Functional Servicing & Stormwater Management Report

For:

7335 Wellington Road 34

Township of Puslinch

County of Wellington

DRAFT

Submitted by:

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1.0 INTRODUCTION

Urbtech Engineering Inc. was retained by Shade Springs Inc. to prepare this Functional Servicing and Stormwater Management Report in support of the proposed industrial development located at 7335 Wellington Road 34 in the Township of Puslinch and County of Wellington.

This report was prepared as per the recommendation from the standards and other consultant's reports listed below:

- *Township of Puslinch Municipal Development Standards*
- *Erosion and Sediment Control Guideline for Urban Construction (ESCGUC)*
- *Topographical Survey prepared by J.D Barnes Limited completed on June 03, 2025*
- *Phase One and Two Environmental Site Assessment by Soil Mat*
- *Hydrogeology Investigation Report by Crozier, dated August 2025*
- *Ontario Building Code (OBC)*
- *Pre-Consultation Checklist & Preliminary Comments*

2.0 SITE LOCATION AND TOPOGRAPHY

The proposed site consists of approximately 40.26 hectares and is bounded by the Capitol Paving Inc site to the south, Concession Road 7 to the west, Wellington Road 34 to the north and agricultural lands to the east. Presently this site is an agricultural zone and will be rezoned into industrial.

The site drainage directions are from the north-east to south-west except for the westerly area draining to the existing wetland. The site consists of moderate to steep slopes, with a gradient between 1.8% to 6.4%.

Based on the Hydrogeology Investigation Report by Crozier, dated August 2025, the subsoil consists mostly of silty sand with moderate infiltration rates. The groundwater levels were observed to be between 1.41 mbgs to 6.55 mbgs.

3.0 STORMWATER DRAINAGE AND STORMWATER MANAGEMENT

3.1 GENERAL

In reviewing the Ontario Base maps and the GRCA maps. The site drainage was through the adjacent lands towards the Aberfoyle Creek tributary. However, at one point this drainage was cut off by the construction of the Capitol Paving Inc site. To maintain the drainage from these subject lands to the Aberfoyle Creek, Capitol Paving installed a 500mm diameter PVC across their site and connected downstream to the water filled gravel pit, which is adjacent to Aberfoyle Creek.

In current condition the area draining to this 500mm diameter PVC system is 15.40 ha, Area 101. Area 102 of 13.80 ha is draining overland to the Capitol Paving Inc lands. Area 103 of 0.91 ha is draining overland to the north/east existing residential, Area 104 of 0.66 ha is draining to Wellington Road 34 and Area 105 of 9.50 ha is draining to the wetland. Please refer to the Pre-development Drainage Plan.

In the proposed condition the site area of 28.10 ha (14.25ha area 201, 4.61ha area 202, 6.60ha area 203 and 2.47 area 204 SWM pond and landscaped area 206 of 0.17ha) will be draining to the proposed Stormwater Management Pond. There will be some small areas draining uncontrolled, landscaped area of 0.66 area 205 to the Capitol Paving, landscaped area 207 of 0.79 draining to the east, area 208 and 209 of 0.45ha draining to Wellington County RD 34 and area 210 of 2.59ha draining to Natural Environmental Area 211 of 7.67ha. It should be noted that the site drainage from areas 205, 207, 208 and 209 are uncontrolled, however have been accounted for in the proposed SWM Pond design.

Due to the capacity of the existing 500mm PVC pipe, the post development site flows from 28.10 ha will be controlled to the existing 500mm storm pipe capacity at inlet control of 0.55 m^3/s, based on MTO Design Chart 2.31.

Proposed Stormwater Quality and Quantity Pond Design Criteria

- Water Quality enhanced 80% long-term TSS removal
- Erosion Control, detention of 25mm storm event for 48 hours

- Quantity, control the post-development flows to the existing 500mm diameter storm capacity at inlet control with an additional storage allowance of 25% for climate change with the use of the City of Guelph IDF in the SWMHYMO model with 4hr Chicago

3.2 WATER QUALITY

The proposed quality pond sizing is as follows:

Permanent Storage Required

As per Table 3.2 of the Ministry of the Environment SWM Planning and Design Manual (copy attached in Appendix 'C') for a wet pond with enhanced 80% long-term S.S. removal and 85% Imperviousness, the required storage is:

Required storage volume = 250 m³/ha
Thus, the required storage volume = 250 m³/ha – 40 m³ = 210 m³/ha
Permanent storage required 210 m³/ha x 28.10 ha = **5,901 m³**

Active Storage Required

From the SWMHYMO files for the 25mm storm the required storage is **4,931 m³**. The storage volume provided in the Proposed Pond are shown in the Proposed Quality and Quantity Control Pond in Appendix 'C' and summarized in Table 3.2.1.

Table 3.2.1 Quality/Quantity Pond Summary

		Storage Required	Storage Provided
Forebay Bottom	315.20		
Pond Bottom	315.50		
Permanent Pool	316.40	5,901 m³	11,723 m³
Active Storage	317.00	4,931 m³	8.644 m³
Spillway	318.70		38,070 m³
Pond Top	319.00		43,921 m³

3.3 WATER QUANTITY

SWMHYMO model was used to generate the pre and post development flows and the output files are attached to this report in Appendix 'C' and results are summarized in the table below.

Table 3.3.1 Pre & Post-Development Flows 25mm Storm, 4hr Chicago to Capitol Paving

	Pre- dev. m^3/s Area 101 and 102	**Post-dev.** m^3/s Controlled from Pond	**Storage** m^3
25mm Storm	0.523	0.166	4,931
2 Year	0.957	0.177	7,572
5 Year	1.750	0.195	10,990
10 Year	2.436	0.211	13,400
25 Year	3.299	0.228	16,640
50 Year	4.076	0.311	18,840
100 Year	4.892	0.394	21,010
Spillway			38,070
Pond Top			43,921

As can be noted the post-development flows will be reduced substantially from the pre-development levels and the required storage increased by 25% for the 100-year storm. Therefore, the Town criteria have been met.

Table 3.3.2 Pre & Post-Development Flows 25mm Storm, 4hr Chicago to the East

	Pre- dev. m^3/s Area 103	**Post-dev.** m^3/s Area 207
2 Year	0.045	0.037
5 Year	0.080	0.052
10 Year	0.111	0.067
25 Year	0.147	0.084
50 Year	0.182	0.100
100 Year	0.217	0.119

Table 3.3.3 Pre & Post-Development Flows 25mm Storm, 4hr Chicago to the RD 34

	Pre- dev. m^3/s Area 104	**Post-dev.** m^3/s Area 208 and 209
2 Year	0.037	0.049
5 Year	0.065	0.068
10 Year	0.090	0.085
25 Year	0.119	0.101
50 Year	0.146	0.117
100 Year	0.175	0.134

Table 3.3.4 Pre & Post-Development Flows 25mm Storm, 4hr Chicago to Natural Area

	Pre- dev. m^3/s Area 105	**Post-dev.** m^3/s Area 210 and 211
2 Year	0.329	0.380
5 Year	0.600	0.685
10 Year	0.836	0.955
25 Year	1.130	1,283
50 Year	1.395	1.584
100 Year	1.674	1.901

3.4 SURFICIAL GEOLOGY

Based on the Hydrogeology Investigation Report by Crozier, dated August 2025, the subsoil consists mostly of silty sand with moderate infiltration rates. The groundwater levels were observed to be between 1.41 mbgs to 6.55 mbgs.

3.5 EROSION AND SEDIMENTATION CONTROL

Urban development increases peak runoff, flow velocities and affects the quality of the runoff.

This condition is most noticeable during the construction phase, when the vegetation cover is lessened. The exposed material can be eroded and carried into the receiving storm sewer.

3.5.1 SEDIMENT AND EROSION CONTROL DURING CONSTRUCTION

Prior to any construction works, a sediment fence and rock check dams in the exiting ditch along Wellington Road 34 and the exiting ditch within Capitol Paving Inc. lands will be installed. These sediment control devices will remain in place and will be replaced, if necessary, until all construction, grading and sodding is completed.

3.5.2 CONSTRUCTION SCHEDULE

- Prior to any construction activities, the sediment fence and rock check dams in the exiting ditch along Wellington Road 34 and the exiting ditch within Capitol Paving Inc lands and the construction access mud mat shall be installed.
- Then sediment basins shall be installed as shown on the Sediment Control Plan.
- Once the sediment devices are in place, the earth works, and the construction of the SWM Pond and underground services will commence
- During construction, erosion and sediment control measures should be inspected weekly at a minimum, after every rainfall and snow melt event and daily during extended rain or snow melt periods. During inactive periods, where the site is inactive for 30 days or longer, a monthly inspection of the sediment devices should be performed and the devices repaired if necessary
- After completion of the building, grading, sodding and asphalt, the sediment devices will be removed, and the disturbed area restored
- Schedule
  Initial Sediment Control Installation; Fall 2026
  Underground Servicing Operations; Fall/ Winter 2026
  Building Construction; Spring/Summer/Fall 2027
  Final Grading Operation; Fall 2027

3.5.3 SEDIMENT CONTROL INSPECTION AND MAINTENANCE

Sediment Fence

- Check for any loose ends and attach to the tee stakes or bury into the ground and/or place clear stone at the bottom of the fence as required

- Check for any damaged, broken fence and replace with new filter fabric, attach to the tee stakes and bury into the ground as required
- Check for sediment build up and clean if necessary

Construction Access Mud Mat

- Check for condition and if excessive build up of mud, scrape/remove stone as necessary and replace with new stone

Rock check dams

- Check for sediment build up and clean if necessary
- Check sediment protection condition, if damaged/repair and replace with new unit
- Remove sediment protection for the winter season
- In the spring, reinstall sediment protection

Sediment Trap

- Check for sediment build up and clean if necessary
- Check sediment protection condition, if damaged/repair and replace
- Check Rip Rap and replace if necessary

The erosion and sediment control measures should be inspected weekly, at a minimum, after every rainfall and snowmelt event and daily during extended rain or snow melt periods.

4.0 SANITARY SERVICING

There is no sanitary sewer infrastructure available for this site, therefore a septic system will be installed.

The expected sewage flows were based on the OBC Table 8.2.1.3B and is as follows:

Office 396 m^2 / 9.3 m^2 x 75 l/day = 3,194 l/day
Per loading bay 230 x 150 l/day = 34,500 l/day
Per water closet 16 x 950 = 15,200 l/day
Total 52894 l/day rounded off to 53,000 l/day

Septic tanks, as per OBC section 8.2.2.3 the tank should be size 3 times the daily sewage flows, so the tank will have to have a capacity of 159,000 l minimum and it will be constructed of 4 compartments of 50,000 l, totaling 200,000l and equipped with Grinder Pumps.

For this purpose, Waterloo Biofilter System is proposed, consisting of Anaerobic Digester Tanks, Pump Tank, Basket Biofilter Tanks, WaterNox-LS Tank and type A Dispersal Bed.

It should be noted that the Dispersal Bed will be located a minimum 20m away from the Natural Environment Area and a minimum 1.5 m above the high Ground Water Level. The schematic of the system is shown on the Servicing Plan S1.

Since the required septic system is in excess of 10,000 l/day it will require, MECP submission. The detailed design will be provided at the Site Plan stage and submitted to MECP.

5.0 WATER SUPPLY

For the design purposes, required sewage flows plus 10% has been used for the domestic water usage and there for:

Average Daily Demand 53,000 l//day + 10% = 58,300 l/day
Maximum Daily Demand 58,300 l/day x 2.75 = 160,325 l/day = 1.86 l/s
Maximum Hourly Demand 58,300 l/day x 4.13 = 240,779 l/day = 2.79 l/s

The domestic water system will be installed in the proposed building, and the details will be provided at the Site Plan stage.

