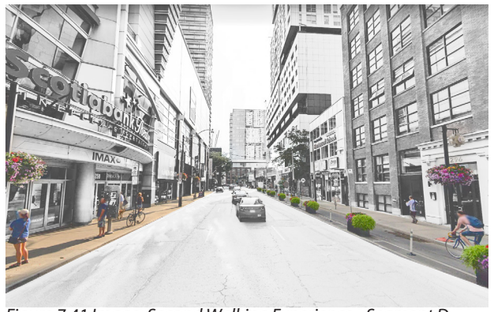
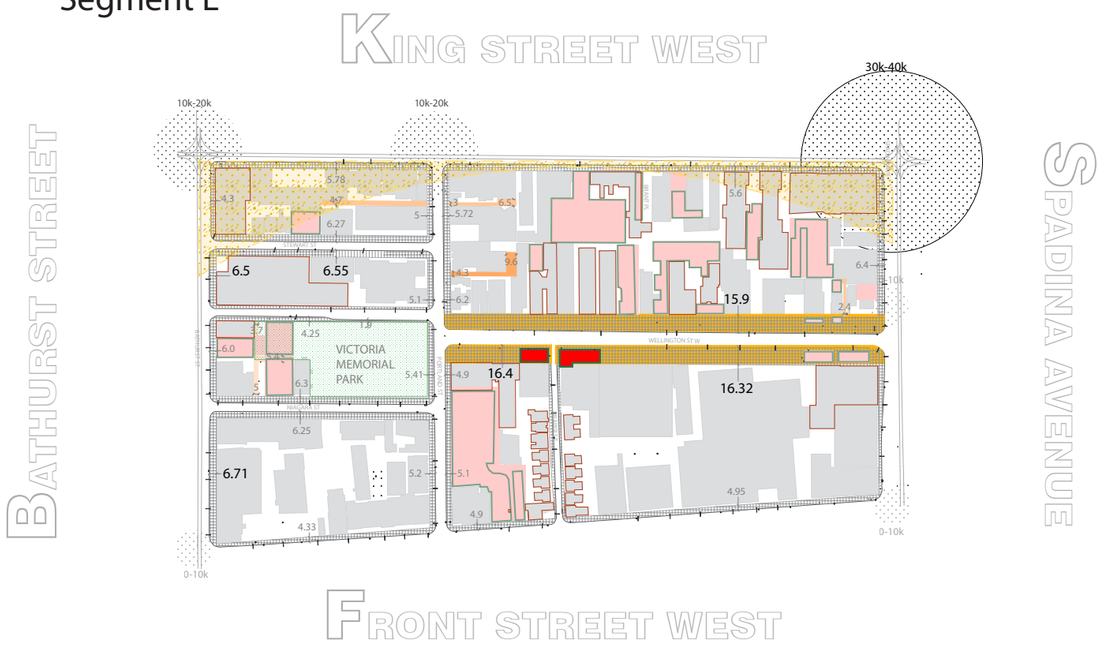


Figure 7.41 Image; Second Walking Experience - Segment D

Segment E



Victoria Memorial Park, the second of the three parks mentioned in Segment C is located here. The wide sidewalks of Wellington Street provides the opportunity for an east-west connection between parks. Pedestrians approaching this area from Segment C may be drawn to the unique, soon to be constructed public space designed by Bjark Ingels Group, from where they can be directed by urban design interventions along Wellington Street to the park located in this segment.

The residential project currently under construction on the south side of Wellington Street will also add a large amount of foot traffic to the area, supporting the argument to modify sidewalks in this area for a proposal to transform select thoroughfares into a pedestrian promenades.

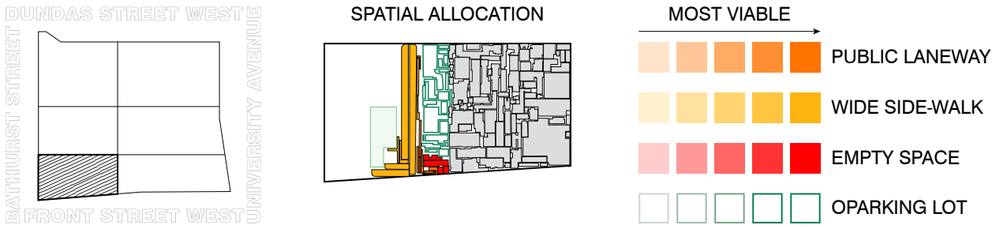


Figure 7.42 Diagram; Spatial Analysis - Segment E

Walking Experience

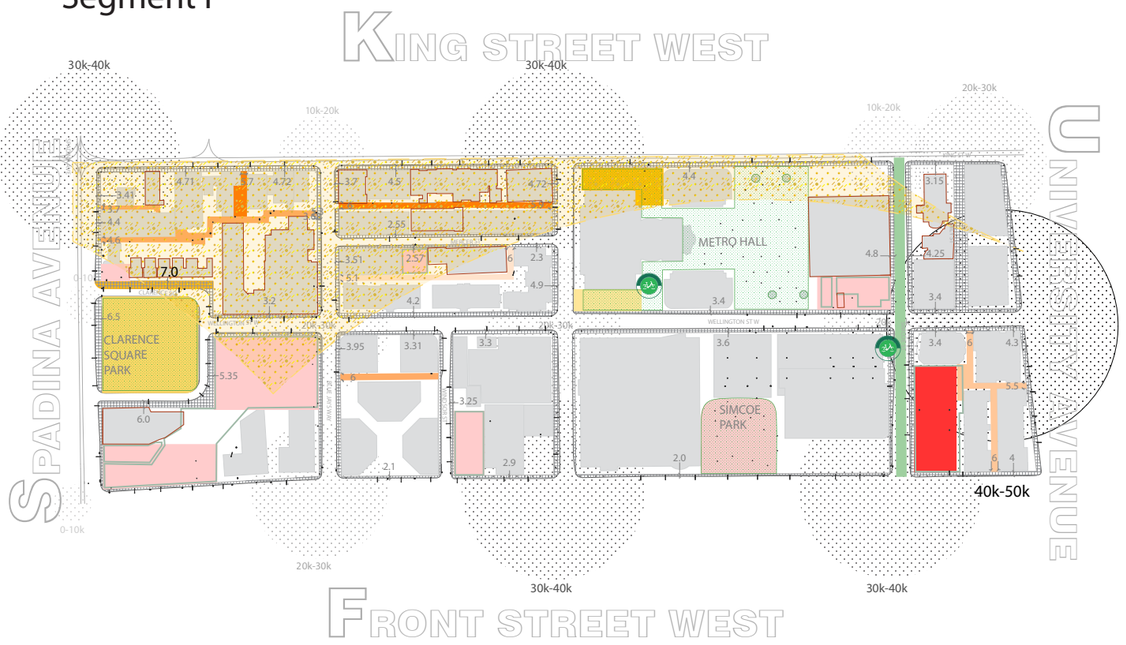


Figure 7.43 Image; First Walking Experience - Segment E



Figure 7.44 Image; Second Walking Experience - Segment E

Segment F



Clarence Park, located in this segment, is the third park of the triad mentioned in Segment C and Segment E with the suggestion of connection via a pedestrian friendly network. Spadina Avenue, which severs this east-west connection, is a big obstacle in making this connection. Many underused and well-hidden open spaces are located in the segment.

The existing pedestrian popularity of King Street can be taken advantage of to activate the open space leading to Metro Hall, which can easily be achieved using small urban interventions. This will provide a great entrance zone to the hall, and a great platform for future interventions in the space.

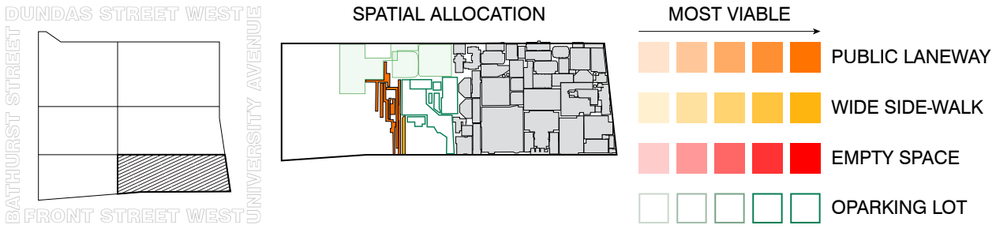


Figure 7.45 Diagram; Spatial Analysis - Segment F

Walking Experience

















Figure 7.46 Image; First Walking Experience - Segment F

Figure 7.47 Image; Second Walking Experience - Segment F

Interventions

Selected Sites;

Ultimately, three sites stood out from the extensive mapping and observational breakdowns. They are in near proximity to each other but are very different in spirit and size. Furthermore, these sites demonstrate the three different intervention strategies presented earlier in this thesis.

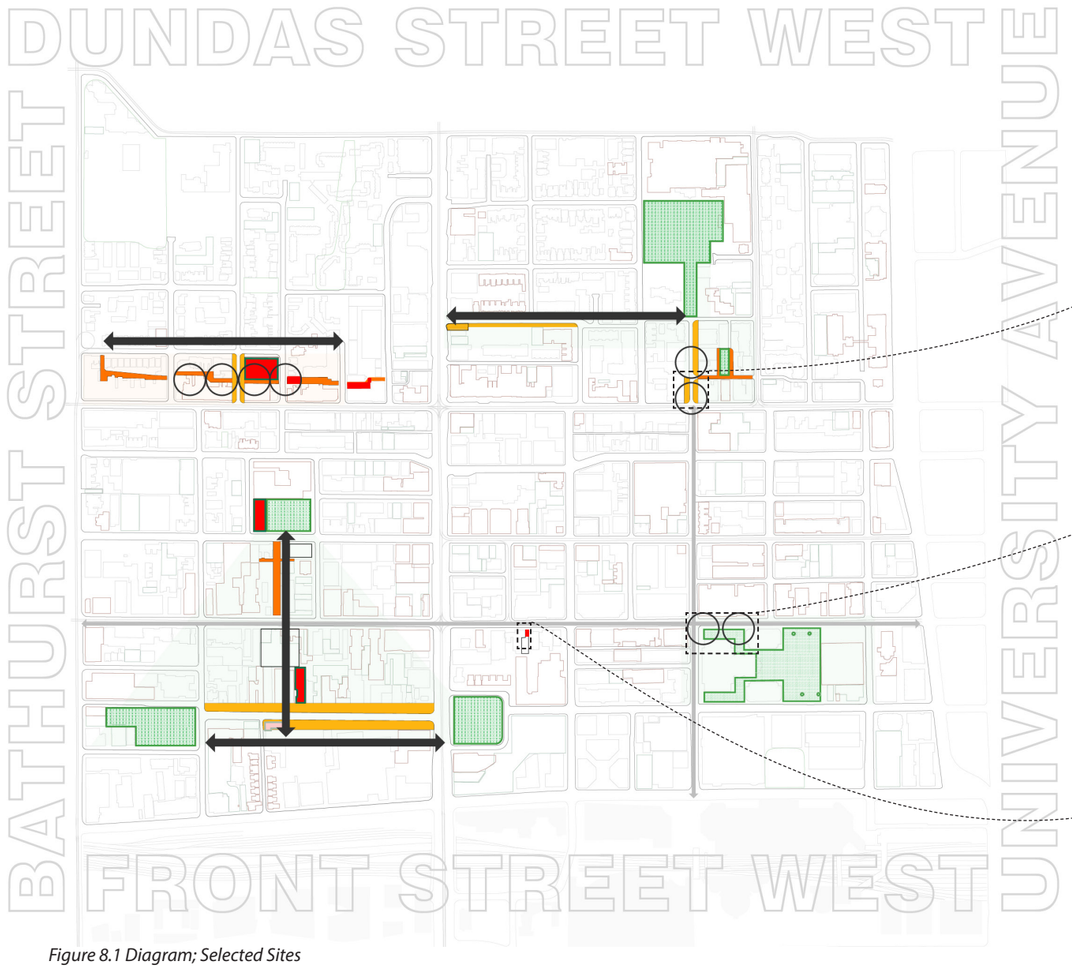
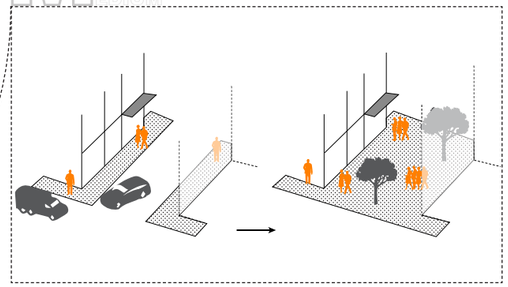


Figure 8.1 Diagram; Selected Sites

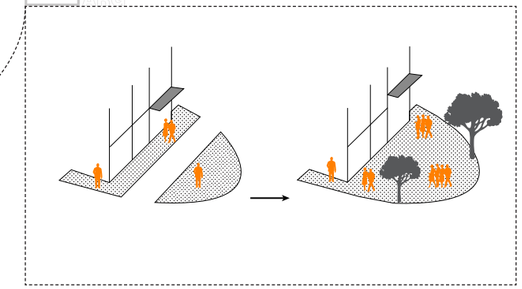
M EDIUM



Pedestrianization

The pedestrianization of a short length of John Street just north of the John and Queen street intersection aims to create a space for art and culture appreciation. This takes advantage of major context opportunities such as the quiet, pedestrian nature of the street and its surrounding attractions that highly support public realm activation and this specific arts-based program.

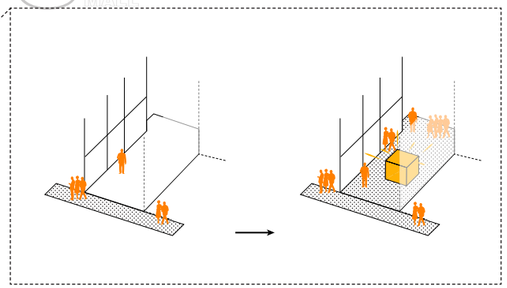
L ARG



Reconnection of Severed/Underused Space

The reconnection of this under-appreciated space, located at the southeast corner of the King Street and John Street intersection to the adjacent sidewalk involves the removal of a wall of metallic structure and trees. Doing so dissolves a tremendous existing barrier, after which, a kit-of-parts intervention can be introduced to return life and purpose to this previously severed piece.

S MALL



Extension of Sidewalk into Temporary Lot

This currently empty infill lot, located with frontage onto King Street, is a prime opportunity for a design that features sidewalk spillover onto an adjacent lot. The lot is only available for a limited duration due to the potential of future property acquisition and development, which forms a perfect setting to deploy a fast assembling and removable kit-of-parts public space intervention.

