

**Subject: Vision Zero Action Plan Final Report - City-wide**

**Reference:**

Date to Council: November 29, 2023  
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**To:** Mayor and Members of City Council

**Recommendation:**

1. THAT the Vision Zero Action Plan provided as Appendix A and the Supplemental Action Plan provided as Appendix B to report S 33/2023 "Vision Zero Action Plan Final Report" **BE ADOPTED**; and,
2. THAT City Council **APPROVE** a transfer of funding in the amount of \$40,000 from the Budget Stabilization Reserve, Fund 139, to a new capital project for salary and fringe costs for three Co-Op students for three school terms in 2024; and,
3. THAT City Council **APPROVE** a transfer of funding in the amount of \$15,000 from the Budget Stabilization Reserve, Fund 139, to a new capital project for salary and fringe costs for a Co-Op Student for the first school term of 2025; and,
4. THAT City Council **APPROVE** a transfer of funding in the amount of \$23,404.85 from the Budget Stabilization Reserve, Fund 139, to a new capital project to purchase and set up Traffic Engineering Software (TES) provided by True North Safety Group (TNS Group); and,
5. THAT the CFO/City Treasurer **BE DIRECTED** to include a new capital project in the 2024 10-year capital plan with funding as outlined above in order to action the Vision Zero Action Plan; and,
6. THAT Administration **BE DIRECTED** to bring forward initiatives in the Vision Zero Action Plan forward for funding consideration for future budgets in accordance with the Action Plan's implementation plan; and,
7. THAT Administration **BE DIRECTED** to report back to Council annually with details of progress toward the Vision Zero Action Plan's goals; and,

8. THAT Administration **BE DIRECTED** to carry out reviews of the Vision Zero Action Plan at the intervals specified in the Action Plan; and,
9. THAT report S 13/2021 “Follow-up –CQ 7-2020, 40 km/h Residential Speed Limits-City Wide” **BE RECEIVED** for information; and,
10. THAT Council **APPROVE** the updated All-Way Stop Policy as listed in Appendix B of report S 70/2023.

**Executive Summary:**

N/A

**Background:**

The City of Windsor’s Vision Zero Policy was adopted by Council on February 20, 2020 by Council Resolution CR82/2020, including the overall statement of endorsement of Vision Zero:

*The Corporation of the City of Windsor endorses the Vision Zero goal of zero traffic deaths or serious injuries on roadways under its jurisdiction and commits to collaborating with all stakeholders in working to realize this goal.*

Additionally, the Vision Zero – and the accompanying Vision Zero Procedure and Vision Zero Stakeholder Group Terms of Reference:

- Directed Administration to develop a Vision Zero Action Plan;
- Established a Vision Zero Task Force and a Vision Zero Stakeholder Group (Table 1);
- Outlined the process for development of the Vision Zero Action Plan, including:
  - Points of consultation with the Vision Zero Task Force and Vision Zero Stakeholder Group, and
  - Points in the process where progress reports would be provided to the Environment, Transportation & Public Safety Standing Committee.

**Table 1: Task Force and Stakeholder Group Roles**

|                | <b>Vision Zero Task Force</b>  | <b>Vision Zero Stakeholder Group</b>  |
|----------------|--|---|
| <b>Members</b> | City & emergency services departments responsible for implementing road safety actions   | Members of public and stakeholder organizations impacted by road safety issues  |
| <b>Role</b>    | <ul style="list-style-type: none"> <li>• Approves Vision Zero Action Plan elements</li> <li>• Leads implementation of the Vision Zero Action Plan</li> </ul> | <ul style="list-style-type: none"> <li>• Provides input and feedback to inform and shape the Vision Zero Action Plan</li> </ul> |

Progress reports were prepared at key points in the development of the Vision Zero Action Plan, as specified in the Vision Zero Policy. Both reports were received by Council for information. Details on the progress reports are provided in Table 2.

**Table 2: Progress Reports**

| Report Number & Title  | Report Focus                     | Meeting Date   |               |
|--|----------------------------------|--|---------------|
|  |                                  | Environment, Transportation & Public Safety Standing Committee | City Council  |
| S 92/2021 Vision Zero Action Plan Development - Progress Report #1             | Proposed Strategic Priorities    | Oct. 27, 2021  | Nov. 15, 2021 |
| S 87/2022 Vision Zero Action Plan Development - Progress Report #2 - City-Wide | Proposed Recommended Initiatives | Jul. 27, 2022  | Sep. 6, 2022  |

### **CQ 7-2020 – 40 km/h Residential Speed Limits**

At the March 2, 2020 meeting of Council, Councillor Kaschak asked CQ 7-2020 as follows:

*“Asks that if Council decides to move forward with reducing the speed limit to 40 km/h on all city residential streets, that administration advise of the timelines and cost to implement this across the city.”*

This report was subsequently deferred and requested to be returned to Council with the Vision Zero Action Plan.

