

Traffic Control Signals - Meadowvale Road and Rotary Drive

Date: September 3, 2024

To: Scarborough Community Council

From: Director, Traffic Management, Transportation Services

Wards: Ward 25, Scarborough-Rouge Park

SUMMARY

As the Toronto Transit Commission (TTC) operates a transit service on Meadowvale Road, City Council approval of this report is required.

Transportation Services has reviewed the need for traffic control signals at the intersection of Meadowvale Road and Rotary Drive. Based on the assessment undertaken, Transportation Services does not recommend the installation of traffic control signals at this intersection as the warrant criteria was not met.

RECOMMENDATIONS

The Director, Traffic Management, Transportation Services recommends that:

1. City Council not authorize the installation of traffic control signals at the intersection of Meadowvale Road and Rotary Drive.

FINANCIAL IMPACT

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

If City Council amends the recommendation in this report and authorizes the installation of traffic control signals at the intersection of Meadowvale Road and Rotary Drive, the estimated cost is \$220,000.00. This installation would be considered in 2025 subject to availability of Capital funding and competing priorities.

DECISION HISTORY

On January 19, 2024, Scarborough Community Council adopted Item SC10.15 entitled "Bus Service at Rotary Drive and Meadowvale Road" and directed Transportation Services staff to review the feasibility of installing a pedestrian crossing at the intersection of Meadowvale Road and Rotary Drive, in order to facilitate the reinstallation of the southbound and northbound 86 and 986 Scarborough bus stops, and report back to Scarborough Community Council by the August 21, 2024, meeting. The Scarborough Community Council decision can be found at:

[Agenda Item History - 2024.SC10.15 \(toronto.ca\)](#)

COMMENTS

Transportation Services was requested by Scarborough Community Council to investigate the feasibility of installing a pedestrian crossing (traffic control signals) at the intersection of Meadowvale Road and Rotary Drive.

Existing Conditions

Meadowvale Road is characterized by the following conditions:

- It is a four-lane, north-south, minor arterial roadway
- It operates two-way traffic on a pavement width of approximately 15.2 metres
- The daily two-way traffic volume is approximately 12,000 vehicles
- The speed limit is 60 km/h
- Heavy trucks are permitted at all times
- There is TTC service provided by the 86 and 986 Scarborough bus routes
- There are sidewalks provided on both sides of the street

Rotary Drive is characterized by the following conditions:

- It is a two-lane, east-west, local roadway
- It operates two-way traffic on a pavement width of approximately 8.5 metres
- The daily two-way traffic volume is approximately 900 vehicles
- The speed limit is 40 km/h. Transportation Services advises that the speed limit is planned to be reduced to 30 km/h on this street by 2026+, consistent with Item 2019.IE6.8 (Vision Zero 2.0 – Road Safety Plan Update)
- Heavy trucks are prohibited at all times
- There is no TTC service provided
- There are sidewalks provided on both sides of the street

Meadowvale Road and Rotary Drive form a "T" type intersection. Rotary Drive is stop controlled while Meadowvale Road is uncontrolled free-flow.

The adjacent land use in this area is primarily residential, consisting of detached and semi-detached residential dwellings. Meadowvale Road is comprised of reverse frontages, with no direct access. Transit stops were previously located on Meadowvale Road at Rotary Drive, however, these were removed by the TTC in 2023.

The closest adjacent traffic control signals are located approximately 160 metres to the north at Sheppard Avenue East and approximately 290 metres to the south at Dean Park Road/Generation Boulevard.

A map of the area is included in Attachment 1.

Traffic Control Signals

To determine the need for traffic control signals at the intersection of Meadowvale Road and Rotary Drive, 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.

As part of the investigation, staff conducted vehicle and pedestrian counts on January 24, 2024, at the intersection of Meadowvale Road and Rotary Drive. 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 June 30, 2024, disclosed one collision at the subject intersection that was potentially preventable by the installation of traffic control signals. No collisions involved a pedestrian or cyclist.

The one potentially preventable collision is described in detail below:

- On November 2, 2023, at 3:00 p.m., a vehicle making a westbound left turn came into contact with a southbound motorist turning left onto Rotary Drive. The collision resulted in minor property damage and no personal injuries.