Intervention at King Street and John Street

Activating An Underused Space

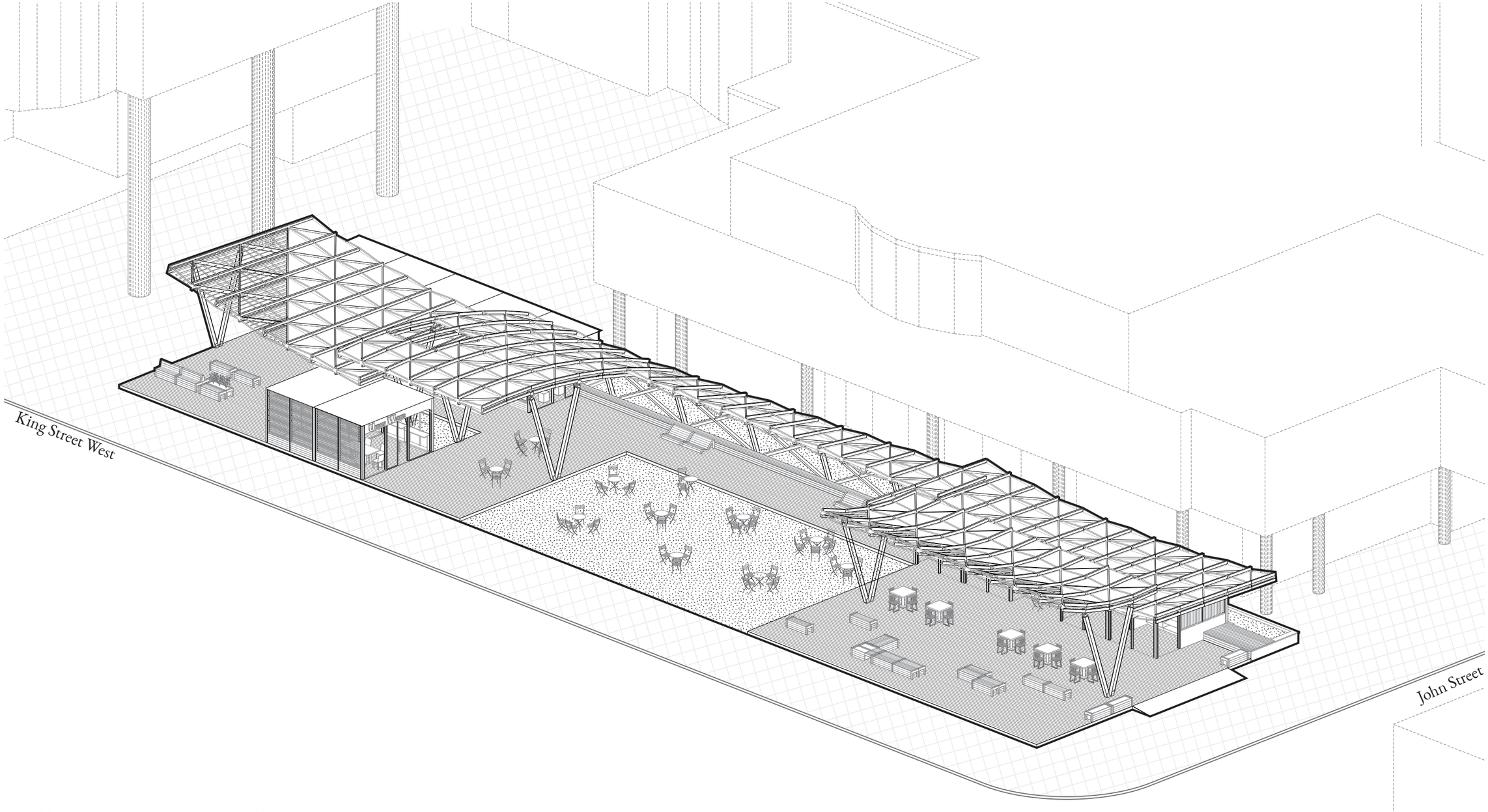


Figure 8.2 Diagram; Axonometric Representation of Proposed Intervention at King Street and John Street Intersection

Intervention at King Street and John Street

Activating An Underused Space

This site is located at the southeast corner of the King Street and John Street intersection. Both streets have high pedestrian foot-traffic throughout the day, thus, making this rather vacant site an underused space with a great location.

Existing conditions o not generate any visual intrigue or desirability for passing pedestrians; this intervention focuses on creating visual perforation and activation of the space with a variety of programming.

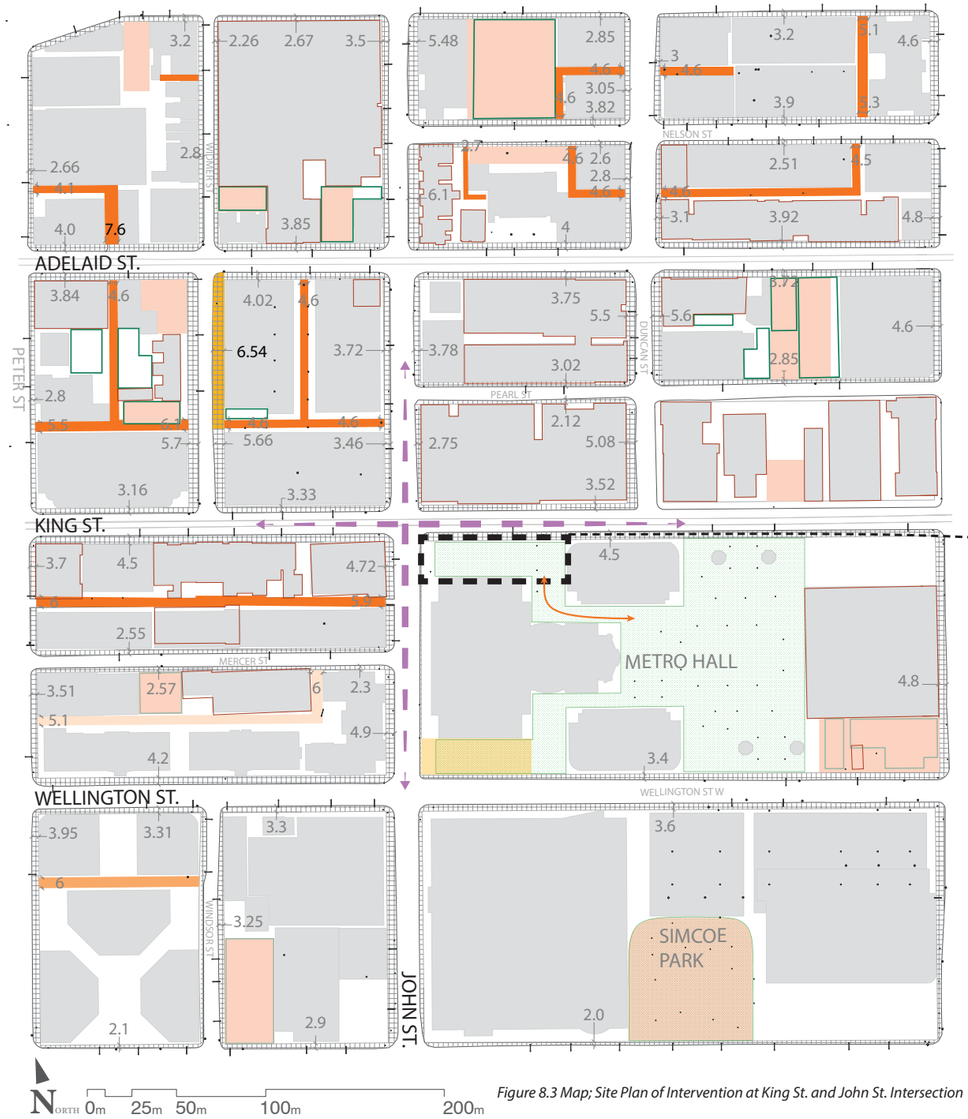


Figure 8.3 Map; Site Plan of Intervention at King St. and John St. Intersection

Allocation Of Space And Program

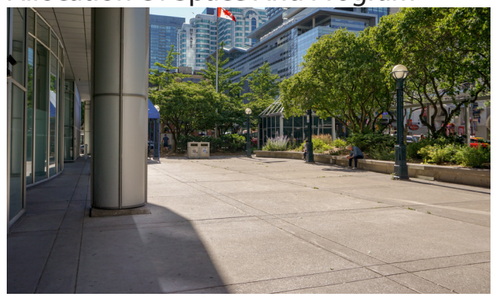


Figure 8.4 Image; Space of Intervention



Figure 8.5 Image; Space of Intervention - View from King St. Sidewalk

The presence of numerous restaurants, offices, and residential condominiums in this area results in a very pedestrian popular space. In addition, King Street is know for its vitality as a point of confluence for employee, resident, and tourist traffic.

The ultimate goal to be satisfied in re-envisioning the space by introducing three types of Urban Rooms is to create points of attraction and provide for public and social needs of the high volume of pedestrians who pass this area daily.

Programs;

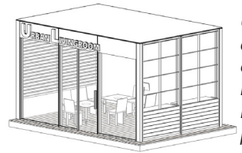
1-Urban Eat
2-Urban Work
3-Urban LivingRoom
4-Passive engagement
5-Food consumption
6-Flexible area



Urban Eat; Rooms dedicated for rent to food vendors.



Urban Work; Rooms dedicated as a space for co-working.



Urban LivingRoom; Rooms dedicated to leisure and casual social activities that mimics the ambiance of a living room -third place- in public sphere

Figure 8.6 Axonometric Representation of Urban Rooms

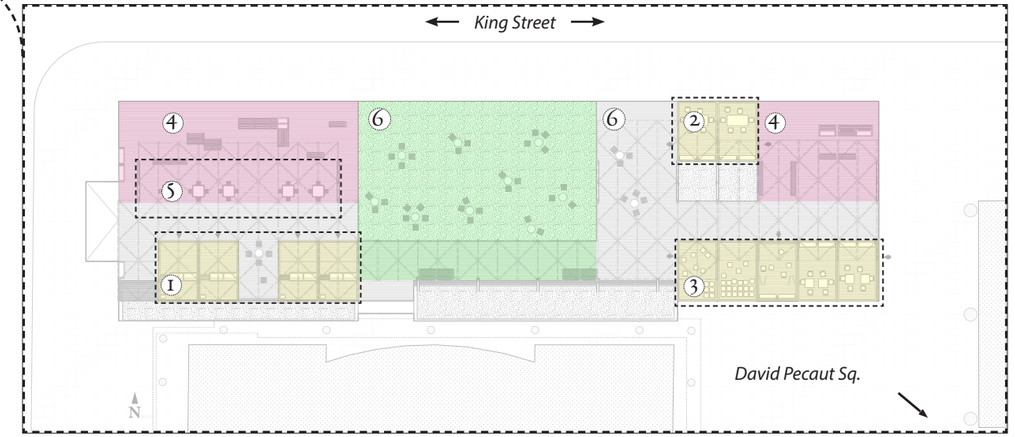


Figure 8.7 Map; Site Map Spatial Organization

The selected site is bordered to the south by a facade of the Metro Hall building which features a section made almost entirely of translucent glass. This provides the small office spaces on the inside with both privacy and light.

To maintain these two conditions, a buffer zone is placed between the building and the public space and is filled with a long green planter. This way, light can continue to reach interior space while views of greenery and shadows not distracting to the office users can be maintained as opposed to the constant movement and lack of privacy that would result from the placement of a pedestrian path along this length.

The long green planter also features a long bench along its top edge looking towards the flexible zone. Rooms that are placed along this side of the site are connected to create larger areas to accommodate larger gatherings of people, which would be especially beneficial for more crowd based winter activities.

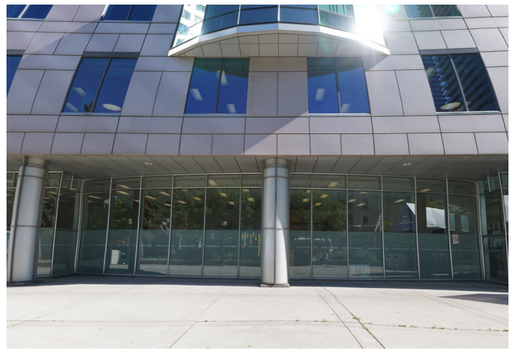


Figure 8.8 Image; View of Metro Hall Facade from the Space of Intervention

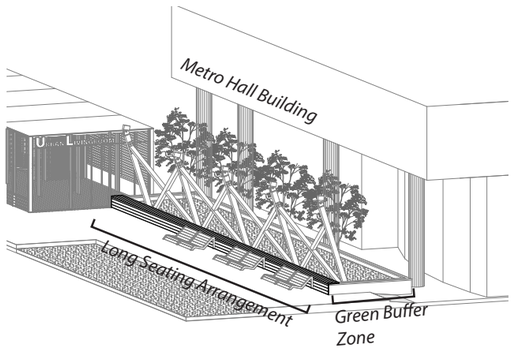


Figure 8.9 Diagram; Axonometric Representation Long Seating Arrangement

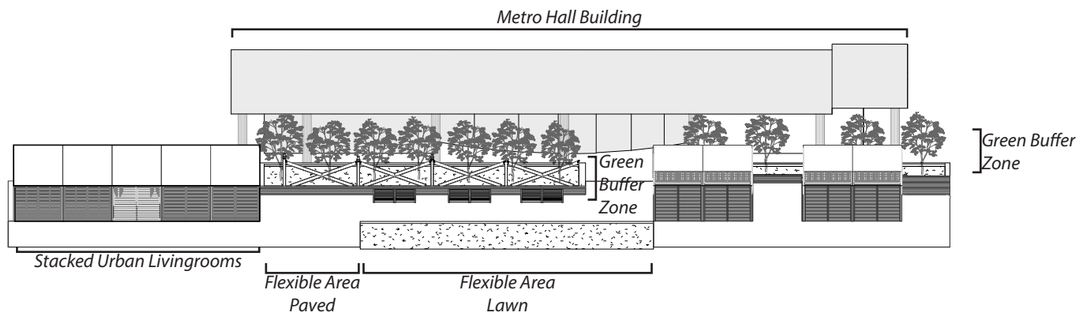


Figure 8.10 Diagram; Axonometric Representation - Green Buffer Zone

Canopy Coverage

Large portions of the space have an overhead canopy to provide shade and weather protection, especially for spaces designated for seating and pause, such as the food consumption zone next to the Urban Eat rooms. The paved flexible area is partially covered, while the flexible lawn area is not, ensuring a mix of spatial experiences and versatility that could suit a wider variety of environmental conditions.

