

Traffic and Safety Conditions Review of the North Riverdale Neighbourhood

Date: September 23, 2021

To: Toronto and East York Community Council

From: Director, Planning & Capital Program, Transportation Services

Wards: Ward 14, Toronto-Danforth

SUMMARY

Residents of the North Riverdale neighbourhood have expressed concerns with traffic operations in their neighbourhood. Common concerns relate to speeding, cut-through traffic, vehicle traffic volumes, and safety of pedestrians. The purpose of this report is to respond to Toronto and East York Community Council's request to investigate measures that could improve traffic management and safety in the area, with particular interest for improvements near the Hogarth Avenue and Ingham Avenue intersection. A traffic and safety conditions review was conducted to examine the physical characteristics, travel behaviours and traffic operations in the North Riverdale neighbourhood, defined for the purposes of this study as the street network in the area bounded by Withrow Avenue to the south, Broadview Avenue to the west, Danforth Avenue to the north, and Logan Avenue to the east.

Best available traffic data indicates that the majority of road users comply with regulatory speed limits, and the volume of vehicles is within the level appropriate for their classification as local roads. Several interventions have been implemented to encourage preferred driver behaviours, including a speed limit reduction on all local roads, restriction to one-way travel on most roads in the neighbourhood, crossing guards on school routes, pedestrian crossovers, speed humps, curb extensions and all-way stop controls at the majority of intersections.

There may be immediate opportunities to improve sightlines through by-law enforcement, and opportunities to narrow lane widths by placing mobility infrastructure such as bike parking corrals or bike share stations. Future possibilities include realignment of intersections, installation of a missing sidewalk, installation of speed humps, and implementation of one-way road configurations. Information about how these possibilities can be pursued, including an example option for "one-way maze" road configuration are included in the report. It is recommended that Toronto and East York Community Council receive this for information.

RECOMMENDATIONS

The Director, Transportation Services, Planning and Capital Program recommends that:

1. Toronto and East York Community Council receive this report for information.

FINANCIAL IMPACT

There is no financial impact resulting from the adoption of the recommendation in this report.

DECISION HISTORY

Toronto and East York Community Council, at its meeting on April 21, 2021, adopted Item TE24.94 which requested the General Manager, Transportation Services to report back to the October 14, 2021 Toronto and East York Community Council meeting on Item TE4.72. The Committee decision can be found at:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2021.TE24.94>

Toronto and East York Community Council, at its meeting on February 18, 2015, adopted Item TE4.72 which requested the General Manager, Transportation Services to prepare a report with a suite of options to prevent commuter traffic from cutting through the neighbourhood streets of Hogarth Avenue and Ingham Avenue. The Committee decision can be found at:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2015.TE4.72>

COMMENTS

In response to the Community Council requests staff have assessed the street network in North Riverdale, defined as the area bounded by Withrow Avenue to the south, Broadview Avenue to the west, Danforth Avenue to the north, and Logan Avenue to the east. Refer to Attachment 1 for a map of the study area.

The first section of the report provides an overview of existing conditions; the second section provides a summary of traffic calming measures - those that have been taken, those that are planned, and those that are potential options in the future; and the third section provides a summary of options to proceed.

Existing Conditions

Study Focus

Residents of the North Riverdale neighbourhood have expressed concerns with traffic operations in their neighbourhood, with particular interest in the intersection of Hogarth Avenue and Ingham Avenue. Three primary issues have been raised: volume and infiltration of traffic; speeding; and safety of pedestrians. Residents believe that the road network in the neighbourhood is being used by commuters to avoid the adjacent

arterials, and bypass the Broadview Avenue and Danforth Avenue intersection. Concerns with motorists driving above the speed limit have also been raised due their potential impact on safety in the area, particularly that of pedestrians. A review was undertaken to analyze traffic behaviour and safety conditions in the area.

Street Network Characteristics

The North Riverdale area is comprised of a network of local roads and public laneways, bounded by arterial roads on the west and north sides, and a collector road on the east side. The majority of the area is designated for residential use; there is commercial designation fronting the two arterial roads. Toronto Transit Commission (TTC) service is available on Danforth Avenue and Broadview Avenue.

