



# SITECAST TILT-UP PROCESS GETS **A+** AT ÉCOLE ÉLÉMENTAIRE PUBLIQUE MICHAËLLE-JEAN

## CLIENT

Conseil des écoles publiques de l'Est de l'Ontario (CEPEO)

## ARCHITECT

ema Architects Inc.

## GENERAL CONTRACTOR

SiteCast Construction Corp.

## PROJECT

Elementary school addition  
école élémentaire publique  
Michaëlle-Jean  
11 Claridge Ave, Ottawa, Ontario

## DETAILS

- 17,184 sq.ft., 2 storey addition with elevator and washrooms
- Insulated, load bearing concrete SiteCast Tilt-Up panels
- Exterior integral brick cladding
- 14 classrooms
- Design-build contract

## BENEFITS

- **SPEED:** 3½ months of construction.
- **QUALITY:** use of architectural integral brick allowed the addition to blend with the existing school finishes.
- **ENERGY SAVINGS:** edge-to-edge insulation provides an energy efficient superior building envelope.

In 2006, École élémentaire publique Michaëlle-Jean opened its doors with the capacity for 305 students. But with the growing population, the school was soon in need of more space and in August of 2012, the Conseil des écoles publiques de l'Est de l'Ontario (CEPEO) issued a Request for Proposal (RFP): a design build for a 17,000 sq.ft., 14 room classroom addition with washrooms. In addition to the typical budget and deadline requirements, the structure needed to harmonize with the existing school and neighbourhood.



Through a competitive, public bid process, SiteCast Construction and its design team were awarded a design build contract. The tilt-up design leveraged the many cost and time savings associated with concrete construction. This is measured through utilizing insulated architectural concrete tilt-up panels with a thin brick veneer, the elimination of perimeter structural steel, and the reduction in on site interferences and disruptions to the existing student enrolment.



Years prior, the CEPEO had used SiteCast's insulated, concrete tilt-up panels with Ecole Elementaire Publique Des Sentiers. Based on the speed of that project (5 ½ months to construct a 60,000 sq. ft. school), the overall positive experience and the ongoing operational savings achieved – particularly in energy (click to see case study) – the CEPEO fully embraced the use of tilt-up design for this project.



The advantages of design-build were key to the Board's decision making process and having already built several "tilt-up" facilities, the Board was confident that tilt-up was more than able to face the imposed challenges of time, quality and money.



– Roch Landriault, Deputy director of facilities, CEPEO



## About SiteCast Construction

SiteCast Construction is an award winning industry innovator specializing in insulated, architectural concrete panel design and construction.

Our team of certified professionals has the experience to deliver a building shell superior to all others. Since 1992 SiteCast has worked on projects of varying size, shape and texture in Canada and abroad.



## Advantages for School Boards

### 30% + FASTER CONSTRUCTION

- Wall profiles are simplistic, as these become an organized puzzle, rather than a series of multiple material connections.
- Materials (i.e. concrete and rebar) are locally and readily available.
- Several building phases can proceed at the same time.
- Trades can safely access the site sooner because the floor slab is cast first.
- Engineered shop drawings allow trades to order doors and windows, prior to any construction
- Structure is completed quickly. Once panels are erected, the building shape is defined.
- Panels are constructed with two layers of concrete (exterior and interior layer) and a 3" rigid insulation core to create a "high performance" wall assembly.
- Edge-to-edge insulation tying into the foundation and roof assembly provides an uninterrupted rigid insulation layer that eliminates thermal bridging and reduces air infiltration/exfiltration.



- The interior layer of concrete (load bearing) provides a quantity of thermal massing properties.
- The exterior layer of concrete protects the rigid insulation core, and provides additional natural solar resistance properties. In addition, this layer provides sound masking, architectural detail and because of its durability helps to reduce ongoing maintenance costs.
- Panel joints feature a 2 stage vented cavity and meet Pro-Demnity's requirements for OAA members.
- SiteCast can assist school boards in meeting the Ontario Regulation #397/11 made under the Green Energy Act, 2009.



The advantages of using tilt-up go way beyond schedule and construction budgets. They include: energy efficiency, flexibility, durability, mould control and esthetics, maintenance, among others.

- Landriault notes.



## OTHER RESOURCES

<b>MODULAR SCHOOL:</b> Janet Lee (HWDSB)	Online
<b>ENERGY EFFICIENCY:</b> Des Sentiers (CEPEO)	Online
<b>ARCHITECTURAL FINISHES</b>	Online
<b>SCHOOL ADDITION</b> Michaëlle-Jean (CEPEO)	Online
<b>TILT-UP RELOCATION</b> St. Martin (PVNCCDSB)	Online
<b>Upcoming Topic: Value vs. Cost</b>	Coming Soon!
<b>Upcoming Topic: Multi-Storey Tilt-Up Panels</b>	Coming Soon!

## Connect with SiteCast Today

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