

SUMMARY OF CIRCULATION COMMENTS AND STATUS
190, 202, 210 and 216 Arkell Road
Draft Plan of Subdivision and Zoning By-law Amendment (ZBLA)
May 2023

Public Services Parks (Mallory Lemon) - March 25, 2022

<i>Comment</i>	<i>Response</i>
Parkland Dedication	
<p>Cash-in-lieu of parkland dedication is recommended for this development in accordance with the City of Guelph Official Plan Policies and Section 51.1 of the Planning Act.</p> <p>The Draft Plan of Subdivision proposes 70 dwelling units. Based on the alternative rate of 1 ha per 500 dwelling units proposed, payment in lieu equal to the value of 0.14 hectares of parkland, or 5.43% of the development land is required.</p> <p>The payment of cash-in-lieu of parkland dedication is required prior to registration of the plan of subdivision. Prior to registration, the Owner is to provide an appraisal of the subject property to determine the cash-in-lieu amount. The long form appraisal must be prepared by a qualified appraiser who is a member in good standing of the Appraisal Institute of Canada. Note that appraisals are considered valid for a period of one year from the date the appraisal was completed.</p>	<p>Noted. A condition of subdivision registration to be included to require appraisal and payment of cash-in-lieu.</p> <p>We note that since the time of the City comment, there have been changes to the Planning Act relative to the requirements for parkland dedication. The alternative rate would now be 1:1000 units.</p>
Trail	
<p>The Guelph Trail Master Plan shows a proposed city trail route running east-west along the Natural Heritage System buffer through the subject site, eventually connecting trail users from north of the subject site to Arkell Road. However, upon review of the grades from Dawes Avenue to the NHS buffer, it has been established that this east-west connection is not feasible. A connection to Arkell Road is still desirable to provide trail users access the broader trail network and Active Transportation Network. This connection will also serve as an important pedestrian connection to and from the future planned school at Arkell Road and Victoria Road South.</p> <p>As an alternative to the east-west connection, Park and Trail Development is interested in acquiring a trail connection directly adjacent to the subject site's east side along the existing laneway at 220 Arkell Road.</p> <p>Although the alternative trail alignment is on the adjacent property, it is the City's expectation that the owners of both developments will coordinate with each other at the detailed design stage to establish grades at the property line and construction timelines for their developments to ensure that the trail connection is achievable.</p>	<p>The property owner of the lands that are the subject of these applications (190, 202, 210 and 216 Arkell Road) do not own 220 Arkell Road, thus we cannot compel the development of this trail, however the property owner is willing to work with the adjacent property owner of 220 Arkell Road to coordinate grading and detailed design to provide a trail connection.</p> <p>A revised detailed grading and servicing strategy for the proposed trail connection is provided in the SWM Report and FSR.</p> <p>A condition of approval will address the review of the potential trail connection.</p>

<p>Trail Grading</p>	
<p>Please show longitudinal slopes of the future trail surface on the Area Grading Plan AG1.1 to ensure the trail can be designed to Guelph Trail Master Plan and Facility Accessibility Design Manual standards. The trail is to be designed with maximum 5% longitudinal slopes and a 2% cross slope. 0.6m wide clear zones with maximum 2% cross slopes are required on both sides of the trail. Swales are required upland of the trail to intercept stormwater before it crosses the trail surface.</p> <p>Park and Trail Development concurs with Engineering comments that a 3m deep valley is not desirable within the trail/open space parcel and alternative drainage solutions should be explored.</p>	<p>Noted. See note above regarding ownership of trail lands. The property owner is willing to work with the adjacent property owner of 220 Arkell Road to coordinate grading and detailed design to provide a trail connection.</p> <p>A revised detailed grading and servicing strategy for the proposed trail connection is provided in the SWM Report and FSR.</p>
<p>Trail Construction</p>	
<p>The City of Guelph has been successful in working with developers in order to complete development of new trails before or during the first occupancy of new homes within in their subdivisions. In order for the trail to be developed in this timely manner, Park and Trail Development staff recommend that the trail within this development is “Developer/Build” with appropriate compensation to the developer through the City’s Capital Budget process.</p>	<p>Noted. Details regarding compensation to be discussed with City staff and adjacent developer.</p>
<p>Open Space Works and Restoration</p>	
<p>The City requires planting and seeding to enhance buffers and wildlife corridors, provide compensation for removed trees etc. Detailed planting and landscape plans will be required with the Environmental Implementation Report.</p>	<p>Noted. Detailed planting and landscape plans to be provided through conditions of approval and site plan process.</p>
<p>Property Demarcation:</p>	
<p>The City requires demarcation of open space land to be transferred to the City. The final configuration of the city’s standard black vinyl chain link fence will be determined during the detailed design stage and presented in the Environmental Implementation Report which will include a demarcation plan.</p>	<p>Noted.</p>
<p>Stormwater Management Facility</p>	
<p>The City’s standard stormwater management sign (per Design Principles for Stormwater Management Facilities) will be required for the proposed stormwater management facility and its location will be shown on the EIR landscape plan.</p>	<p>Noted. Location to be identified on EIR landscape plan.</p>
<p>Conditions to be met prior to execution of subdivision agreement</p>	
<p>1. The Developer shall be responsible for the cost of design and development of the demarcation of all lands conveyed to the City in accordance with the City of Guelph Property Demarcation Policy. This shall include the submission of drawings and the administration of the construction contract up to the end of the warrantee period completed by an Ontario Association of Landscape Architect (OALA) member for approval to the satisfaction of the Deputy CAO of Public Services. The Developer shall provide the City with cash or letter of credit to cover the City approved estimate for the cost of development of the demarcation for the City lands to the satisfaction of the Deputy CAO of Public Services</p>	<p>Noted. To be added as condition for detailed design prior to subdivision registration.</p>

