

**Subject Title:** Markham Innovation Exchange and the Highway 404 and 19th Avenue Interchange

### **Purpose**

The following provides an overview of the Markham Innovation Exchange and the need for the Highway 404 and 19th Avenue Interchange.

### **Markham's Economic Overview**

Markham is Canada's most diverse city and is home to Canada's second-largest technology cluster with the highest concentration of ICT employers per capita in Canada. Over 1,500 technology and life sciences companies are based in Markham, employing over 35,400 people – over one-fifth of the city's total workforce of 179,610.

Of the 10,840 companies in Markham, more than 240 foreign companies are located here, employing more than 32,000 people. Leading innovators include: IBM, Aviva Insurance, AMD, GM Canadian Technical Centre, GE Grid IQ Innovation Centre, Honeywell, Lenovo, Johnson & Johnson, Toshiba, Honda, Qualcomm and Hyundai.

One of the strengths of the Markham technology community is the presence of semiconductor companies – Markham is home to Canada's largest concentration of semiconductor research and development, with companies such as AMD, Vexos, ITL Circuits, SMTC, Microart Services, Qualcomm, The Six Semiconductor, and, most recently, Astera Labs, all having a presence in the city.

Markham is also home to ventureLAB, which is Canada's only semiconductor and hardware focused incubator. ventureLAB's Hardware Catalyst Initiative enables tech companies to create transformational technologies that form the core of AI, quantum computing, virtual reality, and beyond, powering the future of advanced medical devices, connected transportation and next-generation communications in Canada and around the world.

### **Markham Innovation Exchange (MiX)**

The Markham Innovation Exchange is the last large undeveloped employment area in the Greater Toronto Area (GTA). It represents a large mega site for manufacturing that can be leveraged by the Province to attract international investment to the heart of Canada's innovation community.

Representing just over 1,920 acres of land, the goal of the City is to develop these lands as a place where technology, manufacturing and innovation collide, providing a location to manufacture next generation hardware technologies for the automotive, medical and clean technology sectors.

Within the MiX, the City owns 420 of the available 1,920 acres of land. The City is currently working with the other property owners to develop the planning framework and to service the area. To help expedite the servicing of this unique mega site, the Provincial and Federal governments are encouraged to work with the City on advancing servicing with funding support in the form of grants and loans that could be repaid via future development charges.

The high level cost estimate for servicing the MiX area ranges from \$610M to \$710M.

### ***Semiconductor Industrial Policy***

Given the global shifts in technology supply chains and a large focus on re-shoring semiconductor design and production to North America, the Provincial and Federal governments should be pursuing an industrial policy focused on growing the semiconductor sector in Canada and Ontario, similar to their current focus on electric vehicles.

For every job created in the semiconductor sector, another 5.4 more jobs are created along the supply chain, making it one of the best economic multiplier investments. While the United States is focused on attracting manufacturing of semiconductor chips and is investing billions to do so, the sector will also need testing and packaging support, as well as smaller niche chip manufacturing to support sectors like automotive. These are all areas that Ontario could excel at and create high-value jobs.

Given the concentration of semiconductor companies and research in Markham, it can play an important role in helping shape this policy and implementing, as well as leveraging the MiX lands for future semiconductor manufacturing and supply chain support.

### ***Highway 404 and 19<sup>th</sup> Avenue Interchange***

An important part of unlocking the MiX for next generation manufacturing is advancing the construction of the Highway 404 and 19<sup>th</sup> Avenue Interchange. The Interchange is recommended as a part of the 2051 Road Network in the 2022 York Region Transportation Master Plan (TMP) to support future growth.

The City of Markham has prepared design concepts that were reviewed by York Region and the Ministry of Transportation. The Ministry requires proponents to prepare and submit a Needs and Justification Report for review and approval. Although the Interchange is identified in the Regional TMP, there is no timeline commitment to realize the project.

Advancing the design and construction of this Interchange would help advance bringing the MiX on as a mega site for the Province to promote internationally. It is estimated the cost of the Interchange would be \$45M to \$50M.