



May 2, 2016

Via: Email

Ms. Kelsey Lang
Planning Associate
Township of Guelph/Eramosa
P.O. Box 700
Rockwood ON N0B 2K0

Dear Kelsey:

**Re: Zoning By-law Amendment ZBA 01/16 (D14 TO)
Draft Plan of Subdivision D12 23T-16001
Bonnarrow Meadows – Rockwood
Project No.: 300035946.0000**

We have reviewed the above noted application along with the following documentation:

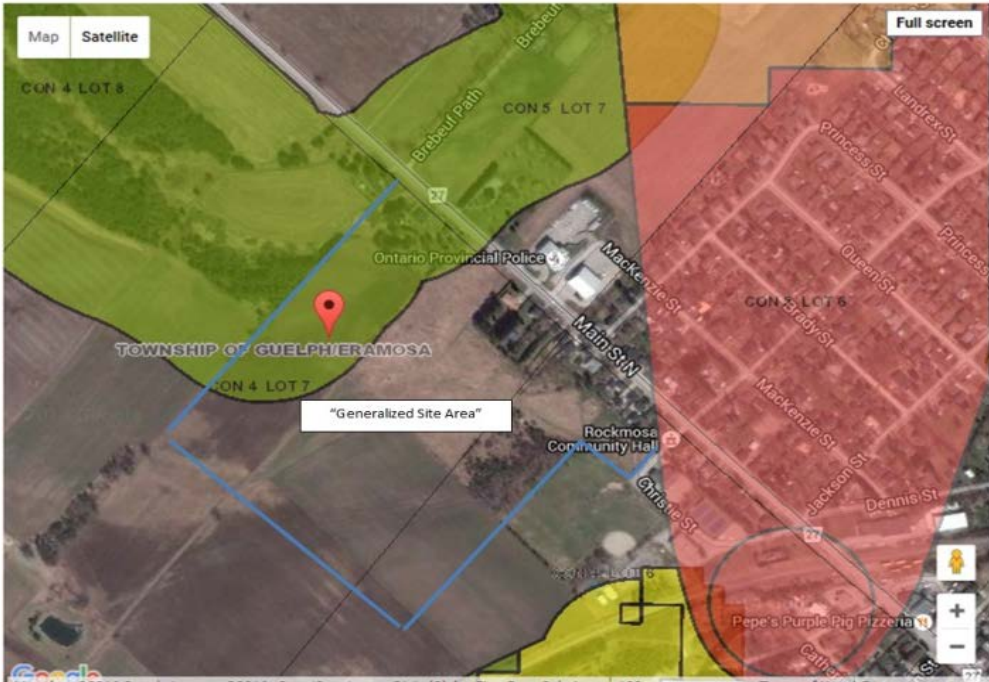
- Preliminary Hydrogeological Assessment, prepared by Banks Groundwater Engineering Limited, dated February 22, 2016;
- Phase 1 Environmental Site Assessment, prepared by Chung and Vander Doelen, dated October 26, 2015;
- Environmental Impact Study, prepared by Natural Resource Solutions Inc., dated March 2016;
- Traffic Impact Study, prepared by Paradigm, dated March 2016;
- Functional Servicing Report, prepared by Braun Consulting Engineers, dated February 2016; and
- Draft Plan of Subdivision, prepared by Astrid J. Clos, February 24, 2016.

Background

The applicant is proposing to develop a 214 residential lot subdivision located on a portion of the lands located at 5155 Fourth Line and the lands located at 5156 Wellington Road 27. Two Stormwater management (SWM) facilities and a sewage pumping station are proposed. Two access points to the subdivision are shown, one off County Road 27 and the office off of Christie St. Lots will be serviced by the municipal water supply and gravity sewers.

Our current submission comments are listed in the table below (the “Re” refers to the number in previous submission. Comments on a drawing should be reflected on all drawings.

