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163 & 164 Edward Street East, Creemore

FUNCTIONAL SERVICING REPORT

Lamb Creemore Inc.

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Issue	Date	Description
1	September 9, 2026	OPA/ZBA Submission

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1 Introduction

Tatham Engineering Limited (Tatham) has been retained by Lamb Creemore Inc. to prepare a Functional Servicing Report (FSR) in support of concurrent Official Plan Amendment (OPA) and Zoning By-law Amendment (ZBA) applications for a proposed residential development located at 163 & 164 Edward Street East (the 'site'), in the Village of Creemore, Township of Clearview (Township).

1.1 OBJECTIVES

This report has been prepared to demonstrate the servicing feasibility of the proposed development with respect to civil servicing including preliminary site grading and drainage, sewage collection and treatment, and water supply and distribution.

1.2 GUIDELINES AND BACKGROUND REPORTS

This report is prepared in consideration of the following municipal, provincial and agency guideline documents:

- The MECP, *Design Guidelines for Drinking-Water Systems*, (2008; updated May 2023);
- MECP, *Design Guidelines for Sewage Works* (2008);
- Nottawasaga Valley Conservation Authority (NVCA); *NVCA Stormwater Technical Guide* (December 2013); and
- Township of Clearview, *Engineering Design Criteria Standards* (October 2025).

This report is prepared in consideration of the following Township reports and publications:

- R.J. Burnside & Associates Limited, *Creemore Water and Wastewater Master Servicing Plan* (May 2024); and
- Township of Clearview, *Creemore 2025 Drinking Water Compliance Report*, (February 2026).

This report is prepared in consideration of the following site-specific studies and reports:

- *Preliminary Geotechnical Engineering Report - 163-164 Edward Street East Clearview Township (Creemore) Ontario*, Grounded Engineering, (July 26, 2022);
- *Hydrogeological Assessment REV1*, Grounded Engineering Limited (May 31, 2023);
- *163 & 164 Edward Street E, Creemore, Transportation Impact Study*. Tatham Engineering, (September 2026);



- *163 & 164 Edward Street E, Creemore, Preliminary Stormwater Management Report*, Tatham Engineering, (September 2026); and
- *163 & 164 Edward Street E, Creemore, Flood Hazard Assessment*, Tatham Engineering, (September 2026).



2 Site Description

2.1 SUBJECT PROPERTY

The proposed development is located at 163 & 164 Edward Street East. The site is approximately 37 ha and consists of agricultural land, with the remains of a residential dwelling, barn and an existing driveway access located within the 163 Edward Street East property. The site is bound by agricultural lands to the north, east, and south lands, and undeveloped lands (future residential development) to the west, and is bisected by Edward Street East.

The site is located partially within the NVCA's regulated area subject to flood hazards associated with the Mad River and the Edward Street Tributary of the Mad River. The site is partially within a Highly Vulnerable Aquifer Zone (HVA). However, it is not within a Source Water Protection area (SWPA), Significant Groundwater Recharge Area (SGRA), Wellhead Protection Zone (WPZ), or Intake Protection Zone.

Refer to Figure 1 for the Site Location Map.

2.2 SITE TOPOGRAPHY

Information related to existing topography, ground cover, and drainage patterns is based on a review of relevant background studies, available LiDAR contour mapping, and detailed topographic survey of the subject lands.

The site is generally flat, with an average slope of 0.7% to the southeast.

A detailed topographic survey of the site was completed by Better Measures Inc. in October 2019.

2.3 GEOTECHNICAL INVESTIGATION

A preliminary geotechnical investigation was completed by Grounded Engineering Inc. (July 2022) to identify the subsurface conditions and determine the engineering properties of the in-situ soils for the design and construction of the proposed development. A total of sixteen boreholes (101 to 116) were drilled on site to depths of 8.2 to 9.8 m below ground surface (mbgs). All boreholes encountered the same stratigraphy at varying depths.

The report describes the existing stratigraphy as a layer of topsoil (100 to 200 mm depth) underlain by a layer of previously disturbed native soils, generally consisting of sandy silt to silty sand, with some clay to a depth of 0.8 to 0.9 mbgs. Beneath the disturbed soil, a layer of sandy gravel to gravelly sand was encountered to depths of 3.0 to 6.4 mbgs. Underlying the sand and



gravel, a sand layer was encountered to depths of 8.2 to 9.8 mbgs. All boreholes were terminated within this layer.

Refer to the original report for further information.

2.4 HYDROGEOLOGICAL INVESTIGATION

A hydrogeological investigation was completed by Grounded Engineers Inc. (May 2023) to assess the presence of groundwater and the potential impact to groundwater due to construction of the proposed development. All sixteen boreholes (101-116) were developed into monitoring wells, with the monitoring wells screens advanced into the sand and sandy gravel layers. During the monitoring period, groundwater was present at depths ranging from 0.2 to 1.0 mbgs during the seasonal high period and 3.0 to 4.2 mbgs during the seasonal low period. The groundwater was determined to travel in a southeast direction towards the Mad River.

Refer to the original report for further information.

2.5 CREEMORE MASTER SERVICING PLAN

The Creemore Master Servicing Plan (MSP) has recently been completed to provide a recommended servicing strategy for future growth within Creemore. Supporting technical memorandums prepared by R.J. Burnside & Associates Ltd. (RJBA) are referenced and appended to the MSP. Where this report references the MSP, it includes references to the associated RJBA technical memorandums.

The preferred servicing strategies identified in the MSP are presented in the relevant sections of this report.

2.5.1 Future Growth and Servicing Needs

The MSP defines the overall study area and delineates sub-areas based on anticipated growth projections to provide targeted servicing recommendations.

Refer to Figure 2, appended, for an illustration of the Creemore MSP Study Area and associated Sub-Areas.

The site is located within the 'Creemore East' sub-area; specifically area CE-3. The MSP forecasts Creemore's total population by 2042 to grow to approximately 5,817 people, comprised of:

- Existing population: 2,190 people
- Additional growth in 'Creemore East': 3,417 people
- Additional growth in 'Creemore Core': 349 people (infill)



The MSP assigned a projected equivalent population of 3,417 people for the 'Creemore East' study area, of which a design population of 1,608 people (based on 536 units at a PPU or 3.0) were allocated for the subject site (CE-3). We note this is lower than the design population of 2,314 people (939 units) proposed within the current Concept Plan. The impacts of this as it relates to servicing requirements are further discussed below.

2.6 PROPOSED DEVELOPMENT

The conceptual draft plan proposes a residential development with a mixture of single-detached, semi-detached, townhouse, mixed-use, and commercial blocks, complete with internal roads, dedicated park and laneway blocks, drainage blocks, two stormwater management blocks, and retaining wall blocks.

The development concept proposes:

- total of 939 residential units, consisting of:
 - 216 single family (detached) dwelling units;
 - 164 semi-detached dwelling units;
 - 349 townhouse units;
 - 210 mixed-use units (apartments);
- 0.78 ha of mixed-use commercial blocks; and
- 0.09 ha hotel block.

Refer to the conceptual draft plan prepared by Robert Russell Planning Consultants (April 2026) in Appendix A for reference. The mixed-use residential unit count was determined through discussions with Robert Russell Planning Consultants and the owner.



3 Water Supply and Distribution

3.1 EXISTING WATER SYSTEM

The Creemore Drinking Water System is owned and operated by the Township and located within the 'Creemore Core' area. The system consists of a water treatment plant supplied by groundwater, a distribution system, and a water storage reservoir. The existing water system services an estimated 2,190 equivalent people. Any existing homes outside of the 'Creemore Core' sub-area are understood to be serviced via private wells.

The drinking water system currently meets the water demands of the existing population in Creemore; however, water system upgrades will be required to support demands based on the projected population growth to 2042 as outlined in the MSP.

Refer to Table 1 for a summary of the existing and future water supply and storage requirements per the MSP.

Table 1: Water System Demands

YEAR	SERVICE POPULATION	REQUIRED WATER SUPPLY	REQUIRED WATER STORAGE
Existing	2,190	15.0 L/s ¹	1,570 m ³ ¹
2042	5,956	40.1 L/s	2,379 m ³
Beyond 2042	9,676	70.8 L/s	4,059 m ³

1. Existing conditions water supply capacity and provided storage volume.

3.1.1 Water Supply & Treatment

The Creemore Water Treatment Plant (WTP) is located on the east side of Mary Street, north of Caroline Street East. The plant has a rated treatment capacity of 2,688 m³/d (31.1 L/s) supplied by two groundwater wells operating within PTTW P-300-7059802876. The total allowable taking from the wells is 2,880 m³/day. The Municipal Drinking Water License limits the maximum treated water discharge to 2,592 m³/d (30 L/s). With one well required as standby, the firm supply capacity is 1,296 m³/d (15 L/s). As noted in the MSP, the residual capacity of the WTP is 442 m³/d (5.1 L/s).

3.1.2 Water Storage

An existing water reservoir is located at the north end of Collingwood Street, approximately 1.75 km northwest of the site. The reservoir provides a total storage volume of 1,570 m³ with 424 m³ of residual storage capacity, according to the MSP.



3.1.3 Water Distribution

There are no existing watermains within Edward Street East fronting the site. Recommendation in the MSP for water distribution to the 'Creemore East' sub-area is noted as a 300 mm dia. watermain extended through Edward Street East, and 200 mm dia. watermains proposed through the subject lands to service future development.

Refer to Appendix B for relevant figures from the MSP as it relates to the water distribution system.

3.1.4 Master Servicing Plan – Preferred Alternative (WS2)

The MSP recommends the following with regards to improvements for the Creemore Drinking Water Distribution system:

- Supplement supply/treatment through installation of a new groundwater well to meet the projected demand of 3,465 m³/day (40.1 L/s) and 6,121 m³/day (70.8 L/s) for the 2042 and complete build-out growth horizons respectively; and,
- Supplement storage through installation of a new grade-level storage reservoir (2,479 m³) at the existing reservoir site to service the full build-out growth horizon.

It is understood the Township has retained a consultant to advance the necessary investigations required to identify appropriate sites within the community to support the installation of additional supply wells, and that investigations are ongoing. Further discussion with the Township will be required to confirm timeline and ultimate supply capacity. The design phase for the upgraded water reservoir was initiated in September 2025.

Given the increase in planned population of the subject site in comparison to the growth assumptions of the MSP, the Township should consider these additional demands as the design of the additional groundwater supply well and storage reservoir advance, described further below.

3.2 PROPOSED WATER SYSTEM

The proposed development will be serviced by the expanded Creemore Drinking Water System as outlined in the MSP via connections to the proposed 300 mm dia. watermain within Edward Street East.

3.2.1 Water Demand

The residential water demand criteria from the MSP has been utilized to estimate the water demands of the proposed development:



- Per capita Average Day Demand (ADD) = 350 L/person/day

Population densities and ICI water demands for the proposed development have been calculated in accordance with Township standards, including the following criteria:

- Residential Population Density
 - Single/Semi-Detached = 3.0 PPU
 - Townhouse Units = 2.4 PPU
 - Apartment Units = 1.6 PPU
- Commercial Demand = 0.28 L/s/ha

Residential Maximum Day Demand (MDD) and Peak Hour Demand (PHD) factors have been applied in accordance Table 3-1 of the MECP Design Guidelines for Drinking Water Systems (2008). Commercial MDD/PHD have been applied in accordance with Township standards.