### **CQ 27-2021 – All-Way Stop Warrant**

At the meeting of City Council on November 15, 2022, Councillor Costante asked CQ27-2021 as follows:

*“Asks that Administration report back on opportunities to amend the warrant matrix and incorporate additional factors when determining the installation of 4-way stops in our residential neighbourhoods. This may include certain factors in the warrant threshold be lowered or amended, and may also include other factors such as petitions and school zones to be incorporated in the overall matrix.”*

This report was subsequently deferred and requested to be returned to Council with the Vision Zero Action Plan.

### **Discussion:**

The proposed Vision Zero Action Plan is attached as Appendix A. Key elements of the Action Plan include:

- Strategic priorities
- Recommended initiatives

- Interim goals (including an implementation plan)

Each of these elements is summarized below.

### Strategic Priorities

Strategic priorities were developed based on the trends and patterns noted in the City’s collision history and Vision Zero principles. The proposed strategic priorities are grouped into themes as summarized in Table 3.

**Table 3: Themes and Strategic Priorities**

| Theme                           | Strategic Priority   |
|---------------------------------|--|
| 1: Driver Behaviours            | 1A: Vehicle Speeds   |
|                                 | 1B: Drug and Alcohol Impairment                                      |
|                                 | 1C: Inattentive Driving  |
|                                 | 1D: Failing to Yield at Intersections                                |
| 2: Road User Types              | 2A: Vulnerable Road Users (Pedestrians, Cyclists, and Motorcyclists) |
|                                 | 2B: Data Gaps – People   |
| 3: Locations and Infrastructure | 3A: High Injury Corridors  |
|                                 | 3B: Signalized Intersections   |
| 4: Process Improvements         | 4A: Improved Data Sources and Information Sharing                    |
|                                 | 4B: Design Standards and Best Practices                              |

### Recommended Initiatives

Recommended initiatives are grouped into two categories:

- Existing initiatives that are already being carried out; for City activities, the Action Plan recommends that these activities continue.
- New initiatives; the Action Plan recommends that these new City activities be adopted in accordance with the implementation plan.
  - These initiatives are divided further into two sub-groups:
    - Future initiatives already planned;
    - Future Initiatives Recommended, not already planned.

The recommended initiatives are summarized in Table 4 through Table 6 below.

**Table 4: Existing Road Safety Initiatives**

| Existing Initiative  | Lead Agency or City Department   |
|--|--|
| <i>Enforcement and Emergency Response</i>                        |  |
| Traditional Enforcement  | Windsor Police Service   |
| High Visibility Enforcement (HVE)                                | Windsor Police Service   |
| Selective Traffic Enforcement Program (STEP)                     | Windsor Police Service   |
| Road Watch   | Windsor Police Service   |
| Report Impaired Driving (RID) program                            | MADD Windsor Essex County<br>Windsor Police Service  |
| Emergency response to collisions                                 | Essex Windsor EMS<br>Windsor Fire & Rescue Services<br>Windsor Police Service<br>Windsor Regional Hospital |
| <i>City Programs and Policies</i>                                |  |
| Traffic Calming Policy   | City – Transportation Planning   |
| Community Safety Zone Policy                                     | City – Transportation Planning   |
| Radar Trailer Program  | City – Traffic Operations  |
| School Neighbourhood Policy                                      | City – Transportation Planning   |
| Bikeways Development Project                                     | City – Transportation Planning   |
| Pedestrian Generator Sidewalk Program                            | City – Operations  |
| Pedestrian Safety Improvement Program                            | City – Engineering   |
| Intersection Improvements Program                                | City – Engineering   |
| Audible/ accessible pedestrian signal program                    | City – Traffic Operations  |
| Pedestrian crossover program                                     | City – Transportation Planning   |
| Winter maintenance program                                       | City – Operations  |
| Pavement marking maintenance program                             | City – Traffic Operations  |
| Sign maintenance program   | City – Traffic Operations  |
| Sight line clearing at intersections                             | City – Traffic Operations  |
| Before-after analysis of road safety countermeasures             | City – Transportation Planning   |
| Red light cameras  | City – Traffic Operations  |
| Vehicle operator training  | City – Human Resources<br>Transit Windsor  |
| Periodic driver's abstract review                                | City – Human Resources<br>Transit Windsor  |
| Collision Review Group (for collisions involving City vehicles)  | City – Fleet Review Committee  |
| Fleet vehicle standard development                               | City – Fleet Review Committee  |
| <i>Education Programs</i>  |  |
| Children's Road Safety Programs                                  | Safety Village<br>Bike Windsor Essex   |
| PARTY (Prevent Alcohol and Risk-related Trauma in Youth) Program | Windsor Regional Hospital  |

