

REPORT

2022 Budget Committee

Meeting Date: December 14, 2021

FROM: Transportation and Engineering Department

DATE: November 16, 2021

SUBJECT: Neighbourhood Traffic Safety Program

LOCATION: Town-wide

WARD: Town-wide

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RECOMMENDATIONS:

1. That the report entitled Neighbourhood Traffic Safety Program from the Transportation and Engineering Department, dated November 16, 2021 be received.
2. That \$50,000 be added to the 2022 Capital Budget for speed studies to be conducted in the Neighbourhood 40 km/h Zones with funding provided from the Capital Reserve.
3. That \$20,000 be added to the 2022 Capital Budget for the implementation of the 11 Community Safety Zones approved by Council on October 18, 2021 with funding provided from the Capital Reserve.
4. That \$100,000 be added to the 2022 Capital Budget for data collection and monitoring to support the Neighbourhood Traffic Safety Program with funding provided from the Capital Reserve.
5. That \$40,000 be added to the 2022 Capital Budget for the Traffic Safety Analysis Software Pilot with funding provided from the Capital Reserve.
6. That \$500,000 be added to the 2022 Capital Budget, which combined with \$500,000 in the existing project 53411801 Traffic Signal Construction Program, will provide \$1,000,000 for the installation of 20 pedestrian crossovers in 2022 with funding provided from the Capital Reserve.
7. That \$225,000 (net) be added to the 2022 Operating Budget for the operation of 14 Automated Speed Enforcement cameras for a six-month period in 2022, based on an annualized cost of \$470,000.
8. That \$260,000 be added to the 2022 Operating Budget for additional staff resources to support the Neighbourhood Traffic Safety Program.
9. That \$50,000 be added to the 2022 Operating Budget for Communications to support the Neighbourhood Traffic Safety Program.

KEY FACTS:

The following are key points for consideration with respect to this report:

- The Neighbourhood Traffic Safety Program is a program that utilizes different methods to enhance and improve safety for all modes of travel and all ages.
- The main components of the Neighbourhood Traffic Safety Program are 40 km/h Speed Limits, Community Safety Zones, Automated Speed Enforcement, Traffic Calming, Pedestrian Crossovers, and Vision Zero
- The proposed 2022 Capital Budget submission and the recommendations contained in this report to fund 40 km/h Speed Limits pilot studies, Community Safety Zones, Traffic Calming, Data Collection/Monitoring, Traffic Safety Analysis Software Pilot and Pedestrian Crossovers are \$1,310,000.
- The proposed 2022 Operating Budget incremental increase to fund Automated Speed Enforcement, contract staffing and communications is \$535,000, resulting in a total 2022 program operating cost of \$1,094,300.

BACKGROUND:

At its meeting of October 18, 2021 Council approved the following recommendations related to the Neighbourhood Traffic Safety program:

1. That the report entitled Neighbourhood Traffic Safety Program from the Transportation and Engineering Department, dated September 14, 2021 be received.
2. That the overall Neighbourhood Traffic Safety Program and implementation plan be approved, except and as set out specifically below:
 - a. Council defers approval of the implementation plan contained in this report for the 40km/h speed limit including changing the town wide default speed limit from 50km/h to 40km/h until the work described below in (b.) is completed and reported to Council.
 - b. That staff continue monitoring the traffic patterns and speeds in the existing West River and Heritage Way 40 km/h pilot areas, and add Lakeshore Woods as an additional pilot area, to collect four full seasons of data beginning spring 2022 to explore and account for potential changes to traffic patterns due to the pandemic.
 - c. Council approves the proposed definition of a Community Safety Zone.
 - d. Council approves designation of the following Community Safety Zones, and that the speed limit on these sections be reduced to 40 km/h:
 - i. Glenashton Road between Grand Boulevard and Eighth Line;
 - ii. Maple Grove Drive from Devon Road to Lakeshore Road East,
 - iii. Devon Street from Morrison Road to Ford Drive;
 - iv. Morrison Road from Cleaver Drive to Devon Street;
 - v. Reynolds Street from Pine Street to George's Square;
 - vi. Post Road from Dundas Street to Threshing Mill Boulevard;

