

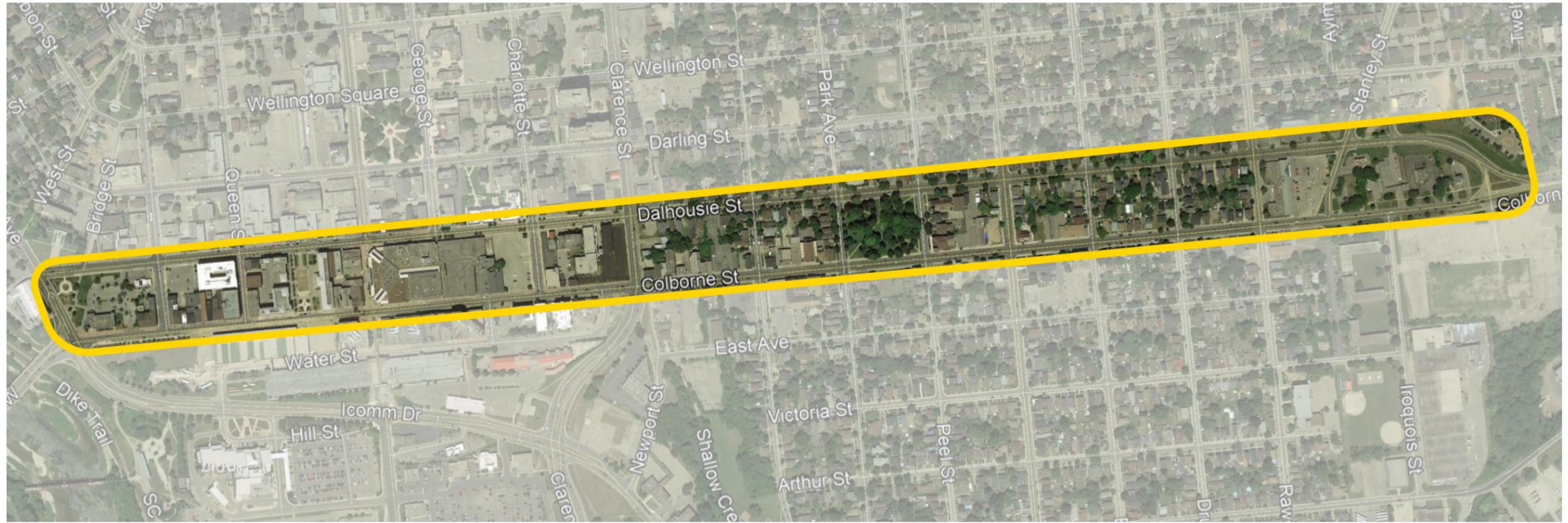
Downtown Brantford Streetscape Class Environmental Assessment (EA)

Public Information Centre #3

April 7, 2022



Study Area and Scope



Study area includes:

- Colborne Street and Dalhousie Street from Brant Avenue and Icomm Drive to the east limit where Colborne Street and Dalhousie meet.
- North/South streets between Colborne Street and Dalhousie Street including Brant Avenue, King Street, Queen Street, Market Street, Charlotte Street, and Clarence Street.

The project includes underground infrastructure and above-ground streetscaping improvement – road configuration, street furniture, plantings, etc.

Due to aging infrastructure in the Downtown area, capacity will be reviewed.

Infrastructure improvements include watermain, sanitary sewer, storm sewer, and replacement of all utilities.



Project Guiding Vision

Vision

Create a Downtown Brantford that is attractive, vibrant, and safe for all users while providing the infrastructure needed to handle growth in the City's core.

Make Downtown a destination place.

Enhance infrastructure for all transportation modes including pedestrians, cyclists, transit users.

Improve accessibility and safety in the core.

The Vision and Problem/Opportunity Statement were developed at the beginning of the project and act as reminders of the objective of the project as it moves along.

