

TOWN OF CALEDON
PLANNING
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January 23, 2026

**FUNCTIONAL SERVICING AND STORMWATER
MANAGEMENT REPORT**

13286 NUNNVILLE ROAD

**TOWN OF CALEDON
Project: 2024-5519**

December 2025

DATE	DESCRIPTION	PREPARED	APPROVED
March 2025	Submission to Region of Peel	D. Wong	H. Sarkissian
December 2025	ZBA Submission	D. Wong	H. Sarkissian



SCHAEFFERS
CONSULTING ENGINEERS

6 Ronrose Drive
Concord, Ontario L4K 4R3

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1.0 INTRODUCTION

1.1 Objective

This Functional Servicing and Stormwater Management Report is provided in support of the proposed townhouse development located at 13286 Nunnville Road in the Town of Caledon.

This report evaluates the existing and proposed water supply and sanitary services within and surrounding the subject property, thereby demonstrating the viability of the proposed development, and guiding its detailed design.

1.2 Existing Site Condition

The entire site is a **1.41 ha** parcel of land. However, the majority of the site will not be developable due to natural features. As such, the developable area of **0.51 ha** has been considered for our calculations in this report.

The subject site is currently occupied by a dwelling. It is bound on the northeast by Nunnville Road, on the northwest and southeast by dwellings, and on the southwest by woodland. The site location is indicated in **Figure 1.1**.

It should be noted that there are a Regional capital works project for sanitary sewer and a developer-led watermain installation on Nunnville Road. The future watermain will be designed and constructed by neighboring development (13290 Nunnville Road) which is on the northwest of the site. Subsequent sections will further illustrate the future sanitary sewer and watermain.

In preparing this report, Schaeffers' staff reviewed and secured plan and profile drawings for the roads and municipal infrastructure adjacent to the site. Plan and profile drawings from the Region of Peel and neighboring development are included in **Appendix A**.

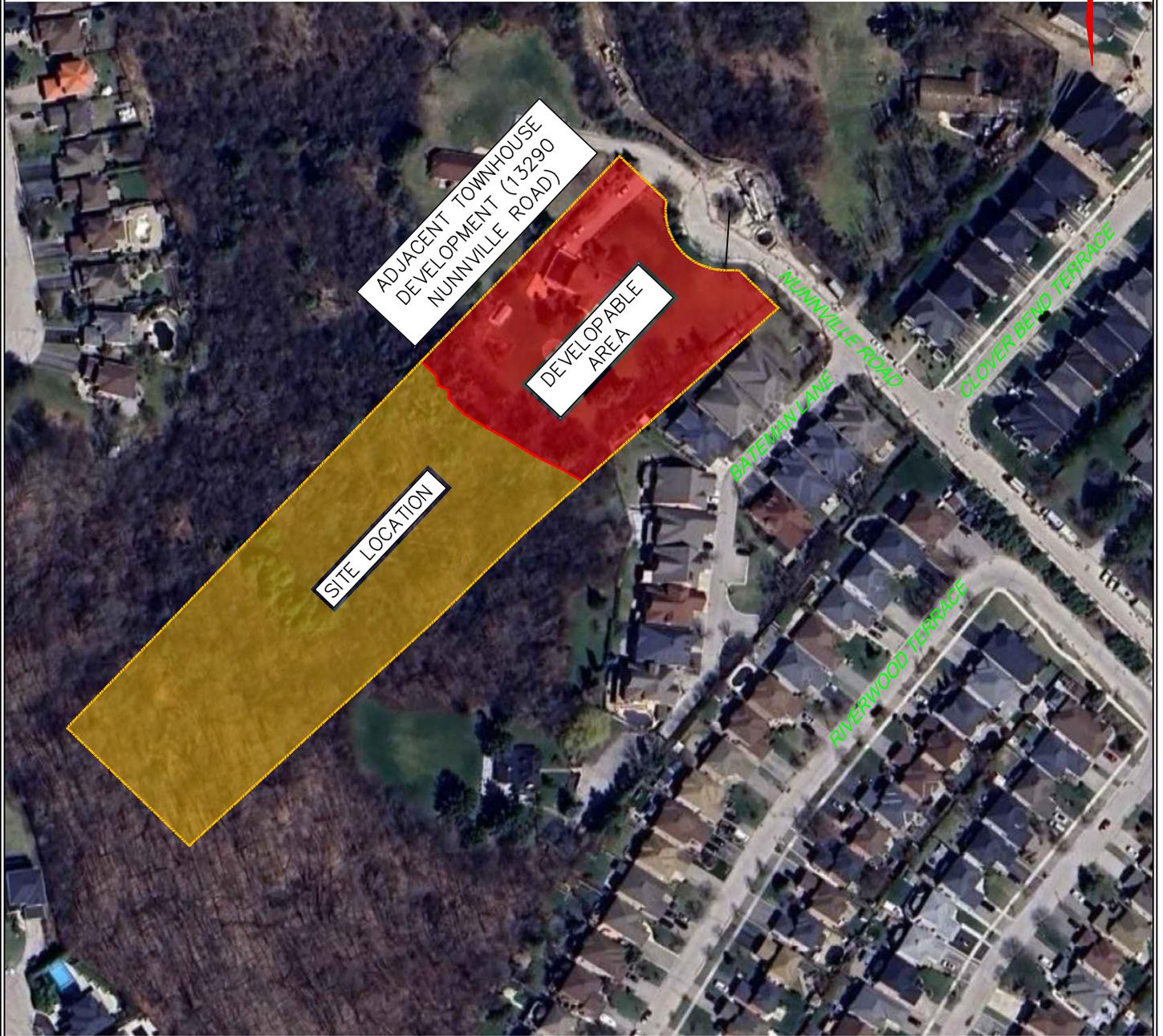
1.3 Proposed Development Plan and Population

The proposed townhouse development consists of twenty two (22) townhouse units. The site plan, prepared by Y Architects has been included in **Appendix A**.

Detailed population estimate calculations for the proposed townhouse development are provided in **Table 1.1** below, utilizing the Region of Peel townhouse population density.

Table 1.1: Population Estimate

Unit Type	Unit Count	Persons Per Unit	Population Estimate
Townhouse	22	3.4	75
Total	22	-	75



13286 NUNNVILLE ROAD



SCHAEFFERS
CONSULTING ENGINEERS

6 Ronrose Drive, Concord, Ontario L4K 4R3
Tel: (905) 738-6100 Email: general@schaeffers.com

www.schaeffers.com

LEGEND

-  PROPERTY LINE
-  DEVELOPMENT LIMIT

FIGURE 1.1
LOCATION PLAN

5519

JANUARY 2025

SCALE: N.T.S.

2.0 WATER SUPPLY

2.1 Existing Water Supply Services

Based on information received from the Region of Peel, there is an existing 150 mm diameter watermain on Nunnville Road.

As noted in **Section 1.2**, the developer-led watermain installation includes a new 200 mm diameter watermain on Nunnville Road, which the subject site is proposing to utilize. Refer to **Figure 2.1** for the existing and future water supply infrastructure adjacent to the subject site.

2.2 Design Criteria

The proposed water supply scheme shall be designed in accordance with the Region of Peel Public Works Watermain Design Criteria. The following summarizes the design criteria for the proposed townhouse development:

- Average consumption rate for residential area is 270 L/cap/day;
- Maximum day factor is 1.8, and peak hour factor is 3.0;
- Minimum operating pressure is 275 kPa (40 psi);
- Maximum operating pressure is 690 kPa (100 psi);
- Fire flow demand in accordance with the Fire Underwriters Survey (FUS 2020)

2.3 Proposed Water Supply

The water supply for the proposed townhouse development consists of a water service connection, preliminarily sized at 200 mm diameter, to the future 200 mm diameter watermain on Nunnville Road. The water service connection will include a valve and box at the location of the connection and a detective check valve in chamber at the property line. Individual water services and meters will be provided for each townhouse unit, in accordance with Regional standard 1-8-2. Water Servicing Plan in **Figure 2.1** illustrates the proposed water servicing plan of the subject site.

There is an existing hydrant on Nunnville Road. To provide sufficient fire coverage, two (2) additional private hydrants are proposed.

As indicated in **Section 1.3**, the population equivalency has been calculated to **75 persons** per the Region of Peel population density. **Table 2.1** below summarizes the water demand.

Table 2.1: Summary of Water Demand

Tenure Type	Population	Average Demand (L/s) ¹	Peak Hour Demand (L/s) ²	Max Day Demand (L/s) ³	Fire Flow (L/s)	Max Day Demand + Fire (L/s)
Townhouse	75	0.23	0.70	0.42	-	-
Total	75	0.23	0.70	0.42	233.33	233.76

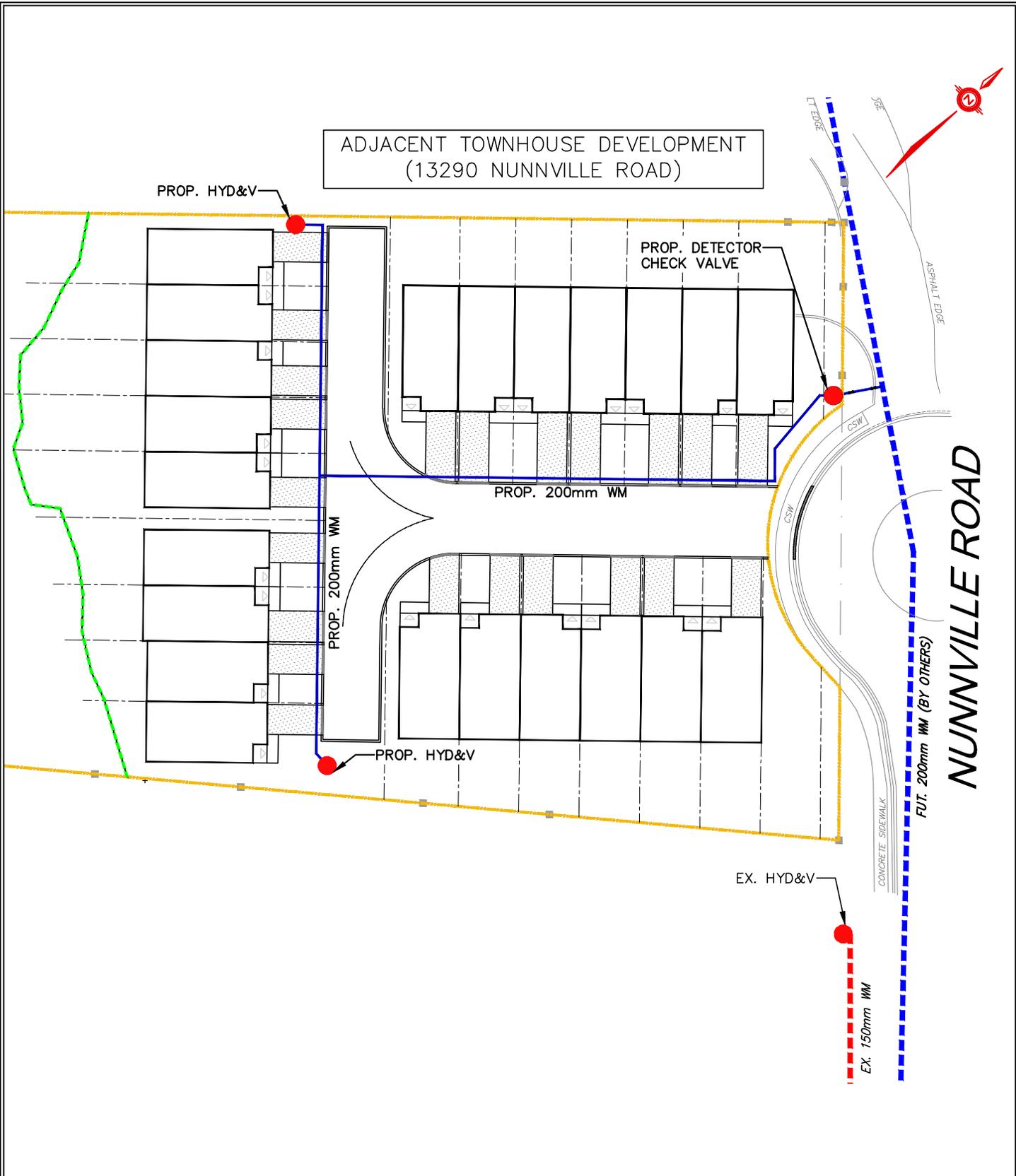
1. Based on 280 L/capita/day
2. Based on a Peak Hour Factor of 3.0
3. Based on a Max Day Factor of 2.0

Fire flow calculations were developed for each townhouse block in accordance to the Fire Underwriters Survey (FUS 2020). The greatest fire flow was determined to be **14,000L/min (233 L/s)** for townhouse units 1-7. It is assumed the townhouse blocks will be wood frame construction, and no sprinkler system will be provided. Supporting calculations can be found in **Appendix B**.

This Functional Servicing Report will be submitted and reviewed by the Region. Modelling will be also completed to confirm whether there are capacity issues for water. The modelling results and confirmation by the Region will be included in future submissions.

2.4 Existing System Analysis

If required, a hydrant flow test will be carried out at later stage due to weather conditions. It will confirm whether the municipal watermain satisfies the water demand for the proposed development. The hydrant flow test results will be included in future submissions.



ADJACENT TOWNHOUSE DEVELOPMENT
(13290 NUNNVILLE ROAD)

NUNNVILLE ROAD

13286 NUNNVILLE ROAD

SCHAEFFERS
CONSULTING ENGINEERS
6 Ronrose Drive, Concord, Ontario L4K 4R3
Tel: (905) 738-6100 Email: general@schaeffers.com
www.schaeffers.com

LEGEND	
	PROPERTY LINE
	DEVELOPMENT LIMIT
	EXISTING WATERMAIN
	PROPOSED WATERMAIN
	FUTURE WATERMAIN

FIGURE 2.1
WATERMAIN SERVICING PLAN

5519	JANUARY 2025	SCALE: N.T.S.
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3.0 SANITARY SERVICING

3.1 Existing Sanitary Infrastructure

As noted in **Section 1.2**, the Regional capital works project includes a 900 mm diameter trunk sanitary sewer and a 250 mm diameter local sanitary sewer on Nunnville Road. Refer to **Figure 3.1** for the sanitary servicing infrastructure adjacent to the subject site.

3.2 Existing Sanitary Flow

The pre-development sanitary flows were calculated in **Table 3.1** below and supporting calculations can be found in **Appendix C**. The Region of Peel sanitary sewer criteria has been utilized to calculate the existing population estimate and existing sanitary flow.

Table 3.1: Summary of Existing Sanitary Flow

Tenure Type	Area (ha)	Population ⁽¹⁾	Average Demand (L/s) ⁽²⁾	Infiltration (L/s) ⁽³⁾	Harmon Peaking Factor ⁽⁴⁾	Total Peak Flow (L/s) ⁽⁵⁾
Single Family	1.39	5	0.02	0.36	4.0	0.43

(1) Based on population density of 4.2 persons/unit

(2) Based on sanitary demand of 290 L/cap/day

(3) Based on infiltration flow rate of 0.26 L/s/ha

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

(5) Total Peak Flow = Average Demand * M + Infiltration

3.3 Design Criteria

The proposed sanitary servicing scheme shall be designed in accordance with the Region of Peel Linear Wastewater Standards. The following summarizes the design criteria for the proposed townhouse development:

- Average day flow for residential area is 290 L/capita/day;
- Infiltration rate is 0.26 L/s/ha;

- Peak dry weather flow is to be determined using average day flow and Harmon Peaking Factor, $M = 1 + 14/(4 + P^{1/2})$, where M is the Harmon Peaking Factor and P is the population in thousands;
- Design flow should be average day flow times the Harmon Peaking Factor plus infiltration allowance

3.4 Proposed Sanitary Servicing

The sanitary servicing for the proposed townhouse development consists of a sanitary connection, preliminarily sized at 150 mm diameter, to the 250 mm diameter sanitary sewer on Nunnville Road. A control manhole is placed immediately at the northeast property line.

Proposed population calculations for the development were summarized in **Section 1.3**. Sanitary Flows for the development are summarized below in **Table 3.2** and supporting calculations can be found in **Appendix C**.

