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Reply Attention:
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MEMORANDUM

TO: Allen Appleby, Director
Community Planning, North York District

Attention: Steve Forrester

FROM: Frank Clarizio, P. Eng.
Manager, Development Engineering, North York District

DATE: December 5, 2012

SUBJECT: Official Plan / Zoning Bylaw Amendment Application No:11 264854 NNY 26 OZ
Your Memorandum Dated: October 19, 2012
Applicant: Paula Bustard (On behalf of Wicksteed Developments LI)
Location: 70 Wicksteed Ave Ward: 26
Existing Equivalent Population: 39 persons
Proposed Equivalent Population: 169 persons
Increase in Equivalent Population: 130 persons

APPLICATION DESCRIPTION

The subject site is located on the east side of Laird Drive, south of Vanderhoof Avenue and north of Wicksteed Avenue. Currently, the site is predominantly vacant, save and except for existing buildings which are located along Laird Drive and Parkhurst Boulevard. The existing buildings have a total gross floor area of 1,300 m².

The applicant is proposing to construct a retail and commercial development with a total of 15,329 m² gross floor area (GFA) including existing gross floor area.

The following comments and conditions are provided based on the following submissions:

- **Functional Servicing & Stage-1 Stormwater management Report, prepared by Sernas Associates, revised dated November 2012, not stamped by Planning, received to Development Engineering on November 22, 2012**
- Conceptual Site Servicing Plan no. CSP-1, prepared by Sernas Associates, revised dated November 21 2012, not stamped by Planning.
- Draft Plan of Subdivision, dated November 14, 2012, prepared by MHBC, stamped by

planning November 16, 2012

- Functional Designs–Parkhurst Boulevard-Vaughan Street drawing no. FD-3, dated November 14 2012, prepared by Transtech, stamped by planning November 16, 2012
- Other associated drawings and reports.

Please advise me if any changes or modifications are required to the comments or conditions identified in this memorandum.

A. REVISIONS AND ADDITIONAL INFORMATION REQUIRED PRIOR TO THE ENACTMENT OF ZONING BY-LAW AMENDMENT.

The owner is required to amend and/or provide reports and/or Studies and/or Drawings to address the following comments and resubmit for the review and acceptance by the Executive Director of Technical Services prior to the enactment of Zoning By-law Amendment.

1. Transportation Services

- a) Provide a functional drawing for Vaughan Street from Vanderhoof Avenue to Wicksteed Avenue;
- b) Provide a functional drawing for Parkhurst Boulevard from Laird Drive to Wicksteed Avenue;
- c) The loading space for Building B cannot occur in the lane or be accessed from the lane (shown on concept plan A101) as the future use of the lane may change and winter maintenance of the lane cannot be relied upon. The applicant can start the road closure process to purchase the lane or find an alternate loading strategy for Building B;
- d) Building B is 2,396 m² and therefore requires 2 loading spaces under Leaside Zoning By-law 1916. Two loading spaces must be provided or the new zoning by-law must be revised. The repealed zoning by-law can be used as a guide supported with further justification;
- e) Buildings D and E each require a loading space. Revised plans must show these spaces.
- f) Align the driveway adjacent to Building F with the driveway to the south;
- g) Revise the draft plan of subdivision by splitting Block 3 along the face of the building. The interim Street A / Parkhurst Boulevard will need the extra right-of-way to achieve as close to a normal cross section as possible;
- h) Satisfy all requirements related to the October 16, 2012 Traffic Impact Study (revised) that was prepared by Transtech in support of the development proposal, as further discussed in this report.

2. Draft Plan of Subdivision, dated November 14, 2012, prepared by MHBC, stamped by planning November 16, 2012, and Functional Designs–Parkhurst Boulevard-Vaughan Street drawing no. FD-3, dated November 14, 2012, prepared by Transtech, stamped by planning November 16, 2012,

(The above plans were not part of this submission, however as Draft Plan had been submitted as part of previous submission and both of the drawings are part of separate application "Draft Plan of Subdivision Application", we included our comments in this memorandum as our comments may affect the buildings boxes).Response to the Draft plan of Subdivision application will be provided in detail under a separate memorandum to Planning.

Rendered Site Plan drawing No. A001 which has been submitted as part of Functional Servicing Report

2.1 Technical Services

- a) **The recently submitted Functional Designs–Parkhurst Boulevard-Vaughan Street drawing no. FD-3 as part Draft Plan of Subdivision application which has been submitted under separate application,** shows the following encroachments to the proposed easements and 6.1 m corner rounding :
- Drawing Fd-3 shows an encroachment from Building "F" onto the proposed easement. Please note that no encroachment is permitted within the proposed municipal easement. Please revise.
 - Buildings D and E are encroaching to 6.1 m corner rounding. Please revise.(Please note that no strata easement is allowed)
 - In addition of above comments, Rendered Site Plan drawing No. A001 that has been attached to Functional Servicing Report is inconsistent with aforementioned Functional Design Drawing in term of dimension of Building "F" and corner rounding.
 - In the meantime revised drawing No. A001 shows "Watermain Easement" at north of Building "F"; however Conceptual Servicing Plan shows Storm easement. Please clarify and eliminate the discrepancies.
 - **The submitted Functional Design drawing No. FD-3 as part of this circulation** shows non-standard road cross sections different than DIPS as follows:
 - i. Section E-E has proposed an 18.5 meter right-of-way with 9.5 meter paved area.
 - ii. Sections A-A and B-B have proposed 12.3 meter right-of-way

- iii. In addition of above comment, Section C-C and D-D shows 16.5 meter right-of-way which is not accordance with DIPS standard cross sections.

