
HALDIMAND COUNTY

Report PED-PD-06-2018 Applications for Plan of Subdivision and Zoning – Beattie Estates



For Consideration by Council in Committee on February 6, 2018

OBJECTIVE:

To inform Council of the details relating to Zoning By-law Amendment and Draft Plan of Subdivision Applications intended to facilitate a residential development in Caledonia known as the Beattie Estates Plan of Subdivision.

RECOMMENDATIONS:

1. THAT Report PED-PD-06-2018 Applications for Plan of Subdivision and Zoning – Beattie Estates be received;
2. AND THAT, prior to the granting of draft approval for the plan of subdivision by the General Manager of Planning and Economic Development in accordance with By-law 7/01 of the Town of Haldimand, Council be provided with a report outlining the final draft plan design and associated draft approval conditions and a further public meeting be held;
3. AND THAT Council support the principle of front-ending the development of a south end by-pass arterial road and that staff be directed to develop a front ending agreement to address the costs associated with the Environmental Assessment process, detailed design and construction works for the arterial road construction at the south end of Caledonia.

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EXECUTIVE SUMMARY:

This report advises Council of the details relating to the subject Plan of Subdivision and Zoning By-law amendment applications. The report is meant to assist Council to understand the potential impacts of the proposal and provide an opportunity for public involvement and engagement in the planning process. It also outlines an alternative process to approvals which is intended to provide some certainty for the applicant, streamline matters and allow for more efficient file management.

The proposal consists of a plan of subdivision that would see development up approximately 700 residential units, being a mix of single detached dwellings and townhouse dwellings. The development is located immediately adjacent to a draft approved plan of subdivision on the west side of McKenzie Road (McKenzie Meadows) encompassing 218 units, as well as vacant land to the immediate west that could house approximately 1,000 units. In combination, these 3 parcels utilize the remaining residential land supply designated in the south end of Caledonia and the cumulative impacts and integration of these developments on the road network and infrastructure have been assessed.

The subdivision under review would include an extensive internal road network, stormwater management facilities and new municipal service infrastructure (water and sewer). The project would also introduce new public park space and a significant trail segment that would serve to continue to build out the County-wide network of trails. The project represents an appropriate addition to the built area at the south end of Caledonia meeting proscribed Provincial development density targets, would be a logical extension of municipal services and would bring new housing stock that is consistent with forecast demand and compatible with the existing and built residential stock in the immediate area. The proposal would be subject to draft plan conditions that will address phasing of development to coincide with road network and infrastructure improvements, obligations (of the developer) for municipal service extensions/upgrades, and road improvements and requirements for high quality community development via a set of strict urban design guidelines. Specifically, a new arterial road system providing direct connection for residents of the new south end subdivisions to Argyle Street and subsequently the Highway 6 By-pass will need to be in place by the second phase of development or within 3 years of registration of Phase 1, to facilitate northerly traffic movement so as to mitigate impacts and infiltration of traffic into and on existing development south of the Argyle bridge.

BACKGROUND:

Applications have been received for the consideration of draft plan of subdivision and corresponding amendment to the Town of Haldimand Zoning By-law 1-H 86 to facilitate residential development in Caledonia. The proposal is to develop approximately 700 residential units, being a mix of single detached dwellings and street townhouses fronting onto a new internal road network with primary traffic connections to McKenzie Road and secondary access points from Balvenie Boulevard and Dunrobin Drive. The northerly connection to McKenzie Road will be integrated into a turning circle which will allow for improved collector road connection to the McKenzie Meadows development to the west and to McKenzie Road itself. The development also includes stormwater management ponds, parks and open space, and recreational trail system. Of note, this is the second major development to come forward in the last 6 months in the south end of Caledonia. In late 2016, Council dealt with approvals for a modified plan of subdivision for McKenzie Meadows which is immediately to the west of the subject lands. That plan consist of 218 units as a mix of townhouses and single detached homes. The Residential designated lands to the west of McKenzie Meadows could accommodate approximately 1,000 residential units. A copy of the plan of subdivision layout that is the focus of this report is included as Attachment 1. This attachment is a demonstration plan that shows the road layout and development locations along with a potential lot fabric.

The subject lands are located within the urban boundary area of Caledonia, along the southern extent of the community (Attachment 2). The lands run between McKenzie Road and River Road, with an approximate area of 43.9 hectares (108 acres). The lands are vacant of any buildings but do contain hydro and gas transmission infrastructure within a dedicated corridor that runs along the entire northerly boundary. There is a mature woodlot at the southeast extent of the property, as well as a watercourse near the west end of the site that runs in an north-south orientation. Both of these features would be retained and integrated into the subdivision design.

The subdivision review process will address various details specific to the proposed development including stormwater management/drainage, grading, parking, vehicular and pedestrian traffic, lighting, landscaping, servicing, fire routes, etc. It will also examine the cumulative impact of this development in conjunction with the previously approved adjacent subdivision (McKenzie Meadows) on matters such as servicing capacity and the adequacy of the road network 'downstream' from the new development. The zoning amendment application has been submitted to rezone the lands from "Agricultural (A)" to a site-specific "Urban Residential Type 1-B (R1-B)" and "Urban Residential Type 4 (R4)" with special provisions to facilitate the residential development and provide for a compact urban form. Zones of

“Open Space (OS)” and “Hazard Land (HL)” are also proposed to reflect parkland areas and protected/conservation lands respectively. As part of the development, urban design guidelines are also being reviewed and applied to the proposal.

The purpose of this report is as follows:

1. Advise Council in Committee of the details relating to the subject application (as described above);
2. Provide a summary of the key planning issues, including results of agency/division reviews and a detailed staff analysis of the matters;
3. Consider the details of a site specific zoning amendment for the subject proposal; and
4. To provide an opportunity for community stakeholders to identify issues and to provide comments relative to the proposal.

The presentation of an information report in advance of final recommendations is a standard approach implemented by the County for complex applications and those that would be of significant interest to the members of the community. The approach allows the formal public meeting to be held and any public input to be received and considered in advance of preparing staff recommendations on the merits of the proposal. In this circumstance, there is a need to fully understand and manage the issues relating to a development of this scale and in this location. To that end, staff is of the opinion that this ‘early issue identification’ approach has significant value as it allows for early public engagement in the planning process. This early engagement will allow for ‘up-front’ identification of any potential development issues and the opportunity for such to be addressed prior to a recommendation relating to the principle of land use (zoning) coming forward for Committee’s consideration. This will ensure that Committee has full and complete information available prior to making a decision.

In addition to the above, this report intends to further implement the streamlined path to approvals for subdivisions using existing delegated approval authorities.

ANALYSIS:

This proposal involves two types of planning applications:

1. A zoning approval which is intended to address key principle of use matters; and
2. A subdivision approval which is more technical in nature and relates to the actual layout, servicing and property division matters.

The proposal does not require a policy decision in terms of amending the Official Plan and has progressed to the stage where Staff feel the substantive key matters relating to the type, form and density of development are aligned with approved policy frameworks, and that key technical matters such as the overall subdivision design, access points, servicing and stormwater management, and environmental impact have been assessed and the overall concept is considered feasible subject to detailed evaluations.

The Analysis portion of this report examines the development under 3 broad headings:

- I. Land Use
- II. Development Design
- III. Development Functionality
 - Of the subdivision
 - The cumulative impacts of all recent developments

Each broad heading contains a series of detailed sub-headings or topic areas. Those topic areas contain a fulsome assessment of (where applicable) policy, design standards/criteria and circulation comments. The main reference documents examined in the analysis are summarized briefly below:

- *Provincial Policy Statement*: The Provincial Policy Statement (PPS), 2014 provides overall policy direction on matters of provincial interest relating to land use planning and development. Decisions affecting planning matters “shall be consistent with” the policies of the PPS. Through the PPS, the Province determines that building strong communities is a provincial interest and is to be addressed, in part, through promoting efficient land use and development patterns that support strong, livable and healthy communities, protect the environment and public health and safety, and facilitate economic growth.
- *Provincial Growth Plan*: The Growth Plan for the Greater Golden Horseshoe is the framework for implementing the Government of Ontario’s vision for building stronger, prosperous communities by controlling growth until 2041. The Plan addresses issues relating to economic prosperity which include transportation, infrastructure planning, land use planning, urban form, housing, natural heritage and resource protection. The Growth Plan’s emphasis (in part) is on creating complete communities, expanding housing options and curbing sprawl. A key focus is on increasing density and optimizing the use of the existing land supply. As such, the Growth Plan policies direct municipalities to facilitate and promote *intensification* and *higher densities* for new developments.
- *Haldimand County Official Plan*: The Haldimand County Official Plan creates the framework for guiding land use changes in the County over a 20 year timeframe by protecting and managing the natural environment, directing and influencing growth patterns and facilitating the vision of the County as expressed through its residents. This Plan also provides the avenue through which Provincial Policy is implemented into the local context. The County completed a Growth Plan conformity project in 2010 which resulted in creation of a growth management plan relating to housing. Policies were developed that set out minimum growth targets, infill/intensification strategy and other key matters that govern new residential projects.
- *Haldimand County Housing & Places to Grow Implementation Study* (completed by SGL, NBLC, Hemson, 2009): Haldimand County completed this study in 2009 and it provided the basis to bring the County Official Plan policies into conformity with the Growth Plan. The study resulted in the creation of a strategy for residential growth (including establishing minimum targets for infill/intensification and densities for greenfield lands) and a strategy for the use/protection of employment lands. The study was completed in concert with the 2009 update to the Population, Household and Employment forecasts. These strategies and forecasts were translated into policies that are now included in the Official Plan and set out the planning horizon to 2031.
- *Haldimand County Population, Household and Employment Forecasts Update* (completed by Watson & Associates, 2014): As part of the previous 2014 Development Charges Background Study (DCBS), the County completed an update to its Population, Household and Employment Forecasts. The final forecasts were approved by Council in April 2014 for use in the DCBS and for future inclusion in the Official Plan.
- *Town of Haldimand Zoning By-law 1-H 86*: The By-law controls the use of land in the community. It states exactly how land may be used, where buildings and other structures can be located, the types of buildings that are permitted and how they may be used, the lot sizes and dimensions, parking requirements, building heights and setbacks from the street. It is the key implementation tool of the Official Plan as it gives definition and specificity to the land use permitted. It also directly influences the layout, function and appearance of a given development based upon the provisions in place.
- Various supporting studies submitted by the proponent, including:
 - Planning Rationale Report, prepared by Upper Canada Consultants
 - Stormwater Management Report prepared by Upper Canada Consultants

- Sanitary Monitoring and Capacity Assessment prepared by Civica and Upper Canada Consultants
- Traffic Impact Study and addendums prepared by Paradigm Transportation Solutions
- Environmental Impact Study prepared by Beacon Environmental
- Urban Design Guidelines prepared by John G Williams Architect
- Archaeological Assessment – Phases 1 and 2 prepared by Archaeological Research Associates Ltd.

I. Land Use

The Provincial Policy Statement, Growth Plan and Haldimand County Official Plan all speak to the need for efficient development and land use patterns, directing growth to appropriate locations (i.e. urban settlement areas), ensuring the provision of an adequate housing supply and logical expansion/provision of services. All of these policy directions have been assessed in detail in the subsections below. In addition, the proposal has been assessed in terms of its ability to meet minimum density targets as it relates to persons/jobs and units per hectare, the suitability of the housing mix (as it relates to historical and forecast demands) and the timing of the development in terms of phasing.

1. Residential Land Use

1.1 Housing Supply & Distribution of Dwelling Types

The first area of assessment relative to residential land use relates to the elements of **distribution, supply** and **locational criteria**.

Provincial Policy

The Provincial Policy Statement (PPS) sets out that municipalities are to plan to meet the projected requirements for current and future residents, provide a variety of housing forms to meet all needs (for the long term) and are to maintain at all times the ability to accommodate residential growth for a minimum of 10 years. The subject proposal is consistent with these policy directives.

The subject lands contain a Residential designation in the County's Official Plan and as such have the expressed purpose of being available for residential development. This application does not represent a proposal that would see any net increase in the supply of designated lands. In that regard, these lands have long been considered, and are supported to be used, as part of the County's existing land supply to meet demand for growth in the County. Based on this, the policies of the PPS are not offended and the proposal is considered consistent with this policy document.

The Growth Plan sets out policies that are similar and which require that housing growth be directed to settlement areas and providing a range and mix of housing types within diverse and complete community settings. In general, the proposal achieves conformity with the Growth Plan from a supply and distribution standpoint as it exemplifies all of these attributes.

Haldimand County Policy

The majority of the subject land is designated 'Residential' in the County's Official Plan (OP). Residentially designated lands are expected to accommodate attractive and functional neighbourhoods and provide a variety of housing forms and community facilities supportive of a residential environment. The subject proposal aligns with these policy directives.

The OP acknowledges that Caledonia is forecast to experience the most unit growth in the County due primarily to its proximity to Hamilton and the GTA and its supply of vacant residential land. This forecast is being realized through the various large-scale projects proposed/underway (e.g. McKenzie Meadows, Avalon). The total volume of construction activity (servicing agreements, building permits) and uptake (pace of unit sales) is further evidence of policy accuracy and intent. This subject application is a direct response to that policy statement.