Table 3.2: Summary of Proposed Sanitary Flow

Tenure Type	Developable Area (ha)	Population	Average Demand (L/s) ⁽¹⁾	Infiltration (L/s) ⁽²⁾	Harmon Peaking Factor ⁽³⁾	Total Peak Flow (L/s) ⁽⁴⁾
Townhouse	0.51	75	0.25	-	-	-
Total	0.51	75	0.25	0.13	4.0	1.14

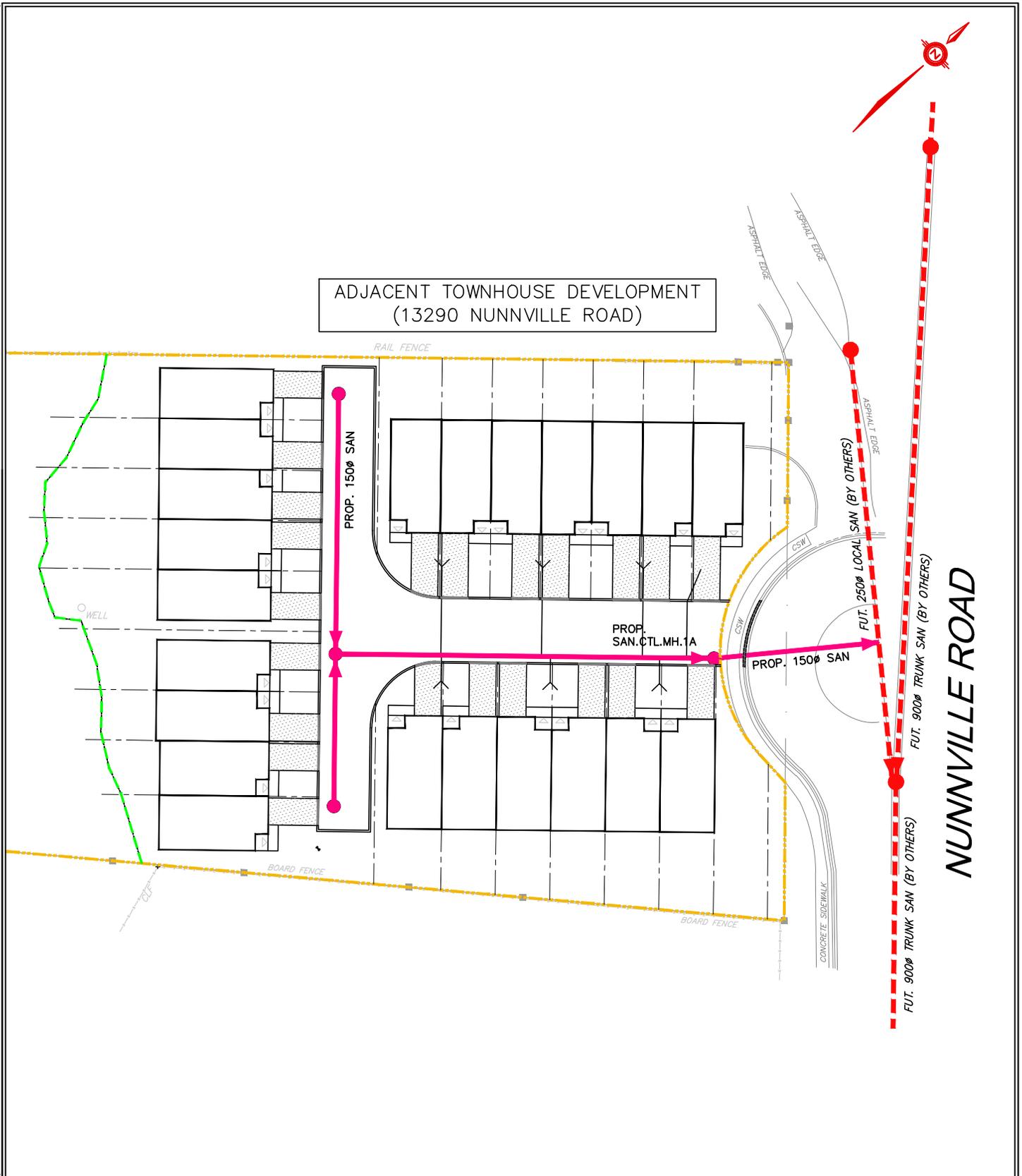
(1) Based on sanitary demand of 290 L/cap/day for residential

(2) Based on infiltration flow rate of 0.26 L/s/ha

(3) $M = 1 + 14/(4 + (P/1000)^{0.5})$

(4) Total Peak Flow = Average Demand * M + Infiltration

This Functional Servicing Report will be submitted and reviewed by the Region. Modelling will be also completed to confirm whether there are capacity issues for sanitary. The modelling results and confirmation by the Region will be included in future submissions.



ADJACENT TOWNHOUSE DEVELOPMENT
(13290 NUNNVILLE ROAD)

NUNNVILLE ROAD

13286 NUNNVILLE ROAD

LEGEND

- - - PROPERTY LINE
- - - DEVELOPMENT LIMIT

- PROPOSED SANITARY SEWER & MANHOLE
- - - ● FUTURE SANITARY SEWER & MANHOLE

FIGURE 3.1
SANITARY SERVICING PLAN

4.0 STORM DRAINAGE

4.1 Existing Site Conditions

Based on information received from the Town of Caledon and Region of Peel, there is an existing 375 mm diameter storm sewer running north on Nunnville Road.

As mentioned in **Section 1.2**, the entire site is composed of **1.41 ha** and the developable area is approximately **0.51 ha**. It is currently occupied by a residential building. Refer to **Appendix D** for the area breakdown included in the stormwater management calculations. Under pre-development conditions, the site is divided into two (2) drainage areas based on the existing topography. Refer to **Figure 4.1** for the existing storm drainage plan.

- **Drainage Area 1** is composed of **0.31 ha**, directing flows east to storm sewer on Nunnville Road
- **Drainage Area 2** is composed of **0.20 ha**, directing flows west to the woodlot on the west

4.2 Stormwater Management Design Criteria

As per the Town of Caledon's design criteria, the following guidelines were used in the design calculations:

- **Quantity Control:** Post-development flows shall be controlled to pre-development flows for all storm events
- **Quality Control:** Enhanced level of protection shall be provided (long-term removal of 80% of total suspended solids)
- **Water Balance:** First 5 mm of rainfall shall be retained on site

4.3 Allowable Release Rate

The allowable release rates to Nunnville Road and the western woodlot are established as the existing stormwater runoffs for all storm events.

Given that the subject site is constrained by the receiving storm sewer on Nunnville Road, it is proposed to control post- to pre-development flows for a 2-year storm and then to attenuate all storm events (5- to 100-year) to the existing 5-year peak flows. The allowable release rates are established in **Table 4.1** with supporting calculations in **Appendix D**.

Table 4.1: Allowable Release Rate

Drainage Direction	2-Year Peak Flows (L/s)	5-Year Peak Flows (L/s)	10-Year Peak Flows (L/s)	25-Year Peak Flows (L/s)	50-Year Peak Flows (L/s)	100-Year Peak Flows (L/s)
Nunnville Road	29.3	37.4*	45.8	53.4	60.1	67.1
Western Woodlot	16.8	21.5	26.4	30.7	34.6	38.6

* Allowable release rate for storm events from 5- to 100-year

4.4 Proposed Stormwater Management Plan & Servicing

Under post-development conditions, the site is divided into two (2) drainage areas. Refer to **Figure 4.2** for the proposed storm drainage plan. **Drainage Area P.1** is composed of **0.42ha**, directing flows to the storm sewer on Nunnville Road. **Drainage Area P.2** is composed of **0.09 ha**, directing flows to the western woodlot.

The proposed development will have a stormwater management scheme designed to meet quantity, quality and water balance requirements. To meet quantity control targets, underground storm sewer system is proposed to control all storm events from the 2- to 100-year return period. The release rates and storage volumes will be discussed in the subsequent sections.

5 mm retention will be provided through infiltration trenches to meet water balance requirements, and water quality requirements shall be met.

Details of the stormwater management plan are provided below, with **Figure 4.2** providing a schematic for the development. At the SPA stage, a further detailed Stormwater Management Report will be provided.

4.4.1 WATER BALANCE

The water balance target is to retain 5 mm of rainfall across all impervious surfaces. The 5mm retention volume is **17.0 m³**. To address water balance, on-site retention will be provided by infiltration trenches. Refer to **Appendix D** for the water balance calculations.

Infiltration trenches are proposed in the backyards of townhouse units. Based on preliminary sizing calculations, the infiltration trenches can provide **24.3 m³** retention volume, fulfilling the water balance requirements. Water balance will be examined further and in more detail during the Site Plan Application stage.

4.4.2 QUALITY CONTROL

The water quality target, as set out in the Ministry of Environment (MOE) Stormwater Management Planning and Design Manual, is the long-term average removal of 80% of Total Suspended Solids (TSS).

The site is mostly occupied by townhouse blocks and landscaped area, which are free of typical sediment-generating activities. It is anticipated that the main pollutants are generated from the drive aisle. A Jellyfish filter unit is proposed upstream of the control manhole, treating the runoff prior to its discharge.

Quality control will be further investigated at the Site Plan Application stage.

4.4.3 QUANTITY CONTROL

The proposed stormwater runoff shall be restricted to the existing stormwater runoff for all storm events. The allowable release rates to Nunnville Road and the western woodlot have been established in **Section 4.3**.

Drainage Area P.1 to Nunnville Road

Based on the post-development drainage area and allowable release rates, rational method analyses are conducted to estimate the detention storage requirements for all storm events, as shown in **Table 4.2** below.

Table 4.2: Detention Storage Requirements

Storm Events	Allowable Release Rate (L/s)	Post-development Drainage Area (ha)	Post-development Runoff Coefficient	Actual Release Rate (L/s)	Required Detention Storage (m ³)
2-Year	29.3	0.44	0.69	29.2	26
5- to 100-Year	37.4			37.3	107

The maximum required detention volume is found to be **107 m³**. Based on preliminary sizing calculations, the underground storm sewer system can provide **114 m³**, fulfilling the storage requirement.

A control structure was sized to control the runoff for 2-year and 5 to 100-year peak flows to the allowable release rates. A **117mmØ orifice plate** will be provided upstream of the filtration unit, controlling flows to **29.2 L/s** and **37.3 L/s** for the 2-year and 5 to 100-year storm events, respectively. Both flow rates are less than the allowable release rates of **29.3 L/s** (2-year) and **37.4 L/s** (5 to 100-year) established in **Section 4.3**. Refer to **Appendix D** for supporting calculations.

Details of the quantity control will be refined and provided during the Site Plan Application stage.

Drainage Area P.2 to Western Woodlot

Post-development flows from Drainage Area P.2 are tabulated below in **Table 4.3**. refer to **Appendix D** for supporting calculations.

Table 4.3: Proposed Peak Flows to Western Woodlot

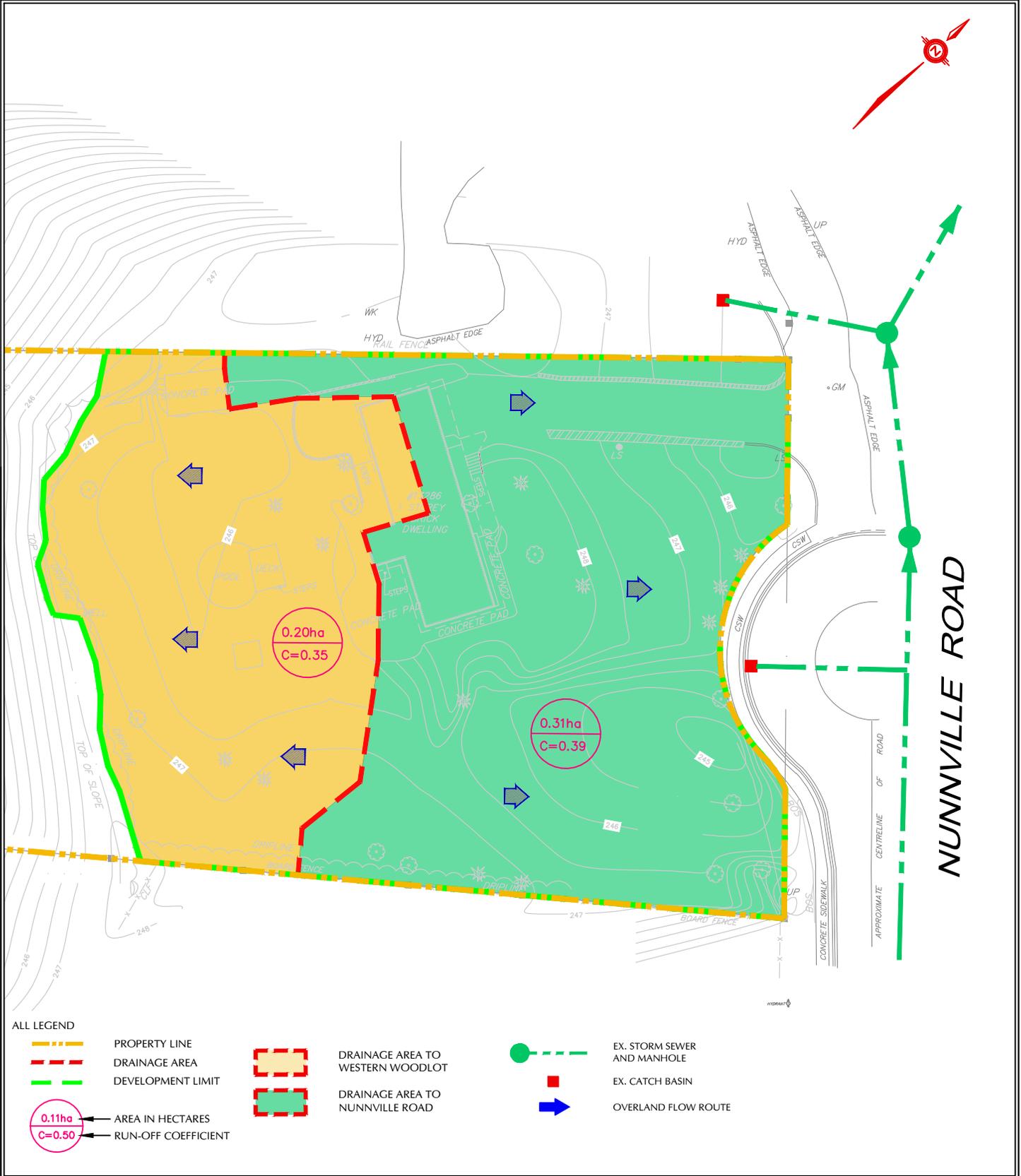
Storm Events	Allowable Release Rate (L/s)	Post-development Drainage Area (ha)	Post-development Runoff Coefficient	Proposed Peak Flow (L/s)
2-Year	16.8	0.09	0.53	11.9
5-Year	21.5			15.2
10-Year	26.4			18.6
25-Year	30.7			21.7
50-Year	34.6			24.5
100-Year	38.6			27.3

As shown above, all post-development peak flows are less than the allowable release rates. Therefore, no quantity control is required.

4.5 Emergency overland Flow Route

The site grading has been designed to alleviate the townhouse blocks from flooding during the 100-year storm. Drainage will be controlled on-site, which means the catch basins will be sized to capture the 100-year storm plus a 50% blockage factor.

The proposed site grading has been designed in a manner to ensure the site allows conveyance of emergency overland flows to Nunnvile Road and the western woodlot, essentially reflecting the pre-development drainage patterns.



- ALL LEGEND**
- PROPERTY LINE
 - DRAINAGE AREA
 - DEVELOPMENT LIMIT
 - 0.11ha
C=0.50 ← AREA IN HECTARES
 - 0.20ha
C=0.35 ← RUN-OFF COEFFICIENT
 - 0.31ha
C=0.39 ← AREA IN HECTARES
 - DRAINAGE AREA TO WESTERN WOODLOT
 - DRAINAGE AREA TO NUNNVILLE ROAD
 - - - - EX. STORM SEWER AND MANHOLE
 - EX. CATCH BASIN
 - ➔ OVERLAND FLOW ROUTE

13286 NUNNVILLE ROAD

SCHAEFFERS
CONSULTING ENGINEERS
6 Ronrose Drive, Concord, Ontario L4K 4R3
Tel: (905) 738-6100 Email: general@schaeffers.com

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LEGEND AS SHOWN ABOVE

FIGURE 4.1
EXISTING DRAINAGE PLAN

5519 | JANUARY 2025 | SCALE: N.T.S.



