

City of Hamilton

Complete Streets Report for Ward 14

Review of Safety and Traffic Operations of 11 Neighbourhoods in Ward 14

Final Report

April 2022

B001061C

SUBMITTED BY CIMA CANADA INC.

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1. Introduction and Study Overview

CIMA+ was retained by the City of Hamilton (the City) to conduct a detailed review of traffic operations and safety conditions for 11 neighbourhoods in Ward 14 (the Ward) with the purpose of identifying improvements for implementing across the ward along primarily residential and collector streets. This report details the potential safety-related improvements based on best practices related to Vision Zero and Complete Streets principles. As part of this report, CIMA+ has also identified the need of any additional studies or actions to be taken by the City that may be required to improve traffic operations and safety.

The study involved the following main components:

- Comprehensive engineering review and analysis of background materials including traffic data, the existing pedestrian/cycling network, the history of requests for transportation improvements, and intersection operations to obtain a detailed understanding of existing conditions within the study area, identify data gaps, and inform the field investigations;
- Field investigations to confirm or discard preliminary findings, and to identify potential new safety issues in the study area;
- Public engagement to give opportunities to the Public to provide their input with respect to recommended countermeasures, identified safety issues, as well as with respect to issues that may not have been originally identified during our engineering reviews;
- Preparing and screening alternative designs / concepts for any recommended countermeasures with multiple alternatives;
- Evaluating the different alternatives developed in the previous component and identify the preferred alternative; and
- Preparation of a 5-year implementation plan with high-level cost estimates for the proposed countermeasures and the time periods/implementation levels defined as 'Quick Wins', 'Short-Term', and 'Long Term'.

The study identified locations with potential traffic operations and safety problems based on the following two inputs:

- Locations within Ward 14 where issues were identified during CIMA+'s comprehensive engineering reviews (i.e., review and analysis of background information and field investigation); and
- Locations within Ward 14 where issues/concerns were raised by the Public primarily through the City's Engage Hamilton platform along with phone calls, emails, and external meetings.

The engineering reviews and field investigation procedure are detailed in **Section 1.1** and **Section 1.2** of this report, respectively. **Section 1.3** details the public engagement component of the study. **Section 1.4** details how CIMA+ prepared conceptual designs. **Section 2** details the study area, **Section 3** provides an overview of the findings and recommendations for this study, and **Section 4** summarizes the 5-year implementation plan.

1.1. Engineering Reviews

As part of the engineering reviews, CIMA+ prepared two detailed technical memorandums that can be referenced for further details regarding our review of traffic data and existing traffic operations as follows:

- **Technical Memorandum #1 – Traffic Data Review and Analysis**, dated March 2021, that included a list of high-priority sites with respect to collision occurrence and speeding concerns; and
- **Technical Memorandum #2 – Existing Traffic Conditions**, dated April 2021, that included a list of movements performing poorly that may be associated with collisions. The intersections reviewed in this technical memorandum were confirmed with the City to ensure that no important sites were overlooked.

Additional items that were reviewed by CIMA+ as part of the engineering reviews include: a review of the existing pedestrian and cycling network, as well as a review of the history of requests for transportation improvements (e.g., requests for pedestrian crossovers, all-way STOP control, traffic calming/speed management measures).

The findings from CIMA+'s engineering reviews helped inform the field investigations and pinpoint high-priority sites, as well as develop problem statements and opportunities.

1.2. Field Investigation

Based on the findings from the engineering reviews, field investigations were conducted to confirm or discard any findings, and to identify potential new safety issues in the study area. During the field investigations, the CIMA+ team paid special attention to issues related to vulnerable road users.

The following is a (non-exhaustive) list of deficiencies, safety concerns and opportunities for improvement that CIMA+ endeavored to identify during the field investigations:

- **Geometry**
 - Curves (horizontal or vertical/combination of both) on approach to an intersection restricting visibility to traffic control system(s);
 - Intersections within curves;
 - Intersections with atypical geometry (skewed, offset and/or other);
 - Intersections expected to be inconspicuous to approaching drivers;
 - Steep downgrades;
 - Visibility restrictions (including approach sight triangles);
 - Visibility of pedestrians at intersections;
 - Unexpected changes in lane alignment or number of lanes;
 - Receiving lanes misaligned with approaching lanes;
 - Curves with small radii;
 - Wide turn radii at intersections (high speed/crosswalk setback);
 - Narrow lanes or shoulders (or wide lanes in residential areas); and
 - Sudden changes in road characteristics (without proper warning).
- **Signs**
 - Missing signs (mainly: speed limit, stop ahead, signal ahead, intersection ahead, lane designation, street name sign/advance street name sign, object marker);
 - Damaged or illegible signs;
 - Inappropriate sign types;
 - Inappropriate sign locations (longitudinal or lateral);
 - Visibility of signs obstructed by vegetation or other obstacles; and
 - Signs contradicting actual road conditions.

- **Signals**
 - Restricted visibility; and
 - Any signage with information conflicting with signal operations.
- **Pavement Markings**
 - Faded;
 - Missing (including arrows, stop bar);
 - Confusing;
 - Incorrect design/layout or application; and
 - Inconsistent application of same type of marking at different locations.
- **Roadside**
 - Obsolete safety systems and/or end treatments (3-cable, turned down/buried, Eccentric Loader, etc.);
 - Damaged systems; and
 - Unprotected hazards (culverts, headwalls, illumination poles with concrete bases, embankments, bodies of water, etc.).
- **Active Transportation**
 - Improper crosswalk alignment (i.e., should be straight from leaving to receiving curb ramp);
 - Non-AODA push buttons;
 - No curb ramps, tactile plates, or pedestrian countdown timers;
 - Raised curbs encroaching on crosswalk leaving/receiving ends;
 - Visibility of crosswalks;
 - Poor sidewalk condition;
 - Poor connectivity with adjacent facilities (e.g., crosswalk with no sidewalk on other side of crossing);
 - Location of bus stop encourages crossing at inappropriate locations (too far from intersections/crosswalks);
 - Hazards on bike lanes (e.g., parallel grates, manhole covers, etc.);
 - Sudden termination of bike lanes; and
 - Improper/unclear/confusing signage targeting cyclists.
- **Human Factors**
 - Violations of road user expectations/positive guidance;
 - Sign clutter; and
 - Any unusual driver/pedestrian/cyclist behaviour observed during the field investigations.
- **Land Use**
 - Accesses too close to intersections that could contribute to weaving/sudden braking (e.g. gas stations); and
 - Major traffic generators (i.e., schools, hospitals, high-rise buildings, malls, etc.).
- **Others**
 - Major pavement or shoulder defects.
 - Obvious conditions of pavement edge drop-off; and
 - Any other issues that do not fall into the previous categories.

1.3. Public Engagement

1.3.1. Study Commencement

The first outreach undertaken as part of the study occurred at study commencement and at the creation of the project website on *Engage Hamilton*. The *Engage Hamilton* online platform is a result of the City of Hamilton's Engagement Charter and Policy/Toolkit and uses multiple consulting techniques to inform the public of a study. The website enables stakeholders to participate online, providing an accessible platform for feedback from a much wider audience than a typical in-person community meeting.

The techniques used in this study to inform and solicit feedback included:

- Question / Comment forms
- Crowd maps, where participants can 'pin' location-specific comments
- Virtual slideshow presentations
- Readily accessible contact details of the project leads, and
- Links to related background studies / documentation

The website was launched on April 09, 2021, and at that time included: general study information, the Crowd Map, a Question / Additional Comment Form and Frequently Asked Questions (FAQs).

At the same time as website launch, the public was contacted through several approaches, including: a letter mailout, email (i.e., Councillor Newsletter) and Social Media posts.

The mailout comprised individual letters mailed to approximately 500 private residences within the Ward, and letters to 20 schools and community homes (i.e., nursing / retirement homes). The contact details for the approximate 500 private residences were obtained from previous traffic/transportation studies, undertaken by the City and Councillors office. As those on the mailing list had already participated in previous studies, they were considered likely to have pertinent feedback and more likely to help facilitate the spread of word. Another approach is the blanket mailout to all residences as this can have a further reach and has been completed in past studies; however, this approach can be prone to pitfalls of outdated address and/or occupancy records, is time-consuming, and is also much more costly.

The existing email contacts from the Councillor's office / Newsletter database were also used. Anyone who had attended one of Councillor Whitehead's community meetings and shared their names, addresses or email addresses with the office and agreed to receiving correspondence, received a notice of the study.

The Social Media posts consisted of regular tweets using the City Hamilton twitter page, which has close to 93K followers.

The Study Commencement phase provided the first opportunity for the public to provide input on the study. The public were encouraged to provide thoughts or information on the existing road network, its suitability for all modes of transport, and their thoughts or ideas on how they would like to see the neighbourhood changed. Most comments were captured by the Crown Map tool and an example screenshot included in **Figure 1**. Over the months of April and May (i.e., leading up to the PIC #1), the website received around 460 unique visitors.

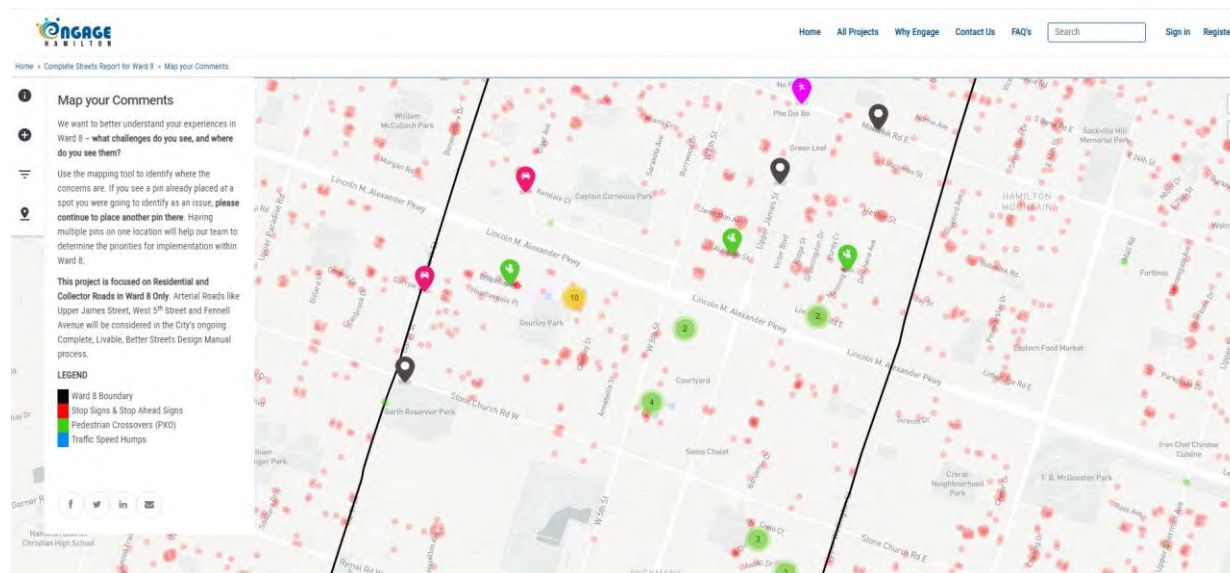


Figure 1: Engage Hamilton Website - Crowd Map Tool - Example Screenshot

1.3.2. Public Information Centre #1

Public Information Centre #1 (PIC #1) was held from May 13 to June 04, 2021, on the City's Engage Hamilton platform. PIC #1 included the presentation of:

- Study Introduction Recap and Background Studies
- Existing Conditions Assessment: findings identified by CIMA+ through in-office engineering reviews, and summary of existing issues identified from public input, provided since Study Commencement. The existing conditions assessment focused on the existing network (i.e. infrastructure, links) and traffic/transportation operations.
- Summary of Problems and Opportunities: in addition to the summary of problems, preliminary opportunities were presented for public review and feedback.

Public input was provided through either Engage Hamilton platform or directly to the project team, through phone calls, emails, and external meetings. At this PIC and other consultation milestones going forward, the findings, problems and opportunities were regularly plotted on GIS maps for convenient visualization and public presentation, and these were downloadable from the website.

In terms of visitors to the website during the PIC #1 period, there were just over 250 unique visitors; however, it is known that at least one community group also collated input from several residents, and so the information gathered is from a potentially larger number of residents.

Through PIC #1, a total of 259 issues were identified and of those, 118 were new to the project team. Additional field investigation and/or further review was conducted to confirm these locations. The 118 issues were then combined with the approximate 150 issues already identified by the project team, to comprise a comprehensive list of existing issues. The outreach and public participation at this point was considered a success given that the PIC #1 input almost doubled the number of issues identified within Ward 14.

1.3.3. Public Information Centre #2

Public Information Centre #2 (PIC #2) was held from September 02 to October 08, 2021, on the City's Engage Hamilton platform. PIC #2 presented the preliminary recommendations to countermeasure the existing issues identified through the previous phases of the study (and as presented at PIC #1). As above, the problems and opportunities were plotted on GIS maps for convenient visualization, that were downloadable from the website. The PIC #2 also used a variant of the Crowd Map tool, in that the preliminary recommendations were uploaded to the tool and users could navigate the map, to click on any recommendation of interest. As there were close to 300 recommendations, it would have been difficult to present them in plans/tabular form; however, using the crowd map tool in this way enabled an easy and accessible way for the public to view location-specific recommendations. The Project Team greatly appreciated the support of the City's Engage Hamilton Communication Team in the creation of the recommendations mapping tool. An example screenshot of the preliminary recommendations mapping is included in **Figure 2**.

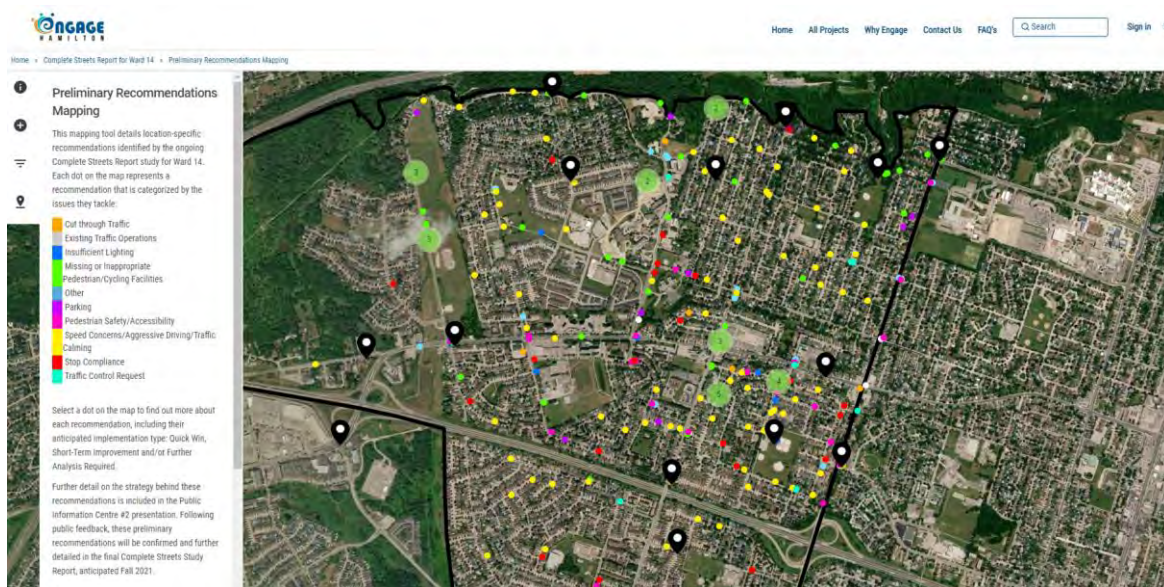


Figure 2: Engage Hamilton Website - Preliminary Recommendations Mapping Tool - Example Screenshot

In terms of visitors to the website during the PIC #2 period, there were approximately 180 unique visitors; however, as with PIC #1, it is known that at least one community group also collated input from several residents, and so the information gathered is from a potentially larger number of residents

PIC #2 provided the opportunity for the Public to provide comments on the preliminary recommendations and provide further information on any existing issues not identified or potential improvements for consideration. From PIC #2, 35 comments were received to help refine the preliminary recommendations, and a further 41 issues/potential improvements were identified. Of those 41, six were new to the project team. This was considered another indication of successful outreach, as not only were issues still being identified however the low number of new issues was evidence that the project team had a strong and comprehensive understanding of the existing conditions.

1.3.4. Total Website Visitors

As above, all study consultation milestones were well received and participated in by the public and as evident due to the considerable information received, they were considered successful in engaging and facilitating input from the public. Through the duration of the study, the website received just over 1K unique visitors in total, with many repeat visits.

1.4. Conceptual Design

CIMA+ has prepared conceptual design drawings/sketches for 23 of the 301 recommendations proposed as part of this study. The 23 were chosen as they were improvements that involved a larger requirement of construction and/or new infrastructure, and thus had a higher requirement for proof of feasibility and proof of concept. The conceptual design/sketches have been created using aerial imagery and right-of-way data provided by the City. The remaining recommendations include those that have a lesser requirement of construction and/or no new infrastructure (i.e., signing improvements, signal timing optimization, line work / pavement markings etc.). The conceptual sketches are included in **Appendix A**.

All recommendations initially undertook a high-level screening for technical feasibility during their generation and identification. Any recommendations that were not considered to be feasible were screened out and the rationale documented. For example, the addition of an exclusive left-turn lane at an intersection was screened out due to insufficient available right-of-way or the installation of speed cushions along a residential street may be screened out due to a high density of driveways, etc.

Special emphasis was applied to ensure the recommendations reflect the priorities and policies of Hamilton's Vision Zero Action Plan and provide the most benefit while having the least negative impact on traffic operations, cost, and property.

2. Study Area

Ward 14 is located in the western portion of the Hamilton Mountain. Bordered by the escarpment to the north, hydro corridor to the south, Garth Street to the east, and the City of Hamilton municipal border to the west, extending beyond Scenic Drive into Ancaster to Highway 403 and the Lincoln M. Alexander Parkway.

The study area for this project is illustrated in **Figure 3** and displays the border of Ward 14 in blue, as well as the 11 neighbourhoods comprising Ward 14 as follows:

- Scenic Woods;
- Mountview;
- Westcliffe West;
- Westcliffe East;
- Fessenden;
- Gilbert;
- Gurnett;
- Gilkson;
- Falkirk West;
- Falkirk East; and
- Carpenter.

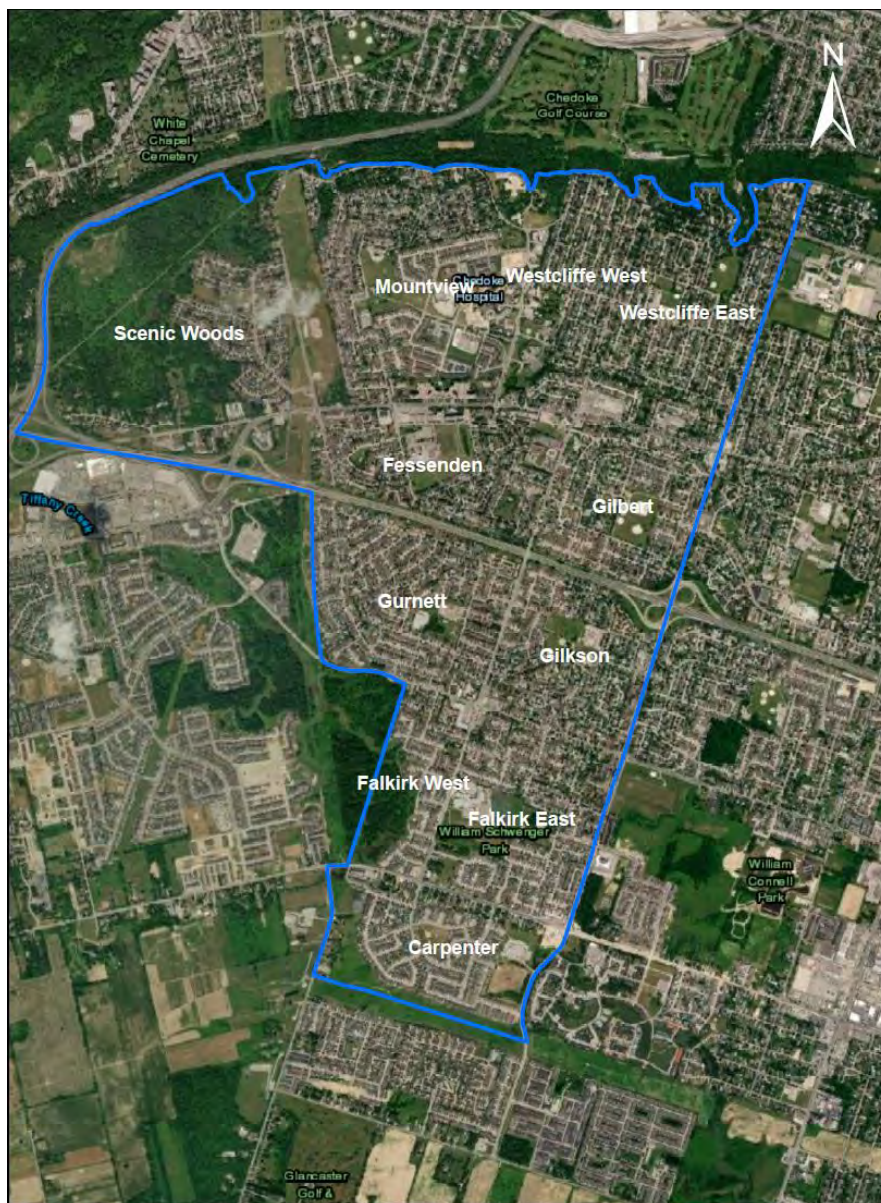


Figure 3: Study Area

The land use around the study area is primarily residential along with parks/open space and institutional developments. The combination of these land uses generates a high level of pedestrian and cyclist activity throughout the study area.

The following list provides a detailed breakdown of the land use in Ward 14 as of 2019¹:

¹ <https://spatialolutions.maps.arcgis.com/apps/MapSeries/index.html?appid=f94d0a8a7df642e185898ba537ec9cf4>

- Residential (primarily single family detached and/or townhouses): 61.28%;
- Parks/Open Space: 16.77%;
- Institutional: 8.96%;
- Transportation/Utility: 5.74%;
- Vacant Lands: 5.74%; and
- Commercial/Office: 1.52%.

As mentioned previously in the study overview, this project is specifically focused on improving safety and operations along residential and collector streets in Ward 14 only – arterial roads will not be a part of this project since they are already under consideration as part of the ongoing Complete Livable Better Streets Design Manual Project².

However, it is noted that there are a few arterial roads that run through Ward 14 (i.e., Stone Church Road, Mohawk Road, Garth Street) where there were Public concerns regarding traffic safety and operations. As a result, CIMA+ reviewed the issues/concerns raised along these arterial roadways as well and providing appropriate recommendations as needed.

3. Findings and Recommendations

Table 1 summarizes the findings for this study, comprised of issues identified during CIMA+'s engineering reviews (159 issues) and concerns raised by the Public (142 issues), by category.

Table 1: Summary of Findings

Category	Number of Findings
Cut Through Traffic	6
Existing Traffic Operations	14
Insufficient Lighting	9
Missing or Inappropriate Pedestrian/Cycling Facilities	52
Parking	15
Pedestrian Safety/Accessibility	35
Speed Concerns/Aggressive Driving/Traffic Calming	110
Stop Compliance	30
Traffic Control Request	13
Other	17
Total	301

The detailed combined findings and recommendations, including their specific locations, costs and timeframe for implementation, were provided to the City as an electronic spreadsheet that supplement this report. The detailed findings and recommendations were circulated to City staff for review and comment prior to finalizing the list.

² <https://engage.hamilton.ca/cbstreets>

4. Implementation Plan

4.1. Implementation Categories

The 5-year implementation plan ranks/prioritizes sites for implementing the recommendations within time periods/implementation levels defined as ‘Quick Wins’ (includes general maintenance), ‘Short-Term’, ‘Long Term’, and ‘Location Reviewed and Excluded from Implementation Plan’.

Quick Wins are items that can be implemented quickly, such as signs, pavement markings, trimming of vegetation, etc. These items do not necessarily require design work. The short-term recommendations are those recommendations that can be implemented relatively quickly but may require additional planning and design work, for example a pedestrian crossover. These recommendations may be more expensive and take slightly longer to implement compared to Quick Wins. The third category is long term recommendations. These are quite expensive and require extensive design work.

In addition to three implementation categories discussed above, there is another category which is not included in the implementation plan. There were additional concerns, which were reviewed but they are not included in the implementation plan. The reasons are they may be included in City’s other programs for example capital project or city’s cycling master plan. In some cases, an improvement is not warranted or not feasible. For example, a request for a traffic signal from the PIC may not be warranted. This category also has some actions to be taken by the city other than infrastructure improvements for example educational campaigns or enforcement for stop compliance or to conduct consultation to remove or expand parking or some monitoring of conditions. These are all listed in the final spreadsheet. Table 2 provides the distribution of issues under four implementation categories

Table 2: Distribution of Implementation Categories

Implementation Category	Number of Issues
Quick Wins	152
Short Term Recommendations	36
Long Term Recommendations	7
Reviewed but Excluded from the Implementation Plan	106
Total	301

4.2. Methodology for Prioritization

The prioritization of problems and opportunities was conducted in two steps.

In the first step, CIMA+ evaluated each problem and opportunity documented in the electronic spreadsheet and assigned a qualitative priority level based on collision risk assessment. The methodology used for collision risk assessment is based on TAC In-service Road Safety Review guidelines which assigns a collision risk level to each issue. The methodology is demonstrated in the flow chart in **Figure 4**. There are two known terms used, collision frequency rating and collision severity rating to determine collision risk assessment rating. The collision frequency rating means how frequently the collisions are expected to occur. These ratings can be frequent, occasional, infrequent, and rare. The collision severity rating is level of severity, which can be from a property damage to extreme severity

like a fatality. These two are then combined to assign a risk level to an identified issue from A to F. A is the lowest risk and F is the highest risk.



Figure 4: Collision Risk Assessment

There are two ways to assign collision frequency rating, one using **Table 3** and the other using **Table 4**. Both are used and the higher rating is selected. **Table 3** provides a frequency rating based on exposure and the probability that an individual road user will experience a collision. For example, for a low volume road, like a residential road where the probability of a pedestrian collision is low, the frequency rating will be rare. Probability is the chance that an individual road user will experience a collision while using the facility, which is considered as a function of proposed geometry, traffic control, human factors, and roadway environment. Probability of collisions occurring because of an identified issue was assigned as high, medium, or low by considering the previously noted factors. Exposure is the number of road users expected to use the facility and be exposed to a collision risk. **Table 4** directly uses collision frequencies of a specific issue to determine collision frequency rating. For example, for a location with less than 1 collision per year, but more than 1 collisions in 5 years, the frequency rating will be infrequent, as shown in the second row from the bottom in the right table.

Table 3: Frequency Rating Matrix Based on Probability

Exposure	Probability	Frequency Rating
High	High	Frequent
Medium	High	Frequent
Low	High	Occasional
High	Medium	Occasional
Medium	Medium	Occasional
Low	Medium	Infrequent
High	Low	Infrequent
Medium	Low	Rare
Low	Low	Rare

Table 4: Frequency Rating Matrix Based on Collision Frequency

Expected Collision Frequency Due to the Identified Issue	Frequency Rating
5 or more collisions per year	Frequent
1 to 4 collisions per year	Occasional
Less than 1 collision per year, but more than 1 collision in 5 years	Infrequent
Less than 1 collision per 5 years	Rare

Table 5 is used to assign severity rating. For example, in the first row, collisions involving pedestrians, or bicycles are likely to have an extreme severity rating and the rear-end collisions are generally low severity collisions. Collisions involving high speeds are also given extreme severity rating.

Table 5: Severity Rating Matrix

Typical Collision Types Expected Due to the Identified Issue	Expected Collision Severity Due to the Identified Issue	Severity Rating
Collisions Involving Pedestrians, Bicycles, Trucks, High Speed Collisions	Probable Fatality	Extreme
Head-On, Crossing (T-bone), Off-Road, Medium to High Speed Collisions	Moderate to Incapacitating injury	High
Left-turn, Right Turn; Medium to Low Speed Collisions	Minor to Moderate Injury	Medium
Rear-End, Side Swipe; Low Speed Collisions	Property Damage Only	Low

Once we have collision frequency rating, and collision severity rating, **Table 6** can be used to determine collision risk rating. Collision risk can be from A to F. A is lowest risk level, and F is highest risk level. For example, with a frequency rating of rare (e.g., pedestrian collisions are rare) and extreme severity, the collision risk rating will be a D, which is Moderate to High Risk Level.

Table 6: Collision Risk Assessment Matrix

Frequency Rating	Severity Rating			
	Low	Medium	High	Extreme
Frequent	D	E	F	F
Occasional	C	D	E	F
Infrequent	B	C	D	E
Rare	A	B	C	D
Collision Risk Ratings	A: Lowest Risk Level		D: Moderate to High Risk Level	
	B: Low Risk Level		E: High Risk Level	
	C: Low to Moderate Risk Level		F: Highest Risk Level	

In the second step, CIMA+ assigned each issue a qualitative priority level based on if the issue was identified only by engineering review or it was identified by both engineering review and by public. A priority level of '1' was assigned to a problem and opportunity if the concern was only identified during CIMA+'s engineering reviews. A priority level of '2', indicating a higher priority, was assigned to a problem and opportunity if the concern was identified by the Public as well as during the engineering reviews. The priority level was used as a multiplier (i.e., x1 or x2 for a priority level of '1' or '2', respectively) for the given Collision Risk Assessment Rating using the following point system:

- A: 1 point;
- B: 2 points;
- C: 3 points;
- D: 4 points;
- E: 7 points; and
- F: 10 points.

For example, if a problem and opportunity have a Collision Risk Assessment Rating of E and was identified both during the engineering reviews and by the Public, it was assigned 14 points. These assigned points for all problems and opportunities helped inform the prioritization of recommendations for the 5-year implementation plan.

4.3. Five Year Implementation Plan

After determining the priority of countermeasure implementation, CIMA+ combined the implementation of countermeasures at nearby locations if they are not long-term in nature to minimize mobilization/demobilization costs for the City and also to ensure uniformity when implementing countermeasures across the Ward as part of the implementation plan. **Table 7** provides the summary of the implementation plan. The detailed implementation plan is included in **Appendix B**.

Table 7: Summary of Five Year Implementation Plan

Recommendation Category	Year 1	Year 2	Year 3	Year 4	Year 5
	Quick Wins	Short-Term	Short-Term	Long-Term	Long-Term
Cut Through Traffic	4	-	-	-	-
Existing Traffic Operations	5	-	-	-	-
Insufficient Lighting	-	-	-	-	-
Missing or Inappropriate Pedestrian/Cycling Facilities	4	9	7	1	3
Parking	9	-	1	-	-
Pedestrian Safety/Accessibility	18	9	-	-	-
Speed Concerns/Aggressive Driving/Traffic Calming	88	4	4	-	2
Stop Compliance	13	-	-	-	-
Traffic Control Request	5	-	1	-	-
Other	6	-	1	1	-
COST	\$373,500	\$504,196	\$455,900	\$2,214,600	\$1,180,940
	\$4,729,136				

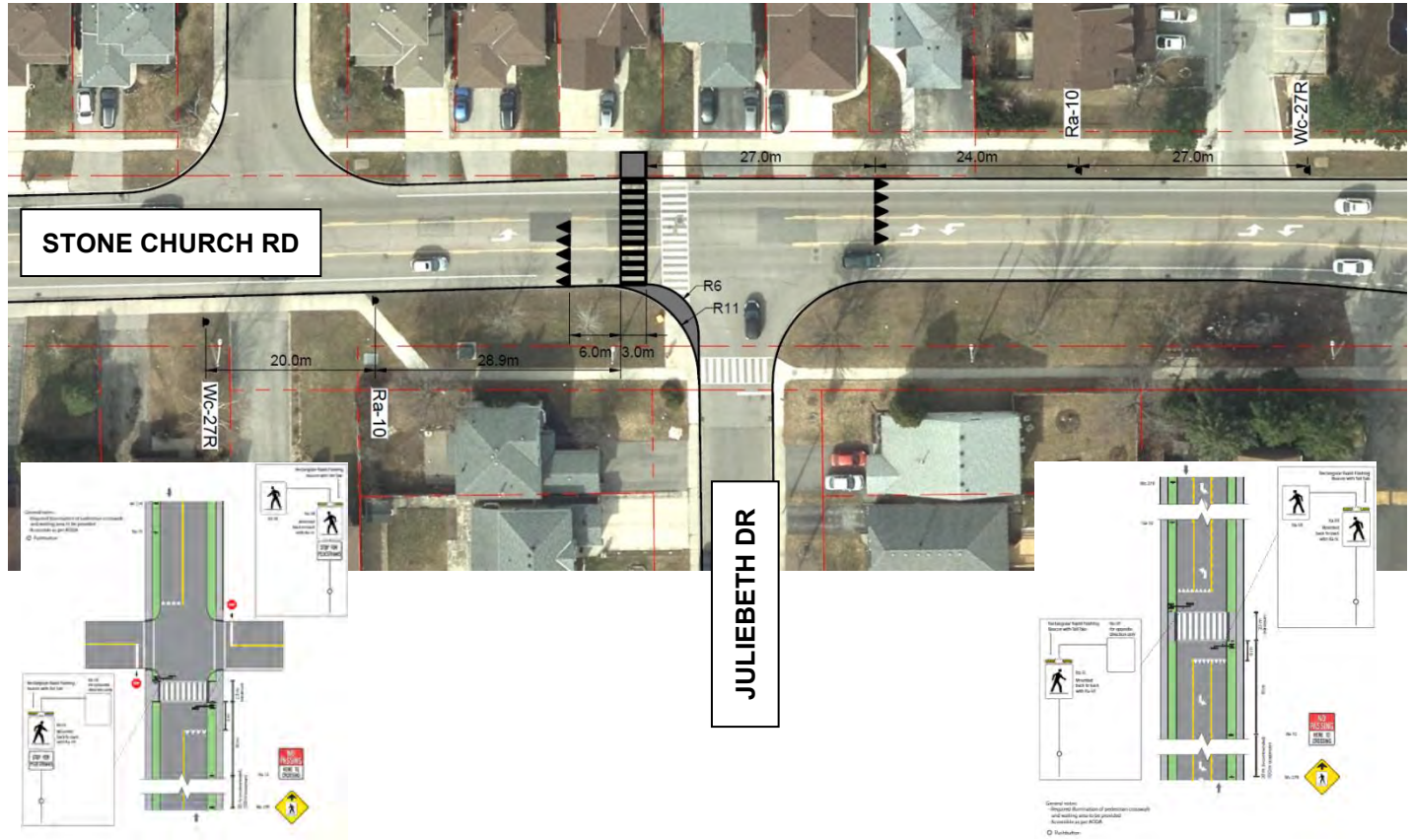
A

Appendix A: Conceptual Designs



LOCATION:
JULIEBETH DR @ STONE CHURCH RD

DRAWING #
1

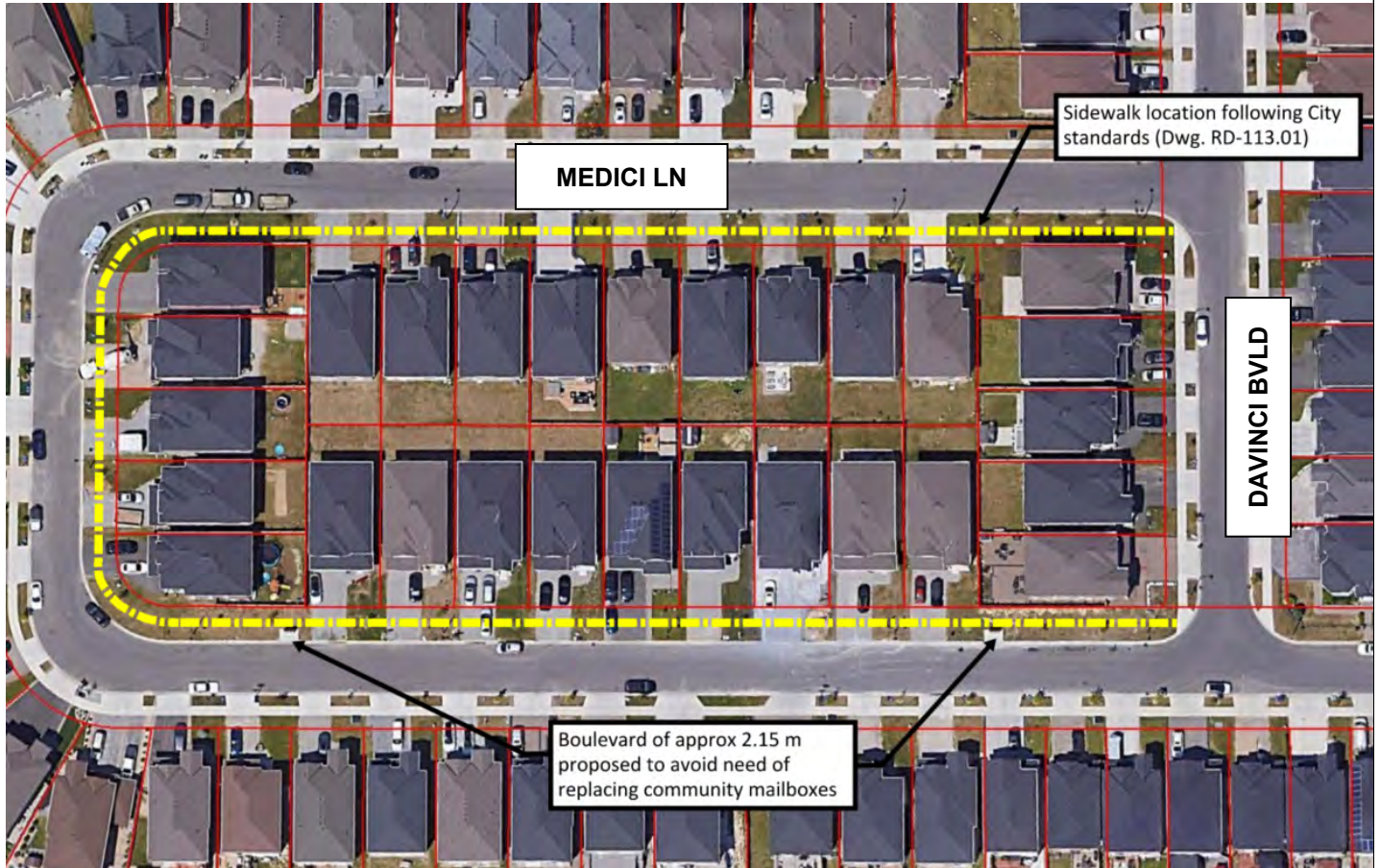


DETAILS:

ID #	1
Improvement Category	Pedestrian Safety/Accessibility
Recommendation	Install a Level 2 Type B PXO on the indicated segment
Estimated Cost	\$50,000
Notes	<p>Following OTM Book 15 guidance, a PXO is proposed at the west crossing, replacing the existing crossing. Based on traffic volumes (approximately 8653 vehicles along Stone Church Rd at this location, in 8-hours), a Level 2 Type B PXO should be considered at this location. The following modifications will also be applied to facilitate the PXO:</p> <ul style="list-style-type: none"> • Reduce corner radius; • Extend and/or realign Stone Church Rd sidewalks to integrate with crossing; • Install tactile plates in accordance with AODA standards; and • Ensure appropriate illumination as per OTM Book 15. <p>On the north side of the road, a tree will be displaced.</p>

LOCATION:
 MEDICI LN FROM DAVINCI BLVD (SOUTH) TO DAVINCI BLVD (NORTH)

DRAWING #
 2



Sidewalk location following City standards (Dwg. RD-113.01)

MEDICI LN

DAVINCI BLVD

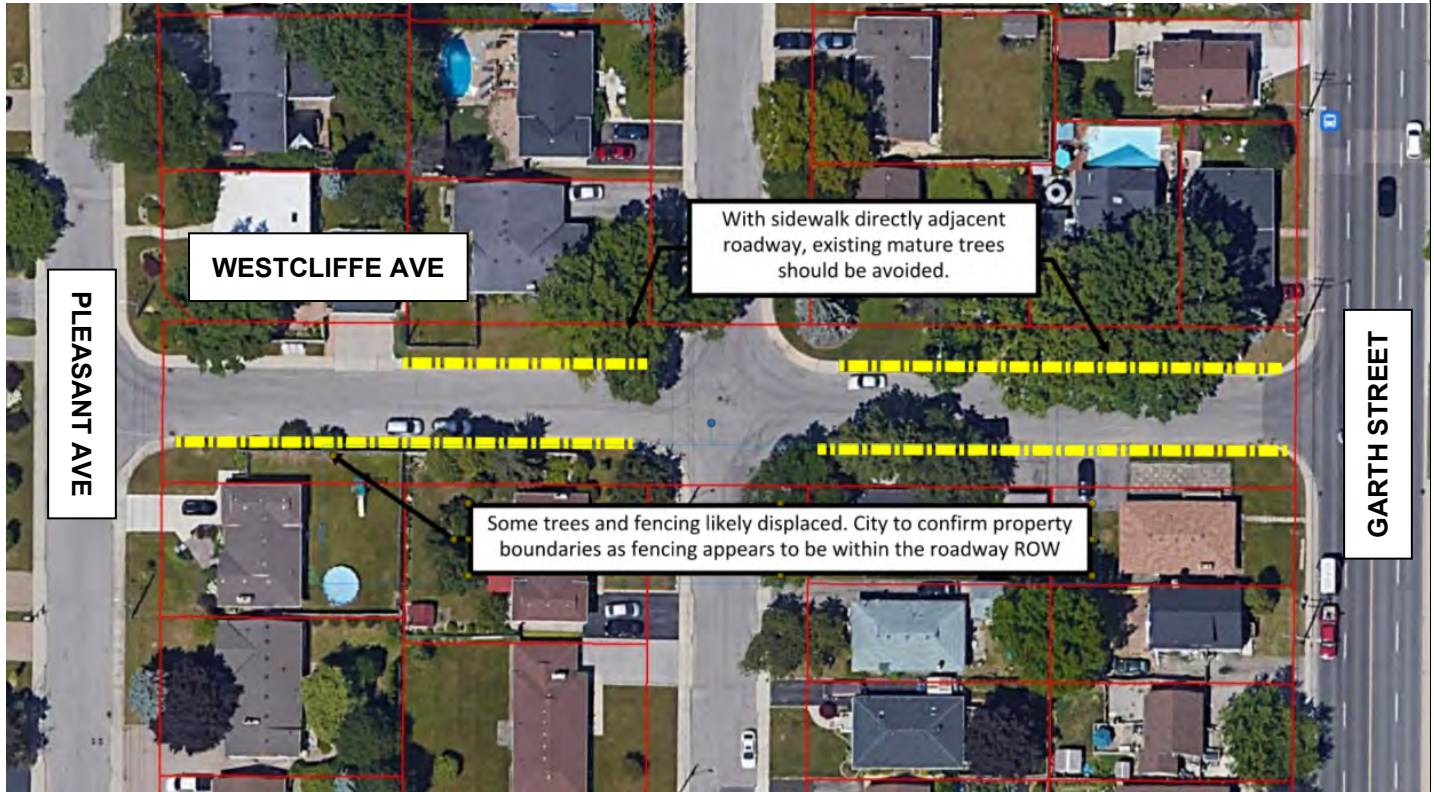
Boulevard of approx 2.15 m proposed to avoid need of replacing community mailboxes

DETAILS:

ID #	111
Improvement Category	Missing or Inappropriate Pedestrian/Cycling Facilities
Recommendation	Install a sidewalk on the inside of the indicated segment.
Estimated Cost	\$47,200
Notes	ROW available is 20 m wide and typical of a local urban residential road. Sidewalks recommended designed per City standard drawing RD-113-01. A boulevard that is slightly wider than the standard is proposed on the southern side of the loop, to avoid having to relocate community mailboxes.

