



Hamilton

# **MAIN STREET TWO-WAY REPORT PW23074/PED23248**

December 4, 2023

**PUBLIC WORKS  
OPERATIONS DIVISION**

# Council Direction: May 11, 2022

- Identify actions that can be taken immediately to improve safety for all users along Main Street and King Street;
- Convert Main Street to two-way operation integrating complete streets and climate resiliency to enable the safer use of road users including transit riders, pedestrians, motorists and cyclists;
- Undertake public engagement that leverages a Complete Streets, EDI and Climate Change approach;
- Consult with Metrolinx and MTO regarding two-way conversion considerations for LRT and the 403 interchanges;
- Report back with an implementation plan for two-way conversion that includes an assessment of costs, construction timing and resource requirements; and
- Update and reassess all remaining one-way streets in the city utilizing the street conversion framework identified in the Transportation Master Plan and report back.

# Main Street Collision Review



**2,065**

collisions from on Main Street between 2017-2022

**1,517** Intersection Collisions

- Make up 73% of the collisions (City-wide average is 57%)

**548** Midblock Collisions

- Make up 27% of the collisions (City-wide average is 42%)



**84** Pedestrian-involved Collisions

- 89.7% of pedestrians involved in a collision are injured



**37** Cyclist-involved Collisions

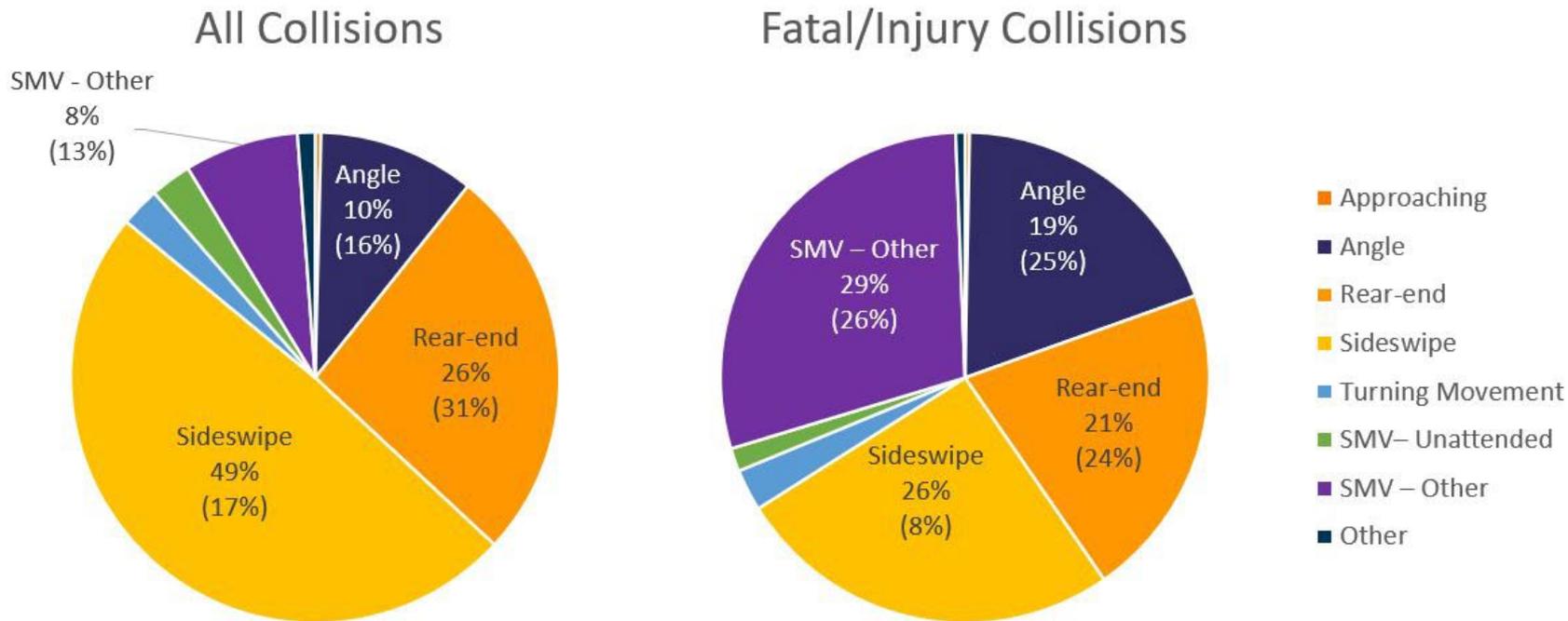
- 77.4% of cyclists involved in a collision are injured