As we stated in our previous memorandum (comment A.2.1.c), non standard streets must show the utilities too, to ensure that there are enough space for existing and proposed utilities. For minimum clearance and dimension between utilities please see DIPS.

- **A stated in our previous memorandum, the easement shown on the Draft Plan of subdivision in favor of the lands at pin 10369-0244(LT) for use of parking must be released prior proceeding with re-zoning as it conflicts with proposed Building F.**

3. Functional Servicing & Stage-1 Stormwater management Report, prepared by Sernas Associates, revised dated November 2012, not stamped by Planning.

3.1 Technical Services

- a) **In response to our previous memorandum (comment#A.4.1.d)** when we asked " *it is not clear why 25% of adjoining floor has not been added to A1 as per FUS.*" Please note that the total area in the FUS calculation has been considered as 8,144m². However as per the attached Site Plan to the FSR report the area must be:

$$A=7569(\text{bldgA1})+0.25\{1520(\text{bldgC})+365(\text{Galleria})+415(\text{bldgA4})+552.4(\text{loading/receiving})\}=\mathbf{8282.1\ m^2}$$

It is very obvious that the loading /receiving area in ground floor is a closed box and must be included in the fire calculation.

- b) **In response to our previous memorandum**, (comments A.4.1.g), the consultant engineer has used FUS model for evaluation of Fire demand requirements for other buildings. However, the report does not address the Fire requirements and water demand for the existing one and two storey buildings which are part of this development and they will be connected to the proposed building "B". Please note that the boundary of the development includes these existing buildings and we understand that the building will remain, but the consultant didn't include them in the calculation, or did not provide any explanation on how the existing building is protected. The detail explanation must be provided as to the rational used for not including the existing buildings in the fire flow calculation. If the existing buildings are not connected to the proposed building, please submit the background investigations and calculation to demonstrate how the building is able to address the worst case scenario of Fire Flow plus Max day.

- c) **In response to our previous memorandum (comment# A.4.1.m, 4th bullet) regarding CCTV on storm sewer**, the consultant engineer has submitted the video inspection on existing storm sewer. Page 3 of the report, Section 2.1, has noted that *"The condition of the sewer has been found to be satisfactory"*. However the CCTV report by Eye-View submitted as part of this submission by the consultant engineer has noted some issues and indicated that *" To rectify these problems areas for future use, it is recommended that the lateral connections get sealed (by grout or manual replacement) and the calcite inside the line can be reamed (removed) from line"*. We forwarded this report to Toronto Water and asked them to include lining this storm pipe in their future plan, probably same time as they will be lining sanitary pipe on that area on 2014. Therefore, timing of development will be related to lining above pipe. Please capture the timing in your revised Functional Servicing report and project schedule. We may consider the proper conditions in subdivision agreement, site plan, or zoning in this regard.
- d) **In response to our previous memorandum regarding basement flooding area#2 (Comment#A.4.1.k)**, There are inconsistencies in the report. Page 17 has noted that *" Although our analysis shows there are no downstream capacity issues as a result of the proposed development, as a precautionary measure we have sized sanitary holding tanks for all the proposed buildings "* but Appendix E on Wet Weather Section has noted that *" From analyzing the wet weather conditions in the Millwood Rd. and Malcolm Rd. network for trunk sewers and other adjoining sewers there will be no surcharging into the Laird Dr. trunk. With the aforementioned results sanitary holding tanks on site are not required to abate flow during wet weather conditions"*. **Please note that the above statements contradict each other, please revise.** As we stated in our meeting, on October 26, 2012, and as we called to consultant engineer after the meeting due to your limited time frame please propose the sanitary holding tanks during zoning stage, and to ensure that there are enough space have been considered for them within building envelope, and they will be evaluated their definite needs during detailed design (Site Plan and Subdivision) by coordination with Toronto Water, and that direction was **ONLY TO FACILITATE THE APPROVAL PROCESS DUE TO THE APPLICANT TIME FRAME**. The reason is that the site is located within basement flooding area#2 which is very complex area in term of wet weather scenario, and there are also some combined sewers on the area. Evaluation of the sewers only based on preliminary IA values that we have provided to you may underestimate the wet flow which will cause safety issue for your site or intensify the City sewer system. Toronto Water may ask sanitary holding tank with the property or cash-in-lieu contribution to basement flooding that all will be evaluated during detailed design.
- e) **During preparation of the revised Functional Servicing Report to address our previous comments, the consultant engineer realized that the proposed Building "A" will fail under fire plus Maximum day scenario if they were to connect to Vanderhouf Ave Watermain and as we stated to the consultant engineer during our meeting on October 26, 2012.** Therefore the consultant engineer has revised the water/fire connection to

Parkhurst Blvd watermain in a **zigzag** shape within the proposed public road. Please note that despite the proposed Water/fire connections for the buildings are not as per the City standard known as "h" connection and we have noted this issue in advisory section of our previous memorandum, but at this time during re-zoning stage we disagree with zigzag connection as our definition for a service connection is a shortest distance from property line to a main. This issue must be addressed at this stage as the location of Mechanical room and building envelope may be influenced by revising the connection location. Please revise.