LOCATION:
 WESTCLIFFE AVE FROM GARTH ST TO PLEASANT AVE

DRAWING #
 3

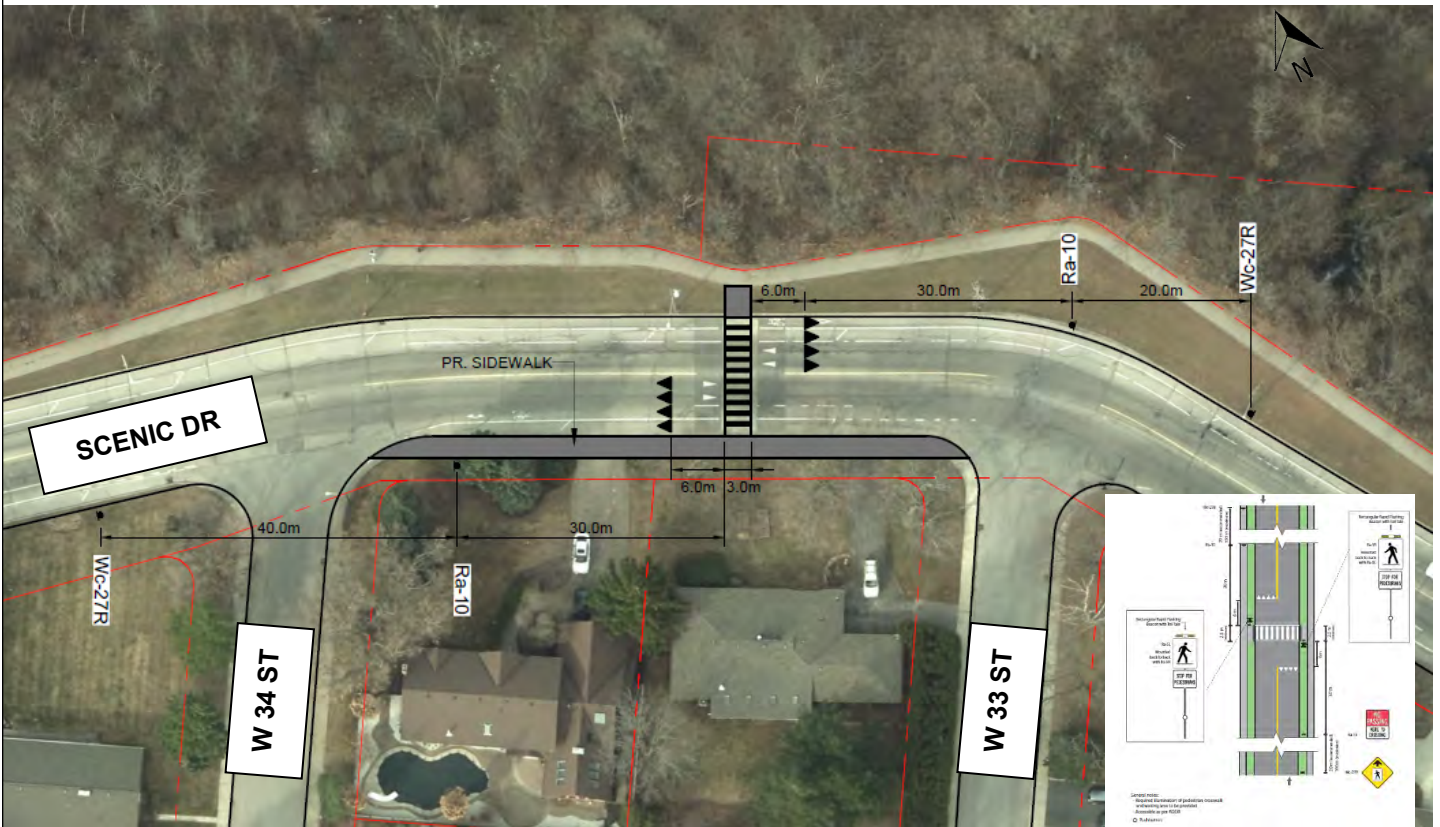


DETAILS:

ID #	113
Improvement Category	Missing or Inappropriate Pedestrian/Cycling Facilities
Recommendation	Install sidewalks on the east and west sides of the indicated segment.
Estimated Cost	\$31,900
Notes	ROW available is 20 m wide and typical of a local urban residential road. In exception to City standard drawing RD-113-01, it is recommended existing sidewalks (located immediately adjacent roadway) be extended to fill in the gaps and minimize impacts. Towards Pleasant Ave and to the west side, some trees and fencing will be displaced by the proposed sidewalks. It is noted that the residential fence lines appear to encroach into the public roadway ROW at this location and it is recommended the City review property boundaries.

LOCATION:
 SCENIC DR FROM UPPER PARADISE RD TO W 35 ST

DRAWING #
 4

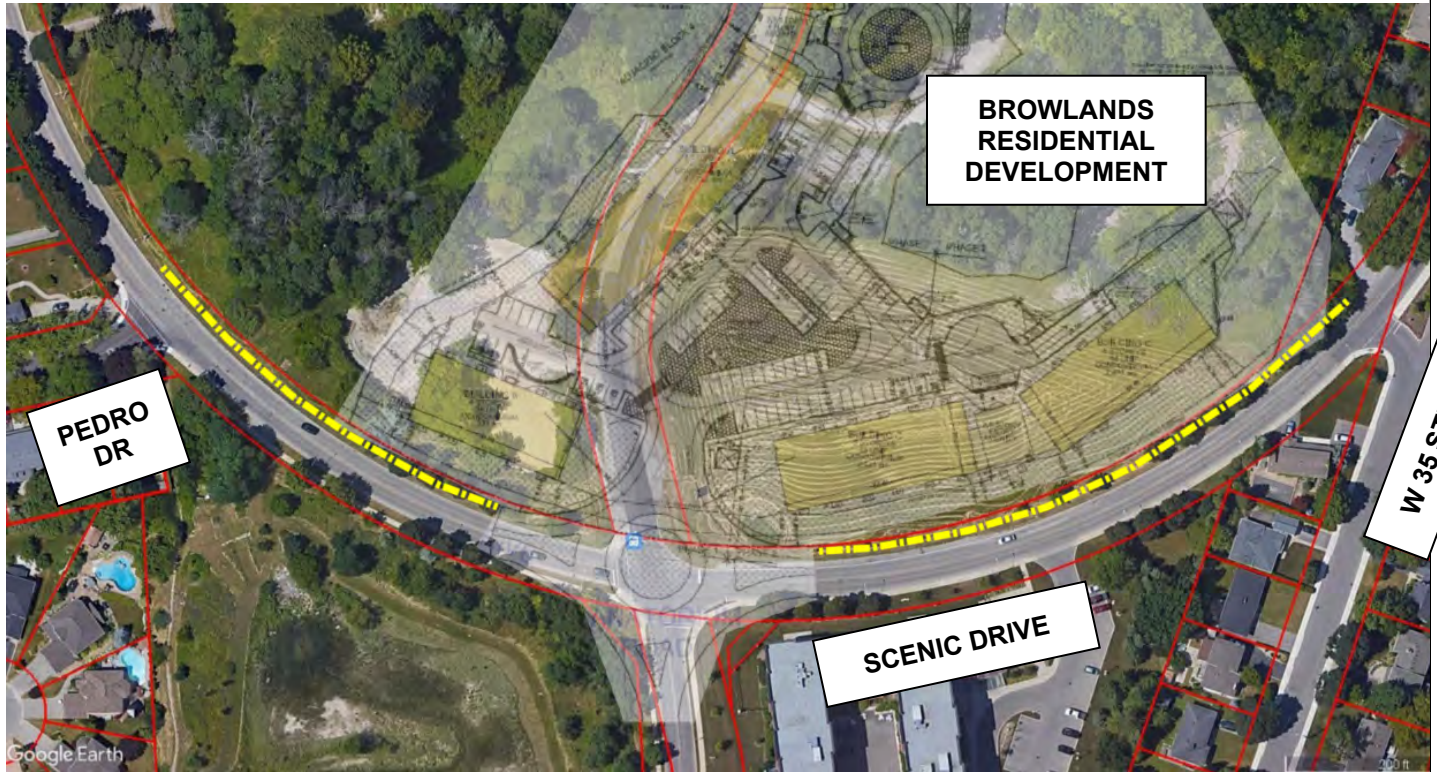


DETAILS:

ID #	117
Improvement Category	Missing or Inappropriate Pedestrian/Cycling Facilities
Recommendation	Install a Level 2 Type C PXO on the indicated segment
Estimated Cost	\$100,000
Notes	<p>It is recommended a PXO Level 2 Type C is installed between W 34 St and W 33 St, at the location of an existing speed hump. The speed hump was recently constructed and is a mitigation measure for speeding around the curve. A reduction of the posted speed limit within this area is also recommended to 40 km/h. A stopping sight distance of 85 m will be required (assuming a design speed of 60 km/h), which is available. It is noted that advisory speed signs of 20 km/h are already present on both approaches to the curve.</p> <p>The following modifications will also be applied to facilitate the PXO:</p> <ul style="list-style-type: none"> • Provide a sidewalk on the south leg, to connect the segment with the rest of the network and sidewalk improvements as proposed by this study (see DWG #23); • PXO to look to make use of the existing speedhump; it is approximately 4 m wide and so capable of accommodating the PXO cross-walk and the speed-hump will further act as a speeding deterrent. However, the combined use of a PXO and speed hump is not common. • Install tactile plates in accordance with AODA standards; and • Ensure appropriate illumination as per OTM Book 15.

LOCATION:
 SCENIC DR FROM W 35 ST TO SAN PEDRO DR

DRAWING #
 5



DETAILS:

ID #	113
Improvement Category	Missing or Inappropriate Pedestrian/Cycling Facilities
Recommendation	Install a sidewalk on the north side of the indicated segment
Estimated Cost	\$41,000*
Notes	ROW available is 20 m wide and typical of a local urban residential road. Sidewalk can be constructed to City standard drawing RD-113-01. Final extents and construction requirements will be dependant on the proposed Browlands Residential Development, which includes improvements (proposed roundabout) at the Scenic Drive and Sanitorium Road intersection. *Estimated cost could be reduced following confirmation of required sidewalk limits.

LOCATION:
 UPPER HORNING RD FROM MOHAWK RD W TO ELMIRA DR

DRAWING #
 6

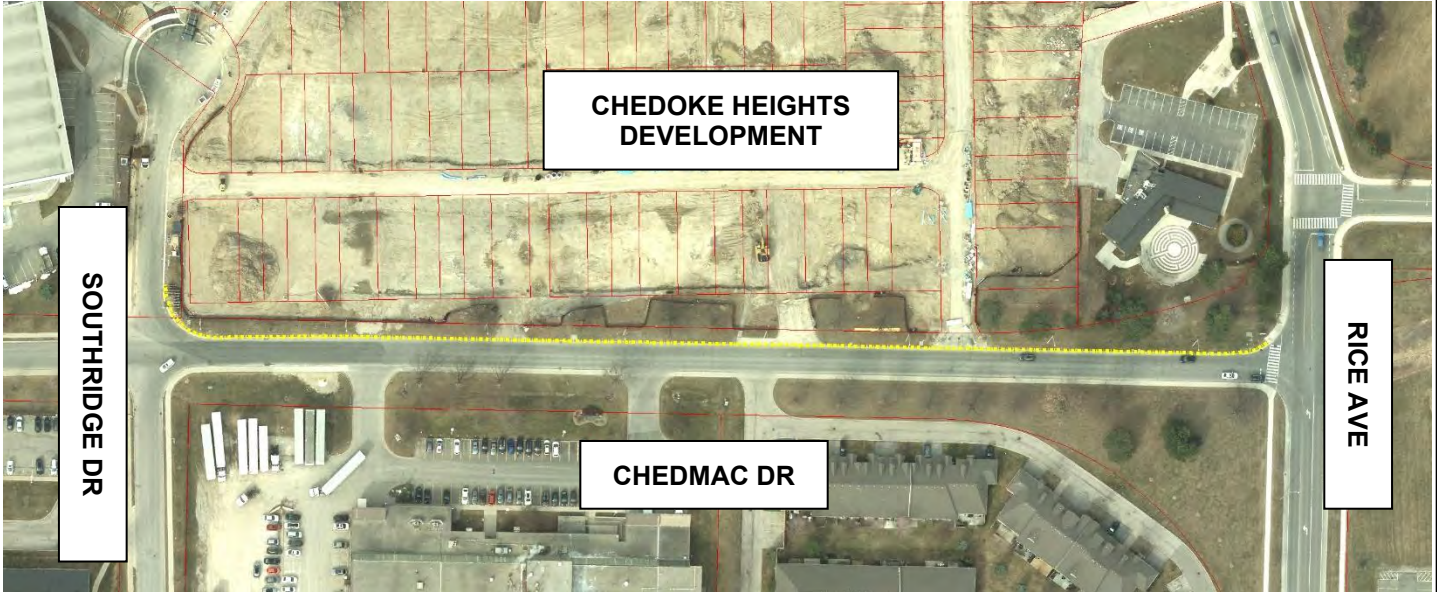


DETAILS:

ID #	122
Improvement Category	Missing or Inappropriate Pedestrian/Cycling Facilities
Recommendation	Install a sidewalk on the west side of the indicated segment
Estimated Cost	\$37,000
Notes	ROW available is 20 m wide and typical of a local urban residential road. Sidewalk can be constructed immediately adjacent the roadway, mirroring that on the eastern side. It is noted that some residential driveway embankments are present within ROW, which can increase grading requirements (i.e., small toe walls potentially required).

LOCATION:
CHEDMAC DR FORM RICE AVE TO SOUTHRIDGE DR

DRAWING #
7



CHEDOKE HEIGHTS DEVELOPMENT – CONCEPT SITE PLAN

DETAILS:

ID #	123
Improvement Category	Missing or Inappropriate Pedestrian/Cycling Facilities
Recommendation	Install a sidewalk on the north side of the indicated segment
Estimated Cost	N/A*
Notes	ROW available is 20 m wide and typical of a local urban residential road. Sidewalk can be constructed to City standard drawing RD-113-01. Final extents and construction requirements will be dependant on the proposed Chedoke Heights development. The conceptual site plan available via their website indicates that a sidewalk will be provided on Chedmac Drive, however potentially not all the way to Rice Avenue. The City is recommended to consult with the developer and establish sidewalk limits and/or partner with the developer to ensure connectivity to Rice Avenue. *There will be a cost if sidewalk requirements are identified to ensure connectivity to Rice Avenue.

LOCATION:
 LESLIE AVE FROM UPPER PARADISE RD TO W 35 ST

DRAWING #
 8

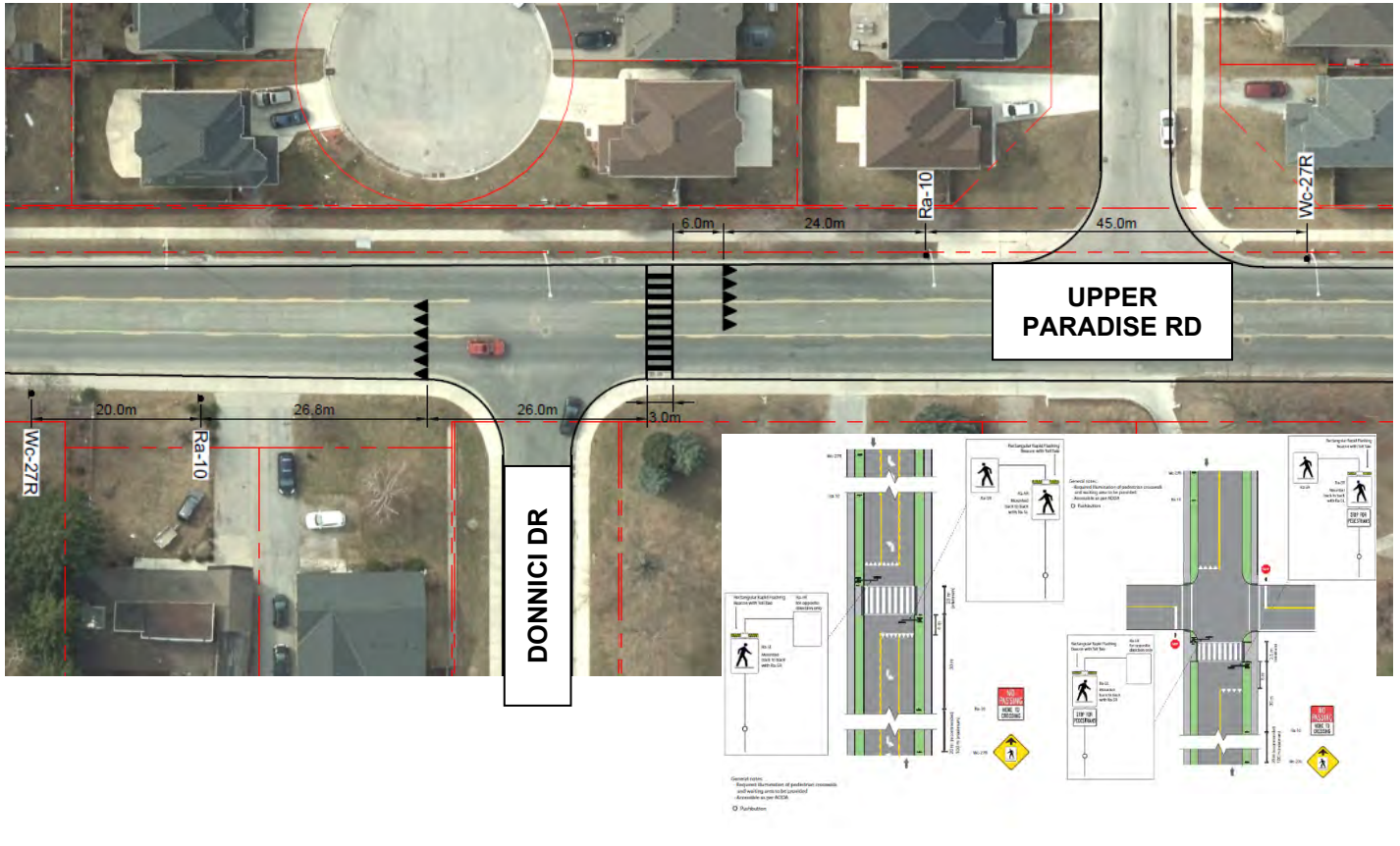


DETAILS:

ID #	125
Improvement Category	Missing or Inappropriate Pedestrian/Cycling Facilities
Recommendation	Install sidewalks on the north and south side of the indicated segment
Estimated Cost	\$88,800
Notes	ROW available is 20 m wide and typical of a local urban residential road. Sidewalk is proposed to be constructed immediately adjacent roadway, to connect with existing sidewalks at intersections. Some trees, signs and fencing will be displaced by the proposed sidewalks on both sides of the street. It is noted that some residential fences / hedgerows encroach into the public roadway ROW and in the location of the proposed sidewalk. It is recommended the City confirm property boundaries and consult with the property owners prior to construction.

LOCATION:
UPPER PARADISE RD BETWEEN RYMAL RD W AND RICHVIEW DR

DRAWING #
9

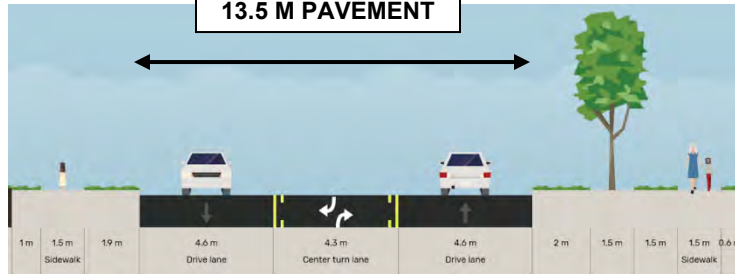


DETAILS:

ID #	130
Improvement Category	Missing or Inappropriate Pedestrian/Cycling Facilities
Recommendation	Install a Level 2 Type B PXO on the indicated segment
Estimated Cost	\$50,000
Notes	<p>It is recommended a PXO Level 2 Type B is installed within this midblock segment (level and type recommended due to the three lane cross-section and 8-hour volume is approximately 7,762 vehicles based on 2016 TMC at Richview Drive @ Upper Paradise Road grown to 2021 volumes).</p> <p>The following modifications/considerations have been made to facilitate the PXO:</p> <ul style="list-style-type: none"> • PXO location proposed as it is either greater than or equal to 200 m from Rymal Road and Richview Drive intersections (per OTM Book 15 guidelines) • PXO will require to span the Donnici Drive intersection • Install tactile plates in accordance with AODA standards; and • Ensure appropriate illumination as per OTM Book 15.

LOCATION:
UPPER PARADISE RD FROM STONE CHURCH RD W TO RYMAL RD W

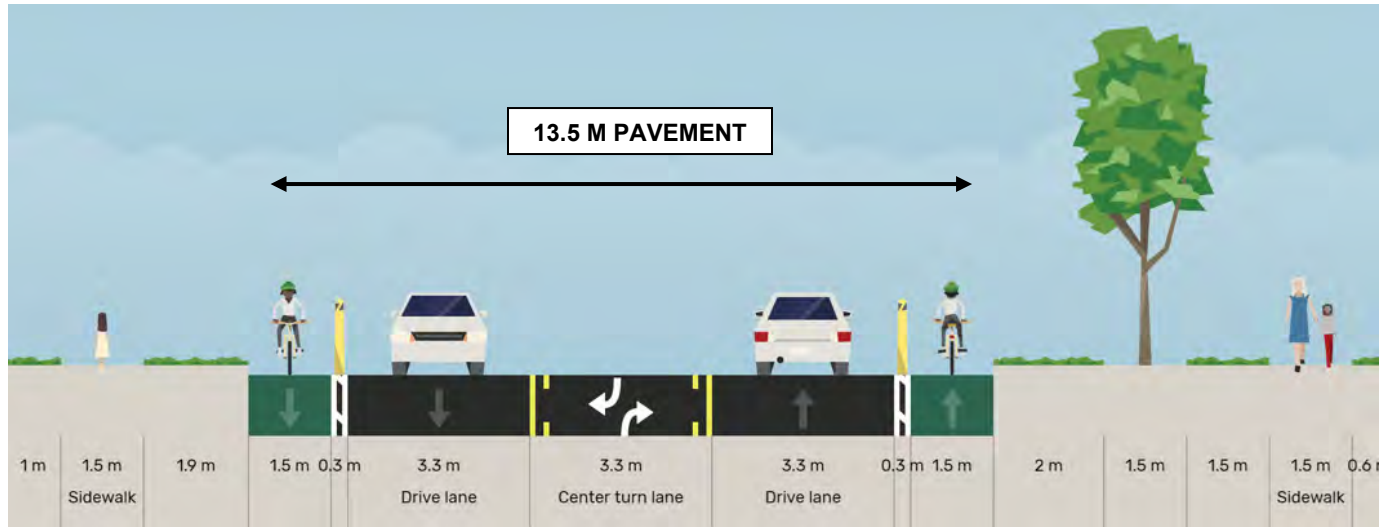
DRAWING #
10



EXISTING CROSS-SECTION



EXISTING CONDITIONS



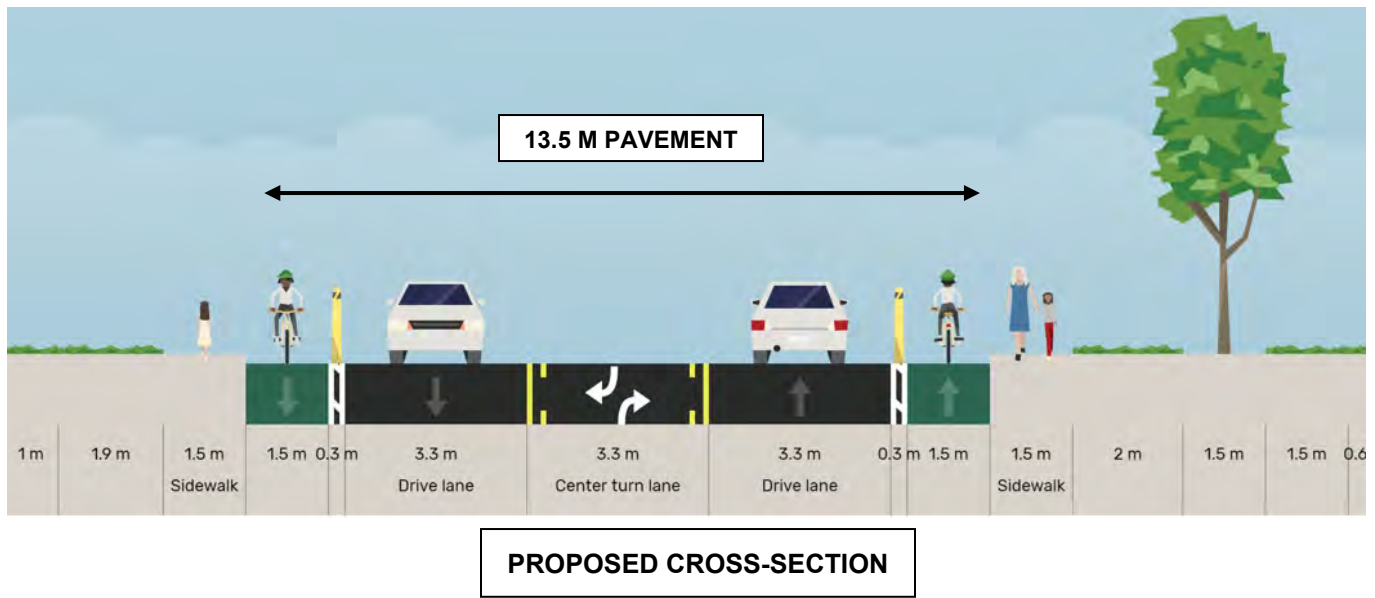
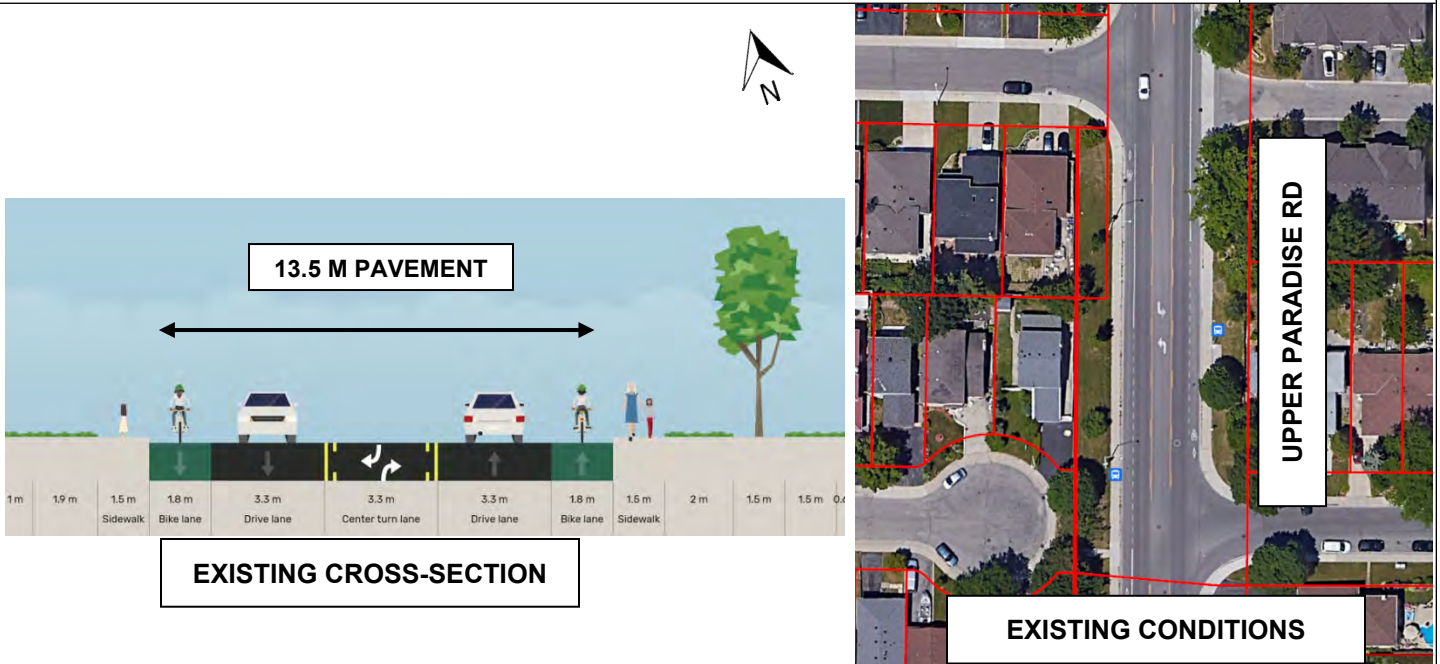
PROPOSED CROSS-SECTION

DETAILS:

ID #	136
Improvement Category	Missing or Inappropriate Pedestrian/Cycling Facilities
Recommendation	Upgrade the planned installation of bike lanes along this segment to separated bicycle facilities
Estimated Cost	\$432,700.00*
Notes	ROW varies through corridor (~25 m) however to avoid property impacts and reduce costs, it is recommended to implement cycle facilities within the existing pavement width (13.5 m). Improvements would require lane reduction, however this will be to similar widths already present on Upper Paradise Road, north of Stone Church Road. *Estimated cost is total cost of facilities, and not incremental on the previously planned facilities.

LOCATION:
UPPER PARADISE RD FROM STONE CHURCH RD W TO SCENIC DR

DRAWING #
11

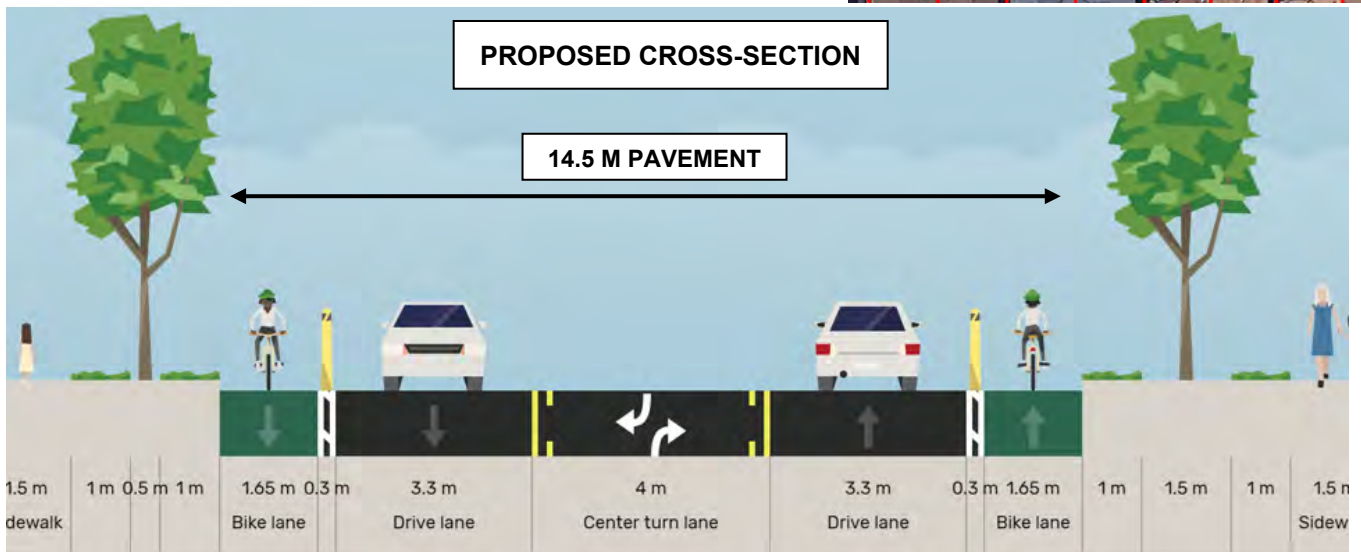
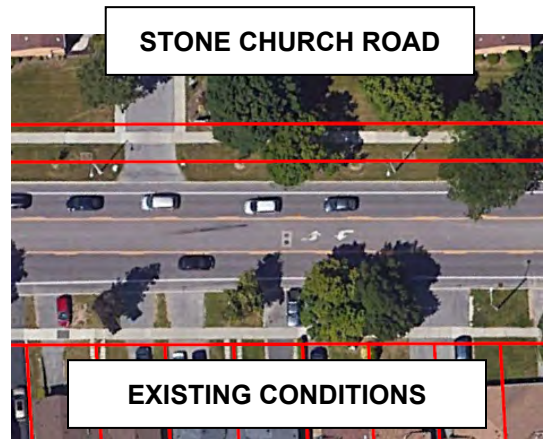
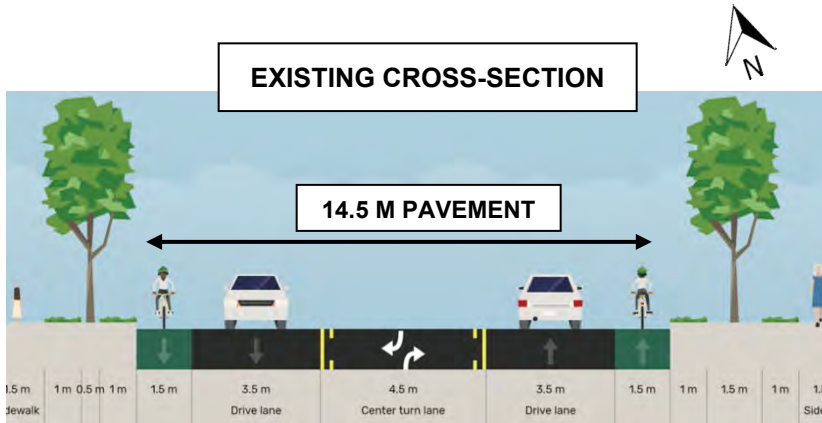


DETAILS:

ID #	137
Improvement Category	Missing or Inappropriate Pedestrian/Cycling Facilities
Recommendation	Upgrade the existing on-road bike lanes along this segment to separated bicycle facilities
Estimated Cost	\$81,216.00
Notes	ROW varies through corridor (~25 m) however to avoid property impacts and reduce costs, it is recommended to upgrade the cycle facilities within the existing pavement width (13.5 m). The existing bike lanes are 1.8 m in width, and this can be reconfigured into a 1.5 m lane with 0.3 m buffer. The 0.3 m buffer is proposed to include flexible bollards. The Flex bollards will be placed in the middle of the buffer, typically at 6 m to 12 m intervals (10 m intervals assumed for costing).

LOCATION:
STONE CHURCH RD W FROM JULIEBETH DR TO GARTH ST

DRAWING #
12

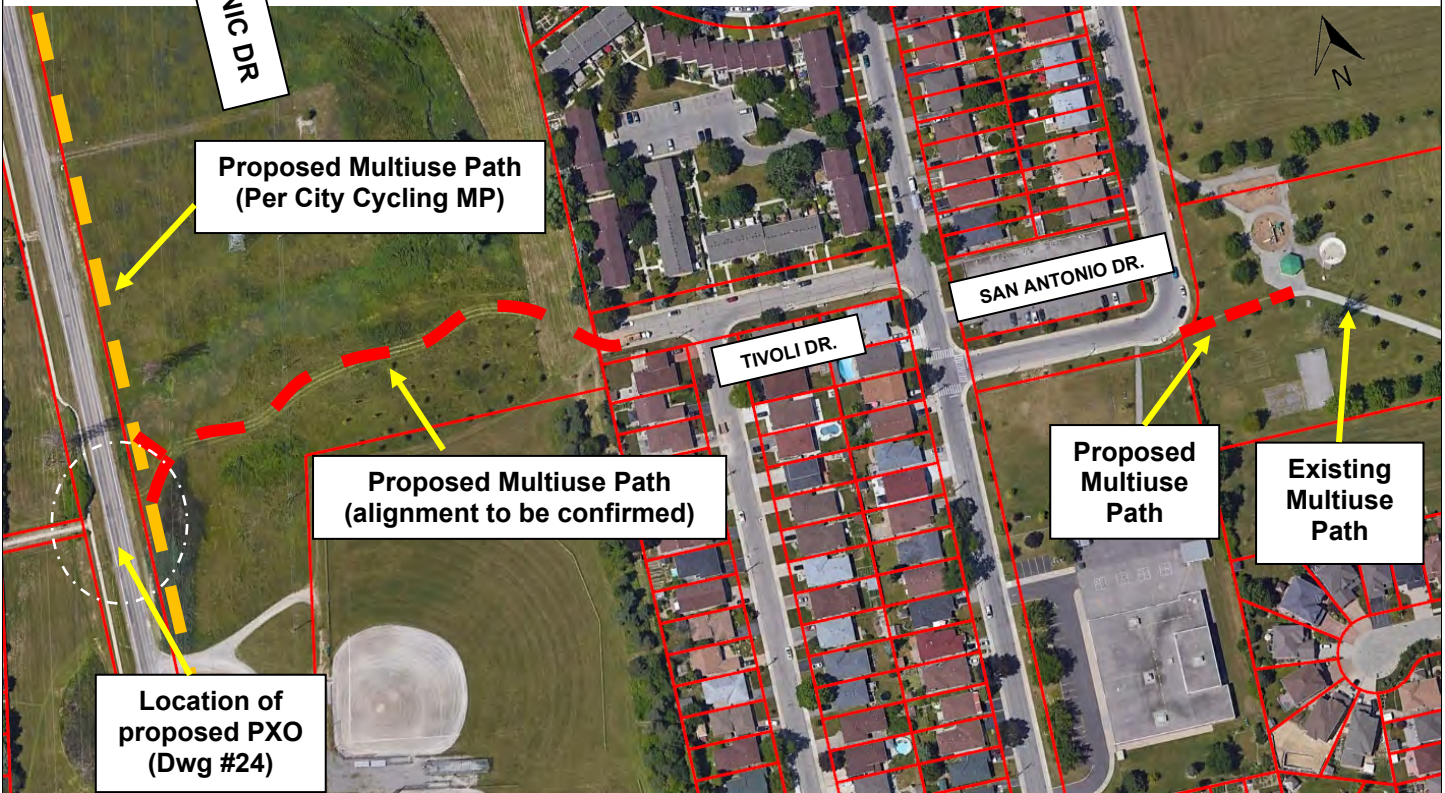


DETAILS:

ID #	138
Improvement Category	Missing or Inappropriate Pedestrian/Cycling Facilities
Recommendation	Upgrade the existing on-road bike lanes along this segment to separated bicycle facilities
Estimated Cost	\$30,080.00*
Notes	To avoid property impacts and reduce costs, it is recommended to upgrade the cycle facilities within the existing pavement width (13.5 m). The existing pavement is 14.5 m in width, and lanes can be reduced to accommodate enhanced cycling facilities: a 1.65 m lane with 0.3 m buffer. The 0.3 m buffer is proposed to include flexible bollards. The Flex bollards will be placed in the middle of the buffer, typically at 6 m to 12 m intervals (10 m intervals assumed for costing). *Cost does not include intersections, at which it is recommended to revert to existing facilities. Separated and improved cycling facilities at intersections require significant modifications and there are several approaches that can be taken. It is recommended the City conduct a planning / feasibility study to identify preferred approach if the City also desire improvements at intersections.

