# Transit creates liveable communities

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Moving people forward.

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Delivering a better world









Our architects, engineers, planners and construction professionals have helped shape the world around us. With a long history of successfully delivering architectural solutions on a variety of transit projects, our team is poised to fulfill the challenges of a

constantly moving world.



### **About AECOM**

### As an industry leader in transportation architecture and design, our professionals deliver a balance between art and technology, form and function, beauty and purpose, vision and result.

Today's transit stations and facilities are characterized by unusual complexity: rigorous regulatory contexts, demanding schedules and budgets, contradictory desires for design to express a unique identity while also achieving standardization, and the growing imperative for more sustainable buildings.

We have performed some of the most significant light rail, commuter rail, intercity, and heavy rail transit planning, design, construction management, and program management projects in the world. Our clients are inspired by our holistic approach to planning, design and development, and they trust us to ensure land uses are designed responsibly and productively.

We work on all types and size of transportation projects, drawing additional expertise as needed from the wide array of AECOM's specialists who share our common purpose to deliver a better world. We are recognized for listening to our clients' concerns, understanding their goals, and then creating innovative transit architecture designs and engineering solutions that provide both function and beauty. Across Canada, there are 380 employees dedicated to our Buildings + Places group. The team works in design centres in Edmonton, Calgary, Saskatoon, Kitchener Waterloo, Toronto, and Ottawa. We are architects, planners, cost consultants, interior designers, project managers and structural, mechanical and electrical engineers and technologists.

Our professionals achieve solutions that promote sustainability through design and urban regeneration initiatives. Critical to our design process is our ability to strategically select materials and form to maximize environmental conditions. We assemble teams that deliver positive impact to projects at all scales and we collaborate with clients and project teams to implement plans that bring long term performance to transit systems.

We believe that capital investments in facilities should be aligned with measurable and sustainable business benefits. Our local experts collaborate across the broader AECOM network to ensure successful project outcomes — those that improve mobility, integrate harmoniously with natural and social environments, meet regulatory requirements and promote social responsibility. Our portfolio of projects reflects this commitment to excellence and client satisfaction.

### **Our Buildings + Places expertise**

#### Architecture

AECOM Canada Architects Ltd. provides site and facility assessment, design, tender and construction administration services for public and private clients. Our team designs municipal, institutional, transportation and industrial facilities. Sustainable design is the foundation of all assignments and we identify how LEED standards can benefit a project and how these principles can be implemented.

#### Landscape Architecture

Landscape architecture is defined as "the science and art of modifying land areas by organizing natural, cultivated, or constructed elements according to an aesthetic plan". Our experts offer unique solutions to natural and manmade challenges, leaving our clients with a landscape and streetscape that has both grace and durability.

#### **Building Structural Engineering**

We have expertise in new structure design, as well as evaluating and rehabilitating existing buildings. Our team applies their skills to all types of building structures. Clients and projects also benefit from the expertise of our inhouse structural steel connection designers and welding engineers.

### **Electrical Engineering**

In addition to using sound engineering experience, our electrical team establishes design criteria by considering applicable codes, site condition surveys and equipment evaluations to define the best solutions for each project. Energy analysis and conservation are important tools used by our LEED accredited staff in our green approach to electrical design.

#### **Mechanical Engineering**

We offer design support to a wide variety of architectural and engineering based projects including mechanical intensive projects. Our LEED accredited designers are familiar with the design and function of sustainable, environmentally friendly mechanical systems.

#### **Building Information Modelling**

Our clients benefit from our use of Building Information Modelling (BIM) technology. BIM enables designers to analyse real world conditions and their impact to a building. Through multi-dimensional visualization, clients can easily envision their facility and process concepts and systems.

### **Project Delivery**

Project challenges are addressed by a team of professionals who manage, monitor and coordinate project activities. They ensure appropriate scope, cost, schedule and quality assurance. We are able to provide authoritative

experience for "trouble-free" project management. The Construction Administration team ensures Clients' requirements are met during the construction and systems commissioning phases.

### **Project Cost Consultancy**

Our Cost Consultants understand the connection between schedule, quality, program and cost, and use that knowledge to provide you with practical, thorough advice that leads to the best possible cost outcomes. Through interaction with all members of the project team, we can advise on the cost/value impact of various design solutions and pro-actively plan and control the project budget throughout the design/construction process.