NUNNVILLE ROAD

ALL LEGEND

- PROPERTY LINE
- DRAINAGE AREA
- DEVELOPMENT LIMIT
- 0.11ha
C=0.50 ← AREA IN HECTARES
- 0.09ha
C=0.53 ← RUN-OFF COEFFICIENT
- DRAINAGE AREA TO WESTERN WOODLOT
- DRAINAGE AREA TO NUNNVILLE ROAD
- PROPOSED INFILTRATION TRENCHES
- EX. STORM SEWER AND MANHOLE
- PROP. STORM SEWER AND MANHOLE
- EX. CATCH BASIN
- ➔ OVERLAND FLOW ROUTE

13286 NUNNVILLE ROAD

SCHAEFFERS
CONSULTING ENGINEERS
6 Ronrose Drive, Concord, Ontario L4K 4R3
Tel: (905) 738-6100 Email: general@schaeffers.com

www.schaeffers.com

LEGEND AS SHOWN ABOVE

FIGURE 4.2
PROPOSED DRAINAGE PLAN

5519 JANUARY 2025 SCALE: N.T.S.

5.0 GROUNDWATER & FOUNDATION DRAINAGE

Hydrogeological assessment is currently underway and the findings will be included in future submissions.

6.0 SUMMARY

This document has provided detailed information on the functional servicing for the subject site, indicating the City/Regional criteria are met.

- Water supply for the proposed development will be provided by the future 200 mm diameter watermain on Nunnville Road, which is planned to be installed by the neighboring development (13290 Nunnville Road).
- Sanitary servicing for the proposed development will be provided by the 250mm diameter sanitary sewer on Nunnville Road.
- A stormwater management plan can be implemented to meet quantity, water balance and quality requirements. On-site controls are provided to ensure the actual release rates are within the allowable release rates to Nunnville Road and the western woodlot. Quantity control is achieved by underground storm sewer system. Quality control is achieved by Jellyfish unit upstream of the control manhole. Water balance requirements are met via the implementation of infiltration trenches. Details of the stormwater management system will be finalized during the detailed design of the Site Plan Application stage.
- Hydrogeological assessment is currently underway and the findings will be included in future submissions.

We trust the above information is suitable for your needs at this time. Should you have any questions or comments, please do not hesitate to contact the undersigned.

Sincerely,

SCHAEFFER & ASSOCIATES LTD.

Hagop Sarkissian, P. Eng.
Partner

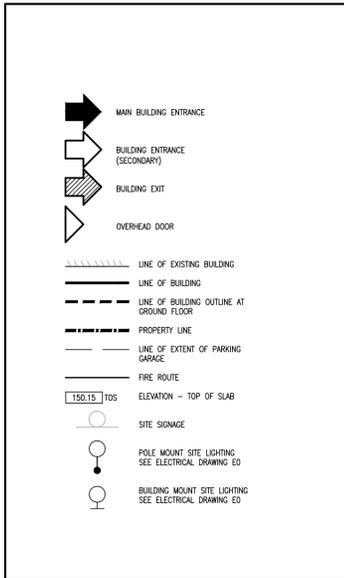


Debbie

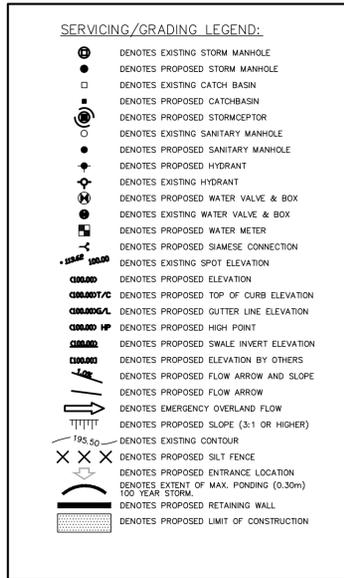
Debbie Wong
Civil Designer

APPENDIX A

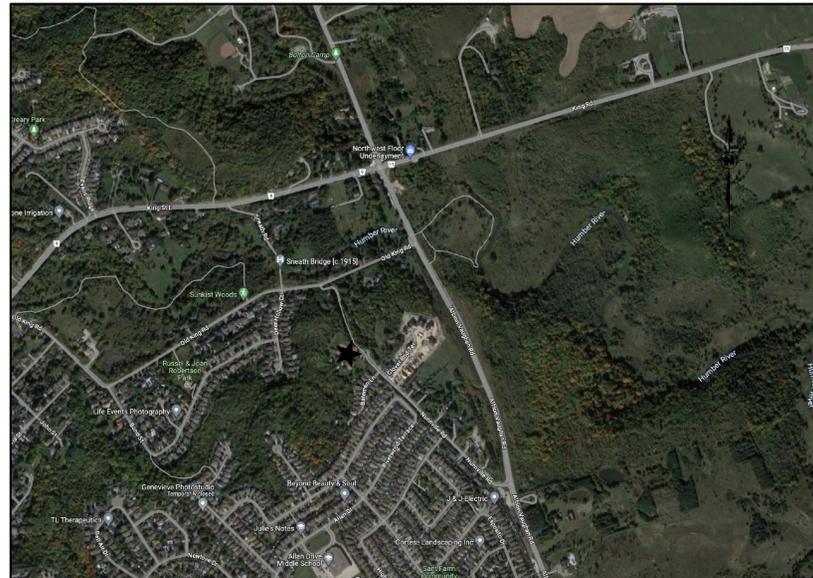
BACKGROUND INFORMATION



5 Legend
A101 SCALE: N.T.S.



4 Survey Information
A101 SCALE: N.T.S.



BUILDING 1

LOT NO.	LOT AREA (SQ. M)	BLDG G.F.A. (SQ. M)	LOT COVERAGE (SQ. M)	LOT COVERAGE (%)	FINISH FLOOR ELEVATION
1	245.45	158.76	77.76	31.68	246.55
2	173.00	158.76	77.76	44.95	246.55
3	173.00	158.76	77.76	44.95	247.00
4	173.00	158.76	77.76	44.95	247.00
5	173.00	158.76	77.76	44.95	247.65
6	173.00	158.76	77.76	44.95	247.65
7	205.16	158.76	77.76	37.90	247.65
TOTAL	1,118.61	1,111.32	644.32	41.37	

BUILDING 2

LOT NO.	LOT AREA (SQ. M)	BLDG G.F.A. (SQ. M)	LOT COVERAGE (SQ. M)	LOT COVERAGE (%)	
8	228.86	159.00	78.00	34.08	248.45
9	200.00	159.00	78.00	39.00	248.45
10	208.34	159.00	78.00	37.44	248.45
11	206.05	159.00	78.00	37.80	248.45
12	233.21	159.00	78.00	33.45	248.45
TOTAL	1,076.46	795.00	396.00	36.23	

BUILDING 3

LOT NO.	LOT AREA (SQ. M)	BLDG G.F.A. (SQ. M)	LOT COVERAGE (SQ. M)	LOT COVERAGE (%)	
13	216.91	159.00	78.00	35.95	248.45
14	172.07	159.00	78.00	45.33	248.45
15	173.60	166.00	81.50	46.87	249.55
16	218.38	166.00	81.50	37.32	249.55
TOTAL	781.26	640.00	319.00	40.83	

BUILDING 4

LOT NO.	LOT AREA (SQ. M)	BLDG G.F.A. (SQ. M)	LOT COVERAGE (SQ. M)	LOT COVERAGE (%)	
17	205.52	171.84	84.55	41.14	249.00
18	178.63	171.84	84.55	47.33	249.00
19	181.90	171.84	84.55	46.48	248.20
20	185.16	171.84	84.55	45.69	248.20
21	188.42	171.84	84.55	44.87	247.85
22	191.69	171.84	84.55	44.11	247.85
TOTAL	1,131.32	1,031.84	507.30	44.84	

2 Statistics
A101 SCALE: N.T.S.

OVERALL SITE STATISTICS

SITE AREA	14,104.41 SQ. M (1.41 ha)
MIN. LOT AREA	172.07 SQ. M
TOTAL BUILDING AREA	3,987.36 SQ. M
MAX. LOT COVERAGE	46.87%
MIN. LOT WIDTH	6.00 M
MIN. LOT DEPTH	25.97 M
PARKING	44 RESIDENCE PARKING (1 INTERNAL & 1 EXTERNAL) 0 (ZERO) VISITOR PARKING (ON-SITE)

REVISION RECORD

2025-12-18 ISSUED FOR RE-ZONING

ISSUE RECORD



Y ARCHITECTS
(t) 416 230 9130
(e) info@yarchitects.ca

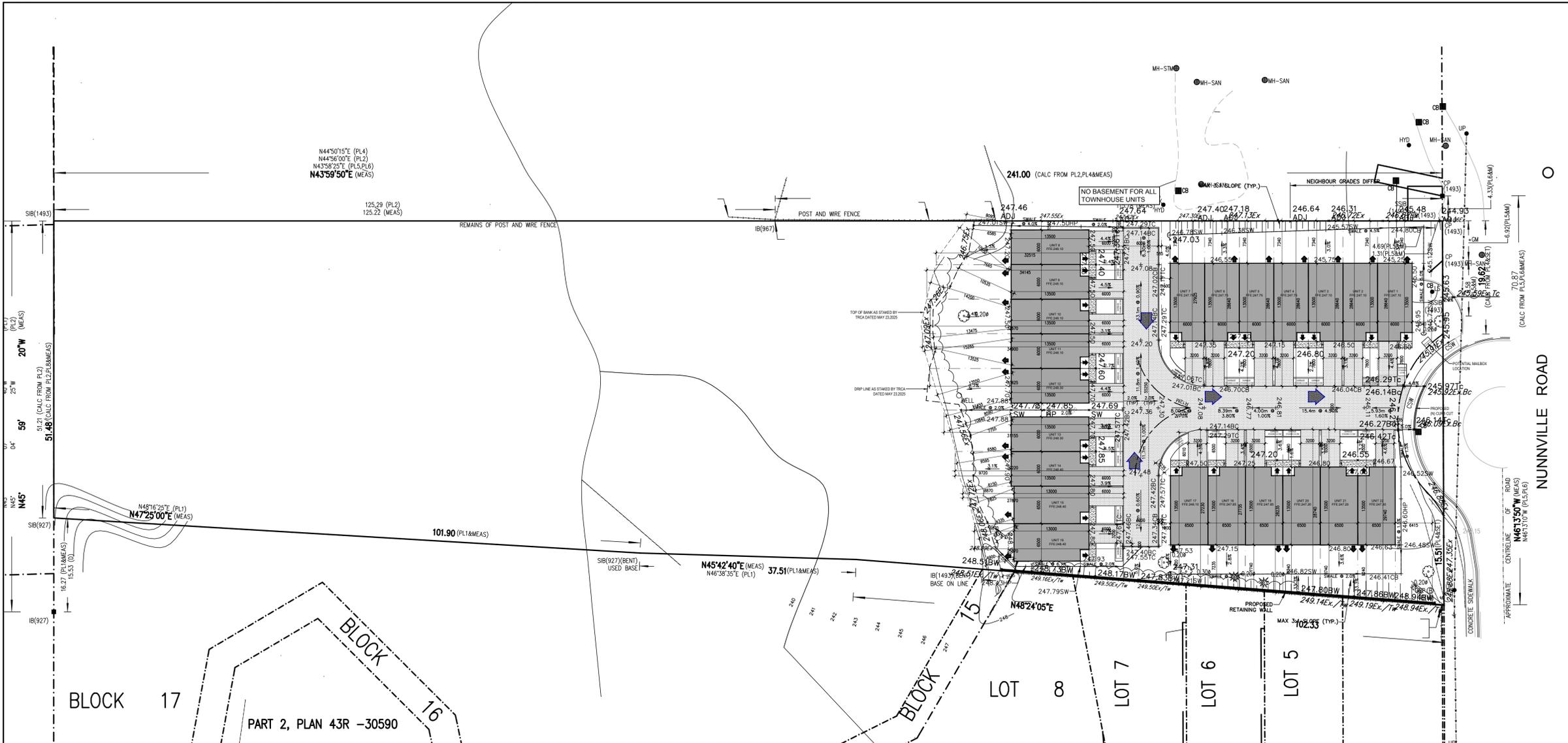
**PROPOSED RE-ZONING AT
13286 NUNNVILLE ROAD
BOLTON, ON**

23004 As Noted OY
PROJECT SCALE DRAWN REVIEWED

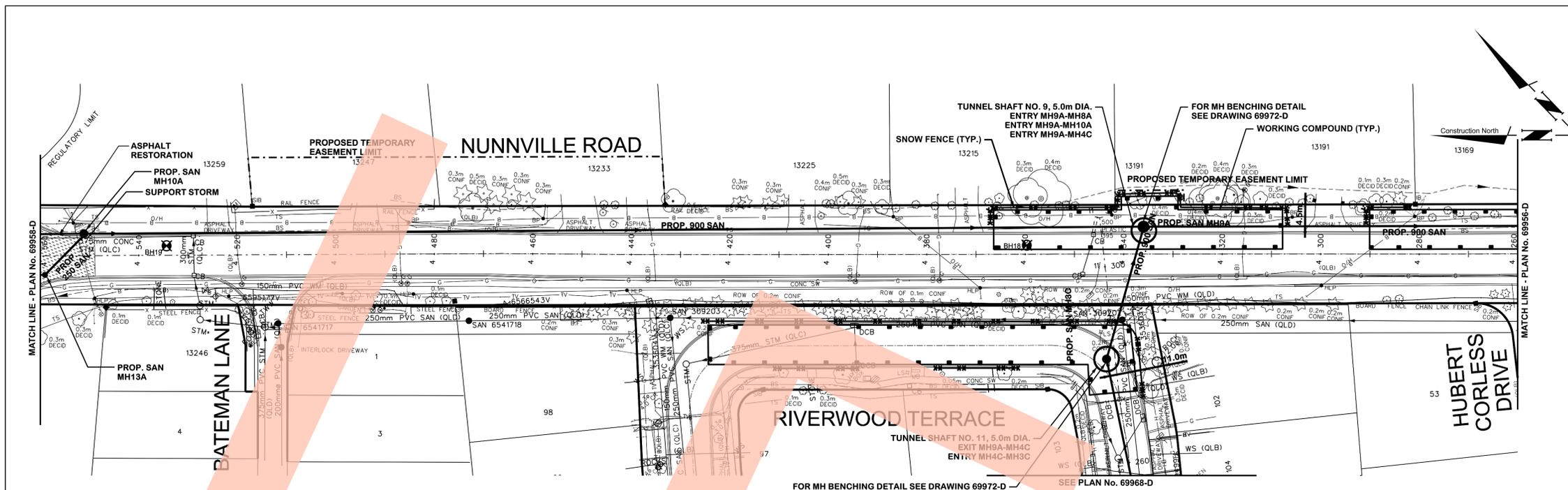
SITE PLAN

A101

Note: This drawing is the property of the Architect and may not be reproduced or used without the expressed consent of the Architect. The Contractor is responsible for checking and verifying all levels and dimensions and shall report all discrepancies to the Architect and obtain clarification prior to commencing work.

