DILLON CONSULTING

1027458 ONTARIO INC.

Banwell and McHugh Mixed Use Developments

Functional Servicing Report

April 2023 – 22-5144

Table of Contents

Tables

Appendices

1.0 Introduction

Dillon Consulting Limited (Dillon) was retained by 1027458 Ontario Inc. to develop a functional servicing strategy for proposed mixed-use developments in the City of Windsor. The proposed developments are located to the north and south of the Banwell Road and McHugh Street intersection, and are bounded by Banwell Road on east limit. The subject site is composed of three individual parcels, which for the purpose of this report are individually referred as the following: "North 'A' Site", "North 'B' Site" and "South Site". Refer to Figure 1.0 and 2.0 in Appendix A for the conceptual site layout. This document outlines the servicing strategy and identifies the supporting studies and related information for the transportation, sanitary, stormwater management, and watermain servicing for the site.

The proposed development "South Site" is 5.35 ha (13.23 acres) and is currently vacant undeveloped land. When developed, the "South Site" will consist four multi-storey residential buildings with a total of 408 residential units, a two-storey business office building with approximately 1860 m2 of commercial space, and a respite home. The "South Site" is bounded on the south by VIA Railway, by McHugh Street to the north and by existing residential units to the west.

The proposed development area of "North 'A' Site" is 1.43 ha (3.54 acres) and is currently vacant undeveloped land. The proposed development will include two, six-storey residential buildings with a total of 156 residential units. The "North 'A' Site" is bounded by Leathorne Street on the south, residential units to the west, and an existing commercial development to the north.

The subject property "North 'B' Site" is 1.66 ha (4.11 acres) in total area and is currently vacant undeveloped land. When developed, it will consist three, six-storey residential buildings with a total of 180 residential units. The "North 'B' Site" is bounded by McHugh Street on the south, Leathorne Street to the north, and existing residential developments to the west.

1.1 Reference Documents

The following documents and drawings were referenced when completing this study:

- The Corporation of The City of Windsor – Development Manual (May 2015);
- MappMyCity – Interactive Mapping – My Windsor Sewer System;
- Design Guidelines for Sewage Works (MOE, 2008);
- Stormwater Management Planning and Design Manual (MOE,2003);
- Windsor/Essex Region Stormwater Management Standards Manual (ERCA, 2018);
- Design Guidelines and Specifications for Water Main and Water Service Installation (WUC, 2022);
- Lakeview Planning Area Stormwater Management Hydraulic Study (HGS Ltd., 1994);

- Stormwater Management Memo – Multi-Unit Residential Development at Banwell-Firgrove intersection (Dillon, 2019);
- Record Drawings – Banwell Road Construction – Little River Boulevard to Tecumseh Road East (Dillon, 2005);
- Record Drawings – West Banwell Road South Neighbourhood Development (Dillon, 1999);
- Record Drawings – West Banwell Road Development – Phase 7 & 8 (Dillon, 1999);
- Record Drawings – Banwell Road Extension – Tecumseh Road East to South End of Jarvis Ave. (Dillon, 1997).

2.0 Transportation Servicing

2.1 Existing Conditions

The subject site currently has no direct access to the municipal roadway. The proposed developments are located north and south of McHugh Street just east of Banwell Road.

2.2 Proposed Roadways

The proposed primary access point to the "South Site" will be from McHugh Street, on north side along the western property limit; "North 'A' Site" will be from Leathorne Street on the south side; "North 'B' Site" will be from McHugh Street to the south side and from the Leathorne Street on the north side. Leathorne Street will be extended through the site from Questa Drive to Banwell Road as per the City of Windsor standard utility cross section.

The pavement structure of the proposed parking lots will be consistent with geotechnical report recommendations.

A Traffic Impact Study (TIS) for this development is concurrently being completed and will be submitted under separate cover. Any upgrades that may be required to the existing road network that are identified in the report will be incorporated in the detailed design of this development.

3.0 Sanitary Servicing

3.1 Existing Conditions

Following are the available sanitary sewers near the subject properties. Refer to **Figure 1.0 and 2.0** in **Appendix A**.

- An existing 300mm sanitary sewer located on McHugh Street which flows easterly into a 450mm sanitary sewer on Banwell Road.
- A 450mm sanitary trunk sewer along the eastern property limit of "North 'A' Site" and "North 'B' Site" on Banwell Road.
- A 300mm sanitary stub is provided to the "South Site" along McHugh Street to the north side.
- A 300mm sanitary sewer located on Leathorne Street which flows easterly into the 450mm sanitary sewer on Banwell Road.

3.2 Design Criteria

The following sanitary sewer design criteria for the site is outlined in **Table 1.** The design criteria were established from the City of Windsor's Development Manual.