No.	Re	Comment
General		
1.1		Sewage allocation is limited to the servicing capacity in Rockwood. The Township should review and confirm sewage allocation prior to draft plan approval.
1.2		Access to Block 172 SWM pond and its outlet will be required. Access can either be gained through conveying Lot 99 to the Township or by re-evaluating the easement length and width shown on the west of the development. This easement could be extended (grading permitting) to the boundary with Rockmosa Park where access can be gained to the SWM block and outlet.
1.3		In the pre-consultation meeting it was requested to have the 20 m ROW extends north to the limit of the townhouse block 163. Please review. It should also be noted that a new typical 18 m ROW detail will need to be established since the Township currently does not have one. Particular attention will need to be made to tree placement in relation to services.
1.4		The Street naming should be reviewed.
1.5		<p>Sidewalk layout should be shown on the drawings. Consideration should be given to:</p> <ul style="list-style-type: none"> • Need for linkage along Christie Street, both to connect to County Road 27 via the north leg of Christie Street and to connect through the municipal parking areas to the south; and • Need to extend linkages on County Road 27 between the school driveway and Street A.
1.6		Lots 56 and 57 are located very close to County Road 27. These lots should be re-evaluated with respect to distance to County Road 27, driveway location, queuing and noise.
1.7		What is the condition of the existing culvert crossing County Road 27 at the north end of the site?
1.8		The ultimate stormwater outlets for the subdivision are to municipal drains. Homeowners should be advised that their properties may be assessed for future drain improvements or repairs.
1.9		The northeast portion of the property (behind lots 57-59) should not be filled or altered as this may negatively affect the lot to the north. Planting plans should consider the tile running through this area.

No.	Re	Comment
Hydrogeological Assessment		
1.10		It is recommended that the applicant's technical staff consultation with the County of Wellington Risk Assessment Officer, Mr. Kyle Davis on specific Source Water Protection requirements.
1.11		Prepare fill management plan (FMP) in accordance with the MOECC's 2014 "Management of Excess Soil – A Guide for Best Management Practices" to ensure the environmental quality of the soils being imported onto, or exported from, the property are appropriate.
1.12		In association with the FMP, provide details on the type of material to be imported and possible effects on the shallow groundwater flow system and recharge to the Gasport Formation bedrock aquifer.
1.13		<p>As shown in green, a portion of the property is located within an Intake Protection Zone (IPZ) and the site is located less than 300 m from the Station Street Rockwood Wells 1 and 2.</p>  <p>Although the site is not specifically located within a well head protection area (WHPA), a Source Water Impact Assessment and Management Plan should be completed to evaluate (and mitigate) negative effects on recharge from fill importation on to the Site and the use of road salt and landscape fertilizers / pesticides.</p>

No.	Re	Comment
1.14		Mapping should be revised to show the site on same map as the local WHPA and IPZ.
1.15		Review should address quality and quantity.
Environmental Site Assessment		
1.16		There is a 200 m ² shed located on the northern portion of the property at 5156 Wellington Road 27. During the Phase One ESA the use of the shed was not documented and it does not appear that the interior of the shed was examined. This is considered a data gap which should be addressed.
1.17		Based on the age of the house, CVD indicate that designated substances (asbestos, lead, mercury) may be present. In accordance with the Ontario Health and Safety Act, a pre-demolition designated substance audit should be completed to identify and address any hazardous substances.
1.18		<p>The storage of fuel oil in an above ground tank is considered an environmental concern. There were no pictures of the tank or supplemental information on the age, condition or construction of the tank. It does not appear that the interior of the house was inspected as part of the Phase One ESA. This is considered a data gap which should be addressed.</p> <p>Given the presence of a storage tank and associated use of fuel oil for heating purposes, the basement of the house should be considered an Area of Potential Environmental Concern (APEC). Section 32 of Regulation 153/04 indicates that a Phase Two ESA is required when an APEC has been identified at the property. Burnside recommends that:</p> <ul style="list-style-type: none"> • An inspection of the house and fuel oil tank be completed and documented. • A soil and groundwater study be completed to assess conditions in the vicinity of the fuel oil storage tank.
1.19		During the demolition process the water supply well located north of the house at 5156 Wellington Road 27 should be decommissioned in accordance with Ontario Regulation 903.
Environmental Impact Study		
1.20		Section 5.3.1. This section notes that the MEMM4 community was cleared of trees recently. Was this done by the proponent and was an approval/permit obtained for this?

No.	Re	Comment
1.21		Section 5.4.1. This section notes that barn swallow were observed on-site and that any fields within 200 m of a nest are protected. However, it is not clear whether any potential barn nesting sites are present within 200 m of the property. Please confirm whether any roadside surveys identified barns in close proximity to the property.
1.22		Section 8.4. This section notes that fencing and dense plantings should be considered. This should be changed to state that these are required.
1.23		Section 8.1 (incorrect numbering). This Recommendations section should include all recommendations listed in the previous sections. It seems to only include a select few and this could lead to confusion during detailed design and construction as to which are actually required. For example, measure to protect the woodland along the dripline and timing windows for birds should also be include, among others.
Traffic Impact Study (TIS)		
1.24		The accesses to this subdivision (Street A and Christie Street) intersect with County Road 27, which is under the jurisdiction of the County of Wellington. Comments should be received from the County.
1.25		TIS notes that the speed on County Road 27 changes from 50 km/h at a location about 50 m to the north of the proposed intersection of County Road 27/Street A. We note that imagery from 2014 appears to show the speed change at approximately the location of the Street A intersection. However, we are uncertain as to whether works related to the new school in this area may have subsequently resulted in an adjustment to the location of this speed change. In any case, we suggest that the speed change location be relocated further to the north, to be more effective in moderating speeds in the area of the Street A intersection.
1.26		Section 3 of the TIS notes that no traffic is assigned to access the subdivision by turning at the County Road 27/Christie Street/Jackson Street intersection, since this is through the access to the library, Community Centre and park. While we agree that this route is not the preferred route, it will likely attract some traffic. We suggest that the Street A/Christie Street intersection be configured, in the detailed designs, to promote access via the County Road 27/Christie Street (north leg) intersection, as the safest route (i.e., negating the need to travel through the parking area of the community facilities).