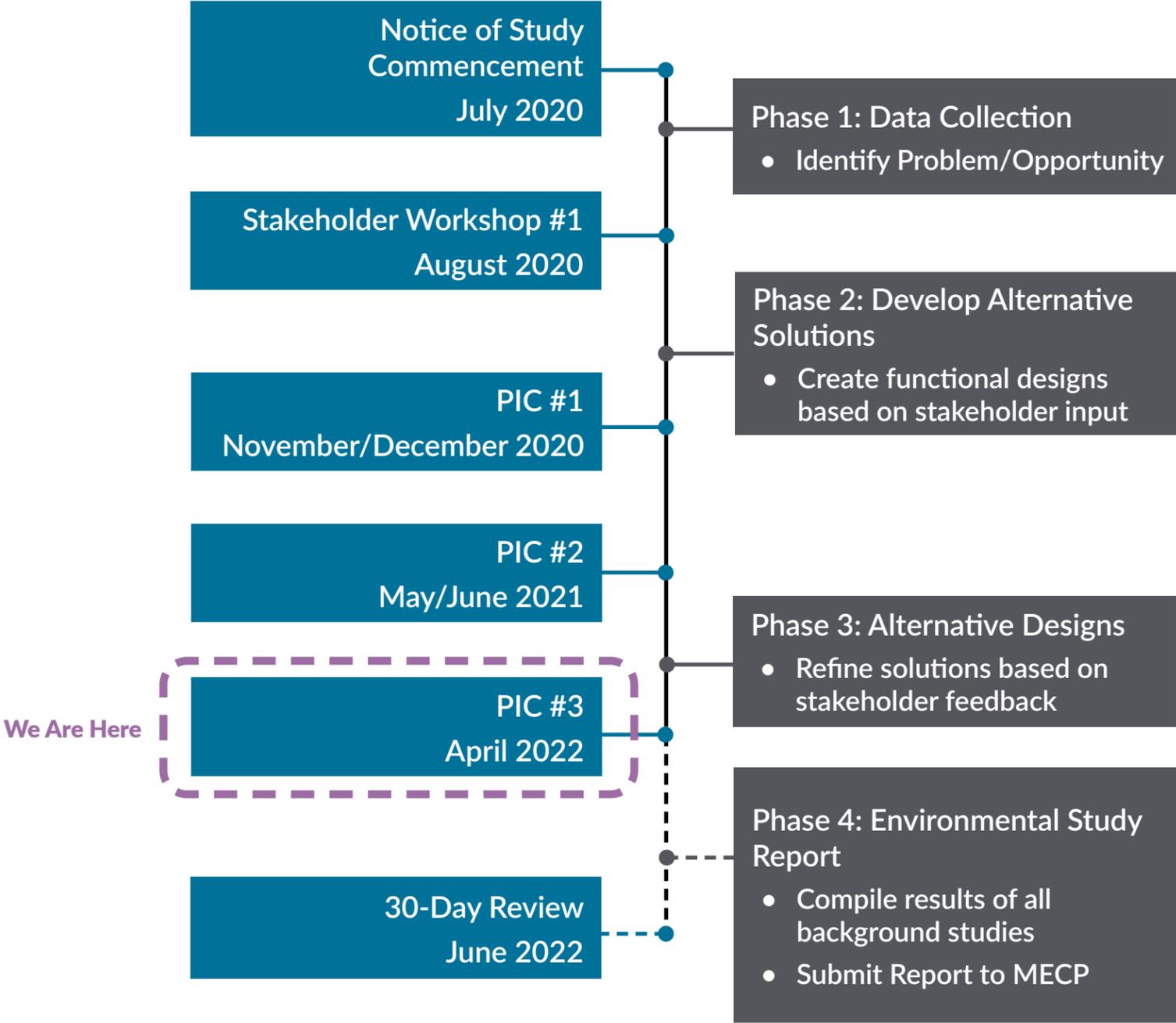
Problem/Opportunity Statement

Revitalize Brantford's core by improving infrastructure, accessibility, safety, and rebuilding an aesthetically beautiful and adaptable Downtown.



Class EA Planning & Design Process

Municipal Class Schedule 'C' Environmental Assessment Process

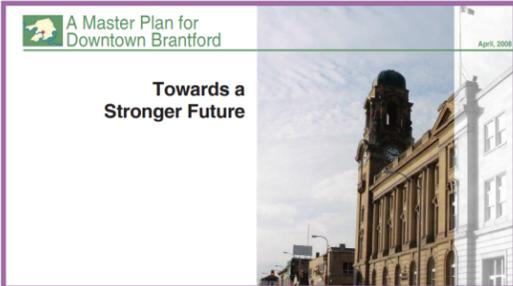


Previous Studies



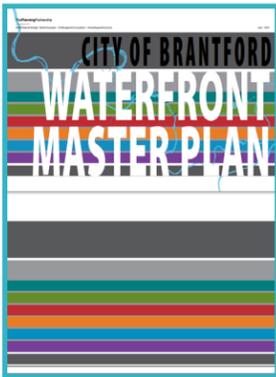
2008

Master Plan for
Downtown Brantford



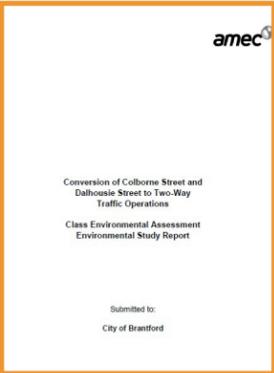
2010

Waterfront
Master Plan



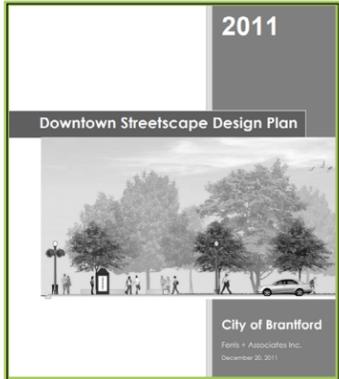
2010

Conversion of
Colborne Street and
Dalhousie Street
to Two-Way Traffic
Operations EA



2011

Downtown Streetscape
Design Plan



2021

Urban Design Manual
Transportation
Master Plan
Master Servicing
Plan
Official Plan



