CITY OF TORONTO

BLOOR WEST VILLAGE AVENUE STUDY

MUNICIPAL SERVICING FUTURE CONDITIONS REPORT

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CITY OF TORONTO

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EXECUTIVE SUMMARY

The Bloor West Village Avenue Study is a comprehensive planning and urban design assessment of the Bloor Street West corridor between Keele Street and the Humber River; this document is a high-level hydraulic analysis of the local municipal infrastructure in support of the Avenue Study. The consultant team has recommended a full reconstruction of the corridor through a detailed planning and public consultation process which incorporates anticipated population growth in the study boundary; this report characterizes the constraints and opportunities with respect to the local municipal sewer systems resulting from that growth, within the context of applicable development guidelines and best management practices. An assessment of the existing condition of the local municipal sewer infrastructure was also prepared in support of the Avenue Study; refer to the Municipal Servicing Existing Conditions Report, by WSP, dated 2017. The study boundary lies within Pressure District 2 of the municipal watermain distribution system currently being analyzed by others; an assessment of the existing and future performance of the watermain network in the study area is detailed in the Water Distribution Study for Pressure District 1, 1W, and 2 issued in 2017.

There are three Basement Flooding Protection Program (BFPP) Study Areas which intersect with the study boundary for the Bloor West Village Avenue Study; the Environmental Assessment (EA) for Study Area 5 is complete and improvements currently underway, while the EAs for Study Areas 49 and 44 are due to begin in 2018. The dynamic and calibrated hydraulic models delivered by the aforementioned EA processes, in conjunction with the Water Distribution Study, will provide a better representation of the actual response of the local municipal infrastructure. It is recommended that the corridor improvements for Bloor West Village are coordinated with the infrastructure improvements identified in these reports.

There are four storm sewer catchment areas comprising 120 ha which straddle the study boundary, discharging to the Humber River, Wendigo Pond, and Spring Creek. The local storm sewer system is operating at capacity under the City's design storm event though performance improvements are expected as a result of continued adoption of the Mandatory Downspout Disconnection By-Law, compliance with the Wet Weather Flow Management Guidelines, and the introduction of green infrastructure solutions provided for in the Toronto Green Street Technical Guidelines.

Low Impact Development (LID) strategies appropriate for a public right-of-way may include bioretention facilities, green gutters, subsurface soil volumes, permeable pavements, and underground infiltration facilities. A detailed analysis of the subsurface conditions would be required to support some of these solutions. No specific improvements to the local municipal storm sewer system are recommended as a result of this analysis, though as a result of the corridor reconstruction and the introduction of LID solutions numerous relocations (street lights, catch basins, utilities) will be required.

The sanitary sewer system comprises three catchment areas and drains a modest 8.9 ha by comparison, discharging to three existing pumping stations. Under dry weather flow conditions the analysis indicates the sanitary sewer system is operating without surcharging, and the anticipated population growth and development within the study boundary will be managed by the existing network with no adverse impacts. As such, no specific improvements to the local municipal sanitary system are recommended as a result of this analysis.

The majority of wastewater sewage in the study area is currently captured by an extensive combined sewer catchment area spanning 199 ha and including both fully and partially combined sewers. The performance of this existing system was determined by a static hydraulic model the parameters for which are specified by the City of Toronto. During 2 year storm events the combined sewer system predominantly operates without surcharging with notable exceptions in fully combined areas where surcharging does occur; the densification contemplated by this Avenue Study would result in an 8 L/s (0.3%) increase to the wastewater component of the combined sewer flows. MOECC Procedure F-5-5 prohibits an increase in sewage flows discharging to a combined sewer; future developments will have to demonstrate compliance in order to secure their design approvals. In order to comply with this procedure it is recommended that a maximum allowable release rate at the outfall of the municipal combined sewer system be established and a flow restrictor be implemented through the BFPP EA studies which would serve as the basis for future development applications. It is additionally recommended that a dedicated storm sewer system within Bloor Street West between Clendenan Avenue and Keele Street be constructed as a part of planned corridor improvements as this segment is currently serviced by a fully combined sewer. Continued expansion of the local storm sewer system within areas currently serviced by fully combined sewers will improve the performance of the legacy municipal combined sewer system. The performance of the local combined sewers is generally not expected to be adversely impacted as a result of the anticipated population growth projected for the study area. As such, no specific improvements to the local municipal combined sewer are recommended as a result of this analysis; however, the reconstruction of the Bloor Street West corridor would benefit from an informed assessment of deficiencies identified through the BFPP EA processes.

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1 INTRODUCTION

This report was prepared in support of the Bloor West Village Avenue Study and pursuant to the City of Toronto RFP No. 9121-16-7129, which aims to identify the existing character of the study area and provide recommendations on the management and implementation of future growth opportunities and corridor improvements. As part of the study, a high-level servicing infrastructure assessment has been undertaken, consisting of an assessment of the existing infrastructure during the first phase, and an evaluation of the spatial and hydraulic impacts of the preferred design approach on existing utility systems during the second phase.

1.1 PURPOSE

The purpose of this future conditions assessment is to identify opportunities and constraints concerning the municipal infrastructure network within the Bloor West Village study boundary which would result from the implementation of the proposed corridor cross-section and anticipated private development, and to provide recommendations which can sustainably support the growth. This assessment is founded on the hydraulic models identified and developed during Phase 1 of this assignment, the Municipal Servicing Existing Conditions Report dated February 2018. The recommendations will incorporate industry best practices and the latest City of Toronto guidelines.

1.2 BASEMENT FLOODING PROTECTION PROGRAM – ENVIRONMENTAL ASSESSMENTS

The Basement Flooding Protection Program (BFPP) is the City of Toronto's initiative to reduce the risk of flooding by examining sewer systems and above ground areas, and identify strategic improvements which alleviate capacity constraints. As part of the background review for this assignment, it was established that several Basement Flooding Protection Program study areas overlap with the sewersheds modeled as part of this study. Study areas for the Basement Flooding Protection Program which overlap with the Bloor West Village Avenue Study are summarized below:

- Study Area 5 intersects the boundary of the Bloor West Village Avenue Study between the Humber River and Traymore Crescent. The Environmental Assessment for Study Area 5 has been completed, and detailed design of the recommended improvements are currently underway;
- Study Area 49 intersects the boundary of the Bloor West Village Avenue Study on both sides of Bloor Street West between Traymore Crescent and Jane Street, and on the south side of Bloor Street West between Jane Street and the western limit of High Park. The Environmental Assessment for this study area is anticipated to begin in 2018; and

- Study Area 44 intersects the boundary of the Bloor West Village Avenue Study on the north side of Bloor Street West between Jane Street and Clendenan Avenue, and on both sides of Bloor Street West between Clendenan Avenue and Keele Street. The Environmental Assessment for this study area is anticipated to begin in 2018.

Figure 1 (page 19) depicts the locations of the study areas relative to the Bloor West Village Avenue Study limits.

The Basement Flooding Protection Program Environmental Assessments will determine the causes and extent of hydraulic deficiencies within their study areas, and identify the necessary infrastructure upgrades to bring hydraulic performance within accepted parameters.

2 BASELINE STUDIES

The Municipal Servicing Infrastructure Future Conditions Assessment is based upon the planning targets and transportation recommendations discussed within the following reports, produced as part of this assignment:

- Bloor West Village Avenue Study, Phase 1 Summary Report, prepared by DTAH, issued June 2017;
- Future Transportation Conditions Report, prepared by WSP, issued December 2017; and
- Municipal Servicing Existing Conditions Report, prepared by WSP, issued February 2018.
- Relevant conclusions and recommendations from each of these studies are discussed below.

2.1 BLOOR WEST VILLAGE AVENUE STUDY

As part of the Planning Study, target development densities were established within the study area. Figure 1 (page 19) summarizes the proposed planning blocks approved as part of the Bloor West Village Avenue Study. The proposed development anticipates the employment population to increase by 14 people to 3,466, and the residential population by 1,727 to 5,668, for a total of 0.4% and 44%, respectively. Table 2-1 shows the breakdown of the residential and employment population on a block-by-block basis, as proposed by DTAH.

Table 2-1: Residential and Employment Population Breakdown by Development Block

BLOCK	AREA [M²]	EXISTING POPULATION		EXISTING TO REMAIN		PROPOSED POPULATION		TOTAL POST-DEVELOPMENT		DIFFERENCE	
		RES.*	EMP.**	RES.*	EMP.**	RES.*	EMP.**	RES.*	EMP.**	RES.*	EMP.**
1	4,120	304	--	304	--	--	--	304	--	--	--
2	4,588	93	125	93	--	187	46	280	46	187	-79
3	4,008	471	--	471	--	--	--	471	--	--	--
4	5,226	369	283	369	36	--	200	369	236	--	-47
5	8,537	27	347	23	211	287	336	310	547	283	200
6	2,940	34	123	34	123	--	--	34	123	--	--
7	2,141	40	121	40	121	--	--	40	121	--	--
8	2,382	46	107	--	--	164	46	164	46	118	-61
9	2,976	25	133	21	108	74	21	95	129	70	-4
10	1,245	4	20	--	--	164	49	164	49	160	29
11	3,150	15	228	15	229	--	--	15	229	--	1

BLOCK	AREA [M²]	EXISTING POPULATION		EXISTING TO REMAIN		PROPOSED POPULATION		TOTAL POST-DEVELOPMENT		DIFFERENCE	
		RES.*	EMP.**	RES.*	EMP.**	RES.*	EMP.**	RES.*	EMP.**	RES.*	EMP.**
12	7,683	46	247	15	104	--	220	15	324	-31	77
13	3,766	57	144	40	45	116	48	156	93	99	-51
14	1,638	4	108	4	82	45	15	49	97	45	-11
15	2,702	21	220	21	220	--	--	21	220	--	--
16	2,590	38	103	38	103	--	--	38	103	--	--
17	1,885	10	96	--	--	120	34	120	34	110	-62
18	2,184	15	168	15	168	--	--	15	168	--	--
19	2,200	67	230	67	205	60	17	127	222	60	-8
20	16,384	53	187	42	78	162	58	204	136	151	-51
21	6,707	148	54	129	18	99	35	228	53	80	-1
22	5,421	122	7	122	7	--	--	122	7	--	--
23	5,637	439	232	439	232	--	--	439	232	--	--
24	2,065	82	17	82	17	--	--	82	17	--	--
25	4,969	198	40	198	40	--	--	198	40	--	--
26	4,634	125	38	125	38	--	--	125	38	--	--
27	5,800	118	39	86	--	95	19	181	19	63	-20
28	5,965	125	28	--	--	350	95	350	95	225	67
29	6,535	735	--	735	--	--	--	735	--	--	--
30	3,189	38	7	--	--	145	42	145	42	107	35
31	2,459	72	--	72	--	--	--	72	--	--	--
TOTAL	135,726	3,941	3,452	3,600	2,185	2,068	1,281	5,668	3,466	1,727	14

*RES. – Residential population

**EMP. – Employment population

2.2 FUTURE TRANSPORTATION CONDITIONS REPORT

The Transportation study assessed the impact of additional traffic resulting from the planned intensification of the residential and employment blocks along Bloor Street West and provided recommendations to balance the main modes of transportation within the right-of-way, including: vehicular, cycling, transit, and pedestrian. The preferred design strategy which provides the best balance among the various modes, maximizes off-peak parking, and has the fewest adverse traffic impacts to Bloor Street West, includes two lanes of traffic in each direction, with unidirectional bike lanes on each side, as shown in Figure 2 (page 20). In order to implement the preferred design strategy a full corridor reconstruction will be required.

2.3 MUNICIPAL SERVICING STUDY

The Municipal Servicing Existing Conditions Report assessed the existing municipal servicing infrastructure systems by determining the physical characteristics of the sewers within the Bloor West Village Study Area, factoring in external flow contributions, and calculating the existing capacity of the same. The findings from the Municipal Servicing Existing Conditions Report for each system are summarized in the subsections below.

2.3.1 STORM SYSTEM

The existing storm sewers located along Bloor Street West generally form the downstream limit of four catchment areas with a total drainage area of approximately 120 ha, which outlet to the Humber River, Wendigo Pond, and Spring Creek. The storm sewer system also includes an SCSO (storm sewer receiving combined sewer overflow) along High Park Avenue. Aggregate runoff coefficients for the four catchments areas range between 0.78 and 0.82.

The majority of the storm sewers within the catchment boundaries were constructed to segregate inflow to the combined sewer system. For these storm sewers, it is anticipated that all catch basins have been reconnected to the storm sewer system, but legacy private connections such as roof downspouts and foundation drains may not have been disconnected from the sewer system. While this signifies that the actual tributary flows to the storm sewers is likely less than the calculated inflow from the entire catchment area, flow reductions have not been applied to the analysis, as such measures would be based solely on speculation.

The City of Toronto requires the storm sewer system to convey all runoff generated from a rainfall event with a return frequency of 1 in 2 years. An analysis based on the anticipated runoff generated from such an event indicates the sewer system is operating at full capacity along the Bloor Street West corridor within the following sections:

- From Old Mill Drive to Riverside Drive;
- From Jane Street to Armadale Avenue; and
- From Beresford Avenue to Harcroft Road.

The dynamic and calibrated model that will be developed as part of the Basement Flooding Protection Program's Environmental Assessment (BFPP EA) process will provide a better representation of the actual hydraulic response of this system by refining this analysis. In addition, continued adoption of the City of Toronto's Mandatory Downspout Disconnection By-Law within the sewershed, and compliance with the water balance and quantity control requirements of the Wet Weather Flow Management Guidelines (WWFMG) by future development, will serve to reclaim available capacity in the existing storm sewer system.

Figure A-1 within Appendix A (page A-1) shows the extent of the existing catchment areas and classifies the operating capacity of the pipes within the study area during the 2-year return frequency rainfall event.

2.3.2 SANITARY SYSTEM

The extent of the existing sanitary sewer system within the vicinity of the study limit is limited to three catchment areas draining a total of 8.9 ha. Two of the catchment areas are located along Bloor Street West between the Humber River and Jane Street, while the third catchment is comprised of properties on Birchview Crescent, Elora Road and Oakview Avenue, located just west of Clendenan Avenue. These three catchment areas drain to the Humber Pumping Station (PS), Brule Gardens PS, and Birchview PS, respectively. Wastewater generated from remaining portions of the study area is captured by the combined sewer system, as discussed below.

An analysis of the system under dry weather flow (DWF) conditions using sewage generation rates specified in the City of Toronto's Design Criteria for Sewers and Watermains indicates that the sanitary sewers operate without surcharging. Therefore, this system is operating within the City of Toronto's acceptable parameters. Surcharging is anticipated during extreme wet weather events in one sewer leg upstream of Brule Gardens PS, however, this would still meet the City's minimum criteria as long as the hydraulic grade line (HGL) maintains the minimum freeboard to the ground surface. As an HGL analysis of the sewer system was outside the scope of this study, the BFPP EA will further refine the hydraulic performance of the system.

Figures A-2 and A-3 within Appendix A (pages A-1 and A-2) show the extent of the catchment areas, the locations of the pumping stations, and classifies the operating capacity of the pipes within the study area.

2.3.3 COMBINED SYSTEM

The existing combined sewer system within the study area consists of two catchment areas of 176 ha and 10 ha each, and consists of 22% fully combined and 78% partially combined sewers. Within the Bloor Street West corridor, fully combined sewer are located between Clendenan Avenue and High Park Avenue as well as between Oakmount Road and Keele Street, whereas other areas are serviced by partially combined sewers. While areas serviced by partially combined sewers have dedicated storm sewers alongside them, legacy private connections may still contribute to the combined sewer flow.

Sewer performance was determined under existing conditions using the sum of sanitary sewage generated (using the same parameters noted above) and the runoff from a 2-year return frequency storm. The existing combined sewer system operates in a surcharged condition in a number of areas within the catchment boundaries, but is limited to the section between Quebec Avenue and Pacific Avenue along Bloor Street West.

Surcharged conditions can be improved by continuing to segregate the storm and sanitary flows through the construction of separate storm sewers in areas currently serviced by fully combined sewers. While this area was included as part of Phase 1 of the Downspout Disconnection Program, which had a target compliance rate of 75% by November 20th, 2011, continued adoption of the Mandatory Downspout Disconnection By-Law by private property owners for any legacy private connections will further reduce the inflow volume.

Figure A-4 within Appendix A (page A-4) shows the extent of the existing combined sewer system and classifies the capacity of the pipes within the study area.

2.3.4 OVERLAND FLOW SYSTEM

The overland flow pattern within the study boundary generally flows from north to south. Therefore, most streets intersecting Bloor Street West from the north contribute to overland flows on Bloor Street West, whereas streets located south of Bloor Street West drain away from the corridor. Based on a high level assessment of the overall grading of the Bloor Street West corridor, no trapped ponding areas have been identified, and as such, the overland flow system performs sufficiently. Additional analysis will be required as part of the detailed design process, to ensure that there are no localized ponding area, and anticipated ponding depths during major storm events meet the City's design criteria.

Figure A-5 within Appendix A (page A-5) shows the overland flow patterns within the study area.

2.3.5 WATER SYSTEM

The water system is described in detail in the “Water Distribution Study for Pressure District (PD) 1, 1W and 2” issued by AECOM Canada Ltd. in 2017. The current water distribution system within the study area meets the expected increase in domestic maximum day demands up to 2041. Figure A-6 within Appendix A (page A-6) shows the general layout of the existing water infrastructure. No upgrades to the water distribution system are anticipated within the study area as a result of the aforementioned study.

3 INFRASTRUCTURE ANALYSIS

Based on the existing conditions characterized in the Municipal Servicing Infrastructure Existing Condition Report, the cross-section proposed for the Bloor Street West right-of-way, and anticipated growth in the study area, an infrastructure analysis has been prepared to assess the consequences of growth to the local municipal infrastructure systems. The proposed cross-section provides for two lanes of traffic and a dedicated bicycle lane in each direction, with off-peak parking on both sides of the street; this configuration will be accommodated through a full corridor reconstruction, providing a suitable opportunity to include upgrades to the municipal infrastructure system.

3.1 STORM SEWER CAPACITY AND OVERLAND FLOW ROUTES

As the Bloor West Village study area is already fully developed, no increase to the runoff volume entering the storm sewer system or conveyed through local overland flow routes is anticipated. The proposed cross-section of Bloor Street West and the development opportunities identified within the study area will generally improve the performance of the storm sewer systems through means and controls introduced to comply with the City of Toronto's Green Streets Technical Guidelines (GSTG) and the Wet Weather Flow Management Guidelines (WWFMG). The GSTG promote the use of green infrastructure within public rights-of-way while the WWFMG mandate quantifiable stormwater control targets for new developments.

The proposed full corridor reconstruction will afford the City the opportunity to include green infrastructure solutions which divert runoff from the local storm sewer system and attenuate flows. Since the existing roadway cross-section consists primarily of impervious surfaces with minimal planted areas, any inclusion of green infrastructure elements will improve the quality and reduce the quantity of runoff generated. Overland flow patterns will remain largely status quo; however, local adjustments should be assessed during detailed design in order to promote retention guidelines and maximize the impact of the selected green infrastructure solutions. The required capacity within the Bloor Street West right-of-way will depend on the proposed grading as well as any volume reduction attained from the implementation of WWFMG requirements and LID features. This type of detailed analysis will be a part of future design development and approvals.

The development counterpart to the GSTG is the WWFMG, which sets stormwater management targets for new and redevelopment sites. These targets are proxies which, by design, require the retention of approximately half of the annually generated runoff, and reduce peak runoff rates to the municipal sewer system for all major storm events up to the 100-year storm to the pre-development peak rate, calculated with a maximum runoff coefficient of 0.5. As aggregate runoff coefficients for the existing catchment areas range between 0.78 and 0.82, and the majority of existing properties were built prior to the implementation of the WWFMG, future proponent developers will be required to implement stormwater controls which effectively reduce the per development

site runoff coefficient to 0.50 to comply with the WWFMG. As such, any new developments proposed within the Bloor West Village study area would improve the performance of the storm sewers by reducing overland runoff volumes and limiting peak discharge rates.

Both of these guidelines will contribute to reclaiming available capacity within the storm sewer and overland flow system, and thus, only positive consequences are anticipated as a result of the proposed right-of-way improvements and surrounding densification.

3.2 SANITARY SEWER CAPACITY

Due to the limited extent of existing dedicated sanitary sewer catchments, Catchment 2 is the only area that is anticipated to see densification, with a proposed employment population decrease of 47 persons, and residential population growth of 262 persons, compared to the existing 123 persons and 2,520 persons for employment and residential populations, respectively. This represents an increase in the peak wastewater flow increase by 2.0 L/s or 11% within the sewershed. However, the population increase is minimal relative to the available capacity of the sewer system, and will not cause surcharged conditions during dry weather flow conditions, thereby meeting the City of Toronto's required level of service within Catchment 2. During extreme wet weather flow events, an additional sewer leg is anticipated to exceed 80% capacity compared to the existing condition, but not surcharge. This catchment is tributary to the Brule Gardens pump station which was observed to be at full capacity under existing conditions; further densification may warrant an increase to the station's capacity.

Figure 4 and Figure 5 (pages 21 and 22) shows the revised system analysis based on the increased population. Detailed calculations of the revised system are presented in Appendix B.

3.3 COMBINED SEWER CAPACITY

The remaining population growth is projected to materialize in areas serviced by a combined sewer system, representing an increase in peak wastewater flows of 8.1 L/s, or 0.3% within the sewershed. While this increase in flow has little impact on the hydraulic performance of the sewer system, Procedure F-5-5, issued by the Ministry of the Environment and Climate Change (MOECC), stipulates that "no increases in combined sewer overflow volumes above existing levels at each outfall will be allowed". As such, remedial measures such as continued storm and sanitary sewer segregation, disconnection of downspouts by private landowners, or flow attenuation measures will be required. Further recommendations are discussed in Section 4.3.

Model results including the additional population is included within Figure 5 (page 23) and Appendix C.

3.4 WATERMAIN IMPACTS

The Maximum Day Demand (MDD) of a given watermain distribution network is directly proportional to the population it services, and as such, a 44% increase in the population within the study area will result in a 44% increase in the MDD for the watermain along Bloor Street West. This increase in MDD will be communicated to the consultants currently studying the hydraulic performance of Pressure District 2 to verify that there is sufficient pressure in the system to accommodate the population increase. However, any new development applications will be independently required to include hydrant flow tests and identify whether any upgrades to the distribution system are required to meet fire flow demands.

3.5 INFRASTRUCTURE CONFLICTS

The proposed cross-section of Bloor Street West will include provisions to bring the design of the streetscape to current design standards, which will result in a full construction of the right-of-way. A number of spatial conflicts are anticipated as a result of the new curb alignments and the implementation of green infrastructure, including, but not limited to:

- Street lights, hydro poles, traffic signals, and catch basins will require relocation as a result of the new curb alignments;
- Proposed grade changes along the roadway will require adjustments to the height of the lid of underground structures; and
- Green infrastructure corridors require sufficient underground space to promote infiltration and avoid encroachment of sewer and watermains by proposed trees and their soil cells, which may require the relocation of underground structures.

Specific spatial conflicts will be identified during the detailed design phases of the project.

3.6 SCHEDULED CAPITAL IMPROVEMENTS

A number of storm and sanitary sewer rehabilitation projects were recommended as a result of the Environmental Assessment for BFPP Study Area 5, located near the western limit of the Bloor West Village Avenue Study. These projects are currently undergoing detailed design and construction is currently estimated to begin in late 2018. However, these upgrades are outside the catchment areas of any sewer system analysed as part of this Avenue Study. Future EAs completed for Areas 44 and 49 may also identify additional capital improvements within the study area. Aside from the above, no capital improvements are planned for this study area.

4 RECOMMENDATIONS

Based on the Planning Study design and constraints identified in Section 3, improvements to each of the sewer systems have been considered and recommendations are outlined in this section. Any existing deficiencies identified in the storm, sanitary, and combined sewer systems throughout the study area will be addressed through the BFPP Environmental Assessments. It is noted that coordination of construction activities proposed through BFPP rehabilitation works, and the proposed reconstruction of the Bloor Street West study area, may result in reduced overall costs and construction activity. Additionally, a full right-of-way reconstruction will present financial efficiencies for hydraulic solutions which may not have been available otherwise.

4.1 STORM SEWER AND STORMWATER MANAGEMENT SYSTEMS

While specific upgrades to the existing sewer system are not required to accommodate the proposed developments, the full reconstruction of the corridor presents an opportunity to implement green infrastructure solutions, or Low Impact Development (LID) facilities, as a permanent fixture within the road cross-section. Inclusion of such measures could reduce peak runoff flows, treat storm water to remove total suspended solids (TSS), and promote evapotranspiration and infiltration to meet water balance requirements.

Facilities that would be appropriate for use within a public right-of-way may include, but are not limited to:

- Bioretention facilities, which are generally implemented along curb and gutter lines, provide temporary storage in porous gravel storage layers, filtration through engineered soil media, and infiltration facilities. The top layer of bioretention facilities generally consists of vegetation, and as such, can form part of a landscape treatment;
- Green gutters, generally used to permanently separate conflicting roadway uses, generally consist of low-height vegetation and are designed to attenuate, filter, and infiltrate local runoff;
- Subsurface soil cells, which allow trees and other vegetation to grow in areas with limited surface area, provide structural support to topsoil to increase soil volume under paved surfaces, and allow root propagation into adjacent soil volumes;
- Underground infiltration systems, which can be installed with little to no surface footprint, capture, convey, and infiltrate stormwater in areas with high soil permeability. These systems include perforated pipe systems, soakaways, and infiltration trenches. These systems generally require pre-treatment of runoff to ensure that urban pollutants are removed prior to infiltration;
- Permeable pavements, which allow stormwater to infiltrate through the surface as opposed to generating high runoff rates such as with conventional paved surfaces,

allow stormwater to be detained and potentially infiltrated through underground stone reservoirs. Permeable pavers are generally compatible with low traffic loading areas such as sidewalks, bike lanes, parking lay-bys, and areas with decorative pavements.

In addition to their functions as an LID measure, bioretention facilities and green gutters can be a visual enhancement to the public right-of-way by providing enhanced landscaping features along the boulevard. Soil cells and infiltration systems are largely hidden from view as they are placed underground. All five proposed measures require ongoing maintenance.

Green infrastructure facilities can also be combined to complement each other (i.e. the 'treatment train'). For example, green gutters can be implemented along the flow path toward an underground infiltration system, or passive irrigation systems such as trench drains along the edge of curb and irrigation pipes integrated with storm sewers can be used to direct runoff toward bioretention facilities.

It is noted that no specific improvements to the local storm sewer system are recommended as a result of this analysis; the sophisticated hydraulic models prepared as part of Basement Flooding Protection Program Environmental Assessments would be a significantly better basis on which to make improvements to the local storm sewer system.

4.2 SANITARY SYSTEM

No improvements to the existing sanitary sewer system are proposed resulting from the projected population growth, as there is sufficient capacity to accommodate the 11% increase in wastewater flows during dry weather flow conditions. The surcharging that is anticipated during extreme wet weather events remains unchanged from the existing condition. As an HGL analysis of the sewer system is outside the scope of this study, remediation of the existing capacity constraints will be addressed through the hydraulic analyses performed as part of the Basement Flooding Protection Program studies. While Brule Gardens PS operates at full capacity, further information regarding this pumping station is required before recommendations relating to pumping station upgrades can be made.

4.3 COMBINED SEWER SYSTEM

While any existing deficiencies to the combined sewer system will be addressed through the BFPP assignments, mitigating the increase in flow at the outfall as a result of the densification, as required by MOECC Procedure F-5-5, would be best remediated by establishing a maximum allowable release rate at the outfall, then implementing flow reduction and flow attenuation measures to meet this allowable rate. These measures should be sized to accommodate both the anticipated densification, and future developments, within the Bloor West Village study area, while identifying flow reduction opportunities such as sewer segregation and inflow/infiltration mitigation in other areas

of the sewershed. Consequently, development applications would have to demonstrate that their development would not exceed the capacity of these previously implemented measures. Support would be required from various departments within the City of Toronto to ensure that the implementation and use of these measures is clearly communicated to all parties involved with approvals and to prospective developers.

In light of the full corridor reconstruction that is anticipated along Bloor Street West, building a dedicated storm sewer along Bloor Street West between Clendenan Avenue and Keele Street is highly recommended, as this area is currently serviced by fully combined sewers. This will divert storm water runoff from the combined sewers and reclaim capacity to offset the increase anticipated from population growth. Based on the existing grading of the area, it is anticipated that storm sewers west of High Park Avenue will ultimately drain to the Clendenan Avenue outfall, while storm sewers built east of High Park Avenue will outlet into the existing SCSO. The hydraulic viability will be evaluated in future detailed design stages.

While specific recommendations for the limits of the storm sewer segregation has been limited to the Bloor West Village Avenue Study boundary, upstream areas within the sewershed operating with fully combined sewers will benefit from a dedicated storm sewer network as well.

4.4 WATER SYSTEM

Based on a review of the “Water Distribution Study for Pressure District (PD) 1, 1W and 2” issued by AECOM Canada Ltd. in 2017, the current water distribution system within the limits of the Bloor West Village Avenue Study area performs adequately to support the forecast domestic demands in 2041. The population increase anticipated as a result of this study should be communicated to AECOM to ensure that no further infrastructure upgrades for the water distribution are required.

4.5 INFRASTRUCTURE CONFLICT MITIGATION

The green infrastructure measures proposed as part of the stormwater management strategy will require dedicated space within the road cross-section to ensure that planted and infiltration areas are of a suitable soil characteristic and meet spatial requirements. As these initiatives are relatively new to the streets of Toronto, standard construction methods may not be appropriate, and alternative measures, such as those below, may need to be explored to prevent encroachment onto the landscaped boulevards:

- Street lights and any other required poles can be installed using strip footings instead of standard piling to avoid conflicts with existing infrastructure;
- Reconstructed sidewalks can be reinforced to act as beams in order to increase growth media volumes and allow utilities to be placed within growth media without substantial structural component removals; and

- Infrastructure for cable utilities can be wrapped and placed with tree barriers to share the same space as the soil cells for planted trees along the sidewalk. However, this measure cannot be applied to watermains and sewers.

4.6 COORDINATION OPPORTUNITIES

A full right-of-way reconstruction provides coordination opportunities to minimize restoration costs and construction activity. In particular, restoration of the proposed right-of-way as a result of any utility work is anticipated to cost more than other roadways within the City, due to the higher standard of streetscaping and green infrastructure elements that could be integrated.

Coordination opportunities generally fall within the following three categories:

- State of Good Repair: an assessment of the City of Toronto's infrastructure within the Bloor Street West corridor indicates most of the sewer infrastructure being greater than 50 years old. The age of these facilities, and any other structures experiencing deterioration from age, present an opportunity to be rehabilitated in conjunction with the proposed right-of-way construction. Figure 6 to Figure 8 (pages 24 to 26) classifies existing infrastructure by years of service;
- Consolidation: spatial conflicts identified in Section 3.5 will require assets owned by private utility companies to be relocated. Large-scale relocation projects provide an opportunity for cable-based utilities, such as electrical distribution and telecommunication companies to consolidate their underground duct banks to a shared structure, to minimize the total occupied footprint;
- Future capacity: all servicing infrastructure owners, including private utility companies, are highly encouraged to install any facilities required to service future demands. This will help to ensure that all necessary spatial requirements are accounted for at the outset, and minimize future construction improvements.

To ensure proper coordination among all users of the public right-of-way, member stakeholders of the Toronto Public Utility Coordination Committee (TPUCC) should be consulted for input in the early stages of the planning process. Facilitated utility coordination sessions provide a structured venue for utility companies to provide input on consolidation and capacity requirements, and may prove beneficial for this project.

5 REPORT LIMITATIONS AND FUTURE MODEL IMPROVEMENTS

The hydraulic model prepared for this study is a static analysis completed through the use of design sheets that provides an overview of the current sewer infrastructure in the Bloor West Village Study area. Details on the modelling parameters can be found within the Municipal Servicing Existing Conditions Report.

The industry best practice for modelling a sewershed of this size would be the preparation of a dynamic model that recognizes flow attenuation and energy conservation, and is calibrated to field-collected flow monitoring data. This modelling approach eliminates some of the conservative estimating measures used in static analyses, and generally identifies more available capacity as compared to static models.

The City of Toronto has adopted the InfoWorks software package for the purpose of dynamic modelling, and calibrated sewershed-scale models using this software are being developed for drainage systems throughout the City through the Basement Flooding Protection Program. While most of the Bloor West Village Avenue Study area falls within a future BFPP study area, the proposed population densities and runoff coefficients can be integrated into this model in the future, to verify capacity requirements within the sewer systems.

The BFPP EA studies are aimed at identifying existing hydraulic deficiencies, and include recommendations for possible upgrades to alleviate these issues. This type of analysis falls outside the scope of this Avenue Study; the results presented within this report are a comparison of the change in hydraulic performance anticipated as a result of population density increases and right-of-way cross section upgrades. Any developments proposed prior to the implementation of the upgrades recommended in the BFPP studies would connect to the City's sewer system following current guidelines.

6 CONCLUSIONS

The Bloor West Village Avenue Study identified target residential and employment population increases of 1,727 and 14 persons, respectively, and a proposed corridor layout on Bloor Street West consisting of two lanes of vehicular traffic and one bicycle lane in each direction. The development anticipated by the Planning Study will not cause adverse effects on the hydraulics of the municipal sewer systems, outside of existing capacity constraints. Proposed developments connecting to constrained systems will demonstrate adherence to current guidelines as part of the Rezoning and/or Site Plan Application process. However, spatial conflicts resulting from the implementation of the proposed cross section will likely require significant relocation work within the right-of-way, and ultimately a full corridor reconstruction. This affords the opportunity for subsequent design teams to implement green infrastructure solutions and low impact development measures as a permanent fixture within the roadway to improve stormwater quality and quantity. Further improvement opportunities such as the consolidation of underground structures, upgrades to maintain a state of good repair, and the provision of anticipated future capacity requirements can also be coordinated to minimize restoration costs and construction activity. Finally, any infrastructure upgrades recommended as part of BFPP EA studies not yet completed for the Bloor West Village study area should be informed by and coordinated with the anticipated implementation of the preferred cross-section.

7 REFERENCES

AECOM Canada Ltd. (2017). *Water Distribution Study for PD 1, 1W and 2; Final Report (Final).*

City of Toronto. (2006). *Wet Weather Flow Management Guidelines.*

City of Toronto. (2017). *Green Streets Technical Guidelines.*

Cook, M. (n.d.). *The Vanishing Point www.vanishingpoint.ca*. Retrieved March 30, 2017

DTAH. (2017). *Bloor West Village, Phase 1 Summary Report.*

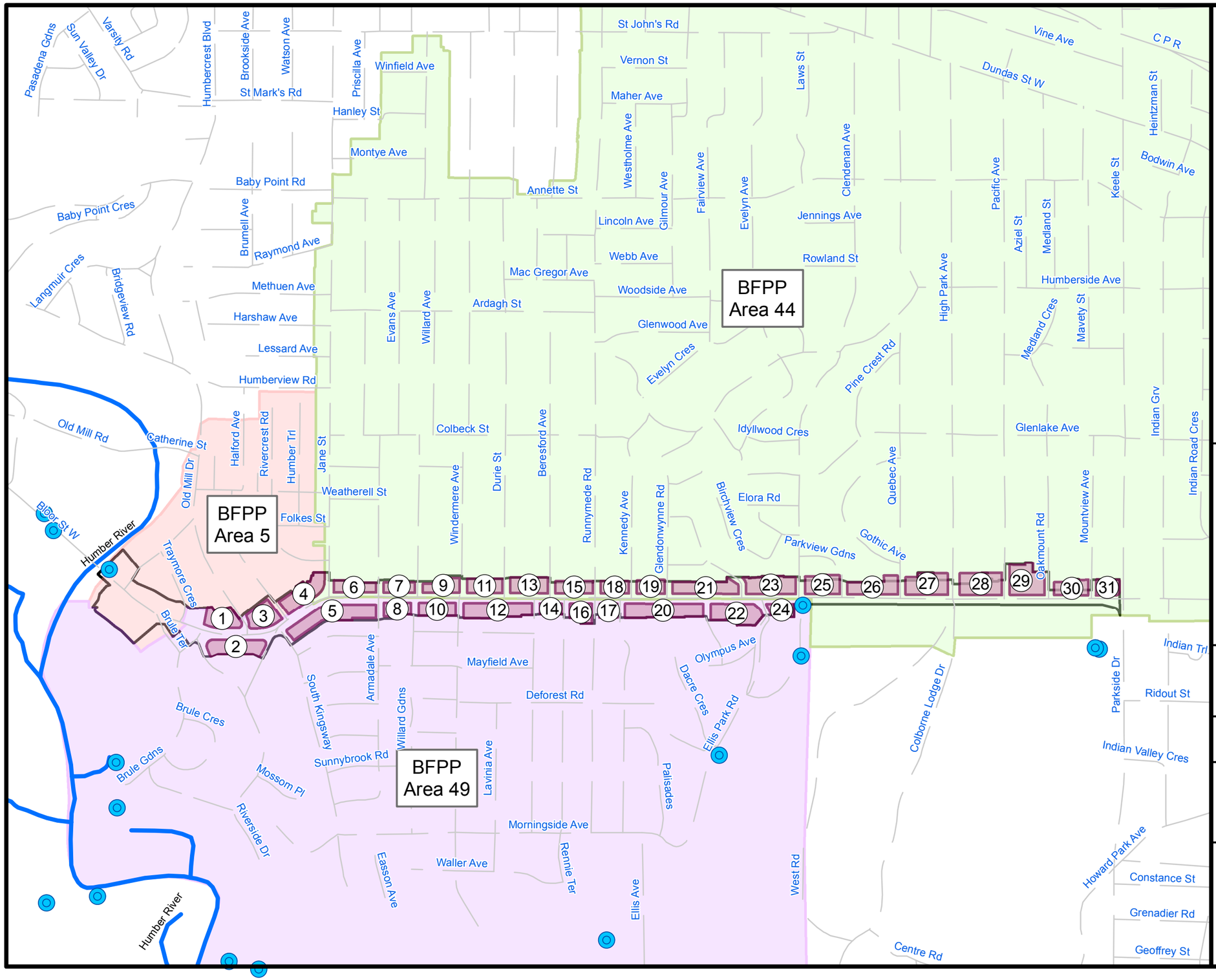
Ministry of Environment and Climage Change. (2016, March 9). *F-5-5 Determination of treatment requirements for municipal and private combined and partially separated sewage systems.*

WSP Canada. (2017). *Bloor West Village Avenue Study, Future Transportation Conditions Report.*

WSP Canada. (2018). *Bloor West Village Avenue Study, Municipal Servicing Existing Conditions Report.*

XCG Consultants Ltd. (2014). Environmental Study Report South Class Environmental Assessment Area Combined Sewer Overflow Control and Basement Flooding Areas 4 and 5.