No.	Re	Comment
1.27		The trip generation from the proposed school on County Road 27 is based on 280 students (initial development), whereas the previous TIS for that project is based on 350 students (ultimate development). In addition, previous planning work in this area suggests that the park area may be redeveloped to include a significant expansion of the recreational fields in this area. Further considerations of these factors should be made in the trip generation forecasts from background developments.
1.28		Section 5.2 of the TIS reviews the sight distances along County Road 27, however does not comment on the daylighting sight triangle requirements at the intersections. We note that vegetation at the southwest corner of the intersection of County Road 27/Christie Street is currently restricted by vegetation that appears to encroach onto the road right-of-way at this location. Consideration should be given to clearing this vegetation to improve this sight triangle.
1.29		The TIS does not address the phasing or emergency access requirements associated with the development (i.e., assuming the subdivision is to be phased). Detailed designs should provide further consideration of these factors.
1.30		Section 3.2 of the TIS assigns 50% of the trips to the north access and 50% of the trips to the south access. We suggest that this may over-estimate the trips to the north access (particularly for the trips to/from the south). The trip distribution in Section 3.2 also appears to over-estimate the trips to/from the north, considering the location of this development relative to Rockwood and Highway 7, as well as the trip distribution from the existing residential developments in this area (i.e., using the Christie Street and Jackson Street accesses from the east). We suggest that the trip assignment and distribution be reviewed.
Functional Servicing Report		
1.31		Sewer from Lot 51 to Lot 62 bypasses the forebay. Confirmation from GRCA should be received outlining this is acceptable.
1.32		Section 4.2: 100 Year pipe from south pond – pipes are prone to blockage (ice, debris) and also have finite capacity. An overland flow route is preferred for emergency conditions. Major system to have Regional Storm capacity or 100 Year, whichever is greater.
1.33		Section 4.3: Is there sufficient separation between the base of the infiltration trenches and either the high groundwater or bedrock?

No.	Re	Comment
1.34		Section 4.7 (Water Budget): It is not clear why the recharge rate is higher for post development pervious areas without infiltration trenches (220 mm/yr.) than the natural recharge rate (180 mm/yr.). We would argue that post development pervious areas (largely backyards) have lower infiltration capacity than farm field due to the level of activity in a back yard.
1.35		Further to above, it is agreed that there is less evapotranspiration from impervious surfaces (i.e., rooftops) that are directly connected to a trench. This, in turn, results in more runoff available for recharge. In order to include all this additional runoff as 'recharge' however, it must be demonstrated that the trenches will be completely drained between rain events. If they do not drain completely, they may be subject to overtopping.
1.36		Water modeling will be required for the watermain sizing and pressure assessment. Burnside will conduct this modelling and share the results with Braun for detailed design.
1.37		There is a large amount of RYCBs. It is recommended that grading be reviewed to minimize the number required.
1.38		Infiltrations trenches are used throughout the site. Has the placement of these trenches taken into account the surrounding soils (i.e., are these placed for grading convince or to optimize infiltration)?
1.39		Currently the stormwater outlet is to an existing pond on Mrs. Bonner's property. It is unclear as to what the responsibilities for maintenance are. It is understood that an easement will be provided for access but clarification on ownership and responsibilities should be confirmed by Township solicitor.
1.40		We have reviewed the size (15 m x 25 m) of the Block 173 for the sewage pumping station (SPS) and find it smaller than typical. Please review and comment. Illustrating how all works can be accommodated on site would be beneficial.

Summary

We do not recommend approval of the zoning by-law amendment or draft plan until the above noted comments are addressed.

Yours truly,

R.J. Burnside & Associates Limited



Morgan Pel, P.Eng.
JK:mp



Jackie Kay, P.Eng., MBA

cc: Harry Niemi, Township of Guelph/Eramosa (Via: Email)
Gae Kruse, Township of Guelph/Eramosa (Via: Email)