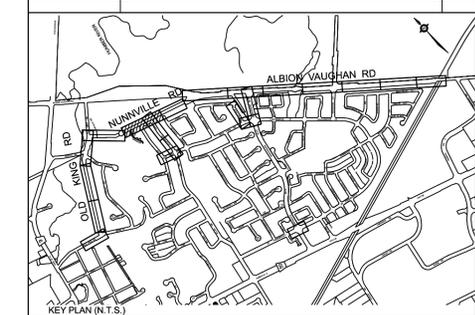


1 Site Plan
A101 SCALE: 1:400

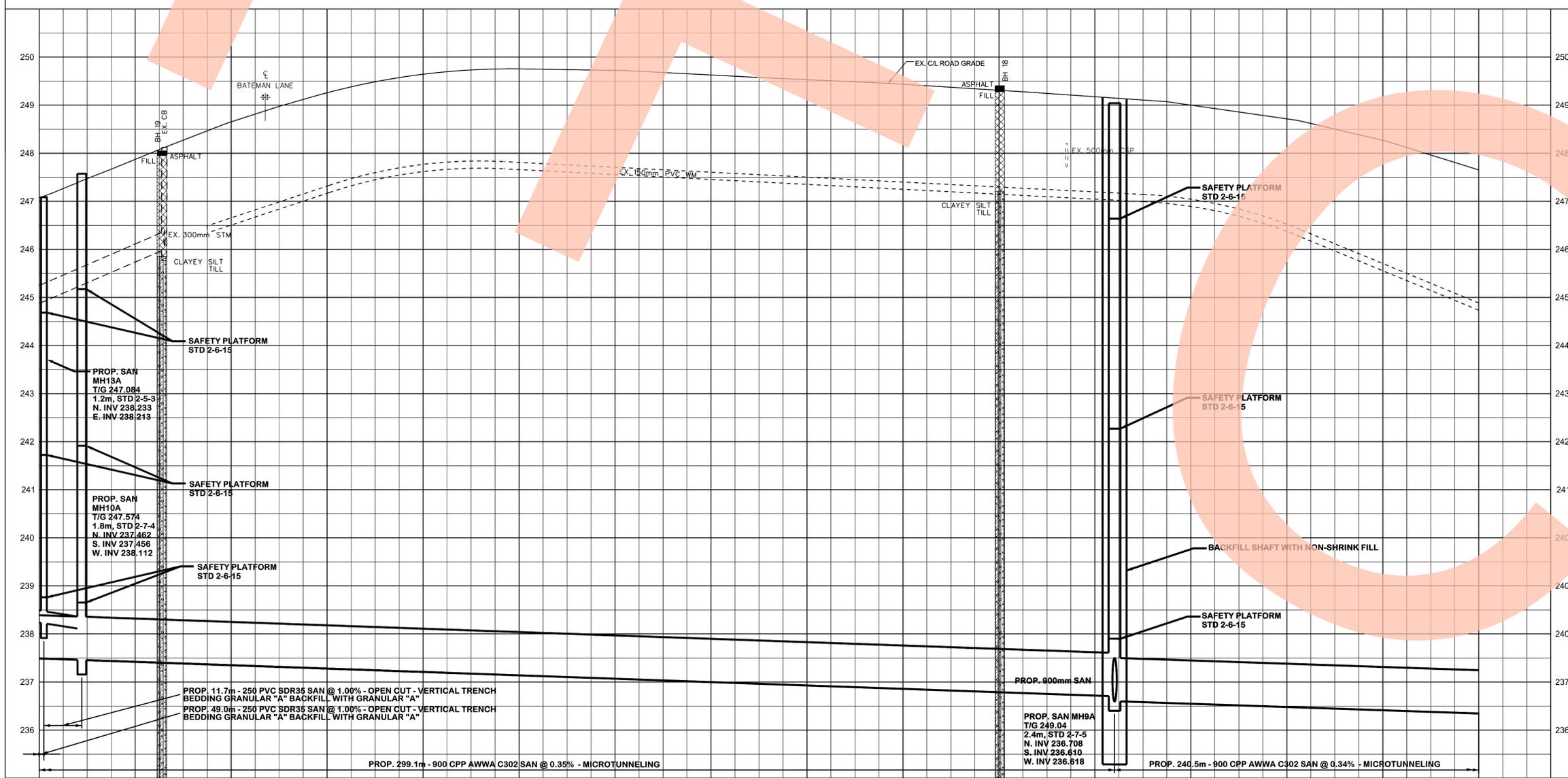


SERVICE DATA					
SERVICE	DATE	INIT.	SERVICE	DATE	INIT.
BELL	SEPT 24, 2021	S.I.	ZAYO	SEPT 24, 2021	S.I.
HYDRO ONE NETWORKS	SEPT 24, 2021	S.I.	TOWN OF CALEDON	SEPT 24, 2021	S.I.
HYDRO ONE TELECOM	SEPT 24, 2021	S.I.			
VIANET	SEPT 24, 2021	S.I.			
ENBRIDGE	SEPT 24, 2021	S.I.			
ROGERS	SEPT 24, 2021	S.I.			

REVISIONS		
DATE	DETAILS	INIT.
FEBRUARY 2022	ISSUED FOR CONSTRUCTION	S.K.



Chisholm, Fleming and Associates
consulting engineers



General Notes
 All Driveways Are ASPHALT Unless Otherwise Noted
 All Water And Sanitary Service Locations Are Approximate And Must Be Located Accurately In The Field
 All Horizontal And Vertical Bends Are In Degrees
 All Pipes Size In mm
 20C Existing Water Service, Size In mm
 WS25 Proposed Water Service, Size In mm
 B.M. No. 37 Elev. 227.187m
 Description
 Location: North face at the east corner of a red insul. brick house # 11970 located on the west side of Highway 50 approx. 0.30 km south of Mayfield Road
 The Contractor Is Responsible For Locating And Protecting All Existing Utilities Prior To And During Construction. Location Of Existing Utilities Approximate Only, To Be Verified In Field By Contractor.



Designed by: Chkd. Approved by:

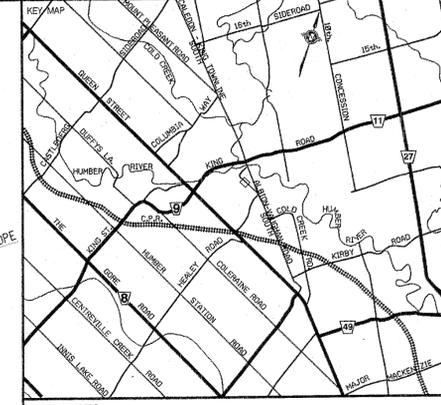
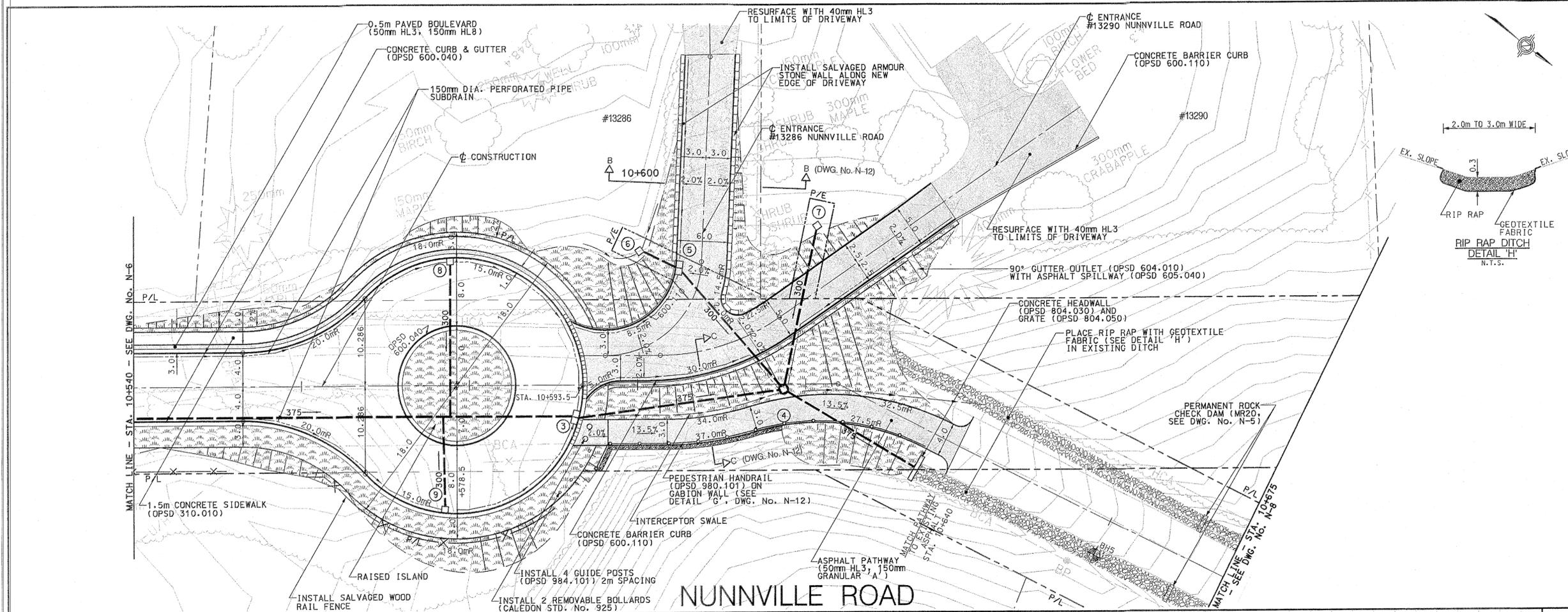
NOTICE TO CONTRACTOR
 48 HOURS PRIOR TO COMMENCING WORK NOTIFY THE FOLLOWING
 THE REGIONAL MUNICIPALITY OF PEEL
 TOWNSHIP OF KING WORKS DEPT.
 BELL CANADA
 ENBRIDGE INCORPORATED-GAS DISTRIBUTION
 ALECTRA UTILITIES
 HYDRO ONE NETWORKS
 CABLE TELEVISION/FIBROPTIC PROVIDERS:
 BELL CANADA
 HYDRO ONE
 ROGERS CABLE
 GROUP TELECOM



NUNNVILLE ROAD
 (FROM ALBION VAUGHAN ROAD TO OLD KING ROAD)
PROP. 900mm DIA. SANITARY TRUNK SEWER
PROP. 250mm DIA. SANITARY SEWER
 STA. 4+260 TO STA. 4+560

247.07	247.87	248.65	249.26	249.64	249.75	249.72	249.63	249.53	249.44	249.31	249.18	249.00	248.71	248.27	247.65	EX. ROAD ELEV.
4+560	4+540	4+520	4+500	4+480	4+460	4+440	4+420	4+400	4+380	4+360	4+340	4+320	4+300	4+280	4+260	ROAD CHAINAGE

CAD Area	Area	C-01/ C-11	Project No.	12-2210,17-2280,17-2192,18-2286
Checked by	N.M.	Drawn by	S.K.	Plan No.
Date	JULY 2018	Sheet	10 of 64	69957-D



GENERAL NOTES
 1. SEE DWG. No. N-11 FOR MANHOLE, CATCHBASIN AND SEWER DATA.

CONSTRUCTION RECORD DRAWING
 CONTRACTOR FERMAR PAVING LIMITED
 WORK COMMENCED JULY 2004
 WORK COMPLETED JULY 2006
 These record drawings have been prepared based on information submitted in part by others. While this information is believed to be reliable, RLR is not responsible for its accuracy or for errors or omissions that may have been incorporated into this document as a result.

THESE DESIGN DOCUMENTS ARE PREPARED SOLELY FOR THE USE BY THE PARTY WITH WHOM THE DESIGN PROFESSIONAL HAS ENTERED INTO A CONTRACT AND THERE ARE NO REPRESENTATIONS OF ANY KIND MADE BY THE DESIGN PROFESSIONAL TO ANY PARTY WITH WHOM THE DESIGN PROFESSIONAL HAS NOT ENTERED INTO A CONTRACT.

THE LOCATION OF UTILITIES IS APPROXIMATE ONLY AND THE EXACT LOCATION SHOULD BE DETERMINED BY CONSULTING THE MUNICIPAL AUTHORITIES AND UTILITY COMPANIES CONCERNED. THE CONTRACTOR SHALL PROVE THE LOCATION OF UTILITIES AND SHALL BE RESPONSIBLE FOR ADEQUATE PROTECTION FROM DAMAGE.

NO.	BY	DATE	REVISION	CONS. CHECKED	TOWN APPR'D
1	RLR	JULY 2006	CONSTRUCTION RECORD DRAWINGS	RLR	

APPROVED FOR CONSTRUCTION
 THIS APPROVAL CONSTITUTES A GENERAL REVIEW AND DOES NOT CERTIFY DIMENSIONAL ACCURACY.
 THIS APPROVAL IS SUBJECT TO THE FURTHER CERTIFICATION OF THE "AS CONSTRUCTED" WORKS BY A REGISTERED PROFESSIONAL ENGINEER OF THE PROVINCE OF ONTARIO.
 DATE: _____ APPROVED BY: _____
 Town Engineer

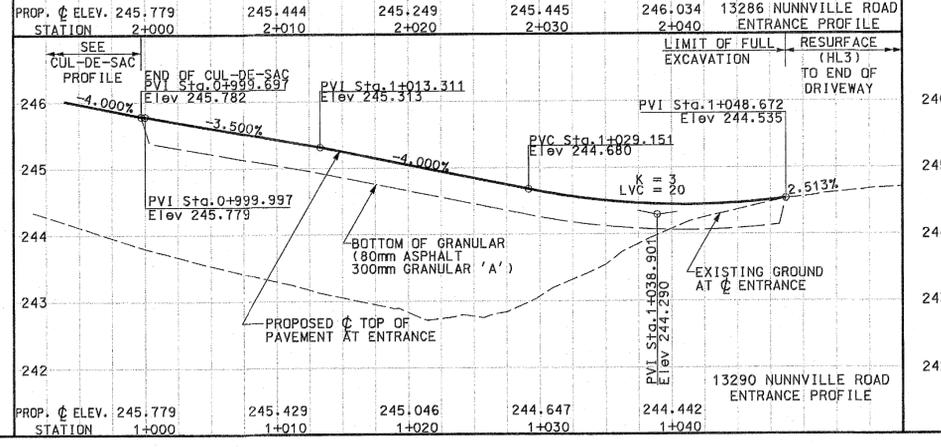
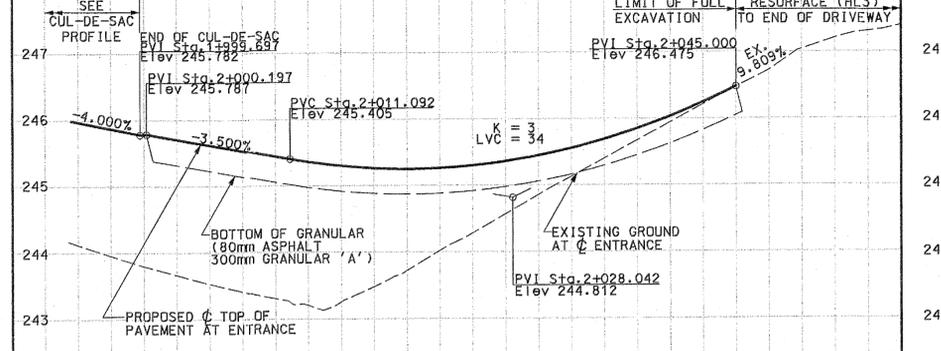
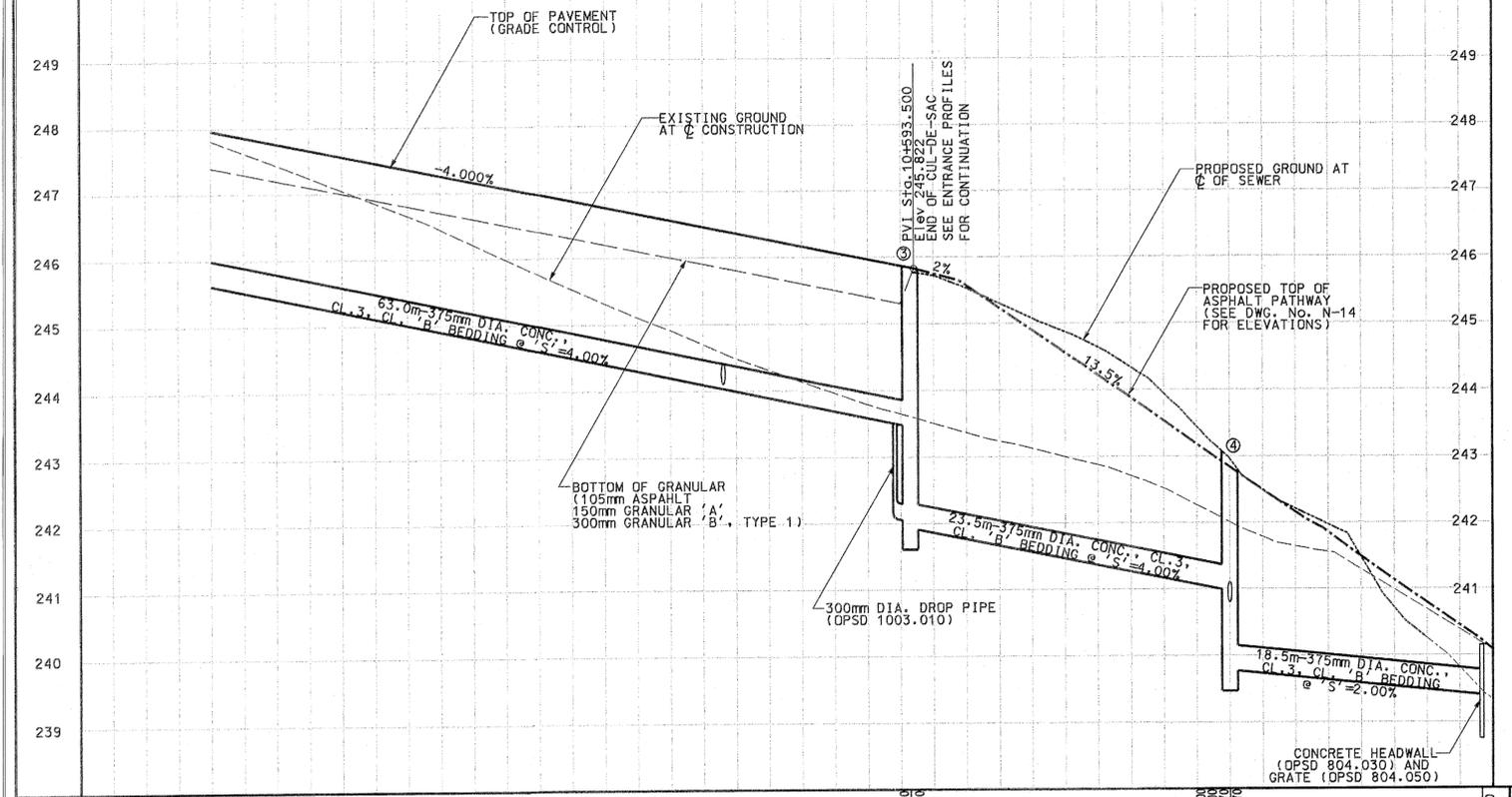
BENCH MARK: _____