Two types of canopy paneling, louvered, and solid translucent, are used here. The translucent is to provide permanent shelter and comfort to spaces with such requirement, such as the paved path on this site, and the louvered is used more generally for shading.

Furthermore, the canopy is broken into five sloped portions that either join at their edges or overlap one another for complete weather protection. Overall, they form a ssloping surface that guides precipitation down towards the strip of vegetation lining the south portion of the site.

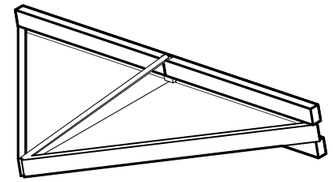


Figure 8.11 Diagram; Solid Canopy Panel

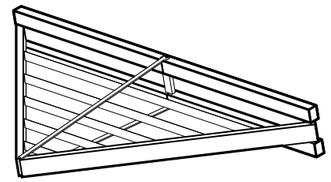


Figure 8.12 Diagram; Louvered Canopy Panel

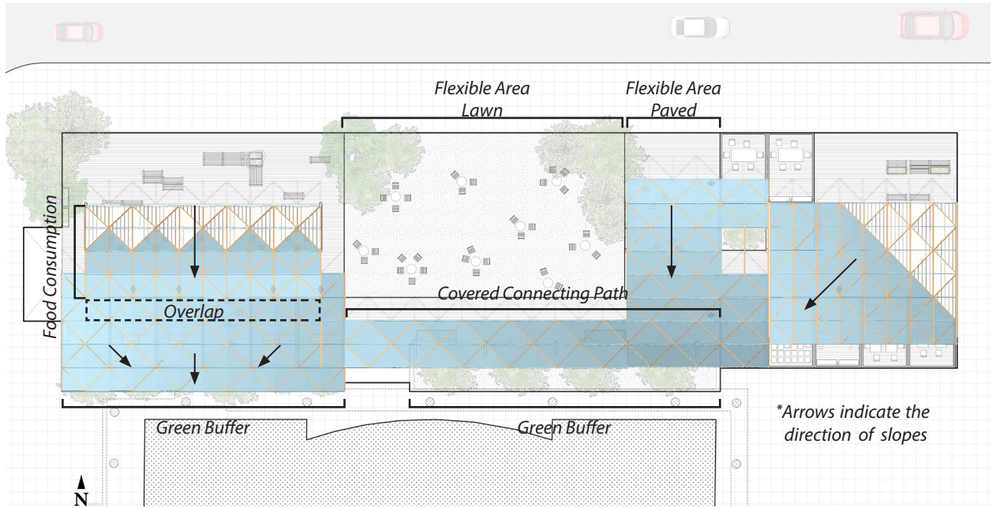


Figure 8.13 Map; Canopy Coverage

Intervention at King Street and John Street

Initial Planning

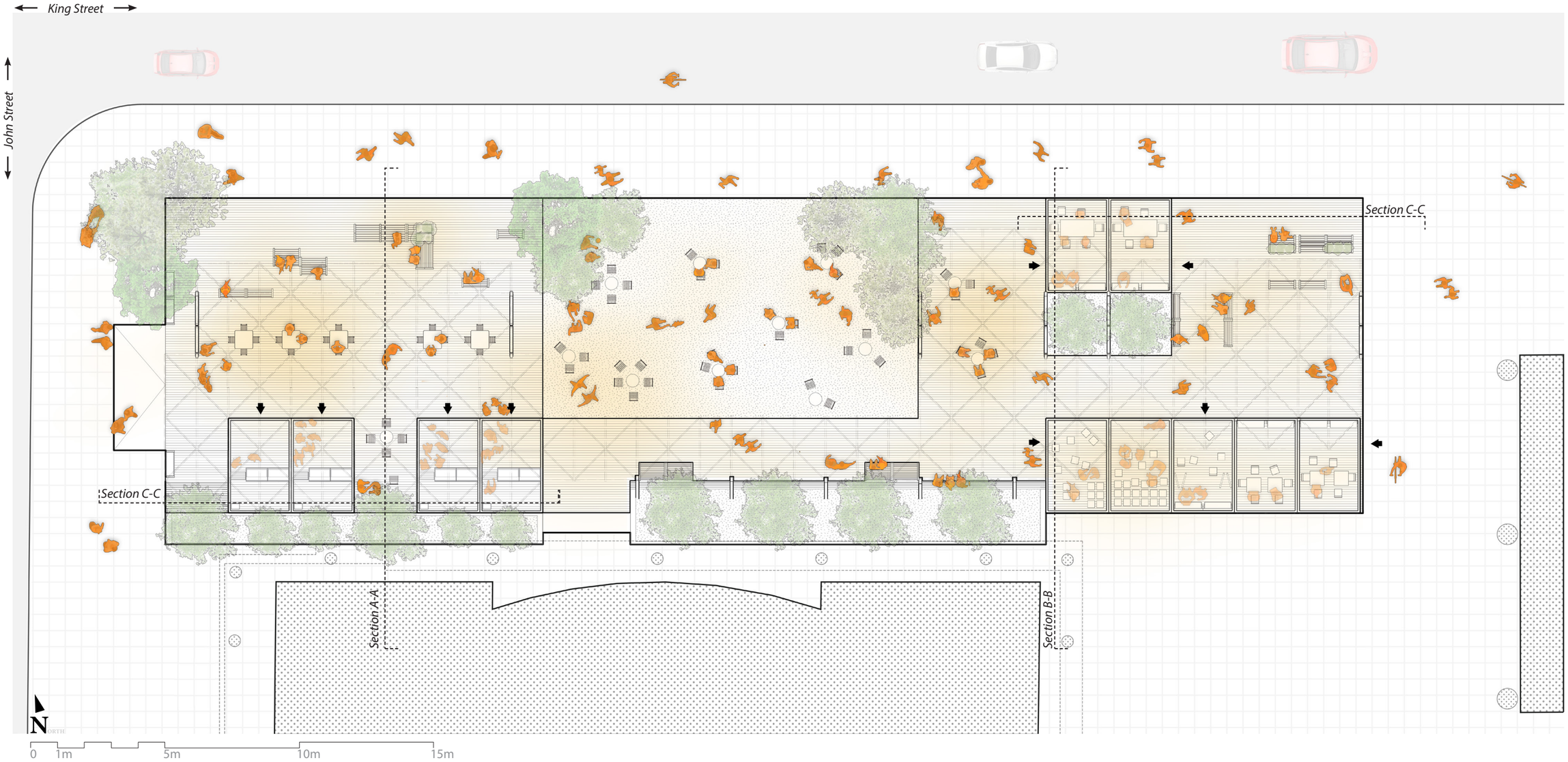


Figure 8.14 Drawing; Plan

Section A-A

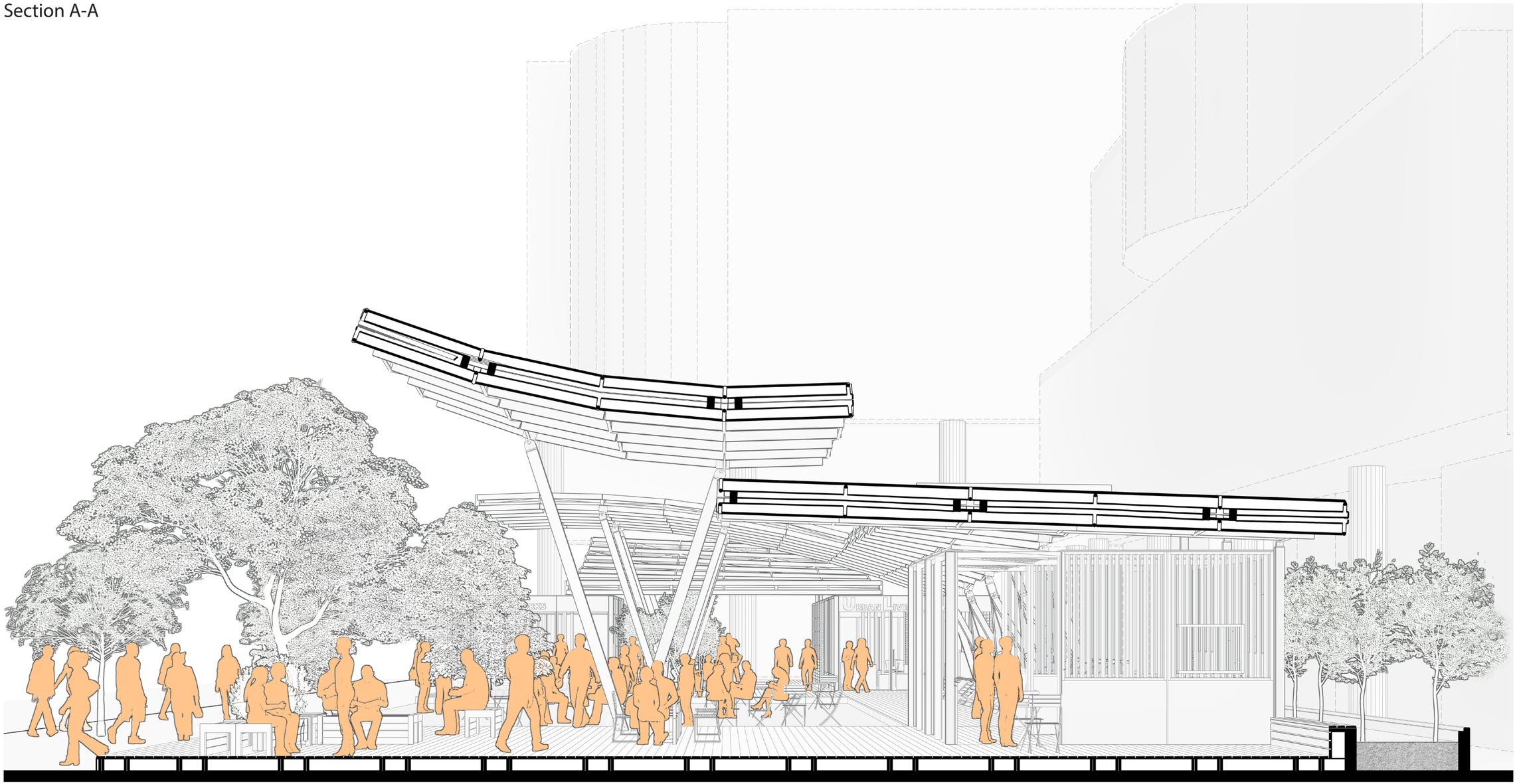


Figure 8.15 Drawing; Section A-A

Section B-B

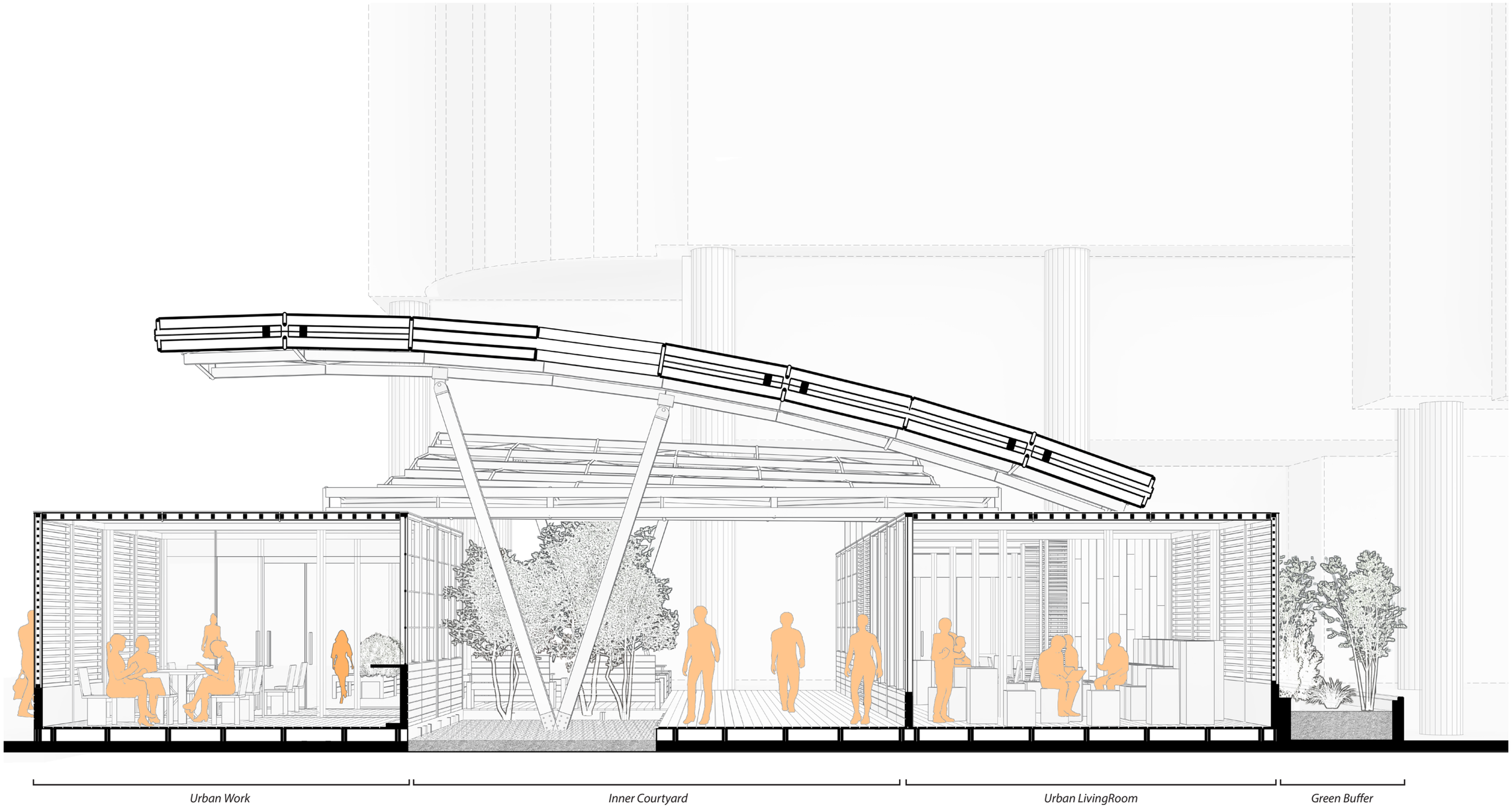


Figure 8.16 Drawing; Section B-B

Section C-C

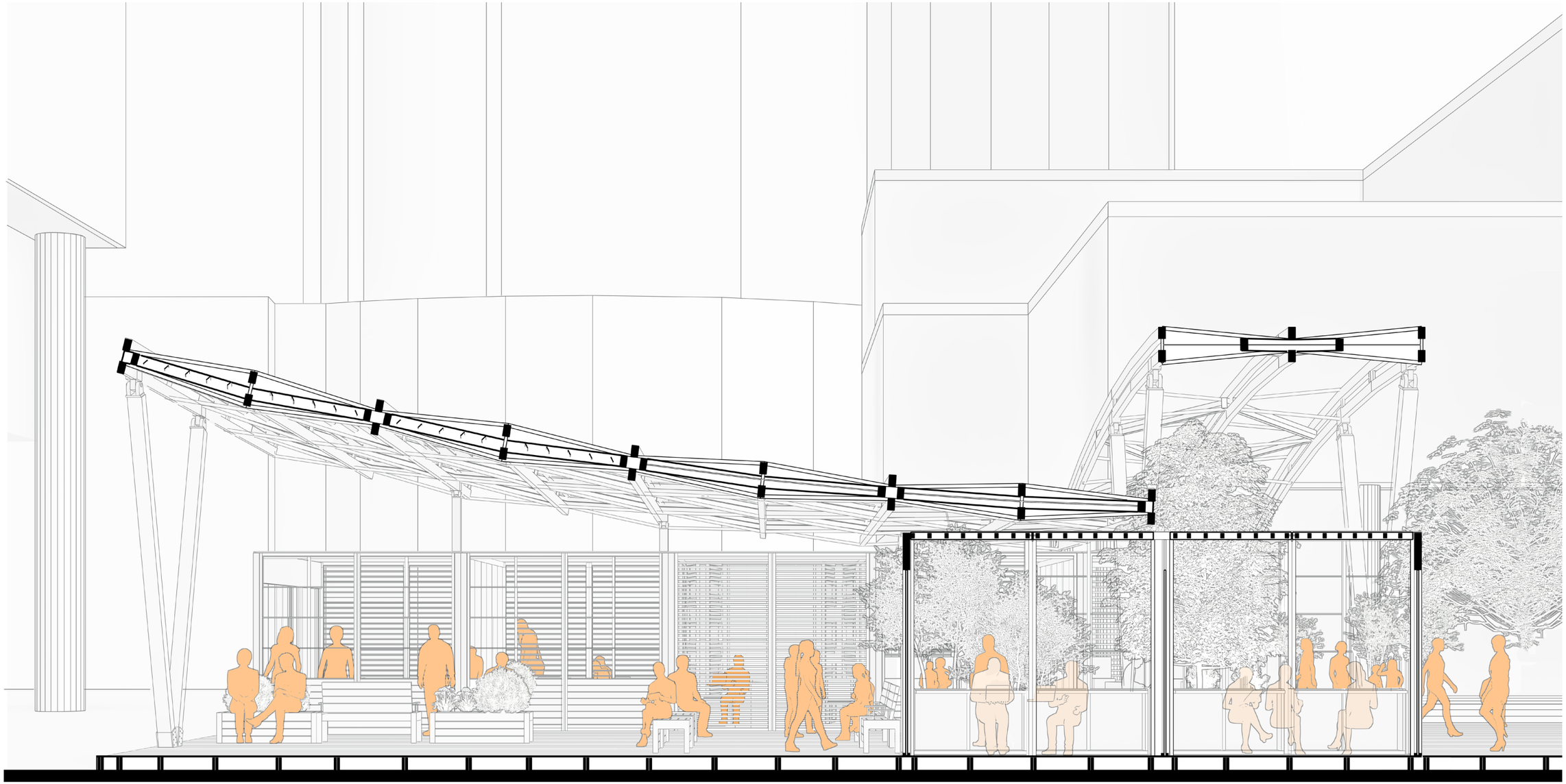


Figure 8.17 Drawing; Section C-C

Intervention at King Street and John Street

Section D-D

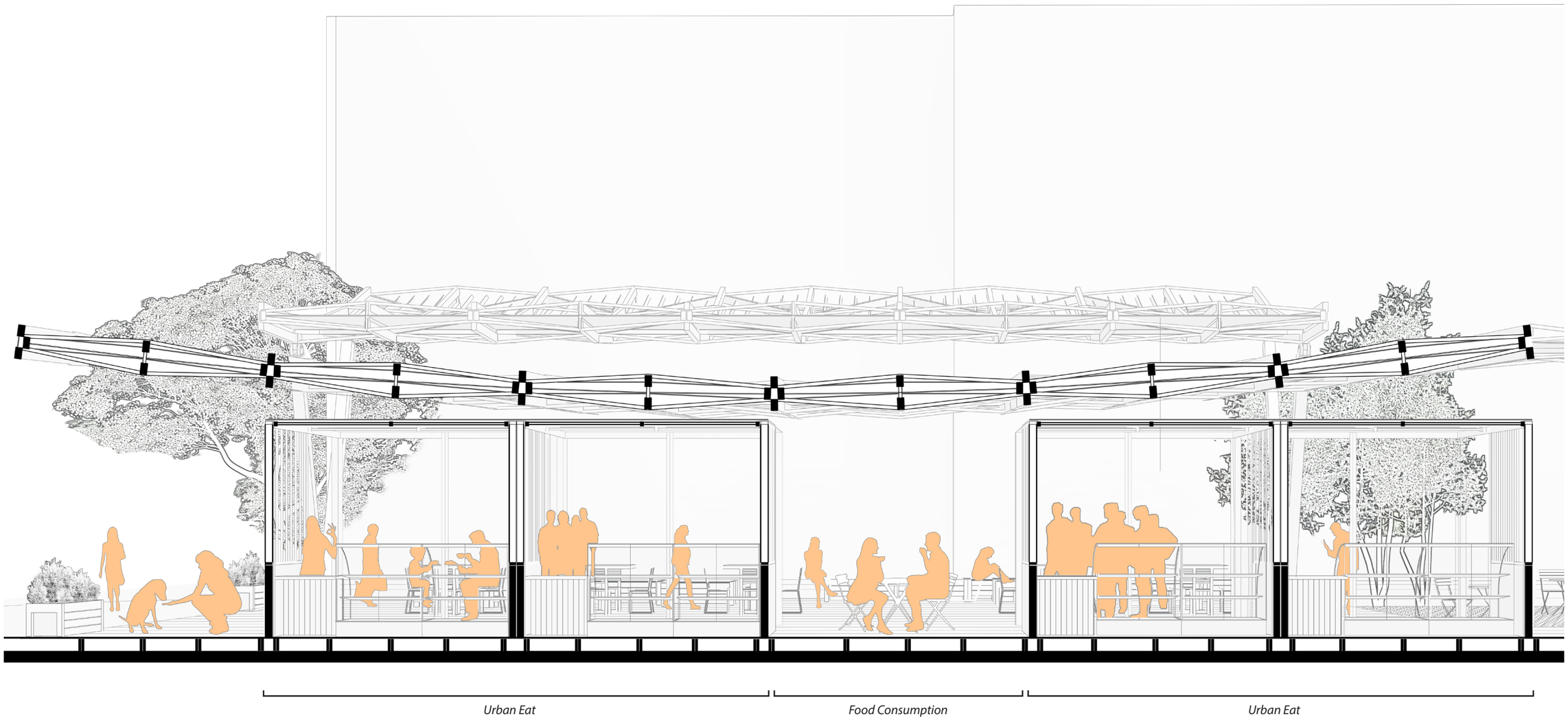


Figure 8.18 Drawing; Section D-D

Intervention at King Street and John Street

Rendered Views



Figure 8.19 Render; View from King Street Sidewalk Looking towards West