FIGURES



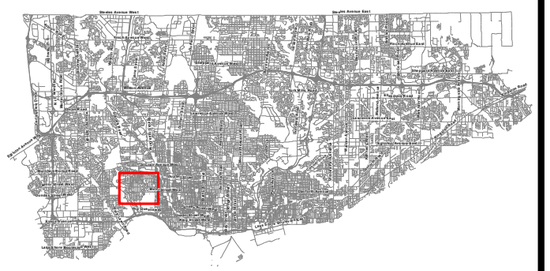
N

Legend

- Bloor West Village Study Area
- Future Development Blocks

Basement Flooding Study Areas

- Area 5
- Area 44
- Area 49
- Watercourse
- Outfall



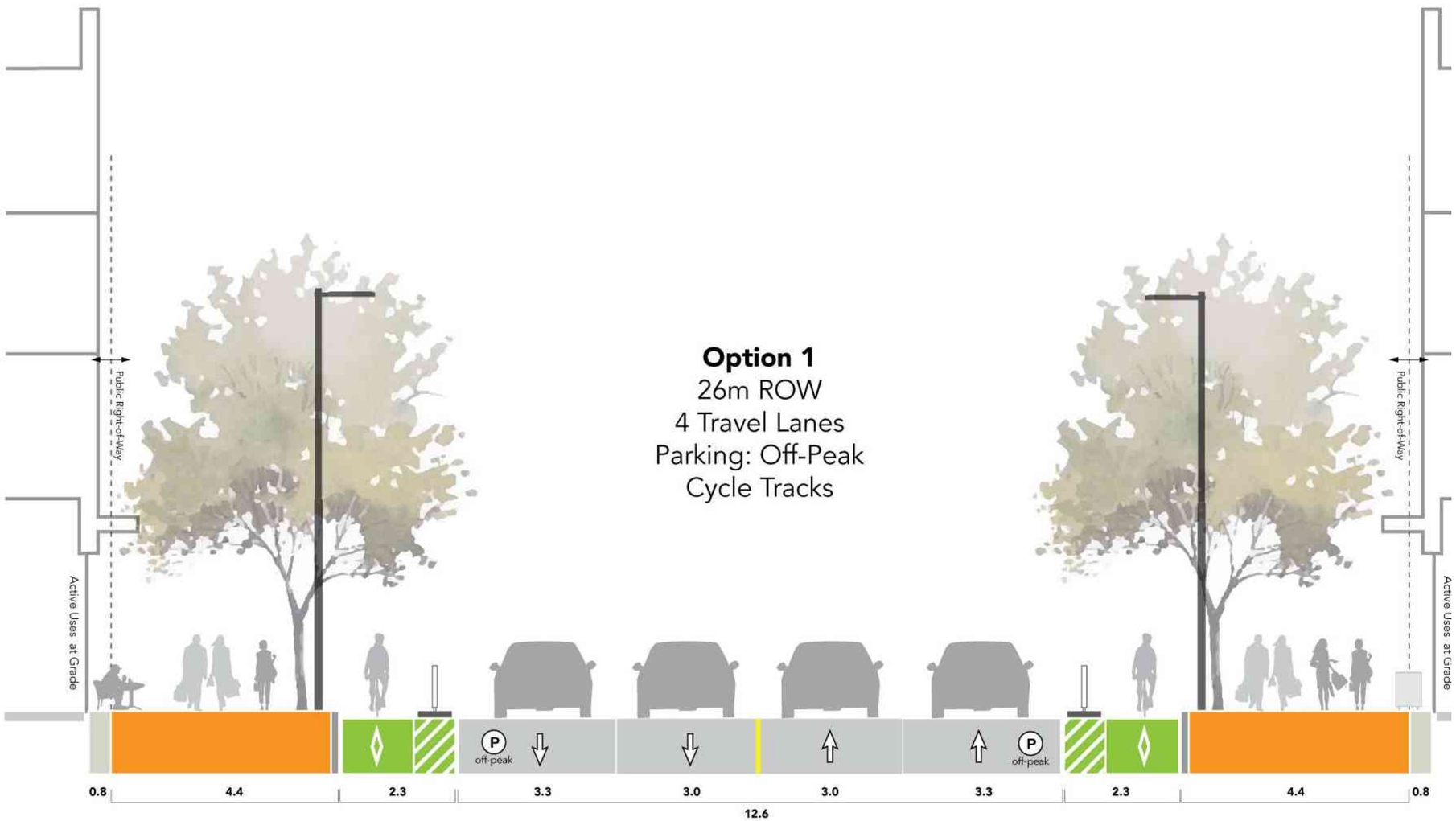
wsp

Project 16M-00553-01

0.0 0.050 0.1 0.2 0.3 0.4 Kilometers

1:10,000

Figure 1:
Bloor West Village
BFPP Study Areas &
Future Development Blocks



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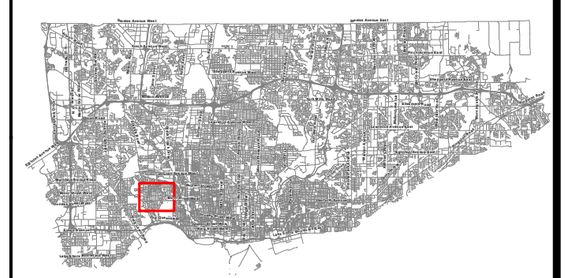

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Figure 2:
Bloor West Village
Proposed Cross-Section

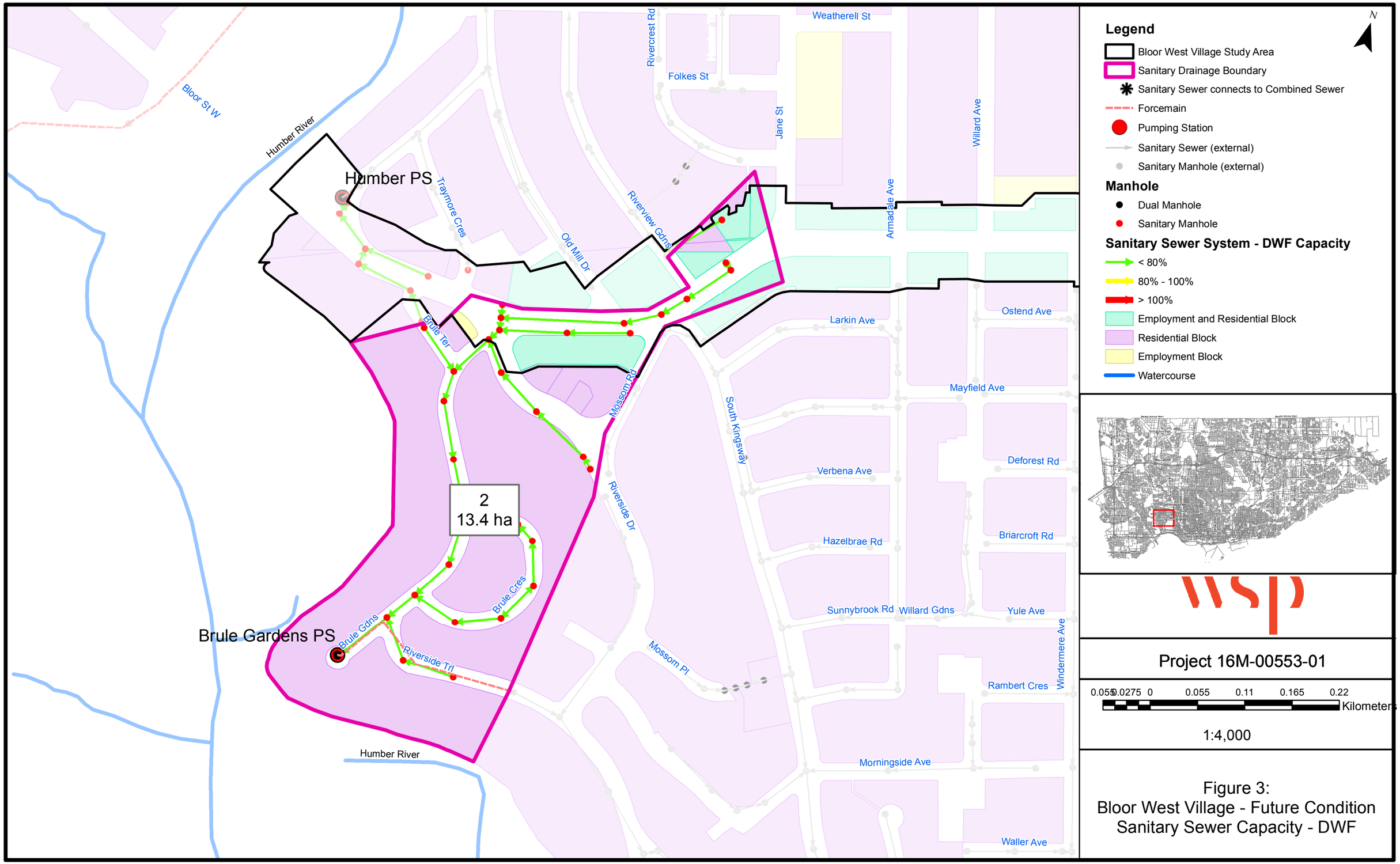


Figure 3:
Bloor West Village - Future Condition
Sanitary Sewer Capacity - DWF

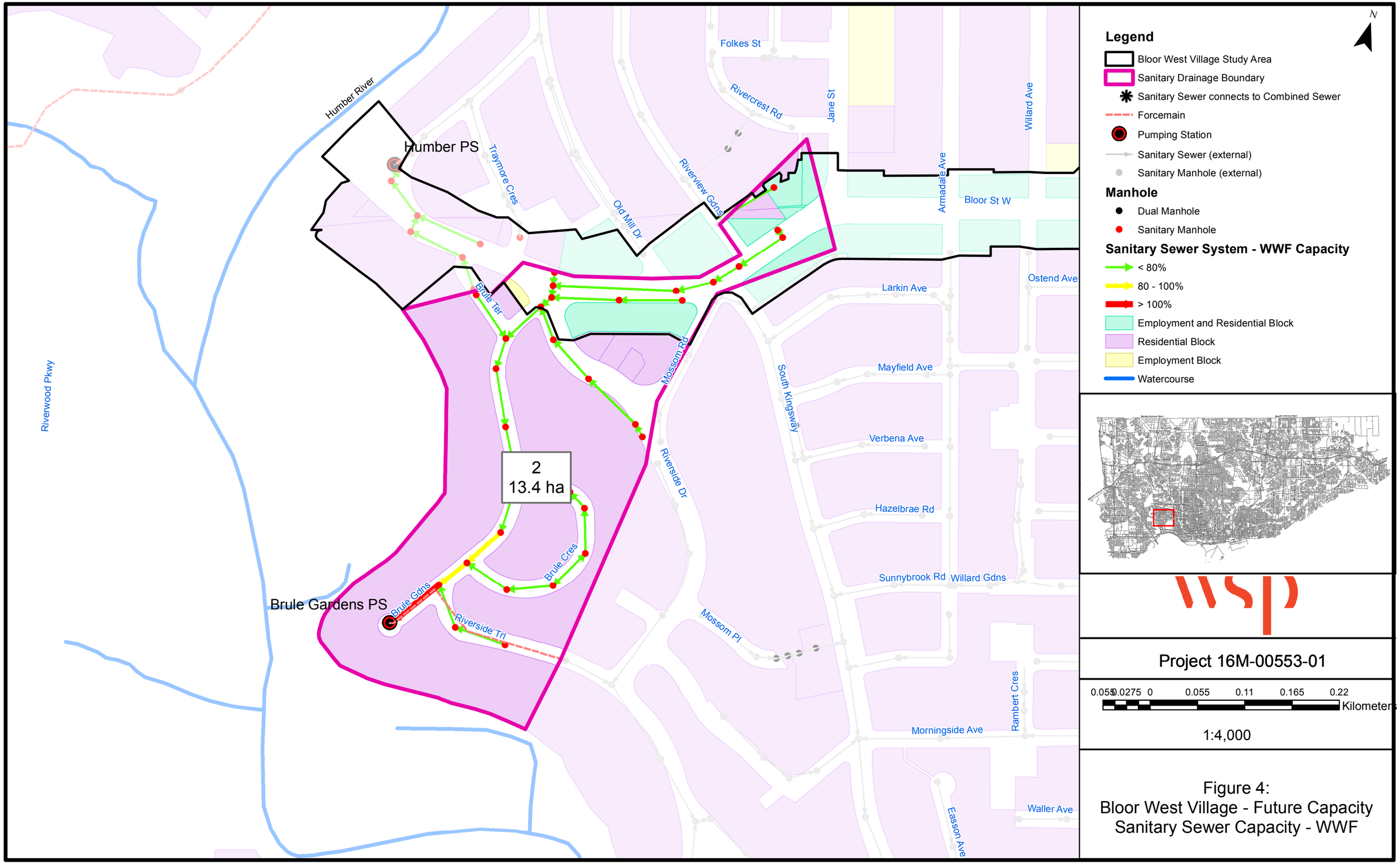
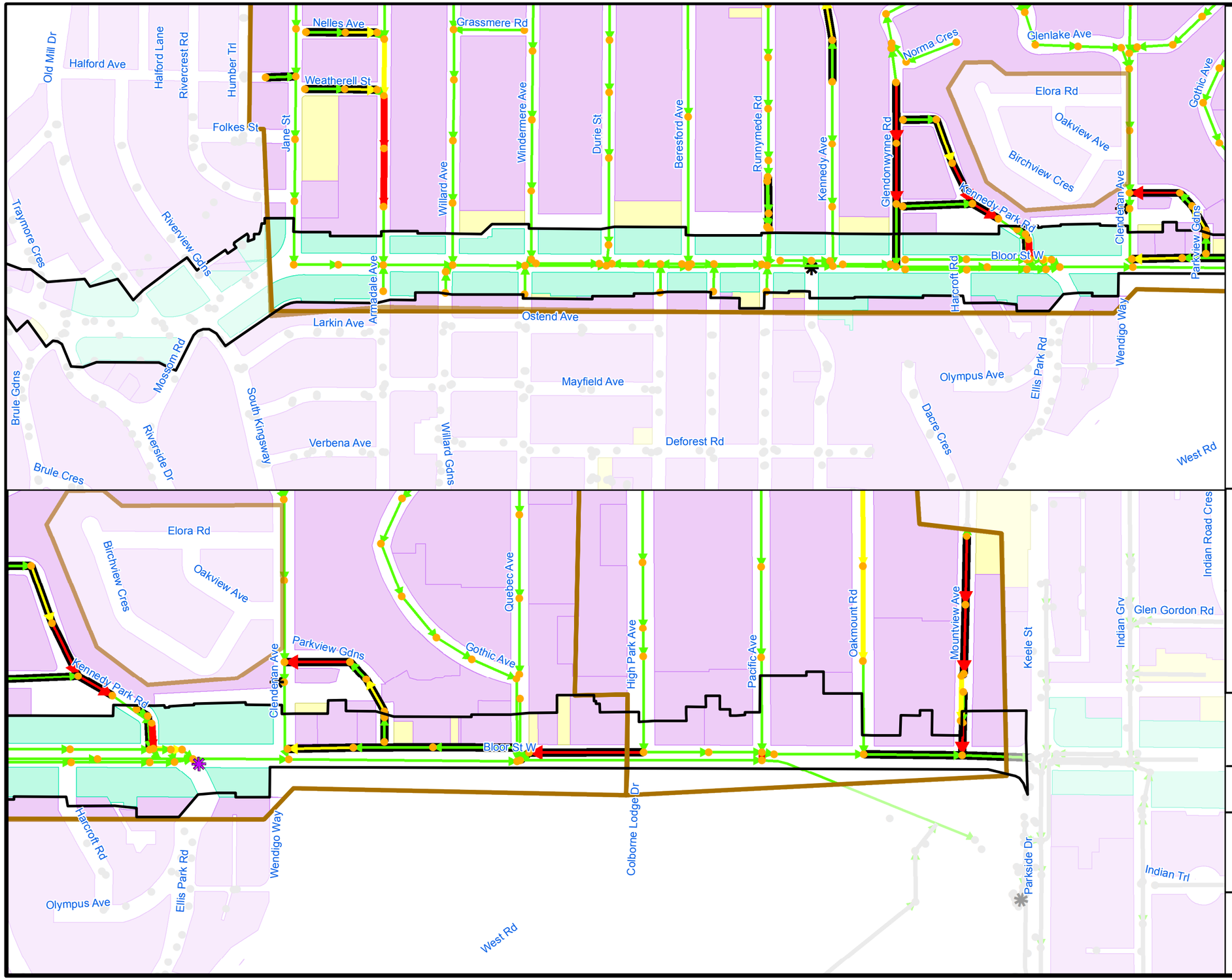


Figure 4:
Bloor West Village - Future Capacity
Sanitary Sewer Capacity - WWF



N

Legend

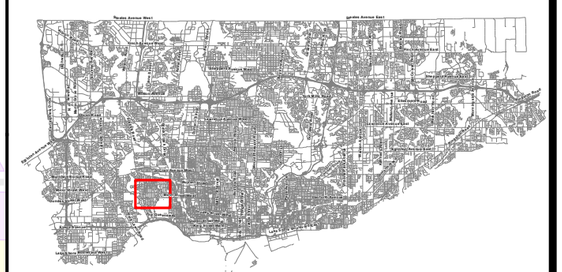
- Bloor West Village Study Area
- Combined Sewer Boundary
- Storm Sewer Discharges to Combined Sewer
- Sanitary Sewer Discharges to Combined Sewer
- Residential Block
- Employment Block
- Employment and Residential Block
- Watercourse

Combined Sewer (No Road Flow)

- < 80%
- 80 - 100%
- > 100%

Combined Sewer (Receives Road Flow)

- < 80%
- 80 - 100%
- > 100%
- Combined Manhole
- Combined Sewer Line (external)
- Combined Manholes (external)



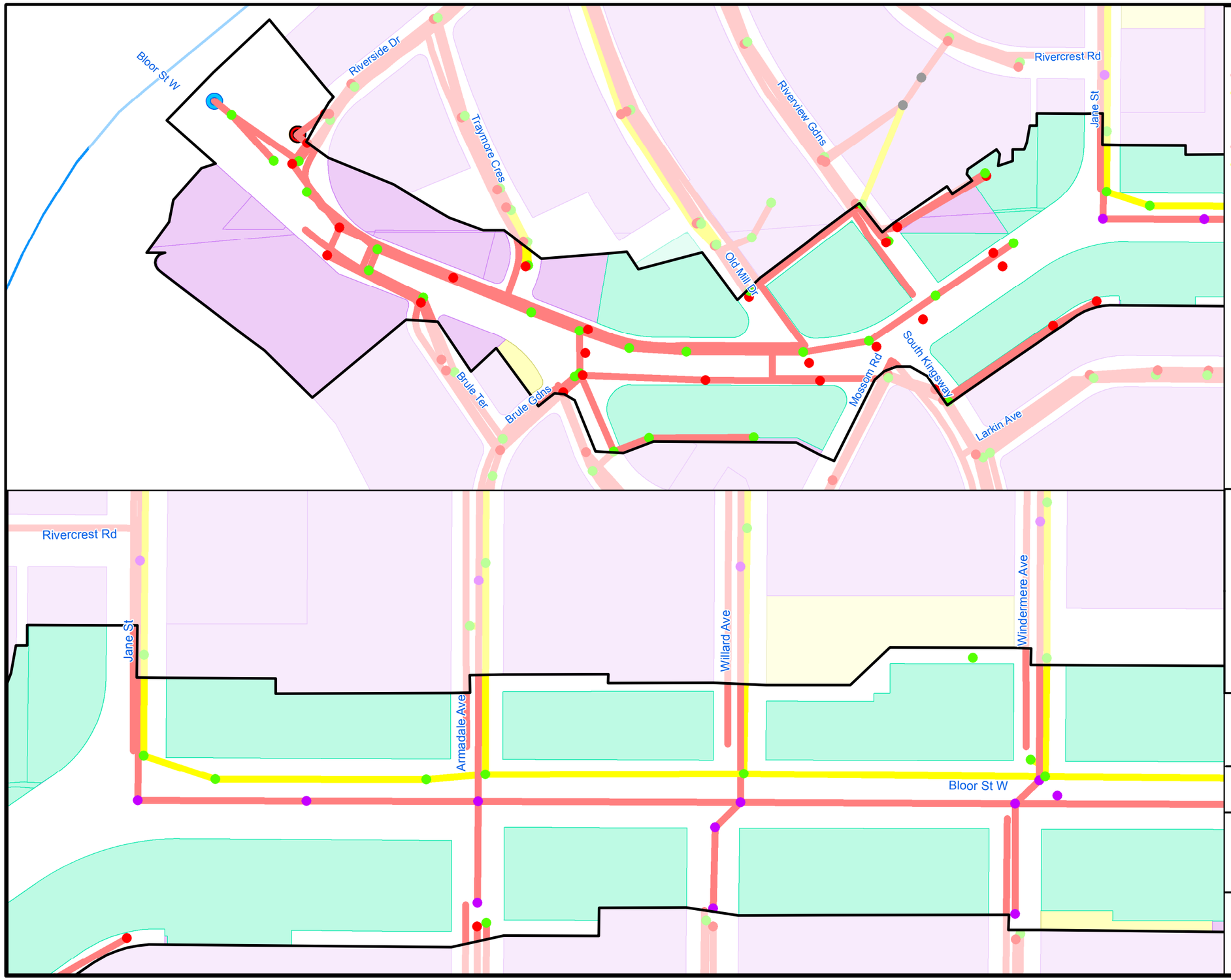
wsp

Project 16M-00553-01

0.08 0.04 0 0.08 0.16 0.24 0.32 Kilometers

1:5,700

Figure 5:
Bloor West Village - Future Condition
Combined Sewer Capacity - DWF



Legend

Watermain Age

Construction Year

- 0 - 1969
- 1970

Sewer Age

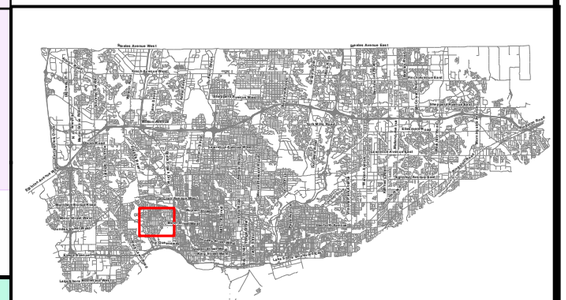
Construction Year

- 0 - 1969
- 1970 - 1989
- Mask_study boundary
- Bloor West Village Study Area
- Storm Sewer Discharges to Combined Sewer
- Sanitary Sewer Discharges to Combined Sewer
- Residential Block
- Employment Block
- Employment and Residential Block
- Watercourse
- Outfall
- Pumping Station

Sew_Manhole

FLOW_TYPE

- COMB
- DUAL
- SAN
- STM

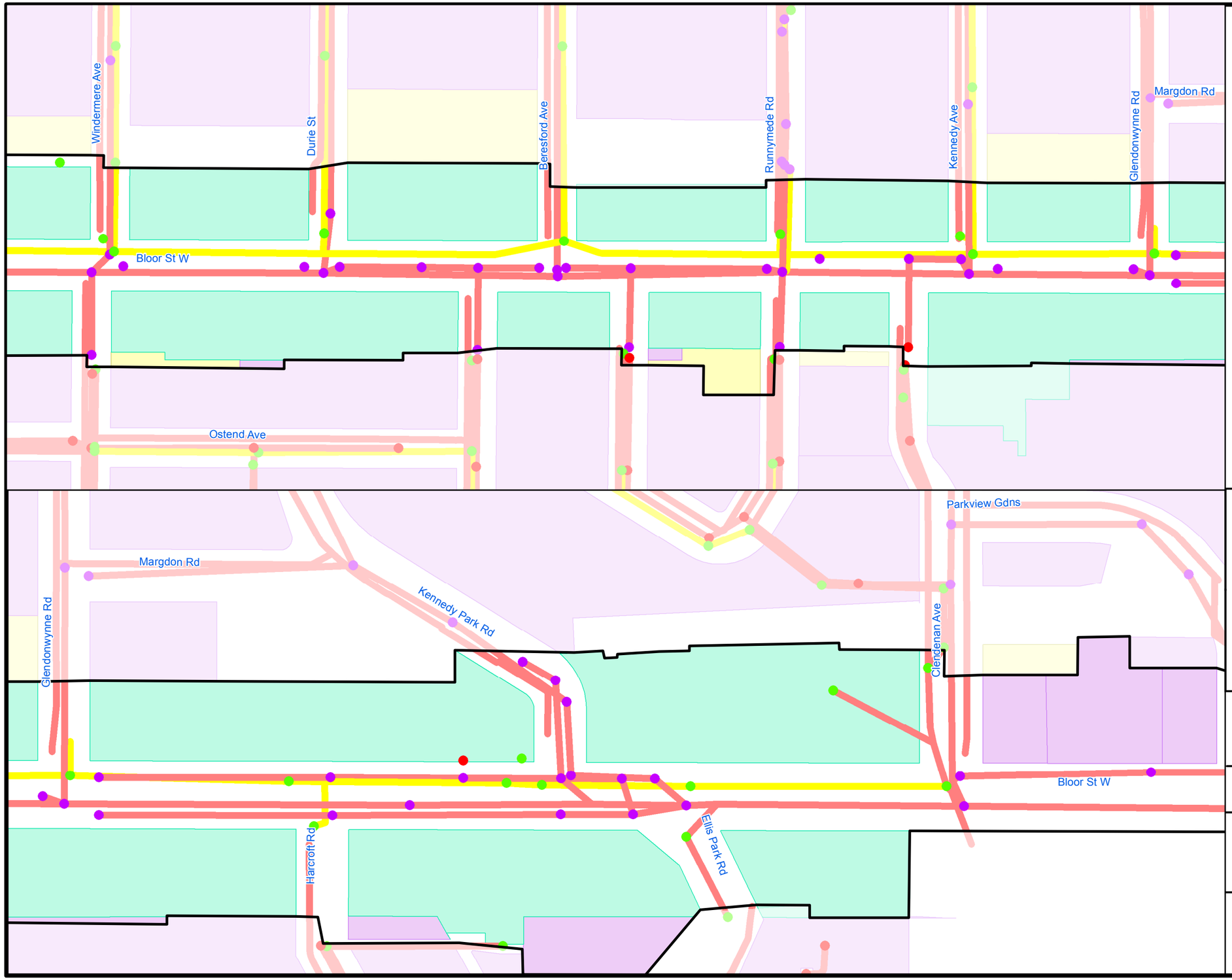


Project 16M-00553-01

0.035 0.0175 0 0.035 0.07 0.105 0.14 Kilometers

1:2,500

Figure 6:
Bloor West Village
Infrastructure Service Age



N

Legend

Sew_Manhole

FLOW_TYPE

- COMB
- SAN
- SCSO
- STM
- Storm Sewer Discharges to Combined Sewer
- Sanitary Sewer Discharges to Combined Sewer
- Residential Block
- Employment Block
- Employment and Residential Block
- Watercourse

Watermain Age

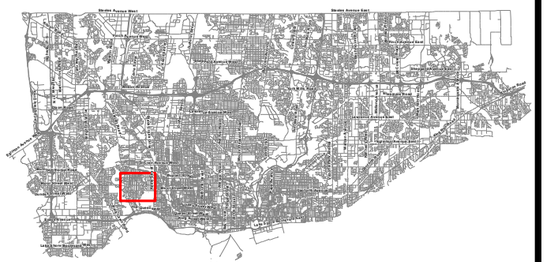
Construction Year

- 0 - 1969
- 1970

Sewer Age

Construction Year

- 0 - 1969
- 1970 - 1989
- Bloor West Village Study Area



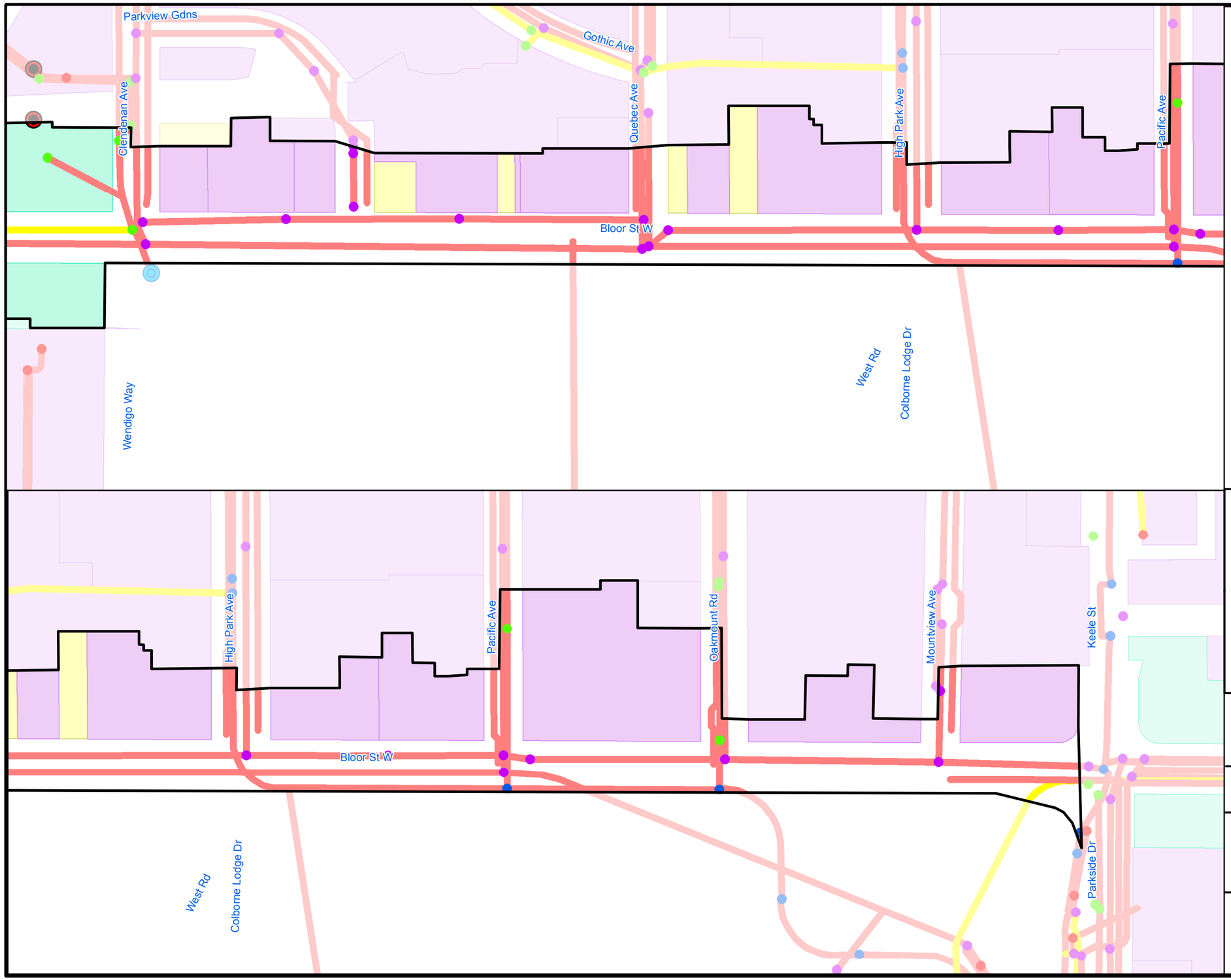
wsp

Project 16M-00553-01

0.025 0.0125 0 0.025 0.05 0.075 0.1 Kilometers

1:2,000

Figure 7:
Bloor West Village
Infrastructure Service Age



Legend

Sew_Manhole

FLOW_TYPE

- COMB
- CSO
- SAN
- SCSO
- STM
- Storm Sewer Discharges to Combined Sewer
- Sanitary Sewer Discharges to Combined Sewer
- Residential Block
- Employment Block
- Employment and Residential Block
- Watercourse

Watermain Age

Construction Year

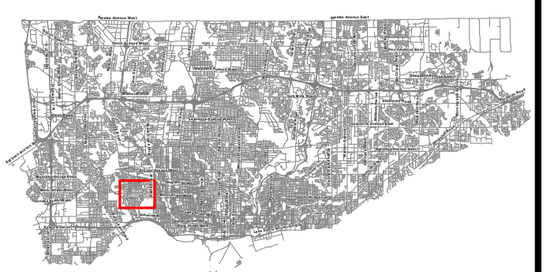
- 0 - 1969
- 1970

Sewer Age

Construction Year

- 0 - 1969
- 1970 - 1989
- Bloor West Village Study Area
- Outfall
- Pumping Station

N



wsp

Project 16M-00553-01

0.0125 0 0.025 0.05 0.075 0.1 Kilometers

1:2,000

Figure 8:
Bloor West Village
Infrastructure Service Age

APPENDIX

A

EXISTING CONDITION MODELING RESULTS:
EXCEPRTS FROM THE MUNICIPAL SERVICING EXISTING CONDITIONS REPORT

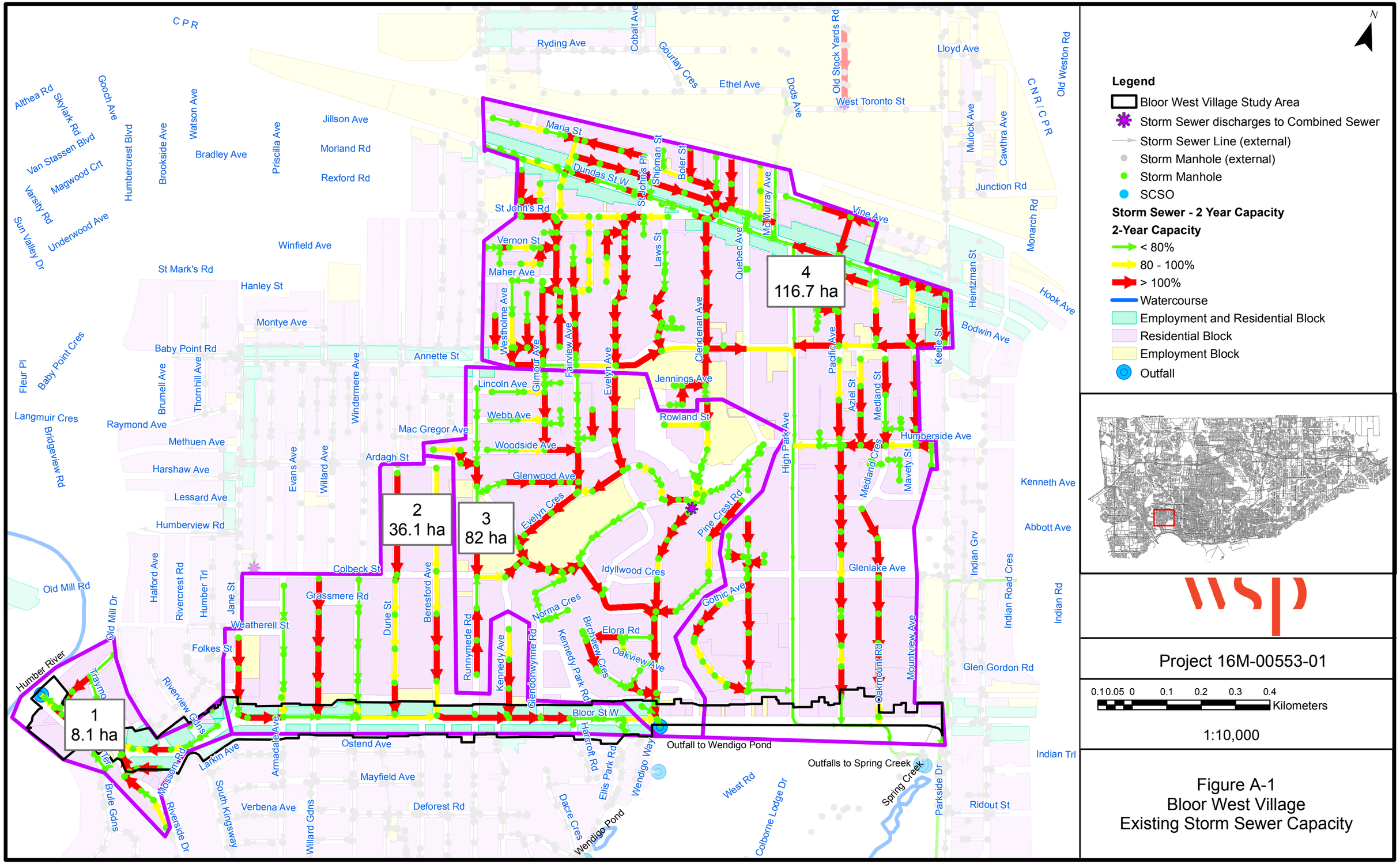
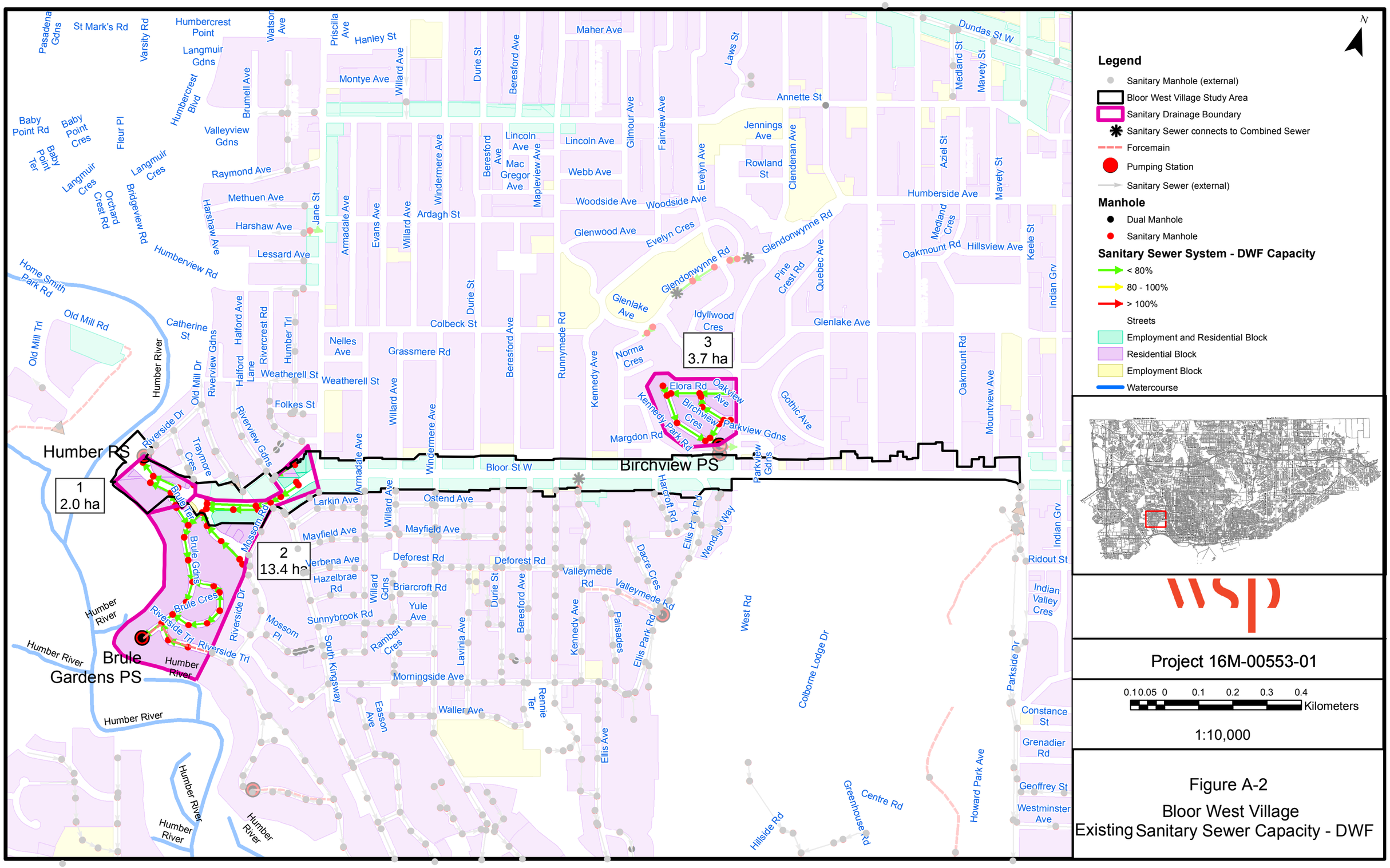
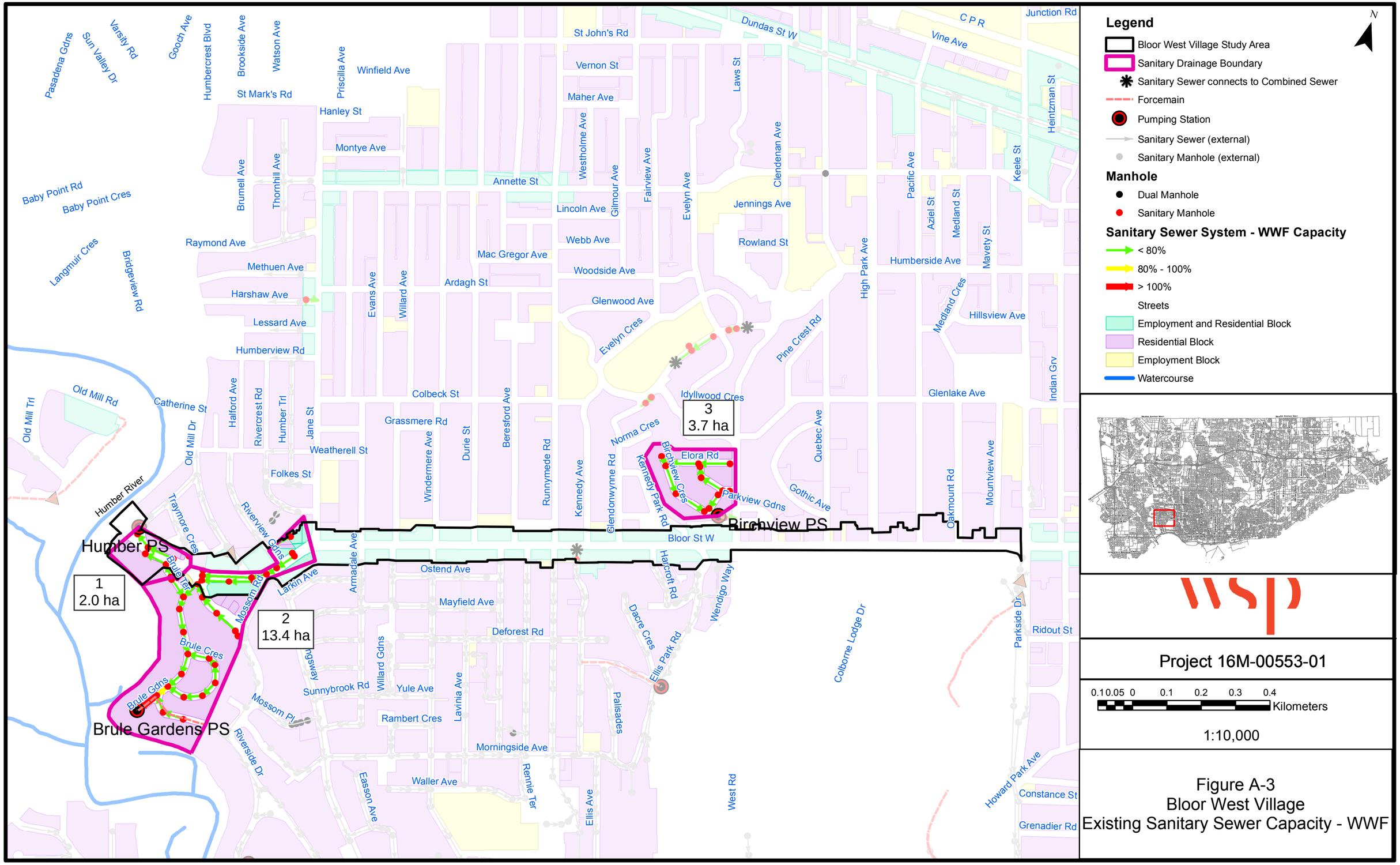
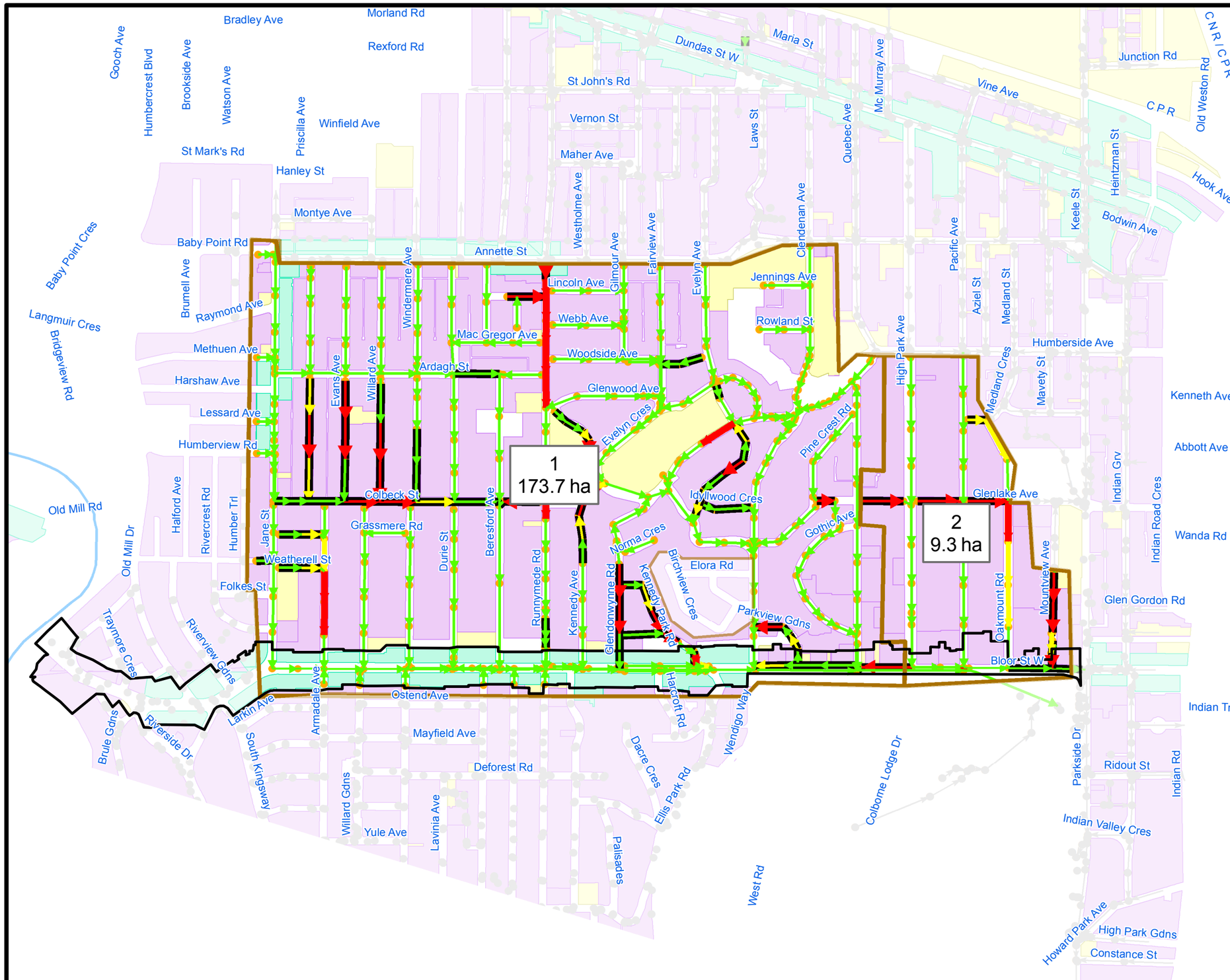