The road network within the residential neighbourhood has speed limits of 30 km/h. Sidewalks are available on both sides of all roadways in the neighbourhood, with the exception of a short segment of Sparkhall Avenue. Permit parking is available on most roads in the neighbourhood. Both the road and sidewalk widths are built to legacy standards. Roads are between 6.4 metres to 8.6 metres, slightly wider than the current guideline that recommends a maximum of 3.0 m per travel lane for streets operating at 30km/hr or less. Sidewalks are 1.7m, on average, consistent with the current standard of 1.5m minimum.

Bike lanes are available on Danforth Avenue and a portion of Logan Avenue between Bain Avenue and McConnell Avenue. Signed cycling routes exist on Hogarth Avenue between Broadview Avenue and Logan Avenue, and the remainder of Logan Avenue. Bicycle parking and Bike Share Toronto stations are available along the periphery of the study area along Broadview Avenue, Danforth Avenue and in Withrow Park.

There are two schools in the North Riverdale Neighbourhood: Frankland Community School and Withrow Avenue Junior Public School. The area surrounding Frankland Community School was designated as School Safety Zone in November 2020, and Withrow Avenue was designated as a Community Safety Zone in 2019. Flashing beacons were installed near the intersection of McConnell Ave and Logan Ave in November 2020.

Context of Community Concern

Road users may desire to cut through a neighbourhood and detour off arterials when traffic volumes and intersection wait times are high. The road network in the North Riverdale neighbourhood has a grid-like pattern and provides a direct connection to Broadview Avenue and Danforth Avenue, the arterials within which the neighbourhood is bound. Roads near the intersection, like Bowden Street and Hampton Avenue, may attract traffic off of Danforth Avenue into the neighbourhood. Hogarth Avenue and Wolfrey Avenue are the only east/west roads that allow two-way traffic, both providing connections to and from Broadview Avenue. These characteristics lend themselves to infiltration as road users may decide to use the local roads in the neighbourhood as an alternative route to main arterials. High traffic volumes on Broadview Avenue and Danforth Avenue may motivate road users to seek alternate routes to avoid traffic during the popular commuting times.

The Covid-19 pandemic and associated behaviour changes have caused a considerable growth in the customer base for home delivery services. Neighbourhood-level data is not available at this time. However, there is reason to believe this trend could be affecting the North Riverdale neighbourhood resulting in unrecognized vehicles, including small trucks and vans, to use local streets to access customers at their home. These vehicles can be mistaken as cut-through traffic but are considered to be local traffic if their final destination is on a street in the neighbourhood.

Speeding has been cited as a community concern in the North Riverdale neighbourhood. In 2019, the speed limit was reduced from 40 km/h to 30 km/h on all local roads in the North Riverdale neighbourhood. Traffic calming interventions like speed humps, parking and curb extensions encourage compliance with speed limits. However, some road segments and sections of the neighbourhood may experience speeding as a result of the physical environment. For example, the slopes on Ingham Avenue and Hampton Avenue could lead to vehicles travelling faster than the regulatory speed limit in the downhill (southbound) direction.

The Hogarth Avenue and Ingham Avenue intersection has been identified by residents as an area of concern within the neighbourhood. Hogarth Avenue is an east/west street that connects Broadview Avenue to Logan Avenue. It is one of the only east/west roads in the neighbourhood that permits two-way traffic and may be a desirable route for east and west travelling traffic. Hogarth Avenue has all-way stop controls at every intersection along the full length of the road. Ingham Avenue is a north/south street that connects Hogarth Avenue to Bain Avenue and permits two-way traffic. Ingham Avenue has a steep southward slope that could lead to speeding issues (travelling away from the intersection).

Ingham Avenue has an atypical road geometry and irregular alignment at the intersection with Millbrook Crescent resulting in wide crossing distances for pedestrians. East-west movement is controlled by stop signs while north-south movement is given the right of way. These unique characteristics may impact the risk of conflicts among road users.