Figure 8.20 Render; Interior View of Urban Works, Co-Working Space



Figure 8.21 Render; View of Flexible Area from Internal Courtyard

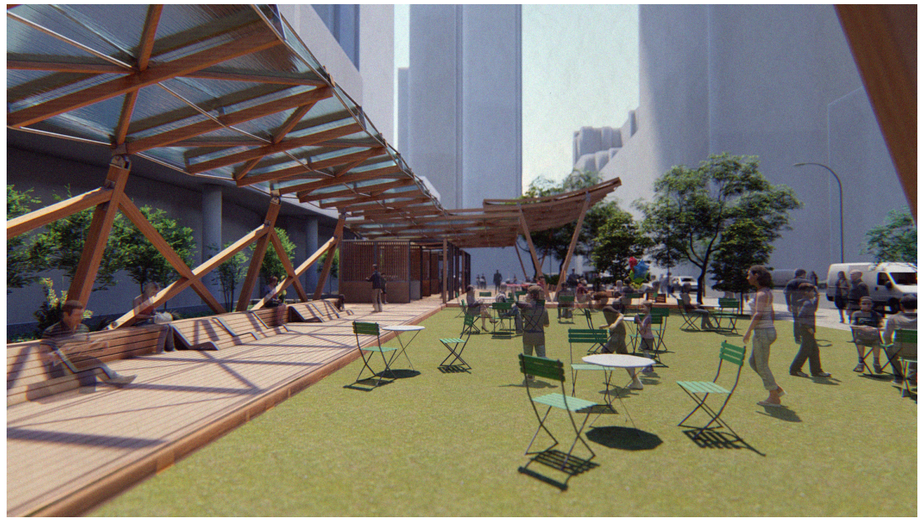


Figure 8.22 Render; View of the Central Flexible Area

Intervention at King Street and John Street

Rendered Views



Figure 8.23 Render; View from King Street Sidewalk Looking towards East



Figure 8.24 Render; View of Urban Eat Rooms



Figure 8.25 Render; View from John Street Looking Towards East



Figure 8.26 Render; View of Flexible and Rest Area

Intervention at Queen Street and John Street

Pedestrianization Of John Street

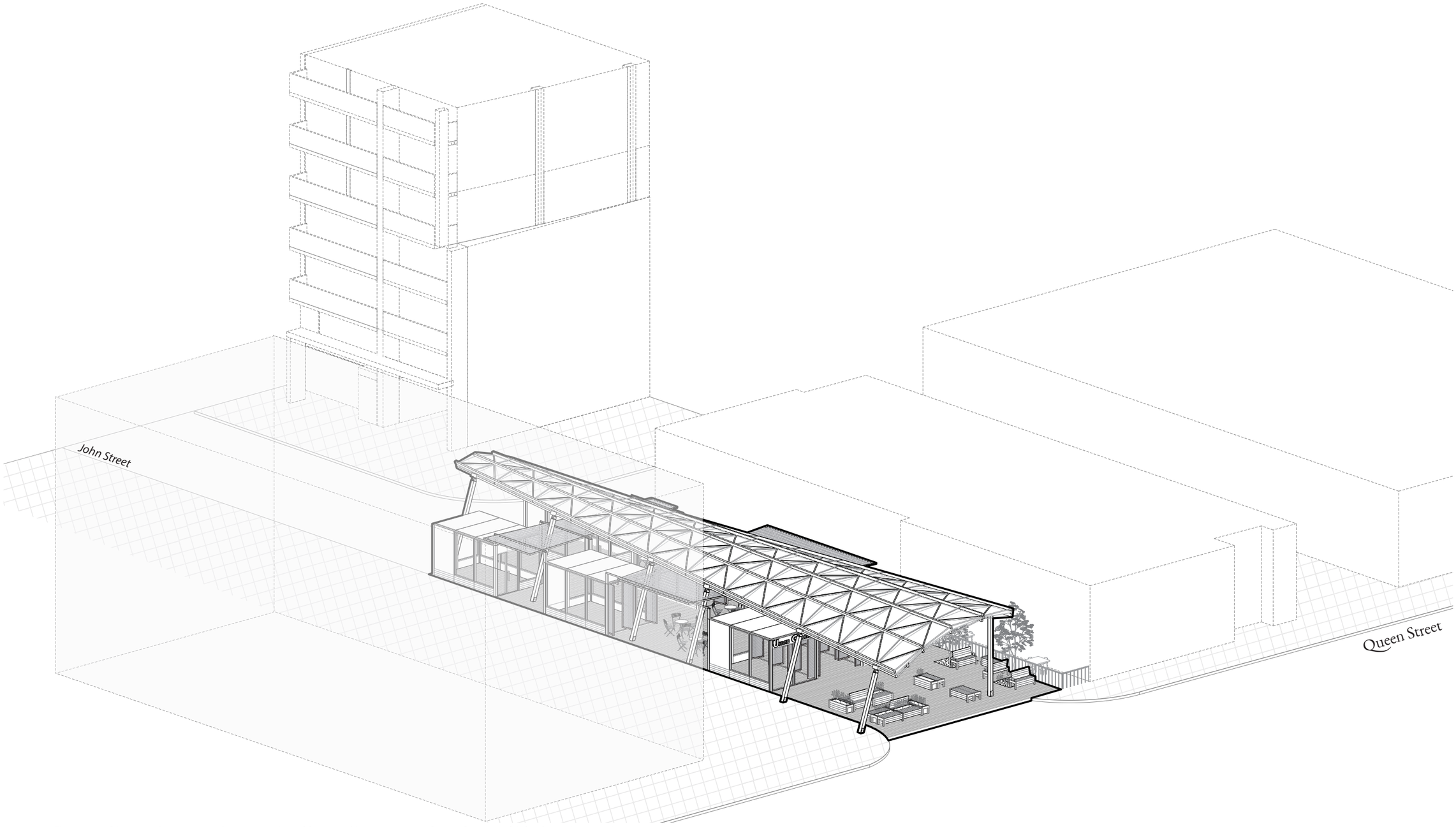


Figure 8.27 Diagram; Axonometric Representation of Proposed Intervention at Queen Street and John Street Intersection

Intervention at Queen Street and John Street

Pedestrianization Of John Street

The pedestrianization intervention proposed for this site aims to create a threshold condition at John Street and Queen Street to guide traffic from the pedestrian heavy Queen Street towards Grange Park. Increased activity in the area will result in more frequent use of both St. Patrick Square and Grange Park.

Beverly Street, with three access points to John Street along this segment proposed for pedestrianization, is an acceptable alternative for vehicle access. The undisturbed laneways are available for unobstructed use by service or emergency vehicles.

