

TRUE NORTH STRONG AND FREE.

Oshawa Blueprint for an integrated
National Defence Innovation Corridor



**General Motors Canada
Oshawa, Ontario - 1942**

"Otter" light reconnaissance cars and Canadian Pattern Military Trucks. Oshawa built 1,781 of the Otters used by the British in North Africa and Europe.



Protecting Canada's Sovereignty National Defence Innovation Corridor



The City of Oshawa has developed a collaborative, multi-faceted solution to strengthening and protecting Canada's sovereignty by establishing an integrated corridor for defence manufacturing, multimodal distribution, R&D, training and border defence. This represents an unprecedented opportunity Canada hasn't seen since the Second World War which would accelerate the development of sectors affected by the current global trade environment. The City of Oshawa is uniquely positioned with the talent, assets, resources and capacity to lead Canada's response.



Oshawa: A City Steeped in Canadian Military History

During World War II, Oshawa played a crucial role in the Canadian war effort by converting from civilian production to military vehicle and component manufacturing. The Oshawa GM Assembly Plant produced a variety of military vehicles and parts, including trucks, staff cars, ambulances, gun carriages, and armoured cars. Oshawa also produced fuselages for the De Havilland Mosquito bomber.

The City of Oshawa is the home of Camp X, the unofficial name of a Second World War British paramilitary installation for training covert agents in the methods required for success in clandestine operations. The facility was jointly operated by the Canadian military, with help from Foreign Affairs and the RCMP with close ties to MI6.

Robert Samuel "Colonel Sam" McLaughlin, founder of General Motors of Canada, served as the longest-serving Honorary Colonel of The Ontario Regiment (RCAC) from 1931 to 1967, and prior to that as an Honorary Lieutenant-Colonel. He was known for his contributions to the Regiment, including financial support and personal involvement, earning him the nickname "Colonel Sam".

Through the Ontario Regiment Royal Canadian Armoured Corps (RCAC) Tank Museum, Oshawa boasts the largest operational collection of military vehicles in North America.

A City Uniquely Positioned for Defence Innovation

Oshawa is a city that offers much more than manufacturing labour and capacity. The city has quickly established itself as a flourishing hub of research and innovation.

Oshawa continues to play a leading role in Canada's launch of Project Arrow, the first, original, full-build, zero-emission concept vehicle. An all-Canadian effort, it was designed, engineered and built through the joint efforts of Canada's world-class automotive supply sector. Ontario Tech University in Oshawa is the lead academic institution, with engineering specifications and aerodynamic testing taking place at the ACE Climatic Aerodynamic Facility. ACE is an approved test centre of the North Atlantic Treaty Organization's (NATO) Defence Innovation Accelerator for the North Atlantic (DIANA).

The City of Oshawa has been ranked by CBRE as one of the top five markets for tech talent growth in Canada. Local educational and research assets such as the Durham College MRC Studio, AI/Hub and Centre for Cybersecurity Innovation continue to build pipelines of talent in emerging sectors.

With 35,000 post-secondary students, faculty and 10 Canada Research Chairs across three universities and a college, Oshawa has the talent and research assets to lead Canada's next generation of national defence.

Protecting Canada's Sovereignty National Defence Innovation Corridor



A Manufacturing Superpower

GM Canada's Oshawa Assembly Plant, renowned for quality and employing thousands of highly skilled workers, is ready to support our country with immediate manufacturing capacity.

GM Defense delivers integrated vehicles, power and propulsion, and mobility and autonomy solutions to global defence, security and government markets. The exceptional reliability of GM Defense's technologies results from decades of proven performance and billions of dollars spent in independent research and development by its parent, General Motors, a world leader in global design, engineering and manufacturing capabilities.

GM Defense has a seamless partnership with GM Canada that will enable the delivery of highly customized solutions to meet the unique requirements of Canadian defence and government customers. They are positioned to have the agility to meet Canadian defence requirements with potential made-in-Canada solutions.

GM Defense Canada was awarded a C\$35.8 million contract in 2024 by the Canadian Armed Forces (CAF) for 90 light tactical vehicles (LTVs), with an option to procure up to an additional 18 LTVs. GM Defense Canada also delivered training, technical manuals and additional vehicle content sourced from Canadian companies.

As part of the contract, GM Defense Canada provided both nine-passenger LTVs and a new utility variant of the LTVs that leverage the design of a proven fielded solution. GM Defense Canada's LTVs are supporting the NATO Enhanced Forward Presence Multinational Battlegroup in Latvia. The vehicles are enabling soldiers to move with increased speed, range and safety across complex terrain.