2022

Downtown
Brantford
Streetscape

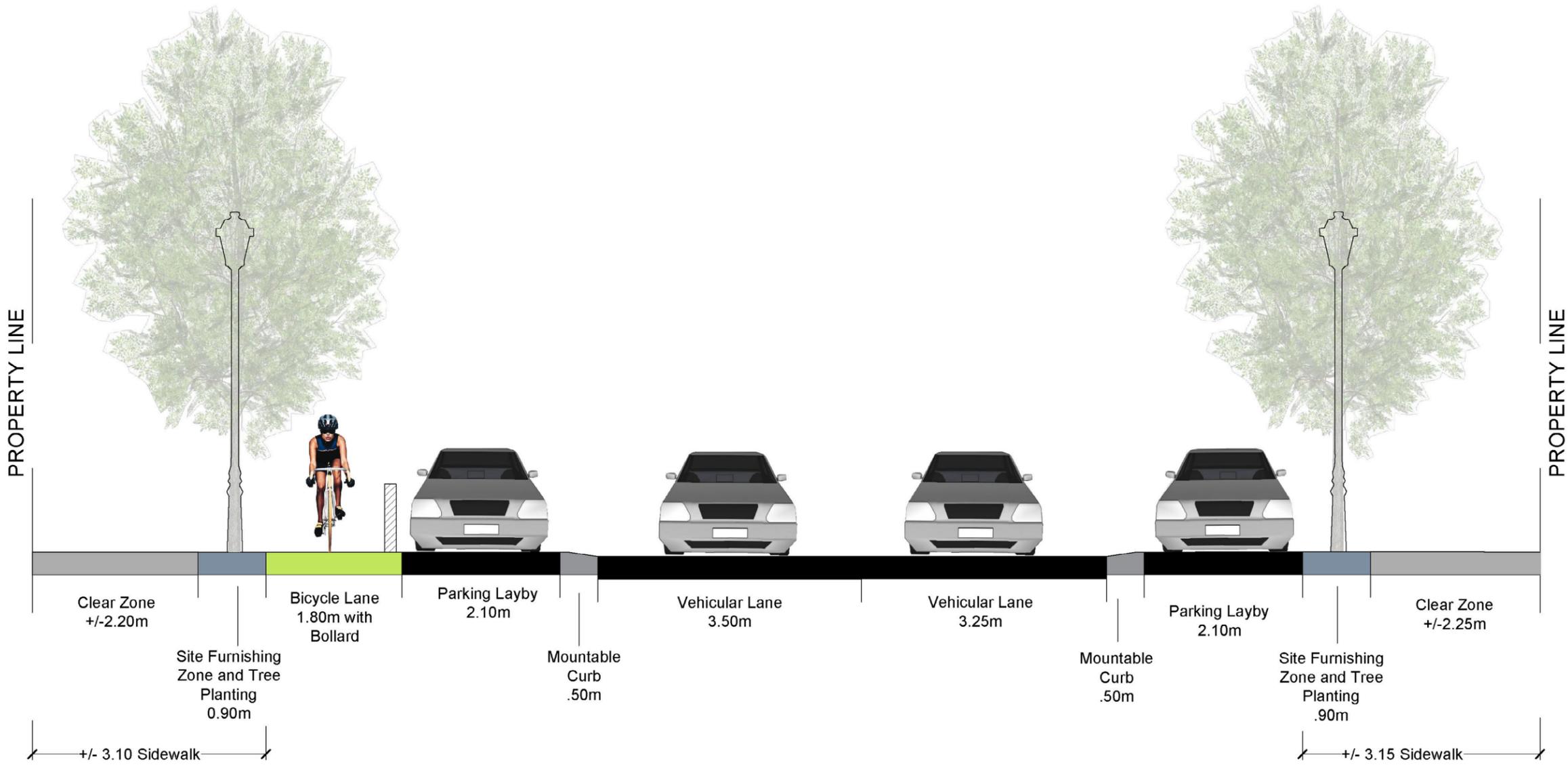


- Parking Study
- Transportation Study
- Wayfinding Strategy
- Natural Environment Study
- Lighting Study
- Phase 1 Environmental Site Assessment
- Stage 1 Archaeological Assessment
- Cultural Heritage Study



Preferred Alternative

One-Way Traffic, Parking Both Sides, Bike Lane



- 2.10m parking on both sides.
- 1.8m off-road cycle lane.
- Pedestrian clear zone maintained.
- 3.5m lane to allow for emergency and service vehicles.
- 3.25m lane - reduced width for traffic calming.



Preferred Alternative

One-Way Traffic, Parking Both Sides, Bike Lane



Reduced lane width will result in natural traffic calming

Parking needs are addressed

Will include bump outs for pedestrian crossings, curbside management and loading



Evaluation Criteria

Criteria

User Benefits

Other Benefits



Vision

Improved walkability through Downtown.
 Increased pedestrian capacity.
 Is a "People Place", streets are animated.

Necessary infrastructure improvements – all modes.
 Attractive, vibrant, unique.



Social Environment

Addresses curbside management issues.
 Accessibility is addressed for all users.
 Improved pedestrian and cycle facilities.
 Accommodation for public transit.
 Consideration for parking.

Minimal cultural heritage and archaeological impacts.
 Improves natural environment.
 Contributes to improved quality of life and public health.
 Addresses climate change.



Safety

Feeling of comfort and safety.
 Street-level activity encouraged.
 Roads and sidewalks are safe and accessible for all users.

Reduction in vehicular accidents overall.
 Encouraging safe use of sidewalks and roads under all conditions.
 Safer pedestrian crossings – shorter crossing distances, dedicated crossings.



Traffic Operations

Sufficient level of service.
 Minimizing traffic disruption from loading/unloading.

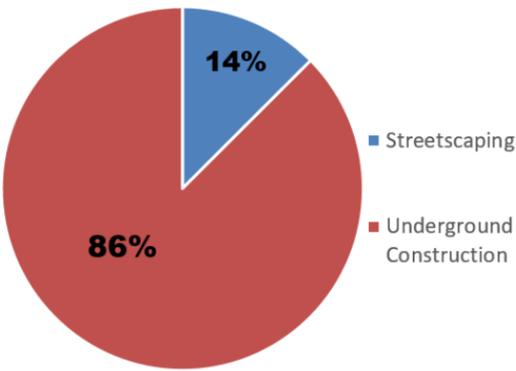
Integrated transportation network.
 Minimize need for widening.
 Encourages decrease in single-occupant vehicle travel.



Costs

Minimal property impacts.

Construction Cost Breakdown



Capital construction costs.
 Consideration for long-term maintenance costs.
 Constructability – disruption during construction.

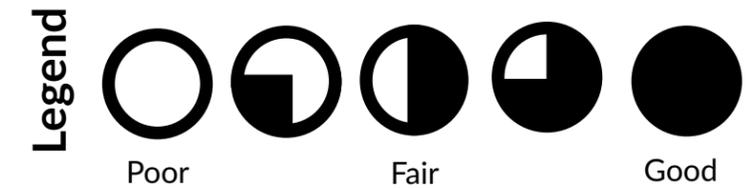


Evaluation Summary

Evaluation Criteria	Alternative 1: Do Nothing: Reinstate with Reduced Lane Widths	Alternative 2: Parking on One Side, Bike Lane	Preferred Alternative 3: Parking Both Sides, Bike Lane	Alternative 4: One Traffic Lane, Parking Both Sides, Bike Lane	Alternative 5: Parking Both Sides, On-Road Bike Lane
	Vision				
Social Environment					
Traffic Operations					
Safety					
Cost					
Preferred					



Alternative 1: Do Nothing - Reinstate with Reduced Lane Widths



Evaluation



Underground infrastructure improvements are made, but restoration will reflect the existing conditions.

No streetscaping elements will be improved, and will be reinstated with standard sidewalk, curb and asphalt.

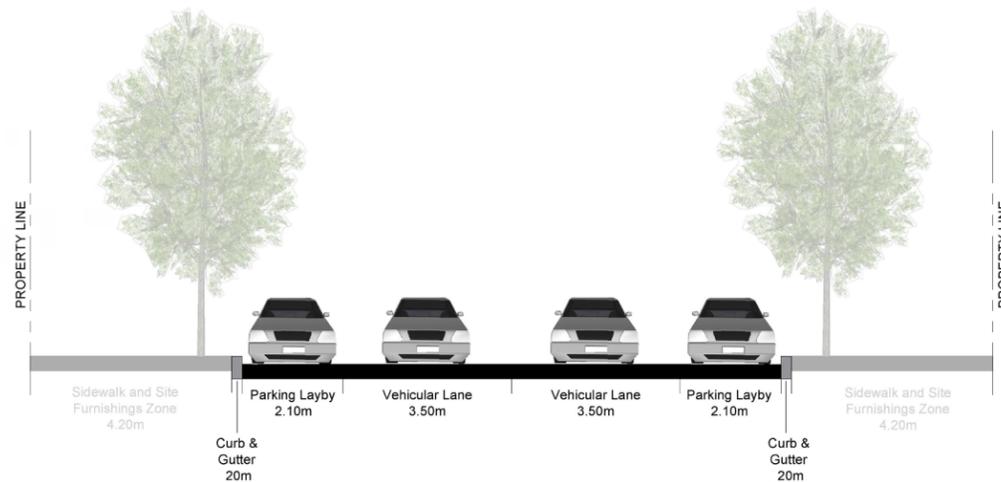
Vision: Does not contribute to enhancing the streetscape and does not meet the City's vision for creating a Downtown destination.