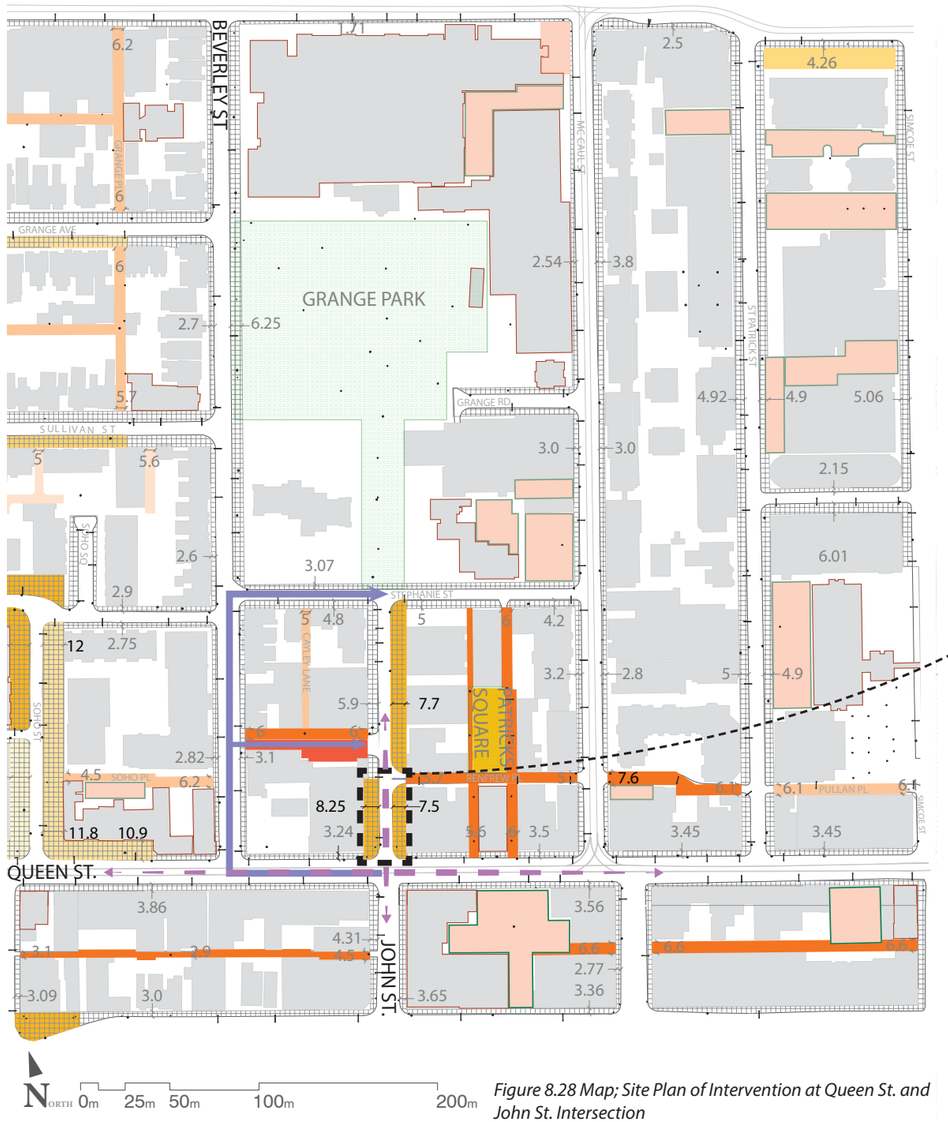


Figure 8.28 Map; Site Plan of Intervention at Queen St. and John St. Intersection

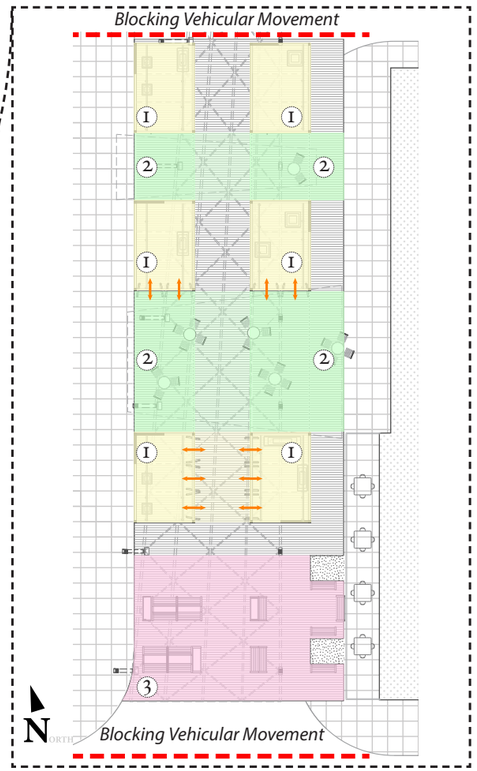
Allocation Of Space And Program

The presence of multiple art institutions in the area, including the AGO and OCAD, establishes a theme of art appreciation on this site. In addition, Grange Park, which functions as an urban oasis, is a destination that brings a lot of strolling pedestrians into the area.



Figure 8.30 Image; Space of Intervention - View from John St.

These characteristics guides the programming of the pedestrianized street - the intervention takes on the objective of creating a pedestrian street within the existing street. This street is then lined on either side with Urban Rooms, which in this space, are specialized for the display of art, sculpture, and installations.

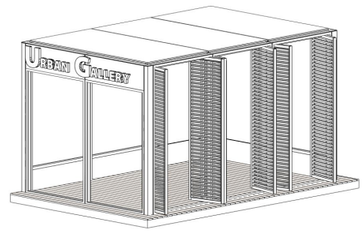


Programs;
1-Urban Gallery
2-Flexible area
3-Passive engagement

Figure 8.29 Map; Site Map Spatial Organization

The placement of the rooms divides the space into six zones and are aligned as non-continuous rows and columns along both longitudinal and transversal axes. This distribution creates spatial pockets that can host both connected and independent programs. As one walks along this corridor, they will be enticed to meander through these spaces that feature art of many forms, and also to engage in mixed programming which may take place in the large open "flex" zones. The passive engagement area, located on the south end of this site, can fulfill its function of piquing the curiosity of those walking by on Queen Street to enter the site.

The Urban Rooms, fully equipped with operable panels on the sides marked with orange arrows allow the room to be completely opened in order for program to spill out of its enclosure boundaries. This also allows for the blurring, overlap, and unobstructed flow between different zones within the overall intervention.



Urban Gallery; Rooms for display.
The high transparency of panels combined with operable panels provide sufficient levels of visibility and in-out flow.
Figure 8.31 Diagram; Axonometric Representation of Urban Gallery

Intervention at Queen Street and John Street

The north-south axes, marked in purple arrows on this site, is the main driver of spatial organization. This is the direction along which very direct and straightforward routes are visually established. However, as one passes along this pathway, they are introduced repeatedly to multiple east-west axes of program spaces. These gentle interruptions encourage slowing down, exploring, and meandering within the site as opposed to a direct and singularly programmed thoroughfare.

Maintenance of physically uninterrupted north-south circulation allows for the retention of the current and important function of this thoroughfare and also establishes a pleasing visual organization. The west secondary aisle is left unprogrammed to allow access by emergency vehicles.

Four of the Urban Gallery rooms in the space are constructed with fully operable and fold-able panels allowing the spillage of the program into adjacent flexible areas-marked with orange arrows. The remaining panels are chosen to achieve maximum transparency, however, incorporating at least one solid panel is required to establish lateral stability in the structure. These solid panels, marked in blue,are carefully placed to maintain visual porosity in many directions. In addition, this will create visual depth that prompts sense of curiosity and exploration for the pedestrians.



Figure 8.33 Image; Outdoor Exhibition - Montreal

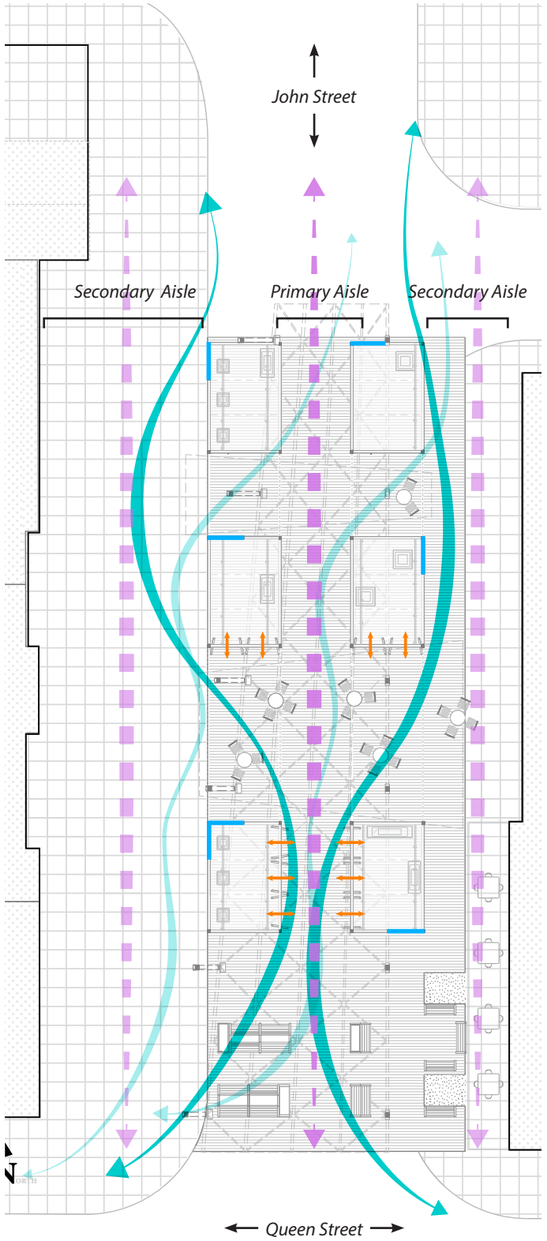


Figure 8.32 Diagram; Site Features

Canopy Coverage

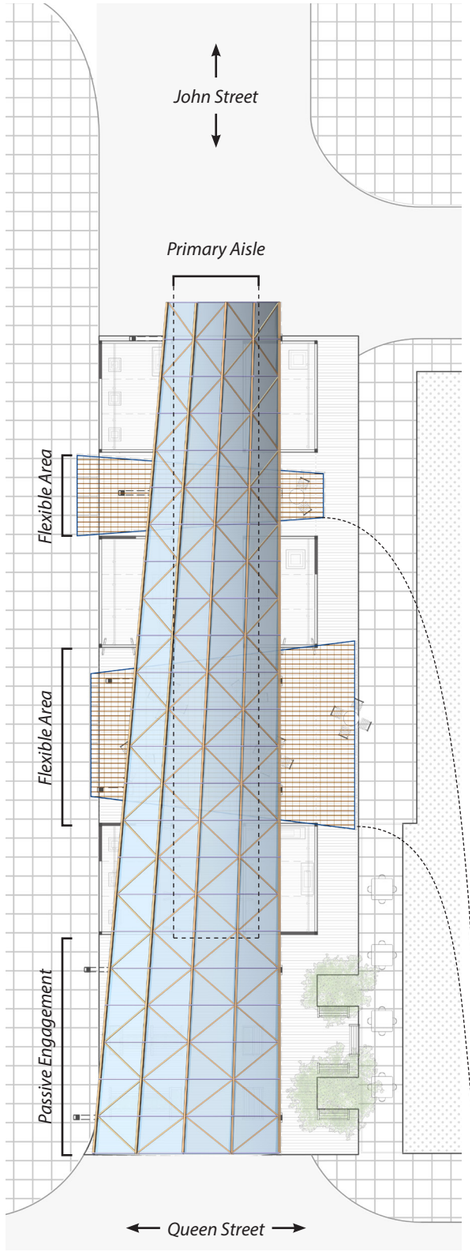


Figure 8.35 Map; Canopy Coverage

Two different strategies are used to provide weather protection and adequate shading on this site. First, a main canopy is constructed with solid panels along the North-South axis to provide protection against rain and snow for the whole length of the primary aisle. Second, a lighter structure of horizontal lattice web covers the spaces between rooms along the east-west axis.

This pergola-like canopy is a surface for growing climbing plants and ivy, creating a pleasant green space, and for providing shade. In addition, the structure is capable to of supporting hanging objects and artifacts.