- f) **In response to our previous comment (comment # A.4.1.m)**, regarding the evaluation of existing utilities within the site, the consultant engineer has indicated that :*" For the sanitary sewer, an attempt was made by our forces to video this section of sewer, but was abandoned due to calcite accumulations in the pipes. The City agreed to clean the pipes from Laird Drive to an existing sanitary manhole which is located approximately 116 meters east of Laird Drive. The City has not provided that video, but has advised that the sewer is now operational but requires maintenance work, which they will undertake on the retained section of sewer. "* Please note that as per the email dated August 24, 2012 that was forwarded from Toronto Water to the applicant's consultant engineer as follows*"This pipe ID 3002270 is already in 2014 lining program. The pipe was inspected in January 2012 by Viola and was rated structural grade 1 and service grade 3 due to hard debris 15%, infiltrations, medium calcite throughout the pipe, cracks."* The lining will be accomplished on 2014. We agree that fixing the municipal pipe is the City's responsibility but the consultant engineer, as it had already been informed by email must have included all the related information in their report to ensure that the project will not be delayed as a result of the City work. The consultant only noted that the sewer is functional and needs maintenance but as per the City's email the existing sanitary sewer has some issues. The consultant engineer must consider all the information in the revised report. We may consider the proper conditions in subdivision agreement, site plan, or zoning in this regard.
- g) In response to the memorandum submitted by the applicant's solicitor, Blaney Mcmurtry Barristers & Solicitors LLP, as part of Functional Servicing Report the City Land Registration has provided the following comments:
- Regarding paragraph 1 of the memorandum, the easement reserved by Instrument No. TL30961 and affecting Part 13 on the draft R-Plan was preserved by a Notice of Claim registered as Instrument No. CA609293. According to our records there is no other easement agreement affecting Part 13;
 - Regarding paragraph 2 of the memorandum, the easement reserved by Instrument No. TL21822 and affecting Parts 8 and 9 on the draft R-Plan was preserved by a Notice of Claim registered as Instrument No. CA609293;

- Regarding paragraph 3 on the memorandum, the easements reserved by Instrument No. TL20713 and affecting Parts 2 and 3 on the draft R-Plan was preserved by a Notice of Claim registered as Instrument No. CA609293.

4. **During review of this submission we have been notified by the City Transportation** that the applicant's Traffic engineer has proposed the widening of Vanderhoof Ave in addition of Laird Dr and they have submitted preliminary plans to show the widening. The above noted plans show that the existing utilities will be affected by above widening. Please include a statement in the revised Functional Servicing Report, in addition of supportive widened road cross sections to the City for review and acceptance to demonstrate that shows that the relocation of existing utilities as a result of above widening is feasible.
5. Please ensure that the subdivision Blocks will not change as a result of our comments on Section "C" of this memorandum and the City standards.(the consultant simply can provide a statement in revised functional servicing report to confirm the above requirements)

B. OFFICIAL PLAN / ZONING BY-LAW AMENDMENT CONDITIONS

The owner is required, as conditions of approval of the Official Plan Amendment / Rezoning Application, to:

1. Transportation

1.1 The applicant shall provide parking at:

- a) A minimum ratio of 1.5 parking space per 100m² of retail floor area;
- b) A minimum ratio of 1.5 parking space per 100m² of general office floor area;
- c) A minimum ratio of 2.5 parking spaces per 100m² of grocery floor area;
- d) A minimum ratio of 4.0 parking spaces per 100m² of bank floor area;
- e) A minimum ratio of 3.0 parking spaces per 100m² of restaurant floor area.

2. Technical Services

No conditions provided at this time until the additional information mentioned in Section A is provided for the review and acceptance by the Executive Director of Technical Services.

C. ADVISORY OF OTHER CITY APPROVALS AND REQUIREMENTS

The owner is advised that the following approvals and additional conditions are required at the site plan stage. These comments are preliminary and are subject to change based on submissions for subsequent planning approval applications. They are provided for the owner's information only.

1. As stated in our previous memorandum, there is no Draft Plan of Subdivision Application at this time. Any relevant issues will be reviewed in detail upon receipt of future Draft Plan of Subdivision Application.
2. Transportation Services supports the sale of Parkhurst Boulevard subject to the road closure process and 197 Laird Drive. If the sale of Parkhurst Boulevard is not possible Transportation supports the continuation of Parkhurst Boulevard to Wicksteed Avenue or Vaughan Street.
3. Facilities to Provide Access To and From the Land
 - a. Prior to approval, submit a financial guarantee in the form of an irrevocable letter of credit or certified cheque in an amount to be determined by the City of Toronto for a potential traffic signal at Vanderhoof Avenue and Laird Drive;
4. The City is currently reviewing the location of medians along Laird Drive which may impact the site. A review of existing and future access along Laird Drive must be undertaken before a median can be approved.
5. The loading for Building C must be revised as loading vehicles must enter and exit the site in a forward direction.
6. Parkhurst Avenue on both sides of Laird Drive may have restricted turning movements subject to a review by Transportation Services.
7. In regards to the encroachment of the existing building within the Parkhurst extension. The City does not require an encroachment to the right-of-way at this location, however we may include a clause in the Subdivision Agreement requiring conveyance of necessary lands if / when the existing building is demolished and it is included in the M-Plan.
8. As stated in previous memorandum, due to possible conflicts of existing utilities and infrastructures on this area, we strongly recommend the applicant to provide field investigations such as test pits to ensure the location of existing utilities in order to avoid any future conflicts.
9. As stated in previous memorandum, the applicant is required to submit prior to Site Plan Approval; a revised landscape plan showing locations and dimensions of all existing and proposed development related underground and above ground utility services and structures including all municipal infrastructure within the City Right-of-Way.
10. As stated in previous memorandum, if the above plan shows any conflicts with existing or proposed utilities therefore relocation of the above utilities are required at owner expense. Please submit a cost estimate for relocation of above facilities to the City for review and approval.

