Grafton Street

September 2, 2015

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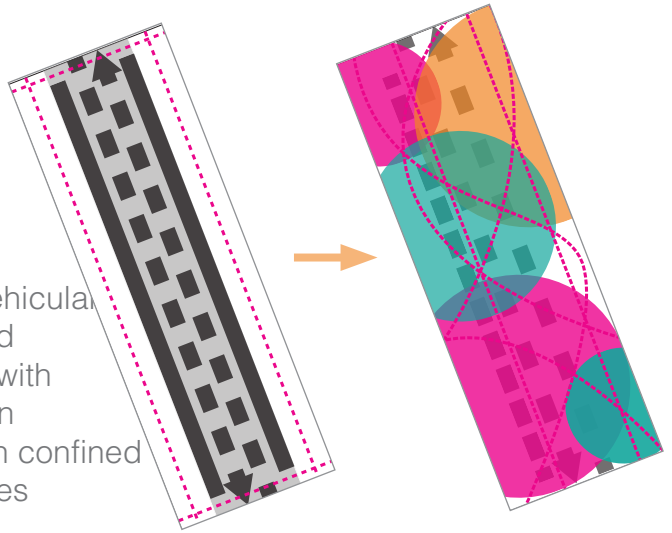
Project Background, Site Inventory + Analysis

The Grafton Street corridor, spanning from Prince Street to Carmichael Street, is a prominent connection in downtown Halifax. This important city block provides a visual and physical connection between the recently constructed Nova Centre, the Scotia Bank Centre, City Hall, and the Grand Parade. The street is a destination for locals and visitors. It contains portions of the Prince George Hotel, access to public parking garages and several popular local bars and restaurants.

Despite the cultural significance of this Street, the Streetscape is dominated by vehicular traffic and displays little visual indication of its importance.

In order to strengthen the connection between these landmarks and illustrate the cultural significance of this corridor, the streetscape would be best utilized as a shared street, or woonerf, encouraging pedestrian circulation and events, while still accommodating flexible vehicular transportation.

Grafton Street



From a vehicular dominated passage with pedestrian circulation confined to its edges

to a multi-functional, flexible cultural amenity with a strong sense of place that utilizes all available space

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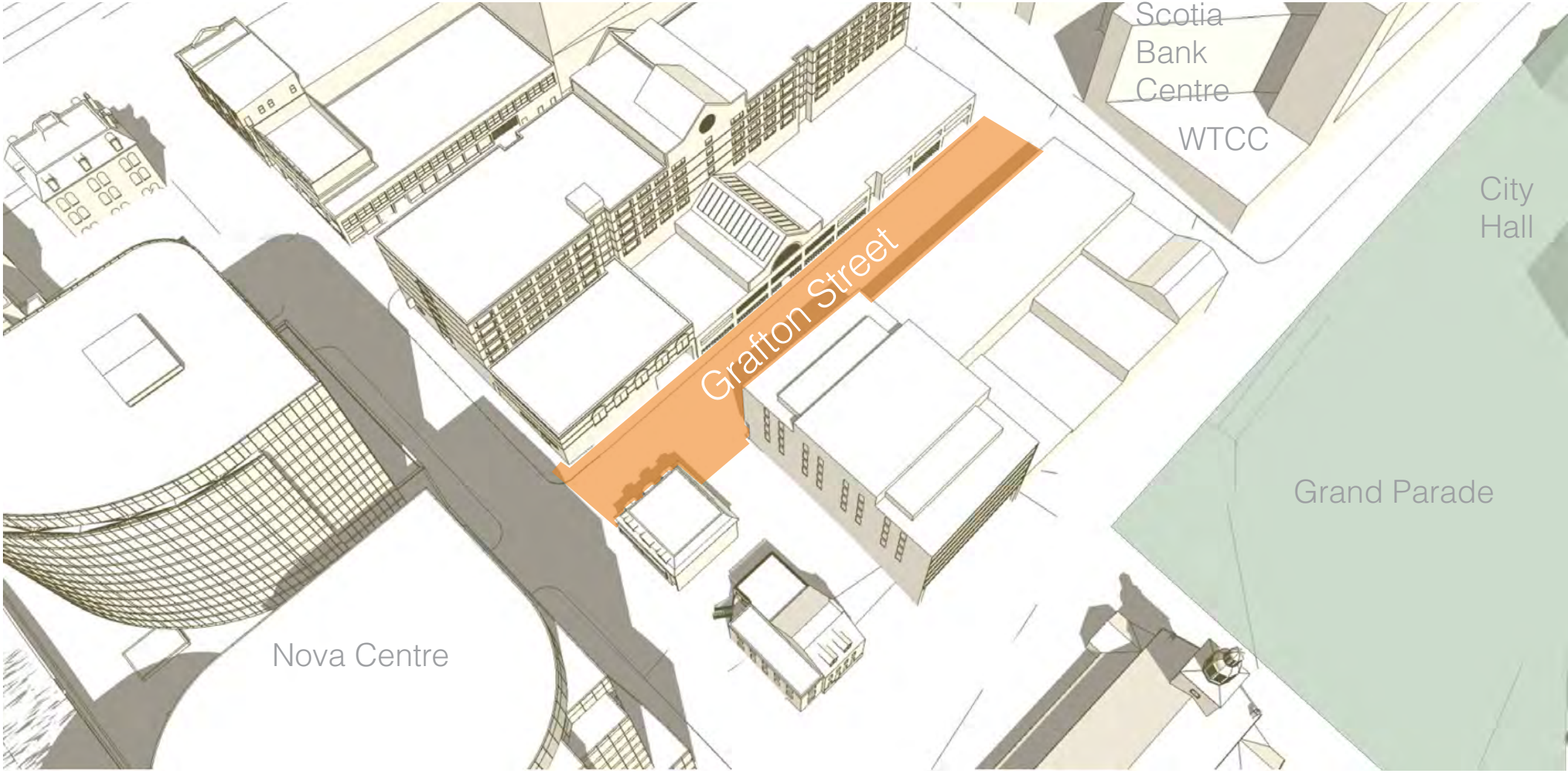
West Side