**\$\$\$**

Societal Cost of Collisions

# Types of Collisions on Main Street



Note: City-wide Averages displayed in brackets

# Safety Enhancements



Lane Reconfiguration



Ladder Crosswalks



Pedestrian Buffers



LPI & Countdown Timers



Lane Control Bump Outs



Expanded Street Parking



Transit Enhancement



Transit Signal Priority



No Right Turn on Red



Community Safety Zones



Automated Speed Enforcement



King Street Bus Only Lane

# Conversion Opportunities



## Safety

- Improved pedestrian and cycling safety at intersections
- Additional pedestrian crossing locations
- Reduced pedestrian crossing distances and slow turning motor vehicles



## Accessibility

- Plans for accessible transit stops
- Wider pedestrian facilities to increase accessibility, comfort and safety
- Address other accessibility concerns along the corridor
- Additional on street parking



## Connectivity

- Enhanced cycling network connectivity with new cycling facilities
- Improved connectivity to transit terminals for pedestrians and cyclists



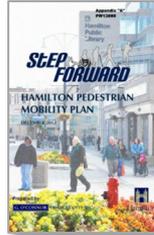
## Infrastructure Condition

- Improve the condition of infrastructure, including pavement, sidewalks, etc.
- AODA Compliance

# Policy Framework



**Vision Zero  
Action Plan**



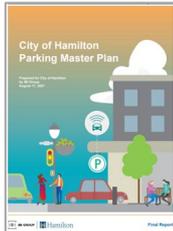
**Pedestrian  
Mobility Plan**



**Cycling Master  
Plan**



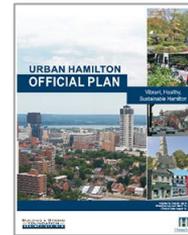
**(re)Envision  
the HSR**



**Parking  
Master Plan**



**Transportation  
Master Plan**



**Urban Hamilton  
Official Plan**



**Complete Streets  
Design Manual**

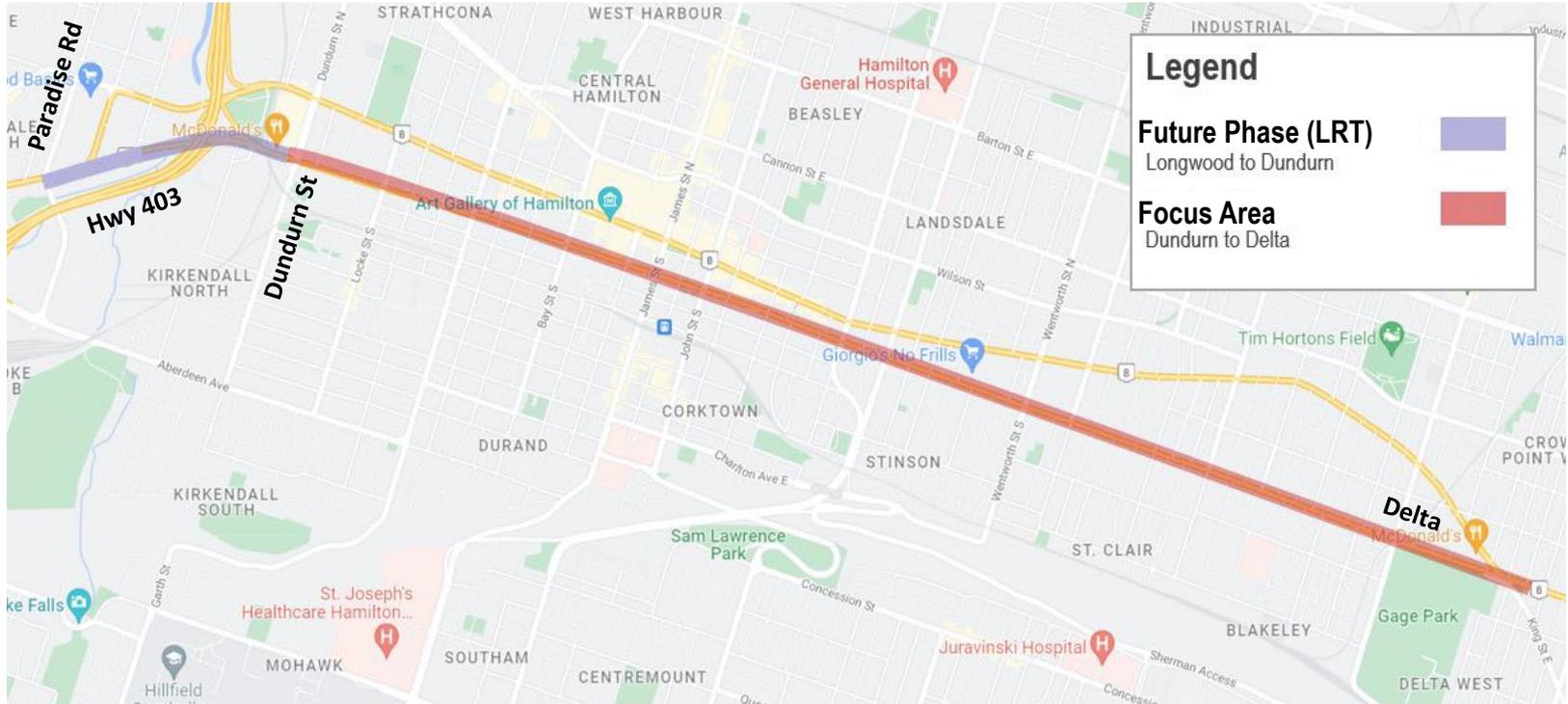
# Main Street Two-way Study Objectives

- Increase safety for all road users
- Pedestrian-friendly corridor
- Improved cycling connectivity
- Prioritize 2-way transit
- Enhance accessibility
- Consider parking and loading needs
- Add greenery and streetscaping elements

