



Making a Splash

Two striking indoor pools, by Bing Thom and Hughes Condon Marler, use wood in unexpected ways and provide a Vancouver suburb with new landmarks.

BY ADELE WEDER

PHOTOGRAPHY BY EMA PETER

The Vancouver suburb of Surrey, British Columbia, is a city in high-minded transition. Newly aware of the financial, logistical, and environmental costs of its low-density, car-oriented sprawl, its municipal leaders have recently taken steps to transform the bedroom community into a better-defined and more fully equipped modern city. The harbinger was the construction of Surrey Central City: a shopping, office, and educational complex, designed by Bing Thom Architects (BTA), that created a sense of a downtown within Surrey. Now the city has two new public aquatic centers, each with a program that is the very epitome of urban vitality. Like the public library, the community swimming pool serves as a modern-day church of sorts, a gathering place empowered by North America's dual obsessions with fitness and fun.

Community indoor swimming pools—natatoria, in the lingo—present logistical and technical challenges that require architectural ingenuity. First and foremost is height, in order to accommodate the high-divers and water-sliders, as well as to disperse the chlorine-saturated air. And for obvious reasons, the large interior space must have a long, clear span.

Near the city's southern border, Hughes Condon Marler Architects (HCMA Architecture + Design) has designed an aquatic center with an Olympic-size competition pool, diving platforms, a family-oriented leisure pool with water slide, hot tubs, a sauna, a steam room, and a weight room—all that in an area that until very recently has been sparsely populated agricultural land, but is slated to be developed into a vast residential neighborhood. HCMA has designed seven other aquat-



GRANDVIEW HEIGHTS The undulating roof of HCMA's aquatic center imbues it with visual drama while providing the needed height for diving platforms (opposite). The building's size and massing (this page) will make it the centerpiece of a new residential neighborhood to be developed on the surrounding farmland.

ic centers in the Vancouver region. But the Grandview Heights commission posed a new kind of challenge. "We had a completely blank slate," says Darryl Condon, HCMA principal. "We were asked to build the centerpiece of a community that doesn't exist yet."

HCMA's answer to this problem was a roof that reads like a series of giant cresting waves from the outside and a billowing sheet of fabric from the inside. The undulating form, so dramatically evocative, was functionally driven. Devised with the help of structural engineers and timber specialists Fast + Epp, the roof is made of improbably long and thin ribbons of glue laminated wood. These slender elements (comprised of pairs of 4-inch-wide by 10-inch-deep beams tied together) are anchored at either end by post-tensioned concrete buttresses and a row of enormous canted V-shaped concrete columns at midspan. They perform in tension, much like the cables of a suspension bridge, notes Condon, allowing an area free of vertical supports for the 50-meter-long, 10-lane-wide pool. They also create catenary curves that reach a maximum height of 49 feet to clear the diving platforms, falling to 29 feet at the roof's lowest points.

At the other end of Surrey, its northeastern corner, the Guildford Aquatic Centre bookends the evolving city. Designed by BTA in partnership with Shape Architecture, the Guildford pool expands an existing recreation center on the site. Like Grandview

credits

ARCHITECT: HCMA Architecture + Design – Darryl Condon, Stuart Rothnie, principals; Melissa Higgs, project architect; Aiden Callison, Alexandra Kenyon, Steve DiPasquale, Craig Lane, Craig Simms, Nicolas Worth, design team

CONSULTANTS: Fast + Epp (structural); AME Consulting Group (mechanical); AES Engineering (electrical); RF Binnie (civil); PFS Studio (landscape); Daniel Lyzun & Associates (acoustical)

