

Township of Puslinch	C.F. Crozier & Associates Inc. Comment Responses
Traffic	
- The TIS continues to say that the proposed road connection to Arkell Road is for emergency purposes, but the site concept plan that was included with the application appears to include a fully open public road connection. As Arkell Road is a Wellington County Road, I will defer to the County to comment on the proposed road connection. The addition of a second road connection for the subdivision would result in more routing options for traffic and less traffic at the Watson Road South connection near the railway and reduced impacts on any one traffic movement at the Watson/Arkell intersection.	Noted. The Addendum TIS has assessed the impact of the proposed development on the boundary road network under the assumption that the site will be served by two access connections, one to Watson Road South and the other to Arkell Road.
- The study maintains analysis for 50 units when 44 are now proposed. A reduction in the number of units would result in fewer trips on the road network so the current analysis is conservative.	Noted. The addendum TIS maintains the trip generation based on an older site plan which had 50 residential properties. It's noted that this was conservatively maintained as no material change in transportation operations or recommendations is expected.
- The TIS indicates that the sight distance assessment was based on a review of base mapping and aerial mapping. The aerial mapping in the TIS illustrates the available sight distance in plan view, but does not confirm that there are no vertical curves in the road. Were vertical road plans reviewed to confirm the sight distance or did the consultant do a field visit to confirm? How was the available sight distance confirmed?	Noted. A field visit was conducted to confirm the adequacy of the available sightlines. The field visit confirmed the following: There were no visual obstructions along Arkell Road, with sight distances exceeding 190 meters to the right and 165 meters to the left. Given the design speed of 90 km/h, the minimum required sight distances are 165 meters for right turns and 190 meters for left turns. Since the available sight distances surpass these requirements in both directions, all safety standards are met and no concerns regarding site access are expected.

	On Watson Road South, the available sight distance was 190 m looking south and over 150 m looking north. With a design speed of 60 km/h, the required minimum sight distances are 110 m for right turns and 130 m for left turns. Since available sight distances are 150 m (right) and 190 m (left), all minimum requirements are met and no safety concerns are anticipated at the proposed site access.
- Guelph Junction Railway provided comments indicating that additional signals may be required for the new driveway entrance. The consultant team has indicated that traffic signals will not be required at the new road connection to Watson Road, but it's possible that GJR was referring to railway signals or other technical requirements at the rail/road crossing. I would like to receive a copy of any further comments provided by GJR when and if they become available to understand if they are in agreement with the new road location.	Noted. The rail crossing currently consists of a warning system without gates, therefore, we have analyzed the rail crossing to determine whether an upgrade (to a warning system with gates) is warranted under the 2031 future total scenario. Information pertaining to the relevant rail crossing was obtained from GJR. The conditions outlined in Section 9.2 of Transport Canada's Grade Crossing Standards (January 2019) are not met. Therefore, no upgrades to the existing rail crossing are warranted. Refer to Appendix A of the Addendum TIS for email correspondence with GJR, relevant Grade Crossing Standards excerpts, and warrant analysis.
- The changes in the plan to include a new road connection and fewer units would impact how much traffic access the road network and how. Additionally, my previous comment about the routing of traffic applies to this study since the analysis is the same. It is still my opinion that updating the analysis to reflect an additional road connection, fewer units, and a modified assignment of traffic would not materially change the capacity analyses and would not change the recommendations in the report. The two study area intersections are forecast to operate at good levels of service and the traffic volumes generated by the proposal are low.	Noted.

-The County and their consultant may have additional comments based on their review of the proposed road connection to Arkell Road and the Watson/Arkell intersection.	Noted.
In response to the Township's request, I offer the following feedback: 1. The Zoning By-law Amendment application can be deemed complete from a transportation perspective and I am in support of the application. 2. Conditions of approval should include: a. confirmation of how the sight distance was measured on Watson Road South, and b. confirmation from Guelph Junction Railway that they will support the location of the new road connection to Watson Road South adjacent to the at-grade railway crossing. 3. n/a 4. Technical requirements are described in point 2 above. 5. No additional requirements beyond those identified in point 2 above.	1. Noted. 2. - a: A field visit was conducted to confirm the adequacy of the available sightlines. The field visit confirmed the following: • There were no visual obstructions along Arkell Road, with sight distances exceeding 190 meters to the right and 165 meters to the left. Given the design speed of 90 km/h, the minimum required sight distances are 165 meters for right turns and 190 meters for left turns. Since the available sight distances surpass these requirements in both directions, all safety standards are met and no concerns regarding site access are expected. • On Watson Road South, the available sight distance was 190 m looking south and over 150 m looking north. With a design speed of 60 km/h, the required minimum sight distances are 110 m for right turns and 130 m for left turns. Since available sight distances are 150 m (right) and 190 m (left), all minimum requirements are met and no safety concerns are anticipated at the proposed site access. - b: The rail crossing currently consists of a warning system without gates, therefore, we have analyzed the rail crossing to determine whether an upgrade (to a warning system with gates) is warranted under the 2031 future total scenario. Information pertaining to the relevant rail crossing was obtained from GJR. The conditions outlined in Section 9.2 of Transport Canada's Grade Crossing Standards (January 2019) are not met. Therefore, no upgrades to the existing rail crossing are warranted. Refer to Appendix A of the Addendum

	TIS for email correspondence with GJR, relevant Grade Crossing Standards excerpts, and warrant analysis. 3. Noted. 4. Noted. 5. Noted.
Guelph Junction Railway (GJR)	
-Possibility of additional signals required for new driveway entrance to the development.	Noted. Given the traffic volumes generated by the proposed development are low and as detailed in Section 6.1 of the Addendum Traffic Impact Study, the proposed Access Connection at Watson Road South is forecast to operate below capacity at a LOS "A" and LOS "B" during the a.m. and p.m. peak hours respectively. Accordingly, signals are not warranted at this intersection and therefore not recommended.