Based on the Office of the Fire Marshall for Fire Protection Water Supply Guidelines for Part 3 of The Ontario Building Code, the following calculations can be used to determine the required fire flow:

$Q = KVS_{Tot}$ where Q = minimum supply of water (L)
K = water supply coefficient from Table
V = total building volume in cubic meters

S_{Tot} = total of spatial coefficients values from property line exposures on all sides obtained from the formula of $S_{Tot} = 1.0 + S1 + S2 + S3 + etc$

K = 18 based on Table 1 of Water supply coefficient

Building A, V = 443,250 m^3

Building B, V = 200,250 m^3

$S_{Tot} = 1+ 0.0 + 0.0 + 0.0 + 0 + 0 = 1$

$Q=18 * 200,250m^3 = 3,604,500 > 270,000$

Then the require fire flow rate is 150 l/s

Assume 2hr duration, then 150 l/s x 60 x 60 x 2 = 1,080,000 l = 1,080 m^3

Adding the emergency storage of 25%, therefore the total water storage required for fire protection will be 1,350 m^3.

For this purpose, 12 - 114,000 l Wilkinson water storge tanks are proposed for each building.

The tanks will be connected to the building roof to collect the storm water and for emergency purposes it will also be connected to the well in case of stormwater shortage.

A dry hydrant will be located at the front of the main entrance to the Building A and Building B and connected to the water tanks. The details of the system will be provided at the Ste Plan stage.

6.0 CONCLUSION

On the basis of the investigation and analysis carried out and identified in this report, the facilities to be provided meet the stormwater management and site servicing guidelines and requirements of The Township of Puslinch and MECP.

- The stormwater Management will be addressed via the Proposed Wet Pond; with the Water Quality enhanced 80% long-term TSS removal. Erosion Control, detention of 25mm storm event for 48 hours. Quantity, to control the post-development flows to the existing 500mm diameter storm capacity at inlet control with an additional storage allowance of 25% for climate change with the use of the City of Guelph IDF in the SWMHYMO model with 4hr Chicago.

- Erosion and sediment control during construction will be provided via sediment fence, rock check dams in the exiting ditches and construction mud mat.

- A sewage system consisting of a septic tanks and dispersal area will be designed at the Site Plan stage and submitted to MECP.

- The Domestic Water supply will be delivered from the site well. The design will be provided at the Site Plan stage.

- The fire water supply will be provided via underground storage tanks and dry hydrants; the detailed design will be provided at the Site Plan stage.

URBTECH ENGINEERING INC.



Andrzej Jaworski, P.Eng.
Consulting Engineer

APPENDIX A

Design Criteria

- Hydrogeology Investigation Report by Crozier

HYDROGEOLOGY INVESTIGATION REPORT
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PUSLINCH INDUSTRIAL
7335 WELLINGTON ROAD 34

TOWN OF PUSLINCH
WELLINGTON COUNTY

PREPARED FOR:

SHADE SPRINGS INC.

PREPARED BY:

C.F. CROZIER & ASSOCIATES INC.
GUELPH, ON N1H 7T8
55 WYNDHAM ST N, SUITE 215

AUGUST 2025

CFCA FILE NO. 2676-7116

The material in this report reflects best judgment in light of the information available at the time of preparation. Any use which a third party makes of this report, or any reliance on or decisions made based on it, are the responsibilities of such third parties. C.F. Crozier & Associates Inc. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

CROZIER

DRAFT

The surficial sediments within the Site area are mapped as ice-contact stratified deposits comprised of sand, gravel with minor silt, clay and till. Glaciofluvial deposits are mapped within the forested area of the Site (Figure 4).

The Site is located within an "area of potential karst" according to OGS resources. Karst is a landform feature formed by the dissolution of carbonate bedrock by water. In areas of thin or absent overburden material, exposures of dolostone and limestone can be weathered, and dissolution can occur, forming karstic features such as caves, springs, and sinkholes. The nearest occurrence of "known karst" is approximately 7 km southeast of the Site. However, since overburden thickness is greater than 1 m thick on the Site, significant karst formation on the property is not anticipated. Please note that a formal investigation for the presence of karst features on the property has not been completed and is outside the scope of this report.

2.3 Local Geology

A Geotechnical Investigation of the Site was conducted by Soil-Mat Engineers and Consultants Ltd. (Soil-Mat) in June 2024 to characterize the soil conditions and provide preliminary commentary on geotechnical elements influencing the design. A total of twelve (12) boreholes were advanced across the property in May 2024 to a maximum depth of 6.7 mbgs to understand the subsurface soil conditions. The following stratigraphy was encountered onsite:

2.3.1 Topsoil

Dark brown, topsoil was encountered at all borehole locations, ranging from 30 cm to 45 cm in thickness. The range in thickness of topsoil was interpreted to be varied due to the agricultural history of the Site. No fill material was observed beneath this layer.

2.3.2 Silty Sand/Silty Sand

Native silty sand to sandy silt was observed in all borehole locations beneath the topsoil layer to the maximum extent of exploration of 6.7 mbgs in most boreholes. At Borehole 1 (BH-1), sandy silt/silty sand extents to a depth of 3 mbgs. In general, the soils are described as brown with fine to coarse sandy seams and occasional cobble to boulder inclusions. The soil was generally dry to moist and loose to compact.

2.3.3 Silty Clay/Clayey Silt

Silty Clay to Clayey Silt was encountered from 3 mbgs to 6.7 mbgs at BH-1 only. This unit is described as grey, suggesting the soil holds water for a period of time.

For further details, please refer to the Geotechnical Investigation (Soil-Mat, 2024) submitted under separate cover. Borehole logs are appended to this report as Appendix A.

2.4 Hydrogeology

The Site is located within the Mill Creek Subwatershed of the greater Grand River Watershed. According to the Tier Three Water Budget and Local Area Risk Assessment Characterization report (Golder, 2022), the hydrostratigraphic system of the Guelph Area is comprised of thirteen (13) units. From youngest to oldest, the hydrostratigraphic units are described in Table 1.

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3.0 Field Work

The following sections outline the field work conducted by Crozier staff from summer 2024 to date. Please refer to Appendices A and C for borehole logs and water level hydrographs respectively.

3.1 Methodology

In summer 2024, Crozier inspected the four (4) monitoring wells installed by Soil-Mat in May 2024. The monitoring wells were noted to be in good condition and deemed to be usable for the hydrogeological study. The four (4) monitoring wells—MW1, MW3, MW4 and MW9—were installed as 2-inch monitoring wells with 10 ft No.18 well screens (Figure 6). All wells were screened within the sandy silt to silty sand unit with the exception of MW1 which was screened within clayey silt to silty clay.

Manual water levels were captured using a Solinst water level meter. Each monitoring well was also equipped with an automatic water level reader, set to measure water levels on an hourly basis. Localized groundwater sampling was conducted in August 2025; verified laboratory results are pending.

3.2 Results

Table 2 below shows the manual groundwater levels collected by Soil-Mat in 2024 and Crozier from Summer 2024 to date.

Table 2: Manual Groundwater Levels (2024 - 2025)

Well #	Soil-Mat		Crozier		
	May 2024	*June 2024*	*August 2024*	*November 2024*	*June 2025*
MW1	1.41	1.37	1.73	1.49	1.36
MW3	1.53	1.66	2.12	2.27	1.71
MW4	1.64	1.68	1.83	2.12	1.81
MW9	5.54	5.65	6.55	6.11	5.53

In general, groundwater levels on the property have ranged from 6.55 mbgs at MW9 in summer 2024 to 1.36 mbgs at MW1 during June 2025. From the hydrographs provided in Appendix C, peak groundwater levels onsite are observed in Spring (April/May) and were observed to be approximately 0.6 mbgs at MW1. Groundwater response to precipitation is minimal.

Groundwater is interpreted to flow from high to low, or from monitoring well MW9 to MW1 in a south/southwest direction.

4.0 Discussion

4.1 Seasonally High Groundwater Conditions

From the groundwater levels captured to date, it is interpreted that seasonally high groundwater conditions are experienced on site in the Spring following the freshet. Peak groundwater levels have been observed onsite at approximately 0.6 mbgs at MW1, 1.0 mbgs at MW3 and MW4, and 5.0 mbgs at MW9. Shallow groundwater does not appear to significantly fluctuate as a result of precipitation events and appears to be well draining. It is anticipated that the water levels captured

during Spring 2025 are representative of seasonally high groundwater conditions and can be used for design purposes.

Table 3: Seasonally High Groundwater Levels

Well #	Seasonally High Groundwater Level (mbgs)	Seasonally High Groundwater Elevation[1] (masl)
MW1	0.67	309.33
MW3	1.01	308.99
MW4	1.49	308.51
MW9	4.97	313.03

1. Based on estimated ground elevation from Ontario Digital Elevation Model.

4.2 Dewatering Considerations

It is understood that the proposed development will be constructed to be slab on grade industrial buildings; it is not anticipated that excavation below the seasonally high groundwater table will occur. Therefore, it is not expected that significant groundwater dewatering during or post-construction will be required.

4.3 Water Supply

The minimum flow rate required by a well to service a development under MECP procedure D-5-5 is 13.7 LPM. Although D-5-5 does not apply to this development application, the recommended yield for serviceability of 13.7 LPM will be used in this discussion.

From Section 2.4 and Appendix B, it is observed that water supply wells installed within the Guelph Aquifer can supply water at a rate of between 22.71 LPM and 1,703.00 LPM. The majority of supply wells report a recommended pumping rate of well above the minimum requirement of 13.7 LPM and all records document the water as being fresh and clear.

Although the desired water demand for the proposed development is unknown at this time, from the information available a private water supply well installed within the Guelph Bedrock Formation on the Site could theoretically produce in excess of 13.7 LPM. It is recommended that site specific water quantity and quality testing be conducted once the water demand is determined.

5.0 Conclusions & Recommendations

Based on the hydrogeological investigation report above, Crozier is prepared to make the following conclusions:

- Onsite soils are primarily sandy silt/silty sand above clayey silt to silty clay. No bedrock was encountered during onsite drilling and based on local mapping, depth to bedrock is estimated to be between 10 to 25 mbgs.

- Groundwater levels range from 5.66 mbgs to 0.6 mbgs across the property. Seasonal lows occur in the Summer and Fall and peak water levels are observed in Spring.

- Seasonally high groundwater levels have been observed to be 0.67 at MW1, 1.01 at MW3, 1.49 at MW4 and 4.97 at MW9.

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APPENDIX B

Stormwater Management

- Watershed Parameters Design Sheet
- Intensity Duration Frequency Values
- Pre-Development Drainage Plan (D1)
- Post-Development Drainage Plan (D2)
- Quality and Quantity Control SWM Pond
- SWMHYMO Printouts

WATERSHED PARAMETERS
PUSLICH
URBTECH ENGINEERING INC.

Tp HYMO/OTTHYMO as per MTO Drainage Managment Manula Tabel A.9
tp = 4.63 * A^0.422 * S^-0.46 * (l/W)^0.133

Tc HYMO/OTTHYMO as per MTO Drainage Managment Manula Tabel A.8
tc=3.26*(1.1-C)*l^0.5/S^.33

Catchment No.	Area ha	D m	L m	Sl m/m	tp (pre-dev) hr	Ia	CN-Pre	CN-Post	XIMP	TIMP	IAper	IAimp	Area sqmi	D ft	L mi	W mi	Sl ft/mi	tp hr
101	15.40	18.20	510	0.036	0.20	1.5	75						0.06	59.71	0.32	0.34	188.42	0.20
102	13.80	7.20	390	0.018	0.16	1.5	75						0.05	23.62	0.24	0.34	97.48	0.16
103	0.91	6.21	150	0.041	0.08	1.5	75						0.00	20.37	0.09	0.34	218.59	0.08
104	0.66	2.57	40	0.064	0.06	1.5	75						0.00	8.43	0.02	0.34	339.24	0.06
105	9.49	7.00	180	0.039	0.16	1.5	75						0.04	22.97	0.11	0.34	205.33	0.16
201	14.25					1.5		61	85	95	2	5						
202	4.61					1.5		61	85	95	2	5						
203	6.60					1.5		61	85	95	2	5						
204	2.47					1.5		50	98	98	2	5	Pond					
205	0.66					1.5		61	20	25	2	5						
206	0.17					1.5		61	20	25	2	5						
207	0.79					1.5		61	20	25	2	5						
208	0.17					1.5		61	60	70	2	5	To RD 34					
209	0.28					1.5		61	40	50	2	5	To Rd 34					
210	2.59	7.54	170	0.044	0.10	1.5	75						0.01	24.74	0.11	0.34	234.18	0.10
211	7.67	7.00	180	0.039	0.15	1.5	75						0.03	22.97	0.11	0.34	205.33	0.15

7.1 Existing Conditions

The existing conditions IDF curve is based on the IDF parameters presented in **Table 7.1** which results in the rainfall depths presented in **Table 7.2** and intensities presented in **Table 7.3**. The City's Development Engineering Manual specifies the following design storms:

- The minor system is designed using the 5-year design storm with a 10-minute duration for parks and single detached residential areas, and a 5-minute duration for all other land uses;
- The major system is designed to convey the 100-year storm and Hurricane Hazel overland flow; and
- In the absence of site-specific criteria, post-development peak flows shall be controlled to pre-development peak flows for the 2-year through 100-year storm events.