Social Environment: Does not contribute to enhancing the streetscape and does not meet the City's vision for creating a Downtown destination.

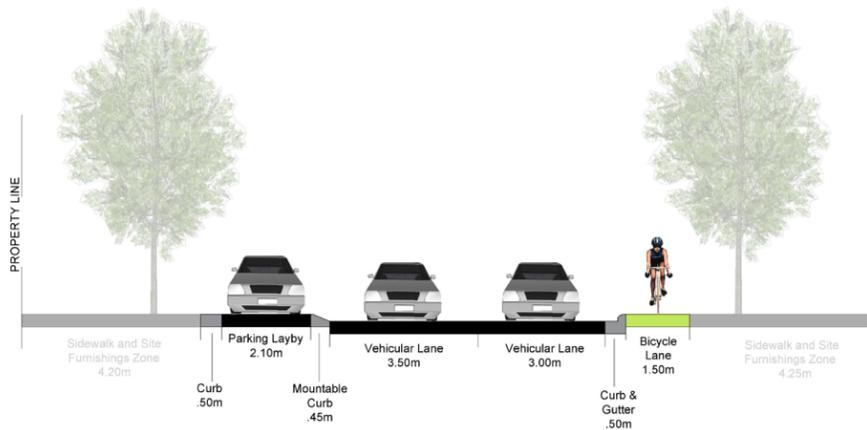
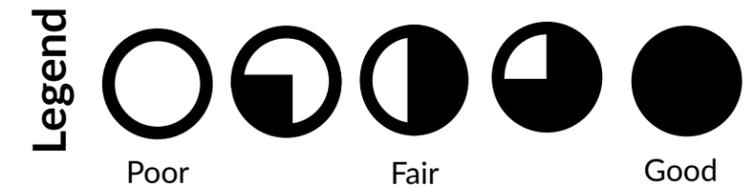
Traffic Operations: Reinstating existing conditions will have no impact to current traffic operation. With current traffic configuration, capacity and traffic operation are not a significant concern given future traffic projections.

Safety: Will include reduced lane widths, which will act as natural traffic calming through downtown. No improvements to pedestrian or cyclist safety.

Cost: Will be the lowest cost alternative, as no streetscaping features will be included. Cost breakdown shows that approximately 86% of overall construction-related costs will be associated with the replacement of underground infrastructure.



Alternative 2: Parking on One Side, Bike Lane



Includes underground infrastructure improvements, as well as streetscaping. Two lanes of traffic, with parking on one side and dedicated cycling facility on the other.

Low profile curb combined with level surface for pedestrian, cycling and parking allows for greater street flexibility.

Vision: This alternative is in-line with the overall vision. Provides dedicated cycling facility and addresses active transportation improvements. Outdoor space for businesses is increased from existing, improving the walkability of Downtown. Provides a flexible streetscape that can adapt with shifting demands.

Social Environment: Greater amount of space for street trees, improving natural environment, maintains parking on one side. Parking is limited to one side of the road. Stakeholder engagement reflected importance of on-street parking, and desire to maintain parking on both sides.

Traffic Operations: Two lanes of one-way traffic will have capacity under current traffic forecasting. Curbside management, loading, and emergency vehicles can use one lane as required, allowing traffic to flow around.

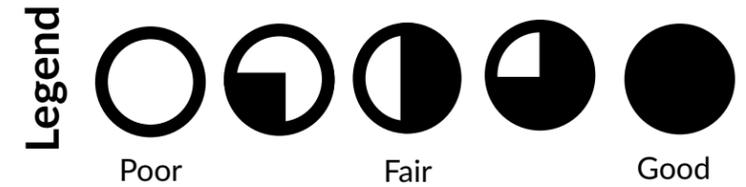
Safety: High level of cyclist safety as bike lanes are fully protected. Parking is also separated. Bump outs for pedestrian crossing will be included. Narrow traffic lanes act as natural traffic calming and reduced speed through downtown.

Cost: Includes cost of underground infrastructure as well as streetscaping alternatives. The streetscaping will require additional maintenance effort from City staff. Underground infrastructure cost makes up the majority of the overall project cost.

Evaluation



Alternative 3 (Preferred): Parking Both Sides, Bike Lanes



Evaluation



Includes underground infrastructure improvements, as well as streetscaping. Two lanes of traffic, with parking on both sides, as well as dedicated cycling facility.

Low profile curb combined with level surface for pedestrian, cycling and parking allows for greater street flexibility.

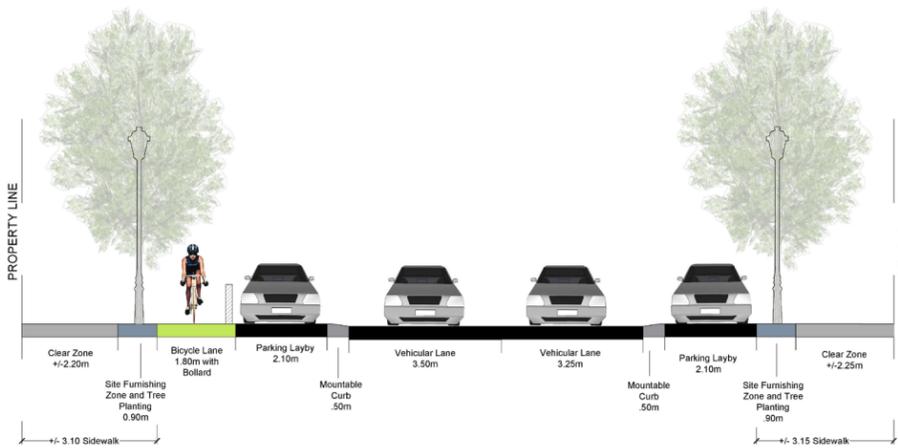
Vision: This alternative is in-line with the overall vision. Provides dedicated cycling facility addressing active transportation needs. Outdoor space for businesses is not increased from current conditions. Provides a flexible streetscape that can adapt with shifting demands.

