

# **ByWard Market – Sandy Hill Neighbourhood Bikeway**

Public Engagement - April 2022



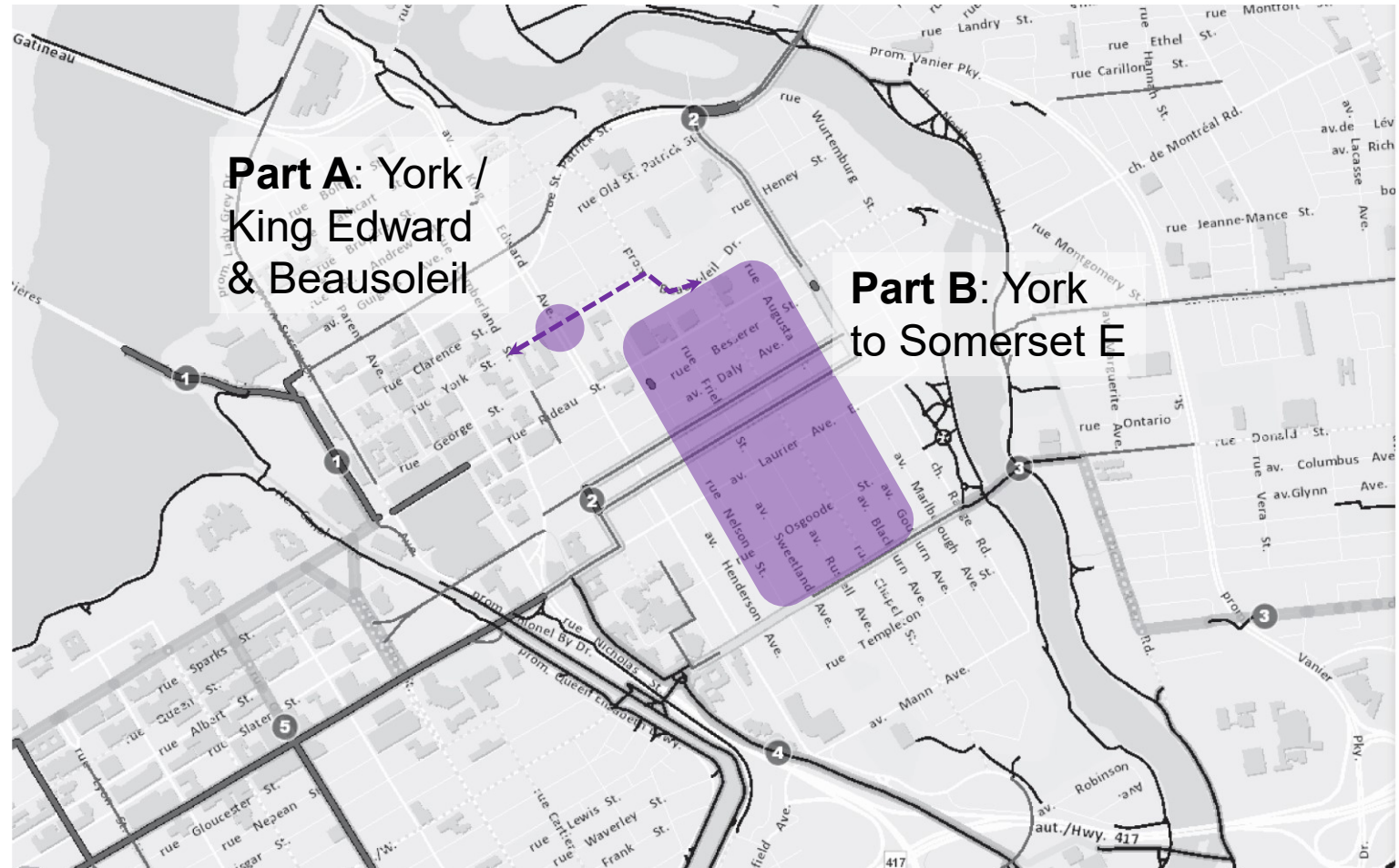
# Introduction

*Note: This project is funded through special “Section 37” funds related to the 151 and 153 Chapel Street development project*



## Project Study Area

- Study consists of two segments
  - York St and Beausoleil Dr. including the King Edward Avenue intersection
  - York St. to Somerset St. E
- Over 1.5 km Neighbourhood Bikeway connection



(Source: GeoOttawa)