Table 7.1: Existing IDF Parameters

Parameter	2-Year	5-Year	10-Year	25-Year	50-year	100-Year
a	743	1593	2221	3158	3886	4688
b	6	11	12	15	16	17
c	0.7989	0.8789	0.908	0.9355	0.9495	0.9624

Table 7.2: Existing IDF Rainfall Depths (mm)

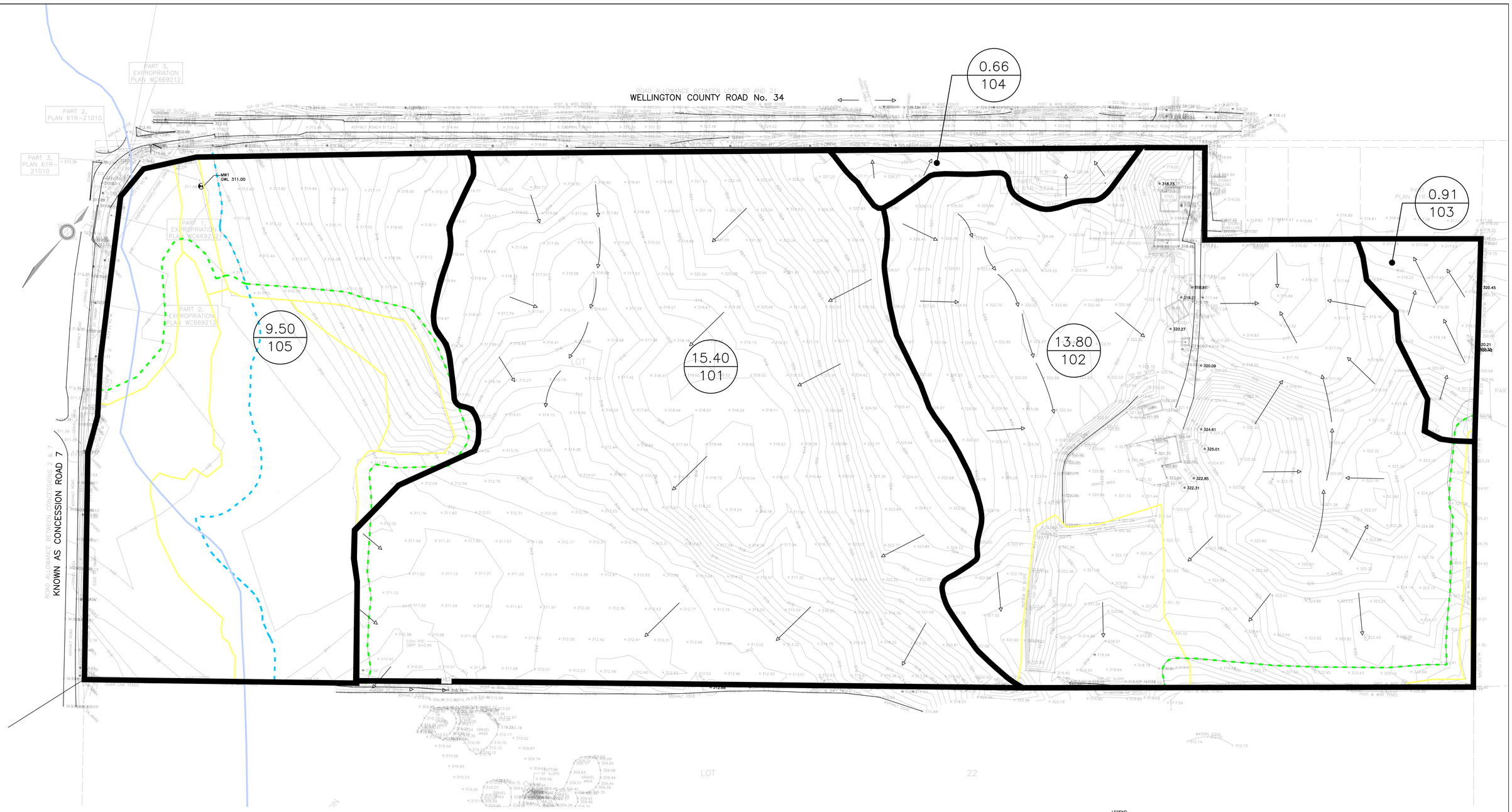
Duration	2-Year	5-Year	10-Year	25-Year	50-year	100-Year
5 min	9.1	***11.6****	14.1	16	18	19.9
10 min	13.5	***18.3****	22.4	25.9	29.4	32.8
15 min	16.3	22.7	27.8	32.8	37.3	41.7
30 min	21.2	30.5	37.3	44.9	51.2	57.6
1 hr	26.1	37.6	45.7	55.6	63.6	71.7
2 hr	31.2	43.9	52.7	64.2	73.2	82.3
6 hr	39.9	52.7	61.8	74.1	83.7	93.3
12 hr	46.2	58.1	66.8	78.9	88.4	97.8
24 hr†	53.3	63.6	71.7	83.3	92.5	101.6

** indicates the design storm for the minor system*
† indicates the design storms for the major system

Table 7.3: Existing IDF Rainfall Intensities (mm/hr)

Duration	2-Year	5-Year	10-Year	25-Year	50-year	100-Year
5 min	109.2	**139.2***	169.2	192.0	216.0	238.8
10 min	81.0	**109.8***	134.4	155.4	176.4	196.8
15 min	65.2	90.8	111.2	131.2	149.2	166.8
30 min	42.4	61.0	74.6	89.8	102.4	115.2
1 hr	26.1	37.6	45.7	55.6	63.6	71.7
2 hr	15.6	22.0	26.4	32.1	36.6	41.2
6 hr	6.7	8.8	10.3	12.4	14.0	15.6
12 hr	3.9	4.8	5.6	6.6	7.4	8.2
24 hr†	2.2	2.7	3.0	3.5	3.9	4.2

** indicates the design storm for the minor system*
† indicates the design storms for the major system

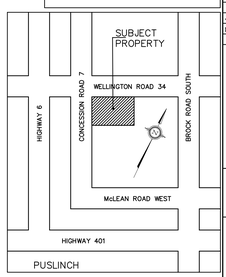


LEGEND

- EXISTING ELEVATION
- EXISTING DIRECTION OF SURFACE FLOW
- AREA IN HA
- AREA #

PLAN ILLUSTRATING TOPOGRAPHY OF 7331 AND 7335 WELLINGTON ROAD 34 TOWNSHIP OF PUSLINCH COUNTY OF WELLINGTON THIS SURVEY WAS COMPLETED ON JUNE 3, 2025 BY J.D. BARNES LIMITED.

ELEVATION NOTE
ELEVATIONS ARE OF GEODETIC ORIGIN (CGVD-1928:1978) AND DERIVED FROM GNSS OBSERVATIONS AND NATURAL RESOURCES CANADA'S GEOID MODEL HT2.0.



DATE	DETAILS
JULY 15,2026	ISSUED FOR SUBMISSION
NOV. 17, 2025	ISSUED FOR SUBMISSION

LICENSED PROFESSIONAL ENGINEER
JULY 15, 2026
A. JAWORSKI
100103267
PROVINCE OF ONTARIO

DESIGNED BY
ANDRZEJ JAWORSKI P. Eng.
CONSULTING ENGINEER

REVIEWED & APPROVED BY

DATE

DIRECTOR OF PUBLIC WORKS

Urbtech Engineering Inc.
1200 Speers Road, Suite 9, Oakville, Ontario, L6L 2X4
Telephone: 905 896 7364

PROPOSED INDUSTRIAL DEVELOPMENT

7335 WELLINGTON COUNTRY ROAD 34, PUSLINCH, ONTARIO

SP--

PRE-DEVELOPMENT DRAINAGE PLAN

SCALE: 1:1000	AREA: PUSLINCH		PROJECT No. 25-494
DRAWN BY: G.J.	CHECKED BY: A.J.		PLAN No. D1
DATE: MAY 2026	SHEET: OF		

WELLINGTON COUNTY ROAD No. 34

ROAD ALLOWANCE BETWEEN LOTS 20 AND 21

ACCESS #1

ACCESS #2

PROPERTY LINE

PART 3, EXPROPRIATION PLAN WC669212

PART 2, PLAN 61R-21010

PART 1, PLAN 61R-21010

0.28 / 209

0.17 / 208

6.60 / 203

2.59 / 210

7.67 / 211

2.47 / 204

0.66 / 205

0.17 / 206

0.79 / 207

14.25 / 201

4.61 / 202

12-114,000L WILKINSON TANK MODEL H114S WITH A TOTAL STORAGE OF 1,368m3 CONNECTED TO FH AND WATER SUPPLY THE DETAILS WILL BE PROVIDED AT SITE PLAN STAGE

3=TYPE 'A' DISPERSAL BEDS

1-WATERNOX-LS TANK

SEWAGE DISPOSAL SYSTEM SCHEMATIC THE DETAILS WILL BE PROVIDED AT SITE PLAN STAGE AND SUBMITTED TO MOECP

2-BASKET BIOFILTER TANK

PUMP TANK

385.90 [1266'-1"]

2 WATERLOO BIOFILTER-ANAEROBIC DIGESTER TANKS

4-50,000L PRECAST-CONC. FLOW BALANCING TANKS WITH GRINDER PUMP

MW1 OWL 311.00

NATURAL ENVIRONMENT AREA
76,689.03 m2
(18.95 acres)

POTENTIAL TENANT "A"

BUILDING "A"
142,917.67 m2
1,538,353 sq.ft ±

POTENTIAL TENANT "B"

NO PARKING ZONE

70 TRUCK LEVEL DOORS

42 TRUCK LEVEL DOORS

114 TRUCK LEVEL DOORS

486 PARKING SPACES

101 TRAILER SPACES

164 TRAILER SPACES

FOREBAY 2
BOTTOM 315.20

FOREBAY 1
BOTTOM 315.20

SWM POND
PP VOLUME ±8,000m³
ACTIVE & FLOOD
STORAGE VOLUME ± 26,000m³
REQUIRER TEMP. STORAGE ±7,500m3
POND BOTTOM 315.5
PERMANENT POOL 316.5
POND TOP 319.00

35m-450ø STM AT 2.0%

OUTLET STRUCTURE S 310.20

EXIST. CULVERT INV. 308.75

INV. 309.50

300m-525ø DCP STORM AT 0.90%

EXIST. CULVERT INV. 307.92

HYD. ₩/V&R 4-100ø CONC. FILLED BOLLARD

12-114,000L WILKINSON TANK, MODEL H114S WITH A TOTAL STORAGE OF 1,368m3 CONNECTED TO FH AND WATER SUPPLY THE DETAILS WILL BE PROVIDED AT SITE PLAN STAGE.