Figure A-1
Bloor West Village
Existing Storm Sewer Capacity


Legend
Sanitary Manhole (external)
Bloor West Village Study Area
Sanitary Drainage Boundary
Sanitary Sewer connects to Combined Sewer
Forcemain
Pumping Station
Sanitary Sewer (external)
Manhole
Dual Manhole
Sanitary Manhole
Sanitary Sewer System - DWF Capacity
< 80%
80 - 100%
> 100%
Streets
Employment and Residential Block
Residential Block
Employment Block
Watercourse
N
Humber PS
Brule Gardens PS
Birchview PS
1
2.0 ha
2
13.4 ha
3
3.7 ha
Project 16M-00553-01
0.1 0.05 0 0.1 0.2 0.3 0.4
Kilometers
1:10,000
Figure A-2
Bloor West Village
Existing Sanitary Sewer Capacity - DWF


Legend
Bloor West Village Study Area
Sanitary Drainage Boundary
Sanitary Sewer connects to Combined Sewer
Forcemain
Pumping Station
Sanitary Sewer (external)
Sanitary Manhole (external)
Manhole
Dual Manhole
Sanitary Manhole
Sanitary Sewer System - WWF Capacity
< 80%
80% - 100%
> 100%
Streets
Employment and Residential Block
Residential Block
Employment Block
Watercourse
N
Humber PS
Brule Gardens PS
Birchview PS
1
2.0 ha
2
13.4 ha
3
3.7 ha
Bloor St W
Dundas St W
Humber River
Project 16M-00553-01
0.1 0.05 0 0.1 0.2 0.3 0.4
Kilometers
1:10,000
Figure A-3
Bloor West Village
Existing Sanitary Sewer Capacity - WWF



Legend

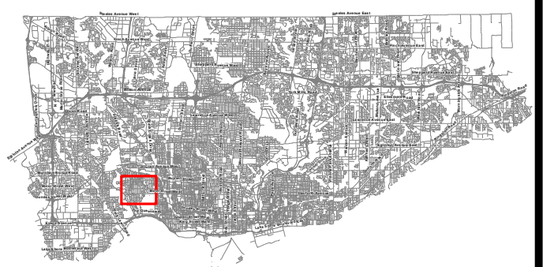
- Bloor West Village Study Area
- Combined Sewer Boundary
- Storm Sewer Discharges to Combined Sewer
- Sanitary Sewer Discharges to Combined Sewer
- Residential Block
- Employment Block
- Employment and Residential Block
- Watercourse

Combined Sewer (No Road Flow)

- < 80%
- 80 - 100%
- > 100%

Combined Sewer (Receives Road Flow)

- < 80%
- 80 - 100%
- > 100%
- Combined Manhole
- Combined Sewer Line (external)
- Combined Manholes (external)



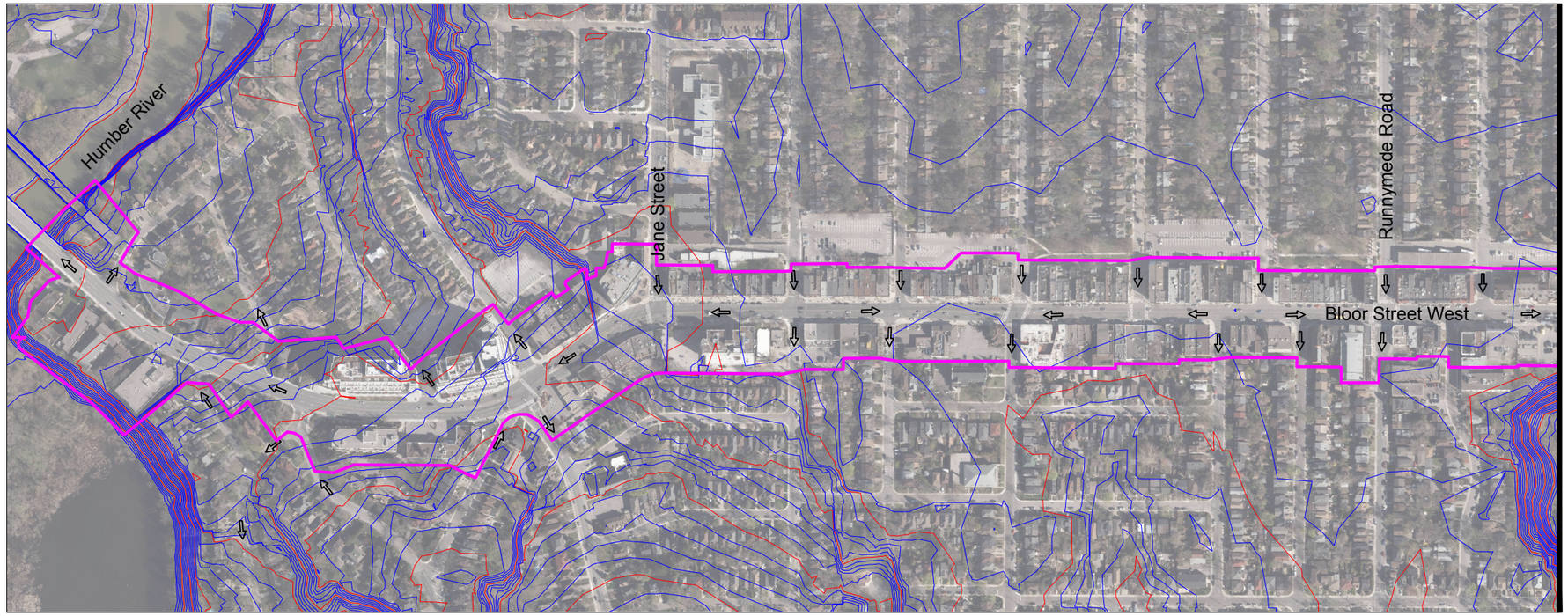
wsp

Project 16M-00553-01

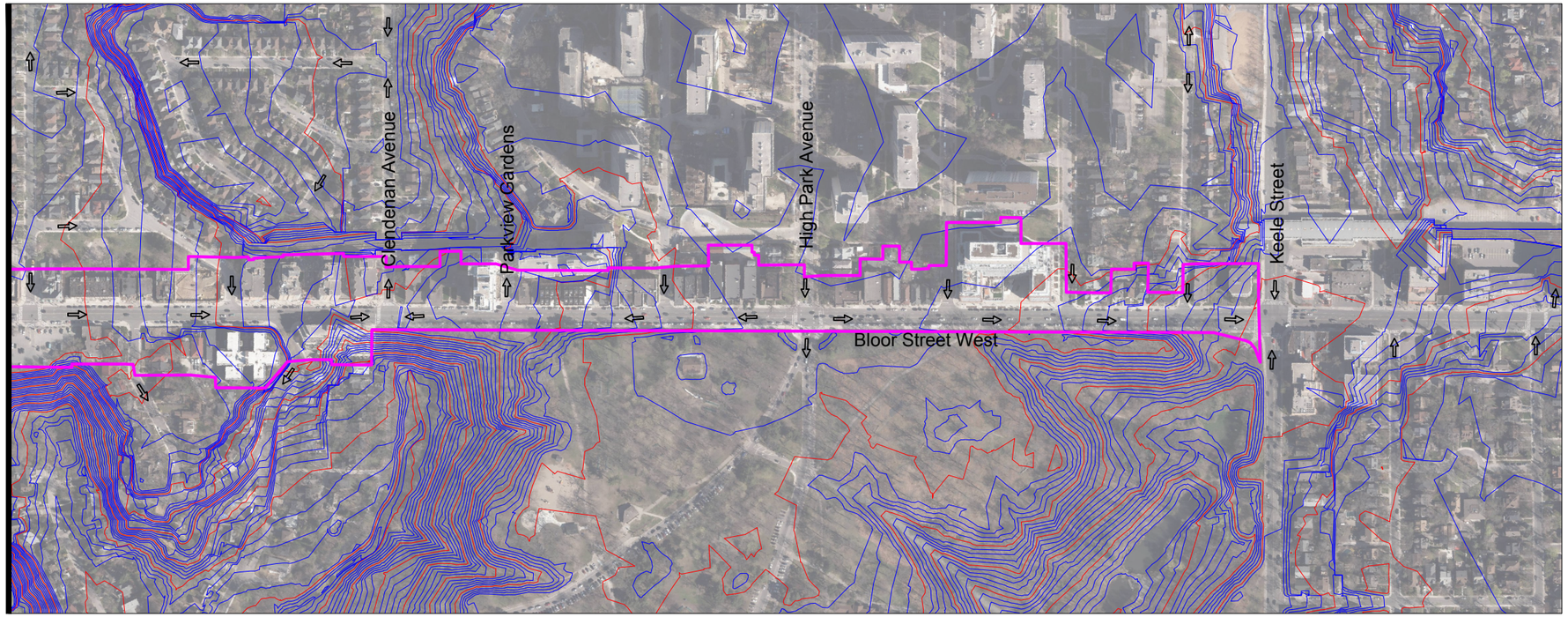
0.15 0.075 0 0.15 0.3 0.45 Kilometers

1:10,000

Figure A-4
Bloor West Village
Existing Combined Sewer Capacity



MATCHLINE - SEE BELOW

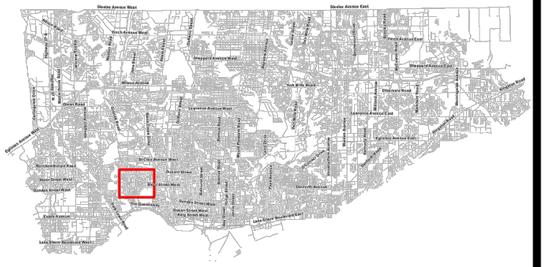


MATCHLINE - SEE ABOVE

LEGEND

- Overland Flow Route
- Major Contour (5m intervals)
- Minor Contour (1m intervals)
- Study Boundary

N



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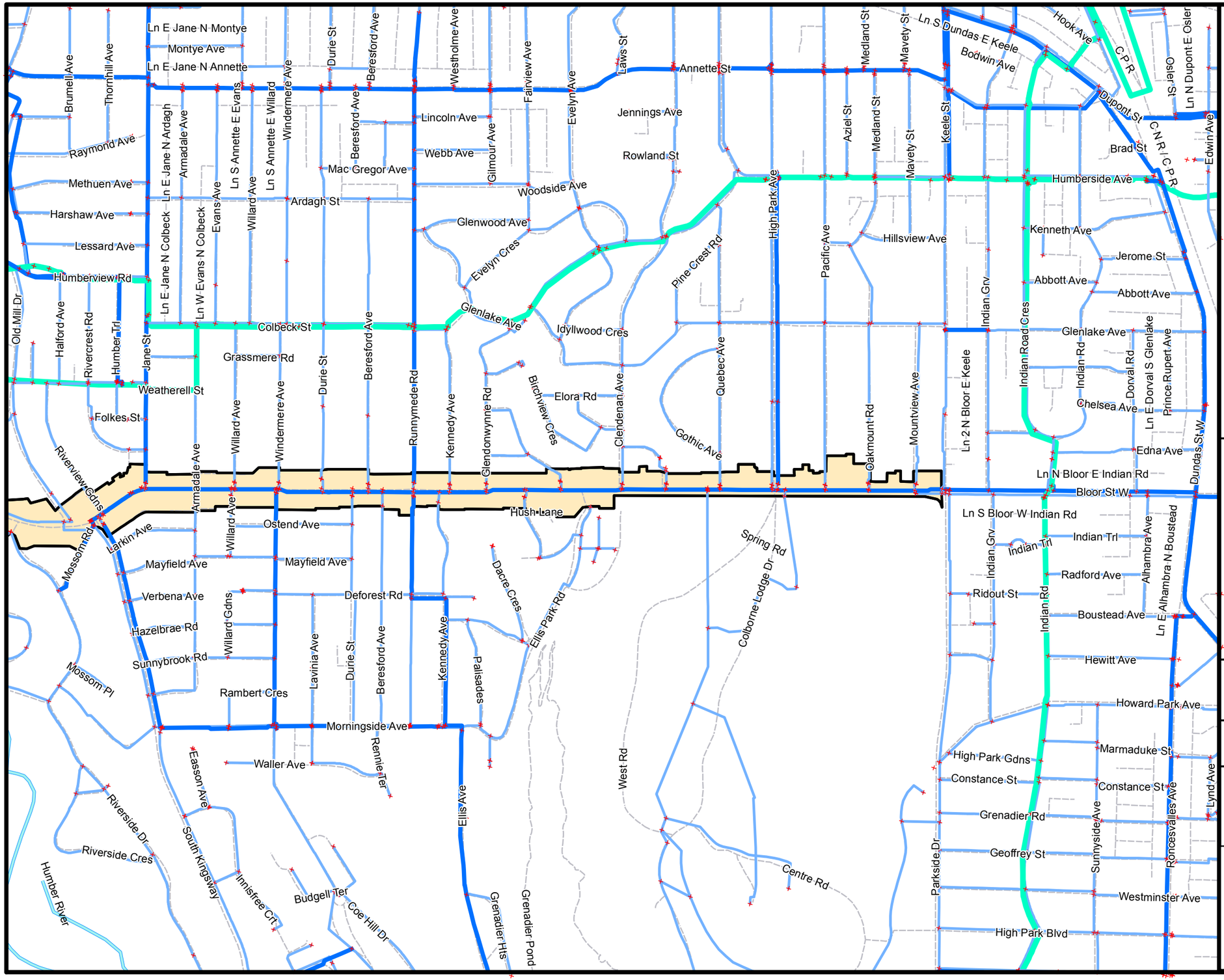
Project 16M-00553-01

N.T.S.

Figure A-5
Bloor West Village
Existing Overland Flow Patterns



Legend

WAT_Junctions

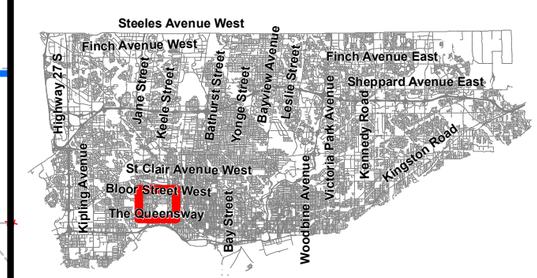
Watermain Diameter

- 0 - 299
- 300 - 600
- 601 - 4000

Road CL

Watercourse

Bloor West Village Study Area



wsp

Project 16M-00553-01

0.1 0.05 0 0.1 0.2 0.3 0.4 Kilometers

1:10,000

Figure A-6
Bloor West Village
Existing Water Infrastructure

APPENDIX

B

FUTURE CONDITION MODELING RESULTS: SANITARY

SANITARY SEWER DESIGN SHEET

Bloor West Village
City of Toronto

PREPARED BY: DB
CHECKED BY: AS
DATE: 2018-04-06
FILE No. 16-16138

Street	Asset ID	UPSTREAM Rec MH	DOWNSTREAM MH	NO. OF HECTARES IN AREA	CONTRIB	TOTAL	NO. OF PEOPLE IN AREA	CONTRIB.	TOTAL	Flow M	Pop. Flow (l/s)	Inf. Flow Dry (l/s)	Inf. Flow Wet (l/s)	INTENSITY Q_C (L/s)	CONT. RATIONAL FLOW Dry (L/s)	Flow Total Wet (L/s)	PIPE LENGTH (m)	Pipe Shape	SIZE (mm)	SIZE (mm)	UP MH INV Rev	DOWN MH INV Rev	GRADE (%)	CAPACITY (L/s)	VEL. (m/s)	TIME (mins)	%CAP Dry	%CAP Wet
Bloor St W	SL200763	MH3412005990	MH3003265	0.152	0.00	0.15	664	0	664	3.91	7.20	0.04	0.46	0.0	7.2	7.7	10.3	C	250	0	103.259	102.316	9.16%	179.9	3.67	0.05	4.03	4.26
Bloor St W	SL200764	MH3003265	MH3003270	0.269	0.15	0.42	266	664	930	3.82	9.87	0.11	1.26	0.0	10.0	11.1	61.2	C	250	0	102.316	101.15	1.91%	82.1	1.67	0.61	12.15	13.56
Bloor St W	SL200767	MH3003270	MH3003267	0.070	0.42	0.49	4	930	934	3.82	9.91	0.13	1.47	0.0	10.0	11.4	34.8	C	250	0	101.1	100.146	2.74%	98.5	2.01	0.29	10.19	11.56
Bloor St W	SL200765	MH3003267	MH3003268	0.089	0.49	0.58	5	934	940	3.82	9.96	0.15	1.74	0.0	10.1	11.7	44.4	C	250	0	100.116	98.777	3.02%	103.3	2.10	0.35	9.79	11.33
Bloor St W	SL200766	MH3003268	MH3003269	0.287	0.58	0.87	8	940	948	3.81	10.05	0.23	2.60	0.0	10.3	12.6	143.5	C	250	0	98.737	96.178	1.78%	79.4	1.62	1.48	12.93	15.92
Bloor St W	SL1454017	MH3398705742	MH3003269	0.103	0.00	0.10	4	0	4	4.00	0.05	0.03	0.31	0.0	0.1	0.4	15.3	C	150	0	96.223	96.208	0.10%	4.8	0.27	0.94	1.56	7.50
Bloor St W	SL200760	MH3003269	MH3395805747	0.029	0.97	1.00	0	952	952	3.81	10.09	0.26	3.00	0.0	10.3	13.1	14.3	C	250	0	96.128	96.081	0.33%	34.1	0.69	0.34	0.35	3.37
Bloor St W	SL1453074	MH3399905893	MH3397705823	0.284	0.00	0.28	143	0	143	4.00	1.59	0.07	0.85	0.0	1.7	2.4	73.3	C	200	0	99.697	97.378	3.16%	58.3	1.86	0.66	2.85	4.19
Bloor St W	SL1453075	MH3397705823	MH3395805747	0.306	0.28	0.59	154	143	297	4.00	3.30	0.15	1.77	0.0	3.5	5.1	78.8	C	200	0	97.378	96.051	1.68%	42.6	1.35	0.97	8.11	11.91
Bloor St W	SL1454790	MH3395805747	MH3394305739	0.043	1.59	1.63	7	1249	1257	3.73	13.03	0.42	4.90	0.0	13.5	17.9	16.6	C	250	0	95.954	95.686	1.61%	75.6	1.54	0.18	17.81	23.73
Riverside Dr	SL1453212	MH3391105764	MH3394305739	0.313	1.23	1.54	89	52	141	4.00	1.57	0.40	4.62	0.0	2.0	6.2	40.9	C	200	0	99.852	98.313	3.76%	63.6	2.03	0.34	3.09	9.72
Brule Gardens	SL1454696	MH3394305739	MH3389605711	0.388	3.17	3.56	39	1398	1437	3.69	14.74	0.93	10.68	0.0	15.7	25.4	54.8	C	250	0	95.686	95.268	0.76%	51.9	1.06	0.86	0.16	.94
0	SL1454689	MH3359905720	MH3354305681	0.654	12.12	12.77	31	1847	1878	3.61	18.81	3.32	38.32	0.0	22.1	22.1	68.2	C	250	0	87.423	86.947	0.70%	49.7	1.01	1.12	.55	[illegible]
Brule Terrace	SL1454006	MH3394005658	MH3397205634	0.446	0.00	0.45	21	0	21	4.00	0.23	0.12	1.34	0.0	0.3	1.6	39.0	C	200	0	93.949	91.571	6.10%	81.0	2.58	0.25	0.43	1.94
Bloor St W	SL1454007	MH3397205634	MH3398305568	0.806	0.45	1.25	30	21	51	4.00	0.57	0.33	3.76	0.0	0.9	4.3	67.3	C	200	0	91.571	87.499	6.05%	80.7	2.57	0.44	1.11	5.36
Bloor St W	SL1454008	MH3398305568	MH3400305570	0.237	1.25	1.49	9	51	60	4.00	0.67	0.39	4.47	0.0	1.1	5.1	19.8	C	250	0	87.499	86.615	4.46%	125.7	2.56	0.13	0.84	4.09
Bloor St W	SL1454009	MH3399305650	MH3400305570	0.286	0.00	0.29	6	0	6	4.00	0.06	0.07	0.86	0.0	0.1	0.9	79.9	C	200	0	89.066	86.615	3.07%	57.4	1.83	0.73	0.24	1.60
Bloor St W	SL52343	MH3400305570	MH3403205529	0.475	1.77	2.25	185	66	251	4.00	2.79	0.59	6.75	0.0	3.4	9.5	50.6	C	300	0	86.615	85.938	1.34%	111.9	1.58	0.53	3.02	8.53
Riverside Rd	SL52344	MH3403205529	MH3404805535	0.072	2.25	2.32	2	251	253	4.00	2.81	0.60	6.97	0.0	3.4	9.8	16.5	C	225	0	85.756	85.683	0.44%	29.9	0.75	0.37	11.42	2.72
Riverside Rd	SL53136	MH3404805535	COL-PHB	0.036	2.32	2.36	1	253	253	4.00	2.81	0.61	7.08	0.0	3.4	9.9	8.3	C	250	0	85.643	85.579	0.77%	52.2	1.06	0.13	6.56	18.94

SANITARY SEWER DESIGN SHEET

Bloor West Village
City of Toronto

l/person/day
l/person/day
P FLOW + I l/s

PREPARED BY: DB
CHECKED BY: AS
DATE: 2018-03-16
FILE No. 16-16138

Street	Asset ID	UPSTREAM MH	DOWNSTREAM MH	NO. OF HECTARES IN AREA	CONTRIB	TOTAL	NO. OF PEOPLE IN AREA	CONTRIB	TOTAL	Flow M	Pop_Flow (l/s)	Inf_Flow Dry (l/s)	INTENSIT Inf_Flow Wet (l/s)	CONT. Q_C (L/s)	RATIONAL FLOW Flow Total Dry (L/s)	Flow Total Wet (L/s)	PIPE LENGTH (m)	Pipe Shap	SIZE (mm)	SIZE (mm)	UP MH INV Rev	DOWN MH INV Rev	GRADE (%)	CAPACITY (L/s)	VEL. (m/s)	TIME (mins)	PIPE CLASS	%CAP Dry	%CAP Wet
0	SL1440437	MH3654707159	MH3654407147	0.236	0.00	0.24	9	0	9	4.00	0.10	0.06	0.71	0.0	0.2	0.8	13.0	C	150	0	121.79	121.56	1.77%	20.3	1.15	0.19	XXX	0.81	3.99
0	SL1440438	MH3654407147	MH3643707180	0.224	0.24	0.46	0	9	9	4.00	0.10	0.12	1.38	0.0	0.2	1.5	112.0	C	300	0	120.25	119.24	0.90%	91.8	1.30	1.44	PVC	0.24	1.61
0	SL1440439	MH3643707180	MH3636607202	0.147	0.46	0.61	0	9	9	4.00	0.10	0.16	1.82	0.0	0.3	1.9	73.7	C	300	0	119.19	118.545	0.88%	90.5	1.28	0.96	PVC	0.29	2.13
Glendonwynne Rd	SL1446282	MH3510107000	MH3511207020	0.117	0.00	0.12	5	0	5	4.00	0.06	0.03	0.35	0.0	0.1	0.4	23.0	C	300	0	106.349	106.075	1.19%	105.5	1.49	0.26	VCP	0.09	0.39
Glendonwynne Rd	SL1446283	MH3507006963	MH3501206914	0.579	0.00	0.58	50	0	50	4.00	0.55	0.15	1.74	0.0	0.7	2.3	75.4	C	375	0	106.223	104.303	2.55%	279.8	2.53	0.50	VCP	0.25	0.82
Glendonwynne Rd	SL1446284	MH3501206914	MH3495006869	0.588	0.58	1.17	50	50	100	4.00	1.11	0.30	3.50	0.0	1.4	4.6	76.6	C	375	0	104.272	102.641	2.13%	255.8	2.32	0.55	VCP	0.55	1.80
Glendonwynne Rd	SL1446285	MH3511207020	MH3513207066	0.253	0.12	0.37	12	5	17	4.00	0.19	0.10	1.11	0.0	0.3	1.3	49.5	C	300	0	106.044	104.816	2.48%	152.3	2.15	0.38	VCP	0.19	0.85
Glendonwynne Rd	SL1447362	MH3502206903	MH3501506911	0.062	0.00	0.06	5	0	5	4.00	0.06	0.02	0.18	0.0	0.1	0.2	10.8	C	300	0	115.091	114.983	1.00%	96.7	1.37	0.13	VCP	0.08	0.25
Kennedy Ave	SL1448006	MH3433406772	MH3437706759	0.295	0.00	0.29	209	0	209	4.00	2.32	0.08	0.88	0.0	2.4	3.2	45.4	C	300	0	108.329	108.152	0.39%	60.4	0.85	0.89	VCP	3.96	5.30
0	SL1448625	JP3482705794	MH3482605799	0.013	0.00	0.01	0	0	0	4.00	0.00	0.00	0.04	0.0	0.0	0.0	6.5	C	225	0	73.449	73.384	1.00%	44.9	1.13	0.10	VCP	0.01	0.09
0	SL1448626	MH3482605799	CN6435	0.076	0.05	0.12	0	0	0	4.00	0.00	0.03	0.37	0.0	0.0	0.4	38.2	C	225	0	104.93	104.548	1.00%	44.9	1.13	0.56	VCP	0.07	0.82
0	SL1448745	JP3480905803	MH3482605799	0.034	0.00	0.03	0	0	0	4.00	0.00	0.01	0.10	0.0	0.0	0.1	16.8	C	225	0	115.151	114.983	1.00%	44.9	1.13	0.25	VCP	0.02	0.22
Birchview Cres	SL1448751	MH3469306921	MH3466906940	0.227	0.00	0.23	13	0	13	4.00	0.14	0.06	0.68	0.0	0.2	0.8	30.6	C	300	0	87.979	87.766	0.70%	80.7	1.14	0.45	VCP	0.25	1.02
Birchview Cres	SL1448875	MH3466906940	MH3460206992	0.633	1.80	2.44	35	83	118	4.00	1.32	0.63	7.31	0.0	1.9	8.6	85.2	C	300	0	87.766	87.299	0.55%	71.6	1.01	1.40	VCP	2.72	12.05
Birchview Cres	SL1448876	MH3460206992	MH3457607087	0.729	2.44	3.17	41	118	159	4.00	1.77	0.82	9.50	0.0	2.6	11.3	98.2	C	300	0	87.299	86.767	0.54%	71.2	1.01	1.63	VCP	3.64	15.83
Elora Rd	SL1448892	MH3467906950	MH3466906940	0.027	1.55	1.58	0	71	71	4.00	0.78	0.41	4.73	0.0	1.2	5.5	13.7	C	300	0	88.186	87.845	2.49%	152.6	2.16	0.11	VCP	0.78	3.61
Elora Rd	SL1448899	MH3470307030	MH3467906950	0.621	0.93	1.55	34	36	71	4.00	0.78	0.40	4.65	0.0	1.2	5.4	83.6	C	300	0	91.07	88.186	3.45%	179.6	2.54	0.55	VCP	0.66	3.02
Elora Rd	SL1448999	MH3472907118	MH3470307030	0.544	0.00	0.54	27	0	27	4.00	0.30	0.14	1.63	0.0	0.4	1.9	91.9	C	300	0	93.237	91.07	2.36%	148.5	2.10	0.73	VCP	0.30	1.30
Oakview Ave	SL1449016	MH3469607037	MH3470307030	0.020	0.36	0.38	0	9	9	4.00	0.10	0.10	1.15	0.0	0.2	1.2	9.9	C	300	0	91.286	91.149	1.38%	113.8	1.61	0.10	VCP	0.17	1.10
Oakview Ave	SL1449017	MH3466707049	MH3469607037	0.092	0.27	0.36	2	7	9	4.00	0.10	0.09	1.09	0.0	0.2	1.2	31.3	C	300	0	91.789	91.286	1.61%	122.6	1.73	0.30	VCP	0.16	0.97
Oakview Ave	SL1449018	MH3464907120	MH3466707049	0.213	0.06	0.27	5	1	7	4.00	0.07	0.07	0.82	0.0	0.1	0.9	72.7	C	300	0	92.953	91.789	1.60%	122.4	1.73	0.70	VCP	0.12	0.73
Oakview Ave	SL1449019	MH3465507139	MH3464907120	0.060	0.00	0.06	1	0	1	4.00	0.02	0.02	0.18	0.0	0.0	0.2	20.6	C	300	0	93.337	92.953	1.86%	132.0	1.87	0.18	VCP	0.02	0.15
Birchview Cres	SL1449453	MH3463407110	MH3458807097	0.360	0.00	0.36	20	0	20	4.00	0.22	0.09	1.08	0.0	0.3	1.3	48.4	C	300	0	92.283	88.357	8.11%	275.4	3.90	0.21	VCP	0.11	0.47
Birchview Cres	SL1449455	MH3457607087	MH3458807097	0.118	3.17	3.28	7	159	165	4.00	1.84	0.85	9.85	0.0	2.7	11.7	15.9	C	300	0	86.766	86.699	0.42%	62.8	0.89	0.30	VCP	4.29	18.63
hview Rd to Clendena	SL1450007	MH3457707153	MH3458607181	0.071	3.75	3.82	0	185	185	4.00	2.06	0.99	11.46	0.0	3.1	13.5	35.5	C	300	0	95.793	95.64	0.43%	63.5	0.90	0.66	VCP	4.81	21.30
hview Rd to Clendena	SL1450008	COL-PKP	MH3457707153	0.037	3.71	3.75	0	185	185	4.00	2.06	0.97	11.25	0.0	3.0	13.3	18.7	C	200	0	91.627	95.797	0.10%	10.4	0.33	0.94	CAS	29.27	128.30
hview Rd to Clendena	SL1450009	MH3458807097	COL-PKP	0.068	3.64	3.71	0	185	185	4.00	2.06	0.96	11.13	0.0	3.0	13.2	33.8	C	300	0	115.321	114.983	1.00%	96.7	1.37	0.41	VCP	3.13	13.65
Glendonwynne Rd	SL1452297	MH3485006842	MH3482606831	0.123	0.00	0.12	6	0	6	4.00	0.06	0.03	0.37	0.0	0.1	0.4	24.6	C	300	0	97.4	97.15	1.02%	97.5	1.38	0.30	PVC	0.10	0.44
Glendonwynne Rd	SL1452298	MH3482606831	MH3481406820	0.088	0.12	0.21	4	6	10	4.00	0.11	0.05	0.63	0.0	0.2	0.7	17.7	C	300	0	97.15	97	0.85%	89.0	1.26	0.23	PVC	0.18	0.83
Bloor St W	SL1453074	MH3399905893	MH3397705823	0.284	0.00	0.28	143	0	143	4.00	1.59	0.07	0.85	0.0	1.7	2.4	73.3	C	200	0	99.697	97.378	3.16%	58.3	1.86	0.66	VCP	2.85	4.19
Bloor St W	SL1453075	MH3397705823	MH3395805747	0.306	0.28	0.59	154	143	297	4.00	3.30	0.15	1.77	0.0	3.5	5.1	78.8	C	200	0	97.378	96.051	1.68%	42.6	1.35	0.97	VCP	8.11	11.91
Riverside Dr	SL1453209	MH3384305889	MH3385005875	0.096	0.00	0.10	4	0	4	4.00	0.04	0.03	0.29	0.0	0.1	0.3	16.7	C	200	0	108.155	107.988	1.00%	32.8	1.04	0.27	VCP	0.20	1.01
Riverside Dr	SL1453210	MH3385005875	MH3387905816	0.688	0.10	0.78	31	4	34	4.00	0.38	0.20	2.35	0.0	0.6	2.7	75.8	C	200	0	104.039	103.281	1.00%	32.8	1.04	1.21	VCP	1.79	8.34
Riverside Dr	SL1453211	MH3387905816	MH3391105764	0.442	0.78	1.23	18	34	52	4.00	0.58	0.32	3.68	0.0	0.9	4.3	61.3	C	200	0	103.281	99.852	5.59%	77.6	2.47	0.41	VCP	1.16	5.49
Riverside Dr	SL1453212	MH3391105764	MH3394305739	0.313	1.23	1.54	89	52	141	4.00	1.57	0.40	4.62	0.0	2.0	6.2	40.9	C	200	0	99.852	98.313	3.76%	63.6	2.03	0.34	VCP	3.09	9.72
Riverside Trail	SL1453351	MH3355505814	MH3355805752	0.819	0.00	0.82	41	0	41	4.00	0.46	0.21	2.46	0.0	0.7	2.9	61.3	C	300	0	99.22	94.87	7.10%	257.6	3.64	0.28	PVC	0.26	1.13
Riverside Trail	SL1453352	MH3355805752	MH3359905720	0.709	0.82	1.53	36	41	77	4.00	0.85	0.40	4.58	0.0	1.2	5.4	53.1	C	225	0	94.896	89.188	10.75%	147.2	3.70	0.24	VCP	0.85	3.69
Brule Terrace	SL1454006	MH3394005658	MH3397205634	0.446	0.00	0.45	21	0	21	4.00	0.23	0.12	1.34	0.0	0.3	1.6	39.0	C	200	0	93.949	91.571	6.10%	81.0	2.58	0.25	VCP	0.43	1.94
Bloor St W	SL1454007	MH3397205634	MH3398305568	0.806	0.45	1.25	30	21	51	4.00	0.57	0.33	3.76	0.0	0.9	4.3	67.3	C	200	0	91.571	87.499	6.05%	80.7	2.57	0.44	VCP	1.11	5.36
Bloor St W	SL1454008	MH3398305568	MH3400305570	0.237	1.25	1.49	9	51	60	4.00	0.67	0.39	4.47	0.0	1.1	5.1	19.8	C	250	0	87.499	86.615	4.46%	125.7	2.56	0.13	XXX	0.84	4.09
Bloor St W	SL1454009	MH3399305656	MH3400305570	0.286	0.00	0.29	6	0	6	4.00	0.06	0.07	0.86	0.0	0.1	0.9	79.9	C	200	0	89.066	86.615	3.07%	57.4	1.83	0.73	VCP	0.24	1.60
Bloor St W	SL1454017	MH3398705742	MH3003269	0.103	0.00	0.10	4	0	4	4.00	0.05	0.03	0.31	0.0	0.1	0.4	15.3	C	150	0	96.223	96.208	0.10%	4.8	0.27	0.94	PVC	1.56	7.50
Riverside Dr	SL1454158	MH3380805922	MH3376805956	0.305	0.00	0.30	12	0	12	4.00	0.13	0.08	0.91	0.0	0.2	1.0	52.8	C	200	0	108.036	107.796	0.45%	22.1	0.70	1.25	VCP	0.95	4.72
Riverside Dr	SL1454159	MH3376805956	MH3371905987	0.336	0.30	0.64	13	12	25	4.00	0.27	0.17	1.92	0.0	0.4	2.2	58.2	C	200	0	107.796	107.518	0.48%	22.7	0.72	1.34	VCP	1.95	9.69
Riverside Dr	SL1454160	MH3371905987	MH3364205979	0.448	0.64	1.09	17	25	42	4.00	0.47	0.28	3.27	0.0	0.7	3.7	77.7	C	200	0	107.518	107.116	0.52%	23.6	0.75	1.72	VCP	3.18	15.82
Riverside Dr	SL1454161	MH3364205979	MH3354705946	0.579	1.09	1.67	22	42	64	4.00	0.72	0.43	5.00	0.0	1.1	5.7	100.4	C	200	0	107.116	106.564	0.55%	24.3	0.77	2.16	VCP	4.72	23.52
Brule Crescent	SL1454275	MH3373405856	MH3374705834	0.192	0.48	0.67	8	21	29	4.00	0.32	0.17	2.02	0.0	0.5	2.3	25.6	C	200	0	90.032	89.733	1.17%	35.4	1.13	0.38	VCP	1.41	6.61
Brule Crescent	SL1454276	MH3374705834	MH3374205771	0.470	0.67	1.14	20	29	49	4.00	0.55	0.30	3.43	0.0	0.8	4.0	62.8	C	200	0	89.733	89.184	0.87%	30.7	0.98	1.07	VCP	2.76	12.97
0	SL1454689	MH3359905720	MH3354305681	0.654	12.12	12.77	31	1847	1878	3.61	18.81	3.32	38.32	0.0	22.1	57.1	68.2	C	250	0	87.423	86.947	0.70%	49.7	1.01	1.12	VCP	44.55	114.99
Brule Gardens	SL1454690	MH3363305743	MH3359905720	0.551	10.04	10.59	28	1743	1770	3.63	17.83	2.75	31.77	0.0	20.6	49.6	41.3	C	250	0	87.77	87.423	0.84%	54.5	1.11	0.62	VCP	37.77	91.01
Brule Gardens	SL1454691	MH3367905773	MH3363305743	0.601	8.31	8.91	29	1664	1694	3.64	17.13	2.32	26.72	0.0	19.4	43.8	53.2	C	250	0	88.188	87.77	0.79%	52.7	1.07	0.83	VCP	36.89	83.19
Brule Gardens	SL1454692	MH3374205773	MH3367905771	0.706	7.60	8.31	34	1630	1664	3.65	16.86	2.16	24.92	0.0	19.0	41.8	62.5	C	250	0	89.184	88.188	1.59%	75.1	1.53	0.68	VCP	25.33	55.65
Brule Gardens	SL1454693	MH3379805740	MH3374205771	0.859	5.60	6.46	43	1538	1581	3.66	16.08	1.68	19.37	0.0	17.8	35.5	64.3	C	250	0	91.08	89.38	2.64%	96.7	1.97	0.54	VCP	18.37	36.67
Brule Gardens	SL1454694	MH3385905710	MH3379805740	0.917	4.68	5.60	46	1491	1538	3.67	15.68	1.46	16.80	0.0	17.1	32.5	68.7	C	250	0	94.985	91.239	5.45%	138.9	2.83	0.40	VCP	12.34	23.39
Brule Gardens	SL1454695	MH3389605711	MH3385905710	0.489	4.19	4.68	25	1467	1491	3.68	15.25	1.22	14.04	0.0	16.5	29.3	36.6	C	250	0	95.268	94.985	0.77%	52.3	1.07	0.57	VCP	31.49	56.02