Traffic Studies and Data Analysis (10 Year History)

Available Data

Local traffic data was compiled and analyzed to assess traffic trends in the neighbourhood, and identify potential areas of concern. Traffic studies and counts are completed in the City to quantify travel behaviours relating to speed and volume. Available datasets in the North Riverdale neighbourhood range from one to twenty years old. As a result of the Covid-19 pandemic, new traffic counts could not be taken for the purpose of this study. The City's traffic count program was suspended during lockdowns, and irregular traffic movements throughout the pandemic undermine the reliability of pattern observation. In stable neighbourhoods like North Riverdale, existing patterns tend to be longstanding and observable in older data combined with extrapolation of trends noted in more recent data from nearby or comparable neighbourhoods.

Traffic Volume and Travel Patterns

The available data suggests that traffic volumes are below expectations on local roads, compliance with regulatory speed limits is common for the majority of motorists, and there is not a significant volume of vehicles infiltrating off arterials into the neighbourhood.

Careful attention was paid to the review of the intersection of Hogarth Avenue and Ingham Avenue, the location highlighted as a specific community concern. Turning movement counts were performed at the intersection in March 2008. The data indicated that the volume of traffic using the intersection was significantly below the intended maximum for a local road (2500 vehicles per day); in the AM peak (08:30–09:30), there were 99 vehicles observed traveling westbound and 21 vehicles traveling eastbound through the intersection. In PM peak (14:00–15:00), there were 48 vehicles observed traveling westbound and 28 vehicles traveling eastbound through the intersection. Best estimates suggest that any growth in traffic since 2008 remains well within the guideline of 2500 vehicles per day for local roads. Traffic volumes are understood to be higher on Hogarth Avenue than parallel streets due to its higher connectivity within the neighbourhood which makes it a key route for area residents.

Road Safety (10 Year History)

Collision history from the last ten years was reviewed with a special emphasis on collisions involving vulnerable road users, and those that resulted in a death or serious injury. Collision history provided by the Toronto Police Service for the ten-year period ending in May 2021, disclosed 9 collisions that resulted in a death or serious injury in the North Riverdale neighbourhood. All nine collisions took place on the arterial roads (Danforth Avenue or Broadview Avenue) that bound the neighbourhood. At the intersection of Hogarth Avenue and Ingham Avenue, only two collisions were recorded in the last ten years. Both of the collisions were single motor vehicle collision that did not involve other vehicles, pedestrians or cyclists, and resulted in property damage only.

Refer to Attachment 2 for a summary of collisions by year, and more detail about the collisions resulting in death or serious injury.

Traffic Management Measures

Traffic Management Measures In Place Today

Speed management tools like speed humps, speed bumps and curb extensions have been installed on several streets in the North Riverdale neighbourhood to encourage slower travel speeds. The [Vision Zero Road Safety Plan](#), and [Vision Zero Speed Management Strategy](#) included the reduction of speed limits from 40 km/h to 30 km/h on all local roads and public lanes; this has been implemented on all roads in North Riverdale. It also led to the reduction of the speed limit on Danforth Avenue from 50 km/h to 40 km/h.

Volume and infiltration management tools like one-way roads and turn restrictions have been implemented to reduce the number of vehicles in the area and channel through traffic onto the nearby arterials. One-way travel has been implemented on many streets

in the North Riverdale neighbourhood including Hampton Avenue, Logan Avenue, Dearbourne Avenue and Fairview Boulevard.

Traffic at intersections is typically controlled by stop signs; the majority are all-way stop controls. A turn restriction was implemented at the intersection of Bowden Street and Danforth Avenue in 2012 to prevent traffic exiting the neighbourhood and turning right onto Danforth Avenue between 4:00 p.m. and 6:00 p.m. This measure discourages motorists from using Bowden Street as a through-route and diverts traffic to the signalized intersection at Logan Avenue and Danforth Avenue.

