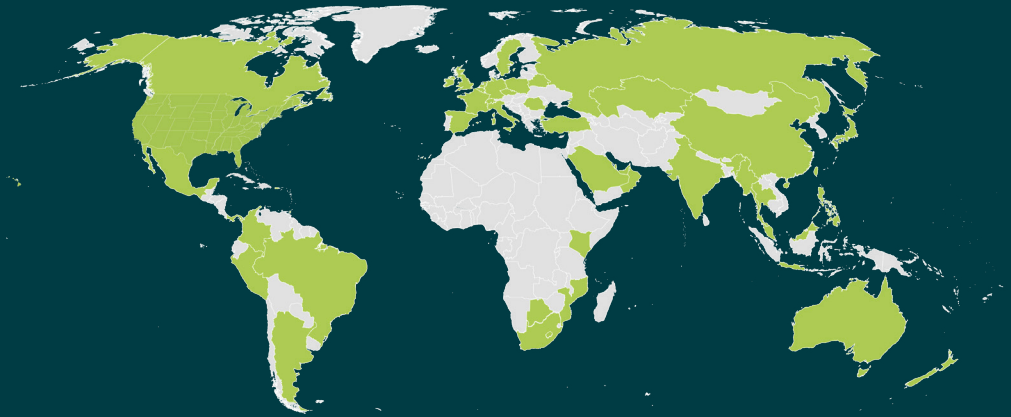


Program and Project Management

Canada Program Management Office Integrated Consulting Services

Program, Project and Construction Management, and Related Cost Consultancy Services.

We are AECOM



MAKING AN IMPACT AROUND THE WORLD

7

Continents

52,000

Employees

120+

Countries

US\$14.4B

2021 revenue

#310

Fortune 500

2023

World's Most Ethical Companies

A 2023 *Fortune* World's Most Admired Company

Simplifying complexity

Our Canadian teams deliver comprehensive, integrated and transformational projects in Canada and around the world.

AECOM is a leading provider of integrated design, engineering and technical services for public and private-sector projects. Our staff includes program, project and construction management professionals, as well as builders, architects, engineers, planners and scientists serving clients in more than 120 countries. We bring a blend of global reach, local knowledge, innovation and technical excellence to deliver customized solutions that meet our clients' needs. We have completed thousands of major program, project and construction management assignments — with a combined construction value of \$500 billion.

Program Management Leadership for Capital Programs

Capital programs demand innovation and strategy for cost certainty and timely completion at the levels of quality and scope that project stakeholders and communities envision. Our program management professionals bring the expertise to coordinate and integrate — from concept through completion — the multiple concurrent projects that comprise a large program. We manage complex programs in a wide array of markets, providing services ranging from planning, scheduling and cost control, to design, construction and commissioning. Our assignments routinely involve managing multiple projects at related sites and concurrent projects at a single site. We are focused on representing the best interests of the owner throughout the entire program.

Project Management

Our professionals are seamlessly embedded with client staff through the entire life cycle of a project — managing project teams, protecting client interests and working to deliver projects — from initial scope to final close-out.

Construction Management

We manage all aspects of construction to keep projects on track and minimize risks to our clients. We provide the project controls, administration and field oversight to manage work during all phases of construction — starting with preconstruction, design, bidding, all construction phases and moving through to close-out and activation.

Adding
certainty and
maximizing
outcomes.

What We Do

AECOM's Canada program and project management professionals provide services for clients around the world, providing technical and management support services to a broad range of client types. Whether it is a project involving transportation, buildings, environmental services, energy or water, we have the expertise to help you achieve project goals. Our services are seamlessly integrated into AECOM's global network, and the specialization of our Canada teams can be categorized into four main service areas:

**PROGRAM
COST
CONSULTANCY
(PCC)**



Quantity Surveying and
Cost Estimating

**PROJECT
MANAGEMENT
OFFICE SERVICES**



Project Controls,
Scheduling and Claims

**VALUE
ENGINEERING**



Value Management
and Engineering

**RISK CONSULTING
AND DECISION
SUPPORT**



Risk Assessment, Risk
Management and Delivery
Advisory Services

**ECONOMIC AND
ADVISORY**



Data-driven Analysis and
Independent Assessment

AECOM also offers a wide range of additional services to address virtually any need that may arise throughout the life cycle. Our specialists provide a multitude of consultancy services customized to engage all project stakeholders in helping to achieve the maximum value for their investment. We tackle the challenges that arise throughout the life cycle of a project's development, from providing input on business investment strategy, to advising on the ongoing operational efficiency of an asset.