SANITARY SEWER DESIGN SHEET

Bloor West Village
City of Toronto

l/person/day
l/person/day
P FLOW + I l/s

PREPARED BY: DB
CHECKED BY: AS
DATE: 2018-03-16
FILE No. 16-16138

Street	Asset ID	UPSTREAM MH	DOWNSTREAM MH	NO. OF HECTARES IN AREA	CONTRIB	TOTAL	NO. OF PEOPLE IN AREA	CONTRIB	TOTAL	Flow M	Pop_Flow (l/s)	Inf_Flow Dry (l/s)	INTENSIT Inf_Flow Wet (l/s)	CONT. Q_C (L/s)	RATIONAL FLOW Flow Total Dry (L/s)	Flow Total Wet (L/s)	PIPE LENGTH (m)	Pipe Shap	SIZE (mm)	SIZE (mm)	UP MH INV Rev	DOWN MH INV Rev	GRADE (%)	CAPACITY (L/s)	VEL. (m/s)	TIME (mins)	PIPE CLASS	%CAP Dry	%CAP Wet
Brule Gardens	SL1454696	MH3394305739	MH3389605711	0.388	3.17	3.56	39	1398	1437	3.69	14.74	0.93	10.68	0.0	15.7	25.4	54.8	C	250	0	95.686	95.268	0.76%	51.9	1.06	0.86	VCP	30.16	48.94
Bloor St W	SL1454790	MH3395805741	MH3394305739	0.043	1.59	1.63	7	1249	1257	3.73	13.03	0.42	4.90	0.0	13.5	17.9	16.6	C	250	0	95.954	95.686	1.61%	75.6	1.54	0.18	VCP	17.81	23.73
Brule Terrace	SL1454812	MH3393505663	MH3389605711	0.633	0.00	0.63	30	0	30	4.00	0.33	0.16	1.90	0.0	0.5	2.2	61.6	C	200	0	96.119	95.546	0.93%	31.6	1.01	1.02	VCP	1.58	7.06
Brule Crescent	SL1454813	MH3361705797	MH3363305743	0.420	0.71	1.13	18	31	49	4.00	0.54	0.29	3.40	0.0	0.8	3.9	56.1	C	200	0	88.947	87.77	2.10%	47.5	1.51	0.62	VCP	1.77	8.30
Brule Crescent	SL1454814	MH3363705847	MH3361705797	0.403	0.31	0.71	17	13	31	4.00	0.34	0.19	2.14	0.0	0.5	2.5	53.9	C	200	0	90.55	88.947	2.97%	56.6	1.80	0.50	VCP	0.93	4.39
Brule Crescent	SL1454815	JP3367405867	MH3363705847	0.310	0.00	0.31	13	0	13	4.00	0.15	0.08	0.93	0.0	0.2	1.1	41.4	C	200	0	91.534	90.638	2.16%	48.3	1.54	0.45	VCP	0.48	2.23
Brule Crescent	SL1454816	MH3368405872	MH3373405856	0.394	0.09	0.48	17	4	21	4.00	0.23	0.13	1.44	0.0	0.4	1.7	52.7	C	200	0	91.086	90.032	2.00%	46.4	1.48	0.59	VCP	0.77	3.61
Brule Crescent	SL1455896	JP3367405867	MH3368405872	0.087	0.00	0.09	4	0	4	4.00	0.04	0.02	0.26	0.0	0.1	0.3	11.6	C	200	0	91.534	91.086	3.86%	64.5	2.05	0.09	VCP	0.10	0.47
Riverside Trail	SL1456852	MH3355905887	MH3354705946	0.805	13.28	14.09	40	1878	1918	3.60	19.18	3.66	42.26	0.0	22.8	61.4	60.3	C	250	0	107.046	106.564	0.80%	53.2	1.08	0.93	VCP	42.96	115.56
Bloor St W	SL200760	MH3003269	MH3395805747	0.029	0.97	1.00	0	952	952	3.81	10.09	0.26	3.00	0.0	10.3	13.1	14.3	C	250	0	96.128	96.081	0.33%	34.1	0.69	0.34	PVC	30.35	38.37
Bloor St W	SL200763	MH3412005996	MH3003265	0.152	0.00	0.15	664	0	664	3.91	7.20	0.04	0.46	0.0	7.2	7.7	10.3	C	250	0	103.259	102.316	9.16%	179.9	3.67	0.05	PVC	4.03	4.26
Bloor St W	SL200764	MH3003265	MH3003270	0.269	0.15	0.42	266	664	930	3.82	9.87	0.11	1.26	0.0	10.0	11.1	61.2	C	250	0	102.316	101.15	1.91%	82.1	1.67	0.61	PVC	12.15	13.56
Bloor St W	SL200765	MH3003267	MH3003268	0.089	0.49	0.58	5	934	940	3.82	9.96	0.15	1.74	0.0	10.1	11.7	44.4	C	250	0	100.116	98.777	3.02%	103.3	2.10	0.35	PVC	9.79	11.33
Bloor St W	SL200766	MH3003268	MH3003269	0.287	0.58	0.87	8	940	948	3.81	10.05	0.23	2.60	0.0	10.3	12.6	143.5	C	250	0	98.737	96.178	1.78%	79.4	1.62	1.48	PVC	12.93	15.92
Bloor St W	SL200767	MH3003270	MH3003267	0.070	0.42	0.49	4	930	934	3.82	9.91	0.13	1.47	0.0	10.0	11.4	34.8	C	250	0	101.1	100.146	2.74%	98.5	2.01	0.29	PVC	10.19	11.56
Bloor St W	SL52343	MH3400305570	MH3403205529	0.475	1.77	2.25	185	66	251	4.00	2.79	0.59	6.75	0.0	3.4	9.5	50.6	C	300	0	86.615	85.938	1.34%	111.9	1.58	0.53	VCP	3.02	8.53
Riverside Rd	SL52344	MH3403205529	MH3404805535	0.072	2.25	2.32	2	251	253	4.00	2.81	0.60	6.97	0.0	3.4	9.8	16.5	C	225	0	85.756	85.683	0.44%	29.9	0.75	0.37	VCP	11.42	32.72
Riverside Rd	SL52351	COL-PHB	MH3406905540	0.045	2.36	2.40	0	253	253	4.00	2.81	0.62	7.21	0.0	3.4	10.0	22.4	C	225	0	84.283	81.839	10.91%	148.3	3.73	0.10	VCP	2.32	6.76
Riverview Gardens	SL52414	MH3409605908	MH3411405883	0.464	0.00	0.46	287	0	287	4.00	3.19	0.12	1.39	0.0	3.3	4.6	31.5	C	225	0	99.1	98.231	2.76%	74.6	1.88	0.28	VCP	4.44	6.14
Riverview Gardens	SL52415	MH3411405883	MH3413405856	0.362	0.46	0.83	11	287	298	4.00	3.32	0.21	2.48	0.0	3.5	5.8	33.3	C	225	0	98.219	97.626	1.78%	59.9	1.51	0.37	VCP	5.89	9.67
N Bloor E Riverview (	SL52425	MH3415505957	MH3410705912	0.678	0.00	0.68	250	0	250	4.00	2.78	0.18	2.03	0.0	3.0	4.8	66.3	C	200	0	100.23	99.176	1.59%	41.4	1.32	0.84	XXX	7.14	11.63
Riverside Rd	SL53136	MH3404805539	COL-PHB	0.036	2.32	2.36	1	253	253	4.00	2.81	0.61	7.08	0.0	3.4	9.9	8.3	C	250	0	85.643	85.579	0.77%	52.2	1.06	0.13	CP	6.56	18.94
N Bloor E Riverview (	SL53225	MH3410705912	CN5802	0.026	0.68	0.70	0	250	250	4.00	2.78	0.18	2.11	0.0	3.0	4.9	12.9	C	200	0	99.176	98.572	4.68%	71.0	2.26	0.10	XXX	4.17	6.89

APPENDIX

C

FUTURE CONDITION MODELING RESULTS: COMBINED

M= 1 + 14/(4+(P/1000)^0.5)
n = 0.013
q = 240
q = 450

I (Dry) 0.26 l/s/ha
I (wet) <50 3 l/s/ha
I (wet) >50 2 l/s/ha

COMBINED SEWER DESIGN SHEET

Bloor West Village
City of Toronto

PREPARED BY: DB
CHECKED BY: AS
DATE: 3/16/2018
FILE No. 16-16138

Street	Asset ID	UPSTREAM MH	DOWNSTREAM MH	Roadflow	STM AREA IN AREA	STM AREA CONTRIB	STM AREA CONTRIB (STM Network)	STM AREA TOTAL	SAN AREA IN AREA	SAN AREA CONTRIB	SAN AREA CONTRIB (SAN Network)	SAN AREA TOTAL	SAN POP IN AREA	SAN POP CONTRIB	SAN POP CONTRIB (SAN Network)	SAN POP TOTAL	M	RUNOFF C	A x C	TOTAL A x C	TIME INLET	TIME OUTLET	INTENSIT I_2 (mm/hr)	CONT. Q_C (L/s)	STM FLOW Q_2 (L/s)	SAN FLOW Pop_Flow (l/s)	SAN FLOW Inf_Flow Dry (l/s)	SAN FLOW Flow Total Dry (L/s)	COMB FLOW 2Year+Dry	PIPE LENGTH (m)	Pipe Shape	SIZE (mm)	SIZE (mm)	UP MH INV	DOWN MH INV	GRADE (%)	CAPACITY (L/s)	VEL. (m/s)	TIME (mins)	%CAP 2 year + Dry
Jane St	SL1449946	MH3423906011	MH3415106037	no	0.000	0.45	0.00	0.45	0.66	3.01	0.00	3.68	449	751	0	1200	3.75	0.00	0.000	0.31	13.80	14.39	68.61	0.0	59.7	12.5	1.0	13.4	73.2	92.2	C	375	0	107.85	105.369	2.69%	287.6	2.60	0.59	25.44
Bloor St. W	SL1449549	MH3415106037	MH3417006099	no	0.000	0.45	0.00	0.45	0.35	3.68	0.00	4.02	282	1200	0	1482	3.68	0.00	0.000	0.31	14.39	15.26	66.40	0.0	57.8	15.2	1.0	16.2	74.0	64.9	C	600	0	105.369	105.156	0.33%	351.8	1.24	0.87	21.04
Bloor St. W	SL1449550	MH3417006099	MH3418906162	no	0.000	0.45	0.00	0.45	0.35	4.02	0.00	4.38	287	1482	0	1769	3.63	0.00	0.000	0.31	15.26	16.26	63.43	0.0	55.2	17.8	1.1	19.0	74.2	66.0	C	600	0	105.156	104.988	0.25%	309.8	1.10	1.00	23.94
Armadale Ave	SL1449285	MH3427006138	MH3418906162	no	0.000	1.03	0.00	1.03	0.94	3.41	0.00	4.34	114	175	0	288	4.00	0.00	0.000	0.77	14.91	15.29	64.58	0.0	138.3	3.2	1.1	4.3	142.6	84.9	C	450	0	108.6	104.988	4.25%	588.1	3.70	0.38	24.25
Armadale Ave	SL1449834	MH3415106174	MH3418906162	no	0.000	0.00	0.00	0.00	0.22	0.00	0.00	0.22	203	0	0	203	4.00	0.00	0.000	0.00	10.00	10.16	88.19	0.0		2.3	0.1	2.3	2.3	39.0	C	300	0	108.241	104.988	8.34%	279.3	3.95	0.16	0.83
Bloor St W	SL1449692	MH3418906162	MH3421806259	no	0.000	1.47	0.00	1.47	0.42	8.95	0.00	9.36	176	2260	0	2436	3.52	0.00	0.000	1.08	16.26	17.84	60.36	0.0	181.8	23.8	2.4	26.2	208.0	101.0	E	900	600	104.988	104.787	0.20%	441.7	1.07	1.58	47.09
Willard Ave	SL1449120	MH3420606252	MH3421806259	no	0.000	0.00	0.00	0.00	0.03	0.16	0.00	0.19	0	117	0	117	4.00	0.00	0.000	0.00	10.47	10.51	85.05	0.0		1.3	0.0	1.3	1.3	13.9	C	300	0	107.631	104.787	20.46%	437.4	6.19	0.04	0.31
Willard Ave	SL1449667	MH3430506232	MH3421806259	no	0.000	0.00	0.00	0.00	0.73	3.32	0.00	4.04	196	160	0	356	4.00	0.00	0.000	0.00	14.57	15.02	65.76	0.0		4.0	1.1	5.0	5.0	90.6	C	375	0	108.777	104.787	4.40%	367.9	3.33	0.45	1.36
Bloor St W	SL1449693	MH3421806259	MH3424806360	no	0.000	1.47	0.00	1.47	0.50	13.60	0.00	14.10	329	2909	0	3239	3.41	0.00	0.000	1.08	17.84	19.36	56.16	0.0	169.1	30.7	3.7	34.4	203.5	105.7	E	1050	675	104.787	104.577	0.20%	604.2	1.15	1.53	33.68
Windermere Ave	SL1449544	MH3426006366	MH3424806360	no	0.000	0.00	0.00	0.00	0.03	3.80	0.00	3.83	0	379	0	379	4.00	0.00	0.000	0.00	14.45	14.59	66.18	0.0		4.2	1.0	5.2	5.2	12.9	C	375	0	107.914	107.799	0.89%	165.5	1.50	0.14	3.15
Windermere Ave	SL1449545	MH3420806373	MH3424806360	no	0.000	0.00	0.00	0.00	0.30	0.00	0.00	0.30	265	0	0	265	4.00	0.00	0.000	0.00	10.00	10.62	88.19	0.0		2.9	0.1	3.0	3.0	42.4	C	300	0	108.027	107.735	0.69%	80.2	1.14	0.62	3.76
Bloor St W	SL1448422	MH3424806360	MH3428306474	no	0.000	1.47	0.00	1.47	0.24	18.23	0.00	18.47	0	3882	0	3882	3.34	0.00	0.000	1.08	19.36	20.62	52.67	0.0	158.6	36.1	4.8	40.9	199.5	118.9	E	1200	825	104.498	104.159	0.29%	1236.0	1.58	1.25	16.14
Bloor St W	SL203336	MH3425606375	MH3428306464	no	0.000	0.00	0.00	0.00	0.50	0.00	0.00	0.50	382	0	0	382	4.00	0.00	0.000	0.00	10.00	10.98	88.19	0.0		4.2	0.1	4.4	4.4	92.8	C	300	0	108.262	107.027	1.33%	111.6	1.58	0.98	3.92
Bloor St W	SL203338	MH3428306464	MH3428306474	no	0.000	0.00	0.00	0.00	0.02	0.50	0.00	0.52	0	382	0	382	4.00	0.00	0.000	0.00	10.98	11.05	81.99	0.0		4.2	0.1	4.4	4.4	10.4	C	300	0	107.012	106.625	3.72%	186.5	2.64	0.07	2.35
Durie St	SL1448237	MH3431306469	MH3428306474	no	0.000	0.00	0.00	0.00	0.14	3.87	0.00	4.01	45	450	0	494	3.98	0.00	0.000	0.00	14.43	14.54	66.24	0.0		5.5	1.0	6.5	6.5	30.4	C	375	0	108	105.379	8.62%	514.8	4.66	0.11	1.26
Durie St	SL1448423	MH3426806561	MH3430806549	no	0.000	0.00	0.00	0.00	0.23	0.00	0.00	0.23	213	0	0	213	4.00	0.00	0.000	0.00	10.00	10.51	88.19	0.0		2.4	0.1	2.4	2.4	42.2	C	300	0	108.841	108.408	1.03%	98.0	1.39	0.51	2.47
Bloor St W	SL1449807	MH3431806579	MH3430806549	no	0.000	0.00	0.00	0.00	0.21	0.00	0.00	0.21	155	0	0	155	4.00	0.00	0.000	0.00	10.00	10.39	88.19	0.0		1.7	0.1	1.8	1.8	31.3	C	300	0	108.713	108.408	0.97%	95.5	1.35	0.39	1.86
Bloor St W	SL1449806	MH3430806549	MH3430006521	no	0.000	0.00	0.00	0.00	0.18	0.44	0.00	0.62	133	367	0	500	3.97	0.00	0.000	0.00	10.51	11.27	84.85	0.0		5.5	0.2	5.7	5.7	28.8	C	300	0	108.408	108.347	0.21%	44.5	0.63	0.76	12.77
Bloor St W	SL1449805	MH3430006521	MH3428806481	no	0.000	0.00	0.00	0.00	0.26	0.62	0.00	0.88	194	500	0	695	3.90	0.00	0.000	0.00	11.27	11.58	80.34	0.0		7.5	0.2	7.7	7.7	42.0	C	300	0	108.347	107.189	2.76%	160.6	2.27	0.31	4.82
Bloor St W	SL1449804	MH3428806481	MH3428306474	no	0.000	0.00	0.00	0.00	0.02	0.88	0.00	0.89	0	695	0	695	3.90	0.00	0.000	0.00	11.58	11.60	78.66	0.0		7.5	0.2	7.7	7.7	8.8	C	300	0	107.189	104.159	34.43%	567.4	8.03	0.02	1.37
Bloor St W	SL1449898	MH3428306474	MH3431606589	no	0.000	1.47	0.00	1.47	0.24	23.90	0.00	24.14	0	5453	0	5453	3.21	0.00	0.000	1.08	20.62	21.62	50.16	0.0	151.1	48.6	6.3	54.9	206.0	120.0	E	1350	900	104.156	103.675	0.40%	1848.2	1.99	1.01	11.14
Beresford Ave	SL1448753	MH3431906588	MH3431606589	no	0.000	18.59	0.00	18.59	0.01	44.95	0.00	44.96	0	4811	0	4811	3.26	0.00	0.000	11.38	36.00	36.01	32.47	0.0	1026.6	43.6	11.7	55.3	1081.8	3.2	C	1200	0	103.707	103.675	1.00%	3898.7	3.45	0.02	27.75
Bloor St W	SL1449900	MH3431606589	MH3435206699	no	0.000	20.07	0.00	20.07	0.23	69.09	0.00	69.32	0	10264	0	10264	2.94	0.00	0.000	12.46	36.01	36.74	32.46	0.0	1124.0	83.9	18.0	101.9	1225.9	115.1	E	1500	1350	103.675	103.196	0.42%	5552.3	2.65	0.72	22.08
Beresford Ave	SL1449553	MH3429206635	MH3433106624	no	0.000	0.00	0.00	0.00	0.18	0.00	0.00	0.18	96	0	0	96	4.00	0.00	0.000	0.00	10.00	10.34	88.19	0.0		1.1	0.0	1.1	1.1	40.6	C	300	0	108.555	107.683	2.15%	141.7	2.00	0.34	0.79
Bloor St W	SL1449815	MH3432106592	MH3433106624	no	0.000	0.00	0.00	0.00	0.16	0.00	0.00	0.16	77	0	0	77	4.00	0.00	0.000	0.00	10.00	10.42	88.19	0.0		0.9	0.0	0.9	0.9	33.1	C	375	0	107.911	107.683	0.69%	145.5	1.32	0.42	0.62
Bloor St W	SL1449950	MH3433106624	MH3435106691	no	0.000	0.00	0.00	0.00	0.34	0.35	0.00	0.69	143	173	0	316	4.00	0.00	0.000	0.00	10.42	11.47	85.41	0.0		3.5	0.2	3.7	3.7	69.9	C	375	0	107.683	107.344	0.48%	122.1	1.11	1.05	3.02
Bloor St W	SL1449901	MH3435106691	MH3435206699	no	0.000	0.00	0.00	0.00	0.02	0.69	0.00	0.71	0	316	0	316	4.00	0.00	0.000	0.00	11.47	11.53	79.23	0.0		3.5	0.2	3.7	3.7	8.0	C	375	0	107.344	107.189	1.94%	244.0	2.21	0.06	1.51
Runnymede Rd	SL1448039	MH3440506684	MH3435206699	no	0.000	2.28	0.00	2.28	0.27	10.07	0.00	10.34	149	1078	0	1227	3.74	0.00	0.000	1.57	24.44	25.35	43.92	0.0	192.1	12.8	2.7	15.4	207.5	54.6	C	600	0	107.305	107.189	0.21%	283.0	1.00	0.91	73.33
Runnymede Rd	SL1450093	MH3440306687	MH3435206699	no	0.000	0.00	0.00	0.00	0.11	0.01	0.00	0.12	0	0	0	0	4.00	0.00	0.000	0.00	10.07	10.96	87.72	0.0		0.0	0.0	0.0	0.0	54.2	C	750	0	107.338	107.25	0.16%	448.6	1.02	0.89	0.01
Runnymede Rd	SL1448252	MH3431506709	MH3435206699	no	0.000	0.00	0.00	0.00	0.28	0.00	0.00	0.28	119	0	0	119	4.00	0.00	0.000	0.00	10.00	10.27	88.19	0.0		1.3	0.1	1.4	1.4	38.7	C	300	0	108.378	107.189	3.07%	169.5	2.40	0.27	0.82
Bloor St W	SL1449638	MH3435206699	MH3437906791	no	0.000	22.34	0.00	22.34	0.19	80.76	0.00	80.95	0	11927	0	11927	2.88	0.00	0.000	14.04	36.74	37.56	31.96	0.0	1246.5	95.4	21.0	116.4	1362.9	95.8	BHC	1500	1500	103.193	103.01	0.19%	4982.0	1.93	0.83	27.36
Bloor St W	SL203333	MH3436406715	MH3437706759	no	0.000	0.00	0.00	0.00	0.19	0.00	0.00	0.19	179	0	0	179	4.00	0.00	0.000	0.00	10.00	10.61	88.19	0.0		2.0	0.0	2.0	2.0	45.6	C	300	0	107.835	107.457	0.83%	88.0	1.25	0.61	2.32
Bloor St W	SL1448933	MH3437706759	MH3438506784	no	0.000	0.00	0.00	0.00	0.18	0.19	0.29	0.66	171	179	209	559	3.95	0.00	0.000	0.00	10.61	10.95	84.21	0.0		6.1	0.2	6.3	6.3	26.8	C	300	0	108.152	107.911	0.90%	91.7	1.30	0.34	6.88
Bloor St W	SL1448934	MH3438506784	MH3437906791	no	0.000	0.00	0.00	0.00	0.02	0.66	0.00	0.68	0	559	0	559	3.95	0.00	0.000	0.00	10.95	11.11	82.14	0.0		6.1	0.2	6.3	6.3	8.5	C	300	0	107.911	107.872	0.46%	65.5	0.93	0.15	9.63
Kennedy Ave	SL1449257	MH3446206765	MH3437906791	no	0.000	0.00	0.00	0.00	0.71	1.59	0.00	2.29	333	92	0	425	4.00	0.00	0.000	0.00	12.69	14.34	73.22	0.0		4.7	0.6	5.3	5.3	86.6	C	300	0	108.228	107.872	0.41%	62.0	0.88	1.65	8.58
Bloor St W	SL1449641	MH3437906791	MH3440606879	no	0.000	22.34	0.00	22.34	0.19	83.92	0.00	84.11	0	12911	0	12911	2.84	0.00	0.000	14.04	37.56	38.23	31.41	0.0	1225.0	102.0	21.9	123.9	1348.9	92.6	BHC	1500	1500	103.01	102.751	0.28%	6028.5	2.33	0.66	22.37
Bloor St W	SL203334	MH3438606804	MH3440606871	no	0.000	0.00	0.00	0.00	0.44	0.00	0.00	0.44	445	0	0	445	4.00	0.00	0.000	0.00	10.00	10.89	88.19	0.0		4.9	0.1	5.1	5.1	69.7	C	300	0	108.56	107.92	0.92%	92.7	1.31	0.89	5.46
0	SL1449640	MH3440606871	MH3440606879	no	0.000	0.00	0.00	0.00	0.02	0.44	0.00	0.46	0	445	0	445	4.00	0.00	0.000	0.00	10.89	10.90	82.54	0.0		4.9	0.1	5.1	5.1	8.8	C	300	0	107.951	102.751	59.09%	743.3	10.52	0.01	0.68
Glendonwynne Rd	SL1448616	MH3449206853	MH3440606879	yes	0.520	1.44	0.00	1.96	0.36	1.15	0.00	1.51	367	87	0	454	4.00	0.83	0.433	1.46	12.56	12.95	73.81	0.0	298.6	5.0	0.4	5.4	304.0	90.8	C	375	0	108.326	102.751	6.14%	434.4	3.93	0.38	69.98
Bloor St W	SL1449644	MH3440606879	MH3444407007	no	0.000	24.30	0.00	24.30	0.27	86.08	0.00	86.34	0	13810	0	13810	2.81	0.00	0.000	15.49	38.23	38.66	30.99	0.0	1333.8	108.0	22.4	130.4	1464.2	132.9	BHC	1650	1500	102.751	100.931	1.37%	13339.4	5.16	0.43	10.98
Bloor St W	SL1451930	MH3441906889	MH3444506974	no	0.000	0.00	0.00	0.00	0.29	0.00	0.00	0.29	222	0	0	222	4.00	0.00	0.000	0.00	10.00	10.55	88.19	0.0		2.5	0.1	2.5	2.5	88.9	C	300	0	107.924	104.473	3.88%	190.5	2.70	0.55	1.33
Bloor St W	SL1450720	MH3444506974	MH3447107059	no	0.000	0.00	0.00	0.00	0.29	0.29	0.00	0.58	277	222	0	499	3.97	0.00	0.000	0.00	10.55	11.13	84.58	0.0		5.5	0.2	5.7	5.7	88.7	C	300	0	104.473	101.392	3.47%	180.2	2.55	0.58	3.14
Kennedy Park Ave	SL1448347	MH3450607046	MH3447107059	yes	0.201	0.08	0.00	0.28	0.13	0.05	0.00	0.18	246	86	0	332	4.00	0.84	0.169	0.23	10.41	10.85	85.47	0.0	55.5	3.7	0.0	3.7	59.2	37.7	C	300	0	101.803	101.392	1.09%	101.0	1.43	0.44	58.63
Bloor St W	SL1450904	MH3447107059	CN6456	no	0.000	0.28	0.00	0.28	0.03	0.76	0.00	0.79	0	831	0	831	3.85	0.00	0.000	0.23	11.13	11.17	81.13	0.0	52.6	8.9	0.2	9.1	61.7	15.5	C	300	0	101.392	97.841	22.91%	462.8	6.55	0.04	13.34
Bloor St W	SL1451047	MH3444407007	MH3447507108	no	0.000	24.58	0.00	24.58	0.21	87.13	0.00	87.34	0	14641	0	14641	2.79	0.00	0.000	15.73	38.66	38.81	30.72	0.0	1342.2	113.4	22.7	136.1	1478.3	106.3	BHC	1650	1500	100.931	93.415	7.07%	30310.3	11.73	0.15	4.88
Bloor St W	SL1449642	MH3440506893	MH3443206979	no	0.000	0.00	0.00	0.00	0.49	0.00	0.00	0.49	317	0	0	317	4.00	0.00	0.000	0.00	10.00	10.59	88.19	0.0		3.5	0.1	3.7	3.7	89.7	C	300	0	107.582	104.528	3.40%	178.4	2.52	0.59	2.05
Bloor St W	SL1449643	MH3443206979	MH3445707063	no	0.000	0.00	0.00	0.00	0.46	0.49	0.00	0.96	409	317	0	727	3.89	0.00	0.000	0.00	10.59	11.08	84.32	0.0		7.8	0.2	8.1	8.1	87.8	C	300	0	104.528	100.304	4.81%	212.1	3.00	0.49	3.81
Bloor St W	SL1450902	MH3445707063	MH3446607090	no	0.000	0.00	0.00	0.00	0.15	0.96	0.00	1.10	130	727	0	856	3.84	0.00	0.000	0.00	11.08	11.34	81.41	0.0		9.1	0.3	9.4	9.4	27.8	C	300	0	100.304	99.822	1.73%	127.3	1.80	0.26	7.40
Bloor St W	SL1448348	MH3447107059	MH3447807081	no	0.000	0.00	0.00	0.00	0.10	0.00	0.00	0.10	75	0	0	75	4.00	0.00	0.000	0.00	10.00	10.14	88.19	0.0		0.8	0.0	0.9	0.9	23.3	C	300	0	101.392	100.401	4.25%	199.4	2.82	0.14	0.43
Bloor St W	SL1449002	MH3447807081	MH3446607090	no	0.000	0.00	0.00	0.00	0.03	0.10	0.00	0.13	0	75	0	75	4.00	0.00	0.000	0.00	10.14	10.23	87.25	0.0		0.8	0.0	0.9	0.9	14.4	C	300	0	100.401	99.883	3.60%	183.4	2.59	0.09	0.47
Bloor St W	SL1450903	MH3446607090	MH3447507108	no	0.000	0.00	0.00	0.00	0.11	1.23	0.00	1.34	89	931	0	1020	3.79	0.00	0.000	0.00	11.34	11.38	79.97	0.0		10.8	0.3	11.1	11.1	20.7	C	300	0	99.822	93.415	30.95%	538.0	7.61	0.05	2.06
Kennedy Park Rd	SL1449433	MH3450007053	MH3447307062	no	0.000	1.90	0.00	1.90	0.06	1.55	0.00	1.61	0	327	0	327	4.00	0.00	0.000	1.41	11.80	12.06	77.53	0.0	303.5	3.6	0.4	4.1	307.6	28.3	C	450	0	97.911	97.63	0.99%	284.1	1.79	0.26	108.27
Bloor St W	SL1450905	MH3447307062	MH3448107094	no	0.000	1.90	0.00	1.90	0.06	1.61	0.00	1.67	6	327	0	333	4.00	0.00	0.000	1.41	12.06	12.33	76.21	0.0	298.4	3.7	0.4	4.1	302.5	32.3	C	450	0	97.63	97.243	1.20%	312.1	1.96	0.27	96.93
Bloor St W	SL1450906	MH3448107094	MH3447507108	no	0.000	1.90	0.00	1.90	0.03	1.67	0.00	1.70	3	333	0	336	4.00	0.00	0.000	1.41	12.33	12.36	74.88	0.0	293.2	3.7	0.4	4.2	297.3	15.9	C	450	0	97.243	93.415	24.08%	1398.9	8.80	0.03	21.25

M= 1 + 14/(4+(P/1000)^0.5)

n = 0.013

q = 240

q = 450

I (Dry) 0.26 l/s/ha

I (wet) <50 3 l/s/ha

I (wet) >50 2 l/s/ha

COMBINED SEWER DESIGN SHEET

Bloor West Village

City of Toronto

PREPARED BY: DB

CHECKED BY: AS

DATE: 3/16/2018

FILE No. 16-16138

Street	Asset ID	UPSTREAM MH	DOWNSTREAM MH	Roadflow	STM AREA IN AREA	STM AREA CONTRIB	STM AREA CONTRIB (STM Network)	STM AREA TOTAL	SAN AREA IN AREA	SAN AREA CONTRIB	SAN AREA CONTRIB (SAN Network)	SAN AREA TOTAL	SAN POP IN AREA	SAN POP CONTRIB	SAN POP CONTRIB (SAN Network)	SAN POP TOTAL	M	RUNOFF C	A x C	TOTAL A x C	TIME INLET	TIME OUTLET	INTENSIT I_2 (mm/hr)	CONT. Q_C (L/s)	STM FLOW Q_2 (L/s)	SAN FLOW Pop_Flow (l/s)	SAN FLOW Inf_Flow Dry (l/s)	SAN FLOW Flow Total Dry (L/s)	COMB FLOW 2Year+Dry	PIPE LENGTH (m)	Pipe Shape	SIZE (mm)	SIZE (mm)	UP MH INV	DOWN MH INV	GRADE (%)	CAPACITY (L/s)	VEL. (m/s)	TIME (mins)	%CAP 2 year + Dry
Bloor St W	SL1451297	MH3447507108	MH3450607210	no	0.000	26.48	0.25	26.73	0.65	90.38	0.00	91.04	580	15998	0	16578	2.73	0.00	0.000	17.14	38.81	39.33	30.62	0.0	1458.0	125.9	23.7	149.6	1607.6	105.8	BHC	1650	1500	93.415	92.799	0.58%	8697.8	3.37	0.52	18.48
Bloor St W	SL1448193	MH3459307451	MH3456507360	yes	0.296	0.00	0.00	0.30	0.10	0.00	0.00	0.10	9	0	0	9	4.00	0.83	0.246	0.25	10.00	10.57	88.19	0.0	60.4	0.1	0.0	0.1	60.5	94.6	C	300	0	105.717	101.815	4.12%	196.4	2.78	0.57	30.80
Bloor St W	SL1448207	MH3456507360	MH3453907275	yes	0.355	0.30	0.00	0.65	0.18	0.10	0.00	0.28	211	9	0	220	4.00	0.83	0.294	0.54	10.57	11.12	84.47	0.0	126.9	2.4	0.1	2.5	129.4	88.9	C	300	0	101.815	98.362	3.88%	190.6	2.70	0.55	67.90
Bloor St W	SL1448208	MH3453907275	MH3451607206	yes	0.340	0.65	0.00	0.99	0.16	0.28	0.00	0.44	24	220	0	244	4.00	0.77	0.263	0.80	11.12	11.51	81.20	0.0	181.3	2.7	0.1	2.8	184.1	73.5	C	300	0	98.362	94.476	5.29%	222.4	3.15	0.39	82.79
Clendenan Ave	SL1450901	MH3458607181	MH3450607210	no	0.000	8.92	0.00	8.92	0.48	48.01	3.82	52.31	299	3508	185	3993	3.33	0.00	0.000	6.24	23.25	23.82	45.66	0.0	791.3	37.0	13.6	50.6	841.9	84.1	C	1200	0	93.284	92.842	0.53%	2826.4	2.50	0.56	29.79
Bloor St W	SL1451312	MH3450607210	MH3457807455	no	0.000	35.65	0.00	35.65	0.50	143.35	0.00	143.85	0	20571	0	20571	2.64	0.00	0.000	23.38	39.33	41.19	30.31	0.0	1968.0	150.9	37.4	188.3	2156.3	251.3	BH	1950	1500	92.799	92.144	0.26%	5819.5	2.25	1.86	37.05
Quebec Ave	SL1451298	MH3466607427	MH3457807455	no	0.000	0.82	0.00	0.82	0.18	11.92	0.00	12.11	0	1644	0	1644	3.65	0.00	0.000	0.25	22.13	22.70	47.46	0.0	32.9	16.7	3.1	19.8	52.7	91.9	C	750	0	100.297	99.237	1.15%	1195.6	2.71	0.57	4.41
Bloor St W	SL1451316	MH3462907586	MH3459107465	yes	0.438	0.00	0.00	0.44	0.24	0.00	0.00	0.24	66	0	0	66	4.00	0.86	0.379	0.38	10.00	11.73	88.19	0.0	92.8	0.7	0.1	0.8	93.5	127.5	C	300	0	108.4	107.377	0.80%	86.6	1.23	1.73	108.00
Bloor St W	SL1451315	MH3459107465	MH3458007457	yes	0.026	0.44	0.00	0.46	0.00	0.24	0.00	0.24	0	66	0	66	4.00	0.90	0.024	0.40	11.73	11.78	77.85	0.0	87.0	0.7	0.1	0.8	87.8	13.1	C	300	0	107.233	105.379	14.15%	363.8	5.15	0.04	24.13
Quebec Ave	SL1450611	MH3464607437	MH3458007457	no	0.000	0.00	0.00	0.00	0.43	0.00	0.00	0.43	406	0	0	406	4.00	0.00	0.000	0.00	10.00	10.61	88.19	0.0		4.5	0.1	4.6	4.6	68.4	C	600	0	105.933	105.43	0.74%	526.5	1.86	0.61	0.88
Bloor St W	SL1451314	MH3458007457	MH3465907715	no	0.000	36.93	0.00	36.93	0.54	156.63	0.00	157.17	0	22686	0	22686	2.60	0.00	0.000	24.03	41.22	43.27	29.21	0.0	1950.1	163.7	40.9	204.6	2154.6	269.6	BH	1950	1500	92.138	91.47	0.25%	5674.0	2.20	2.05	37.97
High Park Ave	SL1450623	MH3473107555	MH3462907586	no	0.000	1.09	0.00	1.09	1.05	8.07	0.00	9.12	1336	3328	0	4664	3.27	0.00	0.000	0.80	18.22	19.39	55.23	0.0	122.8	42.4	2.4	44.8	167.6	106.8	C	600	0	103.132	102.608	0.49%	430.1	1.52	1.17	38.97
Bloor St W	SL1451317	MH3462907586	MH3465007656	no	0.000	1.09	0.00	1.09	0.22	9.12	0.00	9.34	66	4664	0	4730	3.27	0.00	0.000	0.80	19.39	20.10	52.62	0.0	117.0	42.9	2.4	45.4	162.4	72.7	C	600	0	108.335	107.89	0.61%	480.4	1.70	0.71	83.80
Pacific Ave	SL1451815	MH3476807681	MH3466707713	no	0.000	1.19	0.00	1.19	0.75	7.55	0.00	8.29	1068	4322	0	5390	3.21	0.00	0.000	0.87	18.59	19.72	54.37	0.0	131.6	48.1	2.2	50.3	181.9	105.5	C	600	0	108.073	107.533	0.51%	439.3	1.55	1.13	41.41
Pacific Ave	SL1450289	MH3466707713	MH3465907715	no	0.000	2.28	0.00	2.28	0.02	17.91	0.00	17.93	0	10519	0	10519	2.93	0.00	0.000	1.67	20.69	20.79	50.02	0.0	232.4	85.7	4.7	90.4	322.7	8.9	C	450	0	107.533	107.472	0.69%	236.0	1.48	0.10	136.73
or St W (Turn into High	SL1452271	MH3465907715	MH3464307969	no	0.000	39.21	0.00	39.21	0.50	175.10	0.00	175.60	0	33205	0	33205	2.43	0.00	0.000	25.70	43.27	44.78	28.13	0.0	2008.4	224.5	45.7	270.2	2278.6	250.1	H	1950	1500	91.47	90.745	0.29%	8049.8	2.75	1.51	28.31
Bloor St W	SL1451319	MH3466707713	MH3466907726	no	0.000	0.00	0.00	0.00	0.03	0.00	0.00	0.03	0	0	0	0	4.00	0.00	0.000	0.00	10.00	10.12	88.19	0.0		0.0	0.0	0.0	0.0	13.8	C	300	0	107.6	107.344	1.86%	131.7	1.86	0.12	0.01
Bloor St W	SL1451320	MH3466907726	MH3469907822	no	0.000	0.00	0.00	0.00	0.44	0.03	0.00	0.46	337	0	0	337	4.00	0.00	0.000	0.00	10.12	10.88	87.35	0.0		3.7	0.1	3.9	3.9	99.9	C	300	0	107.344	104.751	2.60%	155.8	2.20	0.76	2.48
Oakmount Rd	SL1451069	MH3479807791	MH3469907822	no	0.000	1.20	0.00	1.20	0.73	6.13	0.00	6.86	641	1955	0	2596	3.50	0.00	0.000	0.90	19.01	19.55	53.44	0.0	132.9	25.2	1.8	27.0	159.9	103.9	C	450	0	108.103	104.751	3.23%	512.1	3.22	0.54	31.22
Bloor St W	SL1451321	MH3469907822	MH3472907927	yes	0.560	1.20	0.00	1.76	0.29	7.32	0.00	7.61	306	2933	0	3239	3.41	0.75	0.419	1.31	19.55	20.08	52.29	0.0	190.9	30.7	2.0	32.7	223.6	109.7	C	375	0	104.751	99.569	4.72%	381.1	3.45	0.53	58.67
Mountainview Ave	SL1451043	MH3476407917	MH3472907927	yes	0.261	1.81	0.00	2.07	0.17	1.58	0.00	1.75	106	902	0	1008	3.80	0.75	0.195	1.54	12.93	13.38	72.16	0.0	308.2	10.6	0.5	11.1	319.3	36.3	C	300	0	108.235	107.872	1.00%	96.7	1.37	0.44	330.15
Bloor St W	SL1451322	MH3472907927	MH3475008001	yes	0.315	3.83	0.00	4.15	0.16	9.36	0.00	9.53	10	4247	0	4257	3.31	0.82	0.259	3.11	20.08	20.57	51.21	0.0	442.5	39.1	2.5	41.6	484.1	77.0	C	600	0	99.569	98.478	1.42%	730.9	2.58	0.50	66.24
Bloor St W	SL1450473	MH3475008001	MH3475008009	no	0.000	4.15	0.00	4.15	0.02	9.53	0.00	9.54	0	4257	0	4257	3.31	0.00	0.000	3.11	20.57	20.58	50.24	0.0	434.2	39.1	2.5	41.6	475.8	7.9	C	600	0	98.478	95.713	35.00%	3632.5	12.85	0.01	13.10