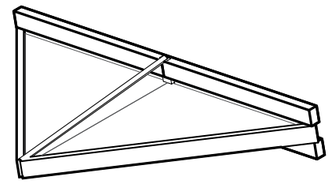


Figure 8.34 Diagram; Louvered Canopy Panel

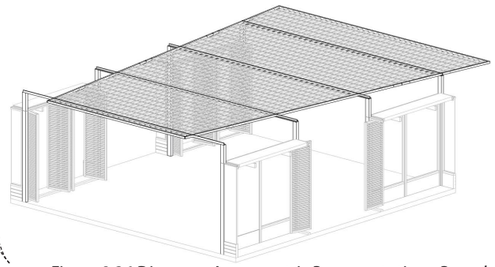


Figure 8.36 Diagram; Axonometric Representation - Pergola

Intervention at Queen Street and John Street

Initial Planning

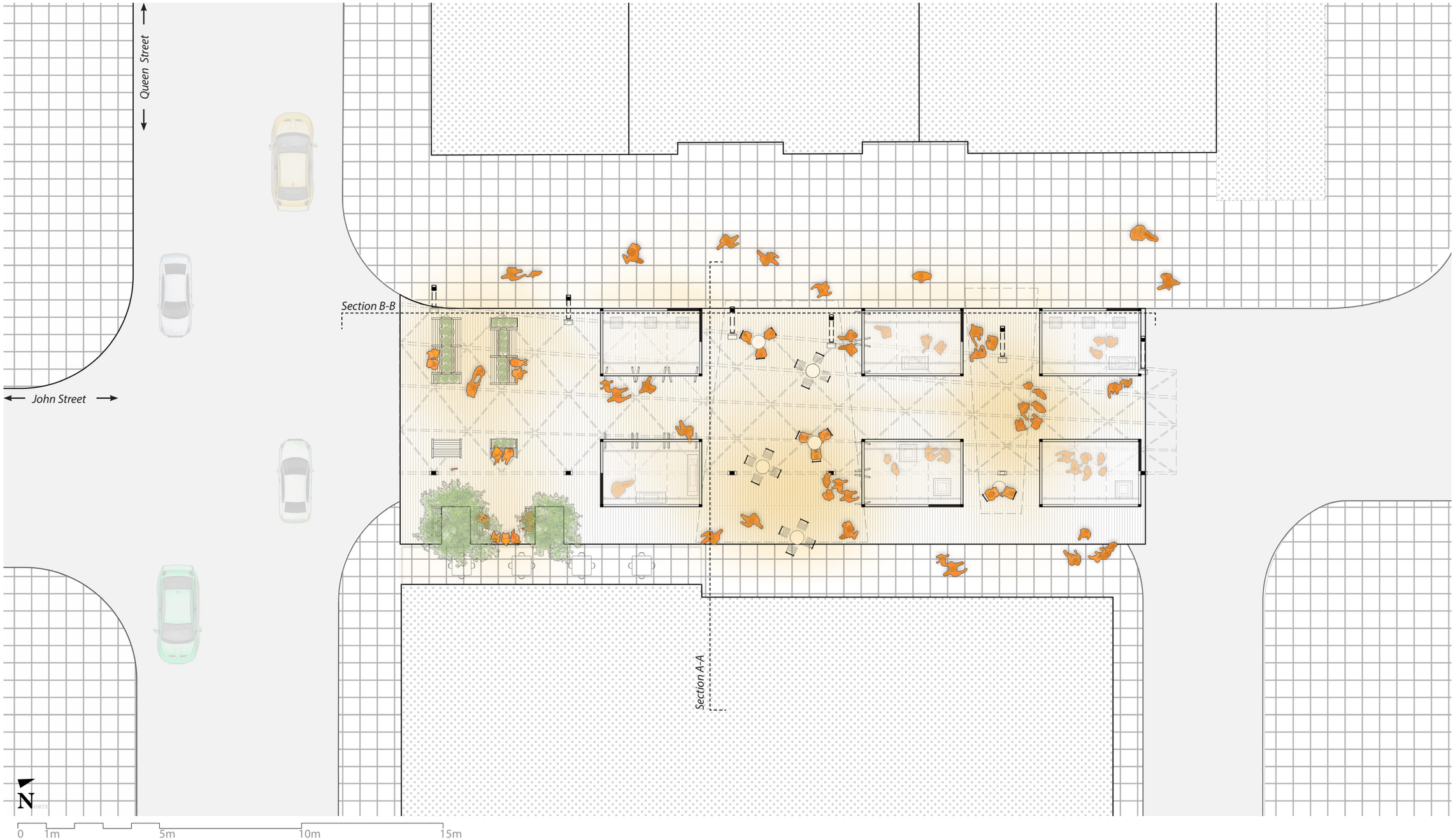


Figure 8.37 Drawing; Plan

Section A-A

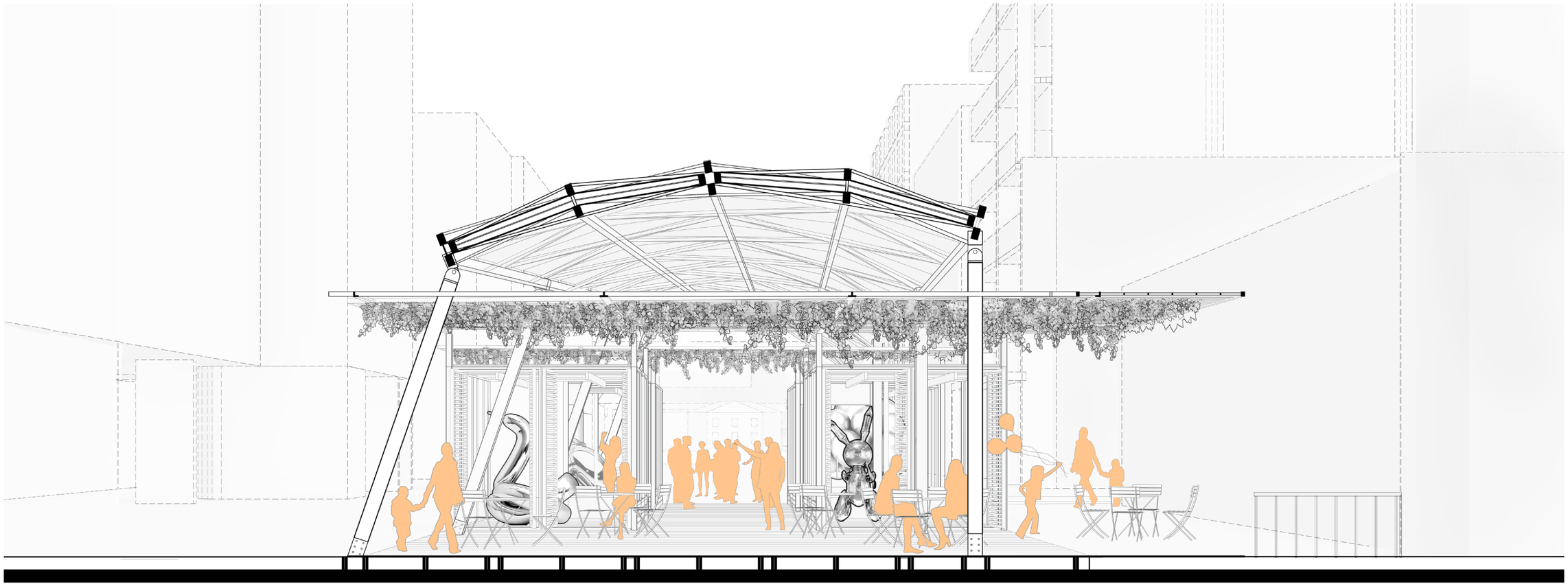


Figure 8.38 Drawing; Section A-A

Section B-B

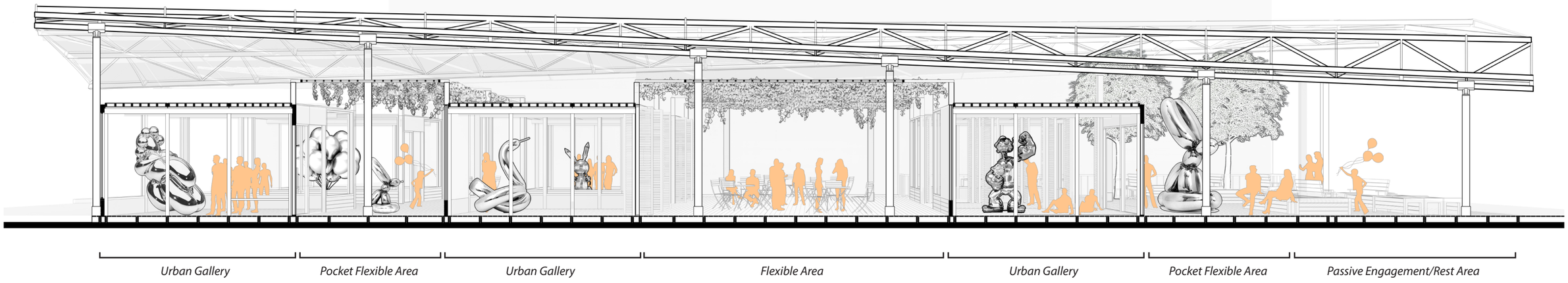


Figure 8.39 Drawing; Section B-B

Intervention at Queen Street and John Street

Rendered Views



Figure 8.40 Render; View from Queen Street Sidewalk Looking Towards East



Figure 8.41 Render; View from Queen Street Looking Towards North



Figure 8.42 Render; View from John Street Sidewalk Looking Towards North



Figure 8.43 Render; Interior view of Urban Gallery Room

Intervention at Queen Street and John Street

Rendered Views



Figure 8.44 Render; View from John Street Looking Towards South



Figure 8.45 Render; View from John Street Side Walk



Figure 8.46 Render; View from John Street Sidewalk Looking Towards South

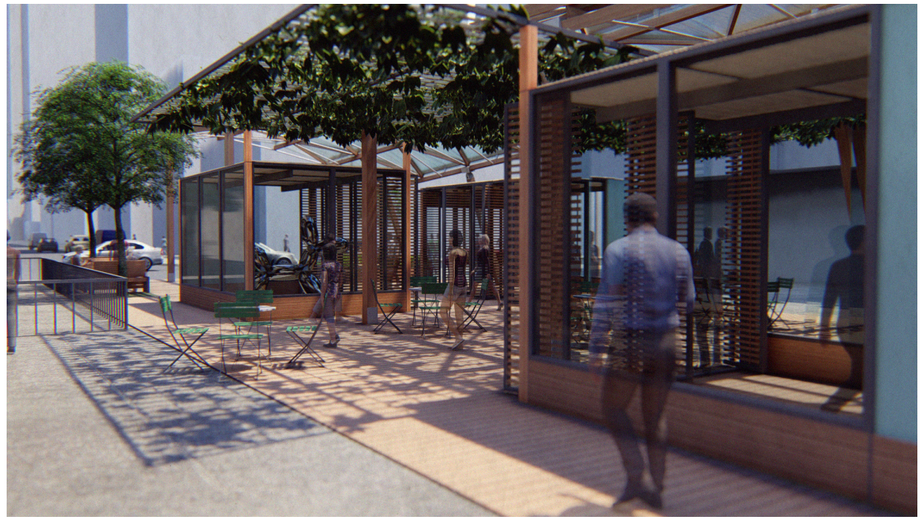


Figure 8.47 Render; View of Central Flexible Area

Intervention on King Street

Extension of Sidewalk

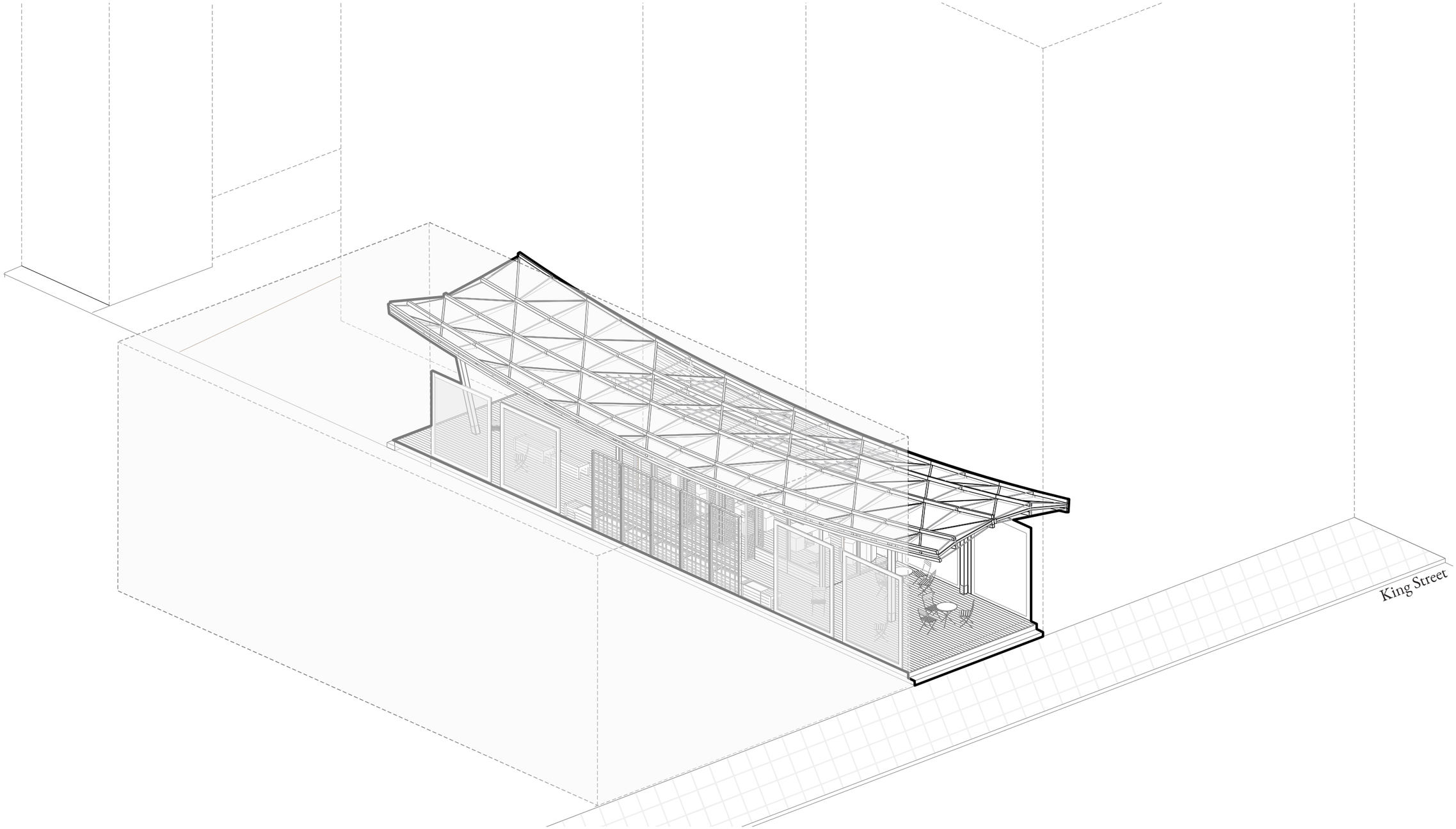


Figure 8.48 Diagram; Axonometric Representation of Proposed Intervention on King Street Lot

Intervention on King Street

Extension of Sidewalk - Temporary Activation

This site is located on King street and is temporarily available for an intervention that improve the space. The walls of adjacent buildings make East and West boundaries of the space, while it is connected to public lane-way on its South. This compact space features a popular graffiti art on its East wall. The graffiti commissioned by Calii love cafe' attracts many to have their pictures taken in the space. Due to the overwhelming popularity of graffiti art in Toronto, as seen in graffiti alley, this intervention seeks to feature this particular public activity. This feature takes place on the vertical plane and it is suitable for this compact site. The inherent ephemeral quality of graffiti art works in concert with a space that is available temporarily.

