



# Technical Memorandum

To: Mike Giampa, Project Manager – Transportation Approvals      Date: November 27, 2020

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Cc: Bria Aird (Fotenn), Paul Black (Fotenn), Kevin Mulligan (Kevlar)

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From: Andrew Harte, P.Eng      Project Number: 2019-62

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## Re: 1330 Carling Avenue and 815 Archibald Street TIA – Transportation Comment Response

The City of Ottawa provided comments on the TIA Step 4 Report for the development application for the proposed residential development at 1330 Carling Avenue and 815 Archibald Street. These comments were received on July 10, 2020. The following summarizes the comments and the response to the comments.

Comment #	Comment	Response
<b>Transportation Engineering Services</b>		
1	It is noted that the proposed building will have a 0m setback following widening of Carling Avenue to its ultimate protected right-of-way.	<i>Noted. This is what is being proposed.</i>
2	For the Carling Avenue and Archibald Street intersection description, note that the Carling Avenue median restricts westbound left turns and northbound left turns.	<i>Section 2.2.2 has been revised.</i>
3	“Figure 3” is repeated twice at the beginning of this section.	<i>The reference error has been corrected.</i>
4	In Tables 2, 15, 16, 20, 21, and 23 please show overall intersection vehicle LOS based on the overall intersection V/C, which is calculated as the weighted average of the V/Cs of the intersection's critical movement(s). A more detailed explanation is found in Section 6.1 of the MMLOS Guidelines.	<i>Noted. As expressed previously to the City, HCM has removed the weighted calculation from signalized intersection analysis. The MMLOS explanation is not detailed and provides no worked example for this unknown process. At this time, the City has not provided an approved method to complete this.</i>  <i>As a substitute, the tables have been updated with the HCM 2000 values to provide an indication of the v/c value.</i>
5	Correct the second to last sentence of this section, which reads, “The high volumes at this intersection do not”.	<i>The text has been revised.</i>

<b>Comment #</b>	<b>Comment</b>	<b>Response</b>
<b>6</b>	The near-continuous bus lanes on Carling Avenue are anticipated to be provided within the next 2-3 years and can therefore be assumed to be in place by the 2028 horizon year (if not 2023). See the following website for the functional plan of the proposed bus lane locations: <a href="https://ottawa.ca/en/parking-roads-and-travel/transportation-planning/completed-projects/carling-avenue-transit-priority-measures">https://ottawa.ca/en/parking-roads-and-travel/transportation-planning/completed-projects/carling-avenue-transit-priority-measures</a> . Bus lanes on Carling Avenue should be accounted for in the Synchro and MMLOS analysis throughout the rest of the report, including Section 7.2, Section 10, Section 14.2.2, Section 14.2.3, and Section 14.2.4.	<i>The City only confirmed the implementation of the bus lane within the study horizons with this comment. The analysis has been revised to include the dedicated bus lanes in the 2023 and 2028 horizons. Additional text has been included in Section 2.3.1 and 7.1 regarding future transportation infrastructure and its impacts.</i>
<b>7</b>	As requested during the Forecasting submission, the spillover parking element (4.2.2) must be included/addressed given that the site does not provide the minimum number of parking spaces as required by the by-law.	<i>Section 9.2 has been provided to address this module of the TIA guidelines.</i>
<b>8</b>	Table 9 incorrectly labels the first row as “Mid-rise Apartments”. The land use code (222) and vehicle trip rate correctly corresponds with “High-rise Apartments”.	<i>The table has been updated to name high-rise apartments.</i>
<b>9</b>	Suggest that Table 13 could be expanded to provide additional information. Major access routes to/from the development (Highway 417 via Carling Avenue, Kirkwood Avenue north, Kirkwood Avenue south, etc.) could be listed as additional columns in the table, then the % of traffic to/from the development that is assigned to each these major access routes could then be identified within the cardinal direction rows. This would make it easier to understand the trip assignment in Figure 10.	<i>Table 13 has been updated to include further details.</i>
<b>10</b>	Note that a minimum sidewalk width of 1.8m is required per Section 3.3.2 of the City of Ottawa Accessibility Design Standards.	<i>The site plan has been revised to include the minimum sidewalk widths.</i>
<b>11</b>	It is not recommended that any vertical circulation elements (ramps or stairs) that are required for the accessibility of building entrances be located within Carling Avenue’s protected right-of-way, as is shown in the site plan. These ramps and stairs may have to be removed once Carling Avenue is widened to its full protected width.	<i>Noted. Further details may be available in the site plan package and comment responses.</i>
<b>12</b>	Suggest the approximately 7m-long section of planting bed adjacent to the corner site triangle (west corner of the building) between the retail entrance and the Archibald Street sidewalk is removed and replaced with unit pavers.	<i>Noted. Further details may be available in the site plan package and comment responses.</i>
<b>13</b>	Recommend providing a small amount of bicycle parking at-grade in a convenient location nearby site entrances/exits, for visitors of the commercial/residential land uses.	<i>Noted. Further details may be available in the site plan package and comment responses.</i>