COMBINED SEWER DESIGN SHEET

Bloor West Village
City of Toronto

PREPARED BY: DB
CHECKED BY: AS
DATE: 3/16/2018
FILE No. 16-16138

Street	Asset ID	UPSTREAM	DOWNSTREAM	STM AREA				SAN AREA				SAN POP					RUNOFF			TIME		INTENSIT	CONT.	STM FLOW	SAN FLOW			COMB FLOW	PIPE											
		MH	MH	IN				IN				IN							TOTAL							Inf_Flow	Flow Total						UP MH	DOWN MH					PIPE	
				AREA	CONTRIB	CONTRIB	TOTAL	AREA	CONTRIB	CONTRIB	TOTAL	AREA	CONTRIB	CONTRIB	TOTAL	M	C	A x C	A x C	INLET	OUTLET	I_2	Q_C	Q_2	Pop_Flow	Dr y	Dry	2Year+Dry	LENGTH	Pipe	SIZE	SIZE	INV	INV	GRADE	CAPACITY	VEL.	TIME	CLASS	%CAP
						STM Network				SAN Network				SAN Network								(mm/hr)	(L/s)	(L/s)	(l/s)	(l/s)	(L/s)		(m)	Shape	(mm)	(mm)	Rev	Rev	(%)	(L/s)	(m/s)	(mins)		2 year + Dry
Kennedy Ave	SL1449257	MH3446206765	MH3437906791	0.000	0.00	0.00	0.00	0.71	1.59	0.00	2.29	333	92	0	425	4.00	0.00	0.000	0.00	12.69	14.34	73.22	0.0		4.7	0.6	5.3	5.3	86.6	C	300	0	108.228	107.872	0.41%	62.0	0.88	1.65	VCP	8.58
Ardagh St	SL1443148	MH3503506379	MH3503506369	0.000	0.00	0.00	0.00	0.04	0.56	0.00	0.60	1	24	0	25	4.00	0.00	0.000	0.00	11.32	11.44	80.06	0.0		0.3	0.2	0.4	0.4	10.3	C	300	0	111.61	111.5	1.07%	99.9	1.41	0.12	PVC	0.44
Willard Ave	SL1449120	MH3420606252	MH3421806259	0.000	0.00	0.00	0.00	0.03	0.16	0.00	0.19	0	117	0	117	4.00	0.00	0.000	0.00	10.47	10.51	85.05	0.0		1.3	0.0	1.3	1.3	13.9	C	300	0	107.631	104.787	20.46%	437.4	6.19	0.04	VCP	0.31
Durie St	SL1444086	MH3516606202	MH3507406230	0.000	0.00	0.00	0.00	0.64	0.75	0.00	1.39	29	52	0	80	4.00	0.00	0.000	0.00	10.83	11.62	82.85	0.0		0.9	0.4	1.3	1.3	96.3	C	375	0	112.4	110.8	1.66%	226.0	2.05	0.78	VCP	0.55
Evelyn Cres	SL1446400	MH3507106788	MH3506706786	0.000	0.71	0.00	0.71	0.01	13.64	0.00	13.65	0	801	0	801	3.86	0.00	0.000	0.51	16.03	16.04	61.04	0.0	87.3	8.6	3.5	12.1	99.5	4.7	C	450	0	105.833	104.805	21.87%	1333.4	8.38	0.01	VCP	7.46
Mountainview Ave	SL1451198	MH3479707908	MH3476407917	0.304	0.00	0.00	0.30	0.09	0.00	0.00	0.09	82	0	0	82	4.00	0.71	0.215	0.21	10.00	10.42	88.19	0.0	52.7	0.9	0.0	0.9	53.6	34.4	C	300	0	108.216	107.872	1.00%	96.7	1.37	0.42	VCP	55.44
Durie St	SL1449282	MH3443406432	MH3431306469	0.000	0.00	0.00	0.00	1.62	2.25	0.00	3.87	336	113	0	450	4.00	0.00	0.000	0.00	12.84	14.43	72.56	0.0		5.0	1.0	6.0	6.0	126.7	C	375	0	108.884	108	0.70%	146.5	1.33	1.59	VCP	4.10
Windermere Ave	SL1445210	MH3515606116	MH3507306140	0.000	0.00	0.00	0.00	0.73	0.87	0.00	1.61	36	45	0	82	4.00	0.00	0.000	0.00	11.35	12.64	79.92	0.0		0.9	0.4	1.3	1.3	86.7	C	300	0	112.605	112.032	0.66%	78.6	1.11	1.30	VCP	1.69
Willard	SL1445730	MH3511206032	MH3501706061	0.000	0.00	0.00	0.00	0.91	0.37	0.00	1.28	46	11	0	57	4.00	0.00	0.000	0.00	11.63	13.28	78.39	0.0		0.6	0.3	1.0	1.0	99.2	C	375	0	113.194	112.797	0.40%	110.9	1.00	1.65	VCP	0.87
0	SL1450131	MH3455805916	MH3456005918	0.000	0.00	0.00	0.00	0.01	2.09	0.00	2.10	0	1209	0	1209	3.75	0.00	0.000	0.00	14.24	14.26	66.93	0.0		12.6	0.5	13.1	13.1	2.7	C	600	0	111.136	111.109	1.00%	614.0	2.17	0.02	VCP	2.14
Runnymede Rd	SL1448756	MH3479006567	MH3471706589	0.000	1.69	0.00	1.69	1.11	6.06	0.00	7.17	82	796	0	878	3.84	0.00	0.000	1.16	17.55	19.51	56.87	0.0	183.4	9.4	1.9	11.2	194.6	75.8	C	600	0	108.21	108.143	0.09%	182.5	0.65	1.96	VCP	106.61
Glendonwynne Rd	SL1444344	MH3533907259	MH3527707229	0.000	0.00	0.00	0.00	0.40	0.08	0.00	0.48	26	5	0	32	4.00	0.00	0.000	0.00	10.15	10.90	87.18	0.0		0.4	0.1	0.5	0.5	68.7	C	225	0	107.661	106.421	1.80%	60.3	1.52	0.75	VCP	0.79
Methuen Ave	SL1448712	MH3489405768	MH3490705813	0.000	0.00	0.00	0.00	0.62	0.00	0.00	0.62	20	0	0	20	4.00	0.00	0.000	0.00	10.00	10.40	88.19	0.0		0.2	0.2	0.4	0.4	46.3	C	300	0	114.068	113.133	2.02%	137.4	1.94	0.40	VCP	0.28
Willard	SL1449691	MH3439206206	MH3430506232	0.000	0.00	0.00	0.00	0.79	2.53	0.00	3.32	39	121	0	160	4.00	0.00	0.000	0.00	13.76	14.57	68.73	0.0		1.8	0.9	2.6	2.6	91.4	C	375	0	110.085	108.777	1.43%	209.7	1.90	0.80	VCP	1.26
Windermere Ave	SL1449545	MH3420806373	MH3424806360	0.000	0.00	0.00	0.00	0.30	0.00	0.00	0.30	265	0	0	265	4.00	0.00	0.000	0.00	10.00	10.62	88.19	0.0		2.9	0.1	3.0	3.0	42.4	C	300	0	108.027	107.735	0.69%	80.2	1.14	0.62	VCP	3.76
0	SL1446689	MH3510006778	MH3507606787	0.000	0.71	0.00	0.71	0.05	9.88	0.00	9.93	0	532	0	532	3.96	0.00	0.000	0.51	15.81	16.00	61.69	0.0	88.3	5.8	2.6	8.4	96.7	25.5	C	450	0	106.357	105.945	1.62%	362.4	2.28	0.19	VCP	26.68
Clendenan Ave	SL1443809	MH3530907108	MH3528007108	0.000	0.00	0.00	0.00	0.31	5.12	0.00	5.43	29	456	0	486	3.98	0.00	0.000	0.00	13.87	14.06	68.32	0.0		5.4	1.4	6.8	6.8	29.1	C	375	0	109.445	108.713	2.52%	278.1	2.52	0.19	VCP	2.44
Idyllwood Cres	SL1448736	MH3489607077	CN6448	0.000	0.77	0.00	0.77	0.03	0.52	0.00	0.55	0	40	0	40	4.00	0.00	0.000	0.56	10.76	10.82	83.28	0.0	129.9	0.4	0.1	0.6	130.5	13.9	C	300	0	95.451	94.421	7.41%	263.2	3.72	0.06	VCP	49.56
Evelyn Cres	SL1443103	MH3519906938	MH3519106980	0.000	0.00	0.00	0.00	0.29	0.24	0.00	0.54	16	13	0	29	4.00	0.00	0.000	0.00	10.60	11.34	84.24	0.0		0.3	0.1	0.5	0.5	43.0	C	300	0	111.09	110.874	0.50%	68.5	0.97	0.74	VCP	0.67
Durie St	SL1448237	MH3431306469	MH3428306474	0.000	0.00	0.00	0.00	0.14	3.87	0.00	4.01	45	450	0	494	3.98	0.00	0.000	0.00	14.43	14.54	66.24	0.0		5.5	1.0	6.5	6.5	30.4	C	375	0	108	105.379	8.62%	514.8	4.66	0.11	VCP	1.26
Bloor St W	SL203333	MH3436406715	MH3437706759	0.000	0.00	0.00	0.00	0.19	0.00	0.00	0.19	179	0	0	179	4.00	0.00	0.000	0.00	10.00	10.61	88.19	0.0		2.0	0.0	2.0	2.0	45.6	C	300	0	107.835	107.457	0.83%	88.0	1.25	0.61	PVC	2.32
Bloor St W	SL1451322	MH3472907927	MH3475008001	0.315	3.83	0.00	4.15	0.16	9.36	0.00	9.53	10	4247	0	4257	3.31	0.82	0.259	3.11	20.08	20.57	51.21	0.0	442.5	39.1	2.5	41.6	484.1	77.0	C	600	0	99.569	98.478	1.42%	730.9	2.58	0.50	VCP	66.24
Willard Ave	SL1449292	MH3493606085	MH3492206089	0.000	0.00	0.00	0.00	0.11	0.00	0.00	0.11	5	0	0	5	4.00	0.00	0.000	0.00	10.00	10.23	88.19	0.0		0.1	0.0	0.1	0.1	14.3	C	450	0	112.429	112.38	0.34%	166.9	1.05	0.23	VCP	0.05
Bloor St W	SL1449643	MH3443206979	MH3445707063	0.000	0.00	0.00	0.00	0.46	0.49	0.00	0.96	409	317	0	727	3.89	0.00	0.000	0.00	10.59	11.08	84.32	0.0		7.8	0.2	8.1	8.1	87.8	C	300	0	104.528	100.304	4.81%	212.1	3.00	0.49	VCP	3.81
Clendenan Ave	SL1446286	MH3514107118	MH3511307111	0.000	0.00	0.00	0.00	0.17	9.50	0.00	9.67	9	703	0	712	3.89	0.00	0.000	0.00	15.02	15.17	64.23	0.0		7.7	2.5	10.2	10.2	28.8	C	450	0	99.831	98.978	2.96%	490.7	3.09	0.16	VCP	2.08
Glendonwynne Rd	SL1452301	MH3495906871	MH3495006869	0.000	1.03	0.00	1.03	0.07	2.67	0.00	2.75	6	221	0	227	4.00	0.00	0.000	0.78	16.87	16.97	58.64	0.0	126.8	2.5	0.7	3.2	130.1	9.3	C	375	0	103.105	103.012	1.00%	175.3	1.59	0.10	VCP	74.20
Kennedy Ave	SL1449554	MH3494006636	MH3490506644	0.279	0.88	0.00	1.15	0.21	0.66	0.00	0.87	23	72	0	95	4.00	0.81	0.226	0.94	10.66	10.86	83.87	0.0	218.5	1.1	0.2	1.3	219.7	36.6	C	300	0	101.885	100.026	5.08%	217.9	3.08	0.20	VCP	100.83
Armadale Ave	SL1448993	MH3468905970	MH3458406000	0.803	1.48	0.00	2.28	0.58	1.08	0.00	1.66	38	70	0	108	4.00	0.72	0.576	1.64	13.45	14.30	69.98	0.0	318.5	1.2	0.4	1.6	320.2	109.1	C	450	0	112.41	110.853	1.43%	340.6	2.14	0.85	VCP	94.00
Macgregor	SL1444078	MH3511906379	MH3510006315	0.000	0.00	0.00	0.00	0.41	0.42	0.00	0.83	18	46	0	64	4.00	0.00	0.000	0.00	11.01	11.93	81.80	0.0		0.7	0.2	0.9	0.9	66.6	C	300	0	112.096	111.569	0.79%	86.0	1.22	0.91	VCP	1.08
Runnymede Rd	SL1449956	MH3442506678	MH3440506684	0.185	2.09	0.00	2.28	0.14	9.78	0.00	9.92	10	1069	0	1078	3.78	0.71	0.131	1.57	24.17	24.44	44.30	0.0	193.8	11.3	2.6	13.9	207.7	21.1	C	600	0	107.381	107.305	0.36%	368.5	1.30	0.27	VCP	56.35
Macgregor Ave	SL1444079	MH3510006315	MH3507406230	0.000	0.00	0.00	0.00	0.63	2.08	0.00	2.71	29	168	0	198	4.00	0.00	0.000	0.00	12.32	13.18	74.92	0.0		2.2	0.7	2.9	2.9	88.9	C	375	0	111.569	110.511	1.19%	191.3	1.73	0.86	VCP	1.52
Runnymede Rd	SL1443146	MH3514206459	MH3506606482	0.000	1.63	0.00	1.63	0.75	2.14	0.00	2.89	43	333	0	376	4.00	0.00	0.000	1.16	13.43	14.35	70.05	0.0	225.9	4.2	0.8	4.9	230.8	79.7	C	375	0	111.734	111.063	0.84%	160.9	1.46	0.91	VCP	143.47
Colbeck St	SL1451056	MH3463606173	MH3466206261	0.675	10.18	0.00	10.86	0.40	10.36	0.00	10.76	26	1910	0	1935	3.60	0.72	0.485	7.69	17.09	18.33	58.05	0.0	1239.9	19.3	2.8	22.1	1262.1	91.6	E	1200	825	109.908	109.749	0.17%	964.4	1.23	1.24	BR	130.87
Colbeck st	SL1451051	MH3475406562	MH3472706473	0.873	0.00	0.00	0.87	0.71	0.00	0.00	0.71	122	0	0	122	4.00	0.72	0.630	0.63	10.00	11.87	88.19	0.0	154.3	1.4	0.2	1.5	155.9	92.3	C	300	0	109.475	109.14	0.36%	58.3	0.82	1.87	VCP	267.56
Colbeck St	SL1451055	MH3466206261	MH3469106355	0.876	13.07	0.00	13.94	0.65	12.94	0.00	13.59	42	2060	0	2102	3.57	0.71	0.618	9.50	18.33	19.21	54.97	0.0	1450.4	20.8	3.5	24.4	1474.7	97.6	E	1350	900	109.749	109.411	0.35%	1717.9	1.85	0.88	BR	85.84
Beresford Ave	SL1448753	MH3431906588	MH3431606589	0.000	18.59	0.00	18.59	0.01	44.95	0.00	44.96	0	4811	0	4811	3.26	0.00	0.000	11.38	36.00	36.01	32.47	0.0	1026.6	43.6	11.7	55.3	1081.8	3.2	C	1200	0	103.707	103.675	1.00%	3898.7	3.45	0.02	BR	27.75
Mountainview Ave	SL1451043	MH3476407917	MH3472907927	0.261	1.81	0.00	2.07	0.17	1.58	0.00	1.75	106	902	0	1008	3.80	0.75	0.195	1.54	12.93	13.38	72.16	0.0	308.2	10.6	0.5	11.1	319.3	36.3	C	300	0	108.235	107.872	1.00%	96.7	1.37	0.44	VCP	330.15
Bloor St W	SL1451047	MH3444407007	MH3447507108	0.000	24.58	0.00	24.58	0.21	87.13	0.00	87.34	0	14641	0	14641	2.79	0.00	0.000	15.73	38.66	38.81	30.72	0.0	1342.2	113.4	22.7	136.1	1478.3	106.3	BHC	1650	1500	100.931	93.415	7.07%	30310.3	11.73	0.15	CP	4.88
Evelyn Cres	SL1446416	MH3509706838	MH3507106788	0.000	0.00	0.00	0.00	0.45	3.25	0.00	3.70	38	231	0	269	4.00	0.00	0.000	0.00	14.43	14.69	66.24	0.0		3.0	1.0	4.0	4.0	55.8	C	375	0	108.698	105.833	5.13%	397.3	3.60	0.26	VCP	1.00
Pine Crest Rd	SL1446931	MH3505407195	MH3496907221	0.000	0.00	0.00	0.00	0.71	1.25	0.00	1.96	40	71	0	111	4.00	0.00	0.000	0.00	12.63	14.17	73.50	0.0		1.2	0.5	1.7	1.7	89.2	C	300	0	109.847	109.399	0.50%	68.5	0.97	1.53	VCP	2.54
Jane St	SL1448440	MH3470605872	MH3467405882	0.000	0.00	0.00	0.00	0.19	1.32	0.00	1.52	88	1009	0	1097	3.77	0.00	0.000	0.00	12.53	12.88	73.94	0.0		11.5	0.4	11.9	11.9	33.6	C	450	0	112.252	111.977	0.82%	257.9	1.62	0.35	VCP	4.61
Windermere Ave	SL1448969	MH3491606187	MH3483906209	0.000	0.52	0.00	0.52	0.65	0.40	0.00	1.05	32	19	0	51	4.00	0.00	0.000	0.00	10.91	12.48	82.39	0.0		0.6	0.3	0.8	0.8	79.8	C	375	0	111.493	111.264	0.29%	93.9	0.85	1.56	VCP	0.90
Glenwood Ave	SL1446262	MH3509506761	MH3510006778	0.000	0.00	0.00	0.00	0.13	1.47	0.00	1.60	7	82	0	89	4.00	0.00	0.000	0.00	12.34	12.44	74.84	0.0		1.0	0.4	1.4	1.4	17.3	C	375	0	107.009	106.357	3.77%	340.4	3.08	0.09	RCP	0.41
Gothic Ave	SL1450482	MH3482107246	MH3476507239	0.000	0.35	0.00	0.35	0.55	3.78	0.00	4.33	33	219	0	252	4.00	0.00	0.000	0.25	19.06	19.89	53.32	0.0	37.0	2.8	1.1	3.9	40.9	56.2	C	450	0	108.561	108.335	0.40%	180.8	1.14	0.82	VCP	22.63
Gothic Ave	SL1450481	MH3488007278	MH3482107246	0.000	0.35	0.00	0.35	0.66	3.12	0.00	3.78	40	179	0	219	4.00	0.00	0.000	0.25	18.08	19.06	55.56	0.0	38.5	2.4	1.0	3.4	42.0	67.4	C	450	0	108.835	108.561	0.41%	181.8	1.14	0.98	VCP	23.09
Willard	SL1449689	MH3454706160	MH3447806182	0.000	0.00	0.00	0.00	0.63	1.12	0.00	1.75	32	51	0	83	4.00	0.00	0.000	0.00	11.66	12.70	78.21	0.0		0.9	0.5	1.4	1.4	73.2	C	300	0	111.313	110.773	0.74%	83.1	1.18	1.04	VCP	1.65
Pacific Ave	SL1451926	MH3486507651	MH3476807681	0.000	1.19	0.00	1.19	1.11	6.44	0.00	7.55	1077	3245	0	4322	3.30	0.00	0.000	0.87	17.49	18.59	57.02	0.0	138.1	39.7	2.0	41.6	179.7	101.2	C	600	0	108.576	108.073	0.50%	432.9	1.53	1.10	VCP	41.51
Bresford Ave	SL1446117	MH3503506369	MH3493106400	0.000	0.98	0.00	0.98	0.73	21.03	0.00	21.76	33	1953	0	1986	3.59	0.00	0.000	0.59	20.75	21.93	49.91	0.0	82.2	19.8	5.7	25.4	107.6	108.1	C	1200	0	110.01	109.8	0.19%	1718.4	1.52	1.19	RCP	6.26
Kennedy Park Rd	SL1449672	MH3457406914	MH3452606959	0.435	0.77	0.00	1.20	0.29	0.51	0.00	0.81	22	39	0	61	4.00	0.73	0.316	0.87	10.84	11.33	82.80	0.0	200.7	0.7	0.2	0.9	201.6	66.1	C	300	0	106.086	104.287	2.72%	159.5	2.26	0.49	VCP	126.38
Kennedy Park Rd	SL1449001	MH3452606959	MH3451607002	0.276	1.63	0.00	1.90	0.19	1.03	0.00	1.21	113	78	0	191	4.00	0.76	0.209	1.41	11.33	11.63	80.01	0.0	313.2	2.1	0.3	2.4	315.7	44.0	C	300	0	104.287	102.894	3.17%	172.1	2.43	0.30	VCP	183.46
Bloor St W	SL203336	MH3425606375	MH3428306464	0.000	0.00	0.00	0.00	0.50	0.00	0.00	0.50	382	0	0	382	4.00	0.00	0.000	0.00	10.00	10.98	88.19	0.0		4.2	0.1	4.4	4.4	92.8	C	300	0	108.262	107.027	1.33%	111.6	1.58	0.98	PVC	3.92
Bloor St W	SL1451315	MH3459107465	MH3458007457	0.026	0.44	0.00	0.46	0.00	0.24	0.00	0.24	0	66	0	66	4.00	0.90	0.024	0.40	11.73	11.78	77.85	0.0	87.0	0.7	0.1	0.8	87.8	13.1	C	300	0	107.233	105.379	14.15%	363.8	5.15	0.04	VCP	24.13
Glendonwynne Rd	SL1444342	MH3514007090	MH3511307111	0.000	0.00	0.00	0.00	0.13	0.46	0.00	0.59	4	20	0	25	4.00	0.00	0.000	0.00	10.18	10.29	86.98	0.0		0.3	0.2	0.4	0.4	34.2	C	300	0	104.03	98.937	14.89%	373.2	5.28	0.11	VCP	0.11
High Park Ave	SL1448304	MH3492507495	MH3483107524	0.000	1.09	0.00	1.09	1.29	5.63	0.00	6.92	1208	1303	0	2511	3.51	0.00	0.000	0.80	16.02	17.06	61.06	0.0	135.8	24.5	1.8	26.3	162.1	98.1	C	600	0	104.15	103.632	0.53%	446.2	1.58	1.04	VCP	36.32
Bresford Ave	SL1444843	MH3528906258	MH3519906284	0.000	0.00	0.00	0.00	0.64	0.00	0.00	0.64	78	0	0	78	4.00	0.00	0.000	0.00	10.00	11.28	88.19	0.0		0.9	0.2	1.0	1.0	94.6	C	300	0	113.843	113.075	0.81%	87.1	1.23	1.28	VCP	1.19
High Park Ave	SL1446709	MH3502207465	MH3492507495	0.000	1.09	0.00	1.09	1.13	4.50	0.00	5.63	795	508	0	1303	3.72	0.00	0.000	0.80	14.91	16.02	64.59	0.0	143.6	13.5	1.5	14.9	158.6	101.7	C	600	0	104.65	104.15	0.49%	430.5	1.52	1.11	VCP	36.83
Jennings Ave	SL1446806	MH3545106963	MH3547907056	0.000	0.00	0.00	0.00	0.85	0.18	0.00	1.03	73	15	0	88	4.00	0.00	0.000	0.00	10.22	11.66	86.70	0.0		1.0	0.3	1.2	1.2	96.9	C	300	0	112.645	111.996	0.67%	79.1	1.12	1.44	VCP	1.57
Colbeck St	SL1451054	MH3469106355	MH3472006452	0.860	15.82	0.00	16.68	0.65	16.16	0.00	16.82	42	2227	0	2269	3.54	0.71	0.610	10.11	32.21	32.82	35.41	0.0	994.4	22.3	4.4	26.7	1021.1	101.3	E	1350	900	109.411	108.628	0.77%	2566.5	2.76	0.61	BR	39.79
Runnymede Rd	SL1449954	MH3440506684	MH3440306687	0.000	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0	0	0	0	4.00	0.00	0.000	0.00	10.00	10.07	88.19	0.0		0.0	0.0	0.0	0.0	3.3	C	750	0	107.34	107.36	0.10%	352.0	0.80	0.07	RCP	0.00
Bloor St. W	SL1449550	MH3417006099	MH3418906162	0.000	0.45	0.00	0.45	0.35	4.02	0.00	4.38	287	1482	0	1769	3.63	0.00	0.000	0.31	15.26	16.26	63.43	0.0	55.2	17.8	1.1	19.0	74.2	66.0	C	600	0	105.156	104.988	0.25%	309.8	1.10	1.00	VCP	23.94
0	SL1444112	MH3517806753	MH3510006778	0.000	0.71	0.00	0.71	0.16	8.11	0.00	8.27	0	443	0	443	4.00	0.00	0.000	0.51	15.26	15.81	63.42	0.0	90.7	4.9	2.2	7.1	97.8	81.5	C	375	0	108.329	106.357	2.42%	272.7	2.47	0.55	VCP	35.86
Rowland St	SL1446807	MH3533506966	MH3535407026	0.000	0.00	0.00	0.00	0.50	0.00	0.00	0.50	28	0	0	28	4.00	0.00	0.000	0.00	10.00	10.92	88.19	0.0		0.3	0.1	0.4	0.4	62.6	C	300	0	112.371	111.938	0.69%	80.4	1.14	0.92	VCP	0.55
Idyllwood Cres	SL1448466	MH3486506991	MH3489607077	0.575	0.19	0.00	0.77	0.39	0.13	0.00	0.52	30	10	0	40	4.00	0.73	0.419	0.56	10.19	10.76	86.88	0.0	135.5	0.4	0.1	0.6	136.1	91.5	C	300	0	98.984	95.451	3.86%	190.0	2.69	0.57	VCP	71.61
Evelyn Ave	SL1445844	MH3545206786	MH3535406818	0.000	0.00	0.00	0.00	0.93	0.00	0.00	0.93	79	0	0	79	4.00	0.00	0.000	0.00	10.00	11.42	88.19	0.0		0.9	0.2	1.1	1.1	103.4	C	300	0	113.328	112.517	0.78%	85.6	1.21	1.42	VCP	1.31
Kennedy Park Rd	SL1449671	MH3462806873	MH3457406914	0.445	0.32	0.00	0.77	0.30	0.22	0.00	0.51	23	16	0	39	4.00	0.73	0.323	0.56	10.36	10.84	85.82	0.0	132.7	0.4	0.1	0.6	133.3	67.6	C	300	0	108.024	106.086	2.87%	163.7	2.32	0.49	VCP	81.42
Pacific Ave	SL1445166	MH3543207476	MH3532807509	0.000	0.00	0.00	0.00	0.91	0.00	0.00	0.91	70	0	0	70	4.00	0.00	0.000	0.00	10.00	11.55	88.19	0.0		0.8	0.2	1.0	1.0	109.6	C	450	0	111.438	110.965	0.43%	187.3	1.18	1.55	VCP	0.54
Bloor St W	SL1450720	MH3444506974	MH3447107059	0.000	0.00	0.00	0.00	0.29	0.29	0.00	0.58	277	222	0	499	3.97	0.00	0.000	0.00	10.55	11.13	84.58	0.0		5.5	0.2	5.7	5.7	88.7	C	300	0	104.473	101.392	3.47%	180.2	2.55	0.58	VCP	3.14
Colbeck st	SL1451915	MH3456005918	MH3457105959	0.299	0.00	0.00	0.30	0.10	3.30	0.00	3.40	7	1290	0	1296	3.72	0.72	0.216	0.22	14.26	14.59	66.85	0.0	40.1	13.4	0.9	14.3	54.3	42.2	C	600	0	111.422	111	1.00%	614.0	2.17	0.32	VCP	8.85
Armadale Ave	SL1448705	MH3496905887	MH3489505909	0.000	0.16	0.00	0.16	0.61	1.53	0.00	2.14	30	74	0	104	4.00	0.00	0.000	0.00	13.49	14.94	69.82	0.0		1.2	0.6	1.7	1.7	76.9	C	450	0	113.248	113.06	0.24%	141.0	0.89	1.45	VCP	1.21
Parkview Gardens	SL1448458	MH3463007244	MH3460807174	0.422	0.69	0.00	1.11	0.32	0.48	0.00	0.79	24	155	0	179	4.00	0.74	0.311	0.84	10.92	11.37	82.31	0.0	191.8	2.0	0.2	2.2	194.0	73.2	C	300	0	96.283	93.385	3.96%	192.4	2.72	0.45	VCP	100.82
Bloor St W	SL1448315	MH3451607206	CN6449	0.000	0.99	0.00	0.99	0.01	0.44	0.00	0.45	0	244	0	244	4.00	0.00	0.000	0.80	11.51	11.51	79.05	0.0	176.5	2.7	0.1	2.8	179.3	3.4	C	300	0	94.476	93.022	42.76%	632.4	8.95	0.01	VCP	28.35
Durie St	SL1448330	MH3499706259	MH3491906283	0.000	0.00	1.88	1.88	0.66	0.00	0.00	0.66	32	0	0	32	4.00	0.00	0.000	0.00	10.00	20.37	88.19	0.0		0.4	0.2	0.5	0.5	81.8	C	600	0	109.786	109.783	0.00%	37.2	0.13	10.37	VCP	1.42
Runnymede Rd	SL1446252	MH3525606424	MH3519906442	0.000	1.63	0.00	1.63	0.33	1.45	0.00	1.78	15	278	0	293	4.00	0.00	0.000	1.16	12.06	12.72	76.20	0.0	245.7	3.3	0.5	3.7	249.4	59.9	C	375	0	112.712	112.176	0.89%	165.9	1.50	0.66	VCP	150.39
Ardagh St	SL1448719	MH3486905824	MH3489505909	0.000	0.00	0.00	0.00	0.18	5.42	0.00	5.60	0	1153	0	1153	3.76	0.00	0.000	0.00	15.21	16.41	63.58	0.0		12.0	1.5	13.5	13.5	89.3	C	600	0	112.82	112.53	0.32%	349.9	1.24	1.20	RCP	3.86
Armadale Ave	SL1444106	MH3515605832	MH3512805840	0.000	0.00	0.00	0.00	0.21	0.00	0.00	0.21	10	0	0	10	4.00	0.00	0.000	0.00	10.00	10.54	88.19	0.0		0.1	0.1	0.2	0.2	29.6	C	300	0	114.044	113.913	0.44%	64.3	0.91	0.54	VCP	0.26
Oakmount Rd	SL1447136	MH3528307582	MH3520307664	0.000	0.33	0.00	0.33	1.02	0.24	0.00	1.26	81	24	0	105	4.00	0.00	0.000	0.24	10.80	12.86	83.02	0.0	54.6	1.2	0.3	1.5	56.1	114.2	C	300	0	110.773	110.249	0.46%	65.5	0.93	2.05	VCP	85.70
High Park Ave	SL1446329	MH3529207381	MH3520507408	0.000	0.00	0.00	0.00	0.87	0.93	0.00	1.80	70	223	0	293	4.00	0.00	0.000	0.00	11.19	12.38	80.77	0.0		3.3	0.5	3.7	3.7	90.8	C	450	0	106.067	105.61	0.50%	202.3	1.27	1.19	VCP	1.84
Humberview Rd	SL1448443	MH3466205840	MH3467405882	0.000	0.00	0.00	0.00	0.33	0.00	0.00	0.33	112	0	0	112	4.00	0.00	0.000	0.00	10.00	10.44	88.19	0.0		1.2	0.1	1.3	1.3	43.8	C	300	0	113.361	112.718	1.47%	117.2	1.66	0.44	VCP	1.13
Weatherell St	SL1448711	MH3440105978	MH3441806033	0.198	0.00	0.00	0.20	0.11	0.00	0.00	0.11	7	0	0	7	4.00	0.80	0.157	0.16	10.00	10.63	88.19	0.0	38.6	0.1	0.0	0.1	38.7	57.9	C	300	0	110.725	109.993	1.26%	108.7	1.54	0.63	VCP	35.57
Beresford Ave	SL1449283	MH3471506466	MH3452606525	0.000	18.59	0.00	18.59	1.79	40.99	0.00	42.78	90	4458	0	4548	3.28	0.00	0.000	11.38	33.02	34.95	34.74	0.0	1098.2	41.5	11.1	52.6	1150.8	198.6	C	1200	0	108.509	108.021	0.25%	1932.6	1.71	1.94	BR	59.54