In terms of projected growth, the Growth Plan conformity work completed in 2009 (as part of the Official Plan) set out that the majority of growth for Caledonia is expected to be in single and semi-detached units. The County's Population & Household Forecasts Update (2014 by Watson & Associates) corroborates these **distribution** forecasts. The proportion of single/semi-detached demand is expected to decrease, as some demand shifts to townhouses over the long term. The decreasing proportion of single and semi-detached homes and the increasing proportion of townhouses, will be a result of a number of factors:

- the aging of the population;
- changing buyer preferences;
- decreasing affordability of single and semi detached homes (Caledonia, along with Cayuga, is expected to have the most expensive home prices over the forecast period);
- a maturing downtown area that will attract medium and some high density housing; and
- a decreasing greenfield land supply.

The housing **distribution** mix is applied to all projects as they are assessed. Staff recognizes that not every project can (or necessarily should) comply with this established mix, and thus, it is to be measured across the community with targets achieved on a County-wide basis. In terms of the subject development, it does not directly align with the distribution of unit types forecast in the aforementioned studies. Table 1 A below provides a comparison of the distribution of the units within the subject project to the various forecasts used by staff:

Table 1 A

Unit Type	Beattie Estates Community Proposal	Growth Plan Conformity Project 2009 (to year 2031)	Watson Population & Household Forecasts Update, 2014 (to year 2041)
Single	85%	75%	74%
Row (Townhouse)	15%	16.5%	17%
TOTALS	100%	100%	100%

When examined in isolation, this project does not align with the measures in the above table. However, if this project is examined in connection with the recently approved revisions to the McKenzie Meadows plan of subdivision to the immediate west, the two-project total results in the following Table 1 B:

Table 1 B

Unit Type	Beattie Estates & McKenzie Meadows Combined Proposals	Growth Plan Conformity Project 2009 (to year 2031)	Watson Population & Household Forecasts Update, 2014 (to year 2041)
Single	76%	75%	74%
Row (Townhouse)	24%	16.5%	17%
TOTALS	100%	100%	100%

This puts the overall unit yield for the south end development more in line with the estimated projections set out in the 2014 and 2009 studies described in the above table. The mix is therefore considered, on the whole, to be in general conformity. It should also be noted that the above noted projects combined with Avalon (McClung Community at north end) will align with the projections for Caledonia.

In addition to the distribution of units, the total **supply** must also be examined. For the subject applications, staff again has used the 2009 Growth Plan conformity work and the current Population & Household Forecasts Update, as both are relevant and need to be used in the analysis. When reviewing the data in Table 2 below, it is clear that the Beattie Estates project would serve to contribute significantly to meeting the forecast supply identified in the Growth Plan conformity project to the year 2031 (i.e. the 20 year maximum 'plan to' period). This is shown in the 3rd column. The table also demonstrates that the proposal would provide supply that would serve to contribute to satisfying forecasts to 2041 (the recent Growth Plan Amendment No. 2 requirement/values identified in the recent Population & Household Forecasts) as shown in the 4th column. It is noted that the forecasts are dated and require updating in response to the recent census, growth being experienced and the strong market demand that is forming in Caledonia. The County's forecasts will be updated in 2018 and it is expected that both the total supply and the share of growth will increase substantially for Caledonia. Point being, it is expected that this development (and the others noted in the report) will help to serve the long range forecast supply. It should also be reiterated that the unit total for the project (shown in the 2nd column) is an absolute maximum based upon every lot being of the smallest possible lot area and frontage. This will not be the reality of the build-out as there will be a mix of lot sizes within the subdivision. Hence the total yield will be reduced.

Table 2

Unit Type	Beattie Estates Community Proposal (maximum build out – year not determined)	Growth Conformity Plan Project, 2009 (to year 2031 – Caledonia forecasts shown)	Watson Population & Household Forecasts Update, 2014 (to year 2041 – Caledonia forecasts shown)
Single	599	1,419	2,761
Row (Townhouse)	110	312	776
TOTALS	709	1,890	3,883

To summarize, the project would provide for the forecast supply (even when reduced to accommodate varying lot sizes/frontages, etc.) which is a positive outcome.

The last area of analysis relative to residential land use is the **locational criteria** for medium density projects. The Official Plan contains a series of criteria that are to be used to assess medium density residential development (defined as townhouses and low-rise apartments). As small proportion of the proposal is representative of medium density development (i.e. 57 townhouse units or 8.5% of total units), Planning staff have completed a review of the associated development criteria to ensure this component of the project is appropriate. The analysis of the criteria is summarized as follows:

- a) The effect of development on overall housing needs on the community;

Comment: The proposed development will assist in addressing the varied housing needs of the community of Caledonia. As described above, the Growth Plan study and Population & Households Forecast Update concluded that the demand for single/semi-detached dwellings in Caledonia is expected to remain strong, but there will be increased demand for townhouses over the forecast period (2013-2031 and to 2041 as well) based on a number of factors (aging population, changing buyer preferences, etc.). The distribution table (Table 1 above) provides a graphic representation of the current and forecast unit shifts in Caledonia. The distinct aspect of forecast unit growth in Caledonia is that medium density will account for approximately 25% to 29% of overall unit growth (to 2031 and also to 2041). The subject proposal is in line with these forecasts, as it provides a supply of medium density units to help meet expected housing needs for this type of housing.

- b) The effect of the use on neighbouring residential development with respect to the density, form, height and arrangement of buildings and structures;

Comment: There is a limited amount of residential development to the east and south by virtue of the subject lands corresponding to the urban boundary of Caledonia in those directions. Similarly, there is very limited existing development to the west, however, this area is draft plan approved (McKenzie Meadows) for a low/medium density development that is very similar in characteristic, density, etc. as the subject proposal. The only significant development in the area is to the north (Highland Heights subdivision) which is characterized as low density predominated by single detached dwellings. That existing development is buffered from the subject lands by a gas and hydro corridor which can be seen on Attachment 1. The width of the corridor is approximately 45 metres (148 feet) with some wider segments near the centre of the site where the corridor connects to Highland Heights Park. The key benefit for this project is that this is a (largely) undeveloped area and as such, there is lessened effect due to the limited amount of surrounding development. With this said, for those dwellings along the perimeter of the site to the north, the design of the plan has taken into account the type of development that exists and the need to provide appropriate separation of uses and preservation of privacy. This is accomplished by proposing all low density single detached dwelling development along this stretch (medium density units placed internal or towards the west), as well as incorporating the main subdivision park along the northerly edge of the site which serves to break up the span of development.

- c) The ability of the site to provide adequate parking facilities for the use in a manner that does not compromise the provision of other amenities and facilities such as outdoor common areas, landscape buffers, garbage storage enclosures and emergency vehicle access;

Comment: The townhouse dwelling units will each have minimum 2 parking spaces as per the requirements of the zoning by-law. This will be in the form of minimum 1 space in the driveway and 1 space in an attached garage. The garage size recommended by staff also can accommodate garage/recycling containers and other residential effects. Each lot will have an adequate amenity area and there will be access to a community park, trail system, etc. which would not be interfered with in any manner. In terms of emergency vehicle access, this will be by way of municipally maintained public street system as in any typical subdivision. Lastly, the developer will provide a parking plan with each proposed phase which County staff will review and approve (for on street parking). Further, driveways would be 'paired' for the townhouses (and singles as well) wherever feasible to do so such that the space between is maximized for on street parking provision.

- d) The proximity of the use to arterial or collector road in order to reduce the need to direct additional traffic to local streets within stable, low density residential areas;

Comment: The proposed subdivision layout includes a mix of single detached and townhouse units with direct frontage or connection to an internal collector system (Streets 'A' and 'B' on Attachment 1). Also, there are multiple connection points to McKenzie Road and River Road (via Dunrobin), which are collector roads. It is anticipated that a large proportion of the purchasers will come from the north (i.e. outside of the County). This is the trend that is being experienced with the Avalon project. As there will be a direct connection to Balvenie Boulevard and Dunrobin Drive, it is anticipated that some level of traffic will go through the Highland Heights subdivision and thus established areas. However, as the internal collectors will provide direct and logical access to McKenzie Road the majority of traffic is anticipated to travel via that route. Further, the segment of Dunrobin that would be utilized to access River Road represents a short traverse through the larger established neighbourhood which would minimize any significant impacts. Furthermore, the road design and traffic study have been reviewed relative to adequacy of internal movements, key community entrance locations, etc. Some modifications to the design have taken place as a result of the review and additional traffic control measures (e.g. turning circles) have been incorporated.

Lastly, the larger transportation system plan (as laid out in Section III Development Functionality below) will see a new collector system developed over time with all south end projects being integrated, as well as a new arterial road system at the south end of the community in the early stage of development. These improvements would facilitate more southerly travel patterns that would make use of the Highway 6 By-pass thus redirecting motorists away from downtown / Argyle Street.

- e) The proximity of the uses to public parks and other open space amenities and pedestrian access to these amenities;

Comment: The Beattie Estates subdivision is proposed to have a large centralized park and network of recreational trails. The community design is intentional and is based on the principles of 'active transportation' in that, it connects all of these features such that there is maximum accessibility for residents. Additionally, the development is in close proximity to other recreational facilities and open space, including the Haldimand County Caledonia Centre, McKinnon Park and other community parks. Pedestrian access to the amenities will be enhanced by the requirement for sidewalks within the subdivision and their connection to the larger pedestrian network throughout Caledonia.

- f) The adequacy of community services and facilities, including special needs facilities, to accommodate the needs of the residents of the use.

Comment: Caledonia is a viable centre with a large number of community-oriented services and amenities. The development is anticipated to add to the overall growth of the town, and not have any detrimental impacts on service provisions. All services available in Caledonia will be accessible for residents of this subdivision and are conveniently accessible due to the compact nature of the community.

1.2 Density/Efficiency of Land Use

The second key area of assessment relates to the density and efficiency of land use – two matters that directly influence each other and are inextricably linked. In particular, as the density increases so does the efficiency of land use, servicing provision, etc. The subject project aims to satisfy both objectives as is discussed in the analysis below.

Provincial Policy

The Provincial Policy Statement (PPS) sets out that growth should take place in designated settlement areas and shall occur adjacent to existing built up area. New development should also have compact form, mix of uses and densities that allow for efficient use of land, infrastructure and public service facilities. These policies are all addressed in the subject proposal and through supporting materials provided by the proponent. In particular, the subdivision is adjacent to the built boundary of Caledonia and would see development extend in a logical manner from the north to the south. Services would be extended in a similarly logical manner and the development would make use of an existing water supply that runs down McKenzie Road (via the necessary extension) thereby using infrastructure in an efficient manner. The mix of residential uses and the increased density of development (achieved through smaller lot sizes and development setbacks, reduced right of way widths, etc.) are similarly in line with the intent and directives of the PPS. Lastly, capacity exists in the water and wastewater treatment facilities/systems to accommodate the initial phases of the development. Necessary upgrades have been identified and will be initiated as required and with influence from the pace of development at the subject site and other projects in Caledonia. This will ensure that infrastructure planning is coordinated, not premature, and will not result in unnecessary capital expenditures (thereby assuring cost effectiveness).

The Growth Plan contains similar policies that require efficient use of land. In particular, it contains a key policy that requires the establishment of 'greenfield areas' for settlement areas where a minimum density of new development is to occur. The subject lands are within a greenfield area for

Caledonia. Through the County's Growth Plan conformity study (which was approved by the Province in late 2011), Haldimand County is required to target an average of 46 persons/jobs per hectare for all new residential development in developing areas (i.e. greenfields, which are typically at the fringes of urban areas). The subject proposal is a positive response to this policy requirement as it achieves compliance and represents a higher density than traditional Caledonia developments (i.e. Growth Plan study determined 39 persons per hectare as the traditional level). As such, the proposal satisfies the objectives of the Growth Plan. The Official Plan section below provides more details on the density of the project and how it fits within the overall objectives but concludes that the requirements of Places to Grow have been met.

The Growth Plan also sets out that new development taking place in designated greenfield areas will be planned, designated, zoned and designed in a manner that:

- a) contributes to creating complete communities;
- b) creates street configurations, densities, and an urban form that supports walking, cycling, and the early integration and sustained viability of transit services;
- c) provides a diverse mix of land use, including residential and employment uses, to support vibrant neighbourhoods; and
- d) creates high quality public open spaces with site design and urban design standards that support opportunities for transit, walking and cycling.

Staff has worked with the proponent to integrate numerous elements that would serve to satisfy these policies. In particular, the development includes a range of housing styles, an overall design conducive to walkability (sidewalks, major trail network along northerly boundary), large park areas and generous open space. In the view of staff, the overall design is in keeping with the intent of creating a complete community, compact urban form and high quality of life with its varied components and offerings.

Haldimand County Policy

The policies of the Official Plan direct new residential growth to settlement areas such as Caledonia. Development is to proceed in these areas in an orderly and phased manner contiguous to existing development and is to take into consideration the availability of services. Development is also to be in a compact form and appropriate for pedestrians (including walking, cycling). All of these elements have been assessed and the proposal is considered appropriate. As discussed earlier in this report, development is to be logically phased and make use of available services (watermain, road infrastructure, treatment plant capacity), while infrastructure upgrades will only be initiated when development requires such. The plan itself is conducive to various modes of vehicular transportation and provides ample opportunity for active transportation (the latter is discussed in more detail further in this report).