<p>2. The Developer shall be responsible for the cost of design and implementation of the Open Space Works and Restoration in accordance with the “Environmental Implementation Report” to the satisfaction of the Deputy CAO of Public Services. This shall include the submission of drawings and the administration of the construction contract up to the end of the warrantee period completed by an Ontario Association of Landscape Architects (OALA) member for approval to the satisfaction of the Deputy CAO of Public Services. The Developer shall provide the City with cash or letter of credit to cover the City approved estimate for the cost of the Open Space works and restoration for the City lands to the satisfaction of the Deputy CAO of Public Services.</p>	<p>Noted. To be added as condition for detailed design prior to subdivision registration.</p>
<p>3. The Developer shall design and develop the Storm Water Management Facility Landscaping in accordance with the City’s current “Design Principles for Storm Water Management Facilities” to the satisfaction of the Deputy CAO of Public Services and the City Engineer. This shall include the submission of drawings and the administration of the construction contract up to the end of the warrantee period completed by an Ontario Association of Landscape Architects (OALA) member for approval to the satisfaction of the Deputy CAO of Public Services. The Developer shall provide the City with cash or letter of credit to cover the City approved estimate for the cost of development of the Storm Water Management Facility Landscaping for the City lands to the satisfaction of the Deputy CAO of Public Services.</p>	<p>Noted. To be added as condition for detailed design prior to subdivision registration.</p>
<p>4. The Developer shall provide Public Services with a digital file in either AutoCAD DWG format or DXF format containing the following final approved information: parcel fabric, street network, grades/contours and landscaping of the park, open space and storm water management blocks.</p>	<p>Noted. To be added as condition for detailed design prior to subdivision registration.</p>
<p>5. The Developer shall install, at no cost to the City, chain link fencing, between blocks 5 and 6, between blocks 5 and 7, and between blocks 2 and 7. The Developer further agrees that the fencing will be installed following grading operations of the subdivision in accordance with the current standards and specification of the City and to the satisfaction of the General Manager of Planning and Building Services. Further, all property lines must be accurately surveyed and clearly marked in the field prior to establishing all fence line locations. Fences shall be erected directly adjacent to the established property line within the City owned lands.</p>	<p>Noted. To be added as condition for detailed design prior to subdivision registration. (subject to revision to reflect most recent draft plan/block numbering).</p>
<p>Conditions to be met prior to registration of the plan</p>	
<p>6. The Developer shall place the following notifications in all offers of purchase and sale for all lots and/or dwelling units and agrees that these same notifications shall be placed in the City’s subdivision agreement to be registered on title:</p> <ul style="list-style-type: none"> • “Purchasers and/or tenants of all lots or units abutting City owned lands are advised that abutting City owned lands may be fenced in accordance with the current standards and specifications of the City”. 	<p>Noted. To be added as condition for subdivision registration.</p>

<ul style="list-style-type: none"> • “Purchasers and/or tenants of all lots or units abutting City owned lands are advised that no private gates will be allowed into Blocks 6 and 7.” • Purchasers and/or tenants of all lots are advised that the Stormwater Management Block has been vegetated to create a natural setting. Be advised that the City will not carry out routine maintenance such as grass cutting. Some maintenance may occur in the areas that are developed by the City for public walkways, bikeways and trails.” • “Purchasers and/or tenants of all lots are advised that the Open Space Block has been retained in its natural condition. Be advised that the City will not carry out regular maintenance such as grass cutting. Periodic maintenance may occur from time to time to support the open space function.” • “Purchasers and/or tenants of all lots or units are advised that the boundaries of the open space and Stormwater management blocks will be demarcated in accordance with the City of Guelph Property Demarcation Policy. This demarcation will consist of black vinyl chain link fence adjacent to blocks 6 and 7. • “The Developer shall also send written notification of proposed demarcation types to any existing homeowners in lots adjacent to open space and Stormwater management blocks. 	
<p>7. The Developer agrees to provide temporary signage describing the existing/proposed open space and required fencing on all entrance signs for the development, at the street frontage open space block 6, and Stormwater management block 7, to the satisfaction of the General Manager of Planning and Building Services. The signage shall:</p> <ul style="list-style-type: none"> • advise prospective purchasers of dwellings in the area of the type of open space and/or level of maintenance of these parcels of land by the City; • clearly state that the maintenance of the open space blocks are the responsibility of the Developer until such time as the City accepts them, and • clearly state that all questions relating to the maintenance of the open space blocks shall be directed to the Developer. <p>The signage shall be erected when rough grading on and adjacent to the building lots has begun and must be maintained by the Developer until acceptance of the Blocks by the City. The Developer further agrees that the proposed open space blocks, trails and fencing be identified on any marketing or promotional materials.</p>	Noted. To be added as condition for subdivision registration.
<p>8. The Developer shall pay in-lieu of parkland conveyance for the development, in accordance with the City of Guelph Official Plan Policies</p>	Noted. See comments above.
<p>9. The Developer shall provide a satisfactory long form appraisal report prepared for the Corporation of the City of Guelph for the purposes of calculating the amount of payment in-lieu of parkland conveyance. The value of the land shall be determined as of the day before the day of the approval of the draft plan of subdivision. The long form appraisal report shall be prepared by a qualified appraiser who is a member in good standing of the Appraisal Institute</p>	Noted. See comments above.