- Residential MDD Factor = 2.00
- Residential PHD Factor = 3.00
- Commercial MDD/PHD Factor = 2.00/3.00

Summary of water demands are provided below in Table 2. Refer to Appendix C for Water Demand Calculations.

Table 2: Summary of Water Demand

SCENARIO	DEMAND (m ³ /d)	DEMAND (L/s)
Average Day Demand	830.78 m ³ /d	9.62 L/s
Maximum Day Demand (MDD)	1,661.56 m ³ /d	19.23 L/s
Peak Hour Demand	-	28.85 L/s

The MSP estimated MDD for area CE-3 (subject lands) was based on a design population of 1,608 people, resulting in an MDD of 13.02 L/s. The proposed development has a design population of 2,314 people, resulting in an MDD of 19.23 L/s. This represents a total increase of 6.21 L/s of MDD in comparison to what was estimated for the development of area CE-3 in the MSP.

Accordingly, the 2042 MDD forecast of 40.1 L/s (utilized to establish water supply targets for the 2042 growth population) should be increased to 46.31 L/s to account for the proposed development.

Water demand calculations are provided in Appendix E for reference.



3.2.2 Fire Protection

RJBA prepared a technical memorandum (*Flows and Demands*, May 2024) to estimate water and demands associated with projected growth in Creemore in support of the MSP. A required fire flow value of 125 L/s was used for 'Creemore East' development areas CE-1 & CE-2 in this memorandum. A value of 144 L/s was utilized for development area CE-3 (subject site). For consistency, 144 L/s was also applied to the subject development in this FSR. This assumption will be refined at detailed design stage upon confirmation of anticipated building design through determination of actual required fire flow via FUS methodology (if required). Based on this assumption the subject development results in a MDD + FF demand of 163.23 L/s

A proposed conditions hydraulic model of the Creemore water distribution system was developed in support of the MSP. Model results are provided in Appendix B, with Figure 9 showing the "Proposed Fire Flow + Maximum Day Demand" scenario. Modeled flows within CE-3 indicate anticipated flows of 150-185 L/s within the infrastructure after expansion of the water distribution system into the subject site. Figure 9 also shows the proposed FF + MDD flows within the subject site (CE-3).

Supplemental hydraulic modelling will be completed as part of future approval stages to confirm sufficient flows and pressures are available throughout the site.

3.2.3 Water Storage

RJBA prepared a technical memorandum (*Flows and Demands*, May 2024) which determined the required water storage for Creemore up to the 2042 development horizon (a design population of 5,956 people). The required water storage was determined to be 2,379 m³.

The increased design population for the subject site (an increase of 706 people in comparison to what was allocated for the development of CE-3 within the MSP) results in a total 2042 population forecast of 6,662 people, requiring a total storage volume of 2,533 m³ (an increase of 154 m³ in comparison to what is recommended per the MSP).

As the proposed MSP solution for water storage is to twin the existing reservoir, resulting in a total storage volume of 3,140 m³, it is expected the system will have sufficient water storage to service the subject development upon expansion.

3.2.4 Water Distribution

The site's internal water system will be designed in accordance with Township and MECP design criteria, including but not limited to the following:

- minimum watermain size for residential areas is 150 mm dia.;



- minimum depth of watermain of 1.8 m, measured to the top of pipe within curb and gutter roads;
- minimum depth of watermain of 2.2 m, measured to the top of pipe within open ditch roads;
- operating pressure shall not drop below 140 kPa (20.3 psi) under simultaneous maximum day and fire flow demands; where water pressure exceeds 620 kPa (90 psi), pressure reducing valves will be required;
- single family lots and townhouse lots will be serviced with individual 25 mm dia. water services; and
- maximum fire hydrant spacing of 150 m in residential areas.

The internal system is to be comprised of a network of watermains within the future ROWs, with looping where required to avoid dead ends and reduce pressure losses within the development. Future looping and connections for the development will extend from the planned watermain within Edward Street East.

Additional modeling of both the external and internal watermains will be conducted at future design stages to confirm system layout, connection locations and required pipe sizes to ensure adequate pressures and flows are available throughout the development.

The proposed internal watermain system is shown on the Preliminary Site Servicing Plan (Drawing SS.1) enclosed in Appendix G for reference, while the external infrastructure required to support the development and as described above is depicted on Figure 9 of the MSP, provided in Appendix B.



4 Sanitary Sewage System

4.1 EXISTING SEWAGE SYSTEM

The Creemore Wastewater System is owned by the Township and located within the Creemore Core area. Existing sewage collection is provided by a network of gravity sewers that converge into the Mary Street Trunk Sewer. The Mary Street Trunk Sewer conveys sewage to the Creemore Wastewater Treatment Plant (WWTP). All existing homes outside of the Creemore Core area are understood to be serviced by private septic systems.

4.1.1 Creemore Wastewater Treatment Plant

The WWTP was designed to be constructed in two phases, with an ultimate rated capacity of 1,400 m³/d. The first phase of the WWTP was constructed to a rated ADF capacity of 860 m³/d. Due to operational bottlenecks within the system, the MSP established the residual capacity of the WWTP as 114 m³/d.

The preferred solution in the MSP consists of a phased upgrade to the WWTP: first, an expansion to the approved capacity of 1,400 m³/d, followed by a Schedule 'C' Municipal Class Environmental Assessment (MCEA) to increase capacity further to a target of 2,100 m³/d to service the 2042 growth horizon.

Appendix B of the MSP includes a *Wastewater Flow Projections* table which determines the sewage flows of the future growth populations for the various sub-areas of Creemore. The cumulative ADF for the 2042 horizon (comprised of existing and 'Creemore Core' infill, and the 'Creemore East' lands) equates to 2,055 m³/d.

An Assimilative Capacity Study (ACS) of the Mad River (receiving waterbody for the Creemore WWTP) was completed by Hutchinson Environmental Services Ltd. (Hutchinson) in support of the plant expansion to assist in determining the expansion capacity of the WWTP. Section 5 of the ACS (Water Quality Modelling) mentions mass-balance modelling was undertaken to predict the effects of the expansion of the WWTP on the water quality of the Mad River.

The 2042 ADF of 2,055 m³/d from the MSP was used to inform the phase two WWTP plant expansion capacity target of 2,100 m³/d, which generally aligns with the findings of the ACS.

4.1.2 Sewage Collection

There are no existing sanitary conveyance infrastructure within Edward Street East fronting the site. The preferred servicing solution per the MSP proposes a sewage pumping station (SPS) located at 111 George Street in development area CE-2 (adjacent to the subject site). A series of



new gravity sewers would convey sewage flows from the respective proposed developments to the SPS, to then be pumped via forcemain directly to the WWTP. Refer to Appendix B for the wastewater preferred solution figure from the MSP.

4.2 PROPOSED SANITARY SYSTEM

4.2.1 Sewage Flow

The residential wastewater design flow criteria from the MSP has been utilized in the calculations for the proposed development's wastewater demand:

- Per capita Average Day Flow (ADF) = 350 L/person/day

Population densities and ICI wastewater demands for the proposed development have been calculated in accordance with Township standards, including the following:

- Residential Peaking Factor = Harmon Formula
- Residential Population Density
 - Single/Semi Detached = 3.0 PPU
 - Townhouse Units = 2.4 PPU
 - Apartment Units = 1.6 PPU
- Commercial Design Flow = 28 m³/ha/day
- Extraneous Flow (infiltration) = 0.23 L/s/ha

Refer to Appendix D for Sewage Flow Calculations and Table 3 for a summary.

Table 3: Summary of Sewage Flow

SCENARIO	FLOW (m ³ /d)	FLOW (L/s)
Average Daily Flow	834.09 m ³ /d	9.65 L/s
Extraneous Flow	736.13 m ³ /d	8.52 L/s
Peak Flow (incl. Extraneous)	-	42.26 L/s

The estimated ADF for the full build-out scenario of the proposed development (834 m³/day) exceeds ADF assumed for the subject lands in the MSP (563 m³/day), resulting in an increase of approximately 271 m³/day due to the previously noted increase in planned population.



Accordingly, the projected 2042 ADF of 2,100 m³/day may need to be increased to approximately 2,400 m³/day to account for the proposed development.

Wastewater flow calculations are provided in Appendix D for reference.

4.2.2 WWTP Ultimate Capacity

Given the potential increase in total ADF, it is recommended the Township utilize the increased ADF of 2,400 m³/day as the design target when advancing the MCEA for Phase 2 of the WWTP expansion. Alternatively, we suggest that during the MCEA process, the Township revisit the design criteria for per capita sewage flow and allowances for I&I that were utilized in the MSP as they appear to be conservative.

4.2.3 Sewage Collection

The wastewater conveyance system will be designed in accordance with Township and MECP design criteria, including but not limited to the following:

- minimum sanitary sewer size for residential areas is 200 mm dia.; and
- minimum depth of sanitary sewer is 2.8 m, measured to the top of pipe.

The development will be serviced via a network of sanitary sewers, including a trunk main along Street 'D.' Each lot and commercial or mixed-use block will be serviced by new individual service laterals per Township standards. The gravity network will drain to a proposed sanitary pumping station (SPS) located at 111 George Street per the preferred solution within the MSP.

Wastewater generated by the development will be conveyed to the Creemore WWTP via a forcemain. Final alignment of the forcemain and ultimate sizing of the SPS is subject to coordination with the Township and other developments in the area.

The proposed sanitary system is shown on the Preliminary Site Servicing Plan (Drawing SS.1) enclosed in Appendix G for reference, as well as to Figure 20 within Appendix B for the wastewater preferred solution from the MSP, which illustrates the extent of external works anticipated to be required.

Sanitary sewer sizing will be confirmed in support of draft plan of subdivision.



5 Stormwater Management Plan

A *Preliminary Stormwater Management Report* has been prepared by Tatham under separate cover and should be read in conjunction with this report.

The stormwater management strategy for the development proposes:

- Post-development peak flow rates will be controlled to pre-development rates for all storm events (up to the 1:100-year storm) at the site outlet (existing 1,500 mm dia. culvert crossing Airport Road), while ensuring the SWM strategy is in conformance with the proposed East Creemore Drainage works. Stormwater quantity storage will be provided through one dry pond for the north development and one wet pond for the south development with sufficient storage to attenuate the proposed peak flow to or below pre-development levels.
- Due to existing drainage conditions and site topography, SWMF#2 (located in the southeastern quadrant of the site) requires a drainage outlet to be constructed through the adjacent private properties (187 and 237 Edward Street). This is expected to be obtained through a drainage agreement, easement and/or land acquisition, and will be advanced as the project advances through the planning approval process.
- The minor storm event will be collected and conveyed by the proposed internal storm sewer system and conveyed to the ponds. The major storm event will be conveyed overland through the site to the proposed ponds.
- Enhanced Level 1 stormwater quality treatment, corresponding to 80% TSS removal, will be provided via a treatment train comprising of an OGS unit and the dry pond for the north development, and a wet pond for the south development.
- Infiltration-based LID facilities will be designed to provide best efforts to infiltrate the 5 mm erosion control volume. During future design phases, additional infiltration measures will be evaluated. Pre-treatment will be provided prior to infiltration.

A series of erosion and sediment controls will be implemented for all construction activities and developed at detailed design.



