

Corridor Safety Review - O'Connor Drive (Traffic Control Signal Update)

Date: May 12, 2022

To: Toronto and East York Community Council

From: Director, Traffic Management, Transportation Services

Wards: Ward 14, Toronto - Danforth

SUMMARY

At its meeting of January 6, 2022, Toronto and East York Community Council (TEYCC) adopted, as amended, Item TE30.24 regarding a corridor safety review on O'Connor Drive (Ward 14). Evaluation of the installation of traffic control signals at various intersections along O'Connor Drive was intended to be included as part of Item TE30.24, but staff's investigation was delayed due to the pandemic and the inability to collect the necessary traffic count data representative of true traffic conditions.

In this supplementary report, Transportation Services has now collected and reviewed updated traffic count data and this report provides an evaluation of the need for traffic control signals at three intersections along O'Connor Drive, between Broadview Avenue and Coxwell Avenue. Based on the assessment undertaken, Transportation Services does not recommend the installation of traffic control signals at these intersections as the warrant criteria was not met.

RECOMMENDATIONS

The Director, Traffic Management, Transportation Services 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 the report.

DECISION HISTORY

On February 2 and 3, 2022, City Council adopted Item TE30.24 as amended (Corridor Safety Review - O'Connor Drive), approving the prohibition of northbound and southbound right turn on red movements at O'Connor Drive and Donlands Avenue. The report also provided updates on a number of other items not requiring Council approval. Requests requiring further study or consultation were to be addressed in a subsequent report.

A supplementary report was also submitted directly to City Council on February 2, 2022, providing the following updates:

- A detailed list of new pavement markings and the streets where pavement markings are being installed
- A specific report back date for each of the potential improvements still under consideration
- A report on the implementation timeline for a crossing guard at O'Connor and Pape and O'Connor and Donlands
- An update on the traffic safety improvements at O'Connor and Broadview
- A comparison of the collision history at Donlands and O'Connor with the City average.

The City Council decision can be found at:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2022.TE30.24>

On November 9, 2021, City Council adopted Item MM37.15 (O'Connor Drive Traffic Safety: Automated Enforcement and Speed Limit Reductions), directing Transportation Services to:

- report to the January 6, 2022 meeting of TEYCC on Item TE7.130
- consider installing a Red Light Camera at Pape Avenue and O'Connor Drive and report back to the Infrastructure and Environment Committee
- consider installing Automated Speed Enforcement on O'Connor Drive and report back to the Infrastructure and Environment Committee
- reduce the speed limit on O'Connor Drive from 50 km/h to 40 km/h
- attend an online community safety meeting for O'Connor Drive on November 16, 2021
- use the City's Complete Streets guidelines as the principal guiding document for the review and study of O'Connor Drive

The City Council decision can be found at:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2021.MM37.15>

On March, 12 2020, TEYCC Council adopted Item TE14.78 (No Right Turn at O'Connor Drive and Four Oaks Gate), directing Transportation Services to conduct a review of the feasibility of a right turn prohibition at O'Connor Drive and Four Oaks Gate, between the hours of 7:00 a.m. and 9:00 a.m., Monday to Friday, and report back.

The TEYCC decision can be found at:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2020.TE14.78>

On March 12, 2020, TEYCC adopted Item TE14.76 (Speed Limit Reductions in Ward 14), directing Transportation Services to reduce the speed limits on a number of streets in Ward 14, as well as requesting staff study speed limit reductions on a number of other streets, including O'Connor Drive, Pape Avenue and Donlands Avenue.

The TEYCC decision can be found at:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2020.TE14.76>

On June 25, 2019, TEYCC adopted Item TE7.130 (O'Connor Drive Intersection and Traffic Safety Review), directing Transportation Services to undertake a safety review of O'Connor Drive, including a review of the existing and necessary turn restrictions at the intersections with Donlands Avenue and Pape Avenue, a review of signal co-ordination and the need for left-turn phases and a study for any additional considerations to improve overall safety and make O'Connor Drive safer for pedestrians to cross.