COMBINED SEWER DESIGN SHEET

Bloor West Village
City of Toronto

PREPARED BY: DB
CHECKED BY: AS
DATE: 3/16/2018
FILE No. 16-16138

Street	Asset ID	UPSTREAM	DOWNSTREAM	STM AREA				SAN AREA				SAN POP					RUNOFF			TIME		INTENSIT	CONT.	STM FLOW	SAN FLOW			COMB FLOW	PIPE											
		MH	MH	IN				IN				IN							TOTAL							Inf_Flow	Flow Total						UP MH	DOWN MH					PIPE	
				AREA	CONTRIB	CONTRIB	TOTAL	AREA	CONTRIB	CONTRIB	TOTAL	AREA	CONTRIB	CONTRIB	TOTAL	M	C	A x C	A x C	INLET	OUTLET	I_2	Q_C	Q_2	Pop_Flow	Dry	Dry	2Year+Dry	LENGTH	Pipe	SIZE	SIZE	INV	INV	GRADE	CAPACITY	VEL.	TIME	CLASS	%CAP
						STM Network				SAN Network				SAN Network								(mm/hr)	(L/s)	(L/s)	(l/s)	(l/s)	(L/s)		(m)	Shape	(mm)	(mm)	Rev	Rev	(%)	(L/s)	(m/s)	(mins)		2 year + Dry
Gilmour Ave	SL1444211	MH3538906591	MH3532806609	0.000	0.00	0.00	0.00	0.34	0.00	0.00	0.34	16	0	0	16	4.00	0.00	0.000	0.00	10.00	10.96	88.19	0.0		0.2	0.1	0.3	0.3	64.2	C	225	0	112.078	111.456	0.97%	44.2	1.11	0.96	VCP	0.59
Bloor St W	SL1448207	MH3456507360	MH3453907275	0.355	0.30	0.00	0.65	0.18	0.10	0.00	0.28	211	9	0	220	4.00	0.83	0.294	0.54	10.57	11.12	84.47	0.0	126.9	2.4	0.1	2.5	129.4	88.9	C	300	0	101.815	98.362	3.88%	190.6	2.70	0.55	VCP	67.90
0	SL1450523	MH3476607914	MH3476407917	0.000	1.51	0.00	1.51	0.01	1.48	0.00	1.48	0	820	0	820	3.85	0.00	0.000	1.13	12.90	12.93	72.29	0.0	226.3	8.8	0.4	9.2	235.5	3.4	C	450	0	107.906	107.872	1.00%	285.1	1.79	0.03	RCP	82.60
Clendenan Ave	SL1450900	MH3460807174	MH3458607181	0.000	7.92	0.00	7.92	0.13	47.43	0.00	47.56	7	3257	0	3264	3.41	0.00	0.000	5.43	23.09	23.25	45.92	0.0	693.3	30.9	12.4	43.3	736.5	23.0	C	1200	0	93.385	93.284	0.44%	2583.6	2.28	0.17	BR	28.51
Fairview Ave	SL1444110	MH3532606706	MH3524106733	0.000	0.00	0.00	0.00	0.70	0.83	0.00	1.53	39	49	0	88	4.00	0.00	0.000	0.00	11.61	12.97	78.51	0.0		1.0	0.4	1.4	1.4	89.7	C	300	0	112.136	111.557	0.65%	77.7	1.10	1.36	VCP	1.77
Jane St.	SL1448578	MH3490705813	MH3488205820	0.000	0.00	0.00	0.00	0.18	5.19	0.00	5.37	133	972	0	1105	3.77	0.00	0.000	0.00	14.67	14.99	65.41	0.0		11.6	1.4	13.0	13.0	26.2	C	375	0	113.133	112.944	0.72%	148.9	1.35	0.32	VCP	8.71
Glenlake Ave	SL1448872	MH3488507200	MH3483407171	0.000	0.00	0.00	0.00	0.56	0.67	0.00	1.23	33	40	0	73	4.00	0.00	0.000	0.00	10.29	10.56	86.26	0.0		0.8	0.3	1.1	1.1	59.5	C	300	0	101.13	96.838	7.21%	259.7	3.67	0.27	VCP	0.44
Glendonwynne Rd	SL1443901	MH3521207190	MH3520207178	0.000	0.00	0.00	0.00	0.09	1.40	0.00	1.49	5	85	0	89	4.00	0.00	0.000	0.00	11.38	11.51	79.72	0.0		1.0	0.4	1.4	1.4	15.8	C	300	0	103.409	103.047	2.29%	146.4	2.07	0.13	VCP	0.94
Evelyn Cres	SL1445010	MH3516607012	MH3512807023	0.000	0.00	0.00	0.00	0.27	0.81	0.00	1.08	14	43	0	58	4.00	0.00	0.000	0.00	11.60	11.85	78.54	0.0		0.6	0.3	0.9	0.9	39.2	C	300	0	109.411	107.969	3.68%	185.5	2.62	0.25	VCP	0.50
Evelyn Cres	SL1449258	MH3492306687	MH3487806671	0.000	0.71	0.00	0.71	0.39	15.86	0.00	16.25	33	938	0	971	3.81	0.00	0.000	0.51	16.88	17.23	58.62	0.0	83.9	10.3	4.2	14.5	98.4	47.0	C	600	0	98.35	97.847	1.07%	635.2	2.25	0.35	VCP	15.49
Beresford Ave	SL1449553	MH3429206635	MH3433106624	0.000	0.00	0.00	0.00	0.18	0.00	0.00	0.18	96	0	0	96	4.00	0.00	0.000	0.00	10.00	10.34	88.19	0.0		1.1	0.0	1.1	1.1	40.6	C	300	0	108.555	107.683	2.15%	141.7	2.00	0.34	VCP	0.79
Pacific Ave	SL1447133	MH3505907591	MH3496107622	0.000	1.19	0.00	1.19	1.13	4.21	0.00	5.34	1095	1084	0	2179	3.56	0.00	0.000	0.87	15.28	16.41	63.37	0.0	153.4	21.5	1.4	22.9	176.3	102.9	C	600	0	109.582	109.079	0.49%	429.3	1.52	1.13	VCP	41.08
Bresford Ave	SL1444844	MH3519906284	MH3510006315	0.000	0.00	0.00	0.00	0.61	0.64	0.00	1.25	26	78	0	104	4.00	0.00	0.000	0.00	11.28	12.32	80.29	0.0		1.2	0.3	1.5	1.5	103.5	C	300	0	113.075	111.569	1.46%	116.6	1.65	1.05	VCP	1.27
Glenlake Ave	SL1450796	MH3480807100	MH3478107121	0.000	5.41	0.00	5.41	0.07	30.10	0.00	30.17	0	1983	0	1983	3.59	0.00	0.000	4.03	21.26	21.42	48.97	0.0	548.8	19.8	7.8	27.6	576.4	33.4	E	1350	900	94.32	93.906	1.24%	3250.1	3.49	0.16	BR	17.74
Runnymede Rd	SL1448975	MH3486306544	MH3479006567	0.000	1.69	0.00	1.69	0.61	5.45	0.00	6.06	47	749	0	796	3.86	0.00	0.000	1.16	16.63	17.55	59.31	0.0	191.3	8.5	1.6	10.1	201.4	76.7	C	600	0	108.524	108.21	0.41%	392.9	1.39	0.92	VCP	51.26
Weatherell St	SL1449281	MH3441806033	MH3443106078	0.341	0.20	0.00	0.54	0.29	0.11	0.00	0.40	19	7	0	26	4.00	0.72	0.245	0.40	10.63	11.16	84.10	0.0	94.0	0.3	0.1	0.4	94.4	47.0	C	300	0	109.993	109.445	1.17%	104.4	1.48	0.53	VCP	90.44
Gothic Ave	SL1450485	MH3468307329	MH3467207373	0.000	0.35	0.00	0.35	0.26	5.34	0.00	5.60	12	356	0	368	4.00	0.00	0.000	0.25	21.46	21.95	48.61	0.0	33.7	4.1	1.5	5.5	39.3	46.1	C	450	0	107.634	107.284	0.76%	248.4	1.56	0.49	VCP	15.81
0	SL1450378	MH3472006452	MH3472506464	0.027	16.68	0.00	16.71	0.00	16.82	0.00	16.82	0	2269	0	2269	3.54	0.90	0.024	10.13	32.82	32.95	34.90	0.0	982.3	22.3	4.4	26.7	1009.0	13.5	C	1050	0	108.55	108.51	0.30%	1486.4	1.72	0.13	RCP	67.88
Windermere Ave	SL1449293	MH3496306173	MH3491606187	0.000	0.00	0.52	0.52	0.40	0.00	0.00	0.40	19	0	0	19	4.00	0.00	0.000	0.00	10.00	10.91	88.19	0.0		0.2	0.1	0.3	0.3	48.9	C	375	0	111.648	111.493	0.32%	98.7	0.89	0.91	VCP	0.32
Bloor St W	SL1449693	MH3421806259	MH3424806360	0.000	1.47	0.00	1.47	0.50	13.60	0.00	14.10	329	2909	0	3239	3.41	0.00	0.000	1.08	17.84	19.36	56.16	0.0	169.1	30.7	3.7	34.4	203.5	105.7	E	1050	675	104.787	104.577	0.20%	604.2	1.15	1.53	BR	33.68
0	SL1449557	MH3484706701	MH3484706707	0.000	1.86	0.00	1.86	0.01	17.54	0.00	17.55	0	1101	0	1101	3.77	0.00	0.000	1.45	17.49	17.54	57.03	0.0	230.1	11.5	4.6	16.1	246.2	5.2	C	900	0	96.908	96.887	0.40%	1150.4	1.81	0.05	VCP	21.40
Webb Ave	SL1443666	MH3524206625	MH3523606638	0.000	0.00	0.00	0.00	0.03	1.12	0.00	1.15	0	59	0	59	4.00	0.00	0.000	0.00	12.01	12.11	76.44	0.0		0.7	0.3	1.0	1.0	14.3	C	300	0	110.615	110.194	2.94%	165.9	2.35	0.10	VCP	0.57
Colbeck St	SL1451052	MH3472706473	MH3471506466	0.028	0.87	0.00	0.90	0.00	0.71	0.00	0.71	0	122	0	122	4.00	0.90	0.026	0.66	11.87	11.95	77.17	0.0	140.5	1.4	0.2	1.5	142.1	14.2	C	300	0	109.14	108.509	4.44%	203.8	2.88	0.08	VCP	69.69
Evans Ave	SL1444254	MH3518005918	MH3508505947	0.000	0.00	0.00	0.00	0.90	0.00	0.00	0.90	46	0	0	46	4.00	0.00	0.000	0.00	10.00	11.70	88.19	0.0		0.5	0.2	0.7	0.7	98.8	C	300	0	113.934	113.437	0.50%	68.6	0.97	1.70	VCP	1.08
Glendonwynne Rd	SL1446128	MH3518507152	MH3517107124	0.000	0.00	0.00	0.00	0.19	1.68	0.00	1.86	9	99	0	108	4.00	0.00	0.000	0.00	11.76	12.01	77.73	0.0		1.2	0.5	1.7	1.7	31.3	C	375	0	102.495	101.977	1.65%	225.6	2.04	0.26	VCP	0.75
Glenlake Ave	SL1447134	MH3507307599	MH3510307696	0.873	0.00	0.00	0.87	0.69	0.00	0.00	0.69	344	0	0	344	4.00	0.75	0.658	0.66	10.00	11.78	88.19	0.0	161.3	3.8	0.2	4.0	165.3	102.4	C	300	0	110.588	110.085	0.49%	67.8	0.96	1.78	VCP	243.83
Quebec Ave	SL1446841	MH3503207318	MH3493007349	0.000	0.00	0.47	0.47	1.27	1.56	0.00	2.83	85	107	0	192	4.00	0.00	0.000	0.00	13.44	15.07	70.01	0.0		2.1	0.7	2.9	2.9	106.6	C	375	0	110.035	109.532	0.47%	120.4	1.09	1.63	VCP	2.38
Ardagh St	SL1443015	MH3500106258	MH3503506369	0.822	0.16	0.00	0.98	0.58	19.85	0.00	20.43	37	1890	0	1927	3.60	0.72	0.593	0.59	19.89	20.75	51.58	0.0	84.9	19.3	5.3	24.6	109.5	116.4	C	1200	0	110.44	109.94	0.43%	2555.2	2.26	0.86	RCP	4.29
Runnymede Rd	SL1448760	MH3449906656	MH3447606662	0.000	1.69	0.00	1.69	0.26	9.21	0.00	9.48	14	1033	0	1047	3.79	0.00	0.000	1.16	23.00	23.45	46.06	0.0	148.5	11.0	2.5	13.5	162.0	30.5	C	600	0	107.57	107.49	0.26%	314.6	1.11	0.46	VCP	51.50
Bloor St W	SL1449804	MH3428806481	MH3428306474	0.000	0.00	0.00	0.00	0.02	0.88	0.00	0.89	0	695	0	695	3.90	0.00	0.000	0.00	11.58	11.60	78.66	0.0		7.5	0.2	7.7	7.7	8.8	C	300	0	107.189	104.159	34.43%	567.4	8.03	0.02	VCP	1.37
Colbeck St	SL1451057	MH3461006086	MH3463606173	1.026	6.63	0.00	7.66	0.63	7.93	0.00	8.56	41	1755	0	1795	3.62	0.69	0.712	5.41	15.80	17.09	61.72	0.0	927.9	18.1	2.2	20.3	948.2	90.9	E	1050	675	110.246	110.06	0.20%	613.2	1.17	1.29	BR	154.65
Willard Ave	SL1448972	MH3482706117	MH3473206145	0.833	0.85	0.00	1.68	0.56	0.67	0.00	1.23	36	41	0	77	4.00	0.71	0.591	1.19	11.60	12.89	78.56	0.0	260.2	0.9	0.3	1.2	261.4	98.6	C	450	0	111.929	111.432	0.50%	202.4	1.27	1.29	VCP	129.13
Evans Ave	SL1444255	MH3508505947	MH3499105975	0.000	0.00	0.00	0.00	0.82	0.90	0.00	1.73	40	46	0	86	4.00	0.00	0.000	0.00	11.70	13.40	78.04	0.0		1.0	0.4	1.4	1.4	98.7	C	300	0	113.437	112.947	0.50%	68.1	0.96	1.71	VCP	2.06
Durie St	SL1444084	MH3525906174	MH3516606202	0.000	0.00	0.00	0.00	0.75	0.00	0.00	0.75	52	0	0	52	4.00	0.00	0.000	0.00	10.00	10.83	88.19	0.0		0.6	0.2	0.8	0.8	97.3	C	300	0	114.44	112.47	2.02%	137.6	1.95	0.83	VCP	0.56
Rowland St	SL1443267	MH3535407026	MH3537307089	0.000	0.00	0.00	0.00	0.52	0.50	0.00	1.02	30	28	0	58	4.00	0.00	0.000	0.00	10.92	11.54	82.36	0.0		0.6	0.3	0.9	0.9	65.8	C	300	0	111.938	110.831	1.68%	125.4	1.77	0.62	VCP	0.72
Evelyn Cres	SL1443102	MH3518006908	MH3519906938	0.000	0.00	0.00	0.00	0.24	0.00	0.00	0.24	13	0	0	13	4.00	0.00	0.000	0.00	10.00	10.60	88.19	0.0		0.1	0.1	0.2	0.2	35.4	C	300	0	111.27	111.09	0.51%	69.0	0.98	0.60	VCP	0.30
Norma Cres	SL1449951	MH3474506868	MH3469606806	0.000	0.00	0.00	0.00	0.39	0.00	0.00	0.39	18	0	0	18	4.00	0.00	0.000	0.00	10.00	11.49	88.19	0.0		0.2	0.1	0.3	0.3	78.7	C	300	0	108.5	108.174	0.41%	62.2	0.88	1.49	VCP	0.48
Parkview Gardens	SL1448456	MH3006979	MH3461607267	0.453	0.09	0.00	0.54	0.36	0.02	0.00	0.38	71	77	0	148	4.00	0.76	0.344	0.42	10.37	10.81	85.70	0.0	100.6	1.6	0.1	1.7	102.3	40.9	C	300	0	99.02	98.493	1.29%	109.8	1.55	0.44	VCP	93.20
Clendenan Ave	SL1443810	MH3525907107	MH3524207106	0.000	0.00	0.00	0.00	0.03	5.66	0.00	5.69	0	508	0	508	3.97	0.00	0.000	0.00	14.19	14.27	67.13	0.0		5.6	1.5	7.1	7.1	16.2	C	375	0	104.888	104.117	4.76%	382.5	3.46	0.08	VCP	1.85
Armadale Ave	SL1448991	MH3488205913	MH3479405939	0.675	0.00	0.00	0.67	0.49	0.00	0.00	0.49	32	0	0	32	4.00	0.72	0.484	0.48	10.00	11.73	88.19	0.0	118.7	0.4	0.1	0.5	119.2	91.7	C	450	0	113.014	112.791	0.24%	140.6	0.88	1.73	VCP	84.75
Evans Ave	SL1448579	MH3499105975	MH3492205996	0.000	0.00	0.00	0.00	0.66	1.73	0.00	2.38	33	86	0	119	4.00	0.00	0.000	0.00	13.40	14.50	70.17	0.0		1.3	0.6	1.9	1.9	72.4	C	375	0	112.947	112.601	0.48%	121.2	1.10	1.10	VCP	1.60
Glendonwynne Rd	SL1444339	MH3511507019	MH3508906974	0.000	0.00	0.00	0.00	0.27	0.00	0.00	0.27	12	0	0	12	4.00	0.00	0.000	0.00	10.00	10.59	88.19	0.0		0.1	0.1	0.2	0.2	52.4	C	300	0	106.832	106.223	1.16%	104.2	1.47	0.59	VCP	0.20
Kennedy Ave	SL1449831	MH3498406531	MH3496806564	0.280	0.00	0.00	0.28	0.21	0.00	0.00	0.21	23	0	0	23	4.00	0.81	0.228	0.23	10.00	10.23	88.19	0.0	55.8	0.3	0.1	0.3	56.1	36.8	C	225	0	107.817	105.741	5.64%	106.6	2.68	0.23	VCP	52.58
Bresford Ave	SL1448996	MH3482806432	MH3472506464	0.000	0.98	0.00	0.98	0.85	22.60	0.00	23.45	41	2026	0	2067	3.57	0.00	0.000	0.59	23.17	24.42	45.79	0.0	75.4	20.5	6.1	26.6	102.0	108.6	C	1200	0	109.59	109.4	0.17%	1630.7	1.44	1.26	RCP	6.26
Bloor St W	SL1449002	MH3447807081	MH3446607090	0.000	0.00	0.00	0.00	0.03	0.10	0.00	0.13	0	75	0	75	4.00	0.00	0.000	0.00	10.14	10.23	87.25	0.0		0.8	0.0	0.9	0.9	14.4	C	300	0	100.401	99.883	3.60%	183.4	2.59	0.09	VCP	0.47
Glenlake Ave	SL1445540	MH3506607578	MH3505907591	0.000	1.19	0.00	1.19	0.03	0.91	0.00	0.95	0	831	0	831	3.85	0.00	0.000	0.87	11.81	11.95	77.44	0.0	187.5	8.9	0.2	9.1	196.6	15.7	C	300	0	109.896	109.582	2.00%	136.8	1.93	0.14	VCP	143.79
Clendenan Ave	SL1445600	MH3517107124	MH3514807119	0.000	0.00	0.00	0.00	0.05	7.89	0.00	7.93	0	629	0	629	3.92	0.00	0.000	0.00	14.86	14.96	64.74	0.0		6.8	2.1	8.9	8.9	23.6	C	450	0	101.727	100.614	4.72%	619.2	3.89	0.10	VCP	1.44
Oakmount Rd	SL1446729	MH3500407727	MH3489907760	0.000	1.20	0.00	1.20	1.11	3.67	0.00	4.78	367	991	0	1357	3.71	0.00	0.000	0.90	16.16	17.61	60.66	0.0	150.8	14.0	1.2	15.2	166.1	110.0	C	450	0	109.17	108.628	0.49%	200.1	1.26	1.46	VCP	82.98
Bloor St W	SL1448934	MH3438506784	MH3437906791	0.000	0.00	0.00	0.00	0.02	0.66	0.00	0.68	0	559	0	559	3.95	0.00	0.000	0.00	10.95	11.11	82.14	0.0		6.1	0.2	6.3	6.3	8.5	C	300	0	107.911	107.872	0.46%	65.5	0.93	0.15	VCP	9.63
Glendonwynne Rd	SL1449459	MH3495006869	MH3490006856	0.000	1.03	0.00	1.03	0.40	2.75	1.17	4.31	34	227	100	361	4.00	0.00	0.000	0.78	16.97	17.51	58.38	0.0	126.3	4.0	1.1	5.1	131.4	51.6	C	375	0	100.463	99.947	1.00%	175.3	1.59	0.54	VCP	74.95
Fairview Ave	SL1444109	MH3541306678	MH3532606706	0.000	0.00	0.00	0.00	0.83	0.00	0.00	0.83	49	0	0	49	4.00	0.00	0.000	0.00	10.00	11.61	88.19	0.0		0.5	0.2	0.8	0.8	91.1	C	225	0	112.773	112.136	0.70%	37.5	0.94	1.61	VCP	2.02
Clendenan Ave	SL1447672	MH3507807093	MH3501507081	0.000	0.64	0.00	0.64	0.23	10.56	0.00	10.80	8	754	0	762	3.87	0.00	0.000	0.00	15.38	15.85	63.04	0.0		8.2	2.8	11.0	11.0	63.6	C	450	0	97.36	96.36	1.57%	357.5	2.25	0.47	RCP	3.08
Bloor St W	SL203334	MH3438606804	MH3440606871	0.000	0.00	0.00	0.00	0.44	0.00	0.00	0.44	445	0	0	445	4.00	0.00	0.000	0.00	10.00	10.89	88.19	0.0		4.9	0.1	5.1	5.1	69.7	C	300	0	108.56	107.92	0.92%	92.7	1.31	0.89	PVC	5.46
Runnymede Rd	SL1448252	MH3431506709	MH3435206699	0.000	0.00	0.00	0.00	0.28	0.00	0.00	0.28	119	0	0	119	4.00	0.00	0.000	0.00	10.00	10.27	88.19	0.0		1.3	0.1	1.4	1.4	38.7	C	300	0	108.378	107.189	3.07%	169.5	2.40	0.27	VCP	0.82
Woodside Ave	SL1443282	MH3518706742	MH3517806753	0.000	0.00	0.00	0.00	0.03	5.45	0.00	5.48	0	281	0	281	4.00	0.00	0.000	0.00	15.09	15.26	63.97	0.0		3.1	1.4	4.5	4.5	14.2	C	375	0	108.509	108.399	0.77%	154.3	1.40	0.17	VCP	2.95
Runnymede Rd	SL1448973	MH3498606507	MH3492806525	0.000	1.63	0.06	1.69	0.48	4.42	0.00	4.91	37	670	0	707	3.89	0.00	0.000	1.16	15.27	15.66	63.39	0.0	204.4	7.6	1.3	8.9	213.3	60.5	C	375	0	110.292	108.722	2.60%	282.4	2.56	0.39	VCP	75.53
Willard	SL1445731	MH3501706061	MH3494706081	0.000	0.00	0.00	0.00	0.67	1.28	0.00	1.95	34	57	0	91	4.00	0.00	0.000	0.00	13.28	14.45	70.69	0.0		1.0	0.5	1.5	1.5	72.6	C	450	0	112.721	112.48	0.33%	164.3	1.03	1.17	VCP	0.93
Pine Crest Rd	SL1445090	MH3519807257	MH3512607225	0.000	0.00	0.00	0.00	0.63	0.00	0.00	0.63	36	0	0	36	4.00	0.00	0.000	0.00	10.00	11.32	88.19	0.0		0.4	0.2	0.6	0.6	78.8	C	300	0	110.67	110.255	0.53%	70.2	0.99	1.32	VCP	0.80
Durie St	SL1448870	MH3484006308	MH3476106333	0.000	1.88	0.00	1.88	0.66	1.32	0.00	1.98	32	64	0	96	4.00	0.00	0.000	0.00	22.23	23.33	47.30	0.0		1.1	0.5	1.6	1.6	82.6	C	600	0	109.688	109.414	0.33%	353.6	1.25	1.10	VCP	0.45
Bloor St W	SL1449641	MH3437906791	MH3440606879	0.000	22.34	0.00	22.34	0.19	83.92	0.00	84.11	0	12911	0	12911	2.84	0.00	0.000	14.04	37.56	38.23	31.41	0.0	1225.0	102.0	21.9	123.9	1348.9	92.6	BHC	1500	1500	103.01	102.751	0.28%	6028.5	2.33	0.66	CP	22.37
Quebec Ave	SL1446839	MH3522307259	MH3512807288	0.000	0.00	0.00	0.00	0.77	0.00	0.00	0.77	53	0	0	53	4.00	0.00	0.000	0.00	10.00	11.71	88.19	0.0		0.6	0.2	0.8	0.8	99.1	C	300	0	111.033	110.538	0.50%	68.3	0.97	1.71	VCP	1.16
Bloor St W	SL1449900	MH3431606589	MH3435206699	0.000	20.07	0.00	20.07	0.23	69.09	0.00	69.32	0	10264	0	10264	2.94	0.00	0.000	12.46	36.01	36.74	32.46	0.0	1124.0	83.9	18.0	101.9	1225.9	115.1	E	1500	1350	103.675	103.196	0.42%	5552.3	2.65	0.72	CP	22.08
Durie St	SL1449141	MH3459906382	MH3452606404	0.000	0.00	0.00	0.00	0.69	0.69	0.00	1.38	35	35	0	69	4.00	0.00	0.000	0.00	10.79	11.52	83.09	0.0		0.8	0.4	1.1	1.1	76.1	C	375	0	110.368	109.451	1.20%	192.5	1.74	0.73	VCP	0.59
Kennedy Park Rd	SL1449409	MH3461306826	MH3462806873	0.322	0.00	0.00	0.32	0.22	0.00	0.00	0.22	16	0	0	16	4.00	0.73	0.234	0.23	10.00	10.36	88.19	0.0	57.3	0.2	0.1	0.2	57.5	48.9	C	300	0	109.399	108.024	2.81%	162.2	2.29	0.36	VCP	35.45
Bloor St W	SL1450903	MH3446607090	MH3447507108	0.000	0.00	0.00	0.00	0.11	1.23	0.00	1.34	89	931	0	1020	3.79	0.00	0.000	0.00	11.34	11.38	79.97	0.0		10.8	0.3	11.1	11.1	20.7	C	300	0	99.822	93.415	30.95%	538.0	7.61	0.05	VCP	2.06
Clendenan Ave	SL1447703	MH3514807119	MH3514107118	0.000	0.00	0.00	0.00	0.04	9.46	0.00	9.50	2	701	0	703	3.89	0.00	0.000	0.00	14.96	15.02	64.40	0.0		7.6	2.5	10.1	10.1	7.1	C	450	0	100.614	100.502	1.58%	358.1	2.25	0.05	VCP	2.81
Ardagh St	SL1448568	MH3489505909	MH3492205996	0.000	0.16	0.00	0.16	0.18	7.74	0.00	7.92	0	1257	0	1257	3.73	0.00	0.000	0.00	16.41	17.57	59.92	0.0		13.0	2.1	15.1	15.1	90.4	C	750	0	112.42	112.18	0.27%	573.6	1.30	1.16	RCP	2.63
Webb Ave	SL1443664	MH3519306461	MH3521806543	0.000	0.00	0.00	0.00	0.56	0.00	0.00	0.56	29	0	0	29	4.00	0.00	0.000	0.00	10.00	11.23	88.19	0.0		0.3	0.1	0.5	0.5	85.2	C	300	0	112.718	112.108	0.72%	81.8	1.16	1.23	VCP	0.58
Baby Point Rd	SL1444124	MH3515505732	MH3513905743	0.000	0.00	0.00	0.00	0.11	0.22	0.00	0.34	3	6	0	9	4.00	0.00	0.000	0.00	10.48	10.76	85.03	0.0		0.1	0.1	0.2	0.2	19.7	C	225	0	114.651	114.437	1.09%	46.8	1.18	0.28	VCP	0.39
Bloor St W	SL1449638	MH3435206699	MH3437906791	0.000	22.34	0.00	22.34	0.19	80.76	0.00	80.95	0	11927	0	11927	2.88	0.00	0.000	14.04	36.74	37.56	31.96	0.0	1246.5	95.4	21.0	116.4	1362.9	95.8	BHC	1500	1500	103.193	103.01	0.19%	4982.0	1.93	0.83	CP	27.36
Glendonwynne Rd	SL1444059	MH3501506911	MH3495906871	0.000	1.03	0.00	1.03	0.53	2.09	0.06	2.67	45	171	5	221	4.00	0.00	0.000	0.78	16.54	16.87	59.57	0.0	128.9	2.5	0.7	3.2	132.0	68.5	C	375	0	106.189	103.105	4.50%	372.0	3.37	0.34	VCP	35.49
Glenlake Ave	SL1449428	MH3484706707	MH3484606821	0.000	3.11	0.00	3.11	1.06	18.92	0.00	19.97	89	1204	0	1293	3.73	0.00	0.000	2.34	17.54	18.39	56.91	0.0	370.1	13.4	5.2	18.6	388.7	114.4	E	975	675	96.887	96.042	0.74%	1165.0	2.23	0.86	BR	33.37
Glenlake Ave	SL1449430	MH3487706866	MH3481606951	0.000	4.15	0.00	4.15	0.72	27.25	0.00	27.97	39	1812	0	1851	3.61	0.00	0.000	3.12	18.98	19.75	53.50	0.0	463.8	18.6	7.3	25.8	489.6	104.1	E	1350	900	95.607	95.073	0.51%	2090.8	2.25	0.77	BR	23.42
Mapleview Ave	SL1444319	MH3516006377	MH3523406355	0.000	0.00	0.00	0.00	0.41	0.00	0.00	0.41	17	0	0	17	4.00	0.00	0.000	0.00	10.00	11.05	88.19	0.0		0.2	0.1	0.3	0.3	76.9	C	300	0	113.895	113.285	0.79%	86.1	1.22	1.05	VCP	0.34
Clendenan Ave	SL1450901	MH3458607181	MH3450607210	0.000	8.92	0.00	8.92	0.48	48.01	3.82	52.31	299	3508	185	3993	3.33	0.00	0.000	6.24	23.25	23.82	45.66	0.0	791.3	37.0	13.6	50.6	841.9	84.1	C	1200	0	93.284	92.842	0.53%	2826.4	2.50	0.56	BR	29.79
Willard Ave	SL1449667	MH3430506232	MH3421806259	0.000	0.00	0.00	0.00	0.73	3.32	0.00	4.04	196	160	0	356	4.00	0.00	0.000	0.00	14.57	15.02	65.76	0.0		4.0	1.1	5.0	5.0	90.6	C	375	0	108.777	104.787	4.40%	367.9	3.33	0.45	VCP	1.36
Windermere Ave	SL1445208	MH3523806091	MH3515606116	0.000	0.00	0.00	0.00	0.87	0.00	0.00	0.87	45	0	0	45	4.00	0.00	0.000	0.00	10.00	11.35	88.19	0.0		0.5	0.2	0.7	0.7	85.8	C	300	0	113.123	112.605	0.60%	75.1	1.06	1.35	VCP	0.97
Quebec Ave	SL1450611	MH3464607437	MH3458007457	0.000	0.00	0.00	0.00	0.43	0.00	0.00	0.43	406	0	0	406	4.00	0.00	0.000	0.00	10.00	10.61	88.19	0.0		4.5	0.1	4.6	4.6	68.4	C	600	0	105.933	105.43	0.74%	526.5	1.86	0.61	VCP	0.88
Evelyn Cres	SL1446417	MH3506406785	MH3500006741	0.000	0.71	0.00	0.71	0.45	14.27	0.00	14.72	40	818	0	858	3.84	0.00	0.000	0.51	16.06	16.42	60.96	0.0	87.2	9.2	3.8	13.0	100.2	78.2	C	450	0	104.001	100.852	4.03%	572.1	3.60	0.36	VCP	17.51
Clendenan Ave	SL1443526	MH3557307027	MH3547907056	0.000	0.00	0.00	0.00	1.17	0.00	0.00	1.17	132	0	0	132	4.00	0.00	0.000	0.00	10.00	11.99	88.19	0.0		1.5	0.3	1.8	1.8	98.3	C	225	0	112.52	111.996	0.53%	32.8	0.82	1.99	VCP	5.40
0	SL1446420	MH3517506751	MH3508206781	0.000	0.00	0.00	0.00	0.20	0.39	0.00	0.59	0	17	0	17	4.00	0.00	0.000	0.00	10.99	11.71	81.95	0.0		0.2	0.2	0.3	0.3	97.8	C	375	0	108.314	106.366	1.99%	247.4	2.24	0.73	VCP	0.14

COMBINED SEWER DESIGN SHEET

Bloor West Village
City of Toronto

PREPARED BY: DB
CHECKED BY: AS
DATE: 3/16/2018
FILE No. 16-16138

Street	Asset ID	UPSTREAM MH	DOWNSTREAM MH	STM AREA IN AREA	STM AREA CONTRIB	STM AREA CONTRIB STM Network	STM AREA TOTAL	SAN AREA IN AREA	SAN AREA CONTRIB	SAN AREA CONTRIB SAN Network	SAN AREA TOTAL	SAN POP IN AREA	SAN POP CONTRIB	SAN POP CONTRIB SAN Network	SAN POP TOTAL	M	RUNOFF C	A x C	TOTAL A x C	TIME INLET	OUTLET	INTENSIT I_2 (mm/hr)	CONT. Q_C (L/s)	STM FLOW Q_2 (L/s)	SAN FLOW Pop_Flow (l/s)	Inf_Flow Dr y (l/s)	Flow Total Dry (L/s)	COMB FLOW 2Year+Dry	PIPE LENGTH (m)	Pipe Shape	SIZE (mm)	SIZE (mm)	UP MH INV Rev	DOWN MH INV Rev	GRADE (%)	CAPACITY (L/s)	VEL. (m/s)	TIME (mins)	PIPE CLASS	%CAP 2 year + Dry
Clendenan Ave	SL1450899	MH3469507147	MH3460807174	0.000	6.82	0.00	6.82	0.86	45.78	0.00	46.63	51	3027	0	3078	3.43	0.00	0.000	4.60	22.34	23.09	47.10	0.0	601.4	29.4	12.1	41.5	642.9	91.0	C	1200	0	93.705	93.385	0.35%	2311.9	2.04	0.74	BR	27.81
Jennings Ave	SL1446805	MH3544506944	MH3545106963	0.000	0.00	0.00	0.00	0.18	0.00	0.00	0.18	15	0	0	15	4.00	0.00	0.000	0.00	10.00	10.22	88.19	0.0		0.2	0.0	0.2	0.2	20.2	C	300	0	112.895	112.645	1.24%	107.6	1.52	0.22	VCP	0.20
Jane St	SL1449025	MH3486805824	MH3479405846	0.000	0.00	0.00	0.00	0.59	0.00	0.00	0.59	550	0	0	550	3.95	0.00	0.000	0.00	10.00	11.13	88.19	0.0		6.0	0.2	6.2	6.2	76.7	C	450	0	112.898	112.59	0.40%	180.7	1.14	1.13	VCP	3.43
Glenlake Ave	SL1451678	MH3499507344	MH3502507444	1.089	0.00	0.00	1.09	0.82	0.00	0.00	0.82	67	0	0	67	4.00	0.74	0.801	0.80	10.00	11.80	88.19	0.0	196.1	0.7	0.2	1.0	197.1	104.1	C	300	0	110.414	109.896	0.50%	68.2	0.97	1.80	VCP	288.92
Kennedy Ave	SL1449665	MH3469406693	MH3474906666	0.500	0.50	0.00	1.00	0.41	0.41	0.00	0.82	31	31	0	62	4.00	0.71	0.356	0.71	10.47	10.82	85.10	0.0	167.4	0.7	0.2	0.9	168.3	61.4	C	300	0	107.951	105.208	4.47%	204.4	2.89	0.35	VCP	82.33
Jane St	SL1443968	MH3505705768	MH3496905794	0.000	0.00	0.00	0.00	1.94	1.51	0.00	3.45	254	535	0	789	3.86	0.00	0.000	0.00	12.16	13.62	75.71	0.0		8.5	0.9	9.4	9.4	91.7	C	375	0	113.806	113.407	0.44%	115.7	1.05	1.46	VCP	8.10
Jane St.	SL1448595	MH3488205820	MH3486905824	0.000	0.00	0.00	0.00	0.05	5.37	0.00	5.42	48	1105	0	1153	3.76	0.00	0.000	0.00	14.99	15.21	64.30	0.0		12.0	1.4	13.4	13.4	13.3	C	450	0	112.944	112.901	0.32%	162.1	1.02	0.22	VCP	8.30
Windermere Ave	SL1449038	MH3499506163	MH3497406170	0.000	0.00	0.00	0.00	0.19	2.29	0.00	2.48	9	116	0	125	4.00	0.00	0.000	0.00	14.03	14.26	67.72	0.0		1.4	0.6	2.0	2.0	22.5	C	375	0	111.727	111.48	1.10%	183.7	1.66	0.23	VCP	1.11
Bloor St W	SL1451321	MH3469907822	MH3472907927	0.560	1.20	0.00	1.76	0.29	7.32	0.00	7.61	306	2933	0	3239	3.41	0.75	0.419	1.31	19.55	20.08	52.29	0.0	190.9	30.7	2.0	32.7	223.6	109.7	C	375	0	104.751	99.569	4.72%	381.1	3.45	0.53	VCP	58.67
Armadale Ave	SL1444107	MH3512805840	MH3506405859	0.000	0.00	0.16	0.16	0.53	0.21	0.00	0.74	26	10	0	35	4.00	0.00	0.000	0.00	10.54	11.66	84.63	0.0		0.4	0.2	0.6	0.6	66.1	C	300	0	113.913	113.572	0.52%	69.5	0.98	1.12	VCP	0.84
Pacific Ave	SL1445321	MH3515207563	MH3505907591	0.000	0.00	0.00	0.00	0.83	2.44	0.00	3.27	64	188	0	252	4.00	0.00	0.000	0.00	13.96	15.28	67.97	0.0		2.8	0.8	3.7	3.7	97.8	C	450	0	110.051	109.582	0.48%	197.4	1.24	1.31	VCP	1.85
Evelyn Ave	SL1445846	MH3525406850	MH3518406892	0.000	0.00	0.00	0.00	0.63	1.83	0.00	2.46	36	131	0	167	4.00	0.00	0.000	0.00	12.82	13.60	72.67	0.0		1.9	0.6	2.5	2.5	81.9	C	375	0	111.642	110.667	1.19%	191.3	1.73	0.79	VCP	1.30
Parkview Gardens	SL1448326	MH3455507307	MH3458207299	0.072	0.00	0.00	0.07	0.02	0.00	0.00	0.02	61	0	0	61	4.00	0.86	0.062	0.06	10.00	10.30	88.19	0.0	15.2	0.7	0.0	0.7	15.9	27.4	C	300	0	99.456	99.11	1.26%	108.7	1.54	0.30	VCP	14.64
Evelyn Ave	SL1445847	MH3518406892	MH3516706894	0.000	0.00	0.00	0.00	0.07	2.46	0.00	2.53	3	167	0	170	4.00	0.00	0.000	0.00	13.60	13.75	69.37	0.0		1.9	0.7	2.5	2.5	17.0	C	375	0	110.667	110.399	1.58%	220.1	1.99	0.14	VCP	1.16
Jane St	SL1448729	MH3448105939	MH3441505959	0.000	0.00	0.00	0.00	0.67	0.54	0.00	1.21	26	18	0	45	4.00	0.00	0.000	0.00	11.07	12.09	81.44	0.0		0.5	0.3	0.8	0.8	69.6	C	300	0	111.52	111.039	0.69%	80.4	1.14	1.02	VCP	1.01
0	SL1446418	MH3500006741	MH3499806738	0.000	0.71	0.00	0.71	0.01	14.72	0.00	14.72	0	858	0	858	3.84	0.00	0.000	0.51	16.42	16.44	59.91	0.0	85.7	9.2	3.8	13.0	98.7	3.8	C	450	0	100.852	100.742	2.89%	485.1	3.05	0.02	VCP	20.35
Glendonwynne Rd	SL1448616	MH3449206853	MH3440606879	0.520	1.44	0.00	1.96	0.36	1.15	0.00	1.51	367	87	0	454	4.00	0.83	0.433	1.46	12.56	12.95	73.81	0.0	298.6	5.0	0.4	5.4	304.0	90.8	C	375	0	108.326	102.751	6.14%	434.4	3.93	0.38	VCP	69.98
Jane St	SL1448727	MH3454905919	MH3448105939	0.000	0.00	0.00	0.00	0.54	0.00	0.00	0.54	18	0	0	18	4.00	0.00	0.000	0.00	10.00	11.07	88.19	0.0		0.2	0.1	0.3	0.3	70.7	C	300	0	111.974	111.52	0.64%	77.5	1.10	1.07	VCP	0.44
Glendowynne Rd	SL1449276	MH3471606778	MH3475406757	0.000	0.00	0.00	0.00	0.37	1.06	0.00	1.43	21	55	0	76	4.00	0.00	0.000	0.00	12.15	12.32	75.75	0.0		0.8	0.4	1.2	1.2	43.1	C	300	0	108.03	103.809	9.79%	302.6	4.28	0.17	VCP	0.40
Woodside Ave	SL1443281	MH3516206660	MH3518706742	0.000	0.00	0.00	0.00	0.40	5.05	0.00	5.45	17	264	0	281	4.00	0.00	0.000	0.00	14.23	15.09	66.98	0.0		3.1	1.4	4.5	4.5	85.8	C	375	0	109.441	108.509	1.09%	182.7	1.65	0.86	VCP	2.49
Gothic Ave	SL1448882	MH3492007308	MH3490907309	0.000	0.35	0.00	0.35	0.11	2.60	0.00	2.71	7	147	0	154	4.00	0.00	0.000	0.25	17.02	17.26	58.25	0.0	40.4	1.7	0.7	2.4	42.8	11.5	C	375	0	108.96	108.932	0.24%	86.5	0.78	0.24	VCP	49.51
Evelyn Ave	SL1449461	MH3495506985	MH3490406951	0.405	0.42	0.00	0.82	0.22	0.23	0.00	0.45	17	17	0	34	4.00	0.73	0.294	0.60	11.29	11.61	80.24	0.0	133.0	0.4	0.1	0.5	133.5	61.0	C	300	0	106	102.8	5.25%	221.5	3.13	0.32	VCP	60.27
Runnymede Rd	SL1448759	MH3457106633	MH3449906656	0.000	1.69	0.00	1.69	0.65	8.57	0.00	9.21	35	998	0	1033	3.79	0.00	0.000	1.16	21.86	23.00	47.92	0.0	154.5	10.9	2.4	13.3	167.8	75.0	C	600	0	107.762	107.57	0.26%	310.7	1.10	1.14	VCP	54.01
High Park Ave	SL1445159	MH3520507408	MH3511607436	0.000	0.00	0.00	0.00	0.89	1.80	0.00	2.69	72	293	0	365	4.00	0.00	0.000	0.00	12.38	13.61	74.65	0.0		4.1	0.7	4.8	4.8	93.5	C	450	0	105.61	105.138	0.50%	202.6	1.27	1.22	VCP	2.35
Ardagh St	SL1448723	MH3494706081	MH3497406170	0.000	0.16	0.00	0.16	0.19	12.43	0.00	12.62	0	1467	0	1467	3.69	0.00	0.000	0.00	18.41	19.28	54.78	0.0		15.0	3.3	18.3	18.3	92.6	C	900	0	111.58	111.22	0.39%	1128.8	1.77	0.87	RCP	1.62
Bloor St W	SL1451320	MH3466907726	MH3469907822	0.000	0.00	0.00	0.00	0.44	0.03	0.00	0.46	337	0	0	337	4.00	0.00	0.000	0.00	10.12	10.88	87.35	0.0		3.7	0.1	3.9	3.9	99.9	C	300	0	107.344	104.751	2.60%	155.8	2.20	0.76	VCP	2.48
Weatherell St.	SL1448444	MH3440105918	MH3441505959	0.448	0.00	0.00	0.45	0.25	0.00	0.00	0.25	10	0	0	10	4.00	0.70	0.313	0.31	10.00	10.44	88.19	0.0	76.8	0.1	0.1	0.2	76.9	43.8	C	300	0	111.682	111.039	1.47%	117.2	1.66	0.44	VCP	65.67
Armadale Ave	SL1448573	MH3435106114	MH3427006138	0.000	1.03	0.00	1.03	0.79	2.62	0.00	3.41	40	134	0	175	4.00	0.00	0.000	0.77	13.42	14.91	70.11	0.0	150.1	1.9	0.9	2.8	152.9	84.9	C	450	0	108.838	108.6	0.28%	151.0	0.95	1.49	VCP	101.32
Woodside Ave	SL1446426	MH3518006745	MH3517506751	0.000	0.00	0.00	0.00	0.02	0.37	0.00	0.39	0	17	0	17	4.00	0.00	0.000	0.00	10.94	10.99	82.22	0.0		0.2	0.1	0.3	0.3	8.0	C	375	0	108.602	108.341	3.26%	316.7	2.87	0.05	VCP	0.09
Glenlake Ave	SL1448762	MH3479107039	MH3480807100	0.000	5.41	0.00	5.41	0.48	29.62	0.00	30.10	27	1956	0	1983	3.59	0.00	0.000	4.03	20.69	21.26	50.02	0.0	560.6	19.8	7.8	27.6	588.2	62.9	E	1350	900	94.534	94.32	0.34%	1702.7	1.83	0.57	BR	34.55
Durie St	SL1443147	MH3507406230	MH3500106258	0.000	0.00	0.00	0.00	0.47	4.10	0.00	4.57	20	278	0	298	4.00	0.00	0.000	0.00	13.18	15.82	71.10	0.0		3.3	1.2	4.5	4.5	78.6	C	600	0	110.511	110.47	0.05%	140.2	0.50	2.64	VCP	3.21
Glendonwynne Rd	SL1444341	MH3513207066	MH3514007090	0.000	0.00	0.00	0.00	0.09	0.00	0.37	0.46	3	0	17	20	4.00	0.00	0.000	0.00	10.00	10.18	88.19	0.0		0.2	0.1	0.3	0.3	25.5	C	300	0	104.801	104.03	3.02%	168.1	2.38	0.18	VCP	0.21
Runnymede Rd	SL1445985	MH3506606482	MH3498606507	0.000	1.63	0.00	1.63	0.90	2.89	0.00	3.79	258	376	0	635	3.92	0.00	0.000	1.16	14.35	15.27	66.55	0.0	214.6	6.9	1.0	7.9	222.5	84.1	C	375	0	111.063	110.292	0.92%	167.9	1.52	0.92	VCP	132.53
Armadale	SL1448570	MH3458306044	MH3450506067	0.000	0.00	0.00	0.00	0.53	0.00	0.00	0.53	23	0	0	23	4.00	0.00	0.000	0.00	10.00	10.62	88.19	0.0		0.3	0.1	0.4	0.4	82.1	C	300	0	112.218	110.054	2.64%	157.0	2.22	0.62	VCP	0.25
Armadale Ave	SL1449285	MH3427006138	MH3418906162	0.000	1.03	0.00	1.03	0.94	3.41	0.00	4.34	114	175	0	288	4.00	0.00	0.000	0.77	14.91	15.29	64.58	0.0	138.3	3.2	1.1	4.3	142.6	84.9	C	450	0	108.6	104.988	4.25%	588.1	3.70	0.38	VCP	24.25
Willard Ave	SL1448971	MH3492206089	MH3482706117	0.849	0.00	0.00	0.85	0.56	0.11	0.00	0.67	36	5	0	41	4.00	0.71	0.602	0.60	10.23	11.60	86.66	0.0	144.8	0.5	0.2	0.6	145.5	99.3	C	450	0	112.38	111.929	0.45%	192.1	1.21	1.37	VCP	75.70
Willard Ave	SL1449947	MH3417606261	MH3420606252	0.000	0.00	0.00	0.00	0.16	0.00	0.00	0.16	117	0	0	117	4.00	0.00	0.000	0.00	10.00	10.47	88.19	0.0		1.3	0.0	1.3	1.3	31.1	C	300	0	107.829	107.631	0.64%	77.2	1.09	0.47	VCP	1.73
Pacific Ave	SL1445172	MH3532807509	MH3524007537	0.000	0.00	0.00	0.00	0.76	0.91	0.00	1.67	59	70	0	129	4.00	0.00	0.000	0.00	11.55	12.77	78.81	0.0		1.4	0.4	1.9	1.9	92.2	C	450	0	110.965	110.508	0.50%	200.7	1.26	1.22	VCP	0.93
Oakmount Rd	SL1447135	MH3527007538	MH3528307582	0.329	0.00	0.00	0.33	0.24	0.00	0.00	0.24	24	0	0	24	4.00	0.72	0.237	0.24	10.00	10.80	88.19	0.0	58.0	0.3	0.1	0.3	58.4	46.2	C	300	0	110.999	110.773	0.49%	67.6	0.96	0.80	VCP	86.31
Runnymede Rd	SL1450094	MH3447006663	MH3440606682	0.000	0.00	0.00	0.00	0.13	0.01	0.00	0.14	0	0	0	0	4.00	0.00	0.000	0.00	10.05	11.01	87.83	0.0		0.0	0.0	0.0	0.0	66.6	C	750	0	107.51	107.37	0.21%	510.4	1.16	0.96	RCP	0.01
Glendonwynne Rd	SL1443290	MH3520207178	MH3518507152	0.000	0.00	0.00	0.00	0.19	1.49	0.00	1.68	9	89	0	99	4.00	0.00	0.000	0.00	11.51	11.76	79.03	0.0		1.1	0.4	1.5	1.5	31.3	C	375	0	103.047	102.495	1.76%	232.8	2.11	0.25	VCP	0.66
High Park Ave	SL1450623	MH3473107555	MH3462907586	0.000	1.09	0.00	1.09	1.05	8.07	0.00	9.12	1336	3328	0	4664	3.27	0.00	0.000	0.80	18.22	19.39	55.23	0.0	122.8	42.4	2.4	44.8	167.6	106.8	C	600	0	103.132	102.608	0.49%	430.1	1.52	1.17	VCP	38.97
Jane St	SL1448720	MH3475205859	MH3470605872	0.000	0.00	0.00	0.00	0.27	1.05	0.00	1.32	124	884	0	1009	3.80	0.00	0.000	0.00	11.76	12.53	77.73	0.0		10.6	0.3	11.0	11.0	47.4	C	450	0	112.404	112.252	0.32%	161.5	1.02	0.78	VCP	6.80
0	SL1449640	MH3440606871	MH3440606879	0.000	0.00	0.00	0.00	0.02	0.44	0.00	0.46	0	445	0	445	4.00	0.00	0.000	0.00	10.89	10.90	82.54	0.0		4.9	0.1	5.1	5.1	8.8	C	300	0	107.951	102.751	59.09%	743.3	10.52	0.01	VCP	0.68
Willard	SL1445729	MH3520606004	MH3511206032	0.000	0.00	0.00	0.00	0.37	0.00	0.00	0.37	11	0	0	11	4.00	0.00	0.000	0.00	10.00	11.63	88.19	0.0		0.1	0.1	0.2	0.2	98.5	C	375	0	113.59	113.194	0.40%	111.2	1.01	1.63	VCP	0.20
Quebec Ave	SL1451298	MH3466607427	MH3457807455	0.000	0.82	0.00	0.82	0.18	11.92	0.00	12.11	0	1644	0	1644	3.65	0.00	0.000	0.25	22.13	22.70	47.46	0.0	32.9	16.7	3.1	19.8	52.7	91.9	C	750	0	100.297	99.237	1.15%	1195.6	2.71	0.57	VCP	4.41
High Park Ave	SL1446324	MH3537807355	MH3529207381	0.000	0.00	0.00	0.00	0.93	0.00	0.00	0.93	223	0	0	223	4.00	0.00	0.000	0.00	10.00	11.19	88.19	0.0		2.5	0.2	2.7	2.7	90.5	C	450	0	106.518	106.067	0.50%	201.3	1.27	1.19	VCP	1.35
Glenlake Ave	SL1446710	MH3502507444	MH3502207465	0.000	1.09	0.00	1.09	0.04	0.82	0.00	0.87	0	67	0	67	4.00	0.00	0.000	0.80	11.80	11.85	77.52	0.0	172.4	0.7	0.2	1.0	173.4	21.8	C	300	0	109.896	104.65	24.06%	474.4	6.71	0.05	VCP	36.55
Quebec Ave	SL1450488	MH3484207377	MH3475207404	0.000	0.47	0.00	0.47	0.98	3.95	0.00	4.92	55	570	0	625	3.92	0.00	0.000	0.00	16.41	17.63	59.92	0.0		6.8	1.3	8.1	8.1	93.4	C	450	0	109.044	108.57	0.51%	203.1	1.28	1.22	VCP	3.98
Glenlake Ave	SL1449534	MH3477506979	MH3479107039	0.000	5.41	0.00	5.41	0.47	29.15	0.00	29.62	26	1929	0	1956	3.59	0.00	0.000	4.03	20.06	20.69	51.24	0.0	574.3	19.5	7.7	27.2	601.5	62.4	E	1350	900	94.707	94.534	0.28%	1537.1	1.65	0.63	BR	39.14
Bloor St W	SL1451318	MH3465007656	MH3466707713	0.000	1.09	0.00	1.09	0.28	9.34	0.00	9.62	399	4730	0	5130	3.23	0.00	0.000	0.80	20.10	20.69	51.16	0.0	113.8	46.1	2.5	48.6	162.4	59.2	C	600	0	107.89	107.533	0.60%	476.8	1.69	0.59	VCP	34.05
Evelyn Ave	SL1445845	MH3535406818	MH3525406850	0.000	0.00	0.00	0.00	0.89	0.93	0.00	1.83	52	79	0	131	4.00	0.00	0.000	0.00	11.42	12.82	79.50	0.0		1.5	0.5	1.9	1.9	104.6	C	300	0	112.517	111.642	0.84%	88.4	1.25	1.39	VCP	2.19
Oakmount Rd	SL1446727	MH3520307664	MH3510307696	0.000	0.33	0.00	0.33	0.49	1.26	0.00	1.75	28	105	0	133	4.00	0.00	0.000	0.24	12.86	14.65	72.48	0.0	47.7	1.5	0.5	1.9	49.6	104.8	C	300	0	110.249	109.719	0.51%	68.8	0.97	1.80	VCP	72.18
Jane St	SL1448441	MH3479405846	MH3475205859	0.000	0.00	0.00	0.00	0.26	0.59	0.00	0.84	117	550	0	667	3.91	0.00	0.000	0.00	11.13	11.76	81.15	0.0		7.2	0.2	7.5	7.5	44.1	C	450	0	112.59	112.404	0.42%	185.2	1.16	0.63	VCP	4.03
Woodside Ave	SL1443280	MH3513606575	MH3516206660	0.000	0.00	0.00	0.00	0.65	0.66	0.00	1.32	36	37	0	72	4.00	0.00	0.000	0.00	11.06	12.20	81.53	0.0		0.8	0.3	1.1	1.1	89.1	C	300	0	110.258	109.451	0.91%	92.0	1.30	1.14	VCP	1.24
Clendenan Ave	SL1443807	MH3547907056	MH3537307089	0.000	0.00	0.00	0.00	1.18	2.20	0.00	3.39	112	220	0	332	4.00	0.00	0.000	0.00	11.99	13.14	76.56	0.0		3.7	0.9	4.6	4.6	111.8	C	375	0	111.996	110.831	1.04%	179.0	1.62	1.15	VCP	2.55
Pacific Ave	SL1450289	MH3466707713	MH3465907715	0.000	2.28	0.00	2.28	0.02	17.91	0.00	17.93	0	10519	0	10519	2.93	0.00	0.000	1.67	20.69	20.79	50.02	0.0	232.4	85.7	4.7	90.4	322.7	8.9	C	450	0	107.533	107.472	0.69%	236.0	1.48	0.10	VCP	136.73
Nelles Ave	SL1449272	MH3449706010	MH3451106054	0.217	0.27	0.00	0.49	0.15	0.19	0.00	0.35	10	12	0	22	4.00	0.76	0.164	0.37	10.66	11.18	83.88	0.0	85.8	0.2	0.1	0.3	86.1	46.1	C	300	0	111.17	110.633	1.16%	104.4	1.48	0.52	VCP	82.53
Nelles Ave	SL1448580	MH3448105955	MH3449706010	0.270	0.00	0.00	0.27	0.19	0.00	0.00	0.19	12	0	0	12	4.00	0.76	0.204	0.20	10.00	10.66	88.19	0.0	50.1	0.1	0.0	0.2	50.3	57.5	C	300	0	111.81	111.17	1.11%	102.0	1.44	0.66	VCP	49.26
Lincoln Ave	SL1444210	MH3530106523	MH3532806609	0.000	0.00	0.00	0.00	0.55	0.56	0.00	1.12	28	29	0	57	4.00	0.00	0.000	0.00	11.22	12.49	80.63	0.0		0.6	0.3	0.9	0.9	90.3	C	225	0	112.447	111.456	1.10%	47.0	1.18	1.27	VCP	1.96
Mountainview Ave	SL1451170	MH3496407861	MH3489107882	0.583	0.00	0.00	0.58	0.70	0.00	0.00	0.70	204	0	0	204	4.00	0.83	0.487	0.49	10.00	11.20	88.19	0.0	119.2	2.3	0.2	2.4	121.6	76.4	C	300	0	109.088	108.628	0.60%	75.0	1.06	1.20	VCP	162.12
Bloor St W	SL1450905	MH3447307062	MH3448107094	0.000	1.90	0.00	1.90	0.06	1.61	0.00	1.67	6	327	0	333	4.00	0.00	0.000	1.41	12.06	12.33	76.21	0.0	298.4	3.7	0.4	4.1	302.5	32.3	C	450	0	97.63	97.243	1.20%	312.1	1.96	0.27	AC	96.93
0	SL1448569	MH3463305894	MH3455805916	0.000	0.00	0.00	0.00	0.16	1.93	0.00	2.09	0	1209	0	1209	3.75	0.00	0.000	0.00	13.42	14.24	70.09	0.0		12.6	0.5	13.1	13.1	78.1	C	450	0	111.749	111.136	0.78%	252.6	1.59	0.82	VCP	5.19
Durie St	SL1448869	MH3491906283	MH3484006308	0.000	1.88	0.00	1.88	0.66	0.66	0.00	1.32	32	32	0	64	4.00	0.00	0.000	0.00	20.37	22.23	50.64	0.0		0.7	0.3	1.1	1.1	82.3	C	600	0	109.783	109.688	0.12%	208.6	0.74	1.86	VCP	0.51
Quebec Ave	SL1450489	MH3475207404	MH3467107429	0.000	0.47	0.00	0.47	0.86	4.92	0.00	5.78	560	625	0	1186	3.75	0.00	0.000	0.00	17.63	18.15	56.66	0.0		12.4	1.5	13.9	13.9	84.7	C	450	0	108.57	106.578	2.35%	437.2	2.75	0.51	VCP	3.17
Bresford Ave	SL1448462	MH3472506464	MH3471506466	0.000	17.69	0.00	17.69	0.02	40.26	0.00	40.28	0	4336	0	4336	3.30	0.00	0.000	10.72	32.95	33.02	34.79	0.0	1036.5	39.8	10.5	50.2	1086.7	9.6	C	1200	0	108.49	108.44	0.52%	2813.7	2.49	0.06	RCP	38.62
Glenwood Ave	SL1446260	MH3506506663	MH3508706734	0.000	0.00	0.00	0.00	0.55	0.70	0.00	1.25	31	39	0	70	4.00	0.00	0.000	0.00	11.63	12.19	78.37	0.0		0.8	0.3	1.1	1.1	73.7	C	300	0	110.536	108.634	2.58%	155.3	2.20	0.56	VCP	0.71
Runnymede Rd	SL1448761	MH3447606662	MH3447006663	0.000	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0	0	0	0	4.00	0.00	0.000	0.00	10.00	10.05	88.19	0.0		0.0	0.0	0.0	0.0	4.0	C	750	0	107.54	107.53	0.25%	556.6	1.26	0.05	RCP	0.00
Bloor St W	SL1451314	MH3458007457	MH3465907715	0.000	36.93	0.00	36.93	0.54	156.63	0.00	157.17	0	22686	0	22686	2.60	0.00	0.000	24.03	41.22	43.27	29.21	0.0	1950.1	163.7	40.9	204.6	2154.6	269.6	BH	1950	1500	92.138	91.47	0.25%	5674.0	2.20	2.05	CP	37.97
Bloor St W	SL1450902	MH3445707063	MH3446607090	0.000	0.00	0.00	0.00	0.15	0.96	0.00	1.10	130	727	0	856	3.84	0.00	0.000	0.00	11.08	11.34	81.41	0.0		9.1	0.3	9.4	9.4	27.8	C	300	0	100.304	99.822	1.73%	127.3	1.80	0.26	VCP	7.40
Kennedy Ave	SL1449256	MH3454906738	MH3446206765	0.000	0.00	0.00	0.00	0.79	0.79	0.00	1.59	46	46	0	92	4.00	0.00	0.000	0.00	11.32	12.69	80.08	0.0		1.0	0.4	1.4	1.4	91.3	C	300	0	108.823	108.228	0.65%	78.1	1.10	1.38	VCP	1.84
Runnymede Rd	SL1449955	MH3447606662	MH3442506678	0.400	1.69	0.00	2.09	0.30	9.48	0.00	9.78	21	1047	0	1069	3.78	0.71	0.283	1.44	23.45	24.17	45.36	0.0	181.9	11.2	2.5	13.8	195.7	45.7	C	600	0	107.49	107.381	0.24%	299.8	1.06	0.72	VCP	65.27
Colbeck St	SL1451916	MH3457105959	MH3458406000	0.265	0.30	0.11	0.67	0.18	3.40	0.00	3.58	12	1296	0	1308	3.72	0.73	0.194	0.41	14.59	15.08	65.69	0.0	74.8	13.5	0.9	14.5	89.2	43.3	E	975	650	111	110.853	0.34%	714.2	1.47	0.49	BR	12.50
Gothic Ave	SL1450480	MH3490907309	MH3488007278	0.000	0.35	0.00	0.35	0.41	2.71	0.00	3.12	25	154	0	179	4.00	0.00	0.000	0.25	17.26	18.08	57.61	0.0	40.0	2.0	0.8	2.8	42.8	42.2	C	450	0	108.932	108.835	0.23%	136.7	0.86	0.82	VCP	31.29
Bloor St W	SL1449806	MH3430806549	MH3430006521	0.000	0.00	0.00	0.00	0.18	0.44	0.00	0.62	133	367	0	500	3.97	0.00	0.000	0.00	10.51	11.27	84.85	0.0		5.5	0.2	5.7	5.7	28.8	C	300	0	108.408	108.347	0.21%	44.5	0.63	0.76	VCP	12.77
Evelyn Ave	SL1447065	MH3500507024	MH3495506985	0.418	0.00	0.00	0.42	0.23	0.00	0.00	0.23	17	0	0	17	4.00	0.73	0.303	0.30	10.00	11.29	88.19	0.0	74.2	0.2	0.1	0.3	74.5	62.9	C	300	0	106.223	106	0.35%	57.6	0.81	1.29	VCP	129.31
Kennedy Ave	SL1449556	MH3487806671	MH3484706701	0.000	1.86	0.00	1.86	0.22	17.31	0.00	17.54	19	1082	0	1101	3.77	0.00	0.000	1.45	17.23	17.49	57.70	0.0	232.8	11.5	4.6	16.1	248.9	43.6	C	600	0	97.664	96.939	1.66%	791.8	2.80	0.26	VCP	31.44
Pine Crest Rd	SL1445091	MH3512607225	MH3505407195	0.000	0.00	0.00	0.00	0.62	0.63	0.00	1.25	35	36	0	71	4.00	0.00	0.000	0.00	11.32	12.63	80.04	0.0		0.8	0.3	1.1	1.1	77.8	C	300	0	110.255	109.847	0.52%	70.0	0.99	1.31	VCP	1.58
Bloor St W	SL1449692	MH3418906162	MH3421806259	0.000	1.47	0.00	1.47	0.42	8.95	0.00	9.36	176	2260	0	2436	3.52	0.00	0.000	1.08	16.26	17.84	60.36	0.0	181.8	23.8	2.4	26.2	208.0	101.0	E	900	600	104.988	104.787	0.20%	441.7	1.07	1.58	BR	47.09
Oakmount Rd	SL1451068	MH3489907760	MH3479807791	0.000	1.20	0.00	1.20	1.35	4.78	0.00	6.13	597	1357	0	1955	3.59	0.00	0.000	0.90	17.61	19.01	56.71	0.0	141.0	19.5	1.6	21.1	162.1	105.7	C	450	0	108.628	108.103	0.50%	200.9	1.26	1.39	VCP	80.69
Gilmour Ave	SL1444213	MH3526306629	MH3523606638	0.000	0.00	0.00	0.00	0.13	1.92	0.00	2.05	6	97	0	103	4.00	0.00	0.000	0.00	13.08	13.38	71.54	0.0		1.1	0.5	1.7	1.7	28.0	C	375	0	110.453	110.194	0.93%	168.6	1.53	0.31	VCP	0.99