- vii. Ontario Street between Marine Drive and East Street;
 - viii. Trevor Drive from Waterford Street to Bridge Road;
 - ix. Felan Avenue between Rebecca Street and Stewart Street;
 - x. Lakeshore Road East between Douglas Avenue and Morrison Road; and
 - xi. Central Park Drive between Glenashton Drive and Oak Park Boulevard.
- e. Council approves the implementation plan contained in this report for the Automated Speed Enforcement (ASE) program including 7 mobile cameras in conjunction with utilizing the Provincial Administrative Monetary Penalties System (AMPS).
 - f. Council approves that the ASE program comprise 14 mobile cameras in 2022, with the increase of 7 mobile cameras adding costs of \$246,596, for a total net ASE estimated program cost of \$471,349.
3. Council directs that the funding requirements for the Neighbourhood Traffic Safety Program set out within this report, be referred to the 2022 Budget Committee for consideration as part of the budget process.
 4. Council directs that a copy of this report be provided to Halton Region Police Service for information and that staff engage with the Halton Region Police Service to obtain feedback on enforcement for presentation to and consideration of Council, when this matter is reported back to Council.
 5. That the addition of ten pedestrian crosswalks be deferred to the 2022 Budget Committee for consideration.

This report has been prepared to provide Council with the details regarding the additional Capital and Operating budget funds required to support the Neighbourhood Traffic Safety Program.

COMMENT/OPTIONS:

The Neighbourhood Traffic Safety Program is a program that utilizes different methods to enhance and improve safety for all modes of travel and all ages. The program has 8 components

- 40 km/h Speed Limits (pilot studies)
- Community Safety Zones (CSZ)
- Automated Speed Enforcement
- Traffic Calming
- Pedestrian Crossovers (PXO)
- Vision Zero
- Communications
- Radar Speed Display Signs

Table 2 – 2022 Capital Budget and 10 Year Capital Forecast – Additional Funds

Initiative	2022	2023	2024	2025	2026	2027	Annual Budget 2028-2031	Total 2022-2031
40 km/h Speed Limit Review	50,000	N/A	N/A	N/A	N/A	N/A	N/A	50,000
40 km/h Speed Limit Implementation	N/A	36,700	N/A	N/A	N/A	N/A	N/A	36,700
Community Safety Zones	20,000	10,000	10,000	10,000	10,000	10,000	10,000	110,000
Traffic Calming	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Data Collection and Monitoring (40 km/h Speed Limit, ASE, traffic calming)	100,000	100,000	100,000	100,000	100,000	100,000	100,000	1,000,000
Traffic Safety Analysis Software Pilot	40,000	40,000	N/A	N/A	N/A	N/A	N/A	80,000
Pedestrian Crossovers Option #2	500,000	N/A	N/A	N/A	N/A	N/A	N/A	500,000
TOTAL (Recommended)	710,000	186,700	110,000	110,000	110,000	110,000	110,000	1,776,700

The following table summarizes the impacts of the other two options for Pedestrian Crossover implementation.

Table 3 – 2022 Capital Budget and 10 Year Capital Forecast – Additional Funds

Initiative	2022	2023	2024	2025	2026	2027	Annual Budget 2028-2031	Total 2022-2031
Pedestrian Crossovers Option #1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TOTAL (PXO#1)	210,000	186,700	110,000	110,000	110,000	110,000	110,000	1,276,700
Pedestrian Crossovers Option #3	500,000	500,000	500,000	500,000	500,000	N/A	N/A	2,500,000
TOTAL (PXO#3)	710,000	686,700	610,000	610,000	610,000	110,000	110,000	3,776,700

1. 40 km/h Speed Limit

Further to Council's recommendation of October 18, 2021, staff will add a third Neighbourhood 40 km/h Zone in the Lakeshore Woods community; in addition to the existing Neighbourhood 40 km/h Zones in the Heritage Way and West River communities (See map in Appendix A). Staff will then schedule periodic speed studies in these 40 km/h zones between Spring 2022 and Spring 2023 to assess the impact of the speed limit reduction, and will report back to Council on the effectiveness of the Neighbourhood 40km/h Zones in Q3 2023.