The subject lands are located within the greenfield area of Caledonia and are therefore required to meet appropriate density targets as stated in the Growth Plan section above. In particular, there are three areas that need to be addressed which are as follows:

- Density in terms of persons/jobs per hectare – County policy sets 46 persons/jobs for new residential development;
- Density in terms of minimum number of units per gross hectare – County policy sets 15 units for new low density residential development (i.e. singles and semi-detached) and 35 for medium density residential development (i.e. townhouses); and
- Density in terms of maximum number of units per gross hectare – County policy sets 20 units for new low density residential development (i.e. singles and semi-detached) and 40 for medium density residential development (i.e. townhouses and low rise apartments).

A key point to relate to each of the above bullets is that the greenfield targets are to be measured over the entire greenfield of the County. In other words, they are to be an average of all the settlement areas and every development does not need to meet the targets as all projects are blended. As such, projects are 'generally' required to meet the targets outlined above. The key is to ensure that all projects work towards a higher density such that several developers/projects are not required to be developed at an exceptionally high density in future to off-set a large number of very low density projects. With that said, this is a significant project which will heavily influence the level of density that is achieved over the entire County. As such, staff has worked with the developer to move towards achieving and exceeding the target while also taking into account traditional forms of development, locational context, site constraints, etc.

In the case of the subject application, the proposed development is an example of moving towards the targets and aligning with them. Staff has conducted an analysis of the proposed development and has calculated the density targets for such as follows:

Table 3

	Official Plan Measure	Project Measure - High
Persons/jobs per hectare	46	51*
Minimum units per gross hectare low density component (single detached dwellings)	15	16
Maximum units per gross hectares low density component	20	16
Minimum units per gross hectare medium density component (townhouse dwellings)	35	29.5
Maximum units per gross hectare medium density component	40	29.5

**Notes:*

- 1) *based on 3.16 persons per single/semi detached; 2.74 persons per townhouse – source: Haldimand County Population, Household & Employment Forecast Update (2011 to 2041).*
- 2) *based on calculation of work at home jobs which are estimated at 5% of the population = 106 jobs – source: County's Growth Plan conformity project.*
- 3) *hydro corridor, significant woodlot and watercourse areas removed from overall hectareage for purposes of calculations.*

Planning staff is satisfied that the proposed development meets the Growth Plan density target and provides an appropriate mix of housing types, as well as work at home employment opportunity and, supports the County in achieving the overall policies of the Growth Plan. The development is proposed at a higher density than both traditional and recent new developments and would contribute toward Haldimand County achieving a greater level of population density and more efficient form of land use which is the underlying intent of the Growth Plan while still recognizing the nature of the community in which it is proposed. Cumulatively, this development in conjunction with the Avalon (Empire) and McKenzie Meadows developments meets all the County's density requirements as set out in Provincial Policy and in the Official Plan.

A few matters relating to density targets require some additional discussion. Firstly, the draft plans are proposed as lotless blocks. While this approach provides flexibility in terms of the lot pattern

within each block and the ability to vary widths to meet market demand, it also creates some uncertainty in terms of the density compliance. The density calculations in Table 3 above assume a balance of small, medium and large lots. Practically speaking, the development will not happen exactly as assessed as the subdivision will have a variety of lot sizes and frontages to cater to all demands and respond to the market. If not appropriately controlled, the downside of this approach is that it could lead to a situation where the overwhelming majority of lots are of the large variety which then could lead to a non-compliance with the density target. As such, to ensure that density targets are met (i.e. minimum of 46 persons/jobs per hectare), staff is proposing a draft plan condition that institutes the entirety of the plan must meet the minimum target of 46 persons/jobs per hectare and that each phase will require a detailed analysis of the resultant anticipated density prior to final approval/registration. This will allow constant monitoring and check-ins to ensure the project is on track and/or approaching the required targets. This will also be engrained in the zoning by-law to give it the necessary regulatory function that will prescribe compliance. To be clear, this target will need to be met over time and not for each phase. This will ensure a balance between the flexibility desired by the developer and the need to maintain/meet minimum targets for the subdivision. Staff will work closely with the developer at each phase in terms of compliance monitoring.

The lone deviation from the Official Plan measures in Table 3 above is the townhouses being under the minimum greenfield target of 35 units per gross residential hectare. It is important to note that the targets are applied on a community scale and not each project must meet the minimum target. In that regard, if this project is examined in connection with the recently approved revisions to the McKenzie Meadows plan of subdivision to the immediate west, the two-project total results in a yield of 33.6 units per gross residential hectare which falls just below the above-noted range of 35 to 40 as set out in the Official Plan. Combining the two projects further with the Avalon project in north Caledonia would place the total of all three projects (which would be looking at 'community scale') within the appropriate range as set out in the Official Plan at approximately 36.6 units per hectare.

In summary, the proposal maintains the general character of the Caledonia community, while increasing the density and providing an alternative housing form. The plan represents an efficient use of land and the future phased, coordinated approach to development will ensure that services are emplaced as and when needed. Based on this information, Planning staff recommends that this proposal meets the general intent of the Growth Plan conformity policies of the Official Plan.

2. Natural Environment

2.1 Natural Features/Areas

Provincial Policy

Provincial policy speaks to the requirement to preserve natural features for the long term. This includes the requirement to protect, restore and (where feasible) enhance/improve diversity and connectivity of features, as well as the ecological function and biodiversity of natural heritage systems. As described in the County policy section immediately below, the design of the subdivision plan is in response to this policy directive and the supporting Environmental Impact Study (prepared by Beacon Environmental) sets out methods to address the policy intent to protect, preserve and enhance. In general, the subdivision design proposes to remove some small portions of the existing woodlot at the easterly boundary of the site; the removal of two (2) small wetland ponds (with limited significant wetland features and functions); and, the removal of barn swallow nesting habitat. The supporting documentation generally demonstrates that the proposal is consistent with Provincial policy; however, the key to conformity will be through the implementation which will be managed through on-going monitoring, reporting and work with the Grand River Conservation Authority and County at all stages of construction. This is described in more detail in the County policy section immediately below.

Haldimand County Policy

The County's Official Plan (OP) contains a significant amount of policy relating to Natural Environment Areas (NEA) which are those areas and features that provide important ecological, or biological and/or hydrologic functions, contribute to human health, exhibit varied topography, contribute to water resources, contain threatened or endangered plant or animal species or provide habitat for threatened and endangered species. The OP clearly sets out limitations to development within NEAs as well as on those lands adjacent to such features. Where development is to be considered in these areas, it requires the completion of an Environmental Impact Study (EIS) to demonstrate that there are no negative impacts on the natural features and their ecological functions.

To address natural features and areas on the subject lands, the developer submitted an Environmental Impact Study (EIS) prepared by Beacon Environmental. The aim of the EIS was to characterize natural heritage features and functions of the subject lands; identify constraints to development; evaluate potential impacts to natural heritage features and functions; and, recommend protection, mitigation and enhancement measures. This was one of the key first steps in the planning process of the developer as the conclusions of the study would have a direct influence on the design of the subdivision. In essence, the subdivision plan is tailored to implement the recommendations of the EIS and the overall design serves to mitigate impacts by including (ecological) setbacks/buffers, linkages, ecological enhancements, development setbacks, etc. The fundamental conclusion of the study is that the proposal can be undertaken while protecting the most important environmental features and functions of the site and augmenting these where feasible.

The EIS sets out a series of recommendations and actions to mitigate any impacts to the natural features at the site. These include the following:

- Completion and implementation of a Forest Edge Management Plan, Buffer Land Naturalization Plan and Erosion & Sediment Control Plan;
- Physical implementation measures to protect the woodlot including creation of woodlot buffer to deal with soil compaction and root damage impacts; installation of construction filter fabric/fencing to limit damage from heavy equipment (when working near the woodlot); and, implementation of permanent rear lot fencing to limit vegetation cutting, composting activities, etc.;
- Creation of new barn swallow nesting habitat via purpose-built structures on the site (likely within the stormwater pond blocks) and a detailed monitoring plan of the nesting activity for minimum of 3 years. This is to address the existence of barn swallow on the subject lands in an existing farm equipment shed. Barn swallow is considered 'threatened' under the Ontario Species at Risk legislation. It should be noted that this type of mitigation is supported under Provincial legislation and the developer will be required to work with the Ministry of Natural Resources and Forests (MNRF) to enact this plan prior to development proceeding. MNRF clearance will be incorporated as a draft plan condition and a detailed implementation plan must be in place prior to work proceeding. The work will proceed with the construction of the main stormwater facility in the initial stages of the project.

All of these implementation measures would need to be approved at the detailed design stage of each phase of subdivision and prior to development of a given phase proceeding. A series of draft plan conditions have been developed in consultation with the GRCA and are recommended to address these elements. The main authority to sign off on the conditions would be the GRCA.

In terms of the GRCA, its' staff has reviewed the EIS and all of the supporting materials provided by the developer. GRCA staff has also worked closely with the developer's consulting team through clarification correspondence, numerous meetings and site visits – the latter provided opportunity to

investigate, monitor, confirm and develop necessary action plans and implementation measures 'in the field'. In its conclusion, the GRCA has indicated it is generally satisfied with the proposed subdivision plan subject to a series of detailed conditions being imposed and continuously being complied with by the developer.

2.2 Natural Hazards

Provincial Policy & Haldimand County Policy

Provincial and County policies are very similar as they relate to natural hazards. Both establish that development is to be directed to areas outside of hazardous lands adjacent to river, stream and small inland lake systems which are impacted by flooding or erosion. The key interest as it relates to natural hazards is to ensure that development is appropriately setback to minimize any risk to property and public safety. The policy relevance for the subject application is due to the headwater tributary to McKenzie Creek that flows through the middle of the subject property. While the original plan of development proposed that approximately 200 metres of the watercourse be enclosed within a concrete pipe, the GRCA did not support this approach and requires that the majority of the channel remain open and with an appropriate buffer area (i.e. GRCA will support enclosure of two small portions for a total of 40 metres length to accommodate two road crossings). The design of the subdivision was revised to comply with this requirement and the final layout is shown at Attachment 1.

As part of the application package, the developer provided detailed analyses relating to the channel design which specifies the block size necessary to accommodate the creek (to be reshaped in some segments), the regulated flood flows and the necessary buffers/setbacks. The proposal was approved by the GRCA and resulted in the current design of the subdivision as presented herein. Based on this, it is staff's opinion that the subject proposal adequately addresses hazard potential and has incorporated appropriate development buffers. To address final design and ensure all assumptions and conclusions are appropriate, a series of draft plan conditions have been developed requiring final detailed stormwater plans and supporting documentation to be provided and approved by the County and GRCA.

3. Trails, Parks and Recreation

Provincial Policy

The Provincial Policy Statement (PPS) includes policies that support and promote healthy, active communities through planning public streets, spaces and facilities to be safe, meet the needs of pedestrians and facilitate pedestrian and non-motorized movement, including but not limited to, walking and cycling. In this regard, there is new emphasis (per the 2014 version of the PPS) on the promotion of active transportation. PPS also sets out that municipalities are to ensure provision of a full range of built and natural settings for recreation, including parkland, open space, trails, etc. The Growth Plan contains similar policy provisions. The subject proposal is consistent with the Provincial level policies as the subdivision would contain a range of activity options which would be in safe and accessible locations. They would include passive recreation/nature appreciation within the woodlot at the easterly edge of the development; active recreation through use of the community park, sidewalks and network of trails (e.g. within the north corridor that extends along the entire length of the subdivision); and, a series of direct connections to other features including stormwater pond areas/McKenzie Creek tributary channel. The aspects of connectivity and promotion of active transportation/recreation are embedded throughout the community. Of further note, the north corridor trail will connect to the Mud Road trail to Hagersville (and beyond) when it gets constructed in 2025/26. As such, there is a broader community connection that would be facilitated through this aspect of the project.

Haldimand County Policy

County policies speak to the need to provide parks, trails and other active transportation opportunities in an effort to create complete, healthy and vibrant communities. In October 2013, County Council approved Official Plan Amendment HCOP-31-Active Transportation (now in full force and effect) which introduced a series of detailed policies relating to trails, parks and active transportation. In general, the changes call for the inclusion of trail development and the recognition of both active and passive park areas in development projects. The intent is to ensure there is an adequate supply of parks, open spaces and recreational facilities that are accessible and serve people of all ages and abilities. The policies set out methods to achieve these goals such as providing direct connections to facilities/destinations, creation of suitable road patterns and development block sizes, development of safe streetscapes, etc. Staff have worked with the developer to ensure the plan has included various components that serve to satisfy the aforementioned policy directives. In particular, the development will provide (see also Attachment 1 which demonstrates these elements):

- A trail system that runs along the entire northerly boundary of the property connecting McKenzie Road to River Road and which has numerous direct links through the subdivision.
- A series of short trail segments that connect the subdivision to the woodlot allowing for access and potential trail development. Of note, any development of trails within the woodlot will require detailed assessment of the potential impacts and consultation with the Grand River Conservation Authority. A preliminary assessment of trail construction potential has been completed as part of the larger EIS and identified key sensitive areas of the woodlot to be protected. Any trail design would need to take this into account and limit any impacts.
- Expansive and contiguous open space system running along the northerly boundary with numerous block connections in the subdivision and a direct connection to the Highland Heights Park to the north.
- Stormwater management facilities would contain trail segments, landscaping and would function as additional public open space during dry conditions. Elements such as park benches and viewing areas would be explored as part of detailed design.
- Opportunities for/specific routes identified for bike lanes (on road/within boulevard).
- Sidewalks would be provided on at least one side of every street within the subdivision and would connect into the trail system.
- Centrally located community park that would offer play opportunities easily accessed from all areas of the development.

