November 1, 2021

Mr. Rubal Kundra
Life at the Woodland Inc.
Unit 201, 5 Brisdale Drive
Brampton, ON
L7A 0S9

Re: Proposed 27 Lot Subdivision: Sewage System Assessment Life at the Woodland, Part Lot 27, Concession 10, Otonabee – South Monghan, Peterborough, ON

Dear Mr. Kundra,

In preparation for Draft Plan of Subdivision approval, Gunnell Engineering Ltd. has prepared sewage system layout drawings for eight (8) typical lots, for the Life at the Woodland proposed residential condominium development, located on Part of Lot 27, Concession 10, Township of Otonabee – South Monaghan, County of Peterborough.

The site is located at the intersection of Burnham Line and Highway 7 and will consist of one road (cul-de-sac) entering off of Burham Line. The overall property for the subdivision (27 lots) consists of an area of 15.92 ha (39.3 acres).

From a sewage system standpoint, we have completed an assessment of the proposed lot sizing to accommodate required sewage systems for the proposed 27 lot residential subdivision layout as detailed on Drawing B-1, Rev. 1, dated November 1, 2021.

In preparation of this assessment, we have reviewed the following documents;

- Geo-Logic (now GHD) "Hydrogeological Assessment Report Proposed Residential Development", dated October 2013.
- Geo-Logic (now GHD) "Well Testing & Monitoring Report", dated July 22, 2015.
- County of Peterborough Application for Approval of a Plan of Subdivision (Application 15T-16002) for a 27 lot subdivision c/w septic test pit summaries for

- 27 Lots, which notes "This subdivision is approved by this office" and dated July 5, 2016.
- GHD (formerly Geo-Logic) "Response to Hydrogeology Comments Hydrogeological Assessment Report", dated May 29, 2016.
- Stantec Consulting Ltd., "Response to Hydrogeological Peer Review Response by GHD Limited Hydrogeological Assessment", dated July 5, 2016.
- GHD Hydrogeological Assessment: Well Testing and Monitoring Report, dated May 1, 2020.
- Site Plan for proposed 27 Lots and topographic survey.
- Ministry of the Environment, Conservation and Parks (MECP) Guideline D-5-4: Individual On-Site Sewage Systems Water Quality Impact Risk Assessment.

Further to the above documentation, we would like to make reference to the attached Gunnell Engineering Ltd. sewage system typical lot layout drawings B-2 to B-9. We note that these eight (8) typical lot layouts include for a representation of the type of proposed lots (i.e. standard and challenging configurations), for the purpose of on-site sewage system design. These lots include Lots 1, 3, 8, 9 10, 17, 26 and 27.

We completed a review of historical test pit assessments, borehole logs and piezometer information for the site. Native soils are classified as silty sand till with our assessment of soil percolation rates in the range of; T=30 to 50 min/cm. Each of these eight (8) lots has been designed with a conventional raised absorption trench sewage system in accordance with County of Peterborough Health Unit requirements.

Each of these lot layouts is based on a three-bedroom home, up to 200 m² in living area, with two bathrooms and a powder room, to meet County of Peterborough Health Unit requirements. The lot layouts are based on Ontario Building Code requirements for the raised absorption trench field septic system, and also include a drilled well, driveway, amenity space (incl. future proposed pools) and building setbacks for the Hamlet Residential zoning.

With the development of these eight (8) lot layouts, including consultant input on environmental and planning parameters, which include some of the most challenging lots, we conclude that each of the proposed 27 lots can be developed.

The proposed plan of condominium subdivision development is for the creation of 27 single residential building lots. Based on the information detailed in the Hydrogeological Assessment completed by GHD Limited, dated May 1, 2020, and subsequently peer reviewed by Stantec, it is GHD's opinion that there is minimal potential for groundwater and surface water impact based upon the proposed development from a quality and quantity perspective provided that the septic systems and wells are constructed properly. A nitrate impact assessment indicates that the installation of Class IV raised sewage disposal system will not result in unacceptable degradation of the shallow groundwater.

The County of Peterborough approved the subdivision in July 2016, based on 27 lots. Our individual lot layouts (providing for the most challenging lots) confirms that the proposed 27 lot residential plan of condominium subdivision can be accommodated on this property, and would meet the lot sizing requirements of the Peterborough Health Department for conventional sewage system designs.

Please advise if we may be of further assistance in finalizing planning and engineering approvals with the County of Peterborough.