Table 1: Sanitary Sewer Design Criteria

Criteria	City of Windsor Development Manual
Hydraulic Sewer Sizing	Manning's Equation
Minimum Sewer Size (mm) Pipe Material	250 diameter < 450 mm – PVC DR35 Service – PVC DR28
Manning's Roughness Coefficient 'n'	0.013
Velocity: Minimum (m/s) Maximum (m/s)	 0.75 3.00
Infiltration Allowance/Peak Extraneous Flow	0.156 l/ha/s
Peaking Factor	Based on Table from Development Manual
Population Densities For: Residential (where # of units are known)	 2.2 persons/unit
Average Daily Sewage	0.0042 L/s/cap-day

*1. Design Guidelines for Sewage Works (MOE, 2008)

3.3 Proposed Servicing

It is proposed that the majority of the sanitary flows from the "South Site" will be conveyed to the 300mm diameter sanitary private drain connection which flows into the existing 300mm diameter sanitary sewer located on McHugh Street. The McHugh main ultimately discharges into the existing 450mm diameter sewer along Banwell Road. Sanitary flows from "North 'A' Site" and "North 'B' Site" will be discharged into the existing 300mm diameter sanitary sewer located on Leathorne Street. The Leathorne Street main ultimately discharges into the existing 450mm sewer along Banwell Road.

The invert elevations, estimated from sewer atlas for the existing sewers and estimated from previously submitted reports and design drawings for the planned sewers, allows for a 2.40m cover at the top end of the internal sewers. All buildings where the bottom of the footings is below the sanitary sewer and the hydraulic grade line is less than 300mm below the basement floor elevation, shall be equipped with a sewer ejector pump.

Due to the increase in density, a Sanitary Sewer Design Sheet was developed to evaluate the sanitary sewer system from the site to the trunk outlet sewer located at Greenpark Avenue and Beverly Glen Drive. Based on the City of Windsor's Development Manual and Design Guidelines for Sewage Works (MOE, 2008), the population density for townhomes is 50 persons/ha and 2.2 persons per unit for multi-storey residential developments. The total peak design flow from the "South Site" is calculated as 19.30 l/s and from "North 'A' and 'B' Site" as 14.45 l/s for a total peak outflow of 33.75 l/s. The analysis indicates all sewers remain below full flow capacity.

The future detailed design of the sanitary sewers and services are to be consistent with the requirements of the City of Windsor and the Ministry of Environment, Conservation and Parks (MECP).

4.0 Stormwater Servicing

4.1 Background Information

The proposed development lands are currently undeveloped. The existing site drains to the remnants of the Parent Drain to outlet sewers into the McHugh and Banwell storm sewer system. "North 'A' Site" and "North 'B' Site" are included in the catchment area for the 900mm diameter storm sewer on Banwell Road. The "South Site" is included in the catchment area for the sewer on McHugh Street. Sizes range from 675mm to 825mm in diameter across the site. Refer to **Figure 1.0 and 2.0** in **Appendix A**.

The subject parcels have been assessed under existing condition to be conveyed to the storm sewer with a runoff coefficient, 'C' value of 0.35 according to the "Lakeview Planning Area Stormwater Management Hydraulic Study" (HGS Ltd., 1994). The existing sites are located in the Blue Heron Lake drainage area.

4.2 Design Criteria

The following storm sewer design criteria for this property are outlined in **Table 2.** The design criteria were established by the "Windsor/Essex Region Stormwater Management Standards Manual".

Table 2: Storm Sewer Design Criteria

Criteria	Windsor/Essex Region Stormwater Management Standards Manual
Stormwater Runoff	PCSWMM Model
Hydraulic Sewer Sizing	Rational Method or Hydrodynamic Model
Sewer Sizing Rainfall Event	5-Year as Per WERSMS 2018
Minimum Cover Depth (m)	1.07
Manning's Roughness Coefficient 'n'	0.013
Velocity: Minimum (m/s) Maximum (m/s)	 0.80 3.00
Roof Downspouts	Disconnected (splash to ground)
Inlet Times: Residential	 Per WERSMS
Runoff Coefficients: Asphalt Covered Area Grass/Landscaping Area Building Area	 0.95 0.20 0.95

Criteria	Windsor/Essex Region Stormwater Management Standards Manual
Sewer Surcharging	Maximum 5-year hydraulic grade line is below road grade

4.3 Proposed Servicing

The proposed storm sewers will be designed to convey the proposed "North 'A' Site" and "North 'B' Site" runoff to the existing storm sewer on Banwell Road and the proposed "South Site" runoff to the existing storm sewer on McHugh Street. The storm sewers will be sized to have sufficient conveyance for the 1:5-year design event peak flows.

The required on-site stormwater storage will be provided by ADS StormTech underground chambers. The peak discharges from the proposed storm sewers to the existing storm sewers on Banwell Road and McHugh Street will be controlled by the orifice plates. Water quality treatment will be provided by OGS units that has sufficient capacity to accommodate the flows from the subject site.

A Stormwater Management Report for this development is concurrently being completed and will be submitted under separate cover. Acceptance of this strategy is to be discussed with the Corporation of The City of Windsor prior to the detailed design.

