

Trenchless Rehabilitation of the Aurora Magmeter By-pass

Inspection of the Aurora Magmeter Bypass sewer completed in 2014 showed medium surface spalling along the length of the pipe. A subsequent routine re-inspection completed in 2017, just 3 years later, showed significant and substantial deterioration of the concrete pipe and associated chambers due to microbial induced corrosion (MIC) as a result of H₂S gases. The Aurora Magmeter is located at the intersection of Yonge Street and Bloomington Road on the border between the towns of Aurora and Richmond Hill. It is located a short distance downstream of the discharges from the East and West Force mains from Aurora Sanitary Sewage Pump station. In 2002 and 2012 the sewers and MH's immediately upstream and downstream of the Aurora Magmeter were rehabilitated leaving the Aurora Magmeter by-pass and associated chambers the only exposed concrete in the vicinity and hence at greater and accelerated risk of MIC. This presentation will discuss the challenges associated with rehabilitating this critical piece of the York Durham Sewerage System (YDSS) at this busy intersection, whilst maintaining flows within the system without the use of an above ground by-pass and minimizing disturbance to stakeholders.