the challenge:

The top floor of the new Daniels Building at the University of Toronto School of Architecture features an expansive 16,000-square-foot open space designed to function as a studio and study hall. The space features no interior walls or structural columns.

Towering above the space is a contemporary drywall ceiling designed to replicate wings that reach eastward and westward away from the north-facing glass curtain wall. Hyperbolic paraboloid in shape, four angled drywall ceiling slabs gently twist from one side of the space to the other.

Creating the complex framing on which to attach the drywall was a key installation consideration. Project designers initially considered using metal studs, but a number of factors presented potential problems, including budget, weight, and the overall size and twist of each ceiling surface.

the solution:

To find an alternative to metal studs, detailed drawings were sent to Armstrong Ceiling Solutions to see if an Armstrong Drywall Grid System was feasible. In order to ascertain that the system would perform as desired, Armstrong created a full-scale mock up at the local union training center using main beams, 4’ cross tees 16” on center, and 5/8” drywall.

Following successful testing and approval for its use, an initial challenge was the fact that this would be the first time most of the installation crews would be working with Drywall Grid, let alone on such an unusual shape. To remedy this, Armstrong Ceilings held on-site training sessions to help ensure a hassle-free installation.

According to Chris Morgan of Nelmar Drywall, the crews learned the technique quickly since “everything essentially snaps together just like the normal T-bar grid systems they were accustomed to.”

Because of its ease and speed of installation, he estimates the Drywall Grid System probably installed in half the time as the proposed steel stud system, thereby reducing labor and materials on the project. “We couldn’t have done it without the Armstrong Drywall Grid,” he states. “We’ll use it anytime we can now.”

Morgan also notes that the Drywall Grid System maintained the smooth curvature of the ceiling very well, even with 5/8” drywall. “We were surprised how well the drywall mirrored the curve of the ceiling without even having to wet it,” he states.

For more photos of this stunning project, visit: armstrongceilings.com/danielsbuilding