4.4 Parent Drain

The sites and surrounding area were at one time serviced by the Parent Drain that was constructed by the former Township of Sandwich East in the early part of the 1900's. A 1200mm diameter sewer was constructed beneath the VIA Railway and serviced the area south of Tecumseh Road. That area was redirected to an open drain (Parent Relief Drain) located along the south side of the VIA Railway. A portion of the 1200mm diameter sewer remains on the site before the drain returns to an open drain. The drain is cut off with the construction of McHugh Street.

The areas surrounding the site have been urbanized and stormwater conveyed with a closed storm sewer system to stormwater management facilities. With development of the site, the remnants of the Parent Drain will be removed and backfilled. It would be the City's discretion to abandon the drain under Section 84 of the Drainage Act, although it would be considered a formality.

5.0 Watermain Servicing

5.1 Existing Conditions

The following watermains abut the site and could be available to service the sites. Refer to **Figure 1.0 and 2.0** in **Appendix A**.

- An existing 600mm diameter feedermain along Banwell Road, east of the "South Site". The 600mm diameter watermain reduces to a 400mm diameter watermain northerly from McHugh Street.
- An existing 500mm diameter feedermain along McHugh Street, North of the "South Site". A 200mm diameter stub was brought to the property limit at Questa Drive. The end of the pipe has a fire hydrant attached for flushing purposes.
- An existing 400mm diameter watermain along Banwell Road, east of the "North 'A' Site" and "North 'B' Site".
- An existing 200mm diameter watermain along Questa Drive. A 200mm diameter stub was provided along Questa Drive a Leathorne Street and Banwell Road for future extension.

It is EnWin's policy that services to properties fronting feedermains are not permitted.

5.2 Proposed Servicing

Refer to the attached **Figure 1.0 and 2.0** in **Appendix A** which illustrates the proposed watermain servicing. The watermain servicing for the proposed development is as follows:

- "South Site" will be serviced by a 150mm diameter watermain connected to the existing 200mm diameter watermain at the intersection of Questa Drive and McHugh Street.
- A 200mm diameter watermain will be extended to Banwell Road from Questa Drive through the Leathorne Street right-of-way.
- "North 'A' Site" will be serviced by a 150mm diameter watermain connected to the extended 200mm diameter watermain along Leathorne Street.
- "North 'B' Site" will be serviced by a 150mm diameter watermain connected to the extended 200mm diameter watermain along Leathorne Street.

No pressure/flow testing has been completed for these developments. During detailed design, pressure testing of the existing watermain along Banwell Road and McHugh Street may be required to satisfy fire suppression system design.

The detailed design of the watermain services are to be consistent with the requirements of EnWin. Placement of Hydrants for adequate fire protection will be completed during the detailed design in accordance with the Ontario Building Code.

6.0 Utilities

6.1 Gas

Existing natural gas service is available along McHugh Street, and Banwell Road. Coordination with Enbridge will be provided during detail design to confirm loading and supply points to the proposed buildings.

6.2 Bell

Bell has aerial services available along McHugh Street and Banwell Road. During detailed design, additional consultation will be held with utility owner to confirm site and internal servicing requirements.

6.3 Cogeco

Cogeco has aerial services available along McHugh Street and Banwell Road. During detailed design, additional consultation will be held with utility owner to confirm site and internal servicing requirements.

6.4 MNSi

MNSi has aerial services available along McHugh Street and Banwell Road. During detailed design, additional consultation will be held with utility owner to confirm site and internal servicing requirements.

6.5 EnWin (Hydro)

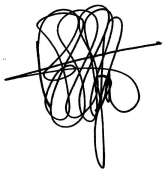
Existing overhead hydro is available along Banwell Road, Coordination with EnWin will be provided during detailed design to confirm servicing to the proposed buildings.

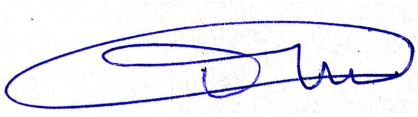
7.0 Conclusion

The review of the adjacent services has been found to be sufficient for the proposed development. The design of the proposed internal services will be finalized during detailed design.