PRINCIPAL ENTRANCE

NATURAL ENVIRONMENT AREA 76,689.03 m2 (18.95 acres)

ROAD ALLOWANCE BETWEEN CONCESSIONS 6 & 7 KNOWN AS CONCESSION ROAD 7

LOT 22

CONCESSION

LEGEND

- EXISTING ELEVATION
- PROPOSED SINGLE CATCHBASIN
- PROPOSED DOUBLE CATCHBASIN
- PROPOSED STORM MANHOLE
- PROPOSED SANITARY MANHOLE
- EXIST. OVERLAND FLOW
- PROPOSED OVERLAND FLOW
- 000 / 000 AREA IN HA / AREA #

PLAN ILLUSTRATING TOPOGRAPHY OF 7331 AND 7335 WELLINGTON ROAD 34 TOWNSHIP OF PUSLINCH COUNTY OF WELLINGTON THIS SURVEY WAS COMPLETED ON JUNE 3, 2025 BY J.D. BARNES LIMITED.

ELEVATION NOTE
ELEVATIONS ARE OF GEODETIC ORIGIN (CGVD-1928:1978) AND DERIVED FROM GNSS OBSERVATIONS AND NATURAL RESOURCES CANADA'S GEOID MODEL HT2.0.

SUBJECT PROPERTY

WELLINGTON ROAD 34

CONCESSION ROAD 7

BROCK ROAD SOUTH

HIGHWAY 6

McLEAN ROAD WEST

HIGHWAY 401

PUSLINCH

DATE	DETAILS
JULY 15,2026	ISSUED FOR SUBMISSION
NOV. 17, 2025	ISSUED FOR SUBMISSION

LICENSED PROFESSIONAL ENGINEER
JULY 15, 2026
A. JAWORSKI
100103267
PROVINCE OF ONTARIO

DESIGNED BY
ANDRZEJ JAWORSKI P. Eng.
CONSULTING ENGINEER

REVIEWED & APPROVED BY

DATE

DIRECTOR OF PUBLIC WORKS

Urbtech Engineering Inc.
1200 Speers Road, Suite 8, Oakville, Ontario, L6L 2X4
Telephone: 905 896 7364

PROPOSED INDUSTRIAL DEVELOPMENT

7335 WELLINGTON COUNTRY ROAD 34,
PUSLINCH, ONTARIO
SP–

POST–DEVELOPMENT DRAINAGE PLAN

SCALE: 1:1000	AREA: PUSLINCH	PROJECT No. 25–494	
DRAWN BY: G.J.	CHECKED BY: A.J.	PLAN No.	D2
DATE: MAY 2026	SHEET: OF		

QUALITY AND QUANTITY CONTROL SWM POND
TOWNSHIP OF PUSLINCH
URBTECH ENGINEERING INC.

Date: 10-Jul-26
Prepared By: A.J.

Q = C*A*(h*9.81*2)^0.5

Orifice Diameter 1 190 mm
A 0.0283 m^2
Orifice Plate Elevation 313.30 m
C 0.62

Q = C *L *H^3/2

L 0.40 m
Weir Elevation 317.50 m
C 1.84

Q = C *L *H^3/2

L 46.00 m
Spillway Elevation 317.70 m
C 1.7

Elevation m	Depth at Orifice m	Depth at Weir m	Depth at Spillway m	Orifice Flow m^3/s	Weir Flow m^3/s	Spillway Flow m^3/s	Pond Area m^2	Pond Volume m^2	Total Flow m^3/s	Drawdown Time hr	Cumm. Time hr	
315.20							2,156	0				**Forebay Bottom**
315.50							8,875	0				**Pond Battom**
316.40	0.00			0.000			13,284	11,723	0.000			**Permanent Pool**
316.70	3.30	0.00		0.141			**14,423**	4,156	0.141			
317.00	3.60	-0.50		0.148			15,497	8,644	0.148	9	9	
317.50	4.10	0.00		0.158	0.000		16,545	16,655	0.158	15	24	
318.00	4.60	0.50		0.167	0.260		17,619	25,196	0.427			
318.70	5.30	1.20	0.00	0.179	0.966	0.000	**19,165**	38,070	1.145			**Spillway**
319.00	5.60	1.50	0.30	0.184	1.350	12.850	19,842	43,921	14.384			Pond Top