11. Functional Servicing & Stage-1 Stormwater management Report, prepared by Sernas Associates, revised dated November 2012, not stamped by Planning.

11.1 Technical Services

- a) As stated in our previous memorandums and indicated in our meeting with the applicant, the loading study shall be submitted to the City for review and approval to ensure that there is no adverse impacts on the existing infrastructure as a result of the proposed structures and buildings.
- b) As stated in previous memorandums, Page 8, Stormwater Management Criteria, has mentioned that the site post development allowable release rate is 327.5 L/sec, but as it noted on the page 8 of the report for the pre-development scenario " *Based on data obtained from the City, and our field investigations, we have estimated that prior to the demolition of the original commercial buildings, and area of approximately 20,050 m² (Incl. roof and surface storm runoff) was draining uncontrolled to the 975 mm diameter Parkhurst Boulevard storm sewer*". Moreover, page 13, Proposed Storm Servicing, has noted that " *Post-development storm flows from the site are to be directed to the existing Parkhurst Boulevard 975 mm diameter storm sewer located within the site*". As per above information, therefore the allowable release rate must be revised based on the portion of the site which is currently draining to each sewer in pre-development scenario. Please revise or address the following comments:
- The submitted existing and revised proposed drainage pattern are not clear because it must show each areas, any **external** drainage to the site for the site as part of the revised Stormwater Management. The above patterns must show the area was draining to each storm-shed.
 - Calculate the allowable release rate for the portion of the site that is currently draining to the proposed storm sewer in pre-development situation.(the allowable release rate on the report has been calculated based on the site total area, not the portion of the site that site is draining to now). Please revise.
 - Please show the existing and proposed overland flow routes on both drawings.
 - Please note, if the subject development causes an increase in storm drainage (minor or major system) as a result of changing the drainage pattern, a comprehensive storm analysis (for minor and major systems) must be submitted as part of the Stormwater Management Report **PRIOR TO REZONING APPROVAL** to ensure that there won't be any adverse impacts on the existing and proposed properties.
 - Post Development Drainage Plan shows encroachment to the proposed sewer easement. Please revise.

- To address our previous memorandum, to address the "Flood Flow Management" criteria the consultant has included the result of VO2 model by using 12 hour SCS. Please note that:
 - i. As stated in our previous memorandum, in addition to the above (Flood Flow / Runoff Attenuation) criteria, as stated in our previous memorandum, WHERE HYDROLOGIC MODELS ARE USED TO DESIGN CONVEYANCE WORKS; a 4 hour Chicago Design Storm with 10 minute time step, and 0.333 to peak, based on Toronto IDF, (please contact City of Toronto for Design Storm distribution), shall be used to determine design flows; use of alternative design storms must be approved by Toronto Water.
 - ii. As stated in our previous memorandum, in addition of above comment, the Hydrology model input and output information must be included in the report. The report has included a table in response to our previous memorandum and summarized the parameters used in the model such as DPSI, LOSS, LG, the command which have been used, CN values, etc for further review by Toronto Water. Please address the below comments. We defer our comments on the model after :
 - It is obvious that the modeling results cannot be understood without schematic. Please submit it as stated in our previous memorandum.
 - City of Toronto IDF curve parameters have not been shown. Please demonstrate the parameters as stated in our previous memorandum.
 - CN Soil's SCS or Modified Curve Number for the pervious area has not been shown on the table.
 - LGI has been calculated incorrectly. Our understanding from VO2 model is that $A=1.5(LGI)^2$. Please revise.
 - How much IA values have been considered for pervious areas.(Please see below table on comment "f" for the acceptable range)
 - As stated in our previous memorandum, the Hydrology model input and output information must be included in the report.

- The entire site has been model, however only portion of the site which is draining to the sewer shed in pre development must be modeled to determine the allowable release rate and then entire site must be modeled for post development scenario.

Therefore, we defer our comment on allowable release rate provided by the consultant after we receive the revised model.

c) As stated in our previous memorandum, page 9, Quantity Control Section, has divided the site in post development scenario to six drainage areas. Please address below comments:

1. Block 1, Revised Drainage Area-5,793 m², and Block2 Revised Drainage Area-6,764 m², Block 3 Revised Drainage Area-8,140 m²,

- i. As stated in our previous memorandum, before applying any stormwater management approach, the existing drainage pattern including **external drainage area**, the sewer-shed area, and uncontrolled areas must be verified and shown on a plan, and then we can comment on allowable release rate, storage requirements, and etc. Therefore, we defer our comment after we receive these detail information.
- ii. As stated in our previous memorandum, as per Drainage Act any and all the external drainage must be accounted for and addressed as per the overall Stormwater Management for the entire site.
- iii. As stated in our previous memorandum, we defer our comment on the required storage after our comments noted in our previous memorandum and this memorandum is addressed.
- iv. As stated in our previous memorandum, the pre-development Runoff Coefficient factor must be evaluated and indicated for the blocks. The stormwater management must be revised accordingly based on the "C" factor.
- v. As stated in our previous memorandum, we defer our comments on the orifice discharge rate provided in page 9 until we receive more information regarding the spill-over elevation, sketch and cross section of the storage tank including the inverts.