Social Environment: Allows for space for street furnishing and street trees, improving natural environment. Maintains parking on both sides of the road. Stakeholder engagement reflected importance of on-street parking, and desire to maintain parking on both sides.

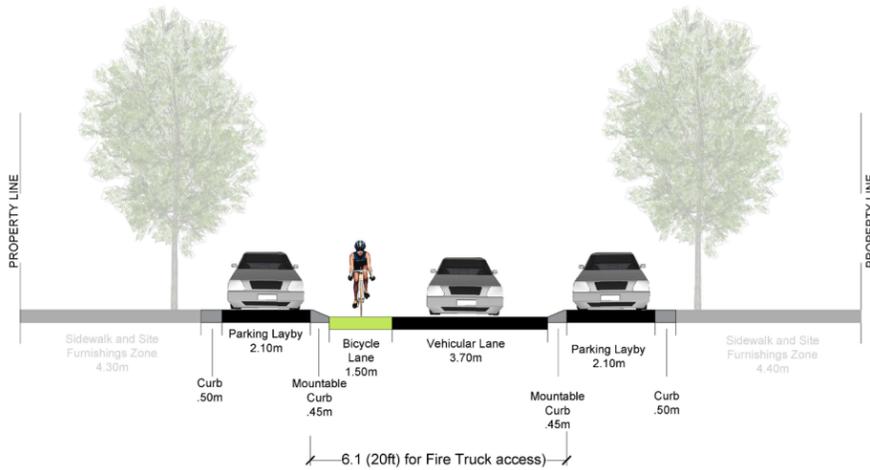
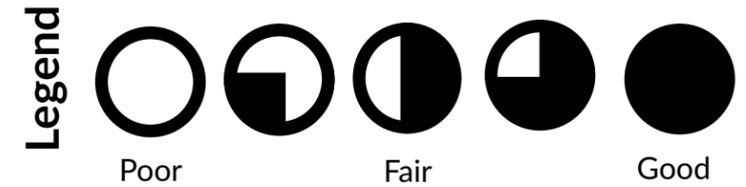
Traffic Operations: Two lanes of one-way traffic will have capacity under current traffic forecasting. Curbside management, loading, and emergency vehicles can use one lane as required, allowing traffic to flow around.

Safety: High level of cyclist safety as bike lanes are fully protected. Parking is also separated. Bump outs for pedestrian crossing will be included. Narrow traffic lanes act as natural traffic calming and reduced speed through Downtown.

Cost: Includes cost of underground infrastructure as well as streetscaping alternatives. The streetscaping will require additional maintenance effort from City staff. Underground infrastructure cost makes up the majority of the overall project.



Alternative 4: One Traffic Lane, Parking Both Sides, Bike Lane



Includes underground infrastructure improvements, as well as streetscaping. One lane of traffic, with parking on both sides, as well as dedicated cycling facility. Low profile curb combined with level surface for pedestrian, cycling and parking allows for greater street flexibility.

Vision: Does not adequately address the overall vision. Provides dedicated cycling facility addressing active transportation needs. Outdoor space for businesses is increased from current conditions. Provides a flexible streetscape that can adapt with shifting demands. Does not address the needs of all forms of transportation.

Social Environment: Allows for space for street furnishing and street trees, improving natural environment. Maintains parking on both sides of the road. Stakeholder engagement reflected importance of on-street parking, and desire to maintain parking on both sides.

Traffic Operations: One lane of traffic will greatly reduce the capacity of the roadway. Any disturbance from garbage collection, loading, emergency vehicles will be detrimental to traffic flow.

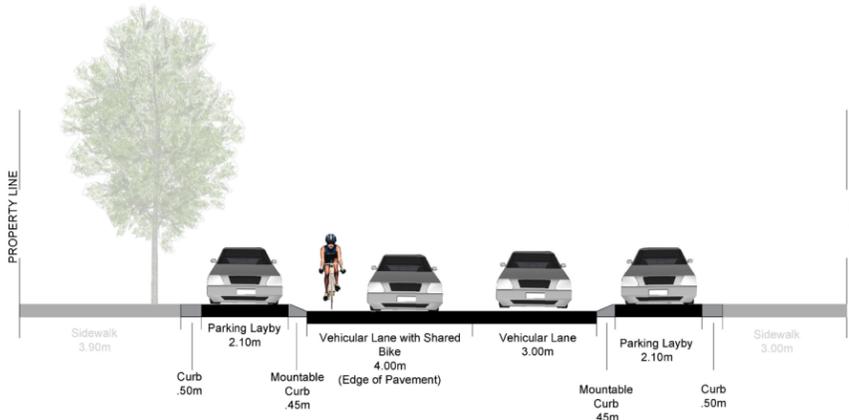
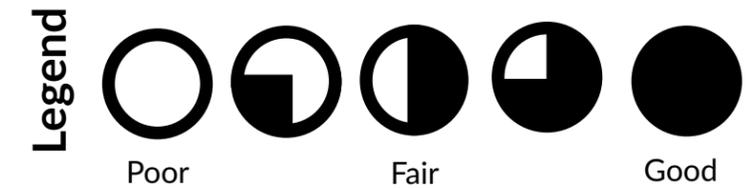
Safety: Lower level of safety for cyclists as they will be on road in a dedicated lane, as opposed to a separated facility. Bump outs for pedestrian crossing will be included. Wider lane may not result in reduced speed.

Cost: Includes cost of underground infrastructure as well as streetscaping alternatives. The streetscaping will require additional maintenance effort from City staff. Underground infrastructure cost makes up the majority of the overall project cost.