The approach to design has been to integrate the recreation-type components with the main residential land uses. These components will be integrated at all stages of the development process. The end result is anticipated to be a healthy, active community that will contain streets, spaces and facilities that will be safe, meet the needs of pedestrians, foster social interaction and facilitate active transportation and community connectivity.

In terms of parkland dedication, the County will receive lands in excess of the 5% requirement as set out in the *Planning Act* (approximately 9% or 5 hectares). The majority of the conveyance is made up of the hydro corridor along the north side of the subdivision which has limited utility or constructability as parkland. However, these lands are integral to the overall trail system and will accommodate a continuous segment running from the west end to the east end of the subdivision. Staff has worked with the developer on the land dedication matter and the parties have agreed that the County will accept the hydro corridor (as well as some lands for the community park and all small parkettes/connections throughout development) subject to the developer constructing the recreational trail, all connections/crossings for trails, and any look-outs/furnishings associated with the trails. The corridor will largely remain in a naturalized state to preserve certain natural functions

(e.g. drainage/stormwater management) and to become part of a larger natural heritage system that provides linkages and corridors for wildlife and enhanced habitat for various plant and animal species. Implementation of the above will be through a series of draft plan conditions. The conditions will also set out that development of the key sections of the trail system and community park are to be constructed in the early phases of development. Other smaller parkettes/trail connections would be constructed as part of their associated phase.

4. Compatibility of Land Uses

Provincial Policy and County policy both speak to the need to ensure that new land uses are compatible with their surroundings – both from the standpoint of impact that existing development could have on the subject proposal and the potential impacts the proposed development could have on established land uses. For the subject proposal, the main area of focus is the existing residential development to the north which needs to be assessed in terms of impacts that those properties (and their owners) could experience by virtue of the new development.

Based on the foregoing, it is imperative to assess what level of impact the development would have and whether any mitigation measures are required. The existing development to the north of the subject lands represents the developed ‘edge’ of the built-up area of Caledonia. The development within that area is predominantly low density residential development. The subject development is buffered from that area by a naturalized hydro corridor that consists of rises in elevation, some trees and meadow. This area will remain in this state with the lone enhancement being a public recreational trail. The impact to the north will also be minimized due to the fact there will not be any road immediately adjacent (road is buffered by natural area and residential construction). As part of the development stage, fencing will be constructed where residential properties back onto the natural area and strict stormwater and grading/drainage controls will be developed, implemented and monitored. Lastly, all of the development along the northerly perimeter of the subdivision would be low density in the form of single detached dwellings. This span of development is broken up at mid-points by a parkette/park connection (south of Highland Heights park), a community park and a trail connection. This creates some sense of openness in terms of the development pattern. Staff is of the view that residential development abutting existing properties is an acceptable condition and is not representative of a case of a new use creating negative impacts or conflicts that must be mitigated – they are both sensitive uses that function in the same manner. Standard residential separations (e.g. privacy fence) will be considered at the development stage.

5. Summary

Staff are of the opinion that the proposed applications represent good land use planning and the various aspects of the proposal are consistent with Provincial policy and conform to County policy directions as well.

II. Development Design

Recognizing that once built, a development will be in place for decades, it is important to promote design excellence in terms of function (how something works), order (how things are placed/sequenced on site), identity (how something connects within context of its surroundings; how recognizable a space/place is) and appeal (how people feel about it/are attracted to it/continue to come back to it). The point is that the way something ‘looks’ and ‘works’ can be as important, if not more important than the land use itself. The design of the subdivision has been reviewed by staff to ensure the layout and appearance features are desirous and befitting of the community of Caledonia and the County as a whole. In this regard, the following ‘design elements’ have been assessed and addressed in full:

1. Complete Community/Mixture & Location of Uses

While this development will be part of and integrated into the larger Caledonia community, the scale of the project requires that it incorporates the various principles of a ‘complete community’.

Provincial and local policy encourage the creation of complete communities, which are defined as those that meet people's needs for daily living throughout an entire lifetime by providing convenient access to an appropriate mix of jobs, local services, a full range of housing, and community infrastructure such as affordable housing, schools, recreation and open space for their residents. Staff has focused efforts on assessing these elements and ensuring the mixture and location of uses within the subject lands is appropriate to lead to proper function, accessibility, quality of life, compatibility amongst users, etc. In this regard, staff has determined that overall the plan is well designed and represents a logical layout of uses that is well ordered and connected and which contains many of the elements that will lead to the creation of 'completeness'. In particular, staff notes the following:

- The mix of townhouse and single detached dwellings is appropriate - the unit types are distinct in terms of location with the townhouses being clustered and closer to the main arterial road access (McKenzie Road) at the end of blocks and serving as entry points to the continuous rows of single detached units. This allows for distinct locations to be established that create appropriate breaks and transitions in unit types. However, the design is such that units are also well-integrated to create a diverse community landscape.
- The park block is central to the subdivision and best situated as presented in the plans to service the residents of the new development. The furthest distance from any residence in the community to the park would be 750m making it a reasonable walking, cycling, etc. distance for most residents. The park would be accessible by road, sidewalk and trail system.
- Shorter residential blocks are proposed to create more breaks and opportunities for connection/access to the open space/park features.
- The 'eyes on the street' concept suggests that communities are safer when buildings face the street and there are clear views to the street from windows and porches. This is prevalent throughout the development as a result of location and orientation of buildings. In particular, the development contain a minimal amount of rear facing dwellings (i.e. dwellings that turn their back to the street) and through specialized zoning all dwellings will be pushed closer to the street and will have opportunities for porches to extend closer to the public right-of-way. Porches will be a typical design feature of the dwellings in this community. This creates the desired effect throughout the entire community.
- The stormwater ponds are located in areas that provide the greatest function; however, they also provide some aesthetic in certain key areas (e.g. along main collector road). The ponds also have dwellings backing onto them or facing them to afford some level of monitoring of the facilities. The ponds will also be linked via a pedestrian bridge crossing to create a functional public space.
- Trails – the main part of the trail network is set within the hydro corridor along the north edge of the subdivision. The main connections to the internal trail system are set in parkettes/trail blocks which ensures appropriate separation of users from private lands. The main trail will also link to the McKenzie Creek channel which will contain formal connections down to the stormwater pond facility. This will create a contiguous 'T' shaped public space that connects the entire subdivision from north to south and east to west.
- The proposed trail through the hydro corridor aligns with the envisioned trail network identified in the County's Trails Master Plan. All trail ends have connections that either tie to other existing/proposed trails or to road infrastructure (sidewalks, etc.). Of note, the west end of the trail will tie into the proposed trail that is to be constructed as part of the McKenzie Meadows subdivision to the immediate west, also within the hydro corridor.

- Street system – the street system follows a facsimile of a classic grid pattern which creates a use and function that is familiar and generally accepted. Further, it incorporates traffic calming measures (e.g. turning circles) and main entry features (i.e. from McKenzie) that give character, aesthetic enhancement and improved functionality. Also, McKenzie Road, at the northerly entrance to the Beattie Estate project, will incorporate a turning circle to allow for improved traffic flow into/out of the subdivision and better connections to the expanding road network that also includes the McKenzie Meadows subdivision to the west. Lastly, a new arterial road along the south end of Caledonia will allow for better distribution of traffic throughout the community and increased usage of the Highway 6 By-pass.

Building off the above, it is important to also assess the location of the subdivision in terms of external features and land uses to ensure it is suitably situated for development and uses its surroundings to further enhance its 'complete' nature. In this regard, staff views the subject lands as an ideal residential development location due to the following:

- Employment, shopping and service opportunity.

There is a large concentration of commercial and service business uses near the intersection of Argyle Street North and Haddington Street. This commercial node is approximately 1.5 km from the north end of the subject lands. This area would provide wide ranging employment and shopping opportunities for the residents of the subject development.

Similarly, the traditional downtown area is in close proximity to the north at approximately 2 km from the north end of the subject lands. It is the largest concentration of retail and service businesses in the community and again provides opportunity for employment, shopping, etc.

- The Haldimand County Caledonia Centre (library, arena) and McKinnon Park are situated directly north of the subject lands at approximately 1 km from the north end of the site. This large complex provides lots of active recreational opportunity of both the organized/formal and informal fashion.

2. Urban Design Enhancements

Staff has assessed the plan and determined that certain areas should have heightened urban design attention to ensure an attractive project results and desirous attributes are in place to create a legacy. This has been accomplished through the plan layout and the creation of comprehensive urban design guidelines (UDGs). The UDGs have been prepared by the developer's consulting team with input from the County. The UDGs address key areas as well as overall subdivision appearance as it relates to all aspects of building construction. The UDGs have been provided to Council under separate cover and will be identified as a series of draft plan conditions (for implementation). The UDGs will be used to provide general design direction as the project unfolds rather than prescriptive requirements. The following key highlights represent the positive approaches to design through the subdivision layout and UDGs:

- Residential

The main component of the development is the residential aspect. The majority of emphasis relative to layout, the UDGs, etc. has therefore been on this aspect. The key approaches/features are:

- The community contains very limited reverse frontages which is a design feature staff discourages with new developments. The draft plan, as presented, will ensure that no rear yards will face out to the main route of travel (i.e. McKenzie Road) and that only a limited number of lots will reverse towards River Road (note: this is consistent with the current development pattern in that location so it is less of an issue). There will not be any reverse frontages to any of the local roads within the subdivision.

- As a central design feature, dwellings are pushed closer to the street with an emphasis on garages being flush or recessed. This creates a stronger street edge where the dwelling has prominence. This design feature is conducive to creating a stronger sense of community as residents and pedestrians are closer and have increased opportunity for interaction, etc. This will be engrained through zoning provisions and is shown at Attachment 3.
- Large usable covered porches are to be a key feature on the majority of dwellings to foster interaction amongst residents and enhance community safety through 'eyes on the street'.
- Special attention is to be given to corner lots as enunciated in the UDGs. Wrap-around porches will be encouraged for corner lots and will be permitted through the implementing zoning by-law. Further, upgraded design treatment is proposed (e.g. creative mix of brick and siding, accent windows, gables, etc.) and the flanking (side) and rear elevations are to have design treatment consistent with the front to ensure all street views are attractive. This will be engrained through zoning provisions and is shown at Attachment 4. To ensure that the residential units will be built in line with the above features, draft plan conditions will be produced that require a written submission that demonstrates how a phase of development will conform to the UDGs, as well as, a clause in the agreement wherein the developer commits to building the units as described in the UDGs.
- Vehicular access is to be consolidated as much as possible. Units will be designed to allow for driveways to be 'paired' such that hard surface driveway areas are consolidated, grassed areas are maximized and on street parking opportunities are similarly maximized. Examples of approaches to 'pairing' of driveways for single detached and townhouse dwellings are included as Attachment 5.
- The UDGs include other architectural/building requirements (e.g. specifics on entrance features, roof designs, exterior materials, exterior colours) and siting requirements (e.g. restrictions on model and elevation repetition, separation of exterior colour packages, height variations). The intent of these aspects of the UDGs is to create architectural harmony, appealing streetscapes and high quality development that suits a variety of (modern) tastes/needs while respecting traditional development styles in Caledonia.
- There will also be a requirement for tree planting and landscaping which is a key component of the design.

A series of elevation plans depicting some of the styles of single detached and townhouse dwellings envisioned for the community are included as Attachment 6. These plans demonstrate many of the design attributes that are described above and through the Urban Design Guidelines.

- **Priority Lots**

The UDGs include identification of 'priority lots' which represent those that will have the most visible prominence in the community. These lots include corner lots and (view) terminus lots (i.e. those lots that face out to the end of a street). Enhanced architectural treatment is proposed for all exteriors viewable from the street including creative brick/siding mix, accent windows/surrounds, gables, bay windows and other features. To ensure that the priority lots will be developed in line with the above features, draft plan conditions will be produced that require a written submission that demonstrates how a phase of development will conform to the UDGs, as well as a clause in the agreement wherein the developer commits to developing the phase as described in the UDGs.

- Gateways and Streetscape

Gateway features will highlight the main entry intersection (i.e. intersection McKenzie and Streets 'A' and 'B') with landmark enhancements such as signage, landscaping and other suitable features.

Street furniture (e.g. street lights, wayfinding signage, fencing, waste receptacles) will be placed (as appropriate/in consultation with County) in key public space areas and within the road right-of-way areas. Trees will also be planted within private spaces adjacent to the road allowances. Staff is recommending as draft plan condition that streetscape plans be provided for the west perimeter to ensure there is aesthetic appeal along the street edge that serves as the main access of the subdivision. Detailed design plans for the turning circles in the subdivision will also be required and are to include mix of hard/soft landscaping. As well, landscape (tree planting) plans will be required as part of each phase of registration to ensure the planting locations are appropriate, tree mixes suitable (to create character, prevent spread of disease) and to allow for a detailed inventory to be maintained. These plans will need to be consistent with the County's new Forestry Strategy and based upon the principle of 'the right tree in the right place'.