Yours sincerely,

DILLON CONSULTING LIMITED



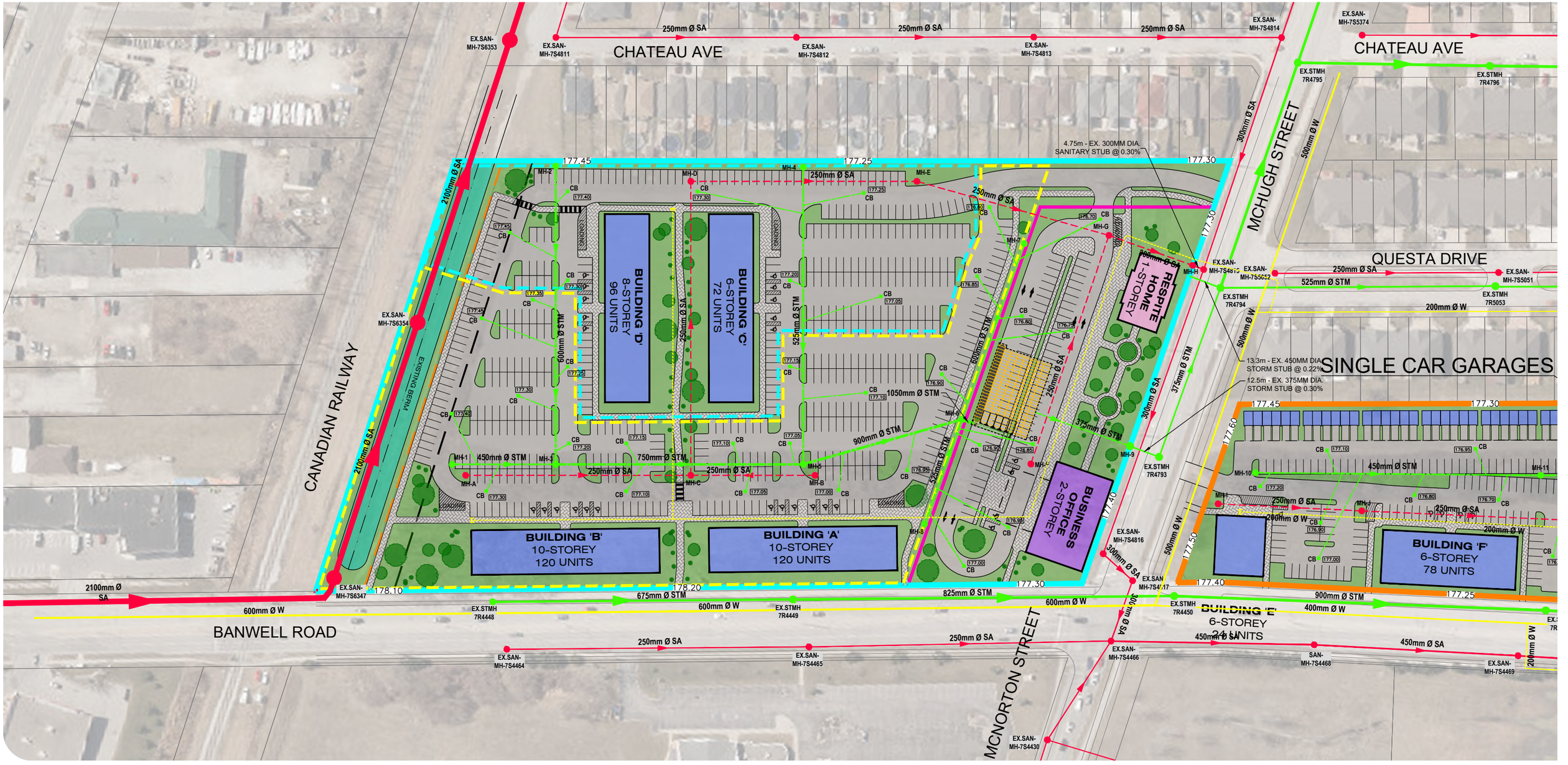


Robert Filipov, P.Eng.
Project Engineer

Dhruv Moradiya, EIT
Civil Designer

Appendix A

Functional Servicing Plans



1027458 ONTARIO LTD.
BANWELL AND McHUGH MIXED USE DEVELOPMENTS
CITY OF WINDSOR

CONCEPTUAL SERVICING PLAN
FIGURE 1.0
FUNCTIONAL SERVICING REPORT

- RESIDENTIAL SUBJECT AREA (± 4.28ha / 10.59ac)
- ALZHEIMER'S SOCIETY SUBJECT AREA (±1.07ha / 2.64ac)
- 30m BUFFER FROM RAILWAY
- EXTENT OF BERM
- EXISTING BERM
- PROPOSED SIDEWALK / MULTI-USE TRAIL
- EXISTING SANITARY SEWER
- EXISTING STORM SEWER
- EXISTING WATERMAIN
- PROPOSED SANITARY SEWER
- PROPOSED STORM SEWER
- PROPOSED WATERMAIN
- 178.00 PROPOSED GRADE AT CATCHBASIN
- 178.00 PROPOSED LOT GRADES

File Location:
c:\pw working directory\projects 2022\dillon_32rjf\dms81883\22-5144 - banwell and mchugh - fsr figures.dwg
April, 05, 2023 10:35 AM