With Lakshore Woods included as an additional pilot area, "before" speed studies will need to be conducted prior to the implementation of the Neighbourhood 40 km/h Zone. These studies are estimated to cost \$50,000 in 2022.

The direction to lower the speed limit on all local and minor collector roads to 40km/h has been deferred pending the outcome of the three area pilot studies. Should Council then decide to proceed with lowering the speed limit townwide, the implementation cost (\$36,700) of changing the Town's default speed limit from 50 km/h to 40 km/h has been included in 2023 as shown in Table 2 above.

2. Community Safety Zones (CSZ)

There are 21 CSZs in Oakville. At the October 18, 2021 Council meeting, 11 additional CSZs were approved, and will be implemented in 2022 at an estimated cost of \$20,000 (See map in Appendix D of the 31 CSZs).

There will be an annual evaluation of Community Safety Zones based on the newly approved definition, however the number of approved locations each year is difficult to estimate. Annual funding for the implementation of Community Safety Zones beyond 2022 of \$10,000 is shown in Table 2 above.

3. Traffic Calming

Per the October 18, 2021 "Neighbourhood Traffic Safety" report, staff are focusing on consultation and implementation related to the "backlog" traffic calming locations for the remainder of 2021 into 2022. This backlog implementation will be utilizing 2021 approved budget of \$367,000 with 19 planned locations.

Staff recommend that the threshold for traffic calming be re-evaluated in Q3, 2023 with consideration of the ASE implementation, the outcome of the Neighbourhood 40 km/h Zone pilot studies, and direction from Council on 40 km/h implementation on local and minor collector roads. Until that time, new requests would continue to be evaluated based on the existing thresholds, with an annual implementation budget of \$400,000 starting in 2023.

In the interim, for 2022 capital request, a limited budget of \$100,000 has been allocated. The traffic calming program will focus first on the locations that are already in progress (19 locations from the backlog), followed by 39 locations that have been requested to be reviewed. In 2022, the focus will be on conducting the public consultation and speed studies for these 39 locations. Our recent experience indicates that not all 39 locations will be supported through public consultation or meet the speed thresholds to qualify for traffic calming. (See map in Appendix B for the locations that are being assessed for traffic calming in 2021 and 2022).

4. Data Collection/Monitoring

Annual data collection / monitoring is required to support the overall Neighbourhood Traffic Safety Program. Data collected include road speed, traffic volume, collision data. The annual Operating Budget related to typical traffic data collection and monitoring is \$59,300.

With the increased scope for 2022 and 2023 from the 40 km/h pilot after studies, and ASE before and after studies, an additional \$100,000 funding is required. These funds have been requested as part of the Capital Budget since they will fund a discrete project which is over and above our typical traffic data collection program within the Operating Budget. This would be recommended in conjunction with the additional resources that are requested in the "Operating Budget" section of this report.

5. Traffic Safety Analysis Software Pilot

Based on industry standards, staff have used collision data provided by the Halton Region Police Service as a means of assessing the safety experience at a particular location. With increasing demand to use better and more timely data analytics to support evidence based decision making, there are opportunities to use connected vehicle (CV) data.

Connected Vehicle events can be obtained both at larger scale and in a timelier manner as compared to collision data from police reports. CV event data has shown promising results in some initial evaluation of its potential use for safety planning applications. Further, study has indicated that the

frequency of harsh CV events (acceleration, braking, cornering) exhibited significant positive correlation with the frequency of collisions, and provide a statistically significant safety surrogate measure as a complement to, or in lieu of, police-reported collision data.

With the additional year to monitor the three 40km/h Neighbourhood pilot areas, staff recommends a two-year pilot project at an annual cost of \$40,000 to explore how CV event can complement traditional collision data. This would be recommended in conjunction with the additional resources that are requested in the “Operating Budget” section of this report.