LOCATION:
 MOUNTVIEW PARK TRAIL (WEST END) TO SCENIC DR

DRAWING #
 13



DETAILS:

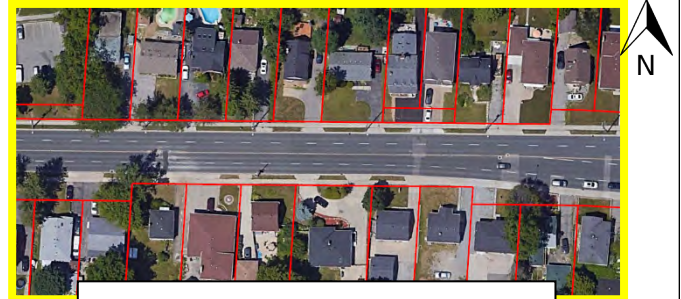
ID #	140
Improvement Category	Missing or Inappropriate Pedestrian/Cycling Facilities
Recommendation	Install multi-use trail/path to improve connectivity between the existing multi-use path in Mountview Park and the planned Scenic Dr facility (multi-use trail), as recommended by the City's Cycling Masterplan.
Estimated Cost	\$71,300.00*
Notes	<p>Two segments of multi-use path (MUP) are proposed: the first providing a connection between Scenic Road and Tivoli Drive, and the second providing a more direct east-west connection from the existing MUP in Mountview Park. In between the segments, AT users will either use existing sidewalks or ride on the roadway of Tivoli Drive and San Antonio Drive. It is recommended these segments of roadway become a signed cycling route. It is noted the east-west segment of San Antonio Drive at this location is already planned to be come a signed route (shared on-street) per the City's Cycling Masterplan.</p> <p>The alignments are to be confirmed however it is noted there is an existing desire line in the Mountview Park, already made by pedestrians/cyclists. Agreement will be required for the MUP through the Hydro One transmission corridor; however, it is noted the MUP can follow an alignment that is (assumed) worn into the field by maintenance vehicles. The MUP can be designed to accommodate both AT users and the Hydro One maintenance vehicle (when required), and this could assist in negotiations with Hydro One. Design of the MUP facilities is recommended to follow the design approach and recommendations as outlined by the City's Trail Masterplan.</p> <p>* Cost is for both segments as illustrated above, totalling approximately 250 m.</p>

LOCATION:
MOHAWK RD W FROM GARTH ST TO OLD MOHAWK RD

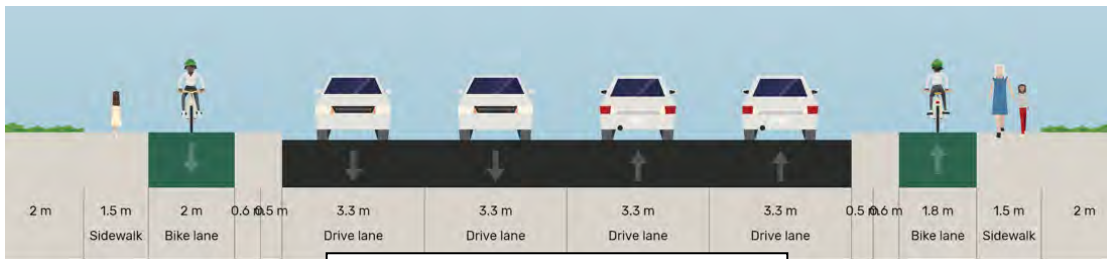
DRAWING #
14



EXISTING CROSS-SECTION



**EXISTING CONDITIONS –
EXAMPLE OF ROW PINCH POINT**



PROPOSED CROSS-SECTION

DETAILS:

ID #	147
Improvement Category	Missing or Inappropriate Pedestrian/Cycling Facilities
Recommendation	City to conduct a feasibility study to investigate the installation of separated bicycle facilities along this segment. Per OTM Book 18, Cycle Tracks would be the recommended facility.
Estimated Cost	\$1,539,000*

Notes

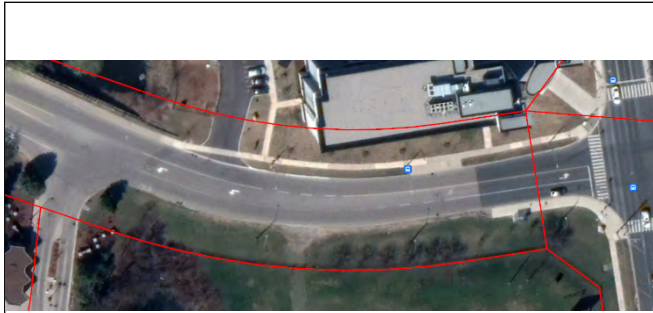
The study is recommending cycle tracks be considered along this segment. Per OTM Book 18, on roadways with two or more lanes per direction, a buffered bike lane is considered a minimum and the typical facility is one that is physically separated from the roadway. Along this segment there are numerous stretches with wide boulevards and this will provide opportunity for a roadside cycle track, with minimal impacts. However, as shown above, there are segments wherein the ROW is constrained. Potential property requirement will have to be confirmed in subsequent planning phases, however at the above example location (just west of Garth Street) the existing boulevard is approximately 1.8 m in width. Cycle tracks are recommended to be 2.0 m in width, however exceptions can be made in constrained locations and widths reduced to 1.8 / 1.75 m. Per OTM Book 18, a buffer of 0.6 m is recommended to the curb of the roadway.

For the purpose of costing, it is assumed the cycle tracks can be retrofitted into the existing roadway and no property acquisition is required. As next steps, it is recommended the City review this improvement under a feasibility study and/or an Environmental Assessment study.

*Cost is for a raised and curb separated cycle track, retrofit to existing roadway. Includes construction but excludes design and signal modifications. Form of cycle track and materials as well as related components such as bike signals, upgrade/modification of signal controllers, utility/lighting pole relocations, bike boxes etc. are to be confirmed and will impact cost.

LOCATION:
 GARTH ST FROM ST. THERESE OF LISIEUX CATHOLIC ELEMENTARY SCHOOL
 DRIVEWAY TO RYMAL RD W

DRAWING #
 15



EXISTING CONDITIONS



**GARNER ROAD / RYMAL ROAD AND GARTH STREET
 SCHEDULE C CLASS EA – PLATE #28**

Garth Street on approach to Rymal Road will be improved with conventional bike lanes, in conjunction with the Rymal Rd improvements, undertaken by the City

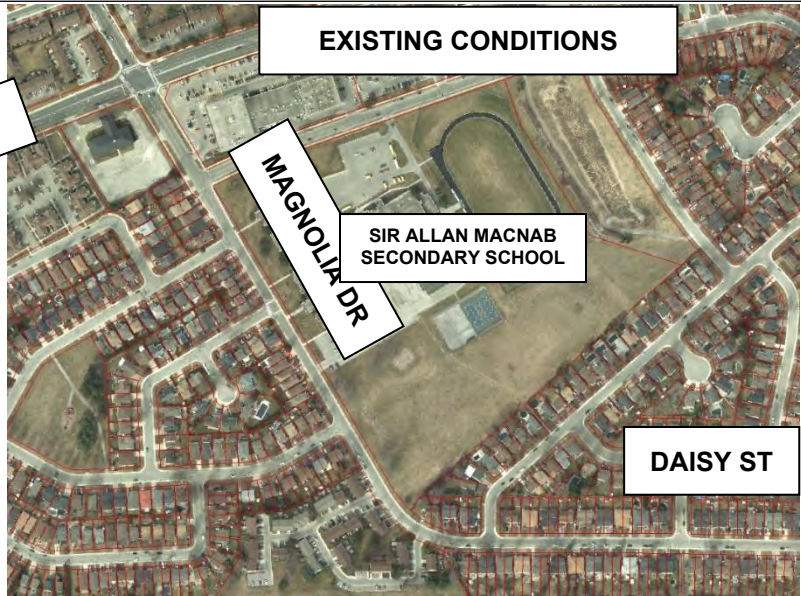


DETAILS:

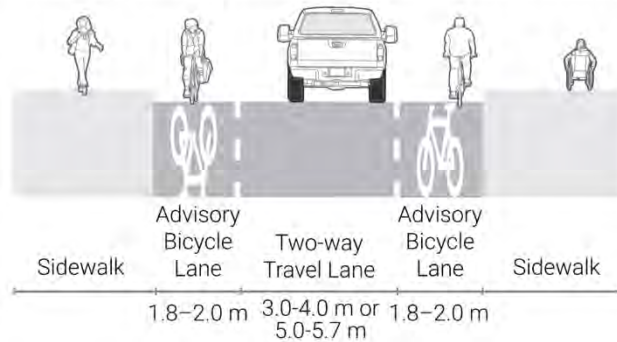
ID #	148
Improvement Category	Missing or Inappropriate Pedestrian/Cycling Facilities
Recommendation	Delineate on-road bike lanes between the school driveway and Yates Gate, using lane markings. This will tie into proposed improvements on Garth Street, undertaken in conjunction with the improvements to Rymal Rd, undertaken by the City.
Estimated Cost	\$2,600
Notes	Improvements are anticipated to be implemented through pavement marking alterations. There is an existing paved shoulder between the school driveway and Yates Gate that can be modified into a southbound on-road bike lane. The lane markings are proposed to tie into the future cross-section of Garth Street, per the City's completed EA: Garner Road / Rymal Road and Garth Street Schedule C EA.

LOCATION:
MAGNOLIA DR FROM MOHAWK RD W TO TRAIL AT DAISY ST

DRAWING #
16



Advisory Bicycle Lane Without On-street Parking



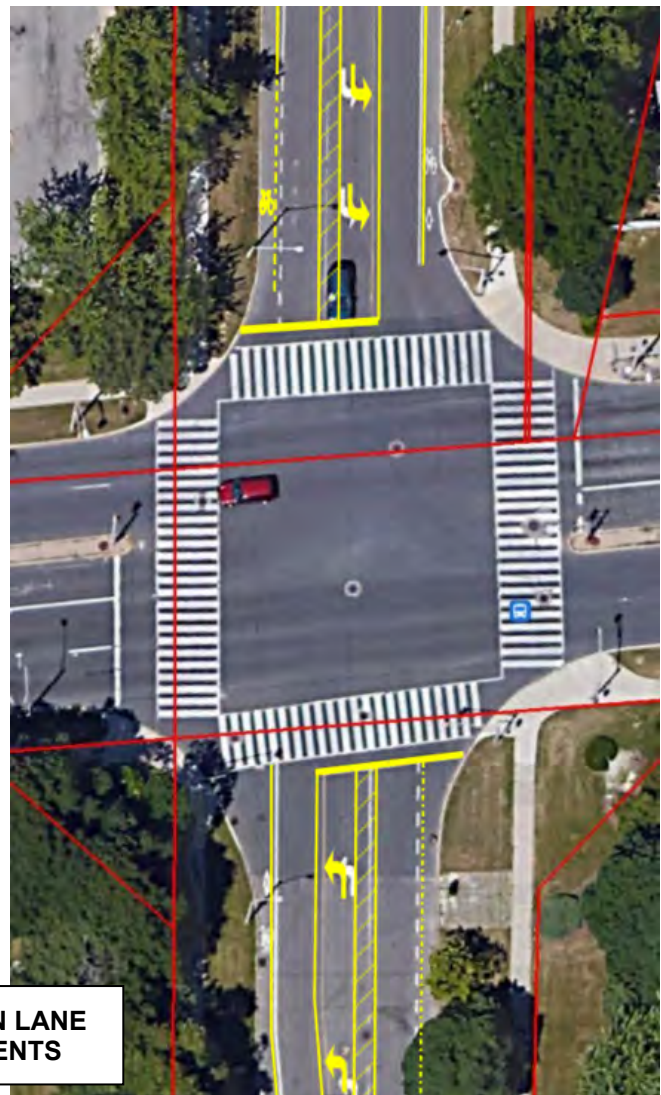
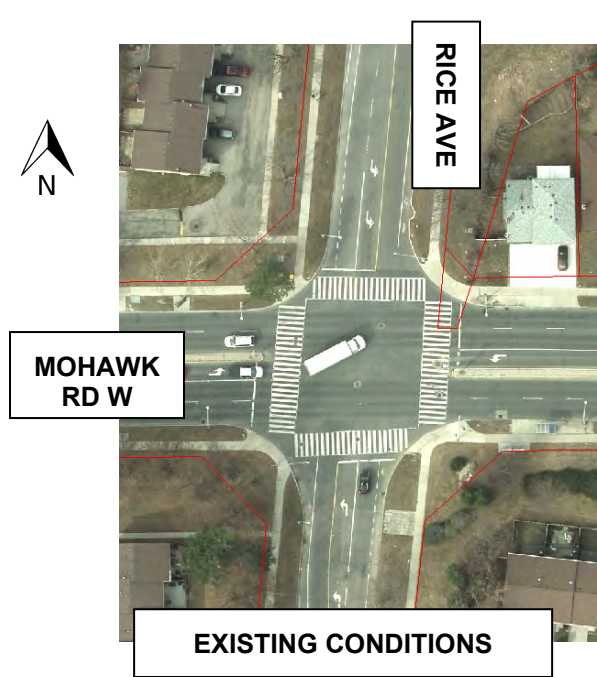
ADVISORY BICYCLE LANE CROSS-SECTION
(SOURCE: OTM BOOK 18)

DETAILS:

ID #	149
Improvement Category	Missing or Inappropriate Pedestrian/Cycling Facilities
Recommendation	Install a cycling facility along this segment. This study is recommending Advisory Bicycle Lanes be considered by the City.
Estimated Cost	\$6,800
Notes	Advisory bicycle lanes are a shared roadway facility that visually delineates space for cycling on the sides of a roadway that has no centreline, as vehicles share the centre roadway space for two-way travel. The existing pavement width of Magnolia Drive is 8 m. Therefore, bicycle lanes of 2 m are recommended as the centre roadway space is not recommended to be greater than 4.0 m or less than 5.0 m wide. Magnolia Drive is posted 40 km/h and has an AADT of ~4600 vehicles, and it is noted that this speed and level of traffic is just within the threshold of warranting a designated operating space (bike lane or buffered bike lane) (per OTM Book 18). However, to implement these would require widening of the roadway and as Magnolia Drive is an urban residential street, widening the roadway is likely to result in notable cost and impacts to the residential community. Also, the Sir Allan MacNab school is located on this segment, and to widen the roadway would encourage faster speeds in an area wherein reduced speeds are sought.

LOCATION:
MOHAWK RD W @ RICE AVE

DRAWING #
18

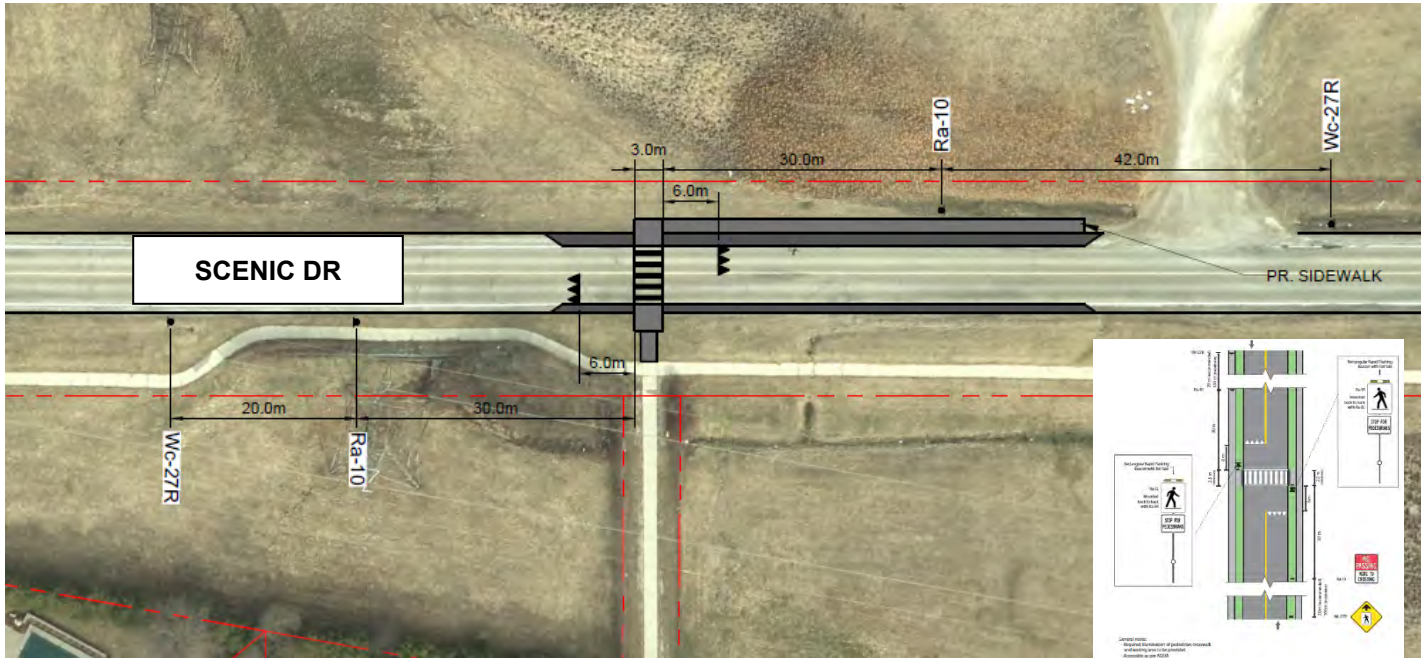


DETAILS:

ID #	224
Improvement Category	Left-turn Lane Improvements
Recommendation	Increase north- and southbound left-turn lane offsets to improve visibility for left-turning drivers and mitigate the effects of headlights blinding drivers in the opposing direction
Estimated Cost	\$5,000
Notes	<p>Intersection has several reports of impaired visibility on the north and south legs, due to headlights of drivers opposite. Rice Ave approaches the intersection at an up-grade, exacerbating the issue. It is noted that the intersection has opposing left-turn lanes (i.e. no offset) in the north-south direction, which is an impediment to sight lines and could also be a factor related to collisions involving left-turns at the intersection. The recommendations include increasing the offset of the left-turn lanes. This can be completed through lane remarking and could be kept within the existing pavement width; by using lanes of 3.3 m, left-turn lanes of 3.0 m and 1.2 m bike lanes, off-set of 1.5 m could be achieved. This cross-section uses values that are typically absolute minimum, however it is only required for the length of the left-turn lanes.</p> <p>It is also recommended the City review illumination at this intersection, and if applicable, replace existing light fixtures with higher intensity LED lighting.</p>

LOCATION:
SCENIC DR FROM LAVENDER DR (SOUTH) TO LAVENDER DR (NORTH)

DRAWING #
19



DETAILS:

ID #	253
Improvement Category	Missing or Inappropriate Pedestrian/Cycling Facilities
Recommendation	Install a Level 2 Type C PXO on the indicated segment
Estimated Cost	\$35,000*

Notes

Considering resident concerns related to pedestrians crossing for school and sports, it is recommended that a PXO Level 2 Type C is installed within this midblock segment. While the warrant analysis identified that a Type D is required, it is noted that other PXO locations are proposed on Scenic Drive and continuity of facility type should be kept.

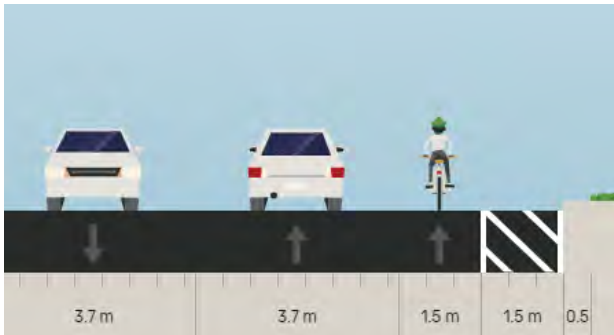
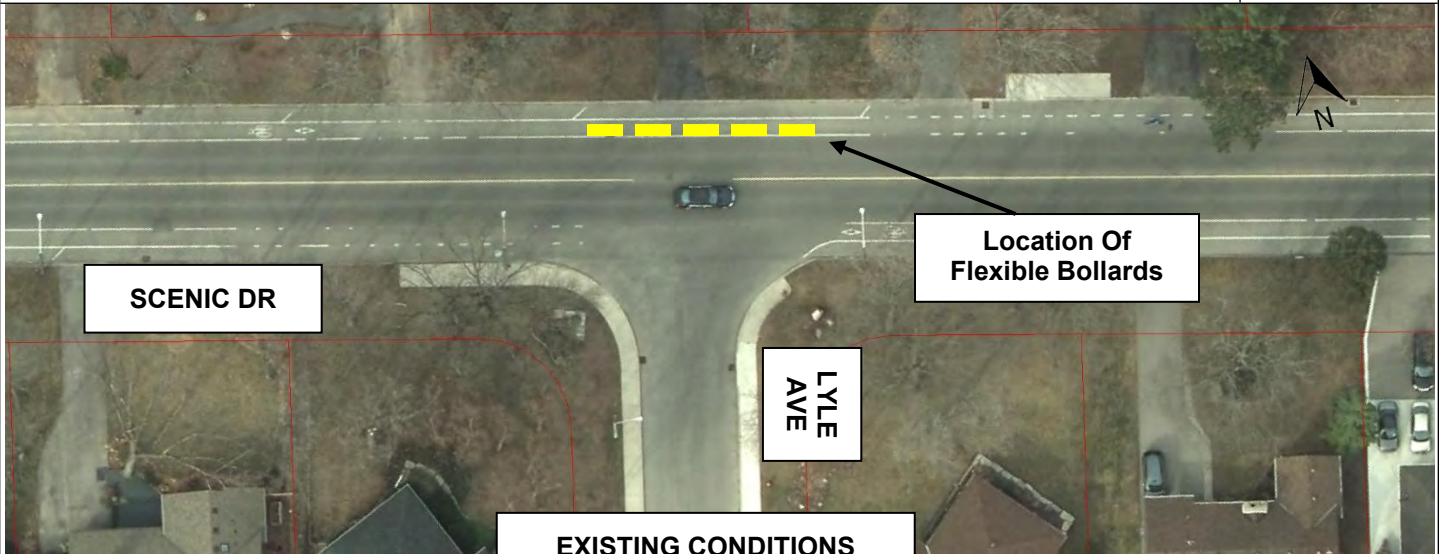
The following considerations / modifications will be made to facilitate the PXO:

- Location proposed to connect with an existing intersect of sidewalks on the west side of Scenic Drive
- New sidewalk is proposed from the PXO to the park / baseball fields to the south
- Portion of Scenic Drive will require roadside improvements (grading/curbs/drainage improvements etc.). However, it is noted that the City's Cycling Master Plan also proposes a multi-use path (MUP) along this segment. Efficiencies can be made in construction and costs by integrating the MUP with the sidewalk.
- Potential connection also available to the east-west MUP proposed by this study, heading easterly from this location (Dwg #16).
- Install tactile plates and curb ramps etc. in accordance with AODA standards; and
- Ensure appropriate illumination as per OTM Book 15. The location has no existing illumination however as above, the City's is planning a MUP at this location. With the MUP, it is likely illumination will also be implemented and efficiencies can be made in sharing illumination design.

*Cost assumes some efficiencies are found merging the PXO improvements with the City's proposed MUP (Cycling Masterplan). If PXO installed as an isolated improvement, it is likely to be notably higher than estimated due to illumination costs.

LOCATION:
SCENIC DR @ LYLE AVE

DRAWING #
20



EXISTING WESTBOUND CROSS-SECTION

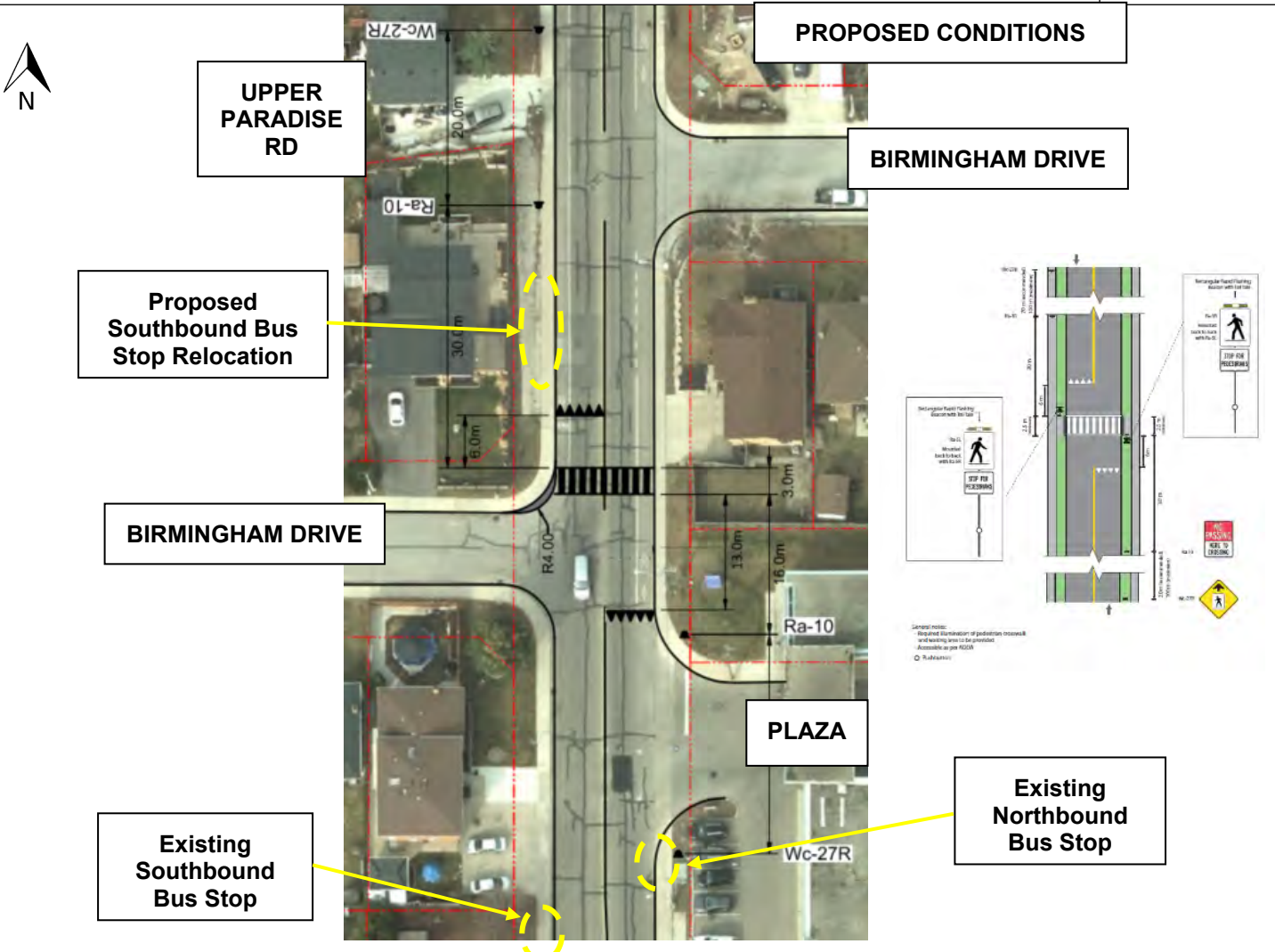


PROPOSED WESTBOUND CROSS-SECTION

DETAILS:

ID #	254
Improvement Category	Missing or Inappropriate Pedestrian/Cycling Facilities
Recommendation	Provide flexible bollards between the bicycle lane and the westbound travel lane
Estimated Cost	\$2,000
Notes	There is an issue of westbound drivers encroaching into the bike lane to circumvent left-turning vehicles. Providing a left-turn lane would require widening and is not warranted in terms of traffic volumes, per MTO's design guidelines. Flexible bollards are proposed to provide a physical deterrent to drivers encroaching into the bike lane, and are to be located only directly opposite Lyle Avenue. The length of bollards is to be designed to ensure that busses can safely rejoin the travel lane from the bus stop, east of the intersection. There is a paved shoulder of approximately 1.5 m in width that can be used to help facilitate the bollards.

LOCATION: UPPER PARADISE RD @ SANDRINGHAM AVE/FOOD BASICS PLAZA **DRAWING #**
21



DETAILS:

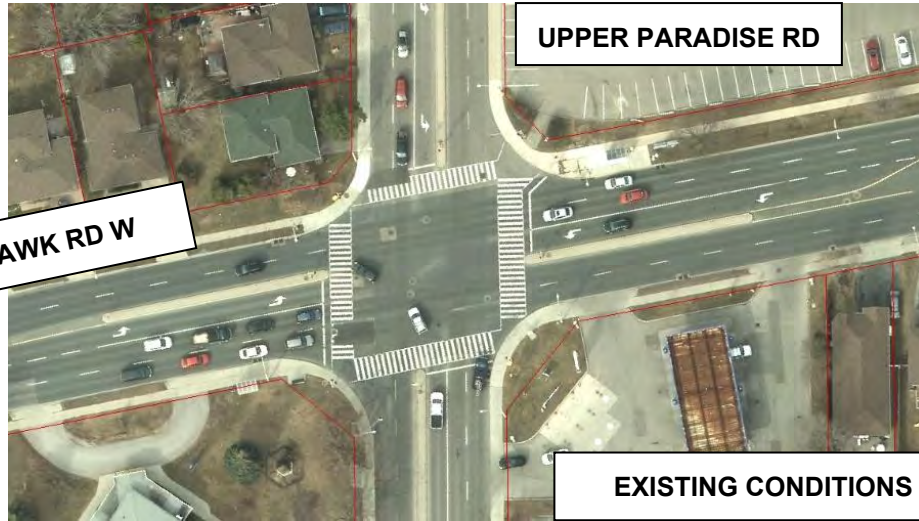
ID #	267
Improvement Category	Missing or Inappropriate Pedestrian/Cycling Facilities
Recommendation	Propose the implementation of a PXO Level 2 Type C crossing
Estimated Cost	\$35,000

Notes

Upper Paradise Road, at the location of the existing southbound bus stops, is subject to many crossings by pedestrians coming from the plaza. North of this location, Upper Paradise falls downhill which limits sight distance of southbound vehicles seeing pedestrians cross the street or see a vehicle exiting the plaza. Considering this, a PXO Level 2 Type C is proposed at the location shown (2 lane cross-section and 8-hour volume is approximately 4,269 vehicles based on 2018 TMC at Mohawk Rd W @ Upper Paradise Rd grown to 2021). Initial thoughts were to locate a crossing at the existing location of the bus stops, however, at least one of the bus stops would need to be relocated and sight-distance issues for southbound traffic are anticipated due to the profile of roadway. It is therefore proposed that the PXO be located just north of Buckingham Drive, nearer the roadway profile crest. The southbound bus stop is also proposed to be relocated to just north of the PXO crossing. OTM Book guidance specifies that 200 m should be provided between PXO and a signalised intersection; however, southbound queues (at Mohawk and Upper Paradise) were reviewed (including 2024 forecasts) and it is anticipated that queues will not reach the proposed PXO location. Further consultation with HSR is required.

LOCATION:
UPPER PARADISE RD @ MOHAWK RD W

DRAWING #
22

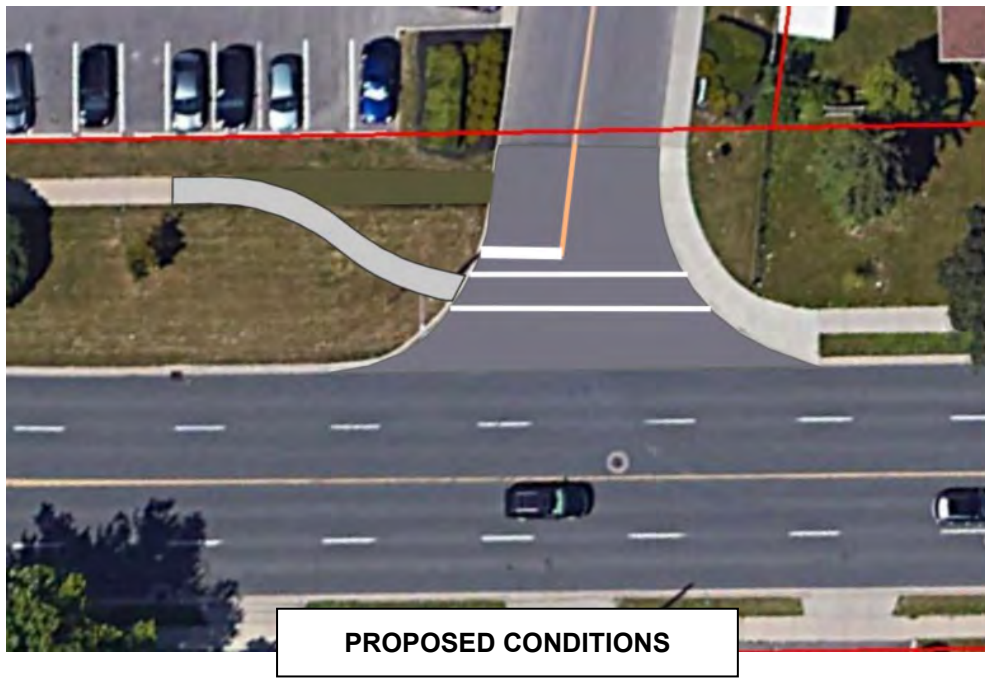
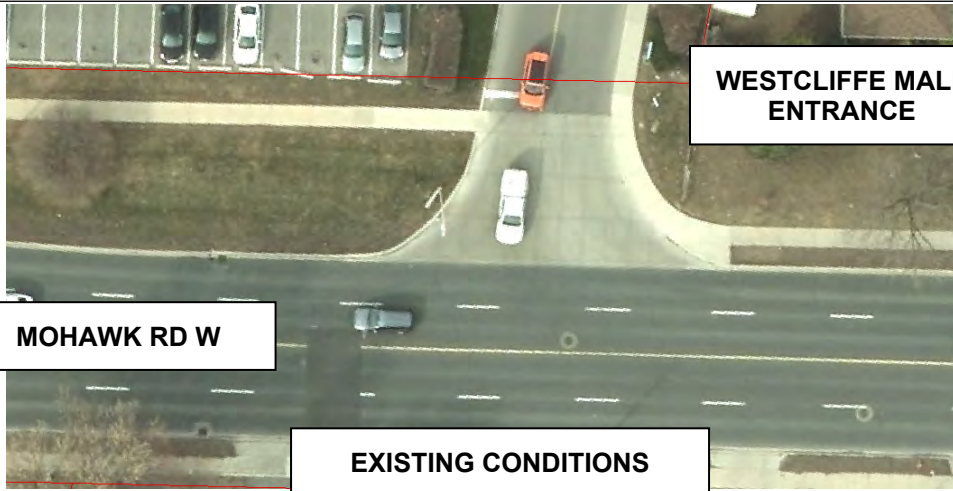


DETAILS:

ID #	289
Improvement Category	Pedestrian Safety/Accessibility
Recommendation	Install curb extensions/adjusting turning radius in all intersection quadrants, implementing right-turn-on-red prohibition for all approaches, and implementing leading pedestrian interval (LPI) at this intersection.
Estimated Cost	\$10,000
Notes	The proposed improvements consider reducing the existing curb radii (14 m) to 6 m radius. The existing cross-walks do not have to be re-aligned and would better conform to OTM Book 15 standards. While passenger cars are anticipated to navigate the right turns without difficulty, there will be over-tracking by larger vehicles into the adjacent lane. However, the above recommendation also includes right-turn-on-red prohibition, which reduces potential conflict points by eliminating the through-movements potentially conflicting with the right-turn movements. Also, while busses pass through the intersection, no route requires a bus turning movement at this intersection. Potential impacts to signal / lighting poles, drains / catch basins to be confirmed.

LOCATION:
MOHAWK ROAD @ WESTCLIFFE MALL ENTRANCE

DRAWING #
23






DETAILS:





ID #	299
Improvement Category	Pedestrian Infrastructure
Recommendation	Realign the pedestrian sidewalk to bring it closer to the road and change the concrete drive to asphalt driveway. The City to further review if tightening the turning radius is feasible at this location.
Estimated Cost	\$5,000
Notes	The cross walk is proposed to be located between the two existing sidewalk locations, to avoid the relocation of a light pole and roadside signage. The recommendation also initially considered tightening of the curb radii to reduce crossing requirement; however, this entrance is likely used for trucks/deliveries due to its design, and so it is recommended the City consult with the property owner to confirm the access/egress patterns of delivery vehicles, prior to potentially modifying curb radii.