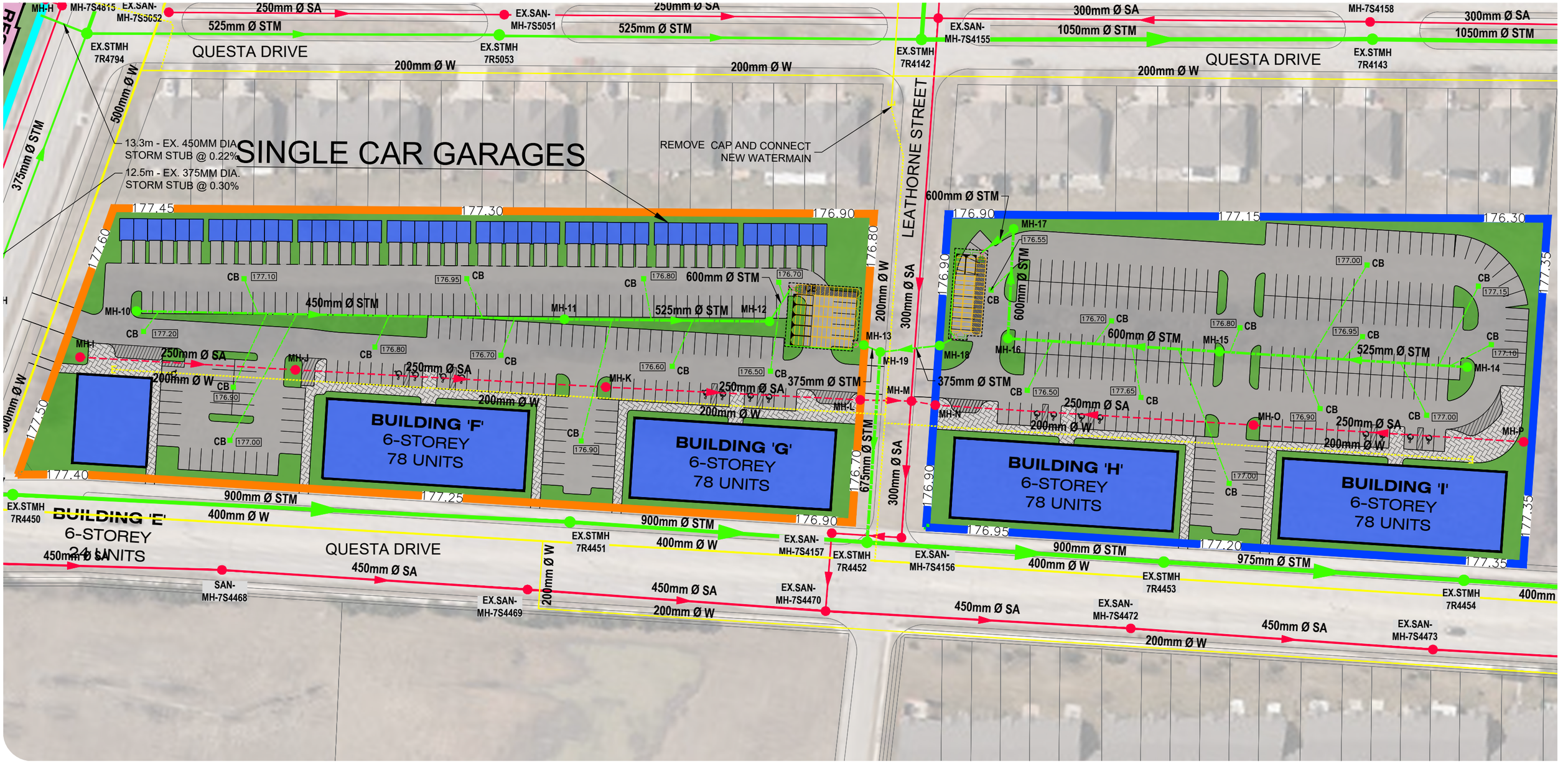
SOURCE: THE COUNTY OF ESSEX INTERACTIVE MAPPING (2021)

MAP/DRAWING INFORMATION
THIS DRAWING IS FOR INFORMATION PURPOSES ONLY. ALL DIMENSIONS AND BOUNDARY INFORMATION SHOULD BE VERIFIED BY AN O.L.S PRIOR TO CONSTRUCTION.
CREATED BY: MRU/DM
CHECKED BY: KDT/RJF
DESIGNED BY: MRU/DM

SCALE: 1:1500 (11X17)

DILLON CONSULTING

PROJECT: 22-5144/22-5266
STATUS: DRAFT
DATE: 04/05/2023



1027458 ONTARIO LTD.
BANWELL AND McHUGH MIXED USE DEVELOPMENTS
CITY OF WINDSOR

CONCEPTUAL SERVICING PLAN
FIGURE 2.0
FUNCTIONAL SERVICING REPORT

BANWELL AND McHUGH - NORTH 'A' SITE (±1.43 ha / 3.54 ac)

BANWELL AND McHUGH - NORTH 'B' SITE (±1.66 ha / 4.11 ac)

PROPOSED SIDEWALK

EXISTING SANITARY SEWER
EXISTING STORM SEWER
EXISTING WATERMAIN
PROPOSED SANITARY SEWER
PROPOSED STORM SEWER
PROPOSED WATERMAIN

178.00 PROPOSED GRADE AT CATCHBASIN

178.00 PROPOSED LOT GRADES

File Location:
c:\pw working directory\projects 2022\dillon_32rjf\dms81883\22-5144 - banwell and mchugh - fsr figures.dwg
April, 05, 2023 10:35 AM

