

Traffic Management Plan for the Watermain and Water Service Replacement project on O'Connor Drive between Sandra Road and Bermondsey Road

Date: October 30, 2023

To: Toronto and East York Community Council

From: Chief Engineer and Executive Director, Engineering and Construction Services and General Manager, Transportation Services

Wards: 19 (Beaches-East York)

SUMMARY

The purpose of this report is to advise on traffic mitigation measures to reduce traffic impacts on residents, businesses, and commuters on O'Connor Drive between Bermondsey Road to Sandra Road, during the upcoming Watermain and Water Service Replacement project.

The construction of sewers, watermains and roads is disruptive to traffic operations because it typically occupies road lanes. When this work is undertaken on major roads with high volumes of vehicular traffic, cyclists, pedestrians and commercial operations, the disruption can be significant.

City Council, at its meeting on October 11, 2023, approved award of a Non-Competitive Contract with Sanscon Construction Ltd., for Construction Services for Watermain and Water Service Replacement on O'Connor Drive (Ward 19) and requested that an updated traffic management plan be presented at Toronto and East York Community Council for the Watermain and Water Service Replacement project between Sandra Road and Bermondsey Road, in an effort to reduce traffic impacts on local residents, businesses and commuters.

RECOMMENDATIONS

The Director, Design & Construction, Linear Underground Infrastructure, Engineering & Construction Services, and the Director, Traffic Management, Transportation Services, Infrastructure & Development Services, recommend that:

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

FINANCIAL IMPACT

There is no financial impact to the City associated with this report. Sanscon Construction Limited is responsible for all costs related to the Traffic Management Plan on O'Connor Drive.

DECISION HISTORY

At its meeting on September 28, 2022, Bid Award Panel granted authority to award Ariba Document Number 3426526826, Contract Number 20ECS-LU-03FP for construction of Sewer Improvements, Road Reconstruction and related Civic Improvements for Basement Flooding Protection Program Phase 4, Assignments 1-01A/02 on O'Connor Drive, Bermondsey Road and St. Clair Avenue, to Sanscon Construction Ltd., in the amount of \$14,703,817 net of all taxes and charges. Purchase Order Number 6053938 for construction services in the amount of \$14,703,817 net of all taxes and charges was subsequently issued to Sanscon Construction Ltd. A copy of the Bid Award Panel Decision Document can be found at: <https://www.toronto.ca/legdocs/mmis/2022/ba/bgrd/backgroundfile-229576.pdf>

At its meeting on October 11, 2023, City Council adopted item GG6.19, entitled " Non-Competitive Contract with Sanscon Construction Ltd., for Construction Services for Watermain and Water Service Replacement on O'Connor Drive (Ward 19)" and authorized the Chief Engineer and Executive Director, Engineering and Construction Services, to negotiate and enter into a non-competitive contract with Sanscon Construction Ltd., to replace the existing 300-millimetre watermain and related infrastructure on O'Connor Drive, between Sandra Road and Bermondsey Road, in the amount of \$5,500,000 net of all taxes and charges (\$5,596,800 net of Harmonized Sales Tax recoveries), on terms and conditions satisfactory to the Chief Engineer and Executive Director, Engineering and Construction Services, and in a form satisfactory to the City Solicitor. A copy of the General Government Committee Decision Document can be found at: <https://www.toronto.ca/legdocs/mmis/2023/gg/bgrd/backgroundfile-239308.pdf>

At its meeting on October 11, 2023, City Council moved a motion to direct the Chief Engineer and Executive Director, Engineering and Construction Services, in consultation with the General Manager, Transportation Services, to report back to the Toronto and East York Community Council meeting on November 15, 2023, with an updated traffic management plan for the Watermain and Water Service Replacement project between Sandra Road and Bermondsey Road, in an effort to reduce traffic impacts on local residents, businesses and commuters. [Motion by Bradford]

COMMENTS

Background

Construction of the Basement Flooding Protection Program Phase 4, Contract Number 20ECS-LU-03FP in Ward 19, began in November 2022, with an expected completion date of March 2024. Work on Contract 20ECS-LU-03FP includes storm sewer upgrades, major road reconstruction, traffic signals, layby parking, installation of EV charging stations and replacement of sidewalks on O'Connor Drive, Bermondsey Avenue and St. Clair Avenue East (see map below). The contract also includes installation of streetscape improvements, including low impact green infrastructure, such as raised planters and permeable paving with soil cells.

As work progressed on O'Connor Drive, it was discovered during construction, that sections of the existing 300-millimetre cast iron watermain were in extremely poor condition. Many watermain breaks were occurring and multiple repair clamps were visible from previous repairs.

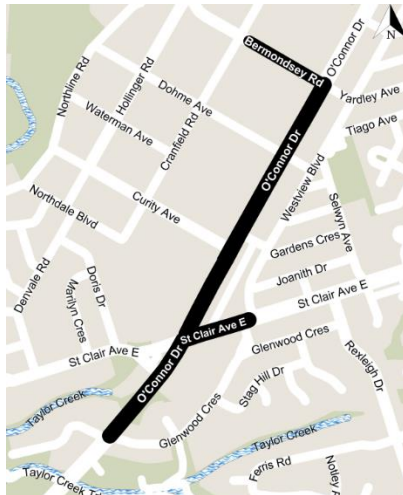


Figure 1 - Construction Area

Following a detailed review and careful consideration, Toronto Water determined that the section of watermain within the limits of current Contract 20ECS-LU-03FP on O'Connor Drive (approximately 1.2 kilometers between Bermondsey Road to 150 meters south of Sandra Road) is to be replaced now, to avoid future damage to the newly installed green infrastructure, boulevards and sidewalks. The new watermain will be installed within the road, away from the east curb line on O'Connor Drive. Completing the watermain before installation of the green infrastructure, boulevard enhancements and road reconstruction is completed will extend the service life of the road and result in cost saving due to reduced maintenance of the existing watermain.