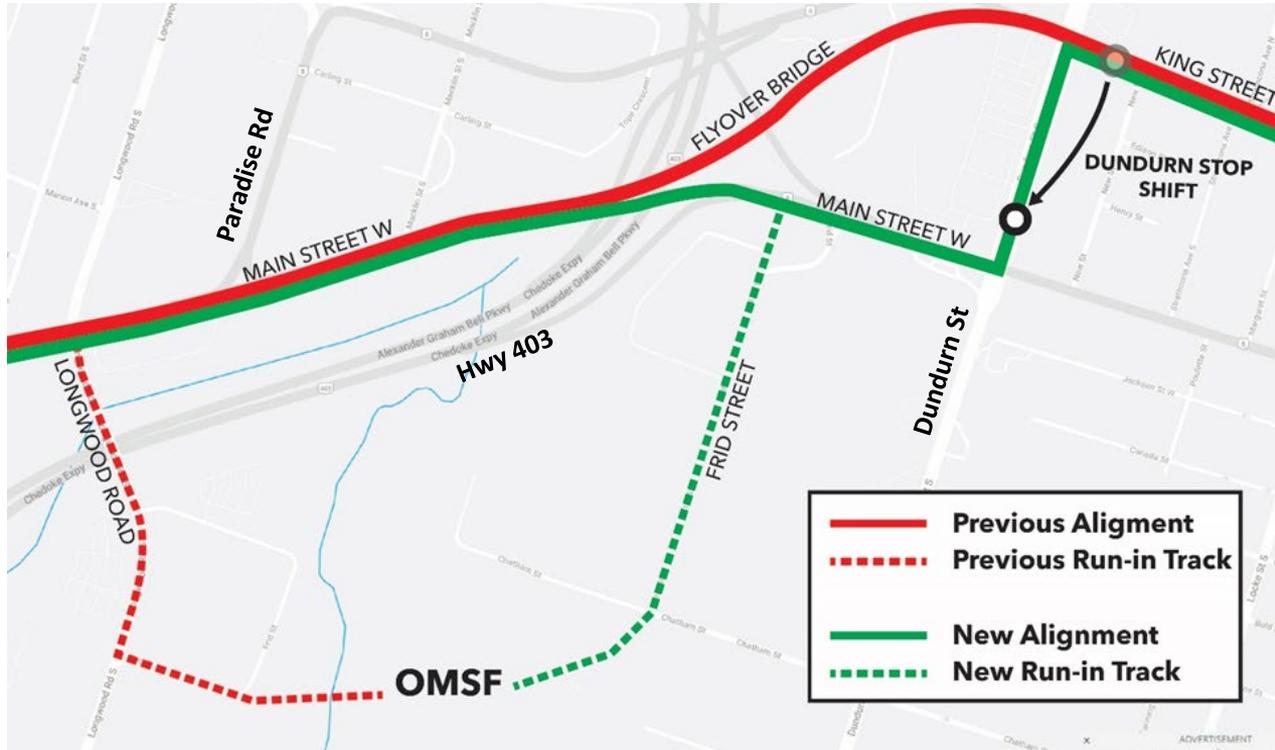


# Conversion Study Scope

Focused Area: Main Street - Dundurn Street to King Street (Delta)



# Main Street and LRT Realignment



# Evaluation Criteria



## Safety/Conflict Mitigation

Mitigate conflicts between motorist and cyclists



## Two-Way Traffic Operations

Impact to two-way roadway capacity and intersection operations



## Pedestrian Friendliness

Have access to safe, walkable and convenient pedestrian routes



## Cyclist Network

Provide cycling facilities and connectivity to destinations



## Transit Operations

Impact and compatibility with local transit



## Social Health & Equity

Provides a fair and accessible environment for users



## On-street Parking

Impact to on-street parking supply



## Cost

Anticipated cost to construct the conceptual design

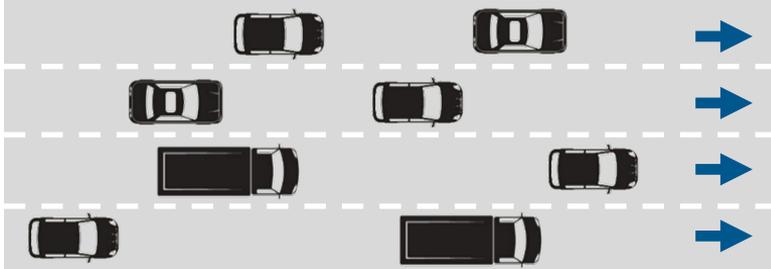


## Green and Resilient Infrastructure

Provide opportunities for greening, permeable surfaces and beautification

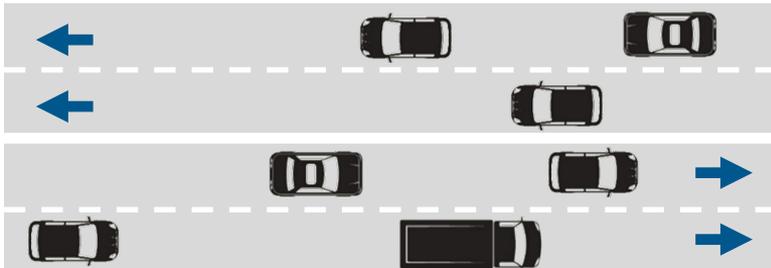
# Configuration Alternatives

## Option 1: Do Nothing – 4 Eastbound Lanes



- Does not provide two-way traffic flow as directed by Council
- Not pedestrian- and cyclist-friendly
- Poor safety outcomes
- Does not improve social health and equity