MAP/DRAWING INFORMATION
THIS DRAWING IS FOR INFORMATION PURPOSES ONLY. ALL DIMENSIONS AND BOUNDARY INFORMATION SHOULD BE VERIFIED PRIOR TO CONSTRUCTION. DIMENSIONS SHOWN IN METRIC.
CREATED BY: MRU/DM
CHECKED BY: KDT/RJF
DESIGNED BY: MRU/DM

SCALE: 1:1000 (11X17)

DILLON CONSULTING

PROJECT: 22-5144/22-5266
STATUS: DRAFT
DATE: 04/05/2023

Appendix B

Sanitary Sewer Analysis

BANWELL AND MCHUGH MIXED USE DEVELOPMENTS
SANITARY SEWER DESIGN SHEET

Project Name: Banwell and McHugh Mixed Use Developments
Project No: 225144 & 225266
City of Windsor

The Peaking Factor was derived:
Using Harmon Formula= N (Y or N)
From a Table= Y
Value from table= 4.500

Residential Average Daily Flow= 363 L/Cap.D
Peak Extraneous Flow= 0.156 L/Ha.S

Outlet Invert Elevation= 171.510
Mannings 'n'= 0.013
Total Area= 93.510

Basement Floor Elevation =
or
Hydraulic Grade Line Cover = 2.40

Location			Flow Characteristics								Sewer Design/Profile										Cover		
ROAD/STN	LOCATION		INDIVIDUAL		CUMULATIVE		PEAKING	POP FLOW	PEAK EXTR.	PEAK DESIGN	CAPACITY	LENGTH	PIPE DIA.	Wall	SLOPE	UPPER	LOWER	FALL	VELOCITY	DROP IN LOWER	Ground Elevation	Cover @ Up MH	Cover @ Low MH
	FROM MH	TO MH	POP	AREA (ha.)	POP	AREA (ha.)	FACTOR M	Q(p) (L/s)	FLOW Q(i) (L/s)	FLOW Q(d) (L/s)	(L/s)	(m)	(mm)	Thickness (mm)	(%)	INVERT (m)	INVERT (m)	(m)	(m/s)	MANHOLE (m)	Upper MH	(m)	(m)
McNorton St	7S5391	7S5390	145.0	2.90	145	2.90	4.500	2.741	0.452	**3.19**	**52.97**	87.4	300	7	0.30	174.595	174.332	0.262	0.75		177.700	2.798	3.201
McNorton St	7S5390	7S5389	140.0	2.80	285	5.70	4.500	5.387	0.889	**6.28**	**52.97**	86.0	300	7	0.30	174.332	174.074	0.258	0.75		177.840	3.201	3.229
McNorton St	7S5389	7S5388	145.0	2.90	430	8.60	4.500	8.127	1.342	**9.47**	**52.97**	87.5	300	7	0.30	174.074	173.812	0.263	0.75		177.610	3.229	3.681
McNorton St	7S5388	7S5387	140.0	2.80	570	11.40	4.500	10.773	1.778	**12.55**	**52.97**	87.1	300	7	0.30	173.812	173.551	0.261	0.75		177.800	3.681	3.742
McNorton St	7S5387	7S4894	135.0	2.70	705	14.10	4.500	13.325	2.200	**15.52**	**82.24**	104.1	375	11	0.22	173.551	173.322	0.229	0.74		177.600	3.663	3.942
McNorton St	7S4894	7S4432	140.0	2.80	845	16.90	4.500	15.971	2.636	**18.61**	**82.24**	66.8	375	11	0.22	173.322	173.175	0.147	0.74		177.650	3.942	3.839
McNorton St	7S4432	7S4891	120.0	1.25	965	18.15	4.500	18.239	2.831	**21.07**	**123.98**	14.3	375	11	0.50	173.175	173.103	0.072	1.12		177.400	3.839	3.841
McNorton St	7S4891	7S4431	130.0	2.60	1095	20.75	4.500	20.696	3.237	**23.93**	**82.24**	85.0	375	11	0.22	173.103	172.916	0.187	0.74		177.330	3.841	3.918
McNorton St	7S4431	7S4887	120.0	1.25	1215	22.00	4.500	22.964	3.432	**26.40**	**78.41**	15.0	375	11	0.20	172.916	172.886	0.030	0.71		177.220	3.918	4.178
McNorton St	7S4487	7S4430	140.0	2.80	1355	24.80	4.500	25.610	3.869	**29.48**	**78.41**	119.9	375	11	0.20	172.886	172.646	0.240	0.71		177.450	4.178	4.768
McNorton St	7S4430	7S4466	175.0	6.90	1530	31.70	4.500	28.917	4.945	**33.86**	**84.09**	63.0	375	11	0.23	172.646	172.502	0.145	0.76		177.800	4.768	4.712