**Table 5: Future Road Safety Initiatives – Already Planned**

| Number | Planned Initiative   | Lead Agency or City Department                       |
|--------|--|--|
| 1      | Develop and Implement a Complete Streets Policy            | City – Transportation Planning                       |
| 2      | Construct Roadway Capital Projects (for certain corridors) | City – Engineering<br>City – Transportation Planning |
| 3      | Obtain Collision Data through Provincial ARIS System       | City – Transportation Planning                       |
| 4      | Continue to Implement the Transit Master Plan              | Transit Windsor                                      |
| 5      | Review Yellow and All-Red Intervals for Traffic Signals    | City – Traffic Operations                            |

| Number | Planned Initiative  | Lead Agency or City Department |
|--------|---|--------------------------------|
| 6      | Install Retroreflective Backboards for Traffic Signals            | City – Traffic Operations      |
| 7      | Increase Winter Roadway Maintenance                               | City – Operations              |
| 8      | Driver Simulation Training for Commercial Motor Vehicle Operators | City – Human Resources         |
| 9      | Commercial Motor Vehicle Driver Evaluation by Independent Party   | City – Human Resources         |

**Table 6: Future Road Safety Initiatives – Recommended**

| Number    | Recommended Initiative<br><i>(highlighting indicates initiatives identified by members of the Stakeholder Group as high priority)</i> | Lead Agency or City Department                        |
|-----------|---|---|
| 10        | Conduct Road Safety Audits of Identified High Injury Corridors  | City – Transportation Planning                        |
| 11        | Carry out a Value Engineering & Road Safety Review of Existing Approved Preliminary Designs for Roadway Projects                      | City – Transportation Planning<br>City – Engineering  |
| 12        | Establish a Fatal Collision Response Team   | To be determined                                      |
| 13        | Explore Data-Sharing Arrangements Between Agencies  | City – Transportation Planning                        |
| 14        | Carry out a Resident Survey   | City – Transportation Planning                        |
| 15        | Implement Target Speed Requirements for New Construction and Major Roadway Projects   | City – Transportation Planning                        |
| 16        | Implement Speed Limit Reductions – Neighbourhoods   | City – Transportation Planning                        |
| 17        | Implement Speed Limit Reductions – Major Streets  | City – Transportation Planning                        |
| 18        | Implement Speed Limit Reductions and Increased Fines – Construction Zones   | City – Traffic Operations                             |
| 19        | Reduce Progression Speed for Traffic Signal Coordination  | City – Traffic Operations                             |
| 20        | Carry out Education Campaigns   | City – Transportation Planning                        |
| 21        | Adjust Project Prioritization Criteria in the Active Transportation Master Plan to Place a Greater Emphasis on Safety and Collisions  | City – Transportation Planning                        |
| 22        | Include Collision History as a Factor in Prioritizing Capital Projects  | City – Engineering<br>City – Operations               |
| 23        | Review Official Plan and Zoning By-laws for Vision Zero Opportunities   | City – Planning<br>City – Transportation Planning     |
| 24        | Review Design Standards and Development Manual for Vision Zero Opportunities  | City – Engineering<br>City – Transportation Planning  |
| 25        | Require Transportation Impact Studies for New Developments to Include a Full Multimodal Review  | City – Transportation Planning                        |
| 26        | Develop Safety Performance Functions  | City – Transportation Planning                        |
| <b>27</b> | <b>Implement Automated Speed Enforcement</b>  | City – Traffic Operations                             |
| 28        | Install Transverse Rumble Strips at Select Locations  | City – Transportation Planning                        |
| <b>29</b> | <b>Implement a Parking Ticket Forgiveness Program to Target Impaired Driving</b>  | City – Transportation Planning                        |
| <b>30</b> | <b>Provide Free (or Cost-Included) Transit Service for Alcohol-Oriented Special Events</b>  | Transit Windsor<br>City – Special Event Resource Team |
| 31        | Support the Development of a “Safe Ride Home” Service   | To be determined                                      |
| 32        | Provide Stop Bars and Crosswalk Markings at Unsignalized Intersections  | City – Traffic Operations                             |

| Number    | Recommended Initiative<br><i>(highlighting indicates initiatives identified by members of the Stakeholder Group as high priority)</i> | Lead Agency or City Department                       |
|-----------|---|--|
| 33        | Provide Ladder Crosswalk Markings at Signalized Intersections   | City – Traffic Operations                            |
| <b>34</b> | <b>Implement Fully Protected Intersections</b>  | City – Transportation Planning<br>City – Engineering |
| <b>35</b> | <b>Implement Leading Pedestrian Intervals</b>   | City – Traffic Operations                            |
| <b>36</b> | <b>Install Pedestrian Countdown Signals</b>   | City – Traffic Operations                            |
| 37        | Implement Hardened Centrelines at Intersections with High Speed Left Turns  | City – Transportation Planning                       |
| <b>38</b> | <b>Adopt a “Roundabouts First” Policy or Best Practice for New Intersections and Major Roadway Projects</b>                           | City – Engineering                                   |
| <b>39</b> | <b>Adopt a “No Right Turn Channels” Policy or Best Practice for New Intersections and Major Roadway Projects</b>                      | City – Engineering                                   |
| <b>40</b> | <b>Implement a Road Diet Program</b>  | City – Engineering<br>City – Transportation Planning |
| <b>41</b> | <b>Develop a Comprehensive GIS-based Collision Information System</b>   | City – Transportation Planning                       |
| 42        | Develop Safety-Related Vehicle Design Criteria for Future City Vehicle Fleet Purchases & Leases                                       | City – Fleet Review Committee                        |

Highlighting indicates initiatives that were identified by the Vision Zero Stakeholder Group as especially high priority.