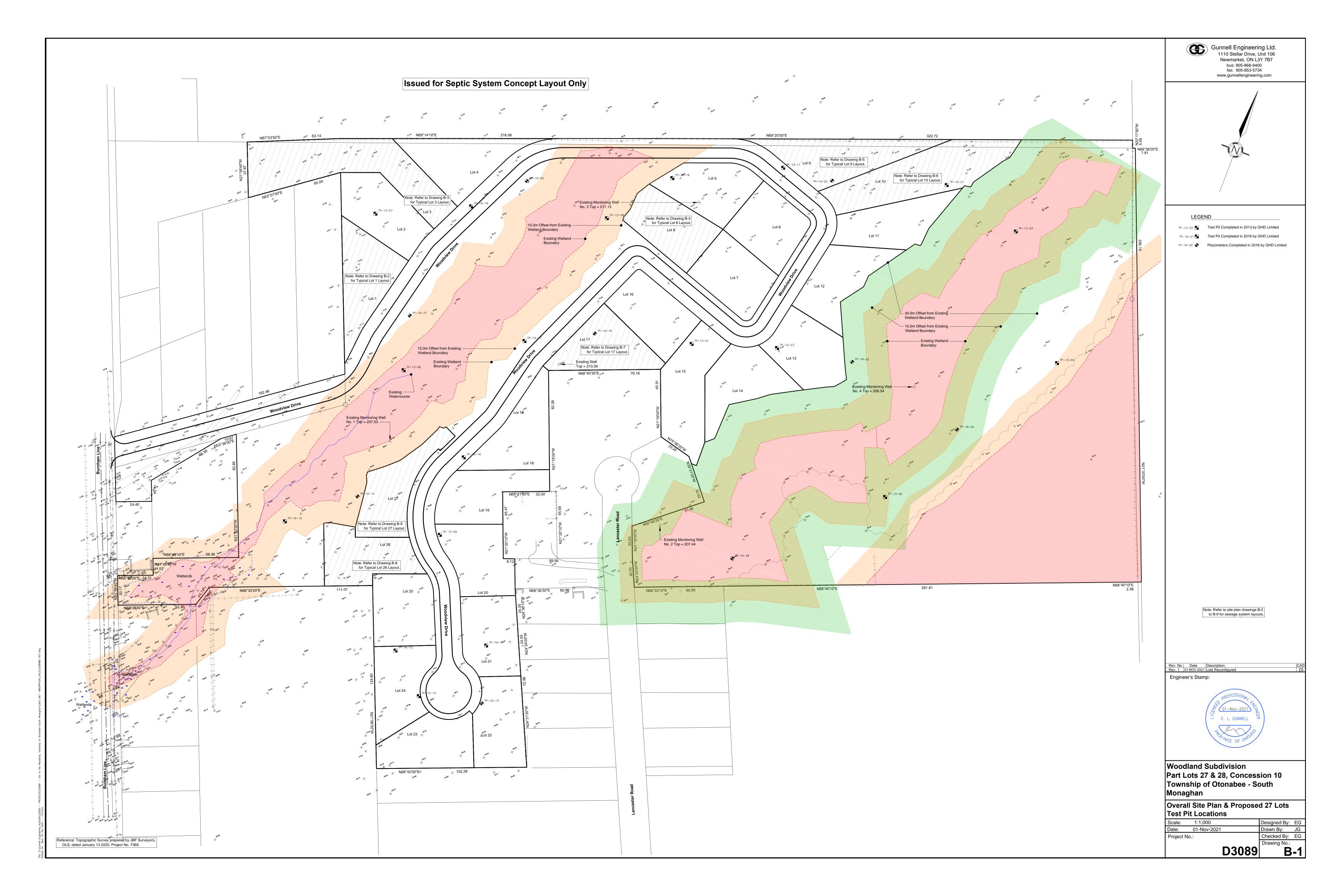
Yours truly,

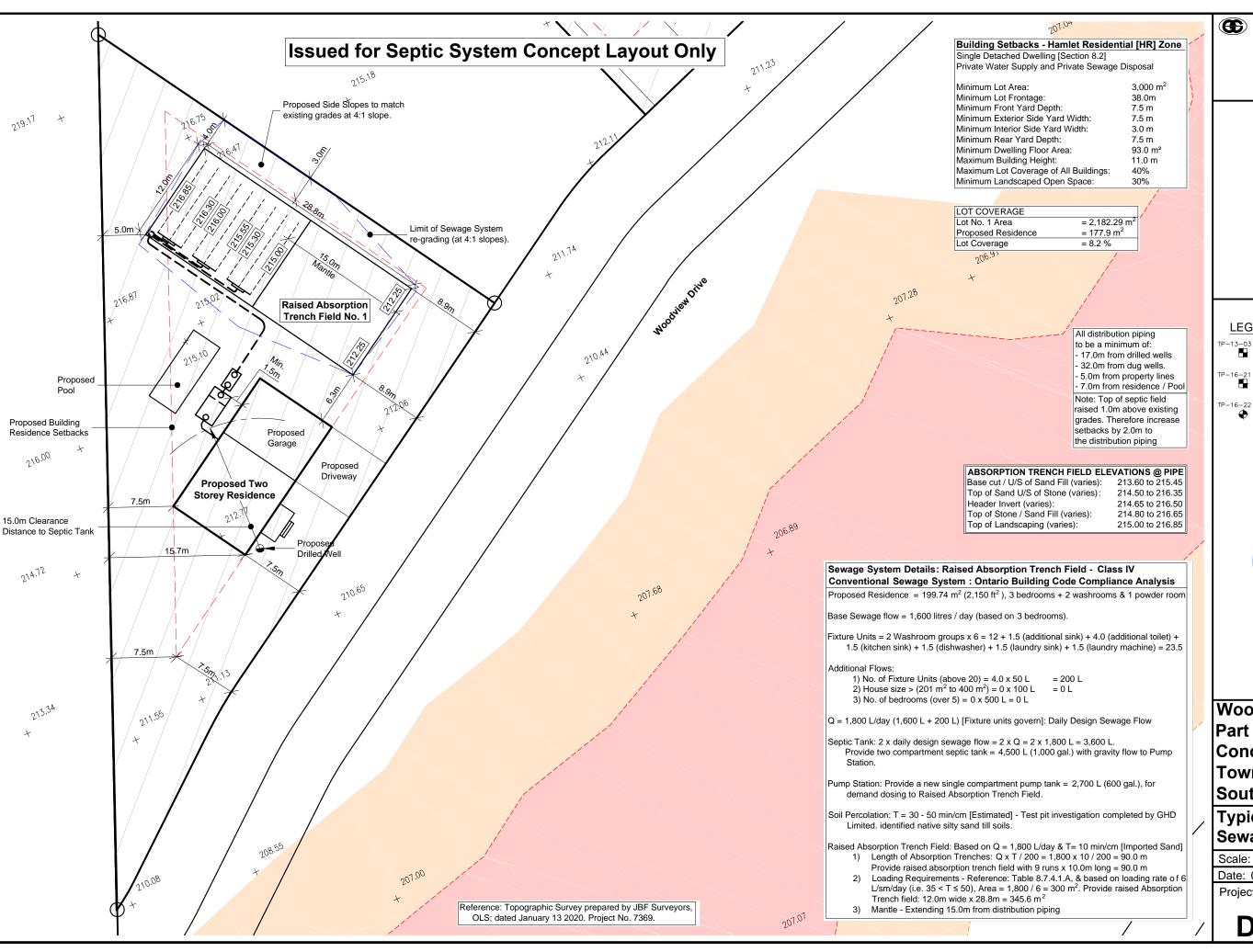
GUNNELL ENGINEERING LTD.