Drawdown Time Equation 4.10 t = 2Ap//(C*Ao*((2g)^0.5) *(h1^0.5 - h2^05)/3600

```
00001> ================================================================================
00002>
00003> SSSSS   W   W   M   M   H   H   Y   Y   M   M    OOO          222     000    11   77777 =========
00004> S       W W W   MM MM   H   H    Y Y    MM MM   O   O          2     0   0   11   7   7
00005> SSSSS   W W W   M M M   HHHHH     Y     M M M   O   O          2     0   0   11       7 Ver4.05.0
00006>     S    W W    M   M   H   H     Y     M   M   O   O      222     0   0   11      7  APR 2017
00007> SSSSS    W W    M   M   H   H     Y     M   M    OOO       2      0   0   11     7   =========
00008>                                                            2      0   0   11    7    # 3556752
00009>       StormWater Management HYdrologic Model               222     000    11    7    =========
00010>
00011> ********************************************************************************
00012> ************************************ SWMHYMO Ver4.05.0 ************************************
00013> ****************** A single event and continuous hydrologic simulation model ******************
00014> ******************    based on the principles of HYMO and its successors      ******************
00015> ******************                OTTHYMO-83 and OTTHYMO-89.                  ******************
00016> ********************************************************************************
00017> ****************** Distributed by:  J.F. Sabourin and Associates Inc.          ******************
00018> ******************                 Ottawa,  Ontario: (613) 836-3884           ******************
00019> ******************                 Gatineau, Quebec: (819) 243-6858           ******************
00020> ******************                 E-Mail: swmhymo@jfsa.com                   ******************
00021> ********************************************************************************
00022>
00023> ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
00024> ++++++++++++++++++ Licensed user: Urbtech Engineering Inc.                    ++++++++++++++++++++
00025> ++++++++++++++++++                 Oakville              SERIAL#:3556752     ++++++++++++++++++++
00026> ++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++++
00027>
00028> ********************************************************************************
00029> ******************          ++++++ PROGRAM ARRAY DIMENSIONS ++++++           ******************
00030> ******************          Maximum value for ID numbers  :     11          ******************
00031> ******************          Max. number of rainfall points: 105408          ******************
00032> ******************          Max. number of flow points    : 105408          ******************
00033> ********************************************************************************
00034>
00035>
00036> ********************************  S U M M A R Y   O U T P U T  ********************************
00037> ********************************************************************************
00038> *                  RUN DATE: 2025-11-10     TIME: 08:34:29     RUN COUNTER: 000001             *
00039> ********************************************************************************
00040> * Input   file: D:\Puslinch 25-494\Pus RR 25mm up to 100yr .DAT                  *
00041> * Output  file: D:\Puslinch 25-494\Pus RR 25mm up to 100yr .out                 *
00042> * Summary file: D:\Puslinch 25-494\Pus RR 25mm up to 100yr .sum                 *
00043> * User comments:                                                               *
00044> * 1: _____                                                                     *
00045> * 2: _____                                                                     *
00046> * 3: _____                                                                     *
00047> ********************************************************************************
00048>
00049>
00050> #*******************************************************************************
00051> #  Project Name: [Puslinch] Project Number: [25-494]
00052> #               [Pre and Post-development flows, FIRST FLUSH AND 2yr to 100yr]
00053> #  Date         : [November, 2025}
00054> #  Modeller     : [A.J.]
00055> #  Company      : Urbtech Engineering Inc.
00056> #  License #    : 3556752
00057> #*******************************************************************************
00058>  RUN#:COMMAND#
00059> R0001:C00001--------------------------------------------------------------------------------
00060>      START
00061>       [TZERO =    .00 hrs on        0]
00062>       [METOUT=   2    (1=imperial, 2=metric output)]
00063>       [NSTORM=   1 ]
00064>       [NRUN  = 0001 ]
00065> R0001:C00002--------------------------------------------------------------------------------
00066>      READ STORM
00067>       Filename = storm.001
00068>       Comment  = 25mm storm
00069>       [SDT= 5.00:SDUR=   3.92:PTOT=  24.78]
00070> R0001:C00003------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00071>     DESIGN NASHYD         2.5 01:101           15.39      .261 No_date    2:15    5.02 .203      .000
00072>       [CN= 75.0: N= 3.00: Tp=  .20]
00073> R0001:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00074>     DESIGN NASHYD         2.5 02:102           13.75      .261 No_date    2:12    5.02 .203      .000
00075>       [CN= 75.0: N= 3.00: Tp=  .16]
00076> R0001:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00077>  *  DESIGN NASHYD         2.5 03:103             .91      .023 No_date    2:05    5.02 .203      .000
00078>       [CN= 75.0: N= 3.00: Tp=  .08]
00079> R0001:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00080>  *  DESIGN NASHYD         2.5 04:104             .66      .018 No_date    2:02    5.02 .203      .000
```

```
00081>       [CN= 75.0: N= 3.00: Tp=  .06]
00082> R0001:C00007-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00083>     DESIGN STANDHYD       1.0 05:201           28.21    2.743 No_date    2:06   21.51 .868      .000
00084>       [XIMP=.85:TIMP=.95]
00085>       [SLP=1.00:DT= 1.00]
00086>       [LOSS= 2 :CN= 61.0]
00087> R0001:C00008-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00088>     DESIGN STANDHYD       1.0 06:202            2.56     .104 No_date    2:41   23.54 .950      .000
00089>       [XIMP=.98:TIMP=.98]
00090>       [SLP= .00:DT= 1.00]
00091>       [LOSS= 2 :CN= 50.0]
00092> R0001:C00009-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00093>     ADD HYD               1.0 05:201           28.21    2.743 No_date    2:06   21.51  n/a      .000
00094>                     +     1.0 06:202            2.56     .104 No_date    2:41   23.54  n/a      .000
00095>                   SUM=    1.0 07:       301    30.77    2.776 No_date    2:06   21.68  n/a      .000
00096> R0001:C00010-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00097>     ROUTE RESERVOIR ->    1.0 07:       301    30.77    2.776 No_date    2:06   21.68  n/a      .000
00098>                  out <=   1.0 08:       401    30.77     .042 No_date    4:19   21.68  n/a      .000
00099>      {MxStoUsed=.6292E+00  m3}
00100>   ** END OF RUN :    1
00101>
00102> ************************************************************************************************
00103>
00104>
00105>
00106>
00107>
00108>  RUN#:COMMAND#
00109> R0002:C00001-----------------------------------------------------------------------------------
00110>      START
00111>       [TZERO =    .00 hrs on        0]
00112>       [METOUT=   2    (1=imperial, 2=metric output)]
00113>       [NSTORM=   1 ]
00114>       [NRUN  = 0002 ]
00115> #*********************************************************************
00116> #  Project Name: [Puslinch] Project Number: [25-494]
00117> #                [Pre and Post-development flows, FIRST FLUSH AND 2yr to 100yr]
00118> #  Date         : [November, 2025}
00119> #  Modeller     : [A.J.]
00120> #  Company      : Urbtech Engineering Inc.
00121> #  License #    : 3556752
00122> #*********************************************************************
00123> R0002:C00002-----------------------------------------------------------------------------------
00124>      READ STORM
00125>       Filename = storm.001
00126>       Comment  = Pus-2yr
00127>       [SDT=10.00:SDUR=   4.00:PTOT=  36.54]
00128> R0002:C00003-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00129>     DESIGN NASHYD         2.0 01:101           15.39     .477 No_date    1:32   10.26 .281      .000
00130>       [CN= 75.0: N= 3.00: Tp=  .20]
00131> R0002:C00004-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00132>     DESIGN NASHYD         2.0 02:102           13.75     .477 No_date    1:28   10.26 .281      .000
00133>       [CN= 75.0: N= 3.00: Tp=  .16]
00134> R0002:C00005-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00135>     DESIGN NASHYD         2.0 03:103             .91     .045 No_date    1:22   10.26 .281      .000
00136>       [CN= 75.0: N= 3.00: Tp=  .08]
00137> R0002:C00006-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00138>  *  DESIGN NASHYD         2.0 04:104             .66     .037 No_date    1:20   10.26 .281      .000
00139>       [CN= 75.0: N= 3.00: Tp=  .06]
00140> R0002:C00007-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00141>     DESIGN STANDHYD       1.0 05:201           28.21    4.107 No_date    1:23   32.54 .891      .000
00142>       [XIMP=.85:TIMP=.95]
00143>       [SLP=1.00:DT= 1.00]
00144>       [LOSS= 2 :CN= 61.0]
00145> R0002:C00008-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00146>     DESIGN STANDHYD       1.0 06:202            2.56     .166 No_date    1:52   35.11 .961      .000
00147>       [XIMP=.98:TIMP=.98]
00148>       [SLP= .00:DT= 1.00]
00149>       [LOSS= 2 :CN= 50.0]
00150> R0002:C00009-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00151>     ADD HYD               1.0 05:201           28.21    4.107 No_date    1:23   32.54  n/a      .000
00152>                     +     1.0 06:202            2.56     .166 No_date    1:52   35.11  n/a      .000
00153>                   SUM=    1.0 07:       301    30.77    4.168 No_date    1:23   32.75  n/a      .000
00154> R0002:C00010-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00155>     ROUTE RESERVOIR ->    1.0 07:       301    30.77    4.168 No_date    1:23   32.75  n/a      .000
00156>                  out <=   1.0 08:       401    30.77     .119 No_date    4:07   32.75  n/a      .000
00157>      {MxStoUsed=.9086E+00  m3}
00158>   ** END OF RUN :    2
00159>
00160> ************************************************************************************************
```

```
00161>
00162>
00163>
00164>
00165>
00166>  RUN#:COMMAND#
00167> R0003:C00001-------------------------------------------------------------------------------------------
00168>      START
00169>       [TZERO =    .00 hrs on        0]
00170>       [METOUT=   2    (1=imperial, 2=metric output)]
00171>       [NSTORM=   1 ]
00172>       [NRUN  = 0003 ]
00173> #*****************************************************************************
00174> #  Project Name: [Puslinch] Project Number: [25-494]
00175> #                [Pre and Post-development flows, FIRST FLUSH AND 2yr to 100yr]
00176> #  Date         : [November, 2025}
00177> #  Modeller     : [A.J.]
00178> #  Company      : Urbtech Engineering Inc.
00179> #  License #    : 3556752
00180> #*****************************************************************************
00181> R0003:C00002-------------------------------------------------------------------------------------------
00182>      READ STORM
00183>       Filename = storm.001
00184>       Comment  = Pus-5yr
00185>       [SDT=10.00:SDUR=   4.00:PTOT=  49.56]
00186> R0003:C00003------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00187>     DESIGN NASHYD         2.0 01:101          15.39      .876 No_date    1:32   17.40 .351      .000
00188>       [CN= 75.0: N= 3.00: Tp=  .20]
00189> R0003:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00190>     DESIGN NASHYD         2.0 02:102          13.75      .869 No_date    1:30   17.40 .351      .000
00191>       [CN= 75.0: N= 3.00: Tp=  .16]
00192> R0003:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00193>     DESIGN NASHYD         2.0 03:103            .91      .080 No_date    1:22   17.40 .351      .000
00194>       [CN= 75.0: N= 3.00: Tp=  .08]
00195> R0003:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00196>   *  DESIGN NASHYD         2.0 04:104            .66      .065 No_date    1:20   17.40 .351      .000
00197>       [CN= 75.0: N= 3.00: Tp=  .06]
00198> R0003:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00199>     DESIGN STANDHYD       1.0 05:201          28.21     5.996 No_date    1:22   44.94 .907      .000
00200>       [XIMP=.85:TIMP=.95]
00201>       [SLP=1.00:DT= 1.00]
00202>       [LOSS= 2 :CN= 61.0]
00203> R0003:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00204>     DESIGN STANDHYD       1.0 06:202           2.56      .268 No_date    1:46   47.93 .967      .000
00205>       [XIMP=.98:TIMP=.98]
00206>       [SLP= .00:DT= 1.00]
00207>       [LOSS= 2 :CN= 50.0]
00208> R0003:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00209>     ADD HYD               1.0 05:201          28.21     5.996 No_date    1:22   44.94  n/a      .000
00210>                     +     1.0 06:202           2.56      .268 No_date    1:46   47.93  n/a      .000
00211>                   SUM=    1.0 07:       301   30.77     6.101 No_date    1:22   45.19  n/a      .000
00212> R0003:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00213>     ROUTE RESERVOIR ->    1.0 07:       301   30.77     6.101 No_date    1:22   45.19  n/a      .000
00214>                  out <=   1.0 08:       401   30.77      .213 No_date    3:38   45.19  n/a      .000
00215>       {MxStoUsed=.1207E+01  m3}
00216>    ** END OF RUN :    3
00217>
00218> ***********************************************************************************************
00219>
00220>
00221>
00222>
00223>
00224>  RUN#:COMMAND#
00225> R0004:C00001-------------------------------------------------------------------------------------------
00226>      START
00227>       [TZERO =    .00 hrs on        0]
00228>       [METOUT=   2    (1=imperial, 2=metric output)]
00229>       [NSTORM=   1 ]
00230>       [NRUN  = 0004 ]
00231> #*****************************************************************************
00232> #  Project Name: [Puslinch] Project Number: [25-494]
00233> #                [Pre and Post-development flows, FIRST FLUSH AND 2yr to 100yr]
00234> #  Date         : [November, 2025}
00235> #  Modeller     : [A.J.]
00236> #  Company      : Urbtech Engineering Inc.
00237> #  License #    : 3556752
00238> #*****************************************************************************
00239> R0004:C00002-------------------------------------------------------------------------------------------
00240>      READ STORM
```

```
00241>       Filename = storm.001
00242>       Comment  = Pus-10yr
00243>       [SDT=10.00:SDUR=   4.00:PTOT=  58.61]
00244> R0004:C00003-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00245>     DESIGN NASHYD         2.0 01:101          15.39    1.221 No_date    1:32   23.01 .393     .000
00246>       [CN= 75.0: N= 3.00: Tp=  .20]
00247> R0004:C00004-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00248>     DESIGN NASHYD         2.0 02:102          13.75    1.211 No_date    1:30   23.01 .393     .000
00249>       [CN= 75.0: N= 3.00: Tp=  .16]
00250> R0004:C00005-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00251>     DESIGN NASHYD         2.0 03:103            .91     .111 No_date    1:22   23.01 .393     .000
00252>       [CN= 75.0: N= 3.00: Tp=  .08]
00253> R0004:C00006-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00254>  *  DESIGN NASHYD         2.0 04:104            .66     .090 No_date    1:20   23.01 .393     .000
00255>       [CN= 75.0: N= 3.00: Tp=  .06]
00256> R0004:C00007-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00257>     DESIGN STANDHYD       1.0 05:201          28.21    7.650 No_date    1:21   53.65 .915     .000
00258>       [XIMP=.85:TIMP=.95]
00259>       [SLP=1.00:DT= 1.00]
00260>       [LOSS= 2 :CN= 61.0]
00261> R0004:C00008-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00262>     DESIGN STANDHYD       1.0 06:202           2.56     .349 No_date    1:43   56.87 .970     .000
00263>       [XIMP=.98:TIMP=.98]
00264>       [SLP= .00:DT= 1.00]
00265>       [LOSS= 2 :CN= 50.0]
00266> R0004:C00009-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00267>     ADD HYD               1.0 05:201          28.21    7.650 No_date    1:21   53.65  n/a     .000
00268>                     +     1.0 06:202           2.56     .349 No_date    1:43   56.87  n/a     .000
00269>                   SUM=    1.0 07:       301   30.77    7.788 No_date    1:22   53.92  n/a     .000
00270> R0004:C00010-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00271>     ROUTE RESERVOIR ->    1.0 07:       301   30.77    7.788 No_date    1:22   53.92  n/a     .000
00272>                  out <=   1.0 08:       401   30.77     .274 No_date    3:16   53.92  n/a     .000
00273>      {MxStoUsed=.1428E+01  m3}
00274>   ** END OF RUN :    4
00275>
00276> ********************************************************************************************
00277>
00278>
00279>
00280>
00281>
00282>  RUN#:COMMAND#
00283> R0005:C00001-----------------------------------------------------------------------------------
00284>      START
00285>       [TZERO =    .00 hrs on        0]
00286>       [METOUT=   2    (1=imperial, 2=metric output)]
00287>       [NSTORM=   1 ]
00288>       [NRUN  = 0005 ]
00289> #*****************************************************************************
00290> #  Project Name: [Puslinch] Project Number: [25-494]
00291> #                [Pre and Post-development flows, FIRST FLUSH AND 2yr to 100yr]
00292> #  Date         : [November, 2025}
00293> #  Modeller     : [A.J.]
00294> #  Company      : Urbtech Engineering Inc.
00295> #  License #    : 3556752
00296> #*****************************************************************************
00297> R0005:C00002-----------------------------------------------------------------------------------
00298>      READ STORM
00299>       Filename = storm.001
00300>       Comment  = Pus-25yr
00301>       [SDT=10.00:SDUR=   4.00:PTOT=  70.80]
00302> R0005:C00003-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00303>     DESIGN NASHYD         2.0 01:101          15.39    1.655 No_date    1:32   31.19 .441     .000
00304>       [CN= 75.0: N= 3.00: Tp=  .20]
00305> R0005:C00004-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00306>     DESIGN NASHYD         2.0 02:102          13.75    1.637 No_date    1:30   31.19 .441     .000
00307>       [CN= 75.0: N= 3.00: Tp=  .16]
00308> R0005:C00005-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00309>     DESIGN NASHYD         2.0 03:103            .91     .147 No_date    1:22   31.19 .441     .000
00310>       [CN= 75.0: N= 3.00: Tp=  .08]
00311> R0005:C00006-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00312>  *  DESIGN NASHYD         2.0 04:104            .66     .119 No_date    1:20   31.19 .441     .000
00313>       [CN= 75.0: N= 3.00: Tp=  .06]
00314> R0005:C00007-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00315>     DESIGN STANDHYD       1.0 05:201          28.21    9.162 No_date    1:21   65.46 .925     .000
00316>       [XIMP=.85:TIMP=.95]
00317>       [SLP=1.00:DT= 1.00]
00318>       [LOSS= 2 :CN= 61.0]
00319> R0005:C00008-----------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00320>     DESIGN STANDHYD       1.0 06:202           2.56     .442 No_date    1:41   68.90 .973     .000
```

```
00321>       [XIMP=.98:TIMP=.98]
00322>       [SLP= .00:DT= 1.00]
00323>       [LOSS= 2 :CN= 50.0]
00324> R0005:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00325>     ADD HYD              1.0 05:201           28.21    9.162 No_date    1:21   65.46  n/a      .000
00326>                    +     1.0 06:202            2.56     .442 No_date    1:41   68.90  n/a      .000
00327>                  SUM=    1.0 07:       301    30.77    9.353 No_date    1:21   65.74  n/a      .000
00328> R0005:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00329>     ROUTE RESERVOIR ->   1.0 07:       301    30.77    9.353 No_date    1:21   65.74  n/a      .000
00330>                  out <=  1.0 08:       401    30.77     .350 No_date    3:06   65.74  n/a      .000
00331>      {MxStoUsed=.1737E+01  m3}
00332>   ** END OF RUN :    5
00333>
00334> ********************************************************************************************************
00335>
00336>
00337>
00338>
00339>
00340>  RUN#:COMMAND#
00341> R0006:C00001-----------------------------------------------------------------------------------------
00342>      START
00343>       [TZERO =    .00 hrs on        0]
00344>       [METOUT=   2    (1=imperial, 2=metric output)]
00345>       [NSTORM=   1 ]
00346>       [NRUN  = 0006 ]
00347> #*************************************************************************
00348> #  Project Name: [Puslinch] Project Number: [25-494]
00349> #                [Pre and Post-development flows, FIRST FLUSH AND 2yr to 100yr]
00350> #  Date         : [November, 2025}
00351> #  Modeller     : [A.J.]
00352> #  Company      : Urbtech Engineering Inc.
00353> #  License #    : 3556752
00354> #*************************************************************************
00355> R0006:C00002-----------------------------------------------------------------------------------------
00356>      READ STORM
00357>       Filename = storm.001
00358>       Comment  = Pus-50yr
00359>       [SDT=10.00:SDUR=   4.00:PTOT=  80.32]
00360> R0006:C00003------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00361>     DESIGN NASHYD        2.0 01:101           15.39    2.046 No_date    1:32   38.00 .473      .000
00362>       [CN= 75.0: N= 3.00: Tp=  .20]
00363> R0006:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00364>     DESIGN NASHYD        2.0 02:102           13.75    2.021 No_date    1:30   38.00 .473      .000
00365>       [CN= 75.0: N= 3.00: Tp=  .16]
00366> R0006:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00367>     DESIGN NASHYD        2.0 03:103             .91     .182 No_date    1:22   38.00 .473      .000
00368>       [CN= 75.0: N= 3.00: Tp=  .08]
00369> R0006:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00370>  *  DESIGN NASHYD        2.0 04:104             .66     .146 No_date    1:20   38.00 .473      .000
00371>       [CN= 75.0: N= 3.00: Tp=  .06]
00372> R0006:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00373>     DESIGN STANDHYD      1.0 05:201           28.21   10.579 No_date    1:21   74.72 .930      .000
00374>       [XIMP=.85:TIMP=.95]
00375>       [SLP=1.00:DT= 1.00]
00376>       [LOSS= 2 :CN= 61.0]
00377> R0006:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00378>     DESIGN STANDHYD      1.0 06:202            2.56     .527 No_date    1:39   78.30 .975      .000
00379>       [XIMP=.98:TIMP=.98]
00380>       [SLP= .00:DT= 1.00]
00381>       [LOSS= 2 :CN= 50.0]
00382> R0006:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00383>     ADD HYD              1.0 05:201           28.21   10.579 No_date    1:21   74.72  n/a      .000
00384>                    +     1.0 06:202            2.56     .527 No_date    1:39   78.30  n/a      .000
00385>                  SUM=    1.0 07:       301    30.77   10.825 No_date    1:21   75.02  n/a      .000
00386> R0006:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00387>     ROUTE RESERVOIR ->   1.0 07:       301    30.77   10.825 No_date    1:21   75.02  n/a      .000
00388>                  out <=  1.0 08:       401    30.77     .411 No_date    3:00   75.02  n/a      .000
00389>      {MxStoUsed=.1982E+01  m3}
00390>   ** END OF RUN :    6
00391>
00392> ********************************************************************************************************
00393>
00394>
00395>
00396>
00397>
00398>  RUN#:COMMAND#
00399> R0007:C00001-----------------------------------------------------------------------------------------
00400>      START
```

```
00401>       [TZERO =    .00 hrs on        0]
00402>       [METOUT=   2    (1=imperial, 2=metric output)]
00403>       [NSTORM=   1 ]
00404>       [NRUN  = 0007 ]
00405> #*******************************************************************************
00406> #  Project Name: [Puslinch] Project Number: [25-494]
00407> #               [Pre and Post-development flows, FIRST FLUSH AND 2yr to 100yr]
00408> #  Date         : [November, 2025}
00409> #  Modeller     : [A.J.]
00410> #  Company      : Urbtech Engineering Inc.
00411> #  License #    : 3556752
00412> #*******************************************************************************
00413> R0007:C00002-------------------------------------------------------------------------------------------
00414>      READ STORM
00415>       Filename = storm.001
00416>       Comment  = Pus-100yr
00417>       [SDT=10.00:SDUR=   4.00:PTOT=  89.87]
00418> R0007:C00003------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00419>    DESIGN NASHYD          2.0 01:101          15.39     2.457 No_date    1:32   45.13 .502     .000
00420>       [CN= 75.0: N= 3.00: Tp=  .20]
00421> R0007:C00004------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00422>    DESIGN NASHYD          2.0 02:102          13.75     2.425 No_date    1:30   45.13 .502     .000
00423>       [CN= 75.0: N= 3.00: Tp=  .16]
00424> R0007:C00005------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00425>    DESIGN NASHYD          2.0 03:103            .91      .217 No_date    1:22   45.13 .502     .000
00426>       [CN= 75.0: N= 3.00: Tp=  .08]
00427> R0007:C00006------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00428>  *  DESIGN NASHYD          2.0 04:104            .66      .175 No_date    1:20   45.13 .502     .000
00429>       [CN= 75.0: N= 3.00: Tp=  .06]
00430> R0007:C00007------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00431>    DESIGN STANDHYD        1.0 05:201          28.21    12.044 No_date    1:21   84.06 .935     .000
00432>       [XIMP=.85:TIMP=.95]
00433>       [SLP=1.00:DT= 1.00]
00434>       [LOSS= 2 :CN= 61.0]
00435> R0007:C00008------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00436>    DESIGN STANDHYD        1.0 06:202           2.56      .611 No_date    1:38   87.75 .976     .000
00437>       [XIMP=.98:TIMP=.98]
00438>       [SLP= .00:DT= 1.00]
00439>       [LOSS= 2 :CN= 50.0]
00440> R0007:C00009------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00441>    ADD HYD                1.0 05:201          28.21    12.044 No_date    1:21   84.06  n/a     .000
00442>                       +   1.0 06:202           2.56      .611 No_date    1:38   87.75  n/a     .000
00443>                   SUM=    1.0 07:       301   30.77    12.342 No_date    1:21   84.37  n/a     .000
00444> R0007:C00010------------DTmin-ID:NHYD---------AREAha-QPEAKcms-TpeakDate_hh:mm----RVmm-R.C.---DWFcms
00445>    ROUTE RESERVOIR ->     1.0 07:       301   30.77    12.342 No_date    1:21   84.37  n/a     .000
00446>                   out <=  1.0 08:       401   30.77      .479 No_date    2:55   84.36  n/a     .000
00447>     {MxStoUsed=.2229E+01  m3}
00448> R0007:C00002-------------------------------------------------------------------------------------------
00449>    FINISH
00450> -------------------------------------------------------------------------------------------------------
00451> *******************************************************************************************************
00452>     WARNINGS / ERRORS / NOTES
00453>     -------------------------
00454> R0001:C00005  DESIGN NASHYD
00455> *** WARNING: Time step is too large for value of TP. RV may be ok.  Peak flow could be off.
00456> R0001:C00006  DESIGN NASHYD
00457> *** WARNING: Time step is too large for value of TP. RV may be ok.  Peak flow could be off.
00458> *** WARNING: Time step is too large for value of TP. RV may be ok.  Peak flow could be off.
00459> *** WARNING: Time step is too large for value of TP. RV may be ok.  Peak flow could be off.
00460> *** WARNING: Time step is too large for value of TP. RV may be ok.  Peak flow could be off.
00461> *** WARNING: Time step is too large for value of TP. RV may be ok.  Peak flow could be off.
00462> *** WARNING: Time step is too large for value of TP. RV may be ok.  Peak flow could be off.
00463> *** WARNING: Time step is too large for value of TP. RV may be ok.  Peak flow could be off.
00464>    Simulation ended on 2025-11-10     at 08:34:31
00465> =======================================================================================================
00466>
```