East Side

Project Background

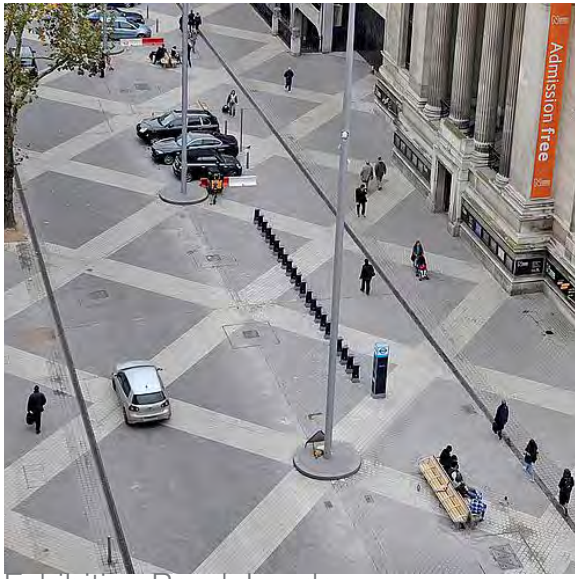
In attempts to connect the new Nova Centre with area hotels, the Scotia Bank Centre and City Hall, the Province commissioned a feasibility study for an underground walkway spanning one block underneath Grafton Street. Due to the level of complexity of the design for the tunnel and the superior opportunities that exist at grade level, staff feel that a more reasonable option might be an at-grade weather-protected pedestrian passage through the parkade, stretching along the west side of Grafton Street, complemented by streetscape improvements along Grafton Street. This report examines the feasibility of this approach.


Scotia
Bank
Centre
WTCC
City
Hall
Grafton Street
Grand Parade
Nova Centre

Woonerf (Shared Street) Precedents + Objectives

Florida Street, Buenos Aires

Købmagergade, Copenhagen



Exhibition Road, London

New Road, Brighton

What is a woonerf?

Shared Circulation

Pedestrian circulation is the dominant means of movement on a woonerf. Vehicular transportation is “controlled” through reduced lane widths, generous sidewalks and clearly delineated open spaces.

Vibrant Placemaking

Local establishments infiltrate into the streetscape (in the form of patios, events and installations), creating a vibrant place.