### Overall and Interim Goals

All initiatives included in the Vision Zero Action Plan have an associated activity, impact and outcome, as summarized in Figure 1.

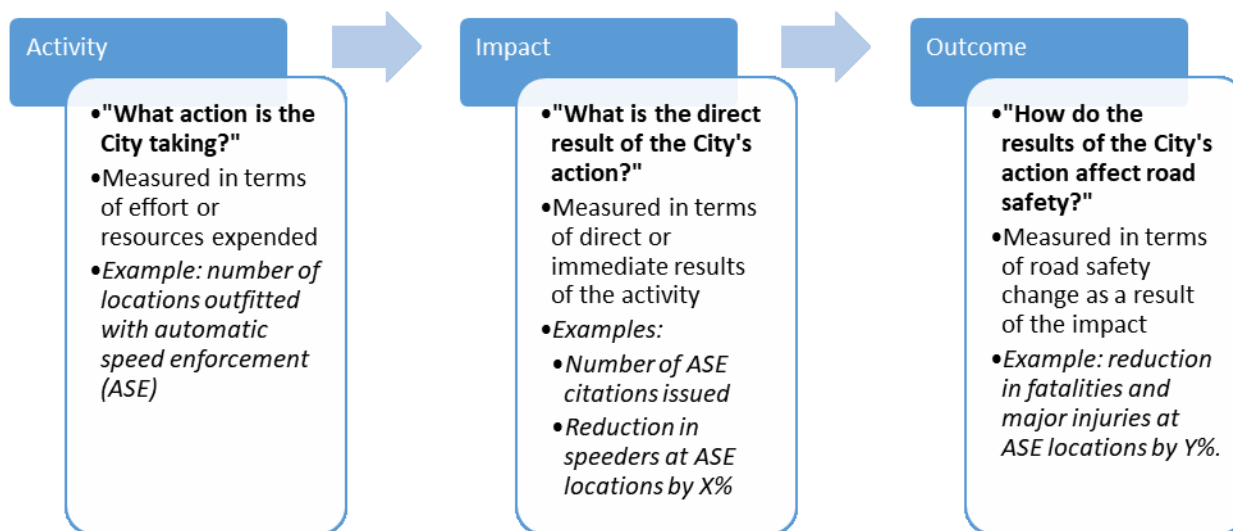


Figure 1: Activity, Impact and Outcome Goals

Identified goals in the Vision Zero Action Plan goals can relate to an activity, impact or outcome. Each has advantages and disadvantages, as noted in Table 7.

**Table 7: Activity, Impact and Outcome Goals**

| Goal Type  | Activity Goals   | Impact Goals   | Outcome Goals  |
|--|--|--|--|
| <i>Examples</i>                                  | <ul style="list-style-type: none"> <li>• <i>Number of countermeasures installed</i></li> <li>• <i>Lane-kilometers of street with reduced speed limit</i></li> </ul>            | <ul style="list-style-type: none"> <li>• <i>Change in operating speed for a treated roadway</i></li> <li>• <i>Number of red light camera citations issued</i></li> </ul> | <ul style="list-style-type: none"> <li>• <i>City-wide reduction in severe collisions</i></li> <li>• <i>Reduction in severe collisions at a treated location</i></li> </ul> |
| Strengths  | <ul style="list-style-type: none"> <li>• City can exert direct control to achieve goal</li> <li>• Future performance can be predicted with high levels of certainty</li> </ul> | <ul style="list-style-type: none"> <li>• Provides timely feedback on the performance of road safety interventions</li> </ul>   | <ul style="list-style-type: none"> <li>• Direct measurement of the focus of concern</li> </ul>   |
| Weaknesses                                       | <ul style="list-style-type: none"> <li>• Proxy measure for safety; relationship between activity and impact/outcome is subject to uncertainty</li> </ul>                       | <ul style="list-style-type: none"> <li>• Proxy measure for safety; relationship between impact and outcome is subject to uncertainty</li> </ul>                          | <ul style="list-style-type: none"> <li>• Significant lag in results (on the order of years) from when action is taken until outcome can be measured</li> </ul>             |
| <b>Approach Used for Vision Zero Action Plan</b> | <ul style="list-style-type: none"> <li>• <b>Activity goals are reflected in the Implementation Plan</b></li> </ul>   | <ul style="list-style-type: none"> <li>• <b>Impact goals are identified where indicators are available</b></li> </ul>  | <ul style="list-style-type: none"> <li>• <b>Outcome goals are identified for all strategic priorities</b></li> </ul>   |

*Overall Goal*

For all Vision Zero programs, the overall goal is zero fatalities and major injuries due to road crashes, ideally within an identified timeline.

