

Basement Flooding Protection Program Sewer Upgrades on Old Mill Drive and Catherine Street

Councillor Perks – Ward 4 Virtual Trailer No.9 – November 02, 2023



1. City staff to investigate the tree at 47 Old Mill Drive and 67 Old Mill Drive.

I. 47 Old Mill Drive (Tree No. 40)

- Further investigation revealed that Tree No. 40 showed signs of deteriorating health before the start of the BFPP 20ECS-LU-01FP contract work.
- Excavation work for water service improvement was conducted in the driveway of 49 Old Mill Drive, situated outside the Tree Protection Zone (TPZ) for tree No. 40. No service upgrades were performed for 47 Old Mill Drive, as the services were determined to be satisfactory.
- It has been determined that the BFPP works have not had a detrimental effect on the health of Tree No. 40.
- Project staff have escalated this tree to the City's Urban Forestry group to arrange for further assessment.



1. City staff to investigate the tree at 47 Old Mill Drive and 67 Old Mill Drive.

I. 67 Old Mill Drive (Tree No. 28)

- Further investigation revealed that Tree No. 28 showed signs of deteriorating health since September 2018, before the start of the 20ECS-LU-01FP contract work.
- The contract excavation work for the mainline sewer adjacent to tree No. 28 was carried out within the paved surface of the roadway. Since tree roots do not extend into or beneath the roadway, this work did not affect tree No. 28.
- It has been determined that the BFPP works have not had a detrimental effect on the health of Tree No. 28.
- Project staff have escalated this tree to the City's Urban Forestry group to arrange for further assessment.



2. City staff to investigate fencing and accessibility near the Green P parking lot.

• The fence has been inspected, and adjusted during the week of October 9th, 2023, to improve access to Green P Parking.







- 3. City staff to investigate the wooden walkway to Traymore Park.
- The ramp was inspected and wires or nails exposed from the wooden walkway were removed.





- 4. City staff to investigate the pavement when crossing the street to near 1 Old Mill Drive (at Goodfellas Wood Oven Pizza).
- The purpose of these temporary asphalt humps is to minimize water ingress into the shaft between 1 and 2 Old Mill Drive. The humps are subject to regular inspection and maintenance by the contractor. They will be removed once the work on the shaft is completed.





1. Subway Noise / Vibration

- A low wave transmission study was not completed prior to the ground improvement works performed under the emergency MTBM rescue operations.
- For the ground improvement scope of work, a concrete-based grout product was injected into the ground to stabilize the saturated soil conditions. All material was placed within the confines of the paved portion of the roadway and 30.0 m to the south of the TTC subway tunnel.
- The ground improvement work was completed in early June 2023.
- The concern has been escalated to TTC for their review.



2. Sewage / Storm Overflows

- The October 28, 2023 sanitary overflow was from maintenance holes located at 21 and 54 Old Mill Drive.
- Toronto Water crews responded on October 28th and 29th, 2023 and effectively cleaned the sewer and removed blockages.
- Material removed included rope, bricks and cement material. The rope and bricks are unrelated to this construction work and the cement material is being investigated.
- The Contractor has taken video footage of the sanitary sewer on October 20, 2023, and is working with Toronto Water, who have been onsite this week, to further clean and inspect the sanitary sewer system.
- The Contractor is working on a plan to fully clean the sanitary sewer system to prevent surcharging incidents from happening in the future.



3. Ground Safety

- The ground improvement scope of work included both compaction and jet grouting where a concrete-based grout product was injected into the ground to stabilize the saturated soil conditions.
- Compaction grouting is when a very viscous (low-mobility), aggregate grout is pumped in stages into loose soils forming homogeneous grout bulbs that densify and thus strengthen the surrounding soil. While Jet grouting placed columns deep into the ground surrounding machine as a targeted treatment to strengthen and stabilize the saturated ground conditions.
- Both these processes have only increased the ground stability in this area that was affected by the MTBM retrieval operation.

4. Restoration

- A Restoration work plan was presented at Virtual Trailer No. 8 on October 5, 2023, 4:00pm.
- Any additional resurfacing on Old Mill Drive is under review.
- An overall assessment of impacted sidewalks, parks, sod, trees and road required for restoration due to construction will be reviewed upon completion of underground work.



5. Road Safety

- Speed bump along Old Mill Drive will be inspected.
- Traffic Issues and request will be escalated to Transportation Services for input.

