

CITY OF VAUGHAN

EXTRACT FROM COUNCIL MEETING MINUTES OF JUNE 25, 2013

Item 1, Report No. 31, of the Committee of the Whole (Working Session), which was adopted without amendment by the Council of the City of Vaughan on June 25, 2013.

**1 VAUGHAN CITY-WIDE STREETScape IMPLEMENTATION MANUAL AND FINANCIAL
STRATEGY PLAN
FILE 20.26
WARDS 1 - 5**

The Committee of the Whole (Working Session) recommends:

- 1) That the recommendation contained in the following report of the Commissioner of Planning, dated June 17, 2013, be approved; and**
- 2) That Communication C1, presentation material entitled, “City-Wide Streetscape Implementation Manual and Financial Strategy Plan”, be received.**

Recommendation

The Commissioner of Planning, in consultation with the Commissioner of Community Services, Commissioner of Engineering and Public Works recommends:

1. THAT the staff report and presentation entitled “Conceptual Framework: City-Wide Streetscape Implementation Manual and Financial Strategy”, BE RECEIVED, for input and discussion.

Contribution to Sustainability

The proposed “Vaughan City-Wide Streetscape Implementation Manual and Financial Strategy” contributes to the goals and objectives within *Green Directions Vaughan*, the City’s Community Sustainability and Environmental Master Plan, specifically:

Goal 1: To significantly reduce our use of natural resources and the amount of waste we generate.

Goal 2: To ensure sustainable development and redevelopment.

Objective 2.2 “To develop Vaughan as a City with maximum greenspace and an urban form that supports our expected population growth”

Objective 2.3 “To create a City with sustainable built form”

Goal 3: To ensure that getting around in Vaughan is easy and has a low environmental impact.

Objective 3.1 “To develop and sustain a network of sidewalks, paths and trails that supports all modes of non-vehicular transportation”

Objective 3.2: “To develop and sustain a network of roads that supports efficient and accessible public and private transit”

Objective 3.3: “Reduce single occupant vehicle (SOV) trips by supporting active transportation, carpooling and public transit”

Goal 4: To create a vibrant community for citizens, businesses and visitors.

Objective 4.1 “To foster a city with strong social cohesion, an engaging arts scene, and a clear sense of its culture and heritage”

CITY OF VAUGHAN

EXTRACT FROM COUNCIL MEETING MINUTES OF JUNE 25, 2013

Item 1, CW(WS) Report No. 31 – Page 2

Objective 4.2 “To ensure that the City of Vaughan attracts businesses and investment that will result in well-paying jobs for Vaughan citizens, a sustainable tax base, and continuing prosperity into the 21st century”

Goal 5: To be a leader on sustainability issues.

Objective 5.1: “To share sustainable best practices and ideas between and among municipal staff and the community”

The “Vaughan City-Wide Streetscape Implementation Manual and Financial Strategy” includes the following study goals that directly relate to those of *Green Directions Vaughan*, specifically:

- a) Develop a standard streetscape classification system to group streets with similar typologies and character, and assign appropriate design treatments/components to them;
- b) Develop a streetscape database model that can be utilized for budgeting and design in all streetscape projects going forward;
- c) Define a full standard streetscape palette of materials matrix for all streetscape classification options in consultation with City Departments;
- d) Develop a Public Art strategy for intensification areas;
- e) Define a full life-cycle costing analysis for a palette of streetscape components, including construction, operational and replacement costs;
- f) Provide a hierarchy of fully-costed implementation options; and,
- g) Provide a 10 year financial impact forecast for viable scenarios, including a recommended funding strategy to implement streetscapes.

Economic Impact

There are no requirements for new funding associated with this report.

Communications Plan

A project working team has been established to provide input from the following City departments: Parks & Forestry Operations, Budgeting & Financial Planning, Development Planning, Engineering Services, and Public Works.

A stakeholder consultation workshop, to which representatives of Vaughan’s development community, BILD, TRCA, and York Region will be invited to attend, is scheduled for late June 2013.

Once the new Vaughan City-Wide Streetscape Implementation Manual and Financial Strategy is considered by Vaughan Council in the fourth quarter of 2013, assuming Committee and Council endorsement, this document will be placed on the City’s web-site to allow future development proponents to reference this guiding document prior to submission of a development proposal. In addition, design consultants will be providing the approved plan as an urban design reference tool, as they proceed to undertake their work to design and improve the existing and future urban street network for the City’s planned intensification areas and heritage districts.

Location

The subject lands, as shown in Attachment #1, are designated Intensification Areas, Regional Centres and Corridors, and established Heritage Districts in the City of Vaughan.

CITY OF VAUGHAN

EXTRACT FROM COUNCIL MEETING MINUTES OF JUNE 25, 2013

Item 1, CW(WS) Report No. 31 – Page 3

The location of Streetscape Plans (either draft or approved) that will be costed as part of this Study, are shown in Attachment #2.

Purpose

The purpose of this report is to obtain Council input into the Draft Conceptual Framework for the Vaughan City-Wide Streetscape Implementation Manual and Financial Strategy. The presentation is an overview of the background work completed to date, and a demonstration of the process and model in development.

Background - Analysis and Options

Item 1, Report No. 43, of the November 6, 2012 Committee of the Whole, which was adopted without amendment by the Council of the City of Vaughan on November 20, 2012, resolved:

“THAT a Contract be approved to retain the consulting team led by EDA Collaborative Inc. to carry out the “Vaughan City-Wide Streetscape Implementation and Financial Strategy” in accordance with the Terms of Reference shown in Attachment #1, to an upset limit not exceeding \$85,040.00 plus applicable taxes.”

The Vaughan City-Wide Streetscape Implementation Manual and Financial Strategy will provide an updated standardized, streamlined and improved process to guide the design, funding, construction, and maintenance of streetscape projects in the City of Vaughan's intensification areas and heritage conservation districts. In addition to capital costs, the costs of ongoing maintenance and replacement of the City's infrastructure must be considered when designing and approving streetscapes.

Through discussions on streetscape projects, the City is recognizing that other sources of revenue beyond taxation must be pursued to adequately address the three cost areas of streetscapes: acquisition, operation, and ultimate replacement. Given the City's current funding constraints, it is imperative that a sustainable funding strategy be developed that balances streetscape service levels and funding availability.

This study will provide the necessary framework to inform and assist City Council and staff in managing the City's streetscape assets and prioritizing limited resources for streetscaping, as the City sets its direction in the corporate planning process, department business plans and multi-year budgets. The Vaughan City-Wide Streetscape Implementation Manual and Financial Strategy is part of the City's commitment to leadership and continuous improvement, and will ensure cost efficiency and consistency of streetscape plans going forward.

The Vaughan City-Wide Streetscape Implementation Manual and Financial Strategy includes the following components:

1. A City-Wide Streetscape Implementation Manual that will be used as an urban design reference tool for the design and improvement of the existing and future urban street network for the City's planned intensification areas and established heritage districts. Following a hierarchy of streetscape typologies, the Streetscape Manual will assign a set of standard or specialized design treatments that are financially-viable to each street classification. The design treatments specified in the Manual will include a hierarchy of streetscape elements including: paving, street trees, medians, lighting, signage, street furniture and public art.
2. A Public Art Strategy for intensification areas that will establish a funding and management framework and guiding principles for the future Public Art Program City-Wide, which is scheduled to be undertaken by the Policy Planning Department starting fourth quarter 2013.

CITY OF VAUGHAN

EXTRACT FROM COUNCIL MEETING MINUTES OF JUNE 25, 2013

Item 1, CW(WS) Report No. 31 – Page 4

3. A Financial Impact Analysis, Financial Strategy and Funding Scenarios, including:
 - i) Review of current streetscape service levels and associated costs based on historic levels and inventory;
 - ii) Define any service level changes and associated cost differences from existing historic service levels;
 - iii) Identify funding gaps and challenges;
 - iv) Validate service levels and enhancement options;
 - v) Full life-cycle costing analysis matrix for acquisition, ownership and replacement components;
 - vi) Develop a detailed streetscape classification, typology and component option matrix;
 - vii) Develop a 10 year fiscal impact forecast for viable scenarios and propose service level and funding strategy recommendations for Council's consideration; and,
 - viii) Develop a streetscape database model that can be utilized for budgeting and design in all streetscape projects going forward.

Draft Conceptual Framework Plan

The draft Conceptual Framework Plan (Attachment #3) provides a summary of the steps that will be followed by City of Vaughan staff and consultants during the decision making process for the design, review and costing of streetscapes going forward. The framework identifies the Tasks, Tools and Outputs within the model through the decision making process, proceeding from vision, design, financial impact analysis, to implementation.

The study team has established three levels of service for streetscapes in intensification areas and heritage conservation districts in the City of Vaughan: "Basic", "Enhanced" and "Premium". For each level of service, a selection of possible streetscape elements and materials are identified in the "Streetscape Components Preference Chart". A basic streetscape will have a more limited palette of elements and materials than an enhanced or premium streetscape. The categorization of streetscapes as "Basic", "Enhanced" or "Premium", i.e. the level of service, will be established based on "Qualitative Level of Service Criteria".

The following is an outline of the conceptual approach to the development of the financial strategy for the City-Wide Streetscape Implementation Manual and Financial Strategy Plan:

a) Problem Statement

Individual areas within the City have streetscape plans which demonstrate a range of levels of investment in streetscape enhancement. The purpose of the financial model is to understand the fiscal implications of adopting different levels of service for streetscape treatments. This includes original capital costs, operating costs and lifecycle/ capital replacement costs.

b) Elements of the Model

The model has two elements:

- i) A financial estimate of any individual streetscape project that adheres to a defined level of service. Within any level of service, there can be any number of potential scenarios or combinations of streetscape designs, based on their context.
- ii) A "roll up" of all planned projects which are currently held in abeyance pending the development of the streetscape manual and financial strategy. This "roll up" represents the combined financial implications (capital, operating, lifecycle) of all such projects based on the specific nature of each project, and the timing of each project. The result of

CITY OF VAUGHAN

EXTRACT FROM COUNCIL MEETING MINUTES OF JUNE 25, 2013

Item 1, CW(WS) Report No. 31 – Page 5

this second stream of financial modeling is a capital, operating and lifecycle forecasting based on the cumulative implications of each project currently being considered. By definition, this is a modular exercise whereby individual projects can be changed in terms of design specifics, costs, implementation, allocation of funding responsibility between City and private sector, etc., and the results can be maintained within the financial model. It is therefore a highly flexible tool which can be used on an ongoing basis to predict financial implications in a dynamic environment.

c) Principles of Development of the Model

- i) The final product will need to be a simple and useable model that is flexible and predictive. The model will have a series of input variables (i.e. an excel spreadsheet of all possible/ likely design elements), and individual costs associated with each, estimate of timing of development of the defined project, and assumptions regarding functional life of each item. This becomes the basic DNA of the model which can be rolled up into individual design scenarios, alternative levels of service, different approaches to allocating initial capital responsibility, and alternative phasing strategies.
- ii) Individual material costs, operating costs, lifecycle replacement costs have been gathered based on historical/ existing levels of service within the City of Vaughan, current costs from York Region, and using comparable urban streetscape costs where no City of Vaughan data is available. City of Vaughan operations and maintenance assumptions have also been articulated. All together, these costs and assumptions are required to arrive at a simple estimate of financial implications of any individual project or the cumulative total for the City at any point in time.

d) Establish Levels of Service with Associated Budget Commitments

- i) Develop three levels of service or standards which represent distinct differences in project design terms for streetscape treatments in the City of Vaughan.
- ii) Review the City's current base line for capital and operating expenditures on typical hierarchy of streets. This is historic, but establishes a baseline for working purposes.
- iii) Eight recently completed City of Vaughan streetscape plans (See Attachment #2) will be reviewed within the context of the Streetscape Implementation Manual and Financial Strategy. Their basic design components will be identified and costed to generate the proposed level of service or standard for each plan, including capital, maintenance and lifecycle replacement costs. The practical assessment of these plans will also help to identify differences between these plans and the current or historic approach to investment in streetscapes.
- iv) There will need to be a quantitative means to distinguish between these levels of service as opposed to a qualitative assessment (although the latter will be important). This will mean the differences between levels of service can be articulated in terms of either scale or intensity of streetscape treatment, volume of materials used, costs of materials, higher/ lower maintenance costs, higher/ lower life cycle replacement costs.
- v) In addition, the analysis should assess differences between new levels of service in terms of environmental responsibility and contribution to energy efficiency, decommissioning costs, etc.

e) Calibrating the Model

- i) Detailed schedule of design items;

CITY OF VAUGHAN

EXTRACT FROM COUNCIL MEETING MINUTES OF JUNE 25, 2013

Item 1, CW(WS) Report No. 31 – Page 6

- ii) Financial sheet to address operational implications for each design item;
 - iii) Functional life expectancy for each design item;
 - iv) The established levels of service will have defined capital cost differences, maintenance differences and life cycle differences;
 - v) Building up the schedule of design items to reflect the project and at a chosen level of service;
 - vi) This above approach should result in an accurate estimate of the financial cost of each individual project.
- f) Creating a Cumulative Model

Staff and the consultant team envisage this model to be most usable in terms of predicting capital, operating and life cycle implications of multiple streetscape projects over a given forecast period (10 – 15 years). We will therefore need to create a model that combines the individual results for any given project and combine these into an overall statement. An illustrative approach to cumulative impact – many projects, different timing, different costs, and different end dates – all can be viewed in terms of the annual financial implications to the City of a period of analysis (e.g. 10 years).

Next Steps

A consultation meeting will be held with stakeholders in late June 2013. The final Vaughan City-Wide Streetscape Implementation Manual and Financial Strategy Plan will be presented to Council in the fourth quarter of 2013, and will include recommendations to implement this initiative.

Relationship to Vaughan Vision 20/20 Strategic Plan

This report is consistent with the priorities set forth in Vaughan Vision 20/20 Strategic Plan, through the following initiatives, specifically:

Service Excellence:

- Demonstrate Excellence in Service Delivery
- Promote Community Safety, Health & Wellness
- Lead & Promote Environmental Sustainability
- Preserve our Heritage & Support Diversity, Arts & Culture

Staff Excellence:

- Demonstrate Effective Leadership
- Value & Encourage a Highly Motivated and Engaged Workforce
- Attract, Retain & Promote Skilled Staff
- Support the Professional Development of Staff

Organizational Excellence:

- Ensure a High Performing Organization
- Manage Corporate Assets
- Ensure Financial Sustainability
- Manage Growth & Economic Well-being

CITY OF VAUGHAN

EXTRACT FROM COUNCIL MEETING MINUTES OF JUNE 25, 2013

Item 1, CW(WS) Report No. 31 – Page 7

Regional Implications

The Region of York is a vital stakeholder in the process, and will be invited to review all phases of the project for collaboration and input.

Conclusion

The lead consultant, EDA Collaborative Inc., and their team of sub-consultants including Sierra Planning + Management, have developed a Draft Conceptual Framework for the Vaughan City-Wide Streetscape Implementation Manual and Financial Strategy, which is being presented today for Council input and discussion. This framework has been developed based upon precedent research of other cities in Canada and the United States, and other asset management systems. It integrates into a single system, currently held data and information received from the various City of Vaughan departments that oversee the design, implementation, operations, maintenance, and financing of streetscapes in our City. The City-Wide Streetscape Implementation Manual and Financial Strategy will be the first of its kind in the Greater Toronto and Hamilton Area.