PROJECT NAME
NUNNVILLE ROAD OLD KING ROAD CONSTRUCTION
 CONSULTANT
MCCORMICK RANKIN CORPORATION

IN THE REGION OF PEEL

TOWN OF CALEDON
NUNNVILLE ROAD
GRADING, PAVEMENT & DRAINAGE
 STA. 10+450 TO STA. 10+675



STORM INVERT	PROPOSED @ ROAD GRADES	EXISTING @ ROAD GRADES	CHAINAGE
S. 245.488 W. 241.510	10+540 247.81 10+560 246.21 10+580 244.48 10+600 243.24	10+540 247.81 10+560 246.21 10+580 244.48 10+600 243.24	10+540 247.81 10+560 246.21 10+580 244.48 10+600 243.24
S. 246.808 W. 240.800 S. 240.870 W. 238.770	10+620 241.79	10+620 241.79	10+620 241.79
OUTLET 238.400			

SCALE: HORZ. 1:250	VERT. 1:50	CONTRACT No. 04-01
DESIGNED BY: B.T.	DRAWN BY: A.K.S.	DRAWING No. N-7 of N-22
CHECKED BY: RLR	DATE: APRIL 2004	

DATE: 14/11/2007

APPENDIX B

WATER SUPPLY CALCULATIONS

WATER DEMAND

Municipality: Region of Peel
Project Address: 13286 Nunnville Road
Project No. 2024-5519
Completed By: D.W.
Checked By: H.S.
Date: 2025-11-28



FUS Fire Flow: 14,000 L/minute
FUS Fire Flow: 233 L/s
Average Demand: 270 L/cap/day
Maximum Day Factor: 1.8
Peak Hour Factor: 3.0

Tenue Type	Population	Average Demand (L/s)	Max Day Demand (L/s)	Peak Hour Demand (L/s)	Fire Flow (L/s)	Max Day Demand + Fire Flow (L/s)
Townhouse	75	0.23	0.42	0.70	233.33	233.76

FIRE UNDERWRITERS SURVEY CALCULATION - TOWNHOUSE UNIT 1-7

Municipality: Region of Peel
 Project Address: 13286 Nunnville Road
 Project No. 2024-5519
 Completed By: D.W.
 Checked By: H.S.
 Date: 2025-11-28



SCHAEFFERS
 CONSULTING ENGINEERS
 SCHAEFFER & ASSOCIATES LTD.

A = Type of Construction

Type of Construction:	C	Description
Wood Frame	1.5	(essentially all combustible)
Ordinary	1	(brick/masonry walls, combustible interior)
Non-Combustible	0.8	(unprotected metal structure, masonry/metal walls)
Fire-Resistive	0.6	(fully protected frame, roof, floors)

Construction Coefficient:	1.5
----------------------------------	------------

D = Fire Flow (000's)

GFA	1,111	square metres
Construction Type	1.5	
Fire Flow	10,999	L/min

Fire Flow	11,000	L/min
------------------	---------------	-------

E = Occupancy Factor

Fire Hazard of Contents	Charge
Non-Combustible	-25%
Limited Combustible	-15%
Combustible	0%
Free Burning	15%
Rapid Burning	25%

Occupancy Factor	-15%	
Fire Flow	9,350	L/min

F = Sprinkler Factor

Sprinkler System	Charge
n/a	0%
NFPA 13 System	-30%
Fully Supervised System	-50%

Sprinkler Factor:	0%
--------------------------	-----------

G = Exposure Factor

Separation	Charge	
0 to 3 m	25%	North: 8.8 m
3.1 to 10 m	20%	East: > 30 m
10.1 to 20 m	15%	South : 21.8 m
20.1 to 30 m	10%	West: 14.1 m
Greater than 30 m	0%	

Exposure Factor	45%	(no more than 75%)
------------------------	------------	--------------------

H - Net Fire Flow Required

F + G Factors	45%
----------------------	------------

Calculated Fire Flow:	13558	L/min
Fire Flow:	14000	L/min (round to the nearest 1000th)
Fire Flow:	233	L/s

FIRE UNDERWRITERS SURVEY CALCULATION - TOWNHOUSE UNIT 8-12

Municipality: Region of Peel
 Project Address: 13286 Nunnville Road
 Project No. 2024-5519
 Completed By: D.W.
 Checked By: H.S.
 Date: 2025-11-28



SCHAEFFERS
 CONSULTING ENGINEERS
 SCHAEFFER & ASSOCIATES LTD.

A = Type of Construction

Type of Construction:	C	Description
Wood Frame	1.5	(essentially all combustible)
Ordinary	1	(brick/masonry walls, combustible interior)
Non-Combustible	0.8	(unprotected metal structure, masonry/metal walls)
Fire-Resistive	0.6	(fully protected frame, roof, floors)

Construction Coefficient:	1.5
---------------------------	-----

D = Fire Flow (000's)

GFA	795	square metres
Construction Type	1.5	
Fire Flow	9,305	L/min

Fire Flow	9,000	L/min
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E = Occupancy Factor

Fire Hazard of Contents	Charge
Non-Combustible	-25%
Limited Combustible	-15%
Combustible	0%
Free Burning	15%
Rapid Burning	25%

Occupancy Factor	-15%	
Fire Flow	7,650	L/min

F = Sprinkler Factor

Sprinkler System	Charge
n/a	0%
NFPA 13 System	-30%
Fully Supervised System	-50%

Sprinkler Factor:	0%
-------------------	----

G = Exposure Factor

Separation	Charge	
0 to 3 m	25%	North: 3.6 m
3.1 to 10 m	20%	East: 14.1 m
10.1 to 20 m	15%	South: 2.4 m
20.1 to 30 m	10%	West: > 30 m
Greater than 30 m	0%	

Exposure Factor	60%	(no more than 75%)
-----------------	-----	--------------------

H - Net Fire Flow Required

F + G Factors	60%
---------------	-----

Calculated Fire Flow:	12240	L/min
Fire Flow:	12000	L/min (round to the nearest 1000th)
Fire Flow:	200	L/s

FIRE UNDERWRITERS SURVEY CALCULATION - TOWNHOUSE UNIT 13-16

Municipality: Region of Peel
 Project Address: 13286 Nunnville Road
 Project No. 2024-5519
 Completed By: D.W.
 Checked By: H.S.
 Date: 2025-11-28



SCHAEFFERS
 CONSULTING ENGINEERS
 SCHAEFFER & ASSOCIATES LTD.

A = Type of Construction

Type of Construction:	C	Description
Wood Frame	1.5	(essentially all combustible)
Ordinary	1	(brick/masonry walls, combustible interior)
Non-Combustible	0.8	(unprotected metal structure, masonry/metal walls)
Fire-Resistive	0.6	(fully protected frame, roof, floors)

Construction Coefficient:	1.5
---------------------------	-----

D = Fire Flow (000's)

GFA	650	square metres
Construction Type	1.5	
Fire Flow	8,413	L/min

Fire Flow	8,000	L/min
-----------	-------	-------

E = Occupancy Factor

Fire Hazard of Contents	Charge
Non-Combustible	-25%
Limited Combustible	-15%
Combustible	0%
Free Burning	15%
Rapid Burning	25%

Occupancy Factor	-15%	
Fire Flow	6,800	L/min

F = Sprinkler Factor

Sprinkler System	Charge
n/a	0%
NFPA 13 System	-30%
Fully Supervised System	-50%

Sprinkler Factor:	0%
-------------------	----

G = Exposure Factor

Separation	Charge	
0 to 3 m	25%	North: 2.4 m
3.1 to 10 m	20%	East: 14.1 m
10.1 to 20 m	15%	South: 9 m
20.1 to 30 m	10%	West: > 30 m
Greater than 30 m	0%	

Exposure Factor	60%	(no more than 75%)
-----------------	-----	--------------------

H - Net Fire Flow Required

F + G Factors	60%
---------------	-----

Calculated Fire Flow:	10880	L/min
Fire Flow:	11000	L/min (round to the nearest 1000th)
Fire Flow:	183	L/s

FIRE UNDERWRITERS SURVEY CALCULATION - TOWNHOUSE UNIT 17-22

Municipality: Region of Peel
Project Address: 13286 Nunnville Road
Project No. 2024-5519
Completed By: D.W.
Checked By: H.S.
Date: 2025-11-28



SCHAEFFERS
CONSULTING ENGINEERS
SCHAEFFER & ASSOCIATES LTD.

A = Type of Construction

Type of Construction:	C	Description
Wood Frame	1.5	(essentially all combustible)
Ordinary	1	(brick/masonry walls, combustible interior)
Non-Combustible	0.8	(unprotected metal structure, masonry/metal walls)
Fire-Resistive	0.6	(fully protected frame, roof, floors)

Construction Coefficient:	1.5
---------------------------	-----

D = Fire Flow (000's)

GFA	1031	square metres
Construction Type	1.5	
Fire Flow	10,596	L/min

Fire Flow	11,000	L/min
-----------	--------	-------

E = Occupancy Factor

Fire Hazard of Contents	Charge
Non-Combustible	-25%
Limited Combustible	-15%
Combustible	0%
Free Burning	15%
Rapid Burning	25%

Occupancy Factor	-15%	
Fire Flow	9,350	L/min

F = Sprinkler Factor

Sprinkler System	Charge
n/a	0%
NFPA 13 System	-30%
Fully Supervised System	-50%

Sprinkler Factor:	0%
-------------------	----

G = Exposure Factor

Separation	Charge	
0 to 3 m	25%	North: 21.8 m
3.1 to 10 m	20%	East: > 30 m
10.1 to 20 m	15%	South: 14.7 m
20.1 to 30 m	10%	West: 14.1 m
Greater than 30 m	0%	

Exposure Factor	40%	(no more than 75%)
-----------------	-----	--------------------

H - Net Fire Flow Required

F + G Factors	40%
---------------	-----

Calculated Fire Flow:	13090	L/min
Fire Flow:	13000	L/min (round to the nearest 1000th)
Fire Flow:	217	L/s

Water and Wastewater Modelling Demand Table

Site Plan Applications

Version	Date	Description of Revision
1.0	January 10 2023	Posted to Peel Website
2.0	August 30 2024	Reflects 2023 Linear Wastewater Standards and ICI population estimates as per Peel 2020 DC background study

Introduction

Water and wastewater modelling may be required as a condition of the development approval process or prior to regional site servicing connection approval where intensification is proposed, where a possible increase in water demand or wastewater discharge is identified or where deemed necessary by Regional staff.

A completed table includes the Professional Engineer’s signature and stamp as well as a site servicing concept. The table will be deemed complete once all the information below is submitted and/or included. Modelling will commence once the information is deemed complete. All required calculations must be submitted with the completed demand table. The calculations shall be based on the specific development proposal.

Application Information

Application Number:	
Address:	
Consulting Engineer:	
Date Prepared:	

Population

Existing

		Units	Persons
1	Residential ³⁾		
2	Institutional/Employment ³⁾		
3	Total		

Proposed

			Units	Persons
4	Residential ¹⁾	singles/semis (4.2 ppu)		
5		Townhomes (3.4 ppu)		
6		Large apartments (>1 bedroom – 3.1 ppu)		
7		Small apartments (<=1 bedroom – 1.7 ppu)		
8		Total proposed residential		
9	Proposed Institutional ²⁾			
10	Proposed employment ³⁾			
11	Total Proposed			

Other

12	Existing gross floor area for commercial and/or retail (sqm)	
13	Proposed gross floor area for commercial and/or retail (sqm)	
14	Land area (ha)	

Water Connection

Hydrant flow test ⁴⁾

15	Location 1	
16	Location 2	

WATER AND WASTEWATER MODELLING DEMAND TABLE

		Pressure (kPa)	Flow (L/s)	Time
17	Minimum water pressure			
18	Maximum water pressure			

Water Demands (L/s)

		Use 1 ⁶⁾	Use 2 ⁶⁾	Use 3 ⁶⁾	Total
19	Existing fire flow ^{5) 8)}				
20	Proposed average day flow				
21	Proposed maximum day flow	0.42 L/s			
22	Proposed peak hour flow	0.70 L/s			
23	Proposed fire flow ⁵⁾				

Water calculations

Please use the following updated typical water demand criteria as per Peel's 2020 Development Charges background study.

Population Type	Unit	Average Consumption Rate	Max Day Factor	Peak Hour Factor
Residential	L/cap/d	270	1.8	3.0
Institutional/Commercial/ Industrial	L/emp/d	250	1.4	3.0

Wastewater Connection

Wastewater Effluent (L/s)

		Discharge location ⁷⁾	Flow
24	Existing effluent ⁸⁾		
25	Proposed effluent		
26	Proposed effluent		
27	Proposed effluent		
28	Proposed additional effluent ⁸⁾		
29	Other proposed effluent*		
30	Total proposed effluent		

*Please specify other proposed effluent (ex. occasional tank purges, off peak discharge, pool drainage)

--

Wastewater calculations

Please use the following updated daily per capita as per 2023 Peel Linear Wastewater Standards

Population Type	Unit	Average Day Demand	Min Peaking Factor	Max Peaking Factor	Inflow and Infiltration**
Residential	L/cap/d	290	2	4	0.26L/s/Ha
Non-residential	L/emp/d	270	2	4	0.26L/s/Ha

**For maintenance holes that are flood prone or located in low lying areas, an extra 0.28 L/s per maintenance hole may be added to the I&I calculation.

Notes

- 1) In accordance with Peel Linear Wastewater Standards and Region of Peel 2020 DC background Study
- 2) refer to Peel Linear Wastewater Standards
- 3) For the commercial and industrial design flow calculations, please refer to Schedule 8b on page A-9 of the Region of Peel 2020 DC background Study to determine population.
- 4) Please include the graphs associated with the hydrant flow test data. Hydrant flow tests should be performed within 2 years of submission to the Region. The Region will not permit hydrant flow tests during the winter, please contact Region Water Operations for scheduling. The Region reserves the right to request an updated hydrant flow test as required at any time.
- 5) Please reference the Fire Underwriters Survey Document
- 6) Please identify the flows for each use type, **if applicable**
- 7) Please include drainage plan for multiple discharge locations
- 8) For Intensification, sites with additions to buildings or additional buildings please provide existing flow for existing buildings and the added flows for the new proposal, **if applicable**

APPENDIX C

SANITARY SERVICING CALCULATIONS

EXISTING SANITARY DEMAND

Municipality: Region of Peel
Project Address: 13286 Nunnville Road
Project No. 2024-5519
Completed By: D.W.
Checked By: D.W.
Date: 2025-01-15



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SCHAEFFER & ASSOCIATES LTD.

Average Flow Calculation

Tenue Type	No. of Unit	Population *	Average Flow (L/s) **
Single Family	1	5	0.02

* Based on population density of 4.2 person/unit

** Based on daily sanitary flow of 290 L/cap/day

Peak Flow Calculation

Average Flow (L/s)	Population	M *	Site Area (ha)	Infiltration (L/s) **	Peak Flow (L/s)
0.02	5	4.0	1.39	0.36	0.43

* $M = 1 + 14 / (4 + (P/1000)^{0.5})$; M max = 4.0; M min = 2.0

** Based on infiltration flow rate of 0.26 L/s/ha

PROPOSED SANITARY DEMAND

Municipality: Region of Peel
Project Address: 13286 Nunnville Road
Project No. 2024-5519
Completed By: D.W.
Checked By: H.S.
Date: 2025-11-28



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CONSULTING ENGINEERS
SCHAEFFER & ASSOCIATES LTD.