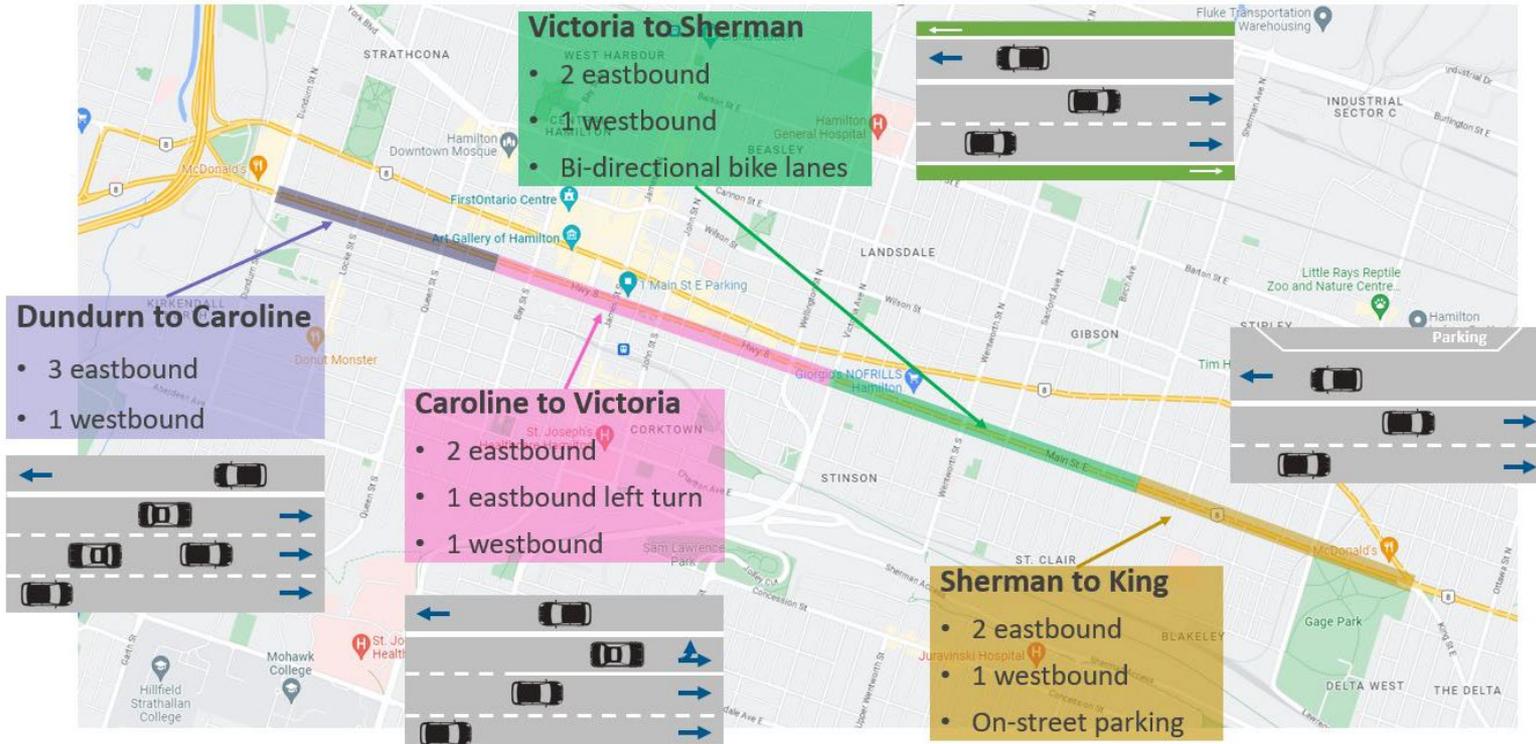
## Option 2: Symmetrical Lane Capacity



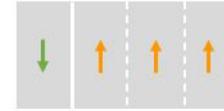
- Current four lanes reconfigured to two lanes eastbound and two lanes westbound
- Provides equal amounts of westbound and eastbound capacity on Main Street
- Most traffic congestion of three options