Attachments

1. Study Area Location Map
2. Costed Streetscape Plans Location Map
3. Conceptual Framework Plan (draft)

Report prepared by

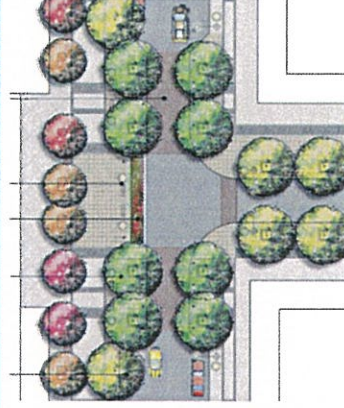
Grant Uyeyama, Director of Development Planning, ext. 8635
Rob Bayley, Manager of Urban Design, ext. 8254
Moiria Wilson, Urban Designer, ext. 8017
John Henry, Acting Commissioner of Finance, ext. 8348
Brianna Clace, Special Projects Analyst, Budgeting and Financial Planning, ext. 8284
Marjie Fraser, Director of Parks & Forestry Operations, ext. 6137
Jeffrey Silcox-Childs, Manager of Parks Services, ext. 6140
Jason Inwood, Manager of Parks Operations, ext. 6158
Brian Anthony, Director of Public Works, ext. 6116
Jeff Johnston, Manager of Road Maintenance Services, ext. 6120
Vince Musacchio, Manager, Capital Planning and Infrastructure, ext. 8311
Paolo Masaro, Design Engineer, ext. 8446

(A copy of the attachments referred to in the foregoing have been forwarded to each Member of Council and a copy thereof is also on file in the office of the City Clerk.)

C1 - CW (WS)
June 17/13
Item 1

CITY-WIDE STREETSCAPE IMPLEMENTATION MANUAL AND FINANCIAL STRATEGY PLAN

Council Presentation June 17, 2013



Sierra Planning and Management
advice • strategy • implementation

Prepared For:



May 2013

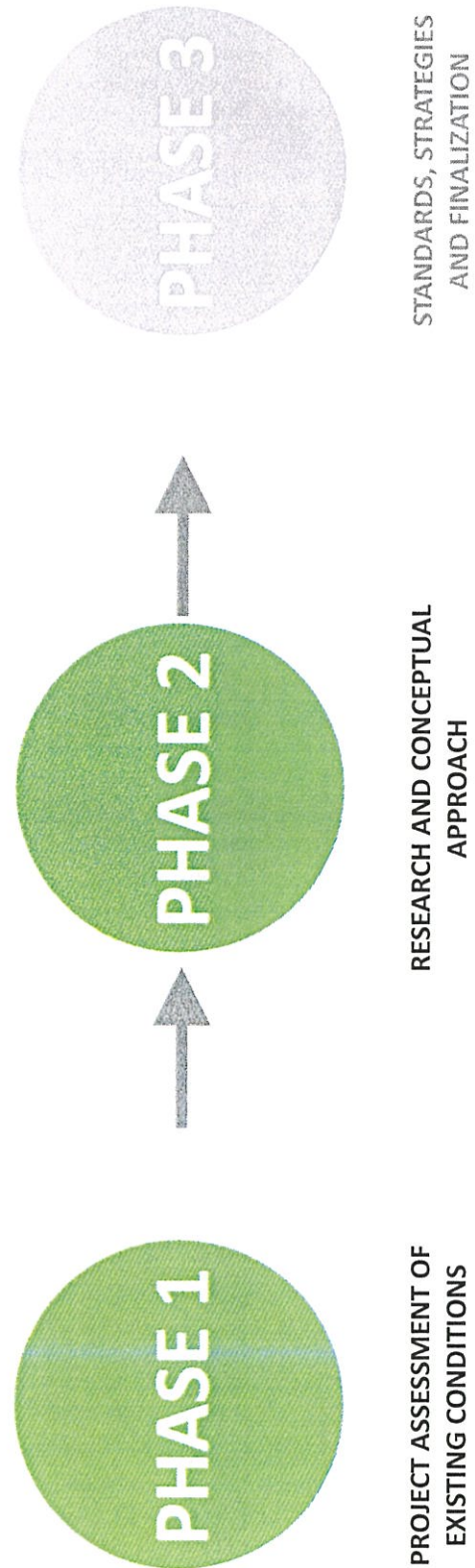


- **Part A: Background and Need**
- **Part B: Proposed Framework**
- **Part C: Questions and Discussion**

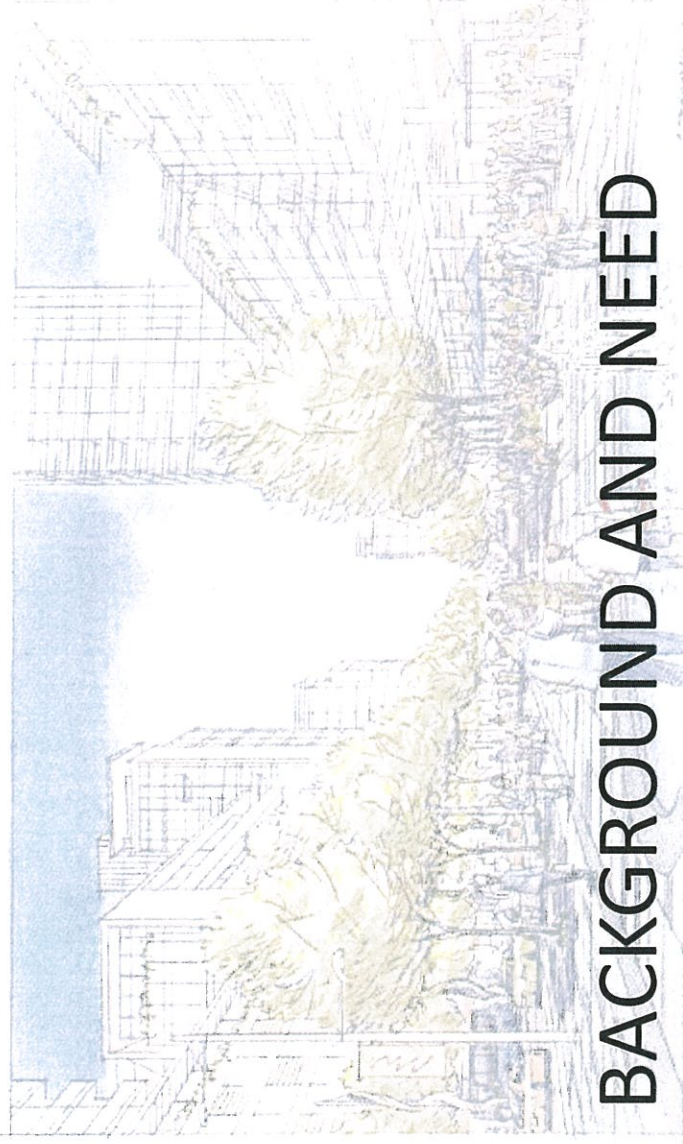


Streetscape Implementation Manual and Financial Strategy Plan

Project Phases



A



BACKGROUND AND NEED





Benefits of Streetscape Investment

- Economic Development and Quality of Life
- Enhanced Value of Surrounding Lands
- Quality of Place and City Building



Funding Limitations

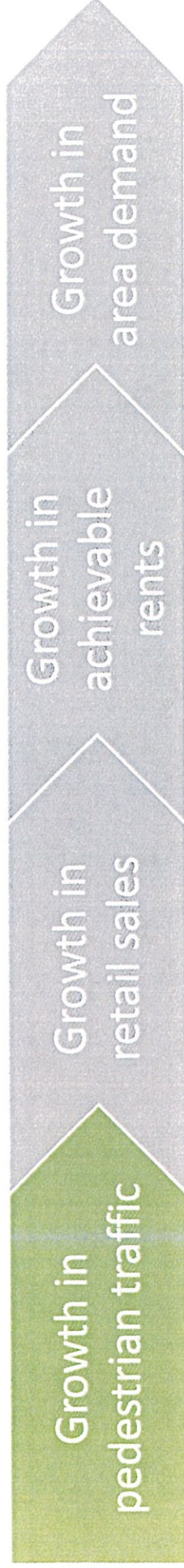
- Current capital available
- Current implementation process
- Current operating budget request process

\$\$\$

Rationale for Streetscape Investment



Rationale for Streetscape Investment



Pedestrians will walk where they feel safe

A study of 141 locations across major US cities indicated streetscape design features can reduce 'walking along roadway' crashes:

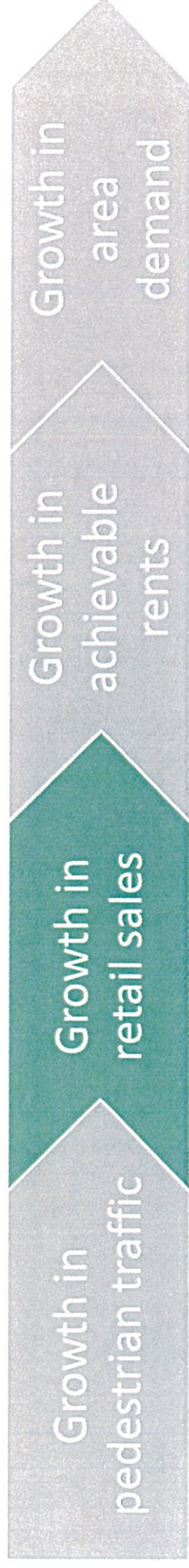
- Wide sidewalks
- Trees and foliage
- Buffer between road and sidewalk
- Lower speed limits

McMahon et. al (1999) 'Analysis of Factors Contributing to "Walking Along Roadway" Crashes' *Transportation Research Record* 1674: 41-48.



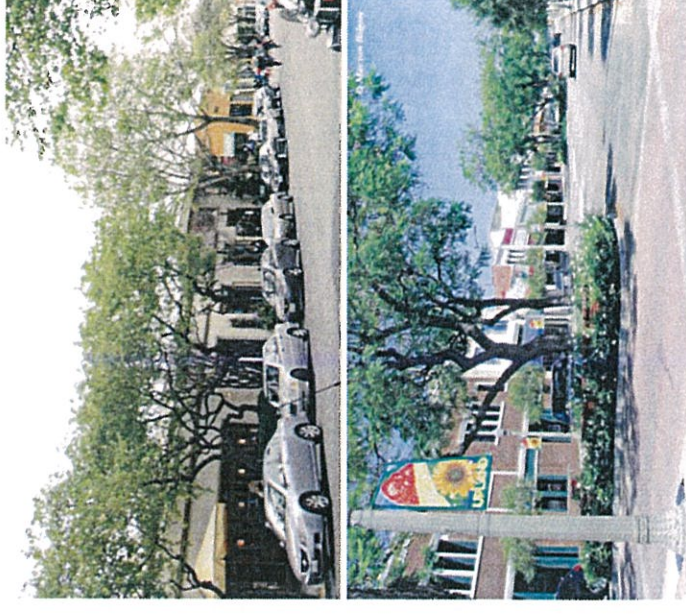
Silver Spring, Alberta

Rationale for Streetscape Investment



- Studies repeatedly show that pedestrians and cyclists stay longer and spend more money at local shops than drivers do
- A study of retailers in eleven German cities found that 8 in 10 retailers within pedestrianized zones typically reported higher sales than comparable businesses in non-pedestrianized districts
- A review of businesses in eight major US cities found that businesses on tree-scaped streets reported on average 20% higher income streams than comparable businesses in similar locations that lacked trees

Clifton et. al (2012) 'Consumer Behaviour and Travel Mode Choices'. *Oregon Transportation Research and Education Consortium*;
Hass-Klau (1993) 'Impact of Pedestrianization and Traffic Calming on Retailing'. *Transport Policy* 1(3): 21-31.; Glatting Jackson & Walkable Cities Inc. (2006) '22 Benefits of Urban Street Trees'



(Top) Fourth Street, Berkeley CA; (Bottom) Bloomington, IL

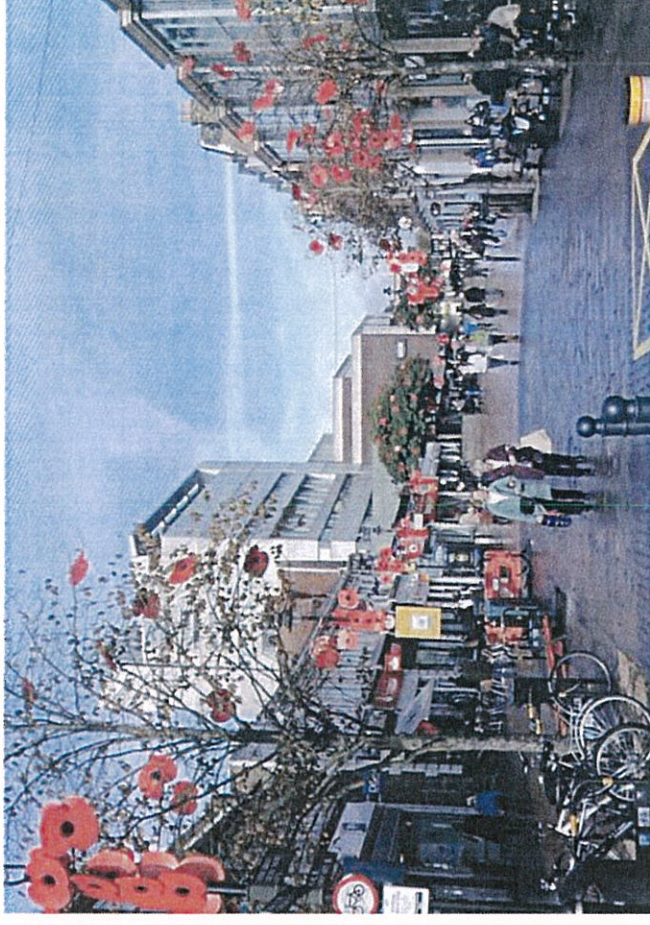
Rationale for Streetscape Investment



Streetscaping that leads to growth in retail sales can allow for higher commercial rents

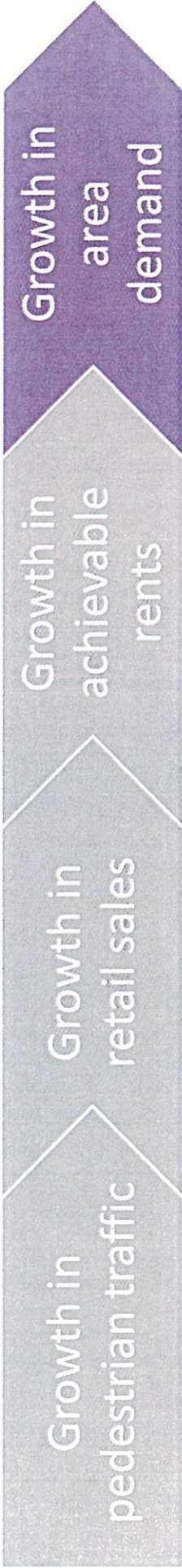
- An analysis of 10 high street shopping districts in London (UK) showed that streetscaping efforts can add at least 5% to retail lease rates

CABE (2007) 'Paved with Gold: The Real Value of Good Street Design'.