Safety management tools like pedestrian crossing facilities, community safety zones, school safety zones, and school crossing guards improve safety and visibility for vulnerable road users at busy intersections. Pedestrian crossing facilities enhancing pedestrian protection at three common crossing points and school crossing guards are available at four intersections in the study area.

Refer to Attachment 3 for a complete inventory of traffic management interventions implemented in the North Riverdale neighbourhood to date.

Planned Traffic Management Measures

All but one road in the North Riverdale neighbourhood have sidewalks. The segment of Sparkhall Avenue that is missing a sidewalk is documented in the inventory maintained by the City's Missing Sidewalk program. Sidewalk installation will be considered the next time major road work on Sparkhall Avenue is being undertaken. This work is not yet programmed.

On field visits associated with this traffic review, staff observed that the level of growth of bushes and shrubs located at the south-west and east-west corners of the Hogarth Avenue and Ingham Avenue intersection, may cause sightline issues for motorists travelling in all directions and pose a safety risk to road users. Transportation staff will be requesting the owners of the neighbouring properties to trim this vegetation to restore sightlines at this intersection.

Potential for Additional Traffic Management Measures

The City's commitment to the Vision Zero principle guides traffic management efforts to areas that have an established pattern of collisions resulting in death and serious injury. The City's commitment to fiscal responsibility guides street modification efforts to be bundled into civil works, such as introducing a new pavement marking plan or curb changes as part of scheduled resurfacing projects in the state-of-good-repair program. It is uncommon for significant changes to the street to be undertaken as a request-based standalone project, with the exception of the Traffic Calming Program which delivers speed humps on a request basis.

Past efforts have made use of many of the 'quick wins' available for this area. However, there are a few additional interventions that may be pursued as immediate possibilities or have long-term potential. For example, local improvements will be considered if and

as an opportunity arises to bundle roadwork with other planned investment in the street network in this area.

Strategic Bump-outs

Narrowing the roadway at strategic "bump-outs" typically reduces travel speeds, and can encourage multi-modal travel in the neighbourhood. At appropriate locations, bike parking corrals or a bike share station can be placed in the roadway and serve as a bump-out in addition to their primary function. Installation of these on-street items can be explored in the near-term at the Ward Councillor's discretion. Painted or reconstructed curb lines may be considered if and as streets are due for resurfacing or other civil work.

Regulatory Restrictions

Turn restrictions to or from arterial roads are not recommended as a traffic management strategy in the North Riverdale neighbourhood. Available data suggests that traffic volumes are well within the capacity of local roads, and travel patterns do not include significant levels of through-traffic. Turn restrictions will negatively impact residents' access to their homes and local amenities with little guarantee of positive benefits.

Additional one-way travel restrictions could be considered for some of the remaining two-way streets in the neighbourhood: Hogarth Avenue; Sparkhall Avenue and Bowden Street. As with turn restrictions to and from arterials, creating a "one-way maze" would impact residents, visitors, and deliveries as well as through-traffic. Unlike turn restrictions, one-way mazes can be reinforced with physical diverters forcing vehicles to comply, while allowing through-traffic by active modes (walking, cycling, etc.). An example of one-way maze pattern that could be considered in this neighbourhood is attached in Attachment 4. There are several possible one-way configurations that could be considered, if this option were pursued further. The example in Attachment 4 is included as a demonstration for discussion purposes only. One-way configurations would require further technical review and community engagement.

Traffic Calming - Speed Humps

There are streets in North Riverdale that do not currently have speed humps which may qualify. Requests for traffic calming speed humps can be initiated by the Ward Councillor following a public meeting, or upon receipt of a petition signed by at least 25% of affected households (or 10% in case of multi-family rental dwellings), or by a survey conducted by the Ward Councillor. When a request for traffic calming is received, staff assess it to ensure that it meets the stipulated technical and safety requirements. After a technical review, staff report on their recommendation to Community Council. Traffic calming is typically only recommended on streets where a formal poll confirms support from the majority of local residents. Residents can be given "Slow Down" lawn signs immediately upon request. This tactic is most impactful when a series of neighbouring homes puts up a sign.