B






Appendix B: Detailed Implementation Plan









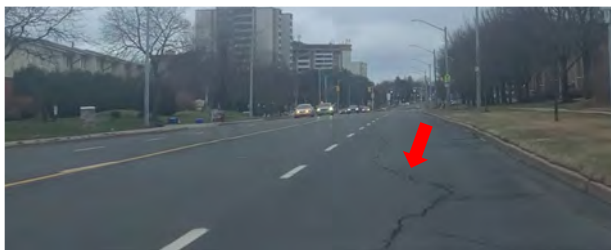

ID	LOCATION	ISSUE	PICTURE	POTENTIAL SOLUTION(S)	IMPLEMENTATION CATEGORY	Estimated Cost	Action by City	Implementation Year
1	Juliebeth Dr @ Stone Church Rd	<p>Wide corner radius creates large setback for crosswalks.</p> <p>No tactile plates.</p> <p>Crossing guard for west crosswalk is only available during school hours.</p>		<p>As per OTM Book 15, a PXO can be provided at the west crosswalk based on pedestrian desire lines. Based on traffic volumes (approximately 8653 vehicles along Stone Church Rd at this location in 8-hours), a Level 2 Type B PXO should be considered at this location.</p> <p>As part of the PXO design, the following items should be considered: Reduce corner radius and relocate south leg crosswalk. Realign Stone Church Rd sidewalks closer to the curb line. Install tactile plates in accordance with AODA standards. Ensure appropriate illumination as per OTM Book 15. CIMA+ prepped the conceptual design.</p>	Short-Term Recommendation	\$50,000.00		Year 2
2	Magnolia Dr @ Mohawk Rd	<p>Curb ramps do not fully align with concrete sidewalk and/or crosswalk pavement markings in NE and NW quadrants.</p> <p>Non AODA pushbuttons present and not all corners/directions have any form of pushbutton (NW has none, SW only has EB, SE has both, NE only has SB).</p> <p>No tactile plates.</p>		<p>Rebuild curb ramps to align with crosswalk width.</p> <p>Upgrade pushbuttons and install tactile plates in accordance with AODA standards. These upgrades can proactively increase pedestrian safety.</p>	Short-Term Recommendation	\$12,000.00		Year 2
3	Gilcrest St @ Guildwood Dr	<p>Required sight distance looking north from the STOP sign on the westbound approach is 130 m. However, only 70 m of sight distance is available, which is 60 m shorter than the TAC requirement (assuming a design speed of 60 km/h).</p>		<p>No action required.</p> <p>As per the current and upcoming revised OTM Book 5, all-way STOP control is not warranted at this location.</p>	Location Reviewed but No Action Required	N/A		


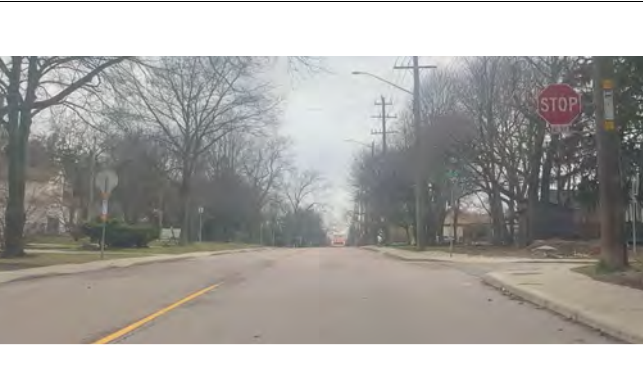
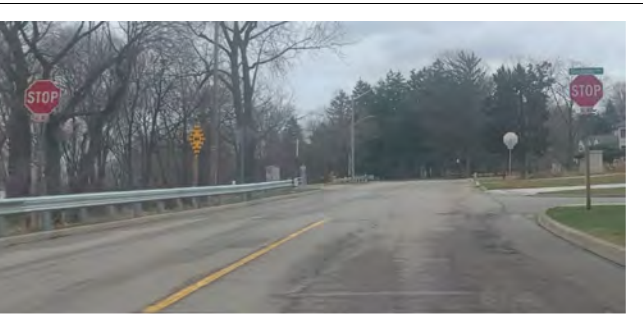
4	Bonaventure Dr @ Caroga Crt	Many parked vehicles (including illegally parked ones) observed on the SW corner. These parked vehicles compromise sight distance NB looking west.		<p>As per the current and upcoming revised OTM Book 5, all-way STOP control is not warranted at this location.</p> <p>However, consider increasing the length of parking prohibition on the south side of Bonaventure Dr on the west approach of the intersection to improve visibility of oncoming vehicles.</p> <p>Recommendation to extend parking restrictions on the south side of Bonaventure Drive to be discussed with the parking department directly.</p>	Quick Win	\$500.00	City to discuss parking restrictions	Year 1
5	Sanatorium Rd @ Redfern Ave	Poor visibility looking north from Redfern Ave due to trees and horizontal curve. However, low speeds are expected due to STOP sign at Scenic Dr.		<p>As per the current and upcoming revised OTM Book 5, all-way STOP control is not warranted at this location.</p> <p>However, clear the vegetation in NW corner of the intersection to improve visibility of oncoming vehicles.</p>	Quick Win	\$500.00		Year 1
6	Bendamere Ave @ West 23rd St	Stop bars are faded		Re-paint stop bars.	Quick Win	\$400.00		Year 1
7	Bendamere Ave @ West 23rd St	<p>EB left STOP sign hidden by vegetation.</p> <p>EB right STOP sign with Bike Route sign mounted on the same post.</p>		<p>As per the current and upcoming revised OTM Book 5, all-way STOP control is not warranted at this location.</p> <p>Relocate Bike Route sign on the west approach so that it is past the intersection.</p> <p>Trim and maintain vegetation obstructing EB left STOP sign.</p>	Quick Win	\$750.00		Year 1

8	Elmira Dr @ Upper Horning Rd	<p>Stop bars and crosswalks are missing/faded.</p> <p>Additionally, a stop compliance study indicated that there is general non-compliance with STOP signs due to driver behaviour at this intersection.</p>		<p>Re-paint/paint stop bars and ladder crosswalks on all approaches to clearly delineate the intersection. Ensure that this intersection remains well-delineated and conduct a ward-wide educational STOP compliance campaign with random police checks and warnings.</p>	Quick Win	\$4,400.00	City to conduct educational campaign and enforcement for stop compliance	Year 1
9	Cranbrook Dr @ Greendale Dr	<p>None identified.</p> <p>However, a stop compliance study indicated that there is general non-compliance with STOP signs due to driver behaviour at this intersection.</p>	N/A	<p>Intersection is already well-delineated so it appears that this concern is a behavioural issue as opposed to an engineering issue. Continue to keep the intersection well-delineated and conduct a ward-wide educational STOP compliance campaign with random police checks and warnings.</p>	Location Reviewed but No Action Required	N/A	City to conduct educational campaign and enforcement for stop compliance	
10	Gemini Dr @ Gardiner Dr	<p>Poor visibility NB looking west due to vegetation.</p> <p>However, low EB speeds expected due to STOP sign at Glamis Ct.</p> <p>Additionally, a stop compliance study indicated that there is general non-compliance with STOP signs due to driver behaviour at this intersection</p>		<p>Clear vegetation in SW corner of the intersection.</p> <p>Additionally, consider upgrading the existing parallel line crosswalk to ladder crosswalk to further delineate this intersection. Ensure that this intersection remains well-delineated and conduct a ward-wide educational STOP compliance campaign with random police checks and warnings.</p>	Quick Win	\$1,500.00	City to conduct educational campaign and enforcement for stop compliance	Year 1
11	Davinci Blvd @ Medici Ln (North)	EB stop bars are missing.	N/A	<p>Paint EB stop bar. Additionally, consider painting ladder crosswalk to further delineate this intersection. Ensure that this intersection remains well-delineated and conduct a ward-wide educational STOP compliance campaign with random police checks and warnings.</p>	Quick Win	\$1,100.00	City to conduct educational campaign and enforcement for stop compliance	Year 1
12	Davinci Blvd @ Medici Ln (South)	SB stop bars are missing.	N/A	<p>Paint SB stop bar. Additionally, consider painting ladder crosswalk to further delineate this intersection. Ensure that this intersection remains well-delineated and conduct a ward-wide educational STOP compliance campaign with random police checks and warnings.</p>	Quick Win	\$1,100.00	City to conduct educational campaign and enforcement for stop compliance	Year 1
13	Adis Ave	<p>None identified.</p> <p>85th percentile speed is not greater than 7 km/h above the assumed 50 km/h posted speed. Therefore, no speeding issues identified.</p> <p>(note: alternating side parking present)</p>	N/A	<p>This midblock segment passes the AADT, posted speed, and length traffic calming screening criteria, but 85th percentile speed is lower than the assumed speed limit.</p> <p>However, the speed limit in the surrounding neighbourhood is proposed to be reduced to 40 km/h in 2021. Therefore, ensure that a 40 km/h "MAXIMUM SPEED" sign (Rb-1) is present in both directions of travel when this occurs.</p>	Quick Win	\$1,000.00		Year 1
14	Angela Ave between West 31st St and West 32nd St	<p>None identified.</p> <p>85th percentile speed is not greater than 7 km/h above the assumed 50 km/h posted speed. Therefore, no speeding issues identified.</p>		<p>This midblock segment does not pass the AADT and length traffic calming screening criteria. Furthermore, 85th percentile speed is lower than the assumed speed limit.</p> <p>However, the speed limit in the surrounding neighbourhood is proposed to be reduced to 40 km/h in 2022. Therefore, ensure that a 40 km/h "MAXIMUM SPEED" sign (Rb-1) is present in both directions of travel when this occurs.</p>	Quick Win	\$1,000.00		Year 1

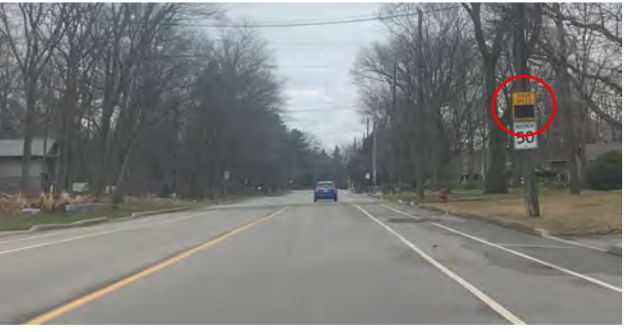
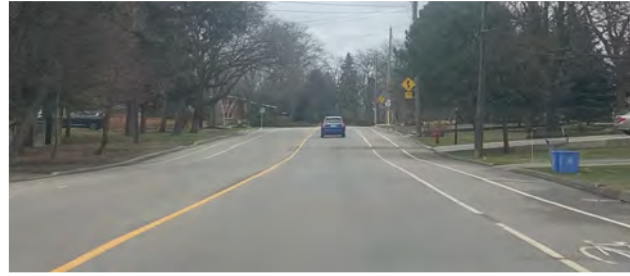



15	Angela Ave between West 33rd St and West 34th St	<p>None identified.</p> <p>85th percentile speed is not greater than 7 km/h above the assumed 50 km/h posted speed. Therefore, no speeding issues identified.</p>		<p>This midblock segment does not pass the AADT and length traffic calming screening criteria. Furthermore, 85th percentile speed is lower than the assumed speed limit.</p> <p>However, the speed limit in the surrounding neighbourhood is proposed to be reduced to 40 km/h in 2022. Therefore, ensure that a 40 km/h "MAXIMUM SPEED" sign (Rb-1) is present in both directions of travel when this occurs.</p>	Quick Win	\$1,000.00		Year 1
16	Cranbrook Drive	85th percentile speed 10 km/h above speed limit.		<p>The entire length of Cranbrook Drive was checked and the segments between Greenshire Dr and Greendale Dr, and between Garrow Dr and Courtland Ave pass the length, AADT, and speed limit traffic calming screening criteria.</p> <p>Both locations achieved greater than the minimum point values to proceed with the recommendation of traffic calming measures.</p> <p>Consider implementing two sets of speed humps between each identified segment. In addition, install radar speed display signs.</p>	Quick Win	\$40,000.00		Year 1
17	Cranbrook Drive	Stop bars are missing at the intersection of Cranbrook Dr @ Greenshire Dr.		Paint stop bar at the intersection of Cranbrook Dr @ Greenshire Dr.	Quick Win	\$100.00		Year 1
18	Elmwood Ave	<p>None identified.</p> <p>85th percentile speed is not greater than 7 km/h above the assumed 50 km/h posted speed. Therefore, no speeding issues identified.</p> <p>(note: sidewalks are not provided on both sides, but parking is permitted on both sides throughout the entire length of Elmwood Ave)</p>		<p>This midblock segment does not pass the length and AADT traffic calming screening criteria. The entire length of Elmwood Avenue was also reviewed and it does not pass the length traffic calming screening criteria. Furthermore, 85th percentile speed is lower than than the assumed speed limit.</p> <p>However, the speed limit in the surrounding neighbourhood is proposed to be reduced to 40 km/h in 2022. Therefore, ensure that a 40 km/h "MAXIMUM SPEED" sign (Rb-1) is present in both directions of travel when this occurs.</p>	Quick Win	\$1,000.00		Year 1
19	Elmwood Ave	Stop bars are missing at the intersections of Elmwood Ave @ W 21 St, W 22 St, W 23 St, W 24 St, W 25 St, W 26 St, W 27 St, W 28 St, Upper Paradise Rd, W 31 St, and W 32 St		Paint stop bars at the intersections of Elmwood Ave @ W 21 St, W 22 St, W 23 St, W 24 St, W 25 St, W 26 St, W 27 St, W 28 St, Upper Paradise Rd, W 31 St, and W 32 St.	Quick Win	\$2,200.00		Year 1





20	Garth St	None identified.	N/A	Garth St is classified as an arterial road and is not considered eligible for traffic calming as per Hamilton's Traffic Calming Policy. However, consider installing radar speed display signs in conjunction with the existing posted speed signs along Garth St.	Quick Win	\$20,000.00		Year 1
21	Gemini Dr	85th percentile speed 8 km/h above speed limit. (note: parking allowed on south side)		<p>The entire length of Gemini Dr does not pass the length traffic calming screening criteria. However, due to specific resident concerns, consider implementing lawn signs encouraging slower speeds throughout this segment.</p> <p>Monitor this segment after implementing the lawn signs; if a speeding issue still persists, consider implementing other measures such as education and enforcement or even automated speed enforcement as this is near a school zone. Automated speed enforcement may also help address the reported cut through traffic and pedestrian concerns as well.</p> <p>(note: the application of a centreline was considered but not recommended due to permitted parking on this street. The solid yellow centreline indicates a prohibitive condition to drive in the opposite lanes but due to permitted parking, drivers will be forced to violate that prohibitive condition at times. The presence of a centreline may cause motorists to drive very close to parked vehicles if there are any, creating potential for SMV unattended collisions).</p>	Quick Win	\$500.00	City to monitor the segment, and conduct education and enforcement for speeding	Year 1
22	Glenvale Dr	85th percentile speed 9 km/h above speed limit. (note: parking allowed on south side)		<p>This midblock segment passes the length, AADT, and posted speed limit traffic calming screening criteria, but did not achieve the minimum point values to proceed with the recommendation of traffic calming measures.</p> <p>However, consider implementing lawn signs encouraging slower speeds throughout this segment.</p>	Quick Win	\$500.00		Year 1
23	Guildwood Dr	85th percentile speed 10 km/h above speed limit.	N/A	<p>The entire length of Guildwood Dr was reviewed and the segments between Napoli Dr and Adis Ave, and between Greencedar Dr and Trevi Rd pass the length, AADT, and speed limit traffic calming screening criteria, but did not achieve the minimum point values to proceed with the recommendation of traffic calming measures.</p> <p>However, consider implementing lawn signs encouraging slower speeds throughout this segment along with painting ladder crosswalks at the STOP controlled intersections of Guildwood Dr @ Napoli Ct/Dr, Adis Ave, and Trevi Rd. The ladder crosswalks will enhance the perception of drivers that pedestrians are present within the area, which may lower vehicle speeds.</p> <p>Monitor this segment after implementing these countermeasures; if a speeding issue still persists, consider implementing other measures such as education and enforcement or even automated speed enforcement as this is near a school zone.</p> <p>(Note: speed cushions are already present at Gilcrest St and Milano Ct.)</p>	Quick Win	\$9,500.00	City to monitor the segment, and conduct education and enforcement for speeding	Year 1






24	Guildwood Dr	Stop bars are faded at the intersection of Guildwood Dr and Greencedar Dr.		Re-paint stop bars at the intersection of Guildwood Dr @ Greencedar Dr.	Quick Win	\$300.00		Year 1
25	Guildwood Dr	Pavement in poor condition between Adis Ave and Upper Horning Rd.		Repair the pavement between Adis Ave and Upper Horning Rd.	Long-Term Recommendation	\$144,000.00		Year 5
26	Madonna Dr	None identified. 85th percentile speed is not greater than 7 km/h above the assumed 50 km/h posted speed. Therefore, no speeding issues identified. (note: parking on both sides)		This midblock segment does not pass the length traffic calming screening criteria. Furthermore, 85th percentile speed is lower than the assumed speed limit. However, the speed limit in the surrounding neighbourhood is proposed to be reduced to 40 km/h in 2023. Therefore, ensure that a 40 km/h "MAXIMUM SPEED" sign (Rb-1) is present in both directions of travel when this occurs.	Quick Win	\$1,000.00		Year 1
27	Milano Crt	None identified.		No action required. This midblock segment does not pass the length traffic calming screening criteria.	Location Reviewed but No Action Required	N/A		
28	Mohawk Rd	There are frequent longitudinal cracks on the pavement between Rice Ave and Scenic Dr.		Repair the pavement between Rice Ave and Scenic Dr. Additionally, Mohawk Rd is classified as an arterial road and is not considered eligible for traffic calming as per Hamilton's Traffic Calming Policy. However, consider installing radar speed display signs in conjunction with the existing posted speed signs along Mohawk Rd.	Long-Term Recommendation	\$675,600.00		Year 4
29	Omni Blvd	Wide cross section incompatible with 40 km/h speed limit.		Consider extending the existing yellow approach marking at the southbound roundabout splitter island to meet with the stop bar at the downstream intersection of Omni Blvd @ Gurnett Dr to delineate the roadway for motorists.	Quick Win	\$500.00		Year 1


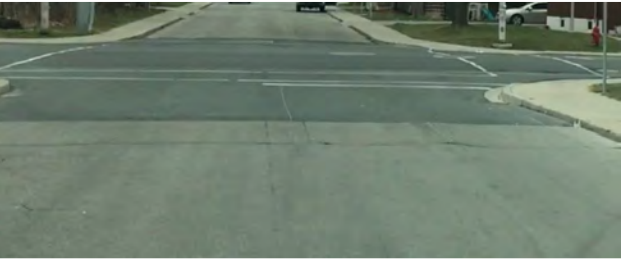
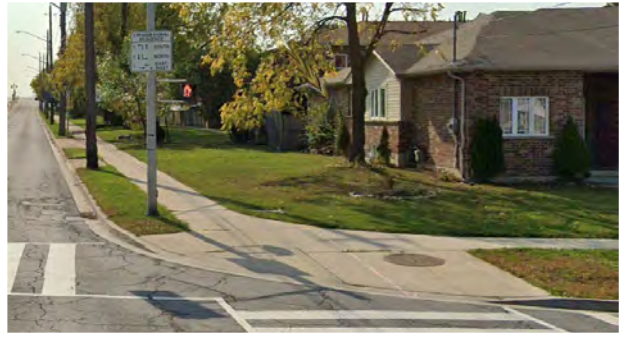


30	San Antonio Dr	85th percentile speed is not greater than 7 km/h above the 40 km/h posted speed. Therefore, no speeding issues identified.	N/A	No action required. This midblock segment does not pass the length traffic calming screening criteria. Furthermore, a speeding issue was not identified.	Location Reviewed but No Action Required	N/A		
31	San Antonio Dr	A non-breakaway pole is present directly in front of southbound drivers at the curve by San Remo Dr		Delineate the pole to increase driver awareness of its presence. Delineation can be achieved by installing a CHECKERBOARD Sign (One Direction) (Right Version) on this pole. The possibility for pole re-location will be determined by the City.	Short-Term Recommendation	\$500.00	City to determine the possibility of pole relocation	Year 3
32	San Antonio Dr	Stop bars are missing at the intersection of San Antonio Dr and Argo St.		Paint stop bars at the intersection of San Antonio Dr @ Argo St.	Quick Win	\$300.00		Year 1
33	Sanatorium Rd from Rice Ave to Garth St	Stop bars are faded or missing at the intersections of Sanatorium Rd @ W 21 St, Brenlyn Ct, W 22 St, W 23 St, W 24 St, W 25 St, W 26 St, W 27 St, W 31, and W 32.		Re-paint/paint stop bars at the intersections of Sanatorium Rd @ W 21 St, Brenlyn Ct, W 22 St, W 23 St, W 24 St, W 25 St, W 26 St, W 27 St, W 31, and W 32. The entire midblock segment of Sanatorium Rd does not pass the length traffic calming screening criteria. However, consider implementing lawn signs encouraging slower speeds throughout this segment along with painting ladder crosswalks at the STOP controlled intersections of Sanatorium Rd @ W 22 St, W 24 St, and W 26 St. The ladder crosswalks will enhance the perception of drivers that pedestrians are present within the area, which may lower vehicle speeds. Monitor this segment after implementing these countermeasures; if a speeding issue still persists, consider implementing other measures such as education and enforcement or even automated speed enforcement as this is near a school zone.	Quick Win	\$7,000.00	City to monitor the segment, and conduct education and enforcement for speeding	Year 1
34	Scenic Drive	Stop bars are faded or missing at the intersections of Scenic Dr @ Chateau Ct, Goulding Ave, Angela Ave, W 34 St, W 33 St, W 32, Lyle Ave, Colquhoun Cres, and Balfour Dr		Re-paint/paint stop bars at the intersections of Scenic Dr @ Chateau Ct, Goulding Ave, Angela Ave, W 34 St, W 33 St, W 32, Lyle Ave, Colquhoun Cres, and Balfour Dr	Quick Win	\$1,200.00		Year 1



35	Scenic Drive	Substandard guide rails are present and will be subjected to further review.		Substandard guide rails are present and are recommended to be removed.	Short-Term Recommendation	\$23,000.00		Year 3
36	Scenic Drive between W 35 St and Sanatorium Rd	85th percentile speed 8 km/h above speed limit.	N/A	<p>This midblock segment does not pass the length traffic calming screening criteria. However, this segment is contained within the longer segment of Scenic Dr between Sanatorium Rd and Upper Paradise Rd, which passes the length, AADT, and speed limit traffic calming screening criteria, but did not achieve the minimum point values to proceed with the recommendation of traffic calming measures.</p> <p>However, consider implementing lawn signs encouraging slower speeds throughout this segment along with painting ladder crosswalks at the STOP controlled intersection of Scenic Dr @ Sanatorium Rd. The ladder crosswalks will enhance the perception of drivers that pedestrians are present within the area, which may lower vehicle speeds.</p> <p>Additionally, consider installing 50 km/h "MAXIMUM SPEED" signs (Rb-1) in both directions of travel supplemented with radar speed display signs.</p> <p>Monitor this segment after implementing these countermeasures; if a speeding issue still persists, consider implementing other measures such as education and enforcement.</p> <p>(note: speed humps are present at Angela Ave and W 34 St). There are public concerns from PIC 2 that vehicles are not slowing down at speed humps.</p>	Quick Win	\$3,750.00	City to monitor the segment, and conduct education and enforcement for speeding	Year 1
37	Scenic Drive between Mohawk Rd W and Sanatorium Rd	Pavement is in poor condition between Chateau Ct and Goulding Ave.		Repair the pavement between Chateau Ct and Goulding Ave.	Long-Term Recommendation	\$256,000.00		Year 5
38	Scenic Drive between Mohawk Rd W and Sanatorium Rd	85th percentile speed 13 km/h above speed limit.		<p>This entire midblock segment passes the AADT, posted speed, and length traffic calming screening criteria.</p> <p>This location achieved greater than the minimum point values to proceed with the recommendation of traffic calming measures.</p> <p>It is noted that speed humps are already present at Chateau Ct, between Chateau Ct and Goulding Ave (2 sets), and between Sanatorium Rd N and San Pedro Dr.</p> <p>However, consider installing 50 km/h "MAXIMUM SPEED" signs (Rb-1) in both directions of travel supplemented with radar speed display signs.</p> <p>Monitor this segment after implementing these countermeasures; if a speeding issue still persists, consider implementing other measures such as education and enforcement.</p>	Quick Win	\$22,000.00	City to monitor the segment, and conduct education and enforcement for speeding	Year 1


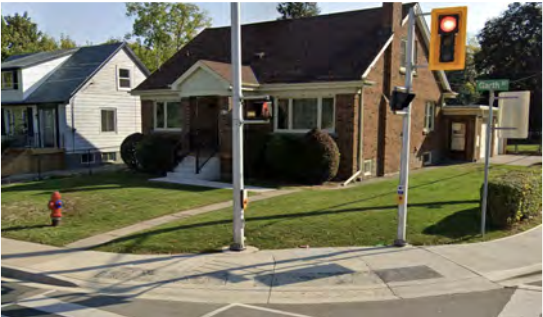



39	Scenic Drive between Upper Paradise Rd and Garth St	Radar speed display signs east of Upper Paradise Rd are not working.		Repair or replace the radar speed display signs.	Quick Win	\$2,000.00		Year 1
40	Scenic Drive between Upper Paradise Rd and Garth St	85th percentile speed 8 km/h above speed limit.		<p>This entire midblock segment passes the AADT, posted speed, and length traffic calming screening criteria, but did not achieve the minimum point values to proceed with the recommendation of traffic calming measures.</p> <p>However, consider implementing lawn signs encouraging slower speeds throughout this segment.</p> <p>It is noted that radar speed display signs are already present along this segment.</p> <p>Monitor this segment after implementing these countermeasures; if a speeding issue still persists, consider implementing other measures such as education and enforcement.</p>	Quick Win	\$500.00	City to monitor the segment, and conduct education and enforcement for speeding	Year 1
41	Stone Church Rd	None identified.		Stone Church Rd is classified as an arterial road and is not considered eligible for traffic calming as per Hamilton's Traffic Calming Policy. However, consider installing radar speed display signs in conjunction with the existing posted speed signs along Stone Church Rd.	Quick Win	\$10,000.00		Year 1
42	Sundown Drive	<p>None identified.</p> <p>85th percentile speed is not greater than 7 km/h above the assumed 40 km/h posted speed. Therefore, no speeding issues identified.</p> <p>(note: parking on both sides)</p>		<p>This midblock segment passes the AADT, posted speed, and length traffic calming screening criteria, but a speeding issue was not identified.</p> <p>However, the speed limit in the surrounding neighbourhood was reduced to 40 km/h in 2019. Therefore, ensure that a 40 km/h "MAXIMUM SPEED" sign (Rb-1) is present in both directions of travel.</p>	Quick Win	\$1,000.00		Year 1
43	Upper Horning Rd (S)	<p>Wide travel lanes incompatible with 40 km/h speed limit.</p> <p>85th percentile speed 17 km/h above speed limit.</p> <p>(note: parking already fully prohibited on both sides)</p>		<p>The midblock segments between Amalfi St and Guildwood Drive, and between Guildwood Drive and Monteagle Ct pass the AADT, posted speed, and length traffic calming screening criteria.</p> <p>Both locations achieved greater than the minimum point values to proceed with the recommendation of traffic calming measures.</p> <p>Consider implementing two sets of speed humps within the identified segment. In addition, install radar speed display signs.</p>	Short-Term Recommendation	\$20,000.00		Year 3

44	Upper Paradise Rd	85th percentile speed 27 km/h above speed limit		<p>Multiple midblock segments along Upper Paradise Rd pass the AADT, posted speed, and length traffic calming screening criteria (except between Bendamere Ave and Leslie Ave).</p> <p>Upper Paradise Road is classified as a major collector and is technically eligible for traffic calming as per Hamilton's Traffic Calming Policy. However, our review noted that the roadway characteristics of Upper Paradise Road are very similar to other arterial roads within Ward 14. Therefore, traffic calming measures associated with physical features will not be recommended along Upper Paradise Road.</p> <p>However, consider installing radar speed display signs in conjunction with the existing posted speed signs along Upper Paradise Road.</p>	Quick Win	\$10,000.00		Year 1
45	Upper Paradise Rd	Posted speed signs along Upper Paradise Rd SB may be inconspicuous, especially during the Spring.		<p>Maintain the trees nearby posted speed limit signs, especially during the Spring.</p>	Quick Win	\$500.00		Year 1
46	Upper Paradise Rd	Radar speed display signs between Scenic Dr and Leslie Ave are not working.		<p>Repair or replace the radar speed display signs.</p>	Quick Win	\$2,000.00		Year 1
47	Upper Paradise Rd	STOP signs (left and right sides) along Upper Paradise Rd at the all-way stop intersections of Upper Paradise Rd @ Sanatorium Rd (NB, obstructed by vertical curve/SB, wide road cross section), Bendamere Ave (NB and SB, wide road cross section), Leslie Ave (NB and SB, wide road cross section), and Scenic Dr (NB, wide road cross section) may be inconspicuous.		<p>Consider applying STOP AHEAD pavement markings in advance of the all-way stop intersections of Upper Paradise Rd @ Sanatorium Rd (NB and SB), Bendamere Ave (NB and SB), Leslie Ave (NB and SB), and Scenic Dr (NB).</p>	Quick Win	\$1,400.00		Year 1





48	Upper Paradise Rd	Large pavement depression on NB approach at the intersection of Upper Paradise Rd @ Leslie Ave. This is also at a key decision point for right-turn lane changes.		Repair the pavement on the NB approach at the intersection of Upper Paradise Rd @ Leslie Ave.	Short-Term Recommendation	\$16,800.00		Year 2
49	Wendover Dr	Wide cross section incompatible with 40 km/h speed limit between Magnolia Dr and Lynwood Rd. 85th percentile speed 9 km/h above speed limit between Hadeland Ave and Fonthill Rd and 11 km/h above speed limit between Magnolia Dr and Lynwood Rd.		The midblock segment between Magnolia Dr and Lynwood Rd, and between Magnolia Dr/Daisy St and Hadeland Ave pass the AADT, posted speed, and length traffic calming screening criteria, but did not achieve the minimum point values to proceed with the recommendation of traffic calming measures. However, consider implementing lawn signs encouraging slower speeds throughout this segment. Additionally, consider supplementing the existing posted speed signs along Wendover Dr with radar speed display signs. Monitor this segment after implementing these countermeasures; if a speeding issue still persists, consider implementing other measures such as education and enforcement or even automated speed enforcement as this is near a school zone.	Quick Win	\$15,000.00	City to monitor the segment, and conduct education and enforcement for speeding	Year 1
50	Wendover Dr	Faded crosswalks/stop bars at the intersections of Hadeland Ave, Farmer Ct, and Lynwood Rd.		Re-paint the crosswalks/stop bars at the intersections of Hadeland Ave, Farmer Ct, and Lynwood Rd. Additionally, consider upgrading the parallel line crosswalks at the STOP controlled intersections of Wendover Dr @ Farmer Ct, Hadeland Ave, and Daisy St/Magnolia Dr to ladder crosswalks to address resident speed concerns. The ladder crosswalks will enhance the perception of drivers that pedestrians are present within the area, which may lower vehicle speeds.	Quick Win	\$7,700.00		Year 1
51	Upper Horning Rd (N)	None identified. 85th percentile speed is not greater than 7 km/h above the assumed 50 km/h posted speed. Therefore, no speeding issues identified.		Only the midblock segment between Mohawk Rd and Elmira Dr passes the posted speed, AADT, and length traffic calming screening criteria, but a speeding issue was not identified. However, the speed limit in the surrounding neighbourhood is proposed to be reduced to 40 km/h in 2021. Therefore, ensure that a 40 km/h "MAXIMUM SPEED" sign (Rb-1) is present in both directions of travel when this occurs.	Quick Win	\$1,000.00		Year 1
52	Bendamere Ave @ Garth St	No pedestrian countdown timers or tactile plates. Non AODA pushbuttons and parallel line crosswalks present. A pothole is present on the south crosswalk		Upgrade pushbuttons and install tactile plates in accordance with AODA standards. Additionally, install pedestrian countdown timers and paint ladder crosswalk pavement markings to provide an enhanced crossing area for pedestrians. These upgrades can proactively increase pedestrian safety. Repair the pothole on the south crosswalk. Implement leading pedestrian interval (LPI) at this intersection (E-W). (Note: The feasibility of implementing leading pedestrian interval (LPI) was reviewed and there is no significant difference to traffic operations with implementation of LPI on E-W sidewalks. Moreover, The split-phasing for N/S movements was reviewed but the movements' level of service degrades from LOS A in existing to LOS E/F with split-phasing. Lastly, dedicated left-turn lanes for N-S could be feasible. However, since LPIs cannot be implemented if there is a protected left-turn phase, it is recommended that even with left-turn storage, that the left-turn phasing remain permissive to allow for LPIs. It is recommended that LPIs are implemented.)	Quick Win	\$4,700.00		Year 1





53	Bendamere Ave @ Garth St	Left turn phases are not present.		<p>Implement LPI at the intersection (E-W) as per ID 52. Additionally, the City to review feasibility of dedicated left turn lanes for north and south approaches as part of a separate study.</p> <p>(Note: The split-phasing for N/S movements was reviewed but the movements' level of service degrades from LOS A in existing to LOS E/F with split-phasing. Lastly, dedicated left-turn lanes for N-S movements could be feasible. However, since LPIs cannot be implemented if there is a protected left-turn phase, it is recommended that even with left-turn storage, that the left-turn phasing remain permissive to allow for LPIs to be implemented)</p>	Location Reviewed but No Action Required	N/A	City to conduct further study	
54	Bendamere Ave @ Garth St	Centreline pavement marking missing along Bendamere Ave at this intersection.		<p>Apply a centreline for a minimum of 60 m along Bendamere Ave on both the eastbound and westbound approaches at this intersection as per OTM Book 11.</p>	Quick Win	\$1,500.00		Year 1
55	Garth St @ Limeridge Rd W	<p>No pushbuttons, pedestrian countdown timers, or tactile plates present.</p> <p>(note: split phasing currently in place (SB-NB-E/W) along with NBL and SBL exclusive signals)</p>		<p>Install pushbuttons and tactile plates in accordance with AODA standards. Additionally, install pedestrian countdown timers. These upgrades can proactively increase pedestrian safety.</p> <p>Implement LPI at this intersection (N-S) in conjunction with replacing NB/SB split phasing with typical ring barrier operation.</p> <p>(Note: Since split-phasing includes protected left-turning movement, the LPIs are not recommended to be implemented with current phase splits.</p> <p>However, CIMA+ reviewed replacing of NB/SB phase split with typical ring barrier operation. This allows for LPIs to be implemented and it significantly improves the traffic operations from LOS F to LOS B/C for both AM and PM peaks)</p>	Quick Win	\$4,500.00		Year 1
56	Garth St @ Limeridge Rd W	No bicycle facilities present.		<p>Consider implementing sharrow pavement markings along Garth St through this intersection to enhance the presence of cyclists to drivers. Additionally, the feasibility of installing separated bicycle facilities along Garth St by this intersection will be reviewed, as discussed in another recommendation. This recommendation to be implemented with recommendation 148</p>	Location Reviewed but No Action Required	N/A		
57	Mohawk Rd W @ Scenic Dr	<p>Non AODA pushbuttons present.</p> <p>No tactile plates present.</p> <p>Additionally, the installed pushbuttons are only for crossing N-S, not E-W.</p>		<p>Upgrade pushbuttons and install tactile plates in accordance with AODA standards. Additionally, install pushbuttons in the E-W direction as well. These upgrades can proactively increase pedestrian safety.</p> <p>Implement LPI at this intersection (N-S and E-W).</p> <p>(Note: CIMA+ reviewed the implementation of N-S and E-W LPIs. The traffic operations are not significantly impacted. It should be noted that NBL is performing at LOS F for existing and LPI scenario. Since traffic operations are not significantly impacted by LPI implementation, LPI implementation is feasible.</p> <p>In addition, CIMA+ reviewed providing protected-permissive left turn phase for NB/SB movement and providing LPIs for only the N-S sidewalks. LPIs are not recommended to be provided for E-W sidewalk since protected phase of NB/SB Left Turning movement conflicts with the pedestrians. This improves the NBL movement from LOS F to LOS D and provides LPI for N-S sidewalk pedestrians.)</p>	Quick Win	\$4,500.00		Year 1






58	Mohawk Rd W @ Scenic Dr	Right traffic signal head on the southbound approach is damaged.		Repair the right traffic signal head on the southbound approach.	Quick Win	\$250.00		Year 1
59	Mohawk Rd W @ Scenic Dr	No bicycle facilities present.		None identified. However, this intersection is located along a segment identified as part of the "Missing or Inappropriate Cycling Links" review where additional details are provided.	Location Reviewed but No Action Required	N/A		
60	Garrow Dr @ Garth St	Non AODA pushbuttons, parallel line crosswalks, and no tactile plates are present. Additionally, the installed pushbuttons are only for crossing E-W, not N-S. Curb ramps do not fully align with concrete sidewalk and/or crosswalk pavement markings in the NE, SW, and SE quadrants.		Upgrade pushbuttons and install tactile plates in accordance with AODA standards. Additionally, install pushbuttons in the N-S direction and paint ladder crosswalk pavement markings to provide an enhanced crossing area for pedestrians. These upgrades can proactively increase pedestrian safety. Rebuild curb ramps to align with crosswalk width. It is recommended that advanced left for NBL/SBL and LPI for N-S sidewalks be implemented to improve the traffic operations. It requires 70 m increase in storage length for EBL, which can be done by pavement markings. (Note: CIMA+ reviewed implementing LPIs for N-S and E-W pedestrians. Based on PM peak traffic operations, it is not recommended LPIs be implemented for all movements, as intersection operations degrades from LOS C to LOS E. In addition CIMA+ reviewed adding protected-permissive left turn phase for NBL/SBL + 70 m storage for EBL movement with LPI only for N-S sidewalk. This improves the existing NBL from LOS F to LOS C. It is recommended that advanced left for NBL/SBL and LPI for N-S sidewalks be implemented to improve the traffic operations.)	Short-Term Recommendation	\$15,500.00		Year 2


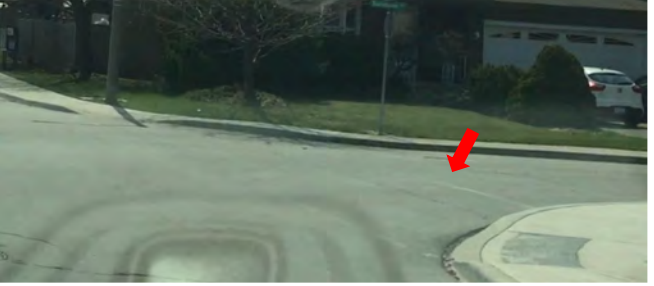

<p>61</p>	<p>Garth St @ Sanatorium Rd</p>	<p>Tactile plate in NE quadrant is in poor condition. No pedestrian countdown timers present.</p>	 	<p>Replace the tactile plate in the NE quadrant of the intersection. Install pedestrian countdown timers.</p>	<p>Quick Win</p>	<p>\$4,250.00</p>		<p>Year 1</p>
<p>62</p>	<p>Mohawk Rd W @ Rice Ave</p>	<p>No pushbuttons, pedestrian countdown timers, or tactile plates present (note: the pedestrian signal heads facing SB pedestrians have two faces but the lower face did not appear to be active during the site visit) Curb ramps do not fully align with concrete sidewalk and/or crosswalk pavement markings in the NW quadrant. (note: EBL exclusive phase already present)</p>	 	<p>Install pushbuttons and tactile plates in accordance with AODA standards. Additionally, install pedestrian countdown timers. These upgrades can proactively increase pedestrian safety. Rebuild curb ramps to align with crosswalk width. Due to EBL protected/permissive phase, the LPI is not feasible for the N-S sidewalks. LPI implemented for the E-W sidewalks. See ID 224</p>	<p>Short-Term Recommendation</p>	<p>\$13,000.00</p>		<p>Year 2</p>
<p>63</p>	<p>Denlow Ave @ Garth St</p>	<p>No crosswalks are present for pedestrians crossing in the N-S direction.</p>		<p>Paint parallel line crosswalks on the eastbound approach to provide a designated crossing area for pedestrians.</p>	<p>Quick Win</p>	<p>\$250.00</p>		<p>Year 1</p>







64	Denlow Ave @ Garth St	<p>During periods of congestion, gaps in opposing traffic may be less frequent and could result in increased driver frustration when turning onto/from Denlow Ave.</p> <p>Most vehicles pull forward beyond stop bar on Denlow Ave to get a better view of sightlines. Sightlines to the north are poor from existing stop bar position because they are partially blocked by trees (could be worse in Spring).</p>		<p>Ensure that trees along Garth St near the intersection are maintained during the Spring to keep sightlines clear.</p> <p>Traffic signal justifications in OTM Book 12 were reviewed for this location and it was determined that a traffic signal is not justified.</p>	Quick Win	\$500.00		Year 1
65	Juanita Dr @ Mohawk Rd W	<p>Non AODA pushbuttons present. Additionally, no pedestrian countdown timers or tactile plates are present.</p> <p>Crosswalks are missing on the northbound and southbound approaches.</p>		<p>Install pushbuttons and tactile plates in accordance with AODA standards. Additionally, install pedestrian countdown timers and paint parallel line crosswalks on the northbound and southbound approaches to provide a designated crossing area for pedestrians. These upgrades can proactively increase pedestrian safety.</p>	Quick Win	\$8,500.00		Year 1
66	Juanita Dr @ Mohawk Rd W	<p>No centreline pavement marking present along Juanita Dr and Ashton Rd at the intersection approaches.</p> <p>(note: intersection is stop controlled on Juanita Dr/Ashton Rd and signalized on Mohawk Rd)</p>		<p>Paint a yellow centreline for 15 m at the intersection approaches along Juanita Dr and Ashton Rd as per best practices.</p>	Quick Win	\$500.00		Year 1
67	Juanita Dr @ Mohawk Rd W	<p>No bicycle facilities present.</p>		<p>Consider implementing sharrow pavement markings along Mohawk Rd W through this intersection to enhance the presence of cyclists to drivers. Additionally, the feasibility of installing separated bicycle facilities along Mohawk Rd W by this intersection will be reviewed, as discussed in another recommendation. This recommendation to be implemented with recommendation 147</p>	Location Reviewed but No Action Required	N/A		





