



Construction engineering



CYS specializes in construction engineering and provides support to contractors all over Canada. The company has been involved in numerous major projects over the past 20 years. With our expertise we will guide you throughout your project. We meet deadlines and guarantee stability and safety of your temporary structures on your job sites. Our firm is also qualified to conduct all kind of structural inspections.»

AREA OF EXPERTISE:

- Complex formwork and shoring systems
- Working platforms and scaffolding
- Lifting plan
- Construction engineering and demolition methods
- Monitoring, inspection, and structural verifications
- Temporary retaining walls
- Safety systems

LIST OF RECENT MAJOR PROJECTS :

- Montreal Airport, Connect City project
- Permanent suspended platform Mercier Bridge, MTQ and EXP
- Louis-Hyppolyte LaFontaine Tunnel, Renouveau LaFontaine
- REM multiple branches, NouvLR and Alstom
- Little Long Dam Hydroelectric Power Plants, Kiewit
- Deconstruction of the Champlain Bridge, NHSL
- Replacement of the Pie IX Bridge, Delsan-A.I.M and Roxboro
- Demolition of the Molson Brewery in Montreal, Delsan-A.I.M



REM Station, ADM, Connect City

CYS has been actively involved since 2022 in the project for the new REM station at Montreal Airport for the Connect City consortium (AECON-EBC). We're currently supporting our partner in over twenty engineering mandates, including construction engineering and the design of reinforced concrete and steel structures.

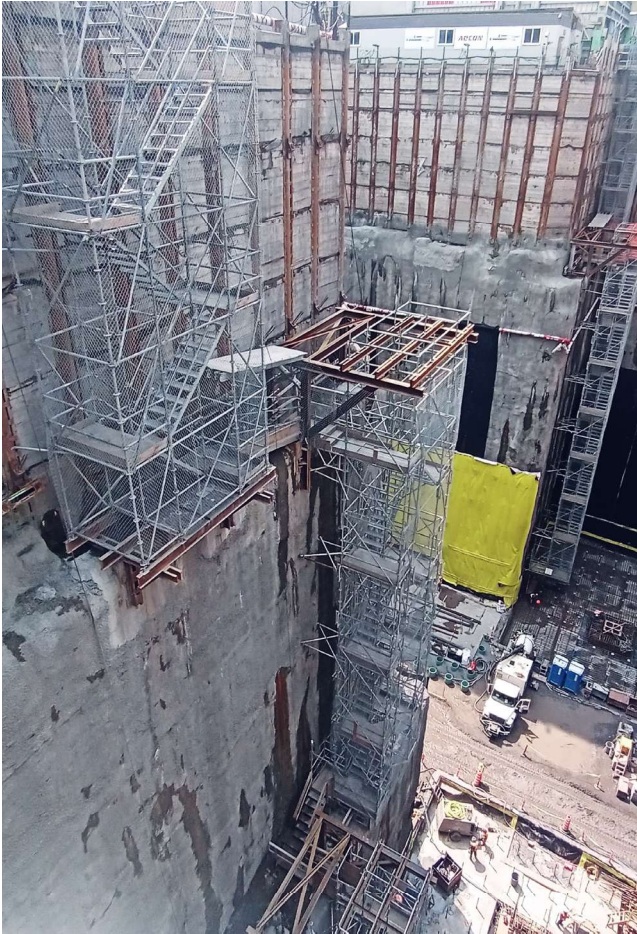
DESCRIPTION OF THE ENGINEERING MANDAT :

- Tower crane foundation
- Pile foundation for mobile crane platform
- Suspended brackets for access scaffolding
- Shoring for winter shelter using EFCO and PERI systems
- Concrete line and support structures