Local Geometric Safety Improvements

The intersection of Ingham Avenue and Millbrook Crescent has irregular alignment due to the curvature of the roads, resulting in an expansive roadway that exceeds the requisite space for travel lanes. The intersection does not have clear pavement markings and provides excessively wide crossing distances for pedestrians. Additionally, it is located at the bottom of a slope and may experience speeding southbound traffic. A future road redesign project could determine feasible options for reallocation of space, such as curb radius reduction, curb extension and raised crosswalk. Projects of this nature are referred to as Local Geometric Safety Improvements and are programmed as part of the City's capital budget for road works. The cost and complexity of this work requires that potential projects be carefully considered and prioritized to uphold the Vision Zero principle and fiscal responsibility as discussed above. Any road work of this nature at this location would next be considered as part of a larger state-of-good-repair project.

Conclusions and Options to Proceed

Available traffic data suggests that traffic volumes are below expectations on local roads, compliance with regulatory speed limits is common for the majority of motorists, there is no pattern of collisions on local streets, and there is not a significant volume of vehicles infiltrating off arterial roads into the neighbourhood. Many 'quick win' traffic management strategies have been used in North Riverdale to achieve the current high performance of the road network.

As a result of this review, action will be taken to restore sightlines impaired by overgrown shrubs at the intersection of Hogarth Avenue and Ingham Avenue. Mobility infrastructure such as bike parking corrals or bike share stations could be placed on-street at strategic locations, in consultation with the Ward Councillor to narrow the roadway while improving options for multi-modal travel. Redesign of roadways, including alteration of curb lines, will be considered as part of larger state-of-good-repair projects when they are next scheduled for this area or other major investments are being made in the local road network, such as those related to major development. A "one-way maze" is the possible regulatory change anticipated to be most successful in diverting cut-through traffic; it would have equally significant impacts on local residents. This possibility would require further technical review and community engagement.

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ATTACHMENTS

Attachment 1 - Map of North Riverdale Study Area
Attachment 2 - Collision Data Review for North Riverdale Study Area
Attachment 3 - Traffic Calming Installation Review for North Riverdale Study Area
Attachment 4 - North Riverdale One-way Street Maze Demonstration for Discussion
Purposes

Attachment 1 - Map of North Riverdale Study Area



Attachment 2 - Collision Data Review for North Riverdale Study Area

Collision history from the last ten years was reviewed with a special emphasis on collisions involving vulnerable road users, and those that resulted in a death or serious injury. In the last ten years there were 9 collisions that resulted in a person being killed or seriously injured (KSI collision) in the North Riverdale neighbourhood. All nine collisions took place on the arterial roads which bound the neighbourhood (Danforth Avenue or Broadview Avenue). Table 1 provides an inventory of the location, date and collision type for each.

Table 1: KSI Collision History (2011-2021) in the study area

Location	Date	Collision type
Broadview Avenue and Montcrest Boulevard	March 19, 2020	Vehicle - Vehicle
Arundel Avenue and Danforth Avenue	December 9, 2019	Vehicle - Pedestrian
Danforth Avenue and Chester Avenue	May 10, 2019	Vehicle - Vehicle
Danforth Avenue and Broadview Avenue	October 26, 2018	Vehicle - Vehicle
Logan Avenue and Danforth Avenue	September 26, 2016	Single Vehicle
Broadview Avenue and Dearbourne Avenue	April 24, 2015	Vehicle - Pedestrian
Broadview Avenue and Fairview Boulevard	June 16, 2014	Single Vehicle
Danforth Avenue and Broadview Avenue	August 3, 2013	Vehicle - Vehicle
Broadview Avenue and Bain Avenue	February 20, 2012	Vehicle - Pedestrian

Attachment 3 - Traffic Management Inventory for North Riverdale Study Area

Many 'quick win' traffic management strategies have been used in North Riverdale to achieve the current high performance of the road network. Table 1 provides an inventory of traffic management strategies implemented in the North Riverdale Study Area.