- vi. As stated in our previous memorandum, WHERE HYDROLOGIC MODELS ARE USED TO DESIGN CONVEYANCE WORKS; a 4 hour Chicago Design Storm with 10 minute time step, and 0.333 to peak, based on Toronto IDF, (please contact City of Toronto for Design Storm distribution), shall be used to determine design flows; use of alternative design storms must be approved by Toronto Water.
- vii. The consultant engineer has used 12 hour SCS method to evaluate the post development flow for above noted blocks, please address our comment noted on above comment C.12.1.(Modeling section).
- viii. It is a City guideline not to permit service connections to City infrastructures within easements. If the intention is only to connect the portion of storm sewer within proposed public roads, the City has no objection on this approach subject to address the requirements of WWFM guidelines.
- ix. The consultant also noted that 100-year post development flow from Block 1, 2, and 3 are 31 l/s, 32 l/s, 44 l/s respectively. The above 100 year post flows are very lower than flow calculated based on Rational Method. Please note that:
 - If the above flows have been estimated by using VO2 model, please address our comments in previous comments regarding the modeling parameters before using the above values to design the site storage and conveyance facilities.
 - Please use the Rational Method too, if the value obtained in Rational Method is more conservative than the VO2 model, please use the values resulted in Rational Model.

Therefore, we defer our comments on site stormwater management facilities after we receive and review the revised VO2 model which is correctly calibrated , revised parameters, schematic, IA values, and other design storm as noted above, and Rational Method output. At this stage the stormwater management design submitted by the consultant engineer is NOT acceptable to us.

2. Vaughan Street Extension Drainage Area-1,056 m², and Parkhurst Boulevard Extension Drainage Area-2,528 m²

- i. As stated in our previous memorandum, before applying any stormwater management approach, the existing drainage pattern including **external drainage area**, the sewer-shed

area, and uncontrolled areas must be verified and shown on a plan, and then we can comment on allowable release rate, storage requirements, and etc. Therefore, we defer our comment after we receive these detail information.

- ii. As stated in our previous memorandum, as per Drainage Act any and all the external drainage must be accounted for and addressed as per the overall Stormwater Management for the entire site.
- iii. As stated in our previous memorandum, the consultant engineer has noted that " *Post-Development flows for this drainage area will sheet drain uncontrolled onto the proposed extension of Vaughan Street...*" The consultant also noted that 100-year post development flow from Vaughan Street extension is only 16.0 l/s and 33 l/s for Parkhurst Blvd Extension. The above 100 year post flows are very lower than flow calculated based on Rational Method. Please note that:
 - If the above flows have been estimated by using VO2 model, please address our comments in previous comments regarding the modeling parameters before using the above values to design the site storage and conveyance facilities.
 - Please use the Rational Method too, if the value obtained in Rational Method is more conservative than the VO2 model, please use the values resulted in Rational Model.

Therefore, we defer our comments on site stormwater management facilities after we receive and review the revised VO2 model which is correctly calibrated , revised parameters, schematic, IA values, and other design storm as noted above, and Rational Method output. At this stage the stormwater management design submitted by the consultant engineer is NOT acceptable to us.

- iv. As stated in our previous memorandum, we do not have any issue for uncontrolled flow draining to the proposed public roads **subject** to over-controlling the private blocks. If this approach is not feasible please contact City of Toronto for more detail discussion.

3. Block 4 Drainage Area-2,487 m²

- i. As stated in our previous memorandum, page 8 of the report has indicated that the post development runoff from this area will be uncontrolled to the Parkhurst Blvd and it has indicated

that the 100-year post development flow for Block 4 is approximately 14 l/s. Based on the information on the report by using rational method the 100-year runoff from this area is about 140 l/s.

- ii. As stated in our previous memorandum, please provide background information as to why the consultant engineer is not able to address quantity control on this block utilizing roof storage, or other techniques. In addition of quantity control, Please explain in detail how the quality control of runoff is being addressed.
- iii. As stated in our previous memorandum, The model info as per above comment 10.1.b must be submitted for evaluation why there is huge difference between rational method and hydrologic model
- iv. As stated in our previous memorandum, before applying any stormwater management approach, the existing drainage pattern including **external drainage area**, the sewer-shed area, and uncontrolled areas must be verified and shown on a plan, and then we can comment on allowable release rate, storage requirements, and etc. Therefore, we defer our comment after we receive these detail information.
- v. As stated in our previous memorandum, please show the existing service connections on the drawing. A CCTV from the existing services must be provided as part of the revised submission. The consultant engineer should propose utilizing the existing connections unless the existing services are substandard or not adequate. In this case the existing connections must be decommissioned at the owner's expense. Please note that if the proposed building in Block 1, which is proposed to connect to existing building in Block 1, is an addition to existing building and both buildings will be one entity under one ownership, then one set of connections (Sanitary, storm, and water) are allowed only for one building. Please provide a written confirmation in the revised submission to clarify.

4. Block 5 Drainage

- i. As stated in our previous memorandum, there is no stormwater management strategy has been proposed for this commercial block. Please revise.
- d) The thickness and the slope of the proposed Green Roof must be indicated in the report and the drawings and the runoff coefficient factor must be revised as per above. Please note that if there is any ponding has been

proposed as part of stormwater management, the confirmation from qualified person must be submitted to the City that vegetation is not damaged as a result of ponding.

- e) As stated in our previous memorandum, the following acceptable criteria for Initial Abstraction, and TSS removal must be applied to Stormwater Water Management:

Surface Type	Initial Abstraction	TSS Removal	Runoff Coefficient
Impervious roof	1mm	80%	0.90
Asphalt pavement	1mm	0%	0.90
Landscape	5mm	80%	0.25
Green Roof	7mm max for intensive roofs otherwise 5mm	80%	0.45-0.5
Permeable Pavers	5mm	80% with storage bed otherwise 50%	0.40
Concrete pavers	1mm	0%	0.9
Grassed swale	5mm	50% for a min length of 16m	0.25

When using any other numbers, all pertinent backup information is required and will be reviewed on a case by case basis.