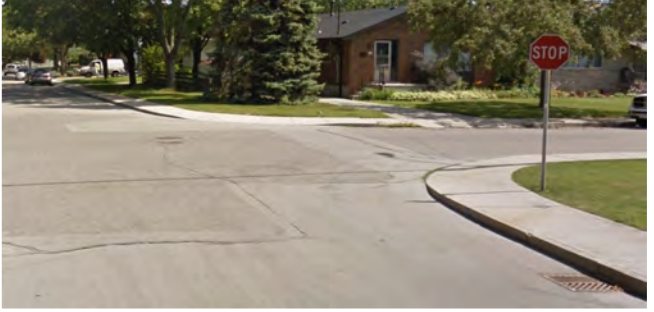
<p>68</p>	<p>Hadeland Ave @ Upper Paradise Rd</p>	<p>Non AODA pushbuttons present (pushbutton in SW quadrant not working and NE quadrant has a salt/sand container obstructing pushbutton access). Additionally, the installed pushbuttons are only for crossing E-W, not N-S.</p> <p>No pedestrian countdown timers or tactile plates are present (note: the pedestrian signal heads all have two faces but the lower face did not appear to be active during the site visit).</p> <p>Parallel line crosswalks present.</p> <p>Curb ramps do not fully align with concrete sidewalk and/or crosswalk pavement markings in the NE, SE, and SW quadrants.</p>		<p>Upgrade pushbuttons and install tactile plates and pedestrian countdown timers in accordance with AODA standards. Additionally, install pushbuttons in the N-S direction as well. These upgrades can proactively increase pedestrian safety.</p> <p>Remove or relocate the salt/sand container obstructing pushbutton access in the NE quadrant.</p> <p>Paint ladder crosswalk pavement markings to provide an enhanced crossing area for pedestrians.</p> <p>Rebuild curb ramps to align with crosswalk width.</p> <p>Implement LPI at this intersection (N-S and E-W).</p> <p>(Note: CIMA+ reviewed implementing of LPI for N-S and E-W crosswalks, which resulted in no significant impact on traffic operations. LPI implementation is feasible and recommended.)</p>	<p>Short-Term Recommendation</p>	<p>\$17,500.00</p>	<p>City to monitor, education and enforcement for speeding</p>	<p>Year 2</p>
<p>69</p>	<p>Hadeland Ave @ Upper Paradise Rd</p>	<p>1 bicycle collision observed between a NBR driver and a NBT cyclist.</p> <p>(note: bike lanes present on both sides of Upper Paradise Rd. Additionally, a dedicated left-turn lane for bicycles is also present on both NB and SB approaches)</p>		<p>Install a TURNING VEHICLES YIELD TO BICYCLES sign (Ra-18) on both the northbound and southbound approaches at this intersection.</p>	<p>Quick Win</p>	<p>\$1,000.00</p>		<p>Year 1</p>
<p>70</p>	<p>Bendamere Ave</p>	<p>85th percentile speed 10 km/h above posted speed limit between Upper Paradise Rd and W 24 St.</p> <p>Wide cross section incompatible with 40/50 km/h speed limit.</p> <p>No centreline pavement marking present.</p>		<p>The entire length of Bendamere Ave does not pass the length traffic calming screening criteria. However, consider implementing lawn signs encouraging slower speeds between Upper Paradise Rd and W 24 St along with painting ladder crosswalks at the STOP controlled intersection of Bendamere Ave @ W 23 St. The ladder crosswalks will enhance the perception of drivers that pedestrians are present within the area, which may lower vehicle speeds.</p> <p>Monitor the segment between Upper Paradise Rd and W 24 St after implementing these countermeasures; if a speeding issue still persists, consider implementing other measures such as education and enforcement or even automated speed enforcement as this is near a school zone.</p> <p>(note: the application of a centreline was considered but not recommended due to permitted parking on this street. The solid yellow centreline indicates a prohibitive condition to drive in the opposite lanes but due to permitted parking, drivers will be forced to violate that prohibitive condition at times. The presence of a centreline may cause motorists to drive very close to parked vehicles if there are any, creating potential for SMV unattended collisions).</p>	<p>Quick Win</p>	<p>\$2,700.00</p>	<p>City to monitor, education and enforcement for speeding</p>	<p>Year 1</p>
<p>71</p>	<p>Bendamere Ave</p>	<p>Stop bars are missing/faded at the intersections of Bendamere Ave @ W 35 St, W 34 St, W 33 St, W 32 St, W 31 St, W 28 St, W 24 St, W 22 St, and W 21 St.</p> <p>Crosswalks are faded at W 33 St.</p>		<p>Paint/re-paint stop bars at the intersections of Bendamere Ave @ W 35 St, W 34 St, W 33 St, W 32 St, W 31 St, W 28 St, W 24 St, W 22 St, and W 21 St.</p> <p>Re-paint crosswalks at the intersection of Bendamere Ave @ W 33 St.</p>	<p>Quick Win</p>	<p>\$5,600.00</p>		<p>Year 1</p>

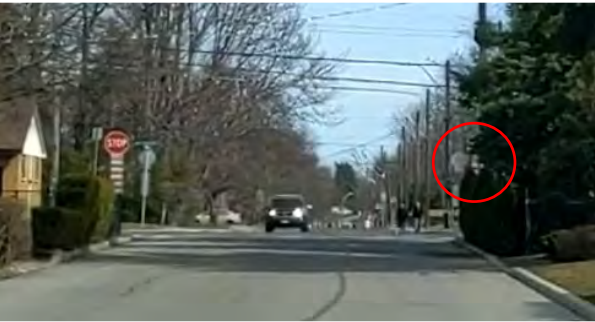




72	Darlington Dr between Bonaventure Dr and Ashton Rd	<p>Stop bars are missing at the Bonaventure Dr intersection.</p> <p>85th percentile speed is not greater than 7 km/h above the 40 km/h posted speed. Therefore, no speeding issues identified.</p>		<p>Apply stop bars at the Darlington Drive @ Bonaventure Drive intersection.</p> <p>This location passes the length, AADT, and speed limit traffic calming screening criteria, but a speeding issue was not identified.</p> <p>However, due to a specific resident concern, consider implementing lawn signs encouraging slower speeds throughout this segment.</p> <p>(Note: speed cushions are already present at 22 Darlington Dr and 38 Darlington Dr within this midblock segment)</p>	Quick Win	\$450.00		Year 1
73	Darlington Dr between Lunner Ave and Hadeland Ave	<p>STOP signs at Lunner Ave could be obstructed by larger, parked vehicles (note: on street parking on both sides).</p> <p>Stop bars are missing at the Lunner Ave and Hadeland Ave intersections (note: tactile plates are present at the Lunner Ave intersection).</p>		<p>Apply stop bars at the intersections of Darlington Dr @ Lunner Ave and Hadeland Ave.</p> <p>Additionally, apply ladder crosswalks at the Lunner Ave intersection. This intersection has already been upgraded to include tactile plates, which could be due to higher pedestrian volumes or other pedestrian related issues. However, no pedestrian-related issues were observed during the site visit.</p> <p>This midblock segment does not pass the length traffic calming screening criteria. However, due to a specific resident concern, consider implementing lawn signs encouraging slower speeds throughout this segment.</p>	Quick Win	\$1,550.00		Year 1
74	Darlington Dr between Hugo Cr and Costain Cr	<p>None identified.</p> <p>85th percentile speed is not greater than 7 km/h above the 40 km/h posted speed. Therefore, no speeding issues identified.</p>	N/A	<p>This midblock segment does not pass the length traffic calming screening criteria. Furthermore, a speeding issue was not identified.</p> <p>However, due to a specific resident concern, consider implementing lawn signs encouraging slower speeds throughout this segment.</p> <p>(Note: this segment is located within the larger segment of Darlington Dr between Ashton Rd and Lunner Ave which passes the length, AADT, and speed limit traffic calming screening criteria. However, a speeding issue was not identified)</p>	Quick Win	\$250.00		Year 1
75	Clifton Downs Road	<p>85th percentile speed 11 km/h above speed limit.</p> <p>(note: on street parking on both sides)</p>		<p>Only the segments of Clifton Downs Rd between Bonaventure Dr and Lasila Ct, and between Hadeland Ave and Purnell Dr pass the length, AADT, and speed limit traffic calming screening criteria, but did not achieve the minimum point values to proceed with the recommendation of traffic calming measures.</p> <p>However, consider implementing lawn signs encouraging slower speeds throughout this segment along with painting ladder crosswalks at the STOP controlled intersections of Clifton Downs Rd @ Purnell Dr, Hadeland Ave, Bonaventure Dr, and Lasila Ct. The ladder crosswalks will enhance the perception of drivers that pedestrians are present within the area, which may lower vehicle speeds.</p> <p>Additionally, consider installing 40 km/h "MAXIMUM SPEED" signs (Rb-1) in both directions of travel supplemented with radar speed display signs.</p> <p>Monitor this segment after implementing these countermeasures; if a speeding issue still persists, consider implementing other measures such as education and enforcement.</p>	Quick Win	\$13,250.00	City to monitor the segment, and conduct education and enforcement for speeding	Year 1
76	Clifton Downs Road	<p>Stop bars are missing at the intersection of Clifton Downs Rd @ Morgan Rd.</p>		<p>Paint stop bar at the intersection of Clifton Downs Rd @ Morgan Rd.</p>	Quick Win	\$100.00		Year 1




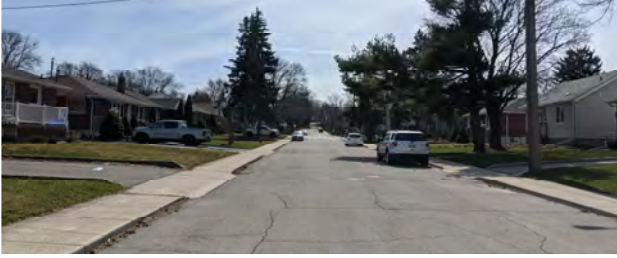


77	Bonaventure Drive	<p>None identified.</p> <p>85th percentile speed is not greater than 7 km/h above the 40 km/h posted speed. Therefore, no speeding issues identified.</p>		<p>Only the segment of Bonaventure Dr between Limeridge Rd and Clifton Downs Rd passes the length, AADT, and speed limit traffic calming criteria, but a speeding issue was not identified.</p> <p>However, due to multiple specific resident concerns at this location, consider implementing lawn signs encouraging slower speeds throughout this segment along with painting ladder crosswalks at the STOP controlled intersections of Bonaventure Dr @ Limeridge Rd W/Ct and Darlington Dr. The ladder crosswalks will enhance the perception of drivers that pedestrians are present within the area, which may lower vehicle speeds.</p> <p>(Note: speed cushions are already provided at #193 and #229)</p>	Quick Win	\$6,500.00		Year 1
78	Bonaventure Drive	<p>No traffic control is present at the intersection of Bonaventure Dr @ Valery Ct.</p>		<p>Consider installing a STOP sign and stop bars at the eastbound approach of the Bonaventure Dr @ Valery Ct intersection.</p>	Quick Win	\$600.00		Year 1
79	Bonaventure Drive	<p>Centreline at curve by Morgan Rd is faded.</p> <p>(note: parking is prohibited on both sides by the curve)</p>		<p>Re-paint the centreline at the curve by Morgan Rd.</p>	Quick Win	\$500.00		Year 1
80	Bonaventure Drive	<p>Stop bars are missing at the intersections of Bonaventure Dr @ Esquire Pl, Abbington Dr, and Caroga Ct</p>		<p>Paint stop bars at the intersections of Bonaventure Dr @ Esquire Pl, Abbington Dr, and Caroga Ct.</p>	Quick Win	\$300.00		Year 1
81	Chedmac Dr	<p>85th percentile speed is not greater than 7 km/h above 50 km/h posted speed. Therefore, no speeding issues identified.</p>		<p>The midblock segments along Chedmac Dr between Hepburn Cres and Rice Ave, and between just north of Hepburn Cres and Redfern Ave pass the length, AADT, and posted speed limit traffic calming screening criteria. However, a speeding issue was not identified.</p> <p>However, the speed limit in the surrounding neighbourhood is proposed to be reduced to 40 km/h in 2022. Therefore, ensure that a 40 km/h "MAXIMUM SPEED" sign (Rb-1) is present in both directions of travel when this occurs.</p>	Quick Win	\$1,000.00		Year 1




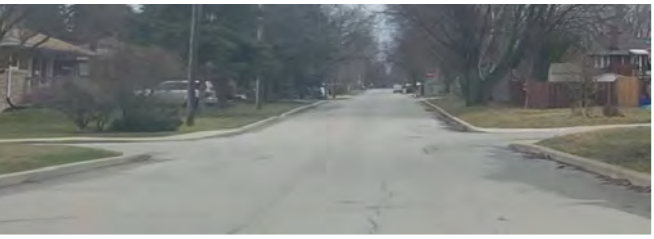


82	Chedmac Dr	Stop bars are missing at the intersections of Chedmac Dr @ Hepburn Cres (north and south) and Southridge Dr (east and west).		Paint stop bars at the intersections of Chedmac Dr @ Hepburn Cres (north and south) and Southridge Dr (east and west).	Quick Win	\$300.00		Year 1
83	Courtland Ave	85th percentile speed 11 km/h above speed limit.		<p>The midblock segment of Courtland Ave between Stone Church Rd and Regent Ave passes the length, AADT, and posted speed limit traffic calming screening criteria.</p> <p>This location achieved greater than the minimum point values to proceed with the recommendation of traffic calming measures.</p> <p>Consider implementing two sets of speed humps within the identified segment. In addition, install radar speed display signs.</p>	Short-Term Recommendation	\$20,000.00		Year 2
84	Courtland Ave	<p>Stop bars are missing at the intersections of Courtland Ave @ Dydzak Ct, Sundown Dr, and Falkirk Dr/Marcel Pl.</p> <p>Crosswalks are faded at Sundown Dr.</p>		<p>Paint stop bars at the intersections of Courtland Ave @ Dydzak Ct, Sundown Dr, and Falkirk Dr/Marcel Pl.</p> <p>Re-paint crosswalks at the intersection of Courtland Ave @ Sundown Dr,</p>	Quick Win	\$650.00		Year 1
85	Eagle Glen Way	<p>85th percentile speed is not greater than 7 km/h above the assumed 50 km/h posted speed. Therefore, no speeding issues identified.</p> <p>(note: parking on both sides)</p>		<p>Only Eagle Glen Way between Upper Paradise and Giotto passes the length, AADT, and posted speed limit traffic calming screening criteria, but a speeding issue was not identified.</p> <p>However, the speed limit in the surrounding neighbourhood is proposed to be reduced to 40 km/h in 2023. Therefore, ensure that a 40 km/h "MAXIMUM SPEED" sign (Rb-1) is present in both directions of travel when this occurs.</p>	Quick Win	\$1,000.00		Year 1
86	Eagle Glen Way	Stop bars are missing at the intersection of Eagle Glen Way @ Redtail Cres, Rianna Ct, Pavel Pl, Raphael Ct, and Giotto Ln.		Paint stop bars at the intersections of Eagle Glen Way @ Redtail Cres, Rianna Ct, Pavel Pl, Raphael Ct, and Giotto Ln.	Quick Win	\$500.00		Year 1





87	Garrow Dr	<p>85th percentile speed 9 km/h above speed limit. (note: parking on south side only west of Garth and on both sides east of Garth)</p>		<p>The entire segment of Garrow Dr does not pass the length traffic calming screening criteria. However, consider implementing lawn signs encouraging slower speeds throughout this segment.</p> <p>Additionally, consider installing a 40 km/h posted speed limit sign on the west section of Garrow Dr facing eastbound drivers near the Cranbrook Dr intersection. It is possible that drivers exiting the residential area heading eastbound along Garrow Dr towards Garth St may perceive the roadway as a posted 50 km/h street since there is currently no posted speed limit sign facing eastbound drivers by the west section of Garrow Dr.</p>	Quick Win	\$750.00		Year 1
88	Garrow Dr	<p>EB/WB vs. SB vehicle conflict point at Shoppers Drug Mart Plaza driveway.</p>		<p>Consider installing STOP signs and applying a stop bar at the Shoppers Drug Mart plaza driveway to regulate the traffic exiting the driveway.</p> <p>(note: STOP signs/stop bars are not typically required for private driveways. However, due to several angle collisions involving drivers exiting at this driveway, the presence of STOP signs and stop bars may enhance the drivers' perception to wait before entering the travelled way).</p>	Quick Win	\$600.00		Year 1
89	Garrow Dr	<p>Stop bars are missing at the intersections of Garrow Dr @ Greyfriar Dr and Greendale Dr.</p>		<p>Paint stop bars at the intersections of Garrow Dr @ Greyfriar Dr and Greendale Dr.</p>	Quick Win	\$200.00		Year 1
90	Garrow Dr	<p>Poor pavement condition west of Garth St.</p>		<p>Repair the pavement west of Garth St.</p>	Short-Term Recommendation	\$93,600.00		Year 3
91	Gurnett Dr	<p>85th percentile speed is not greater than 7 km/h above the posted speed. Therefore, no speeding issues identified. (note: parking on both sides)</p>		<p>No action required.</p> <p>This entire segment of Gurnett Dr passes the AADT, posted speed, and length traffic calming screening criteria. However, a speeding issue was not identified.</p>	Location Reviewed but No Action Required	N/A		
92	Gurnett Dr	<p>Stop bars are missing at the intersections of Gurnett Dr @ Greenguild Ave and Gurnett Gate.</p>		<p>Paint stop bars at the intersections of Gurnett Dr @ Greenguild Ave and Gurnett Gate.</p>	Quick Win	\$200.00		Year 1

93	Hadeland Ave	<p>East of Upper Paradise: 85th percentile speed 12 km/h above speed limit.</p> <p>West of Upper Paradise: 85th percentile speed is not greater than 7 km/h above the posted speed.</p>		<p>The entire segment of Hadeland Ave does not pass the length traffic calming screening criteria. However, consider implementing lawn signs encouraging slower speeds throughout this segment.</p> <p>Additionally, consider installing a 40 km/h posted speed limit sign on the east section of Hadeland Ave facing westbound drivers near the Clifton Downs Rd intersection. It is possible that drivers exiting the residential area heading westbound along Hadeland Ave towards Upper Paradise Rd may perceive the roadway as a posted 50 km/h street since there is currently no posted speed limit sign facing westbound drivers by the east section of Hadeland Ave.</p>	Quick Win	\$1,000.00		Year 1
94	Hadeland Ave	<p>Stop bars are missing at the intersection of Hadeland Ave @ Fonthill Rd.</p> <p>Crosswalks are faded at Fonthill Rd. Additionally, a tactile plate is present in the SE quadrant of the intersection of Hadeland Ave @ Fonthill Rd, but a tactile plate is missing in the SW quadrant.</p>		<p>Paint stop bars at the intersection of Hadeland Ave @ Fonthill Rd.</p> <p>Re-paint crosswalks and install an additional tactile plate in the SW quadrant at the intersection of Hadeland Ave @ Fonthill Rd.</p>	Quick Win	\$1,850.00		Year 1
95	Leslie Ave	<p>85th percentile speed 8 km/h above 40 km/h speed limit between W 25 St and W 27 St (east of Upper Paradise Rd).</p> <p>85th percentile speed is not greater than 7 km/h above the 50 km/h speed limit west of W 32 St (west of Upper Paradise Rd).</p>		<p>The entire length of Leslie Ave does not pass the length traffic calming screening criteria. However, consider implementing lawn signs encouraging slower speeds between W 25 St and W 27 St.</p> <p>Monitor the segment between W 25 St and W 27 St after implementing the lawn signs; if a speeding issue still persists, consider implementing other measures such as education and enforcement or even automated speed enforcement as this is near a school zone.</p> <p>(note: the application of a centreline was considered but not recommended due to permitted parking on this street. The solid yellow centreline indicates a prohibitive condition to drive in the opposite lanes but due to permitted parking, drivers will be forced to violate that prohibitive condition at times. The presence of a centreline may cause motorists to drive very close to parked vehicles if there are any, creating potential for SMV unattended collisions).</p>	Quick Win	\$250.00	City to monitor, education and enforcement for speeding	Year 1
96	Leslie Ave	<p>A non-breakaway pole is present directly in front of northbound and eastbound drivers at the curve by W 23 St.</p>		<p>Delineate the poles to increase driver awareness of their presence. Delineation can be achieved by installing a CHECKERBOARD Sign (One Direction) (Left Version) on the pole directly in front of northbound drivers and a CHECKERBOARD Sign (One Direction) (Right Version) on the pole directly in front of eastbound drivers. The possibility for pole re-location will be determined by the City.</p>	Quick Win	\$1,000.00	City to determine potential of pole relocation	Year 1
97	Leslie Ave	<p>Stop bars are missing at the intersections of Leslie Ave @ W 35 St, W 34 St, W 33 St, W 32 St, W 31 St, W 28 St, Price Ave, and W 24 St.</p>		<p>Paint stop bars at the intersections of Leslie Ave @ W 35 St, W 34 St, W 33 St, W 32 St, W 31 St, W 28 St, Price Ave, and W 24 St.</p>	Quick Win	\$1,300.00		Year 1

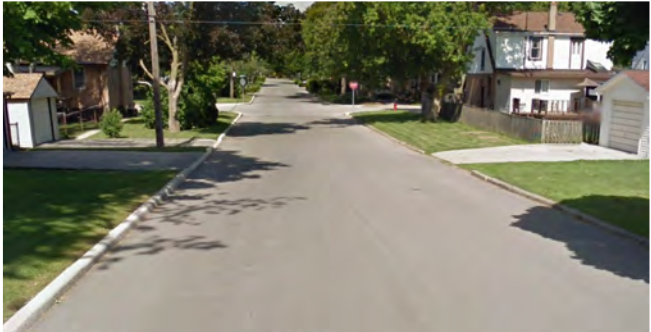
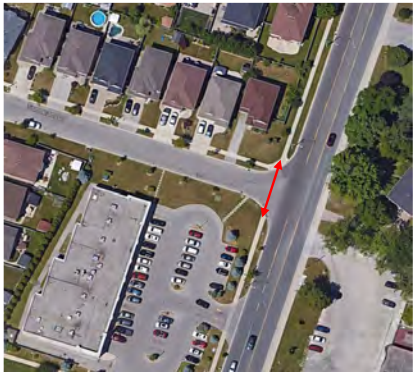


98	Leslie Ave	EB right STOP sign at the intersection of Leslie Ave @ Upper Paradise Rd hidden by vegetation.		Trim and maintain vegetation obstructing the EB right STOP sign at the intersection of Leslie Ave @ Upper Paradise Rd.	Quick Win	\$500.00		Year 1
99	Magnolia Dr	85th percentile speed 10 km/h above speed limit between Mohawk Rd and Daisy St. (note: parking on west side south of Mohawk Rd and parking on both sides north of Mohawk Rd)		<p>The midblock segment of Magnolia Dr between LeClaire St and Daisy St passes the length, AADT, and posted speed limit traffic calming screening criteria. This location achieved greater than the minimum point values to proceed with the recommendation of traffic calming measures.</p> <p>Consider implementing two sets of speed humps within the identified segment. In addition, install radar speed display signs.</p> <p>The midblock segment between Mohawk Rd W and Lavina Cres does not pass the length traffic calming screening criteria. Furthermore, a speeding issue was not identified along this segment.</p>	Short-Term Recommendation	\$20,000.00		Year 2
100	Magnolia Dr	Stop bars are missing at the intersections of Magnolia Dr @ Minstrel Ct and Appleford Rd.		Paint stop bars at the intersections of Magnolia Dr @ Minstrel Ct and Appleford Rd.	Quick Win	\$200.00		Year 1
101	Purnell Dr	85th percentile speed 8 km/h above speed limit.		<p>This midblock segment passes the AADT, posted speed, and length traffic calming screening criteria, but did not achieve the minimum point values to proceed with the recommendation of traffic calming measures.</p> <p>However, consider implementing lawn signs encouraging slower speeds throughout this segment.</p> <p>Additionally, consider installing 40 km/h "MAXIMUM SPEED" signs (Rb-1) in both directions of travel supplemented with radar speed display signs.</p>	Quick Win	\$11,250.00		Year 1
102	Purnell Dr	Centreline is missing at curve south of Bentley Pl. (note: parking is prohibited on both sides by the curve)		<p>Paint a centreline at the curve south of Bentley Pl.</p> <p>(note: since parking is prohibited on both sides, the centreline will help regulate the parking prohibition as well)</p>	Quick Win	\$500.00		Year 1



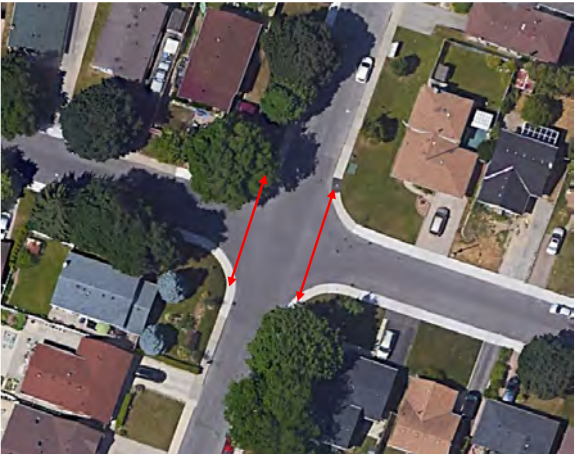
103	Purnell Dr	Stop bars are missing at the intersections of Purnell Dr @ Ferrino Ct and Bentley Pl.		Paint stop bars at the intersections of Purnell Dr @ Ferrino Ct and Bentley Pl.	Quick Win	\$200.00		Year 1
104	W 23 St	85th percentile speed is not greater than 7 km/h above the assumed 50 km/h posted speed. Therefore, no speeding issues identified.		<p>Only the midblock segment between Elmwood Ave and Leslie Ave passes the AADT, posted speed, and length traffic calming screening criteria, but a speeding issue was not identified.</p> <p>However, the speed limit in the surrounding neighbourhood is proposed to be reduced to 40 km/h in 2022. Therefore, ensure that a 40 km/h "MAXIMUM SPEED" sign (Rb-1) is present in both directions of travel when this occurs.</p>	Quick Win	\$1,000.00		Year 1
105	W 23 St	SB STOP sign at Elmwood Ave is obstructed by hydro pole.		Due to the obstruction of the STOP sign by hydro pole, install an additional STOP sign to the left for SB drivers at the intersection of W 23 St @ Elmwood Ave.	Quick Win	\$500.00		Year 1
106	W 25 St	85th percentile speed is not greater than 7 km/h above the 40 km/h or 50 km/h posted speed. Therefore, no speeding issues identified.		<p>No action required.</p> <p>This entire midblock segment does not pass the length traffic calming screening criteria. Furthermore, a speeding issue was not identified.</p>	Location Reviewed but No Action Required	N/A		
107	W 25 St	Stop bars are missing at the intersection of W 25 St @ Price Ave.		Paint stop bar at the intersection of W 25 St @ Price Ave.	Quick Win	\$100.00		Year 1
108	W 27 St between Leslie Ave and Bendamere Ave (Chedoke School)	85th percentile speed is not greater than 7 km/h above the 40 km/h posted speed. Therefore, no speeding issues identified.		<p>No action required.</p> <p>This entire midblock segment does not pass the length traffic calming screening criteria. Furthermore, a speeding issue was not identified.</p>	Location Reviewed but No Action Required	N/A		

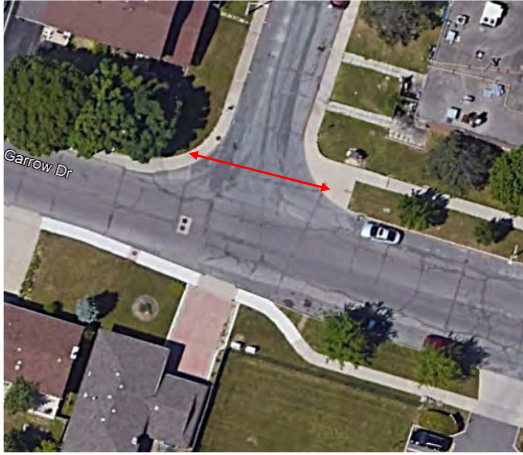
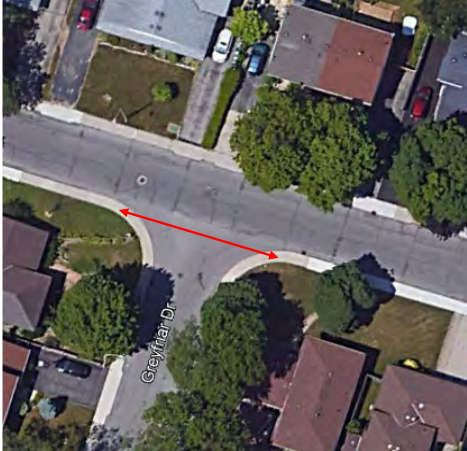
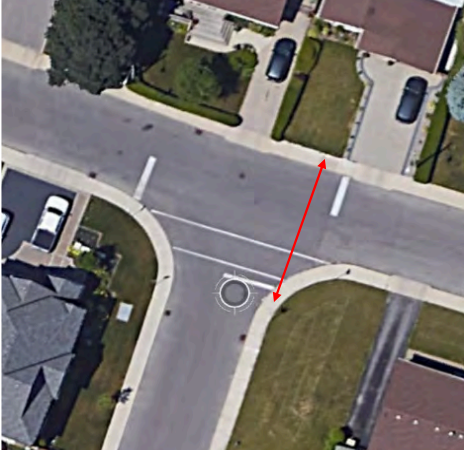
109	W 31 St	None identified. 85th percentile speed is not greater than 7 km/h above the assumed 50 km/h posted speed. Therefore, no speeding issues identified.		Only the midblock segment between Scenic Dr and Leslie Ave passes the AADT, posted speed, and length traffic calming screening criteria, but a speeding issue was not identified. However, the speed limit in the surrounding neighbourhood is proposed to be reduced to 40 km/h in 2022. Therefore, ensure that a 40 km/h "MAXIMUM SPEED" sign (Rb-1) is present in both directions of travel when this occurs.	Quick Win	\$1,000.00		Year 1
110	Garth St from Madonna Dr to Yates Gt	East sidewalk is missing.		Install a sidewalk on the east side of the indicated segment. There is sufficient ROW and lane narrowing can be used to accommodate the sidewalk over the structural culvert, located north of Madonna Drive, to avoid structural widening. However, it is recommended the City first conduct a needs assessment prior to the construction, as while the facility is missing, it is noted that there are no pedestrian draws (residences/buildings) on the east side of this segment.	Long-Term Recommendation	\$120,540.00		Year 5
111	Medici Ln from Davinci Blvd (South) to Davinci Blvd (North)	Inside sidewalk is missing.		Install a sidewalk on the inside of the indicated segment. CIMA+ reviewed the location and prepared the conceptual design.	Short-Term Recommendation	\$47,200.00		Year 3
112	Elmwood Ave from Garth St to W 33 St	North and south sidewalks are missing.		Install sidewalks on the north and south sides of the indicated segment. The road poses a constraint 20 m ROW width and thus sidewalks can be installed per city standards (City Standard Dwg RD-113.01) where available. Locating the sidewalk directly adjacent the roadway is also feasible and potentially required to avoid impacting utilities/hydrants and will be required to tie into existing sidewalk at intersections. Community mail boxes are also present along the segment, however these are located approximately 2 m from the roadside edge and therefore not anticipated to require relocation. While a relatively simple improvement, the length of the segment (~1km) means that approximately 2 km of sidewalk will be constructed, which increases cost, design and construction requirements.	Long-Term Recommendation	\$227,700.00		Year 5
113	Westcliffe Ave from Garth St to Pleasant Ave	East and west sidewalks are missing.		Install sidewalks on the east and west sides of the indicated segment. CIMA+ reviewed the location and prepared a conceptual plan.	Short-Term Recommendation	\$31,900.00		Year 2
114	Scenic Dr from Garth St to Denlow Ave	South sidewalk is missing. Hamilton's Cycling Master Plan indicates that sidewalks are planned to be installed along this segment (rank #43).		City has confirmed that this section is part of a capital project and that there are plans to construct a new pedestrian network here. (Note: the proposed Mountain Brow Trail, a multi-use trail designed to provide accommodation for pedestrians and cyclists, does not extend along this portion of Scenic Dr)	Location Reviewed but No Action Required	N/A	Identified issued part of capital project	

<p>115</p>	<p>Denlow Ave from Pleasant Ave to Scenic Dr</p>	<p>North sidewalk is missing. Hamilton's Cycling Master Plan indicates that sidewalks are planned to be installed along this segment (rank #43).</p>		<p>City has confirmed that this section is part of a capital project and that there are plans to construct a new pedestrian network here. (Note: the proposed Mountain Brow Trail, a multi-use trail designed to provide accommodation for pedestrians and cyclists, does extend along the north portion of Scenic Dr. The work is expected to be coordinated through the construction of facilities or provide securities to facilitate the construction as part of future Public Works along Scenic Drive and Sanatorium Road)</p>	<p>Location Reviewed but No Action Required</p>	<p>N/A</p>	<p>Identified issued part of capital project</p>	
<p>116</p>	<p>Scenic Dr from Denlow Ave to Upper Paradise Rd</p>	<p>North and south sidewalks are missing. Safety concern where pedestrians must cross Scenic Dr at Denlow Ave on a curve to continue on existing sidewalks. Hamilton's Cycling Master Plan indicates that sidewalks are planned to be installed along this segment (rank #43). (note: high priority missing sidewalk)</p>		<p>City has confirmed that the intersection of Scenic Dr @ Denlow Ave is part of a capital project where an all-way stop is being proposed. Pedestrians will have proper right-of-way at the intersection with a new pedestrian network here. (Note: the proposed Mountain Brow Trail, a multi-use trail designed to provide accommodation for pedestrians and cyclists, does extend along the north portion of Scenic Dr. The work is expected to be coordinated through the construction of facilities or provide securities to facilitate the construction as part of future Public Works along Scenic Drive and Sanatorium Road)</p>	<p>Location Reviewed but No Action Required</p>	<p>N/A</p>	<p>Identified issued part of capital project</p>	
<p>117</p>	<p>Scenic Dr from Upper Paradise Rd to W 35 St</p>	<p>South sidewalk is missing. Safety concern where pedestrians must cross Scenic Dr between W 34 St and Angela Ave on a sharp turn to continue on existing sidewalks. (note: high priority missing sidewalk)</p>		<p>Install a sidewalk on the south side of the indicated segment and install a PXO Level 2 Type C between W 34 St and W 33 St due to the presence of the nearby curve. However, the posted speed limit within this area should be reduced to 40 km/h before implementing this PXO. As a result of the speed limit reduction to 40 km/h, a stopping sight distance of 85 m will be required assuming a design speed of 60 km/h, which is available. It is noted that advisory speed signs of 20 km/h are already present on both approaches to the curve. CIMA+ prepared the conceptual design. The sidewalk portion of the above recommendation is noyt included in the implementation plan as the City confirmed that construction of a multiuse path between Mohawk and Garth is already recommended in the capitalproject and advised to remove this from implementation plan. (Note: the proposed Mountain Brow Trail, a multi-use trail designed to provide accommodation for pedestrians and cyclists, does extend along the north portion of Scenic Dr. The work is expected to be coordinated through the construction of facilities or provide securities to facilitate the construction as part of future Public Works along Scenic Drive and Sanatorium Road)</p>	<p>Short-Term Recommendation</p>	<p>\$50,000.00</p>		<p>Year 2</p>
<p>118</p>	<p>Scenic Dr from W 35 St to San Pedro Dr</p>	<p>North sidewalk is missing.</p>		<p>Install a sidewalk on the north side of the indicated segment. CIMA+ reviewed the location and prepared a conceptual plan. CIMA+ initially included a cost estimate of \$41,000 for the implementation plan. However, City confirmed that construction of a multiuse path between Mohawk and Garth is already recommended in the capitalproject and advised to remove this from implementation plan. So changed to N/A. (Note: the proposed Mountain Brow Trail, a multi-use trail designed to provide accommodation for pedestrians and cyclists, does not extend along this portion of Scenic Dr)</p>	<p>Location Reviewed but No Action Required</p>	<p>N/A</p>		

<p>119</p>	<p>Scenic Dr from San Pedro Dr to Lavender Dr (North) (minus 160 m of sidewalk on south side of Chateau Ct intersection)</p>	<p>North and south sidewalks are missing. If sidewalks are provided, crosswalks and relocation of the guide rail at Goulding Ave is desirable.</p>		<p>Install a sidewalk on the north and south sides of the indicated segment. Initially, CIMA+ completed a conceptual plan for sidewalks with a long-term recommendation at an estimate of (\$216,300). However, City confirmed that construction of a multiuse path between Mohawk and Garth is already recommended in the capitalproject and advised to remove this from implementation plan. So changed to N/A.</p> <p>Consider providing crosswalks and relocating the guide rail at Goulding Ave if sidewalks are provided.</p> <p>(Note: the proposed Mountain Brow Trail, a multi-use trail designed to provide accommodation for pedestrians and cyclists, does extend along the north portion of Scenic Dr except for between San Pedro Dr and Sanatorium Rd. The work is expected to be coordinated through the construction of facilities or provide securities to facilitate the construction as part of future Public Works along Scenic Drive and Sanatorium Road)</p>	<p>Location Reviewed but No Action Required</p>	<p>N/A</p>		
<p>120</p>	<p>Sanatorium Rd from Scenic Dr (West) to Scenic Dr (East)</p>	<p>North and south sidewalks are missing. (note: medium priority missing sidewalk - bus stops are present within this section)</p>		<p>Install a sidewalk on the north and south sides of the indicated segment. (Sidewalks are being proposed by the development occurring at this location.)</p> <p>(Note: the proposed Mountain Brow Trail, a multi-use trail designed to provide accommodation for pedestrians and cyclists, does extend along the north portion of Sanatorium Rd. The work is expected to be coordinated through the construction of facilities or provide securities to facilitate the construction as part of future Public Works along Scenic Drive and Sanatorium Road)</p>	<p>Location Reviewed but No Action Required</p>	<p>N/A</p>		
<p>121</p>	<p>Scenic Dr from Lavender Dr (North) to Mohawk Rd W</p>	<p>East sidewalk is missing.</p>		<p>It is feasible to install a sidewalk on the east side of the indicated segment. However it is acknowledged that the City's Cycling Masterplan is already proposing a multi-use path along this segment. Dependant on approval from Hydro One, the open area on the eastern side and under the transmission lines affords an opportunity for a desirable and potentially landscaped multi-use trail. This would then fulfill the sidewalk needs on this side. The cost estimated as part of this study is for a sidewalk and efficiencies can be made if once combined with the multi-use path. CIMA+ initially included a cost estimate of \$259,100 in the implementation plan. However, City confirmed that construction of a multiuse path between Mohawk and Garth is already recommended in the capitalproject and advised to remove this from implementation plan. So changed to N/A.</p> <p>(Note: the proposed Mountain Brow Trail, a multi-use trail designed to provide accommodation for pedestrians and cyclists, does not extend along this portion of Scenic Dr)</p>	<p>Location Reviewed but No Action Required</p>	<p>N/A</p>		
<p>122</p>	<p>Upper Horning Rd from Mohawk Rd W to Elmira Dr</p>	<p>West sidewalk is missing.</p>		<p>Install a sidewalk on the west side of the indicated segment. CIMA+ reviewed the location and prepared a conceptual design.</p>	<p>Short-Term Recommendation</p>	<p>\$37,000.00</p>		<p>Year 3</p>
<p>123</p>	<p>Chedmac Dr from Rice Ave to Southridge Dr</p>	<p>North sidewalk is missing.</p>		<p>Install a sidewalk on the north side of the indicated segment. CIMA+ reviewed the location and prepared a conceptual design.</p> <p>(North sidewalk is being proposed as part of Chedoke Heights development.)</p>	<p>Location Reviewed but No Action Required</p>	<p>N/A</p>		
<p>124</p>	<p>Rymal Rd W from Glancaster Rd to Upper Paradise Rd</p>	<p>South sidewalk is missing.</p>		<p>Install a sidewalk on the south side of the indicated segment. CIMA+ reviewed the location and prepared a conceptual design initially at an estimated cost of \$139,800 with a long-term recommendation. The City then confirmed that Improvements to Rymal Road have already been considered as part of a completed EA. This recommendation was changed to N/A.</p>	<p>Location Reviewed but No Action Required</p>	<p>N/A</p>		