6 East Creemore Drain & Mad River Flooding

The subject lands are within the study area of the *Community of Creemore, Clearview Township Municipal Class Environmental Assessment (Schedule B) Project File Report for Works Undertaken Within a Watercourse for the Purpose of Flood Control* prepared by R.J. Burnside & Associates (RJBA) in July 2010. This assessment includes the Creemore East Master Drainage Plan (MDP), also prepared by RJBA in July 2010. An addendum to these reports was completed and finalized in September 2024.

In addition, in 2024, the NVCA published the *Upper Mad River Flood Hazard Mapping Draft Hydraulic Modelling Report* (Aquafor Beech) which included a HEC-HMS hydrologic model of the Mad River and a new 2D hydraulic model of the Mad River through Creemore. The 2D model provides more detailed information regarding the Mad River floodplain through Creemore and identifies the overbank flooding as impacting the subject site.

As further described in the Preliminary SWM Report and Flood Hazard Assessment (prepared by Tatham under separate cover), the grading, drainage and SWM design for the subject site has been prepared in accordance with these studies. The preliminary design of the site includes wrap-around channels to manage external drainage and spill flows from the Mad River and also proposes a revised drainage solution along Edward Street East (utilizing box culverts rather than a large drainage channel as recommended in the Creemore East MDP). Refer to the above mentioned reports for additional detail.



7 Roads & Grading

7.1.1 Criteria

Preliminary grading has been reviewed in accordance with the Township standards and best practices as noted below:

- Minimum road grade: 0.5%;
- Maximum road grade: 7%;
- Minimum lot grade: 2%;
- Maximum lot grade: 12%;
- Minimize retaining walls;
- Minimize the volume of earth to be moved and balance on-site cut/fill; and
- Achieve drainage and SWM objectives.

All municipal roads will be designed and constructed to Township standards.

7.1.2 Road Grading

Internal road grading has been designed to ensure stormwater runoff is collected by the proposed storm sewers and will be conveyed to sufficient outlets. The proposed road grading will also provide sufficient overland flow routes contained within the road allowances. The major overland flow routes terminate at the each of the two proposed SWM facilities.

Based on the preliminary design, road grades vary between 0.5 – 3.0%, with an average of approximately 2.0%. The road design will be refined during the detailed design stage of the project.

7.1.3 Road Improvements and Connectivity

It is understood that Edward Street East is to be urbanized (from Mary Street to County Road 42), complete with full municipal servicing along the frontage of the site. This project has been previously identified by the Township and is captured in the 2024 Development Charge Background Study. The timing of the reconstruction as it relates to the proposed development will be determined as the project advances through future design and approval phases, and is expected to be subject to development phasing of the subject site.



In addition, the site will provide road connectivity through the extension of George Street in coordination with the development of the adjacent future development of 101 Edward and 111 George Street.

7.1.4 Lot Grading

Lot grading is designed to provide positive drainage away from the dwellings and will be in accordance with Township engineering standards.

During detailed design, the grading and cut/fill volumes will be optimized. Where drainage from lots is unable to be directed to the adjacent right of way, side yard and rear yard swales will be utilized to direct drainage to the desired location.

The preliminary site grading design is depicted on the Preliminary Site Grading Plan (Drawing SG.1) enclosed in Appendix G for reference.



8 Utilities

The following utility agencies provide services to the proposed development:

- HydroOne/Elexicon Energy;
- Enbridge;
- Bell Canada; and
- Rogers Communication Inc.

Utility coordination is continue to advance as the proposed development advances through the various design and approval stages.

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9 Summary

The proposed development can be supported by the existing and future planned municipal infrastructure as described above in this report and summarized below.

9.1 WATER SUPPLY AND DISTRIBUTION

The development will be serviced with municipal water via the expanded Creemore Water Distribution System. The Township should consider the demands of the subject site as the investigations and design of additional municipal supply wells advance, recognizing the site results in a minor increase to the overall 2042 water demand in comparison to the targets established in the MSP.

The expansion of the existing water storage reservoir per the MSP is expected to be sufficient to service the proposed development.

Detailed hydraulic modelling will be required to confirm watermain sizing and operating pressures at future design stages.

9.2 SANITARY SEWAGE COLLECTION

The development will be serviced with gravity sanitary sewers which will drain to a sanitary pumping station at 111 George Street, which will convey raw sewage to the expanded Creemore WTP via proposed forcemain. Expansion of the WTP is required to service the full build-out of the proposed development.

9.3 DRAINAGE AND STORMWATER MANAGEMENT

A Preliminary Stormwater Management Report has been prepared by Tatham under a separate cover and should be read in conjunction with this report.

The purpose of this report is to detail the stormwater quantity and quality controls required to mitigate negative impacts to neighbouring lands, while ensuring the SWM strategy is conformance with the proposed East Creemore Drainage works. Water quantity and quality control will be provided via the dry pond and treatment train approaches for the north development, and a wet pond for the south development. The 5 mm erosion control volume is expected be infiltrated within infiltration galleries throughout the site.



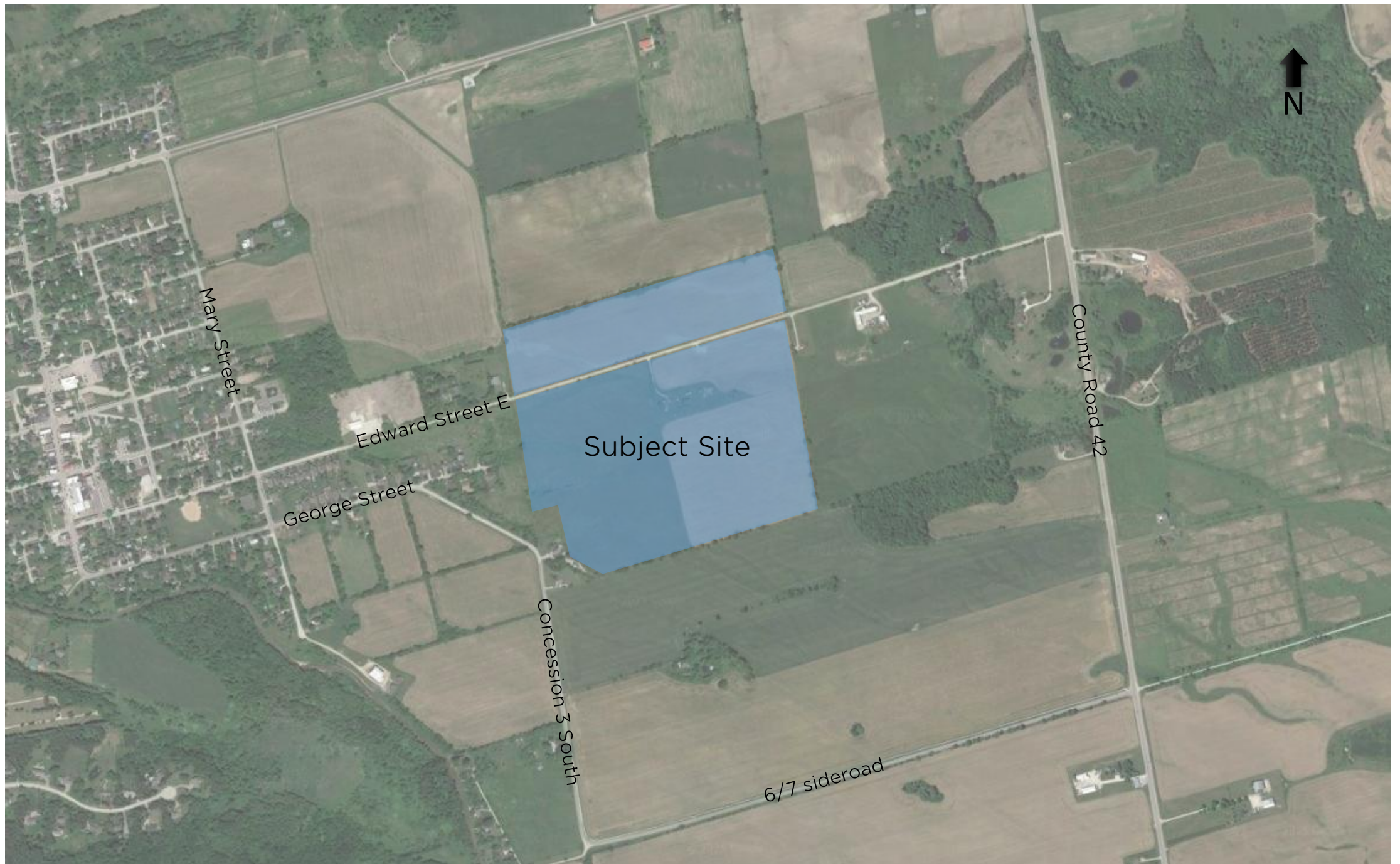
9.4 GRADING

A conceptual grading plan was prepared in accordance with Township standards and best practices to achieve the objectives of the SWM plan and tying into existing grades while respecting the floodplain limits.

9.5 UTILITIES

All utilities (electrical, gas and telecommunications) are expected to be available to service the proposed development. Utility coordination will be initiated at the detailed design stage.