Unlocking the true value of your project through our cost management team.

Program Cost Consultancy Services

We are experts in helping clients get the most out of their budgets, while also making sure their projects are meeting established goals. We view ourselves as stewards of your funds, and work to maximize long-term project outcomes.

AECOM's Program Cost Consultancy practice provides the certainty needed in the project development process. Our multidisciplinary cost management team members understand the nuances of the management of capital projects, because of our experience in the industry.

Planning, Managing Costs and Bringing Controls to Projects

The essence of our cost management methodology is to maintain a balance and alignment between budget (fund), scope (quantity) and user/owner expectations (quality) through the life of the project. To establish an accurate and effective budget, it is essential to have a complete understanding of the scope of work at the earliest stage in design. Our role as the cost consulting team is to develop an accurate budget estimate beyond the scope of the information available.

Effective financial and budget controls include:

- Realistic budgeting based on an appreciation of the project scope, quality levels, labour and materials escalation costs, reasonable contingency allowances for design development, market conditions and construction change orders.

- Cost planning indicating the cost allocation to the various elements of the project that becomes the benchmark against which the evolving designs would be reconciled.
- Cost checking process that ensures that costs are monitored at regular design submission milestones.
- Cost reporting system which represents the results of the cost checking process to all stakeholders.
- Decision-making process of reviewing the results of cost reports and taking appropriate action when necessary.

Our cost estimating deliverables follow the classification standards (Classes D-A or Classes 5-1) and are provided in formats that comply with industry standards such as the Canadian Institute of Quantity Surveyors (CIQS) elemental format, Unifomat II, Trade (MSI) format and Association for the Advancement of Cost Engineering.

Procurement Methodology Selection Advisory Services:

We advise our clients in choosing the most appropriate procurement method to align with their project goals and deliver optimal value. Our approach to Procurement Options Analysis is designed to be comprehensive. It involves a thorough examination of project context, market factors, and a balanced evaluation of qualitative and quantitative aspects associated with potential procurement options. We provide a clear and well-founded rationale to support the selection of given procurement and project delivery methods.



Our expertise in
project controls,
scheduling
and claims
builds successful
projects.


Program/Project Management Office Services

AECOM's Canada Project Management Office (PMO) Services group offers clients expertise in identifying and developing project management methodology, best practices and standards, and tools and techniques for project success. We also provide training and mentoring for project staff, project portfolio management, project review and recovery, and project management maturity assessment. Additional services include:

- **Project controls:** We provide a wide range of project controls services, contributing to successful delivery of projects and programs. Our approach is based on a well-established project controls plan, which includes project planning, project implementation and project performance measurement and assessment.
- **Project scheduling:** Our scheduling approach follows an integrated schedule management plan aimed at developing and maintaining reliable schedules. The AECOM schedule model integrates time, cost, resource and risk planning; this occurs by loading cost, resource and risk attributes of schedule activities into the schedule model to form control baselines. This approved control baseline becomes the basis for measuring actual and forecasted progress, and for assessing change and delay.

Our certified planners and schedulers have performed various scheduling services on major high-value projects and programs across Canada. These services include schedule development; draft schedule, proposed schedule, and baseline schedule review and analysis; constructibility schedule development and review; schedule updating and status review. Additional services range from critical path analysis, to progress and variance analysis, earned value analysis, and as-built schedule development.