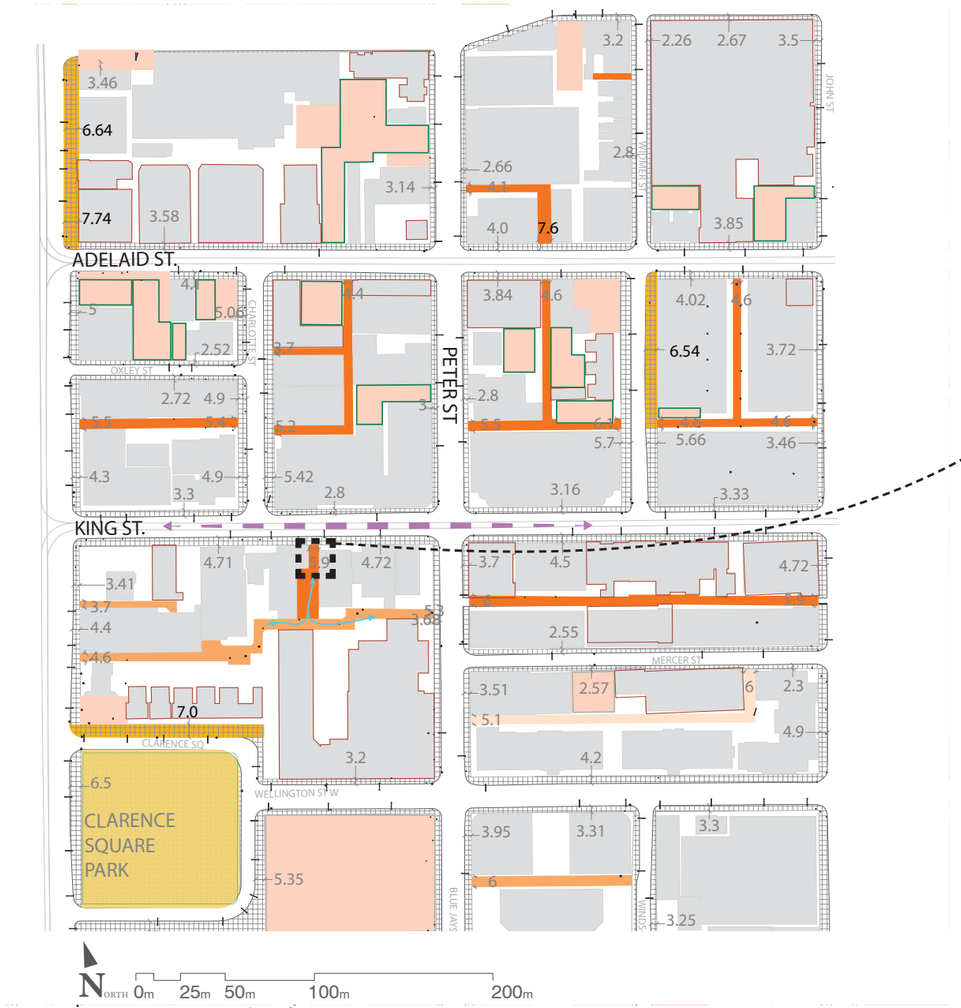


Figure 8.49 Map; Site Plan of Intervention on King St. Lot

Allocation Of Space And Program



Figure 8.51 Image; Organized Walking Tour of Graffiti Alley

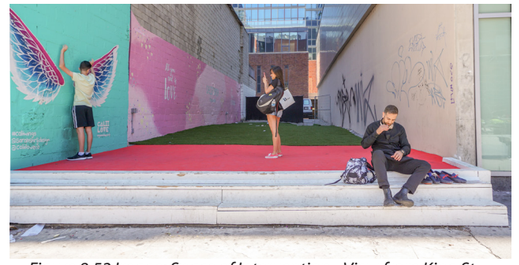


Figure 8.52 Image; Space of Intervention - View from King St.

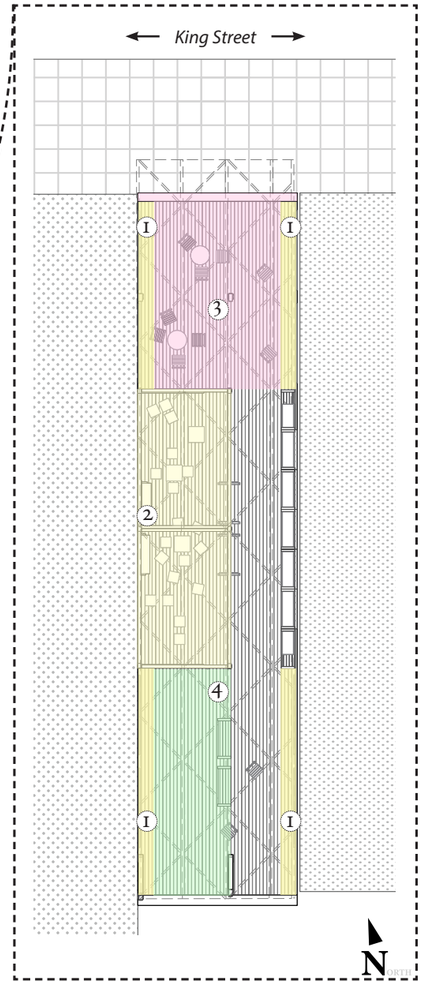


Figure 8.50 Map; Site Map Spatial Organization

The current usage and activities present in the site provides the foundation of this intervention. This intervention dedicated larger portion of the walls to function as canvas for street art. This functionality will attract street artists to interact with the site and others to observe and document.
Existing steps adjacent to King street sidewalk function as secondary seating arrangement, placing additional movable chairs and tables helps to extend this functionality farther South.
Two connected rooms provide a space for users to gather and engage in casual social activities. The flexible area is dedicated to artistic collaborations that require larger spatial provision.

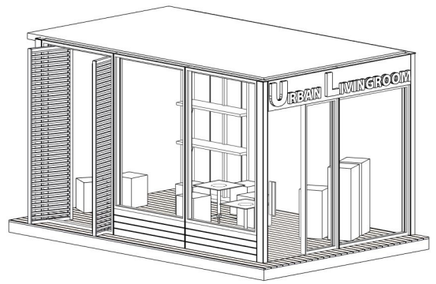


Figure 8.53 Diagram; Axonometric Representation of Urban Livingroom

Programs;
1-Canvas wall
2-Urban LivingRoom
3-Passive engagement
4-Flexible area

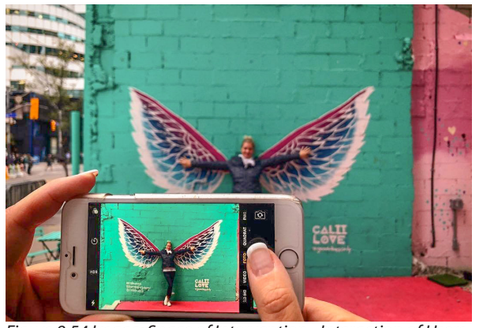


Figure 8.54 Image; Space of Intervention - Interaction of Users



Figure 8.55 Image; Interaction with Gum Wall

This site is a temporary site located between King Street and laneways to the south. However, the south lot line of the site is barricaded, creating a linear, lap-like circulation into and out of the site. This condition can result in rigidity in flow, thus, in order to break this pattern, the Urban Rooms proposed for this site are constructed with fully operable folding panels (marked with orange arrows), increase the perception of openness within this compact space.

Furthermore, the majority of vertical surfaces on this site is dedicated to a unique site feature - interactive art that provide opportunity for user contribution. These walls are marked in yellow on the plan.

Along the length of the two Urban Rooms, however, circulation is compressed along a narrow corridor, so the interactive wall space is instead replaced with vertical lattice panels that function as planters and support the growth of green foliage, visually bringing a sense of life and aesthetic pleasure to users of the room.

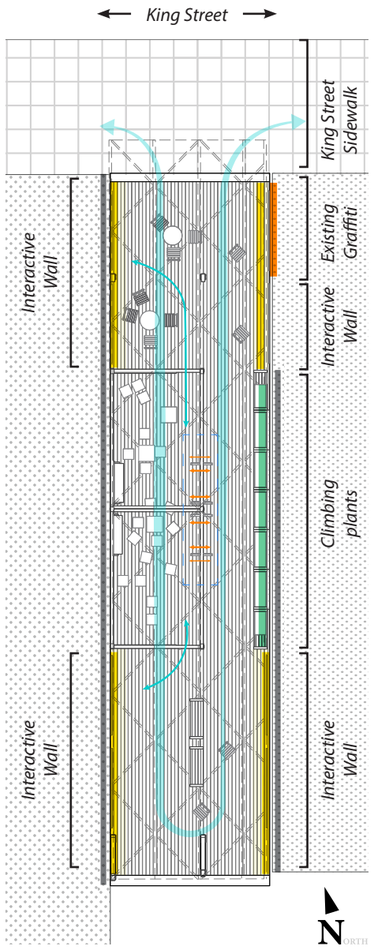


Figure 8.56 Map; Site Features

Canopy Coverage

The proposed canopy covers the entire length of the site to provide protection against snow and rain. This shelter enables the site to operate for an extended period throughout the course of the year. The canopy is sloped to guide snow and rain down to the lattice panels and planters opposite of the Urban Rooms.

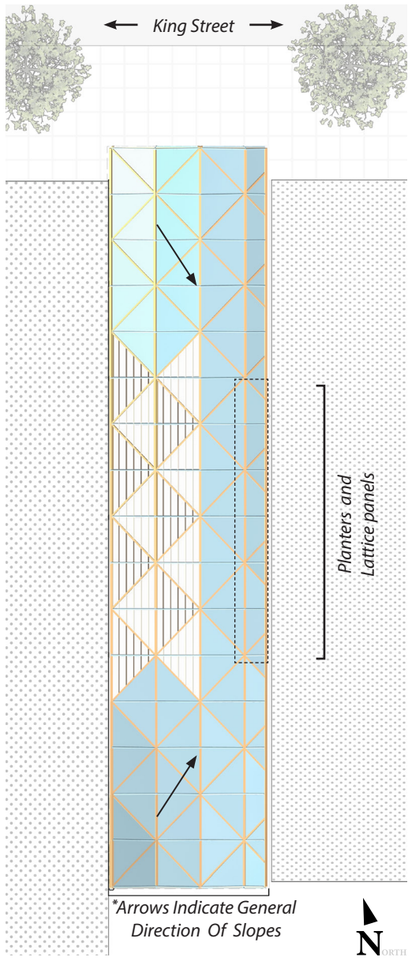


Figure 8.59 Map; Canopy Coverage

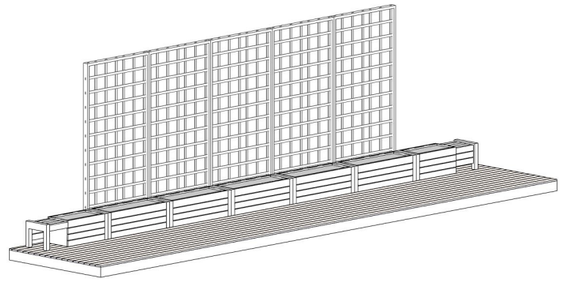


Figure 8.60 Diagram; Axonometric Representation of Planters and Lattice panels

Canopy is constructed using two types of panels, louvered panels and solid panels. Louvered panels are placed above the rooms while the rest of the space is covered with solid panels.