### At AECOM, we're delivering a better world.

As the world's most trusted infrastructure consulting firm, we're committed to managing our business with the upmost responsibility and to always strive for better – reducing emissions, creating social value or diversifying our senior leadership and workforce.

We understand both the urgency of the challenges facing our society and our responsibility to respond in an impactful and enduring way. Armed with this consciousness, we're leading the change toward a more sustainable and equitable future, partnering with those who want to make a positive difference in the world.

We're listening to clients and the communities we serve to improve lives and livelihoods, and to create sustainable legacies for generations to come. Thinking without limits is what keeps us at the vanguard. Ideas have no borders, and this ethos is embedded in our culture. The full scope of our global expertise is available to anyone who needs it, wherever they are based.

We're trusted advisors — planners, designers, engineers, consultants and program and construction managers — delivering professional services spanning cities, transportation, buildings, water, new energy, and the environment. Working throughout the project lifecycle, we're one team driven by a common purpose to deliver a better world.

### Sustainable legacies messages

### What is AECOM's Sustainable Legacies strategy?



Our Sustainable Legacies strategy encompasses how we integrating ESG factors into everything we do. See Our Strategy

### What are AECOM's environmental targets?



**OPERATIONAL NET ZERO** by 2021



SCIENCE BASED NET ZERO by 2030, which includes:



### **VEHICLES AND ENERGY**

Decarbonizing all fleet vehicles and switching to renewable energy tariffs



BUSINESS TRAVEL EMISSIONS

50% reduction in business travel emissions by 2030, compared with 2018



SUPPLY CHAIN

Developing carbon reduction targets in partnership with our supply chain



#### OFFSETTING

Offsetting residual carbon, including through creating our own nature based solution projects





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### What is **AECOM** doing to increase social value and social impact?



### WHAT ARE AECOM'S SERVICES TO **DELIVER SUSTAINABLE LEGACIES FOR CLIENTS?**

See services in How we are delivering sustainable legacies

### What is AECOM doing to advance equity, diversity and inclusion?



#### DIVERSITY

Ensuring our project teams reflect the diversity of the clients and communities we serve



### WOMEN IN SENIOR LEADERSHIP

Ensuring women comprise 20% of senior leadership and 35% of overall workforce by 2025

#### SOCIAL EQUITY, DIVERSITY AND INCLUSION

Ensuring that our work with clients and communities promotes social equity, diversity and inclusion

### What are we doing to enhance our governance to deliver sustainable legacies?



#### ASSESSING RISK

Developing an enterprise framework to assess ESG risk in potential projects



### ACCOUNTABILITY AND ADVOCACY

Driving leadership accountability and advocacy through specific ESG goals / metrics in annual goals

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### TRACKING **AND REPORTING**

Tracking and reporting on ESG performance targets, risks and metrics in line with agreed reporting framework (i.e. SASB + TCFD)

### Where is **AECOM** partnering with clients on relevant initiatives and pledges?

HS2 / SHELL LAUNCHPAD More information

NATURAL CAPITAL LABORATORY More information

AMAZON CLIMATE PLEDGE More information

### What innovations have we developed to help clients deliver sustainable legacies?



**ENVIRONMENTAL** ENGAGEMENT More information



VIRTUAL CONSULTATION More information

**DE-FLUORO™** More information

### How are we communicating our Sustainable Legacies strategy to our clients?



We are being proactive by having honest conversations with our key clients, addressing any concerns they might have about changes to our working relationships and sharing how our expertise can help them. In this way we mutually benefit, clients have the opportunity to make a positive, lasting impact and we have the opportunity to grow our service offering — delivering sustainable legacies for the world through the work we do together.





# A sampling of our work

AECOM — Transit stations



### **Ontario Line South**

Year: 2031 Client: Infrastructure Ontario & Metrolinx Location: Toronto, ON Construction Value: \$6B Services Provided: Engineering, Architecture, Tunnel Design

AECOM, as part of the Ontario Transit Group team, was selected by Infrastructure Ontario and Metrolinx to deliver the Ontario Line Southern Civil, Stations, and Tunnel (South) project. This is one of multiple packages of work that will form the future Ontario Line, a planned 15.6-kilometer, 15-stop rapid transit line that is intended to create faster, easier connections between dozens of neighborhoods in Toronto. We are designing the line's two most complex underground stations which will be integrated with the extremely busy existing Queen and Osgoode Stations.