Comment #	Comment	Response
14	Provide turning templates to ensure garbage trucks (HSUs) can access the garbage collection area (assumed to be the loading zone shown in the site plan).	<i>Turning templates have been provided to illustrate the operations should garbage collection occur within the drive aisle. Regardless of the aisle or road side pick up, and operations along Archibald Street will require a multi-point turn to turn around and exit back to Carling Avenue.</i>
15	Please include access design parameters such as access width, clear throat, access grade, etc.	<i>Noted. Further details may be available in the site plan package and comment responses.</i>
16	The proposed access is within 3m of the adjacent property line (819 Archibald Street) and therefore requires an exemption from Section 25 1.p of the Private Approach By law.	<i>Noted. Further details may be available in the site plan package and comment responses.</i>
17	As noted previously, near-continuous transit lanes per the Carling Avenue Transit Priority Measures project are anticipated within the next 2-3 years and can therefore be assumed to be in place by 2028, if not 2023.	<i>See comment response #6.</i>
18	Clarify how the on-site bikeshare station is proposed given that Ottawa does not currently have a bikeshare provider	<i>“Bike” can be replaced with scooter or other share services. If it is not feasible, then it cannot be implemented. The TDM suggestions are based off the City’s checklist of options and are outside of the Transportation Consultant to implement.</i>
<b>Traffic Signals Operations</b>		
1	Pedestrian Volumes in all synchro files have not been corrected since previous submission. As previously noted, FB 2023 AM & PM / FB 2028 AM & PM Files depict existing pedestrian volumes at signalized intersections. Based on projected trip volumes, there would be additional pedestrians walking / using Transit, these volumes should be shown in the Synchro analysis as additional pedestrians / actuations as this could potentially increase intersection delay at the respective intersections. Notably: pedestrians crossing from the site to north side of Carling Avenue to access westbound transit.	<i>In our experience, pedestrian sensitivity has resulted in minimal operational changes to study area intersections. A sensitivity analysis for this project was included in Section 14.2.3.2 and found that even a conservative scenario concentrating the impacts of increase in pedestrian traffic do not pose significant capacity issues in proximity to the site.</i>

Comment #	Comment	Response
2	Has the study area been analyzed considering the future Carling Avenue lane arrangement (transit lanes)? Projected volumes should be analyzed using the future lane arrangement with the implementation of transit lanes (reduction in vehicle lanes), as potential queuing on Carling Avenue may ultimately impact the proposed site and lead to site vehicles looking to use neighborhood streets to travel southbound on Merivale Road (via Thames) or westbound on Carling (via Thames, Coldrey, Merivale and Kirkwood).	<i>See comment response #6.</i>
3	Carling Avenue & West Gate Access (East) – left turn / U-turn traffic volumes shown in the report would reach capacity in 2023 / 2028. With implementation of the future Carling Avenue Transit Lanes, the potential spill back of left turn vehicles could pose concerns to eastbound through movements as there may be a reduction in available gaps in westbound traffic. As such, a protected eastbound left turn may become necessary, but based on the protected left turn analysis provided, the queue lengths could exceed capacity. It would be recommended to look at extending capacity of the eastbound left turn lane, if it is a feasible option.	<i>This comment has been analyzed in previous TIAs in the area, most recently in the TIA for 1354 Carling Avenue. This information has again been provided in Section 14.2.3.1 and found support of the 1354 Carling Avenue TIA’s recommendation, a protected/permitted left turn may be more appropriate for this movement.</i>
4	Detection Settings in Synchro files are incorrect: i.e. Carling Avenue and West Gate Access (East) - EBLT Loop is located 14m behind Stopbar and is 1.8m x 7.6min size. WBLT Loop is located 7m behind Stopbar and is 1.8m x 7.6m in size.	<i>The synchro detection settings have been updated as per this comment.</i>
<b>Traffic Signal Design</b>		
1	There is existing underground traffic plant/interconnect in the area of proposed construction (northside of site, under the sidewalk, within the ROW). Underground traffic plant must be maintained and protected during construction.	<i>Noted</i>
2	Before excavating please call O1CALL (1-800-400-2255) for underground locates.	
3	The proponent of the project and its contractor is responsible for all the costs associated with reinstatement of the damages to existing underground traffic infrastructure. (i.e. collapse of ducts due to excessive vibration/compactions).	
4	The proponent of the project and its contractor are liable for all potential outages and fully responsible for reinstatement of all damages to existing underground traffic infrastructure including all the costs associated with it.	