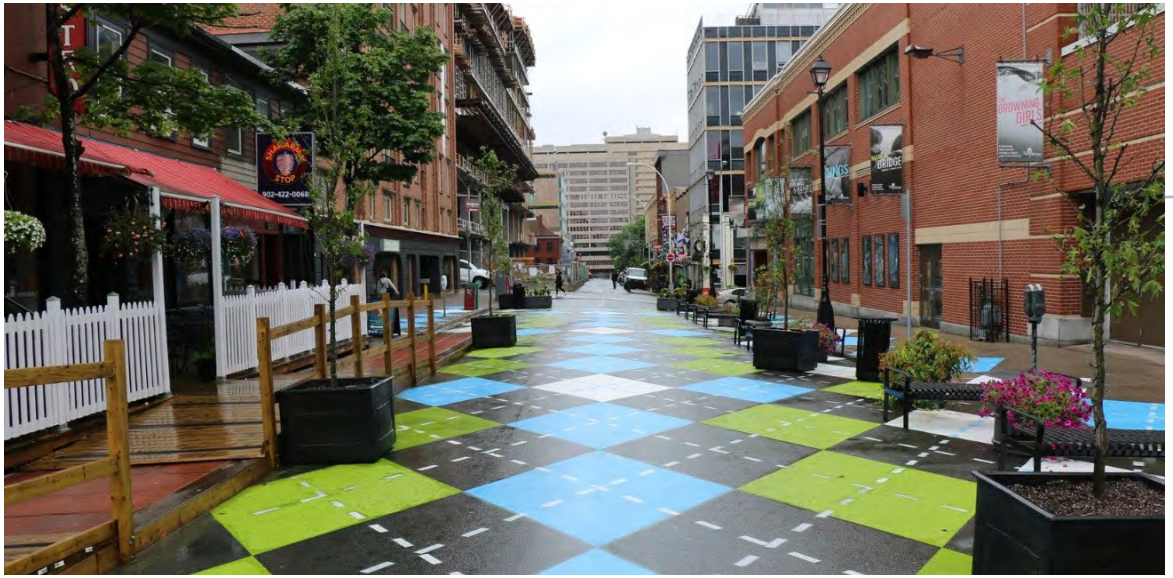
Flexible Usage

Vehicle access can be restricted for special events to create a pedestrian mall, allowing for a programmable space that can accommodate public gatherings and festivals

All-Season Streets

Overhead canopies provide pedestrians with protection from exterior elements.

Local Precedent: Argyle Street Pilot Project



Will a woonerf work in Halifax?

The Argyle Street pilot project illustrates the market for woonerfs in Halifax.

Through increasing sidewalk widths, narrowing vehicular traffic lanes and installing specialized pavement treatment and street furniture, Argyle Street has been transformed into a flexible and vibrant cultural amenity.

Argyle Street has been closed to vehicular traffic on weekends all summer in order to transform the street into a multi-use event space that prioritizes pedestrians.

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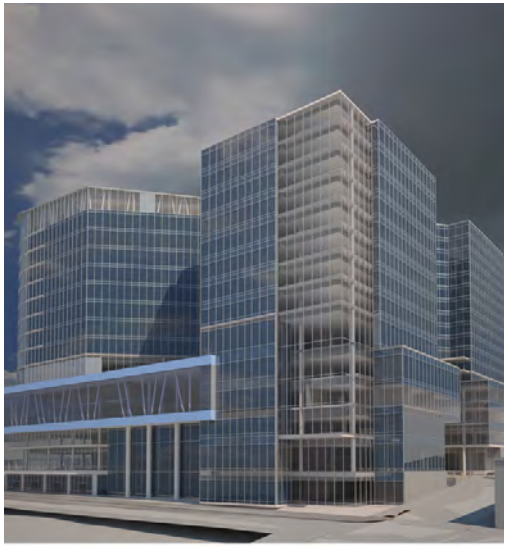
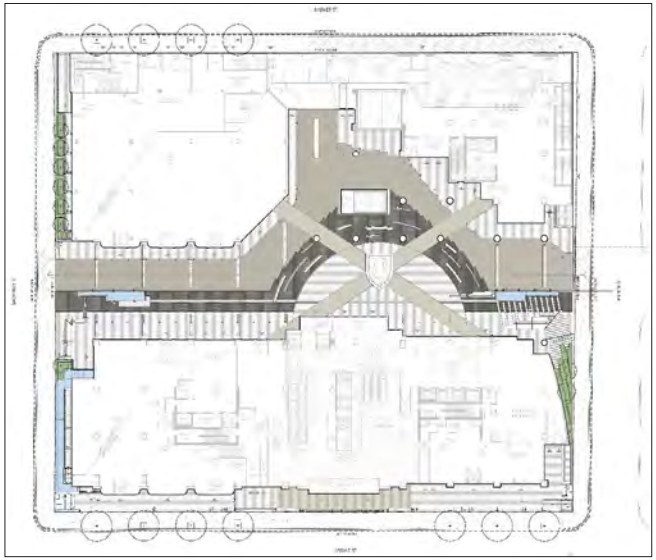
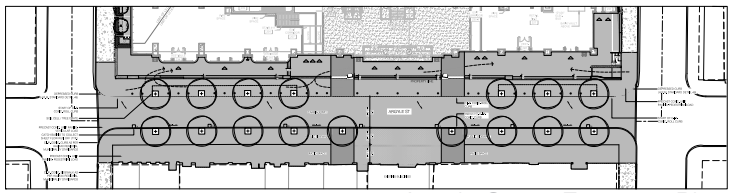
Nova Centre Design