Once complete, the Ontario Line is expected to provide faster and more frequent access to transit, with hundreds of thousands of people living within a 10-minute walk to one of its stations. Our team's scope on this project includes civil, stations, and a six-kilometer tunnel with all associated tunneling works for the southern portion of the line. The Ontario Line South will run from Exhibition Place to the Don Yard portal, connecting with more than 40 other transit connections along the way, including regional trains, subways, light rail and buses.





# **Bloor-Yonge Capacity** Improvements

Year: On-going

**Client:** Toronto Transit Commission

Location: Toronto, ON

**Construction Value:** \$1.5 B Estimate

**Services Provided:** Advisory services in the implementation of the progressive design-build model, Training and application of LEAN and BIM, Project specific output specifications, Procurement support, Estimating and costing services, Design document review

AECOM is Owner's Engineer for the Bloor-Yonge Capacity Improvements (BYCI) project providing consulting services to implement a progressive design-build model, including employment of LEAN project delivery and building information modelling (BIM). The BYCI project aims to expand and modernize the transit hub to accommodate current and future ridership, improve accessibility and safety features, and enhance the customer experience.

As the busiest interchange in Toronto's subway system—and one of the busiest in North America—the station is expected to experience significant ridership demand due to population growth and planned transit expansion initiatives. For the past 10 years, we were responsible for conducting a feasibility study and providing preliminary architecture and engineering services. We will support TTC through the next phases of this project, including selecting a design-builder, detailed design, procurement, construction, commissioning, handover and close-out.



# Valley Line LRT

#### **Year: 2**026

Client: City of Edmonton Location: Edmonton, AB Construction Value: \$1.8B

**Consultant Fee:** \$00

**Services Provided:** Landscape Architecture, Architecture, Engineering, Costing, Project Coordination, Contract Administration

### **City of Edmonton**

The Valley Line Light Rail Transit (LRT) is the City of Edmonton's largest infrastructure project that marks a shift away from a high-floor largely segregated LRT network to a street level urban integrated model. We are leading the Owner's Engineer team for the P3 procurement of the Valley Line Phase 1, Southeast, and are Prime Consultant for the preliminary design / reference concept design of the entire Valley Line, Southeast to West LRT.

As the Owner's Engineer, we built and led the team that developed all reference design and procurement documents, including a 'Green Charter' that provides core project principles to help the LRT integrate into the community in a environmentally and community friendly manner. We managed the complexity of designing a compact urban LRT line while minimizing disruption to communities.



# ION (Waterloo) LRT Stage 1

#### **Year:** 2019

Client: Kiewitt / Regional Municipality of Waterloo Location: Waterloo, ON Construction Value: \$595M Services Provided: Landscape Architecture, Architecture, Engineering, Costing, Project Coordination, Contract Administration

The ION Stage 1 Light Rail Transit (LRT), also known as the Waterloo LRT, is approximately 19 km of track connecting Conestoga Mall to Fairview Mall. It is a mix of on-street, line-of-sight operation and off-street components servicing a daily ridership of 25,000 passengers. AECOM was lead designer and engineer of record for our client Kiewit.

Our word included the design of 19 at grade station-stops with shelters and communication systems that include variable message displays, closed circuit television cameras, public address systems and passenger assistance intercoms. All stations are designed to Accessibility for Ontarians with Disabilities Act standards and meet level boarding compliance. The stops are designed to make future expansion flexible and simple, and feature an anchor wall that blends with the local streetscape and guides riders to the stop.







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Year: Contruction to start in 2024 Client: Metrolinx Location: Hamilton, ON Construction Value: \$3.4B Services Provided: Technical advisory and project management services.

AECOM has been appointed by Metrolinx as Technical Advisor for the Hamilton Light Rail Transit project, a 14-kilometer transit line to be located within Hamilton, Ontario. The line will be the city's first light rail transit system and will be designed to accommodate expected future growth and development, improve connectivity and attract economic development in the rapidly growing area.

Our integrated team will be supporting Metrolinx on the delivery of the full breadth of infrastructure for the Hamilton LRT. The LRT is designed to provide connectivity across Hamilton with new light rail vehicles running along dedicated track for greater safety, frequency, and reliability. In addition, the project plans to support sustainable growth and city-building through revitalization of critical utilities and general infrastructure along the route.