APPENDIX C

Drawings

- Site Servicing Plan (S1)
- Site Grading Plan (G1)
- Sediment Control Plan (SED1)

WELLINGTON COUNTY ROAD No. 34

ACCESS #1

ACCESS #2

PROPERTY LINE

PART 2, PLAN 61R-21010

PART 3, PLAN 61R-21010

PART 1, PLAN 61R-21010

PART 3, EXPROPRIATION PLAN WC669212

PART 2, EXPROPRIATION PLAN WC669212

PART 1, EXPROPRIATION PLAN WC669212

KNOWN AS CONCESSION ROAD 7

ROAD ALLOWANCE BETWEEN CONCESSIONS 2 & 7

CONCESSION

LOT 22

NATURAL ENVIRONMENT AREA
76,689.03 m2
(18.95 acres)

POTENTIAL TENANT "A"

POTENTIAL TENANT "B"

BUILDING "A"
142,917.67 m2
1,538,353 sq.ft ±

12-114,000L WILKINSON TANK MODEL H114S WITH A TOTAL STORAGE OF 1,368m3 CONNECTED TO FH AND WATER SUPPLY THE DETAILS WILL BE PROVIDED AT SITE PLAN STAGE

3-TYPE "A" DISPERSAL BEDS

1-WATERNOX-LS TANK

2-BASKET BIOFILTER TANK

PUMP TANK

SEWAGE DISPOSAL SYSTEM SCHEMATIC THE DETAILS WILL BE PROVIDED AT SITE PLAN STAGE AND SUBMITTED TO MOECP

2 WATERLOO BIOFILTER-ANAEROBIC DIGESTER TANKS

4-50,000L PRECAST-CONC. FLOW BALANCING TANKS WITH GRINDER PUMP

MW1
GWL 311.00

SWM POND
PP VOLUME ±8,000m³
ACTIVE & FLOOD
STORAGE VOLUME ± 26,000m³
REQUIRER TEMP. STORAGE ±7,500m3
POND BOTTOM 315.5
PERMANENT POOL 316.5
POND TOP 319.00

FOREBAY 2
BOTTOM 315.20

FOREBAY 1
BOTTOM 315.20

35m-450ø STM AT 2.0%

OUTLET STRUCTURE S 310.20

EXIST. CULVERT INV. 308.75

EXIST. CULVERT INV. 307.92

Beech Tree Drain Storm A Outlet

HW 1 INV. 315.50

HW 2 INV.

HW 3 INV.

HW INV. 309.50

486 PARKING SPACES

70 TRUCK LEVEL DOORS

42 TRUCK LEVEL DOORS

114 TRUCK LEVEL DOORS

101 TRAILER SPACES

164 TRAILER SPACES

NO PARKING ZONE

CONCRETE AREA

PRINCIPAL ENTRANCE

SAN INV. TO BE COORDINATED WITH MECHANICAL ENGINEER

STM PLUG TO BE COORDINATED WITH MECHANICAL ENGINEER

HYD. w/V&B 4-100X 200C FILLED BOLLARDS

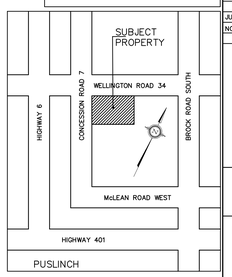
NATURAL ENVIRONMENT AREA
7,409.07 m²
(1.83 acres)

LEGEND

- PROPOSED STORM
- PROPOSED SANITARY
- PROPOSED HYDRANT
- PROPOSED VALVE & BOX
- PROPOSED WATERMAIN
- PROPOSED SIAMESE CONNECTION
- PROPOSED SINGLE CATCHBASIN
- PROPOSED DOUBLE CATCHBASIN

PLAN ILLUSTRATING
TOPOGRAPHY OF 7331 AND 7335 WELLINGTON ROAD 34
TOWNSHIP OF PUSLINCH
COUNTY OF WELLINGTON
THIS SURVEY WAS COMPLETED ON JUNE 3, 2025 BY J.D. BARNES LIMITED.

ELEVATION NOTE
ELEVATIONS ARE OF GEODETIC ORIGIN (CGVD-1928:1978) AND DERIVED FROM GNSS OBSERVATIONS AND NATURAL RESOURCES CANADA'S GEOID MODEL HT2.0.