Banwell Rd	7S4464	7S4465	0.0	0.60	0	0.60	4.500	0.000	0.094	**0.09**	**37.61**	122.1	250	6	0.40	173.478	172.990	0.488	0.77		178.050	4.316	4.604
Banwell Rd	7S4465	7S4466	74.8	0.30	75	0.90	4.500	1.414	0.140	**1.55**	**37.61**	122.1	250	6	0.40	172.990	172.502	0.488	0.77		177.850	4.604	4.842
McHugh St	7S5500	7S5498	90.0	1.80	90	1.80	4.500	1.701	0.281	**1.98**	**53.84**	77.0	300	7	0.31	174.826	174.587	0.239	0.76		177.300	2.167	2.656
McHugh St	7S5498	7S5496	145.0	2.90	235	4.70	4.500	4.442	0.733	**5.17**	**54.70**	86.6	300	7	0.32	174.587	174.310	0.277	0.77		177.550	2.656	2.813
McHugh St	7S5496	7S5338	150.0	3.00	385	7.70	4.500	7.277	1.201	**8.48**	**53.84**	85.9	300	7	0.31	174.310	174.044	0.266	0.76		177.430	2.813	2.959
McHugh St	7S5338	7S5285	150.0	3.00	535	10.70	4.500	10.112	1.669	**11.78**	**51.17**	86.2	300	7	0.28	174.044	173.803	0.241	0.72		177.310	2.959	3.100
McHugh St	7S5285	7S4809	150.0	3.00	685	13.70	4.500	12.947	2.137	**15.08**	**52.07**	86.7	300	7	0.29	173.803	173.551	0.251	0.74		177.210	3.100	3.542
McHugh St	7S4809	7S4814	145.0	2.90	830	16.60	4.500	15.687	2.590	**18.28**	**52.97**	95.4	300	7	0.30	173.551	173.265	0.286	0.75		177.400	3.542	3.718
McHugh St	7S4814	7S4815	155.0	3.10	985	19.70	4.500	18.617	3.073	**21.69**	**52.97**	98.8	300	7	0.30	173.265	172.969	0.296	0.75		177.290	3.718	4.304
Proposed Dev.	STUB	7S4815	976.8	5.36	977	5.36	4.500	18.461	0.836	**19.30**	**62.67**	4.8	300	7	0.42	172.989	172.969	0.020	0.89		177.300	4.004	4.304
McHugh St	7S4815	7S4816	0.0	0.70	1962	25.76	4.500	37.078	4.019	**41.10**	**52.97**	121.8	300	7	0.30	172.969	172.603	0.365	0.75		177.580	4.304	4.750
McHugh St	7S4816	7S4817	0.0	0.00	1962	25.76	4.500	37.078	4.019	**41.10**	**53.84**	16.1	300	7	0.31	172.603	172.553	0.050	0.76		177.660	4.750	4.840
McHugh St	7S4817	7S4466	0.0	0.00	1962	25.76	4.500	37.078	4.019	**41.10**	**43.25**	25.9	300	7	0.20	172.553	172.502	0.052	0.61		177.700	4.840	4.791
Banwell Rd	7S4466	7S4468	0.0	0.30	3567	58.66	4.500	67.408	9.151	**76.56**	**114.04**	82.1	450	64	0.16	172.502	172.370	0.131	0.72		177.600	4.584	4.466
Banwell Rd	7S4468	7S4469	0.0	0.20	3567	58.86	4.500	67.408	9.182	**76.59**	**139.67**	82.5	450	64	0.24	172.370	172.172	0.198	0.88		177.350	4.466	4.414
Banwell Rd	7S4469	7S4470	0.0	0.30	3567	59.16	4.500	67.408	9.229	**76.64**	**106.68**	80.9	450	64	0.14	172.172	172.059	0.113	0.67		177.100	4.414	4.527
Leathorne St	7S4149	7S5363	80.0	1.60	80	1.60	4.500	1.512	0.250	**1.76**	**54.70**	82.5	300	7	0.32	173.234	172.970	0.264	0.77		176.700	3.159	3.393
Leathorne St	7S5363	7S6774	75.0	1.50	155	3.10	4.500	2.930	0.484	**3.41**	**50.25**	88.1	300	7	0.27	172.970	172.732	0.238	0.71		176.670	3.393	3.661
Leathorne St	7S6774	7S4155	95.0	1.90	250	5.00	4.500	4.725	0.780	**5.51**	**52.07**	93.2	300	7	0.29	172.732	172.462	0.270	0.74		176.700	3.661	3.831
Leathorne St	7S4155	MH-M	145.0	2.90	395	7.90	4.500	7.466	1.232	**8.70**	**52.97**	90.0	300	7	0.30	172.462	172.192	0.270	0.75		176.600	3.831	4.461
North A Site	MH-N	MH-M	343.2	1.43	343	1.43	4.500	6.486	0.223	**6.71**	**56.39**	15.0	300	7	0.34	172.243	172.192	0.051	0.80		176.800	4.250	4.461