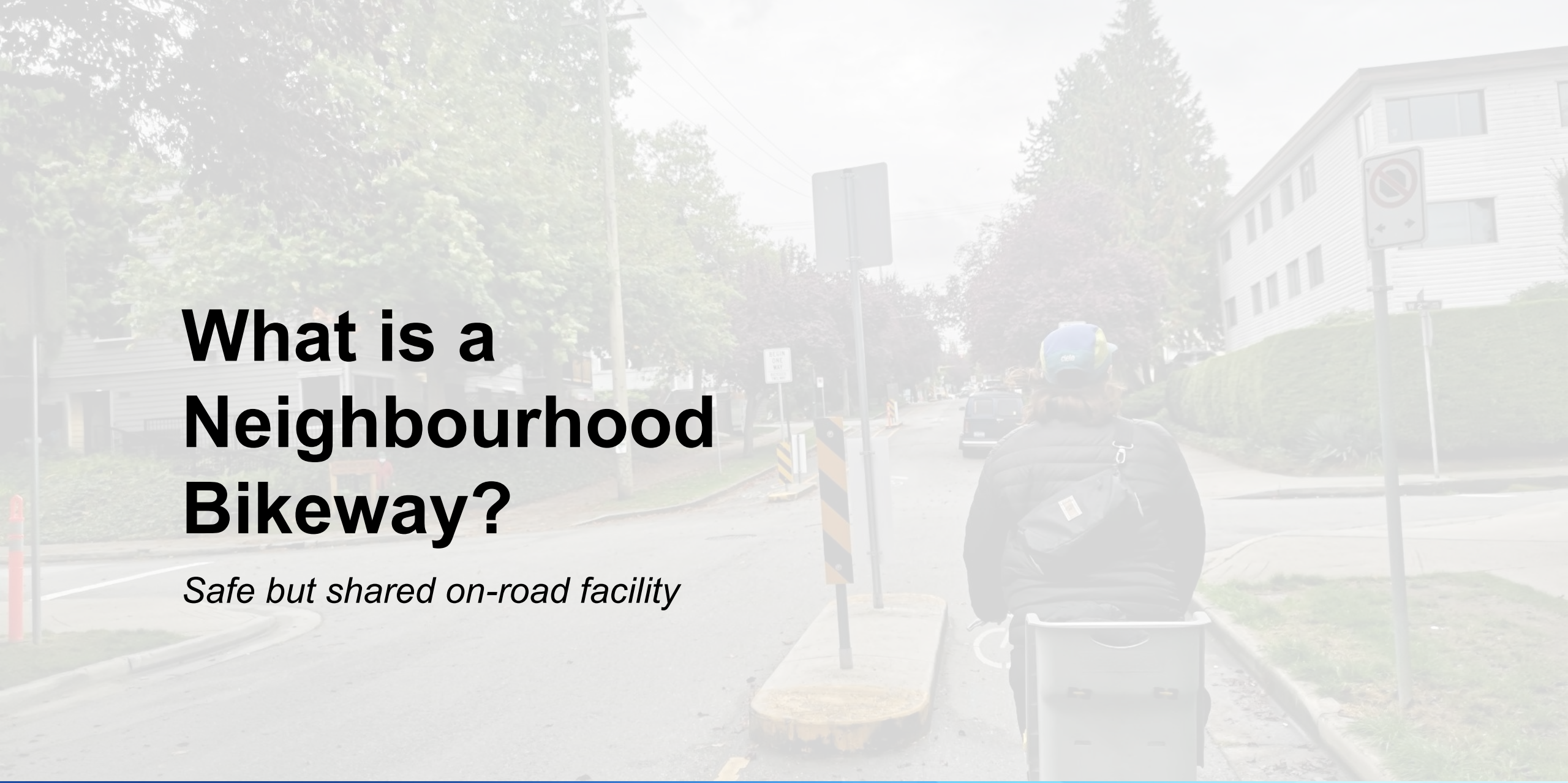
## Why Here?

- Neighborhood Bikeway connection in an area with high cycling rates, but poor connectivity
- Improve connectivity between:
  - ByWard Market / Lowertown and Sandy Hill
  - Cross-town Bikeways 2 (Cobourg/ Wilbrod / Stewart) and 3 (Somerset E)
- High cycling use on east-west corridors (based on Strava data)
- Expected untapped demand north-south through study area
  - Few alternate routes



(Source: Strava Global Heatmap)



A person wearing a blue and yellow helmet and a dark jacket is riding a bicycle away from the camera on a paved road. The road has a concrete curb on the right side. In the background, there are trees, a white building, and a 'No Left Turn' sign. The scene is slightly faded to make the text stand out.

# What is a Neighbourhood Bikeway?

*Safe but shared on-road facility*



## Neighbourhood Bikeways...

- Are low-volume, low-speed streets
- Prioritize bicycle travel using
  - Traffic calming
  - Traffic reduction
  - Signage & pavement markings
  - Intersection crossing treatments
- Encourage through movements for people on bikes while discouraging/eliminating through trips by motorized traffic



Portland, OR (source: Alta Planning + Design)



## Design Treatment Toolbox

- Design treatments come from the City's *Traffic Calming Design Guidelines* and the *Local Residential Streets 30 km/h Design Toolbox* and examples from North America and Europe
- A few key treatments are highlighted on the following slides



## TRAFFIC CALMING DESIGN GUIDELINES



City of Ottawa  
Transportation Services Department  
Area Traffic Management Branch

April 2019

ottawa.ca  3-1-1  
TTY/ATS 613-580-2401

## Speed Reduction Bulb-outs / Curb Extensions

- Narrows crossing distance for pedestrians at crossings
- Prevents parking close to intersections
- Reduces vehicle speeds
- Some already exist along corridor