- Community Space – Parks, Open Space, Stormwater Management Ponds

The community park, trails and stormwater facilities are to be centre-pieces of the subdivision based upon their prominent locations, interconnections and attraction of users. In that regard, they ought to be 'show-pieces' that are of high quality design and function. Staff recommends that park/trail master plans and stormwater landscaping detail plans (akin to site plan) be developed and provided for review and approval prior to construction taking place. Through this process, staff will ensure that key design features such as enhanced landscaping, entrance identification, lighting, pathway, wayfinding, etc. are incorporated. The requirement for master plans is to be included as a draft plan condition.

Parkettes/trail connections are located throughout the subdivision and in many cases are 'terminus vistas' at the ends of long legs of streets. The benefit of the locations are as one travels down a given street it gives sense of space, provides element of 'greening', etc. The issuance of draft approval, as presented, will ensure that the locations remain as they are to provide this important design feature. Some parkettes will also provide access points to the trail system.

Stormwater management ponds are to be integrated into the development as opposed to being located at the far perimeter/outskirts of the community. The ponds are to be designed with a naturalized approach with gentle slopes and native plant material. Where there is street frontage, further enhancements (e.g. landscaping) will be required. The ponds are also intended to host furniture (e.g. benches) and trail segments/connections (including bridge feature to allow crossing of the McKenzie Creek tributary) where appropriate to integrate into and help connect the various components and areas of the community. The above development intentions are laid out in the UDGs with locations of the ponds set in the draft plan.

To ensure that the above desired design effects are implemented, staff will set conditions of draft approval that require general conformity with the Urban Design Guidelines (UDGs) and provision of confirmation and commitment from the developer (through the subdivision agreement) that each phase will be developed in general conformity with the UDGs. A copy of the UDGs has been provided under separate cover.

3. Town of Haldimand Zoning By-law 1 H 86

The subject lands are presently zoned "Agriculture (A)" which permits a farm, and a variety of farm related activities as well as a single detached dwelling. The proposed rezoning application will rezone the lands to site-specific R1-B, R4, OS and HL zones as follows:

Table 4***R1-B Zone – Proposed Single Detached Dwellings***

In general, the provisions for the single detached dwellings are intended to allow for efficient use of land; a more dense approach to development to meet required standards and targets; and, design that allows living space to be closer to the street (with garages recessed) to create a stronger street presence, sense of community and 'eyes on the street' effect. The single detached dwellings are proposed to have a site specific Urban Residential Type 1-B (R1-B) zone. The provisions below represent the exceptions to the zone standards and where not listed as an exception, the current zone standard will apply (e.g. minimum of 2 parking spaces per dwelling are required).

Current By-law Requirement	Provisions Agreed Upon by Developer and Staff	Staff Comments
Minimum Lot Area – Interior lot at 372 square metres; corner lot at 412 square metres	Interior lot at 220 square metres Corner lot at 265 square metres	The reduced lot area will allow for more efficient use of land, compact urban development and achievement of Growth Plan targets. As this is an undeveloped area, there are no impacts to existing neighbourhood character and this will be the standard for northeast Caledonia.
Minimum Lot Frontage – interior lot at 12 metres; corner lot at 15 metres	Interior lot at 8.0 square metres Corner lot at 10.0 square metres	Similar rationale as immediately above.
Front Yard Setback – 6.0 metres	3.0 metres to dwelling; 6.0 metres to garage	This will allow more compact development and also gives dwelling more prominence along street and lessens impact of garage on streetscape. Parking space can still be accommodated in front of garage and second required space in the garage to achieve parking compliance.
Exterior Side Yard Setback – 5.0 metres	2.4 metres; except that an attached garage fronting on flankage street shall be 6.0 metres from the flankage street	This will allow more compact development and also gives dwelling more prominence along street.
Interior Side Yard Setback – 3.0 metres on one side and 1.0 metre on other; except where private garage attached, in which case 1.0 metre on each side	1.2 metre on one side and 0.6 metre on other side	Allows more compact development and efficient use of land. No impacts on surrounding or traditional neighbourhood character would result due to the location of the development.
Rear Yard Setback – 9.0 metres	7.0 metres	This will allow more compact development and opportunity for increase to density.

Current By-law Requirement	Provisions Agreed Upon by Developer and Staff	Staff Comments
Maximum Dwelling Height – 11 metres	11.5 metres	The increase in height is minimal (0.5 metres) and will not have any measurable impact on surrounding established residential development. The increase in height combines with other zoning provisions to allow for a more dense form of development to be facilitated.
Minimum Usable Floor Area – 135 square metres per dwelling unit	100 square metres per dwelling unit	This will allow more compact development and opportunity for increase to density.
Minimum Ground Floor Area – 70 square metres per dwelling unit	50 square metres per dwelling unit	This will allow more compact development and opportunity for increase to density.
Minimum Parking Space Dimension (in garage) – 6 metres x 3.3 metres with no encroachment	<p>6 metres x 3 metres with encroachment of 3 stair risers (approximately 0.61 m)</p> <p>Minimum driveway width shall be 3.0 metres, including where an exterior wall abuts the driveway.</p>	<p>The reduction to the garage width is minor (i.e. 0.3 m or 1 foot) and is conducive to the standard designs of the developer. A 6 m x 3 m garage parking size is very typical of other municipalities. Further the protrusion of 3 risers (0.61 m or 2 feet) into the space is considered minor and will not prevent the garage from being utilized for its intended purpose. Staff has reviewed available data relating to the length and width of various types of vehicles (small, medium and large size) which demonstrates the reduced garage size would be functional as a parking space, even with the encroachment of stair risers.</p> <p>The minimum driveway width ensures that a functional parking space will be created.</p>
Maximum Porch Encroachment – 1.5 metres into front, rear and exterior side yards	2.0 metres into front yard; 2.0 metres into exterior side yard; 0.45 metres into interior side yard and, 2.5 metres into rear yard with restriction on deck size of 3.0 metres x 2.5 metres	This will allow more compact development and opportunity for increase to density. Also facilitates interaction of residents as porch sitting areas are moved closer to the street (front and exterior). Restricting deck size in rear yard ensures

Current By-law Requirement	Provisions Agreed Upon by Developer and Staff	Staff Comments
		suitable amount of open space preserved and allows for impermeable area to facilitate drainage and stormwater management.
Maximum Stairs Encroachment – 1.5 metres into front, rear and exterior side yards	3.5 metres into front, rear and exterior	This will allow more compact development and opportunity for increase to density.
Maximum Soffit/Cornice/Eaves Encroachment – 0.65 metres into any yard	0.4 metres into any yard for bay/box windows	This will allow more compact development and opportunity for increase to density. Reduced setback is minor and still allows for adequate separation and maintenance provision within lot boundaries.
Minimum Setback of Air Conditioning Units – N/A	0.6 metre from rear or side lot line; not permitted in front yard	Minimum setback ensures that adequate separation exists from property line to allow for passage from front to rear of property. Prohibition in front yard ensures certain aesthetic for community.
Maximum Accessory Building Size	Permitted in rear yard at 10% lot coverage to a maximum size of 10 square metres	Restricting size in rear yard ensures suitable amount of open space preserved and allows for impermeable area to facilitate drainage and stormwater management.
Maximum Hardscaping in Front Yard – N/A	Maximum 70% of front yard can be hardscape/hard surface	Restricting hardscape ensures minimum portion of front yard reserved for landscaping to ensure attractive streetscape, allow for drainage and stormwater management.
Maximum distance in which a garage face can extend in front of the ground floor porch – N/A	1.0 metre	Ensures garage does not dominate the streetscape and ensures dwelling will have prominence.
New Definition: Porch – Un-enclosed porch with or without foundation, with or without cold cellar shall mean a structure attached to any entrance or exit to a building which may be covered by a roof with or without supporting columns or walls, provided the porch remains open on at least one side.	Agreed with proposal.	No issues with the definition as proposed.

Table 5***R4 Zone – Proposed Townhouse Dwellings***

In general, the provisions for the townhouse dwellings are similar in their intent as those for the singles – i.e. efficient use of land; a more dense approach to development; and, design that creates a stronger street presence, sense of community and ‘eyes on the street’ effect. The townhouse dwellings are proposed to have a site specific Urban Residential Type 4 (R4) zone. The provisions below represent the exceptions to the zone standards and where not listed as an exception, the current zone standard will apply (e.g. minimum of 2 parking spaces per dwelling are required).

Current By-law Requirement	Provisions Agreed Upon by Developer and Staff	Staff Comments
Permitted Uses (R4) – street/group townhouses, apartment dwelling	Street/Group Townhouses and all R-2 requirements for semis and R1-B exceptions (i.e. table above) for singles	Allowing single and semi-detached as well as townhouses provides flexibility in unit design.
Minimum Lot Area – Interior lot at 156 square metres; corner lot at 215 square metres	Interior lot at 150 square metres; corner lot at 210 square metres	The reduced lot area will allow for more efficient use of land, compact urban development and achievement of Growth Plan targets. As this is an undeveloped area, there are no impacts to existing neighbourhood character and this will be the standard for northeast Caledonia.
Minimum Lot Frontage – interior lot at 6 metres; corner lot at 11 metres	Interior lot at 5.5 metres; corner lot at 8.0 metres	Similar rationale as immediately above.
Front Yard Setback – 6.0 metres	4.5 metres to dwelling; 6.0 metres to garage	This will allow more compact development and also gives dwelling more prominence along street and lessens impact of garage on streetscape. Parking space can still be accommodated in front of garage and second required space in the garage to achieve parking compliance.
Exterior Side Yard Setback – 6.0 metres	2.4 metres; except that an attached garage fronting on flankage street shall be 6.0 metres from flankage street line	This will allow more compact development and also gives dwelling more prominence along street. Parking space can still be accommodated in front of garage.
Rear Yard Setback – 7.5 metres	6.0 metres	This will allow more compact development and opportunity for increase to density.
Maximum Dwelling Height – 11 metres	11.5 metres	The increase in height is minimal (0.5 metres) and will not have any measurable impact on

Current By-law Requirement	Provisions Agreed Upon by Developer and Staff	Staff Comments
		surrounding established residential development. The increase in height combines with other zoning provisions to allow for a more dense form of development to be facilitated.
Minimum Parking Space Dimension (in garage) – 6 metres x 3.3 metres with no encroachment	<p>6 metres x 3 metres with encroachment of 3 stair risers (approximately 0.61 m / 2 feet)</p> <p>Minimum driveway width shall be 3.0 metres, including where an exterior wall abuts the driveway.</p>	<p>The reduction to the garage width is minor (i.e. 0.3 m or 1 foot) and is conducive to the standard designs of the developer. A 6 m x 3 m garage parking size is very typical of other municipalities. Further the protrusion of 3 risers (0.61 m or 2 feet) into the space is considered minor and will not prevent the garage from being utilized for its intended purpose. Staff has reviewed additional data relating to the length and width of various types of vehicles (small, medium and large size) which demonstrates the reduced garage size would be functional as a parking space, even with the encroachment of stair risers.</p> <p>The minimum driveway width ensures that a functional parking space will be created.</p>
Maximum Porch Encroachment – 1.5 metres into front, rear and exterior side yards	2.0 metres into front yard; 1.8 metres into exterior side yard; 0.45 metres into interior side yard; and, 2.5 metres into rear yard with restriction on deck size of 3.0 metres x 2.5 metres	This will allow more compact development and opportunity for increase to density. Also facilitates interaction of residents as porch sitting areas are moved closer to the street (front and exterior). Restricting deck size in rear yard ensures suitable amount of open space preserved and allows for impermeable area to facilitate drainage and stormwater management.
Maximum Stairs Encroachment – 1.5 metres into front, rear and exterior side yards	3.5 metres into front, rear and exterior	This will allow more compact development and opportunity for increase to density.

Current By-law Requirement	Provisions Agreed Upon by Developer and Staff	Staff Comments
Maximum Soffit/Cornice/Eaves Encroachment – 0.65 metres into any yard	0.4 metres into any yard	This will allow more compact development and opportunity for increase to density. Reduced setback is minor and still allows for adequate separation and maintenance provision within lot boundaries.
Minimum Setback of Air Conditioning Units – N/A	0.6 metre from rear or side lot line; not permitted in front yard	Minimum setback ensures that adequate separation exists from property line to allow for passage from front to rear of property. Prohibition in front yard ensures certain aesthetic for community.
Maximum Accessory Building Size	Permitted in rear yard at 10% lot coverage to a maximum size of 10 square metres	Restricting size in rear yard ensures suitable amount of open space preserved and allows for impermeable area to facilitate drainage and stormwater management.
Maximum Hardscaping in Front Yard – N/A	Maximum 70% of front yard can be hardscape/hard surface	Restricting hardscape ensures minimum portion of front yard reserved for landscaping to ensure attractive streetscape, allow for drainage and stormwater management.
Maximum distance in which a garage face can extend in front of the ground floor porch – N/A	1.0 metre	Ensures garage does not dominate the streetscape and ensures dwelling will have prominence.
Maximum number of attached dwelling units in a townhouse row – N/A	8* <i>Note: not proposed by applicant but is recommended by staff.</i>	Limiting the number of dwellings ensures that the streetscape will not contain a continuous ‘wall’ of units with no breaks. Additional benefit is breaks between blocks allow for drainage swales, assist in stormwater management implementation, etc.
Location of garage/driveway for corner lots fronting onto collector street – N/A	For end unit townhouses on corner lots fronting on a collector street, the garage and driveway shall be constructed on the local road in the flanking yard. <i>Note: not proposed by applicant but is recommended by staff.</i>	This ensures corner lot has positive design features of ‘dual frontage’ and also reduces number of direct accesses to the collector street system thereby improving traffic safety.
New Definition: Porch – Un-enclosed porch with or without	Agreed with proposal.	No issues with the definition as proposed.