Tom Keane

Eric Gunnell, P. Eng.

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Gunnell Engineering Ltd. 1110 Stellar Drive, Unit 106

> Newmarket, ON L3Y 7B7 bus: 905-868-9400 fax: 905-853-5734 www.gunnellengineering.com



LEGEND

Test Pit Completed in 2013 by GHD Limited



Test Pit Completed in 2016 by GHD Limited

Piezometers Completed in 2016 by GHD Limited



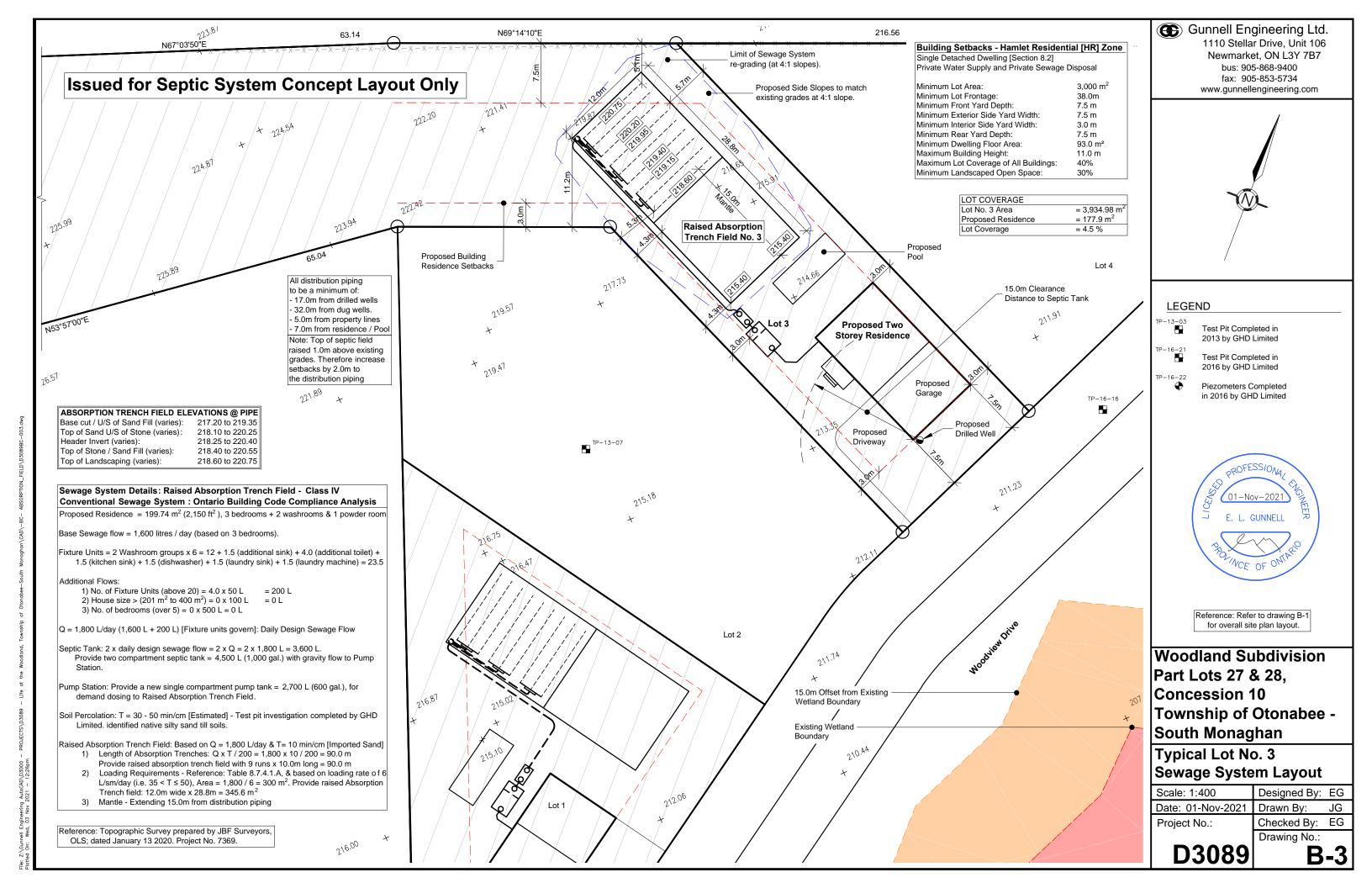
Reference: Refer to drawing B-1 for overall site plan layout.

