MONTGOMERY HIGH SCHOOL

by ROBIN BRUNET

LOCATION
2116 MacKay Road NW, Calgary, Alberta

OWNER/DEVELOPER
Foundations for the Future Charter Academy

ARCHITECT
GGA-Architecture

GENERAL CONTRACTOR
Lear Construction

STRUCTURAL CONSULTANT
TRL & Associates Ltd.

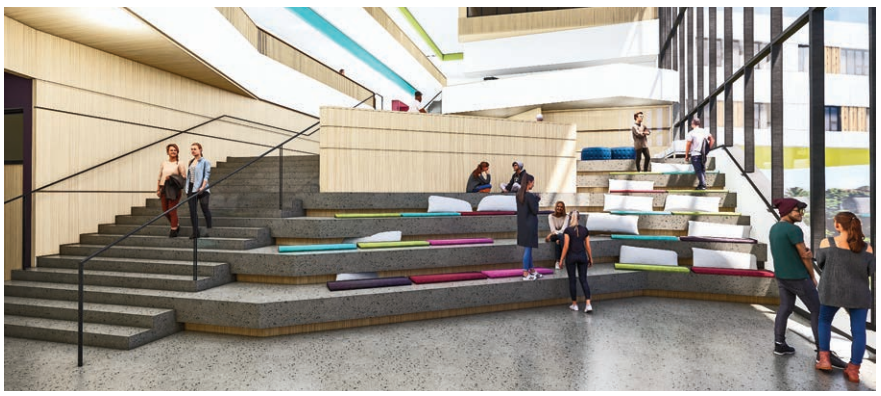
MECHANICAL CONSULTANT
Remedy Engineering

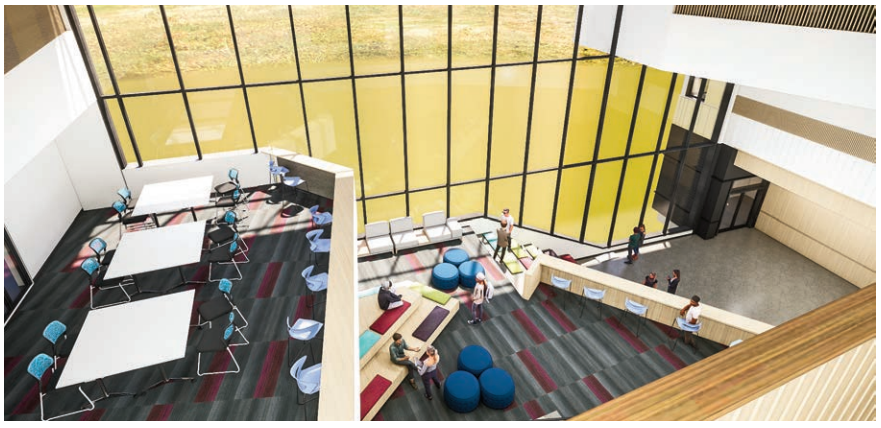
ELECTRICAL CONSULTANT
Designcore Engineering Ltd.

COMMISSIONING CONSULTANT
WSP

TOTAL SIZE
150,048 square feet

TOTAL COST
$43.4 million





Were it not for a gamble taken by the Foundations for the Future Charter Academy (FFCA) and GGA-Architecture, the new Montgomery High School would have turned out to be a fundamentally different, and arguably less efficient structure.

That's because instead of building on the same footprint and orientation of the old Montgomery school, the new Grade 9-12 building, which supports up to 1,000 students, takes full advantage of its terraced site.

Josh Foat, director of facilities at FFCA, explains, "After determining in 2014 that our original school had to be replaced, we developed a three-phase design with another architect – but the project was put on hold due to funding challenges. In 2019 we were asked by the province to restart the design process, moving away from a three-phase building construction to a single phase.

"After a new RFP process, we engaged GGA's David Wittman to develop a new design – and when he and I inspected the site he was inspired to turn the footprint of our proposed building 90 degrees compared to the existing school footprint and lay the program overtop of the hillside, resulting in a three-storey structure."

Foat adds, "I loved the idea because it made great use of the upper plateau, and the orientation would provide room for a parking lot to the north and a playing field to the south. Additionally, due to the old school's orientation, the classrooms looked out onto homes across the street, but by turning our new building 90 degrees we eliminated that and instead created magnificent views of the Bow River from the top level. It was a bold proposal, and I was sceptical we could stay on budget for such an ambitious project. I'm glad I was proven wrong."

The Academy's culture emphasises academic excellence, leadership, and physical education, and therefore required a building that exuded a collegiate ambiance compared to standard high schools. "This manifested itself in numerous ways, from a beautiful grand main entrance to an understated colour palette," says Wittman. "The masonry, metal panels, and wood accents making up the exterior cladding all had strong horizontal inclinations to match the surrounding landscape."

Also, the gym floor plan was reduced somewhat to accommodate a three-level climbing wall, oriented outside of the gym in the main hall facing the entrance. "It's the first thing you see when you come into the entrance and is absolutely unique," Foat says.

Most significantly, at the confluence of the new school's three levels is a learning commons featuring tiered seating extending through the triple-height glazing into the exterior. "By virtue of it being a three-storey space with plateaus on every level, the commons accommodates a variety of uses such as public presentations on the lower level, group study in the middle level, and private study with the Bow River views on the third level," Wittman says.

The horizontal ribbons of the façade bend inward to wrap around the commons, establishing datums and patterns that find their way through the entire project at every scale.

Early on it was recognized that the south facing commons would be susceptible to solar gain. "So, after considering several options we decided the commons glazing should be electrochromic glass," Foat says. "It was a considerable investment but would spare us the long-term expense of building environment maintenance to manage heat loads. We included the glass as a change order and wound up using it throughout the entire school."

Lear Construction began work on site in November of 2021 by demolishing the centre portion of the old school (which was still in use) to establish the footprint of the new cast-in-place concrete/structural steel facility. "Clear and constant communication with the school officials and staff was vital," says project director David Taylor. "We then knocked down another portion of the old school to build the parking lot. We had a good laydown area at the top of the hill, but accessing it was tricky in the winter – and it took most of last year to close in the building."

Taylor adds, "The last phase of work will be to tear down the remaining portion of the old school for the new sports field, and this will occur after the new school achieves occupancy in December of this year."

For his part, Foat is excited by the progress to date. "Our new school is truly outstanding, thanks to the dedication of the architects, builders, and trades. It has literally been years in the making, but as the project moves further toward completion it's obvious that the long wait was worthwhile." **A**

RENDERINGS COURTESY GGA-ARCHITECTURE