Bromley High Street, London Borough of Bromley, UK

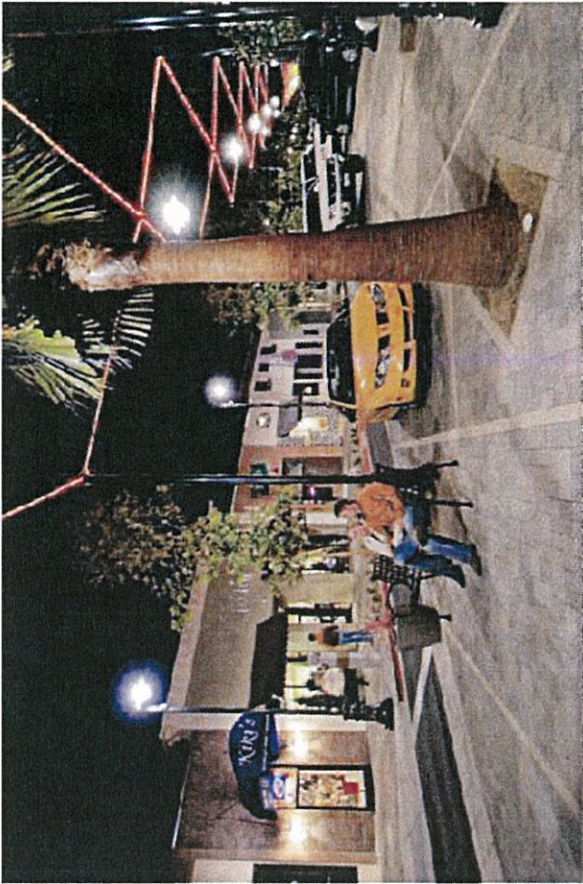
Rationale for Streetscape Investment



Pedestrian and transit-friendly streetscaping has the potential to grow area interest and demand by:

Increasing retail sales that support local businesses	<div>La Jolla Boulevard, San Diego, CA</div> <ul style="list-style-type: none"> Installation of bike lanes, median with greenery, tree buffer for sidewalk Survey of tax receipts of 95 businesses along the corridor showed a 20% boost in sales
Creating demand for new commercial space	<div>Lancaster, LA County, CA</div> <ul style="list-style-type: none"> High speed suburban roadway transformed into a narrower roadway with pedestrian facilities and space for community events Spurred \$125 million in private investment in the area; 40 new businesses opened; 800 new jobs; Sales tax revenue grew by 26%
Raising housing prices in surrounding neighbourhoods	<div>Philadelphia, PA</div> <ul style="list-style-type: none"> Homes within a ¼ mile of a commercial corridor reported as in ‘excellent condition’ by its users, benefited from a 23% premium in house values; between ¼ to ½ mile, 11% premium.

National Complete Streets Coalition (2012) ‘It’s a Safe Decision: Complete Streets in California’; University of Pennsylvania (2006) ‘Public Investment Strategies: How They Matter for Neighborhoods in Philadelphia’



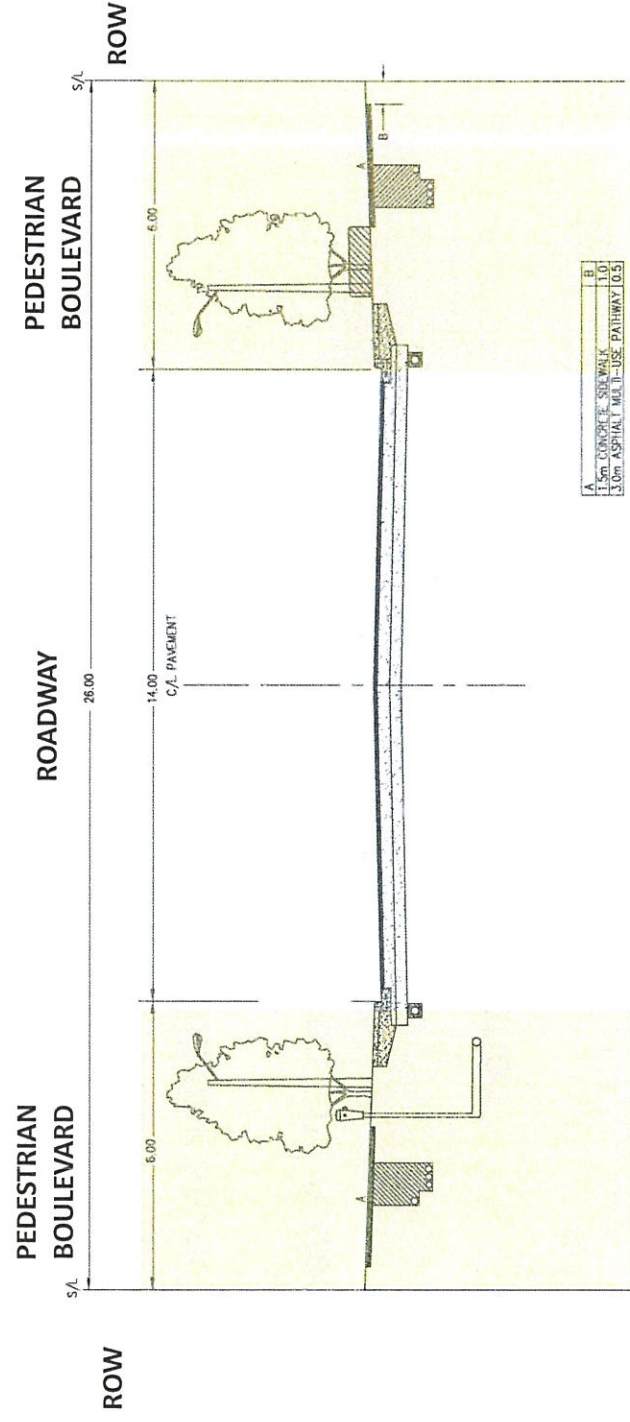
Public investment in
the public realm

Caso studies confirm the importance of

- 11

Existing Standards

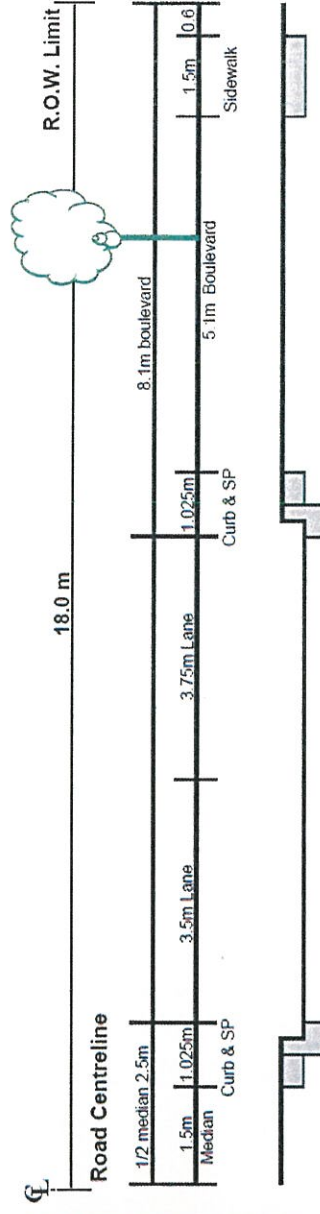
City of Vaughan Typical Engineering Cross
Section for Local Municipal Roads



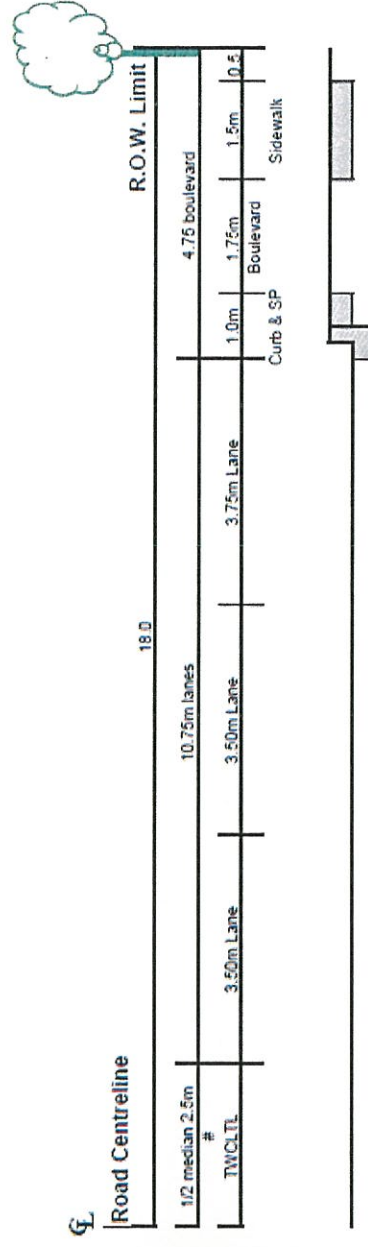
Municipal Engineering Standard Major Collector – 26m ROW

Existing Standards

York Region Typical Cross Section Regional Roads



Regional Standard 4 Lane Cross Section – 36m ROW



Regional Standard 6 Lane Cross Section – 36m ROW

Proposed Intensification Centres and Corridors

Downtown

- Vaughan Metropolitan Centre

Primary Centres

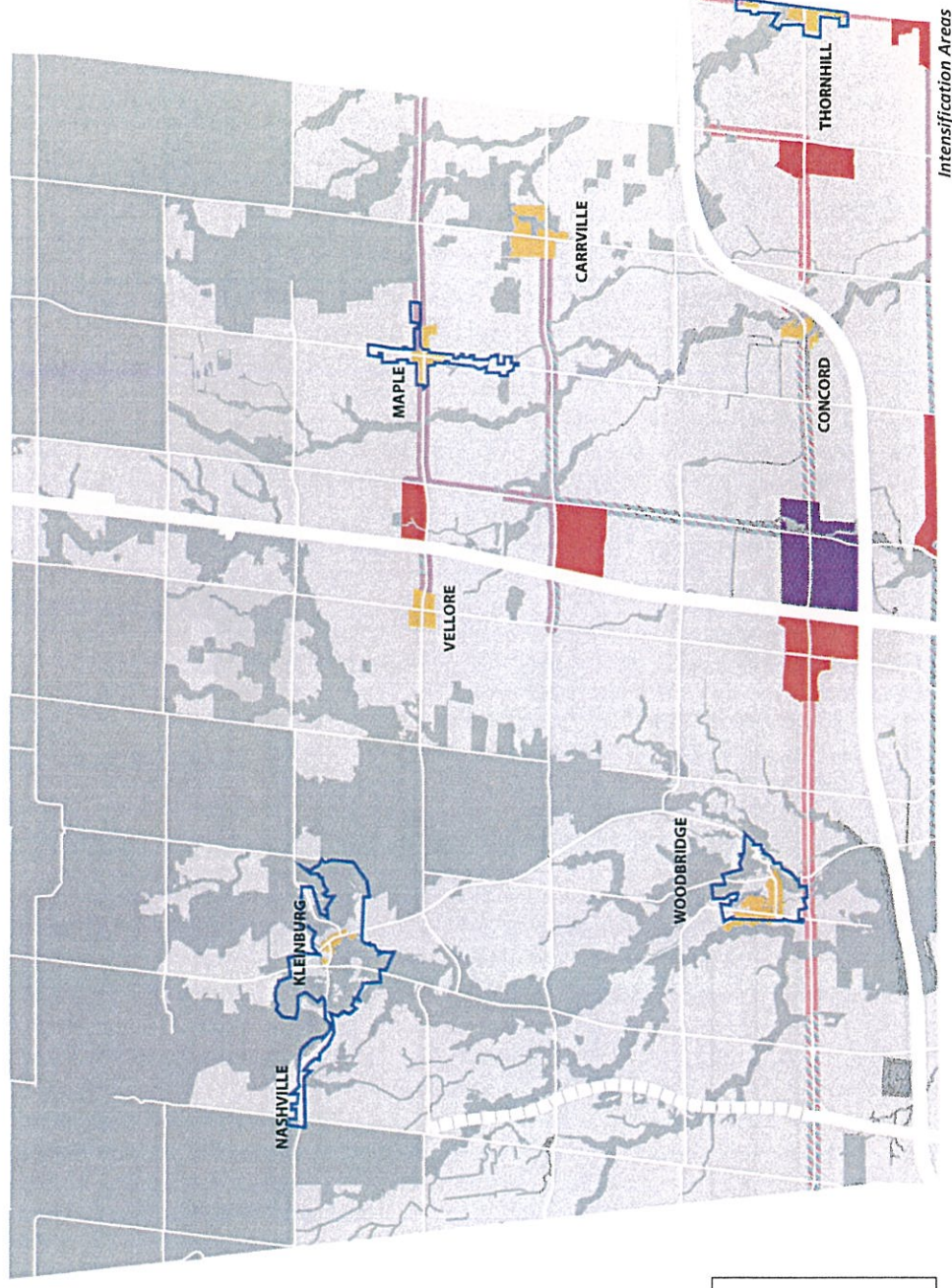
- Steeles West
- South Yonge Street

Local Centres

- Islington Avenue
- Carrville
- Concord

Primary Intensification Corridors

- Major Mackenzie Drive
- Centre Street

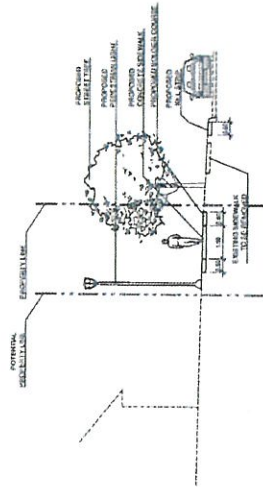


Proposed Streetscape Projects

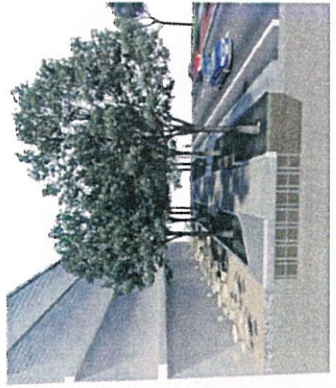
Kleinburg / Islington Avenue



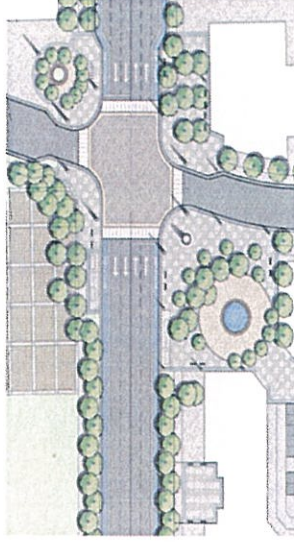
Major Mackenzie



Centre Street



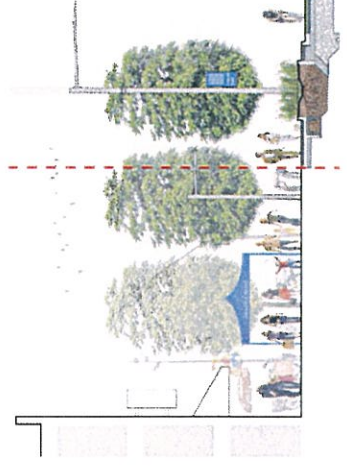
South Yonge Street



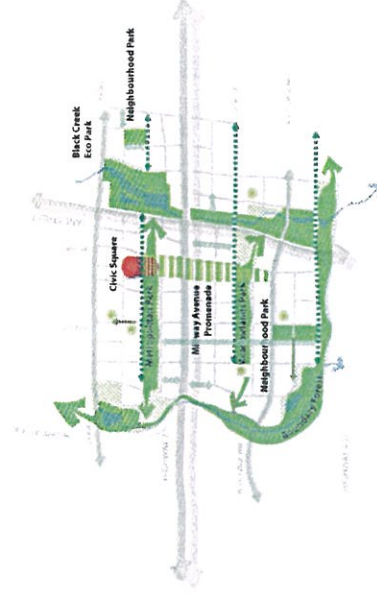
Steeles West



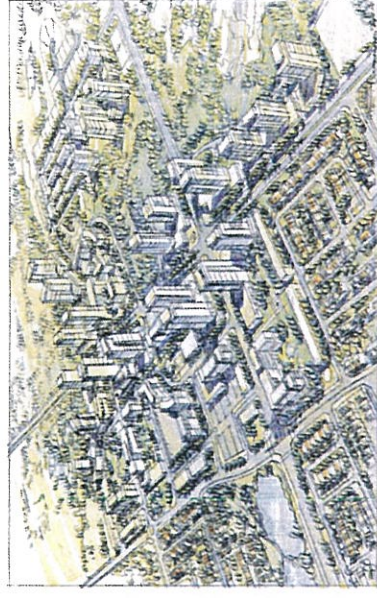
Concord West



Vaughan Metropolitan Centre



Carrville



What have we learned?