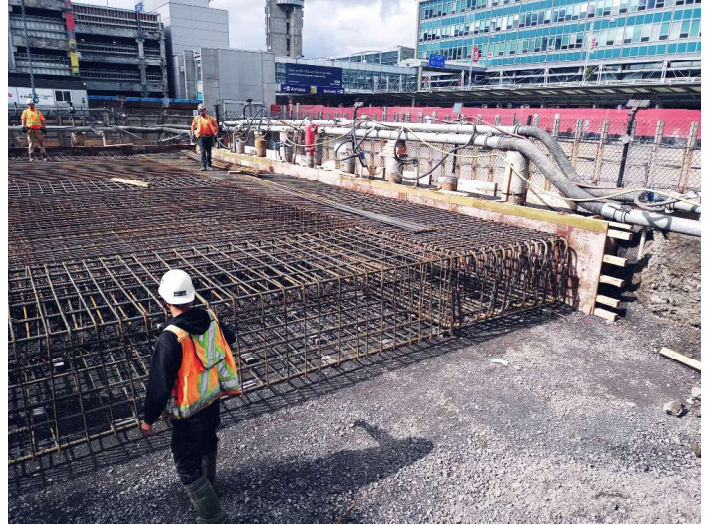


Winter protection structure PERI variokit Truss and EFCO shoring towers

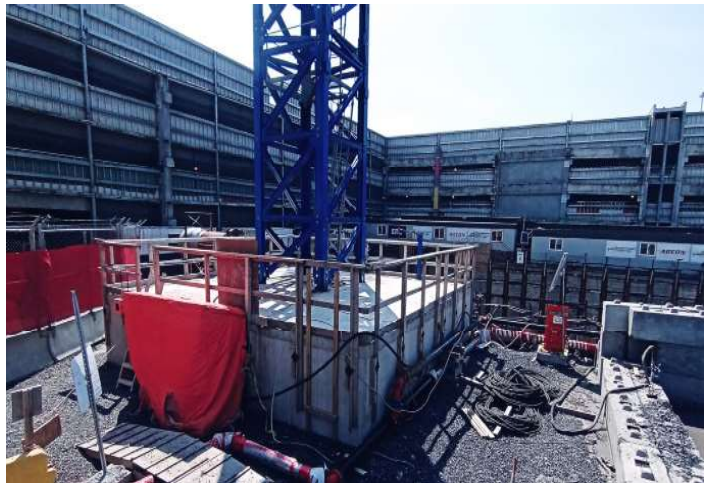
REM Station, ADM, Connect City



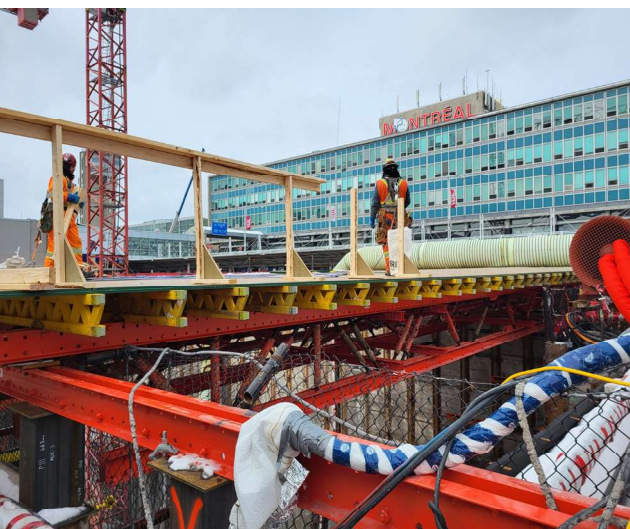
Suspended brackets for access scaffolding



Pile foundation for mobile cranes



Tower crane foundation



PERI truss system for winter protection



Temporary structures for access for



Mercier Bridge, MTQ, EXP-Norda Stello

CYS is actively involved in the Mercier Bridge refurbishment project with the EXP Norda-Stello consortium for the design and inspection of a permanent working platform suspended under the bridge. This structure is over 600 meters long will be used as a permanent access for maintenance activities.

DESCRIPTION OF THE ENGINEERING MANDAT

- Cost estimation, design, and modeling
- Detailed execution planning with the contractor
- Final inspection



Suspended platform - Mercier Bridge



Special connexions



Refurbishment of L.H LaFontaine Tunnel, RLF

CYS has been involved since 2021 in the Louis-Hyppolyte Lafontaine Tunnel refurbishment project for Renouveau Lafontaine. As part of this major refurbishment, CYS has already completed over 40 mandates, including formwork plans, concrete and steel structure design, as well as structural verifications and various inspections.

DESCRIPTION OF THE ENGINEERING MANDATE

- Design support structures for concrete beams
- Suspended formwork and brackets
- Access stairs scaffold certification
- Temporary gantry for road signage
- Temporary shoring for demolition and support of the pumping station
- 3D Modeling expertise and secondary opinion/ design review



