Attachment 5
to PDS-033-24

Summary of Technical Background Reports

Report	Key Findings and Next Steps
Phase 1 Technical Report	The Phase 1 Technical Report (April 16, 2019) was prepared by SvN as part of Phase 1 of the project. The report provides an analysis of background conditions, including review of existing conditions, policy and zoning evaluation, analysis of public realm and transportation, municipal servicing, sustainable development and affordable housing. Public engagement feedback gathered from Phase 1 of the project was summarized into a series of key messages. The outcomes of this review, including public engagement feedback, informed the issues and opportunities, identification of key project areas, and creation of a redevelopment concept for the Bowmanville East Urban Centre area in Phase 2.
Existing Conditions Reports (Available on request)	Separate existing conditions reports were prepared by AECOM for the Bowmanville East Urban Centre (February 25, 2019) and the Goodyear Lands (September 16, 2020). The report provides an analysis of existing servicing infrastructure for the Bowmanville East Urban Centre and the Goodyear Lands. A summary of the findings is below; **Bowmanville East Urban Centre** The study area is currently serviced by a mature sanitary sewage collection system consisting of local sewers being less than 375mm in diameter and trunk sanitary sewers being equal to or greater than 375mm in diameter. Investigations of the capacity of the existing sanitary sewer within identified Drainage Areas found that sanitary pipes at the downstream end of the service area have existing excess capacity.

	The study area is currently serviced by a network of local watermains, generally 300mm in diameter and less, and 400mm diameter feedermains located along King Street, Scugog St north of King St, Division Street from the water tower south to Queen St and extending further south through the Goodyear Lands. **Goodyear Lands** The project team has no formal records of how the Goodyear Lands are currently serviced. Based on a review of the Regional Sanitary Sewage Collection System plans, it is assumed that site is currently serviced by the existing 300mm sanitary sewer located on Queen Street. The Queen Street sanitary outlets to the Region's trunk sanitary sewer system located on Ontario Street. The Goodyear Lands are located in close proximity to the Region's trunk sanitary sewage collection system located on Ontario Street and along the west side of the Bowmanville Creek. The servicing options for the development of the Goodyear Lands are either to provide a sanitary sewage pumping station and connect to the existing sanitary sewer on Ontario Street, or to connect to the existing trunk sanitary sewer along the west side of the Bowmanville Creek by means of a trenchless water crossing of the creek. The former Goodyear lands has an existing 400mm feedermain located along the north and east boundary of the site. Linear infrastructure upgrade needs to facilitate the delivery of an adequate water supply to future development on the site will be minimal. Consultation with the Region will be completed to understand any constraints related to storage and treatment

	needs and the timing of any such improvements to the Region's water supply system. The project team has no formal records of the existing private storm sewers that may service the existing lands. Regardless, the existing system, if one exists, would likely be deemed insufficient to service the re-development of the lands. The re-development of the former Goodyear lands will provide an opportunity to provide a new storm sewer system and any necessary quantity / quality control measures as prescribed by the Central Lake Ontario Conservation Authority (CLOCA).
Phase 2 Technical Report	The Phase 2 Technical Report (April 21, 2023) was prepared by SvN as part of Phase 2 of the project. The report provides an overview of work completed in Phase 2 of the project, including the redevelopment concept for the Bowmanville East Urban Centre, results of public engagement activities, summary of technical reports, preliminary policy directions and next steps. The preliminary policy directions emerged based on outputs from Phase 1 and Phase 2 work, including the establishment of five character areas, streamlined land uses, height and built form that allows the tallest buildings within the East Business District and Goodyear Lands, and improvement to the public realm and active transportation network.
Goodyear Lands Transportation Impact Study	The Goodyear Lands Transportation Impact Study (November 2023) was prepared by AECOM as part of Phase 2 of the project. The report assesses the existing traffic conditions in the vicinity of the Goodyear Lands, forecasts future traffic volumes associated with the new land use, assess the future operations at intersections in the vicinity of the subject lands, and identify

	operational concerns, safety concerns and any required mitigation measures where appropriate. The TIS conducted traffic operations analysis for both existing and future conditions. Due to the existing built form and its limited space for significant intersection improvements, no network modifications beyond those already planned and discussed were implemented into the modeling. The analysis showed generally worsened operations throughout the network as a result of the significant increase in population and employment in the Secondary Plan Area. Due to the significant growth anticipated, several of the key signalized intersections along the King Street and Liberty Street corridors will begin to see at-capacity conditions, characteristic and consistent with a dense and mature urban environment. This is generally anticipated to lead to increased use of the area local road network, as vehicles are encouraged to shift to more direct minor streets to avoid the capacity issues. The TIS concludes that despite some of the operational and capacity concerns identified in the assessment, the development of the Bowmanville East Secondary Plan area reflects a more sustainable development program and provides an opportunity to encourage a new lifestyle for residents and workers with the implementation of major transit improvements (i.e., DRT PULSE service, Bowmanville GO Station, etc.) and an expansion of the active transportation network. In general, the build-out of the Goodyear Lands does not significantly affect the road network operations compared to those in the Future Background Conditions resulting from the anticipated build out of the Secondary Plan study area.

	The TIS recommends additional transportation review and study as development comes to fruition, including additional transportation and traffic impact studies as part of the development approvals for process for submitted Draft Plans for Subdivision and Site Plans. In addition, future coordination with Durham Region Transit is encouraged in order to monitor future service demand needs, plan for transit routes along arterial and collector roads, and ensure that sufficient space is protected for transit stops as part of the road right-of-way.
Goodyear Lands Functional Servicing Report	The Goodyear Lands Functional Servicing Report (December 6, 2023) was prepared by AECOM as part of Phase 2 of the project. The report provides guidance on the provision of water, wastewater and stormwater infrastructure required to service the Goodyear Lands. The functional servicing analysis was undertaken on the basis of the Demonstration Concept Plan developed by SvN. Regarding water servicing, the analysis found that there were no general concerns with providing a sufficient supply of water to the Goodyear Lands, given the site has a 400mm feedermain located on it. Pending the ultimate location of the proposed building footprints, there may be a need to assess during the development approvals stage whether relocation and/or other protective measures would be required. Regarding wastewater servicing, the analysis found that the Region do not have any sanitary capacity design sheets that they have confidence in for assessing capacity of the existing collection system. The Region's expectation is that a new sanitary sewer along Hunt Street, south of the Goodyear Lands,

	is required to service the Goodyear Lands and other development that may contribute to the sanitary sewer along Hunt Street. The report recommends that there be a detailed assessment of capacity of the Hunt Street sanitary sewer undertaken during the development approvals process to determine if external improvements are required to service the Goodyear Lands. The Region pf Durham has advised they are preparing a sanitary model for this area and as such the tools will be available in the future to complete an assessment with confidence. Regarding stormwater servicing, the analysis identifies the need for a new stormwater management facility to manage the runoff from the Goodyear Lands. This is recommended to be located at the south west portion of the site and the area is anticipated to be between 0.6 to 1.2 hectares. Modifications to the existing Municipal storm sewer would be required to implement this concept plan, including a potential new facility to treat existing runoff. It is recommended that the Municipality of Clarington and the landowner prepare a Master Drainage Report to determine the preferred solution for the management of runoff from the Goodyear Lands and the broader area currently serviced by the existing stormwater sewer system.