<p>of Canada, and shall be subject to the review and approval of the Deputy CAO of Public Services. Notwithstanding the foregoing, if the long form appraisal provided by the applicant is not satisfactory to the Deputy CAO of Public Services, acting reasonably, the City reserves the right to obtain an independent appraisal for the purposes of calculating the amount of payment in-lieu of parkland conveyance</p>	
<p>Environmental Comments (Leah Lefler) – March 24, 2022</p>	
<p><i>Comment</i></p>	<p><i>Response</i></p>
<p>Environmental Impact Study</p>	
<p>1. An EIS Addendum that assesses the potential for negative impacts based on the updated Stormwater management design concept and monthly wetland water balance calculations is required.</p>	<p>EIS Addendum has been prepared by NRSI and is included in this resubmission.</p>
<p>Stormwater Management Report</p>	
<p>2. To ensure successful implementation of the thermal mitigation measures outlined in Section 5.7, please provide area and grading requirements which will be further refined through the Site Plan Approval process.</p>	<p>Further research and analysis into the need of thermal mitigation was performed, and is described within Section 5.9 of the revised SWM Report. Further details to be addressed for detailed design prior to subdivision registration.</p>
<p>3. Consistent with comment 18 provided on the 2nd Submission, please provide details on proposed water quality controls for runoff generated from Catchment 205-2.</p>	<p>Storm sewers and an OGS are proposed to collect and treat drainage for the portion of Street A directed towards Arkell Road, as further described within Section 5.5 of the revised SWM Report. Further details to be addressed for detailed design prior to subdivision registration.</p>
<p>4. The Stormwater management design proposes a 31% increase in runoff equivalent to an additional 1,752 m³ annually. Opportunities to further reduce runoff directed toward the wetland should be explored.</p>	<p>At-source infiltration of roofed areas is utilized where possible, and an end-of-pipe infiltration cell will reduce runoff to the wetland. Runoff to the wetland is described in Section 5.6.2 of the revised SWM Report. Further details to be addressed for detailed design prior to subdivision registration.</p>
<p>Engineering and Transportation Services (Jim Hall) – March 24, 2022</p>	
<p><i>Comment</i></p>	<p><i>Response</i></p>
<p>Transit Planning</p>	
<p>1. Proposed development is about 60m from an existing stop (6077 Arkell at Amos westbound) on Route 5 Goodwin, that currently connects to the University of Guelph and will instead connect to the Clair Maltby terminal in 2031</p>	<p>a) Sidewalk from the existing stop is proposed to be extended to the site. Further bus stop improvements to be discussed with City staff.</p>

<p>a) To ensure accessibility of this stop, the sidewalk along Arkell will need to be extended to the site. If possible, pedestrian connections to Arkell should be available on the eastern side of the subdivision to allow for easy access to the stop</p> <p>b) The new units will likely increase the average boardings at this stop to warrant at least the installation of a bench, if not a shelter. Request that developer provide funding for this.</p>	<p>b) Noted.</p>
<p>2. Transit supports the connection of Dawes Road in the north end to improve AT connectivity.</p>	<p>Noted.</p>
<p>Transportation Services</p>	
<p>Traffic and Transportation Planning Engineering</p>	
<p>3. Staff will require a scoped Traffic Impact Study for the proposed subdivision which should identify the proper traffic control type at the intersection of Arkell Road and Summerfield Drive including traffic control signalization. The study should take into consideration of the full buildout of residential development and the high school on the north side of Arkell Road. The TIS for the high school can be found from city's website.</p> <p>Please contact City staff for Terms of Reference for the scoped TIS. The scoped TIS will primarily determine the intersection control type on Arkell Road. Signalization could be triggered by converting the existing T-intersection to a 4-leg full intersection. Should signalization be warranted, the proponent is required to share the cost in design and construction. Please contact City staff for the terms of reference for the scoped TIS, and have it prepared and submitted as part of the next full submission, or in advance of the next submission to save review time.</p> <p>A TIS was identified during the first submission review as noted in our January 2019 comment memo. We note that the requested TIS has not been submitted to date.</p>	<p>To be discussed with City staff – It is not reasonable to request this development to prepare a Traffic Study to accommodate the high school lands. A TIS was not previously required for this development when the pre-consultation comments were issued.</p>
<p>4. To minimize the number of direct access onto Arkell Road, we recommend an internal road north of Arkell Road connecting the subdivision and the land to the west (182 Arkell Road). The draft plan of subdivision should be revised to reflect this connection. This item is still outstanding: the resubmitted plan does not address this.</p> <p>a) The required future access to connect to 182 Arkell Road is not shown; the City's preferred option is a Block dedicated as a public right-of-way of sufficient standard size to permit various options for the adjacent developer, unless an agreement is in place between the land owners concerning the size and location of the access. At minimum (assuming a private access), it should be a minimum of 6 metres wide with curb radii of 12 metres, and cannot be used in conjunction with a parking aisle.</p>	<p>A potential connection to 182 Arkell Road is described within Section 3.1.1 of the revised FSR.</p> <p>A condition of draft plan approval can address the need for an access easement to the adjacent lands. The adjacent lands are a separate parcel that currently have legal access to their lands. The City's preference for a consolidated access should not impact the timing for decision of the subject lands.</p>
<p>Sustainable Transportation</p>	