Preliminary costs vary – assumptions, methods, components, materials, unit costs, no operations + maintenance or life cycle

		<u>\$ / linear meter</u>
Enhanced ↓	Steeles West	\$1,826 / linear meter
	South Yonge	\$1,773 / linear meter
	Islington	\$1,405 / linear meter
	Major Mackenzie	\$924 / linear meter
Basic	Concord West	\$651 / linear meter
TBD	Centre Street	TBD
	Carrville	TBD
	Vaughan Metropolitan Centre	TBD

* Note – the costing for Steeles West includes storm water management features and rain gardens.

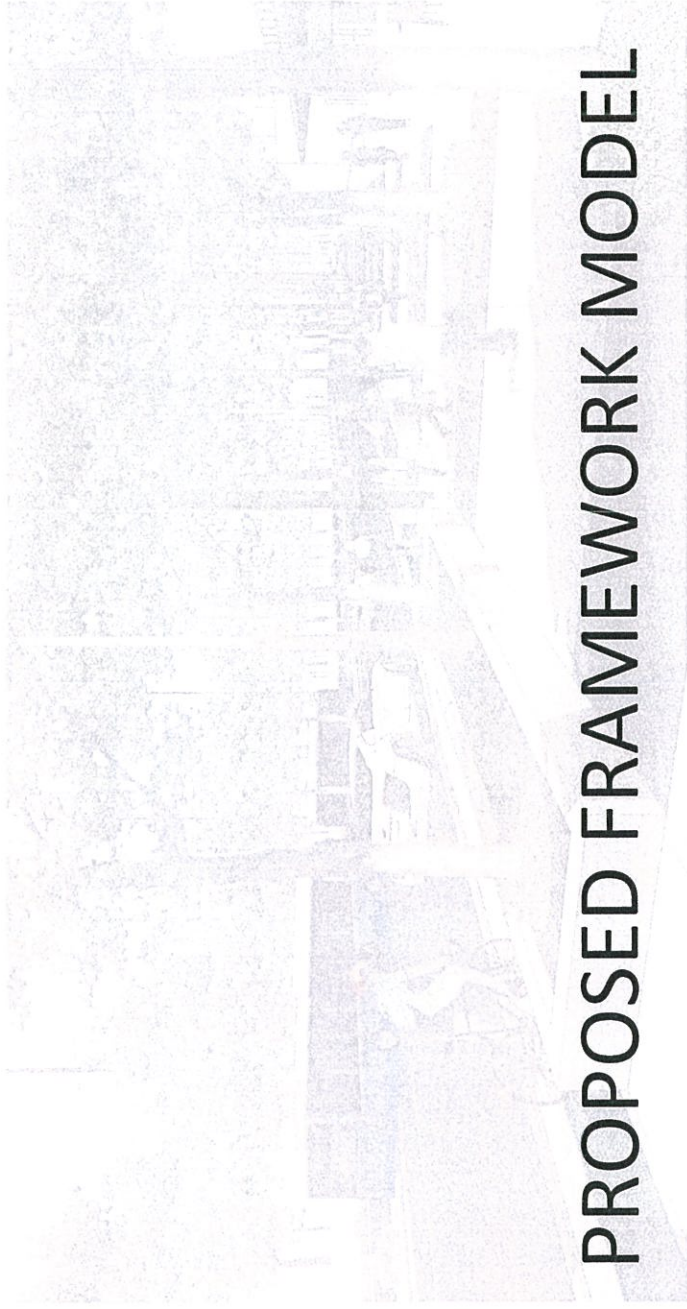


Why there is a need for a more defined streetscape planning, design and financial modeling process...

- Support City-wide identity and economic development objectives
- Establish a City of Vaughan and local design signature and branding
- Consistent approach to streetscape design and implementation
- Consistent and accurate cost figures that illustrate the financial implications of streetscape design projects
- Provide input to the planning and budget process
- Reality check on what the community is able to fund and willing to pay

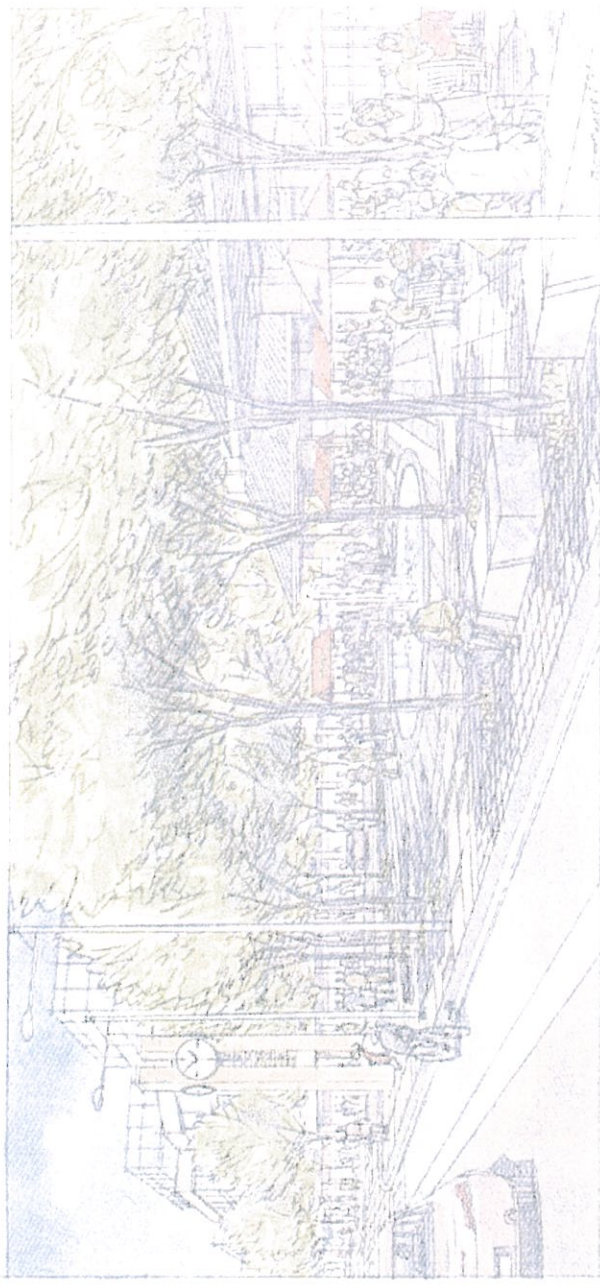
B

PROPOSED FRAMEWORK MODEL

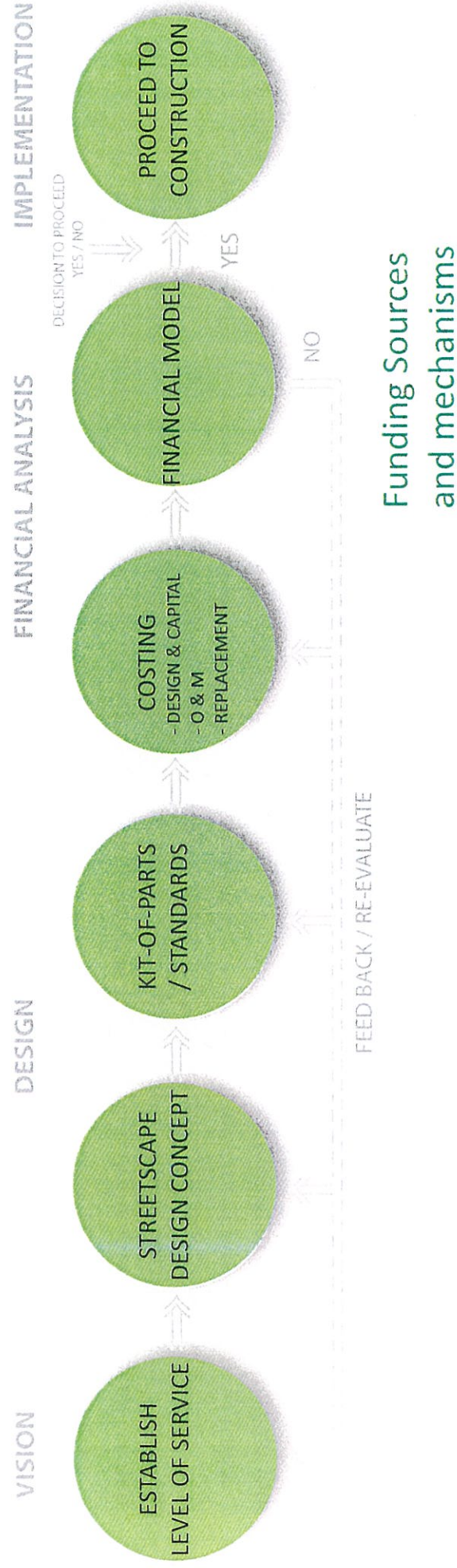


What is the Planning, Design and Financial Model Intended to Do?

- Identify and Evaluate Objectives / Level of Service
- Consistent Planning and Design Method / Protocol
- Develop a Financial Forecasting Tool



Conceptual Framework Diagram



Conceptual Levels of Service

Basic Level of Service



- Low intensity pedestrian traffic
- Standard sidewalk width
- Standard concrete
- Sod and street trees
- Standard street lighting

Enhanced Level of Service



- Street related uses, urban intensity and higher pedestrian traffic
- Materials reflect quality of place
- Greater use of unit paving and accent designs
- Larger pedestrian clearway width (2.0m) for more pedestrian activity
- Street furniture, enhanced tree planting and pedestrian lighting to create a safer, more pedestrian-friendly environment
- LID and sustainability features

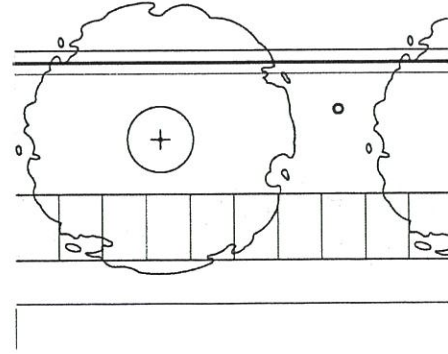
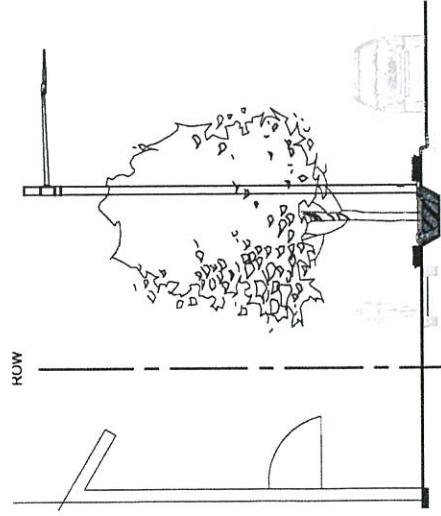
Premium Level of Service



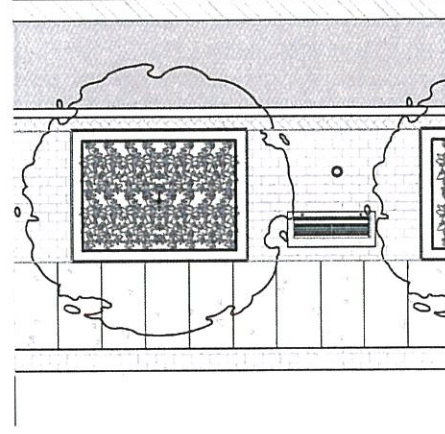
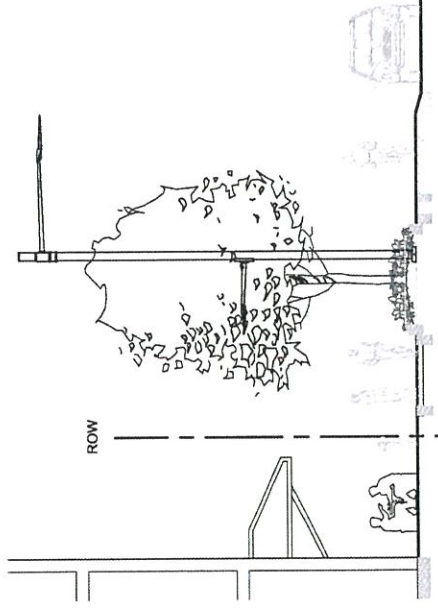
- High urban intensity, special streets
- High quality materials to attract and accommodate higher levels of investment and pedestrian traffic
- Large pedestrian zones with various amenities (planters with shrubs and perennials, street furniture etc.) to create a memorable experience
- Accent lighting to highlight interesting elements
- Tree infrastructure to help street trees survive in a more urban environment
- Special features and public art