Table 1: Warrant Compliance - Meadowvale Road and Rotary Drive

Justification	Compliance level
Minimum vehicle volume	11%
Delay to cross traffic (pedestrians and vehicles)	20%
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 both the minimum vehicular volume and delay to cross traffic justifications must be at least 80 percent satisfied.

Based on the technical warrant criteria, the installation of traffic control signals on the intersection of Meadowvale Road and Rotary Drive does not currently meet any of the warrant requirements outlined in the OTM Book 12 for installing new traffic control signals.

In regard to the environmental checklist, staff completed an assessment and determined that there are no other environmental or external factors that would justify the need for traffic control signals at this time.

Other Considerations

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

- There is potential for increase in delays to transit service and to motorists on Meadowvale Road as a result of the traffic control signal installation.
- There will be a loss of approximately six on-street parking spaces on Rotary Drive associated with the installation of traffic control signals at this intersection.

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

CONTACT

Dan Clement, CET, Manager Traffic Operations (Area 1), Transportation Services
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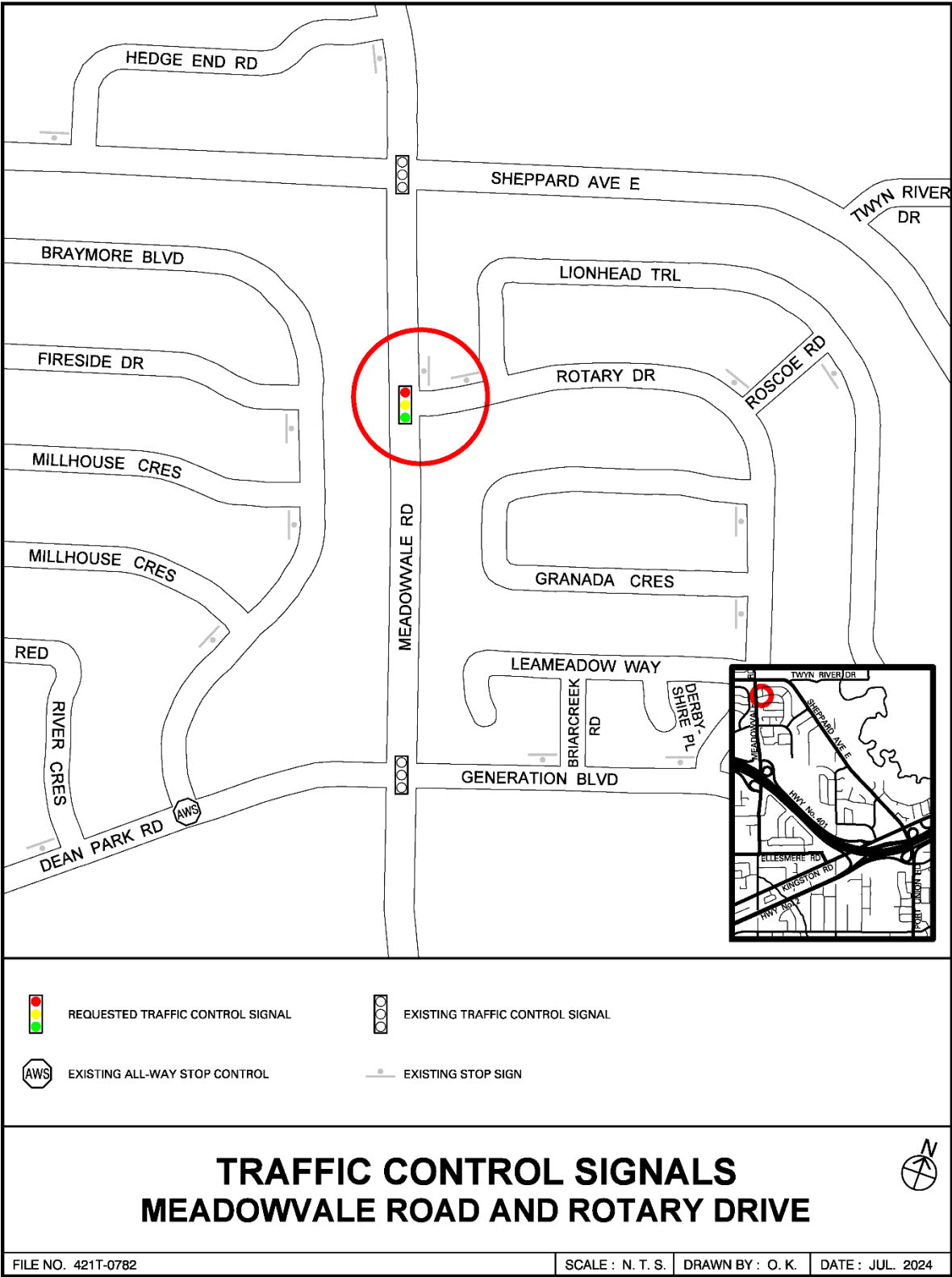
SIGNATURE