- **Claims consulting:** We can implement measures and processes to avoid, mitigate and resolve construction claims. We bring a real-world understanding of the nuances of construction claims because of our knowledge of the design and construction process. We combine crucial elements necessary for the proper analysis of claims: technical and financial knowledge, and time. Our approach utilizes a well-defined claims management process to provide advisory support for reviewing and responding to contractor communications. This process includes contract particulars review, details of claim review, extension-of-time claim review, claim for prolongation cost, and claim statement review report.



Making effective
and timely decisions
while balancing
competing values
and goals.

Value Engineering

Value engineering (VE) is a problem-solving process aimed at achieving optimum cost efficiency while ensuring that functional requirements of the project or process are met and the required quality is provided. Built around a multidisciplinary team approach that encourages designers, contractors, owners, users and other stakeholders to come together to assess a problem from a fresh perspective, VE can produce a solution which costs less to design, build, maintain and operate. The process focuses on required project functions, and identifies opportunities to achieve the required functions at the best possible capital and life cycle costs.

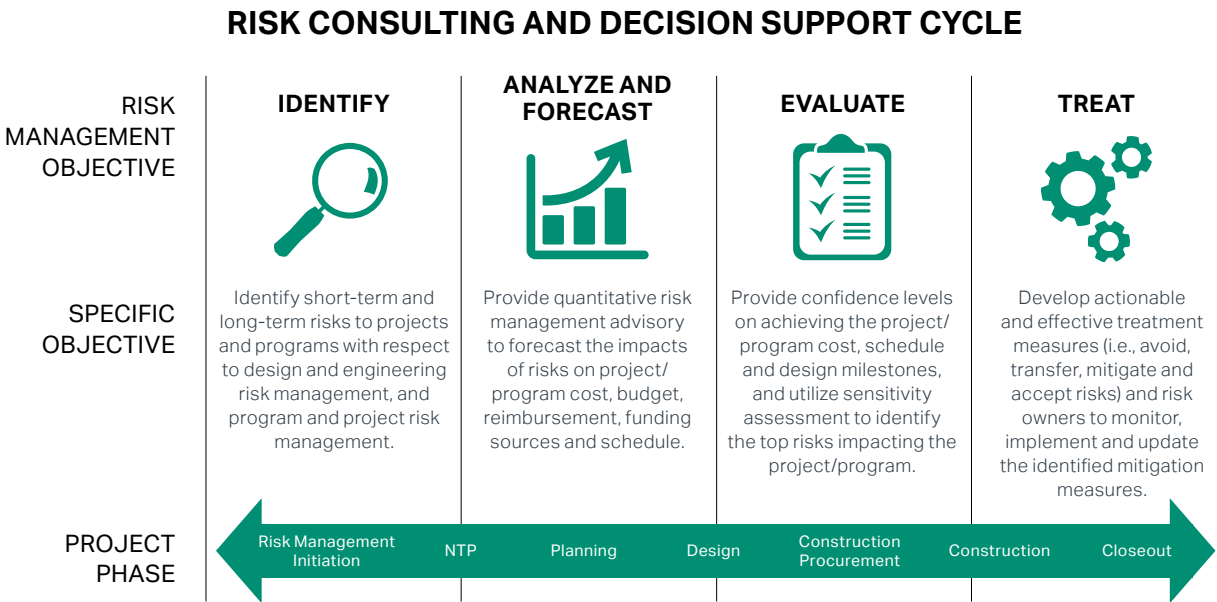
AECOM conducts VE studies in accordance with the SAVE International Value Methodology Standard, though each VE workshop is unique in terms of duration, goals and objectives, value target areas and team composition. The value methodology can be applied to any project or process. AECOM's experience in the VE of various transportation, water, environmental, architectural and process-related projects has produced significant value improvements for a wide variety of clients. By applying the latest innovations and industry best practices, we can identify how previous processes and proposed projects can be changed to enhance efficiency. Finding the solution that meets a project's objectives, yet costs less and provides better value over the project's life, is critical to the sustainability of today's undertakings.

A proven methodology to significantly save time and money by managing risks.