125	Leslie Ave from Upper Paradise Rd to W 35 St	North and south sidewalks are missing.		Install a sidewalk on the north and south sides of the indicated segment. CIMA+ reviewed the location and prepared a conceptual design.	Short-Term Recommendation	\$88,800.00		Year 2
126	Sunbeam Dr @ Upper Paradise Rd	A crosswalk is missing on the west leg of this intersection. This intersection is in close proximity to a park to the northeast and bus stops; the presence of pedestrians is expected near this location.		Paint a parallel line crosswalk at the west leg of this intersection.	Quick Win	\$200.00		Year 1
127	Meadowbank Dr @ Upper Paradise Rd	A crosswalk is missing on the west leg of this intersection. This intersection is in close proximity to a park to the northeast and bus stops; the presence of pedestrians is expected near this location.		Paint a parallel line crosswalk at the west leg of this intersection.	Quick Win	\$200.00		Year 1
128	Donnici Dr @ Upper Paradise Rd	A crosswalk is missing on the east leg of this intersection. This intersection is in close proximity to a park to the northeast and bus stops; the presence of pedestrians is expected near this location.		Paint a parallel line crosswalk at the east leg of this intersection.	Quick Win	\$200.00		Year 1

<p>129</p>	<p>Wendover Dr @ Rice Ave</p>	<p>A crosswalk is missing on the east leg of this intersection. This intersection is in close proximity to Mohawk Rd, bus stops, and a recreation facility; the presence of pedestrians is expected near this location.</p>		<p>Paint a ladder crosswalk at the east leg of this intersection. (note: west ladder crosswalk not shown in Google Earth aerial view but it is present in street view as of October 2020).</p>	<p>Quick Win</p>	<p>\$1,000.00</p>		<p>Year 1</p>
<p>130</p>	<p>Upper Paradise Rd between Rymal Rd W and Richview Dr</p>	<p>This location is a potential candidate for a pedestrian crossing treatment due to nearby pedestrian desire lines.</p>		<p>Install a PXO Level 2 Type B within this midblock segment (3 lane cross-section and 8-hour volume is approximately 7,762 vehicles based on 2016 TMC at Richvale Dr @ Upper Paradise Rd grown to 2021). A potential location is approximately 260 m north of the intersection of Rymal Rd W @ Upper Paradise Rd where there is a paved pedestrian path for William Schwenger Park to the east and Meadowbank Dr to the west. CIMA+ prepared a conceptual design. (Note: City to discuss potential PXO location with the signals department)</p>	<p>Short-Term Recommendation</p>	<p>\$50,000.00</p>		<p>Year 3</p>
<p>131</p>	<p>Wendover Dr @ Appleford Rd</p>	<p>A crosswalk is missing on the east and west legs of this intersection. This intersection is in close proximity to a park to the south; the presence of pedestrians is expected near this location.</p>		<p>Paint a parallel line crosswalk at the east and west legs of this intersection.</p>	<p>Quick Win</p>	<p>\$200.00</p>		<p>Year 1</p>


<p>132</p>	<p>Garrow Dr @ Greendale Dr</p>	<p>A crosswalk is missing on the north leg of this intersection. This intersection is in close proximity to a commercial plaza to the east; the presence of pedestrians is expected near this location.</p>		<p>Paint a parallel line crosswalk at the north leg of this intersection.</p>	<p>Quick Win</p>	<p>\$200.00</p>		<p>Year 1</p>
<p>133</p>	<p>Garrow Dr @ Greyfriar Dr</p>	<p>A crosswalk is missing on the east and west legs of this intersection. This intersection is in close proximity to a park to the south; the presence of pedestrians is expected near this location.</p>		<p>Paint a parallel line crosswalk at the south leg of this intersection.</p>	<p>Quick Win</p>	<p>\$200.00</p>		<p>Year 1</p>
<p>134</p>	<p>Clifton Downs Rd @ Abbingdon Dr</p>	<p>A crosswalk is missing on the east leg of this intersection. Additionally, a curb ramp is not present on the north sidewalk for an east leg crosswalk. This intersection is in close proximity to a park to the southwest; the presence of pedestrians is expected near this location.</p>		<p>Paint a ladder crosswalk at the east leg of this intersection to address resident speed concerns and install a curb ramp on the north sidewalk at the east leg. The ladder crosswalk will enhance the perception of drivers that pedestrians are present within the area, which may lower vehicle speeds. (Note: a crosswalk was not recommended at the west leg due to the presence of a storm drain)</p>	<p>Quick Win</p>	<p>\$2,250.00</p>		<p>Year 1</p>






135	Bonaventure Dr @ Abbingdon Dr	<p>A crosswalk is missing on the west leg of this intersection.</p> <p>This intersection is in close proximity to a park to the west; the presence of pedestrians is expected near this location.</p>		Paint a parallel line crosswalk at the west leg of this intersection.	Quick Win	\$200.00		Year 1
136	Upper Paradise Rd from Stone Church Rd W to Rymal Rd W	<p>Cycling facilities are not currently provided along this segment.</p> <p>Hamilton's Cycling Master Plan indicates that bike lanes are planned to be installed along this segment (rank #64).</p> <p>(note: on-road bike lanes are present north of Stone Church Rd along Upper Paradise Rd)</p>		Upgrade the planned installation of bike lanes along this segment to separated bicycle facilities as per the cycling nomograph (Figure 5.5) in OTM Book 18 (AADT is 14888 vpd and 85th percentile speed is 77 km/h). CIMA+ reviewed and prepared a conceptual design.	Long-Term Recommendation	\$432,700.00		Year 5
137	Upper Paradise Rd from Stone Church Rd W to Scenic Dr	<p>On-road bike lanes are currently provided along this segment.</p> <p>This segment is not listed in Hamilton's Cycling Master Plan for any future upgrades.</p> <p>Note: Existing bicycle lanes exist north and south of the Upper Paradise Rd @ Mohawk Rd intersection, but not through it. The Upper Paradise Rd Feasibility Plan project by the City plans to implement buffered bicycle lanes with barriers through the missing gap at the Upper Paradise Rd @ Mohawk Rd intersection. The alternatives from this Feasibility Plan were reviewed by CIMA+ and discussed in another recommendation.</p>		Upgrade the existing on-road bike lanes along this segment to separated bicycle facilities as per the cycling nomograph (Figure 5.5) in OTM Book 18 (AADT is 14888 vpd and 85th percentile speed is 77 km/h). CIMA+ reviewed and prepared a conceptual design.	Short-Term Recommendation	\$81,216.00		Year 2
138	Stone Church Rd W from Juliebeth Dr to Garth St	<p>On-road bike lanes are currently provided along this segment.</p> <p>This segment is not listed in Hamilton's Cycling Master Plan for any future upgrades.</p>		Upgrade the existing on-road bike lanes along this segment to separated bicycle facilities as per the cycling nomograph (Figure 5.5) in OTM Book 18 (AADT is 20206 vpd and 85th percentile speed is assumed to be 60 km/h). CIMA+ reviewed and prepared a conceptual design.	Short-Term Recommendation	\$30,080.00		Year 2
139	Rymal Rd W from Upper Paradise Rd to Davinci Blvd/Spadara Dr	<p>Sharrows are currently provided along this segment.</p> <p>Hamilton's Cycling Master Plan indicates that bike paths are planned to be installed along this segment (rank #176).</p>		<p>No action required.</p> <p>The City's planned upgrade to bike paths is an appropriate cycling facility for this segment as per the cycling nomograph (Figure 3.3) in OTM Book 18 (AADT is 18767 vpd and 85th percentile speed is assumed to be 70 km/h). Additionally, this will improve consistency with the existing separated bike facilities east of Davinci Blvd along Rymal Rd W.</p>	Location Reviewed but No Action Required	N/A	Part of Cycling Master Plan	

140	Rymal Rd W from Upper Paradise Rd to Glanaster Rd	<p>Paved shoulders are currently provided along this segment.</p> <p>This segment is not listed in Hamilton's Cycling Master Plan for any future upgrades.</p>		<p>Upgrade the existing paved shoulders along this segment to separated bicycle facilities as per the cycling nomograph (Figure 5.5) in OTM Book 18 (AADT is 18938 vpd and the 85th percentile speed is assumed to be 70 km/h). Additionally, this will improve consistency with the proposed/existing separated bike facilities east of Upper Paradise Rd along Rymal Rd W. CIMA+ reviewed and prepared a conceptual design initially at an estimated cost of \$215,500 with a long-term recommendation.. However, as per ID#124, City confirmed that Improvements to Rymal Road have already been considered as part of a completed EA. Change to N/A.</p>	Location Reviewed but No Action Required	N/A		
141	Scenic Dr from W 35 St to 80 m west of Chateau Ct	<p>A signed bicycle route is currently provided along this segment.</p> <p>Hamilton's Cycling Master Plan indicates that bike lanes are planned to be installed along this segment (rank #40)</p>		<p>No action required.</p> <p>The City's planned upgrade to bike lanes is an appropriate cycling facility for this segment as per the cycling nomograph (Figure 3.3) in OTM Book 18 (AADT is 3062 vpd and 85th percentile speed is 63 km/h).</p> <p>(Note: the proposed Mountain Brow Trail, a multi-use trail designed to provide accommodation for pedestrians and cyclists, does extend along the north portion of Scenic Dr except for between West 35 St and Sanatorium Rd. The work is expected to be coordinated through the construction of facilities or provide securities to facilitate the construction as part of future Public Works along Scenic Drive and Sanatorium Road)</p>	Location Reviewed but No Action Required	N/A	Part of Cycling Master Plan	
142	Scenic Dr from 80 m west of Chateau Ct to Mohawk Rd W	<p>A signed bicycle route is currently provided along this segment.</p> <p>Hamilton's Cycling Master Plan indicates that multi-use trails are planned to be installed along this segment (rank #16)</p>		<p>No action required.</p> <p>The City's planned upgrade to multi-use trails is an appropriate cycling facility for this segment as per the cycling nomograph (Figure 3.3) in OTM Book 18 (AADT is 3124 vpd and 85th percentile speed is 63 km/h).</p> <p>(Note: the proposed Mountain Brow Trail, a multi-use trail designed to provide accommodation for pedestrians and cyclists, does extend along the north portion of Scenic Dr, but ends at the bend west of Chateau Ct within this segment. The work is expected to be coordinated through the construction of facilities or provide securities to facilitate the construction as part of future Public Works along Scenic Drive and Sanatorium Road)</p>	Location Reviewed but No Action Required	N/A	Part of Cycling Master Plan	
143	Scenic Dr/Denlow Ave from Upper Paradise Rd to Garth St	<p>On-road bike lanes are currently present along Scenic Dr between Upper Paradise Rd and Colquhoun Cres.</p> <p>Sharrows are currently present along Scenic Dr between Colquhoun Cres and Denlow Ave.</p> <p>No cycling facilities are provided along Denlow Ave between Scenic Dr and Garth St and along Scenic Dr between Denlow Ave and Garth St.</p> <p>Hamilton's Cycling Master Plan indicates that bike lanes are planned to be installed along this segment (rank #43)</p>		<p>No action required.</p> <p>The City's planned upgrade to bike lanes is an appropriate cycling facility for this segment as per the cycling nomograph (Figure 3.3) in OTM Book 18 (AADT is 4268 vpd and 85th percentile speed is 58 km/h).</p> <p>(Note: the proposed Mountain Brow Trail, a multi-use trail designed to provide accommodation for pedestrians and cyclists, does extend along the north portion of Scenic Dr. The work is expected to be coordinated through the construction of facilities or provide securities to facilitate the construction as part of future Public Works along Scenic Drive and Sanatorium Road)</p>	Location Reviewed but No Action Required	N/A	Part of Cycling Master Plan	
144	Chedmac Dr from Southridge Dr to Rice Ave	<p>Cycling facilities are not currently provided along this segment.</p> <p>Hamilton's Cycling Master Plan indicates that bike lanes are planned to be installed along this segment (rank #113).</p>		<p>No action required.</p> <p>The City's planned installation of bike lanes is an appropriate cycling facility for this segment as per the cycling nomograph (Figure 3.3) in OTM Book 18 (AADT is 5483 vpd and 85th percentile speed is 57 km/h).</p>	Location Reviewed but No Action Required	N/A	Part of Cycling Master Plan	
145	Mountview Park Trail (west end) to Scenic Dr	<p>Cycling facilities are not currently provided along this segment.</p> <p>This segment is not listed in Hamilton's Cycling Master Plan for any future upgrades. However, this segment is identified in the Mountain Brow Feasibility Study as a location with a planned cycling facility.</p>		<p>Two segments of multi-use path (MUP) are proposed: the first providing a connection between Scenic Road and Tivoli Drive, and the second providing a more direct east-west connection from the existing MUP in Mountview Park. In between the segments, AT users will either use existing sidewalks or ride on the roadway of Tivoli Drive and San Antonio Drive. It is recommended these segments of roadway become a signed cycling route. It is noted the east-west segment of San Antonio Drive at this location is already planned to be come a signed route (shared on-street) per the City's Cycling Masterplan.</p> <p>The alignments are to be confirmed however it is noted there is an existing desire line in the Mountview Park, already made by pedestrians/cyclists. Agreement will be required for the MUP through the Hydro One transmission corridor; however, it is noted the MUP can follow an alignment that is (assumed) worn into the field by maintenance vehicles. The MUP can be designed to accommodate both AT users and the Hydro One maintenance vehicle (when required), and this could assist in negotiations with Hydro One. Design of the MUP facilities is recommended to follow the design approach and recommendations as outlined by the City's Trail Masterplan.</p> <p>* Estimated Cost is for both segments as illustrated above, totalling approximately 250 m.</p>	Short-Term Recommendation	\$71,300.00		Year 3

146	Between Rymal Rd W and Twenty Rd W from Garth St to Glanaster Rd	<p>Cycling facilities are not currently provided along this segment.</p> <p>Hamilton's Cycling Master Plan indicates that multi-use trails are planned to be installed along this segment (rank #198).</p>		<p>No action required.</p> <p>The City's planned installation of multi-use trails is considered an appropriate cycling facility for this segment as per OTM Book 18.</p> <p>(note: there is evidence of cyclist activity along this segment between Garth St and Glanaster Rd due to the presence of multiple worn paths).</p>	Location Reviewed but No Action Required	N/A	Part of Cycling Master Plan	
147	Mohawk Rd W from Garth St to Old Mohawk Rd	<p>Cycling facilities are not currently provided along this segment.</p> <p>Hamilton's Cycling Master Plan indicates that bike lanes are planned to be installed between Upper Paradise Rd and Old Mohawk Rd (rank #18).</p> <p>However, the segment of Mohawk Rd W between Upper Paradise Rd and Garth St is not listed in Hamilton's Cycling Master Plan for any future upgrades.</p> <p>(note: on-road bike lanes without buffer are present west of Old Mohawk Rd along Mohawk Rd W).</p>		<p>City to conduct a feasibility study to investigate the installation of a separated bicycle facilities along this segment as per the cycling nomograph (Figure 5.5) in OTM Book 18 (AADT is 21801 vpd and the 85th percentile speed is assumed to be 60 km/h). As per OTM Book 18, Cycle Tracks would be the recommended facility. Additionally, this will improve consistency with the existing on-road bike lanes without buffer west of Old Mohawk Rd. CIMA+ reviewed and prepared a conceptual design.</p>	Long-Term Recommendation	\$1,539,000.00		Year 4
148	Garth St from St. Therese of Lisieux Catholic Elementary School driveway to Rymal Rd W	<p>On the east side of Garth St, an on-road bike lane is present between the school driveway and Yates Gate. Additionally, sharrows are provided between Yates Gate and Rymal Rd W that terminate north of Garth St @ Rymal Rd W</p> <p>No cycling facilities are currently provided on the west side of this segment</p> <p>Hamilton's Cycling Master Plan indicates that bike lanes have already been installed along this segment (rank #87).</p> <p>(note: on-road bike lanes with buffer are present south of the school driveway along Garth St).</p>		<p>Improvements proposed include lane markings to match the proposed improvements, under the Rymal Road contract, that are occurring at the northern end of the segment. CIMA+ reviewed and prepared a conceptual design.</p>	Short-Term Recommendation	\$2,600.00		Year 2
149	Magnolia Dr from Mohawk Rd W to Trail at Daisy St	<p>Cycling facilities are not currently provided along this segment.</p> <p>This segment is not listed in Hamilton's Cycling Master Plan for any future upgrades.</p> <p>(note: there is an existing signed bike route on Upper Horning Rd to connects to the Chedoke Radial Trail).</p>		<p>Install a designated cycling operating space along this segment as per the cycling nomograph (Figure 5.5) in OTM Book 18 (AADT is 4662 vpd and the 85th percentile speed is 48 km/h). Additionally, this will provide a more direct connection to the Chedoke Radial Trail and an alternative to the signed bike route on Upper Horning Rd. CIMA+ reviewed and prepared a conceptual design.</p>	Short-Term Recommendation	\$6,800.00		Year 2
150	Guildwood Dr or Greencedar Dr from Trail at Guildwood Dr @ Greencedar Dr to Upper Paradise Rd	<p>Cycling facilities are not currently provided along this segment.</p> <p>This segment is not listed in Hamilton's Cycling Master Plan for any future upgrades.</p>		<p>Propose installing a signed bike route along this segment. Signed route facility is considered suitable per the cycling nomograph in OTM Book 18 (AADT is 575 vpd and the 85th percentile speed is 49 km/h). Additionally, this will connect the Chedoke Radial Trail to the bike lanes along Upper Paradise Rd.</p>	Short-Term Recommendation	\$800.00		Year 3

151	Garth St @ Scenic Dr/Fennell Ave W	<p>The eastbound left turn, northbound right-turn and southbound left-turn movements all have 95th percentile queues exceeding their available storage in the AM peak hour. Added from PIC 2 The westbound left-turn, northbound right-turn and southbound left-turn movements all have 95th percentile queues exceeding their available storage in the PM peak hour. Garth St/Fennell Ave W/Scenic Dr intersection – need to be a 3-way/4-way signal sequence a.To levitate the morning traffic going towards downtown, especially during rush hour b.Always a confusion on the right away for drivers turning to go downtown - turning left from Scenic Dr and turning right from Fennell Ave W towards Beckett Dr – accidents are waiting to happen, since both are thinking its their right of way</p>	N/A	<p>Consider enhancing pavement markings and advance signage to reduce driver confusion For example: "WB right-turn lane must exit" should be placed on Fennell Ave W to provide information to drivers that they cannot go through on the intersection. For the dual-left turn lane, a solid lane marking should be extended to reduce the number of lane changes closer to the intersection. Pavement marking arrows can be added enhance driver's awareness of possible maneuverus.</p> <p>(Note: The current traffic operations perform similar to the optimized signal phasing for AM and PM peak.</p> <p>In addition, CIMA+ reviewed the 3-phase split operations. The traffic operations significantly worsen due to additional delay experienced by drivers with longer queues. Hence, a 3-phase operations is not recommended.</p> <p>CIMA+ reviewed converting of SBTL and SBL movement to a dual-left turn movement and a single SBT traffic. The single lane for SBT does not provide sufficient capacity for the SBT traffic and degrades the traffic operations significantly. Hence, this is not recommended.</p> <p>To reduce confusion of drivers, it is recommended that advanced signage of "WB right-turn lane must exit" should be placed on Fennell Ave W to provide information to drivers that they cannot go through on the intersection. For the dual-left turn lane, a solid lane marking should be extended to reduce the number of lane changes closer to the intersection.)</p>	Quick Win	\$3,000.00		Year 1
152	Juliebeth Dr @ Stone Church Rd	<p>The northbound movement is considered critical in the AM peak hour with a LOS of D. In the PM peak hour, this movement is also critical with a LOS of F.</p>	N/A	<p>No action required.</p> <p>Traffic signal justifications in OTM Book 12 were reviewed for this location and it was determined that a traffic signal is not justified.</p>	Location Reviewed but No Action Required	N/A		
153	Garrow Dr @ Garth St	<p>The eastbound left-turn, and westbound right-turn movements all have 95th percentile queues exceeding their available storage in the AM peak hour.</p> <p>The eastbound left-turn, northbound left-turn, and southbound left-turn all have 95th percentile queues exceeding their available storage in the PM peak hour.</p>	N/A	<p>Already in ID 60 It is recommended that advanced left for NBL/SBL and LPI for N-S sidewalks be implemented to improve the traffic operations. It requires 70 m increase in storage length for EBL, which can be done by pavement markings.</p> <p>(Note: CIMA+ reviewed implementing LPIs for N-S and E-W pedestrians. Based on PM peak traffic operations, it is not recommended LPIs be implemented for all movements, as intersection operations degrades from LOS C to LOS E.</p> <p>In addition CIMA+ reviewed adding protected-permissive left turn phase for NBL/SBL + 70 m storage for EBL movement with LPI only for N-S sidewalk. This improves the existing NBL from LOS F to LOS C. It is recommended that advanced left for NBL/SBL and LPI for N-S sidewalks be implemented to improve the traffic operations.)</p>	Location Reviewed but No Action Required	N/A		
154	Garth St @ Limeridge Rd W	<p>This intersection operates overall at LOS F during the AM and PM peak hours (v/c ratio of 0.95 in the AM peak and v/c ratio of 1.38 in the PM peak).</p> <p>The northbound movement is considered critical in the AM peak hour with a V/C ratio of 0.97 and a LOS of E. In the PM peak this movement is also critical and operating at overcapacity with a V/C ratio of 1.40 and a LOS of F.</p> <p>The southbound movement is operating at over capacity in the AM peak hour with a V/C ratio of 1.37 and a LOS of F. In the PM peak this movement is also critical and operating at overcapacity with a V/C ratio of 2.00 and a LOS of F.</p>	N/A	<p>Replace NB/SB phase split with typical ring barrier operation. This allows for LPIs to be implemented and it significantly improves the traffic operations from LOS F to LOS B/C for both AM and PM peaks.</p> <p>(Note: Since split-phasing includes protected left-turning movement, the LPIs are not recommended to be implemented with current phase splits.</p> <p>However, CIMA+ reviewed replacing of NB/SB phase split with typical ring barrier operation. This allows for LPIs to be implemented and it significantly improves the traffic operations from LOS F to LOS B/C for both AM and PM peaks.)</p>	Quick Win	\$500.00		Year 1
155	Hadeland Ave @ Upper Paradise Rd	<p>The northbound left-turn has a 95th percentile queue exceeding the available storage in the AM peak hour.</p> <p>The westbound left-turn has a 95th percentile queue exceeding the available storage in the PM peak hour.</p>	N/A	<p>Same recommendation as ID 68 (Note: The NBL movement has access to centre dual-left turn lane, which provides sufficient storage for 95th percentile queue of 40 m.</p> <p>CIMA+ implemented LPIs for N-S and E-W sidewalks, which resulted in no significant impact on traffic operations. Hence, LPIs are recommended.</p> <p>(NOTE: WBL queues are not significant in the PM peak)</p>	Location Reviewed but No Action Required	N/A		

156	Upper Paradise Rd @ Rymal Rd W	The southbound left-turn movement has a 95th percentile queue exceeding the available storage in the PM peak hour.	N/A	No action required. (Note: he SBL movement has access to centre dual-left turn lane, which provides sufficient storage for 95th percentile queue of 70 m.)	Location Reviewed but No Action Required	N/A		
157	Mohawk Rd W @ Scenic Dr	The northbound left-turn movement is considered critical in the AM peak hour with a V/C ratio of 0.93 and a LOS of F.	N/A	Same recommendation as ID 57 (Note: CIMA+ reviewed the implementation of N-S and E-W LPIs. The traffic operations are not significantly impacted. It should be noted that NBL is performing at LOS F for existing and LPI scenario. Since traffic operations are not significantly impacted by LPI Implementation, LPI implementation is feasible. In addition, CIMA+ reviewed providing protected-permissive left turn phase for NB/SB movement and providing LPIs for only the N-S sidewalks. LPIs are not recommended to be provided for E-W sidewalk since protected phase of NB/SB Left Turning movement conflicts with the pedestrians. This improves the NBL movement from LOS F to LOS D and provides LPI for N-S sidewalk pedestrians.)	Location Reviewed but No Action Required	N/A		
158	Upper Paradise Rd @ Stone Church Rd W	The eastbound left-turn, westbound left-turn, westbound right-turn, northbound left-turn, and southbound left-turn movements all have 95th percentile queues exceeding their available storage in the AM peak hour. The eastbound left-turn, westbound left-turn, westbound right-turn, northbound left-turn, northbound through and southbound left-turn movements all have 95th percentile queues exceeding their available storage in the PM peak hour.	N/A	Site investigation did not indicate a problem.	Location Reviewed but No Action Required	N/A		
159	Garth St @ Mohawk Rd W	This intersection operates overall at LOS D during the AM and PM peak hours (v/c ratio of 0.87 in the AM peak and v/c ratio of 0.99 in the PM peak). The eastbound left-turn movement is considered critical in the AM peak hour with a V/C ratio of 0.91 and a LOS of E. This movement also has a 95th percentile queue exceeding their available storage in the AM and PM peak hours. The westbound left-turn movement is considered critical in the PM peak hour with a V/C ratio of 0.98 and a LOS of F. The northbound left-turn movement is considered critical in the PM peak hour with a V/C ratio of 1.05 and a LOS of F. The northbound left-turn movement also has a 95th percentile queue exceeding the available storage in the AM and PM peak hours. The southbound left-turn has a 95th percentile queue exceeding the available storage in the PM peak hour.	N/A	Consider optimizing signal timing at this intersection with increasing the EBL storage to 100 m. It can be done by using pavement markings. (Note: The traffic signal timing plan was optimized, which improves the traffic operations of the critical movements. In addition, it is recommended that EBL storage be extended to account for 95th percentile queue during the AM peak. The signal optimization improves the remaining left-turning movements to LOS E or better with V/C < 1. Hence, traffic signal optimization with extension of EBL storage is recommended.)	Quick Win	\$1,000.00		Year 1
160	Appleford Ct	we need a larger Court sign at the entrance to Appleford Court. Existing sign is far too small. Many, many cars come into the Court daily only to be forced to turn around and exit once they see they cannot access Upper Paradise from our Court.		Thanks for your comment. The cul de sac sign is a non-standard sign in Ontario and may not be comprehended by some drivers. Therefore, install a "NO EXIT" sign (Wa-31) at the entrance to Appleford Ct.	Quick Win	\$500.00		Year 1

161	Appleford Rd	Speeding way above speed limit		No action required. 85th percentile speed is not greater than 7 km/h above the 40 km/h posted speed. Therefore, no speeding issues identified.	Location Reviewed but No Action Required	N/A		
162	Bonaventure Dr / Garth St (Pedestrian Path)	Although not shown here there is a path with a ramp from Bonaventure to Garth. It really needs to be improved/taken care of, perhaps even making this part of the land into a parkette.		Maintenance issue. Request City to maintain this path.	Location Reviewed but No Action Required	N/A	City to conduct maintenance	
163	Bonaventure Dr @ Clifton Downs Rd	I was nearly hit on Bonaventure in my car, by a car leaving Clifton Downs with out stopping		Consider upgrading the existing parallel line crosswalks to ladder crosswalks to further delineate this intersection as previously recommended (ID 75). Ensure that this intersection remains well-delineated and conduct a ward-wide educational STOP compliance campaign with random police checks and warnings.	Location Reviewed but No Action Required	N/A	City to conduct educational campaign and enforcement for stop compliance	
164	Bonaventure Dr @ Darlington Dr	Awkward street arrangement combined with no stop sign for vehicles coming in off of Garth results in speeding and a dangerous situation. Vehicles do not stop at these signs, especially from Bonaventure/onto Bonaventure Hardly any one stops (perhaps just a small minority) at these stop signs, all directions, I've complained for years now, but nothing is done...		Site visit revealed that this location already has all-way STOP control present and it is unsure whether this comment is based on recent observations. However, STOP bars were also recommended at this intersection. Ensure that this intersection remains well-delineated and conduct a ward-wide educational STOP compliance campaign with random police checks and warnings.	Location Reviewed but No Action Required	N/A	City to conduct educational campaign and enforcement for stop compliance	
165	Bonaventure Dr @ Limeridge Rd W/Ct	Parked vehicles block visibility of the intersection leading to "near misses" of vehicles hitting pedestrians FREQUENTLY. Also, video evidence corroborates the opinion that speeding cars from Bonaventure rarely come to a full stop before entering the intersection.		Consider upgrading the existing parallel line crosswalks to ladder crosswalks to further delineate this intersection as previously recommended (ID 77). Ensure that this intersection remains well-delineated and conduct a ward-wide educational STOP compliance campaign with random police checks and warnings.	Location Reviewed but No Action Required	N/A	City to conduct educational campaign and enforcement for stop compliance	
166	Bonaventure Dr @ Townhome Parking Lot	Vehicles often don't stop or do a rolling stop and then pickup pace and speed west. Speed bumps are needed midway. There are cars entering and exiting frequently into and out of the townhouse parking lot making this a very busy section of road.		Thank you for your comment. At this location, sight distance is sufficient to make turning maneuvers (both left- and right-turns) under urban conditions (i.e. design speed approximately equal to operating speed). Additionally, traffic speeds along Bonaventure Dr were reviewed and a speeding issue was not identified. However, consider applying a stop bar at this driveway to regulate the traffic exiting the driveway. (note: STOP signs/stop bars are not typically required for private driveways. However, due to resident concerns involving drivers exiting at this driveway, the presence of STOP signs and stop bars may enhance the drivers' perception to wait before entering the travelled way).	Quick Win	\$100.00		Year 1
167	Bonaventure Dr from Clifton Downs Rd to Clifton Downs Rd	There is not enough road space. There are parked cars on both sides and not enough space for emergency vehicles to get through Cars speed along this section with little regard for children or pedestrians. There are always cars parked along this section restricting view of children or pets and making it dangerous when cars exit their driveways between these parked cars		Site visit revealed that parking is already prohibited on one side of this midblock segment. Therefore, consider implementing police enforcement at this location to enforce parking prohibitions. The study is aware of speed concerns along Bonaventure Drive. However, the 85th percentile speed is not greater than 7 km/h above the 40 km/h posted speed. Therefore, no speeding issues identified.	Location Reviewed but No Action Required	N/A	City to conduct enforcement for parking	
168	Bonaventure Dr from Limeridge Rd W/Ct to Valery Ct	Mailbox needs to be relocated as ignorant people continue to block traffic by stopping in the NO Parking zone to get their mail.		No action required. Thank you for your comment. This location was reviewed and it was observed that the existing parking prohibition is "NO PARKING". Therefore, drivers are legally permitted to stop in these areas for a brief period of time to pick up mail.	Location Reviewed but No Action Required	N/A		
169	Buckingham Dr from Upper Paradise Rd to Sandringham Ave	Have requested speed bumps but city insists not needed.		Location does not pass length traffic calming pre-screening criteria. However, the speed limit in the surrounding neighbourhood is proposed to be reduced to 40 km/h in 2022. Therefore, ensure that a 40 km/h "MAXIMUM SPEED" sign (Rb-1) is present in both directions of travel when this occurs.	Quick Win	\$1,000.00		Year 1

170	Buckingham Dr from Upper Paradise Rd to Sandringham Ave	N/A		Install a "Local Traffic Only" sign on both entrances of Buckingham Drive and monitor the extent of the cut through traffic along with their involvement with any collisions. If a problem is confirmed, further mitigation will be required.	Quick Win	\$1,000.00		Year 1
171	Buckingham Dr @ Sandringham Ave	Cut throughs do not stop at 3 way stop		Paint STOP bars at the intersection of Buckingham Dr @ Sandringham Ave. Ensure that this intersection remains well-delineated and conduct a ward-wide educational STOP compliance campaign with random police checks and warnings.	Quick Win	\$100.00	City to conduct educational campaign and enforcement for stop compliance	Year 1
172	Clifton Downs Rd from Wall St to Bala Pl	Cars drive around bend too quickly and with parked cars (sometimes on both sides of the street) impacting visibility makes this a dangerous area.		Horizontal curves are visually demanding. On a tangent section, drivers can maintain appropriate lane position and heading angle by looking straight ahead and using peripheral vision to detect the edge of the road. On a curve, the current position and the future position in the lane are visually separated, and drivers must look in both locations, thus increasing visual demand. If vehicles are also parked within a horizontal curve, drivers may not be able to position their vehicles appropriately with respect to parked vehicles as visual demands will be further increased. This may result in sideswipe and SMV Unattended collisions. It is suggested that parking should not be permitted on both sides within the curve along Clifton Downs Rd between Wall St and Bala Pl. A potential approach is to use half of the curved area for one-side parking and the other half of the curved area for parking on the opposite side. This should be done in consultation with area residents. The existing conditions assessment has confirmed that there is a speeding issue along this street and it passes the screening criteria of Hamilton's Traffic Calming Policy, but this location did not achieve the minimum point values to proceed with the recommendation of traffic calming measures. However, appropriate non-physical speed management countermeasures were recommended.	Quick Win	\$1,000.00	The City to conduct consultation for parking adjustment	Year 1
173	Clifton Downs Rd @ Hadeland Ave	Cars do not stop here, they will speed through the intersection. There are a lot of kids in this area and it is dangerous		Consider upgrading the existing parallel line crosswalks to ladder crosswalks to further delineate this intersection as previously recommended (ID 75). Ensure that this intersection remains well-delineated and conduct a ward-wide educational STOP compliance campaign with random police checks and warnings.	Location Reviewed but No Action Required	N/A	City to conduct educational campaign and enforcement for stop compliance	
174	Clifton Downs Rd @ Purnell Dr	The ramps do not meet the road and make it difficult, for those with accessibility needs, to use them		Rebuild curb ramps so that they are more level with the road and align with crosswalk width.	Short-Term Recommendation	\$5,000.00		Year 2
175	Clifton Downs Rd @ Purnell Dr	Not enough street lights		The City may consider reviewing illumination levels at this intersection and replacing the existing light fixtures with higher intensity LED luminaires, as required.	Location Reviewed but No Action Required	N/A	City to review illumination	
176	Costain Ct	Costain Court does not connect to St. Andrews Parking lot, as shown by this map. People think that Costain Court is a through street to Upper Paradise, but it is not. The map needs updating AND Costain Court needs a 'Cul de Sac' sign. We need a "Cul de Sac" sign. People often turn into Costain Court expecting to drive out onto Upper Paradise because they can see it past the church parking lot. Frequently they speed in and then speed out again when they realise they cannot get to Upper Paradise. We have children playing in our Court and the reckless driving is dangerous. This map shows Costain Court connecting with the church parking lot, which does access Upper Paradise, but in actuality, Costain court does not connect to the parking lot.		Thanks for your comment. The cul de sac sign is a non-standard sign in Ontario and may not be comprehended by some drivers. Therefore, install a "NO EXIT" sign (Wa-31) and a "PEDESTRIANS AHEAD" sign (Wc-7) at the entrance to Costain Ct. Additionally, supplement the recommended signage with a steel beam barricade installation (OPSD 973.130) and CHECKERBOARD sign (Wa-8).	Quick Win	\$2,500.00		Year 1

177	Cranbrook Dr @ Garrow Dr	<p>Pedestrians are almost struck even with a crossing guard. Major changes to school zone needed. This is not precautionary, almost tragic situations are witnessed often.</p> <p>Vehicles rarely stop at this stop sign, there is a school here with lots of children that are very active in the area</p>		<p>Intersection is already well-delineated so it appears that this concern is a behavioural issue as opposed to an engineering issue. Continue to keep the intersection well-delineated and conduct a ward-wide educational STOP compliance campaign with random police checks and warnings.</p>	Location Reviewed but No Action Required	N/A	City to conduct educational campaign and enforcement for stop compliance	
178	Darlington Dr	<p>With cars coming in from Ashton, crossing Darlington, and coming from Purnell, this area can be dangerous to drive sometimes, particularly if there are parked cars on this stretch of Darlington. Suggest eliminating parking on this stretch of Darlington between Purnell and Ashton to make things safer.</p> <p>Often there are cars parked on both sides of the road. This makes it so that only one vehicle can get through when it's on a curve, and with vehicles speeding, I am surprised that we haven't had a major accident yet. We also often have the detour for the Mohawk and Ashton/Juanita accidents, and when that occurs, it really creates a bottleneck</p>		<p>From a traffic safety perspective, eliminating parking along Darlington Drive between Ashton Rd and Purnell Dr is recommended.</p> <p>With respect to the horizontal curve along Darlington Dr between Purnell Dr and Wall St, please consider the following:</p> <p>Horizontal curves are visually demanding. On a tangent section, drivers can maintain appropriate lane position and heading angle by looking straight ahead and using peripheral vision to detect the edge of the road. On a curve, the current position and the future position in the lane are visually separated, and drivers must look in both locations, thus increasing visual demand. If vehicles are also parked within a horizontal curve, drivers may not be able to position their vehicles appropriately with respect to parked vehicles as visual demands will be further increased. This may result in sideswipe and SMV Unattended collisions.</p> <p>It is suggested that parking should not be permitted on both sides within the curve along Darlington Dr between Purnell Dr and Wall St. A potential approach is to use half of the curved area for one-side parking and the other half of the curved area for parking on the opposite side.</p> <p>The study is aware of speed concerns along Darlington Dr. However, the 85th percentile speed is not greater than 7 km/h above the 40 km/h posted speed. Therefore, no speeding issues identified.</p>	Quick Win	\$1,000.00		Year 1
179	Darlington Dr from Costain Ct to Purnell Dr (Entire Road)	<p>Its very dark in this area, in this whole subdivision. Last year due to the level of lighting I fell and broke my nose on the sidewalk. I think the number of streetlights should be examined</p>		<p>The City may consider reviewing illumination levels on Darlington and improving lighting, as required.</p>	Location Reviewed but No Action Required	N/A	City to review illumination	
180	Darlington Dr @ Hugo Ct	<p>The ramps are not even with the road and make it difficult, for those with accessibility needs, to use them</p>		<p>Rebuild curb ramps so that they are more level with the road and align with crosswalk width.</p>	Short-Term Recommendation	\$8,000.00		Year 2
181	Darlington Dr @ Ashton Rd	<p>Cars will not stop going through these signs, coming along Darlington as well as turning onto/off of Ashton</p>		<p>Intersection is already well-delineated so it appears that this concern is a behavioural issue as opposed to an engineering issue. Continue to keep the intersection well-delineated and conduct a ward-wide educational STOP compliance campaign with random police checks and warnings.</p>	Location Reviewed but No Action Required	N/A	City to conduct educational campaign and enforcement for stop compliance	
182	Falkirk Dr @ Harvard Pl	<p>Please install speed bumps and a stop sign. This is a small cul de sac and vehicles turn into it very aggressively and at a high speed. There are children and families who live and play here and when a vehicle turns quickly onto the street they are at risk of being hit. There is not time for the vehicle to stop or break.</p>		<p>Falkirk Dr and Harvard Pl do not pass the length traffic calming screening criteria. However, consider installing a "NO EXIT" sign (Wa-31), and a "PEDESTRIANS AHEAD" sign (Wc-7) at the entrance to Harvard Pl along with a STOP sign for drivers exiting Harvard Pl.</p> <p>Traffic volumes were estimated at this intersection using ITE Trip Generation rates because this is a minor local intersection. The average trip generation rate for single-family detached housing (LUC 210) during a weekday in a general urban-suburban location is 1.00/dwelling unit during the more critical PM peak hour. Taking this into account and based on the number of surrounding houses that are likely to use this intersection, it was estimated that the total vehicle volume on all intersection approaches is unlikely to exceed 100 for the highest hour recorded.</p> <p>Therefore, this location does not pass the minimum volume warrant for all-way STOP control in the current and upcoming revised OTM Book 5.</p>	Quick Win	\$1,000.00		Year 1
183	Falkirk Dr	<p>Please install speed bumps along Falkirk Dr. Vehicles travel at high speeds along this small road, including delivery trucks such as UPS. It is a safety hazard for children playing in the neighbourhood and families traveling on bikes.</p> <p>There are numerous cars that speed around this corner. The sidewalks used in this neighbourhood are many children and seniors.</p>		<p>Location does not pass length traffic calming pre-screening criteria. However, considering the presence of pedestrians/children along this street, consider installing a "PEDESTRIANS AHEAD" sign (Wc-7) at both entrances to Falkirk Dr.</p>	Quick Win	\$1,000.00		Year 1