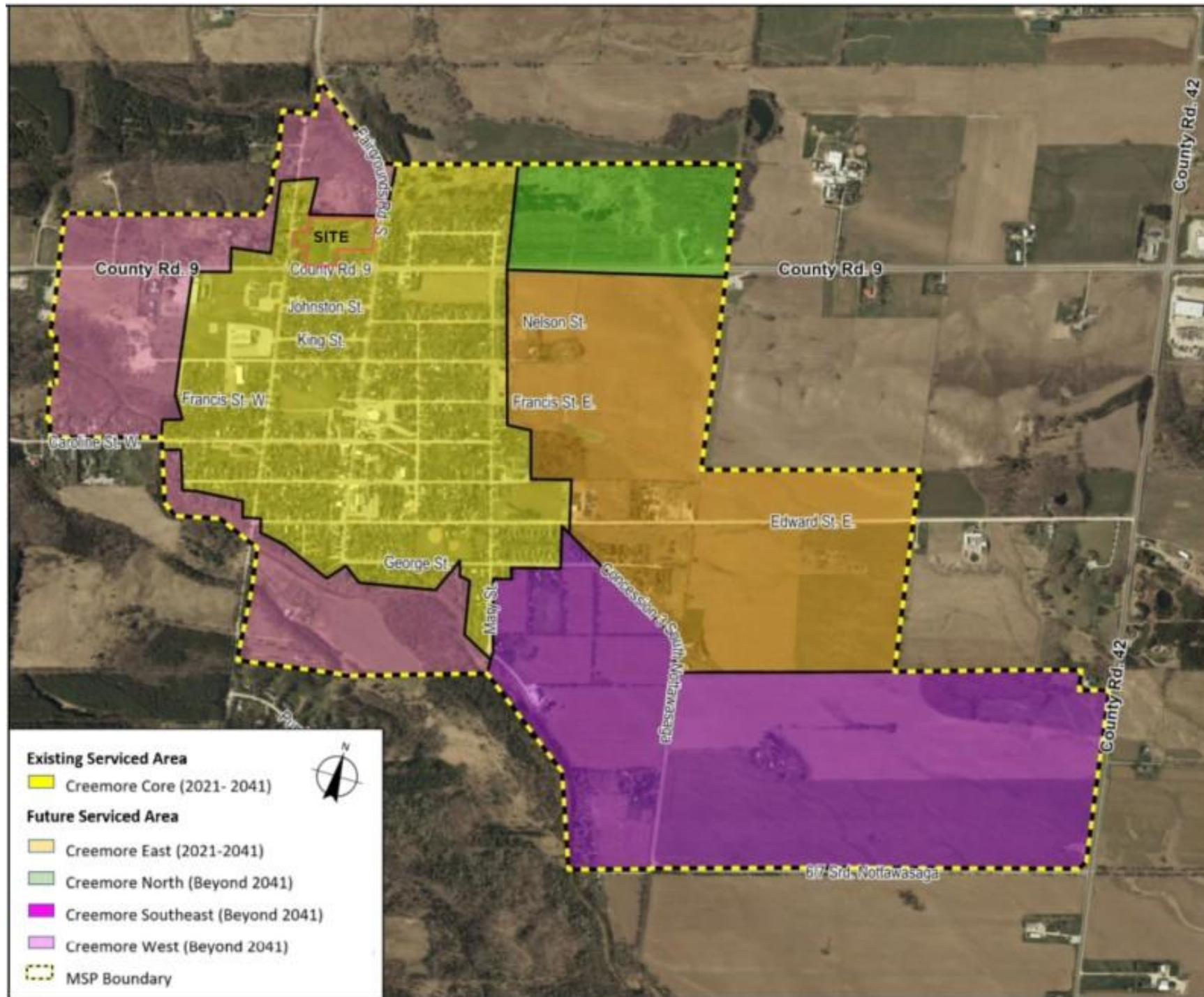




163 & 164 Edward Street East, Creemore

Figure 1: Site Location Plan



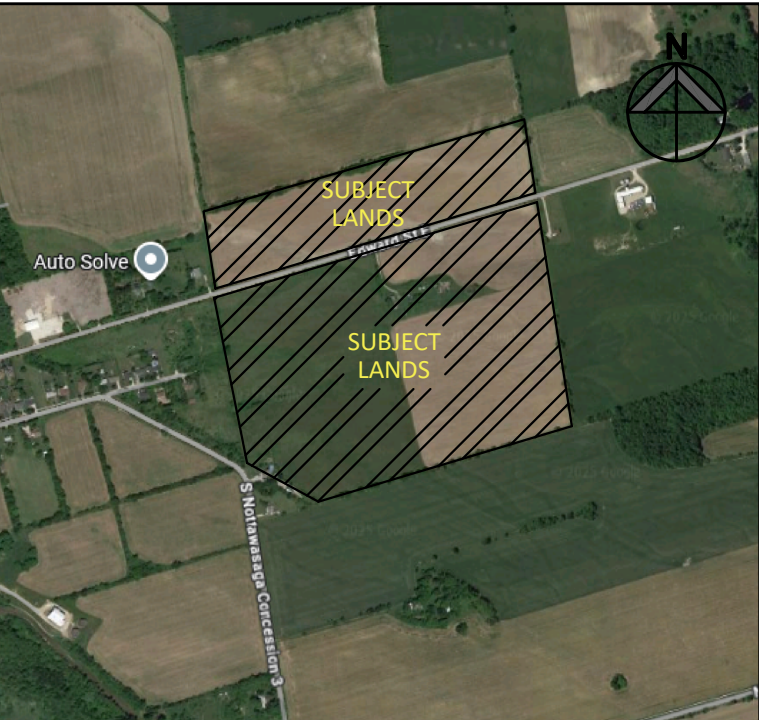


163 & 164 Edward Street East, Creemore

Figure 2: Creemore Service Area Map and MSP Boundary (Excerpt from Creemore Water and Wastewater Master Servicing Plan (May 2024))



Appendix A: Conceptual Draft Plan



KEY PLAN

LAND USE SCHEDULE			
DESCRIPTION	LOT / BLOCK	No. OF UNITS	AREA
SINGLE DETACHED (12.2m)	LOT 1 - 94	94	3.563ha
SINGLE DETACHED (9.1m)	LOT 95 - 216	122	3.866ha
SEMI-DETACHED (7.6m)	LOT 217 - 298	164	4.029ha
TOWNHOMES (6.1m)	299 - 347	349	7.171ha
MIXED USE	348 - 352	TBD	0.775ha
HOTEL	353		0.093ha
PARKING	354 - 355		0.364ha
VILLAGE SQUARE / PARK	356 - 359		2.023ha
DRAINAGE	360 - 364		1.878ha
STORMWATER POND	365 - 367		1.765ha
RETAINING WALL	368 - 370		0.094ha
LANEWAY	371 - 391		2.738ha
WALKWAY	392 - 393		0.024ha
ROADS			8.654ha
TOTAL		729	37.04ha

ROAD LENGTH	
20m R.O.W.	1126.5m
18m R.O.W.	3060.0m

MIXED USE FLOOR AREA SCHEDULE

TOTAL COMMERCIAL GCA	8,060sq. m
RESIDENTIAL GCA WITHIN MIXED USE BLOCKS (INCLUDING HOTEL ROOMS)	16,119sq. m
TOTAL GCA	24,179sq. m

NOTES:

Typical ROW is 18m unless otherwise stated
Typical laneway is 6.5m
4m x 4m daylighting triangle provided on all ROW intersections

No.	DATE:	REVISIONS:
1.	18/09/2025	---

CLIENT: LAMB CREEMORE INC.

SITE ADDRESS: 163 - 164 EDWARD STREET EAST
CREEMORE
TOWNSHIP OF CLEARVIEW
COUNTY OF SIMCOE

Robert Russell
PLANNING CONSULTANTS

162 Guelph Street, Suite 209
Georgetown, ON L7G 5X7

TITLE: COORDINATION PLAN

SCALE: 1:1200
DATE: APRIL 2026
DRAWN: B.C.
CHECKED: R.R.
PROJECT No: XXXX
DRAWING No:

DC-01

Appendix B: Excerpts from MSP



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Appendix A

Figures

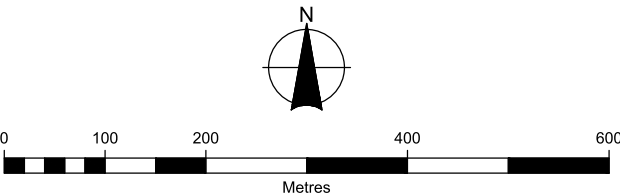
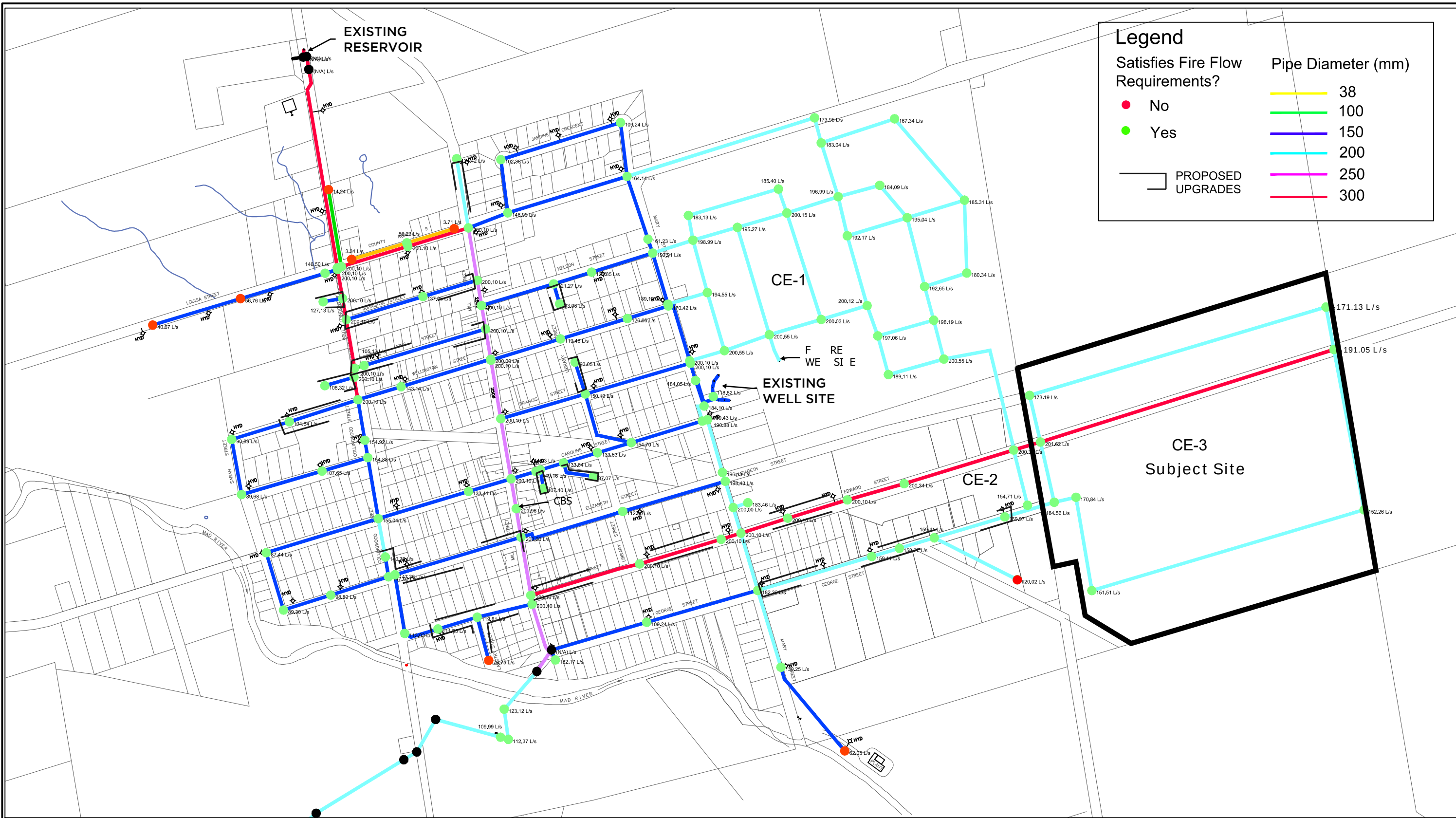


		Figure Title		
Client		CREEMORE WATER DISTRIBUTION SYSTEM MODEL		
		PROPOSED FIRE FLOW + MDD UPGRADES TO EXISTING SYSTEM		
		Drawn RW	Checked JLL	Date APRIL 2024
TOWNSHIP OF CLEARVIEW		Scale 1:7500	Project No. 300050306.0000	
		Figure No. 10		





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Appendix A

Water Demand and Water Storage

Water Supply and Storage Forecast

Creemore MSP

Flow Per Person		350	L/p/d
Persons Per Unit		3	ppu
Actual Residential	1203		
Ex. Commercial/Ind as Equivalent	987		
Total Ex. Equivalent Persons	2190		

	Water Demands (m3/d)						
	Persons	Cumul. Pop.	ADD (m3/d)	Cumil. ADD (m3/d)	MDF	Cumulative MDF (m3/d)	Cumulative MDF (L/s)
2021 Ex. ADD	2190	2190		414	2.25	932	10.8
Creemore Core	349	2539	122.2	536.2	2.25	1206	14.0
Creemore East Area CE-1	546	3	1638	4177	573.3	1109.5	2.00
Creemore East Area CE-2	57	3	171	4348	59.9	1169.3	2.00
Creemore East (Area CE-3)	536	3	1608	5956	562.8	1732.1	2.00
Creemore Core	2953	8909	1033.6	2765.7	2.00	5531	64.0
Creemore North	281	3	843	9752	295.1	3060.7	2.00