6. Pedestrian Crossovers (PXOs)

In 2021, the pedestrian crossover implementation program includes 19 locations (See map in Appendix C). It should be noted that a twentieth location will be implemented as a pedestrian signal instead of a pedestrian crossover. This year’s program is funded through the federal government’s Investing in Canada Infrastructure Program (ICIP).

Annual program for PXO installation is 10 locations per year at \$500,000 per year. 2021 is an exception since no installations were completed in 2020 due to the pandemic and the ICIP funding allowed for additional pedestrian crossovers to be installed.

Following completion of the 2021 program, there will be a balance of 109 proposed pedestrian crossover installations, resulting from the 2017 Pedestrian Safety Program.

At the October 18, 2021 Council Meeting, Council had requested the consideration of 10 additional locations in 2022. Staff have reviewed three options as detailed in the above table. The first option reflects our historic approach of funding 10 installations annually at a cost of \$500,000. The second option would see 10 additional installations completed in 2022 for a total of 20 at a cost of \$1,000,000, and then reverting back to 10 annual installations. The third option would see 20 installations annually at a cost of \$1,000,000, until the 109 locations would be completed in 2027. Staff recommend the second option of installing 20 locations in 2022 and then reverting to 10 annual installations. This would be recommended in conjunction with the additional resources that are requested in the “Operating Budget” section of this report.

Based on the above, the 2022 capital budget to support the Neighbourhood Traffic Safety Program is \$1.31M; that includes three 40km/h Neighbourhood pilots (\$50K), scaled down traffic calming (\$100K), additional data collection including the Traffic

Safety Analysis Software pilot (\$140K), and 20 pedestrian crossovers (\$1M). The \$1.31M total is made up of \$600K from funding currently in the Capital Budget forecast and \$710K in additional funding.

Operating Budget

The table below summarizes the Operating Budget impacts of the Neighbourhood Traffic Safety Program. The subsequent paragraphs summarize each initiative contained in the table.

Table 4 – 2022 Operating Budget and 10 Year Operating Forecast Impacts

Initiative	2021 Base Budget (A)	2022 Change (B)	2022 Request (A+B=C)	2023 Change (D)	2023 Request (C+D=E)	2024 Change (F)	Annual Budget by 2024 (E+F=G)
Automated Speed Enforcement (net)	N/A	225,000	225,000	300,000	525,000	130,000	655,000
Staffing	500,000	260,000	760,000	0	760,000	-260,000	500,000
Comms.	See Traffic Calming	50,000	50,000	0	50,000	0	50,000
Data Collection and Monitoring (existing traffic count program)	59,300	0	59,300	0	59,300	0	59,300
Vision Zero	N/A	N/A	N/A	N/A	N/A	N/A	N/A
TOTAL	559,300	535,000	1,094,300	300,000	1,394,300	-130,000	1,264,300

1. Automated Speed Enforcement

The original recommendation in the “Neighbourhood Traffic Safety” report tabled at Council on October 18, 2021 was to implement 7 cameras at a net annual cost of approximately \$225,000. The impact of Council’s decision to increase the number of cameras from 7 to 14 is that the net annual cost increases to approximately \$470,000. There will be no corresponding

increase in revenue. Since ASE will be implemented in conjunction with the Provincial Administrative Monetary Penalties System (AMPS) in Summer 2022, the 2022 funding request of \$225,000 represents only 6 months of operation for 14 cameras. Subsequent funding requests represent 12 months of operation as well as annual increases in operating costs as per the contract with the equipment vendor.

2. Staffing

The current staffing complement to support the Neighbourhood Traffic Safety program includes 4 full time staff members at an annual budget of \$500,000 and other supporting staff from Design and Construction section for implementation purposes.