- f) As stated in our previous memorandum, Page 11 Water balance Section, has indicated that 134 m³ of total site storage toward on-site specific water retention measures will likely be required that will be investigated further at the time of detailed design during the 'Site Plan Approval' stage of this project. Please note that if infiltration system is proposed then an **In-Situ** infiltration test by a qualified geotechnical company must be submitted to support the assumptions. Please include drawdown time calculations, and the MOE and OBC requirements for proposed infiltration system. We defer our detailed comments after we receive the detailed design of the above system including the cross section and plan of the system.
- g) In conjunction with above comment and as stated in our previous memorandum, if any re-use for irrigation or other reuse is proposed to address Water Balance, the supportive calculation per **annual** base must be submitted and must be compared to corresponding annual volume as per WWFM guideline.. For landscape irrigation consumption, the detail confirmation form landscape company must be submitted.
- h) The consultant engineer has chosen a different approach compared to previous submission regarding quality control of Storm runoff for the site. It has been indicated that on page 13 "*under the post-development conditions, the majority of the site will consist of rooftop areas and paved areas, with minimal landscape areas. As such, it is likely that specific on-site water quality control measures will be required for this development to achieve the*

City of Toronto's requirement for 80% T.S.S. removal. However, this matter will be investigated at the time of detailed design prior to the 'Site Plan Approval' stage of this project. ". We do not comment on quality control at this point, since there is no detail approach regarding above requirement of WWFM guideline provided. We defer our comments after we receive the detail approach as per WWFM guideline criteria.

- i) As stated in previous memorandum, Page 13 has indicated that post-development storm flows from the site are to be directed to the existing Parkhurst Boulevard 975 mm diameter storm sewer located within the site. Please note that the connections to the easement are not permitted unless there are no other options, subject to approval from Toronto Water. If the intention is only to connect the portion of storm sewer within proposed public roads, the City has no objection on this approach subject to address the requirements of WWFM guidelines.
- j) As stated in previous memorandum, please note that the water and fire servicing and metering shall be as per the recent City of Toronto "Water Servicing and Metering manual", 1st edition.
- k) Please note the consultant engineer has noted on page 17 of the report, Section 3.3" that " *Although our analysis shows there are no downstream capacity issues as a result of the proposed development , as precautionary measure we have sized sanitary holding tanks for all the proposed buildings.*" Please note that the City agrees that under the PRELIMINARY APPROXIMATE inflow/infiltration provided to the consultant by the City there is no issues under wet weather, however upon further reviewing the area in detail, finding the accurate pipe information which are missed from consultant spreadsheets, and by consultation with Toronto Water there might be more wet flow as a result of combined system. At this stage we agree with the proposed sanitary holding tanks, but during detail design of subdivision and site plan control the following approaches may be taken as per further discussion with Toronto Water and detailed design :
 - More accurate IA values than the ones that have already been provided to the consultant engineer by the City.
 - If under the revised IA values, the development is still safe, cash-in-lieu payment for the contribution of this development to downstream basement flooding will be evaluated. The cash-in-lieu amount will be discussed in detail based on the further detailed analysis.
- l) As stated in previous memorandum, the following statements are to be included in the Stormwater Management report:
 - There may be runoff from rain storms that exceeds the capacity of the City's storm service connections. Therefore, the owner shall be responsible to provide flood protection or a safe overland flow route for the proposed development without causing damage to the proposed and

adjacent public and private properties.

- Existing drainage patterns on adjacent properties shall not be altered and stormwater runoff from the subject development shall not be directed to drain onto adjacent properties

12. Conceptual Site Servicing Plan no. CSP-1, prepared by Sernas Associates, revised dated November 21 2012, not stamped by Planning.

12.1 Technical Services

- a) As stated in our previous memorandum, the consultant engineer has proposed future extension of sanitary sewer on Wicksteed Ave for the proposed buildings D, E, and F. Please note that:
 - Subject to future review and approval of the proposed sanitary extension on Wiksteed Ave and Vaughan St, the following comments must be addressed:
 - 1) The minimum allowable size for a sanitary sewer will be 250 mm diameter. Please revise.
 - 2) The first leg of the top end of sanitary sewer will be sized at with a minimum grade of one percent. Please revise.
- b) As stated in our previous memorandum, please include the latest City of Toronto General notes. For further information or to obtain a digital copy of the revised map, please contact Pezhman Imani, 416-395-6181
- c) As stated in our previous memorandum, the submitted servicing drawings do not show control maintenance holes for the proposed Sanitary and Storm connections. Please revise.
- d) The submitted drawings and report have proposed to remove the existing municipal watermain and sanitary sewer within the site, and have proposed 9 meter easement for existing storm sewer within the site. Please note that:
 - The submitted drawing has proposed to remove existing sanitary within the site, however no CCTV been submitted to verify that no other properties been connected to the above noted sanitary at east of Vaughan St. Please submit the CCTV.
- e) As stated in our previous memorandum, please show the approximate location of existing sanitary service for the existing building at Block 2.
- f) In addition of above comment please note that if the proposed building in Block 1, which is proposed to connected to existing building in Block 1, is an addition to existing building and both buildings will be one entity under one

ownership ,then one set of connections(Sanitary, storm, and water) are allowed for one building. Please provide a written confirmation in the revised submission to clarify.