Spencer Ave. and Huron Ave., Ottawa (source: Alta Planning + Design)



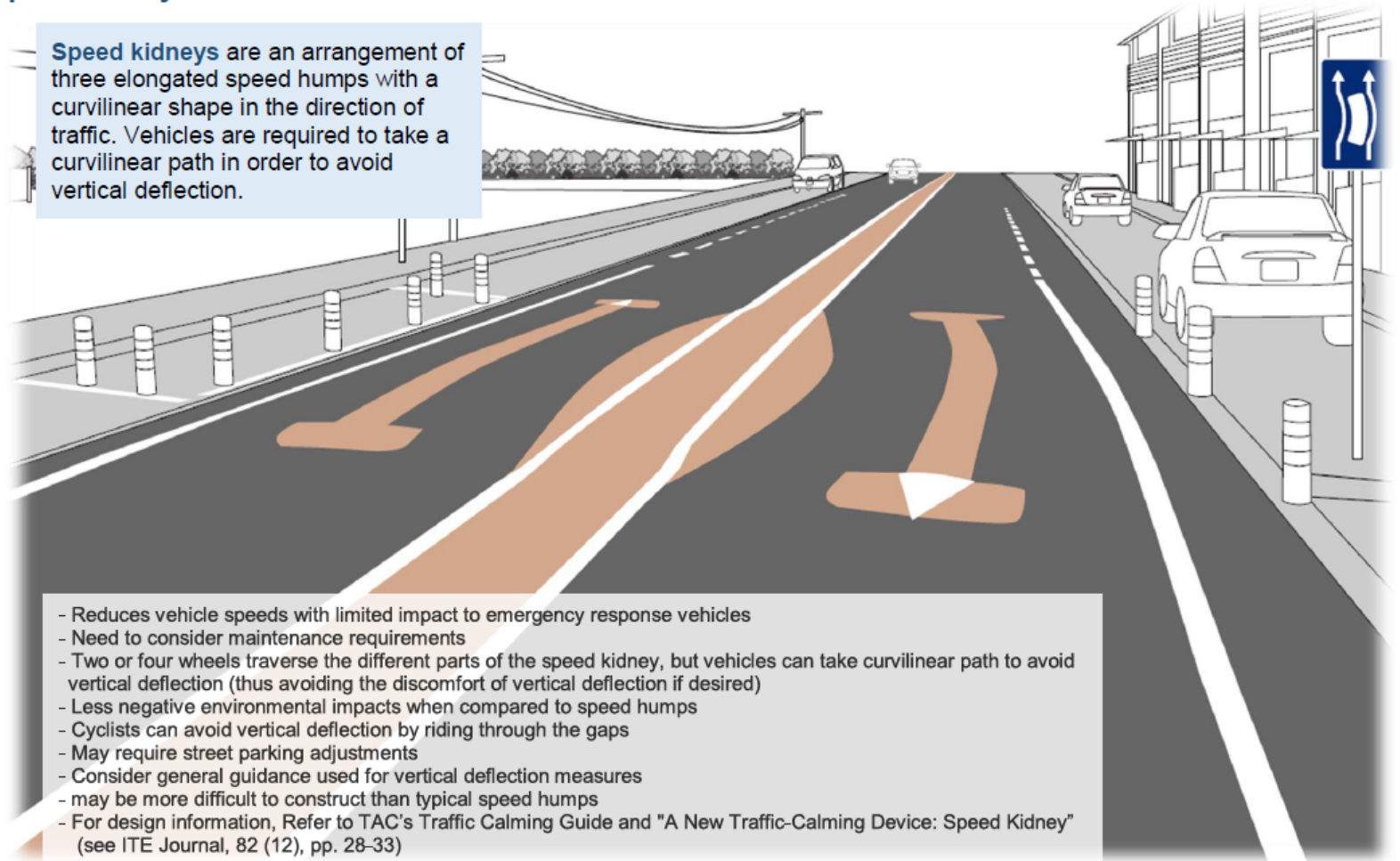
## Speed Reduction

### Speed Kidneys

- Forces motor vehicles to slow down to navigate raised features
- Manages vehicle speed
- Permits people cycling to avoid raised features
- Limited impact to emergency response vehicles

#### Speed Kidneys

Speed kidneys are an arrangement of three elongated speed humps with a curvilinear shape in the direction of traffic. Vehicles are required to take a curvilinear path in order to avoid vertical deflection.