GENERAL CONTRACTOR: EllisDon

CLIENT: City of Surrey

SIZE: 95,000 square feet

COST: \$43 million

COMPLETION DATE: February 2016

SOURCES

GLULAMS: Western Archrib


METAL PANELS: Alucobond, Apolic, Kingspan

CURTAIN WALL: Columbia Glazing Systems

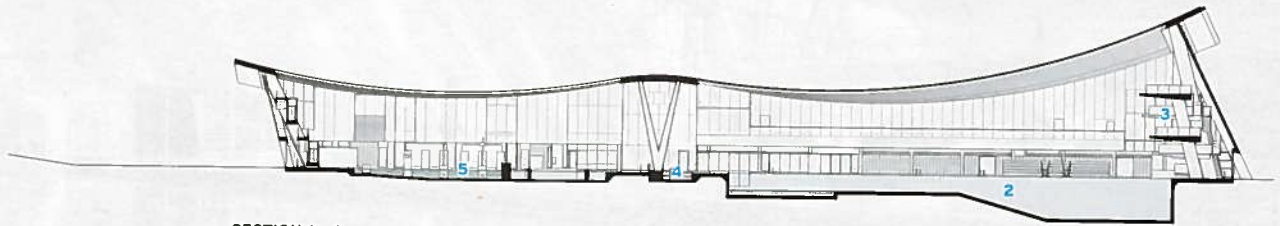
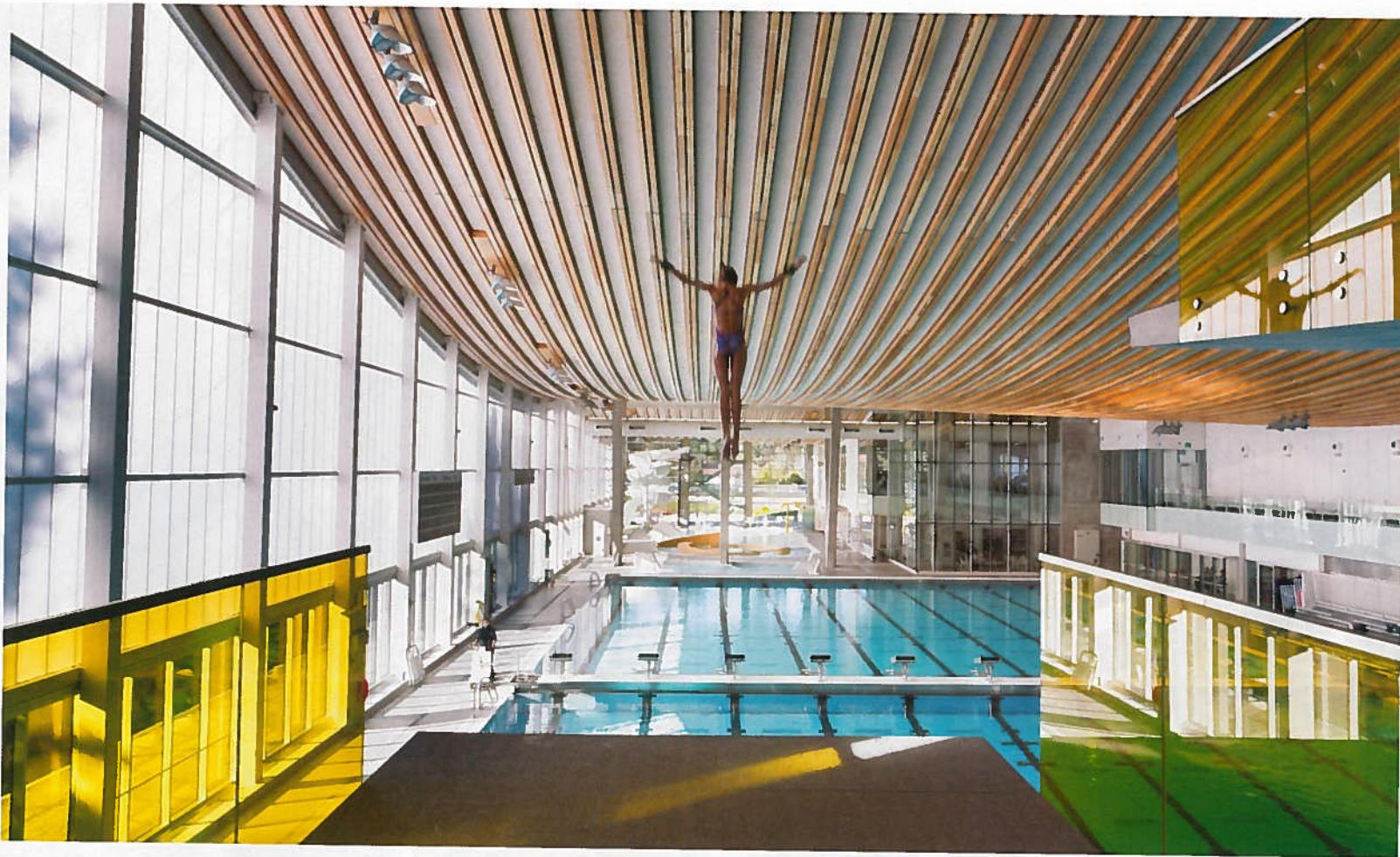
FLOOR AND WALL TILE: Daltile, Buchtal

DOWNLIGHTS: GE Lighting

ACOUSTICAL CEILINGS: Tectum

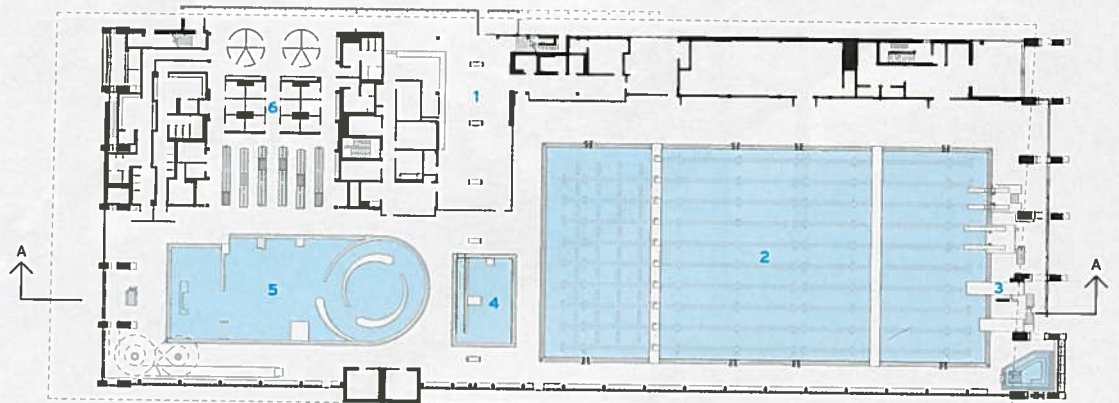


GRANDVIEW HEIGHTS The ceiling's roller-coaster-like contours are made up of pairs of exceedingly slender curved glue laminated beams (opposite). They are supported at each end of the building by concrete buttresses and at midspan by V-shaped concrete columns that help articulate the entrance area (above).



SECTION A - A

- 1 LOBBY
- 2 LAP POOL
- 3 DIVING PLATFORMS
- 4 HOT TUB
- 5 LEISURE POOL
- 6 CHANGING ROOMS



GROUND-FLOOR PLAN