Conceptual Levels of Service

Basic Level of Service
Low intensity, residential



Enhanced Level of Service
High intensity, mixed use urban



Premium Level of Service
High intensity, mixed use urban,
special streets

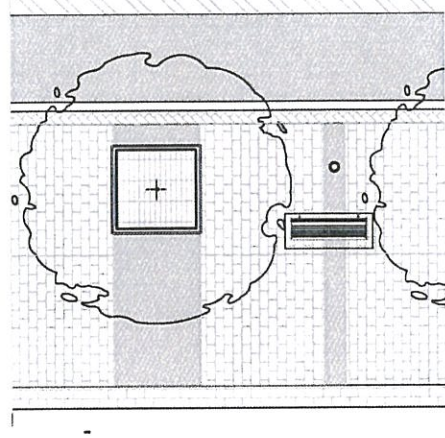
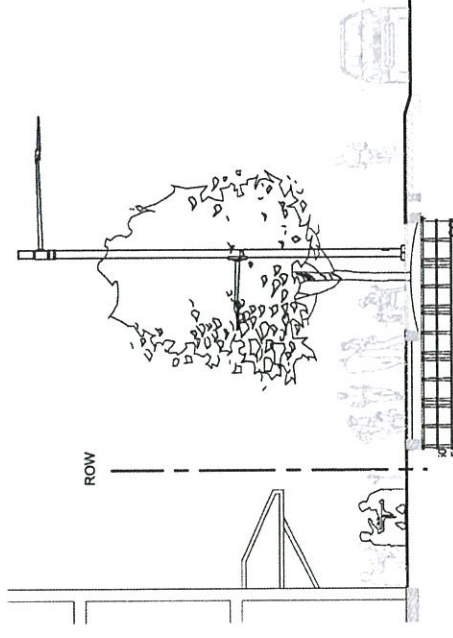
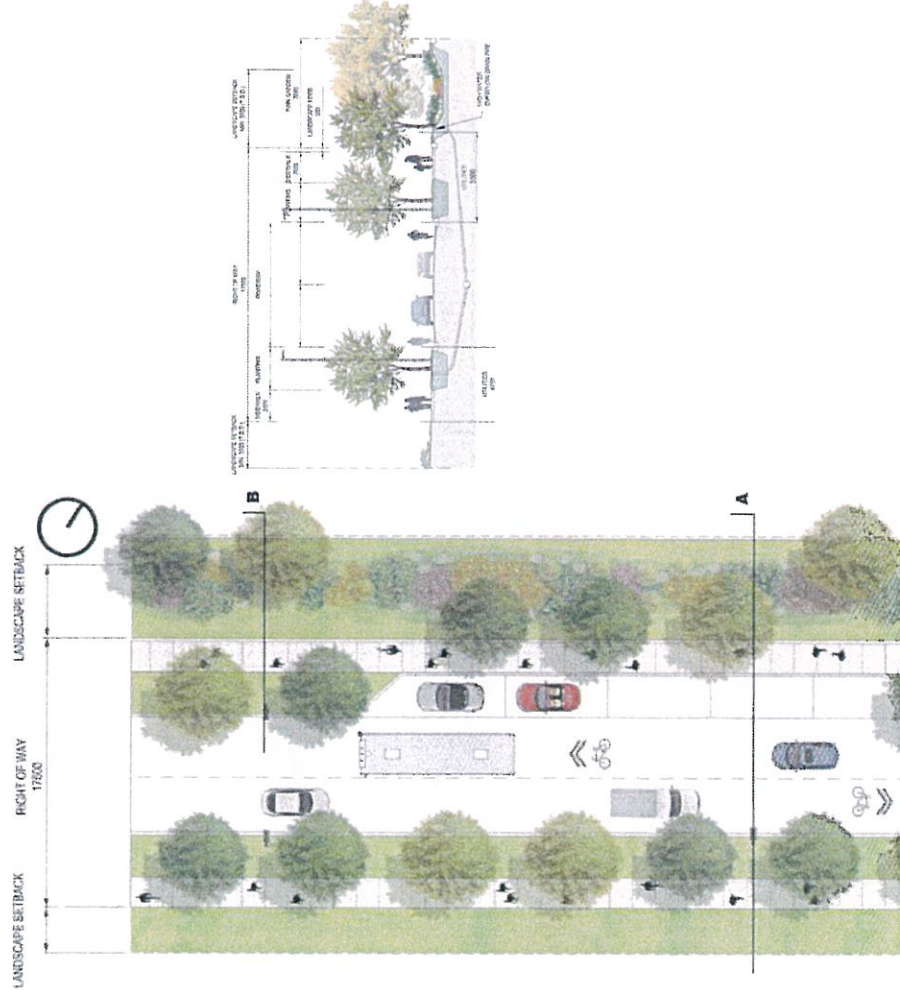


Illustration of a Theoretical Streetscape Project for the Model



- A major, long range streetscape and intensification project to test the financial model
- Allows us to identify issues, anomalies and questions and fix them (“Beta Testing”)
- Ensure that the model reflects real world considerations and situations

Summary of Capital, Operations, Maintenance Costs, Phasing and Construction Schedule

THEORETICAL PROJECT SUMMARY

Phase	Street	Hierarchy	Linear Meters	Total Capital Cost	Capital Cost / linear meter	Total Annual Operation Cost	Operations and Maintenance Cost / linear meter	Year of Construction	Year of Completion	# Years Const.
Phase 1	Street "C"	Minor Collector	200	\$608,120.00	\$3,040.60	\$33,545.00	\$167.73			
	Street "X"	Major Collector	2100	\$2,692,200.00	\$1,282.00	\$80,010.00	\$38.10	2016	2017	2
	Street "G"	Local	1800	\$2,129,580.00	\$1,183.10	\$91,125.00	\$50.63			
Phase 2	Street "S"	Major Arterial	2100	\$3,450,720.00	\$1,643.20	\$163,852.50	\$78.03	2018	2021	4
Phase 3	Street "T"	Major Arterial	320	\$525,824.00	\$1,643.20	\$24,968.00	\$78.03	2022	2023	2
	Street "V"	Major Arterial	320	\$525,824.00	\$1,643.20	\$24,968.00	\$78.03	2024	2025	2
Phase 4	Greenway	Minor Collector	2100	\$5,660,550.00	\$2,695.50	\$546,472.50	\$260.23	2026	2029	4
Phase 5	Street "A"	Local	287.5	\$616,831.25	\$2,145.50	\$56,472.19	\$196.43	2030	2033	4
	Street "A+"	Local	287.5	\$616,831.25	\$2,145.50	\$56,472.19	\$196.43	2034	2037	4
Phase 6	Street "B"	Local	287.5	\$616,831.25	\$2,145.50	\$56,472.19	\$196.43	2038	2041	4
Phase 7	Street "C+"	Local	287.5	\$616,831.25	\$2,145.50	\$56,472.19	\$196.43			
	Street "D"	Local	287.5	\$616,831.25	\$2,145.50	\$56,472.19	\$196.43			
Phase 8	Street "E"	Local	287.5	\$616,831.25	\$2,145.50	\$56,472.19	\$196.43			
	Street "F"	Local	287.5	\$616,831.25	\$2,145.50	\$56,472.19	\$196.43			
	Street "F+"	Local	287.5	\$616,831.25	\$2,145.50	\$56,472.19	\$196.43			
			11240	\$20,527,468.00	\$1,826.29	\$1,416,718.50	\$126.04			25

For illustration purposes only

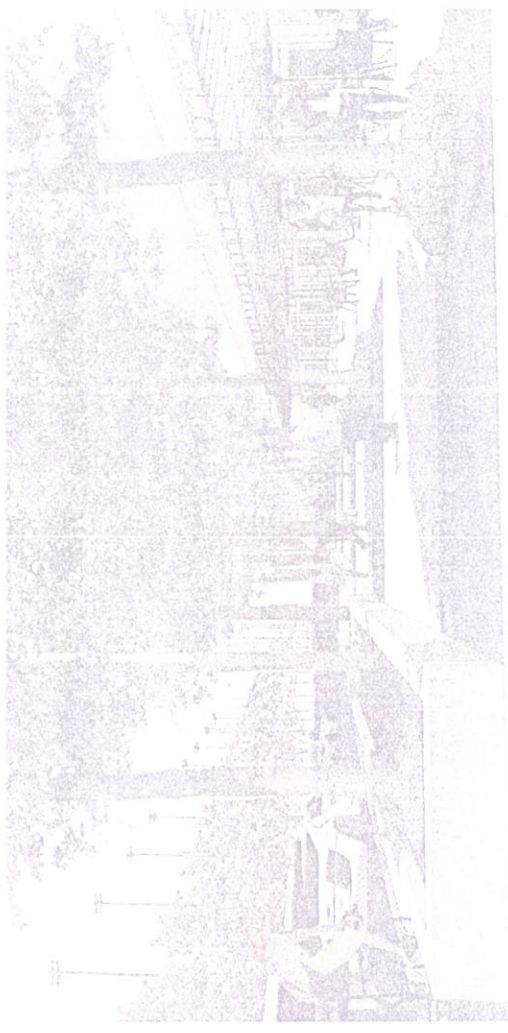
Define Problem Statement

- Purpose: to understand the fiscal implications of adopting different levels of service for streetscape treatment.
- This includes:
 - Original capital costs;
 - Operating costs;
 - Lifecycle/capital replacement costs.



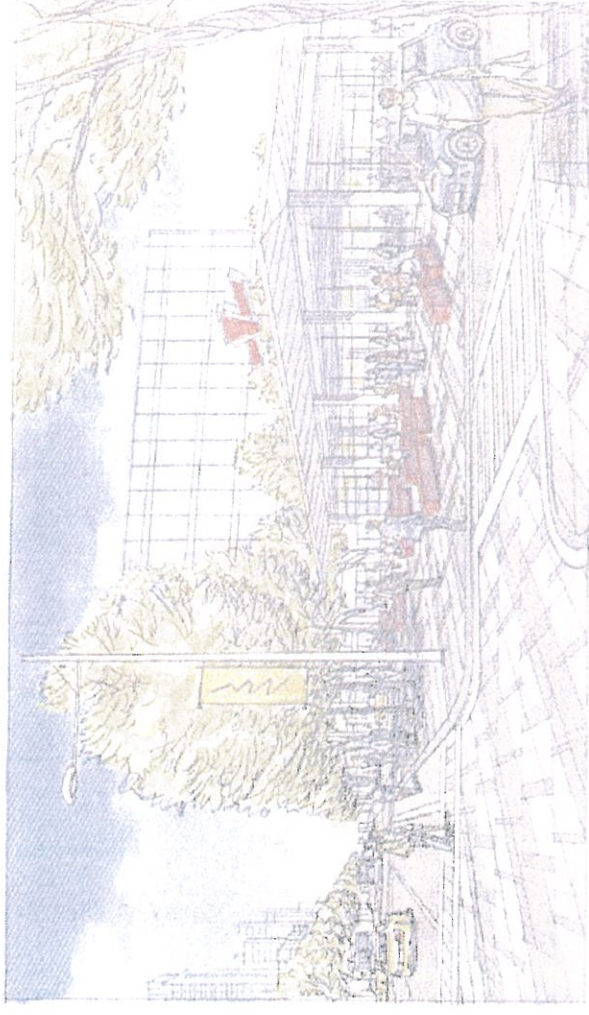
Elements of the Model

- Financial estimate of any individual streetscape project that adheres to a generally defined level of service.
- A “roll-up” of all planned projects which are currently held in abeyance pending the development of the streetscape manual and financial strategy.



Principles of Development of the Model

- A simple and usable model must be a flexible and accurate predictive model.
- Sufficient detail on individual material costs and operating costs is required to arrive at a simple estimate of financial impact from any individual project or the cumulative total for the City at any point in time.

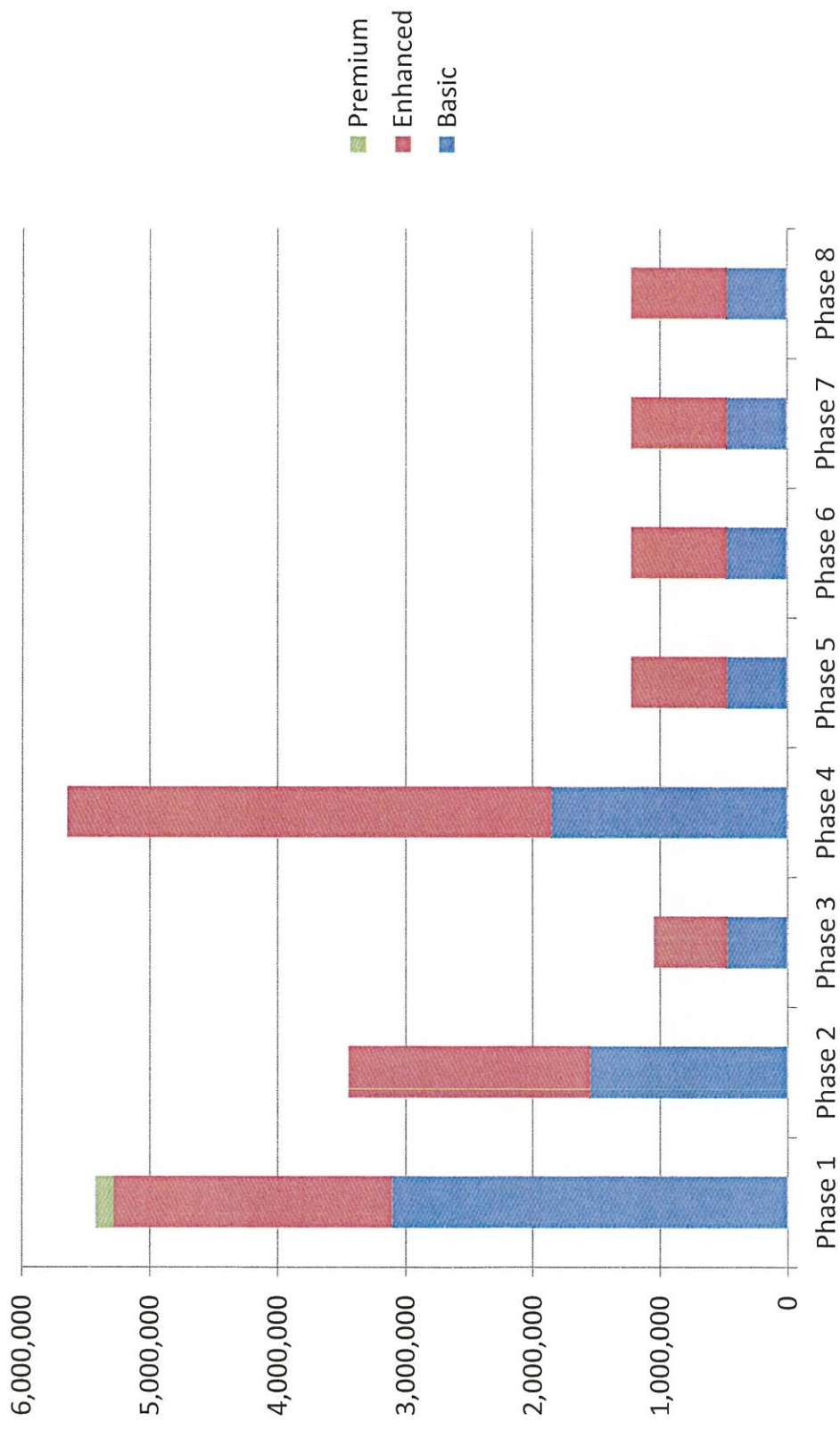


Capital Cost Estimates

Phase	Street Name	SERVICE LEVEL		Enhanced	Premium	Grand Total
		Basic				
Phase 1	Street "C"	273,100		197,500	137,520	608,120
	Street "G"	1,486,080		643,500	0	2,129,580
	Street "X"	1,348,200		1,344,000	0	2,692,200
Phase 2	Street "T"	1,553,790		1,896,930	0	3,450,720
Phase 3	Street "S"	236,768		289,056	0	525,824
	Street "V"	236,768		289,056	0	525,824
Phase 4	Greenway	1,852,200		3,808,350	0	5,660,550
Phase 5	Street "A"	236,325		380,506	0	616,831
	Street "A+"	236,325		380,506	0	616,831
Phase 6	Street "B"	236,325		380,506	0	616,831
	Street "C+"	236,325		380,506	0	616,831
Phase 7	Street "D"	236,325		380,506	0	616,831
	Street "E"	236,325		380,506	0	616,831
Phase 8	Street "F"	236,325		380,506	0	616,831
	Street "F+"	236,325		380,506	0	616,831
Grand Total		8,877,506		11,512,442	137,520	20,527,468

For illustration purposes only

Service Level by Type by Phase



For illustration purposes only

% of Capital Costs by Phase by Service Level

Phase	Basic	Enhanced	Premium
Phase 1	57%	40%	3%
Phase 2	45%	55%	0%
Phase 3	45%	55%	0%
Phase 4	33%	67%	0%
Phase 5	38%	62%	0%
Phase 6	38%	62%	0%
Phase 7	38%	62%	0%
Phase 8	38%	62%	0%
Grand Tot	43%	56%	1%