Since the existing Basement Flooding contract for this project did not include any provisions for watermain replacement, award of the Non-Competitive Procurement to Sanscon Construction Ltd. was presented and approved at City Council on October 11, 2023. The non-competitive procurement was recommended to expedite the delivery of the watermain replacement on O'Connor Drive and take advantage of Sanscon

Construction Ltd.'s existing construction contract, offering project continuity that will save time and minimise traffic delays and community impacts. This process will avoid delays to the road reconstruction and reinstatement of permanent traffic signals, which have been adjusted temporarily for Contract 20ECS-LU-03FP. Delays would also negatively impact community expectations for continuous delivery of the current construction contract. With a single general contractor in the area, both the road reconstruction and watermain replacement work can be readily coordinated with minimal risk and optimal resource sharing.

The Contractor anticipates starting the new watermain work on O'Connor Drive in November 2023. The O'Connor watermain replacement will proceed on the east side of the road. Work to install the new watermain, complete necessary street connections and upgrade necessary water services is scheduled to be completed by the end of March 2024, weather permitting. The Contractor has indicated that multiple crews will be on site to complete the new watermain and water service upgrades.

Site Traffic Observations

Sanscon Construction Ltd.'s performance on Contract 20ECS-LU-03FP meets expectations and they have been completing the scope of work in a timely fashion. Their current presence on-site means that they can start the watermain and water services replacement scope quickly, offering significant efficiencies.

To accommodate construction activity, the number of traffic lanes on O'Connor Drive was reduced from two in both northbound and southbound directions (from Sandra Road to St. Clair Avenue East), down to a single lane in each direction. The reduced capacity has contributed to congestion on O'Connor Drive. At the intersection of O'Connor Drive and St. Clair Avenue East, the southbound left-turn lane was also temporarily closed to accommodate construction, which has compounded delays to southbound traffic, caused by southbound left-turning vehicles that obstruct through movements while waiting to make a left-turn.

Traffic Mitigation Measures

A series of traffic mitigation measures, outlined below, have been put in place to mitigate the issues noted and manage traffic flow on O'Connor Drive. These mitigation measures will remain in place for the duration of the watermain and water service replacements.

A Construction Update Notice has been prepared by the City and will be distributed to a widened impacted area to notify the community of the upcoming addition of the watermain and water services replacement scope. The perimeter warning signs and message boards will be adjusted to display the new construction ends dates as well. The Contractor will continue to consult with local businesses and residents and clearly communicate all construction, parking and road occupancy impacts in advance of any physical road modification. Below are traffic related changes that have been implemented to date and will remain in effect for the duration of the project.

Updated TMP for Watermain and Water Service Replacement on O'Connor Drive

1. During the watermain and water service replacement phase of work, the length of the lane restrictions will be limited, as only trench excavation is required during that time and traffic lanes will be opened, where possible. During the actual watermain replacement, one lane of traffic in each direction on O'Connor Drive will be maintained at all times including driveway and pedestrian access. Road reconstruction of the east side of O'Connor Drive will follow the watermain commissioning in the spring of 2024.
2. The attached Traffic Management Plans have been submitted by Sanscon Construction Ltd. and reviewed and approved by Transportation Services Work Zone Traffic Coordinator. The plans address traffic control measures and are in accordance with Ontario Traffic Manual (OTM) Book 7.
3. Advisory signage including Changeable Message Signs, will be in place to notify the public of construction activity, and provide them with an opportunity to select an alternate route.
4. The Contractor will continue to provide a sufficient number of traffic control persons, as determined by the Work Zone Traffic Coordinator and Toronto Police Construction Liaison Officer in order to control construction vehicle access and egress to and from the site and maintain a safe environment for the public.
5. Transportation Services has adjusted the traffic control signal timings in the area, to mitigate for the reduced capacity caused by lane reductions on O'Connor Drive. The cycle lengths were increased from 120 to 135 seconds and 130 to 135 seconds, for the PM peak and weekend timing plans respectively. These adjustments are being monitored by Transportation Services.
6. Existing turning restrictions to control neighbourhood infiltration, applicable during peak periods, are in-place. Toronto Police have been notified and asked to patrol and enforce the by-laws in the area for motorists disobeying the restrictions, especially on Glenwood Crescent.

At the time that this report was prepared, Transportation Services staff were assessing the following additional traffic mitigating measures:

1. To mitigate for southbound left-turning vehicles (during the southbound green phase, waiting in the single lane for a gap in northbound traffic) delaying southbound through vehicles, prohibit southbound left-turning movements at the intersection of O'Connor Drive and St. Clair Avenue East. In conjunction with prohibiting the movement, the southbound left-turn advance phase would be disabled at the intersection and green time at the traffic signal would be re-allocated to the north-south through phases during all timing plans.
2. Install additional advisory signs to inform motorists of the southbound left-turn restriction at O'Connor Drive and St. Clair Avenue East, in advance of the construction area, to help motorists consider alternate routes.

The key to success of current and future mitigation measures will be the on-going monitoring of traffic conditions and enforcement of traffic regulations. In addition, relating to contractor compliance, the consultant's Contract Administration team are onsite full-time and are committed to monitoring the contractor's daily activities and advising and escalating issues in a timely fashion for prompt mitigation. Engineering and Construction Services project management staff and Transportation Services Work Zone Coordinator staff will continue to cooperate in this effort.

CONTACT

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SIGNATURE

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ATTACHMENTS

Attachment 1: Updated Traffic Management Plan for O'Connor Drive between Bermondsey Road and Sandra Road