Table 1: List of Traffic Management Inventory

Strategy	Intersection/ Street	Location detail	Quantity	Installation Date
Speed Humps	Hampton Avenue	Danforth Avenue to Wolfrey Avenue	2	Aug-16
Speed Humps	Wolfrey Avenue	Broadview Avenue to Bowden Street	5	Sep-08
Speed Humps	Withrow Avenue	Broadview Avenue to Logan Avenue	5	Sep-05
Speed Humps	Fairview Boulevard	Broadview Avenue to Bowden Street	5	May-04
Speed Humps	Bain Avenue	Ingham Avenue to Logan Avenue	4	May-04
Speed Humps	Dearbourne Avenue	Broadview Avenue to Bowden Street	5	Sep-02
Speed Bumps	Laneway system	bounded by Wolfrey Avenue, Bowden Street and Hampton Avenue	N/A	N/A
Curb extension and Concrete Walks	Hogarth Avenue & Logan Avenue	Southwest Corner	2	Jun-97
Curb extension	Grandview Avenue & Logan Avenue	Southwest Corner	2	Jun-97
Curb extension	Sparkhall Avenue & Logan Avenue	Southwest Corner	2	Jun-97
Curb extension and Concrete Walks	Bain Avenue & Logan Avenue	Southwest and southeast corners	3	Jun-97
Curb extension and Concrete Walks and Textured asphalt	Withrow Avenue & Logan Avenue	Northwest, southwest and southeast corners	4	Jun-97
Mid-Block Pinch Point and Concrete Walk	Logan Avenue	West side, between Danforth Avenue and Garnock Avenue, south of the Frankland Community school.	1	Jun-97

Strategy	Intersection/ Street	Location detail	Quantity	Installation Date
Right turn restriction during PM Peak hours (4:00 p.m. to 6:00 p.m., Monday to Friday)	Bowden Street & Danforth Avenue	Northbound	1	N/A
Flashing Beacon	McConnell Avenue & Logan Avenue	N/A	N/A	Nov-20
One-way Street - Eastbound	Sparkhall Avenue	Hampton Avenue to Logan Avenue	N/A	Nov-19
One-way Street - Westbound	Dearbourne Avenue	Broadview Avenue to Bowden Street	N/A	N/A
One-way Street - Eastbound	Fairview Boulevard	Broadview Avenue to Bowden Street	N/A	N/A
One-way Street - Eastbound	Grandview Avenue	Hampton Avenue to Logan Avenue	N/A	N/A
One-way Street - Westbound	Albemarle Avenue	Hampton Avenue to Logan Avenue	N/A	N/A
One-way Street - Eastbound	Sparkhall Avenue	Hampton Avenue to Logan Avenue	N/A	N/A
One-way Street - Southbound	Hampton Avenue	Danforth Avenue to Hogarth Avenue	N/A	N/A
One-way Street - Northbound	Logan Avenue	Gerrard Street E to Danforth Avenue	N/A	N/A
One-way Street - Eastbound	Bain Avenue	Broadview Avenue to Pape Avenue	N/A	N/A
One-way Street - Westbound	Withrow Avenue	Pape Avenue to Broadview Avenue	N/A	N/A
School Crossing Guard	Broadview Avenue & Wolfrey Avenue	PXO Control	N/A	N/A
School Crossing Guard	Danforth Avenue & Logan Avenue	Signalized Intersection	N/A	N/A
School Crossing Guard	814 Logan Avenue	Midblock	N/A	N/A
School Crossing Guard	Logan Avenue & Withrow Avenue	Stop Control Intersection	N/A	N/A
Pedestrian Crossovers Facility	Broadview Avenue & Wolfrey Avenue	North Leg	1	N/A
Pedestrian Crossovers Facility	Broadview Avenue & Millbrook Crescent	North Leg	1	N/A
Pedestrian Crossovers Facility	Logan Avenue & Mc Connell Avenue	North Leg	1	N/A

Attachment 4 - North Riverdale One-way Street Maze Demonstration for Discussion Purposes