# Preferred Configuration

## Option 3: Asymmetric Lane Capacity



# Configuration Ranking & Evaluation



Criteria	Option 1 Do Nothing	Option 2 Symmetric Lanes	Option 3 Asymmetric Lanes
Two-Way Traffic Operations			
Safety/Conflict Mitigation			
Pedestrian Friendliness			
Cyclist Network			
Transit Routing			
On-street Parking			
Cost			
Social Healthy & Equity			
Green and Resilient Infrastructure			
<b>Carry Forward</b>	<b>No</b>	<b>No</b>	<b>Yes</b>

# Public Engagement



Engage Hamilton Platform: May 2, 2023 (launched)

Online Public Information Centre: May 18, 2023

Ward 1 and 2 Public In-person Townhall: May 25, 2023

Ward 2 and 3 Public In-person Townhall: May 29, 2023

Business Improvement Area Sub-Committee: June 13, 2023

**362**

residents participated in the public engagement sessions

**81**

unique questions asked during the public engagement sessions

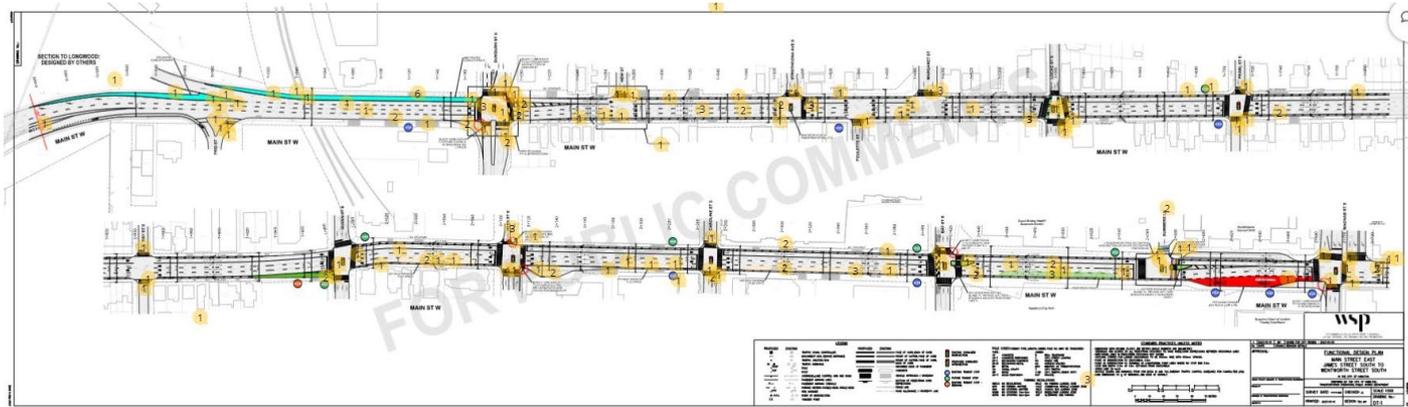
**149**

e-mails sent by the public to project general in-box

**500**

public comments made on the online design commenting tool

# Interactive Online Commenting



→ Comments View all Hide

Commenting is closed for this document.

*Mac* May 26 2023 at 2:17PM **Question**

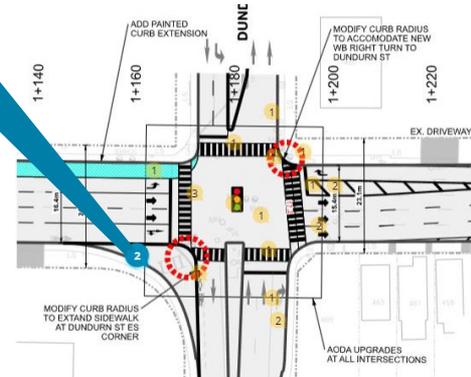
I'm glad to see the slip lane gone! Will all of the curbs be modified?