5. Sidewalks fronting the subject property are required to enhance connectivity for pedestrians, and to connect with the proposed internal sidewalk network.	Noted. Future sidewalk fronting the subject lands is shown.
Development Review Engineering	
General	
6. Please compress/optimize all PDF files before submitting: there should be no AutoCAD notes or other items included as comments in the PDF file as all required information should form part of the final compressed file. Please ensure all PDF documents are accessible as per the AODA, and appropriate headers/document structures are used to allow for navigation within the document, including linked elements within the TOC and lists of figures, tables and appendices. PDF files should also be unlocked to allow printing and commenting.	Noted.
7. A sidewalk is required on the north side of Arkell Road within the limits of this proposed plan of subdivision; design and construction of this section of sidewalk is at the cost of the developer, and this work should be shown on all future submitted plans. Please provide details for the proposed location of the sidewalk: are you working from an approved ROW cross section, or are you aligning this sidewalk with any existing sidewalk? Are there any required ROW improvements or changes needed to accommodate the sidewalk? If so, please show them on the appropriate plan (grading, servicing, etc.). Please also show the connection of this new sidewalk to the existing sidewalk east of the site (existing bus pad).	A future connection with the existing sidewalk and bus pad east of the subject lands is shown. The sidewalk will be located per typical City of Guelph road cross sections.
Draft Plan	
8. What are the proposed rear and east side property lines for Block 5? We recommend rectilinear property lines for ease of drafting, and identification/demarcation.	The rear property line of Block 5 (now Block 3) is equivalent to the 30m wetland setback line as defined by the GRCA.
9. Please show proposed property line radii at all curves/corners. Please identify the sightline triangles required at the intersection of Street 'A' and Arkell Road, and provide appropriate property line radii. Please show all curb and property line radii on the Draft Plan. A separate drawing showing road geometry including all required sightlines can be provided as an alternative to showing this on the Draft Plan.	A separate plan will be prepared to identify sightline triangles and property line radii. This can be addressed at final design.
10. Please update the draft plan, and all design and concept plans, such that the centreline of proposed Street 'A' aligns with the existing centreline of Summerfield Drive. Please provide evidence of this alignment on the draft plan.	The draft Plan has been updated to show the centreline alignment of Street 'A' with Summerfield Drive.
11. Please include 0.3m reserves within Blocks 1 & 3.	Noted.
Functional Servicing Report	
12. Section 4.2 paragraph 2: grades proposed will need to be refined once the trail grades are approved.	Proposed trail grading has been revised.

<p>13. Section 4.2 paragraph 2: there is reference to “future parklands blocks” however there are no parkland blocks identified.</p>	<p>Section 4.2 is revised to reference the Future trail adjacent to the subject lands as opposed to “future parkland blocks”.</p>
<p>14. Section 4.2 paragraph 4: The minimum separation is 0.5m from seasonal high groundwater table to basement floor elevations, however additional separation is acceptable. Please define “composite high groundwater”; how does it compare to the seasonal high groundwater level?</p>	<p>The Hydrogeological Assessment Report indicates that Seasonal High Groundwater contours are used within the analysis. Section 4.2 will be revised to remove any reference to Composite High groundwater.</p>
<p>15. Section 5.1 paragraph 4: Please include recommendations for frost mitigation. Please also review options for minimizing non-standard sewer installations.</p>	<p>The final length of sewer that connects to the existing stub at Arkell Road is the only length of sanitary sewer with non-standard depth (<2.7m cover). Depth exceeds the minimum frost penetration shown in OPSD 3090.101, therefore insulation not required.</p>
<p>16. Section 5.3 paragraph 2: The statement “the proposed street-fronting townhouse units will have individual 150mm diameter service connections connected to sump pumps” requires clarification; from the description it does not appear to be consistent with the DEM standards.</p>	<p>Due to the depth of the proposed storm sewer, foundation drains cannot be connected to the sewer network, and cannot have positive drainage to a legal outlet.</p> <p>Per Section 5.5.2 of the DEM: <i>Foundation drains shall be connected by gravity to the storm sewer system. Where a gravity connection to the storm sewer is not available or HGL criteria cannot be achieved to protect basements flooding, the following alternatives are acceptable to the City:</i></p> <ol style="list-style-type: none"> 1. <i>The drain shall discharge to a watertight sump. Flow collecting in the sump shall be pumped to the surface rear yard;</i> <p>Section 5.3 has been revised to clarify the proposed storm water connections. Roof leaders will be directed towards infiltration galleries with overflow connections, with the exception of Block 5 (now Block 3). Per the revised design, roof leaders of Block 3 connect directly to the storm sewer system.</p>
<p>17. Section 5.3 paragraph 5: We would prefer an alternate design: a culvert will become a bridge asset, and there are other designs that would be more appropriate for this location. Suggestion: can this low area be served by a CBMH, pipe, and dispersion structure? Note that grades in this area will likely change once the final trail grading is approved</p>	<p>The culvert design will be replaced with catch basin manholes and downstream flow dispersion.</p>