# Réseau express métropolitain (REM)

**Year:** 2024 Client: NouvLR / CDPQ Infa Location: Montreal, QC **Construction Value:** \$6.9B

Services Provided: Design lead on NouvLR general partnership, Design tunnels, bridges, stations, railway infrastructure (tracks, power, and traction systems), road improvements, intermodal equipment and other structures, environmental permits and monitoring, Urban integration

Detailed design and construction of REM, a light rail system that will connect Montreal, the South Shore, the North Shore and the Trudeau-Montreal Airport through a single, fully automated 67 km light rail network with 26 underground, surface or overhead stations. Once built it will be one of the largest automated transportation networks in the world. The project is the largest integrated public transportation infrastructure investment in Quebec since the construction of the Montreal metro which opened in 1966.

Our team is responsible for design of tunnels and underground stations, including the airport tunnel, Mount Royal tunnel, Technoparc station, McGill station and Édouard-Montpetit station. Our professionals are also responsible for geotechnics, excavation, structure, ventilation as well as some elements of the mechanical and electrical systems of these structures.





# Commercial Broadway Station

Year: 2019

Client: Translink

Location: Vancouver, BC

**Construction Value: \$50M** 

**Services Provided:** Architecture, structural, mechanical, civil and electrical engineering designas well as tender evaluation assistance and construction phase administration and inspection services.

Commercial-Broadway (C/B) SkyTrain is at the heart of Metro Vancouver's transportation network. With over 150,000 daily weekday passengers passing through the SkyTrain station, it is the busiest station in the Metro Vancouver transit network

Our team developed a functional design to improve passenger flow and wayfinding; unite the C/B Stations through a bold landmark design; honour and integrate key heritage elements from the Expo Line; and create a seamless interface between the station and adjacent neighbourhood.

We provided a full suite of design services to progress the functional design to preliminary and detailed design completion; and the 100% Issue for Tender documents. Work also included landscape design, passenger flow and wayfinding, vertical transportation improvements, code review and constructability advice. Constructability was a key factor to ensure a safe environment with minimal impact on the travelling public and the level of service.

### **Finch West LRT**

Year: 2023 Client: Metrolinx Location: Toronto, ON Construction Value: \$1.2B Services Provided: Technical advisory, program management, construction management.During Construction Oversight, tthird party

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The \$1.2 B Finch West Light Rail Transit (LRT) is part of Metrolinx's rapid transit projects infrastructure investment across the Greater Toronto and Hamilton Area. The new LRT line is approximately 11.17-kilometres with 17 surface stops, one below grade station, and one underground station. The line will also have LRT maintenance and storage facilities.

We are leading the Technical Advisory Services team in an Alternative Financing and Procurement approach through design and construction. This includes development of the Reference Concept Design, Project-Specific Output Specification, as well as supported the RFP/PA schedules. Our team will also provide various procurement services during the In-Market period.

We provided modelling, rail systems work, guideway development, station design, architectural, structural, mechanical and electrical engineering, cost estimating, environmental assessment, stakeholder engagement, utility services, geo-environmental engineering, surveys, and maintenance and storage facility design.



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### **Bayview Towers**

#### Year: 2013

Client: York Regional Transit Corporation

Location: Richmond Hill, ON

**Construction Value:** \$6M

**Services Provided:** Landscape Architecture, Architecture, Engineering, Costing, Project Coordination, Contract Administration

The VIVA Bus Rapid Transit (BRT) system and the York Region Transit (YRT) system operate along Highway 7 in York region with a stop on the east side on the Bayview Avenue Bridge. YRT also operates transit services on Bayview Avenue with stops adjacent to the bridge over Highway 7. There is a 7 metre grade difference between the sidewalk level at Bayview Avenue and the level at Highway 7.

To allow fully accessible pedestrian movements between these levels, two stair and elevator buildings were constructed on either side of Highway 7. In addition, the current bus lay-by was lengthened and

a VIVAnext canopy shelter was provided at the designated platform area. Retaining walls were required adjacent to both towers to maintain existing grades. In addition, a significant retaining structure was provided to ensure that the 407 westbound exit ramp is undisturbed.





### Gormley GO Station

Year: 2016

**Client:** Metrolinx GO Transit **Location:** Whitchurch-Stouffville

**Construction Value:** \$22M

**Services Provided:** Project management, architecture, engineering (civil, rail/ signals, structural, mechanical, and electrical), and landscape architecture, construction administration for this project.