Evaluation



Alternative 5: Parking Both Sides, On-Road Bike Lanes



Includes underground infrastructure improvements, as well as streetscaping.
 Two lanes of traffic, with parking on both sides.
 Bike lane on road (either marked or sharrowed)

Vision: Does not adequately address the overall vision. Cycle lanes are provided, addressing active transportation needs. Outdoor space for businesses is not increased from current conditions. Provides a flexible streetscape that can adapt with shifting demands. Does not address the needs of all forms of transportation.

Social Environment: Allows for space for street furnishing and street trees, improving natural environment. Maintains parking on both sides of the road. Stakeholder engagement reflected importance of on-street parking, and desire to maintain parking on both sides.

Traffic Operations: Two lanes of one-way traffic will have capacity under current traffic forecasting. Curbside management, loading, and emergency vehicles can use one lane as required, allowing traffic to flow around.

Safety: Lower level of safety for cyclists as they will be on road, as opposed to a separated facility. Bump outs for pedestrian crossing will be included. Wider lane may not result in reduced speed.

Cost: Includes cost of underground infrastructure as well as streetscaping alternatives. The streetscaping will require additional maintenance effort from City staff. Underground infrastructure cost makes up the majority of the overall project cost.

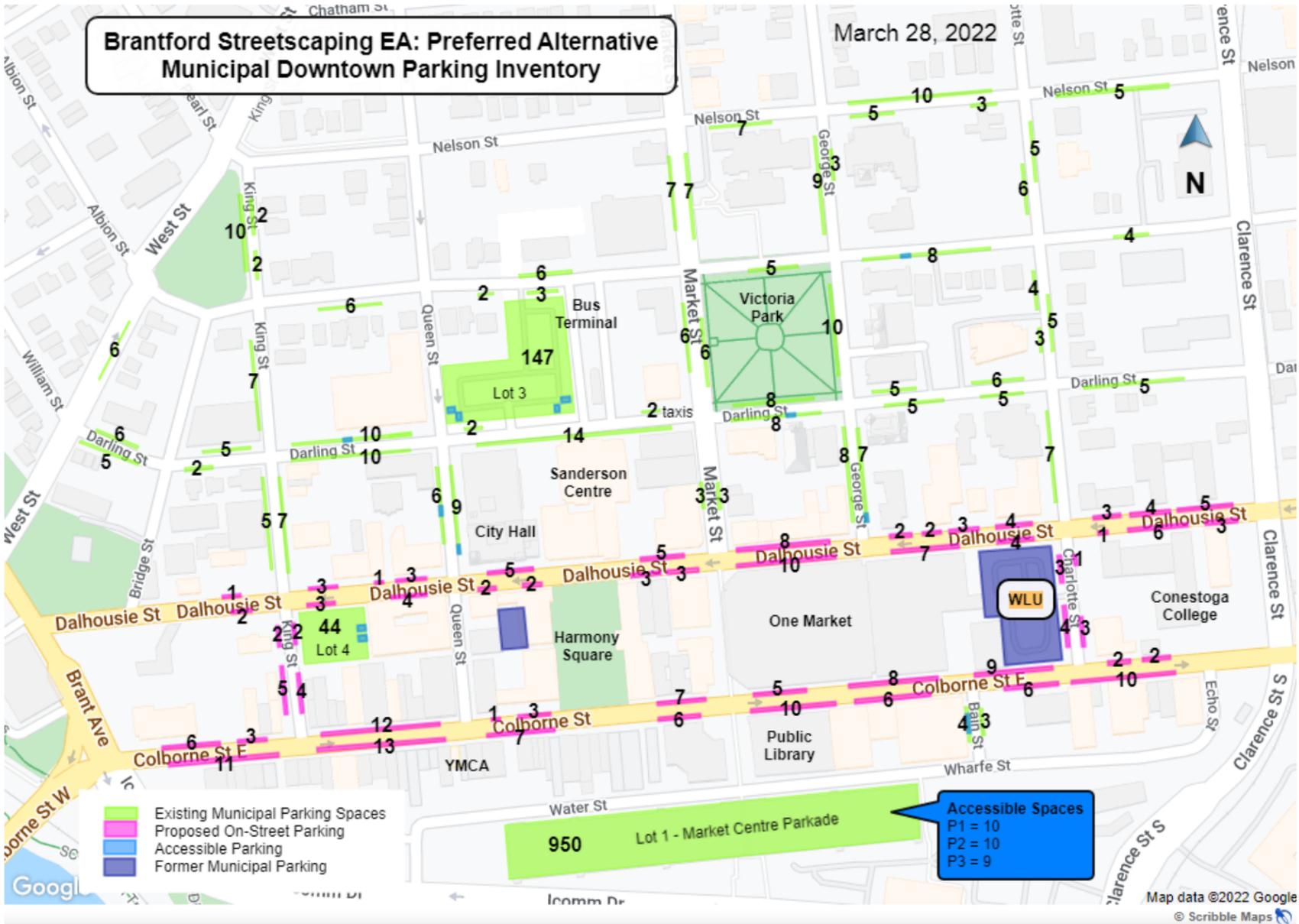


Evaluation



Key Environmental Assessment Issues

Public Parking Spaces



On-Street Parking Spaces (West of Clarence Street)

Area	No. of Spaces
Colborne Street	125
Dalhousie Street	99
Immediate Side Streets	24
Sub-Total	248
Spaces North of Dalhousie Street	317
Total On-Street	565

Off-Street Parking Spaces

Area	No. of Spaces
Lot 1 Market Centre Parkade	950
Lot 3 (Darling and Queen)	147
Lot 4 (Dalhousie and King)	44
Total Off-Street	1,141

Grand Total Public Spaces
1,706

Through detailed design, amount of on-street parking to be maintained wherever feasible.

