



FOREST MANOR PUBLIC SCHOOL TORONTO, ONTARIO

(Reprinted with permission from
ATA Architects Inc.)

PROJECT INFORMATION AND CREDITS:

PROJECT:

Forest Manor Public School
Addition
25 Forest Manor Road
Toronto, ON

DATE OF OCCUPANCY:

March 2009

CLIENT:

Toronto District School Board
15 Oakburn Crescent
Toronto, ON

ARCHITECT:

ATA Architects Inc.
211 Lakeshore Road East
Oakville, ON L6J 1H7
T 905 849 6986
F 905 849 4369
E info@ataarchitect.com

CONSULTING TEAM:

STRUCTURAL ENGINEERING:
Genesis TP Inc.

M+E ENGINEERING:

G+M Technical

CONTRACTOR:

KML

TORONTO DISTRICT SCHOOL BOARD TEAM:

David Percival (Project Manager)
Richard Kalmin (Design)
Sofia DiSabatino (Design)
Sergio Campoli (Construction
Manager)

School is at the Intersection of Architecture + Education



Schools must be designed to be a viable place for learning, experience and life. The architect's goal is to achieve well being, comfort, and acceptance by children as well as the teaching staff.

Forest Manor Public School is the first Toronto school to employ a prototype construction system that utilizes light gauge recycled steel panelized sections for rapid and precise construction. The resulting assembly has a high performance envelope that conserves energy. Forest Manor demonstrates the flexibility of the technology and its ability to address the future needs of schools to meet the challenges and changes of the 21st Century. The technology is permanent, and can be used for multi-storey renovations or new structures.

A two storey, eight classroom and two seminar room addition to Forest Manor Public School is nearing completion. Designed by ATA Architects Inc. and constructed by KCL and KML for the Toronto District School Board, this school is the first totally factory fabricated structure for the TDSB. The methodology for the construction was developed jointly by ATA Architects, KML Building Solutions and CGC. Both exterior and interior walls, as well as, the roof structure are fabricated from light gauge steel. Constructed of recycled materials, the system was designed for buildings requiring a higher insulation value and an aggressive construction schedule when compared to traditional school building practices.

The concept was derived from ATA's years of school construction experience, as well as conversations with school board officials. The board's primary concern was cost, followed closely by durability of the assemblies. We have all heard of schools constructed in the past that have not stood the test of time. Materials and assemblies that were cost effective at the time of construction, are now eating up school board's funding in the form of remediation and repair work.

Durability and issues such as mould were not at the forefront like they are today, and were not considered in the past during the design phase.

The assembly practices of yesteryear were lax and uncoordinated, requiring the use of this generation's tax dollars to patch the issues. ATA's solution was to combat all of these issues plaguing school boards while also incorporating proven building technologies used in other sectors.

The main floor of the addition consists of seven classrooms and a seminar room located off a central hallway. The hall is stepped, which creates a large light shaft at the end of the corridor to encourage interaction among staff and students as well as a potential area for additional space outside the classroom. The light shaft minimizes lighting requirements during the day, while pulling natural light through the corridors. The second floor consists of one classroom, and a seminar room. The interior features a series of coloured pixels that form a random pattern. These sparks of colour spread outward in classrooms and lead down the corridor where green becomes the dominant field colour.

The interiors at Forest Manor were based on a module of approximately 2'x4'. The floor and ceiling pattern, millwork and wall decor reflect this theme. The floor pattern features green square tiles arranged from smallest in the corner opposite the door to largest at the entrance to the classroom. Green squares also help to accentuate classroom features such as shelving and hooks, tack boards and cabinets. The millwork is constructed from medium density fibreboard which is either covered in plastic laminate or varnished to show its natural finish.

The playful green that was chosen for the addition is first visible at the panels in the skylight and the front doors of the building. Green was chosen for its role as a Forest Manor school colour to make the addition fit in with the existing building, yet be an updated version. Green is picked up throughout the interior also, highlighting the classroom doors, walls, floors and millwork. The addition of this vibrant colour helps to bring interest and movement to the interior for the young students who will make use of the new classrooms.



The solution provides:

- architect designed, accurate factory constructed structure, delivered to the site in panels
- the possibilities of a single subcontractor providing the entire shell - therefore eliminating coordination headaches and costly extras
- minimal waste and pollution - there is no cutting onsite
- 100% recycled components (the steel has been recycled multiple times in its lifetime)
- cleaner and quieter construction sites (less disruption to operating schools)
- an interior sheathing that is resistant to impact and scoring
- materials that are mould resistant, inert and do not outgas
- twice the insulation value of traditional school construction (which equals smaller and cheaper HVAC systems)
- a more flexible interior partition system (classroom layout can easily change with the times)
- easier service runs for added equipment (walls are hollow)
- a proven technology
- a reliable construction schedule (factory controlled; the ability to work through inclement weather; winter heating not required)

Forest Manor Public School Addition was the first project constructed using this new system and it has been a great success. It is a viable alternative to portables yet more flexible and more efficient to construct.



Canadian Sheet Steel Building Institute
 652 Bishop St. N., Unit 2A
 Cambridge, ON N3H 4V6
 Tel: (519) 650-1285
 Fax (519) 650-8081
 www.cssbi.ca