Average Flow Calculation

Tenue Type	No. of Unit	Population	Average Flow (L/s) *
Townhouse	22	75	0.25

* Based on daily sanitary flow of 290 L/cap/day

Peak Flow Calculation

Average Flow (L/s)	Population	M *	Developable Area (ha)	Infiltration (L/s) **	Peak Flow (L/s)
0.25	75	4.0	0.51	0.13	1.14

* $M = 1 + 14 / (4 + (P/1000)^{0.5})$; M max = 4.0; M min = 2.0

** Based on infiltration flow rate of 0.26 L/s/ha

APPENDIX D

STORMWATER MANAGEMENT CALCULATIONS

PRE-DEVELOPMENT RUNOFF COEFFICIENT

Municipality: Town of Caledon, Municipality of Peel
Project Address: 13286 Nunnville Road
Project No. 5519
Completed By: D.W.
Checked By: H.S.
Date: 2025-12-09



SCHAEFFERS
CONSULTING ENGINEERS

SCHAEFFER & ASSOCIATES LTD.

DRAINAGE AREA - DRAINING TO NUNNVILLE ROAD

Type of Area	Area (ha)	Runoff Coeff.	A x C
Impervious	0.07	0.90	0.06
Pervious	0.24	0.25	0.06
Sub Total	0.31		0.12

Weighted Coefficient	0.39
-----------------------------	-------------

DRAINAGE AREA - DRAINING TO WESTERN WOODLOT

Type of Area	Area (ha)	Runoff Coeff.	A x C
Impervious	0.03	0.90	0.03
Pervious	0.17	0.25	0.04
Sub Total	0.20		0.07

Weighted Coefficient	0.35
-----------------------------	-------------

PRE-DEVELOPMENT RELEASE RATE

Municipality: Town of Caledon, Municipality of Peel
 Project Address: 13286 Nunnville Road
 Project No. 5519
 Completed By: D.W.
 Checked By: H.S.
 Date: 2025-11-28



SCHAEFFERS
 CONSULTING ENGINEERS
 SCHAEFFER & ASSOCIATES LTD.

Town of Caledon IDF Curves

RAINFALL INTENSITY

Design Storm Event	A	B	C	I (mm/hr)
2-Year	1070	0.8759	7.85	85.718
5-Year	1593	0.8789	11	109.677
10-Year	2221	0.9080	12	134.162
25-Year	3158	0.9335	15	156.471
50-Year	3886	0.9495	16	176.192
100-Year	4688	0.9624	17	196.536

$$I = A / (T + C)^B$$

Time of Concentration (min) = 10

EXISTING PEAK DISCHARGE RATE FROM INTERNAL DRAINAGE AREA TO NUNNVILLE ROAD

Weighted Runoff Coefficient, C	0.39	
Drainage Area	0.31	ha
2-Year Peak Flow, Q_2	29.3	L/s
5-Year Peak Flow, Q_5	37.4	L/s
10-Year Peak Flow, Q_{10}	45.8	L/s
25-Year Peak Flow, Q_{25}	53.4	L/s
50-Year Peak Flow, Q_{50}	60.1	L/s
100-Year Peak Flow, Q_{100}	67.1	L/s

EXISTING PEAK DISCHARGE RATE FROM INTERNAL DRAINAGE AREA TO WESTERN WOODLOT

Weighted Runoff Coefficient, C	0.35	
Drainage Area	0.20	ha
2-Year Peak Flow, Q_2	16.8	L/s
5-Year Peak Flow, Q_5	21.5	L/s
10-Year Peak Flow, Q_{10}	26.4	L/s
25-Year Peak Flow, Q_{25}	30.7	L/s
50-Year Peak Flow, Q_{50}	34.6	L/s
100-Year Peak Flow, Q_{100}	38.6	L/s

POST-DEVELOPMENT RUNOFF COEFFICIENT

Municipality: Town of Caledon, Municipality of Peel
Project Address: 13286 Nunnville Road
Project No. 5519
Completed By: D.W.
Checked By: H.S.
Date: 2025-12-09



SCHAEFFERS
CONSULTING ENGINEERS
SCHAEFFER & ASSOCIATES LTD.

Controlled Internal Drainage Area to Nunnville Road

Type of Area	Area (ha)	Runoff Coeff.	A x C
Impervious	0.30	0.90	0.27
Pervious	0.12	0.25	0.03
Sub Total	0.42		0.30

Weighted Coefficient	0.71
-----------------------------	-------------

Uncontrolled Internal Drainage Area to Western Woodlot

Type of Area	Area (ha)	Runoff Coeff.*	A x C
Impervious	0.04	0.90	0.04
Pervious	0.05	0.25	0.01
Sub Total	0.09		0.05

Weighted Coefficient	0.53
-----------------------------	-------------

PROPOSED PEAK FLOW TO WESTERN WOODLOT

Weighted Runoff Coefficient, C	0.53	
Drainage Area	0.09	ha
2-Year Peak Flow, Q_2	11.9	L/s
5-Year Peak Flow, Q_5	15.2	L/s
10-Year Peak Flow, Q_{10}	18.6	L/s
25-Year Peak Flow, Q_{25}	21.7	L/s
50-Year Peak Flow, Q_{50}	24.5	L/s
100-Year Peak Flow, Q_{100}	27.3	L/s

Town of Caledon, Municipality of Peel
 Control Orifice Sizing - 2-Year

Project: 13286 Nunnville Road
 5519

Allowable Release Rate = 29.3 l/sec

Control Manhole Orifice(s) =

Orifice
 DIA (mm)= 117
 AREA m²= 0.011
 COEFF = 0.62
 GRAVITY = 9.81
 K = 1.0
 D/S HGL (m)= N/A
 Orifice Inv. (m)= 242.55

Effective Head (m)	Depth of Water (m)	Orifice	TOTAL FLOW	Elevation of Water (m)
		Qp m ³ /s	Qp m ³ /s	
0.00	0.059	0.0000	0.0000	242.61
1.000	1.059	0.0295	0.0295	243.61
1.200	1.259	0.0323	0.0323	243.81
1.500	1.559	0.0362	0.0362	244.11
0.980	1.039	0.0292	0.0292	243.59
1.700	1.759	0.0385	0.0385	244.31
1.900	1.958	0.0407	0.0407	244.51

ORIFICE FLOW Q(m³/s)= COEF*AREA*(2*GRAVITY*HEAD/K)^0.5
 WEIR FLOW Q(m³/s)= CLH^1.5 C=1.5

Town of Caledon, Municipality of Peel

Control Orifice Sizing - 5 to 100-Year

Project: 13286 Nunnville Road
5519

Allowable Release Rate = 37.4 l/sec

Control Manhole Orifice(s) =

Orifice

DIA (mm)= 117
 AREA m²= 0.011
 COEFF = 0.62

GRAVITY = 9.81
 K = 1.0
 D/S HGL (m)= N/A
 Orifice Inv. (m)= 242.55

Effective Head (m)	Depth of Water (m)	Orifice	TOTAL FLOW	Elevation of Water (m)
		Qp m ³ /s	Qp m ³ /s	
0.00	0.059	0.0000	0.0000	242.61
1.000	1.059	0.0295	0.0295	243.61
1.200	1.259	0.0323	0.0323	243.81
1.500	1.559	0.0362	0.0362	244.11
1.600	1.659	0.0373	0.0373	244.21
1.700	1.759	0.0385	0.0385	244.31
1.900	1.958	0.0407	0.0407	244.51

ORIFICE FLOW Q(m³/s)= COEF*AREA*(2*GRAVITY*HEAD/K)^0.5
 WEIR FLOW Q(m³/s)= CLH^1.5 C=1.5

STAGE STORAGE - 2-YEAR

Municipality: Town of Caledon, Municipality of Peel
 Project Address: 13286 Nunnville Road
 Project No. 5519
 Completed By: D.W.
 Checked By: H.S.
 Date: 2025-12-09



MODIFIED RATIONAL METHOD

Area (ha)	0.42
C	0.71
Allowable Release Rate (L/s)	29.3
Actual Release Rate (L/s)	29.2

Controlled Roof Flow (L/s)	0.0
Groundwater Allowance (L/s)	0.0

Town of Caledon: 2-Year Storm Event	
A	1070
B	0.8759
C	7.85

Time (min)	100-YEAR RAINFALL EVENT				Total Runoff Volume (m ³)	Max. Release Volume (m ³)	Req'd Storage Volume (m ³)
	Intensity 100-Year (mm/yr)	Surface Runoff (L/s)	Allowable G.W. (L/s)	Total Runoff (L/s)			
10	85.72	71.87	0.00	71.87	43.12	17.54	25.59
15	69.05	57.89	0.00	57.89	52.10	26.31	25.80
20	58.06	48.68	0.00	48.68	58.42	35.07	23.34
25	50.24	42.12	0.00	42.12	63.19	43.84	19.34
30	44.38	37.21	0.00	37.21	66.97	52.61	14.36
35	39.81	33.38	0.00	33.38	70.09	61.38	8.71
40	36.14	30.30	0.00	30.30	72.72	70.15	2.57
45	33.13	27.77	0.00	27.77	74.99	78.92	0.00
50	30.60	25.66	0.00	25.66	76.98	87.69	0.00
55	28.46	23.86	0.00	23.86	78.75	96.46	0.00
60	26.62	22.32	0.00	22.32	80.34	105.22	0.00
65	25.01	20.97	0.00	20.97	81.78	113.99	0.00
70	23.60	19.78	0.00	19.78	83.09	122.76	0.00
75	22.34	18.73	0.00	18.73	84.30	131.53	0.00
80	21.23	17.80	0.00	17.80	85.42	140.30	0.00
85	20.22	16.95	0.00	16.95	86.47	149.07	0.00
90	19.31	16.19	0.00	16.19	87.44	157.84	0.00
95	18.49	15.50	0.00	15.50	88.36	166.61	0.00
100	17.74	14.87	0.00	14.87	89.22	175.37	0.00
105	17.05	14.29	0.00	14.29	90.04	184.14	0.00
110	16.41	13.76	0.00	13.76	90.81	192.91	0.00
115	15.82	13.27	0.00	13.27	91.54	201.68	0.00
120	15.28	12.81	0.00	12.81	92.24	210.45	0.00
125	14.78	12.39	0.00	12.39	92.91	219.22	0.00

$I=A/(T+C)^B$

Required Storage (m³): 26.0

STAGE STORAGE - 5 to 100-YEAR

Municipality: Town of Caledon, Municipality of Peel
 Project Address: 13286 Nunnville Road
 Project No. 5519
 Completed By: D.W.
 Checked By: H.S.
 Date: 2025-12-09



MODIFIED RATIONAL METHOD

Area (ha)	0.42
C	0.71
Allowable Release Rate (L/s)	37.4
Actual Release Rate (L/s)	37.3

Controlled Roof Flow (L/s)	0.0
Groundwater Allowance (L/s)	0.0

Town of Caledon: 100-Year Storm Event	
A	4688
B	0.9624
C	17

Time (min)	100-YEAR RAINFALL EVENT				Total Runoff Volume (m ³)	Max. Release Volume (m ³)	Req'd Storage Volume (m ³)
	Intensity 100-Year (mm/yr)	Surface Runoff (L/s)	Allowable G.W. (L/s)	Total Runoff (L/s)			
10	196.54	164.79	0.00	164.79	98.87	22.41	76.46
15	166.89	139.93	0.00	139.93	125.94	33.61	92.32
20	145.13	121.68	0.00	121.68	146.02	44.82	101.20
25	128.46	107.71	0.00	107.71	161.56	56.02	105.54
30	115.28	96.66	0.00	96.66	173.99	67.23	106.76
35	104.59	87.70	0.00	87.70	184.17	78.43	105.74
40	95.75	80.28	0.00	80.28	192.68	89.63	103.04
45	88.31	74.04	0.00	74.04	199.91	100.84	99.07
50	81.95	68.72	0.00	68.72	206.15	112.04	94.10
55	76.47	64.12	0.00	64.12	211.59	123.25	88.34
60	71.69	60.11	0.00	60.11	216.38	134.45	81.93
65	67.47	56.57	0.00	56.57	220.64	145.66	74.98
70	63.74	53.44	0.00	53.44	224.45	156.86	67.59
75	60.40	50.64	0.00	50.64	227.89	168.06	59.83
80	57.40	48.13	0.00	48.13	231.02	179.27	51.75
85	54.69	45.86	0.00	45.86	233.86	190.47	43.39
90	52.23	43.79	0.00	43.79	236.47	201.68	34.80
95	49.98	41.91	0.00	41.91	238.88	212.88	26.00
100	47.93	40.18	0.00	40.18	241.10	224.09	17.02
105	46.03	38.60	0.00	38.60	243.16	235.29	7.87
110	44.29	37.13	0.00	37.13	245.08	246.49	0.00
115	42.67	35.78	0.00	35.78	246.88	257.70	0.00
120	41.17	34.52	0.00	34.52	248.56	268.90	0.00
125	39.78	33.35	0.00	33.35	250.13	280.11	0.00

$$I=A/(T+C)^B$$

Required Storage (m³): 107.0

Provided Storage (m³): 113.8

WATER BALANCE

Municipality:

Project Address:

Project No.

Completed By:

Checked By:

Date:

Town of Caledon, Municipalit

13286 Nunnville Road

5519

D.W.

H.S.

2025-11-28



SCHAEFFERS
CONSULTING ENGINEERS

SCHAEFFER & ASSOCIATES LTD.

A = REQUIRED AVG. ANNUAL PRECIPITATION TO BE RETAINED ON SITE

5

mm

B = INITIAL ABSTRACTION

Site Features	Area	% of Site	Initial	Overall Site
Impervious	0.34	66.1%	0	0.00
Pervious	0.17	33.9%	5	1.69
Total	0.51	100.0%		1.69

Total

Deficit = A - B = 3.3 mm

Total Capture Over Entire Site Through the Surface = B x Area = 8.7 m³

Total Required Retention = A x Area = 25.7 m³

Total Required Volume for Rain Harvesting 17.0 m³

Infiltration Trench Sizing

Municipality: Town of Caledon, Municipality of Peel
 Project Name: 13286 Nunnville Road
 Project No. 5519
 Completed By: D.W.
 Checked By: H.S.
 Date: 2025-11-28



CVC & TRCA Low Impact Development Stormwater Planning & Design Manual
 Used to calculate maximum LID depth for infiltration (Pg 4-57)

$$d_{max} = \frac{i \times T}{V_r}$$

d_{max} = Maximum Stone Depth of Soakaway Pit/Infiltration Trench (mm)
 i = Infiltration Rate (mm/hr)
 T = Drawdown Time (48 hrs max.) (hr)
 V_r = Void Space Ratio (typically 0.40 for 50mm clear stone)

CVC & TRCA Low Impact Development Stormwater Planning & Design Manual
 Used to calculate the minimum footprint area for infiltration (Pg 4-58)

$$A = \frac{WQV}{d \times V_r}$$

where;

A = Bottom Area of Soakaway Pit/Infiltration Trench (m^2)
 WQV = Runoff Volume to be Infiltrated (m^3)
 d = Maximum Stone Depth of Soakaway Pit/Infiltration Trench (m)
 V_r = Void Space Ratio (typically 0.40 for 50mm clear stone)

Infiltration Trench ID	Stone Porosity	Runoff Volume for Infiltration ¹	Infiltration Rate	TRCA Safety Factor ³	Infiltration Rate ⁴	Required Drawdown Time ⁸	Maximum Allowable Trench Depth ⁵	Proposed Trench Depth ⁶	Minimum Footprint Area for Infiltration ⁷	Proposed Trench Area	Provided Volume
		(m^3)	(mm/hr)		(mm/hr)	(hr)	(m)	(m)	(m^2)	(m^2)	(m^3)
Storage Bed	0.40	17.0	15.00	2.50	6.0	48	0.72	0.60	70.7	101.4	24.3

Notes:

- 1 - Refer to page 1 calculation
- 2 - Remaining volume for infiltration after initial abstraction and retention tank volume, refer to Stormwater Retention & Initial Abstraction Volume Calculations
- 3 - Safety factor from TRCA Stormwater Management Criteria Appendix C: Water Balance and Recharge (Table C 3)
- 4 - Infiltration rate at base / safety factor
- 5 - Max depth for a 48 hour draw down time see equation above
- 6 - Proposed depth for soakaway pit/infiltration trench
- 7 - Minimum trench bottom area, see equation 4.3 above
- 8 - BMP desired drawdown time from TRCA Stormwater Management Criteria page C18

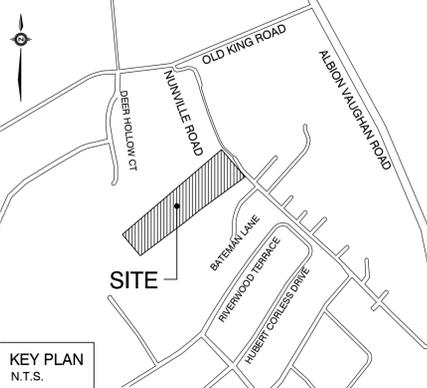
APPENDIX E

ENGINEERING DRAWINGS

SPECIAL NOTES FOR SIDEWALK/CONCRETE WALKWAYS AT BUILDING PERIMETER

- IN ORDER TO AVOID FROST HEAVING AND RELATED PROBLEMS, THE FOLLOWING SHALL BE STRICTLY IMPLEMENTED:
1. COMPACTION OF SUB-GRADE TO BE INSPECTED AND APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF THE GRANULAR BASE.
 2. DEPTH OF GRANULAR BASE TO BE INCREASED IF RECOMMENDED BY THE GEOTECHNICAL ENGINEER AFTER INSPECTION OF THE SUB-GRADE.
 3. SUB-DRAINS TO BE INSTALLED AROUND THE BUILDING WALL FOUNDATION. IF RECOMMENDED BY THE GEOTECHNICAL ENGINEER, ADDITIONAL SUB-DRAINS SHALL BE INSTALLED BELOW BARRIER CURBS. ALL SUB-DRAINS TO HAVE POSITIVE OUTLET TO STORM SEWERS.
 4. ALTERNATIVE SOLUTIONS ENDORSED BY THE GEOTECHNICAL ENGINEER MAY BE IMPLEMENTED.