Current By-law Requirement	Provisions Agreed Upon by Developer and Staff	Staff Comments
foundation, with or without cold cellar shall mean a structure attached to any entrance or exit to a building which may be covered by a roof with or without supporting columns or walls, provided the porch remains open on at least one side.		

Table 6

Open Space and Hazard Land Zones

Those parts of the subject property not intended for development will be zoned to either Open Space (OS) or Hazard Land (HL) to restrict uses to those that are appropriate for the parcels. The proposed OS and HL zones are proposed to be applied as follows:

Parcel	Zone
Hydro corridor/trail block along northerly perimeter of subject lands	Open Space
Woodlot at easterly edge of subject lands	Hazard Land
McKenzie Creek tributary/channel	Hazard Land
Stormwater management facility	Open Space
Community park, parkette/trail walkway connections	Open Space

Special provisions will be created for the OS zone to allow for reduced lot area and lot frontage to facilitate smaller parcels for walkways to be incorporated in the plan.

Zoning Summary

To summarize, staff is supportive of the zoning amendment proposal to create specialized R1-B and R4 zones. Staff is also supportive of creating HL and OS zones for the non-development portions of the subject project. The by-law will be finalized in the weeks ahead as the plan is confirmed and draft plan approval assigned. Staff will be recommending that a “Holding – ‘(H)’” provision be attached to the zoning of the subject lands and remain in place for each phase until such time that:

- confirmation of availability of sanitary treatment (i.e. wastewater treatment plant capacity) and sanitary conveyance (forcemain capacity, pumping station capacity);
- pre-servicing agreement and draft subdivision agreement completion and execution; and
- lands are confirmed as being within the County’s 20 year housing supply.

4. Engineering Design Criteria

By virtue of the unique approach to design and the fact that this is a significant project in response to the Provincial Growth Plan targets/conformity requirements, it presents a number of challenges in terms of meeting the County’s more traditional Engineering Design Criteria (‘Criteria’). This has necessitated specific requests for deviations from the Criteria for a number of design elements. Of note, the current version of the Criteria does support deviations where there is sufficient support for such. In that regard, the Criteria actually identifies the specific reduced road allowances and sight triangles requested through the subject applications as being appropriate with suitable justification. These are examined in more detail below with staff comments incorporated.

4.1 Reduced Road Allowances

The developer is proposing road allowance widths that are less than the standards typically required for County roads. The Official Plan sets out that alternative standards may be accepted in consideration of compact urban form by the County where such an alternative is considered to be an advantage to the County and it will not interfere with or restrict the flow of traffic. The County's Growth Plan conformity study also identified reduced right-of-way widths as a key element of the County's growth strategy that would facilitate more compact urban form and higher densities. In recent developments, reduced road widths have been proposed, extensively evaluated by County staff and supported. Further, the updated Engineering Design Criteria does permit for consideration of the reduced widths for large scale projects such as Beattie Estates. Planning and Public Works staff support this approach based on the suitable function and the added benefit of increased urban density. The proposed widths and staff responses thereto are as follows:

- Local residential roads proposed at 18 metres width (County standard is 20 metres)

Staff comments: This represents the majority of roads within the subdivision. The developer has provided supporting documentation regarding design, operations and utility placement. The actual paved portion of the road would not be impacted and would meet County standards (i.e. 8.5 metres surface). As such, it would provide sufficient lane widths and opportunity for on-street parking on one side. The 'pinch' in the width would be experienced in the space between the edge of curb and residential property line (approximately 1 metre less on each side of the street). The standard boulevard width would be reduced, however, the design would allow for a minimum 2.5 metres on either side of the street to accommodate snow storage. The design also accommodates a standard sidewalk (i.e. 1.5 metres wide) on one side of the street. The main impact in reduced space is related to the utility/service corridors and how they are spaced. This is overcome through the strategic placement of utilities within the same trench, through stacking and/or via placement under the sidewalk. This approach to design has been used in many other municipalities with success and with support from utility companies. The function is augmented through the placement of trees on private property (outside of boulevard) and the limitation of parking to one side of the street only. It should be noted that this is a similar standard and design as approved for the Avalon project in north Caledonia and is being implemented 'on the ground' as the first phases are now underway.

4.2 Reduced Daylight (Sight) Triangles

The purpose of the daylight triangle is to ensure there is an adequate amount of unimpeded space at the corner of intersections so that sight lines for motorists are maximized. The County employs a single standard of 9 metres x 9 metres for all intersections; however, this is a standard that is typical for high volume and high speed roads (i.e. arterial roads) where reaction times are significantly less. The developer is proposing reduced daylight triangles of 4.5 metres x 4.5 metres at the intersections of local roads and 7.5 metres x 7.5 metres where a local road intersects a collector. A lesser triangle is typically supportable for local roads as the speeds and volumes are significantly less than those roads of a higher order (arterials). The developer's proposal of 4.5 metres x 4.5 metres is used in many other Ontario municipalities for local roads and it has proven to be effective. The same rationale can be applied to the local/collector intersections and a 7.5 metres x 7.5 metres triangle is suitable. The combination of boulevard, property setbacks and corner dwelling styles (i.e. wrap around porch and driveway to the inside of the lot) provides for ample, unimpeded visual space and protects sightlines as appropriate. Staff accepts the alternative standard for local roads and collectors but will require that the daylight triangles be conveyed to the County as part of the road allowances. This is to be addressed as condition of draft approval and daylight triangles will need to be identified on the final M-Plan. It should also be noted that this is the same standard that has been approved and which is being implemented in the Avalon project in north Caledonia.

5. Plan of Subdivision

A subdivision application for the proposed development has been submitted by the proponent to facilitate the draft approval at the same time as the Zoning By-law Amendment application. The subdivision review process will address various details of the proposed development including the road network, stormwater management/drainage, grading, parking, vehicular and pedestrian traffic, lighting, landscaping, servicing, fire routes, etc.

Under Section 51 (24) of the *Planning Act*, there is a list of criteria that an approval authority must have regard to when assessing the merits of a plan of subdivision application. Based on said criteria, planning staff have reviewed these criteria and provide the following list itemizing the matters to be considered and staff's comments with respect to each item:

CRITERIA		COMMENTS
a.	Effect of development of proposed subdivision on matters of provincial interest.	Does not conflict and meets the intent of provincial interest. An archeological clearance of the site will be required prior to grading or construction as a condition of draft approval. The archaeological assessment has been completed and submitted to the Ministry of Tourism, Culture and Sport for review. Additionally, the proposal is being reviewed in conjunction with the Grand River Conservation Authority (GRCA) for stormwater management and grading and drainage matters. The GRCA has not identified any significant issues/concerns and supports the project advancing to draft plan approval subject to a series of conditions for detailed implementation plans.
b.	Whether the proposed subdivision or condominium is premature or in the public interest.	The proposed subdivision is a continuation of a residential area and provides new and varied housing types within the urban area of Caledonia to meet market demands. Additionally, it will assist in the growth and development of the community and focus growth within an identified growth area.
c.	Whether the plan conforms to the Official Plan and adjacent plans of subdivision, if any.	Considered appropriate. Conforms to Official Plan designation and surrounding/similar residential development. The lands are designated 'Residential' which is to accommodate all forms of residential units.
d.	Suitability of the lands for the purposes for which it is to be subdivided.	Considered appropriate – lands are residentially designated within the urban boundary of Caledonia.
e.	Number, width, location and proposed grades and elevations of proposed highways.	Generally, the layout is considered appropriate. A subdivision agreement will be required to ensure the proper installations of the proposed internal roads are appropriate. Final grading information will be required as a condition of draft plan approval.
f.	Dimensions and shape of proposed lots.	Considered appropriate. The lot sizes and shapes are generally consistent with development in the area, provide an opportunity for varied lot frontages (6.0 metres to 13.72 metres) and complies with density targets as identified in the Official Plan and Provincial Growth Plan.
g.	Restrictions or proposed restrictions, if any, on the lands proposed to be subdivided or the buildings	The proposed zoning provides adequate regulations.

CRITERIA		COMMENTS
	and structures proposed and the restrictions, if any, on adjoining lands.	
h.	Consideration of natural resources and flood control.	Considered feasible. Detailed grading and stormwater management plans will be required as a condition of approval and within a subdivision agreement. Clearance is required by both the Grand River Conservation Authority and Haldimand County prior to any works being initiated. Additionally, as part of the development requirement, post-development drainage conditions need to meet the pre-condition state.
i.	Adequacy of utilities and municipal services.	The proposed internal road allowances will be conveyed to the County. The provision of utilities and installation of infrastructure will be reviewed and approved as conditions of draft approvals and included within the subdivision agreement.
j.	Adequacy of school sites.	No objections were received concerning the adequacy of school sites. There is presently a secondary school to the immediate north, as well as several elementary schools within the urban area. The school boards that service the County were circulated and did not raise any capacity concerns. The determination of timing/need for school expansion, new schools, etc. rests with the boards and not the County.
k.	The area of land, if any, within the proposed subdivision that is to be conveyed for public purposes.	The proposed internal road allowances and sidewalk connections are to be addressed as conditions of draft approval. Additionally, staff will continue to work with the proponent regarding trail connections to maximize accessibility to naturalized areas within the plan and other parklands and future residential developments within the immediate area. All relevant staff have reviewed the suitability of the lands to be transferred and deemed them appropriate for the intended uses.
l.	The extent to which the plan's design optimizes the available supply, means of supplying, efficient use and conservation of energy.	Considered appropriate residential density, opportunities for active transportation and community connections and road network connections are addressed through the development. Increased density, reduced road widths, etc. serve to address (in part) the conservation of energy.
m.	Interrelationship between the design of the proposed plan of subdivision and site plan control matters relating to development of the land.	Considered appropriate.

6. Summary

A significant level of design emphasis has been placed on this project since the preliminary stages of consultation. Staff, the County's consultant and the developer have worked together to ensure a high quality design is put forward for approval and that appropriate mechanisms are in place to ensure that said design is adhered to and implemented on the ground. To that end, design guidelines, subdivision layout, zoning provisions and alternate engineering design criteria have all been developed and are presented in this report in a form that is recommended for Council support. It is the view of staff that all

of these pieces will work together to reshape the landscape with a high quality design that will leave a legacy. Staff is supportive of the overall concept and subdivision plans as presented herein.

III. Development Functionality - Technical Details

The basic functionality of the subdivision was reviewed with the benefit of a number of technical reports including a traffic impact study; preliminary stormwater management plan; functional servicing (FSR) report and wastewater system analysis. Based on the reports and conclusions contained therein, staff is satisfied that the subdivision development is generally feasible and functional. The specific details and technical matters will be addressed via subsequent review and conditions of draft plan approval. A summary of each key technical component is included below.

1. *Traffic Study & Road Structure*

The Traffic Impact Study (TIS) and several addendums were prepared by Paradigm Transportation Solutions Ltd., and reviewed by County staff to assess impacts to/integration with the existing road network, suitability of road design, need/timing for improvements (signalization, widening, turning lanes), etc. The information from the TIS will be incorporated into the Master Servicing Plan (MSP) study by CIMA, the County's traffic consultant for the Caledonia MSP. For the purposes of this section, the analysis is broken into the internal and external road networks. For the purposes of the analysis, the project has been divided into two (2) distinct phases with the first phase representing the northwest area of the development site and consisting of up to 177 residential units. The second phase, which consists of the balance of the site, would consist of up to 532 residential units. The phasing is driven by the developer's plans for construction staging and also represents the split in the project where the majority of significant upgrades (servicing, roads) would be required. A phasing plan is included as Attachment 7.

1.1 Internal

Vehicular access to the subdivision is proposed via the proposed extension of Balvenie Boulevard and Dunrobin Drive south from their current terminus into the subject site along with two new roadway connections to McKenzie Road (see Attachment 1).

The first new roadway connection to McKenzie Road, Street "A", is proposed approximately 230 metres south of Caledonia Drive. The second new roadway connection to McKenzie Road, Street "B", is proposed approximately 380 metres south of Caledonia Drive. The side street approaches of Street "A" will operate in connection with a turning circle which is to be constructed on McKenzie Road in that location. Street "B" is assumed to operate under two-way stop control. Both Streets "A" and "B" are proposed to align with the new roadways that will be constructed to serve the McKenzie Meadows (Fox Gate) Development. The majority of the roads within the subdivision are classified as 'local streets' and are proposed to be constructed as an 18 metres wide right-of-way. The above-noted Streets "A" and "B" will serve as the collector roads in the subdivision and are to be constructed as 20 metres wide right-of-way. There will be three traffic circles located at critical and strategic junctions of the collector streets which serve to slow down traffic within the subdivision. The overall design of this subdivision encourages traffic to McKenzie Road through the layout of local streets and their connections to the main collectors (Streets "A" and "B"). As such, it is expected that infiltration of traffic into the existing subdivisions to the north will be limited. County staff have reviewed the road network plan and are supportive of the concept put forward.