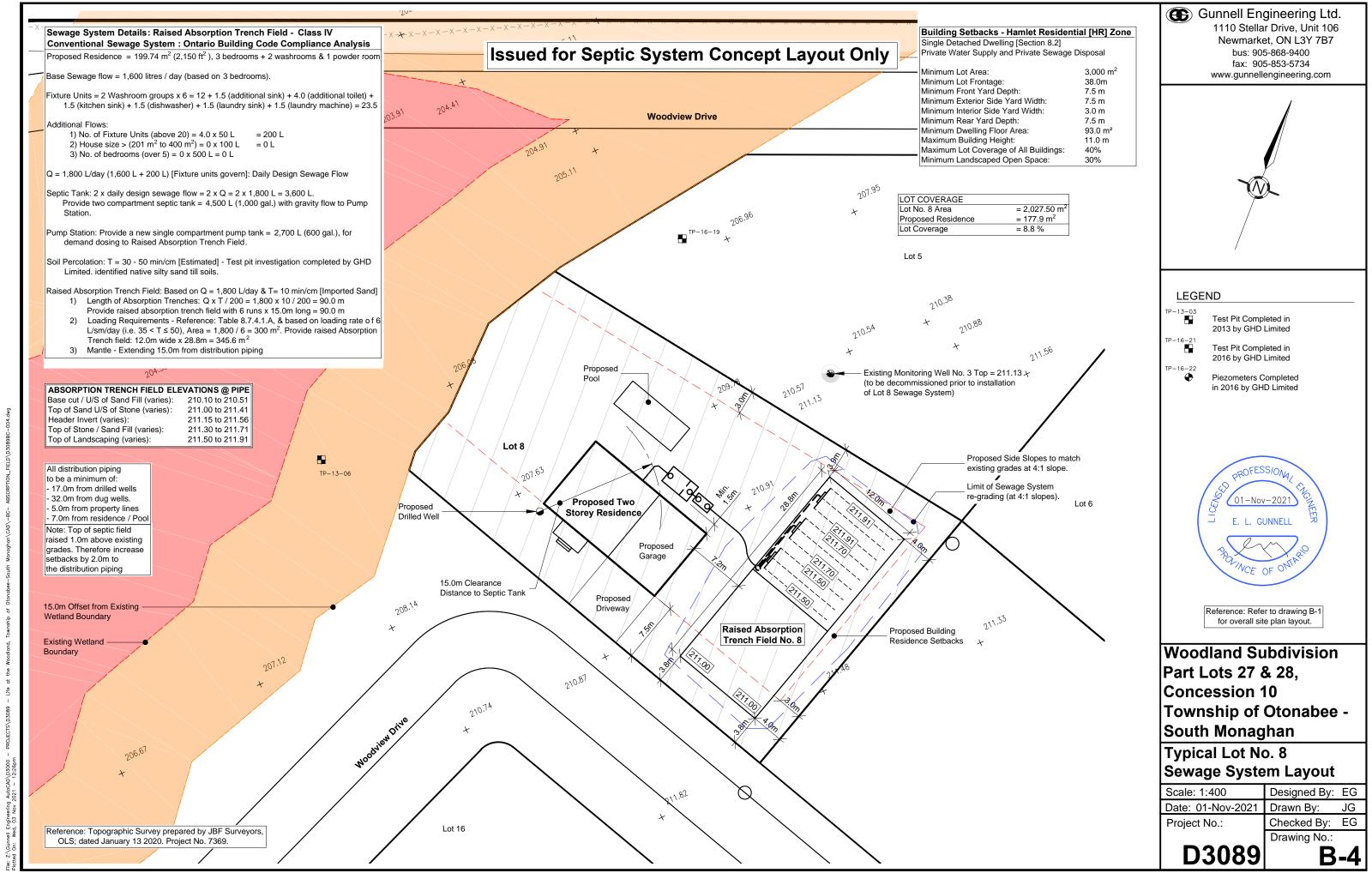
Woodland Subdivision Part Lots 27 & 28. Concession 10 Township of Otonabee -South Monaghan