The recommended overall goal of the Vision Zero Action Plan is zero fatal and major injury collisions **within 15 years** of adopting the Vision Zero Action Plan.

*Interim Goals – Road Safety Outcomes*

For all indicators that are given in terms of fatalities and major injuries, interim goals are as follows:

- 5 years after Vision Zero Action Plan adoption: 33% reduction from 2015-2019 baseline levels
- 10 years after Vision Zero Action Plan adoption: 67% reduction from 2015-2019 baseline levels
- 15 years after Vision Zero Action Plan adoption: 100% reduction from 2015-2019 baseline levels

Interim goals for each strategic priority are provided in Table 8.



**Table 8: Interim Goals by Strategic Priority**

| Strategic Priority   | Indicator   | 2015-2019 Baseline   | Goals                |                      |                   |
|--|---|----------------------|----------------------|----------------------|-------------------|
|  |   |                      | 5 years              | 10 years             | 15 years          |
| <b>Overall</b>   | <b>Fatalities and major injuries (all causes and victim categories)</b>   | <b>37.2 per year</b> | <b>24.8 per year</b> | <b>12.4 per year</b> | <b>0 per year</b> |
| 1A: Vehicle Speeds   | Fatalities and major injuries involving the following driver actions: <ul style="list-style-type: none"> <li>Exceeding speed limit</li> <li>Speed too fast for conditions</li> <li>Lost control</li> </ul>  | 11.0 per year        | 7.3 per year         | 3.7 per year         | 0 per year        |
|  | Fatalities and major injuries involving either: <ul style="list-style-type: none"> <li>Traffic control type identified as “traffic controller” or</li> <li>Road condition identified as “under construction”</li> </ul>   | 0.8 per year         | 0.5 per year         | 0.3 per year         | 0 per year        |
| 1B: Drug and Alcohol Impairment                                      | Fatalities and major injuries involving the following driver conditions: <ul style="list-style-type: none"> <li>Had been drinking</li> <li>Ability impaired, alcohol</li> <li>Ability impaired, alcohol (over 0.08)</li> <li>Ability impaired, drugs</li> </ul> | 4.8 per year         | 3.2 per year         | 1.6 per year         | 0 per year        |
| 1C: Inattentive Driving  | Fatalities and major injuries involving the driver condition “inattentive”  | 3.8 per year         | 2.5 per year         | 1.3 per year         | 0 per year        |
| 1D: Failing to Yield at Intersections                                | Fatalities and major injuries at intersections involving the following driver actions: <ul style="list-style-type: none"> <li>Failed to yield right-of-way</li> <li>Disobeyed traffic control</li> <li>Improper turn</li> </ul>                                 | 12.2 per year        | 8.1 per year         | 4.1 per year         | 0 per year        |
| 2A: Vulnerable Road Users (Pedestrians, Cyclists, and Motorcyclists) | Pedestrian fatalities and major injuries  | 8.4 per year         | 5.6 per year         | 2.8 per year         | 0 per year        |
|  | Cyclist fatalities and major injuries   | 3.2 per year         | 2.1 per year         | 1.1 per year         | 0 per year        |
|  | Motorcyclist fatalities and major injuries  | 6.0 per year         | 4.0 per year         | 2.0 per year         | 0 per year        |
| 3A: High Injury Corridors  | Pedestrian fatalities and major injuries – Tecumseh Road East (Jefferson to Forest Glade Drive)   | 0.8 per year         | 0.5 per year         | 0.3 per year         | 0 per year        |
|  | Pedestrian fatalities and major injuries – Wyandotte Street (Ouellette to Chilver)  | 0.8 per year         | 0.5 per year         | 0.3 per year         | 0 per year        |

| Strategic Priority                                | Indicator  | 2015-2019 Baseline | Goals        |              |            |
|---|--|--------------------|--------------|--------------|------------|
|   |  |                    | 5 years      | 10 years     | 15 years   |
|   | Cyclist fatalities and major injuries – Wyandotte Street (Pelissier to Parent)                               | 0.6 per year       | 0.4 per year | 0.2 per year | 0 per year |
|   | Motor vehicle driver and passenger fatalities and major injuries – EC Row Expressway (Howard to Banwell)     | 1.8 per year       | 1.2 per year | 0.6 per year | 0 per year |
|   | Motor vehicle driver and passenger fatalities and major injuries – Wyandotte Street (Pelissier to Gladstone) | 1.0 per year       | 0.7 per year | 0.3 per year | 0 per year |
| 3B: Signalized Intersections                      | Fatalities and major injuries at signalized intersections  | 11.6 per year      | 7.7 per year | 3.9 per year | 0 per year |
| 4A: Improved Data Sources and Information Sharing | N/A  |                    |              |              |            |
| 4B: Design Standards and Best Practices           | N/A  |                    |              |              |            |