Required Fire Flow and Water Storgae Requirements					
Flow Rate (L/s)	Duration (hrs)	A = Recommended Fire Storage (m3)	B = Eq. Storage (m3)	C = Emergency (m3)	Total Storage (m3)
95.00	2.00	684	233	229	1146
95.00	2.00	684	302	246	1232
125.00	2.00	900	555	364	1818
125.00	2.00	900	585	371	1856
144.00	2.00	1037	866	476	2379
159.00	3.00	1717	1383	775	3875
159.00	3.00	1717	1530	812	4059

Scenario	Maximum Day Demand		Water Storage
To Satisfy 20 year Forecast (2042)	3464 m3/d	40.1 L/s	2379 m3
To Satisfy Build Out Year Forecast	6121 m3/d	70.8 L/s	4059 m3



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Appendix A.08

Flows and Demands

**Creemore MWWSP Technical
Memorandum – Flows and Demands**

**Township of Clearview
217 Gideon Street
Stayner ON L0M 1S0**

Creemore MWWSP Technical Memorandum – Flows and Demands

**Township of Clearview
217 Gideon Street
Stayner ON L0M 1S0**

**R.J. Burnside & Associates Limited
3 Ronell Crescent
Collingwood ON L9Y 4J6 CANADA**

**May 2024
300050306.0000**

Distribution List

No. of Hard Copies	PDF	Email	Organization Name
-	Yes	-	Township of Clearview

Record of Revisions

Revision	Date	Description
-	April 19, 2024	Initial Submission to Township of Clearview
1	May 29, 2024	Final Submission to Township of Clearview

R.J. Burnside & Associates Limited

Report Prepared By:

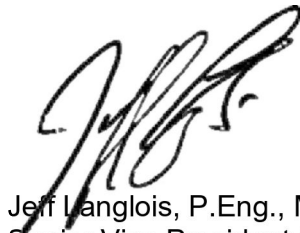
Jeff Langlois, P.Eng., MBA
Senior Vice President Public Sector Water and Wastewater
JLL:tc

Table of Contents

1.0	Introduction.....	1
1.1	Purpose of Technical Memorandum	1
2.0	Water Requirements	1
2.1	Water Supply	1
2.2	Water Storage Requirements.....	2
3.0	Wastewater Requirements	3
3.1	Wastewater Treatment Requirements.....	3

Appendices

Appendix A Water Demand and Water Storage

Appendix B Wastewater Flow

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1.0 Introduction

The Township of Clearview (Township) has retained R.J. Burnside & Associates Limited (Burnside) to provide engineering consulting services to complete a Master Water and Wastewater Servicing Plan (MSP) for the Community of Creemore (Creemore).

Creemore is the second largest population center in the Township and includes a mix of residential, commercial, institutional, and industrial land uses. The majority of residents are served by the existing municipal water and wastewater systems. The Official Plan for the Township was last updated in 2019. The Township is in the process of updating the Official Plan. The Master Servicing Plan is being undertaken to identify a preferred strategy to provide water and wastewater servicing to address the needs of the community.

1.1 Purpose of Technical Memorandum

The purpose of the Technical Memorandum is to estimate the water demands and wastewater flows associated with the projected service population for the Community of Creemore for the water and wastewater systems. The derivation of the projected service population is detailed in the technical memo on population and growth.

Identifying the estimated water demands and wastewater flows allows for an assessment of the ability of the existing infrastructure to accommodate the projected needs and as necessary to quantify any gaps between servicing needs and servicing capacity.

2.0 Water Requirements

2.1 Water Supply

For the derivation of water system demands the following assumptions were used.

For the existing served water users past use is assumed to be reflective of future needs. The average daily demand (ADD) for water for the existing users is therefore assumed to 414 m³/d.

New users have been assumed to need 350 L/person/day as detailed in the technical memo on population and growth.

It is estimated that there are 1203 persons served by the existing water system. By considering the volume of water billed to existing non-residential customers, the equivalent service population of the existing user base is estimated to be 2190 equivalent persons.

At the design year of 2042, the projected service population is expected to have increased to 5956 equivalent persons. This includes allowances for additional users in the Creemore Core Area and Creemore East Area.

The assumed ratio of maximum day demand (MDD) to average day demand in 2042 is assumed to 2.0.

A municipal drinking water system with water storage in the distribution is required to be able to have a firm supply capacity equal to or greater than the MDD for the system.

The required MDD in 2042 is a firm capacity 40.1 L/s. This is significantly in excess of the existing DWS's current firm capacity of 15 L/s.

The required MDD at buildout is a firm capacity of 70.8 L/s.

An additional water supply is required to meet 2042 water demands. Further additional supply is required to meet the demands at build out.

Water demand calculations are presented in Appendix A.

2.2 Water Storage Requirements

The estimated water storage requirements associated with the required water supply MDD of 40.1 L/s have been calculated in accordance with the MECP guidelines. The water storage volume included recommended volumes for equalization, firefighting, and emergencies. Based on the projected equivalent service population in 2042 in accordance with MECP guidelines, the required fire flow is assumed to be 144 L/s for two hours.

The total required water storage volume associated with the 2042 servicing forecast is 2,379 m³. This exceeds the current water storage volume of 1,570 m³. Additional water storage is therefore required to address the 2042 servicing needs.

The total required water storage volume associated with the build out servicing forecast is 4,059 m³. Further additional storage is required to address the servicing needs at build out.

Water storage calculations are presented in Appendix A.

3.0 Wastewater Requirements

3.1 Wastewater Treatment Requirements

For the derivation of wastewater system flows the following assumptions were used.

For the existing served wastewater users past flows are assumed to be reflective of future needs. The average daily flow (ADD) for water for the existing users is therefore assumed to 398 m³/d.

New users have been assumed to need 350 L/person/day as detailed in TM4. In addition, an infiltration allowance of 90 L/person day at average flow has been included.

Peak wastewater flows are estimated by multiplying the average flow (without infiltration) by the Harmon Peaking factor, which varies with population and then adding an infiltration allowance of 227 L/person/day under peak flows.

It is estimated that there are 1128 persons served by the existing wastewater system. By considering the volume of water billed to existing non-residential customers, the equivalent service population of the existing user base is estimated to be 2051 equivalent persons

At the design year of 2042, the projected service population is expected to have increased to 5817 equivalent persons. This includes allowances for additional users in the Creemore Core Area and Creemore East Area.

Wastewater treatment facilities are generally rated based on the ADF they can handle. It is also important to ensure that they can handle the associated peak flows.

The required ADF of the wastewater treatment facility in 2042 is 2055 m³/d or approximately 2,100 m³/d. The associated peak flow is 6,784 m³/d or approximately 6,800 m³/d.

This ADF is significantly larger than the current rating of 1,400 m³/d. The current rating is also significantly larger than the flow that the facility can actually currently handle.

Additional wastewater capacity is therefore required to address the needs forecasted for 2042. Even more capacity is required to address the needs at build out.

Wastewater flow calculations are presented in Appendix B

Figure 2: Creemore East Sub Areas

2.3.5 Creemore Southeast

The Creemore Southeast Lands are located east and south of the Creemore East Lands and are comprised of lands identified as industrial (42.3 ha) and Hazard Lands in the Official Plan. Based on discussion with the Township, it is anticipated that the development of these lands is well into the future and that the nature of the development is such that it would be more readily serviced using individual private servicing and as such does not affect the projections for the municipal systems serving the Community of Creemore.

2.4 Summary of Projected Service Populations

A table detailing the development of the water service population is included in Appendix A. A table detailing the development of the wastewater service population is included in Appendix B. These tables identify the various assumptions used to develop the projected water and wastewater service populations discussed above. The water and wastewater service populations are summarized in Table 2 and Table 3 respectively. Within the 20-year planning horizon, it is anticipated that an additional 3,811 equivalent persons need to be accommodated.

Table 2: Historical and Projected Equivalent Service Populations - Water

	Creemore Core	Creemore West	Creemore North	Creemore East	Creemore Southeast	Total Additional Population	Cumulative Total Projected Population
Existing (2021)	2,190	-	-	-	-	-	2,190
2022-2042	349	-	-	3,417	-	3,766	5,956
2042-Build Out	2,878	-	842	-	-	3,720	9,676
Total	5,417	-	842	3,417	-	-	9,676

Table 3: Historical and Projected Equivalent Service Populations - Wastewater

	Creemore Core	Creemore West	Creemore North	Creemore East	Creemore Southeast	Total Additional Population	Cumulative Total Projected Population
Existing (2021)	2,051	-	-	-	-	-	2,051
2022-2042	349	-	-	3,417	-	3,766	5,817
2042-Build Out	2,953	-	842	-	-	3,795	9,612
Total	5,353	-	842	3,417	-	-	9,612



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Appendix B

Wastewater Flow

Creemore MSP - Wastewater Flow Projections

Design Criteria

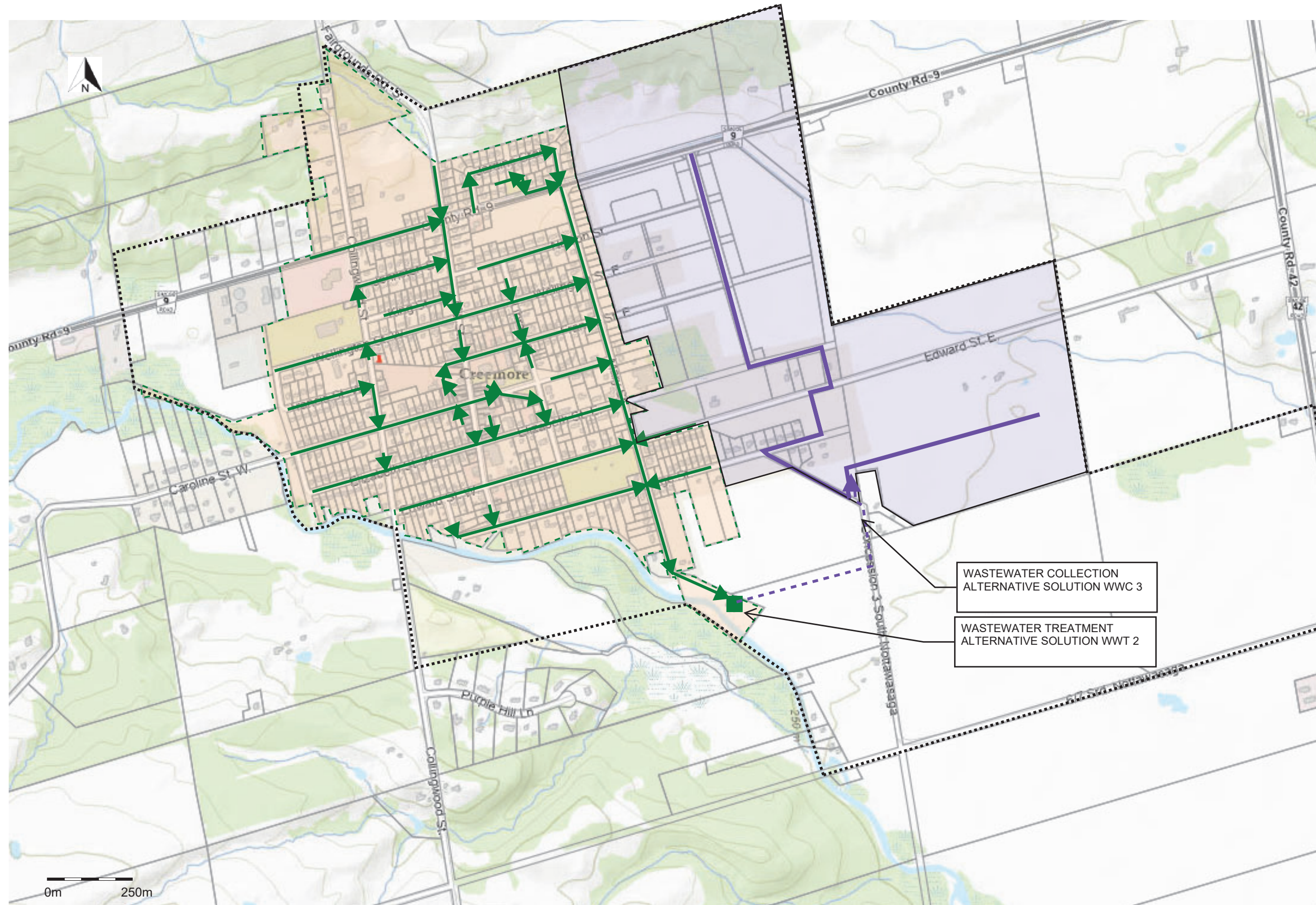
Flow Per Person	350	L/p/d
Avg i/i	90	L/p/d
Peak i/i	227	L/p/d
Persons Per Unit	3	ppu
Actual Residential Service Pop	1128	persons
Eq. Residential Service Poplation associated with I/C/I	923	persons
Include Eq. Population in Exsiting Population	Y	
Ex. Equivalent Service Population	2051	persons