Gormley GO Station is the first new station north of the Richmond Hill on the Richmond Hill Corridor and will serve the Oak Ridges and Whitchurch-Stouffville community.

The Station has been designed to achieve LEED Silver and includes single platform design for 12 car passenger consist, heated shelters, snow melt system, station building with bus terminal, Kiss-and-Ride, 850 space parking lot, barrier free design throughout, pedestrian and mixed use trails, and environmental protection features to protect adjacent low lying wetland area.

lot, barrier free design throughout, pedestrian and mixed use trails, and environmental protection features to protect adjacent low lying wetland area. The intent was to create a balance between the unique built and natural environments at this new station which features barrier-free parking, scooter and bicycle spaces, bicycle and pedestrian connections, and a Kiss-and-Ride with a barrier-free drop off lane.

### Weston GO Station

Year: 2017 Client: Metrolinx Location: Toronto, ON Construction Value: \$49M Services Provided: Programming and Feasibility, Schematic Design, Design Development, Construction Documents, Construction Administration, Post-Construction

Originally opened in 1974, Weston GO Station needed a major expansion to accommodate future combined GO Transit and UP Express rail service. We were retained to renovate the existing facility which included preliminary design, detailed design, tender document preparation, construction supervision, field administration and project management. Work included the demolition of the old station, new station building design, modernization of the site, accessibility upgrades and a new UP Express stop.

The new fully accessible station was designed to GO's latest standards and features:

- Pedestrian plaza and barrier free access
- Ticket sale, waiting areas, vendor area, and standard GO services rooms
- Building systems including HVAC, plumbing, power, lighting, CCTV, PA, security, ticket vending
- Fully accessible pedestrian entrances and two new barrier free pedestrian tunnels with elevators, ramps and stairs
- New landscaping, fencing, information boards, signage, and internal walkways



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AECOM — Transit stations



### GO Pickering Parking Structure and Pedestrian Bridge

#### Year: 2014

**Client:** Metrolinx

Location: Pickering, ON

Construction Value: \$44M (Parking) \$25M (Bridge

Services Provided: Project management; structural, mechanical and electrical engineering including systems; civil engineering; traffic planning and engineering; permitting and approvals; third party consultation; cost consulting and quantity surveying; wayfinding and signage; and LEED. AECOM also provided tender and construction support services in the way of construction administration, construction inspection, and engineering services during construction.

Our team took part in the transformation of Pickering GO Station by providing planning, multi-disciplinary design, and construction support services for the new Parking Structure and Pedestrian Bridge. Both were designed to sustainable features and innovations to integrate with Pickering GO Station's LEED Gold Certification.

The new Parking Structure provides over 1700 parking spaces within a six storey building. This fully accessible, state-of-the-art building incorporates covered barrier free parking and a façade that was designed with distinctive GO branding.

The new Pedestrian Bridge is a fully enclosed structure that spans 250 metres long over 15 lanes of Highway 401 and Pickering Parkway to connect pedestrian travel from Pickering GO Station on the south side to Pickering Town Centre on the north side.







### **TYSSE Downsview Park Station**

Year: 2015

Client: Toronto Transit Commission Location: Toronto, ON Construction Value: \$110M Services Provided: Landscape Architecture, Architecture, Engineering,

Costing, Project Coordination, Contract Administration

As part of the Toronto-York Spadina Subway Extension (TYSSE), Downsview Park Station is a fully integrated passenger connection between the subway station and Downsview Park GO Rail Station—also designed in concept by AECOM. This fully accessible station includes, at concourse level, a free public passageway under the rail corridor, as well as the fare line entrance to the subway. Its design meets the TTC's objectives of world-class architecture with compelling forms, soaring spaces, and sustainable design with an extensive green roof and other sustainability principles consistent with the Toronto Green Buildings Standard.

The site's aeronautical heritage is acknowledge in the sweeping curves, leading edges, strut columns and volume of the spaces. The design allows daylight to reach deep into the interior of the station, provides intuitive wayfinding, and integrates public art. The station is a focal point of the northern park area and its design reflects the dual nature of the park, featuring sweeping lush vegetated green roofs, dramatic sloped glass walls and landform shaped building elements in aluminum and stone.