- g) As stated in our previous memorandum, 6.1 meter corner rounding must be shown at the intersection of public streets.
- h) As stated in our previous memorandum, it seems the difference in invert elevations at storm MH#1 is more than 1.22 metres. Please show the drop structure.
- i) As stated in previous memorandum, in addition of above comment, please show the proposed 1.7 m width sidewalk at standard location of 1.0m from the property line frontage of the site on Vanderhoof Ave.
- j) As stated in previous memorandum, in addition of above comment, please show the proposed 1.7 m width sidewalk frontage of the site on Vaughan Street.(the location of the sidewalk will be based on the proposed road cross on the Vaughan St extension)
- k) As stated in previous memorandum, in addition of above comment please show the proposed 1.7 m width sidewalk at standard location of 1.0m from the property line frontage of the site on Laird Dr.
- l) In addition of above comment, as stated in previous memorandum, please show the proposed 2.0 m width sidewalk (in addition of the curb width) adjacent to the curb frontage of the site on Wicksteed Ave.
- m) As stated in previous memorandum, please include a cross section of storage tank(s) in the revised report.
- n) As stated in previous memorandum, the drawing has proposed a 150mm watermain connection for each building. Our understanding from FSR report is that the buildings have sprinkler systems and therefore as "h" connection is required as per the City standard T-1105.02-1
- o) As stated in previous memorandum, please note that proposed water service shut off valves must be located within the City's road allowance at the property line. Please note that meter chamber is required whenever building mechanical room setback is greater than 30.0m from the streetline where water service connection is located;
- p) As stated in previous memorandum, the City requires a control maintenance hole located on the property of the owner, as close to the property line as possible as per Section 681-10-A.(1) of the Toronto Municipal Code. This requirement will apply to all multi-family, commercial, industrial and institutional developments.

- q) As stated in previous memorandum, please note that for connection of storm sewer main to storm sewer main an appropriate size maintenance hole must be used. Please propose a MH to north end of storm pipe between MH1 to 975 mm storm sewer.
- r) As stated in previous memorandum, please submit cross section of all the service connections within municipal right-of-way to ensure that there is no conflicts with existing and proposed utilities and there is proper clearance as per the City of Toronto Design Criteria and MOE.
- s) As stated in previous memorandum, the consultant engineer has shown the arrows which may represent the overland flow routs on the drawing on some portion of the development. Please note that overland flow routes must be shown on entire site and also the must show the overland flow routes from external areas toward site too.
- t) The preliminary grading on the drawing may result the road longitudinal less than City acceptable limit. Please note that the minimum and maximum permitted longitudinal roadway gradients are 0.7% and 6.0% (percent) respectively.

13. Please address the comments noted in our previous memorandum dated October 30, 2012 regarding "Rendered conceptual Plan drawing no. A101, by Diamond and Schmitt Architects, revised dated March 21, 2012, stamped as received by Planning on September 24 2012"

And

"Draft Plan of Subdivision drawing no. 1, by MHBC Planning Urban Design & Landscape Architecture, dated August 27, 2012, stamped as received by Planning on September 14 2012"

14. As stated in our previous memorandum, regardless of size for all development sites, temporary erosion and sediment control for construction must be provided on-site.

All erosion and sediment control BMPs shall be designed, constructed and maintained in all development sites in accordance with the GTA CA's Erosion & Sediment Control Guidelines for Urban Construction (2006) and/or other City of Toronto requirements on a site-by-site basis. (A sediment and erosion control plan must be submitted to the City for review and acceptance)

15. As stated in our previous memorandum, the owner is required to submit a Site Grading Plan prepared by registered professional engineer qualified in municipal engineering to the Executive Director of Technical Services for review and acceptance. We defer our comments in this regard after we receive the above noted plan.

16. As stated in previous memorandum, the applicant shall submit a draft Reference Plan of Survey, in metric units and integrated with the Ontario Co-ordinate System, showing the lands to be conveyed to the City to the Executive Director of Technical Services, for review and approval.

17. Easements Conveyed to City of Toronto

17.1 As stated in previous memorandum, convey to the City, at nominal cost, the following:

- a) Municipal easement(s) for the existing sewers and watermain traversing inside the subject property.

Such easements are to be free and clear of all physical and title encumbrances, all to the satisfaction to the Executive Director of Technical Services in consultation with the City Solicitor.

Submit a draft Reference Plan of Survey, in metric units and integrated with the Ontario Co-ordinate System, showing the easement lands as separate PARTS, to the Executive Director of Technical Services, for review and approval.

17.2 Submit all environmental site assessment reports prepared in accordance with the Record of Site Condition Regulation (O. Reg. 153/04) describing the current conditions of the easement lands and the proposed remedial action plan based on the site condition standards approach, to the Executive Director, Technical Services, for peer review and concurrence.

17.3 Pay all costs associated with the City retaining a third-party peer reviewer including a 7% administrative cost to the City, and submit a certified cheque payable to the City of Toronto in the amount of \$3,000.00, as an initial deposit towards the cost of the peer review to the Executive Director; Technical Services. Submit further deposits when requested to cover all costs of retaining a third-party peer reviewer.

17.4 At the completion of the site remediation process, submit a Statement from the Qualified Person, to the Executive Director, Technical Services, for peer review and concurrence, that is based on all necessary supporting environmental documents, the easement lands meets the Site Condition Standards of the most environmentally sensitive adjacent land use.

17.5 As per recently submitted Draft Plan of Subdivision the sites includes easement for Hydro and Parking for other properties. Please contact other agencies regarding requirements for other utilities.