DATE	DETAILS
JULY 15,2026	ISSUED FOR SUBMISSION
NOV. 17, 2025	ISSUED FOR SUBMISSION

LICENSED PROFESSIONAL ENGINEER
JULY 15, 2026
A. JAWORSKI
100103267
PROVINCE OF ONTARIO

DESIGNED BY
ANDRZEJ JAWORSKI P. Eng.
CONSULTING ENGINEER

REVIEWED & APPROVED BY

DATE

DIRECTOR OF PUBLIC WORKS

Urbtech Engineering Inc.
1200 Speers Road, Suite 8, Oakville, Ontario, L6L 2X4
Telephone: 905 896 7364

PROPOSED INDUSTRIAL DEVELOPMENT

7335 WELLINGTON COUNTRY ROAD 34,
PUSLINCH, ONTARIO
SP–

SITE SERVICING PLAN

SCALE: 1:1000	AREA: PUSLINCH		PROJECT No. 25-494
DRAWN BY: G.J.	CHECKED BY: A.J.		PLAN No. S1
DATE: MAY 2026	SHEET: OF		

WELLINGTON COUNTY ROAD No. 34

ROAD ALLOWANCE BETWEEN CONCESSIONS 2 & 7 KNOWN AS CONCESSION ROAD 7

ACCESS #1

ACCESS #2

PROPERTY LINE

PART 2, PLAN 61R-21010

PART 3, EXPROPRIATION PLAN WC669212

PART 3, PLAN 61R-21010

PART 1, PLAN 61R-21010

PART 1, PLAN

12-114,000L WILKINSON TANK MODEL H114S WITH A TOTAL STORAGE OF 1,368m3 CONNECTED TO FH AND WATER SUPPLY THE DETAILS WILL BE PROVIDED AT SITE PLAN STAGE

3-TYPE 'A' DISPERSAL BEDS

1-WATERNOX-LS TANK

2-BASKET BIOFILTER TANK

PUMP TANK

SEWAGE DISPOSAL SYSTEM SCHEMATIC THE DETAILS WILL BE PROVIDED AT SITE PLAN STAGE AND SUBMITTED TO MOECP

2 WATERLOO BIOFILTER AMEROBIC DIGESTER TANKS

4-50,000L PRECAST CONC. FLOW BALANCING TANKS WITH GRINDER PUMP

MH1 GWL 311.00

NATURAL ENVIRONMENT AREA
76,689.03 m2
(18.95 acres)

SWM POND
PP VOLUME ±8,000m³
ACTIVE & FLOOD
STORAGE VOLUME ± 26,000m³
REQUIRER TEMP. STORAGE ±7,500m3
POND BOTTOM 315.5
PERMANENT POOL 316.5
POND TOP 319.00

FOREBAY 1
BOTTOM 315.20

FOREBAY 2
BOTTOM 315.20

HW 1 INV.

HW 2 INV.

HW 3 INV.

OUTLET STRUCTURE S 310.20

EXIST. CULVERT INV. 308.75

HW INV. 309.50

EXIST. CULVERT INV. 307.92

POTENTIAL TENANT "A"

BUILDING "A"
142,917.67 m2
1,538,353 sq.ft ±

70 TRUCK LEVEL DOORS

114 TRUCK LEVEL DOORS

101 TRAILER SPACES

104 TRAILER SPACES

486 PARKING SPACES

NO PARKING ZONE

CURB CUT

POTENTIAL TENANT "B"

42 TRUCK LEVEL DOORS

12-114,000L WILKINSON TANK MODEL H114S WITH A TOTAL STORAGE OF 1,368m3 CONNECTED TO FH AND WATER SUPPLY THE DETAILS WILL BE PROVIDED AT SITE PLAN STAGE

NATURAL ENVIRONMENT AREA 249.09 m² (0.062 acres)

LOT 22

CONCESSION

LEGEND

- PROPOSED STORM MANHOLE
- PROPOSED SANITARY MANHOLE
- PROPOSED HYDRANT
- PROPOSED VALVE & BOX
- PROPOSED SIAMESE CONNECTION
- PROPOSED SINGLE CATCHBASIN
- PROPOSED DOUBLE CATCHBASIN
- 000.00 EXISTING ELEVATION
- 000.00 PROPOSED GRADE
- 000.00 T/C PROPOSED TOP OF CURB GRADE
- 000.00 T/W PROPOSED TOP OF WALL
- 000.00 B/W PROPOSED BOTTOM OF WALL
- PROPOSED DIRECTION OF SURFACE FLOW
- EXISTING DIRECTION OF SURFACE FLOW

PLAN ILLUSTRATING TOPOGRAPHY OF 7331 AND 7335 WELLINGTON ROAD 34 TOWNSHIP OF PUSLINCH COUNTY OF WELLINGTON. THIS SURVEY WAS COMPLETED ON JUNE 3, 2025 BY J.D. BARNES LIMITED.

ELEVATION NOTE
ELEVATIONS ARE OF GEODETIC ORIGIN (COVID-19)28:1978) AND DERIVED FROM GNSS OBSERVATIONS AND NATURAL RESOURCES CANADA'S GEOID MODEL HT2.0.

SUBJECT PROPERTY

WELLINGTON ROAD 34

HIGHWAY 6

CONCESSION ROAD 7

BROCK ROAD SOUTH

McLEAN ROAD WEST

HIGHWAY 401

PUSLINCH

DATE	DETAILS
JULY 15,2026	ISSUED FOR SUBMISSION
Nov. 17, 2025	ISSUED FOR SUBMISSION

REVIEWED & APPROVED BY

LICENSED PROFESSIONAL ENGINEER
JULY 15, 2026
A. JAWORSKI
100102057
PROVINCE OF ONTARIO

DESIGNED BY
ANDRZEJ JAWORSKI P. Eng.
CONSULTING ENGINEER

DATE

DIRECTOR OF PUBLIC WORKS

Urbtech Engineering Inc.
1200 Speers Road, Suite 6, Oakville, Ontario, L6L 2X4
Telephone: 905 896 7364

PROPOSED INDUSTRIAL DEVELOPMENT

7335 WELLINGTON COUNTRY ROAD 34,
PUSLINCH, ONTARIO
SP--

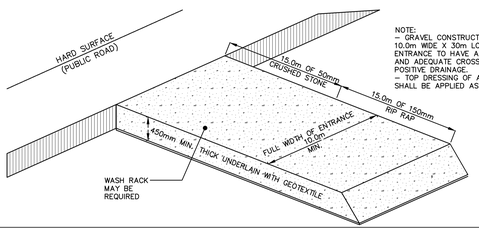
SITE GRADING PLAN

SCALE: 1:1000	AREA: PUSLINCH		PROJECT No. 25-494
DRAWN BY: G.J.	CHECKED BY: A.J.		PLAN No. G1
DATE: MAY 2026	SHEET: OF		

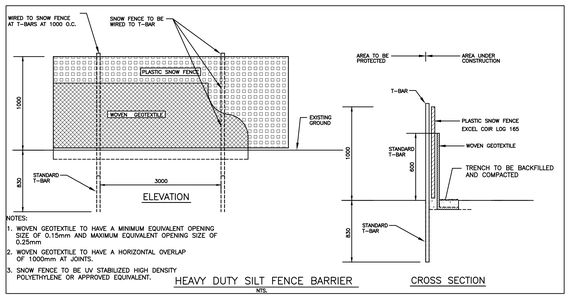


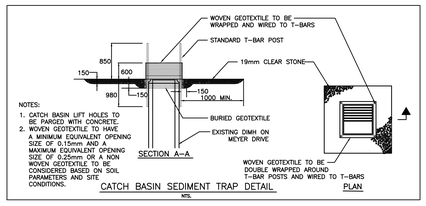
SEDIMENT AND EROSION CONTROL

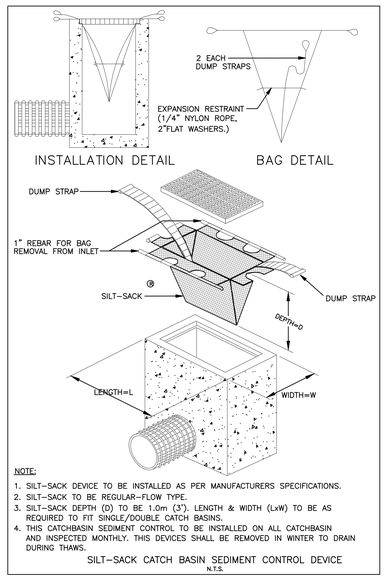
1. ALL SEDIMENT CONTROL FENCING IS TO BE ERECTED PRIOR TO THE COMMENCEMENT OF ANY SITE GRADING OPERATIONS.
2. ALL ROADSIDE CATCHBASINS TO HAVE SEDIMENT PROTECTION INSTALLED IMMEDIATELY AFTER CATCHBASIN INSTALLATION, SEDIMENT PROTECTION BARRIER TO BE MAINTAINED ON A REGULAR BASIS OR TO THE SATISFACTION OF THE TOWN OF OAKVILLE.
3. THE TOPSOIL STRIPPED FROM THE SITE SHALL BE STOCKPILED ON THE UNDEVELOPED AREA AND PROTECTED WITH SEDIMENT FENCE.
4. ALL EROSION AND SEDIMENT CONTROL MEASURE ARE TO BE REGULARLY INSPECTED AND MAINTAINED, AS REQUIRED, TO THE SATISFACTION OF THE TOWN OF OAKVILLE.
5. THE SEDIMENT DEVICES, MUST BE REPAIRED, CLEANED AND/OR REPLACED IF NECESSARY OR AS DIRECTED BY THE ENGINEER.
6. THE ACCUMULATED SEDIMENT IN CATCHBASIN MUST BE REMOVED, WHEN NECESSARY.
7. DURING ALL CONSTRUCTION PHASES, MUD TRACKING CONTROL, CONSISTING OF FLUSHING AND SWEEPING ROADS, IS TO BE PROVIDED FOR ALL ROADS, AS WARRANTED.
8. ALL THE SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION, GRADING TOPSOILING AND SODDING IS COMPLETED.
9. WHEN ALL CONSTRUCTION, GRADING AND SODDING IS COMPLETED THE SEDIMENT CONTROL DEVICES SHALL BE REMOVED AND THE DISTURBED AREAS SHALL BE REINSTATED.
10. SILTATION CONTROL WILL BE INSTALLED AND MAINTAINED DURING CONSTRUCTION IN EXISTING CATCHBASIN WITHIN THE PROPERTY.
11. ALL EROSION AND SEDIMENT CONTROLS ARE TO BE INSTALLED ACCORDING TO THE APPROVED PLANS PRIOR TO COMMENCEMENT OF ANY EARTH MOVING WORK ON THE SITE AND SHALL REMAIN IN PLACE UNTIL ALL DISTURBED AREAS ARE STABILIZED WITH THE INTENDED GROUND COVER.
12. EROSION AND SEDIMENT CONTROLS SHALL BE INSPECTED BY THE BUILDER/DEVELOPER:
    - WEEKLY
    - BEFORE AND AFTER ANY PREDICTED RAINFALL EVENT
    - FOLLOWING AN UNPREDICTED RAINFALL EVENT
    - DAILY, DURING EXTENDED DURATION RAINFALL EVENTS
    - AFTER SIGNIFICANT SNOW MELT EVENTS
13. EROSION AND SEDIMENT CONTROLS SHALL BE MAINTAINED IN PROPER WORKING ORDER AT ALL TIMES. DAMAGED OR CLOGGED DEVICES SHALL BE REPAIRED WITHIN 48 HOURS.
14. WHERE A SITE REQUIRES DEWATERING AND WHERE THE EXPELLED WATER CAN BE FREELY RELEASED TO A SUITABLE RECEIVER, THE EXPELLED WATER SHALL BE TREATED TO CAPTURE SUSPENDED PARTICLES GREATER THAN 40 MICRON IN SIZE. THE CAPTURED SEDIMENT SHALL BE DISPOSED OF PROPERLY PER MOECC GUIDELINES. THE CLEAN EXPELLED WATER SHALL FREELY RELEASE TO A SUITABLE RECEIVER THAT DOES NOT CREATE DOWNSTREAM ISSUES INCLUDING BUT NOT LIMITED TO EROSION, FLOODING –NUISANCE OR OTHERWISE, INTERFERENCE ISSUES, ETC.