Risk Consulting and Decision Support

Understanding the environment in which a project is to be built is critical toward defining the context for project decisions, activities and events. Many projects involve environmental concerns, community relations, stakeholder demands, and labour and political issues, all of which must be evaluated carefully through the project phases. Active risk consulting offers the robustness to withstand the impacts of risks on construction projects, redundancy to tolerate potentials losses, resourcefulness to respond effectively, and rapidity to implement the identified mitigation measures to keep projects on track.

AECOM Canada’s Risk Consulting and Decision Support practice is a global provider of risk assessment, risk management and successful delivery advisory services to a broad range of markets. Our experts combine their knowledge of technical design capabilities and in-depth program management experience for developing risk assessments, risk management programs and analytical models using decision theory to bring quantifiable knowledge to the decision-making process. We utilize risk management best practices and decision-making tools to increase the likelihood of a project achieving its objectives. Our risk management tools have been applied on AECOM projects with aggregate capital expenditure of more than \$200 billion.



Data-driven analysis and independent assessment to inform and shape successful outcomes

Economic and Advisory

Our national Economic and Advisory practice is a multidisciplinary team of economists and urban planners with the shared goal of helping clients evaluate and manage complex decisions around infrastructure, transportation, urban development and economic development projects and policies.

Our professionals provide the data-driven analysis and independent assessment needed to inform and shape successful outcomes. We offer advisory services to governments, public sector entities and major private sector clients around the world covering a wide range of technical skills including:

- Business case appraisal;
- Real estate advisory;
- Strategy and action planning;
- Sustainable economics; and
- Social infrastructure.

We are a dedicated team that's committed to helping governments, businesses, and investors harness the power of infrastructure investment to responsibly drive economic growth and prosperity across regions and municipalities. Our team of trusted advisors provides comprehensive and forward-thinking project solutions that address today's complex financial, environmental and social equity challenges.

Our Practice Areas



**Business Case
Assessments**



**Strategy and
Action Planning**



**Real Estate
& Development Advisory**



**Sustainable
Economics**



**Social
Infrastructure**

AECOM Canada Integrated Consulting Services Highlights

	PRE-PLANNING/PLANNING	DESIGN AND IMPLEMENTATION	PROCUREMENT	CONSTRUCTION	OCCUPANCY
PROGRAM COST CONSULTANCY	<ul style="list-style-type: none"> Cost planning and benchmarking Estimate plan and procedure, and work breakdown structure Feasibility studies Alternative/option cost studies Business case analysis Total cost of ownership 	<ul style="list-style-type: none"> Cost estimates and cost reports, Classes D-A (or classes 5-1 AACE) Cost trending and management to budget Life cycle cost-based design steering 	<ul style="list-style-type: none"> Tender/bid reviews, analysis and recommendations Life cycle cost studies 	<ul style="list-style-type: none"> Constructibility review Contract administration Payment certification Cost reporting and cash flow analysis 	<ul style="list-style-type: none"> Operational period cost modeling Maintenance and management cash flow planning Capital renewal reserve estimating
PROGRAM/PROJECT MANAGEMENT OFFICE SERVICES	<ul style="list-style-type: none"> Statement of intent Level 1 and 2 schedules Project charter development Project/program management plan development Stakeholder register 	<ul style="list-style-type: none"> Earned value management Scope, document and change management Program/project reporting Level 3 integrated master schedule development 	<ul style="list-style-type: none"> Procurement management plan Procurement schedule RFP development Contractor selection 	<ul style="list-style-type: none"> Earned value management Scope and change management Program/project reporting Documentation management Integrated master schedule Claims management support and negotiation 	<ul style="list-style-type: none"> Claims management and negotiation Project close-out reporting
VALUE ENGINEERING	<ul style="list-style-type: none"> Value-based decision management Selection of a preferred alternative 	<ul style="list-style-type: none"> Function analysis Quantitative/qualitative idea generation Weighted evaluation techniques Independent team review Value-based decision management Preferred alternative selection 	<ul style="list-style-type: none"> Function analysis Quantitative/qualitative idea generation Weighted evaluation techniques Independent team review Value-based decision management Preferred alternative selection 	<ul style="list-style-type: none"> Function analysis Quantitative/qualitative idea generation Weighted evaluation Independent team review Value-based decision management Preferred alternative selection 	<ul style="list-style-type: none"> Function analysis Quantitative/qualitative idea generation Weighted evaluation techniques Independent team review Value-based decision management Preferred alternative selection
RISK CONSULTING AND DECISION SUPPORT	<ul style="list-style-type: none"> Early, pre-planning stage risk mitigation plan development and decision support 	<ul style="list-style-type: none"> Life cycle cost and schedule contingency management Integrated cost and schedule quantitative risk assessment Risk mitigation plan development Safety and engineering risk management 	<ul style="list-style-type: none"> Risk mitigation plan development Risk-based cashflow Risk-based project delivery/procurement method selection Regulatory agencies compliance 	<ul style="list-style-type: none"> Life cycle cost and schedule contingency management Integrated cost and schedule quantitative risk assessment Risk mitigation plan development Engineering risk assessment Program risk management Risk-based cash flow analysis 	<ul style="list-style-type: none"> Risk-based asset management Risk management resilience and disaster recovery preparedness planning Risk-based assessment of COVID-19 impacts to operation Virtual staff augmentation and project management support