The Nova Centre is a one million square feet mixed-use development that will transform two city blocks in downtown Halifax, Nova Scotia. The $250 million facility will consist of a two-story Convention Centre, a Financial Centre, two office towers and a hotel tower with apartments at the upper level. There will be a two level underground parking garage, retail, entertainment amenities, and a large public plaza. The public realm around the Nova Centre site extends 2 full city blocks. The site is situated between Sackville Street and Prince Street in downtown Halifax on a slope averaging 12%. The urban design had to creatively address the challenging interface between the public and private realm while being mindful of primary and secondary pedestrian/vehicular access and egress routes. The centralized 10,000 sq. ft. plaza design incorporates the creative re-routing of the City owned Grafton Street beneath the building canopy which links the commercial, hotel, and Convention Centre buildings. Within the newly designed Grafton Street layout, there is a flexible and programmable space to serve as a central node to allow for a wide range of pedestrian oriented events while providing a safe vehicular/pedestrian separation. At-grade restaurant patios and retail plazas are designed to tie into the overall design theme.



Argyle Street Frontage Plan

Grafton Street as a Woonerf

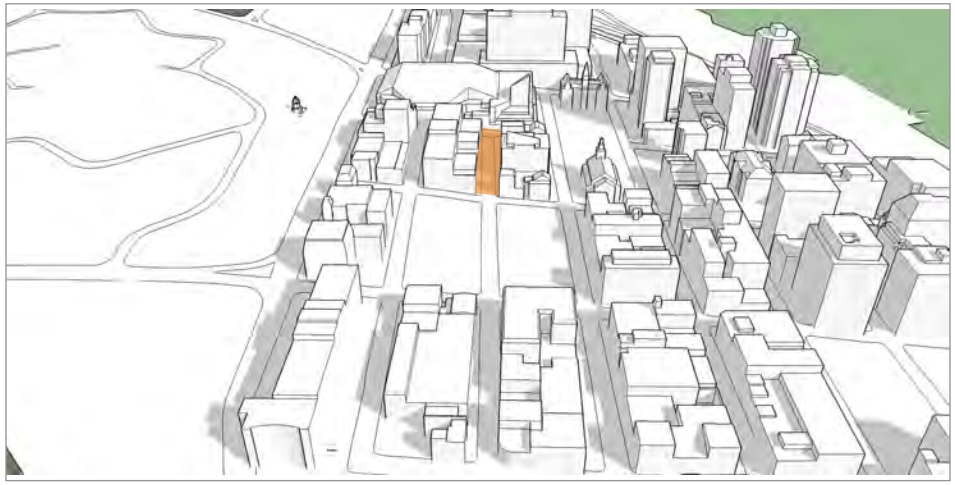
How would Grafton Street operate?

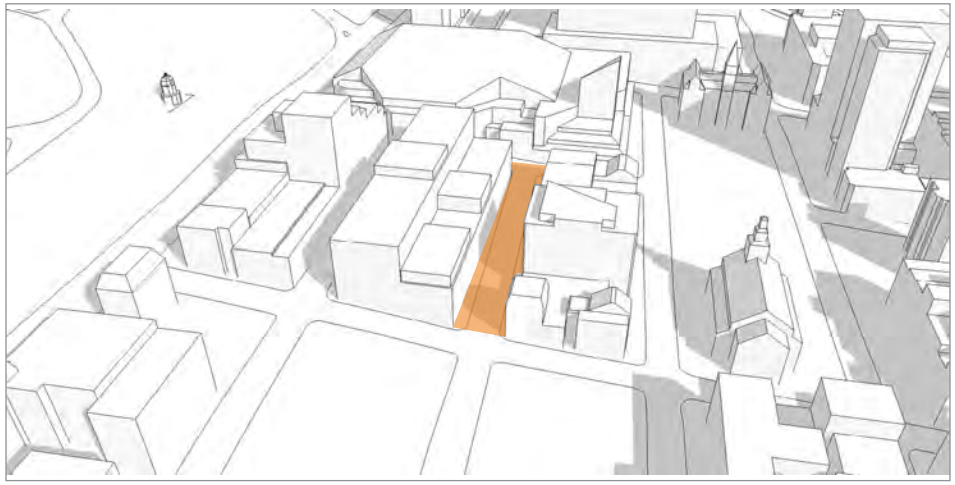
There are several “Active” and “Non-Active” areas along Grafton Street. The active areas (bars, restaurants, theatres) should allow for gathering spaces that promotes entertainment, rest and socializing. The non-active areas (car rental, delivery bay, parking garage) should discourage gathering to reduce potential vehicular-pedestrian conflicts, and be screened where possible.