### *Interim Goals – Impacts*

| Strategic Priority   | Indicator   | 2015-2019 Baseline | Goals   |                           | Notes  |
|--|---|--------------------|---|---------------------------|--|
|  |   |                    | Target  | Timeframe                 |  |
| 1A: Vehicle Speeds   | % of treated locations with operating speed within 5 km/h of target speed | N/A                | 80%   | Immediate after treatment | This indicator should be summarized by category (e.g. speed limit reduction, radar speed feedback sign, permanent traffic calming, Complete Street installation) |
|  | # of automated speed enforcement citations issued                         | N/A                | Downward trend in citations issued at each treated intersection | 1 year after treatment    |  |
| 1B: Drug and Alcohol Impairment                                      | # of riders per year using “Safe Ride Home” service                       | 0                  | To be determined  | To be determined          | Goals to be identified as part of service development  |
| 1C: Inattentive Driving  | N/A   |                    |   |                           |  |
| 1D: Failing to Yield at Intersections / 3B: Signalized Intersections | # of red light camera citations issued                                    | N/A                | Downward trend in citations issued at each treated intersection | 1 year after treatment    |  |

| Strategic Priority   | Indicator  | 2015-2019 Baseline | Goals            |  | Notes  |
|--|--|--------------------|------------------|--|--|
|  |  |                    | Target           | Timeframe  |  |
| 2A: Vulnerable Road Users (Pedestrians, Cyclists, and Motorcyclists) | N/A  |                    |                  |  |  |
| 3A: High Injury Corridors  | See note   | N/A                | To be determined | To be determined   | As part of each road safety audit, impact goals will be developed based on the audit's conclusions and recommendations |
| 4A: Improved Data Sources and Information Sharing                    | Mean days from crash date to date crash report is entered into City database         | 477 days           | 60 days          | Immediate after implementation of ARIS-based collision data system |  |
|  | Percentage of crash reports entered into the database within 90 days after the crash | 0%                 | 90%              | Immediate after implementation of ARIS-based collision data system |  |
|  | % of fatal collisions where Fatal Collision Response Team was activated              | N/A                | 100%             | Immediate after establishment of the Fatal Collision Response Team |  |
| 4B: Design Standards and Best Practices                              | N/A  |                    |                  |  |  |
| Multiple   | Education campaign reach   | N/A                | To be determined | To be determined   | Campaign goals will be developed individually for each educational campaign  |

### *Implementation Plan*

The Vision Zero Action Plan includes an implementation plan with short term (0-5 years), medium term (5-10 years) and long term (10-15 years) targets. The implementation plan is included in Appendix A.

A number of measures can proceed immediately; these measures are summarized in Table 9 below. In cases where these measures require Council approval, they have been included in the report recommendations.

**Table 9: Recommended Initiatives for Immediate Action**

| Number | Recommended Initiative  |
|--------|---|
| 1      | Develop and Implement a Complete Streets Policy (development portion)                                     |
| 3      | Obtain Collision Data through Provincial ARIS System  |
| 5      | Review Yellow and All-Red Intervals for Traffic Signals   |
| 6      | Install Retroreflective Backboards for Traffic Signals  |
| 12     | Establish a Fatal Collision Response Team   |
| 13     | Explore Data-Sharing Arrangements Between Agencies  |
| 18     | Implement Speed Limit Reductions and Increased Fines – Construction Zones                                 |
| 19     | Reduce Progression Speed for Traffic Signal Coordination  |
| 20     | Carry out Education Campaigns   |
| 28     | Install Transverse Rumble Strips at Select Locations  |
| 38     | Adopt a “Roundabouts First” Policy or Best Practice for New Intersections and Major Roadway Projects      |
| 39     | Adopt a “No Right Turn Channels” Policy or Best Practice for New Intersections and Major Roadway Projects |
| 41     | Develop a Comprehensive GIS-based Collision Information System  |

Recommendation #41, Develop a Comprehensive GIS-based Collision Information System, requires the purchase of a subscription of TES Software, setup costs and additional co-op students to assist existing city staff in building the City’s collision database.

This GIS based software, as noted in the financials below, has been identified in the Supplemental Vision Zero Implementation plan as an important first step to roll out and support the implementation of 14 other data driven initiatives.

The City of Windsor uses GIS extensively and has a significant amount of data in GIS form. Currently, the Windsor Collision Database is a standalone database, not connected to other data sources. This initiative would entail translating data from the collision database into a GIS, which would allow more efficient analysis of collision data to identify collision “hot spots” and City-wide trends.

Having a GIS-based collision information system would also allow for comparisons with other mapped data, which would enable analyses that City staff have not been able to do to date, such as identifying correlations between road safety outcome and neighbourhood characteristics (e.g. social determinants of health), which could inform future road safety policies or outreach programs.