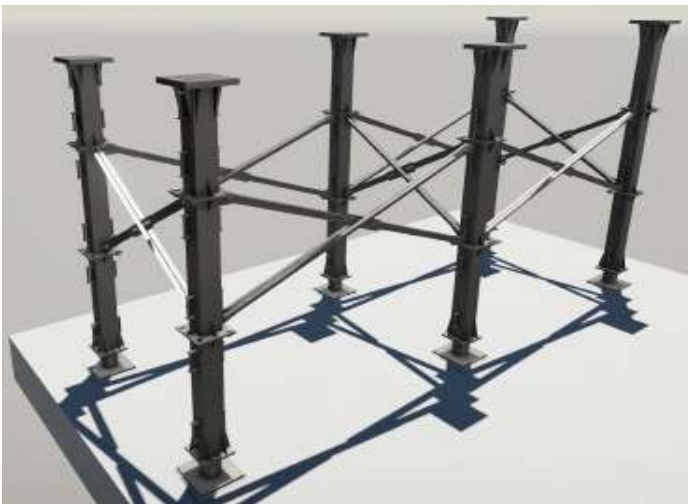
Refurbishment of L.H LaFontaine Tunnel,



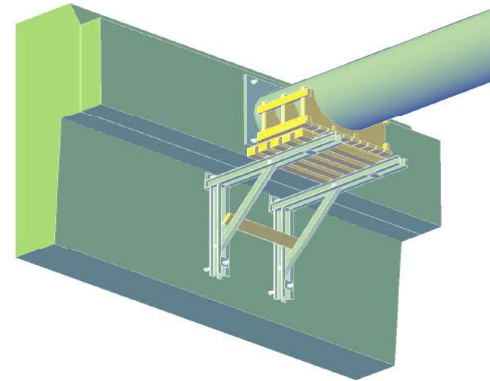
Formwork for tunnel repair



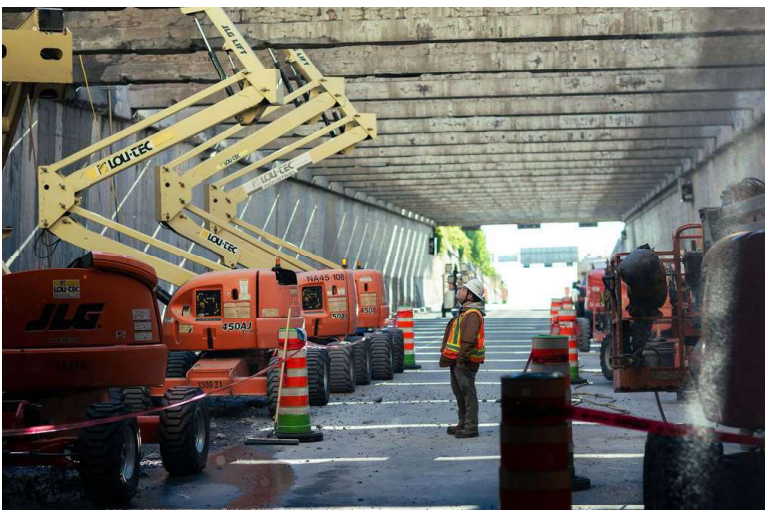
Steel frame gantry for traffic



Temporary steel structure (Tekla model)



Support brackets for steel structure



Monitoring demolition and formwork activities



Emergency stairs compliance upgrade



REM , Nouvl R and Alstom

CYS is a key partner for various branches of the REM project, such as the Cross Country and South Shore group, for the construction of the Brossard line to Bonaventure station. This major project enables CYS to bring its expertise and develop a close partnership with the contractor. For over 5 years, we have completed over 80 engineering mandates for various partners of the REM.

DESCRIPTION OF THE ENGINEERING MANDAT :

- EFCO formwork design for piles, girders, abutments, and slabs
- Structural verifications of concrete structures
- jobsite supervision and reinforcement inspections
- Demolition procedures and lifting plans
- Retaining walls
- Brackets and platforms design
- Various wood and steel formworks