### Union Pearson Express T1 Station

Year: 2014 Client: AirLinx Transit Partners Location: Toronto, ON Construction Value: \$140M Services Provided: Landscape Architecture, Architecture, Engineering, Costing, Project Coordination, Contract Administration

The Union Pearson (UP) Express Spur and Terminal 1 (T1) Station is a Design-Build-Finance project by Metrolinx and Infrastructure Ontario. This new transit line branches off from the Weston Subdivision on the GO Georgetown corridor and connects to Toronto Pearson International Airport with a new passenger station at Terminal 1. We were the lead designer for Airlinx Transit Partners, the Aecon Group Inc. and Dufferin Construction Company joint, responsible team for the Rail Spur and the new T1 Station.

This new LEED silver UP Express Station is situated in a busy corridor flanked by the airport terminal, a parking garage, multiple levels of roadway, and a pre-existing elevated guideway for the Automated People Mover. Our team's innovation, planning, and coordination between all stakeholders were instrumental in overcoming these logistical challenges. The result is a 92 metre by 7.5 metre station that is fully enclosed and elevated approximately 24 metres above ground. The T1 Station sits between two operating Automated People Mover tracks and has two service floors suspended beneath it from the station's beams.





### Scarborough Centre Station

Year: On-going Client: Toronto Transit Commission Location: Toronto, ON Construction Value: \$2.4B Services Provided: Landscape Architecture, Architecture, Engineering, Costing, Project Coordination, Contract Administration

The Scarborough Subway Extension (SSE) will join the Bloor-Danforth Subway line from Kennedy Station to Scarborough Town Centre to better serve Scarborough's 650,000 residents. The SSE will add 8 km of tunnels and a new terminal station to replace the aging Scarborough Rapid Transit and create a seamless journey for transit users by eliminating the need to transfer at Kennedy Station.

Our team performed early research and design investigations to support the TTC's evaluation of alternative approaches to tunnel design and related alignments including a single-bore stacked platform station, single-bore staggered platform station, and single-10.7-metre-bore parallel side platform station. The large single-bore alignments were proposed at deeper elevations than normal TTC stations which led to a review of impacts on patron circulation within the station for both emergency egress and normal operation. The station will include a 400m long 31-bay bus terminal, two side platforms, an extensive subway ventilation system using over-track exhaust, a traction power substation. We concluded a 60% design prior to the project transitioning to Metrolinx for P3 delivery.



### Union Station Second Platform and Concourse Improvements

Year: 2015 Client: Toronto Transit Commission Location: Toronto, ON Construction Value: \$180M Services Provided: Landscape Architecture, Architecture, Engineering, Costing, Project Coordination, Contract Administration

Union Station is the busiest transportation facility in Canada, servicing approximately 250,000 passengers a day. By the early 2000's this station was suffering from overcrowding at platform level and was in need of modernization and accessibility upgrades. AECOM was retained as prime consultant to provide a complete renovation of the subway station.

The main project elements included construction of a new south side platform on the Yonge Line, improvements to the centre platform on the University Line, concourse updates to provide one zone of fare control, extensive vertical transportation and accessibility changes, improved pedestrian flows, a new automatic entrance, an improved interchange between the subway and Harbourfront LRT, fire ventilation upgrades, utility system changes, and a complete redesign of the Front Street public realm to promote and enhance pedestrian movement. The most significant challenge during the project was keeping the subway station and its connections to adjacent facilities open and fully operational during demolition and construction of the revised facility.







**Year:** 2025

Client: City of Ottawa

Location: Ottawa, ON

**Construction Value:** \$2.13B

**Services Provided:** Architecture and Design, Engineering, Environmental Services, Planning and Consulting, Program Management/Construction Management

The \$2.1-billion Confederation Line Light Rail Transit (LRT) project, from Tunney's Pasture to Blair Station, was the crucial first step in Ottawa's Transportation Master Plan, which called for more than 40 kilometres of new light rail to be built over the next 20 years.

As a member of the Capital Transit Partners (CTP) joint venture consortium, AECOM is a member of the owner's engineering team on the Confederation Line and its subsequent Stage 2 extension. On Confederation Line, CTP provided preliminary engineering on all project elements including the guideway, a light rail maintenance and storage facility complex, as well as architectural, structural, mechanical and electrical design on 13 above and underground stations. The team also provided a broad range of procurement support, project management and construction phase services.