		Average Flows (m3/d)							
Units		PPU	Persons	Cumul. Pop.	ADF(dry) m3/d	Cumul. Dry ADF	Avg. Infil	Cumul. Avg Inf m3/d	Cumul. ADF m3/d
2021 Ex. ADF			2051	2051		398			398
Allocations			349	2400	122	520	31	31	552
Area CE-1	546	3	1638	4038	573	1093	147	179	1272
AreaCE-2	57	3	171	4209	60	1153	15	194	1348
Area CE-3	536	3	1608	5817	563	1716	145	339	2055
Village Core			2953	8770	1034	2750	266	605	3354
Village North	281	3	843	9613	295	3045	76	681	3725

Peak Flows (m3/d)			
Peaking Factor	Cumul. Peak Dry m3/d	Cumul. Peak l/I m3/d	Peak Flow m3/d
3.58	1423.7	465.6	1889
3.52	1832.4	544.8	2377
3.33	3640.8	916.6	4557
3.31	3821.4	955.4	4777
3.18	5463.1	1320.5	6784
3.01	8279.4	1990.8	10270
2.97	9047.9	2182.2	11230

TOWNSHIP OF CLEARVIEW
WATER AND WASTEWATER
MASTER SERVING PLAN

FIGURE 20
**PREFERRED WASTEWATER
SOLUTION**



LEGEND

-  Existing Sanitary Sewer
-  Existing Wastewater Treatment Plant
-  Existing Sanitary Drainage Area
-  Master Servicing Plan Study Area
-  Proposed Sanitary Sewer
-  Proposed Sanitary Forcemain
-  Proposed Sanitary Pumping Station
-  Proposed Sanitary Drainage Area

Appendix C: Water Demand Calculations

Project Details

163 & 164 Edward St E - Creemore	419453
----------------------------------	--------

Prepared By

JRL	2026 07 02
-----	------------

Municipality

Township of Clearview

Checked By

DB	
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Residential Flow

Unit Type	Single Family	Semi Detached	Townhouse	Apartment	Total
Number of Units	216	164	349	210	939
Pop Density (cap/unit) ¹	3.0	3.0	2.4	1.6	-
Population	648	492	837.6	336	2313.6
Per Capita Demand (L/day/cap) ²	350	350	350	350	-
Average Day Demand (m ³ /day)	226.8	172.2	293.2	117.6	809.8
Reference	1	Township of Clearview Engineering Design Criteria Standards, 2025			
	2	Township of Clearview Engineering Design Criteria Standards, 2025			

Commercial/Industrial/ Institutional Flow

Land Use	Commercial	Industrial	Institutional	Total
Area (ha)	0.87			0.87
Area Demand (m ³ /day/ha) ³	24.2			-
Average Day Demand (m ³ /day)	21.0	0.0	0.0	21.0
Reference	3	Township of Clearview Engineering Design Criteria Standards, 2025		

Fire Demand

Max Required Fire Demand (L/s)	144
--------------------------------	------------

Creemore Master Servicing Plan (2024)

Peaking Factors

Land Use	Residential ⁴	Commercial ⁵	Industrial ⁵	Institutional ⁵
Max Day Factor	2.0	2.0		
Peak Hour Factor	3.0	3.0		
Reference	4	From Table 3-1 of MECP's Design Guidelines for Drinking-Water Systems.		
	5	Township of Clearview Engineering Design Criteria Standards, 2025		

Total Design Flows

Average Day Demand (m ³ /day)	830.78	Peak Hour Demand (L/s)	28.85
Maximum Day Demand (m ³ /day)	1661.56	Maximum Day + Fire Demand (L/s)	163.23

Additional Notes

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Appendix D: Sanitary Sewage Calculations

Wastewater Flow Design Worksheet

Project Details

163 & 164 Edward St E - Creemore	416453
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Prepared By

JRL	2026 07 02
-----	------------

Municipality

Township of Clearview

Checked By

DB	
----	--

Residential Flow

Unit Type	Single Family	Semi Detached	Townhouse	Apartment	Total
Number of Units	216	164	349	210	939
Pop Density (cap/unit) ¹	3.0	3.0	2.4	1.6	-
Population	648	492	837.6	336	2313.6
Per Capita Flow (L/day/cap) ²	350	350	350	350	-
Average Day Flow (m ³ /day)	226.8	172.2	293.2	117.6	809.8
Reference	1	Township of Clearview Engineering Design Criteria Standards, 2025			
	2	Township of Clearview Engineering Design Criteria Standards, 2025			

Commercial/Industrial/ Institutional Flow

Land Use	Commercial	Industrial	Institutional	Total
Area (ha)	0.87			0.87
Area Flow (m ³ /day/ha) ³	28			-
Average Day Flow (m ³ /day)	24.3	0.0	0.0	24.3
Reference	3	Township of Clearview Engineering Design Criteria Standards, 2025		

Peaking Factors

Land Use	Residential (Harmon)	Commercial	Industrial	Institutional
Peaking Factor ⁴	3.54	2.0		
Reference	4	Township of Clearview Engineering Design Criteria Standards, 2025		

Infiltration

Serviced Area (ha)	37.04	Infiltration(L/s/ha)	0.23	Infiltration (L/s)	8.52
--------------------	-------	----------------------	-------------	--------------------	------

Total Design Flows

Average Day Flow (m ³ /day)	834.09	Peak Hour Flow (L/s)	42.26
--	--------	----------------------	-------

Additional Notes

Appendix E: Preliminary Drawings



KEY PLAN

LEGEND

- PROPOSED PROPERTY LINE
- EXISTING PROPERTY LINE
- PROPOSED STORM SEWER
- PROPOSED SANITARY SEWER
- PROPOSED WATERMAIN
- PROPOSED STORM MAINTENANCE HOLE
- PROPOSED SANITARY MAINTENANCE HOLE
- FUTURE STORM SEWER
- FUTURE SANITARY SEWER
- FUTURE SANITARY FORCEMAIN
- FUTURE WATERMAIN

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AERIAL IMAGERY FROM ESRI, 2026.

VERSION	DATE
1 ISSUED FOR OPA/ZBA 1ST SUBMISSION	2026 07 XX

DESIGN BY	LC	DRAWN BY	LQ	CHECKED BY	DB
STAMP					

COLLINGWOOD - BRACEBRIDGE - ORILLIA - BARRIE - OTTAWA - GUELPH

PROJECT TITLE

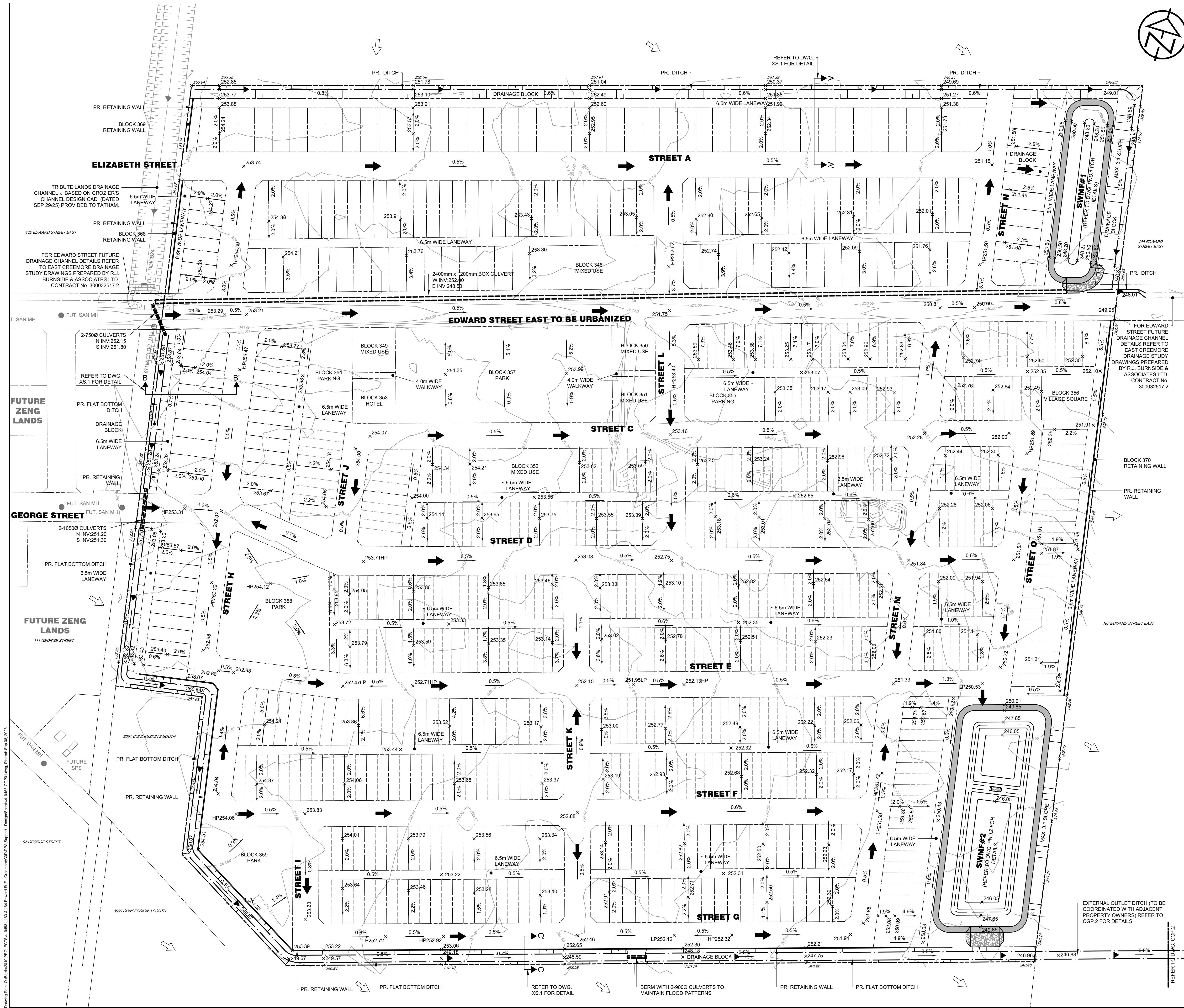
163 & 164 EDWARD STREET EAST, CREEMORE TOWNSHIP OF CLEARVIEW

DRAWING TITLE

PRELIMINARY SITE SERVICING PLAN

PROJECT	SCALE	DRAWING
419453	1:1250	CSP.1

Drawing File: C:\Users\2019\PROJ\163-164 EDWARD STREET EAST - CREEMORE\163-164 EDWARD STREET EAST - CREEMORE\163-164 EDWARD STREET EAST - CREEMORE.dwg, Printed: Sep 08, 2026