6 0

*JC* May 27 2023 at 10:04AM

agree! Slip lanes are never safe in cities and should be eliminated.

3 0



# Influencing Outcomes

## MAIN STREET TWO-WAY CONVERSION STUDY



 What Was Said

 What We Heard

 What We Did



### Public Engagement Key Themes:

- Prioritizing pedestrians, cyclists and transit users
- Allocating street space for cycling and green infrastructure
- Extending cycling options along Main Street with enhanced protection
- Expanding Hamilton's cycling network
- Reducing side street access to Main Street
- Minimizing driveways along Main Street
- Addressing traffic congestion concerns

# Implementation Plan



## Key Components of Main Street Two-Way Conversion:

- Reconstruction of 29 traffic signals
- Reconstruction of railway crossing at Gage Avenue
- 5 kilometers of roadway rehabilitation
- Various civil corridor improvements
- Installation of green infrastructure
- Placemaking

## Approximate Two-Way Conversion Timeline:

**Study & Engagement**

1 Year  
(Completed in 2023)

**RFP & Detailed Design**

2 Years  
(2024-2025)

**Tender & Construct**

2-3 Years  
(2026-2028)

# Project Cost and Resourcing Plan

Item:	Budget Estimate:
Traffic Signal Reconstruction	\$ 8,420,000
Roadway Rehabilitation	\$10,000,000
Corridor Improvements	\$ 3,557,000
Contingency & Miscellaneous	\$ 4,510,000*
<b>Total:</b>	<b>\$26,492,000</b>

- Establish an internal multi-divisional project team including approximately 4 temporary staff\*
- Leverage conversion study concept design, public comments and desires
- Utilize external consulting services, via a formal request for proposal, for detailed design
- Undertake additional public input on detailed design
- Coordinate with LRT design, scheduling and construction phasing

# Main Street Two-way Value Proposition



Provide **Westbound flow** for public transit and vehicles

Eastbound traffic speeds will be **slowed**



Slower speeds **addresses the Problems and Opportunities** identified at the onset of the Study



**Traffic calming and improved safety** in this corridor results in a net gain for the community



Opportunities for **green and resilient infrastructure** (e.g. permeable surfaces, trees) and roadway beautification



Opportunities to **improve infrastructure conditions** along Main Street

# Remaining One-Way Streets

- 2018 Transportation Master Plan included an evaluation framework to assess one-way street conversions with a focus on Complete Streets
- Framework was used to review fourteen remaining one-way collector and arterial streets
- Review also took into account recent experience in Hamilton and other municipalities on different approaches for one-way streets that can achieve Complete Streets and multimodal opportunities
- Recommendations on future conversions are provided in Appendix “E” and will be included into future annual capital budgets for Council consideration



# PW23074/PED23248 Recommendations

- a) That funding for the detailed engineering design of the two-way conversion of Main Street between Dundurn Street South and Main Street East/King Street East (Delta) in alignment with the principles established by the Main Street Two-Way conversion study, be submitted as Capital Project ID #4032411048 at a value of \$1,000,000 through the 2024 annual capital budget process for consideration of Council;
- b) Funding for the implementation of Main Street between Dundurn Street South and Main Street East/King Street East (Delta), following the completion of detailed engineering design, be earmarked in the 2026 capital budget at a value of \$26,492,000 and considered for future approval by Council to enable construction targeted to begin in 2026 and completion in 2028; and
- c) That the remaining unbudgeted candidate one-way to two-way street conversions and alternative complete street interventions as identified in Appendix “E” to Report PW23074/PED23248 be programmed, and that funding associated with the conversions be identified and brought forward as part of future annual capital budget submissions for consideration of Council.

# Thank You