The recommendations approved by Council on October 18, 2021 have expanded the scope of the proposed Neighbourhood Traffic Safety Program. This includes conducting Neighbourhood 40 km/h Zones pilots, additional Community Safety Zones, ASE cameras, and PXO installations, coupled with desire to have more data collection / analytics to support evidence based decision making. In order to manage the design, implementation and monitoring aspects of the full Neighbourhood Traffic Safety Program, it is recommended that two contract positions be approved for 2022 and 2023 only. The positions would be a Project Leader and a Traffic Engineer who would assume responsibility for project management, data analysis, and implementation of the various initiatives within the Program. The required funding for these resources is \$260,000 for each of the proposed two years.

3. Communications

Currently, communication related costs associated to Neighbourhood Traffic Safety issues are covered under the Traffic Calming capital budget. As detailed in the October 18, 2021 Council report, staff recommended a improved communication strategy to support the Neighbourhood Traffic Safety Program with a dedicated funding of \$50,000 annually be approved. A communications plan will be developed to promote and educate the public on traffic safety utilizing existing and other outreach channels.

4. Data Collection

The annual traffic count program covers data collection such as 24-hour volumes (Automatic Traffic Recorders), our existing speed survey program, and counts required to support the warrant analysis for traffic control devices such as all-way stops. The funds required for the additional data collection to

support the Neighbourhood Traffic Safety Program has been requested through the Capital Budget.

5. Vision Zero

It should be noted that no funds have been requested for the Vision Zero program, which is an element of the overall Neighbourhood Traffic Safety program. Per October 18, 2021 report to Council, a study to examine the town's standing with respect to road safety programs in light of the Vision Zero philosophy is underway. A dedicated report on Vision Zero will be tabled at Council early in 2022.

6. Radar Speed Display Signs

We currently have a total of 58 Radar Speed Display signs that are in use across the Town. There are 20 school zones on major collector and minor arterial roads that have one sign per direction of travel for a total of 40 signs. There are 2 other permanent signs installed on Great Lakes Boulevard, which were installed in 2018 in lieu of physical traffic calming. We also have 15 temporary signs that are rotated between warranted locations on an annual basis. Finally, we have a mobile trailer-mounted unit that is rotated between warranted locations every few weeks. The cost of rotating these units is covered in the existing Operating Budget.

The proposed 2022 Operating Budget incremental submission of \$535,000 includes implementation of ASE operating cost for 14 cameras starting Summer 2022, and contract staffing resources. This brings the total 2022 operating budget to support the Neighbourhood Traffic Safety program to \$1,094,300.

Conclusion

The proposed 2022 Operating and Capital Budget requests detailed in this report reflect the requirements of the Neighbourhood Traffic Safety Program, including the recommendations made by Council on this matter at its meeting of October 18, 2021.

CONSIDERATIONS:

(A) PUBLIC

The initiatives described in this report are all aimed at improving community safety. Staff will provide ongoing communications and education programs to advise the community of the implementation of initiatives such as the Neighbourhood 40 km/h zones and Automated Speed Enforcement.

(B) FINANCIAL

The additional funding required to support the Neighbourhood Traffic Safety Program in 2022 is \$710,000 in the Capital Budget, funded by the Capital Reserve, and \$535,000 through the Operating Budget. Funding through both the Capital and Operating Budgets will be required on an annual basis to sustain the program.

(C) IMPACT ON OTHER DEPARTMENTS & USERS

The communications/education plan that is a component of the Neighbourhood Traffic Safety Program will include working with all Town departments to seek outreach opportunities.

(D) CORPORATE STRATEGIC GOALS

This report addresses the corporate strategic goal(s) to:

- Foster a community environment that engages residents of all ages, abilities and backgrounds (Engaged Community) through the use of various methods and media for the education and outreach initiatives related to neighbourhood traffic safety, in order to reach all members of the community
- Improve town's multi-modal transportation network to support effective movement of people and goods, by promoting safe travel on town roads.

(E) CLIMATE CHANGE/ACTION

All efforts to reduce operating speeds on Town roads will contribute to reduced greenhouse gas emissions from motorized vehicles.

APPENDICES:

Appendix A – Neighbourhood 40 km/h Zones

Appendix B – Traffic Calming Locations

Appendix C – Pedestrian Crossovers

Appendix D – Community Safety Zones

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