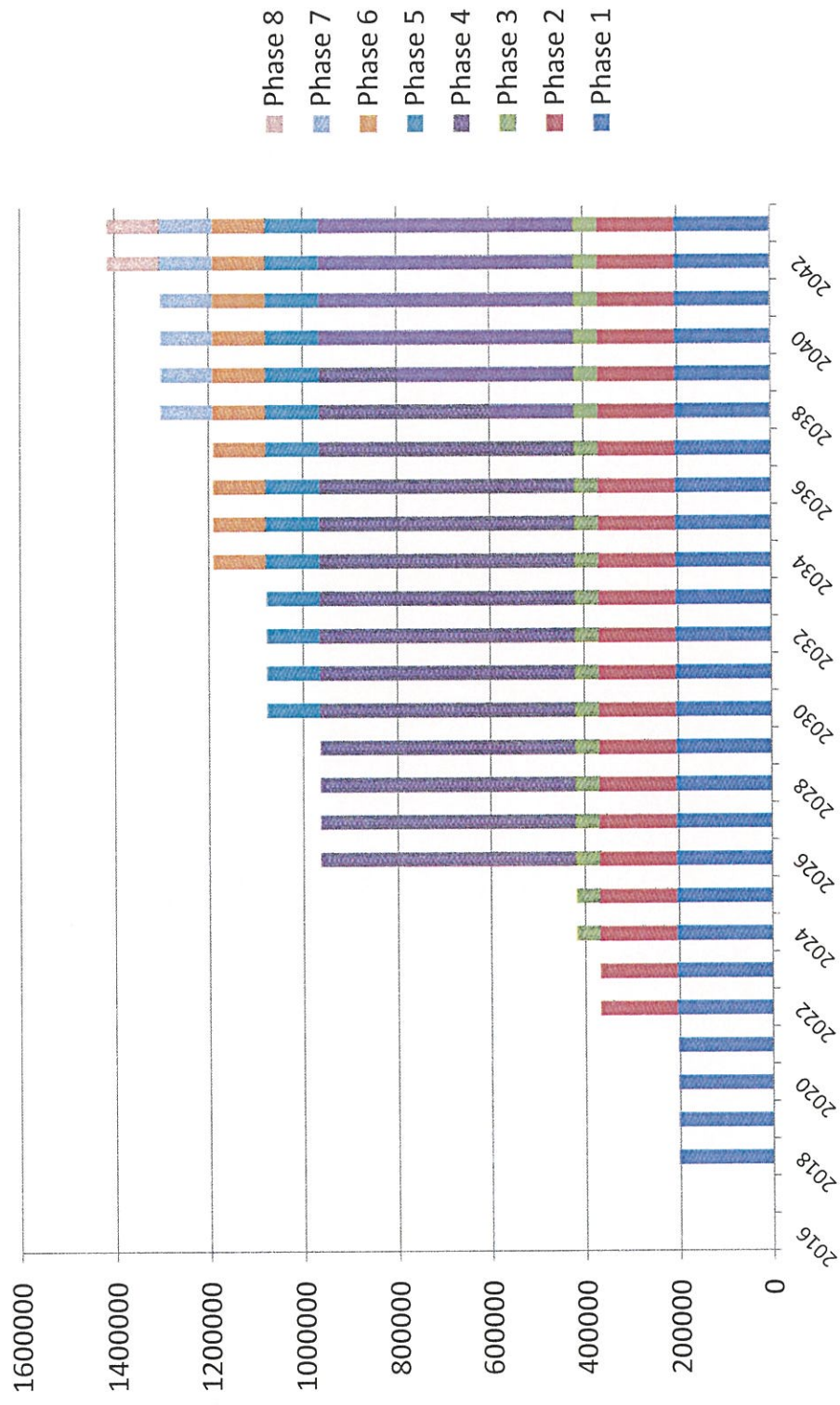
For illustration purposes only

Phasing

Estimated Start					
Phase	Street Name	Year of		# of years of Construction	Total
		Construction	Construction		
Phase 1	Street "C"	2016		2	608,120
	Street "G"	2016		2	2,129,580
	Street "X"	2016		2	2,692,200
Phase 2	Street "T"	2018		4	3,450,720
Phase 3	Street "S"	2022		2	525,824
	Street "V"	2022		2	525,824
Phase 4	Greenway	2024		2	5,660,550
Phase 5	Street "A"	2026		4	616,831
	Street "A+"	2026		4	616,831
Phase 6	Street "B"	2030		4	616,831
	Street "C+"	2030		4	616,831
Phase 7	Street "D"	2034		4	616,831
	Street "E"	2034		4	616,831
Phase 8	Street "F"	2038		4	616,831
	Street "F+"	2038		4	616,831
Grand Total					20,527,468

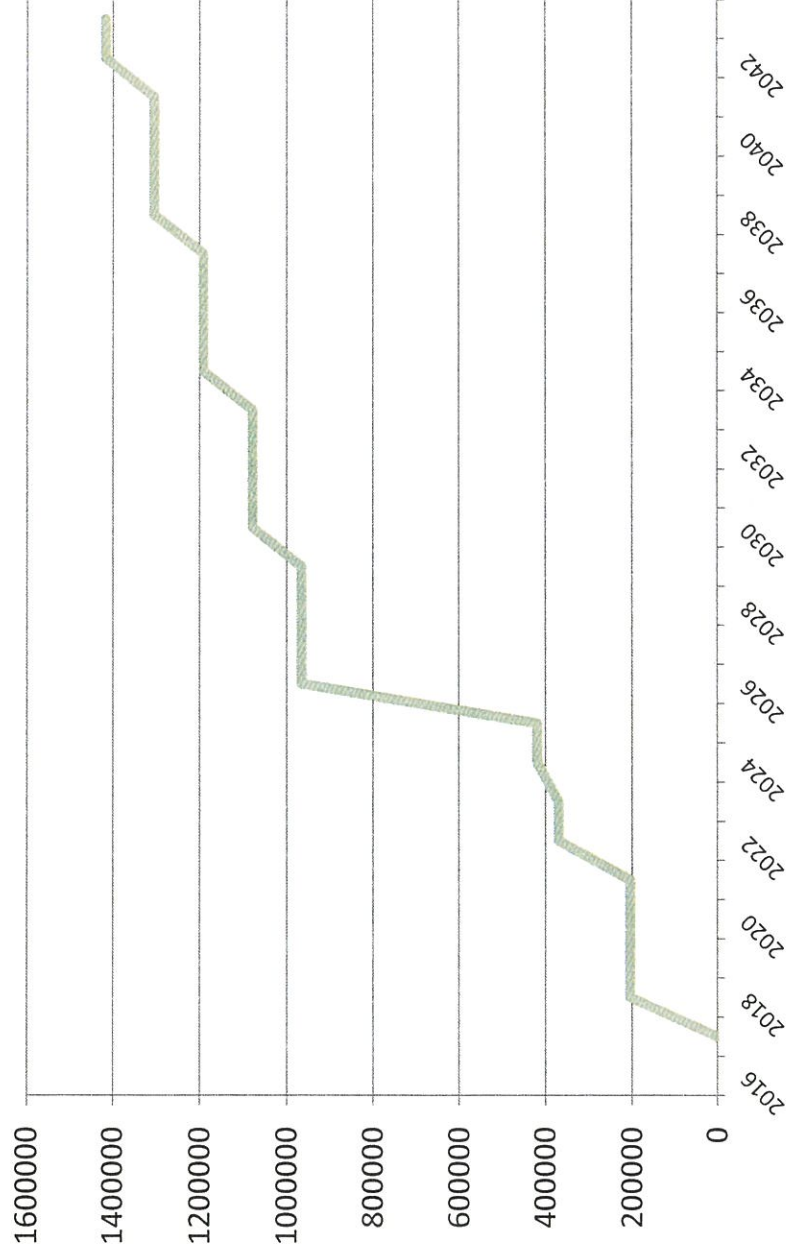
For illustration purposes only

Operating Costs by Year by Phase



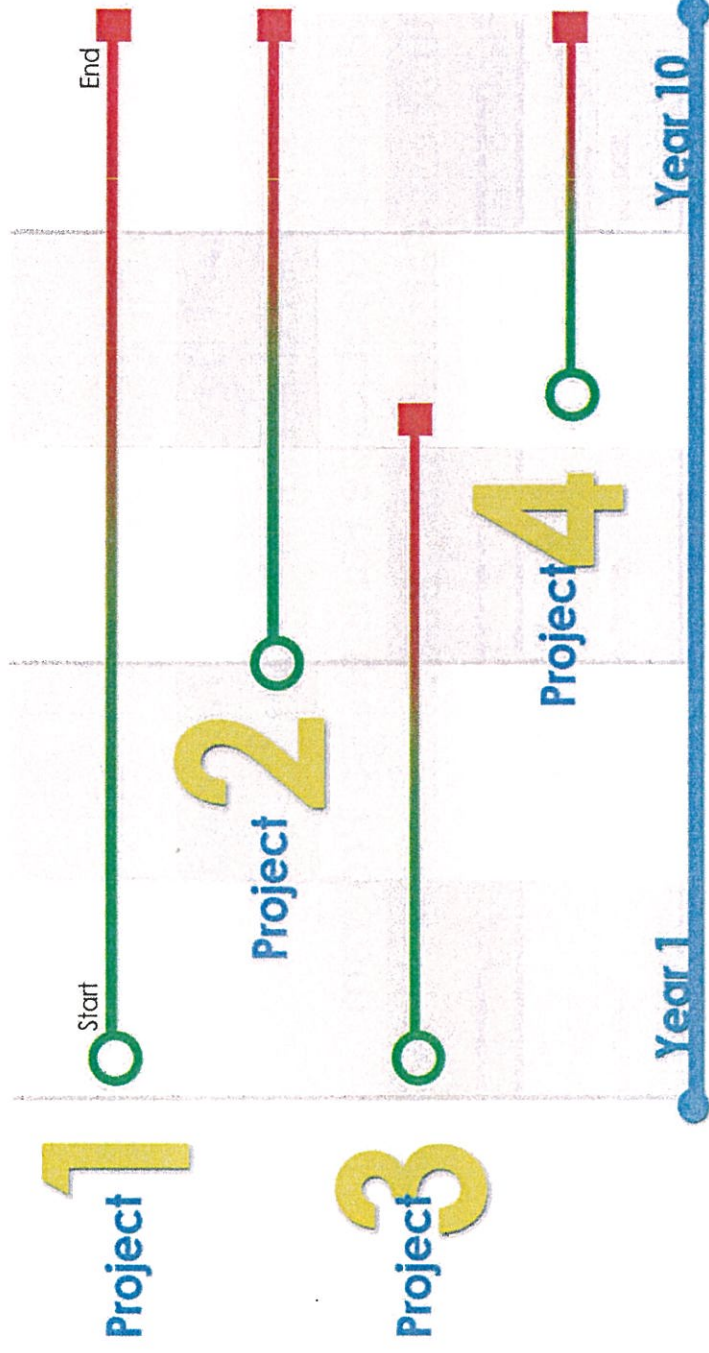
For illustration purposes only

Total Operating Costs by Year



For illustration purposes only

Creating a Cumulative Model



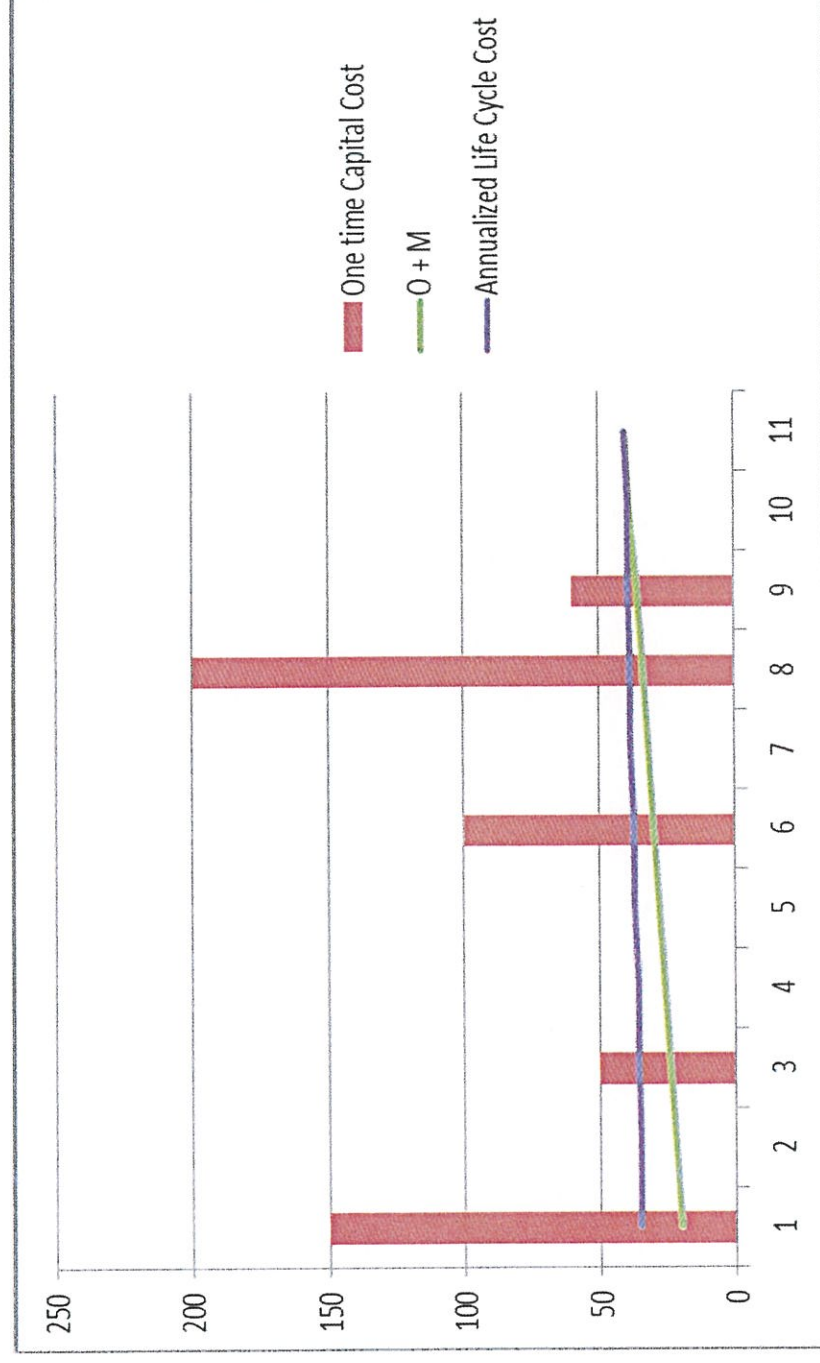
= Cumulative Impact Each Year

For illustration purposes only

Capital Funding Source Schedule (by Project)

- Gas Tax
- Development Charges
- Conditions of Development Approval
- Section 37 of the Planning Act
- Regional Streetscape Partnership Program
- Business Partnerships / BIA's
- Provincial Grants
- Strata Ownership
- Property Tax