Halifax Regional Municipality (HRM) would like to create a continuous overhead canopy at the second level along the west side of the street which will provide shelter for pedestrians during inclement weather. The canopy could reflect the design gestures that were established for the Nova Centre project. Lighting design will be essential to the space to create an inviting atmosphere and encourage pedestrian circulation.

The street corridor slopes gradually from west to east and from the south to north. Currently, there is on-street parking on both sides of the street and a 2-way vehicular route.

In order to create a shared street, the sidewalk areas should be increased and the vehicular route shall be minimized while still providing for 2-way travel and parking only on the west side of Grafton Street. By creating a strong overhead canopy, either through the fixed canopy structure or by utilizing street tree canopy, the streetscape design will create an ideal and inviting space to pedestrians, restaurant and bar patrons. In order to plan for a dense tree canopy, the use of soil cells will provide optimal tree growth and allow for the most flexible use of sidewalk space by reducing vertical barriers.





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Proposed Concept

Bird’s Eye View Looking North Along Grafton Street

Design Features

- 6m 2-way traffic lane is clearly delineated. The reduced lane width calms traffic.
- Outdoor patio space is maximized at all existing restaurants and bars, creating a vibrant streetscape.
- On-street parking placement is informed by adjacent building uses and limited to areas of low sidewalk activity.
- The linear banding at both entrances to Grafton Street mimics paving gestures at the adjacent Nova Centre. Pavement patterns suggest a fusing notion, that draws the sidewalk and vehicular spaces together.
- Trees in grates with continuous trenches (soil cells) allow for maximized ‘pedestrian clearways’ along the street.
- Vehicular entrances into the existing garage on the west side of Grafton Street are accented by large overhead canopies, significant lighting and a noticeable change in pavement.

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Proposed Concept

Looking North Towards Carmichael Street

Design Features

- A continuous overhead tree canopy shades the sidewalk and patio space areas.
- The street corridor is inviting and flexible for programmed events.
- The lack of raised vertical obstructions (i.e. curbs) allows for barrier-free movement for pedestrians along the corridor.
- The streetscape improvements become a pleasing focus for people as they pass through this important corridor.

Proposed Concept

Looking South Towards Prince Street

Design Features

- Grafton Street's paving could utilize the same materials as the Nova Centre plaza. Consequently, the view towards the Nova Centre provides a sense of continuity.
- A continuous overhead glass canopy provides weather protection to pedestrians that are moving north/south along Grafton Street, from Prince Street to Carmichael Street.

Grafton Street Lighting

As a part of design development, different lighting options are being explored. These renderings depict a modern lighting option for Grafton Street. This type of lighting is used within the downtown core on Spring Garden Road.

The Future of Grafton Street

Grafton Street is located in the midst of a number of culturally significant sites such as Citadel Hill, City Hall, the Grand Parade, the Nova Centre and the Scotia Bank Centre. Further, the street is in close proximity to other public realm upgrades such as Argyle Street, and the Nova Centre Plaza.

The revitalization of this corridor of Grafton Street into a vibrant woonerf will work towards connecting existing revitalization initiatives and cultural landmarks, elevating the neighbourhood, and expanding the downtown core.