North B Site	MH-L	MH-M	396.0	1.66	396	1.66	4.500	7.484	0.259	**7.74**	**37.61**	49.9	250	6	0.40	172.392	172.192	0.200	0.77		176.480	3.832	4.512
Leathorne St	MH-M	7S4156	0.0	0.20	1134	11.19	4.500	21.436	1.746	**23.18**	**38.68**	20.5	300	7	0.16	172.192	172.159	0.033	0.55		176.960	4.461	4.824
Leathorne St	7S4156	7S4157	0.0	1.66	1134	12.85	4.500	21.436	2.005	**23.44**	**37.61**	15.0	250	6	0.40	172.159	172.099	0.060	0.77		177.290	4.875	4.895
Banwell Rd	7S4157	7S4470	0.0	0.00	1134	12.85	4.500	21.436	2.005	**23.44**	**38.68**	25.2	300	7	0.16	172.099	172.059	0.040	0.55		177.250	4.844	4.734
Banwell Rd	7S4470	7S4472	0.0	0.20	1134	13.05	4.500	21.436	2.036	**23.47**	**110.42**	81.9	450	64	0.15	172.059	171.936	0.123	0.69		177.100	4.527	4.450
Banwell Rd	7S4472	7S4473	0.0	0.20	1134	13.25	4.500	21.436	2.067	**23.50**	**117.55**	80.9	450	64	0.17	171.936	171.799	0.138	0.74		176.900	4.450	4.307
Banwell Rd	7S4473	7S4474	0.0	0.30	4701	72.71	4.500	88.845	11.343	**100.19**	**124.27**	83.8	450	64	0.19	171.799	171.639	0.159	0.78		176.620	4.307	4.197
Firegrove Dr	7S5615	7S5637	175.0	3.50	175	3.50	4.500	3.308	0.546	**3.85**	**49.31**	90.0	300	7	0.26	172.964	172.730	0.234	0.70		176.700	3.429	3.563
Firegrove Dr	7S5637	7S5266	95.0	1.90	270	5.40	4.500	5.103	0.842	**5.95**	**50.25**	40.2	300	7	0.27	172.730	172.622	0.109	0.71		176.600	3.563	3.571
Firegrove Dr	7S5266	7S5636	90.0	1.80	360	7.20	4.500	6.804	1.123	**7.93**	**48.35**	48.1	300	7	0.25	172.622	172.501	0.120	0.68		176.500	3.571	3.492
Firegrove Dr	7S5636	7S5616	130.0	2.60	490	9.80	4.500	9.261	1.529	**10.79**	**52.07**	93.0	300	7	0.29	172.501	172.232	0.270	0.74		176.300	3.492	3.611
Firegrove Dr	7S5616	7S5618	0.0	0.30	490	10.10	4.500	9.261	1.576	**10.84**	**53.84**	55.2	300	7	0.31	172.232	172.060	0.171	0.76		176.150	3.611	3.533
Firegrove Dr	7S5618	7S5620	0.0	0.00	490	10.10	4.500	9.261	1.576	**10.84**	**52.97**	96.9	300	7	0.30	172.060	171.770	0.291	0.75		175.900	3.533	3.973
Firegrove Dr	7S5620	7S5621	0.0	0.00	490	10.10	4.500	9.261	1.576	**10.84**	**50.25**	18.8	300	7	0.27	171.770	171.719	0.051	0.71		176.050	3.973	3.974
Firegrove Dr	7S5621	7S4474	17.6	0.80	508	10.90	4.500	9.594	1.700	**11.29**	**54.70**	24.9	300	7	0.32	171.719	171.639	0.080	0.77		176.000	3.974	4.404
Firegrove Dr	7S4311	7S4312	185.0	3.70	185	3.70	4.500	3.497	0.577	**4.07**	**37.61**	80.2	250	6	0.40	172.614	172.293	0.321	0.77		175.850	2.980	3.301
Firegrove Dr	7S4312	7S4313	110.0	2.20	295	5.90	4.500	5.576	0.920	**6.50**	**35.68**	78.4	250	6	0.36	172.293	172.011	0.282	0.73		175.850	3.301	3.583
Firegrove Dr	7S4313	7S5668	110.0	2.20	405	8.10	4.500	7.655	1.264	**8.92**	**39.00**	54.0	250	6	0.43	172.011	171.779	0.232	0.79		175.850	3.583	3.765
Firegrove Dr	7S4557	7S4314	75.0	1.50	480	9.60	4.500	9.072	1.498	**10.57**	**37.14**	18.0	250	6	0.39	171.779	171.709	0.070	0.76		175.800	3.765	4.085
Firegrove Dr	7S4314	7S4474	0.0	0.00	480	9.60	4.500	9.072	1.498	**10.57**	**36.66**	18.3	250	6	0.38	171.709	171.639	0.070	0.75		176.050	4.085	4.455
Banwell Rd	7S4474	7S4476	0.0	0.30	5688	93.51	4.500	107.510	14.588	**122.10**	**166.56**	86.2	525	70	0.15	171.639	171.510	0.129	0.77		176.350	4.116	3.845