NOTE:
– GRAVEL CONSTRUCTION ENTRANCE TO BE 10.0m WIDE X 30m LONG MIN.
ENTRANCE TO HAVE A MINIMUM 2% GRADE AND ADEQUATE CROSSFALL TO PROVIDE POSITIVE DRAINAGE.
– TOP DRESSING OF ADDITIONAL STONE SHALL BE APPLIED AS CONDITION DEMAND.





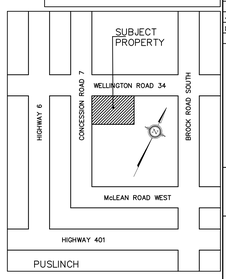


LEGEND

- 157.68 EXISTING ELEVATION
- CONSTRUCTION ACCESS ROUTE MUD MAT
  MUD MAT TO BE CONSTRUCTED AS FOLLOWS–
  MINIMUM WIDTH – 6.0m
  MINIMUM LENGTH –30m
  100mm TO 200mm QUARRY STONE,
  300mm DEEP PLACED ONTOP OF GEOTEXTILE
- HEAVY DUTY SEDIMENT CONTROL FENCE
- CB PROTECTION
- TEMP. ROCK CHECK DAM
- TEMP. SEDIMENT TRAP OPSD 219.20

PLAN ILLUSTRATING TOPOGRAPHY OF 7331 AND 7335 WELLINGTON ROAD 34
TOWNSHIP OF PUSLINCH
COUNTY OF WELLINGTON
THIS SURVEY WAS COMPLETED ON JUNE 3, 2025 BY J.D. BARNES LIMITED.

ELEVATION NOTE
ELEVATIONS ARE OF GEODETIC ORIGIN (CGVD–1928:1978) AND DERIVED FROM GNSS OBSERVATIONS AND NATURAL RESOURCES CANADA'S GEOID MODEL HTZ.0.



DATE	DETAILS
JULY 15,2026	ISSUED FOR SUBMISSION
NOV. 17, 2025	ISSUED FOR SUBMISSION

LICENSED PROFESSIONAL ENGINEER
JULY 15, 2026
A. JAWORSKI
100103267
PROVINCE OF ONTARIO

DESIGNED BY
ANDRZEJ JAWORSKI P. Eng.
CONSULTING ENGINEER

REVIEWED & APPROVED BY

DATE

DIRECTOR OF PUBLIC WORKS

Urbtech Engineering Inc.
1200 Speers Road, Suite 9, Oakville, Ontario, L6L 2X4
Telephone: 905 896 7364

PROPOSED INDUSTRIAL DEVELOPMENT

7335 WELLINGTON COUNTRY ROAD 34,
PUSLINCH, ONTARIO

SP–

SEDIMENT PLAN

SCALE: 1:1000	AREA: PUSLINCH	PROJECT No. 25–494	
DRAWN BY: G.J.	CHECKED BY: A.J.	PLAN No.	SED1
DATE: MAY 2026	SHEET: OF		

APPENDIX D

Sanitary Sewer

- OBC Section 8.2.2.3 and 8.7.5.2

Table 8.2.1.6.C.
Minimum Clearances for Holding Tanks

Forming Part of Sentence 8.2.1.6.(3)

Item	Column 1	Column 2
	Object	**Minimum Clearance, m**
1.	Structure	1.5
2.	Well with a watertight casing to a depth of at least 6 m	15
3.	Any other well	15
4.	Spring	15
5.	Property Line	3

8.2.2. Treatment and Holding Tanks

8.2.2.1. Application

(1) This Subsection applies to any tank used in a *sewage system* for collecting, treating, holding or storing *sanitary sewage*.

8.2.2.2. Tanks

(1) Subject to Sentence (3), a tank that is used as a *treatment unit* in a Class 4 *sewage system* or a *holding tank* in a Class 5 *sewage system* shall conform to the requirements of CSA B66, "Design, Material, and Manufacturing Requirements for Prefabricated Septic Tanks and Sewage Holding Tanks".

(2) Subject to Sentence (3), material standards, access and construction methods and practices for a tank used for other Classes of *sewage systems* shall conform to the requirements of CSA B66, "Design, Material, and Manufacturing Requirements for Prefabricated Septic Tanks and Sewage Holding Tanks".

(3) Tanks referred to in Sentences (1) and (2) are not required to conform to the requirements of Clause 10.2.(j) of CSA B66 "Design, Material, and Manufacturing Requirements for Prefabricated Septic Tanks and Sewage Holding Tanks".

(4) Sentence (2) does not apply to a tank that is an integral part of a prefabricated Class 1 *sewage system*.

(5) Access openings shall be located to facilitate the pumping of all compartments and the servicing of the inlet and outlet of each compartment not accessible by removal of the tank top or part of it.

(6) A tank shall not be covered by *soil* or *leaching bed fill* having a depth greater than the maximum depth of burial that the tank is designed to withstand.

(7) A tank shall be securely anchored when located in an area subject to flooding or where *ground water* levels may cause hydrostatic pressures.

8.2.2.3. Septic Tanks

(1) The minimum *working capacity* of a *septic tank* shall be the greater of 3 600 L and,

(a) in *residential occupancies*, twice the daily design *sanitary sewage* flow, or

(b) in non-*residential occupancies*, three times the daily design *sanitary sewage* flow.

(2) Every *septic tank* shall be constructed in such a manner that any *sanitary sewage* flowing through the tank will pass through at least 2 compartments.

(3) The *working capacity* of the compartments required in Sentence (2) shall be sized such that,

(a) the first compartment is at least 1.3 times the daily design *sanitary sewage* flow but in no case less than 2 400 L, and

(b) each subsequent compartment shall be at least 50% of the first compartment.

(4) Where multiple tanks are to be used to meet the requirements of Sentences (2) and (3), the tanks shall be connected in series such that,

(a) the first tank in the series shall have at least a capacity as calculated in Clause (3)(a), however at no time shall a tank having a *working capacity* of less than 3 600 L be used,

(b) all additional tanks after the first tank, excluding pump or dosing tanks shall have at least a *working capacity* equal to the volume required by Clause (3)(b),

(c) the pipe between the outlet of one tank and the inlet of the next tank in the series shall have a minimum slope of 2 per cent,

(d) there shall be no partitions in the tank except where a partition is required to maintain the structural integrity of the tank, in which case openings within the partition shall be provided to allow the free movement of *sanitary sewage* throughout the tank, and

(e) all piping between tanks shall be continuous and shall be connected to the tank through the use of flexible watertight seals that will permit differential movement between the tanks.

(5) Partitions separating the *septic tank* into compartments shall extend at least 150 mm above the liquid level at the outlet, and there shall be one or more openings through or above the partition.

(6) The openings required between compartments referred to in Sentence (2) shall have a total cross-sectional area of at least three times the area of the inlet pipe and be located between the top and a level 150 mm above the liquid level at the outlet to provide for the free flow of air between compartments.

(7) *Sanitary sewage* shall pass from one compartment to another of the *septic tank* as follows:

(a) by means of a device similar to that described in CSA B66, "Design, Material, and Manufacturing Requirements for Prefabricated Septic Tanks and Sewage Holding Tanks" for outlet devices, or

(b) through two or more openings through the partition located in a horizontal line, and evenly spaced across the width of the partition, centred at approximately 40% of the liquid depth below the surface of the liquid, and having a total area of between three and five times that of the cross-sectional area of the inlet pipe.

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8.7.4. Fill Based Absorption Trenches

8.7.4.1. Loading Requirements

(1) The area described in Sentence 8.7.4.2.(1) shall be designed such that the *loading rate* does not exceed, for *soil* having a *percolation time* set out in Column 1 of Table 8.7.4.1., the maximum value set out opposite it in Column 2 of Table 8.7.4.1.

Table 8.7.4.1.
Loading Rates for Fill Based Absorption Trenches and Filter Beds

Forming Part of Sentences 8.7.4.1.(1) and 8.7.5.2.(2)

Item	Column 1	Column 2
	***Percolation Time* (T) of *Soil*, min**	**Loading Rates, (L/m²)/ day**
1.	$1 < T \leq 20$	10
2.	$20 < T \leq 35$	8
3.	$35 < T \leq 50$	6
4.	$T > 50$	4

8.7.4.2. Construction Requirements

(1) Except for a *shallow buried trench*, a *leaching bed* comprised of *absorption trenches* may be *constructed* in *leaching bed fill*, if unsaturated *soil* or *leaching bed fill* complying with Subclause 8.7.2.1.(1)(b)(ii) extends,

(a) to a depth of at least 250 mm over the area covered by the *leaching bed fill*, and

(b) for at least 15 m beyond the outer *distribution pipes* in any direction in which the *effluent* entering the *soil* or *leaching bed fill* will move horizontally.

(2) If the unsaturated *soil* or *leaching bed fill* described in Sentence (1) has a *percolation time* greater than 15 minutes, any additional *leaching bed fill* added to it to form the *leaching bed* shall have a *percolation time* not less than 75% of the *percolation time* of the unsaturated *soil* or *leaching bed fill* to which it is added.

(3) *Leaching bed fill* that does not meet the requirements of Sentence (2) may be used to form the *leaching bed* if,

(a) the distance from the bottom of the *absorption trench* to the underlying *soil* is not less than 900 mm, or

(b) where the distance from the bottom of the *absorption trench* to the underlying *soil* is less than 900 mm, the *percolation time* of the least permeable *soil* or *leaching bed fill* within 900 mm from the bottom of the *absorption trench* is used to calculate the length of the *distribution pipe* under Article 8.7.3.1.

(4) Sentence (2) does not apply to any *leaching bed fill* added as backfill above the stone layer in which the *distribution pipe* is located.

(5) All *leaching bed fill* added shall be stabilized against erosion.

(6) The site to which the *leaching bed fill* is added shall be generally clear of vegetation.

(7) The *leaching bed fill* that is added shall be compacted in layers in such a manner as to avoid uneven settlement of the *distribution pipes*.

(8) Any *distribution boxes*, *header lines*, *absorption trenches*, or *distribution pipes* shall be installed only after the *leaching bed fill* has been compacted in accordance with Sentence (7).

(9) Except as provided in Sentence (10), the sides of the added *leaching bed fill* shall be sloped to ensure stability, but shall not be steeper than one unit vertically to four units horizontally.

(10) The side slope of the *leaching bed fill* may be increased up to one unit vertically to three units horizontally if measures are taken to prevent erosion and ensure stability of the *leaching bed fill*.

(11) The distances set out in Column 2 of Table 8.2.1.6.B. shall be increased by twice the height that the *leaching bed* is raised above the original grade.

8.7.5. Filter Beds

8.7.5.1. Application

(1) The total daily design *sanitary sewage* flow shall not exceed,

(a) 5 000 L where the *treatment unit* is a *septic tank*, or

(b) 10 000 L where the *treatment unit* is a Level II, Level III or Level IV *treatment unit* as described in Table 8.6.2.2.

8.7.5.2. Loading Requirements

(1) The effective area of the surface of the filter medium in each filter bed shall be at least 10 m² and not more than 50 m².

(2) The area described in Sentence 8.7.4.2.(1) shall be designed such that the *loading rate* does not exceed, for *soil* having a *percolation time* set out in Column 1 of Table 8.7.4.1., the maximum value set out opposite it in Column 2 of Table 8.7.4.1.

(3) Except as provided in Sentence (5), where the total daily design *sanitary sewage* flow does not exceed 3 000 L, the effective area shall be such that the loading on the surface of the filter medium does not exceed 75 L/m² per day.

(4) Except as provided in Sentence (5), where the total daily design *sanitary sewage* flow exceeds 3 000 L,

(a) the effective area shall be such that the loading on the surface of the filter medium does not exceed 50 L/m² per day, and

(b) the *leaching bed* shall be comprised of more than one filter bed, each of similar size and adjacent to each other.

(5) Where a Level II, Level III or Level IV *treatment unit* as described in Table 8.6.2.2. is used in conjunction with a filter bed, the effective area shall be such that the loading on the surface of the filter medium does not exceed 100 L/m² per day.

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