TNS Group (formerly TES Information Technology) has provided software development and consulting engineering services to the public and private sectors since the year 2000. The company focuses entirely on the field of traffic engineering and road safety and consists of multiple branches within this field including software development (custom and off-the-shelf), consulting, as well as collision data entry and management.

TES Software is the TNS Group flagship product which is used by more than 70 agencies across North America. TES Software consists of several modules; the City is interested in the following modules:

- Infrastructure/GIS Module,

- Traffic Count & Study Module,
- Collision Module,
- Collision Mapping and Geocoding Module, and
- Safety Module.

TES software has been evaluated as being the only available software on the market that will provide the required functionality. The software is an industry standard throughout the province and country.

Although an implementation plan is provided in the Vision Zero Action Plan, it only categorizes the initiatives into three timeframes, Short (0-5 years), Medium (5-10 years) and Long (10-15 years). The Supplemental implementation plan helps illustrate the relationship between related initiatives. Some initiatives depend on the results of others before it is possible to implement, while others can be implemented independently.

### **CQ 7-2020 – 40 km/h Residential Speed Limits**

Report S 111-2020 previously provided Council with three (3) potential options for reduction of speed limits:

1. Sign 40 km/h residential streets individually.
2. Reduce the City-wide default speed limit to 40 km/h
3. Implement speed areas in residential neighbourhoods.

Each option is detailed in the attached report along with pricing from 2020. It should be noted that costs have increased since this report was developed in the range of 40%.

The Vision Zero Action Plan has two (2) initiatives that relate to speed limit reductions;

#16 – Implement Speed Limit Reductions – Neighbourhoods

#17 – Implement Speed Limit Reductions – Major Streets

Initiative #16 aligns with option 3 from report S 111-2020 while initiative #17 does not directly align with any option. However, indirectly it could be considered to be aligned with options 1 or 2.

Major (Arterial) road speed limits in the City are between 50 km/h and 70 km/h depending on the cross section of the roadway. A City-wide reduction of the default speed to 40 km/h would not affect many of the major roads that are already 50 km/h as many of these roads would have very little compliance for a speed limit lower than this. However, lowering some of the higher speed roads to 50 km/h may have more impact.

Neither initiative #16 nor #17 were identified as immediate action items, however they are listed as potentially being implemented within the 0-5 year time frame. As noted in the Supplemental Implementation Plan, Administration recommends the implementation of both of these initiatives be driven by data. With the purchase of the TES software above, speeds throughout the City can be compiled graphically and analysed. The software will identify specific neighbourhoods that could be targeted for speed reductions, it will also allow Administration the opportunity to analyse the areas and

propose other traffic calming tools that can be implemented along with the speed reductions that may assist in increasing compliance. As noted in previous reports, speed reductions typically do not have an impact when implemented alone. Additionally, the software will assist in determining appropriate speed reductions for major roadways.

Assuming the purchase of the software is complete early 2024, there will be time required to upload all the City's existing data. Based on these timelines, initial recommendations for implementation of initiatives #16 and #17 are estimated to be presented as part of the 2025 and/or 2026 budget process.

### **CQ 27-2021 – All-Way Stop Warrant**

While fundamentally, stop control devices are installed with the intention to make roadways safer and hence may be considered an initiative related to the vision zero mandate, they are a regulatory element of the Highway Traffic Act and therefore not an item specifically discussed within a Vision Zero framework. Vision Zero looks at initiatives that can be done outside of and in addition to the regulatory safety devices. Of the items in the Action Plan, the only item that could potentially be tied to the All-Way stop warrant process would be initiative #38 – Adopt a “Roundabouts First” Policy or Best Practice for New Intersections and Major Roadway Projects. Some Municipalities have implemented a policy that would allow for some intersections to be converted into roundabouts or smaller traffic circles where all-way stops are not warranted. This could be considered in the development and adoption of Windsor's Roundabout First Policy of Best Practice. However, this consideration would not change the proposed warrant criteria proposed in report S 70-2023.

### **Risk Analysis:**

Overall, the Vision Zero Action Plan is a mitigation strategy for life safety risk to road users in Windsor.

Construction costs – and the impact of policy and best practice decisions on construction costs – are subject to variability due to market forces. These risks are mitigated by following the Purchasing By-law and standard project management practices.

Risks that the interim and overall goals of the Vision Zero Action Plan may not be met are mitigated by ongoing monitoring, reporting, and periodic updates to the Action Plan.

This GIS based software has been identified in the Supplemental Vision Zero Implementation plan as an important first step to roll out and support the implementation of 14 other initiatives. Any delay in the purchase of TES Cloud Software and hiring co-op student to assist in building the database will delay the future implementation of those data driven 14 initiatives

Initiatives that require additional funding will be brought forward for consideration in future budget items. If additional budget allotments are not approved, the overall goals of the Vision Zero Action Plan may not be met.