18. Facilities to Provide Access To and From the Land

18.1 Prior to approval, submit a financial guarantee in the form of an irrevocable letter of credit or certified cheque in an amount to be determined by the City of Toronto for a potential traffic signal at Vanderhoof Avenue and Laird Drive;

18.2 Make satisfactory arrangements with Technical Services for Work on the City's Right of Way to provide access to development. Please submit a cost estimate of relocation and construction of **sidewalks, curbs, and private driveways** frontage of the site on Wickssteed Ave, Laird Dr, Parkhurst Blvd, and Vanderhoof Ave to the City for review and acceptance as part of subdivision cost estimate.

19. SOLID WASTE & RECYCLING

- 19.1 The City does not collect trade waste, which is defined as any solid waste originating from any one or more industrial process or business, industry or commercial establishment. Therefore, the owner must arrange for private waste collection.
- 19.2 **The owner should be aware that the access route and loading platform must be designed in such a way to allow a collection vehicle to enter the site, collect the garbage and exit without the need to backup onto a public road**

20. Municipal Numbering

- 20.1 The applicant is advised to contact Mr. John House, Property Records Supervisor, Survey and Utility Mapping Services, at 416-392-8338 to obtain or verify new municipal addresses prior to submitting a building permit application. It should be noted that all addressed parcels and structures must have the correct municipal addresses posted. Please see <http://www.toronto.ca/mapping/numbers/index.htm> for details.

21. Street Naming Requirements

- 21.1 The applicant is advised to contact Mr. Kerry Ferguson, Titles and Status Supervisor, at 416-392-7757 to initiate the street naming process. The applicant will be required to follow the City of Toronto's Street Naming Policy which can be found at <http://www.toronto.ca/mapping/streetnaming/index.htm>. It should be noted that all public streets, private access roads and private walkways should be named in order to facilitate access to the units fronting these streets, roads and walkways.

22. Road Allowance Permits.

- 22.1. The applicant must obtain the necessary authorizations and permits from our Right-of-Way Management Section before excavating or encroaching into municipal road allowance. The applicant is advised to contact our Right-of-Way Management Section at (416) 394-8422 regarding site-specific permit and licensing requirements.

23. Construction Management Plans.

- 23.1 The Owner will be required to provide the City with a Construction Management Plan outlining the following:
- a) Dust/mud control on and offsite;
 - b) Location of truck loading points, trailer parking;
 - c) Location of temporary material storage areas;
 - d) Access/truck routing;
 - e) Provision of hoarding, temporary fencing & covered walkways;
 - f) Location and extent of aerial crane operations; and
 - g) Parking for construction trades;

for any work within the public right-of-way. For further information, please contact the Right-of-Way Management Section, North York District, at 416-395-6221.

24. Encroachments.

24.1. Any encroachments within Municipal Road Allowances will not be permitted unless they are explicitly approved by the Right-of-Way Management section of Transportation Services. The applicant is required to contact the section through the permit approval process to obtain the exact particulars of these requirements. For further information, please contact the Right-of-Way Management Section, North York District at (416) 395-7112.

25. Toronto Hydro Approval.

25.1. The applicant must obtain approval from Toronto Hydro Street Lighting Incorporated before removing and/or relocating any utility with attached municipal street lighting.

D. BACKGROUND

TRAFFIC IMPACT ASSESSMENT

The revised Traffic Impact Study report noted above provides additional information regarding existing traffic operations, site traffic, proposed traffic control signals at Vanderhoof Avenue and Laird Drive, future traffic operations and an as-of-right trip generation analysis. The consultant continues to conclude that site traffic can be adequately accommodated on the area road network provided that the following road improvements are implemented:

Laird Drive at Vanderhoof Avenue

- Widen Laird Drive to implement a 40 metre southbound left-turn storage lane;
- Install a new traffic control signal at the intersection;

Eglinton Avenue East

- Alter the existing pavement markings on Eglinton Avenue East, between Laird Drive and Don Avon Drive, in order to transition the westbound left-turn lane at Laird Drive into the adjacent two-way left-turn lane;

Wicksteed Avenue

- Modify the existing pavement markings on Wicksteed Avenue, between Laird Drive and Brentcliffe Road, to create dedicated left-turn lanes at the intersections west of Driveway "C" and a short centre two-way left-turn lane transitioning into a dedicated left-turn lane at the Brentcliffe Road intersection;

Laird Drive at Wicksteed Avenue/McRae Drive

- Increase the traffic signal cycle length from 70 seconds to 100 seconds and introduce a protected westbound left-turn phase for the weekday PM and Saturday peak periods; and

Wicksteed Avenue at Vaughan Street

- Install a new traffic control signal at the intersection.

Despite the above-noted conclusion from the consultant, we note that the proposed traffic control signals at Laird Drive/Vanderhoof Avenue and Wicksteed Avenue/Vaughan Street do not satisfy the technical warrants for their installation. More importantly, the proposed signals at the Laird Drive/Vanderhoof Avenue intersection may create other operational issues on the roadway given their proximity to existing signals at Laird Drive/Macrae Drive/Wicksteed Avenue (approximate separation distance of 160 metres). Finally, certain movements at some intersections within the study area are still projected to operate above capacity under future conditions. The above is not acceptable. Therefore, prior to accepting the traffic impacts of the proposal, additional analyses and documentation is required from the consultant to address the above-noted outstanding issues.

Frank Clarizio, P. Eng.
Manager, Development Engineering, North York District

PI/pi

Copy to: Director, Transportation Services, North York District

Attachment