- Reduces vehicle speeds with limited impact to emergency response vehicles
- Need to consider maintenance requirements
- Two or four wheels traverse the different parts of the speed kidney, but vehicles can take curvilinear path to avoid vertical deflection (thus avoiding the discomfort of vertical deflection if desired)
- Less negative environmental impacts when compared to speed humps
- Cyclists can avoid vertical deflection by riding through the gaps
- May require street parking adjustments
- Consider general guidance used for vertical deflection measures
- may be more difficult to construct than typical speed humps
- For design information, Refer to TAC's Traffic Calming Guide and "A New Traffic-Calming Device: Speed Kidney" (see ITE Journal, 82 (12), pp. 28-33)

City of Ottawa *Traffic Calming Design Guidelines*

## Speed Reduction Chicanes

- Forces motor vehicles to maneuver slowly
- Manages vehicle speeds
- Potential for additional vegetation along roadway
- May reduce on-street parking



Cambridge St., Ottawa, ON (Source: City of Ottawa)



# Example Features



Contraflow bike lane allows two-way cycling on one-way street

Speed hump manages vehicle speeds to match posted speed limit (30 km/h)

Shaw Street, Toronto, ON (source: Alta Planning + Design)



Signage and pavement markings to help wayfinding

Portland, OR (source: Alta Planning + Design)



## Volume Reduction Measures

### Vehicular Directional Closures

- Prevents vehicles from entering a road in one direction
- Manages vehicle volumes
- Permits people cycling to continue through



Cumberland St. and St. Andrew St., Ottawa (source: Alta Planning + Design)



# Example Features



Partial closure (one direction) manages car traffic volumes

Vancouver, BC (source: Alta Planning + Design)



Full closure prevents through movements for cars managing traffic volumes

Shaw Street, Toronto, ON (source: Alta Planning + Design)



# Example Features



Halifax, NS (source: Alta Planning + Design)



Fort Collins, CO (source: Alta Planning + Design)



## Bringing It All Together

- Several different measures will be brought together to create a continuous corridor that has low traffic volumes and speeds, and prioritizes people cycling

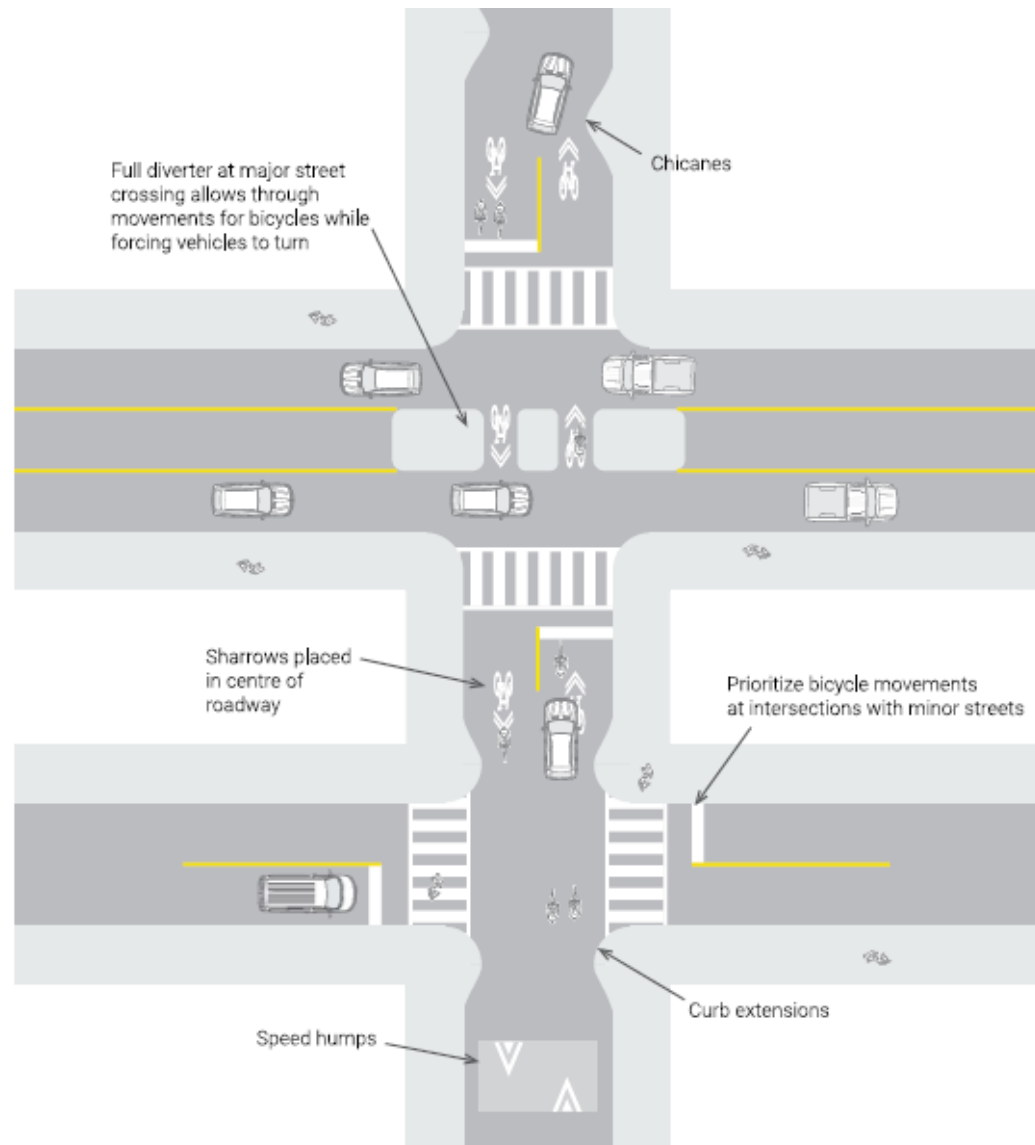


Figure 4.60 – Sample Design Elements on a Neighbourhood Bikeway

(Signs omitted for clarity)