The Official Plan sets out, that alternative standards may be accepted in consideration of compact urban form by the County where such an alternative is considered to be an advantage to the County and it will not interfere with or restrict the flow of traffic. The County's Growth Plan conformity study also identified reduced right-of-way widths as a key element of the County's growth strategy that would facilitate more compact urban form and higher densities. Staff have completed investigations and reviews in regards to reduced road widths, in particular relating to other larger subdivision proposals.

These standards have been implemented as part of other projects in the County, including Avalon in Caledonia and Jarvis Meadows in Jarvis. Initially there were concerns about the implications of reduced right-of-way widths and the impacts on operations, particularly winter control and waste pick-up. However, the overall conclusions have indicated that regular operations could still be executed subject to imposing certain requirements (e.g. limiting parking to one side of street, pairing driveways, etc.). These are to be addressed as draft plan conditions. Planning and Public Works staff support this approach based on the suitable function and the added benefit of increased urban density.

1.2 External

Lands in the south end of Caledonia are part of the urban boundary, have been so for many years and have designated Residential status. As such, the key planning issues are how to bring this land on-stream in terms of integrating it into the transportation system of Caledonia. The traffic analysis investigations that have been undertaken indicate that a total of 395 lots (218 in the draft approved McKenzie Meadows Subdivision and 177 lots in Beattie Estates) can be built without significantly adversely impacting existing traffic conditions. However, cumulatively, the addition of 1,000 units in the south end of Caledonia through this subdivision and McKenzie Meadows to the west, creates unacceptable adverse impacts for the proper functioning of the Argyle Street Bridge and Argyle/Wigton intersection during peak traffic flows in the morning and evenings – over 50% of traffic in these new developments will go north in the morning. Specifically, the traffic back up under this condition extends beyond the Argyle/Wigton intersection (backing up from Caithness) creating turning movement issues, delays and impacts to properties fronting on these roads. The addition of (up to) another 1,000 units representing the remaining vacant land in the urban boundary will exacerbate this issue further. There is no technical solution to upgrading existing roads, alignments, stop lights, etc. that resolves these issues appropriately.

As part of the submitted TIS, an analysis of bridge crossing 'wait times' was completed for both the first phase of construction (i.e. up to 177 units) and the full build-out condition. For the purposes of this assessment, the build out of McKenzie Meadows (218 units) was assumed and factored into all calculations. The first phase generated traffic is estimated to account for approximately 5 percent of the two-way traffic volumes across the bridge. With the full build-out of the site, site generated traffic is estimated to account for approximately 15 percent of the two-way traffic volumes across the bridge. The increases in volumes will have associated increases in wait times which are set out below.

- Phase 1 – Build-Out Condition
 - AM peak hour northbound travel will increase by approximately 10 seconds per vehicle over the existing conditions.
 - PM peak hour southbound travel will increase by approximately 13 seconds per vehicle over the existing conditions.
 - Queue lengths would remain similar to current conditions wherein cars stack up to the north side of the Argyle Bridge during a stop light – 135 metres.
- Phase 2 – Build-Out Condition
 - AM peak hour northbound travel will increase by approximately 25 seconds per vehicle over the Phase 1 buildout conditions [thus full build-out equal to total of 35 seconds per vehicle over present conditions].
 - PM peak hour northbound travel will increase by approximately 97 seconds per vehicle (1 minute 37 seconds) over the Phase 1 build-out conditions [thus full build-out equal to total of 107 seconds (1 minute 47 seconds) per vehicle over present conditions].
 - PM peak hour southbound travel will increase by approximately 160 seconds per vehicle (2 minutes 40 seconds) over the Phase 1 buildout conditions [thus full build-out equal to total of 173 seconds (2 minutes 53 seconds) per vehicle over present conditions].

Building off the above, there are two related traffic management issues that have been highlighted through the detailed analysis and which need to be addressed through conditions of draft plan approval. They are: i) improvements that are triggered solely by the subject project and need to be completed in concert with the initial stage of development; and, ii) those improvements that are needed to serve the wider community but which, are not solely the cause of the subject project (but for which subject project is a contributor). These are addressed in more detail as follows with the noted intersections being shown on Attachment 8:

1. The traffic impact analysis prepared by Paradigm has identified a series of improvements that are directly attributed to the subject project and which are to be constructed in the early stage of the development. In particular, the study notes the following remedial measures are related to the development of the subject site:
 - Wigton Street at Renfrew Street – Converting the all-way stop controlled intersection to two-way stop control. Removing the all-way stop control and replacing with two-way stop control for the eastbound and westbound approaches of Renfrew Street will result in acceptable levels of service on all approaches.
 - Argyle Street North at Orkney Street – Expanded lane geometry on the side street approaches may be required. Consideration can be given to developing eastbound and westbound auxiliary left-turn or right-turn lanes. However, the design hour volumes are noted to be less than 100 vehicles per hour. The high side street delays are likely driven by the high north/south traffic volumes the intersection is required to service.
 - McKenzie Road at Street "A" of Beattie Estates – A turning circle will be constructed and will directly link the northerly entrances of the Beattie Estates and McKenzie Meadows developments.
 - McKenzie Road at Street "B" of Beattie Estates – Northbound and southbound left-turn lanes should be provided.

As part of the turning circle and turning lane construction on McKenzie Road, a full urbanization is to be completed across the entire development site frontage and north beyond Fuller Drive. The urbanization would include road widening and installation of sidewalk, curb and gutter. The obligations for these improvements rest solely with the developers of the subject application and McKenzie Meadows and are to be coordinated between those projects. There will be requirements through draft plan approval, and the detailed design stage of the project, to determine the contribution levels of each project to this work. While the same developer is responsible for both projects, it is still necessary to assign the proportionate cost to each development should they be sold in future. It is anticipated that these improvements would be completed as part of the initial construction of the project and in place as the first phase (i.e. first 177 lots) is initiated. This will be addressed as draft plan condition and final cost and timing implications determined through the forthcoming Master Servicing Plan update.

2. Over the last few years, development interest in the south end of Caledonia has increased. In particular, the subject application and the recent revised draft approval for McKenzie Meadows to the immediate west would see approximately 1,000 new units in this part of Caledonia advancing to construction in the short to medium term. Additional designated lands to the west that form part of the approved land supply could result in a further 1,000 units. The cumulative effect of this development is a significant issue that needs to be addressed in terms of potential impacts on the wider transportation network, and existing development and businesses in terms of requirements for other more significant transportation system improvements. While the subject proposal is not the sole contributor to these required upgrades, it will be a key trigger for many of them. As such, attributable costs and the timing of construction of necessary upgrades

will need to be assigned to this project and all others in the south end of Caledonia through draft approval conditions.

In terms of specific improvements, the Traffic Impact Study (TIS) and addendums completed for this project have identified a series of remedial measures for the larger transportation network of Caledonia. The analysis of the cumulative impact of both south end developments is that approximately 395 units (218 in the draft approved McKenzie Meadows and 177 in proposed first phase of Beattie Estates) can be added provided the improvements outlined in the above section are in place when development occurs. Beyond this amount there are larger system improvements that would be triggered as the Beattie Estates project moves into the second phase and towards full build-out.

The wider transportation issues have been assessed in part via the addendum work completed by Paradigm, while the balance are being dealt with through the on-going Master Servicing Plan update. Through that work and as set out in the County Official Plan a new collector road in the newly developing areas needs to be constructed to direct traffic directly to Argyle Street and subsequently the Highway 6 By-pass to facilitate an easy alternative northerly traffic movement for residents rather than traveling through the community. Further, staff believe that a new arterial road needs to be constructed at the south end of the community along the boundary of Beattie Estates and the development lands to the west (see Attachment 9 for conceptual layout and section below titled 'Alternative North-South Transportation Options'). In addition to this major new infrastructure a number of improvements to the existing transportation network will also need to be implemented over time. The following remedial measures for existing roads will be assessed and a detailed implementation plan will be developed which includes preferred solution, timing and overall costs. As part of the cost analysis, the developer's proportion will be assigned. This will become part of the draft approval conditions and implementation plan for the subject application. The matters to be assessed are as follows (note: intersection locations identified at Attachment 8):

- McKenzie Road at Caledonia Drive – As both McKenzie Road and Caledonia Drive are arterial roadways, the intersection may ultimately require improvements to the existing form of traffic control. A roundabout or signalization should be considered.
- McKenzie Road/Wigton Street at Haddington Street – The capacity issues (existing and future) would suggest the need for improvements to the existing form of all-way stop control. Removing the stop control for main line, McKenzie Road, approaches would result in high side street delays for Haddington Street. A roundabout or signalization should be considered.
- Argyle Street South at Wigton Street – Capacity issues exist and will be worsened. Given the built form in this area, there are limitations to change the geometrics on Wigton Street. The only improvement option available is changing the type of traffic control. However, the change would likely result in operational issues similar to that experienced at Argyle Street North and Caithness Street (i.e. long queue lengths extending across Grand River).
- Argyle Street North at Sutherland Street – Improvements to the existing form of two-way stop control. The capacity issues would suggest the need for improvements to the existing form of two-way stop control. The spacing between upstream and downstream traffic control signals is not ideal. However, this condition is fairly typical for a downtown urban core. Alternatively, should motorists find that peak hour delays are too high, the grid network layout of the surrounding roadways would allow for easy circulation to the Orkney Street or Caithness Street intersections.
- Argyle Street North at Caithness Street – Improving intersection operations will be challenging as the intersection is restricted by the existing built-form surrounding the intersection and by the Grand River bridge crossing. With only one travel lane per direction, the forecast volumes exceed the general capacity for a travel lane. This is an existing

condition/problem and it will be worsened as part of the subject project as it advances to later stages of construction. This is examined in more detail below.

It should be noted that clear decisions and implementation plans for the above items will be required prior to the project advancing into the second phase. The studies completed and the assessment by staff collectively acknowledge that the existing transportation system possesses some challenges at present. Through the work completed to date, it has provided a clearer understanding of the tipping points which would lead to worsened conditions that would not be acceptable to the community. As such, the project would be 'capped' at the 177 units (Phase 1) via draft plan condition and zoning holding provision until there is a Council-endorsed plan to move forward on larger transportation system improvements.

Alternative North-South Transportation Options:

Based on the TIS work completed, and staff's understanding of the issues relating to development in the south end, the planning conclusion is that new infrastructure is required to manage peak traffic movement from the ultimate 2,000 units in the south end. In accordance with Policy 5A1(15) of the Official Plan, two options were investigated to address the impact of south end development on the transportation network as outlined below:

- a. The proposed McClung bridge option – this option carries a cost of approximately \$26.5 million; would require 10 years for approvals and construction and presently (even with full build out of the south end) does not meet the bridge construction warrants; and
- b. Traffic infrastructure to direct south end residents to the Highway 6 By-pass – this option carries a cost of approximately \$8.3 million; represents a 2 to 3 year process for approvals and construction; would use existing infrastructure, in particular a tie into the Province's Highway 6 By-pass and future extension of Highway 6 (to the Hamilton International Airport); and, it does not preclude a longer term McClung bridge option.

The staff recommendation is to go with Option B at this time. The planning principles to be applied to this option to manage traffic are:

- a. To give people multiple ways in and out of the subdivision and connections to major roads to disperse traffic;
- b. To limit impacts to existing residential areas – i.e. discourage infiltration of traffic into them; and
- c. To create the opportunity to develop a new road network that will be intuitive, fast, direct so residents will choose convenience/efficiency over frustration and use the by-pass.

The Transportation Plan in the OP contemplates two road network solutions – creating a collector road to Argyle and, either in conjunction with or alternatively, a direct by-pass route at the southerly extent of the urban boundary. In order to create a direct east west collector connection through the subdivisions to Argyle there are limited options given that the remaining lands in the south end are long and narrow and given the hydro corridor and servicing requirements – particularly where stormwater management facilities need to be located due to grade and watercourse locations (for out-letting). The ability to extend Street B (see Attachments 1 and 9) as a high volume road (with limited direct access from dwellings) is impacted by the location of necessary stormwater management facility locations.

Staff have worked with the developers of the south end lands to identify a street alignment that would see Street A (see attachments 1 and 9) be extended as a collector (similar to Highland Drive to the north) to a signalized intersection at Argyle Street South. This would be completed as development occurs to provide one choice of route for residents. However, it is very difficult for this road to function as a higher order street (arterial) providing traffic flow for higher volumes as the subdivision design, due to the location of the Hydro easement and the depth of the lands,

limits design options other than those with dwellings that have direct access to this road. Given the number of intersecting driveways and the length of the road, while it is an important part of the overall transportation solution, the other direct by-pass route envisioned in the OP needs to be considered. Using Street A as the only solution may not provide the convenience or speed of travel that would intuitively encourage residents to use the by-pass due to the driveways as well as the total traffic that would be channeled to it due to the requirements for increased density in new subdivision designs. In other words, while collectors with direct access may work appropriately in older less dense conditions, in new subdivision design the intent is to minimize the direct driveway connections to enable appropriate traffic movement.