The TEYCC decision can be found at:

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2019.TE7.130>

COMMENTS

Transportation Services is reporting to provide an update on the O'Connor Drive corridor safety review to evaluate the installation of traffic control signals at the intersections of O'Connor Drive at Athlone Road, O'Connor Drive at Warland Avenue and O'Connor Drive at Beechwood Crescent.

Existing Conditions

O'Connor Drive is characterized by the following conditions:

- It is a four-lane, east-west, roadway that is classified as a minor arterial west of Pape Avenue and a major arterial east of Pape Avenue
- It operates two-way traffic on a pavement width of approximately 14 metres
- The daily two-way traffic volume is approximately 36,000 vehicles
- The speed limit is 40 km/h
- Heavy trucks are prohibited from 7:00 p.m. of one day to 7:00 a.m. of the following day

- The TTC service is provided by the 8 Broadview bus
- There are sidewalks provided on both sides of the street
- It has been designated as a Community Safety Zone (CSZ) between Pape Avenue and Woodbine Avenue, since 1998

Beechwood Crescent is characterized by the following conditions:

- It is a two-lane, east-west/north-south, roadway that is classified as a local
- It operates two-way traffic on a pavement width of approximately 9 metres
- The daily two-way traffic volume is approximately 300 vehicles
- The speed limit is 30 km/h
- Heavy trucks are prohibited at all times
- There is no TTC service provided
- There are sidewalks provided on both sides of the street

O'Connor Drive and Beechwood Crescent form a "T" type intersection. Beechwood Crescent is stop controlled while O'Connor Drive is uncontrolled free-flow. The closest adjacent traffic controls are located at approximately 390 metres east, at Pape Avenue and at approximately 280 metres to the west and south, at Broadview Avenue and Torrens Avenue in the form of traffic control signals and pedestrian crossover, respectively.

Warland Avenue is characterized by the following conditions:

- It is a two-lane, north-south, roadway that is classified as a local
- It operates two-way traffic on a pavement width of approximately 8.5 metres
- The daily two-way traffic volume is approximately 500 vehicles
- The speed limit is 30 km/h
- Heavy trucks are prohibited at all times
- There is no TTC service provided
- There are sidewalks provided on both sides of the street

O'Connor Drive and Warland Avenue form a four-leg intersection. Warland Avenue is stop controlled while O'Connor Drive is uncontrolled free-flow. The closest adjacent traffic controls are located at approximately 260 metres east, at Donlands Avenue and at approximately 170 metres west, at Rivercourt Boulevard in the form of traffic control signals.

Athlone Road is characterized by the following conditions:

- It is a two-lane, north-south, roadway that is classified as a local
- It operates two-way traffic on a pavement width of approximately 9 metres
- The daily two-way traffic volume is approximately 600 vehicles
- The speed limit is 30 km/h
- Heavy trucks are prohibited at all times
- There is no TTC service provided
- There are sidewalks provided on both sides of the street

O'Connor Drive and Athlone Road form a "T" type intersection. Athlone Road is stop controlled while O'Connor Drive is uncontrolled free-flow. The closest adjacent traffic controls are located at approximately 240 metres east, at Four Oaks Gate and at approximately 210 metres west, at Rivercourt Boulevard in the form of traffic control signals.

These intersections have been selected based on their proximity to TTC stops and other pedestrian generators, as well as their desirable spacing with the existing adjacent traffic control signals.

A map of the area is included in Attachment 1.

Traffic Control Signals

To determine the need for traffic control signals at the subject intersections, staff rely on the justification criteria as outlined in the Ontario Traffic Manual (OTM) Book 12. The OTM justification criteria includes factors such as volume of vehicles and pedestrians, delay to cross traffic, and collision history. In addition to these technical justifications, staff consider an environmental checklist which includes consideration of road width, posted speed limit, operating speeds, adjacent land uses, pedestrian desire lines and demographics, presence of a transit stop, sight lines, and distance between existing crossing opportunities.