Life Cycle Costs



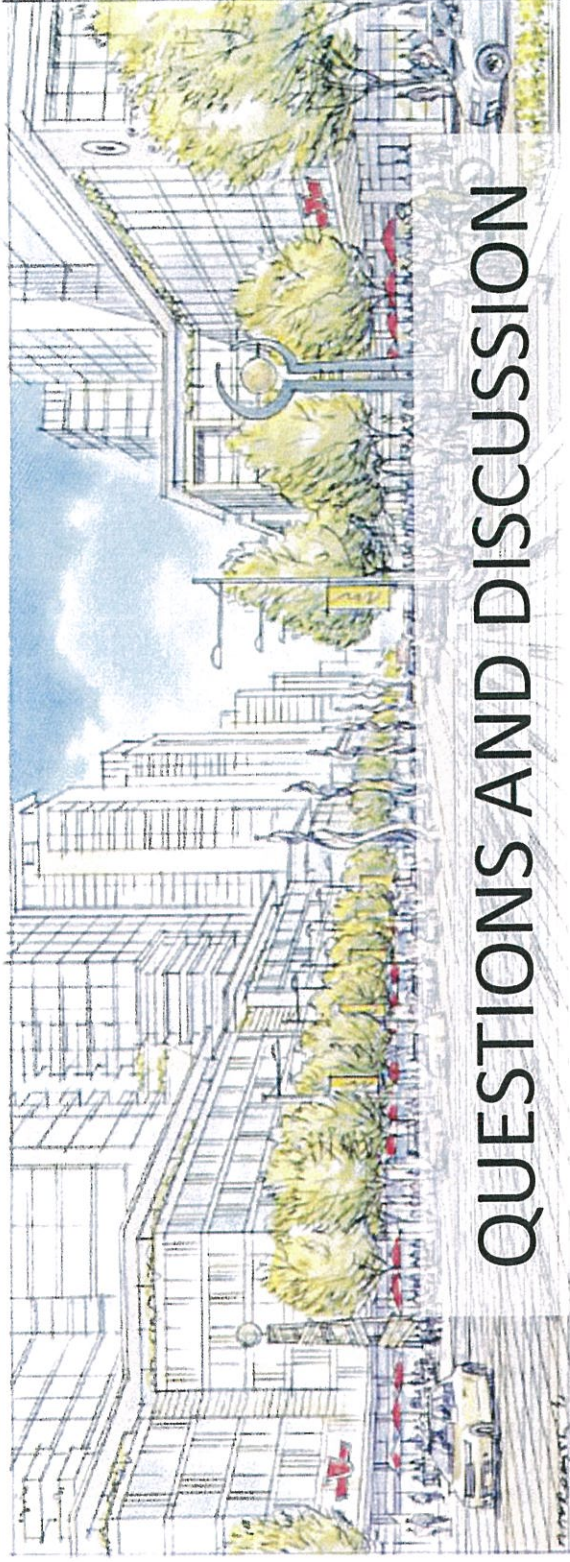
For illustration purposes only

Next Steps

- Council Review
- Stakeholder Review
- Staff Review
- Refine and Update
- Complete Phase 3



QUESTIONS AND DISCUSSION



COMMITTEE OF THE WHOLE (WORKING SESSION) JUNE 17, 2013

**VAUGHAN CITY-WIDE STREETScape IMPLEMENTATION MANUAL AND FINANCIAL STRATEGY PLAN
FILE 20.26
WARDS 1 - 5**

Recommendation

The Commissioner of Planning, in consultation with the Commissioner of Community Services, Commissioner of Engineering and Public Works recommends:

1. THAT the staff report and presentation entitled "Conceptual Framework: City-Wide Streetscape Implementation Manual and Financial Strategy", BE RECEIVED, for input and discussion.

Contribution to Sustainability

The proposed "Vaughan City-Wide Streetscape Implementation Manual and Financial Strategy" contributes to the goals and objectives within *Green Directions Vaughan*, the City's Community Sustainability and Environmental Master Plan, specifically:

Goal 1: To significantly reduce our use of natural resources and the amount of waste we generate.

Goal 2: To ensure sustainable development and redevelopment.

Objective 2.2 "To develop Vaughan as a City with maximum greenspace and an urban form that supports our expected population growth"

Objective 2.3 "To create a City with sustainable built form"

Goal 3: To ensure that getting around in Vaughan is easy and has a low environmental impact.

Objective 3.1 "To develop and sustain a network of sidewalks, paths and trails that supports all modes of non-vehicular transportation"

Objective 3.2: "To develop and sustain a network of roads that supports efficient and accessible public and private transit"

Objective 3.3: "Reduce single occupant vehicle (SOV) trips by supporting active transportation, carpooling and public transit"

Goal 4: To create a vibrant community for citizens, businesses and visitors.

Objective 4.1 "To foster a city with strong social cohesion, an engaging arts scene, and a clear sense of its culture and heritage"

Objective 4.2 "To ensure that the City of Vaughan attracts businesses and investment that will result in well-paying jobs for Vaughan citizens, a sustainable tax base, and continuing prosperity into the 21st century"

Goal 5: To be a leader on sustainability issues.

Objective 5.1: “To share sustainable best practices and ideas between and among municipal staff and the community”

The “Vaughan City-Wide Streetscape Implementation Manual and Financial Strategy” includes the following study goals that directly relate to those of *Green Directions Vaughan*, specifically:

- a) Develop a standard streetscape classification system to group streets with similar typologies and character, and assign appropriate design treatments/components to them;
- b) Develop a streetscape database model that can be utilized for budgeting and design in all streetscape projects going forward;
- c) Define a full standard streetscape palette of materials matrix for all streetscape classification options in consultation with City Departments;
- d) Develop a Public Art strategy for intensification areas;
- e) Define a full life-cycle costing analysis for a palette of streetscape components, including construction, operational and replacement costs;
- f) Provide a hierarchy of fully-costed implementation options; and,
- g) Provide a 10 year financial impact forecast for viable scenarios, including a recommended funding strategy to implement streetscapes.

Economic Impact

There are no requirements for new funding associated with this report.

Communications Plan

A project working team has been established to provide input from the following City departments: Parks & Forestry Operations, Budgeting & Financial Planning, Development Planning, Engineering Services, and Public Works.

A stakeholder consultation workshop, to which representatives of Vaughan’s development community, BILD, TRCA, and York Region will be invited to attend, is scheduled for late June 2013.

Once the new Vaughan City-Wide Streetscape Implementation Manual and Financial Strategy is considered by Vaughan Council in the fourth quarter of 2013, assuming Committee and Council endorsement, this document will be placed on the City’s web-site to allow future development proponents to reference this guiding document prior to submission of a development proposal. In addition, design consultants will be providing the approved plan as an urban design reference tool, as they proceed to undertake their work to design and improve the existing and future urban street network for the City’s planned intensification areas and heritage districts.

Location

The subject lands, as shown in Attachment #1, are designated Intensification Areas, Regional Centres and Corridors, and established Heritage Districts in the City of Vaughan.

The location of Streetscape Plans (either draft or approved) that will be costed as part of this Study, are shown in Attachment #2.

Purpose

The purpose of this report is to obtain Council input into the Draft Conceptual Framework for the Vaughan City-Wide Streetscape Implementation Manual and Financial Strategy. The presentation is an overview of the background work completed to date, and a demonstration of the process and model in development.

Background - Analysis and Options

Item 1, Report No. 43, of the November 6, 2012 Committee of the Whole, which was adopted without amendment by the Council of the City of Vaughan on November 20, 2012, resolved:

“THAT a Contract be approved to retain the consulting team led by EDA Collaborative Inc. to carry out the “Vaughan City-Wide Streetscape Implementation and Financial Strategy” in accordance with the Terms of Reference shown in Attachment #1, to an upset limit not exceeding \$85,040.00 plus applicable taxes.”

The Vaughan City-Wide Streetscape Implementation Manual and Financial Strategy will provide an updated standardized, streamlined and improved process to guide the design, funding, construction, and maintenance of streetscape projects in the City of Vaughan's intensification areas and heritage conservation districts. In addition to capital costs, the costs of ongoing maintenance and replacement of the City's infrastructure must be considered when designing and approving streetscapes.

Through discussions on streetscape projects, the City is recognizing that other sources of revenue beyond taxation must be pursued to adequately address the three cost areas of streetscapes: acquisition, operation, and ultimate replacement. Given the City's current funding constraints, it is imperative that a sustainable funding strategy be developed that balances streetscape service levels and funding availability.

This study will provide the necessary framework to inform and assist City Council and staff in managing the City's streetscape assets and prioritizing limited resources for streetscaping, as the City sets its direction in the corporate planning process, department business plans and multi-year budgets. The Vaughan City-Wide Streetscape Implementation Manual and Financial Strategy is part of the City's commitment to leadership and continuous improvement, and will ensure cost efficiency and consistency of streetscape plans going forward.

The Vaughan City-Wide Streetscape Implementation Manual and Financial Strategy includes the following components:

1. A City-Wide Streetscape Implementation Manual that will be used as an urban design reference tool for the design and improvement of the existing and future urban street network for the City's planned intensification areas and established heritage districts. Following a hierarchy of streetscape typologies, the Streetscape Manual will assign a set of standard or specialized design treatments that are financially-viable to each street classification. The design treatments specified in the Manual will include a hierarchy of streetscape elements including: paving, street trees, medians, lighting, signage, street furniture and public art.
2. A Public Art Strategy for intensification areas that will establish a funding and management framework and guiding principles for the future Public Art Program City-Wide, which is scheduled to be undertaken by the Policy Planning Department starting fourth quarter 2013.
3. A Financial Impact Analysis, Financial Strategy and Funding Scenarios, including:

- i) Review of current streetscape service levels and associated costs based on historic levels and inventory;
- ii) Define any service level changes and associated cost differences from existing historic service levels;
- iii) Identify funding gaps and challenges;
- iv) Validate service levels and enhancement options;
- v) Full life-cycle costing analysis matrix for acquisition, ownership and replacement components;
- vi) Develop a detailed streetscape classification, typology and component option matrix;
- vii) Develop a 10 year fiscal impact forecast for viable scenarios and propose service level and funding strategy recommendations for Council's consideration; and,
- viii) Develop a streetscape database model that can be utilized for budgeting and design in all streetscape projects going forward.

Draft Conceptual Framework Plan

The draft Conceptual Framework Plan (Attachment #3) provides a summary of the steps that will be followed by City of Vaughan staff and consultants during the decision making process for the design, review and costing of streetscapes going forward. The framework identifies the Tasks, Tools and Outputs within the model through the decision making process, proceeding from vision, design, financial impact analysis, to implementation.

The study team has established three levels of service for streetscapes in intensification areas and heritage conservation districts in the City of Vaughan: "Basic", "Enhanced" and "Premium". For each level of service, a selection of possible streetscape elements and materials are identified in the "Streetscape Components Preference Chart". A basic streetscape will have a more limited palette of elements and materials than an enhanced or premium streetscape. The categorization of streetscapes as "Basic", "Enhanced" or "Premium", i.e. the level of service, will be established based on "Qualitative Level of Service Criteria".

The following is an outline of the conceptual approach to the development of the financial strategy for the City-Wide Streetscape Implementation Manual and Financial Strategy Plan:

a) Problem Statement

Individual areas within the City have streetscape plans which demonstrate a range of levels of investment in streetscape enhancement. The purpose of the financial model is to understand the fiscal implications of adopting different levels of service for streetscape treatments. This includes original capital costs, operating costs and lifecycle/ capital replacement costs.

b) Elements of the Model

The model has two elements:

- i) A financial estimate of any individual streetscape project that adheres to a defined level of service. Within any level of service, there can be any number of potential scenarios or combinations of streetscape designs, based on their context.
- ii) A "roll up" of all planned projects which are currently held in abeyance pending the development of the streetscape manual and financial strategy. This "roll up" represents the combined financial implications (capital, operating, lifecycle) of all such projects based on the specific nature of each project, and the timing of each project. The result of this second stream of financial modeling is a capital, operating and lifecycle forecasting based on the cumulative implications of each project currently being considered. By

definition, this is a modular exercise whereby individual projects can be changed in terms of design specifics, costs, implementation, allocation of funding responsibility between City and private sector, etc., and the results can be maintained within the financial model. It is therefore a highly flexible tool which can be used on an ongoing basis to predict financial implications in a dynamic environment.

c) Principles of Development of the Model

- i) The final product will need to be a simple and useable model that is flexible and predictive. The model will have a series of input variables (i.e. an excel spreadsheet of all possible/ likely design elements), and individual costs associated with each, estimate of timing of development of the defined project, and assumptions regarding functional life of each item. This becomes the basic DNA of the model which can be rolled up into individual design scenarios, alternative levels of service, different approaches to allocating initial capital responsibility, and alternative phasing strategies.
- ii) Individual material costs, operating costs, lifecycle replacement costs have been gathered based on historical/ existing levels of service within the City of Vaughan, current costs from York Region, and using comparable urban streetscape costs where no City of Vaughan data is available. City of Vaughan operations and maintenance assumptions have also been articulated. All together, these costs and assumptions are required to arrive at a simple estimate of financial implications of any individual project or the cumulative total for the City at any point in time.

d) Establish Levels of Service with Associated Budget Commitments

- i) Develop three levels of service or standards which represent distinct differences in project design terms for streetscape treatments in the City of Vaughan.
- ii) Review the City's current base line for capital and operating expenditures on typical hierarchy of streets. This is historic, but establishes a baseline for working purposes.
- iii) Eight recently completed City of Vaughan streetscape plans (See Attachment #2) will be reviewed within the context of the Streetscape Implementation Manual and Financial Strategy. Their basic design components will be identified and costed to generate the proposed level of service or standard for each plan, including capital, maintenance and lifecycle replacement costs. The practical assessment of these plans will also help to identify differences between these plans and the current or historic approach to investment in streetscapes.
- iv) There will need to be a quantitative means to distinguish between these levels of service as opposed to a qualitative assessment (although the latter will be important). This will mean the differences between levels of service can be articulated in terms of either scale or intensity of streetscape treatment, volume of materials used, costs of materials, higher/ lower maintenance costs, higher/ lower life cycle replacement costs.
- v) In addition, the analysis should assess differences between new levels of service in terms of environmental responsibility and contribution to energy efficiency, decommissioning costs, etc.

e) Calibrating the Model

- i) Detailed schedule of design items;
- ii) Financial sheet to address operational implications for each design item;

- iii) Functional life expectancy for each design item;
- iv) The established levels of service will have defined capital cost differences, maintenance differences and life cycle differences;
- v) Building up the schedule of design items to reflect the project and at a chosen level of service;
- vi) This above approach should result in an accurate estimate of the financial cost of each individual project.

f) Creating a Cumulative Model

Staff and the consultant team envisage this model to be most usable in terms of predicting capital, operating and life cycle implications of multiple streetscape projects over a given forecast period (10 – 15 years). We will therefore need to create a model that combines the individual results for any given project and combine these into an overall statement. An illustrative approach to cumulative impact – many projects, different timing, different costs, and different end dates – all can be viewed in terms of the annual financial implications to the City of a period of analysis (e.g. 10 years).

Next Steps

A consultation meeting will be held with stakeholders in late June 2013. The final Vaughan City-Wide Streetscape Implementation Manual and Financial Strategy Plan will be presented to Council in the fourth quarter of 2013, and will include recommendations to implement this initiative.