Roger Browne, M.A.Sc., P. Eng.
Director, Traffic Management, Transportation Services

ATTACHMENTS


Attachment 1: Map - Traffic Control Signals - Meadowvale Road and Rotary Drive
Attachment 2: Letter from Toronto Transit Commission (TTC), August 15, 2024

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Attachment 2: Letter from Toronto Transit Commission (TTC), August 15, 2024

[External Sender] RE: Traffic Control Signals - Meadowvale Road and Rotary Drive



Marc.Tan@ttc.ca



📧





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To  Curtis.Batuszkin@ttc.ca;  Ghamdan Al-mukardi

Cc  Geena Yadav;  Pranav.Dave@ttc.ca;  Alexander.Miller@ttc.ca;  Elizabeth.DiTella@ttc.ca

Thu 08/15/2024 10:02 AM

Hi Curtis and Ghamdan,

Our engineering team has no further comment on the warrants as this is fully within the City's purview.

Marc

From: Batuszkin, Curtis <Curtis.Batuszkin@ttc.ca>
Sent: Thursday, August 15, 2024 9:31 AM
To: Ghamdan Al-mukardi <Ghamdan.Al-mukardi@toronto.ca>
Cc: Geena Yadav <Geena.Yadav@toronto.ca>; Tan, Marc <Marc.Tan@ttc.ca>; Dave, Pranav <Pranav.Dave@ttc.ca>; Miller, Alexander <Alexander.Miller@ttc.ca>; Di Tella, Elizabeth <Elizabeth.DiTella@ttc.ca>
Subject: RE: Traffic Control Signals - Meadowvale Road and Rotary Drive

Hi Ghamdan,

I can't comment specifically on the warrants for the signals, but I can include our engineering team for their comments.


From a transit stops perspective, there is no clear rationale to install transit stops at the Rotary Drive intersection. TTC staff are bound by our TTC Service Standards which provide stop spacing guidelines of 300-400m between stops where reasonable. If transit stops were to be installed at Rotary Drive, this would space them approximately 180m from existing stops at Sheppard Avenue East.

From a larger planning perspective, the unique customer catchment is poor at the Rotary Drive intersection as the community to the west side of the street has poor access to Meadowvale Road (rear-facing housing) with the exception of a pedestrian pathway that slightly favours Rotary Drive (15m closer than Sheppard Avenue East). The community to the east side of Meadowvale Road is no farther than approximately 500m from transit stops on Sheppard Avenue East, or at the Sheppard/Meadowvale or Meadowvale/Generation Boulevard intersection. This equates to a maximum 8.3 minute travel time (at 1m/sec which reflects those with mobility challenges) to access transit which is well below our 10 minute maximum catchment. This reasonable proximity to existing transit stops does not indicate a need for additional transit stops at the Rotary Drive intersection to provide access to transit services in this area.

If signals were to be approved at Rotary Drive, there doesn't appear to be a compelling argument to install additional transit stops at this intersection as all existing customers are reasonably served by existing transit stop locations in the catchment area.

Please let me know if you require any additional information,

Curtis Batuszkin
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