Program Cost Consultancy

York Region Administrative
Centre Annex
Newmarket, Ontario, Canada



With a construction value of \$172 million CAD, this project for the Regional Municipality of York involved project management services, cost estimate, peer review of final cost estimate, project schedule monitoring and management services. AECOM's Canada cost management team provided a cost estimate based on the 90% contract drawing package, as well as peer review services for the pre-tender construction cost estimate produced by another cost consultant for the York Region's new facility adjacent to its existing Administrative Centre. The project included the construction of a new eight-storey office and Provincial Offence Court building with two levels of underground parking. The total size is approximately 70,141.8 square meters (755,000 square feet) inclusive of parking levels.

Technical Advisory Services

Hurontario Light Rail Transit
Mississauga, Ontario, Canada



AECOM is providing a full range of technical advisory services, including cost estimating and scheduling, risk assessment/analysis, quantitative schedule risk analysis, and change order variation analysis. We are assisting Metrolinx on their \$1.9-billion CAD Hurontario Light Rail Transit's (HuLRT) design and planning, procurement and implementation phases. The HuLRT project consists of a new light rail train (LRT) line that is identified in The Big Move, a bold and visionary plan that outlines a common vision for transportation in one of the largest and fastest-growing urban regions in North America. The Hurontario LRT is a new 22-kilometre (13.7-mile) LRT that will extend from its southern terminus at the Port Credit GO Station in the City of Mississauga to the northern terminus at Steeles Avenue, adjacent to the Brampton Gateway Terminal in the City of Brampton.

Risk Consultancy and Decision Support

Réseau Express Métropolitain
Montreal, Quebec, Canada



AECOM led and conducted safety and risk assessments on the world's fourth-largest automated transportation network — 67 kilometres (41.6 miles) long with 26 stations — connecting downtown Montreal to the South Shore, North Shore, West Island and Montréal–Trudeau International Airport. The holistic decision support system developed a quantitative safety risk ranking for each cross-section with respect to track criteria, and proposes mitigation measures where light rail will share the right-of-way with heavy rail. The assessment allowed for the quantification of residual risks to ensure reliability of mitigation measures with respect to varying track conditions. The proposed and directed risk assessment framework readily incorporated combined inputs of the Groupe des Partenaires pour la Mobilité des Montréalais consortium, and was also easily comparable and comprehensible by Caisse de dépôt et placement du Québec and Canadian National Railway.

About AECOM

AECOM is the world's trusted infrastructure consulting firm, delivering professional services throughout the project lifecycle – from advisory, 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 and digital expertise, 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 \$14.4 billion in fiscal year 2023. See how we are delivering sustainable legacies for generations to come at aecom.com and [@AECOM](https://twitter.com/AECOM).

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