Given the above potential limitations, a preliminary alignment of a limited access arterial at the south end of the community has been identified (see “Route B – New Arterial System” on Attachment 9). While Street A will be extended as development occurs (see “Route A – New Collector System” on Attachment 9), the new arterial road should be installed early in the development process, and preferably before the Argyle Bridge is replaced, to provide a convenient direct access from the outset. In order to ensure this occurs, the County should commit to front-ending the construction of this infrastructure with the cost recovered from benefitting developers. It is estimated that the cost would be approximately \$8.3 million which would include the EA/design process, land acquisition, archaeological clearances and all construction. This approach will also require the extension of Balvenie Boulevard as part of the first phase of the development and a connection at the south end of subdivision to the arterial road which would likely eliminate 2 to 3 residential lots (see route on Attachment 9).

It should be noted that the arterial road route would traverse over a number of private properties and thus would require negotiation of land purchase. Should land purchase not be achievable, the County could initiate the process of expropriation of land which would provide compensation for landowners at fair market value and secure lands for a stated public good (i.e. transportation system improvements). Another option would be for the developer of Beattie Estates to redesign the south end of the project to incorporate the entire arterial corridor (which would be approximately 36 metres wide) within the boundaries of that project. However, that is viewed as the least desirous option given the impact on the coordinated plan development and review that has taken place to date coupled with the fact that it would result in the loss of valuable development land (approximately 3 hectares (7.4 acres)) within the urban boundary.

The implementation program for the arterial road construction would be incorporated as a condition of subdivision approval in all south end developments, including the Beattie Estates project. Until this work is completed and timing and methods of implementation are clearly defined, staff is recommending that only the first phase (177 lots) of Beattie be advanced to draft approval. This is predicated on the analysis set out above wherein additional downstream traffic impacts are reasonable for the initial phase and can be accommodate with minimal traffic system upgrades and changes. However, beyond that first phase, and prior to any additional residential construction advancing (for Beattie Estates and other future residential projects), development of the new road connection to Argyle will need to be in place. Clearly defined draft plan conditions including funding measures and holding provisions in implementing zoning bylaws will be the legal mechanisms to ensure this approach is adhered to.

2. *Stormwater Management/Flood Management*

A preliminary stormwater management (SWM) plan has been provided as part of the application package as prepared by Upper Canada Consultants. The SWM plan has been reviewed by both the Grand River Conservation Authority and County staff who have collectively concluded it has been prepared in accordance with provincial guidelines and the County’s Design Criteria. The plan presents a feasible design solution for stormwater management system and facilities at the site that addresses

both quality and quantity. More specifically, the plan sets out that stormwater will be collected and conveyed via a formal storm sewer system to one of three wet pond facilities that are to be developed within the subject site. The details relating to those facilities is as follows:

- Two of the facilities will be co-located in the south-central portion of the development as shown on Attachment 1. The majority of the development will be serviced by these two wet ponds. The ponds will be located at the bottom end of the watercourse that runs in a north-south orientation in the west half of the site. As the watercourse splits the site (east and west sections), an independent pond will be required on each side of the watercourse. The watercourse will undergo a series of channelization improvements (requiring consultation and approvals from the GRCA), which will allow it to have improved function for the purposes of stormwater conveyance. The existing outlet flow to the south (i.e. from the site to McKenzie Creek) will be maintained; and
- The third facility will be located at the easterly extreme of the site alongside River Road as shown on Attachment 1. This pond will collect and treat stormwater flows from a portion of the eastern half of the site. The facility will outlet to the existing stormwater outlet across River Road and tributary to the Grand River. There are no specific improvements identified for the downstream system.

Detailed design and implementation measures such as Sediment and Erosion Plans, landscaping plans and maintenance manuals will all be set out as conditions of draft plan approval and will be part of the final stormwater management plan required to be submitted as part of the detailed review stage.

3. *Water*

There is sufficient water capacity to allocate to all proposed developments in Caledonia, including Beattie Estates. Potable water in Caledonia is supplied from Hamilton via the Caledonia/Cayuga distribution system. The current maximum day demand of the Caledonia/Cayuga system is 40% of the maximum day demand permitted under the Hamilton/Caledonia Water Servicing Agreement. Anticipated water demand associated with all current allocations (which does not include Beattie Estates), would result in a total water demand of 6,715 m³/day or approximately 50% of the current agreement with the City of Hamilton. Thus, there is sufficient water capacity available for the subject and future projects.

Water service would be supplied to the site via McKenzie Road and an internal looped system would be developed. At this time, there are no known feasibility or service constraints related to water. However, the developer and his consulting team are aware that they will be required to complete more detailed assessments of the system as part of the draft plan approval. This will be incorporated as draft plan condition(s) and will include the requirement for hydraulic modelling and assessment of any low pressure zones.

In addition to the above, the Caledonia Master Servicing Plan update is assessing need for a new elevated tank in the south end of Caledonia. The optimal location of this is not yet known; however, it is anticipated that the most appropriate location would be in the south-east area of Caledonia. As such, staff have worked with the developer to reserve a block of land within this subdivision which could accommodate future tank development. Should it be determined in future that a new tank is not required or another location is more suitable, the block reserve would be re-purposed for addition to parkland/trail corridor given its location adjacent to this feature.

4. *Wastewater*

4.1 *Conveyance*

The conveyance of wastewater will be dealt with through two distinct approaches which will 'split' the subdivision into two sections (north and south). The northerly portion of the subdivision is proposed to

be accommodated in the existing Highland Heights sanitary system to the north. The subject site would be connected into that system via a stub at the bottom end of Balvenie Boulevard and wastewater would then be gravity flow to the north. This would be a gravity based conveyance which does not require any pumping mechanisms. Based on staff's preliminary analysis this will be a small portion of the subdivision, with at least 100 lots being accommodated into the existing system (i.e. with no requirement for upgrades).

The southerly majority of the subdivision will be developed with a collection and conveyance system that is serviced via a pumping station that will outlet to a future River Road system upgrade and connection. The River Road upgrade work and pumping station is the sole cost of the developer and not a Development Charge funded improvement given that it is driven by this project. The detailed approach to this conveyance system will be completed as part of the detailed design phase. A series of draft plan conditions will lay out these requirements.

4.2 Treatment

Capacity issues

Currently, the Caledonia Water and Wastewater Treatment Plant (WWTP) is not capable of running at its full rated capacity due to a process limitation in the aeration system. This has left the existing wastewater capacity at just 27 cubic metres/day (equivalent of approximately 30 dwelling units). The solution to the process limitation is to install new air diffuser heads which is a relatively simple process. The funding for this work was approved in the 2017 Rate Supported Water and Wastewater Capital Forecast and the project has been initiated and is scheduled for completion by September 2018.

Once the aeration system project is completed, the Caledonia WWTP will be capable of treating flows up to its rated capacity of 7,200 cubic metres/day which will bring an additional 2,750 cubic metres/day on line for the purposes of allocating to development. That amount of capacity is equivalent to 3,055 single detached dwellings. While it will not be a sufficient amount to accommodate all of the potential development in Caledonia, it will serve to 'bridge the gap' to the larger treatment capacity solution (e.g. plant expansion or other) that will be developed by Public Works through the Master Servicing Plan process and which is included in the approved rate budget.

Based on the above, and as we move forward in 2018, staff is of the opinion that there will be opportunity to support allocating capacity as projects approach the design and construction phases. This is based on the following:

- the capacity limitation for the Caledonia WWTP can be addressed through a known and straightforward design modification;
- the budget to carry out this design modification was approved by Council in 2017; and
- the work to complete the design modification has been initiated and is expected to be completed within the next 8 months.

This ensures that Beattie Estates can move forward to detailed design and ultimately to construction in 2018. Based on the calculations completed by staff, the additional capacity of 2,750 cubic metres/day would be sufficient to service all of Beattie Estates, the balance of Avalon (Empire) while also providing some capacity for infill and/or other smaller development projects.

Archaeological Assessment

The developer retained the services of Archaeological Research Associates Ltd. to complete Stage 1 and 2 archaeological assessments of the entire development site. These assessments are aimed at determining if there are any areas of archaeological value and interest within the boundaries of the subject lands. The approach to the study and its summary findings (which identified areas requiring further assessment) was accepted by the Ministry of Tourism Culture and Sport which is the review/approval authority for these types of studies. The Stage 1 and 2 report contained

recommendations for the completion of Stage 3 assessments for 18 distinct sites within the property. Since that time, a number of the Stage 3 assessments have been completed by Detritus Consulting and the sites cleared by the Ministry of any archaeological value or interest. As numerous Stage 3 sites still remain, and must be cleared prior to any development proceeding, a series of draft plan conditions will be introduced that require all field and reporting work be completed and a full series of clearances be issued by the Ministry. It is staff's understanding that there has been on-going Stage 3 work with involvement (monitoring) by First Nations.

Next Steps

Staff have completed a detailed review of the proposed subdivision and based on the foregoing, the development generally complies from a policy perspective and at a functional level. From this point, and based on comments and requirements of the various departments and agencies, Draft Plan Conditions will be produced and provided to the General Manager of Planning and Economic Development for approval. Draft Plan Conditions will include, but not be limited to the following:

- Limitations on the amount of development restricting it to 177 units until transportation and pumping station infrastructure is upgraded;
- Completion of the required Zoning Amendment application;
- Detailed evaluation and completion of infrastructure requirements, including water, storm and sanitary systems;
- Detailed Stormwater Management works;
- Final approval requirements from external agencies including Conservation Authority, Haldimand County Hydro; telecommunications providers;
- Final acceptance and approvals of technical studies including Archeological Assessments; Geotechnical Investigation; Traffic Impact Study; and
- Confirmation of servicing allocation.

Once the subdivision receives draft approval, the information will be circulated to any interested members of the public and required agencies to provide notification of the pending development and statutory appeal dates. The zoning amendment will be brought forward to Council for approval subsequent to draft plan approval to ensure that the zoning standards are representative of the final design.

FINANCIAL/LEGAL IMPLICATIONS:

All financial requirements will be addressed through the required subdivision agreement for the proposed development. Additionally, development charges will be required at the time of building permit application.

STAKEHOLDER IMPACTS:

Internal

The following County Divisions were circulated the subject applications and have had input into the preliminary design process: Engineering Services, Environmental Services, Roads Operations, Emergency Services, Community Development & Partnerships, and Facilities and Parks Operations. Any preliminary technical concerns of these circulated parties have been addressed through the revised design of the plan as presented herein. All circulated County Divisions are supportive of the current proposal.

External

Hydro One – Hydro One (HO) indicated no objection to the proposal in principle but has requested a series of draft plan conditions including ensuring access to easements are maintained, detailed design plans are circulated to HO for review and any encroachments/crossings of the hydro easement are approved. These will be addressed in the draft plan approval and through the detailed design process.

Grand River Conservation Authority (GRCA) – GRCA comments are outlined earlier in this report, including the specific requests for draft approval conditions. The GRCA is generally supportive of the subject proposal.

Bell Canada – Bell has provided standard comments/requests for conditions and is supportive of the development. All Bell conditions will be included as part of the draft plan approval.

Brant-Haldimand-Norfolk Catholic District School Board – No objection.

Six Nations Council – Comments were received and indicate advisements of Six Nation's rights and interests in relation to these lands. The letter also identifies a general interest and concern with any development within its treaty territory, in particular any archaeological issues relating to such. The archaeological study completed for the subject project has been provided to Six Nations and a draft plan condition will be included which identifies the need for Provincial clearance of the site from any archaeological issues/concerns.

Union Gas – Union Gas does not object to the project but identified the existence of a main pipeline that runs through the corridor along the north perimeter of the site. This is secured by registered easement and represents the portion of the site that is to remain undeveloped, save and except for recreational trail. Union Gas has requested standard condition of draft plan approval requiring any easements to be provided to allow for provision of gas services to the project.

Trans-Northern – Trans-Northern (TN) submitted comments identifying the existence of a pipeline for its petroleum products within the corridor that runs along the northern perimeter of the site. The integrity of this corridor is to be protected and TN has requested to be included in the review of any detailed designs relating to road crossings or other development (e.g. trail) within the corridor. This will be addressed as a draft plan condition and TN will be included in the review of the detailed engineering plans.

Grand Erie District School Board – No objections.

Municipal Property Assessment Corporation (MPAC) – No comments received.

Consiel Scolaire Distric Catholique Centre – No comments received.

Mississaugas of the New Credit Council – No comments received.

Canada Post Corporation – Canada Post is supportive of the project subject to its standard requirements including the provision of sites for centralized community mailboxes. This will be addressed as a draft plan condition and locations will be identified through the detailed design process.

Public Comments

A number of phone calls were received by staff from members of the public. The majority of the calls were focused on general information/questions including timing of public meeting, timing of the development project, types of units to be constructed, etc. A number of callers requested that they be added to the circulation list for future public meeting(s) and this was completed by staff. Given the scale of this development and the implications to the wider community Council may wish to consider directing Staff to hold a further evening public meeting as part of the February 12th Council Meeting to ensure that residents who may be unable to attend the daytime Council in Committee Public Meeting on February 6th can provide input to Council.

REPORT IMPACTS:

Agreement: No

By-law: Yes

Budget Amendment: No

Policy: No

ATTACHMENTS:

1. Subdivision Demonstration Plan.
2. Location of Lands.
3. Houses to Street.
4. Corner Lot Plan View.
5. Driveway Pairing.
6. Elevations.
7. Phasing.
8. Intersections.
9. Alternative Travel Route.