Feedback

For more information on the project or to provide feedback please contact:

Barry Yanchyshyn
Landscape Architect - Urban Design, Planning & Development
yanchyb@halifax.ca
902.490.3967

Jacob Ritchie
Urban Design Manager, Planning & Development
ritchij@halifax.ca
902.490.6510

Trevor McIntyre
Regional Director, International, IBI Group
tmcintyre@IBIGroup.com
416.596.930 ext 61035

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Appendix A: Preliminary Cost Estimate

LANDSCAPE COST ESTIMATE

Grafton St. Streetscape, Halifax NS

Date: September 2, 2015
Project No.: 38534

NOTES:
THE FOLLOWING ITEMS ARE NOT INCLUDED IN THIS COST ESTIMATE
1. Required permits
3. Sub-consultant design fees

ITEMS	DESCRIPTION	QTY.	UNIT	UNIT COST	SUBTOTAL	TOTAL
1.0	**SITE PREPARATION**					
1.1	Removal of exisitng paving and structures (curbs, road signs, etc.)	2260	m^2	$ 20.00	$ 45,200.00	
1.2	Rough and Fine Grading	2260	m^2	$ 8.00	$ 18,080.00	
1.3	Mobilization and De-mobilization	1	ls	$ 8,000.00	$ 8,000.00	
					TOTAL SECTION 1.0	**$ 71,280.00**
2.0	**IRRIGATION AND LIGHTING**					
2.1	Site Irrigation	1	ls	$ 12,000.00	$ 12,000.00	
2.2	Lighting - Light Standards	13	ea.	$ 6,000.00	$ 78,000.00	
2.3	Lighting - Canopy	1	ls	$ 20,000.00	$ 20,000.00	
2.4	Lighting - Cable Fixtures	1	ls	$ 15,000.00	$ 15,000.00	
					TOTAL SECTION 2.0	**$ 125,000.00**
3.0	**HARDSCAPE / PAVING**					
3.1	Precast Concrete Unit Paving - Pedestrian Load	750	m^2	$ 110.00	$ 82,500.00	
3.2	Precast Concrete Unit Paving - Vehicular Load	1450	m^2	$ 135.00	$ 195,750.00	
					TOTAL SECTION 3.0	**$ 278,250.00**
4.0	**STRUCTURES**					
4.1	C.I.P. Concrete Planter - 450 ht. & 200 wide w/footing	70	l.m.	$ 650.00	$ 45,500.00	
4.2	C.I.P. Concrete Planter - 750 ht. & 300 wide w/footing	20	l.m.	$ 900.00	$ 18,000.00	
4.3	Soil Cells - Citygreen Strata Vault (15 cubic metres per tree)	240	m^3	$ 500.00	$ 120,000.00	
4.4	Low Glass Canopy (attached to building façade)	160	l.m.	$ 2,200.00	$ 352,000.00	
4.5	High Glass Canopy (with vertical posts)	170	l.m.	$ 3,000.00	$ 510,000.00	
					TOTAL SECTION 4.0	**$ 1,045,500.00**
5.0	**SITE FURNISHINGS**					
5.1	Bench	10	ea.	$ 1,600.00	$ 16,000.00	
5.2	Recycling and Trash Receptacles	8	ea.	$ 1,800.00	$ 14,400.00	
5.3	Tree Grate	16	ea.	$ 2,500.00	$ 40,000.00	
					TOTAL SECTION 5.0	**$30,400.00**
6.0	**PLANTING**					
6.1	Deciduous Trees	16	ea.	$ 850.00	$ 13,600.00	
6.2	Ornamental Trees	2	ea.	$ 300.00	$ 600.00	
6.3	Shrubs	14	ea.	$ 200.00	$ 2,800.00	
6.4	Ornamental Grass	80	ea.	$ 25.00	$ 2,000.00	
6.5	Topsoil	250	m^2	$ 35.00	$ 8,750.00	
6.6	Mulch	50	m^2	$ 10.00	$ 500.00	
					TOTAL SECTION 6.0	**$ 28,250.00**
7.0	**Civil Work (below grade infrastructure)**					
7.1	Storm Sewer (removals and new installation)	105	l..m	$ 2,500.00	$ 262,500.00	
7.2	Sanitary Sewer (removals and new installation)	105	l.m.	$ 270.00	$ 28,350.00	
7.3	Watermain (removals and new installation)	105	l.m.	$ 270.00	$ 28,350.00	
7.4	Gas	1	ls	$ 50,000.00	$ 50,000.00	
7.5	Electrical	105	l.m.	$ 200.00	$ 21,000.00	
7.6	Bonds & Insurance	1	ls	$ 10,000.00	$ 10,000.00	
7.7	Misc. (bonds/insurance, field office, construciton layout, traffice control maintenance)	1	ls	$ 50,000.00	$ 50,000.00	
					TOTAL SECTION 6.0	**$ 450,200.00**

SUBTOTAL	**$ 2,028,880.00**
CONTINGENCY (15%)	**$ 304,332.00**
TOTAL ESTIMATED COST	**$ 2,333,212.00**

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