<p>18. Section 5.3 paragraph 6: Please note "depth of cover" is to the outside crown of pipe not the invert; please update the language. Does this mean some larger pipe segments are less than 1m depth of cover? This could put them, or the required insulation, into the road structure, which should not happen. Pipes, and pipe advise.</p>	<p>The language in Section 5.3 has been revised accordingly. The storm sewer design will not have insulation proposed within the road substructure. Specified insulation and its location has been shown on the required figures.</p>
<p>19. Figure 5.1</p> <ul style="list-style-type: none"> a) Adjust location of MH1A to allow full servicing of adjacent lots: service laterals should enter the pipe and not the MH. b) Monitoring MHs are required for both future blocks. c) We suggest adding a MH at/near the property line to limit the length of sewer that will have non-conforming slope (0.5% min. pipe slope in DEM). 	<p>The sanitary sewer design has been revised accordingly.</p>
<p>20. Figure 5.2</p> <ul style="list-style-type: none"> a) Watch for correct hydrant spacing: review and ensure sufficient coverage is provided 	<p>Hydrant spacing requirements will be confirmed.</p>
<p>21. Figure 5.3</p> <ul style="list-style-type: none"> a) What is the heavy grey line at the southeast portion of the property line? b) Combining the on-street units and future site plan units into one drainage area may complicate the future site plan approval process: if feasible these should be separated. c) All linear infrastructure should be placed in publicly owned blocks, and not placed within private property. Please adjust the property lines accordingly. d) Would the architectural design allow for Block 5 rooves to be fully directly towards Street A so the flows can be captured in the SWMF system? e) Would the architectural design allow for Block 4 rooves to be fully directed to the rear yard infiltration galleries? f) Storm linear systems should be placed in the correct location within the ROW, and not immediately adjacent to the curb. g) Where is the major system spill point to the SWMF? This should be shown, with erosion protection as required. 	<ul style="list-style-type: none"> a) It represents a drainage split for flows towards the SWM Facility and flows towards Arkell Road. b) Drainage areas have been revised. c) Servicing has been revised d) Architectural characteristics of units to be confirmed. Design to be revised accordingly. e) Block 4 has been revised. f) The Storm sewer design has been replaced accordingly g) The drawings will be revised accordingly to indicate the major emergency spillway.
<p>22. Section 7: We recommend early discussions with utilities to ensure adequate space for placing their infrastructure. A Composite Utility Plan (CUP) will be required for Detail Design stage.</p>	<p>Noted.</p>
<p>23. Appendix C: Are there opportunities to improve actual flow velocities?</p>	<p>Sanitary sewer designs are restricted by minimum cover requirements, and therefore increasing pipe slopes to increase velocities is not feasible.</p>

<p>24. Appendix D: Concentration Time, Total, for CBMH7 to MH8 – should this not use the minimum t_d from the catchment, i.e. 5.4167?</p>	<p>Maximum upstream T_c is selected in typical storm sewer design.</p>
<p>25. Appendix F Drawing AG1.1:</p> <p>a) Please correct typo on street name in note/callout just west of the existing terminus of Dawes Avenue. Why is the road connection between the existing Dawes Avenue and the proposed Street A identified as “by others”? This work is required as part of this subdivision’s road construction works.</p> <p>b) Please identify the road centerline high point just west of the existing terminus of Dawes Avenue.</p> <p>c) The plan shows changes to the grades within the existing temporary cul-de-sac on Dawes Avenue. Please review the grading and drainage in this area to ensure the drainage patterns required for the existing subdivision (overland flow, etc.) are maintained, including spillway overflow, and grades within the ROW that ensure major storm flows are directed to the existing pond. Alternatively, these flows need to be accounted for in the subject site’s Stormwater management. This has still not been correctly accounted for. The high point on the extension of Dawes (including the gutter elevations) must be above the major overland flow spill point to the existing pond, or this flow must be accounted for in the new subdivision. The original design for Dawes Ave. placed the future highpoint above 338m (see P&P for Arkell Meadows Subdivision).</p> <p>d) Grading in the area of the future trail and proposed blocks is subject to change after full review of the proposed trail grading. It is our preference to not create a 3m deep valley at this location (proposed culvert entrance). Alternate grading and drainage (and, potentially, SWM) may be required here.</p> <p>e) Grades for driveways and grass surfaces should be between 2-5%.</p> <p>f) Please show slope percentages for grade raises in “future ROW” area; max cross slope within a ROW is 2%.</p> <p>g) On east side of Street A, just north of the entrance to Block 1: is this 3:1 terracing shown on the sidewalk? Sidewalk maximum slope should be 5%.</p> <p>h) The road centerline high point just north of the entrances to Blocks 1 & 2 does not work to contain the major overland flow to the SWMF; please review and revise as necessary.</p> <p>i) Please provide grading information for the access road.</p>	<p>a) Revised.</p> <p>b) Revised.</p> <p>c) Centreline road grades within the cul-de-sac at the Dawes Avenue connection will be maintained. The proposed road connection at Dawes will use vertical curvature for a proper transition from the existing cul-de-sac to the proposed road grades. The high point will shift north compared to what is shown within the Arkell Meadows Subdivision P&P Drawing H-003. The existing overland flow routes will be maintained towards the Arkell Meadows SWMF. All drainage towards the proposed SWMF is accounted for.</p> <p>d) Trail grading has been revised.</p> <p>e) Revised.</p> <p>f) Noted.</p> <p>g) Revised.</p> <p>h) The proposed grading strategy allows for the major overland flow routes from the multi-residential blocks to be directed towards the proposed SWMF. Spillover points are placed north of the high point in Street A to accommodate major flow routes as well as the required vertical curvature in the proposed right-of-way.</p> <p>i) Grading has been revised.</p>