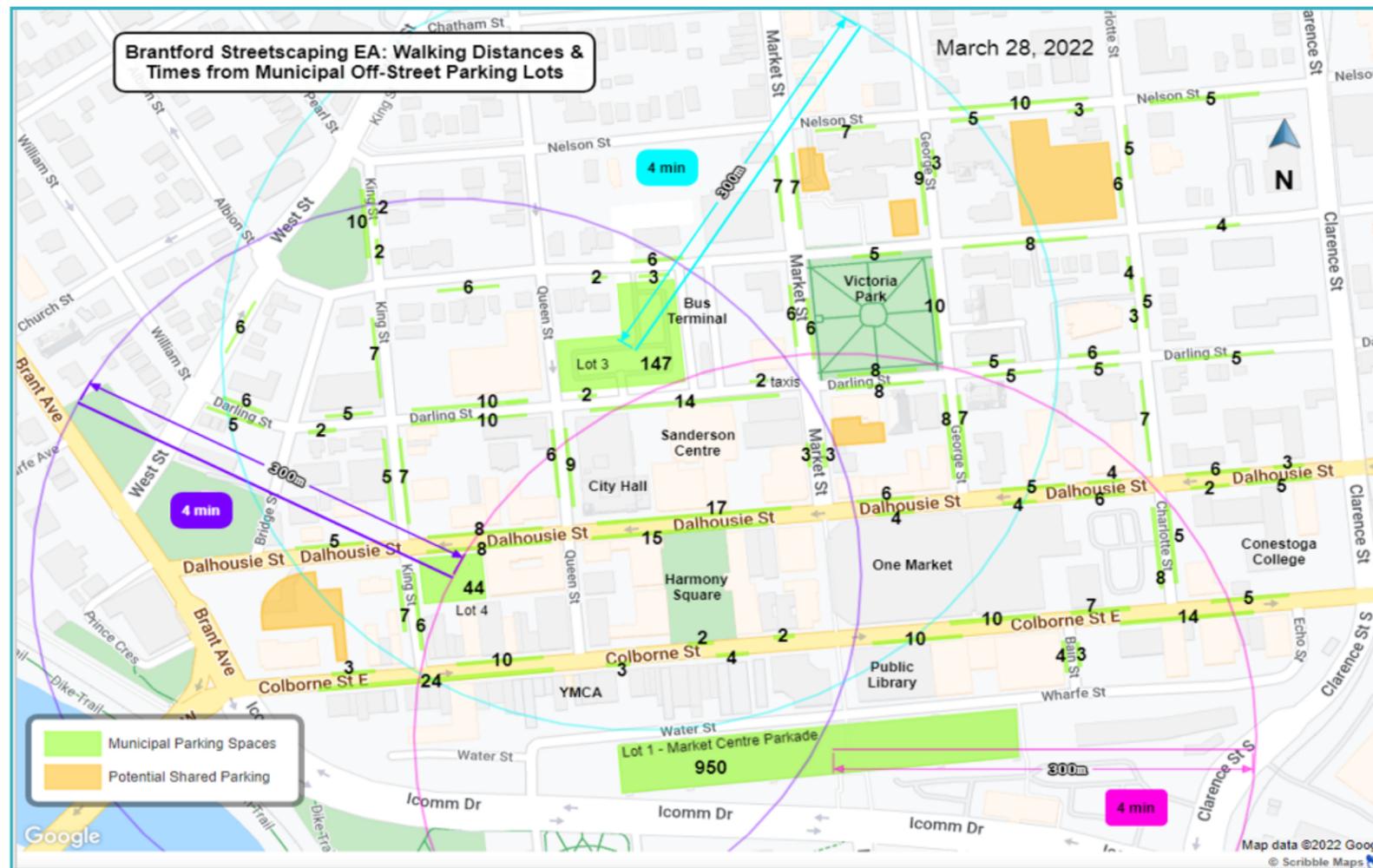
Overall there is no deficiency of parking in Downtown core.



Wayfinding

Important that people visiting the Downtown find it straightforward and intuitive to navigate.

This will be done through increased signage that is well placed.



Almost all of Downtown is reachable within a four-minute walk from the existing parking lots



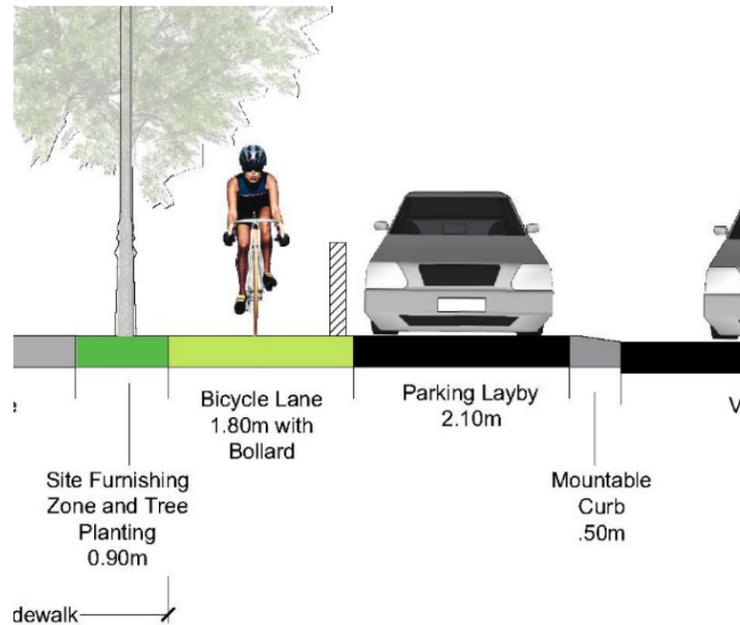
Key Environmental Assessment Issues

Bike Lanes/ Connectivity

Bike lanes along Dalhousie and Colborne Streets were identified within the Transportation Master Plan to connect cyclists east to west through the downtown.

1.8m wide lane with bollards, one lane on each street following direction of vehicular traffic, have been provided within the preferred alternative cross section.

Bike lanes connection at Brant Avenue - trail network along river.



Accessibility

Additional crossings with accessible pedestrian signals with auditory, visual and tactile information.

Paving material for sidewalks will be predominately concrete, providing a clear and even accessible route through the corridor.

Site furnishings to have accessible features, such as benches with end and mid arms.

Site furnishing zone/strip that provides a visual and tactile cue, signaling that the pedestrian is entering into bicycle and vehicular zones.



Tree Plantings/ Landscaping

Use of soil cells beneath sidewalks:

- Proper soil volumes to provide a health growing environment for trees – increased longevity.
- Can be used for storm water retention and infiltration, reducing impacts to surrounding stormwater infrastructure (LID).
- Provides increased tree canopy within the downtown .

Site Furniture Zone – organizes streetscape elements, such as planters, bike racks, seating, lighting, signage, etc., outside of the pedestrian clear zone.

Additional greening opportunities with the use of hanging baskets, hung from light standards.