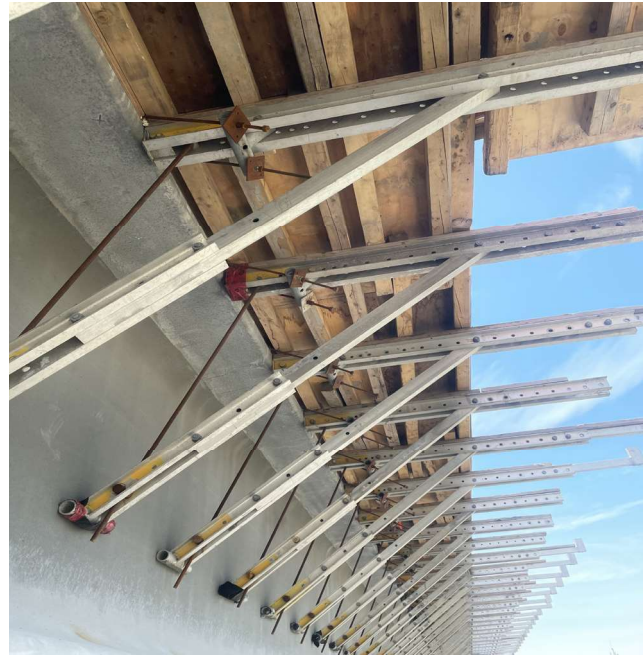


Winter protection shelter design - Ile des Soeurs station

REM , NouvL R and Alstom



Wall formwork - «de la commune» Bridge



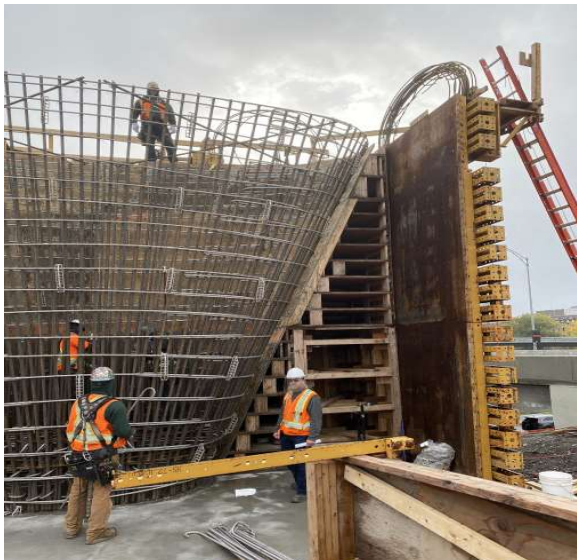
Overhang bracket for main slab



EFCO hammerhead form «Cross-country»



EFCO double plate girder lifting



Pier formwork, Ile des Soeurs Bridge

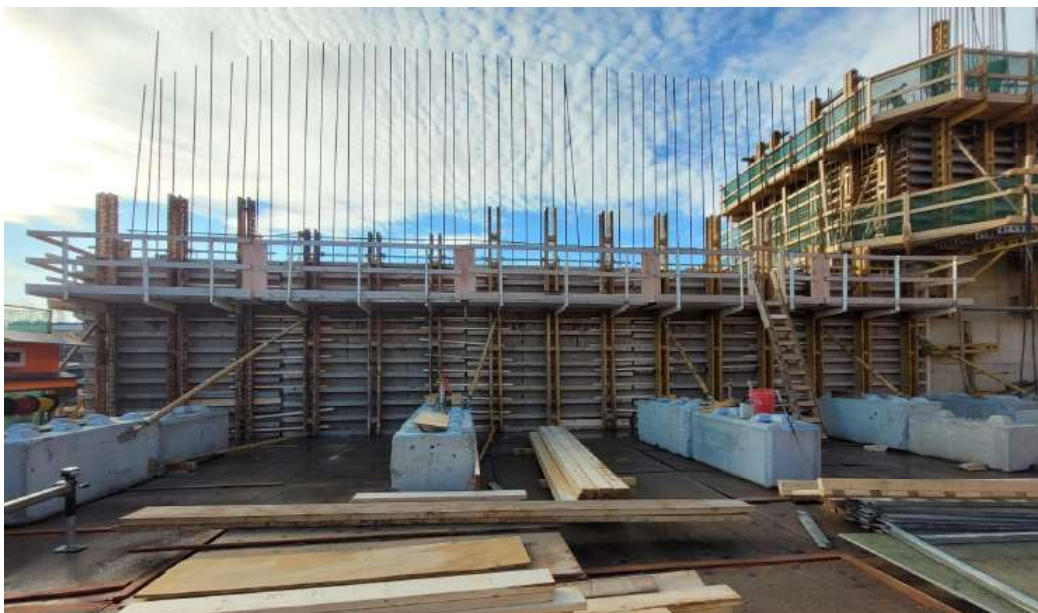


Little Long Dam LLDS , Kiewit

CYS is works with Kiewit in Ontario on the major refurbishment project of several dams and retaining structures along the Little River. Over a period of more than two years, we have been involved in numerous formwork mandates and also several specialized temporary structures.

DESCRIPTION OF THE ENGINEERING MANDATES :

- Mobile crane ramp
- Suspended access walkways
- EFCO formwork for piles and walls of the power plant
- Anchoring and foundation works
- Formwork for marine structures and retaining walls
- Access brackets and shoring, winter shelter



Exterior pier formwork - EFCO system

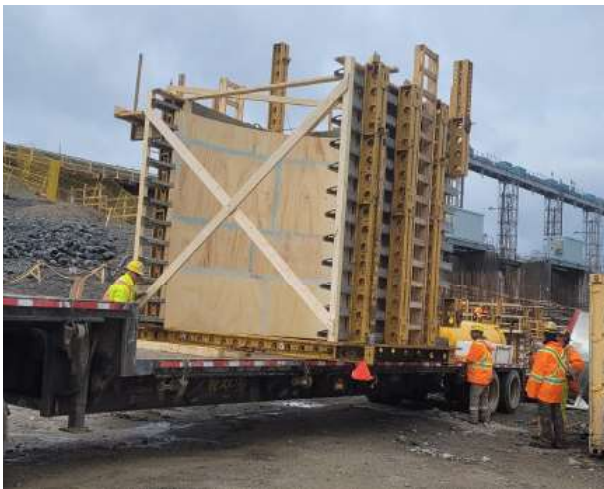
Little Long Dam LLDS , Kiewit



Inclined formwork



Slabs, raft foundation and foundation works



EFCO pier formwork with packing



Formwork for marine structures and retaining wall



Special pours and winter protection structure