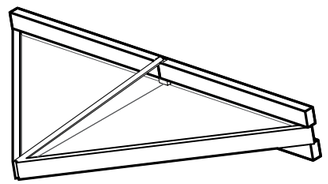


Figure 8.57 Diagram; Solid Canopy Panel

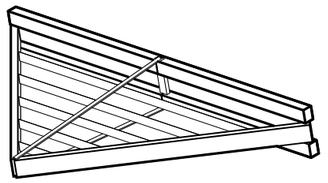


Figure 8.58 Diagram; Louvered Canopy Panel

Intervention on King Street

Initial Planning

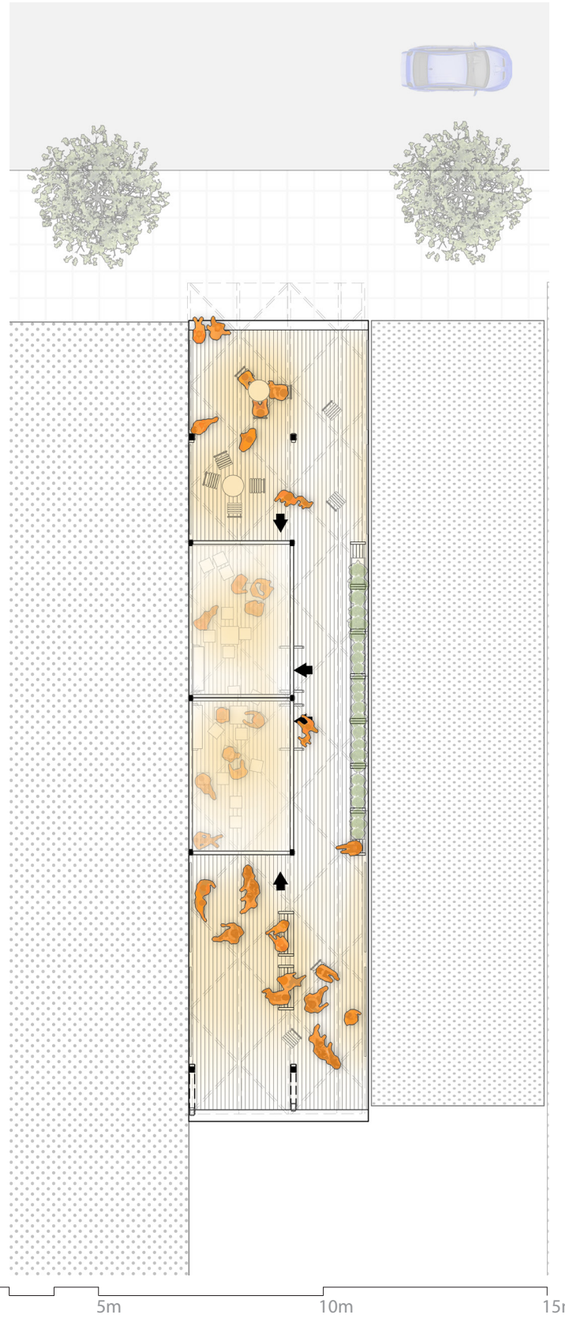


Figure 8.61 Drawing; Plan

Section A-A

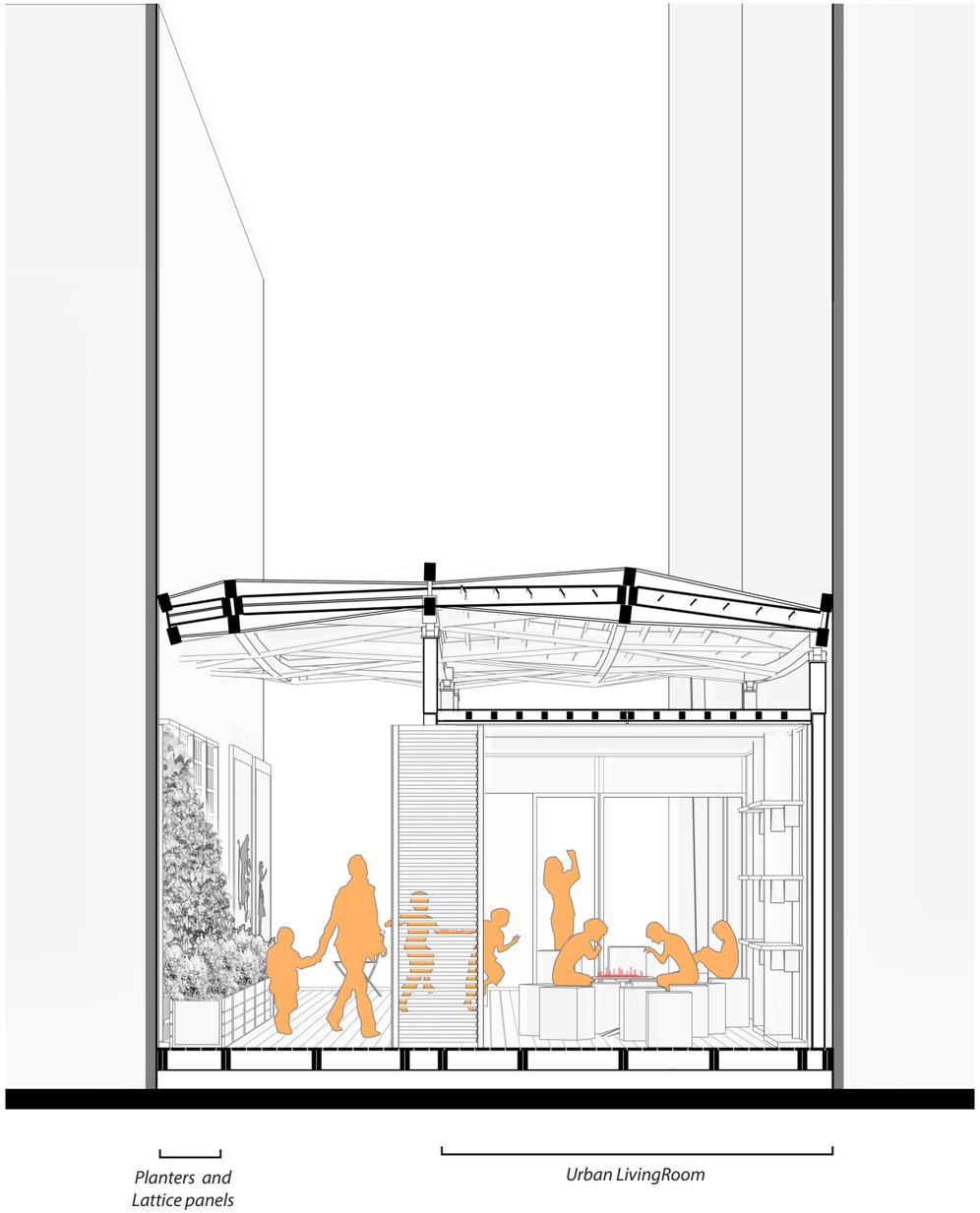


Figure 8.62 Drawing; Section A-A

Section B-B

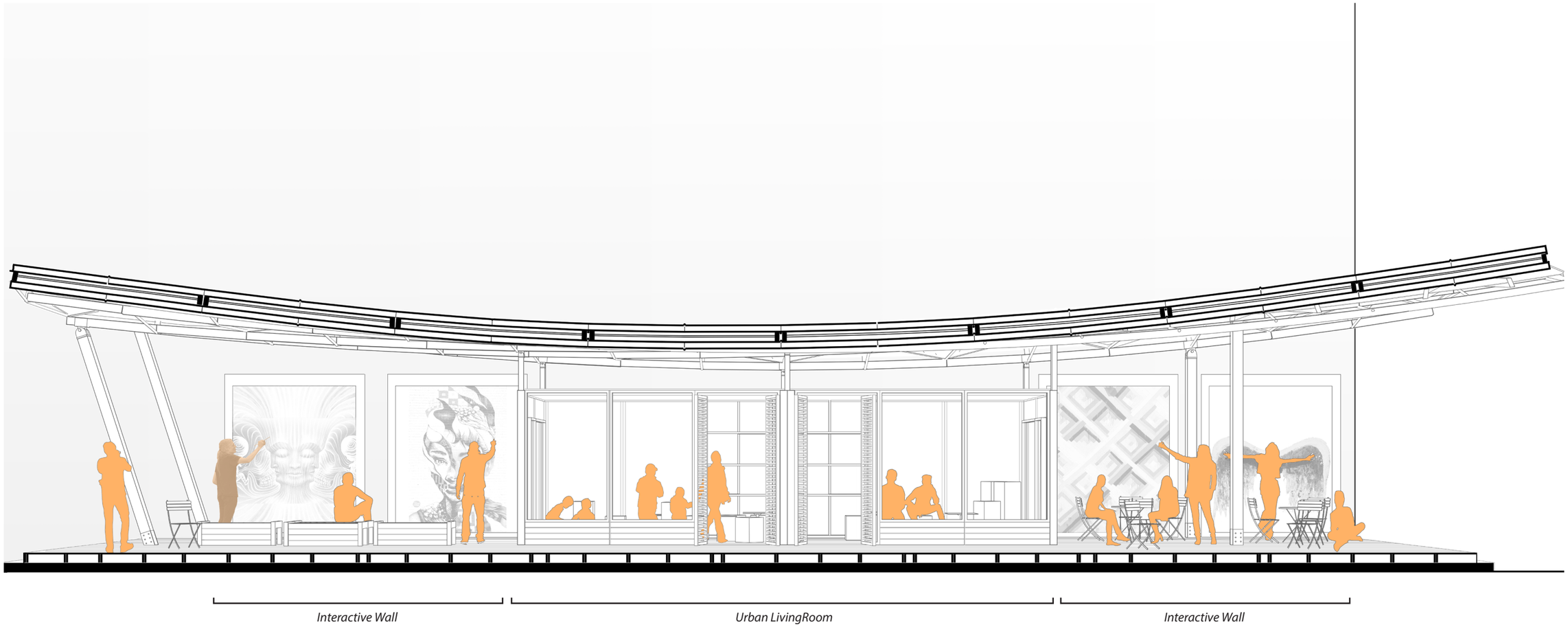


Figure 8.63 Drawing; Section B-B

Rendered Views



Figure 8.64 Render; View From King Street Side Walk



Figure 8.65 Render; View from King Street



Figure 8.66 Render; Interior View of Urban Living Room



Figure 8.67 Render; View From Lane-way

Conclusion

This research has concluded as a set of findings and unique design principles framing what is arguably the current best practices in the design and development of the public metropolitan urban landscape. The proposed designs stem from these findings and strive to reflect them in a way that meets specific public demand and user preferences to infuse social activity and dynamism into the public realm of downtown Toronto.

Toronto, a thriving urban metropolis, faces a series of distinct yet interconnected problems. The city has been experiencing rapid intensification, seen through an exponential increase in its population, especially of those who reside and work in the downtown core. Thus, in response, there has been incessant vertical development that is severely concentrated along a few narrow corridors where planning and zoning permit this form of high rise development. While these developments continue to produce new space higher and higher in the sky, public spaces, of which most commonly and most successfully exist at ground level, face very limiting spatial constraints and quickly fall behind in their pace of growth.

The city thus operates in a predicament of having almost no vacant land in its densest areas, which are the same areas that currently have the highest demand for new public space. The most innovative approaches on the municipal level has been the creation of new land through technological means, as seen in the proposals for Rail Deck Park, which calls for the covering of rail tracks that would add a vast area of land for the development of park space.

This thesis challenges our dependence on such large undertakings and instead, finds a wealth of opportunity in already existing but under-performing, underused, or only temporarily available spaces, of which downtown Toronto has many. The design interventions proposed in this thesis demonstrate methods of increasing effectiveness of these intermittent spaces, or even just temporarily capturing their value while they await development. It is difficult to predict the full impact any change or intervention will have on the highly complex and non-deterministic organism of the city, as often, this impact is not proportionate to its at face financial value or labour input. For example, the smallest of tactical urbanism interventions, such as the simple addition of seating to a vacant plaza, can greatly impact its social and public dynamic. Such are examples of invaluable bottom-up approaches which are often invisible in top-down examination. The products of bottom-up approach are, however, extremely effective, because they bring solutions responding directly to fundamental human needs. For this reason, in design, the human-centric lens should not only be regarded as a valuable foundational consideration but also as a major guiding principle throughout the entire design process in order to ensure the vitality and success of the final product.

I hope to have highlighted, in formulating both my research methodology and design through this lens of human-centric response, the importance of the bottom-up approach. This approach and its merits has been explored in-depth through the writings of a number of urban sociology practitioners and scholars. Combining this approach with the more commonly used and well understood top-down methodology has been revealing of how two are not at all mutually exclusive, and are quite complementary of one another. Together, they produce incredible findings that bring impactful strategies and new solutions to light in the design of vibrant social spaces. This research and design process has also been reassuring in demonstrating the lack of correlation between the scale or level of complexity of a project and its effectiveness as a good public space. The ultimate solution of deploying a kit-of-parts of urban elements to transform even the smallest of intermittent spaces is only one of the many possibilities that can emerge from the combination of varied methods into a larger holistic approach – one that is flexible and capable of big picture analysis while simultaneously considering the user experience of urban design in the public realm.

To produce a more substantial and complete investigational framework, this thesis touched on many scales of research and design – from the city-wide scale to the scale of small individual kit-of-parts modules – to verify the viability of a holistic integration of these different scales of investigation. The ultimate understanding of each scale, however, is only rudimentary and can be taken much further in depth beyond this thesis. Furthermore, the bottom-up method executed in this research used direct observation, photo documentation, and personal walk-throughs to arrive at an understanding of Toronto's public realm. This result is deeply human-centric, however, also heavily influenced by the author's personal opinions and perspectives as the sole investigator. As such is the nature of bottom-up investigation, these biases can be reduced by increasing the number of voices involved, especially those of local residents and users with the use of interviews, questionnaires, surveys, community meetings, and many other available forms of public engagement.

Finally, the proposed kit of parts is an attempt to provide a flexible system that has the potential to expand its functionality. The modularity of this design can produce very different configurations through slight adjustments, and can accommodate a huge range of spatial sizes from a single parking space, to an alleyway, or even a big open plaza. The paving and structure can accommodate various servicing, but also has the ability to be the takeoff point for other ideas not explored in this thesis. This proposal is ultimately a tool that can be used to experiment with different design strategies, and it is acknowledged that semi-enclosed spaces are not adequate as responses for all situations due to their inherent non-building typology. This thesis proposal only forms a foundational basis for elaboration into a more generous range of solutions that can include permanent and enclosed building typologies and beyond.

In addition to the suggestions made in identifying the limitations this work, several recommendations are proposed for its continuation. For the purpose of size and scope, the geographical limitations of this thesis were set to the current conditions and development of Canada and the United States of America, more specifically, the three metropolitan cities of Toronto, Montreal, and New York City. Globally, there is the potential for numerous other public intervention models to be formulated through processes similar to those demonstrated in this thesis in order to further expand and develop this body of research. To do so would be worthwhile as it has the poten-

tial of enhancing the viability of the public sphere and giving public spaces back to be enjoyed by residents in the ever-growing metropolitan centers of the world.
Scholars studied in this thesis have also been distilled to the most relevant, however, there are numerous urban researchers, sociologists, and designers not mentioned that also provide valuable input related to the ideas explored. Examples include Barton Tsorou, author of the book “Healthy Urban Planning”, and also, Mathew Carmona, who in collaboration with Steve Tiesdell, Tim Heath, and Tanner Oc published the book “Public Places – Urban Spaces”, both valuable resources. There is endless space for the addition of knowledge of a greater and more global variety and depth, and for the expansion of this thesis to further include more detailed and comprehensive analyses of public spaces and their cultural nuances from around the world.

Toronto is a vibrant and lively city that provides well-rounded support of its residents’ well-being through the maintenance of a wide range of resources, services, programs, and fun and entertainment activities, which all make use of its existing network of high quality public spaces. This design proposal is intended to be complementary to the city’s comprehensive existing infrastructure in order to further extend the impact and influence of these public spaces. By applying the process outlined in this thesis, numerous spaces that were previously discarded now become recognized as valuable assets in the evolution and growth of public space, and are given the opportunity to be realized to their full potentials.
The significance of the kit-of-parts methodology in my design approach is to formulate a versatile and flexible design language that has the innate ability to respond to changing needs. Some changes in the urban sphere can be predictable and clear cut, while others are so gradual that in the short term, they are barely perceptible. The methodology of this thesis demonstrates a fair range of flexibility in both approach and design, producing a result that that can accommodate for lifestyle, cultural, and other civic changes in addition to certain extents of technological advancement. On a more long-term scale, the flexibility in permanence of the design also allows for re-evaluation of its necessity and effectiveness within the slower evolution of its neighbourhood, city, and even societal context.
Much my investigation throughout this thesis has led to conclusions that emphasize the central theme of flexibility and its critical role in design for a society largely built on reactionary ideas and often ephemeral ideals. Just as the automobile experienced a tremendous rise and fall, other components of our lifestyle may also face similar shifts between two extremes, each time, heavily affecting our individual perception and desires. These shifts, which may seemingly appear arbitrary and insignificant, have a large collective effect when expressed or embraced by a population en masse.
Thus, in order to keep our urban environment up to date, we need to anticipate the changing expectations and needs of the population and constantly evolve our solutions in response. With shifting circumstances and priorities, solutions that were once effective may become useless or even detrimental over time. Thus, constant evaluation and reflection is key, especially by tapping into the wealth of knowledge and insight hidden in personal and testimonial based bottom-up investigation.
This thesis is therefore not a solution, but rather, a suggestion. It is a careful assembly of a collection of critical and valuable foundational ideas. It is not, however, afraid of being challenged. Only through a continuous process of being questioned, reconstructed, shaped, and expanded with further investigation, observation, thoughts, analyses, and ideas will the product of this thesis evolve into the multi-faceted, human-centric, and responsive answer it aspires to become.

Bibliography

Cullen, Gordon. *"The Concise Townscape"*. Oxford: Butterworth Architecture, 1971.

Gehl, Jan. *"Life between Buildings: Using Public Space"*. Washington, DC: Island Press, 2011.

Gehl, Jan, and Birgitte Svarre. *"How to Study Public Life"*. Washington: Island Press, 2013.

Jacobs, Allan B. *"Great Streets"*. New York: Institute of Technology, 1995.

Jacobs, Allan B. *"The Good City: Reflections and Imaginations"*. New York: Routledge, 2011.

Jacobs, Jane. *"The Death and Life of Great American Cities"*. New York, NY: Random House, 1961.

Lefebvre, Henri, and Donald Nicholson-Smith. *"The Production of Space"*. Blackwell, 2009.

Lynch, Kevin. *"The Image of the City"*. Cambridge, Mass: MIT Press, 1977.

Lynch K., and Rodwin, L. ,*"A Theory of Urban Form"*, Journal of the American Institute of Planners,1958.

Price, Cedric, and Hans-Ulrich Obrist. *"Re: CP"*. Basel: Birkhauser, 2003.

Ray Oldenburg, *"Great Good Place"*. Boston, Da Capo Press, 1989.

Sennett, Richard. *"The Fall of Public Man: The Forces Eroding Public Life and Burdening the Modern Psyche with Roles It Cannot Perform"*. New York: Knopf, 1977.

Southworth, Michael, and Eran Ben-Joseph. *"Streets and the Shaping of Towns and Cities"*. Washington, DC: Island Press, 2003.

Whyte, William H. *"The Social Life of Small Urban Spaces"*. New York: Project for Public Spaces Inc, 1980.