184	Ferrino Ct	I would like a speed bump to be put at the entrance of Ferrino Court as cars zoom into the court as well as since the baseball fields are there people come in and out of our court. The speed needs to be reduced as there are so many kids.		Location does not pass length traffic calming pre-screening criteria. However, considering the presence of pedestrians/children along this street, consider installing a "PEDESTRIANS AHEAD" sign (Wc-7) at the entrance to Ferrino Ct.	Quick Win	\$500.00		Year 1
185	Ferrino Ct	I disagree with the suggestion of a speedbump at the entrance to Ferrino Court, I do not notice cars "speeding" into the court. The majority of people entering the court live there (and know to watch out for kids). I would however suggest eliminating on-street parking, because everyone has more than enough parking in their driveways and in the summer months the court fills up with people parking on the street while their kids play competitive baseball in the park, and that creates a visibility hazard for children playing on the street. In the winter on-street parking also creates an issue for snow removal given the narrow street.		To improve visibility, eliminating on-street parking may be a good measure to ensure pedestrian safety, particularly children. However, the City may need to consult with residents along this street. The removal of on-street parking will also improve winter maintenance operations. Any removal of on street parking should be done in consultation with all residents.	Quick Win	\$2,000.00	City to conduct public consultation for parking removal	Year 1
186	Forestgate Dr	Speeding way above speed limit		85th percentile speed is not greater than 7 km/h above the 40 km/h posted speed. Therefore, no speeding issues identified. However, the speed limit in the surrounding neighbourhood is proposed to be reduced to 40 km/h in 2021. Therefore, ensure that a 40 km/h "MAXIMUM SPEED" sign (Rb-1) is present in both directions of travel when this occurs.	Quick Win	\$1,000.00		Year 1
187	Gardiner Dr @ Gillard St	No stop sign on Gillard when coming towards Gardiner.		Install a STOP sign at the north approach of the Gardiner Dr @ Gillard St intersection.	Quick Win	\$500.00		Year 1
188	Garth St from Stone Church Rd to Fennell Ave/Scenic Dr	Continue the bike lane that is available along Garth Street from Rymal Rd to Stone Church Rd. W. There are no bike lanes along the rest of Garth. Please ensure that they are protected bike lanes. I don't understand why the section from Garth street from Stonechurch to Rymal has an optimal street design for pedestrians, cyclists, and drivers. I would like to see this design on all roads in the Ward. The street design along Garth from Stonechurch to Rymal is optimal - separated bike lanes, pedestrian lanes and still ample space for vehicle lanes. This should be the blueprint for the entire ward!		The feasibility of installing separated bicycle facilities along this segment are recommended to be reviewed in a future study, undertaken by the City. To provide facilities over the freeway and through the interchange would require significant construction / cost, and approval from the Ontario Ministry of Transportation (MTO).	Location Reviewed but No Action Required	N/A	City to conduct further study	
189	Garth St @ Stone Church Rd	Cars turning on every corner do not watch for pedestrians.		Implement LPIs for only E-W sidewalks. (Note: Due to the WBL protected-permissive phase, LPI couldn't be implemented for the N-S sidewalks. LPIs implemented for E-W sidewalks which does not have a significant impact on the traffic operations. Hence, LPIs for only E-W sidewalks are recommended.) This intersection appears very well delineated. Review the feasibility of implementing leading pedestrian interval (LPI) at this intersection (E-W and N-S), which may help improve pedestrian safety at this intersection. However, this project is specifically focused on improving safety and operations along residential and collector streets in Ward 14 – arterial roads will not be a part of this project since they were already under consideration as part of the Complete Livable Better Streets Design Manual Project.	Quick Win	\$500.00		Year 1
190	Garth St @ Stone Church Rd	The bike lane disappears with no signs for cyclists.		Consider providing a "RESERVED BICYCLE LANE" sign (Rb-84A) with "ENDS" tab sign (Rb-85t) on the east approach where the bicycle lane ends.	Quick Win	\$500.00		Year 1
191	Garth St @ Fennell Ave W/Scenic Dr	There is no safe transition for cyclists on this stretch. Riding from Scenic to Fennell forces cyclists onto the sidewalk		No action required. Thank you for your comment. Both roads (Scenic Dr and Fennell Ave W) currently do not have a dedicated cycling facility. As a result, cyclists should share the road with other road users. However, Hamilton's Cycling Master Plan indicates that bike lanes are planned to be installed along Scenic Dr/Denlow Ave from Upper Paradise Rd to Garth St (rank #43). It is recommended to continue the bike lanes along Fennell Ave W, however this road is outside of Ward 14.	Location Reviewed but No Action Required	N/A		

192	Garth St @ Darlington Dr	Turning left off of Garth, while coming off the Linc is hair raising, this would be a great location for a light! I avoid using this junction to join Mohawk here turning left at all costs, I go another route		No action required. Traffic signal justifications in OTM Book 12 were reviewed for this location and it was determined that a traffic signal is not justified.	Location Reviewed but No Action Required	N/A		
193	Garth St @ Garrow Dr	Vehicles are very aggressive in this intersection, they will drive through red lights, speed through the intersection, and cars will use this road for street racing. Pedestrians will also cross when they are not supposed to		Install "CROSS ON WALK SIGNAL ONLY" signs (Ra-7) in all quadrants to supplement the additional pedestrian safety measures that were already recommended at this location. Additionally, review the potential of installing a red light camera at this location and/or enhanced enforcement.	Quick Win	\$2,000.00	City to review installation of red light camera and enforcement	Year 1
194	Garth St @ Limeridge Rd W	When turning right on a green light from the Bonaventure direction, traffic from east side of Limeridge rd w cut you off, they are turning left, but believe they have priority over right turners.		Consider painting guide lines for westbound left-turning drivers to ensure that they do not encroach into the curb lane.	Quick Win	\$250.00		Year 1
195	Garth St @ Sanatorium Rd	Sanatorium at Garth should have a short N/S adv green to clear traffic and discourage people who late lane changing to beat the light or avoid vehicles turning in the left lanes.		Traffic operations to be reviewed at this intersection. CIMA reviewed Synchro analysis. The existing traffic operations perform at acceptable level. No improvements are recommended	Location Reviewed but No Action Required	N/A		
196	Gemini Dr @ Gillard St	People park illegally on Gemini to access rink and diamonds. Drivers can't see down Gemini to turn. Even when there are no cars, this intersection is dangerous with speeders and poor sight lines. Many near misses here.		Site visit revealed that parking is already prohibited on one side of Gemini Dr. Therefore, consider implementing police enforcement at this location to enforce parking prohibitions.	Location Reviewed but No Action Required	N/A	City to enforce parking prohibitions	
197	Gemini Dr from Gillard St to Glamis Ct	Not enough space for pedestrians		No action required. The existing sidewalk is of standard width. However, there is no boulevard between the sidewalk and the travel lanes and pedestrian volumes are likely to be higher due to the presence of a park and school. Additionally, the speed limit in this area is 30 km/h. There were some speeding issues identified in this area for which we have provided some recommendations to mitigate them. Hopefully, pedestrian conditions will improve as a result of those recommendations.	Location Reviewed but No Action Required	N/A		
198	Gemini Dr	There are not enough street lights along this road. Additional street lights are needed in the area near the park. It's quite dark		The City may consider reviewing illumination levels within this midblock segment and improving lighting, as required.	Location Reviewed but No Action Required	N/A	City to review illumination	
199	Gemini Dr @ Glamis Ct	N/A		Intersection is already well-delineated so it appears that this concern is a behavioural issue as opposed to an engineering issue. Continue to keep the intersection well-delineated and conduct a ward-wide educational STOP compliance campaign with random police checks and warnings.	Location Reviewed but No Action Required	N/A	City to conduct educational campaign and enforcement for stop compliance	
200	Gemini Dr	traffic cutting through from Upper Paradise to Garth / the Linc is bad. Lots of speeding and stop signs are irrelevant. The speeding on Gemini Drive is ridiculous. Cars often travel in excess of 60km. This is a heavily travelled street, with non residents using it as a shortcut from Upper Paradise to Garth. There is a school and multiple school bus stops, and people dont care. I've taught my children to not cross at the stop sign because NO ONE stops. Drivers blow through all the time. And they use the stretch between stop signs as a race track, particularly by the soft ball diamonds. I'm convinced that one day I will be hit either leaving my driveway or turning into it. It's not safe for bicyclists either. I've also taught my children to ride on the sidewalks in our neighbourhood. The lack of bicycling infrastructure is appalling.		Thank you for your comment. Recommendations to address speeding concerns along Gemini Dr have been provided in another recommendation. Additionally, consider installing a "Local Traffic Only" sign on both entrances of Gemini Drive and monitor the extent of the cut through traffic along with their involvement with any collisions. If a problem is confirmed, further mitigation will be required. Lastly, recommendations have already been provided to address STOP compliance concerns at the intersection of Gemini Dr @ Gardiner Dr. It was observed that the intersection of Gemini Dr @ Glamis Ct is already well-delineated so it appears that this concern is a behavioural issue as opposed to an engineering issue. Continue to keep the intersection well-delineated and conduct a ward-wide educational STOP compliance campaign with random police checks and warnings.	Quick Win	\$1,000.00	City to conduct educational campaign and enforcement for stop compliance	Year 1

201	Glancaster Rd	Please install sidewalks and bike lanes all along Glancaster Rd.		Bike lanes are planned along Glancaster Road, per the City's TMP (2018). Glancaster Rd is in a rural setting and so urbanization and sidewalks may not be cost effective, however the comment will be noted and passed onto the City.	Location Reviewed but No Action Required	N/A	City to conduct further study	
202	Golfwood Dr	This is a high speed road. With parked cars and students that cross for the two primary schools. We are on a hill and visibility is poor. Cars are now using Golfwood instead of Greencedar due to the speed bumps on Greencedar. Having to speed to make up time		Install a PXO Level 2 Type D at the St. Vincent De Paul Catholic Elementary School path on Golfwood Dr approximately 125 m north of the Golfwood Dr @ Greencedar Dr intersection. It is not recommended to install a PXO at this location due to the presence of the horizontal curve. Additionally, consider installing a "Local Traffic Only" sign on both entrances of Golfwood Drive and monitor the extent of the cut through traffic along with their involvement with any collisions. If a problem is confirmed, further mitigation will be required. 85th percentile speed is not greater than the 40 km/h posted speed. Therefore, no speeding issues identified. CIMA+ reviewed and prepared a conceptual design.	Short-Term Recommendation	\$10,000.00		Year 2
203	Golfwood Dr @ Atkins Dr	Cars do not stop on Atkins for access to Golfwood. Cars coming up the hill at high speeds.		Consider upgrading the existing parallel line crosswalks to ladder crosswalks to further delineate this intersection. Ensure that this intersection remains well-delineated and conduct a ward-wide educational STOP compliance campaign with random police checks and warnings.	Quick Win	\$1,000.00	City to conduct educational campaign and enforcement for stop compliance	Year 1
204	Greenshire Dr @ Glenhaven Dr/Ct	Cars turn off of Upper Paradise often speeding or making U turns.		Thanks for your comment. This is more of a behavioural issue. Greenshire Drive has enough measures in place (e.g. area 40 km/h speed sign, on-street parking, yellow centreline) to encourage lower speeds. Additionally, our review could not determine the extent of the speeding/U-turn problem and did not indicate any collisions during the study period. However, if these types of events are happening very frequently, the provision of a customized sign advising road users to turn slowly and safely could be considered. U-turns cannot be prohibited here because this is a local road where residents/visitors may need to make U-turns.	Quick Win	\$500.00		Year 1
205	Guildwood Dr from Novoco Dr to Greencedar Dr/Megna Ct	Lack of sidewalks by the park. Seniors and children use the park.		No action required. We reviewed this area and observed that sidewalks are present on both sides of the roadway. Please let us know if there is any additional concerns regarding pedestrian infrastructure or if you are referring to another location.	Location Reviewed but No Action Required	N/A		
206	Guildwood Dr @ Novoco Dr	Can attention be given to the corner of Guildwood and Novoco? Rarely does anyone adhere to the stop sign. Speeding through the intersection is a serious concern		Intersection is already well-delineated so it appears that this concern is a behavioural issue as opposed to an engineering issue. Continue to keep the intersection well-delineated and conduct a ward-wide educational STOP compliance campaign with random police checks and warnings.	Location Reviewed but No Action Required	N/A	City to conduct educational campaign and enforcement for stop compliance	
207	Hadeland Ave	Parking on Hadeland should only be allowed on one side. Cars are parked on both sides of Hadeland making it a single lane street. Very dangerous. There are cars parking on both sides of Hadeland which when you're turning left onto Hadeland from Wendover, this sometimes makes it difficult to see vehicles coming		Consider implementing alternate side parking on Hadeland Ave similar to the City of Toronto.	Quick Win	\$2,000.00	City to conduct consultation for parking adjustments	Year 1
208	Hannah Cres	Street too narrow to allow for parking on both sides of the street, would like to see parking restrictions put in place. Either no parking on both sides of the street, or alternating between first and last half of the month. Snow plows cannot properly clear the street with current parking setup.		Consider implementing alternate side parking on Hannah Cres similar to the City of Toronto.	Quick Win	\$2,000.00	City to conduct consultation for parking adjustments	Year 1
209	Lavender Dr @ Bluebell Cres	N/A		Intersection is already well-delineated so it appears that this concern is a behavioural issue as opposed to an engineering issue. Continue to keep the intersection well-delineated and conduct a ward-wide educational STOP compliance campaign with random police checks and warnings.	Location Reviewed but No Action Required	N/A	City to conduct educational campaign and enforcement for stop compliance	

210	Lavina Cres from Krafty Ct to Magnolia Dr	Many vehicles take this corner very fast and continue to speed along Lavina, despite its proximity to a park, there being many young children playing in the neighbourhood, and there being many pedestrians walking about.		85th percentile speed is below the 50 km/h posted speed. Therefore, no speeding issues identified. However, the speed limit in the surrounding neighbourhood is proposed to be reduced to 40 km/h in 2022. Therefore, ensure that a 40 km/h "MAXIMUM SPEED" sign (Rb-1) is present in both directions of travel when this occurs. Additionally, a pole is located by the curve on the north portion of Lavina Crescent. Delineate the pole to increase driver awareness of its presence. Delineation can be achieved by installing a CHECKERBOARD Sign (One Direction) (Left Version) on this pole. The possibility for pole re-location will be determined by the City.	Quick Win	\$1,500.00	City to determine potential of pole relocation	Year 1
211	Magnolia Dr @ Appleford Rd	Vehicles are consistently/regularly parked in the intersection, making it difficult to see if there are small children about to step off the curb.		As per Hamilton By-Law 01-218, 13. 1(a), no person shall park within an intersection or crosswalk, or within six metres of a crosswalk, whether said crosswalk is marked or not. Therefore, consider providing "NO STOPPING" signs 6 m from the intersection on all approaches. Additionally, consider painting ladder crosswalks to further delineate this intersection. Ensure that this intersection remains well-delineated and conduct a ward-wide educational STOP compliance campaign with random police checks and warnings.	Quick Win	\$1,500.00	City to conduct educational campaign and enforcement for stop compliance	Year 1
212	Magnolia Dr @ Elmira Dr	Low visibility of pedestrians at night		The City may consider reviewing illumination levels at this intersection and replacing the existing light fixtures with higher intensity LED luminaires, as required.	Location Reviewed but No Action Required	N/A	City to review illumination	
213	Magnolia Dr @ Wendover Dr	N/A		Consider upgrading the existing parallel line crosswalks to ladder crosswalks to further delineate this intersection. Ensure that this intersection remains well-delineated and conduct a ward-wide educational STOP compliance campaign with random police checks and warnings.	Quick Win	\$1,000.00	City to conduct educational campaign and enforcement for stop compliance	Year 1
214	Magnolia Dr @ Lavina Cres	Turning left or right off of Lavina onto Magnolia is made very challenging by the hedges on the corner house. Vehicles are required to crawl significantly out into the lane, which creates a collision risk.		It appears that the hedges of the corner house obstructing sightlines to the north are encroaching on government property. Therefore, consider removing the hedges to clear sightlines.	Quick Win	\$500.00		Year 1
215	Magnolia Dr from Lionsgate Ave to Appleford Rd	Sidewalk on this stretch is very narrow - cars get uncomfortably close		It was observed that sidewalks at this location are of a sufficient width. However, a speeding issue was indicated at this location and appropriate traffic calming measures will be recommended. This will also enhance pedestrian safety.	Location Reviewed but No Action Required	N/A		
216	Magnolia Dr/Wendover Dr @ Daisy St	Cars aren't even slowing down at the stop sign - just blowing right through		Consider upgrading the existing parallel line crosswalks to ladder crosswalks to further delineate this intersection. Ensure that this intersection remains well-delineated and conduct a ward-wide educational STOP compliance campaign with random police checks and warnings.	Quick Win	\$3,000.00	City to conduct educational campaign and enforcement for stop compliance	Year 1
217	McIntosh Ave	N/A		85th percentile speed 10 km/h above speed limit, but this location does not pass volume traffic calming pre-screening criteria. However, consider implementing lawn signs encouraging slower speeds throughout this segment along with installing a 40 km/h "MAXIMUM SPEED" sign (Rb-1) in both directions of travel.	Quick Win	\$1,000.00		Year 1
218	McIntosh Ave @ Regent Ave	This should be a 4-way stop. Don't know why there isn't a 4 way stop sign here? Sometimes there is confusion here and some cars do not stop.		As per the current and upcoming revised OTM Book 5, all-way STOP control is not warranted at this location. However, consider re-painting the stop bars and upgrading the existing parallel line crosswalks to ladder crosswalks to further delineate this intersection. Ensure that this intersection remains well-delineated and conduct a ward-wide educational STOP compliance campaign with random police checks and warnings. Install a PXO D on the south approach of the intersection.	Short-Term Recommendation	\$10,000.00	City to conduct educational campaign and enforcement for stop compliance	Year 3
219	Mohawk Rd W @ Magnolia Dr	Cars cut through church parking lot to avoid lights to access neighbourhood and plaza		This location is private property and will require consultation with the Chedoke Presbyterian Church. If the church is in agreement, they can install a customized "PRIVATE PROPERTY NO THROUGHFARE" sign at both entrances to the parking lot or could install some physical barriers restricting access at certain times of the day to prevent cut through traffic.	Location Reviewed but No Action Required	N/A	City to consult with church for potential solution	
220	Mohawk Rd W @ Scenic Dr/Upper Horning Rd	This crosswalk (north side Mohawk, crossing Scenic) needs better lighting where pedestrians wait for the Walk signal to become green. AT night (and especially during rain) it is difficult for drivers to see pedestrians congregated and ready to cross.		The City may consider reviewing illumination levels at this intersection and replacing the existing light fixtures with higher intensity LED luminaires, as required.	Location Reviewed but No Action Required	N/A	City to review illumination	

221	Mohawk Rd W @ Juanita Dr/Ashton Rd	<p>Right now lights are pedestrian controlled, and making a left turn from Ashton onto Mohawk is difficult unless a pedestrian hits the light. Can we have the lights be either timed or activated by sensing the presence of a car as well, so that left hand turns onto Mohawk from Ashton become safer?</p> <p>I have had some close calls with drivers coming out of Juanita. Because it's not a full intersection it's a free for all, when coming out of Ashton or Juanita. We need a full light system for safety!</p> <p>Cars tend to rush around the corners due to the lack of stop lights, and it makes it dangerous for pedestrians crossing along Mohawk</p> <p>I was nearly hit here as a pedestrian here on the crosswalk, with a red light to the traffic, white walk light, by a school bus turning right into Ashton</p>		<p>No Action Required</p> <p>CIMA+ reviewed the traffic volume and the traffic signal plan at this intersection. The green time provided (12 s of WALK and 13 s of FDW) for pedestrians is reasonable considering the length of the crosswalk. In addition, the intersection cannot be actuated for vehicles unless there are new signal head installed for the NB and SB vehicles(which are not justified for the intersection). The NBL/SBL AM peak hour volume is 22 vehicles and NBL/SBL PM peak hour volume is 19 vehicles.</p>	Location Reviewed but No Action Required	N/A		
222	Mohawk Rd W @ Magnolia Dr	<p>Cars turning off of magnolia onto Mohawk never look in the evenings and I have been hit close to 50 times in the past year. The minute the advance walk turns off it's a problem.</p>		<p>No Action Required</p> <p>Site visit revealed that LPI is already present at this intersection. Additionally, some corners/directions are missing pushbuttons, but pushbutton installation was previously recommended in another recommendation.</p> <p>However, police enforcement could also be considered at this intersection to address stop compliance concerns.</p> <p>(Note: City confirmed on July 27, 2021 that the LPI is for the East and West crosswalks, north and south directions. It's a 7 second advance that is programmed with an Amber. Also, it's only for the AM and PM peaks (6:00-10:00 & 14:30-18:30))</p>	Location Reviewed but No Action Required	N/A	City to conduct educational campaign and enforcement for stop compliance	
223	Mohawk Rd W @ Juanita Dr/Ashton Rd	<p>As a homeowner on a busy corner with lots of pedestrians there is a lot of littering on my neighbors and my lawns, garbage bins that the city manages or enforcement would be helpful. I am picking up a full grocery of garbage bag every week</p>		<p>No Action Required</p>	Location Reviewed but No Action Required	N/A	City to take action for enforcement	
224	Mohawk Rd W @ Rice Ave	<p>The Mohawk Rd crosswalk across Rice Ave. on the north side needs supplemental lighting. When dark, cars turning left on Rice (to travel toward Sanatorium) are blinded by headlights of other cars stopped on the uphill grade facing Mohawk. It's hard to see pedestrians if it is dark and impossible if it is also raining.</p> <p>Mohawk Rd West and Magnolia Dr as well as Mohawk Rd West and Rice Ave both intersections have in common an incline on the North side. At night the headlights point too high blinding the oncoming drivers. In the Winter with snow and ice on the pavement the tires easily spin out, when the traffic lights are changing to green again because of the incline. Please consider that these 2 factors may contribute to accidents. Drivers coming from the North mostly make left turns. Oncoming vehicles from the South side also mostly make left turns and block the view of the driver who is coming from the North side and that is especially because of the incline. These drivers are always hesitant to make a move because of poor visibility out of that angle.</p>		<p>The City may consider reviewing illumination levels at this intersection and replacing the existing light fixtures with higher intensity LED luminaires, as required.</p> <p>LPI already recommended for this intersection in another recommendation, which is anticipated to improve the visibility of pedestrians for turning drivers.</p> <p>Consider dedicated N/S left-turn phases, subject to review of traffic operations. (Note: Due to EBL protected/permissive phase, the LPI is not feasible for the N-S sidewalks. LPI implemented for the E-W sidewalks. The N/S operations in the AM/PM peak are performing at LOS C or better with LPI implementation. Hence, no dedicated N/S phase is recommended since it is not feasible to implement LPI with a advanced left-turn phase.)</p> <p>Additionally, both intersections have negative left-turn lane offsets in the east-west direction. Additionally, the Mohawk Rd W @ Rice Ave intersection has zero left-turn lane offsets in the north-south direction, which could also be a factor related to collisions involving left-turns. Increasing left-turn lane offsets may improve visibility for left-turning drivers and mitigate the effects of headlights blinding drivers in the opposing direction.</p> <p>CIMA+ reviewed and prepared a conceptual design.</p>	Quick Win	\$10,000.00	City to review illumination levels	Year 1


225	Mohawk Rd W @ Garth St	Vehicles will cut through the gas station to avoid stopping at the light at the intersection, it is very dangerous for those stopped at the gas station, but also for the pedestrians using the intersection		This issue is covered by the Trespass to Property Act. It is noted that this location is private property and will require consultation with the gas station. If the gas station is in agreement, they can install a customized "PRIVATE PROPERTY NO THROUGHFARE" sign at both entrances to the gas station to prevent cut through traffic.	Location Reviewed but No Action Required	N/A	City to consult with gas station for potential solution	
226	Mohawk Rd W from Scenic Dr/Upper Horning Rd to Old Mohawk Rd	Mohawk Road West near Pathways and Mohawk Animal Hospital ought to have a left turn lane with all the new construction taking place - it will increasingly become accident prone. A center turn lane is required in the area of Pathways / Mohawk Animal Hospital and new construction - getting very dangerous.		These comments have been noted. However, this project is specifically focused on improving safety and operations along residential and collector streets in Ward 14 – arterial roads will not be a part of this project since they were already under consideration as part of the Complete Livable Better Streets Design Manual Project.	Location Reviewed but No Action Required	N/A		
227	Mountview Park Trail (Chedmac Dr @ Southridge Dr)	Very dark pathway. Lights would make it safer for community. This pathway has no lights, after dark it can be hard to navigate safely.		The City may consider reviewing illumination levels at this location and improving lighting, as required.	Location Reviewed but No Action Required	N/A	City to review illumination	
228	Old Mohawk Rd	Cars frequently speed through this area.		85th percentile speed is not greater than 7 km/h above the 50 km/h posted speed. Therefore, no speeding issues identified. However, the speed limit in the surrounding neighbourhood is proposed to be reduced to 40 km/h in 2022. Therefore, ensure that a 40 km/h "MAXIMUM SPEED" sign (Rb-1) is present in both directions of travel when this occurs.	Quick Win	\$1,000.00		Year 1
229	Purnell Dr from Darlington Dr to Clifton Downs Rd	There are not enough street lights in this area, one of my family members had to go in an ambulance, because they fell due to the lack of light in the area.		The City may consider reviewing illumination levels within this midblock segment and improving lighting, as required.	Location Reviewed but No Action Required	N/A	City to review illumination	
230	Regent Ave from McIntosh Ave to Angelina Pl	N/A		Location does not pass length traffic calming pre-screening criteria. However, the speed limit in the surrounding neighbourhood was reduced to 40 km/h in 2019. Therefore, ensure that a 40 km/h "MAXIMUM SPEED" sign (Rb-1) is present in both directions of travel.	Quick Win	\$1,000.00		Year 1
231	Rice Ave from Mohawk Rd W to Chedmac Dr	Cars driving aggressively/way above the speed limit		85th percentile speed 12 km/h above speed limit. This midblock segment passes the length, AADT, and posted speed limit traffic calming screening criteria, but did not achieve the minimum point values to proceed with the recommendation of traffic calming measures. However, consider implementing lawn signs encouraging slower speeds throughout this segment. Additionally, consider installing 50 km/h "MAXIMUM SPEED" signs (Rb-1) in both directions of travel supplemented with radar speed display signs. Monitor this segment after implementing these countermeasures; if a speeding issue still persists, consider implementing other measures such as education and enforcement.	Quick Win	\$1,500.00	City to monitor the segment, and conduct education and enforcement for speeding	Year 1
232	Rice Ave @ Chedmac Dr	Cars do not stop at the stop sign turning left or right off of Chedmac Cars turning from Rice without watching for pedestrians crossing and cars on Chedmac turn without stopping.		Intersection is already well-delineated so it appears that this concern is a behavioural issue as opposed to an engineering issue. Continue to keep the intersection well-delineated and conduct a ward-wide educational STOP compliance campaign with random police checks and warnings.	Location Reviewed but No Action Required	N/A	City to conduct educational campaign and enforcement for stop compliance	
233	Rice Ave from Mohawk Rd W to Chedmac Dr	Bike lanes going South (up the Rice hill) has lots of debris in the bike lane Bike lanes are falling apart - big holes in pavement, cracks by sewer gates, debris along the inset. Very frustrating to ride along On researching further comments, I too have used the cycle-lane next to the parked cars and also find the lanes full of debris; from pine cones to litter from parked cars, etc. The opposite side is always clear.		Maintenance issue. Request City to maintain these bike lanes more frequently due to concerns related to debris/litter in the bike lane, potholes in the pavement, and cracks by sewer grates.	Location Reviewed but No Action Required	N/A	City to conduct maintenance	

234	Rice Ave from Mohawk Rd W to Chedmac Dr	<p>Remove on-street parking on Rice Avenue opposite the townhouses units #70 to 120 Rice Avenue (see letter in Public Inputs folder for more details)</p> <p>On-Road parking on the west side of Rice Avenue between Mohawk Road West & the Chedmac/Sanatorium Road intersection, there is a detailed report with photos on why this parking must be removed.</p> <p>This past week, I saw a near T-bone collision when a townhouse tenant was turning from their site onto Rice Avenue towards Mohawk Road. The driver could not see on-coming traffic on Rice because of the cars parked on the west side of Rice. Also, at each end of the parking area noted with "snow route" & a "no stopping" signs, winter or summer, cars park beyond the "no stopping" signs and during all winter conditions, totally ignore the snow route and get blocked in by snowplows. Today, (June 2nd) there was an SUV parked well beyond the no stopping sign blocking the turning lane to WB Mohawk Road -- and another at the north end blocking the HSR passenger stop. This parking MUST GO! All tenants have a garage, a driveway and space for a 3rd car in front of their driveway. Other tenants at 50 & 60 Rice Avenue have a similar off-street amenities yet do not park on Rice nor Chedmac as these "privileged" tenants do on the SW section of the Mohawk & Rice intersection.</p>		<p>City to consider one of the following two options:</p> <p>1st: prohibit parking along the entire segment of Rice Ave as per resident complaints, which will resolve identified issues. City may need to consult with the Townhouse residents.</p> <p>2nd: if City wishes to keep some on-street parking, consider removing parking spots within 15 m of the Townhouse complex driveway. In areas where drivers are violating parking prohibitions, consider installing additional "NO STOPPING" signage (i.e. between existing signs) along with police enforcement.</p>	Location Reviewed but No Action Required	N/A	City to address parking issues based on recommendations and consultation	
235	Rice Ave from Mohawk Rd W to Sanatorium Rd	<p>Adjust both NB and SB lanes on Rice Ave from the Chedoke / Sanatorium intersection to the intersection at Mohawk Rd W to allow for continuous Rice Ave NB and SB vehicular & cycling traffic to include:</p> <ul style="list-style-type: none"> - Individual priority cycling routes, NB & SB; - a single vehicular lane for NB & SB traffic, - a continuous middle lane for left & right hand turns off of Rice Avenue for 3 separate driveways between Mohawk Road and Chedoke / Sanatorium Roads, merging into the existing left-hand turn lane from Rice onto Chedmac (a major problem with HSR & the Mohawk Hospital Service truck's wide turns); - At Mohawk Road (SB) a separate left-turn only lane from Rice to Mohawk (eastbound) be inserted, but moved away (about a full car length) from the intersection to allow extra room for transport trucks turning onto Rice from Mohawk Road. These turns continue to be a problem for longer transport trucks (Mohawk Hospital Services, Gordon's Foods, Sysco, etc.) when cars are stopped too close to Mohawk Road, stalling traffic as the intersection until lights change; - Add a "Green arrow" signal for right-hand turns from Rice onto Mohawk Road West during times the existing "Green arrow" signal allows vehicles to turn from Mohawk (east-bound) onto Rice Avenue. Pedestrians have the "No Walk" signals at the same time so there is no danger to pedestrians who obey their specific signals. <p>NOTE: see letter in Public Inputs folder for more details</p>		<p>Thanks for your comments. We note that Rice Avenue already has designated bike lanes in both directions and a southbound left turn lane onto eastbound Mohawk Road West. The addition of a continuous turning lane would likely result in the removal of the onstreet parking, otherwise the roadway would have to be widened and this would impact the bus stops and potentially result in property requirement. Also, the wider pavement may encourage higher speeds. This study has not identified any operational issues along this segment however it is acknowledged the existing close spacing between Chedmac Drive and Sanatorium Road is not desirable. This study will recommend the City monitor this segment for any operational issues.</p>	Location Reviewed but No Action Required	N/A	City to monitor the segment for any operational issues	
236	Rymal Rd W from Upper Paradise Rd to Davinci Blvd/Spadara Dr	Cars will speed all along Rymal		<p>Rymal Rd W is classified as an arterial road and is not considered eligible for traffic calming as per Hamilton's Traffic Calming Policy.</p> <p>However, consider installing radar speed display signs in conjunction with the existing posted speed signs along Rymal Rd W.</p>	Quick Win	\$10,000.00		Year 1
237	San Antonio Dr from Karen Cres to Argo St	Consider leaving the HSR bus on San Remo. The traffic complications with elementary school access in the morning and evening are significant for all. Often the bus cannot get through, and the bus can get aggressive which is not needed with children trying to access school.		<p>It is agreed that the bus route along San Antonio Dr (Route 33) is likely to create more potential of conflicts with school children due to its proximity to Mountview School. Conflicts may be directly related to busses stopping at the intersection of San Antonio Dr @ Argo St and any vehicles blocked behind the busses.</p> <p>City to impelement one of the following two options:</p> <p>1st: Consider moving the bus route to the previous location on San Remo Dr in consultation with the HSR and Mountview School as requested.</p> <p>2nd: Alternatively, the school can introduce crossing guards at critical locations along San Antonio Dr.</p>	Location Reviewed but No Action Required	N/A	City to select one of the two options provided based on consultation with HSR	

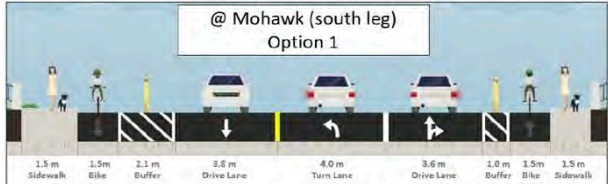

238	San Fernando Dr	Curve in road frequently sees westbound vehicles straighten out the curve and drive in the eastbound "lane" leading to potential head on collisions.		<p>Consider prohibiting parking on both sides on the curve along San Fernando Dr directly west of Goulding Ave. Additionally, paint a yellow centreline to delineate the curve. It should be noted that the Highway Traffic Act stipulates the requirements for permitting parking in areas such as horizontal curves where there are visibility constraints.</p> <p>As per the Highway Traffic Act Section 170 (1) (b), no person shall park, stand or stop a vehicle on a roadway unless a clear view of the vehicle and of the roadway for at least 125 m beyond the vehicle may be obtained from a distance of at least 125 m from the vehicle in each direction upon the highway.</p>	Quick Win	\$2,000.00		Year 1
239	San Pedro Dr @ Goulding Ave	Frequent failure of vehicles travelling both eastbound and westbound on San Pedro to stop at the 4 way stop sign.		<p>Intersection is already well-delineated so it appears that this concern is a behavioural issue as opposed to an engineering issue. Continue to keep the intersection well-delineated and conduct a ward-wide educational STOP compliance campaign with random police checks and warnings.</p>	Location Reviewed but No Action Required	N/A	City to conduct educational campaign and enforcement for stop compliance	
240	San Remo Dr	Vehicles passing at speeds in excess of the 40 km/hr speed limit in this neighbourhood.		<p>85th percentile speed is not greater than 7 km/h above the 40 km/h posted speed. Therefore, no speeding issues identified.</p> <p>However, it is noted that a school is present near this location. Therefore, consider implementing lawn signs encouraging slower speeds throughout this segment along with painting ladder crosswalks at the STOP controlled intersections of San Remo Dr @ Lavina Cres, San Antonio Dr, and San Pedro Dr. The ladder crosswalks will enhance the perception of drivers that pedestrians are present within the area, which may lower vehicle speeds.</p> <p>Monitor this segment after implementing these countermeasures; if there continue to be speeding concerns, consider implementing other measures such as education and enforcement or even automated speed enforcement as this is a school zone.</p>	Quick Win	\$7,500.00	City to monitor the segment, and conduct education and enforcement for speeding	Year 1
241	Sanatorium Rd @ Rice Ave	Cars do not stop at any of the stop signs at this 3 way intersection		<p>Intersection is already well-delineated so it appears that this concern is a behavioural issue as opposed to an engineering issue. Continue to keep the intersection well-delineated and conduct a ward-wide educational STOP compliance campaign with random police checks and warnings.</p>	Location Reviewed but No Action Required	N/A	City to conduct educational campaign and enforcement for stop compliance	
242	Sanatorium Rd from W 33 St to Rice Ave	<p>Cars constantly parking in no parking zones and leaving their cars idling during pickup/drop off at Holbrook</p> <p>POORLY LOCATED CITY BUS STOP. Congestion is unreal. Buses (city and school) children, bikes, parents dropping off children all merge at once. Chaos in morning and afternoon. Witnessed way too many near misses of children and adults being hit by cars who are impatient to get around parked vehicles.</p> <p>Vehicles constantly idling during drop-off/pick-up, making it dangerous for families and children walking to Holbrook</p> <p>HSR bus stop located outside of 434 Sanatorium Rd. (very noisy...Could it please go back to the corner at W33rd where it was before, or move to the other side of school parking lot)</p>		<p>This situation of cars parking in "NO PARKING" zones near schools and idling is very typical in school areas. This issue may be coordinated with the school authorities. It is recommended to extend the "NO STOPPING" zones in front of the school and other alternatives for pick up/drop off locations should be reviewed. One option is along W 33 St where one-hour parking between 8AM and 6PM is permitted.</p> <p>Additionally, consider relocating the bus stop (Route 33) directly across from Holbrook Elementary School or combining it with the bus stop approximately 110 m west on the same side of the street in consultation with the HSR.</p> <p>Frequent police enforcement could also be considered to enforce parking prohibitions nearby the school.</p>	Short-Term Recommendation	\$2,000.00	City to conduct enforcement for parking and also consult with HST for bus stop relocation	Year 3
243	Sanatorium Rd from W 33 St to Rice Ave	Sidewalk rarely plowed during winter. Accessibility issue for walkers, wheelchairs, strollers, etc.		<p>Maintenance issue. Request City to maintain this sidewalk more frequently during the winter months.</p>	Location Reviewed but No Action Required	N/A	City to conduct maintenance	
244	Sanatorium Rd from Sanatorium Rd to Redfern Ave	Drivers are pinching into the bike lanes. This street would benefit from protected bike lanes		<p>Thank you for your comment. We reviewed the identified location for the noted concern. According to the cycling nomograph (Figure 3.3) in OTM Book 18, the provision of on-road bicycle lanes is considered appropriate (AADT is 3288 vpd and 85th percentile speed is 49 km/h). The existing on-road bicycle lanes were measured to be 1.5 m, which is the 'suggested minimum' width as per OTM Book 18 but is still considered appropriate along the subject midblock segment.</p> <p>85th percentile speed is not greater than 7 km/h above the assumed 50 km/h posted speed. Therefore, no speeding issues identified.</p> <p>As per the above, the existing roadway cross-section is typical for the surrounding traffic conditions. As per the Highway Traffic Act, drivers must provide a minimum 1 m distance when passing cyclists. If drivers do not maintain this distance, it is a violation of the law. Therefore, the City could consider an educational campaign informing drivers and cyclists about the rules of the road. This can also be supplemented with police enforcement.</p>	Location Reviewed but No Action Required	N/A	City to conduct education and enforcement	

245	Sanatorium Rd @ Patterson Parking Lot	Cars do not stop at these stop signs.		<p>Thank you for your comment. At this location, sight distance is just sufficient to make turning maneuvers under urban conditions (i.e. design speed approximately equal to operating speed). Drivers may have to come slightly forward beyond the STOP sign to observe oncoming traffic from the right.</p> <p>However, consider applying a stop bar at this driveway to regulate the traffic exiting the driveway.</p> <p>(note: STOP signs/stop bars are not typically required for private driveways. However, due to resident concerns involving drivers exiting at this driveway, the presence of STOP signs and stop bars may enhance the drivers' perception to wait before entering the travelled way).</p>	Quick Win	\$100.00		Year 1
246	Sanatorium Rd @ Scenic Dr	HSR bus shelter is required. It is the only stop on the 33 Sanatorium or 41 Mohawk along Santaorium Road/Rice without a bus shelter.		City to discuss with the HSR regarding the provision of a bus shelter at this location.	Location Reviewed but No Action Required	N/A	City to initiate discussions with HSR	
247	Sanatorium Rd from Scenic Dr (West) to Scenic Dr (East)	Parking is non existent for access to the soon-to-be-paved 1.4km path to the Bruce Side trail		Visitors are expected to access the trail so consider providing parking in this area.	Location Reviewed but No Action Required	N/A	City to conduct further study nd provide parking	
248	Sanatorium Rd from Scenic Dr (West) to Scenic Dr (East)	Cars who want to avoid speed bumps along scenic around scenic between Sam Pedro and Goulding will use this road for faster speed in scenic going westbound.		<p>85th percentile speed is less than the 50 km/h posted speed. Therefore, no speeding issues identified.</p> <p>However, the speed limit in the surrounding neighbourhood is proposed to be reduced to 40 km/h in 2022. Therefore, ensure that a 40 km/h "MAXIMUM SPEED" sign (Rb-1) is present in both directions of travel when this occurs.</p> <p>Additionally, consider installing a "Local Traffic Only" sign on both entrances of Sanatorium Rd from Scenic Dr to Scenic Dr and monitor the extent of the cut through traffic along with their involvement with any collisions. If a problem is confirmed, further mitigation will be required.</p>	Quick Win	\$1,500.00	City to monitor cut through traffic	Year 1
249	Sanatorium Rd @ W 33 St	People going through stop signs along Sanatorium Rd from Rice Ave to Upper Paradise Rd		Intersection is already well-delineated so it appears that this concern is a behavioural issue as opposed to an engineering issue. Continue to keep the intersection well-delineated and conduct a ward-wide educational STOP compliance campaign with random police checks and warnings.	Location Reviewed but No Action Required	N/A	City to conduct educational campaign and enforcement for stop compliance	
250	Scenic Dr from Lavender Dr (North) to Chateau Ct	<p>We need more legal parking for trail users that has a proper crossing for pedestrians to cross Scenic and reach the radial trail safely</p> <p>The parking lot here is inadequate. There are often dozens of vehicles parked across the road in the hydro right of way. There should be a safe way for pedestrians to cross the road.</p> <p>More parking enforcement or better parking needed in this area</p> <p>This Parking lot is frequently packed full. Some users are walking along the trail. They need more capacity here or nearby. Some cars stay in the lot all day long while their owners work nearby. That requires enforcement of the time limits for parking.</p> <p>Need additional parking for people who drive to the area for hikes. The 'closing' of the informal parking by Ontario Hydro (I presume) seems unreasonable.</p> <p>The closure of the informal parking by Hydro one created a worse issue for pedestrians and vehicles due to the unsafe way people are now trying to park illegally here, often to the edge or or even on the road. I've seen ticking enforcement once which was fantastic, please continue.</p> <p>The Bruce Trail/Chedoke Radial Trail is excellent and very popular. Unfortunately there is not adequate parking which causes numerous cars to park across the street in the Hydro field. That field is now fenced in. We need a parking lot in that Hydro field.</p>		<p>It is recommended that the City conduct a parking study to determine the parking needs in this area and consider expanding the existing parking lot on the north side/or south side of Scenic Dr. Additionally, implement frequent police enforcement to ensure that the parking lot is only used by trail users and not for other purposes.</p> <p>It is unclear if the informal parking lot in the hydro corridor is legal or not. However, this should be made clear to visitors by providing appropriate signage. Priority for expanding the parking lot should be given to the north side.</p> <p>If the parking is expanded on the south side, an appropriate pedestrian crossing facility should be provided. Since this location is on a horizontal curve, it should be ensured that proper sightlines to the pedestrian crossing are provided. If sightlines are not available, consider reducing the posted speed near the pedestrian crossing to 40 km/h.</p>	Location Reviewed but No Action Required	N/A	City to conduct further study for parking needs	