Market Street & Queen Street Key Areas



Constraints

Market Street and Queen Street are City-owned right of ways, with businesses and residents requiring access. Through traffic can be eliminated if access is limited to either Colborne or Dalhousie.

Minimum of 6.0m wide path for emergency vehicles would be required.

Plans for Market Street & Queen Street

Woonerf, pedestrian-focused style of street:

- Low traffic volumes
- No curbs
- Surface texture to delineate areas of use
- Tree plantings



Argyle Grafton, Halifax



Bell Street, Seattle



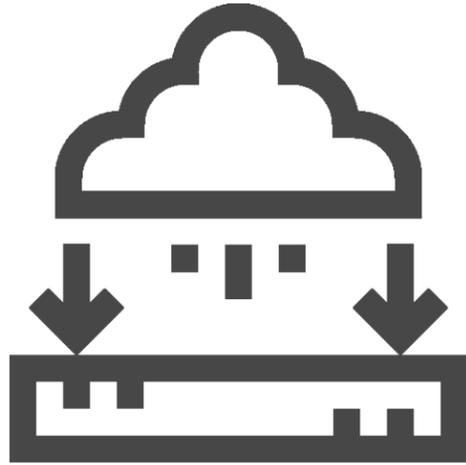
Park Lane, Kirkland, WA

Downtown Brantford Streetscape | April 2022



Addressing Climate Change

Ways Climate Change is Being Addressed



Consideration for permeable pavers in parking laybys, infiltrate runoff



Improvements to stormwater collection system



Introduction of bike lanes and improved accessibility to encourage active transportation



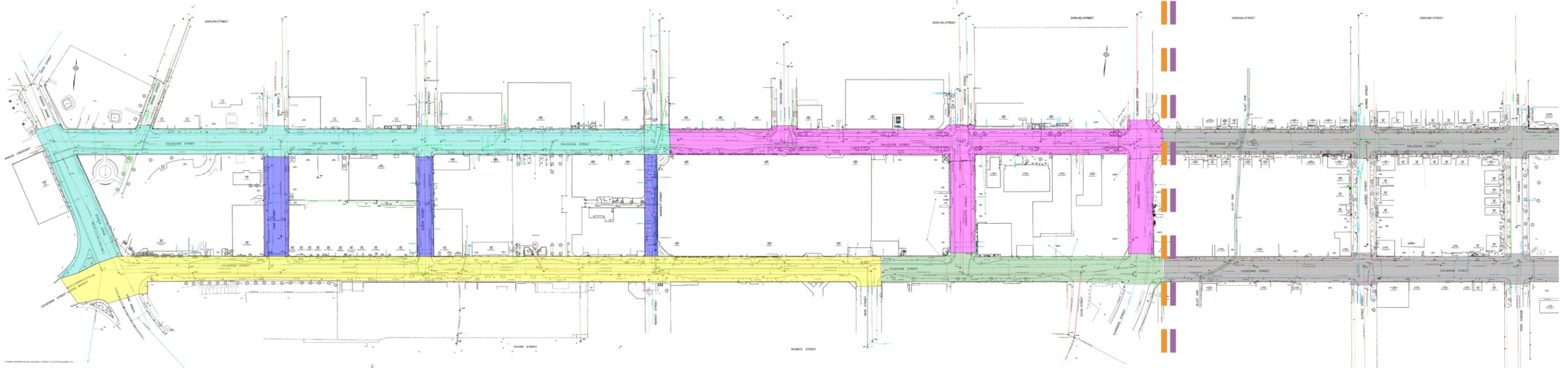
Introduction of more street trees, improved air quality from carbon sequestration



Construction Planning and Staging

Years 1-5

Years 5-10



Phase 1 of Construction:

Colborne Street and Dalhousie Street (Brant Avenue to Clarence Street).

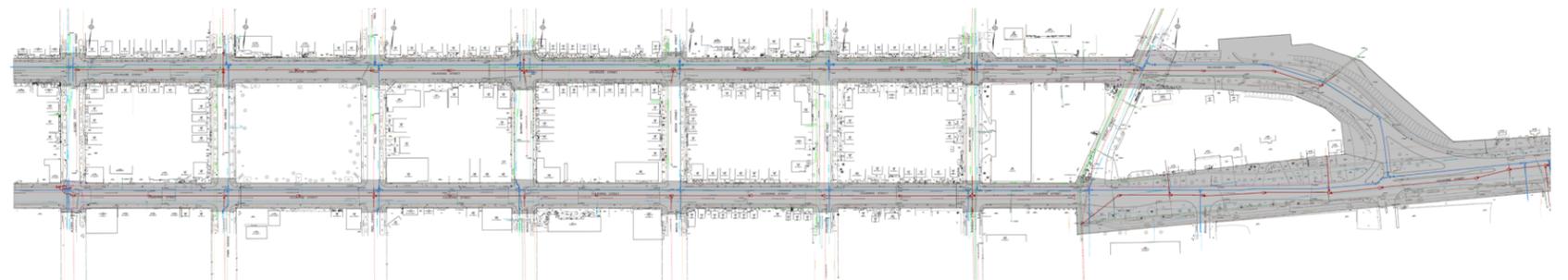
To be phased over 4-5 years of construction.

Phase 2 of Construction:

Colborne Street and Dalhousie Street (East of Clarence Street).

Will be the focus in years 5-10.

Years 5-10



Example – Downtown Kitchener

Before

Downtown Kitchener was used by drivers as a through street to get across the City.

Was not pedestrian friendly, accessible.



After

Narrower lanes were introduced, dramatically slowing traffic.

Introduced flexible parking. Spaces used for parking or patio depending on business preference.



Example – Downtown Guelph

Before

Wide lanes.
Narrow sidewalks.



After

Lane widths reduced, increased pedestrian/patio space.
On-street parking differentiated.



Example – Downtown Stratford

Before

Not pedestrian friendly.

High vacancy rate near project area.



After

Lane widths reduced, increased pedestrian/patio space.

On-street parking differentiated.



Questions, Comments & Next Steps

Comment Period

April 4, 2022: Presentation slides posted

April 21, 2022: Question and Comment Period open for two weeks

April 28, 2022: Q/A document posted

Confirm Preferred Alternative

Prepare Preliminary (30%) Design

Finalize and File Project Report for Public Review

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www.LetsTalkBrantford.ca/Downtown

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