COMBINED SEWER DESIGN SHEET

Bloor West Village
City of Toronto

PREPARED BY: DB
CHECKED BY: AS
DATE: 3/16/2018
FILE No. 16-16138

Street	Asset ID	UPSTREAM	DOWNSTREAM	STM AREA				SAN AREA				SAN POP					RUNOFF		
		MH	MH	IN				IN				IN							TOTAL
				AREA	CONTRIB	CONTRIB	TOTAL	AREA	CONTRIB	CONTRIB	TOTAL	AREA	CONTRIB	CONTRIB	TOTAL	M	C	A x C	A x C
						STM Network				SAN Network				SAN Network					
Glenlake Ave	SL1448879	MH3496207233	MH3497507277	0.349	0.00	0.00	0.35	0.26	1.98	0.00	2.24	19	111	0	130	4.00	0.72	0.250	0.25
Runnymede Rd	SL1450093	MH3440306687	MH3435206699	0.000	0.00	0.00	0.00	0.11	0.01	0.00	0.12	0	0	0	0	4.00	0.00	0.000	0.00
Glendonwynne Rd	SL1446288	MH3515207115	MH3514807119	0.000	0.00	0.00	0.00	0.01	1.51	0.00	1.52	0	73	0	73	4.00	0.00	0.000	0.00
0	SL1451313	MH3457807455	MH3458007457	0.000	36.46	0.00	36.46	0.01	155.96	0.00	155.96	0	22215	0	22215	2.61	0.00	0.000	23.63
Evelyn Cres	SL1444338	MH3512807023	MH3511507019	0.000	0.00	0.00	0.00	0.03	1.08	0.00	1.11	0	58	0	58	4.00	0.00	0.000	0.00
Oakmount Rd	SL1451069	MH3479807791	MH3469907822	0.000	1.20	0.00	1.20	0.73	6.13	0.00	6.86	641	1955	0	2596	3.50	0.00	0.000	0.90
Windermere Ave	SL1449543	MH3435506338	MH3426006366	0.000	0.00	0.00	0.00	1.24	2.56	0.00	3.80	252	127	0	379	4.00	0.00	0.000	0.00
Evelyn Ave	SL1443915	MH3513806921	MH3508906974	0.000	0.33	0.00	0.33	0.51	0.17	0.00	0.69	44	21	0	65	4.00	0.00	0.000	0.27
Margdon Rd	SL1449673	MH3449206863	MH3452606959	0.426	0.00	0.00	0.43	0.22	0.00	0.00	0.22	17	0	0	17	4.00	0.77	0.328	0.33
Gothic Ave	SL1450486	MH3467207373	MH3466607427	0.000	0.35	0.00	0.35	0.53	5.60	0.00	6.13	90	368	0	458	3.99	0.00	0.000	0.25
Evelyn Cres	SL1446419	MH3503606764	MH3499806738	0.000	0.00	0.00	0.00	0.21	0.18	0.00	0.39	9	8	0	16	4.00	0.00	0.000	0.00
Glendowynne Rd	SL1449429	MH3484606821	MH3487706866	0.000	3.11	0.00	3.11	0.27	22.51	0.00	22.78	13	1429	0	1441	3.69	0.00	0.000	2.34
Jane St	SL1448976	MH3467305885	MH3456005918	0.000	0.00	0.00	0.00	1.20	0.00	0.00	1.20	81	0	0	81	4.00	0.00	0.000	0.00
Clendenan Ave	SL1450898	MH3478107121	MH3469507147	0.000	6.82	0.00	6.82	0.85	44.93	0.00	45.78	51	2976	0	3027	3.44	0.00	0.000	4.60
Glenlake Ave	SL1448873	MH3494707235	MH3488507200	0.000	0.00	0.00	0.00	0.67	0.00	0.00	0.67	40	0	0	40	4.00	0.00	0.000	0.00
Evelyn Ave	SL1449150	MH3483906948	MH3481606951	0.000	1.26	0.00	1.26	0.11	0.69	0.00	0.80	5	53	0	57	4.00	0.00	0.000	0.91
Kennedy Park Rd	SL1449433	MH3450007053	MH3447307062	0.000	1.90	0.00	1.90	0.06	1.55	0.00	1.61	0	327	0	327	4.00	0.00	0.000	1.41
Clendenan Ave	SL1443808	MH3537307089	MH3530907108	0.000	0.00	0.00	0.00	0.71	4.41	0.00	5.12	67	389	0	456	3.99	0.00	0.000	0.00
Bloor St W	SL1449805	MH3430006521	MH3428806481	0.000	0.00	0.00	0.00	0.26	0.62	0.00	0.88	194	500	0	695	3.90	0.00	0.000	0.00
Gothic Ave	SL1450483	MH3476507239	MH3471607278	0.000	0.35	0.00	0.35	0.68	4.33	0.00	5.01	88	252	0	340	4.00	0.00	0.000	0.25
Windermere Ave	SL1445471	MH3507306140	MH3499506163	0.000	0.00	0.00	0.00	0.69	1.61	0.00	2.29	34	82	0	116	4.00	0.00	0.000	0.00
Runnymede Rd	SL1448974	MH3492806525	MH3486306544	0.000	1.69	0.00	1.69	0.54	4.91	0.00	5.45	42	707	0	749	3.88	0.00	0.000	1.16
Armadale Ave	SL1448571	MH3450506067	MH3442506091	0.000	0.49	0.00	0.49	0.57	0.90	0.00	1.47	26	46	0	72	4.00	0.00	0.000	0.37
Armadale Ave	SL1444108	MH3506405859	MH3496905887	0.000	0.16	0.00	0.16	0.79	0.74	0.00	1.53	38	35	0	74	4.00	0.00	0.000	0.00
Evelyn Ave	SL1449462	MH3490406951	MH3483906948	0.438	0.82	0.00	1.26	0.24	0.45	0.00	0.69	18	34	0	53	4.00	0.73	0.318	0.91
Glendonwynne Rd	SL1449279	MH3457806827	MH3449206853	0.579	0.86	0.00	1.44	0.44	0.71	0.00	1.15	33	54	0	87	4.00	0.73	0.421	1.02
Nelles Ave	SL1449280	MH3451106054	MH3450506067	0.000	0.49	0.00	0.49	0.03	0.35	0.00	0.37	0	22	0	22	4.00	0.00	0.000	0.37
St W (Turn into High	SL1452271	MH3465907715	MH3464307969	0.000	39.21	0.00	39.21	0.50	175.10	0.00	175.60	0	33205	0	33205	2.43	0.00	0.000	25.70
Glendonwynne Rd	SL1444343	MH3535307259	MH3533907259	0.000	0.00	0.00	0.00	0.08	0.00	0.00	0.08	5	0	0	5	4.00	0.00	0.000	0.00
Colbeck St	SL1451058	MH3458406000	MH3461006086	1.212	2.96	0.00	4.17	0.85	5.25	0.00	6.10	55	1416	0	1471	3.69	0.69	0.833	2.88
Mountainview Ave	SL1450122	MH3496407861	MH3497507858	0.000	0.00	0.00	0.00	0.13	0.00	0.00	0.13	31	0	0	31	4.00	0.00	0.000	0.00
Windermere Ave	SL1449544	MH3426006366	MH3424806360	0.000	0.00	0.00	0.00	0.03	3.80	0.00	3.83	0	379	0	379	4.00	0.00	0.000	0.00
Kennedy Ave	SL1449664	MH3474906666	MH3478106667	0.254	1.00	0.00	1.25	0.21	0.82	0.00	1.02	16	62	0	78	4.00	0.71	0.181	0.89
Glenlake Ave	SL1448871	MH3483407171	MH3481407122	0.000	0.00	0.00	0.00	0.49	1.23	0.00	1.72	29	73	0	102	4.00	0.00	0.000	0.00
High Park Ave	SL1450621	MH3483107524	MH3476107546	0.000	1.09	0.00	1.09	0.81	6.92	0.00	7.73	572	2511	0	3083	3.43	0.00	0.000	0.80
Bloor St W	SL1449901	MH3435106691	MH3435206699	0.000	0.00	0.00	0.00	0.02	0.69	0.00	0.71	0	316	0	316	4.00	0.00	0.000	0.00
Evelyn Cres	SL1443104	MH3519106980	MH3516607012	0.000	0.00	0.00	0.00	0.28	0.54	0.00	0.81	15	29	0	43	4.00	0.00	0.000	0.00
Pacific Ave	SL1445320	MH3524007537	MH3515207563	0.000	0.00	0.00	0.00	0.77	1.67	0.00	2.44	60	129	0	188	4.00	0.00	0.000	0.00
Bloor St W	SL1450904	MH3447107059	CN6456	0.000	0.28	0.00	0.28	0.03	0.76	0.00	0.79	0	831	0	831	3.85	0.00	0.000	0.23
Evelyn Ave	SL1443914	MH3516706903	MH3513806921	0.335	0.00	0.00	0.33	0.17	0.00	0.00	0.17	21	0	0	21	4.00	0.81	0.273	0.27
Clendenan Ave	SL1444873	MH3524207106	MH3521707106	0.000	0.00	0.00	0.00	0.05	5.69	0.00	5.75	0	508	0	508	3.97	0.00	0.000	0.00
Kennedy Ave	SL1449666	MH3463606711	MH3469406693	0.495	0.00	0.00	0.50	0.41	0.00	0.00	0.41	31	0	0	31	4.00	0.71	0.352	0.35
Pacific Ave	SL1450410	MH3496107622	MH3486507651	0.000	1.19	0.00	1.19	1.10	5.34	0.00	6.44	1066	2179	0	3245	3.41	0.00	0.000	0.87
Lessard Ave	SL1448589	MH3473905815	MH3475205859	0.000	0.00	0.00	0.00	0.21	0.00	0.00	0.21	217	0	0	217	4.00	0.00	0.000	0.00
Beresford Ave	SL1448752	MH3452606525	MH3431906588	0.000	18.59	0.00	18.59	2.17	42.78	0.00	44.95	264	4548	0	4811	3.26	0.00	0.000	11.38
Glenwood Ave	SL1446259	MH3503706574	MH3506506663	0.000	0.00	0.00	0.00	0.70	0.00	0.00	0.70	39	0	0	39	4.00	0.00	0.000	0.00
Glendonwynne Rd	SL1446287	MH3513307060	MH3515207115	0.000	0.00	0.00	0.00	0.32	1.19	0.00	1.51	15	58	0	73	4.00	0.00	0.000	0.00
Clendenan Ave	SL1445599	MH3519807105	MH3517107124	0.000	0.00	0.00	0.00	0.17	5.85	0.00	6.02	8	512	0	521	3.97	0.00	0.000	0.00
Kennedy Ave	SL1449559	MH3481306678	MH3483006690	0.000	1.25	0.00	1.25	0.14	1.19	0.00	1.33	12	91	0	103	4.00	0.00	0.000	0.89
0	SL1444340	MH3511507019	MH3513307060	0.000	0.00	0.00	0.00	0.09	1.11	0.00	1.19	0	58	0	58	4.00	0.00	0.000	0.00
Glenwood Ave	SL1445989	MH3503706574	MH3498606507	0.000	0.00	0.00	0.00	0.63	0.00	0.00	0.63	35	0	0	35	4.00	0.00	0.000	0.00
Bloor St W	SL1448933	MH3437706759	MH3438506784	0.000	0.00	0.00	0.00	0.18	0.19	0.29	0.66	171	179	209	559	3.95	0.00	0.000	0.00
Jane St	SL1443967	MH3513905743	MH3505705768	0.000	0.00	0.00	0.00	0.94	0.57	0.00	1.51	254	280	0	535	3.96	0.00	0.000	0.00
Durie St	SL1449255	MH3452606404	MH3443406432	0.000	0.00	0.00	0.00	0.87	1.38	0.00	2.25	44	69	0	113	4.00	0.00	0.000	0.00
Kennedy Ave	SL1449560	MH3478106667	MH3481306678	0.000	1.25	0.00	1.25	0.16	1.02	0.00	1.19	14	78	0	91	4.00	0.00	0.000	0.89
Jane St	SL1448588	MH3432705985	MH3423906011	0.000	0.45	0.00	0.45	0.89	2.12	0.00	3.01	398	352	0	751	3.88	0.00	0.000	0.31
Glendonwynne Rd	SL1449458	MH3490006856	MH3487706866	0.000	1.03	0.00	1.03	0.05	4.41	0.00	4.46	0	370	0	370	4.00	0.00	0.000	0.78
Clendenan Ave	SL1450795	MH3480207114	MH3478107121	0.000	1.41	0.00	1.41	0.13	14.63	0.00	14.76	6	987	0	993	3.80	0.00	0.000	0.56
Bloor St W	SL1451316	MH3462907586	MH3459107465	0.438	0.00	0.00	0.44	0.24	0.00	0.00	0.24	66	0	0	66	4.00	0.86	0.379	0.38
Kennedy Park Ave	SL1448347	MH3450607046	MH3447107059	0.201	0.08	0.00	0.28	0.13	0.05	0.00	0.18	246	86	0	332	4.00	0.84	0.169	0.23
Armadale Ave	SL1448572	MH3442506091	MH3435106114	0.000	1.03	0.00	1.03	0.72	1.90	0.00	2.62	36	98	0	134	4.00	0.00	0.000	0.77
Glenlake Ave	SL1448768	MH3481407122	MH3480207114	0.000	0.00	0.00	0.00	0.03	1.72	0.00	1.75	0	102	0	102	4.00	0.00	0.000	0.00
Fairview Ave	SL1446690	MH3507606787	MH3507106788	0.000	0.71	0.00	0.71	0.01	9.93	0.00	9.94	0	532	0	532	3.96	0.00	0.000	0.51
Willard ave	SL1449690	MH3447806182	MH3439206206	0.000	0.00	0.00	0.00	0.77	1.75	0.00	2.53	38	83	0	121	4.00	0.00	0.000	0.00
Woodside Ave	SL1446425	MH3515806672	MH3518006745	0.000	0.00	0.00	0.00	0.37	0.00	0.00	0.37	17	0	0	17	4.00	0.00	0.000	0.00
Mountainview Ave	SL1450522	MH3481407901	MH3476607914	0.000	1.51	0.00	1.51	0.36	1.11	0.00	1.48	256	564	0	820	3.85	0.00	0.000	1.13
Evelyn Cres	SL1446686	MH3506706786	MH3503606764	0.000	0.00	0.00	0.00	0.18	0.00	0.00	0.18	8	0	0	8	4.00	0.00	0.000	0.00
Glenlake Ave to Got	SL1448881	MH3493907289	MH3492007308	0.000	0.35	0.00	0.35	0.15	2.45	0.00	2.60	7	140	0	147	4.00	0.00	0.000	0.25
Glendowynne Rd	SL1449408	MH3475406757	MH3481406820	0.000	0.00	0.00	0.00	0.74	1.43	0.00	2.17	43	76	0	119	4.00	0.00	0.000	0.00
Oakmount Rd	SL1446728	MH3510307696	MH3500407727	0.000	1.20	0.00	1.20	1.24	2.43	0.00	3.67	513	477	0	991	3.80	0.00	0.000	0.90
Quebec Ave	SL1446840	MH3512807288	MH3503207318	0.000	0.00	0.00	0.00	0.78	0.77	0.00	1.56	54	53	0	107	4.00	0.00	0.000	0.00
Runnymede Rd	SL1446250	MH3533106401	MH3529806411	0.358	0.00	0.00	0.36	0.19	0.00	0.00	0.19	151	0	0	151	4.00	0.80	0.284	0.28
Clendenan Ave	SL1445634	MH3501507081	MH3496207071	0.000	0.64	0.00	0.64	0.41	10.80	0.00	11.21	23	762	0	785	3.87	0.00	0.000	0.00
Woodside Ave	SL1444223	MH3510906488	MH3513606575	0.000	0.00	0.00	0.00	0.66	0.00	0.00	0.66	37	0	0	37	4.00	0.00	0.000	0.00
Glendonwynne Rd	SL1444060	MH3508906974	MH3501506911	0.000	1.03	0.00	1.03	0.75	1.34	0.00	2.09	64	107	0	171	4.00	0.00	0.000	0.78
Windermere Ave	SL1448853	MH3475106235	MH3466206261	0.851	1.36	0.00	2.21	0.57	1.61	0.00	2.18	37	88	0	124	4.00	0.70	0.599	1.19
Kennedy Ave	SL1449833	MH3495606613	MH3494006636	0.214	0.66	0.00	0.88	0.16	0.50	0.00	0.66	18	54	0	72	4.00	0.81	0.174	0.71
Glenlake Ave	SL1449533	MH3481606951	MH3477506979	0.000	5.41	0.00	5.41	0.38	28.77	0.00	29.15	21	1908	0	1929	3.60	0.00	0.000	4.03
Kennedy Park Rd	SL1449175	MH3451607002	MH3450007053	0.000	1.90	0.00	1.90	0.33	1.21	0.00	1.55	137	191	0	327	4.00	0.00	0.000	1.41
Parkview Gardens	SL204484	MH3458207299	MH3006980	0.010	0.07	0.00	0.08	0.00	0.02	0.00	0.02	8	61	0	70	4.00	0.86	0.009	0.07
Parkview Gardens	SL204485	MH3006980	MH3006979	0.009	0.08	0.00	0.09	0.00	0.02	0.00	0.02	7	70	0	77	4.00	0.86	0.007	0.08

Asset ID	TIME		INTENSIT	CONT.	STM FLOW	SAN FLOW			COMB FLOW	PIPE											
							Inf_Flow	Flow Total						UP MH	DOWN MH					PIPE	
	INLET	OUTLET	I_2	Q_C	Q_2	Pop_Flow	Dry	Dry	2Year+Dry	LENGTH	Pipe	SIZE	SIZE	INV	INV	GRADE	CAPACITY	VEL.	TIME	CLASS	%CAP
			(mm/hr)	(L/s)	(L/s)	(l/s)	(l/s)	(L/s)		(m)	Shape	(mm)	(mm)	Rev	Rev	(%)	(L/s)	(m/s)	(mins)		2 year + Dry
SL1448879	14.41	16.00	66.31	0.0	46.0	1.4	0.6	2.0	48.0	46.1	C	300	0	109.335	109.277	0.13%	34.3	0.49	1.58	VCP	140.05
SL1450093	10.07	10.96	87.72	0.0		0.0	0.0	0.0	0.0	54.2	C	750	0	107.338	107.25	0.16%	448.6	1.02	0.89	RCP	0.01
SL1446288	12.91	12.96	72.24	0.0		0.8	0.4	1.2	1.2	6.1	C	300	0	101.594	101.442	2.49%	152.6	2.16	0.05	VCP	0.79
SL1451313	41.19	41.22	29.23	0.0	1918.6	160.9	40.6	201.4	2120.1	3.6	BH	1950	1500	92.144	92.138	0.17%	4653.6	1.80	0.03	CP	45.56
SL1444338	11.85	11.91	77.25	0.0		0.6	0.3	0.9	0.9	13.7	C	300	0	107.969	106.832	8.30%	278.6	3.94	0.06	VCP	0.33
SL1451069	19.01	19.55	53.44	0.0	132.9	25.2	1.8	27.0	159.9	103.9	C	450	0	108.103	104.751	3.23%	512.1	3.22	0.54	VCP	31.22
SL1449543	13.35	14.45	70.38	0.0		4.2	1.0	5.2	5.2	99.6	C	375	0	108.823	107.914	0.91%	167.5	1.52	1.09	VCP	3.11
SL1443915	10.21	10.61	86.80	0.0	65.7	0.7	0.2	0.9	66.6	72.2	C	300	0	109.685	106.223	4.80%	211.8	3.00	0.40	VCP	31.47
SL1449673	10.00	10.61	88.19	0.0	80.3	0.2	0.1	0.2	80.5	101.7	C	300	0	108.497	104.287	4.14%	196.7	2.78	0.61	VCP	40.92
SL1450486	21.95	22.13	47.76	0.0	33.1	5.1	1.6	6.7	39.8	54.1	C	450	0	107.284	102.843	8.21%	816.9	5.14	0.18	VCP	4.87
SL1446419	10.18	10.42	86.96	0.0		0.2	0.1	0.3	0.3	45.6	C	450	0	102.425	100.941	3.25%	514.3	3.23	0.24	VCP	0.06
SL1449429	18.39	18.98	54.83	0.0	356.6	14.8	5.9	20.7	377.3	54.9	E	1200	825	95.76	95.607	0.28%	1222.0	1.56	0.59	BR	30.88
SL1448976	10.00	12.11	88.19	0.0		0.9	0.3	1.2	1.2	118.0	C	300	0	112	111.45	0.47%	66.0	0.93	2.11	PVC	1.84
SL1450898	21.42	22.34	48.68	0.0	621.6	28.9	11.9	40.8	662.4	90.3	C	1200	0	93.906	93.705	0.22%	1839.4	1.63	0.93	BR	36.01
SL1448873	10.00	10.29	88.19	0.0		0.4	0.2	0.6	0.6	70.6	C	300	0	107.415	101.13	8.90%	288.5	4.08	0.29	VCP	0.21
SL1449150	11.96	12.02	76.69	0.0	194.8	0.6	0.2	0.8	195.7	23.1	C	375	0	99.31	95.073	18.34%	750.9	6.80	0.06	VCP	26.06
SL1449433	11.80	12.06	77.53	0.0	303.5	3.6	0.4	4.1	307.6	28.3	C	450	0	97.911	97.63	0.99%	284.1	1.79	0.26	AC	108.27
SL1443808	13.14	13.87	71.28	0.0		5.1	1.3	6.4	6.4	66.3	C	375	0	110.831	110.237	0.90%	166.0	1.50	0.74	VCP	3.85
SL1449805	11.27	11.58	80.34	0.0		7.5	0.2	7.7	7.7	42.0	C	300	0	108.347	107.189	2.76%	160.6	2.27	0.31	VCP	4.82
SL1450483	19.89	20.82	51.59	0.0	35.8	3.8	1.3	5.1	40.9	62.8	C	450	0	108.335	108.088	0.39%	178.8	1.12	0.93	VCP	22.86
SL1445471	12.64	14.03	73.44	0.0		1.3	0.6	1.9	1.9	81.0	C	375	0	112.032	111.727	0.38%	107.6	0.97	1.39	VCP	1.75
SL1448974	15.66	16.63	62.14	0.0	200.4	8.1	1.4	9.5	209.9	67.9	C	600	0	108.722	108.524	0.29%	331.6	1.17	0.97	VCP	63.30
SL1448571	11.27	12.28	80.33	0.0	82.2	0.8	0.4	1.2	83.4	82.7	C	300	0	110.054	109.231	1.00%	96.5	1.36	1.01	VCP	86.41
SL1444108	11.66	13.49	78.22	0.0		0.8	0.4	1.2	1.2	99.4	C	375	0	113.572	113.248	0.33%	100.1	0.91	1.83	VCP	1.22
SL1449462	11.61	11.96	78.49	0.0	199.4	0.6	0.2	0.8	200.1	66.0	C	300	0	102.8	99.31	5.29%	222.4	3.15	0.35	VCP	90.01
SL1449279	11.47	12.56	79.26	0.0	225.3	1.0	0.3	1.3	226.6	89.2	C	375	0	108.975	108.326	0.73%	149.6	1.35	1.10	VCP	151.51
SL1449280	11.18	11.27	80.82	0.0	82.7	0.2	0.1	0.3	83.0	14.3	C	300	0	110.633	110.054	4.05%	194.6	2.75	0.09	VCP	42.66
SL1452271	43.27	44.78	28.13	0.0	2008.4	224.5	45.7	270.2	2278.6	250.1	H	1950	1500	91.47	90.745	0.29%	8049.8	2.75	1.51	CP	28.31
SL1444343	10.00	10.15	88.19	0.0		0.1	0.0	0.1	0.1	14.2	C	225	0	107.942	107.661	1.98%	63.2	1.59	0.15	VCP	0.13
SL1451058	15.08	15.80	64.02	0.0	512.4	15.1	1.6	16.6	529.0	90.0	E	975	650	110.853	110.246	0.67%	1006.6	2.07	0.72	BR	52.55
SL1450122	10.00	10.14	88.19	0.0		0.3	0.0	0.4	0.4	11.5	C	300	0	109.3	109.185	1.00%	96.7	1.37	0.14	VCP	0.39
SL1449544	14.45	14.59	66.18	0.0		4.2	1.0	5.2	5.2	12.9	C	375	0	107.914	107.799	0.89%	165.5	1.50	0.14	VCP	3.15
SL1449664	10.82	11.04	82.92	0.0	204.7	0.9	0.3	1.1	205.9	31.2	C	300	0	104.574	103.611	3.09%	169.9	2.40	0.22	VCP	121.18
SL1448871	10.56	10.87	84.53	0.0		1.1	0.4	1.6	1.6	52.0	C	300	0	96.838	94.701	4.11%	196.0	2.77	0.31	VCP	0.81
SL1450621	17.06	17.89	58.15	0.0	129.3	29.4	2.0	31.4	160.7	73.2	C	600	0	103.632	103.297	0.46%	415.4	1.47	0.83	VCP	38.69
SL1449901	11.47	11.53	79.23	0.0		3.5	0.2	3.7	3.7	8.0	C	375	0	107.344	107.189	1.94%	244.0	2.21	0.06	VCP	1.51
SL1443104	11.34	11.60	79.93	0.0		0.5	0.2	0.7	0.7	40.3	C	300	0	110.874	109.411	3.63%	184.2	2.61	0.26	VCP	0.38
SL1445320	12.77	13.96	72.88	0.0		2.1	0.6	2.7	2.7	91.1	C	450	0	110.508	110.051	0.50%	201.9	1.27	1.20	VCP	1.35
SL1450904	11.13	11.17	81.13	0.0	52.6	8.9	0.2	9.1	61.7	15.5	C	300	0	101.392	97.841	22.91%	462.8	6.55	0.04	VCP	13.34
SL1443914	10.00	10.21	88.19	0.0	66.8	0.2	0.0	0.3	67.1	33.7	C	300	0	111.026	109.685	3.98%	192.9	2.73	0.21	VCP	34.77
SL1444873	14.27	14.46	66.84	0.0		5.6	1.5	7.1	7.1	25.8	C	375	0	103.394	102.897	1.93%	243.3	2.20	0.20	VCP	2.91
SL1449666	10.00	10.47	88.19	0.0	86.3	0.3	0.1	0.4	86.7	60.8	C	300	0	109.475	107.951	2.51%	153.1	2.17	0.47	VCP	56.66
SL1450410	16.41	17.49	59.94	0.0	145.1	30.8	1.7	32.4	177.6	100.1	C	600	0	109.079	108.576	0.50%	435.3	1.54	1.08	VCP	40.80
SL1448589	10.00	10.40	88.19	0.0		2.4	0.1	2.5	2.5	45.1	C	300	0	113.267	112.404	1.91%	133.8	1.89	0.40	VCP	1.85
SL1448752	34.95	36.00	33.23	0.0	1050.4	43.6	11.7	55.3	1105.7	215.8	C	1200	0	108.021	105.863	1.00%	3898.7	3.45	1.04	BR	28.36
SL1446259	10.00	11.63	88.19	0.0		0.4	0.2	0.6	0.6	93.7	C	300	0	110.993	110.536	0.49%	67.5	0.96	1.63	VCP	0.91
SL1446287	12.61	12.91	73.60	0.0		0.8	0.4	1.2	1.2	58.3	C	300	0	105.045	101.899	5.40%	224.6	3.18	0.31	VCP	0.53
SL1445599	14.61	14.86	65.62	0.0		5.7	1.6	7.3	7.3	32.0	C	375	0	102.532	101.977	1.73%	230.9	2.09	0.26	VCP	3.16
SL1449559	11.33	11.49	80.02	0.0	197.6	1.1	0.3	1.5	199.1	27.9	C	300	0	101.215	100.057	4.15%	197.0	2.79	0.17	VCP	101.05
SL1444340	11.91	12.61	76.96	0.0		0.6	0.3	1.0	1.0	44.4	C	300	0	105.275	105.01	0.60%	74.7	1.06	0.70	VCP	1.27
SL1445989	10.00	11.39	88.19	0.0		0.4	0.2	0.6	0.6	84.2	C	225	0	110.962	110.292	0.80%	40.1	1.01	1.39	VCP	1.38
SL1448933	10.61	10.95	84.21	0.0		6.1	0.2	6.3	6.3	26.8	C	300	0	108.152	107.911	0.90%	91.7	1.30	0.34	VCP	6.88
SL1443967	10.95	12.16	82.15	0.0		5.9	0.4	6.3	6.3	85.3	C	300	0	114.437	113.806	0.74%	83.2	1.18	1.21	VCP	7.54
SL1449255	11.52	12.84	78.96	0.0		1.3	0.6	1.8	1.8	96.4	C	375	0	109.451	108.884	0.59%	134.5	1.22	1.32	VCP	1.37
SL1449560	11.04	11.33	81.65	0.0	201.6	1.0	0.3	1.3	202.9	32.0	C	300	0	102.452	101.867	1.83%	130.7	1.85	0.29	VCP	155.20
SL1448588	13.03	13.80	71.76	0.0	62.5	8.1	0.8	8.9	71.3	90.8	C	300	0	109.719	107.85	2.06%	138.7	1.96	0.77	VCP	51.41
SL1449458	17.51	17.58	56.96	0.0	123.2	4.1	1.2	5.3	128.5	25.6	C	375	0	99.947	95.607	16.95%	721.9	6.54	0.07	VCP	17.80
SL1450795	18.33	18.61	54.96	0.0	85.7	10.5	3.8	14.3	100.0	22.9	E	900	600	94.116	94.037	0.34%	581.5	1.41	0.27	BR	17.20
SL1451316	10.00	11.73	88.19	0.0	92.8	0.7	0.1	0.8	93.5	127.5	C	300	0	108.4	107.377	0.80%	86.6	1.23	1.73	VCP	108.00
SL1448347	10.41	10.85	85.47	0.0	55.5	3.7	0.0	3.7	59.2	37.7	C	300	0	101.803	101.392	1.09%	101.0	1.43	0.44	VCP	58.63
SL1448572	12.28	13.42	75.13	0.0	160.9	1.5	0.7	2.2	163.0	77.3	C	375	0	109.231	108.838	0.51%	125.0	1.13	1.14	VCP	130.42
SL1448768	10.87	11.02	82.63	0.0		1.1	0.5	1.6	1.6	14.8	C	300	0	94.701	94.473	1.54%	120.0	1.70	0.15	VCP	1.33
SL1446690	16.00	16.03	61.13	0.0	87.5	5.8	2.6	8.4	95.9	4.9	C	450	0	105.945	105.833	2.29%	431.0	2.71	0.03	VCP	22.25
SL1449690	12.70	13.76	73.18	0.0		1.3	0.7	2.0	2.0	89.0	C	375	0	110.773	110.085	0.77%	154.2	1.40	1.06	VCP	1.30
SL1446425	10.00	10.94	88.19	0.0		0.2	0.1	0.3	0.3	76.1	C	375	0	109.152	108.603	0.72%	148.9	1.35	0.94	VCP	0.19
SL1450522	12.44	12.90	74.37	0.0	232.8	8.8	0.4	9.2	242.0	49.4	C	450	0	108.366	107.872	1.00%	285.1	1.79	0.46	RCP	84.87
SL1446686	10.00	10.18	88.19	0.0		0.1	0.0	0.1	0.1	38.7	C	450	0	104.748	103.227	3.93%	565.2	3.55	0.18	VCP	0.02
SL1448881	16.67	17.02	59.18	0.0	41.1	1.6	0.7	2.3	43.4	27.2	C	375	0	109.149	108.96	0.69%	146.2	1.32	0.34	VCP	29.68
SL1449408	12.32	12.68	74.95	0.0		1.3	0.6	1.9	1.9	86.3	C	300	0	103.809	96.655	8.29%	278.4	3.94	0.37	VCP	0.68
SL1446728	14.65	16.16	65.46	0.0	162.8	10.5	1.0	11.4	174.2	104.0	C	375	0	109.719	109.17	0.53%	127.4	1.15	1.50	VCP	136.74
SL1446840	11.71	13.44	77.98	0.0		1.2	0.4	1.6	1.6	100.7	C	300	0	110.538	110.035	0.50%	68.3	0.97	1.74	VCP	2.33
SL1446250	10.00	10.50	88.19	0.0	69.7	1.7	0.1	1.7	71.4	34.0	C	225	0	113.373	113.033	1.00%	44.9	1.13	0.50	VCP	158.99
SL1445634	15.85	16.50	61.58	0.0		8.4	2.9	11.3	11.3	53.9	E	900	600	94.942	94.765	0.33%	567.4	1.37	0.65	BR	2.00
SL1444223	10.00	11.06	88.19	0.0		0.4	0.2	0.6	0.6	91.0	C	225	0	111.721	110.258	1.61%	56.9	1.43	1.06	VCP	1.02
SL1444060	11.06	16.54	81.51	0.0	176.3	1.9	0.5	2.4	178.8	97.4	C	375	0	106.223	106.189	0.03%	32.8	0.30	5.47	VCP	545.74
SL1448853	13.80	14.58	68.60	0.0	226.9	1.4	0.6	1.9	228.8	92.8	C	450	0	110.886	109.749	1.23%	315.6	1.98	0.78	VCP	72.51
SL1449833	10.49	10.66	84.98	0.0	167.9	0.8	0.2	1.0	168.9	28.1	C	300	0	102.922	101.885	3.69%	185.8	2.63	0.18	VCP	90.91
SL1449533	19.75	20.06	51.87	0.0	581.3	19.3	7.6	26.9	608.2	49.8	E	1350	900	95.073	94.707	0.73%	2502.6	2.69	0.31	BR	24.30
SL1449175	11.63	11.80	78.38	0.0	306.9	3.6	0.4	4.0	310.9	53.4	C	450	0	102.797	97.911	9.15%	862.4	5.42	0.16	AC	36.05
SL204484	10.30	10.34	86.20	0.0	16.9	0.8	0.0	0.8	17.7	3.8	C	300	0	99.11	99.06	1.32%	110.9	1.57	0.04	VCP	15.98
SL204485	10.34	10.37	85.94	0.0	18.7	0.9	0.0	0.9	19.5	3.3	C	300	0	99.05	99.01	1.21%	106.5	1.51	0.04	VCP	18.35

