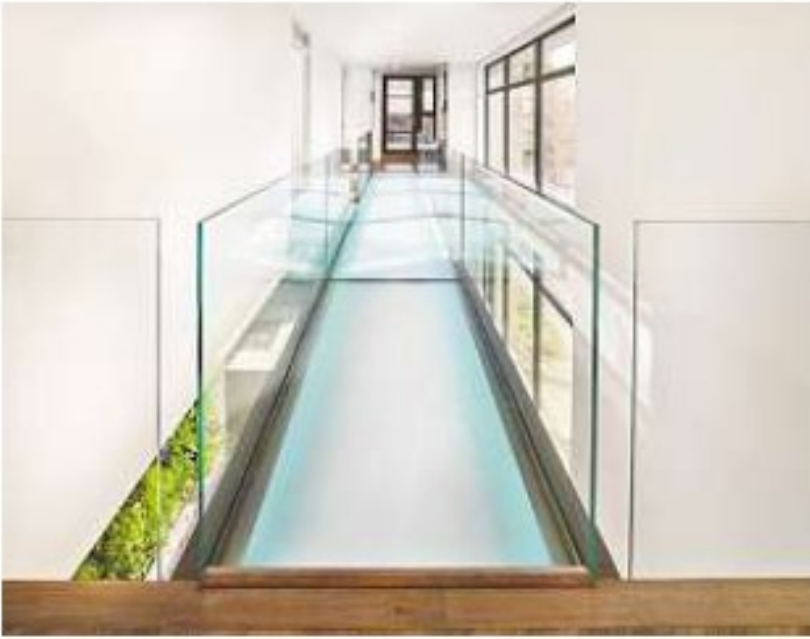




The esthetic on the four levels is warm and elegant.



A glass-clad suspended second level bridge makes a dramatic statement.



The 4,489-square-foot home in Garneau draws on clean lines and green features. PHOTOS: EFFECT BUILDERS

HOME MELTS SUSTAINABILITY AND STUNNING DESIGN DETAILS

Light-filled Garneau residence customized for busy family of six

ANDREA COX

Sustainability in residential design can mean many things, but for one Edmonton family, the term represents a collage of meaningful attributes — namely family-friendly, healthy and energy-efficient living.

Two years ago they moved into their 4,489-square-foot, four-level infill in Edmonton's coveted community of Garneau. The award-winning design — it won the 2020 Award of Excellence in Housing for an infill over 4,000 square feet from the Canadian Home Builders' Association-Edmonton Region — embraces the clean lines and clarity of contemporary minimalism, while incorporating plenty of green features from the recently added rooftop solar panels to an uber-tight building envelope and even a floor-to-ceiling living wall.

The owners, who both work at the University of Alberta, had a significant list of must-haves.

"The goal was to try to put them all into the house," says the husband, Justin, who asked to be quoted with just his first name for privacy reasons. "And for the most part, we got everything that we wanted. I don't think we would change a thing."

The list included a timeless, family-friendly floor plan with plenty of room for the kids to run around — the owners have four busy and energetic children ranging in age from a one-year-old toddler to teenagers — an unadorned esthetic punctuated with thoughtful details creating an overall welcoming

warmth, a designated children's wing and play area, as well as a large open family space, fluid movement between the indoors and outdoors and an attached garage.

"Sustainability was just a given," says Justin, noting that he and his wife chose the community of Garneau for its location and walkability. "We didn't want to spend 40 minutes each way in a car driving to work. We wanted more time for the priorities like family, like exercise," he says. "Now it takes us five minutes to walk to work."

To achieve the goals, the family brought on architect Louis Pereira of Thirdstone Inc., and Effect Builders, an Edmonton home-builder known for its net-zero designs.

"Over the past few years there has really been an awakening," says Les Wold, sales and marketing manager for Effect Builders.

"People are becoming much more aware of what is available, and they are investing in their forever home — the home has really become the centre, especially now. Flexibility in design — for work spaces, for aging in place and sustainability — are very top-of-mind."

Thirdstone Inc.'s Pereira explains that much of the home's design was dictated by the long and narrow 29-foot wide by 200-foot long site.

"The lot also featured both a rear alley and a side laneway, which gave us separation from the adjoining property, allowing us to maximize and increase the amount of glazing," says Pereira, noting that effective use of glazing



A green wall and a grand piano on a raised wood-planked platform grace the main living level.

can minimize heating and cooling costs within a home.

The home's design was also limited by height restrictions.

"In order to circumvent the mature neighbourhood regulations and create four levels of living space, we started at maximum height level and worked our way down," says Pereira. As a result, 18 feet of the home resides below grade, beginning with a 12-foot tall basement level that contains a kids' hangout area and full gym with a martial arts studio and a basketball hoop. The second layer, the children's wing, composed of four bedrooms, is only partially below grade with large sunshine windows. The third level contains

all of the public living spaces, while the top floor features the master bedroom and ensuite, a nursery and a large outdoor terrace. An underground tunnel connects the stand-alone rear garage with the home. That said, much like the great master of mid-century modernism Le Corbusier, Pereira uses light to stunning effect throughout the home. The home's west side is clad in multi-level floor-to-ceiling glazing, but it's the glass-clad suspended second level bridge — spanning 25 feet south to north from the top of the open clad risers of the architectural staircase to the rooftop deck overlooking the backyard — that makes the most impressive statement. It literal-

ly floats mid-air reflecting light from the window bands that wrap around it.

A grand piano takes centre stage in the great room, displayed on a raised wood-planked platform. The free flowing elliptical shape takes a nod from a musical structure, a perfect fifth with a ratio of 3:2, evoking rhythm and movement in its curvilinear lines.

Underneath the home's stunning design nuances, the bones of the design also take centre stage. Effect Homes utilized insulated concrete form below ground and above grade an HP+ advanced wall system enhanced with Roxul insulation. The two combined created an extremely tight building envelope. With the addition of a heat recovery ventilator system, which preheats the fresh air coming into the home by 88 per cent (meaning the furnace only has to heat the air another 12 per cent) and the recent addition of rooftop solar panels and a Tesla Power Wall installed and designed by SkyFire Energy (it went live this January), the home packs a giant sustainable punch, consuming only 13 per cent of the fossil fuels of a home of similar size.

"We couldn't quite afford to add in the solar panels when we were building, but it seemed like a reasonable choice to add in later. It's an investment that will pay off going into the future. We will definitely have more of an idea as we go through a few seasons," says the owner.



Light is used to stunning effect throughout the home.



The basement has a full gym, basketball hoop and kids' hangout area.