<p>j) Grading design for western property line & interaction with existing residential land use: Please include swales at the bottom of any terracing and the top and bottom of any retaining walls sufficient to direct flows to the outlet and not onto the adjacent property. This plan needs to show grading and natural features on the adjacent property, to the extent necessary to identify and show all required mitigation such as tree protection, erosion and sediment controls, etc. Proposed grading and structures must be feasible while protecting the adjacent property.</p> <p>k) Grading design for the proposed road in the area of the Block 1 & 2 entrances and connection to Arkell Road does not seem to be consistent: some elements of the drawing do not appear to be consistent with other values used (for example, slope percentages between the HP and Arkell is not consistent with the grading information provided). Some of these details need to be clarified and updated to support SWM strategy for this site (such as determining drainage areas then ensuring capacity); other grading details can be finalized during detail design.</p> <p>l) Some additional grading details are required now to demonstrate storm water servicing: please provide enough information to show how the major system will be contained and directed to an appropriate outlet (this will include curb gutter elevations at critical points, additional grading details at locations where the major system overflows the boulevard, etc.)</p>	<p>j) Proposed grading along the western property line matches into the existing property line grades. The existing grading on the property line generally flows northerly towards the existing wetland. Flows directed towards the existing adjacent property are reduced as much as possible to only embankments within the subject lands. Flows directed towards the proposed retaining walls in Block 5 (now Block 3) consist of only pervious rear yards, and are considered negligible, not warranting an interceptor swale above the wall.</p> <p>k) Grading plans have been revised, and additional details have been provided for clarity.</p> <p>l) Grading plans have been revised, and additional details have been provided for clarity.</p>
<p>Stormwater Management Report</p>	
<p>26. Section 2.4.1: The design infiltration rate (factored) does not appear to be calculated as per the DEM requirements. We note that a factored value was not calculated in the Hydrogeological Report, so assume this was completed by the Stormwater Management Report author. Please update the calculations and include the details in the report. There are also inconsistencies in the use of a design infiltration rate throughout the report: please review and ensure appropriate value(s) are used.</p>	<p>A supplemental technical memo describing the in-situ infiltration testing performed on-site, and the determination of infiltration rates is provided in Appendix H of the revised SWM Report.</p>
<p>27. Section 4.2 discusses flows from post-development catchments 205-1 and 205-2 which are directed uncontrolled to Arkell Road, and Section 5.3 briefly discusses impacts to the existing systems. There is no indication in the report as to capacity or design for receiving these flows. The original design of these systems did not anticipate receiving flows from this site. These receiving systems outlet directly (or indirectly) to the wetland complex or to the shallow groundwater, but the submitted design does not propose any water quality control. What water quality measures are available to ensure these flows meet the Stormwater criteria? Do these receiving systems have capacity for the additional flows?</p>	<p>The receiving existing sewer infrastructure on Arkell Road has capacity for the additional flows, confirmed using as-recorded drawings provided by the City for Guelph. An OGS is provided for flows within the proposed right-of-way directed to existing infrastructure. Refer to Section 5.5 of the revised SWM Report,</p>
<p>28. Section 5.2: SWMF Design Concept does not meet the city or MOE design guidelines.</p> <p>a) Type of pond/treatment train used is not ideal based on MECP guidance – additional discussion with city staff is necessary</p>	<p>Per discussions with the City of Guelph, the SWM Design will be revised where possible to ensure that the design</p>