KEY PLAN

LEGEND

- EXISTING PROPERTY LINE
- SUBJECT SITE PROPERTY LINE
- EXISTING CONTOUR
- PROPOSED SWALE
- EXISTING ELEVATION
- PROPOSED ELEVATION
- PROPOSED GRADE
- PROPOSED OVERLAND FLOW DIRECTION
- EXISTING OVERLAND FLOW DIRECTION

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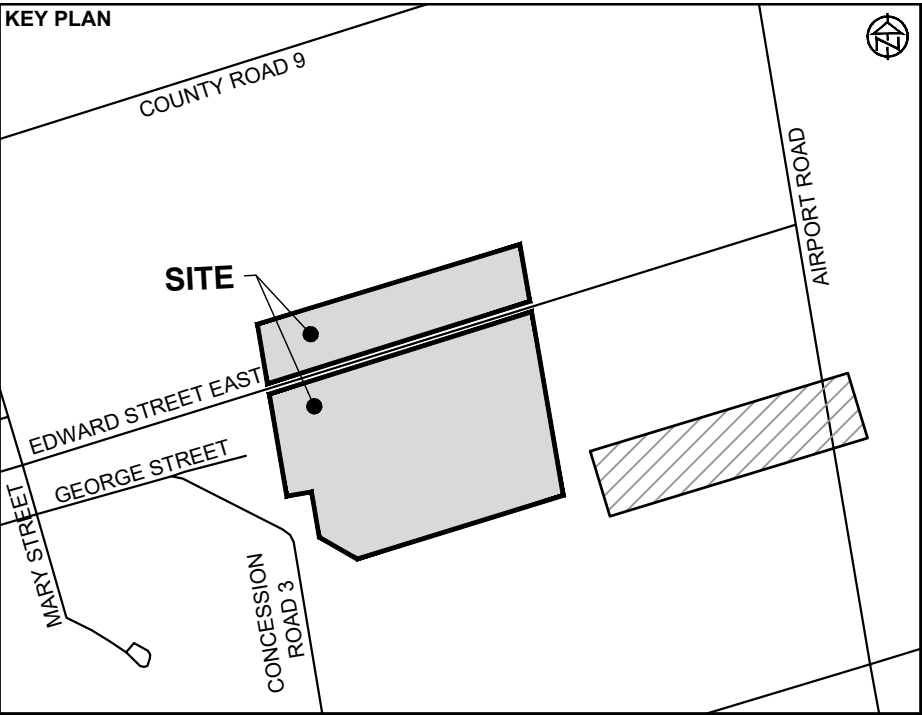
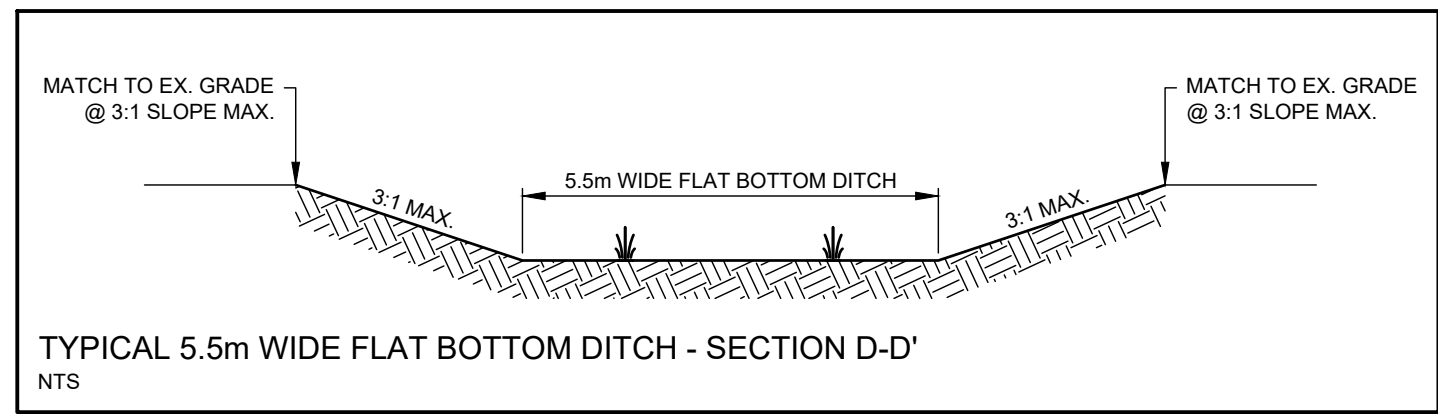
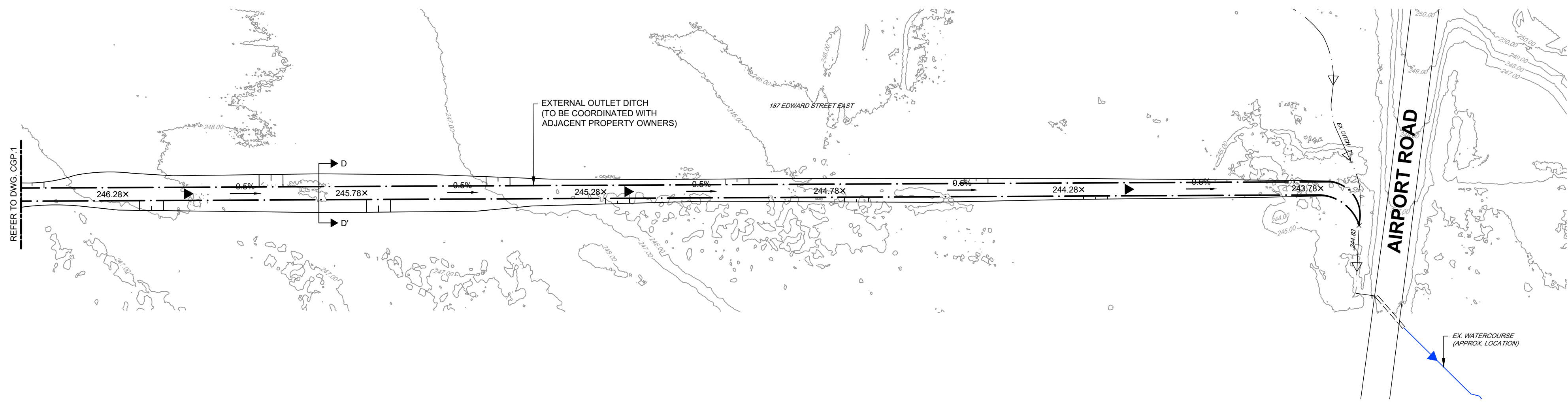
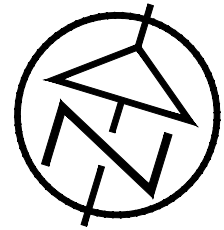
163 & 164 EDWARD STREET EAST, CREEMORE TOWNSHIP OF CLEARVIEW

DRAWING TITLE

PRELIMINARY SITE GRADING PLAN

SHEET 1 OF 2

PROJECT	SCALE	DRAWING
419453	1:1250	CGP.1



LEGEND	
	EXISTING PROPERTY LINE
	SUBJECT SITE PROPERTY LINE
	EXISTING CONTOUR
	PROPOSED SWALE
	EXISTING DITCH
	EXISTING MAD RIVER WATERCOURSE (APPROX. LOCATION)
	EXISTING ELEVATION
	PROPOSED ELEVATION
	PROPOSED GRADE

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REFERENCE SOURCES
DRAFT PLAN OF SUBDIVISION COMPLETED BY ROBERT RUSSELL PLANNING CONSULTANTS, DATED APRIL 2026.

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AERIAL IMAGERY FROM ESRI, 2026.

VERSION	DATE
1 ISSUED FOR OPAZBA 1ST SUBMISSION	2026 07 XX

DESIGN BY LC	DRAWN BY LQ	CHECKED BY DB
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STAMP