COMBINED SEWER DESIGN SHEET

Bloor West Village
City of Toronto

PREPARED BY: DB
CHECKED BY: AS
DATE: 3/16/2018
FILE No. 16-16138

Street	Asset ID	UPSTREAM	DOWNSTREAM	STM AREA				SAN AREA				SAN POP					RUNOFF			TIME		INTENSIT	CONT.	STM FLOW	SAN FLOW			COMB FLOW	PIPE											
		MH	MH	IN				IN				IN							TOTAL							Inf_Flow	Flow Total						UP MH	DOWN MH					PIPE	
				AREA	CONTRIB	CONTRIB	TOTAL	AREA	CONTRIB	CONTRIB	TOTAL	AREA	CONTRIB	CONTRIB	TOTAL	M	C	A x C	A x C	INLET	OUTLET	I_2	Q_C	Q_2	Pop_Flow	Dr y	Dry	2Year+Dry	LENGTH	Pipe	SIZE	SIZE	INV	INV	GRADE	CAPACITY	VEL.	TIME	CLASS	%CAP
						STM Network				SAN Network				SAN Network								(mm/hr)	(L/s)	(L/s)	(l/s)	(l/s)	(L/s)		(m)	Shape	(mm)	(mm)	Rev	Rev	(%)	(L/s)	(m/s)	(mins)		2 year + Dry
Glendonwynne Rd	SL1443900	MH3523007203	MH3521207190	0.000	0.00	0.00	0.00	0.13	1.27	0.00	1.40	7	78	0	85	4.00	0.00	0.000	0.00	11.21	11.38	80.70	0.0		0.9	0.4	1.3	1.3	22.4	C	300	0	103.943	103.409	2.38%	149.3	2.11	0.18	VCP	0.87
Armadale Ave	SL1449834	MH3415106174	MH3418906162	0.000	0.00	0.00	0.00	0.22	0.00	0.00	0.22	203	0	0	203	4.00	0.00	0.000	0.00	10.00	10.16	88.19	0.0		2.3	0.1	2.3	2.3	39.0	C	300	0	108.241	104.988	8.34%	279.3	3.95	0.16	VCP	0.83
Mountainview Ave	SL1451199	MH3489107882	MH3481707902	0.915	0.58	0.00	1.50	0.41	0.70	0.00	1.11	360	204	0	564	3.95	0.69	0.633	1.12	11.20	12.41	80.73	0.0	251.2	6.2	0.3	6.5	257.6	76.6	C	300	0	108.628	108.17	0.60%	74.8	1.06	1.21	VCP	344.55
Woodside Ave	SL1445734	MH3519106798	MH3517806753	0.311	0.40	0.00	0.71	0.25	0.33	0.00	0.58	19	25	0	44	4.00	0.73	0.225	0.51	10.51	10.81	84.81	0.0	121.3	0.5	0.2	0.6	122.0	46.7	C	300	0	110.124	108.393	3.71%	186.2	2.63	0.30	VCP	65.52
Quebec Ave	SL1445270	MH3522307259	MH3526607245	0.000	0.00	0.00	0.00	0.44	0.00	0.00	0.44	31	0	0	31	4.00	0.00	0.000	0.00	10.00	10.26	88.19	0.0		0.3	0.1	0.5	0.5	45.2	C	225	0	110.969	107.884	6.83%	117.3	2.95	0.26	VCP	0.39
Lincoln Ave	SL1444578	MH3523406355	MH3525606424	0.555	0.72	0.00	1.27	0.32	0.54	0.00	0.85	20	25	0	45	4.00	0.72	0.397	0.88	11.05	12.06	81.57	0.0	198.6	0.5	0.2	0.7	199.3	73.2	C	300	0	113.285	112.712	0.78%	85.6	1.21	1.01	VCP	232.96
Quebec Ave	SL1450610	MH3467107429	MH3466607427	0.000	0.47	0.00	0.47	0.01	5.78	0.00	5.80	0	1186	0	1186	3.75	0.00	0.000	0.00	18.15	18.17	55.41	0.0		12.4	1.5	13.9	13.9	6.1	C	525	0	106.578	106.287	4.77%	939.3	4.34	0.02	RCP	1.48
Bloor St W	SL1451312	MH3450607210	MH3457807455	0.000	35.65	0.00	35.65	0.50	143.35	0.00	143.85	0	20571	0	20571	2.64	0.00	0.000	23.38	39.33	41.19	30.31	0.0	1968.0	150.9	37.4	188.3	2156.3	251.3	BH	1950	1500	92.799	92.144	0.26%	5819.5	2.25	1.86	CP	37.05
Bloor St W	SL203338	MH3428306464	MH3428306474	0.000	0.00	0.00	0.00	0.02	0.50	0.00	0.52	0	382	0	382	4.00	0.00	0.000	0.00	10.98	11.05	81.99	0.0		4.2	0.1	4.4	4.4	10.4	C	300	0	107.012	106.625	3.72%	186.5	2.64	0.07	PVC	2.35
High Park Ave	SL1450622	MH3476107546	MH3473107555	0.000	1.09	0.00	1.09	0.35	7.73	0.00	8.07	245	3083	0	3328	3.40	0.00	0.000	0.80	17.89	18.22	56.03	0.0	124.6	31.5	2.1	33.6	158.2	31.4	C	600	0	103.297	103.132	0.53%	445.1	1.57	0.33	VCP	35.54
Bloor St. W	SL1449549	MH3415106037	MH3417006099	0.000	0.45	0.00	0.45	0.35	3.68	0.00	4.02	282	1200	0	1482	3.68	0.00	0.000	0.31	14.39	15.26	66.40	0.0	57.8	15.2	1.0	16.2	74.0	64.9	C	600	0	105.369	105.156	0.33%	351.8	1.24	0.87	VCP	21.04
Quebec Ave	SL1443908	MH3526607245	MH3527707229	0.000	0.00	0.00	0.00	0.04	0.44	0.00	0.48	0	31	0	31	4.00	0.00	0.000	0.00	10.26	10.36	86.47	0.0		0.3	0.1	0.5	0.5	19.5	C	225	0	107.884	106.421	7.50%	123.0	3.09	0.11	VCP	0.38
Glendowynne Rd	SL1465232	MH3470806780	MH3471606778	0.000	0.00	0.00	0.00	0.07	0.43	0.00	0.50	4	25	0	29	4.00	0.00	0.000	0.00	10.61	10.71	84.20	0.0		0.3	0.1	0.4	0.4	7.9	C	300	0	108.109	108.03	1.00%	96.7	1.37	0.10	VCP	0.46
Runnymede Rd	SL1446253	MH3519906442	MH3514206459	0.000	1.63	0.00	1.63	0.36	1.78	0.00	2.14	41	293	0	333	4.00	0.00	0.000	1.16	12.72	13.43	73.08	0.0	235.6	3.7	0.6	4.3	239.9	58.7	C	375	0	112.176	111.734	0.75%	152.1	1.38	0.71	VCP	157.68
Ardagh St	SL1448724	MH3497406170	MH3500106258	0.000	0.16	0.00	0.16	0.18	15.10	0.00	15.28	0	1592	0	1592	3.66	0.00	0.000	0.00	19.28	19.89	52.85	0.0		16.2	4.0	20.2	20.2	91.9	C	1200	0	110.95	110.46	0.53%	2846.8	2.52	0.61	RCP	0.71
Armadale Ave	SL1448992	MH3479405939	MH3468905970	0.805	0.67	0.00	1.48	0.59	0.49	0.00	1.08	38	32	0	70	4.00	0.72	0.578	1.06	11.73	13.45	77.87	0.0	229.8	0.8	0.3	1.1	230.9	109.4	C	450	0	112.791	112.41	0.35%	168.3	1.06	1.72	VCP	137.21
Bloor St W	SL1449807	MH3431806579	MH3430806549	0.000	0.00	0.00	0.00	0.21	0.00	0.00	0.21	155	0	0	155	4.00	0.00	0.000	0.00	10.00	10.39	88.19	0.0		1.7	0.1	1.8	1.8	31.3	C	300	0	108.713	108.408	0.97%	95.5	1.35	0.39	VCP	1.86
Glendonwynne Rd	SL1443899	MH3527707229	MH3523007203	0.000	0.00	0.00	0.00	0.32	0.95	0.00	1.27	16	62	0	78	4.00	0.00	0.000	0.00	10.90	11.21	82.43	0.0		0.9	0.3	1.2	1.2	53.4	C	300	0	106.421	103.943	4.64%	208.3	2.95	0.30	VCP	0.57
Gilmour Ave	SL1444212	MH3532806609	MH3526306629	0.000	0.00	0.00	0.00	0.46	1.45	0.00	1.92	25	73	0	97	4.00	0.00	0.000	0.00	12.49	13.08	74.15	0.0		1.1	0.5	1.6	1.6	67.9	C	375	0	111.456	110.453	1.48%	213.1	1.93	0.59	VCP	0.74
Windermere Ave	SL1449541	MH3455106280	MH3445506308	0.000	0.00	0.00	0.00	0.93	0.67	0.00	1.60	47	31	0	78	4.00	0.00	0.000	0.00	11.09	12.24	81.33	0.0		0.9	0.4	1.3	1.3	100.8	C	300	0	110.981	109.819	1.15%	103.8	1.47	1.14	VCP	1.23
Bloor St W	SL1448208	MH3453907275	MH3451607206	0.340	0.65	0.00	0.99	0.16	0.28	0.00	0.44	24	220	0	244	4.00	0.77	0.263	0.80	11.12	11.51	81.20	0.0	181.3	2.7	0.1	2.8	184.1	73.5	C	300	0	98.362	94.476	5.29%	222.4	3.15	0.39	VCP	82.79
Bloor St W	SL1451930	MH3441906889	MH3444506974	0.000	0.00	0.00	0.00	0.29	0.00	0.00	0.29	222	0	0	222	4.00	0.00	0.000	0.00	10.00	10.55	88.19	0.0		2.5	0.1	2.5	2.5	88.9	C	300	0	107.924	104.473	3.88%	190.5	2.70	0.55	VCP	1.33
Clendenan Ave	SL1450782	MH3487407093	MH3480207114	0.000	1.41	0.00	1.41	0.44	12.45	0.00	12.89	22	863	0	885	3.83	0.00	0.000	0.56	17.48	18.33	57.05	0.0	89.0	9.4	3.4	12.8	101.7	74.0	E	900	600	94.384	94.116	0.36%	595.9	1.44	0.86	BR	17.07
Evelyn Ave	SL1447064	MH3500507024	MH3505307017	0.324	0.00	0.00	0.32	0.18	0.00	0.00	0.18	14	0	0	14	4.00	0.73	0.235	0.23	10.00	10.55	88.19	0.0	57.6	0.2	0.0	0.2	57.8	48.8	C	300	0	107.796	107.216	1.19%	105.4	1.49	0.55	VCP	54.79
Clendenan Ave	SL1446589	MH3511307111	MH3507807093	0.000	0.00	0.64	0.64	0.30	10.26	0.00	10.56	17	737	0	754	3.88	0.00	0.000	0.00	15.17	15.38	63.71	0.0		8.1	2.7	10.9	10.9	39.9	C	450	0	98.719	97.432	3.23%	512.0	3.22	0.21	VCP	2.12
Ardagh St	SL1443014	MH3506306473	MH3503506379	0.000	0.00	0.00	0.00	0.56	0.00	0.00	0.56	24	0	0	24	4.00	0.00	0.000	0.00	10.00	11.32	88.19	0.0		0.3	0.1	0.4	0.4	97.3	C	300	0	112.435	111.65	0.81%	86.9	1.23	1.32	VCP	0.47
Glendonwynne Rd	SL1449460	MH3490806844	MH3490006856	0.000	0.00	0.00	0.00	0.10	0.00	0.00	0.10	9	0	0	9	4.00	0.00	0.000	0.00	10.00	10.22	88.19	0.0		0.1	0.0	0.1	0.1	18.0	C	300	0	108.052	107.872	1.00%	96.7	1.37	0.22	VCP	0.13
Glendonwynne Rd	SL1449407	MH3481406820	MH3484606821	0.000	0.00	0.00	0.00	0.16	2.17	0.21	2.54	7	119	10	136	4.00	0.00	0.000	0.00	12.68	12.92	73.26	0.0		1.5	0.7	2.2	2.2	31.8	C	375	0	96.58	95.95	1.98%	246.8	2.23	0.24	VCP	0.88
Fairview Ave	SL1444111	MH3524106733	MH3517806753	0.000	0.00	0.00	0.00	0.52	1.53	0.00	2.05	29	88	0	118	4.00	0.00	0.000	0.00	12.97	13.34	72.01	0.0		1.3	0.5	1.8	1.8	66.4	C	300	0	111.557	108.433	4.70%	209.7	2.97	0.37	VCP	0.88
Ardagh St	SL1449000	MH3492205996	MH3494706081	0.000	0.16	0.00	0.16	0.18	10.30	0.00	10.48	0	1376	0	1376	3.71	0.00	0.000	0.00	17.57	18.41	56.81	0.0		14.2	2.7	16.9	16.9	89.2	C	825	0	112.1	111.71	0.44%	949.1	1.78	0.84	RCP	1.78
Glenlake Ave to Goth	SL1448880	MH3497507277	MH3493907289	0.000	0.35	0.00	0.35	0.21	2.24	0.00	2.45	10	130	0	140	4.00	0.00	0.000	0.25	16.00	16.67	61.14	0.0	42.4	1.6	0.6	2.2	44.6	37.7	C	375	0	109.277	109.149	0.34%	102.2	0.92	0.68	VCP	43.66
Kennedy Ave	SL1449555	MH3490506644	MH3487806671	0.000	1.15	0.00	1.15	0.19	0.87	0.00	1.06	16	95	0	111	4.00	0.00	0.000	0.94	10.86	11.05	82.68	0.0	215.4	1.2	0.3	1.5	216.9	37.7	C	300	0	100.026	97.847	5.78%	232.5	3.29	0.19	VCP	93.28
Glenlake Ave	SL1445539	MH3503607478	MH3506607578	1.190	0.00	0.00	1.19	0.91	0.00	0.00	0.91	831	0	0	831	3.85	0.73	0.872	0.87	10.00	11.81	88.19	0.0	213.5	8.9	0.2	9.1	222.7	104.7	C	300	0	110.414	109.896	0.49%	68.0	0.96	1.81	VCP	327.36
Mountainview Ave	SL1451296	MH3481707902	MH3481407901	0.008	1.50	0.00	1.51	0.00	1.11	0.00	1.11	0	564	0	564	3.95	0.90	0.007	1.13	12.41	12.44	74.54	0.0	233.3	6.2	0.3	6.5	239.8	3.9	C	450	0	107.911	107.872	1.00%	285.1	1.79	0.04	RCP	84.12
Glendowynne Rd	SL1449278	MH3466306800	MH3457806827	0.859	0.00	0.00	0.86	0.71	0.00	0.00	0.71	54	0	0	54	4.00	0.70	0.602	0.60	10.00	11.47	88.19	0.0	147.6	0.6	0.2	0.8	148.4	88.9	C	300	0	109.46	108.975	0.55%	71.4	1.01	1.47	VCP	207.74
Bloor St W	SL1450906	MH3448107094	MH3447507108	0.000	1.90	0.00	1.90	0.03	1.67	0.00	1.70	3	333	0	336	4.00	0.00	0.000	1.41	12.33	12.36	74.88	0.0	293.2	3.7	0.4	4.2	297.3	15.9	C	450	0	97.243	93.415	24.08%	1398.9	8.80	0.03	AC	21.25
Durie St	SL1448995	MH3476106333	MH3469106355	0.000	1.88	0.00	1.88	0.59	1.98	0.00	2.58	29	96	0	125	4.00	0.00	0.000	0.00	23.33	32.21	45.55	0.0		1.4	0.7	2.1	2.1	73.8	C	600	0	109.414	109.411	0.00%	39.1	0.14	8.88	VCP	5.27
Grassmere Rd	SL1449539	MH3457706259	MH3454706160	0.000	0.00	0.00	0.00	0.72	0.00	0.00	0.72	33	0	0	33	4.00	0.00	0.000	0.00	10.00	11.66	88.19	0.0		0.4	0.2	0.6	0.6	103.3	C	300	0	111.904	111.313	0.57%	73.1	1.03	1.66	VCP	0.76
Pacific Ave	SL1451815	MH3476807681	MH3466707713	0.000	1.19	0.00	1.19	0.75	7.55	0.00	8.29	1068	4322	0	5390	3.21	0.00	0.000	0.87	18.59	19.72	54.37	0.0	131.6	48.1	2.2	50.3	181.9	105.5	C	600	0	108.073	107.533	0.51%	439.3	1.55	1.13	VCP	41.41
Windermere Ave	SL1449542	MH3445506308	MH3435506338	0.000	0.00	0.00	0.00	0.96	1.60	0.00	2.56	49	78	0	127	4.00	0.00	0.000	0.00	12.24	13.35	75.33	0.0		1.4	0.7	2.1	2.1	104.0	C	375	0	109.819	108.823	0.96%	171.6	1.55	1.12	VCP	1.21
Bloor St W	SL1449642	MH3440506893	MH3443206979	0.000	0.00	0.00	0.00	0.49	0.00	0.00	0.49	317	0	0	317	4.00	0.00	0.000	0.00	10.00	10.59	88.19	0.0		3.5	0.1	3.7	3.7	89.7	C	300	0	107.582	104.528	3.40%	178.4	2.52	0.59	VCP	2.05
Evelyn Cres	SL1444910	MH3516706894	MH3509706838	0.000	0.00	0.00	0.00	0.72	2.53	0.00	3.25	61	170	0	231	4.00	0.00	0.000	0.00	13.75	14.43	68.81	0.0		2.6	0.8	3.4	3.4	89.9	C	375	0	110.399	108.698	1.89%	241.2	2.18	0.69	VCP	1.42
Woodside Ave	SL1447018	MH3522406848	MH3519106798	0.400	0.00	0.00	0.40	0.33	0.00	0.00	0.33	25	0	0	25	4.00	0.73	0.290	0.29	10.00	10.51	88.19	0.0	71.0	0.3	0.1	0.4	71.4	60.1	C	300	0	111.343	110.124	2.03%	137.7	1.95	0.51	VCP	51.82
Idyllwood Cres	SL1448465	MH3486706961	MH3486506991	0.195	0.00	0.00	0.19	0.13	0.00	0.00	0.13	10	0	0	10	4.00	0.73	0.142	0.14	10.00	10.19	88.19	0.0	34.8	0.1	0.0	0.1	35.0	31.0	C	300	0	100.16	98.984	3.79%	188.3	2.66	0.19	VCP	18.56
Willard Ave	SL1449685	MH3460806142	MH3454706160	0.000	0.00	0.00	0.00	0.40	0.00	0.00	0.40	18	0	0	18	4.00	0.00	0.000	0.00	10.00	10.91	88.19	0.0		0.2	0.1	0.3	0.3	63.5	C	300	0	111.77	111.313	0.72%	82.0	1.16	0.91	VCP	0.37
Bloor St W	SL1449644	MH3440606879	MH3444407007	0.000	24.30	0.00	24.30	0.27	86.08	0.00	86.34	0	13810	0	13810	2.81	0.00	0.000	15.49	38.23	38.66	30.99	0.0	1333.8	108.0	22.4	130.4	1464.2	132.9	BHC	1650	1500	102.751	100.931	1.37%	13339.4	5.16	0.43	CP	10.98
Clendenan Ave	SL1444872	MH3528007108	MH3525907107	0.000	0.00	0.00	0.00	0.23	5.43	0.00	5.66	22	486	0	508	3.97	0.00	0.000	0.00	14.06	14.19	67.59	0.0		5.6	1.5	7.1	7.1	21.5	C	375	0	107.146	106.427	3.34%	320.6	2.90	0.12	VCP	2.21
Lincoln Ave	SL1444577	MH3522706331	MH3523406355	0.718	0.00	0.00	0.72	0.13	0.00	0.00	0.13	8	0	0	8	4.00	0.67	0.479	0.48	10.00	10.45	88.19	0.0	117.4	0.1	0.0	0.1	117.5	24.8	C	300	0	113.395	113.285	0.44%	64.4	0.91	0.45	VCP	182.41
Evelyn Ave	SL1447063	MH3505307017	MH3508906974	0.374	0.32	0.00	0.70	0.21	0.18	0.00	0.38	16	14	0	29	4.00	0.73	0.271	0.51	10.55	11.06	84.61	0.0	119.0	0.3	0.1	0.4	119.4	56.3	C	300	0	107.216	106.223	1.76%	128.4	1.82	0.52	VCP	92.96
Bloor St W	SL1448348	MH3447107059	MH3447807081	0.000	0.00	0.00	0.00	0.10	0.00	0.00	0.10	75	0	0	75	4.00	0.00	0.000	0.00	10.00	10.14	88.19	0.0		0.8	0.0	0.9	0.9	23.3	C	300	0	101.392	100.401	4.25%	199.4	2.82	0.14	VCP	0.43
Norma Cres	SL1449952	MH3469606806	MH3471606778	0.000	0.00	0.00	0.00	0.17	0.39	0.00	0.57	8	18	0	26	4.00	0.00	0.000	0.00	11.49	12.15	79.14	0.0		0.3	0.1	0.4	0.4	34.9	C	300	0	108.174	108.03	0.41%	62.1	0.88	0.66	VCP	0.70
Clendenan Ave	SL1444874	MH3521707106	MH3519807105	0.000	0.00	0.00	0.00	0.10	5.75	0.00	5.85	5	508	0	512	3.97	0.00	0.000	0.00	14.46	14.61	66.14	0.0		5.6	1.5	7.2	7.2	19.1	C	375	0	102.897	102.532	1.91%	242.4	2.19	0.15	VCP	2.96
Bloor St W	SL1451297	MH3447507108	MH3450607210	0.000	26.48	0.25	26.73	0.65	90.38	0.00	91.04	580	15998	0	16578	2.73	0.00	0.000	17.14	38.81	39.33	30.62	0.0	1458.0	125.9	23.7	149.6	1607.6	105.8	BHC	1650	1500	93.415	92.799	0.58%	8697.8	3.37	0.52	CP	18.48
Windermere Ave	SL1449540	MH3464406252	MH3455106280	0.000	0.00	0.00	0.00	0.67	0.00	0.00	0.67	31	0	0	31	4.00	0.00	0.000	0.00	10.00	11.09	88.19	0.0		0.3	0.2	0.5	0.5	97.1	C	300	0	112.115	110.981	1.17%	104.5	1.48	1.09	VCP	0.49
Pine Crest Rd	SL1448878	MH3496907221	MH3496207233	0.000	0.00	0.00	0.00	0.03	1.96	0.00	1.98	0	111	0	111	4.00	0.00	0.000	0.00	14.17	14.41	67.21	0.0		1.2	0.5	1.7	1.7	13.8	C	300	0	109.399	109.335	0.46%	65.9	0.93	0.25	VCP	2.65
Windermere Ave	SL1448970	MH3483906209	MH3475106235	0.839	0.52	0.00	1.36	0.56	1.05	0.00	1.61	36	51	0	88	4.00	0.70	0.591	0.59	12.48	13.80	74.21	0.0	121.8	1.0	0.4	1.4	123.2	91.5	C	450	0	111.264	110.886	0.41%	183.2	1.15	1.32	VCP	67.25
Bloor St W	SL1448193	MH3459307451	MH3456507360	0.296	0.00	0.00	0.30	0.10	0.00	0.00	0.10	9	0	0	9	4.00	0.83	0.246	0.25	10.00	10.57	88.19	0.0	60.4	0.1	0.0	0.1	60.5	94.6	C	300	0	105.717	101.815	4.12%	196.4	2.78	0.57	VCP	30.80
Willard Ave	SL1448852	MH3473206145	MH3463606173	0.846	1.68	0.00	2.53	0.57	1.23	0.00	1.80	37	77	0	114	4.00	0.71	0.600	1.79	12.89	14.22	72.35	0.0	360.3	1.3	0.5	1.7	362.0	100.2	C	450	0	111.432	110.938	0.49%	200.2	1.26	1.33	VCP	180.84
Bloor St W	SL1448422	MH3424806360	MH3428306474	0.000	1.47	0.00	1.47	0.24	18.23	0.00	18.47	0	3882	0	3882	3.34	0.00	0.000	1.08	19.36	20.62	52.67	0.0	158.6	36.1	4.8	40.9	199.5	118.9	E	1200	825	104.498	104.159	0.29%	1236.0	1.58	1.25	BR	16.14
Evans Ave	SL1448854	MH3490306001	MH3480806029	0.984	0.00	0.00	0.98	0.77	0.00	0.00	0.77	214	0	0	214	4.00	0.77	0.755	0.76	10.00	11.75	88.19	0.0	185.1	2.4	0.2	2.6	187.7	98.8	C	450	0	112.429	112.157	0.28%	149.6	0.94	1.75	VCP	125.45
Runnymede Rd	SL1449953	MH3440606682	MH3440506684	0.000	0.00	0.00	0.00	0.00	0.14	0.00	0.15	0	0	0	0	4.00	0.00	0.000	0.00	11.01	11.04	81.79	0.0		0.0	0.0	0.0	0.0	2.3	C	750	0	107.363	107.354	0.39%	696.4	1.58	0.02	RCP	0.01
Parkview Gardens	SL1448457	MH3461607267	MH3463007244	0.142	0.54	0.00	0.69	0.09	0.38	0.00	0.48	7	148	0	155	4.00	0.74	0.106	0.53	10.81	10.92	82.97	0.0	121.7	1.7	0.1	1.8	123.6	26.4	C	300	0	98.493	96.283	8.37%	279.8	3.96	0.11	VCP	44.16
Durie St	SL1448423	MH3426806561	MH3430806549	0.000	0.00	0.00	0.00	0.23	0.00	0.00	0.23	213	0	0	213	4.00	0.00	0.000	0.00	10.00	10.51	88.19	0.0		2.4	0.1	2.4	2.4	42.2	C	300	0	108.841	108.408	1.03%	98.0	1.39	0.51	VCP	2.47
Quebec Ave	SL1450487	MH3493007349	MH3484207377	0.000	0.47	0.00	0.47	1.12	2.83	0.00	3.95	378	192	0	570	3.94	0.00	0.000	0.00	15.07	16.41	64.03	0.0		6.2	1.0	7.3	7.3	92.6	C	375	0	109.532	109.044	0.53%	127.3	1.15	1.34	VCP	5.71
Lincoln Ave	SL1443667	MH3527506435	MH3530106523	0.000	0.00	0.00	0.00	0.56	0.00	0.00	0.56	29	0	0	29	4.00	0.00	0.000	0.00	10.00	11.22	88.19	0.0		0.3	0.1	0.5	0.5	92.0	C	225	0	113.59	112.447	1.24%	50.0	1.26	1.22	VCP	0.93
Runnymede Rd	SL1448758	MH3464306611	MH3457106633	0.000	1.69	0.00	1.69	0.65	7.92	0.00	8.57	35	963	0	998	3.80	0.00	0.000	1.16	20.71	21.86	49.99	0.0	161.2	10.5	2.2	12.8	173.9	75.2	C	600	0	107.951	107.762	0.25%	307.8	1.09	1.15	VCP	56.51
Evelyn Cres	SL1446301	MH3506706786	MH3506406785	0.000	0.71	0.00	0.71	0.01	14.26	0.00	14.27	0	818	0	818	3.85	0.00	0.000	0.51	16.04	16.06	61.01	0.0	87.3	8.8	3.7	12.5	99.8	3.2	C	450	0	104.089	104.001	2.75%	472.8	2.97	0.02	VCP	21.10
Runnymede Rd	SL1448039	MH3440506684	MH3435206699	0.000	2.28	0.00	2.28	0.27	10.07	0.00	10.34	149	1078	0	1227	3.74	0.00	0.000	1.57	24.44	25.35	43.92	0.0	192.1	12.8	2.7	15.4	207.5	54.6	C	600	0	107.305	107.189	0.21%	283.0	1.00	0.91	VCP	73.33
Runnymede Rd	SL1448757	MH3471706589	MH3464306611	0.000	1.69	0.00	1.69	0.75	7.17	0.00	7.92	85	878	0	963	3.81	0.00	0.000	1.16	19.51	20.71	52.37	0.0	168.9	10.2	2.1	12.3	181.1	77.8	C	600	0	108.143	107.951	0.25%	305.0	1.08	1.20	VCP	59.38
Bresford Ave	SL1448857	MH3493106400	MH3482806432	0.000	0.98	0.00	0.98	0.84	21.76	0.00	22.60	40	1986	0	2026	3.58	0.00	0.000	0.59	21.93	23.17	47.79	0.0	78.7	20.2	5.9	26.0	104.7	107.4	C	1200	0	109.79	109.6	0.18%	1639.8	1.45	1.23	RCP	6.39
Bloor St W	SL1449950	MH3433106624	MH3435106691	0.000	0.00	0.00	0.00	0.34	0.35	0.00	0.69	143	173	0	316	4.00	0.00	0.000	0.00	10.42	11.47	85.41	0.0		3.5	0.2	3.7	3.7	69.9	C	375	0	107.683	107.344	0.48%	122.1	1.11	1.05	VCP	3.02
Fairview Ave	SL1446688	MH3507206784	MH3506706786	0.000	0.00	0.00	0.00	0.01	0.61	0.00	0.62	0	17	0	17	4.00	0.00	0.000	0.00	11.80	11.83	77.52	0.0		0.2	0.2	0.3	0.3	4.6	C	375	0	104.909	104.805	2.26%	263.6	2.39	0.03	RCP	0.13
Kennedy Ave	SL1449558	MH3483006690	MH3484706707	0.000	1.25	0.00	1.25	0.04	1.33	0.00	1.37	0	103	0	103	4.00	0.00	0.000	0.89	11.49	11.60	79.12	0.0	195.3	1.1	0.4	1.5	196.8	18.7	C	300	0	99.24	98.441	4.27%	199.9	2.83	0.11	VCP	98.48
Evans Ave	SL1448851	MH3471306058	MH3461006086	0.762	1.70	0.00	2.46	0.55	1.28	0.00	1.83	36	248	0	283	4.00	0.72	0.548	1.82	13.49	14.15	69.82	0.0	352.8	3.1	0.5	3.6	356.4	106.2	C	600	0	111.874	110.246	1.53%	760.2	2.69	0.66	VCP	46.88
Bloor St W	SL1451317	MH3462907586	MH3465007656	0.000	1.09	0.00	1.09	0.22	9.12	0.00	9.34	66	4664	0	4730	3.27	0.00	0.000	0.80	19.39	20.10	52.62	0.0	117.0	42.9	2.4	45.4	162.4	72.7	C	600	0	108.335	107.89	0.61%	480.4	1.70	0.71	VCP	33.80
Jane St	SL1444247	MH3519105729	MH3513905743	0.000	0.00	0.00	0.00	0.24	0.00	0.00	0.24	272	0	0	272	4.00	0.00	0.000	0.00	10.00	10.95	88.19	0.0		3.0	0.1	3.1	3.1	53.9	C	300	0	114.693	114.437	0.47%	66.6	0.94	0.95	VCP	4.62
Jane St	SL1448722	MH3496905794	MH3490705813	0.000	0.00	0.00	0.00	1.12	3.45	0.00	4.57	163	789	0	952	3.81	0.00	0.000	0.00	13.62	14.67	69.30	0.0		10.1	1.2	11.3	11.3	64.9	C	375	0	113.407	113.133	0.42%	113.9	1.03	1.05	VCP	9.89
Baby Point Rd	SL1444123	MH3514405696	MH3515505732	0.000	0.00	0.00	0.00	0.22	0.00	0.00	0.22	6	0	0	6	4.00	0.00	0.000	0.00	10.00	10.48	88.19	0.0		0.1	0.1	0.1	0.1	38.1	C	225	0	115.175	114.651	1.38%	52.7	1.32	0.48	VCP	0.23
Kennedy Ave	SL1449832	MH3496806564	MH3495606613	0.382	0.28	0.00	0.66	0.29	0.21	0.00	0.50	31	23	0	54	4.00	0.81	0.310	0.54	10.23	10.49	86.65	0.0	129.4	0.6	0.1	0.7	130.1	50.1	C	300	0	105.741	102.922	5.63%	229.4	3.25	0.26	VCP	56.72
0	SL1446687	MH3508206781	MH3507206784	0.000	0.00	0.00	0.00	0.02	0.59	0.00	0.61	0	17	0	17	4.00	0.00	0.000	0.00	11.71	11.80	77.95	0.0		0.2	0.2	0.3	0.3	10.4	C	375	0	106.101	105.918	1.76%	232.6	2.11	0.08	RCP	0.15
Evans Ave	SL1448839	MH3480806029	MH3471306058	0.715	0.98	0.00	1.70	0.52	0.77	0.00	1.28	33	214	0	248	4.00	0.72	0.515	1.27	11.75	13.49	77.76	0.0	274.4	2.8	0.3	3.1	277.5	99.7	C	450	0	112.157	111.874	0.28%	151.9	0.96	1.74	VCP	182.69

COMBINED SEWER DESIGN SHEET

Bloor West Village
City of Toronto

PREPARED BY: DB
CHECKED BY: AS
DATE: 3/16/2018
FILE No. 16-16138

Street	Asset ID	UPSTREAM MH	DOWNSTREAM MH	STM AREA IN AREA	STM AREA CONTRIB	STM AREA CONTRIB (STM Network)	STM AREA TOTAL	SAN AREA IN AREA	SAN AREA CONTRIB	SAN AREA CONTRIB (SAN Network)	SAN AREA TOTAL	SAN POP IN AREA	SAN POP CONTRIB	SAN POP CONTRIB (SAN Network)	SAN POP TOTAL	M	C	A x C	TOTAL A x C	TIME INLET	TIME OUTLET	INTENSIT I_2 (mm/hr)	CONT. Q_C (L/s)	STM FLOW Q_2 (L/s)	SAN FLOW Pop_Flow (l/s)	SAN FLOW Inf_Flow Dry (l/s)	SAN FLOW Flow Total Dry (L/s)	COMB FLOW 2Year+Dry	PIPE LENGTH (m)	Pipe Shape	SIZE (mm)	SIZE (mm)	UP MH INV Rev	DOWN MH INV Rev	GRADE (%)	CAPACITY (L/s)	VEL. (m/s)	TIME (mins)	PIPE CLASS	%CAP 2 year + Dry
High Park Ave	SL1445160	MH3511607436	MH3502207465	0.000	0.00	0.00	0.00	0.94	2.69	0.00	3.63	76	365	0	441	4.00	0.00	0.000	0.00	13.61	14.91	69.36	0.0		4.9	0.9	5.8	5.8	98.5	C	450	0	105.138	104.65	0.50%	200.7	1.26	1.30	VCP	2.91
Gilmour Ave	SL1444214	MH3523606638	MH3516206660	0.000	0.00	0.00	0.00	0.55	3.19	0.00	3.74	30	162	0	192	4.00	0.00	0.000	0.00	13.38	14.23	70.26	0.0		2.1	1.0	3.1	3.1	77.4	C	375	0	110.194	109.478	0.93%	168.6	1.53	0.84	VCP	1.84
Evelyn Cres	SL1449427	MH3499806738	MH3492306687	0.000	0.71	0.00	0.71	0.75	15.11	0.00	15.86	64	874	0	938	3.82	0.00	0.000	0.51	16.44	16.88	59.85	0.0	85.6	9.9	4.1	14.1	99.7	90.8	C	600	0	100.614	98.35	2.49%	969.6	3.43	0.44	VCP	10.28
Bloor St W	SL1451319	MH3466707713	MH3466907726	0.000	0.00	0.00	0.00	0.03	0.00	0.00	0.03	0	0	0	0	4.00	0.00	0.000	0.00	10.00	10.12	88.19	0.0		0.0	0.0	0.0	0.0	13.8	C	300	0	107.6	107.344	1.86%	131.7	1.86	0.12	VCP	0.01
Durie St	SL1449140	MH3467206359	MH3459906382	0.000	0.00	0.00	0.00	0.69	0.00	0.00	0.69	35	0	0	35	4.00	0.00	0.000	0.00	10.00	10.79	88.19	0.0		0.4	0.2	0.6	0.6	75.9	C	225	0	111.913	110.402	1.99%	63.4	1.59	0.79	VCP	0.89
Clendenan Ave	SL1451431	MH3496207071	MH3487407093	0.000	1.41	0.00	1.41	0.69	11.76	0.00	12.45	39	824	0	863	3.84	0.00	0.000	0.56	16.50	17.48	59.66	0.0	93.0	9.2	3.2	12.4	105.5	90.8	E	900	600	94.765	94.384	0.42%	641.4	1.55	0.98	BR	16.45
Webb Ave	SL1443665	MH3521806543	MH3524206625	0.000	0.00	0.00	0.00	0.56	0.56	0.00	1.12	29	29	0	59	4.00	0.00	0.000	0.00	11.23	12.01	80.58	0.0		0.7	0.3	0.9	0.9	85.3	C	300	0	112.108	110.615	1.75%	127.9	1.81	0.79	VCP	0.74
Bloor St W	SL1449815	MH3432106592	MH3433106624	0.000	0.00	0.00	0.00	0.16	0.00	0.00	0.16	77	0	0	77	4.00	0.00	0.000	0.00	10.00	10.42	88.19	0.0		0.9	0.0	0.9	0.9	33.1	C	375	0	107.911	107.683	0.69%	145.5	1.32	0.42	VCP	0.62
0	SL1448448	MH3467405882	MH3463305894	0.000	0.00	0.00	0.00	0.09	1.85	0.00	1.93	0	1209	0	1209	3.75	0.00	0.000	0.00	12.88	13.42	72.39	0.0		12.6	0.5	13.1	13.1	42.5	C	450	0	111.974	111.749	0.53%	207.4	1.30	0.54	VCP	6.30
Jane St	SL1448730	MH3441505959	MH3432705985	0.000	0.45	0.00	0.45	0.66	1.46	0.00	2.12	298	54	0	352	4.00	0.00	0.000	0.31	12.09	13.03	76.03	0.0	66.2	3.9	0.6	4.5	70.6	91.7	C	300	0	111.039	109.719	1.44%	116.0	1.64	0.93	VCP	60.89
Glenwood Ave	SL1446261	MH3508706734	MH3509506761	0.000	0.00	0.00	0.00	0.22	1.25	0.00	1.47	12	70	0	82	4.00	0.00	0.000	0.00	12.19	12.34	75.55	0.0		0.9	0.4	1.3	1.3	29.0	C	300	0	108.634	107.009	5.60%	228.9	3.24	0.15	VCP	0.56
Bloor St W	SL1449898	MH3428306474	MH3431606589	0.000	1.47	0.00	1.47	0.24	23.90	0.00	24.14	0	5453	0	5453	3.21	0.00	0.000	1.08	20.62	21.62	50.16	0.0	151.1	48.6	6.3	54.9	206.0	120.0	E	1350	900	104.156	103.675	0.40%	1848.2	1.99	1.01	BR	11.14
St. Johns Pl	SL1439546	MH3603506715	MH3601206722	0.090	0.02	0.00	0.11	0.09	0.01	0.00	0.11	7	0	0	7	4.00	0.79	0.071	0.09	10.11	10.44	87.44	0.0	22.1	0.1	0.0	0.1	22.2	24.7	C	300	0	115.556	115.355	0.81%	87.2	1.23	0.33	VCP	25.46
Jane St	SL1449946	MH3423906011	MH3415106037	0.000	0.45	0.00	0.45	0.66	3.01	0.00	3.68	449	751	0	1200	3.75	0.00	0.000	0.31	13.80	14.39	68.61	0.0	59.7	12.5	1.0	13.4	73.2	92.2	C	375	0	107.85	105.369	2.69%	287.6	2.60	0.59	VCP	25.44
Weatherell	SL1449284	MH3443106078	MH3442506091	0.000	0.54	0.00	0.54	0.03	0.40	0.00	0.43	0	26	0	26	4.00	0.00	0.000	0.40	11.16	11.29	80.97	0.0	90.5	0.3	0.1	0.4	90.9	13.8	C	300	0	109.445	109.231	1.55%	120.4	1.70	0.14	VCP	75.52
Runnymede Rd	SL1446251	MH3529806411	MH3525606424	0.000	0.36	0.00	0.36	0.40	0.19	0.00	0.60	82	151	0	232	4.00	0.00	0.000	0.28	10.50	11.16	84.88	0.0	67.1	2.6	0.2	2.7	69.8	44.5	C	225	0	113.157	112.712	1.00%	44.9	1.13	0.66	VCP	155.43
Gothic Ave	SL1450484	MH3471607278	MH3468307329	0.000	0.35	0.00	0.35	0.33	5.01	0.00	5.34	16	340	0	356	4.00	0.00	0.000	0.25	20.82	21.46	49.78	0.0	34.5	4.0	1.4	5.3	39.9	60.2	C	450	0	108.088	107.634	0.75%	247.6	1.56	0.64	VCP	16.11
Glendowynne Rd	SL1465233	MH3466306800	MH3470806780	0.000	0.00	0.00	0.00	0.43	0.00	0.00	0.43	25	0	0	25	4.00	0.00	0.000	0.00	10.00	10.61	88.19	0.0		0.3	0.1	0.4	0.4	50.2	C	300	0	109.461	108.959	1.00%	96.7	1.37	0.61	VCP	0.40
Macgregor Ave	SL1444981	MH3513906444	MH3511906379	0.000	0.00	0.00	0.00	0.42	0.00	0.00	0.42	46	0	0	46	4.00	0.00	0.000	0.00	10.00	11.01	88.19	0.0		0.5	0.1	0.6	0.6	68.6	C	300	0	112.563	112.096	0.68%	79.8	1.13	1.01	VCP	0.77
Kennedy Ave	SL1449687	MH3463606711	MH3454906738	0.000	0.00	0.00	0.00	0.79	0.00	0.00	0.79	46	0	0	46	4.00	0.00	0.000	0.00	10.00	11.32	88.19	0.0		0.5	0.2	0.7	0.7	91.3	C	300	0	109.475	108.823	0.71%	81.7	1.16	1.32	VCP	0.88
Kennedy Park Ave	SL1448346	MH3450907032	MH3450607046	0.077	0.00	0.00	0.08	0.05	0.00	0.00	0.05	86	0	0	86	4.00	0.84	0.065	0.06	10.00	10.41	88.19	0.0	15.9	1.0	0.0	1.0	16.9	14.5	C	300	0	101.835	101.808	0.19%	41.7	0.59	0.41	VCP	40.40