### **TYSSE Highway 407 Station**

#### Year: 2015

Client: Toronto Transit Commission Location: Vaughan, ON Construction Value: \$132M Services Provided: Landscape Architecture, Architecture, Engineering, Costing, Project Coordination, Contract Administration

Highway 407 Station—one of six stations on the Toronto-York Spadina Subway Extension—is a significant intermodal station incorporating an 18-bay bus terminal, 600 space commuter parking lot, passenger pick-up/drop-off and provisions for future integration with the planned 407 transit way. It is a visual landmark, creating a transit/accessibility node and a strong sense of place through its functional design and engaging form. This intermodal transit facility connects passengers with the TTC subway, GO Transit commuter trains and the and YRT bus service in a modern terminal that embodies sustainable design principles in step with Toronto Green Standards, and world class architecture.

Features of this station design include large expanses of colourfully enameled 'art-glass', filtering daylight through interconnected spaces descending to the platform, a dynamic central circulation space visually connected through all floors promoting intuitive way finding, efficient platform and circulation spaces; and station exterior spaces designed as an extension of the interior to enhance the passenger experience while delivering environmental performance through a naturalized sustainable landscape, with stormwater management, and extensive landscaping.





# **SkyTrain Station Access and Safety**

**Year:** 2023 **Client:** TransLink Location: Vancouver, BC **Construction Value:** \$\$277K Services Provided: Architecture, Engineering, Cost Estimating and Cost Consulting Our team provided full design services and tender and construction phase services covering architectural, structural, mechanical and electrical services on design documentation relating to modifications to the Guideway Intrusion Monitoring System (GIMS), platform gaps and relocating of guideway walkways and hardened end-gates for the introduction of five car trains. Working with TransLink, its stakeholders and the construction manager, we provided conceptual design for stations along the Expo and Millennium lines, with the scope varying on the current state and specific station design. AECOM and our subconsultants also provided full design services and mechanical, electrical, and civil as well as cost estimating and code consulting relating to updated egress requirements for the introduction of five car trains

tender and construction phase services covering architectural, structural, and their associated passenger loads at several high and medium priority stations.

### **Eglinton Crosstown Chaplin and Oakwood Stations**

### **Toronto Transit Commission**

Year: On-going **Client:** Toronto Transit Commission **Location:** Toronto, ON **Construction Value:** \$12.8B **Services Provided:** Preliminary design and engineering

The Eglinton Crosstown LRT is the cornerstone of transit improvements in the Greater Toronto Area. Once completed, it will link to 54 local bus routes, three interchange subway stations and GO Transit. Our team provided preliminary design and engineering for two inline stations as part of the Eglinton Crosstown LRT program.



### **Chaplin Station**

The Chaplin station design features an entrance that incorporates the façade of a heritage listed fire station and historical heritage building into a glazed entrance with green roof. Brick material palettes clad the HVAC and emergency ventilation shafts with the intention of seamlessly complementing both the heritage resource and neighbouring buildings

The station's main entrance pavilion is located adjacent to the Chaplin Crescent Parkette. Its minimalist rectangular entrance is transparent, allowing uninterrupted views through the site frame to the flourishing vegetation of the park. It also features an irregular boulder design that accommodates the fan plant exhaust and a number of programme elements.

Our 30% designs were subsequently transferred to Metrolinx and delivered as a DBFOM project due to be completed in 2022.

### **Oakwood Station**

The vision for Oakwood Station is to create an accessible transit hub that serves the existing neighbourhood while providing a catalyst for revitalizing the business district. The location and design of the entrances will encourage responsible development and increased density along the corridor making the neighbourhood a more desirable place to live, work and play. By adhering to principles established in the City of Toronto Avenues and Midrise Buildings Study, the station's design aligns with the City's vision of future development on Eglinton Avenue.

The underground portions of the Station will provide a positive user experience enhanced by natural light, ample space for circulation, and use environmentally-sensitive materials. Not only will natural light enhance user comfort, it will also aid in their wayfinding and circulation



### About AECOM

AECOM is the world's trusted infrastructure consulting firm, delivering professional services throughout the project lifecycle – from planning, design and engineering to program and construction management. On projects spanning transportation, buildings, water, new energy and the environment, our public- and private-sector clients trust us to solve their most complex challenges. Our teams are driven by a common purpose to deliver a better world through our unrivaled technical expertise and innovation, a culture of equity, diversity and inclusion, and a commitment to environmental, social and governance priorities. AECOM is a Fortune 500 firm and its Professional Services business had revenue of \$13.2 billion in fiscal year 2020. See how we are delivering sustainable legacies for generations to come at aecom.com and @AECOM.



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