REFER TO PROJECT No. 649-6278, REGION FILE 211-22003C
PREPARED BY CROZIER CONSULTING ENGINEERS DATED
NOV. 08, 2024 FOR ADJACENT BUILDING DEVELOPMENT.



- NOTES**
1. THE LOCATION OF ALL UNDERGROUND AND ABOVE GROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON CONTRACT DRAWINGS, AND WHERE SHOWN THE ACCURACY OF THE LOCATION AND ELEVATION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY EXACT LOCATION AND ELEVATION OF SUCH UTILITIES AND STRUCTURES AND SHALL ASSUME ALL LIABILITIES OF DAMAGE.
 2. ALL AREAS DISTURBED DURING CONSTRUCTION OF SEWERS AND WATERMAINS TO BE RESTORED TO ORIGINAL CONDITION OR BETTER, TO THE SATISFACTION OF THE TOWN OF CALEDON.

- LEGEND**
- DENOTES VALVE AND CHAMBER
 - DENOTES VALVE AND BOX
 - ⊕ DENOTES HYDRANTS
 - AD □ DENOTES AREA DRAINS
 - CB □ DENOTES CATCHBASINS
 - DENOTES STORM MANHOLE
 - DENOTES SANITARY MANHOLE
 - DENOTES PROPERTY LINE
 - - - DENOTES DEVELOPMENT LIMIT
 - DENOTES EXISTING OVERHEAD WIRE
 - + 131.4B DENOTES PROPOSED ELEVATION
 - + 131.48Tc DENOTES PROPOSED TOP OF CURB
 - + 131.48Bc DENOTES PROPOSED BOTTOM OF CURB
 - + 131.48SW DENOTES PROPOSED SLOPE
 - + 130.29Ex DENOTES EXISTING ELEVATION
 - + 131.48ADJ DENOTES FUTURE GRADE FROM ADJACENT SITE
 - ➔ DENOTES OVERLAND FLOW ARROW

NO.	DATE	ISSUED FOR
1	DEC. 22/25	ISSUED FOR ZBA

INTEGRATION NOTE
BEARINGS ARE UTM GRID, DERIVED FROM OBSERVED REFERENCE POINTS A AND B BY REAL TIME NETWORK (RTN), UTM ZONE 17, NAD 83(ORIGINAL).
ORP A NORTH 4 859 535.43 EAST 602 710.01
ORP B NORTH 4 859 662.76 EAST 602 925.45
COORDINATES ARE UTM ZONE 17, NAD 83(ORIGINAL), TO URBAN ACCURACY PER SEC. 14(2) OF O.REG. 216/10, AND CANNOT, IN THEMSELVES, BE USED TO RE-ESTABLISH CORNERS OR BOUNDARIES.

ELEVATION NOTE:
ELEVATIONS ARE SHOWN HEREIN ARE GEODETIC AND ARE DERIVED FROM GPS OBSERVATIONS.

Town of Caledon
APPROVED AS NOTED
This approval constitutes a general review and does not certify dimensional accuracy. This approval is subject to further certification of the "as constructed" works by a registered Professional Engineer of the Province of Ontario.
Date: _____
Approved By: _____

13286 NUNVILLE ROAD

SCHAEFFERS
CONSULTING ENGINEERS
6 Ronrose Drive, Concord, Ontario L4K 4R3
Tel: (905) 738-6100
Fax: (905) 738-6875
E-mail: design@schaeffers.com

Region of Peel
Working for you

TOWN OF CALEDON

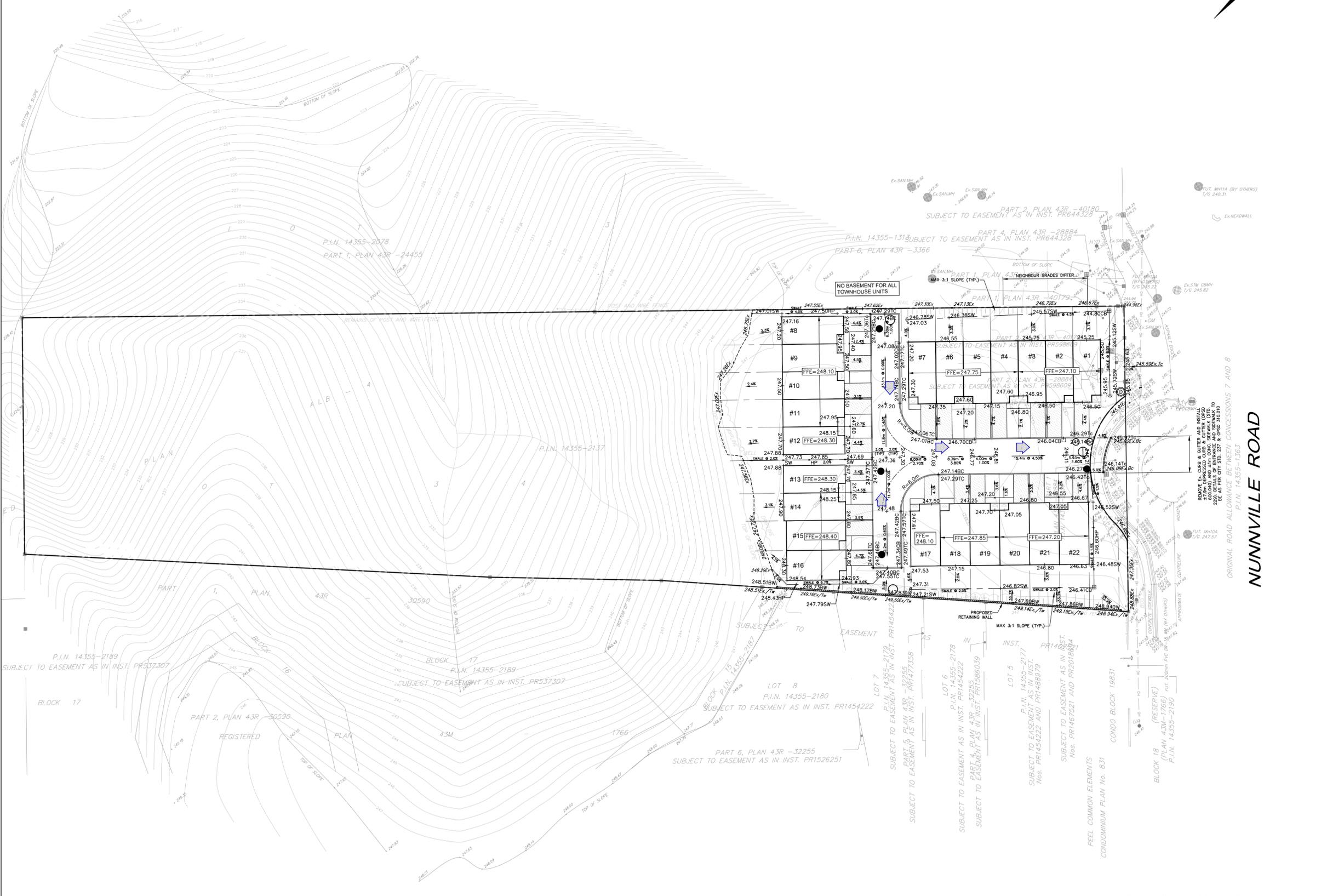
SITE GRADING PLAN

REGION FILE: _____ DART NUMBER: _____

SCALE: 1:400 PROJECT No. 2025-5519

DESIGNED BY: D.W. DRAWN BY: C.R. DRAWING No. SG-1

CHECKED BY: H.S. DATE: JAN. 2025



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REGION OF PEEL NOTES

- ALL MATERIALS AND CONSTRUCTION METHODS MUST CORRESPOND TO THE CURRENT PEEL PUBLIC WORKS STANDARDS AND APPLICATIONS.
- WATERMAIN AND/OR WATER SERVICE MATERIALS 100 MM (4") AND LARGER MUST BE DR 18 P.V.C. PIPE MANUFACTURED TO A.W.W.A. SPEC. C900-18 SPEC. COMPLETE WITH TRACER WIRE. SIZE 50 MM (2") AND SMALLER MUST BE TYPE 'K' SOFT COPPER PIPE PER A.S.T.M. B88-49 SPECIFICATION.
- WATERMANS AND/OR WATER SERVICES ARE TO HAVE A MINIMUM COVER OF 1.7 M (5'6") WITH A MINIMUM HORIZONTAL SPACING OF 1.2 M (4') FROM THEMSELVES AND ALL OTHER UTILITIES.
- PROVISIONS FOR FLUSHING WATER LINE PRIOR TO TESTING, ETC. MUST BE PROVIDED WITH AT LEAST A 50 MM (2") OUTLET ON 100 MM (4") AND LARGER LINES. COPPER LINES ARE TO HAVE FLUSHING POINTS AT THE END, THE SAME SIZE AS THE LINE. THEY MUST ALSO BE HOSED OR PIPED TO ALLOW THE WATER TO DRAIN ONTO A PARKING LOT OR DOWN A DRAIN. ON FIRE LINES, FLUSHING OUTLET TO BE 100 MM (4") DIAMETER MINIMUM ON A HYDRANT.
- ALL CURB STOPS TO BE 3.0 M (10') OFF THE FACE OF THE BUILDING UNLESS OTHERWISE NOTED.
- HYDRANT AND VALVE SET TO REGION STANDARD 1-6-1 DIMENSION A AND B, 0.7 M (2') AND 0.9 M (3') AND TO HAVE PUMPER NOZZLE.
- WATERMANS TO BE INSTALLED TO GRADES AS SHOWN ON APPROVED SITE PLAN. COPY OF GRADE SHEET MUST BE SUPPLIED TO INSPECTOR PRIOR TO COMMENCEMENT OF WORK, WHERE REQUESTED BY INSPECTOR.
- WATERMANS MUST HAVE A MINIMUM VERTICAL CLEARANCE OF 0.3 M (12") OVER 0.5 M (20") UNDER SEWERS AND ALL OTHER UTILITIES WHEN CROSSING.
- ALL PROPOSED WATER PIPING MUST BE ISOLATED FROM EXISTING LINES IN ORDER TO ALLOW INDEPENDENT PRESSURE TESTING AND CHLORINATING FROM EXISTING SYSTEMS.
- ALL LIVE TAPPING AND OPERATION OF REGION WATER VALVES SHALL BE ARRANGED THROUGH THE REGIONAL INSPECTOR ASSIGNED OR BY CONTACTING THE OPERATIONS AND MAINTENANCE DIVISION.
- LOCATION OF ALL EXISTING UTILITIES IN THE FIELD TO BE ESTABLISHED BY THE CONTRACTOR.
- THE CONTRACTOR(S) SHALL BE SOLELY RESPONSIBLE FOR LOCATES, EXPOSING, SUPPORTING AND PROTECTING OF ALL UNDERGROUND AND OVERHEAD UTILITIES AND STRUCTURES EXISTING AT THE TIME OF CONSTRUCTION IN THE AREA OF THEIR WORK WHETHER SHOWN ON THE PLANS OR NOT AND FOR ALL REPAIRS AND CONSEQUENCES RESULTING FROM DAMAGE TO SAME.
- THE CONTRACTOR(S) SHALL BE SOLELY RESPONSIBLE TO GIVE 72 HOURS WRITTEN NOTICE TO THE UTILITIES PRIOR TO CROSSING SUCH UTILITIES, FOR THE PURPOSE OF INSPECTION BY THE CONCERNED UTILITY. THIS INSPECTION WILL BE FOR THE DURATION OF THE CONSTRUCTION, WITH THE CONTRACTOR RESPONSIBLE FOR ALL COSTS ARISING FROM SUCH INSPECTION.
- ALL PROPOSED WATER PIPING MUST BE ISOLATED THROUGH A TEMPORARY CONNECTION THAT SHALL INCLUDE AN APPROPRIATE CROSS-CONNECTION CONTROL DEVICE, CONSISTENT WITH THE DEGREE OF HAZARD, FOR BACKFLOW PREVENTION OF THE ACTIVE DISTRIBUTION SYSTEM, CONFORMING TO REGION OF PEEL STANDARDS 1-7-7 OR 1-7-8.

PLUMBING NOTES:

- ALL INLET STRUCTURES SUCH AS AREA DRAINS SHOWN ON THE SITE SERVICING PLAN HAVE BEEN DESIGNED TO CAPTURE 100-YR RAINFALL EVENT WITH A 50% BLOCKAGE FACTOR.
- ALL AREA OR TRENCH DRAIN SPECIFICATIONS INCLUDED ON CIVIL DRAWINGS ARE FOR DESIGN AND REFERENCE PURPOSES ONLY. MECHANICAL TO SPECIFY THE FINAL MAKE AND MODEL OF THE DRAINS AS PART OF THE BUILDING PLUMBING DESIGN.
- ALL AREA DRAINS AND CATCHBASINS DENOTED AS "AD" AND "CB" SHALL BE CONNECTED TO SWM TANK VIA SEPARATE SUMP PUMP.
- ALL ROOF DRAINS SHALL BE SIZED AND SPECIFIED BY MECHANICAL AS PART OF THE BUILDING PLUMBING DESIGN. NO ROOF STORAGE OR FLOW CONTROLS SHALL BE ASSUMED UNLESS OTHERWISE NOTED ON THE SITE SERVICING PLAN.
- ALL ROOF DRAINS SHALL BE CONNECTED TO THE RW/RE-USE TANK. INTERNAL PLUMBING NETWORK TO BE DESIGNED BY MECHANICAL.
- SWM TANK TO DISCHARGE TO MUNICIPAL STORM SEWER BY GRAVITY UNLESS PUMP IS NOTED ON THE SITE SERVICING PLAN.
- BUILDING SANITARY AND STORM SYSTEMS MUST BE DESIGNED TO OPERATE UNDER SURCHARGE CONDITIONS. PIPE CONNECTIONS AND RESTRAINTS TO BE DESIGNED BY MECHANICAL.
- PRIVATE BACKFLOW PREVENTORS ARE RECOMMENDED WHEN CONNECTING TO A MUNICIPAL COMBINED SEWER.
- LANDSCAPE AND MECHANICAL CONSULTANTS TO ENSURE POSITIVE DRAINAGE IN ALL PATIOS, STAIRWELLS, OR LANDSCAPING FEATURES NOTED ON THEIR PLANS. DRAINAGE FROM THESE FEATURES SHALL BE COLLECTED AND CONNECTED TO THE SWM TANK VIA THE BUILDING PLUMBING SYSTEM DESIGNED AND SPECIFIED BY THE MECHANICAL CONSULTANT.
- LANDSCAPE AND MECHANICAL CONSULTANTS TO ENSURE THE BUILDING PLUMBING AND LANDSCAPING PLANS HAVE BEEN COORDINATED WITH THE CIVIL DRAWING PACKAGE.