251	Scenic Dr from Angela Ave to W 34 St	Lack of sidewalks. Lack of bike lanes.		<p>The provision of a sidewalk along this segment has already been recommended in another recommendation.</p> <p>A paved shoulder is currently provided along this segment.</p> <p>This segment is not listed in Hamilton's Cycling Master Plan for any future upgrades.</p> <p>Upgrade the existing paved shoulder along this segment to bike lanes as per the cycling nomograph (Figure 3.3) in OTM Book 18 (AADT is 3,062 vpd and 85th percentile speed is 63 km/h). The 85th percentile speed and AADT was assumed to be carried over from the "Scenic Dr from W 35 St to 80 m west of Chateau Ct" segment listed in original Problems & Opportunities table.</p> <p>CIMA+ reviewed and prepared a conceptual design initially with an estimated cost of \$3,000 and short-term recommendations. City onfirmed that this is part of a capital project and advised to remove this recommendation from the implementation. So changed to N/A.</p> <p>(Note: the proposed Mountain Brow Trail, a multi-use trail designed to provide accommodation for pedestrians and cyclists, does extend along the north portion of Scenic Dr except for between Angela Ave and the bend west of W 34 St. The work is expected to be coordinated through the construction of facilities or provide securities to facilitate the construction as part of future Public Works along Scenic Drive and Sanatorium Road)</p>	Location Reviewed but No Action Required	N/A		
252	Scenic Dr from Upper Paradise Rd to W 31 St	Popular stairs need more parking, perhaps consider expropriating neighbouring houses to expand park and parking.		<p>Conduct a parking study to determine the parking needs in this area and consider expanding the existing parking lot on the north side of Scenic Dr.</p> <p>This is to be noted that the park on the north side is a popular park. If more parking is available, it will attract more people.</p>	Location Reviewed but No Action Required	N/A	City to conduct parking study	
253	Scenic Dr from Lavender Dr (South) to Lavender Dr (North)	Safety issues for young people crossing for school and sports		<p>Considering resident concerns related to pedestrians crossing for school and sports, we are recommending the installation of a PXO Level 2 Type D within this midblock segment (2 lane cross-section and 8-hour volume is approximately 2,548 vehicles based on 2018 TMC at Mohawk Rd W @ Scenic Dr grown to 2021). A potential location is approximately 570 m north of the intersection of Mohawk Rd W @ Scenic Dr where there is a paved pedestrian path from a nearby neighbourhood to the west and a worn path (indicating pedestrian desire lines) to the east.</p> <p>Use PXO Level 2 Type C as a result of speeding concerns raised in PIC 2.</p> <p>CIMA+ reviewed and prepared a conceptual design.</p>	Short-Term Recommendation	\$35,000.00		Year 3
254	Scenic Dr @ Lyle Ave	cars heading west on Scenic Dr will pass cars turning left onto Lyle by passing in bike lane - very dangerous for cyclist and pedestrians		<p>City will provide the TMCs at this location so CIMA+ can check whether a left-turn lane is warranted. If warranted, the provision of a left-turn lane at this intersection will allow drivers following the left-turning vehicles to not encroach into the adjacent bicycle lane.</p> <p>(Note: CIMA+ reviewed MTO's design guidelines for left-turn lane warrant for unsignalized intersections. Based on the interfering AM/PM through volume of 500/262 vehicles and the AM/PM left turning volume of 12/33 vehicles, a left-turn lane is not warranted.)</p> <p>Alternatively, consider providing physical barriers or bollards between the bicycle lane and the travel lane so that drivers will not encroach into the bicycle lane.</p> <p>CIMA+ reviewed and prepared a conceptual design.</p>	Quick Win	\$2,000.00		Year 1
255	Scenic Dr from Sanatorium Rd to San Pedro Dr	Canada Post mail boxes. there is a pad where a car can temporarily park for residents to collect mail.		<p>Thank you for your comment. This location was reviewed and it was observed that the existing parking prohibition is "NO PARKING". Therefore, drivers are legally permitted to stop in these areas for a brief period of time to pick up mail.</p> <p>Consider implementing police enforcement at this location to enforce parking prohibitions.</p>	Location Reviewed but No Action Required	N/A	City to conduct enforcement	
256	Scenic Dr @ Sanatorium Rd	<p>Attendees highlighted a new development, Browlands Residential Development, at the corner of Scenic Drive and Sanatorium Rd to see if future traffic needs were considered.</p> <p>There was a TIS completed in September 2020 (https://urbansolutions.info/wp-content/uploads/2020/11/TIS-TDM-NexTrans.pdf) that can be reviewed to see what was done already and to determine whether any future countermeasures were recommended.</p>		<p>CIMA+ had a cursory look at the TIS report that is available online. We understand the concern about any analysis being undertaken during COVID, however the report indicates that the traffic volumes used for the analysis were from 2018, before the pandemic.</p> <p>The analysis indicated that future traffic operations (2027) are expected to be acceptable. It is highlighted that the development will tie into a proposed roundabout on Scenic Drive and Sanatorium Road, which is expected to be sufficient to accommodate the background traffic and proposed development traffic.</p> <p>The roundabout will act as both an access to the development and a traffic calming measure for the roadway.</p>	Location Reviewed but No Action Required	N/A		

257	Stone Church Rd from Upper Paradise Rd to Courtland Ave	Too many vehicles trying to get into the SW parking. Vehicles parking along the bike lane, including delivery trucks are a problem.		Consider upgrading the "NO PARKING" regulation in this area to "NO STOPPING" so that this area remains free of any vehicles. This should be done in conjunction with regular enforcement.	Quick Win	\$1,000.00	City to conduct enforcement for parking	Year 1
258	Stone Church Rd from Upper Paradise Rd to Courtland Ave	Sidewalk has been blocked for far too long - do something to fix this.		South sidewalk is currently blocked off and a "SIDEWALK CLOSED" sign is present. This is a maintenance issue to be brought to the City's attention for an update.	Location Reviewed but No Action Required	N/A	City to conduct maintenance	
259	Stone Church Rd @ Omni Blvd	Excessive speed along Stone Church Rd and cars not yielding to Omni Blvd traffic or to traffic in the round about trying to get onto Omni Blvd.		This roundabout is a traffic calming measure but is located on Stone Church Road which is an arterial road. This project is specifically focused on improving safety and operations along residential and collector streets in Ward 14 – arterial roads will not be a part of this project since they were already under consideration as part of the Complete Livable Better Streets Design Manual Project. Consideration can be given to widening the truck apron to narrow the circulatory road. It is anticipated that this will help lower travel speeds further within the roundabout. However, the trade-off is that larger vehicles such as busses and trucks will encroach onto the truck apron, but will still be able to maneuver through the roundabout.	Location Reviewed but No Action Required	N/A	City to address the issue separately	
260	Upper Paradise Rd @ Gemini Dr	Difficult to make a left turn due to cars speeding through the intersection.		We are aware of speed concerns along Upper Paradise Road. In fact, we have confirmed that a speeding issue exists. Upper Paradise Road is classified as a major collector and is technically eligible for traffic calming as per Hamilton's Traffic Calming Policy. However, our review noted that the roadway characteristics of Upper Paradise Road are very similar to other arterial roads within Ward 14. Therefore, traffic calming measures associated with physical features will not be recommended along Upper Paradise Road. However, it was recommended to install radar speed display signs in conjunction with the existing posted speed signs along Upper Paradise Road. (ID 44) It is anticipated that the provision of radar speed display signs will lower travel speeds along Upper Paradise Road and help address turning concerns at this intersection by providing safer gaps.	Location Reviewed but No Action Required	N/A		
261	Upper Paradise Rd @ Stone Church Rd	This intersection is so dangerous nowadays with the curb-side parking that is now allowed. Dangerous for pedestrians, one recently died in this intersection.		It is recommended that the City could consider removing all curb-side parking nearby this intersection. Curb-side parking is currently present on the east side of the north approach, north side of the east approach, and the east side of the south approach. It is noted that all of these curb-side parking spaces are paid with parking meters present. As an interim countermeasure, consider installing "CROSS ONLY AT CROSSOVER" signs (Ra-8) near all existing curb-side parking locations to inform pedestrians that they should only cross at a safe crossing location (i.e. intersection of Stone Church Rd W @ Upper Paradise Rd). Additionally, consider conducting a ward-wide educational campaign for pedestrians to inform them of the dangers of crossing without the right-of-way. Additionally, we are aware of speed concerns along Upper Paradise Road. In fact, we have confirmed that a speeding issue exists. Upper Paradise Road is classified as a major collector and is technically eligible for traffic calming as per Hamilton's Traffic Calming Policy. However, our review noted that the roadway characteristics of Upper Paradise Road are very similar to other arterial roads within Ward 14. Therefore, traffic calming measures associated with physical features will not be recommended along Upper Paradise Road. However, it was recommended to install radar speed display signs in conjunction with the existing posted speed signs along Upper Paradise Road (ID 43). It is anticipated that the provision of radar speed display signs will lower travel speeds along Upper Paradise Road and help address turning concerns and provide safer gaps.	Quick Win	\$2,000.00	City to take action for parking removal	Year 1
262	Upper Paradise Rd @ Sanatorium Rd	Very slippery when it snows, there is ice or it rains. Vehicles cannot stop as they slip going down the hill and at times cannot break and go through the stop sign. This is a highly used intersection during rush hours and includes bus stops and people crossing. Please install ridges on the street.		Concerns regarding slippery roads during winter weather conditions (e.g. icy and snowy roads) and vehicles may be unable to stop at the intersection as they slip going down the hill. This is a maintenance issue and the City will be informed to prioritize winter maintenance at this location.	Location Reviewed but No Action Required	N/A	City to conduct maintenance	

263	Upper Paradise Rd @ Scenic Dr	Very busy intersection with vehicles from all four ways, including city busses, pedestrians and cyclists. Vehicles not stopping at 4 way stop. No protected bike lanes.		Intersection is already well-delineated so it appears that this concern is a behavioural issue as opposed to an engineering issue. Continue to keep the intersection well-delineated and conduct a ward-wide educational STOP compliance campaign with random police checks and warnings.	Location Reviewed but No Action Required	N/A	City to conduct educational campaign and enforcement for stop compliance	
264	Upper Paradise Rd from Mohawk Rd W to Sanatorium Rd	If it rains/snow this hill is slippery when driving and trying to stop at the stop sign or going up the hill.		Maintenance Issue. Inform the City to prioritize winter maintenance at this location.	Location Reviewed but No Action Required	N/A	City to conduct maintenance	
265	Upper Paradise Rd @ Stone Church Rd	It is very difficult to get in and out of this parking lot due to the aggressive driving through the intersection		<p>We are aware of speed concerns along Upper Paradise Road. In fact, we have confirmed that a speeding issue exists.</p> <p>Upper Paradise Road is classified as a major collector and is technically eligible for traffic calming as per Hamilton's Traffic Calming Policy. However, our review noted that the roadway characteristics of Upper Paradise Road are very similar to other arterial roads within Ward 14. Therefore, traffic calming measures associated with physical features will not be recommended along Upper Paradise Road.</p> <p>However, it was recommended to install radar speed display signs in conjunction with the existing posted speed signs along Upper Paradise Road. (See ID 44)</p> <p>It is anticipated that the provision of radar speed display signs will lower travel speeds along Upper Paradise Road and help address turning concerns at this parking lot driveway by providing safer gaps.</p>	Location Reviewed but No Action Required	N/A		
266	Upper Paradise Rd @ Lunner Ave	It is very dangerous turning onto Lunner, the drivers on Upper Paradise will speed and make it impossible to execute a safe turn off of Mohawk		<p>We are aware of speed concerns along Upper Paradise Road. In fact, we have confirmed that a speeding issue exists.</p> <p>Upper Paradise Road is classified as a major collector and is technically eligible for traffic calming as per Hamilton's Traffic Calming Policy. However, our review noted that the roadway characteristics of Upper Paradise Road are very similar to other arterial roads within Ward 14. Therefore, traffic calming measures associated with physical features will not be recommended along Upper Paradise Road.</p> <p>However, it was recommended to install radar speed display signs in conjunction with the existing posted speed signs along Upper Paradise Road.</p> <p>It is anticipated that the provision of radar speed display signs will lower travel speeds along Upper Paradise Road and help address turning concerns at this intersection by providing safer gaps.</p> <p>Due to the hill obstructing the sight line in the northbound direction, reduce the speed between Hadeland Avenue and Lunner Avenue to 40 km/h. Speed within this section north of Lunner Avenue is already 40 km/h during school start and end times. Ensure that a radar speed sign is installed in the northbound direction, just before the hill south of Lunner Avenue. Monitor this segment after implementing these countermeasures; if a speeding issue still persists, consider implementing other measures such as education and enforcement.</p>	Quick Win	\$1,000.00	City to monitor the segment, and conduct education and enforcement for speeding	Year 1
267	Upper Paradise Rd @ Sandringham Ave/Food Basics Plaza	There should be a pedestrian crosswalk here, the bus stop across the street is heavily trafficked because of the mall. Many people will run across the road to get to the bus, or to get to the mall. It is very difficult to see the cars coming over the hill, and for drivers to see the pedestrians. There should also be a sign for cars to slow down coming over the hill, many cars drive out of the parking lot here and it is difficult to see other vehicles.		Upper Paradise Road, at the location of the existing southbound bus stop, is subject to many crossings by pedestrians coming from the plaza. North of this location, Upper Paradise falls downhill which limits sight distance of southbound vehicles seeing pedestrians cross the street or see a vehicle exiting the plaza. Considering this, a PXO Level 2 Type C is proposed at the location shown (2 lane cross-section and 8-hour volume is approximately 4,269 vehicles based on 2018 TMC at Mohawk Rd W @ Upper Paradise Rd grown to 2021). Initial thoughts were to locate a crossing at the existing location of the bus stops, however, at least one of the bus stops would need to be relocated and sight-distance issues for southbound traffic are anticipated due to the profile of roadway. It is therefore proposed that the PXO be located just north of Buckingham Drive, nearer the roadway profile crest. The southbound bus stop is also proposed to be relocated to just north of the PXO crossing. OTM Book guidance specifies that 200 m should be provided between PXO and a signalised intersection; however, southbound queues (at Mohawk and Upper Paradise) were reviewed (including 2024 forecasts) and it is anticipated that queues will not reach the proposed PXO location	Short-Term Recommendation	\$35,000.00		Year 2
268	Upper Paradise Rd @ Scenic Dr	Overflow parking along Upper Paradise South blocking neighbors egress.		By law, drivers are not allowed to block driveways. For specific locations, "NO STOPPING" signs can be installed. If drivers continue to block the egress of vehicles at this location, police enforcement can be considered.	Quick Win	\$1,000.00	City to conduct enforcement for parking prohibitions	Year 1

269	Upper Paradise Rd @ Eagleleglen Way	Many vehicles traveling north on Upper Paradise don't even attempt to stop unless they see a vehicle on Eagleleglen. Has happened to me many times.		Consider upgrading the existing parallel line crosswalks to ladder crosswalks to further delineate this intersection. Ensure that this intersection remains well-delineated and conduct a ward-wide educational STOP compliance campaign with random police checks and warnings.	Quick Win	\$4,000.00	City to conduct educational campaign and enforcement for stop compliance	Year 1
270	Upper Paradise Rd @ Mohawk Rd W	<p>Project involves implementing cycling infrastructure along Upper Paradise between Lunner and Sanatorium to bring bike lanes through the Upper Paradise @ Mohawk intersection (limit is approximately 600 m long).</p> <p>Plan to introduce separated bike lanes with barriers (pre-cast concrete curbs and flexible delineators)</p> <p>Near-side bus stop in SE quadrant will not be relocated. It will remain and a break will be put in the barriers to allow the bus to come in and out.</p> <p>It is suspected that there will be cross-rides through Mohawk Rd at the intersection of Upper Paradise @ Mohawk. There will be some sort of marking of the bicycle lane north-south (i.e. through movement). No anticipation of any special treatment for turning to/from Mohawk Rd.</p> <p>North of Sanatorium - Upper Paradise will be resurfaced in a few years so they plan to incorporate more of these separated bike lanes with barriers along Upper Paradise Rd in the future.</p>	 <p>@ Mohawk (south leg) Option 1</p> <p>Southbound: Reallocate curb lane to separated bike lane. Eliminate buffer once matched to existing bike lane; buffer will vary in width</p> <p>Northbound: Reallocate curb lane to separated bike lane. Eliminate buffer once matched to existing bike lane; buffer will vary in width</p>  <p>@ Mohawk (south leg) Option 2</p> <p>Southbound: Reallocate curb lane to separated bike lane. Eliminate buffer once matched to existing bike lane; buffer may vary in width</p> <p>Northbound: Reallocate curb lane to separated bike lane; transition to a mixing zone (i.e. shared right turn/bike lane) prior to bus stop/intersection. Eliminate buffer once matched to existing bike lane; buffer may vary in width</p>	<p>CIMA+ was provided with a Feasibility Plan (FP) by the City to add buffered bicycle lanes with barriers through the missing gap at the intersection of Upper Paradise Rd @ Mohawk Rd W. The FP presented two options for incorporating cycling facilities through the intersection and CIMA+ conducted a LOS analysis for each option using a 5-year horizon (2019 used for existing conditions and 2024 was the 5-year horizon year). Photos illustrating both options are provided to the right. An email with full details of the LOS analysis was sent to the City on July 2, 2021 and the following observations summarize our findings:</p> <ul style="list-style-type: none"> -Based on the operational analysis, Option 2 has slightly better performance over Option 1; however, both Option 1 & 2 operate acceptably. -Based on the safety analysis, Option 1 results in fewer conflicts between vehicles and cyclists. This is important as there are already a couple of other conflicting maneuvers for cyclists on this south leg of intersection: (1) conflict between transit vehicles and cyclists due to the presence of a near-side bus stop and (2) conflict between cyclists and vehicles accessing the gas station located at the south-east quadrant of the intersection. <p>Therefore, considering the relatively similar operational performance of Option 1 and 2, we suggest to proceed with Option 1 as it provides better safety performance. In conjunction with Option 1, the City is also recommended to consider the following safety measures:</p> <ul style="list-style-type: none"> -To accommodate the safe movement of left-turning cyclists, implement a 'Bike Box', following OTM Book 18 guidelines for the northbound and southbound approaches on Upper Paradise Road. -Consider using coloured asphalt (green surface) to delineate (1) the existing conflict zones between the cyclists and transit vehicles/vehicles accessing the gas station as well as (2) chevrons guiding cyclists through the intersection. 	Location Reviewed but No Action Required	N/A	City is in process of providing bicycle facility at Upper Paradise and Mohawk	
271	Upper Paradise Rd @ St Andrews United Church Parking Lot	This is a natural crossing for students and church-goers to Regina Mundi (church and school). They don't travel up to cross at the intersection but rather wait for a break in cars. A crosswalk here would solve the issue.		<p>Considering resident concerns regarding the lack of safe crossing opportunities at this location, we initially recommended the installation of a PXO Level 2 Type B (4 lane cross-section and 8-hour volume is approximately 7,054 vehicles based on 2018 TMC at Mohawk Rd W @ Upper Paradise Rd grown to 2021).</p> <p>However, a recent site visit in September 2021 revealed that the ideal location for the potential PXO would not be located where pedestrian desire lines are due to the presence of driveways. As a result, there is no guarantee that pedestrians will use the PXO if they aren't already walking 70 m north to the intersection of Mohawk Rd W @ Upper Paradise Rd to cross Upper Paradise safely. Additionally, it was observed that the EBR and WBL queues at the intersection are quite long and the addition of a PXO on the south approach is likely to worsen queuing and affect operations at the intersection.</p> <p>Therefore, CIMA+'s recommendation is to not install a PXO at this time. However, the City should consider reaching out to the school to inform parents and students (e.g. through an assembly, handouts, or information session) about the dangers of jaywalking and encouraging both parents and students to cross safely at the intersection of Mohawk Rd W @ Upper Paradise Rd, where recommendations have been made to improve pedestrian safety there.</p>	Short-Term Recommendation	N/A	City to conduct educational campaign for students and parents informing about the dangers of jaywalking	Year 2

272	Upper Paradise Rd @ Mohawk Rd W	<p>Students walk along Darlington Dr and take Costain Ct to cut into the St Andrew's church parking lot to cross midblock at Upper Paradise Rd. It is expected that they would walk slightly north to Mohawk Rd @ Upper Paradise Rd to cross safely (approx. 75 m north) but this is not the case. As a result:</p> <ul style="list-style-type: none"> - CIMA+ will look into providing a pedestrian crosswalk at the St Andrew's church midblock location across Upper Paradise Rd - First thing we need to do is look at traffic volumes - Look into storage length of left turn lane at intersection - Then, we can review the provision of a centre island or refuge island with crosswalk PXO - Look into potential channelization of students/parents to the intersection of Upper Paradise @ Mohawk - The problem with this issue is that if you provide a railing or guide rail along the sidewalk, it may obstruct a jaywalking pedestrian from safely accessing the sidewalk - It would be ideal if a PXO, IPS, or MPS can be implemented here <p>Example provided from Brenda is at Queenston Rd: there is a breakpoint where if pedestrians can make it at least halfway, there is a median/pedestrian refuge for them to wait safely. Is this something we can implement?</p> <p>Su has had to pull back crossing guards and children in the middle of the road while crossing from being struck.</p> <p>School is currently conducting a survey with main routes students take to get to school that will be provided to CIMA+ for reference</p> <p>Daily School Route Report and School Travel Plan for Regina Mundi has been provided to CIMA for review.</p>		<p>Considering resident concerns regarding the lack of safe crossing opportunities at this location, we reviewed the installation of a PXO Level 2 Type B (4 lane cross-section and 8-hour volume is approximately 7,054 vehicles based on 2018 TMC at Mohawk Rd W @ Upper Paradise Rd grown to 2021). A potential location just south of the Regina Mundi Catholic Church driveway was reviewed, which is located approximately 100 m south of the intersection of Mohawk Rd W @ Upper Paradise Rd. The location of the YIELD marking in the SB direction would be north of the Regina Mundi Catholic Church driveway and the crosswalk will be located south of this driveway. The location of the YIELD marking in the NB direction would be located 6 m south of the crosswalk. Additionally, northbound queues were reviewed at this location until 2024 and it is anticipated that queues will not reach the proposed PXO location.</p> <p>However, a recent site visit in September 2021 revealed that the ideal location for the potential PXO would not be located where pedestrian desire lines are due to the presence of driveways. As a result, there is no guarantee that pedestrians will use the PXO if they aren't already walking 70 m north to the intersection of Mohawk Rd W @ Upper Paradise Rd to cross Upper Paradise safely. Additionally, it was observed that the EBR and WBL queues at the intersection are quite long and the addition of a PXO on the south approach is likely to worsen queueing and affect operations at the intersection.</p> <p>Therefore, CIMA+'s recommendation is to not install a PXO at this time. However, the City should consider reaching out to the school to inform parents and students (e.g. through an assembly, handouts, or information session) about the dangers of jaywalking and encouraging both parents and students to cross safely at the intersection of Mohawk Rd W @ Upper Paradise Rd, where recommendations have been made to improve pedestrian safety there.</p>	Location Reviewed but No Action Required	N/A	City to work with school to educate parents and children about dangers of jaywalking	
273	Wendover Dr @ Rice Ave	<p>Almost no one stops at this intersection. It can be really dangerous during MacNab high school morning and afternoon rush hours.</p> <p>Police officers could stop virtually all vehicles at this intersection for "failure to stop"</p>		<p>Intersection is already well-delineated so it appears that this concern is a behavioural issue as opposed to an engineering issue. Continue to keep the intersection well-delineated and conduct a ward-wide educational STOP compliance campaign with random police checks and warnings.</p>	Location Reviewed but No Action Required	N/A	City to conduct educational campaign and enforcement for stop compliance	
274	Wendover Dr from Rice Ave to Lynwood Rd	<p>Sidewalks on the south side are in rough shape. The sidewalk is mostly asphalt now because of so many repairs.</p>		<p>Maintenance Issue. Inform the City that maintenance is required along this sidewalk.</p>	Location Reviewed but No Action Required	N/A	City to conduct maintenance	
275	Westcliffe Ave	<p>On-street parking is allowed on Westcliffe and there are always vehicles parked on the street. They park in the morning and return at the end of the day, so they're not residents who are parking here – probably students from Mohawk College. She would like to see one hour parking implemented on Westcliffe to match the one hour restrictions on the north section of Westminster (Westcliffe to Denlow).</p>		<p>Consider implementing one-hour parking at this locaion.</p>	Quick Win	\$1,000.00	City to review parking implementation	Year 1
276	Westminster Ave from Westcliffe Ave to Mountain Crest Ave	<p>On-street parking is allowed on Westminster Ave and there are always vehicles parked on the street. They park in the morning and return at the end of the day, so they're not residents who are parking here – probably students from Mohawk College. She would like to see one hour parking implemented on Westminster Avenue between Westcliffe and Mountain Crest to match the one hour restrictions on the north section of Westminster (Westcliffe to Denlow).</p>		<p>Consider implementing one-hour parking at this locaion.</p>	Quick Win	\$1,000.00	City to review parking implementation	Year 1
277	WilliamMcCulloch Park	<p>There are not enough lights in this park and make it difficult to see in the evening, many people walk along here</p>		<p>The City may consider reviewing illumination levels at the park and improving lighting, as required.</p>	Location Reviewed but No Action Required	N/A	City to review illumination	
278	Greenshire Dr from Glenayr St to Stanlow Cres	<p>Greenshire curve needs flashing lights and paint</p>		<p>Paint a centreline at the curve along Greenshire Dr between Glenayr St and Stanlow Cres.</p> <p>(note: since parking is prohibited on both sides, the centreline will help regulate the parking prohibition as well)</p>	Quick Win	\$500.00		Year 1
279	Gemini Dr @ Cranbrook Dr	<p>Gemini at Cranbrook needs an all-way stop</p>		<p>No action required.</p> <p>All-way stop control not warranted based on OTM Book 5</p>	Location Reviewed but No Action Required	N/A		
280	Glenvale Dr @ Cranbrook Dr	<p>Cranbrook, south of Gemini needs an all way stop</p>		<p>No action required.</p> <p>All-way stop control not warranted based on OTM Book 5</p>	Location Reviewed but No Action Required	N/A		

281	Darlington Dr @ Costain Ct	All-way stop control requested at this location.		<p>Traffic volumes were estimated at this intersection using ITE Trip Generation rates because this is a minor local intersection. The average trip generation rate for single-family detached housing (LUC 210) during a weekday in a general urban-suburban location is 1.00/dwelling unit during the more critical PM peak hour. Taking this into account and based on the number of surrounding houses that are likely to use this intersection, it was estimated that the total vehicle volume on all intersection approaches is unlikely to exceed 100 for the highest hour recorded.</p> <p>Therefore, this location does not pass the minimum volume warrant for all-way STOP control in the current and upcoming revised OTM Book 5.</p>	Location Reviewed but No Action Required	N/A		
282	Claudette Gt	<p>I live on Claudette Gate that is a long street with two curves. There is not one stop from Spadara to Garth, which is a long stretch. People constantly drive over the speed limit, and not just by a few KMS. Today, someone sped around me as I was crossing the street.</p> <p>I am bringing this to your attention before someone gets seriously injured or even worse.</p>		<p>It was observed that parking is currently prohibited on both sides of the north curve (between Roland Rd and Adele Ct). However, there are no parking prohibitions along the south curve (between Benvenuto Cres and Philomena Dr).</p> <p>It is recommended to prohibit parking on both sides of the south curve and paint a centreline at both indicated horizontal curves along Claudette Gate.</p> <p>This midblock segment does not pass the length traffic calming screening criteria. However, consider implementing lawn signs encouraging slower speeds throughout this segment. Additionally, consider installing 40 km/h "MAXIMUM SPEED" signs (Rb-1) in both directions of travel supplemented with radar speed display signs.</p>	Quick Win	\$3,500.00	The City to review parking prohibition	Year 1
283	West 33rd St @ Elmwood Rd	<p>Another concern I have is with West 33rd street and Elmwood road which is a 3way stop and an entrance to Holbrook School. There are no posted speed limits and lack proper school signage. Vehicular traffic constantly drives through the 3way stop at Elmwood Road and West 33rd street.</p> <p>Many children and families use that to access the school, and at entrance and exit times can be a nightmare of cars and trucks and danger.</p> <p>Because of the increase in younger families and children walking, playing, bike riding. Let's make are communities more family friendly, safer and stress free for parents and all involved, please do not let vehicular traffic dictate our communities.</p>		<p>Install "SCHOOL AREA" signs (Wc-1) for southbound drivers along West 33rd St just south of the intersection of West 33rd St @ Elmwood Ave and for westbound drivers along Elmwood Ave approaching this intersection.</p> <p>The speed limit in the surrounding neighbourhood is proposed to be reduced to 40 km/h in 2022. Therefore, ensure that 40 km/h "MAXIMUM SPEED" signs (Rb-1) are present along West 33rd St and Elmwood Ave when this occurs.</p> <p>Consider upgrading the existing parallel line crosswalks to ladder crosswalks to further delineate this intersection. Ensure that this intersection remains well-delineated and conduct a ward-wide educational STOP compliance campaign with random police checks and warnings.</p>	Quick Win	\$5,000.00	City to conduct educational campaign and enforcement for stop compliance	Year 1
284	Scenic Dr from Colquhoun Cres to Pleasant Ave	The section of Scenic Drive going east where it veers off to the left but the road actually goes to the right and turns in to Denlow Avenue is a dangerous section. Drivers travelling east on to Denlow cannot see cars pulling out from Pleasant Avenue turning west. I have witnessed many near misses. The vehicles seem to be travelling fast around the curve and are not prepared for anyone pulling out. Signage announcing a hidden roadway or better yet, a speed bump at the fork in the road could eliminate the possibility of a fatal t-bone accident.		<p>As per OTM Book 6, an INTERSECTION sign (controlled) (Wa-13A) with HIDDEN INTERSECTION tab sign (Wa-18t) is required because the sight distance of a driver stopped at Pleasant Ave is less than 95 m to eastbound drivers along Scenic Dr.</p> <p>Therefore, install an INTERSECTION sign (controlled) (Wa-13A) with HIDDEN INTERSECTION tab sign (Wa-18t) for eastbound drivers along Scenic Dr approaching the intersection of Denlow Ave @ Pleasant Ave.</p>	Quick Win	\$500.00		Year 1
285	Denlow Ave @ Pleasant Ave	The street light at the east corner of Pleasant at Denlow is almost completely covered by the tree at the same corner and at this time of year very little light shines down on the road at night making it even more difficult for cars and pedestrians to be visible. Tree trimming would increase the amount of lighting reaching the street.		Maintenance Issue. It will be recommended to the City to trim the tree covering the indicated street light to improve lighting conditions at this location.	Location Reviewed but No Action Required	N/A	City to conduct maintenance	

286	Garth St @ Mountain Crest Ave	The bus stop on the east side of Garth going north at Mountain Crest Avenue is accessed by the families residing on the west side of Garth by either walking to Bendamere, where there is a bus stop too or jay walking through most often fast moving traffic. A flashing light crosswalk at that location would be helpful to access the bus stop as well it would help to slow down some of the speeding vehicles travelling south in particular along the route.		Considering resident concerns regarding the lack of safe crossing opportunities at this location to access the bus stop, we recommend the installation of a PXO Level 2 Type B within this midblock segment (4 lane cross-section without raised refuge and 8-hour volume is approximately 5,644 vehicles based on 2018 TMC at Garth St @ Bendamere Ave grown to 2021). A potential location is on the south approach at the intersection of Garth St @ Mountain Crest Ave. This location is 200 m north of the signalized intersection of Garth St @ Bendamere Ave. Additionally, southbound queues were reviewed at the intersection of Garth St @ Bendamere Ave during and it was observed that the most critical southbound queue is 76 m in 2021. Therefore, existing queues will not reach the proposed PXO location and it is anticipated that future queues will also not reach the PXO as it is 124 m further north from existing southbound queues.	Short-Term Recommendation	\$50,000.00		Year 3
287	Upper Paradise Rd @ Mohawk Rd W	No tactile plates. There are concerns regarding drainage in the southeast quadrant which results in a slippery south crosswalk in the winter months when the water freezes.		Install tactile plates. Drainage concerns are a maintenance issue. Request City to maintain this location more frequently during the winter months or review the drainage at this location.	Quick Win	\$6,000.00		Year 1
288	Upper Paradise Rd @ Mohawk Rd W	Pedestrians were observed entering crosswalks with very little time left in the "Flashing Don't Walk" interval.		Install "CROSS ON WALK SIGNAL ONLY" signs (Ra-7) near the pedestrian signal heads.	Quick Win	\$2,000.00		Year 1
289	Upper Paradise Rd @ Mohawk Rd W	The crosswalk markings in the northeast quadrant meet away from the sidewalk, which may result in pedestrians waiting within the roadway if there is no space to wait on the sidewalk. It was observed that right-turning vehicles conduct their turning manoeuvre while pedestrians are still within the crosswalk even with a crossing guard present.		Consider installing curb extensions/adjusting turning radius in all intersection quadrants to provide a larger waiting area for pedestrians and may help reduce the speed of turning vehicles. Consider implementing right-turn-on-red prohibition for all approaches, subject to a review of traffic operations. CIMA+ reviewed and prepared a conceptual design. (Note: Due to the existing WBL and NBL protected-permissive phasing, LPIs are not feasible at this intersection.) Additionally, review the feasibility of implementing leading pedestrian interval (LPI) at this intersection (N-S and E-W).	Short-Term Recommendation	\$10,000.00		Year 2
290	Upper Paradise Rd @ Mohawk Rd W	It was observed that left-turning vehicles, particularly NBL and WBL vehicles, conduct their turning manoeuvre while pedestrians are still within the crosswalk even with a crossing guard present.		No Action Review the feasibility of fully protected left-turn phases in the NB and WB directions. (Note: CIMA+ reviewed converting the protected+permissive to protected only turns for NBL and WBL with NRTOR- with signal phase timing optimization, the intersection performs worse than existing. Hence it is not recommended to convert protected-permissive phasing to protected only.)	Location Reviewed but No Action Required	N/A		
291	Upper Paradise Rd @ Mohawk Rd W	It was observed that cyclists do not dismount from their bicycles when crossing the north-south crosswalks at this location. Additionally, these crosswalks are not designated bicycle crosswalks.		The City has plans to add buffered bicycle lanes with barriers through the missing gap at the intersection of Upper Paradise Rd @ Mohawk Rd W. This will allow cyclists to safely travel through the intersection. As an interim countermeasure, consider installing "Dismount and Walk" signs (Rb-70) at this location.	Quick Win	\$2,000.00		Year 1
292	Juliebeth Dr	Resident request for traffic calming.		No action. Speed data provided by the City shows 85th percentile speed of 43 km/h in northbound and 45 km/h in southbound direction. If speed is not greater than 7 km/h above the posted speed limit, no action is required.	Location Reviewed but No Action Required	N/A		
293	Trevi Rd	Resident request for traffic calming.		No action. Speed data provided by the City shows 85th percentile speed of 42 km/h in westbound and 44 km/h in eastbound direction. If speed is not greater than 7 km/h above the posted speed limit, no action is required.	Location Reviewed but No Action Required	N/A		
294	Kordun St @ Juliebeth Dr	All-way stop control requested at this location.		No action required. All-way stop control not warranted based on OTM Book 5	Location Reviewed but No Action Required	N/A		
295	Denlow Ave	85th percentile speed 8 km/h above speed limit.		This midblock segment does not pass the length traffic calming screening criteria. However, the speed limit in the surrounding neighbourhood is proposed to be reduced to 40 km/h in 2022. Therefore, ensure that a 40 km/h "MAXIMUM SPEED" sign (Rb-1) is present in both directions of travel when this occurs. Additionally, consider implementing lawn signs encouraging slower speeds throughout this segment as well.	Quick Win	\$1,500.00		Year 1

296	Greenshire Dr @ Glenayr St	There are lots of children crossing here during school hours and to access the park. It is also a bus stop area. While driving down the hill (Glenayr) towards Greenshire you have to be very close to the edge of the road to see traffic on Greenshire making it difficult for pedestrians and also drivers. People/children's safety would greatly benefit from a cross walk here.		Apply a stop bar with a ladder crosswalk and adjust the location of the Stop Sign at Glenayr. Clear vegetation on the west side to improve sight lines.	Quick Win	\$500.00		Year 1
297	Garth Street @ Regent Avenue	This median /flower bed needs to be removed. People from the south and north on Garth are trying to get into either Regent or the townhouses at 1455 Garth and there is no room for both to make the turn at the same time. Also this stretch of Garth has a lot of speeding.		There is an area available at the intersection for a refuge for SB vehicles to turn left. It is recommended the City conduct turning counts and/or surveys to confirm operational issues at this intersection. Once data has been collected and if a further continuation of the two-way left-turn lane is warranted, the analysis will identify the length of extension required.	Location Reviewed but No Action Required	N/A	City to conduct further study	
298	Upper Paradise @ Mohawk Road	Advanced left turn arrow lights are only there for 2 of the 4 directions that can make a left turn. We need to make available for all 4 sides, since it's a busy intersection.		Implement NRTOR with existing protected+permissive left turns. Traffic operations to be reviewed at this intersection. Review the need of advance left turn arrows along Mohawk Road (Note: CIMA+ also reviewed the protected+permissive left turns for all movements with NRTOR. This improves the operations at critical movements)	Quick Win	\$500.00		Year 1
299	Mohawk Road @ Westcliffe Mall Entrance	There is no reason that the plaza needs such generous curb cuts and such a large crossing distance for pedestrians (given the sidewalks don't line up). Should change the curbs so they are not so generous to cars/encourage cars to slow down, and paint a ladder crosswalk for pedestrians.		Tighten the turning radius and realign the pedestrian sidewalk to bring it closer so that crossing pedestrians are more visible to the turning traffic. Change the concrete drive to asphalt driveway to make the sidewalks more visible.	Short-Term Recommendation	\$5,000.00		Year 2
300	Old Mohawk road Outside Chartwell Willowgrove Long Term Care	Parking on both sides of the street in this area causes driving difficulties, and is mainly used for the nursing home. the nursing home should be required to provide more parking on their grounds, not rely on on-street parking.		It appears that motorists park in the no parking area on the bike lane. Consider changing the no parking area to no stopping zone. It is likely to ease the driving as the parking will be only on one side.	Quick Win	\$1,000.00		Year 1
301	Scenic Drive Between Angela Avenue and 34th St	A lot of accidents happen at this bend		Consider extending the steelbeam guiderail further east to shield the wooden non-breakway lighting pole and provide an appropriate end treatments on both sides of the guiderail.	Short-Term Recommendation	\$15,500.00		Year 3

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