Relationship to Vaughan Vision 20/20 Strategic Plan

This report is consistent with the priorities set forth in Vaughan Vision 20/20 Strategic Plan, through the following initiatives, specifically:

Service Excellence:

- Demonstrate Excellence in Service Delivery
- Promote Community Safety, Health & Wellness
- Lead & Promote Environmental Sustainability
- Preserve our Heritage & Support Diversity, Arts & Culture

Staff Excellence:

- Demonstrate Effective Leadership
- Value & Encourage a Highly Motivated and Engaged Workforce
- Attract, Retain & Promote Skilled Staff
- Support the Professional Development of Staff

Organizational Excellence:

- Ensure a High Performing Organization
- Manage Corporate Assets
- Ensure Financial Sustainability
- Manage Growth & Economic Well-being

Regional Implications

The Region of York is a vital stakeholder in the process, and will be invited to review all phases of the project for collaboration and input.

Conclusion

The lead consultant, EDA Collaborative Inc., and their team of sub-consultants including Sierra Planning + Management, have developed a Draft Conceptual Framework for the Vaughan City-Wide Streetscape Implementation Manual and Financial Strategy, which is being presented today for Council input and discussion. This framework has been developed based upon precedent research of other cities in Canada and the United States, and other asset management systems. It integrates into a single system, currently held data and information received from the various City of Vaughan departments that oversee the design, implementation, operations, maintenance, and financing of streetscapes in our City. The City-Wide Streetscape Implementation Manual and Financial Strategy will be the first of its kind in the Greater Toronto and Hamilton Area.

Attachments

1. Study Area Location Map
2. Costed Streetscape Plans Location Map
3. Conceptual Framework Plan (draft)

Report prepared by

Grant Uyeyama, Director of Development Planning, ext. 8635
Rob Bayley, Manager of Urban Design, ext. 8254
Moiria Wilson, Urban Designer, ext. 8017
John Henry, Acting Commissioner of Finance, ext. 8348
Brianna Clace, Special Projects Analyst, Budgeting and Financial Planning, ext. 8284
Marjie Fraser, Director of Parks & Forestry Operations, ext. 6137
Jeffrey Silcox-Childs, Manager of Parks Services, ext. 6140
Jason Inwood, Manager of Parks Operations, ext. 6158
Brian Anthony, Director of Public Works, ext. 6116
Jeff Johnston, Manager of Road Maintenance Services, ext. 6120
Vince Musacchio, Manager, Capital Planning and Infrastructure, ext. 8311
Paolo Masaro, Design Engineer, ext. 8446

Respectfully submitted,

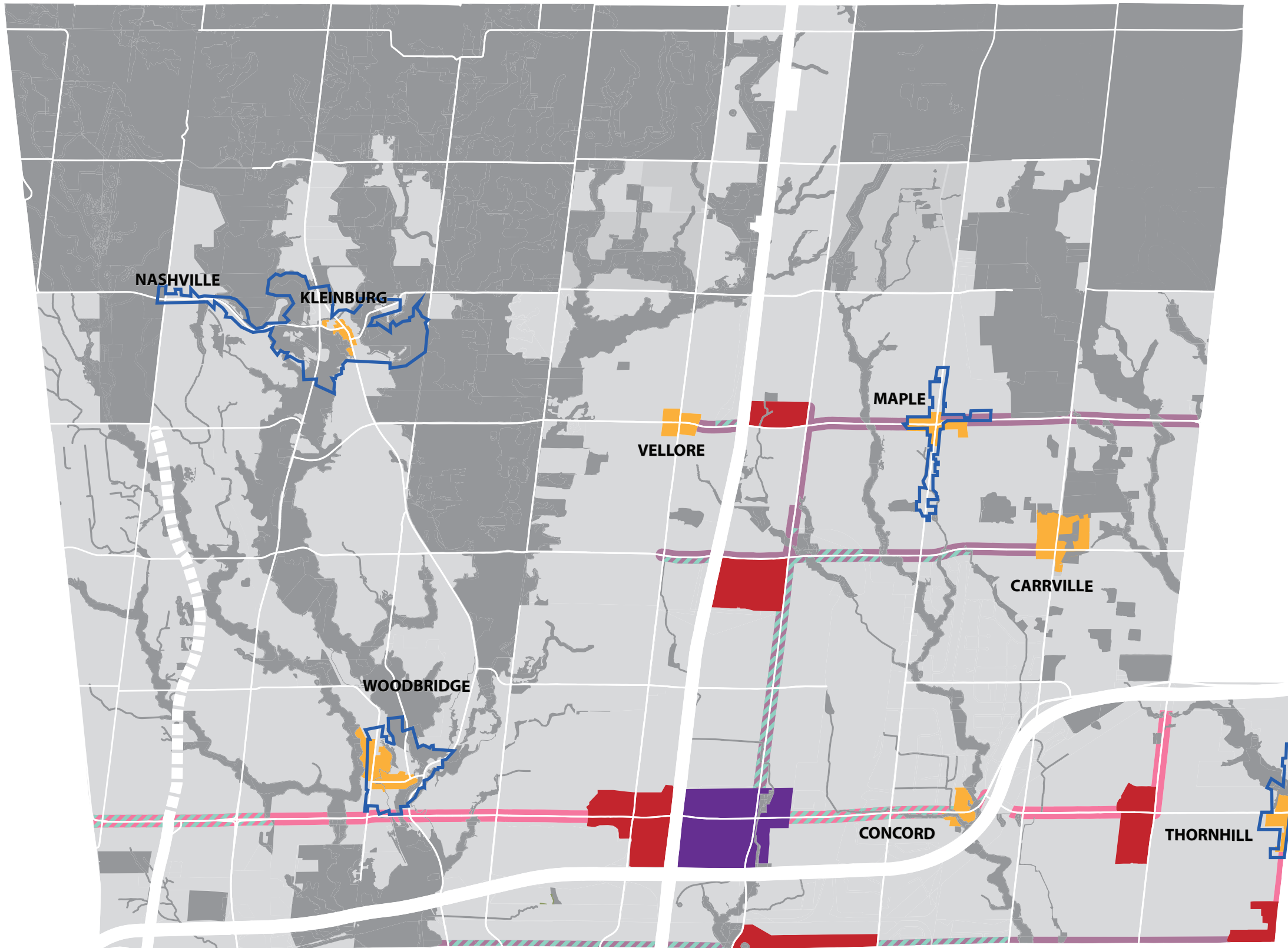
JOHN MACKENZIE
Commissioner of Planning

MARLON KALLIDEEN
Commissioner of Community Services

PAUL JANKOWSKI
Commissioner of Engineering and Public Works

Study Area Location Map

Vaughan City Wide Streetscape Implementation Manual and Financial Strategy



Intensification Areas

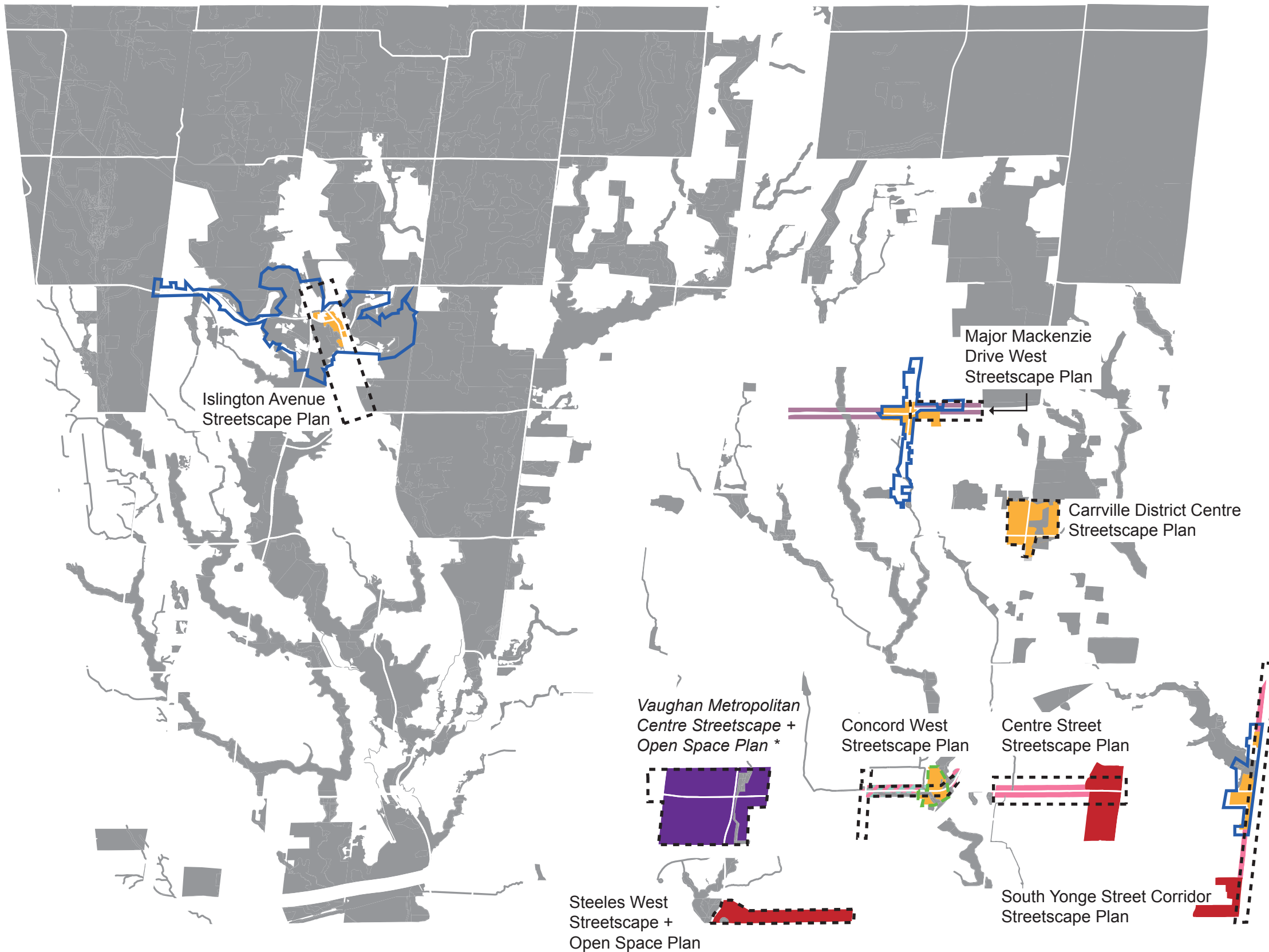
- Vaughan Metropolitan Centre (Regional Centre)
- Primary Centres
- Local Centres
- Regional Intensification Corridors
- Regional Intensification Corridors within Employment Areas
- Primary Intensification Corridors
- Primary Intensification Corridors within Employment Areas

Heritage Conservation Districts



Costed Streetscape Plans Location Map

Vaughan City Wide
Streetscape Implementation Manual
and Financial Strategy



Streetscape Plan Study Areas



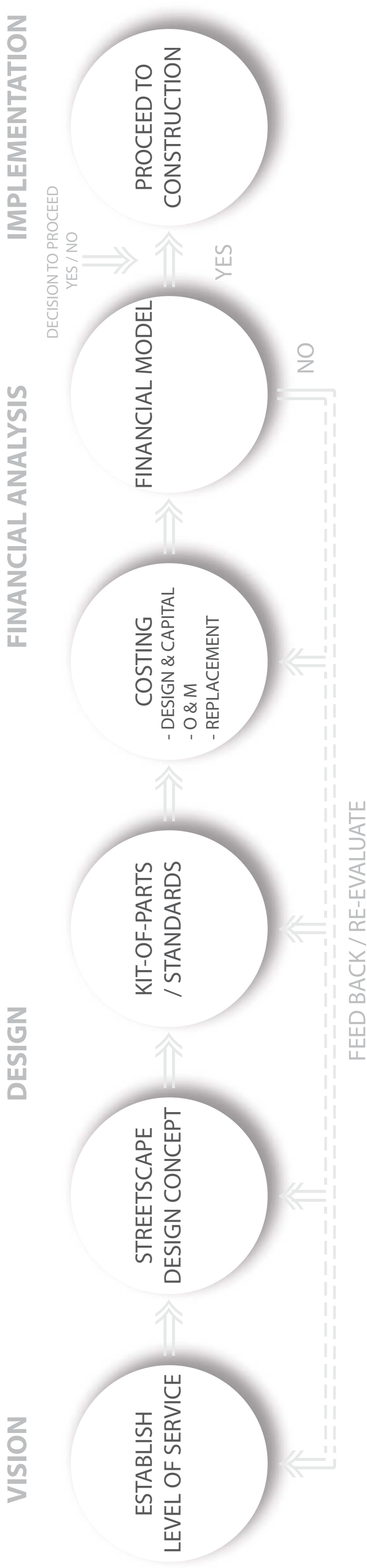
Intensification Areas

-  Vaughan Metropolitan Centre (Regional Centre)
-  Primary Centres
-  Local Centres
-  Regional Intensification Corridors
-  Regional Intensification Corridors within Employment Areas
-  Primary Intensification Corridors
-  Primary Intensification Corridors within Employment Areas

Heritage Conservation Districts



CONCEPTUAL FRAMEWORK PLAN (draft)



<ul style="list-style-type: none">- Identify Type of Place<ul style="list-style-type: none">- Economic Development- Character- Mobility Hub- Intensification Area- Establish General Streetscape Structure and Rhythm- Establish Components<ul style="list-style-type: none">- Scale of Components- Quantities of Components	<ul style="list-style-type: none">- Establish Capital Assumptions and Costs	<ul style="list-style-type: none">- Establish Life Cycle Costing and 10 Year Financial Commitments	<ul style="list-style-type: none">- Construction Implementation<ul style="list-style-type: none">- Phasing- Construction- Responsibilities
<ul style="list-style-type: none">- Establish Quality of Place<ul style="list-style-type: none">- Comfort- Access- Safety- Interest / Amenities- Streetscape Component Preferences<ul style="list-style-type: none">- Must Have- Nice to Have- Optional- Not Applicable- Streetscape Component Breakdown<ul style="list-style-type: none">- Continuity Strip Zone- Amenity Zone- Pedestrian Clearway Zone- Frontage Zone- Median Zone- Crosswalk Zone- Illumination Elements	<ul style="list-style-type: none">- Establish Operation and Maintenance Assumptions and Costs- Replacement Cost	<ul style="list-style-type: none">- Compare Financial Commitments of Levels of Service- Compare Financial Commitments to that of other Intensification Projects- Identify Cumulative Financial Effects	<ul style="list-style-type: none">- Financial Implementation<ul style="list-style-type: none">- Funding Scenarios- Cost Allocations- Responsibilities
<ul style="list-style-type: none">- Qualitative Level of Service Criteria	<ul style="list-style-type: none">- Streetscape Component Preference Chart	<ul style="list-style-type: none">- Streetscape Cross-Sections- Streetscape Component Breakdown	<ul style="list-style-type: none">- Streetscape Component Breakdown Capital and Maintenance Cost Assumptions
<ul style="list-style-type: none">- Outputs:<ul style="list-style-type: none">- Basic Level of Service- Enhanced Level of Service- Premium Level of Service	<ul style="list-style-type: none">- Outputs:<ul style="list-style-type: none">- Design of Streetscape- Priorities for Streetscape Components	<ul style="list-style-type: none">- Outputs:<ul style="list-style-type: none">- "Kit of Parts" for Streetscape Design- Quantities of Designed Streetscape Components	<ul style="list-style-type: none">- Outputs:<ul style="list-style-type: none">- Construction and Financial Implementation Strategy

Attachment #3