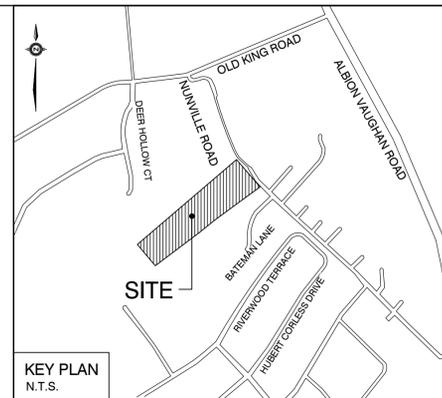
REFER TO PROJECT No. 649-6278, REGION FILE 21T-22003C PREPARED BY CROZIER CONSULTING ENGINEERS DATED NOV. 08 FOR ADJACENT BUILDING DEVELOPMENT.

LOCATIONS AND DIMENSIONS OF EXISTING UTILITIES ARE FOR REFERENCE ONLY AND MUST BE CONFIRMED ONCE SUE PLAN RECEIVED.

STORM MANHOLES				
NAME	ELEVATION	SIZE	SPECIFICATION	
CTRL.MH.1	T/G = 246.15 S INV IN = 242.46 SW INV OUT = 242.28 NE INV OUT = 242.23	1200mm	OPSD 701.010	
STM.MH.2 (JF)	T/G = 246.17 SW INV IN = 242.57 W INV OUT = 242.49 N INV OUT = 242.49	1800mm	OPSD 701.012	
STM.MH.3	T/G = 246.10 E INV IN = 242.46 NE INV OUT = 242.31	1200mm	OPSD 701.010	
STM.MH.4	T/G = 247.33 NW INV IN = 242.86 SE INV IN = 242.86 NE INV OUT = 242.78	1800mm	OPSD 701.012	
STM.MH.5	T/G = 247.11 NE INV IN = 243.09 SE INV OUT = 243.01	1800mm	OPSD 701.012	
STM.MH.6	T/G = 247.66 NE INV IN = 243.09 NW INV OUT = 243.01	1800mm	OPSD 701.012	

SANITARY MANHOLES				
NAME	ELEVATION	SIZE	SPECIFICATION	
CTRL.MH.1A	T/G = 246.25 SW INV IN = 241.55 NE INV OUT = 238.84	1200mm	ROP. STD 2-5-3	
SAN.MH.2A	T/G = 247.41 NW INV IN = 242.03 SE INV IN = 242.03 NE INV OUT = 242.00	1200mm	ROP. STD 2-5-3	
SAN.MH.3A	T/G = 247.14 SE INV OUT = 242.34	1200mm	ROP. STD. 2-5-3	
SAN.MH.4A	T/G = 247.45 NW INV OUT = 242.21	1200mm	ROP. STD 2-5-3	

CATCHBASINS				
NAME	ELEVATION	SIZE	SPECIFICATION	
RLCB.1	T/G = 244.80 SW INV OUT = 243.57	600x600mm	OPSD 705.010	
RLCB.2	T/G = 246.41 SW INV OUT = 243.53	600x600mm	OPSD 705.010	

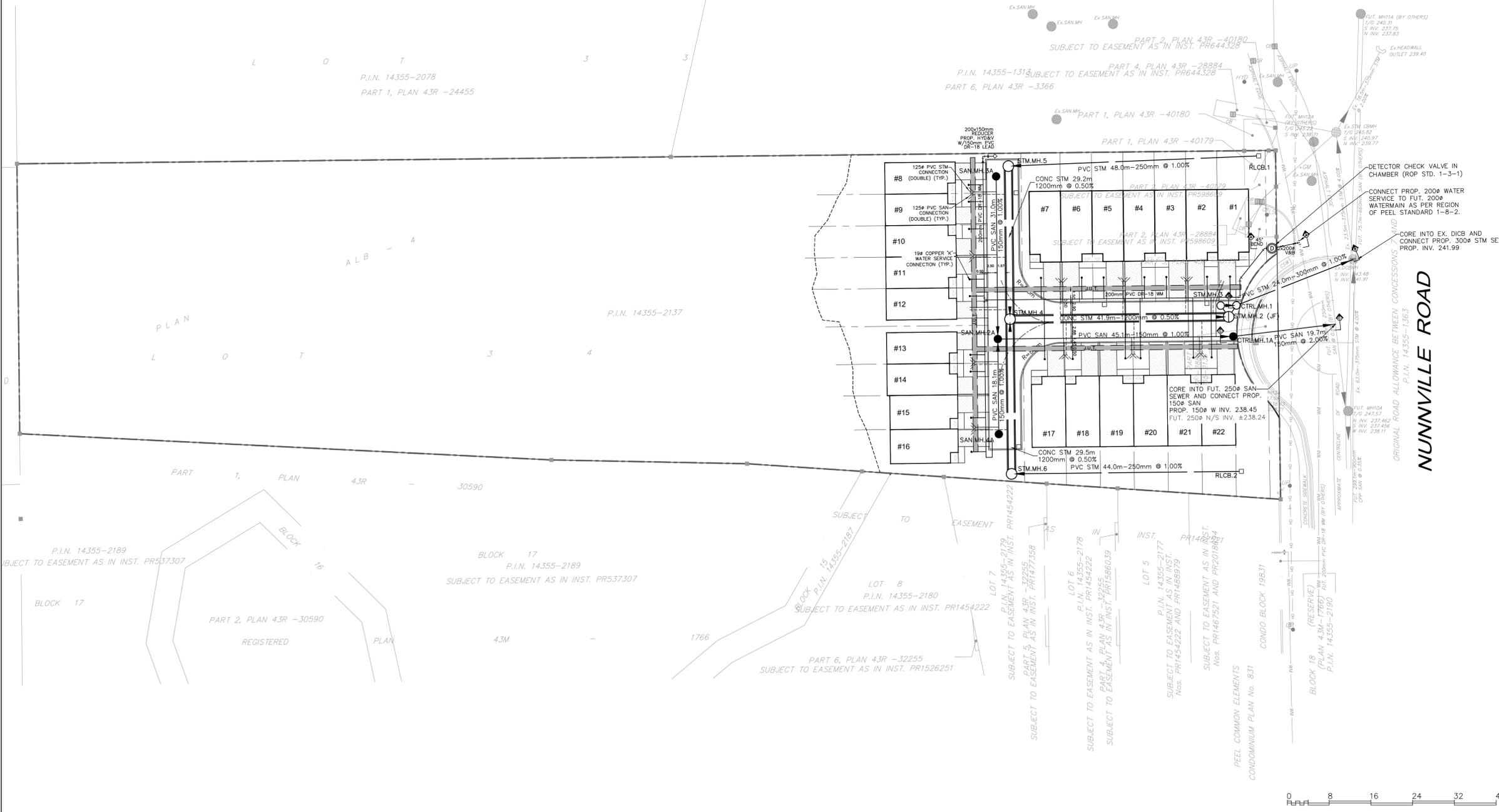


NOTES

- THE LOCATION OF ALL UNDERGROUND AND ABOVE GROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON CONTRACT DRAWINGS, AND WHERE SHOWN THE ACCURACY OF THE LOCATION AND ELEVATION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. PRIOR TO COMMENCING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY EXACT LOCATION AND ELEVATION OF SUCH UTILITIES AND STRUCTURES AND SHALL ASSUME ALL LIABILITIES OF DAMAGE.
- ALL AREAS DISTURBED DURING CONSTRUCTION OF SEWERS AND WATERMANS TO BE RESTORED TO ORIGINAL CONDITION OR BETTER, TO THE SATISFACTION OF THE TOWN OF CALEDON.

LEGEND

- DENOTES Ex. HYDRANT
- DENOTES Ex. SANITARY MANHOLE
- DENOTES Ex. STORM MANHOLE
- DENOTES CATCHBASIN
- DENOTES DOUBLE CATCHBASIN
- DENOTES STORM MANHOLE
- DENOTES SANITARY MANHOLE
- DENOTES VALVE & BOX
- DENOTES PROPERTY LINE
- DENOTES DEVELOPMENT LIMIT



NO.	DATE	ISSUED FOR
1	DEC. 22/25	ISSUED FOR ZBA

INTEGRATION NOTE
BEARINGS ARE UTM GRID, DERIVED FROM OBSERVED REFERENCE POINTS A AND B BY REAL TIME NETWORK (RTN), UTM ZONE 17, NAD 83 (ORIGINAL).
ORP A NORTH 4 859 535.43 EAST 602 710.01
ORP B NORTH 4 859 662.76 EAST 602 925.45
COORDINATES ARE UTM ZONE 17, NAD 83 (ORIGINAL), TO URBAN ACCURACY PER SEC. 14(2) OF O. REG. 216/10, AND CANNOT, IN THEMSELVES, BE USED TO RE-ESTABLISH CORNERS OR BOUNDARIES.

ELEVATION NOTE:
ELEVATIONS ARE SHOWN HEREIN ARE GEODETIC AND ARE DERIVED FROM GPS OBSERVATIONS.

Town of Caledon
APPROVED AS NOTED
This approval constitutes a general review and does not certify dimensional accuracy.
This approval is subject to further certification of the "as constructed" works by a registered Professional Engineer of the Province of Ontario.

Date: _____
Approved By: _____

13286 NUNVILLE ROAD

SCHAEFFERS
CONSULTING ENGINEERS

SCHAEFFER & ASSOCIATES LTD.

6 Ronrose Drive, Concord,
Ontario L4K 4R3
Tel: (905) 738-6100
Fax: (905) 738-6875
E-mail:
design@schaeffers.com

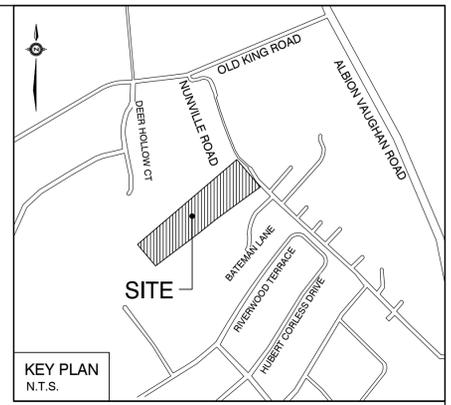
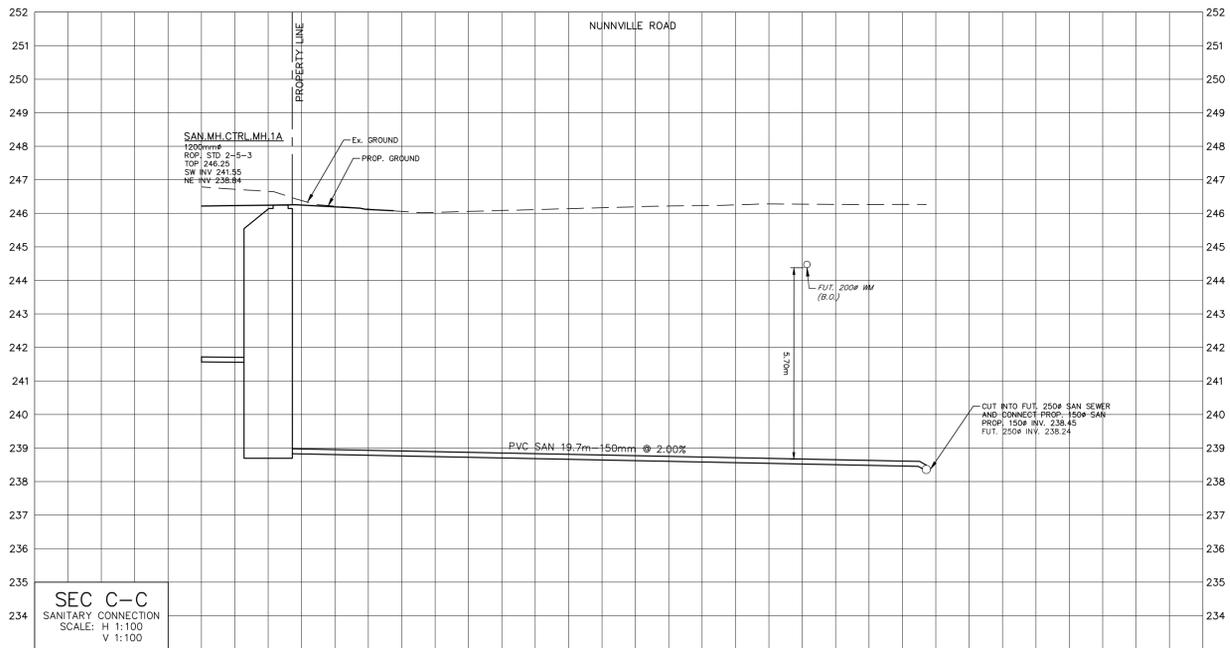
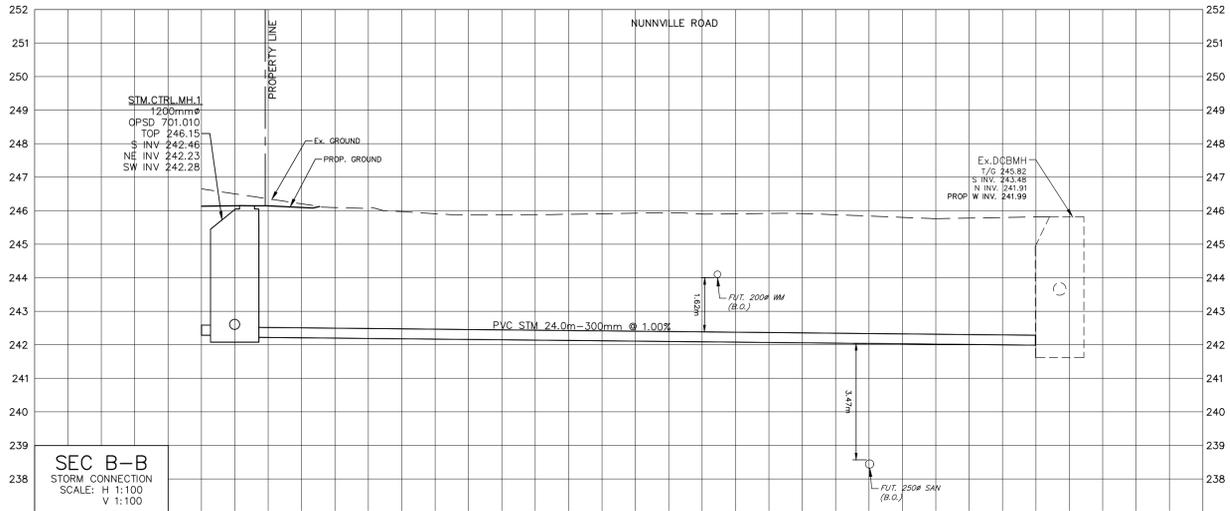
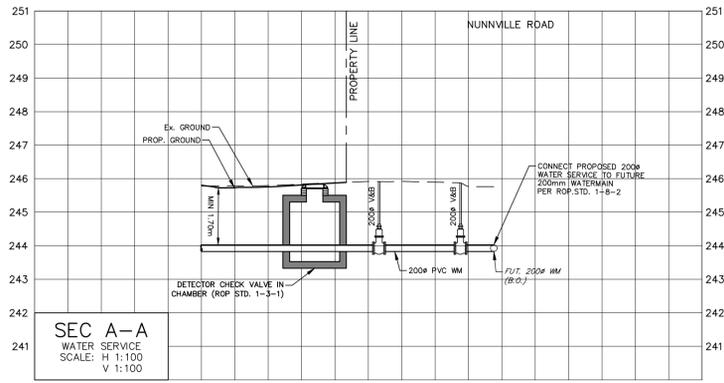
Region of Peel
Working for you

TOWN OF CALEDON

SITE SERVICING PLAN

REGION FILE:		DART NUMBER:	
SCALE: 1:400	DESIGNED BY: D.W.	DRAWN BY: C.R.	PROJECT No. 2025-5519
CHECKED BY: H.S.	DATE: JAN. 2025		DRAWING No. SS-1





NOTES

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LEGEND

NO.	DATE	ISSUED FOR
1	DEC. 22/25	ISSUED FOR ZBA

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SCHAEFFER & ASSOCIATES LTD.

6 Ronrose Drive, Concord,
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Tel: (905) 738-6100
Fax: (905) 738-6875
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design@schaeffers.com

Region of Peel
Working for you

TOWN OF CALEDON

SECTIONS	
REGION FILE:	DART NUMBER:
SCALE: AS SHOWN	PROJECT No. 2025-5519
DESIGNED BY: D.W.	DRAWN BY: C.R.
CHECKED BY: H.S.	DATE: JAN. 2025
	DRAWING No. SEC-1