## Climate Change Risks

### Climate Change Mitigation:

N/A

### Climate Change Adaptation:

N/A

### Financial Matters:

Funding would be required to purchase the TES Cloud Software to translate data from the collision database into a GIS, which would allow more efficient analysis of collision data to identify collision “hot spots” and City-wide trends. TES Cloud Software will also allow for comparisons with other mapped data, informing future road safety policies and outreach programs at a cost of approximately \$23,404.85 inclusive of non-refundable HST for year 1 and \$13,737.63 (inclusive of non-refundable HST) for the second and third years ongoing subscription costs. The year 1 cost includes the monthly subscription fee, a one-time set up and training fee, and a one-time import of historical collision data. The monthly subscription fee would remain the same for the first three years with adjustments after the three years based on the annual inflation rates reported by the Bank of Canada.

Transportation Planning currently does not have an operating budget sufficient to fund the initial year 1 cost of the software set up and subscription, therefore, Administration recommends funding year 1 with funding from the Budget Stabilization Reserve, Fund 139, to be transferred into and tracked in a new capital project. Subsequent year costs will be absorbed in the annual operating budget for Public Works.

In addition to the software requirements for the TES software implementation, Administration would recommend hiring a co-op student for each school term in 2024 and the first school term in 2025 to assist existing city staff in building the City’s collision database. The estimated cost of three (3) students in 2024 is \$40,000, and one (1) student in 2025 is \$15,000. Transportation Planning does not have an approved operating budget allotment for students currently, and as such, Administration recommends funding the cost of four (4) students with a transfer of funding from the Budget Stabilization Reserve, Fund 139, to be transferred into and tracked in a new capital project. Students will not be required ongoing once implementation is complete.

A summary of these costs, and funding sources, is provided in the table below.

| Expense                                 | 2024             | 2025             | 2026             | Total             |
|---|------------------|------------------|------------------|-------------------|
| TES Software                            | 23,404.85        | 13,737.63        | 13,737.63        | 50,880.11         |
| Co-op Students                          | 40,000.00        | 15,000.00        | -                | 55,000.00         |
| <b>Total Expenses</b>                   | <b>63,404.85</b> | <b>28,737.63</b> | <b>13,737.63</b> | <b>105,880.11</b> |
|   |                  |                  |                  |                   |
| Funding Source                          | 2024             | 2025             | 2026             | Total             |
| Budget Stabilization Reserve (Fund 139) | 63,404.85        | 15,000.00        | -                | 78,404.85         |
| Operating                               | -                | 13,737.63        | 13,737.63        | 27,475.25         |
| <b>Total Funding</b>                    | <b>63,404.85</b> | <b>28,737.63</b> | <b>13,737.63</b> | <b>105,880.11</b> |

While 18 of the 42 initiatives are zero-cost initiatives or are expected to result in net cost savings to the Corporation, many of the remaining initiatives have not been allocated any funding in the current Capital or Operating Budgets. Administration will make requests for necessary funding as part of future Capital or Operating Budget submissions; however, these initiatives cannot be completed unless sufficient funding is available and allocated to these works through the annual budgetary process.

**Consultations:**

Consultations were carried out with the Vision Zero Task Force and the Vision Zero Stakeholder Group at the following points:

- Project initiation
- After development of strategic priorities
- After development of recommended initiatives
- After development of interim goals and implementation plan

**Conclusion:**

The recommended Vision Zero Action Plan and the Supplemental Action Plan has been brought forward as directed by the Vision Zero Policy. The Vision Zero Action Plan provides recommendations aimed at eliminating fatal and major injury collisions on streets under the jurisdiction of the City of Windsor within 15 years of adoption of the Plan.

**Planning Act Matters:**

N/A

**Approvals:**

| Name              | Title  |
|-------------------|--|
| Cindy Becker      | Financial Planning Administrator                               |
| Shawna Boakes     | Executive Director of Operations and Deputy City Engineer      |
| Shawna Boakes for | Commissioner of Infrastructure Services and City Engineer      |
| Janice Guthrie    | Commissioner of Corporate Services and Chief Financial Officer |
| Joe Mancina       | Chief Administrative Officer                                   |

**Notifications:**

| Name  | Address | Email  |
|---|---------|--|
| Vision Zero Stakeholder Group   |         |  |
| Diane Bradford and Sean Wraight, Co-Chairs<br>Windsor Essex Road Safety Working Group |         | <a href="mailto:Diane.bradford@wrh.on.ca">Diane.bradford@wrh.on.ca</a><br><a href="mailto:sean.wraight@ontario.ca">sean.wraight@ontario.ca</a> |



**Appendices:**

- 1 Appendix A - Vision Zero Action Plan
- 2 Appendix B - Supplemental Vision Zero Implementation Plan
- 3 Appendix C - Quotation for Purchase and Configuration of TES Software