Protecting Canada's Sovereignty Cybersecurity



A Cybersecurity Centre of Excellence

Advancements in technology continue to evolve at an unprecedented pace. As more Canadians live and work online and as businesses and industry move to digital services, cyber threats continue to increase. This is creating real impacts for Canadians and is becoming a leading threat to Canada's national security and economy.

Canada's new National Cyber Security Strategy articulates the Government of Canada's long-term plan to partner with provinces, territories, Indigenous communities, industry, and academia to secure Canada's digital future. The City of Oshawa is uniquely positioned to play a leading role in securing Canada from the future of cyberthreats with an ecosystem of assets, talent and dedicated infrastructure.

Dark Fibre Network - Oshawa Power

Oshawa has installed an extensive network of high-capacity fibre optic cables and can provide a network solution that has significantly greater bandwidth than traditional copper cables. Dedicated fibre optic strands enable companies to scale their network on demand increasing control and flexibility in a highly secure and cost-effective manner. Oshawa can tailor a solutions, from point-to-point circuits between buildings or a fully redundant wide area network providing the ultimate in network security and survivability.

Institute for Cybersecurity Resilient Systems

The Institute for Cybersecurity and Resilient Systems at Ontario Tech University is a multi-disciplinary, global centre for cybersecurity research, innovation, teaching, and outreach. They explore and solve critical questions with research that has technological, financial, legal, ethical and social implications to privacy, security and trust. The institute collaborates with research experts and skilled student talent to advance innovation in cybersecurity.

Durham College (DC) Centre for Cybersecurity Innovation

The Centre for Cybersecurity Innovation offers current and aspiring cybersecurity professionals, as well as public and private-sector organizations, access to applied research services and leading-edge education in cybersecurity to prepare for the ever-changing and complex threat landscape.

Hacker Research Laboratory

This cloud-based, networked and isolated lab houses various networking devices such as servers, firewalls, intrusion prevention/detection systems, and routers. Students use the lab to gain a good understanding of many security concepts, including data centre security, information technology (IT) forensics, malware analysis, penetration testing and secure communication. In this facility, students gain hands-on training in IT security from two perspectives: an IT security officer and a criminally motivated hacker.

Advanced Networking Technology and Security (ANTS) Research Lab

ANTS Research Lab conducts cutting-edge research in the area of IT networking and security. Some of their current focus areas include Security and Privacy issues in Smart City Infrastructure, Data dissemination in wireless sensor networks, Applications of Artificial Intelligence (AI) in Information Security and Network Management, Cloud and Fog computing networks, software-defined networking, Network Quality of Service and Reliability, Biometric Authentication and Vehicular ad-hoc networks. ANTS research projects are funded by NSERC, MITACS, OCE as well as private industry partners.



Protecting Canada's Sovereignty National Defence Innovation Corridor



Innovation Assets

ACE Climatic Wind Tunnel - Ontario Tech University

- ACE is a world-class research and development facility with experienced engineers and technicians to deliver solutions to any product development or testing problem. ACE can re-create any weather conditions a test object will experience anywhere in the world, from the blistering heat in Death Valley to the frigid conditions in the Arctic. They can test vehicles operating under full load with crosswinds and wind speeds up to 280 km/h. ACE is designated as an approved test centre the North Atlantic Treaty Organization's (NATO) Defence Innovation Accelerator for the North Atlantic (DIANA).

CTC McLaughlin Advanced Technology Track

- Situated on 55-acres just south of GM's Oshawa Operations, the track allows CTC engineers and software developers to put their "code to the road" in Oshawa. Named after GM Canada's founder and visionary, Colonel Sam McLaughlin, the track supports the development and integration of software and hardware for advanced vehicle systems and further positions Durham Region on the cutting-edge of automotive technology development in Ontario.

AI/Hub - Durham College

- The AI Hub is a technology studio and applied research centre at Durham College. The AI Hub's mandate is to help Canadian companies harness the full potential of artificial intelligence. As a nexus for academic, industry and government partnerships, the AI Hub helps companies navigate the range of issues and opportunities present in today's rapidly evolving artificial intelligence and big data landscape.

GM Canadian Technical Centre

- Cutting-edge research and development, innovation, and engineering are taking place at GM's Elevation Centre in Oshawa. Using state-of-the-art test labs equipped with the latest technology, connectivity and tools, GM CTC engineers and software developers are transforming the future of mobility, right here in Oshawa.

*ACE Climatic Wind Tunnel
Ontario Tech University*



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Major Infrastructure

Oshawa Executive Airport

- The Oshawa Executive Airport features a modern terminal, capable of facilitating corporate business travel, general aviation and a fully staffed NAV Canada Air Traffic control tower. The airport offers dual runways able to service a broad range of aircraft, modern navigational aids, hangar space and a variety of aviation services to meet business needs. Canada Border Services Agency staff are available upon request.