Ontario Traffic Manual Book 18

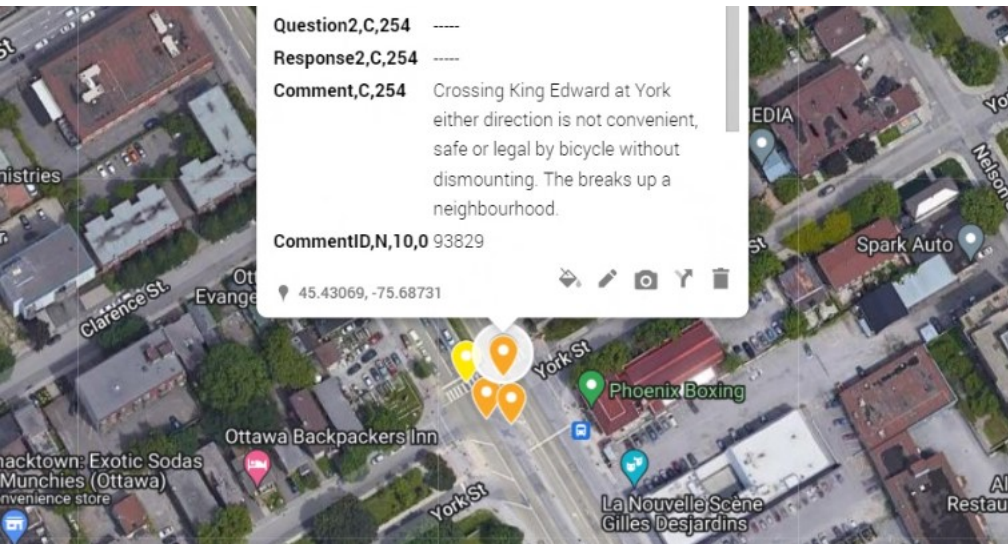
A background photograph showing a cyclist from behind, wearing a blue helmet and a black jacket, riding on a paved road. The road has a new concrete crossing for King Edward Avenue. To the right, there is a white building and a 'No Left Turn' sign. To the left, there are trees and a utility pole. The sky is overcast.

# Part A: York St. & Beausoleil Dr.

*Including a new safe crossing of King Edward Avenue for cyclists*



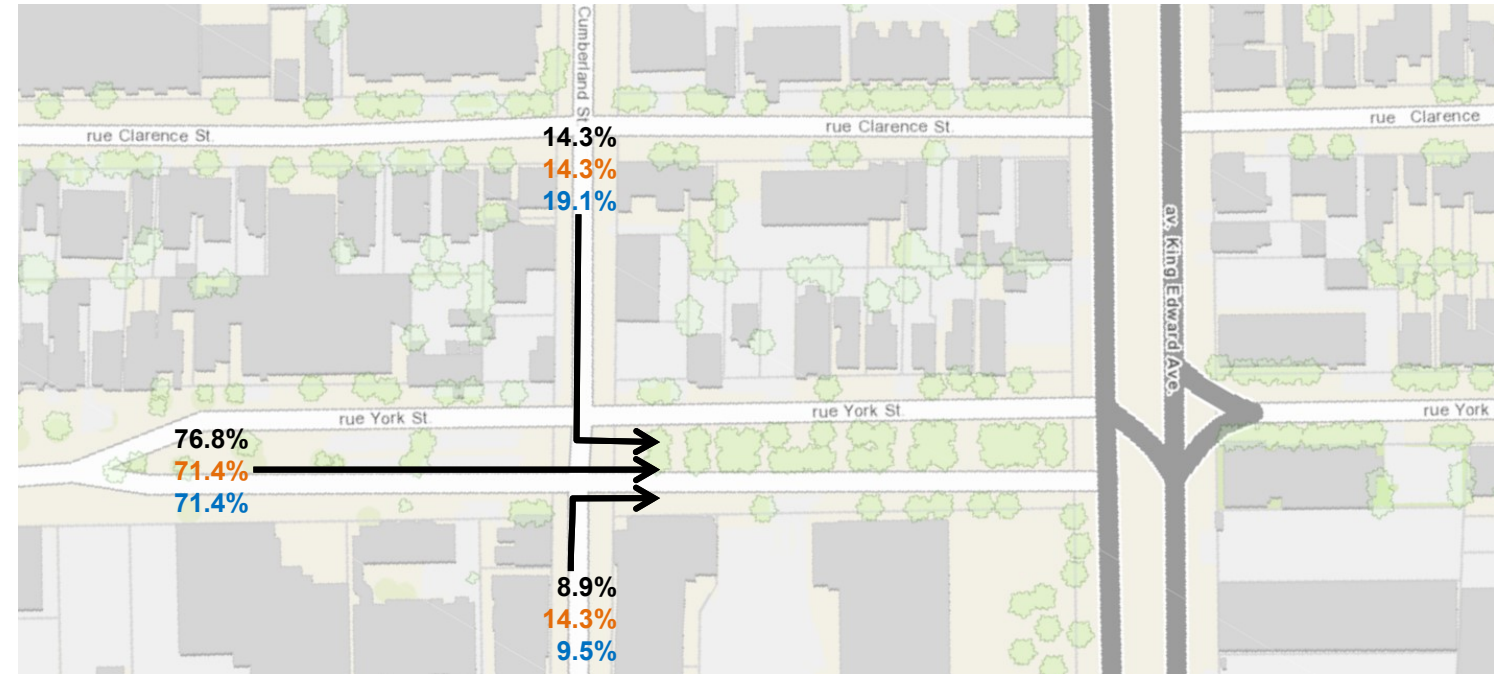
## King Edward / York Intersection Design