<p>b) Quality control not as per MECP (design flow, settling velocity and length, length/width ratio, etc.) – additional discussion with city staff is necessary to understand the design implications</p> <p>c) Inlet elevation into forebay too low (lower than extended detention level)</p> <p>d) More than one inlet to forebay – better if private blocks use subdivision major system</p>	<p>is per MECP design guidelines, and functions properly given the site-specific restrictions.</p> <p>a) Treatment train method is not ideal, but necessary in this situation where a small drainage area (~1.34ha) does not typically warrant a SWM Facility design</p> <p>b) Quality control is being met per MECP guidelines</p> <p>c) Inlet elevation to the SWM Facility is designed to allow proper functionality of the OGS system (ie no backup into OGS under 25mm event), while enabling the most possible cover above the storm sewer system</p> <p>d) the major overland flow route for Block 2 is required at an alternate location due to the grading restrictions of Street A (ie to prevent major flows entering Arkell Road)</p>
<p>29. Section 5.3 does not describe the same outlet structure as the previous sections or plans.</p>	<p>Section 5.3 will be revised accordingly.</p>
<p>30. Section 5.7 indicates future thermal mitigation design considerations. What additional land would be required to provide the temperature mitigations measures required? Both additional enhanced swales and cooling trenches (examples provided in Section 5.7) require significant space and grade to be implemented correctly. This needs to be considered now, so that the final design can be implemented.</p>	<p>Further research and analysis into the need of thermal mitigation was performed, and is described within Section 5.9 of the revised SWM Report.</p>
<p>Hydrogeological Report</p>	
<p>31. Sections 3.6, 5.5 & 7.3 (In-Situ Infiltration Rates):</p> <p>a) Is there more detail available concerning these field tests? From the basic description and limited data (data limited to location information in Figure 2 and results listed in Table 5.5), and based on the geological information included in the report, it does not appear the tests were completed as per DEM requirements.</p> <p>b) Design infiltration rates do not appear to be calculated in this report, however it should be noted that calculation must be as per the DEM, which requires use of the Credit Valley Conservation (CVC) Authority Low Impact Development Stormwater Management Planning and Design Guide 2010 Appendix C “Site Evaluation and Soil Testing Protocol for Stormwater Infiltration”.</p>	<p>A supplemental technical memo describing the in-situ infiltration testing performed on-site, and the determination of infiltration rates is provided in Appendix H of the revised SWM Report.</p>
<p>Comments for later use (drafting conditions, detail design and/or site plan application)</p>	
<p>32. Subdivision will follow Assumption Model once draft approved.</p>	<p>Noted.</p>

33. Please include 0.3m reserves within Blocks 1 & 3, and within the road block at the northern limit.	Shown on final plan.
34. [As of April 25, 2019: Confirmation of the adequacy and availability of municipal servicing is not confirmed by the City of Guelph until such time as the Plan of Subdivision is registered. Any works completed by the Developer prior to the registration of the plan is at the Developer's sole risk.] The City of Guelph has reviewed this site for water supply and distribution capacity: At this time there appears to be sufficient and adequate capacity in the City's existing water supply and distribution system to accommodate the currently proposed development. There is potential for marginal water supply pressures in proposed development under certain conditions such as peak hour demand scenario at locations with elevation greater than 346 m height above mean sea level (AMSL) and average day demand scenario at locations with elevation greater than 339 m height AMSL in the existing water system; if this scenario is expected, please contact the undersigned for more information.	Noted.
35. [As of April 25, 2019: Confirmation of the adequacy and availability of municipal servicing is not confirmed by the City of Guelph until such time as the Plan of Subdivision is registered. Any works completed by the Developer prior to the registration of the plan is at the Developer's sole risk.] The City of Guelph has reviewed this site for wastewater (sanitary) capacity: At this time there appears to be no downstream sanitary capacity issues to accommodate the currently proposed development.	Noted.
36. The consultant must review this site to ensure required basement separation from the shallow high ground water elevation, as per the DEM (2019).	Noted.
37. Please ensure the size and location of existing infiltration galleries on Arkell Road are shown on future engineering plans, and accounted for in the design. These are shown on the as-built engineering plans for this section of Arkell Road (See City of Guelph Drawing No. G-66B). The current design [as of Nov.2020] indicates additional flows to the existing infiltration gallery. Design and capacity still to be confirmed.	Noted.
38. The proposed density is supportive of nearby transit services, and commercial amenities are available within reasonable walking or cycling distances. The proposed street alignment encourages a future grid-network connection with Dawes Avenue, and aligns well with Summerfield. This is conducive to walkability and bicycling.	Noted.
39. The Urban Design Brief and other supporting documents do not acknowledge the proximity to the Active Transportation Network (ATN) which passes along Arkell just to the west before heading north toward Bathgate Drive. When complete, the ATN will permit users to travel across the city entirely off major roadways. The location of this proposed development is therefore well suited to encouraging more cycling amongst its occupants, consistent with the City's goals and objectives to increase cycling modal share. As a result, staff will want to see supporting amenities for bicycles included in the development. In the absence of private garages and driveways, the proponent will be asked during Site Plan to demonstrate how	Noted. Supporting amenities for bicycles to be discussed and confirmed through site plan process.