O'Connor Drive and Beechwood Crescent

As part of the investigation, staff conducted vehicle and pedestrian counts on November 4, 2021 at the intersection of O'Connor Drive and Beechwood Crescent. The results of the counts and collision hazard are summarized in Table 1. The "Collision hazard" criterion is based on the number of collisions potentially preventable by the installation of traffic control signals. Collision history provided by the Toronto Police Service for the three-year period ending December 31, 2021 did not disclose any collisions at the subject intersection, which was potentially preventable by the installation of traffic control signals.

Table 1: Warrant Compliance - O'Connor Drive and Beechwood Crescent

Justification	Compliance level
Minimum vehicular volume	8%
Delay to cross traffic (pedestrians and vehicles)	22%
Collision hazard	0%

To meet the justification criteria for the installation of traffic control signals, one of the justifications must be 100 percent satisfied or the Minimum vehicle volume and Delay to cross traffic justifications must be at least 80 percent satisfied. Based on the results in Table 1, the installation of traffic control signals is not justified at the intersection of O'Connor Drive and Beechwood Crescent.

O'Connor Drive and Warland Avenue

As part of the investigation, staff conducted vehicle and pedestrian counts on November 4, 2021 at the intersection of O'Connor Drive and Warland Avenue. The results of the counts and collision hazard are summarized in Table 2. The "Collision hazard" criterion is based on the number of collisions potentially preventable by the installation of traffic control signals. Collision history provided by the Toronto Police Service for the three-year period ending December 31, 2021 disclosed one collision at the subject intersection, which was potentially preventable by the installation of traffic control signals.

Table 2: Warrant Compliance - O'Connor Drive and Warland Avenue

Justification	Compliance level
Minimum vehicular volume	16%
Delay to cross traffic (pedestrians and vehicles)	27%
Collision hazard	7%

To meet the justification criteria for the installation of traffic control signals, one of the justifications must be 100 percent satisfied or the Minimum vehicle volume and Delay to cross traffic justifications must be at least 80 percent satisfied. Based on the results in Table 1, the installation of traffic control signals is not justified at the intersection of O'Connor Drive and Warland Avenue.

O'Connor Drive and Athlone Road

As part of the investigation, staff conducted vehicle and pedestrian counts on December 14, 2021 at the intersection of O'Connor Drive and Athlone Road. The results of the counts and collision hazard are summarized in Table 3. The "Collision hazard" criterion is based on the number of collisions potentially preventable by the installation of traffic control signals. Collision history provided by the Toronto Police Service for the three-year period ending December 31, 2021 disclosed a total of three collisions at the subject intersection, one of which was potentially preventable by the installation of traffic control signals.

Table 3: Warrant Compliance - O'Connor Drive and Athlone Road

Justification	Compliance level
Minimum vehicular volume	3%
Delay to cross traffic (pedestrians and vehicles)	0%
Collision hazard	7%

To meet the justification criteria for the installation of traffic control signals, one of the justifications must be 100 percent satisfied or the Minimum vehicle volume and Delay to cross traffic justifications must be at least 80 percent satisfied. Based on the results in Table 2, the installation of traffic control signals is not justified at the intersection of O'Connor Drive and Athlone Road.

Other Considerations

If, despite the findings above, City Council decides to proceed with installing traffic control signals, the following impacts should be noted:

- There is potential for increase in delays to motorists and transit services on O'Connor Drive
- There is the potential for increased traffic on Athlone Road, Warland Avenue and Beechwood Crescent
- There will be loss of parking due to the 30.5 metres parking prohibition associated with the installation of a traffic control signal at all approached of the intersections

The Ward Councillor has been advised of the recommendation in this report.

CONTACT

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SIGNATURE



for
Roger Browne, M.A.Sc., P. Eng.
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ATTACHMENTS

Attachment 1: Area Map: O'Connor Drive, between Broadview Avenue and Coxwell Avenue