“Crossing King Edward at York either direction is not convenient, safe or legal by bicycle without dismounting. This breaks up a neighbourhood.”

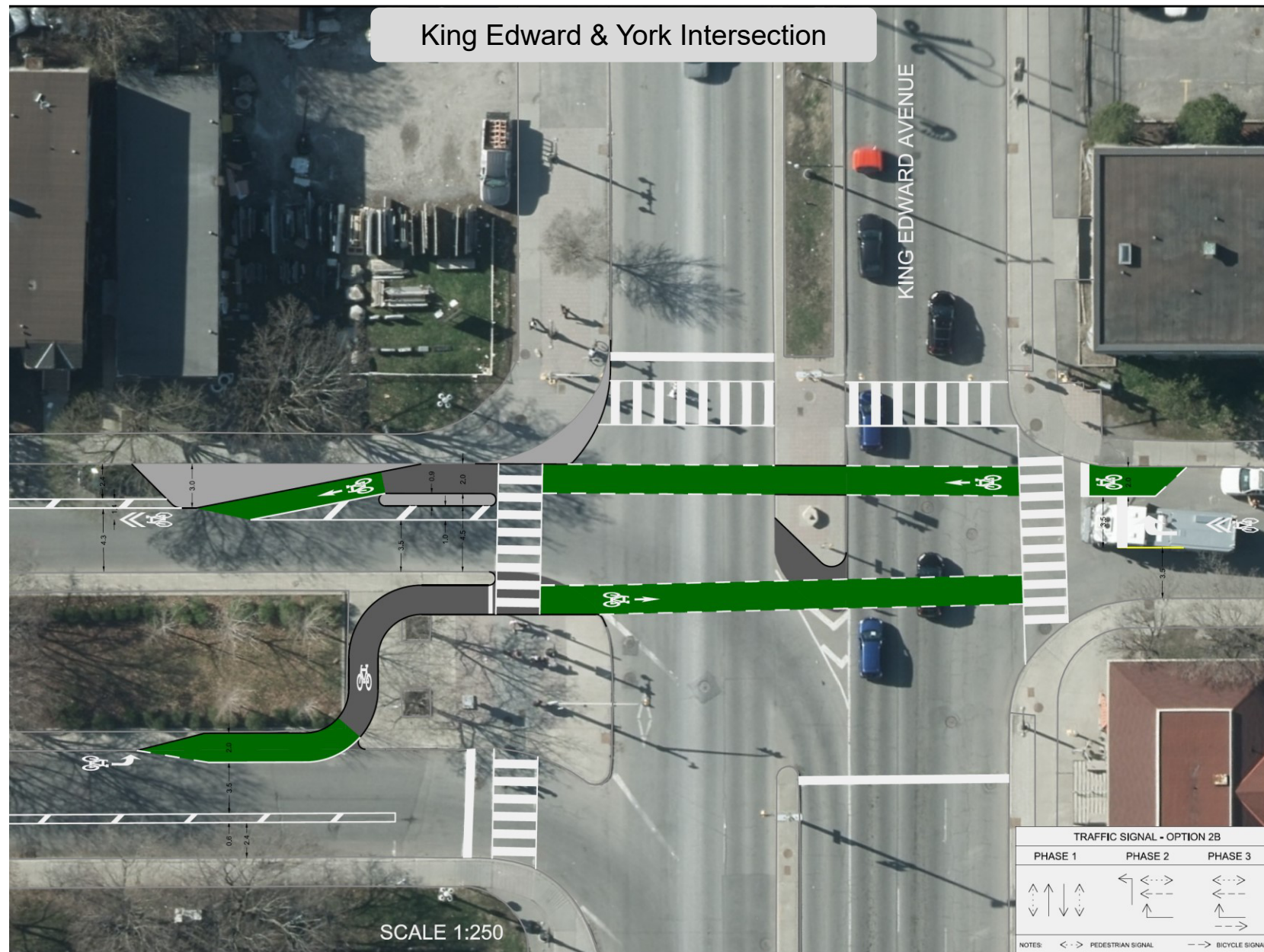
## Origins of People Cycling Travelling Eastbound on York St.