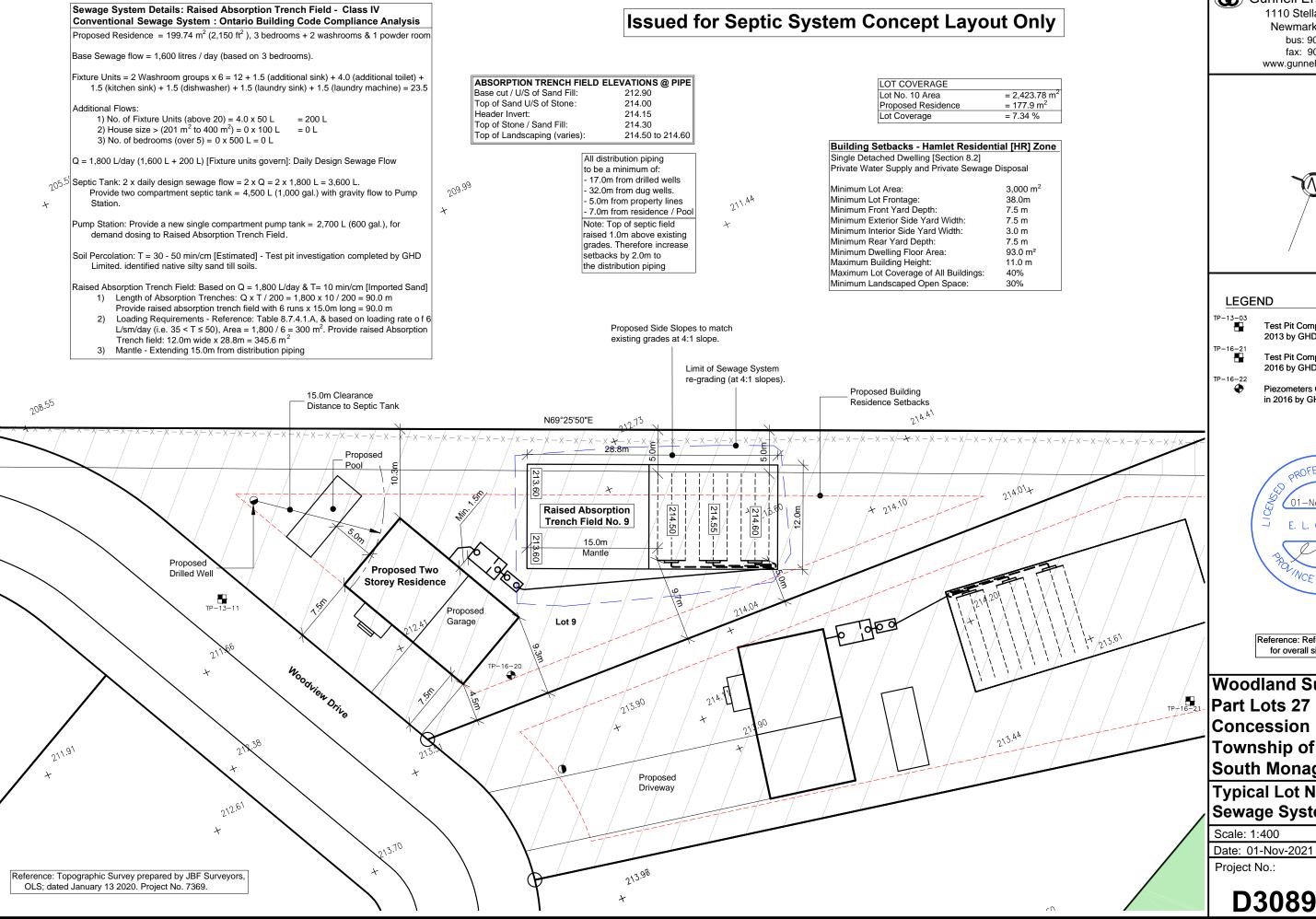
Typical Lot No. 1 **Sewage System Layout**

Scale: 1:400 Designed By: EG Date: 01-Nov-2021 Drawn By: Checked By: Project No.: Drawing No.:

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Test Pit Completed in 2013 by GHD Limited