<p>long-term secure bicycle parking can be accommodated for those units without garages and private driveways.</p>	
<p>40. Guelph Hydro</p> <p>a) Hydro supply for this development will be supplied from Arkell Road.</p> <p>b) The hydro services for this development will be underground except for pad-mounted transformers.</p> <p>c) A minimum distance of 3.0 metres must be maintained between any dwelling units and pad-mounted transformers.</p> <p>d) A minimum distance of 1.5 metres must be maintained between any driveways/entrances and street light poles or pad-mounted transformers. Any relocations required would be done at the owner's expense.</p> <p>e) Low-profile, pad-mounted transformers may be located in boulevards provided the boulevard width is not less than 3.5 metres.</p>	<p>Noted. Details to be confirmed through site plan process.</p>
<p>41. 5m road widening along Arkell Road.</p>	<p>Noted.</p>
<p>42. A detailed noise study will be required during subdivision detail design.</p>	<p>Noted. Please add as condition for registration.</p>
<p>43. The Owner/Developer must provide City with the final documentation of the water well decommissioning.</p>	<p>Noted. Please add as condition for registration.</p>
<p>44. Source Water Protection</p> <p>The property is located in a WHPA-A and B with a vulnerability score of 10.</p> <p>The property is not located in an Issue Contributing Area.</p> <p>Please complete and return a Section 59 Policy Applicability Review form. If you require assistance in completing the form, contact the City of Guelph's Risk Management Official at: 519-822-1260 ext. 2368 or peter.rider@guelph.ca</p> <p>In accordance with Grand River Source Protection Policy CG-MC-29, please provide a Salt Management Plan. (Please submit an electronic version)</p> <p>Note: Ensure that any private water supply or monitoring wells that are no longer in use are abandoned in accordance with O. Reg. 903.</p>	<p>Noted. Section 59 Policy Applicability Review Form included with resubmission. Please add preparation of Salt Management Plan/Risk Management Plan as condition for registration (as required).</p>

<p>In accordance with Grand River Source Protection Policy CG-CW-37, the applicant will need to indicate what DNAPL (if any) or other potentially significant drinking water threats will be stored and/or handled on the property. A Risk Management Plan may need to be developed.</p>	
<p>45. Traffic and Transportation Planning</p> <p>Appropriate on-street parking plan to be provided and dimension the parallel parking spaces. As per DEM and draft zoning by-law parallel parking spaces should be 6.5m X 2.6m. Additionally, if on-street parking is proposed between the driveways, minimum of 7m clearance to be provided between driveways.</p> <p>Proposed development does not identify any appropriate control measure (pedestrian and vehicle) at the access/intersection with Arkell Road and Summerfield Drive.</p> <p>Design brief dated December 2021, noted that the loading and storage area will be detailed at the site plan approval stage. Site specific details and additional traffic geometric plans will be reviewed at site plan approval process.</p>	<p>Noted. Specific details regarding on-street parking to be determined through site plan process.</p>
<p>Urban Design (David DeGroot) – March 2022</p>	
<p><i>Comment</i></p>	<p><i>Response</i></p>
<p>Urban Design Brief Comments/Questions</p>	
<p>Please confirm number of units. The Site Definition (page 1) notes there are 66 units proposed, whereas Site Design (page 23) indicates 65 units.</p>	<p>Total of 91 units proposed – please refer to updated Draft Plan. Urban Design Brief updated to reflect unit counts.</p>
<p>Please reference the Tree Technical Manual (TTM), Aggregate Caliper Ratio, for tree replacement (page 17). The TTM should also be referenced regarding soil health, quantity and quality, spacing and off-sets to utilities along the right of way (page 17).</p>	<p>Noted. Urban Design Brief updated to reference TTM.</p>
<p>Under section Public Views and Vistas:</p> <ul style="list-style-type: none"> The terminating view as one travels north along Summerfield Drive will not be the Natural Heritage Area as described, but rather a townhouse block. If it is your intention to have a view to the NHS please adjust the Block layout. Alternatively, please revise the wording of the terminating view to include the townhouse block. 	<p>Noted. Wording to be revised.</p>
<p>Under Section Integration With The Streetscape:</p> <ul style="list-style-type: none"> The Draft Plan shows four block of street fronting townhouses, however page# 30 references five. Please clarify. References to a ‘central amenity greenspace’, which is not supported by the City’s Built Form Standards, should be revised 	<p>Total of two blocks of street fronting townhouses are proposed - please refer to updated Draft Plan. Urban Design Brief updated to reflect updated townhouse block counts along Street A.</p> <p>Central amenity greenspace has been relocated to align with City’s Built Form Standards.</p>

Please clarify the intention of wording suggesting the Common Amenity spaces are semi-public. Are you implying the general public can use these spaces similar to a public park – like a POPS?	Noted. Urban Design Brief updated to clarify wording.
Block 1	
Common Amenity spaces fronting Arkell (or any other public right of way) will be subject to a noise study. This may require high, concrete noise walls as part of the mitigation measures. Staff want to avoid this so to resolve potential concerns, please reconfigure parking layout to accommodate CA space along the rear of stacked townhouses and along north property line of development. In other words, it appears there are alternative locations along the eastern property line. Can the concept plan be revised?	Please refer to updated Draft Plan. Location of common amenity space has been redesigned.
The City's Built Form Standards for Midrise and Townhouses requires CA space not be surrounded by parking (refer to 6.3.7). Is this meant to be CA space? Please remove.	Please refer to updated Draft Plan. Common amenity space has been relocated to comply with City's Built Form Standards.
Provide a 3m setback between the parking lot and Block 3 and 4 to permit tree and shrub planting to buffer uses from each other. Please revised the parking layout concept	Please refer to updated Draft Plan. Block layouts and parking layouts have been redesigned to address this comment.
Based on the above bullets please revise parking layout and common amenity layout in the concept plan	Noted. Refer to comments above.
Block 2	
Where is the Common amenity area space required on this block? A CA space appears to be missing based on the concept plan. Please provide and adjust block size appropriately.	Intent is for Block 2 to utilize the common amenity space proposed in Block 1, which can also be accessed from Street A.