All day  
 AM  
 PM



## King Edward / York Intersection Design

- Allows east-west crossings for people on bikes
- Continuous cycling connection between ByWard Market area and Lowertown
- Minor changes to existing signal phasing
- Aligns with recent ByWard Market Public Realm Plan





## York St. and Beausoleil Dr.

- Potential neighbourhood bikeway measures in this segment include:
  - Bulb-outs
  - Speed humps
  - Raised intersection
  - Cycling route wayfinding
  - Buffer strip from on-street parking
  - Parking spaces may be affected on Beausoleil Dr. (~18 south, ~16 north)



Spencer St. and Huron Ave., Ottawa (Source: Alta Planning + Design)



A person wearing a blue and yellow helmet and a black jacket is riding a bicycle away from the camera on a city street. The street has a concrete median with a signpost. In the background, there are trees, a white building, and a car. The image is slightly faded to allow text to be read.

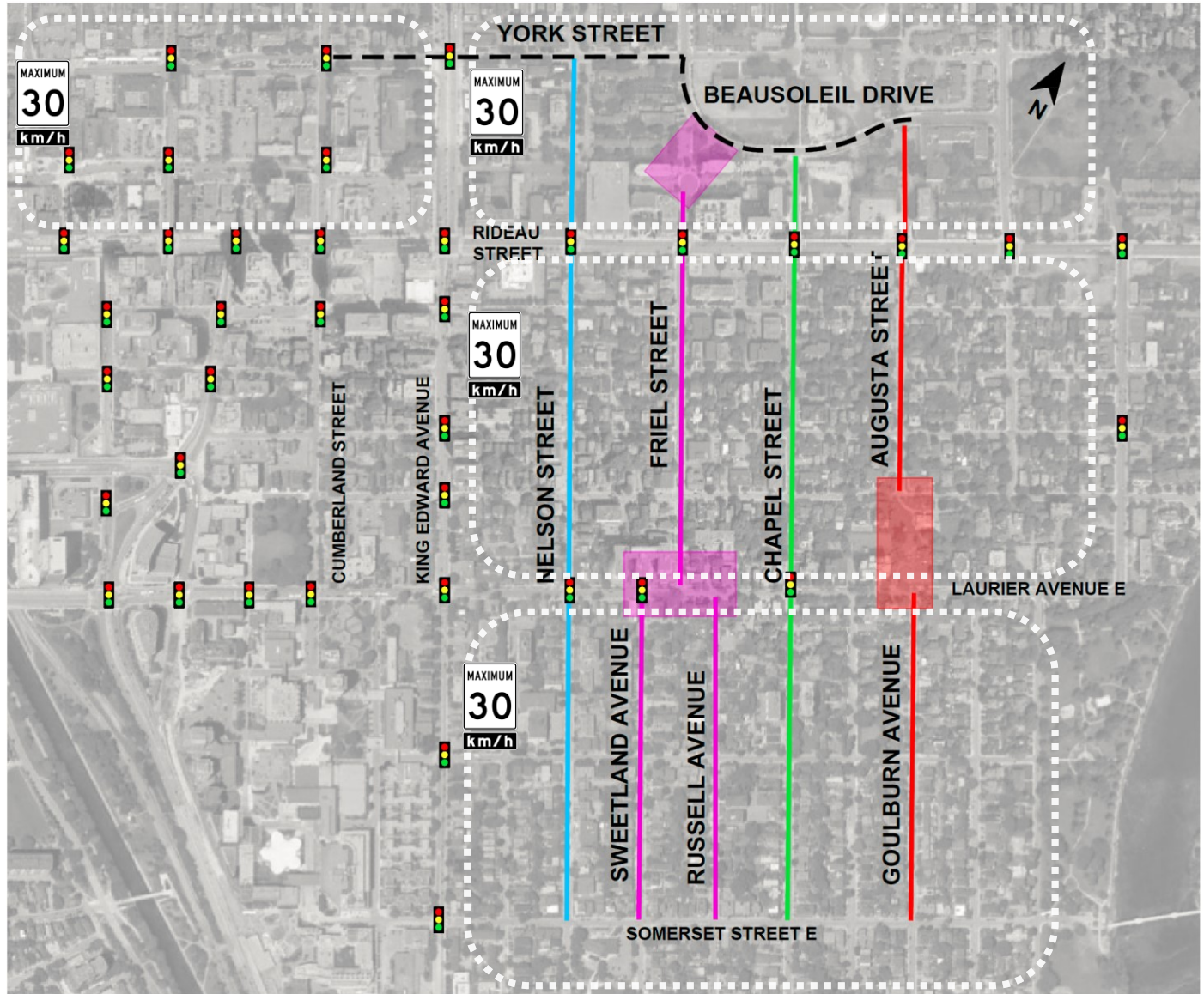
# Part B: York St. to Somerset St. E

*Improved north-south route*

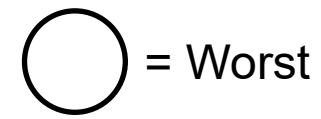
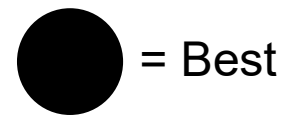


## Corridors Evaluated

- Nelson St.
- Friel St. and Sweetland Ave. or Russell Ave.
- Chapel St.
- Augusta St. and Goulburn Ave.