Port of Oshawa

- The Port of Oshawa is Oshawa's gateway to the world, handling more than 500 vessels that have carried over 3 million metric tons of cargo over the past decade. The Port offers the benefit of full seaway draft, a workforce skilled in handling all types of cargo and access to world markets through the St. Lawrence Seaway.

Rail Access

- Oshawa benefits from CN and CP Rail infrastructure linked to the GM Assembly Plant, the Port of Oshawa and other key industrial stakeholders offering local, national and international transportation accessibility.

Highway

- Oshawa's 407 Innovation Corridor provides Oshawa with another point of access across the G.T.A. With tolls now removed from Highways 412 and 418, highway travel around the Region offers more convenience than ever.

Utilities

- Oshawa Power is a city owned asset with proximity of headquarters of the proposed defence corridor and can provide dedicated uninterrupted backup for power needs and highly secure fiber optic infrastructure.

Development Opportunities

Northwood Business Park

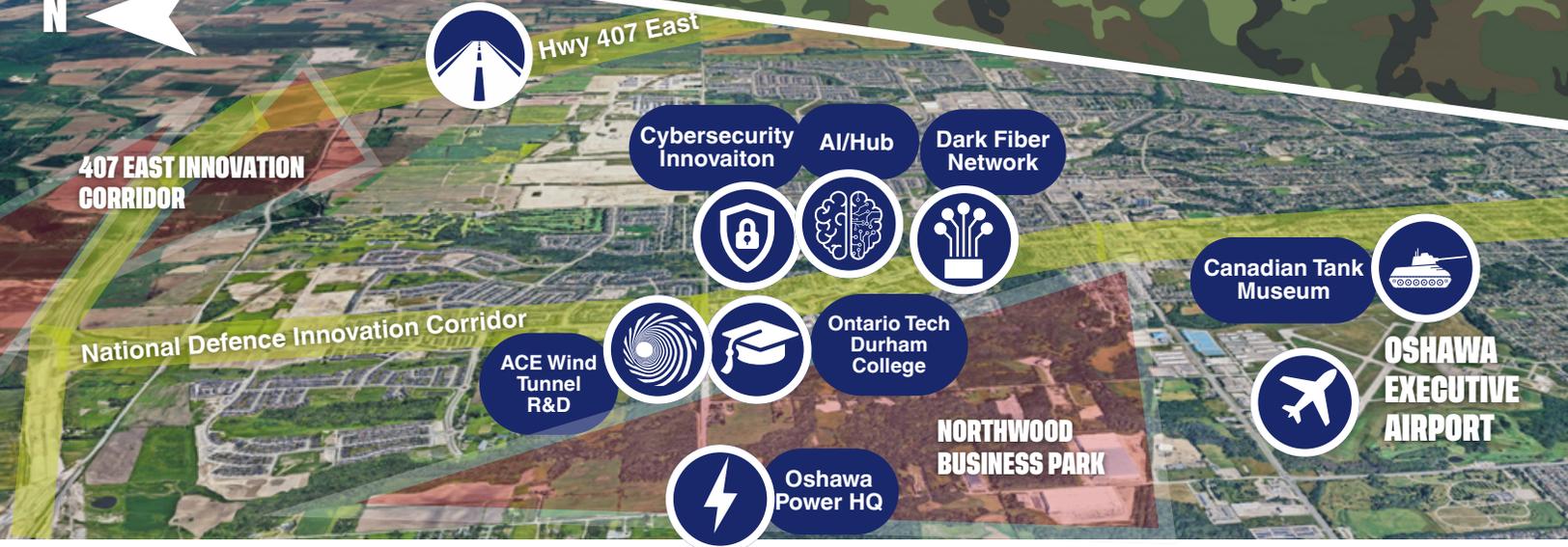
- Comprised of 202 hectares (500 acres) of developable employment land, this area has the advantage of being located in proximity to the Ontario Tech University/Durham College main campus, Highway 407 E and the Oshawa Executive Airport.



National Defence Innovation Corridor Asset Map



407 East Innovation Corridor Asset Map





Project Arrow: Ontario Tech University - Oshawa, Ontario
Canada's first, original, full-build, zero-emission concept vehicle.

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City of Oshawa Contacts



Dan Carter

Mayor

dcarter@oshawa.ca | 905-436-5611



Councillor Tito-Dante Marimpietri

Chair, Economic & Development Services

tdmarimpietri@oshawa.ca | 905-436-3311 x 5613



Councillor (Colonel retired)

Bob Chapman. MMM, MOM, CD

Vice Chair, Economic & Development Services

bchapman@oshawa.ca | 905-436-3311 x 5619