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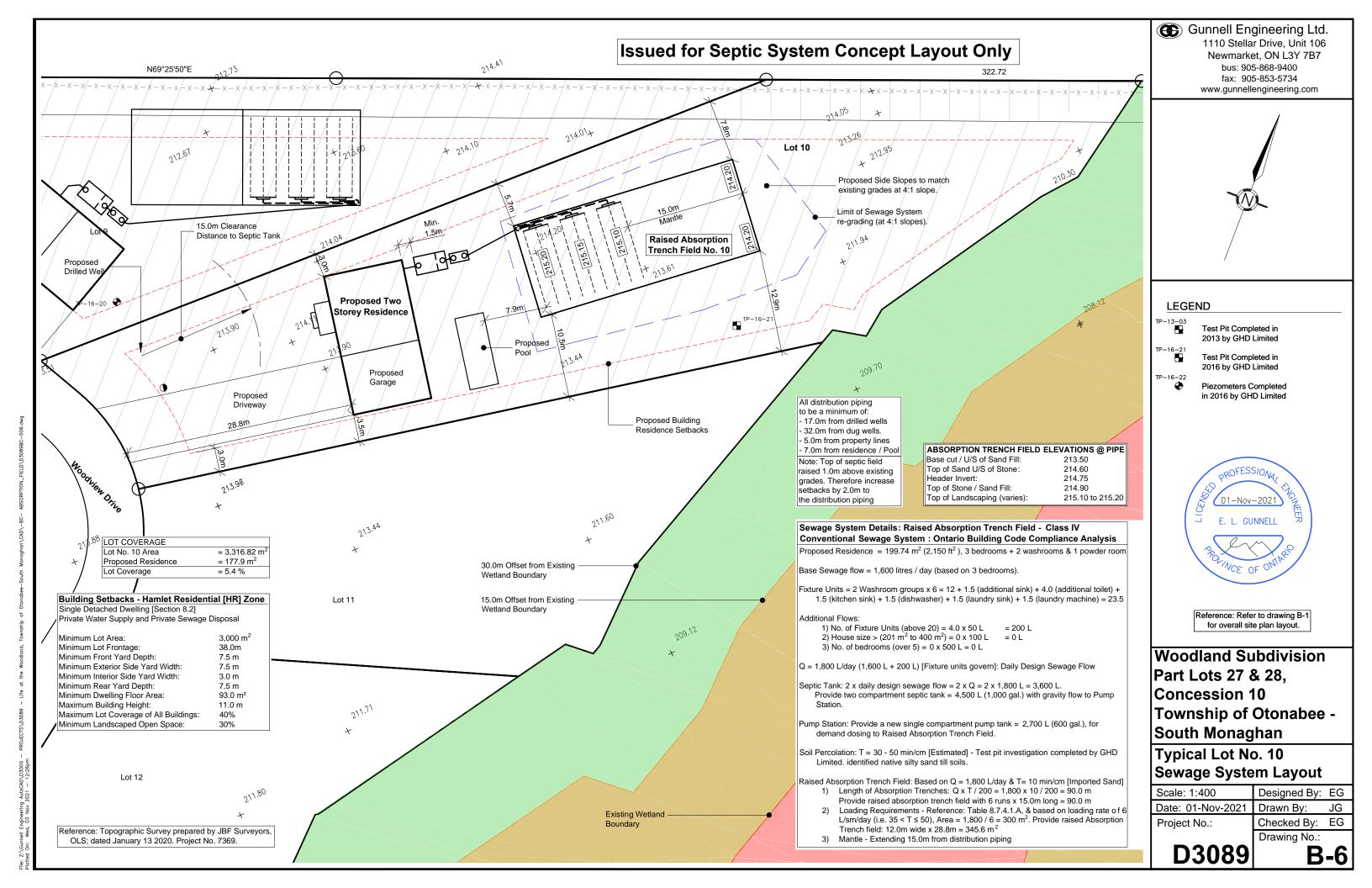
Reference: Refer to drawing B-1 for overall site plan layout.