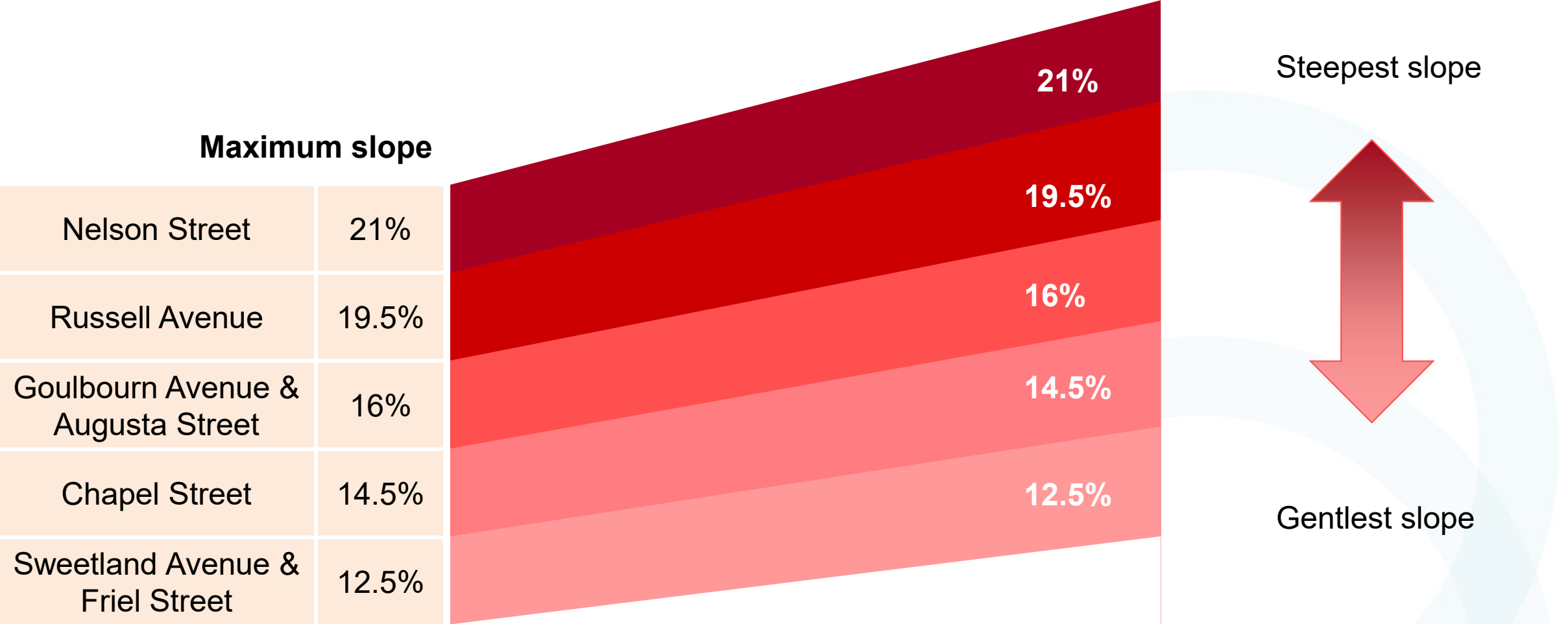
## Evaluation Criteria



Criteria	Nelson	Friel and Sweetland	Friel and Russell	Chapel	Augusta and Goulbourn
Continuity of Route (Single, straight road)					
Traffic Volume on Busiest Segment					
Vehicular Turning Conflicts					
Access to Higher Densities & Destinations					
Direct Connections to Other Cycling Facilities					
Opportunity to Divert Traffic at Busiest Parts					
Steepness of Route					
<b>Overall Score</b>					



Road Steepness – Somerset Street East to Laurier Avenue



## Recommendation

Chapel is the highest scoring north-south corridor based on the evaluated criteria:

- More direct, continuous route between cross-town bikeways
- Existing traffic volumes are within recommended limits (less than 1,500 vehicles per day)
- Fewer points of potential conflict than other corridors
- Higher population density along corridor
- More direct access to community destinations (schools, daycares, parks)
- Less steep than some corridors



Chapel Street, Ottawa, ON (source: Alta Planning + Design)



# Next Steps



## Next steps

Staff will review all of the feedback received through this public consultation. Following that;

- The crossing of King Edward Avenue and York Street will move forward into the next phase of design. Additional information and timelines will be posted on the City's website.
- Planning staff will develop the design for the full length of the neighbourhood bikeway route. The design will be presented to the public at a later date for further review.
- If you have any questions, please contact the project manager Sam Roberts [Samuel.Roberts@ottawa.ca](mailto:Samuel.Roberts@ottawa.ca) / 613-580-2424 x27910