6. Open Cuts

- Open cut restoration is anticipated to commence in the next few weeks.
- Properties with work on the City boulevard will receive advance notice of the work.

7. Lead Testing

 The Contractor is mobilizing a crew to complete the water service inspections and has put in a call for locates this week.

8. Regrading of Road

• An assessment of impacted roads due to construction will be completed after underground work.

9. Dead Tree

The issue with the trees has been escalated to Urban Forestry for review.

Ongoing Sewer Work

- On Friday, September 22, 2023, the contractor successfully removed the head section of the MTBM from the tunnel and the shaft.
- On Wednesday, October 11, 2023, the contractor successfully removed the tail can section of the MTBM from the tunnel and the shaft.
- O During the duration of the MTBM work, the storm syphon bypass hose will remain in Traymore Park to avoid overland flooding in the park.







On Wednesday, October 11, 2023, MTBM's tail can retrieval operation.



Ongoing Sewer Work

 The Contractor initiated the cleanout of the 900mm storm sewer pipe, and this cleaning operation is currently in progress. Approximated 46 meters have been fully clean to date.







Sequencing of work

- With the MTBM machine now removed, the infrastructure work to connect the new storm sewer will continue with installation of the remaining sections of storm sewer pipe in the tunnel, followed by an open-cut sewer connection at the Riverside Drive shaft, followed by the open-cut maintenance holes (including OD6 and OD7) work on Old Mill Drive for the tunnelled storm sewer.
- Lastly, after the open cut construction is completed, all outstanding restoration within the limits of construction will be completed.



Spills in Maintenance Hole at Etienne Brule Park and at 21/54 Old Mill Drive

- Spills identified on September 15, September 17 and October 28, 2023, at the downstream sanitary maintenance hole at Etienne Brule Park, at the sanitary maintenance hole at 21 Old Mill Drive, and at a service lateral back up at 54 Old Mill Drive, respectively.
- Toronto Water crew cleaned and removed blockages with a vacuum truck on September 15,
 September 18 and October 29, 2023, respectively. On October 30, 2023, Toronto Water further inspected the site.
- On October 20, 2023, the contractor began a field investigation using a video camera to inspect the existing sanitary sewer on Old Mill Drive from Bloor Street West to Etienne Brule Park. The assessment is ongoing to locate all areas where there may be obstructions within the sewer system, causing sewage backup and surcharge events. Toronto Water personnel have also been onsite this week, assisting in the cleaning and inspection of the sanitary sewer system. City staff is currently formulating a plan to fully clean the sanitary sewer systems and prevent surcharging incidents from happening in the future.



Water Service Upgrades

- Completed at properties where substandard conditions were identified.
- The Contractor is obtaining the locates to proceed with the water service investigation related to the two
 outstanding properties. Communication Notices will be distributed to the impacted residents in advance to
 the execution of this investigation.

Restoration

- A Restoration work plan was presented at Virtual Trailer No. 8 on October 5, 2023, 4:00pm.
- Some sod restoration for areas impacted by Water Service upgrades have been completed as an interim solution to maintain safety and cleanliness.
- An overall assessment of impacted trees, sidewalks, sod and road required for restoration due to construction will be reviewed upon completion of underground work and restore to preconstruction conditions.
- o Given the Winter season, it is anticipated that some restoration work is being carried over to Spring 2024.



Old Mill Drive Work Schedule

| Key Work | Apr | May | June | July | Aug | Sept | Oct | Nov | Dec | Spring 2024** |
|--|-----|-----|------|------|-----|------|-----|-----|-----|---------------|
| Ground Improvements Phase 1 - Compation Grouting | | | | | | | | | | |
| Ground Improvements Phase 2 - Jet Grouting | | | | | | | | | | |
| Sanitary/Storm Works, Shaft Cleaning | | | | | | | | | | |
| Recovery of Microtunneling Boring Machine (MTBM) | | | | | | | | | | |
| Installation of remaining sewer infrastructure | | | | | | | | | | |
| Restoration (Road, Boulevard, Drivewars, Sod, Park etc.) | | | | | | | | | | |

Please note, timelines are subject to change and community will be notified if any updates are necessary.



^{*}There is a slight possibility of some minor restoration work being carried over to Spring 2024, but we will make every attempt to mitigate delays.