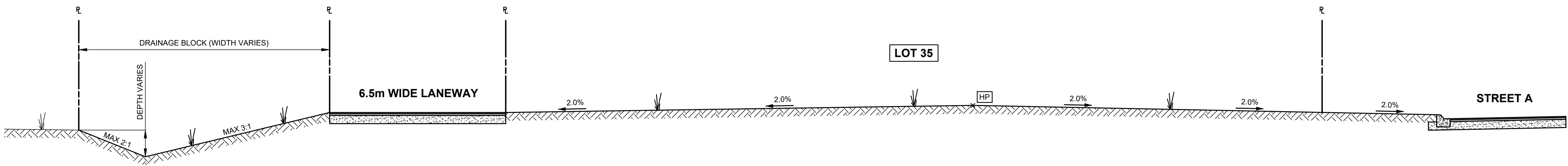


PROJECT TITLE
**163 & 164 EDWARD STREET EAST,
CREEMORE
TOWNSHIP OF CLEARVIEW**

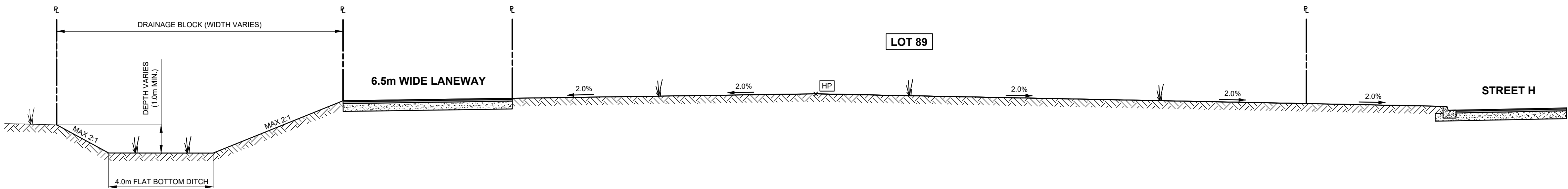
DRAWING TITLE
**STORMWATER MANAGEMENT
FACILITY #2 OUTLET**

PROJECT 419453	SCALE 1:1250	DRAWING CGP.2
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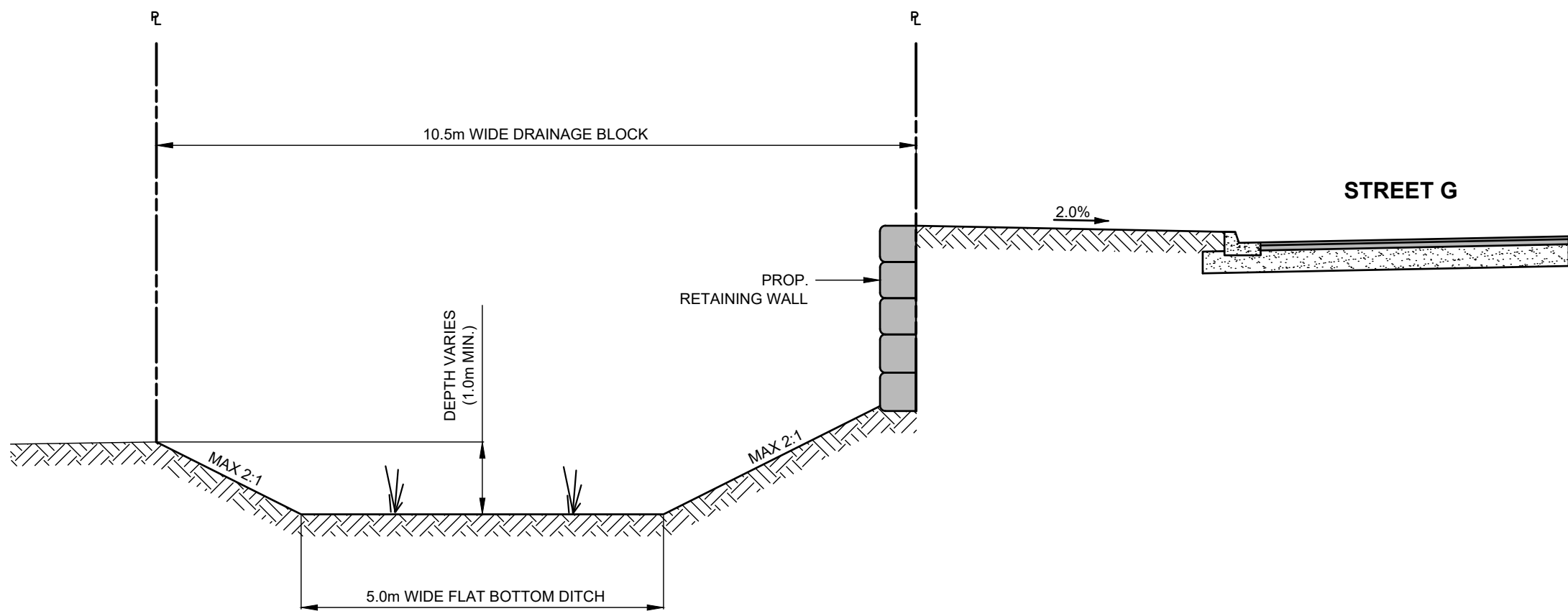




TYPICAL DITCH - SECTION A-A'
SCALE: 1:100



TYPICAL 4.0m WIDE FLAT BOTTOM DITCH - SECTION B-B'
SCALE: 1:100



TYPICAL 6.0m WIDE FLAT BOTTOM DITCH - SECTION C-C'
SCALE: 1:75

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VERSION	DATE
1 ISSUED FOR OPA/ZBA 1ST SUBMISSION	2026 07 XX

DESIGN BY	LC	DRAWN BY	LQ	CHECKED BY	DB
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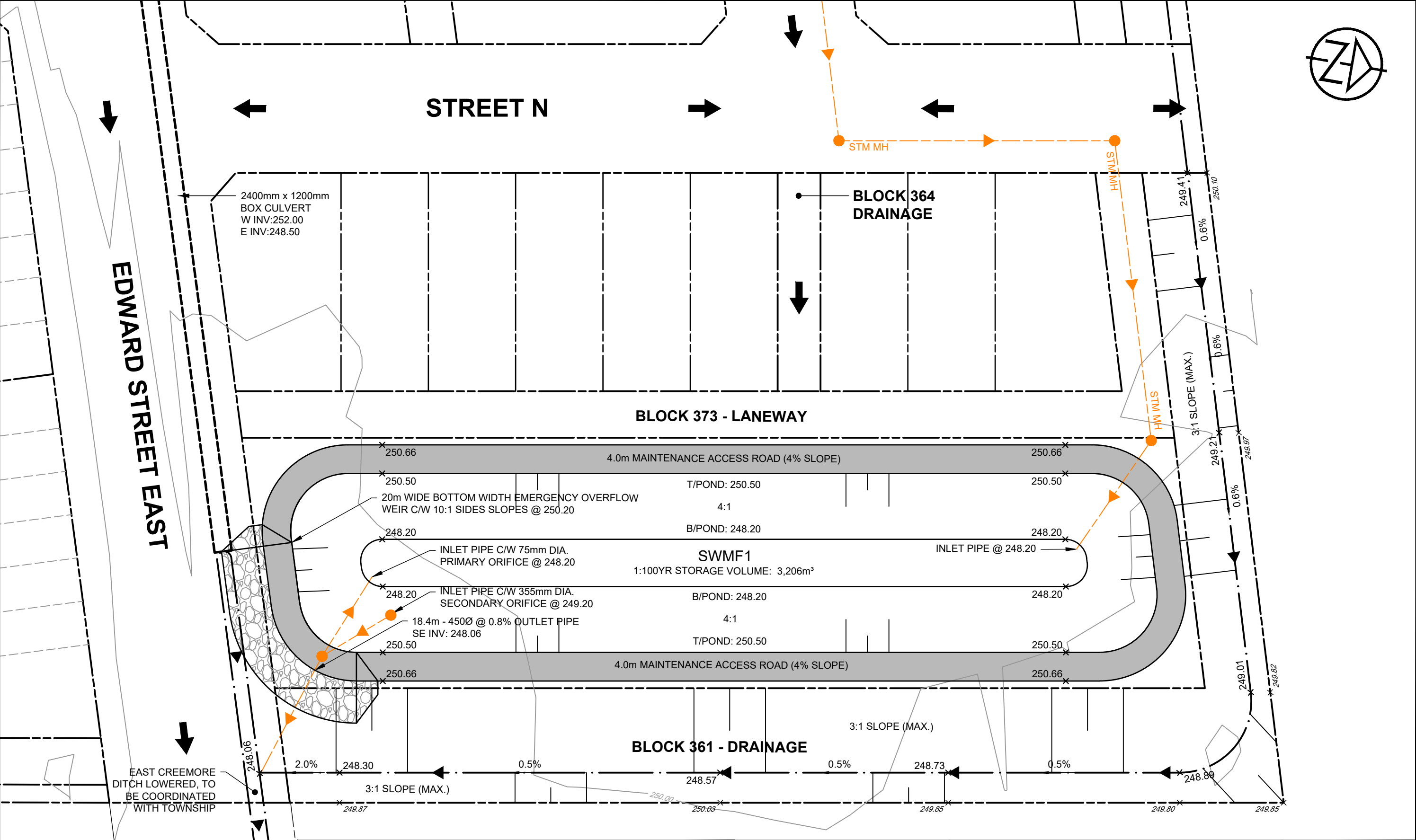
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PROJECT TITLE
163 & 164 EDWARD STREET EAST,
CREEMORE
TOWNSHIP OF CLEARVIEW

DRAWING TITLE
TYPICAL CROSS-SECTIONS

PROJECT	SCALE	DRAWING
419453	AS NOTED	XS.1

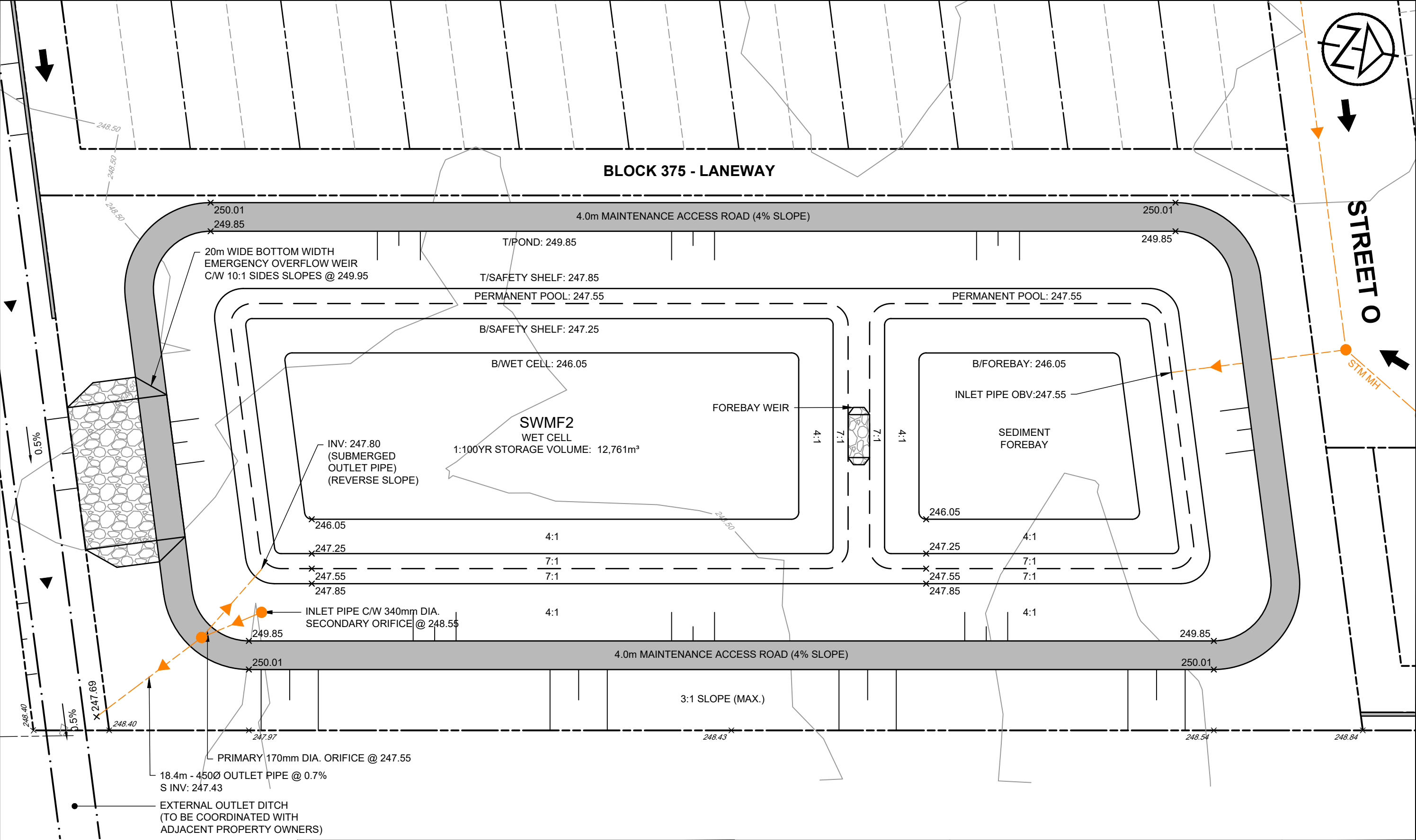


EAST CREEMORE
DITCH LOWERED, TO
BE COORDINATED
WITH TOWNSHIP

VERSION	DATE
1 ISSUED FOR OPA/ZBA	2026 06 05



PROJECT TITLE 163 & 164 EDWARD STREET EAST, CREEMORE STORMWATER MANAGEMENT FACILITY #1			DRAWING PND.1	
DATE	JUNE 2026	DRAWN BY	LQ	SCALE 1:500
PROJECT			419453	



VERSION	DATE
1 ISSUED FOR OPA/ZBA	2026 06 05



PROJECT TITLE 163 & 164 EDWARD STREET EAST, CREEMORE STORMWATER MANAGEMENT FACILITY #2			
DATE	JUNE 2026	DRAWN BY	LQ
SCALE	1:500	PROJECT	419453

DRAWING PND.2
PROJECT 419453