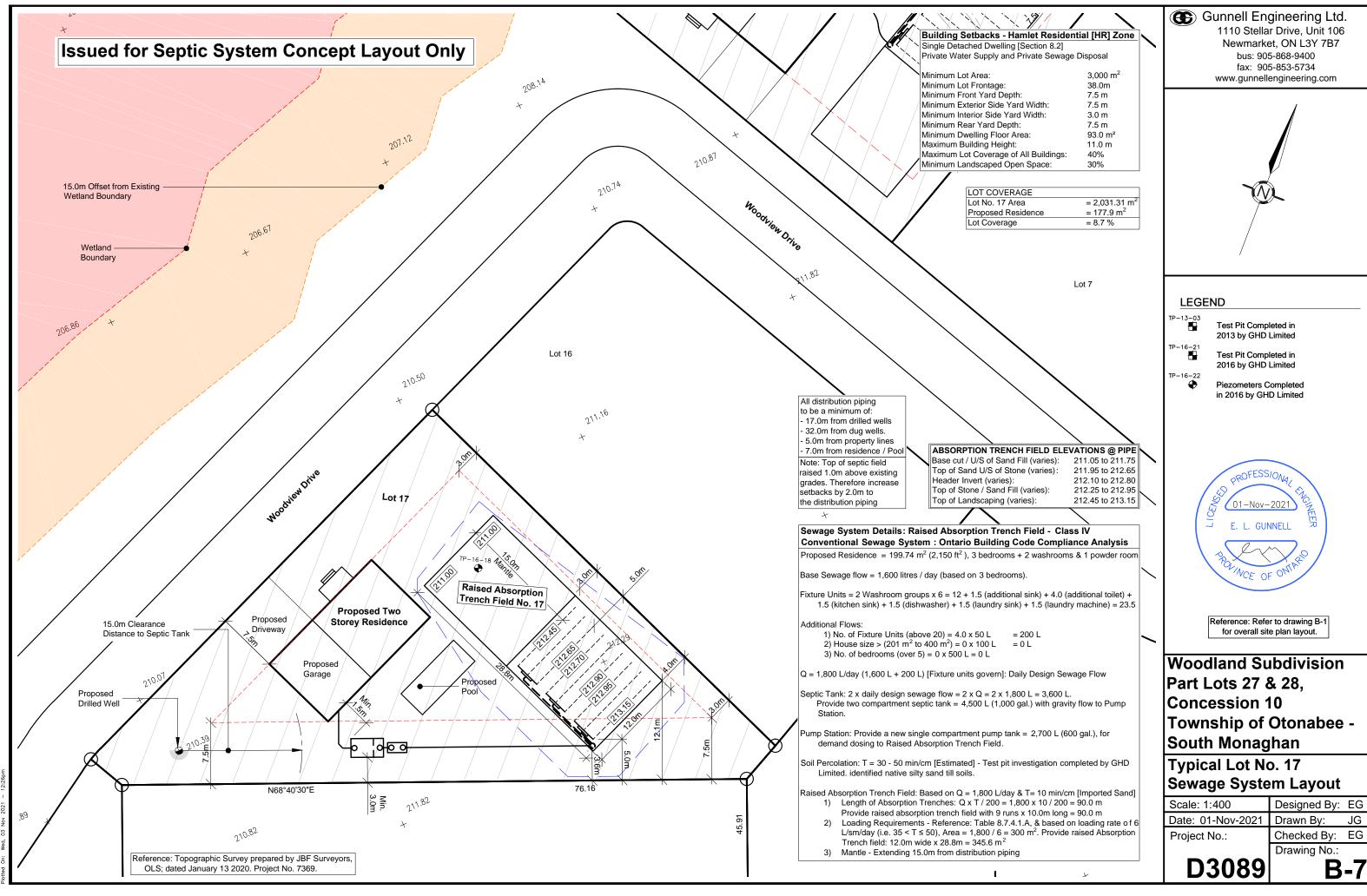
Woodland Subdivision Part Lots 27 & 28, Concession 10 **Township of Otonabee -**South Monaghan

Typical Lot No. 9 **Sewage System Layout**

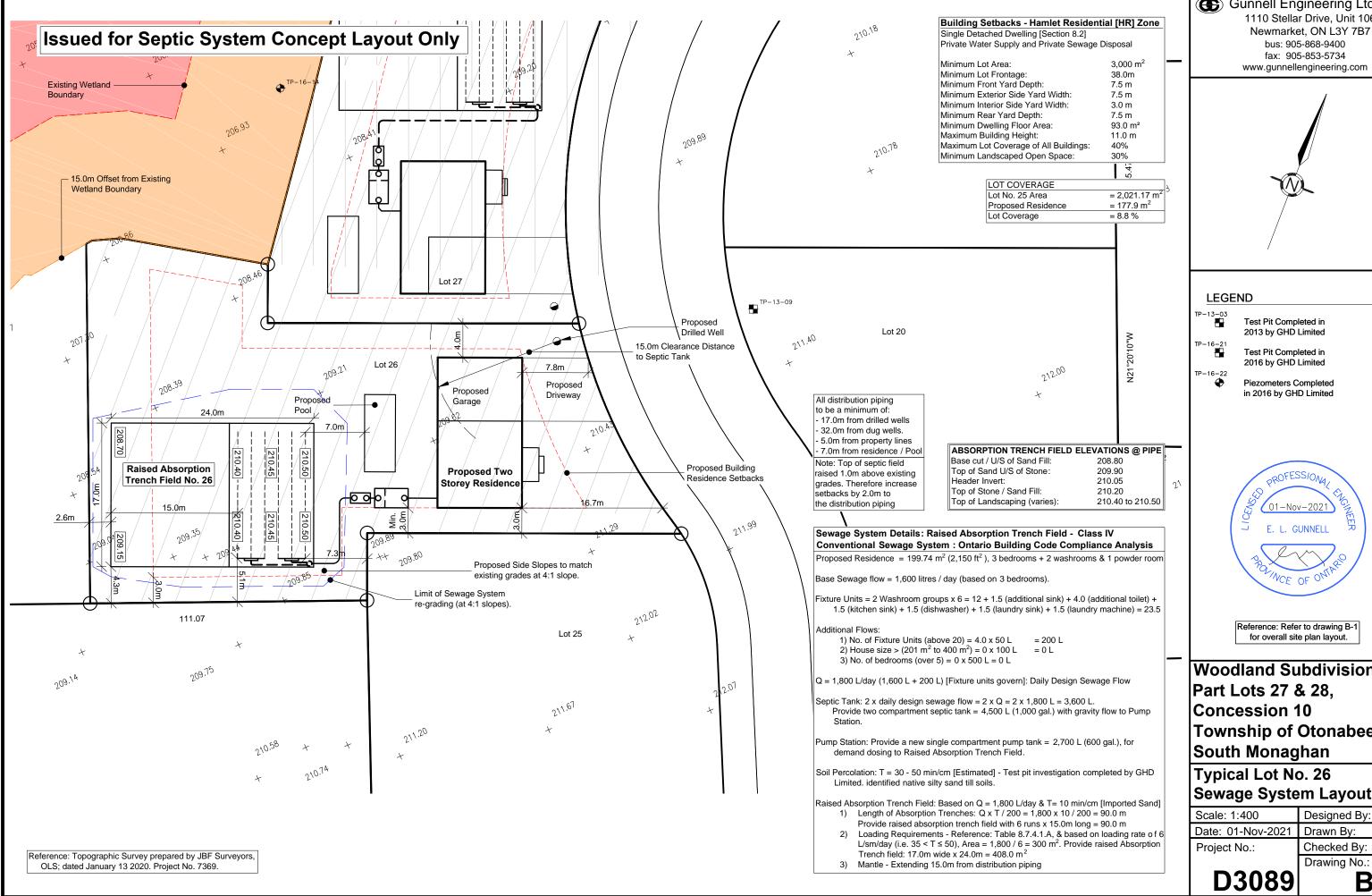
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Drawing No.:





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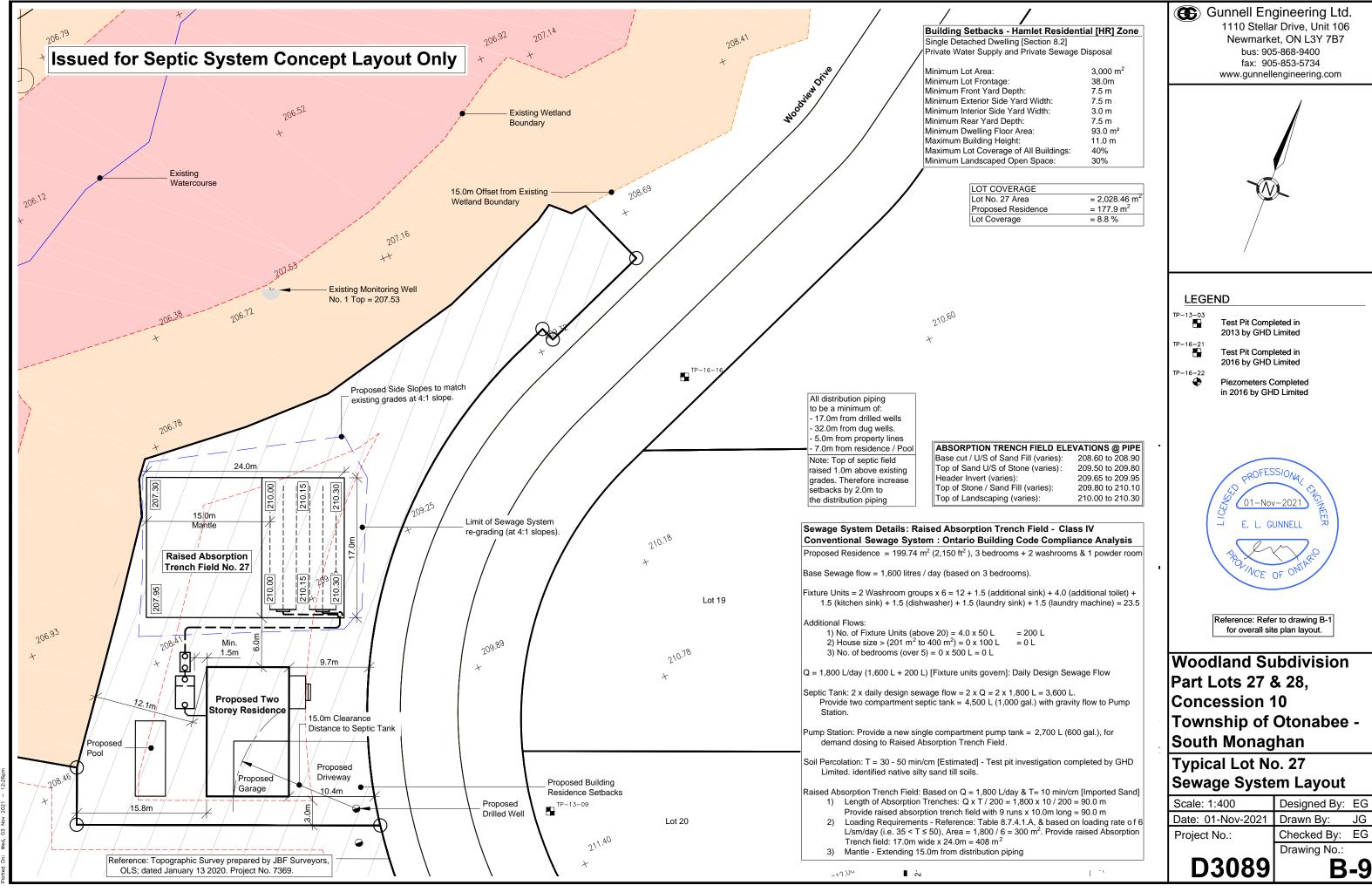
for overall site plan layout.

Woodland Subdivision Township of Otonabee -

Sewage System Layout

Designed By: EG Date: 01-Nov-2021 Drawn By: Checked By: Drawing No.:

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