

## STUDENT RESIDENCE DEVELOPMENT – PHASE 1 – SIMON FRASER UNIVERSITY

by NATALIE BRUCKNER

here's excitement in the air up at Simon Fraser University's (SFU) Burnaby campus as the first phase of an incredibly impressive fivephase campus master plan quickly heads towards completion.

The first phase – the Student Residence Development that consists of a seven-storey and eight-storey tower located on the former Louis Riel Residence site – is part of the SFU Burnaby 2065 Campus Master Plan that was adopted by SFU's Board of Governors back in 2020 to act as the guiding document for future development on the Burnaby campus. The plan demonstrates SFU's commitment to enhance the student experience, respect Indigenous peoples and cultures, create vibrant campus spaces, and act as a model of sustainability.

As the first development in the 2065 plan, it was essential that the Residence Buildings for first year students would set the tone for the future direction of the campus. A highly skilled team was therefore required (that included SFU and its many stakeholders, Dialog, and Scott Construction) who would understand what it takes to provide safe, comfortable, and attractive housing with the flexibility to accommodate students of varying abilities, cultural, and lifeg style requirements.

Early on in the process, the team took part in extensive research to ensure the design of the residence buildings would meet the requirements of all users today and would also stand the test of time, while respectfully acknowledging the traditional Coast Salish Lands including the Tsleil-Waututh, Kwikwetlem, Squamish, and Musqueam Nations on whose traditional territories the Burnaby campus resides.

"We toured various universities, including the University of Washington in Seattle, where we saw great examples of contemporary residence buildings that were developed to not only ensure students feel at home, comfortable, and safe, but that created extensive social opportunities. The success of any residence experience depends on creating those social experiences. This became the focus for the new residence buildings," explains George Venini, senior project manager at Simon Fraser University.

Dialog, led by principles Norm Hotson (now retired) and Marion LaRue, alongside Pauline Thimm and the team, were given licence from the get-go to explore and reimagine the space. "The expectation of student residences has changed dramatically over the years. We wanted to pay respect to the 1960s' Arthur Erickson philosophy behind the campus, while creating comfortable spaces for living and promoting health and wellness. It was an opportunity to provide amenities for the entire campus that spoke to the Erickson idea of everyone colliding; all these factors fed into the orientation of the two u-shaped buildings," explains Thimm.

It was decided that the buildings would enhance this contrast of the 'urban' character in the residence courtyards and the 'natural' character of the mountain landscape within the connecting green corridors. Following Erickson's initial vision of SFU, the green fingers of landscape that intersect the site help strengthen this overall vision.



LOCATION

Simon Fraser University, University Drive, Burnaby, B.C. OWNER/DEVELOPER

Simon Fraser University

ARCHITECT/INTERIOR DESIGN DIALOG

CONSTRUCTION MANAGER Scott Construction Group STRUCTURAL CONSULTANT

RJC Engineers MECHANICAL CONSULTANT

AME Consulting Group

**ELECTRICAL CONSULTANT** AES Engineering

LANDSCAPE ARCHITECT PWL Partnership Landscape Architects Inc. TOTAL SIZE

178,700 square feet **TOTAL COST** \$75 million

Being located on a slightly sloped site meant the two towers would vary in height, as Simon Down, project director at Scott Construction Group explains: "There is a slight drop in elevation of about five metres, which meant one tower would sit at seven-storeys, while the other would be eight-storeys. We were fortunate in that the ground condition was better than the geotechnical report stated, so the superintendent managed to negate a lot of the shotcrete shoring and save time."

For the exterior it was decided that the buildings would consist of reinforced concrete with the envelope system being a combination of brick facade on the south, east, and west elevations, with strategic placement of steel ledges, composite metal cladding, punched windows, and metal panels on the inside of the courtyards.

The concept for the treatment of the base is a transparent, lighter volume clad in curtain wall and punctuated with solid material such as metal panel (pre-patinated copper). "We went with white brick on the exterior to add brightness and reflect the sun, and we landed on copper, a theme that continues inside the building, as a mark of respect to the traditions of the Indigenous peoples," says Thimm.

The entrances to the buildings, which resemble pop-out portals, are found on the north side, within the beautiful courtyards and take you into a space that has a real 'wow' factor.

"We toured some newer residences at UBC and we were quite taken with the student lounges, which influenced the design inside. The phase one residence lounges are double height and each lounge connects two floors together. They are quite spectacular spaces with high ceilings, amazing views, and lots of access to natural light. The lounges create circulation as they are connected to the stairwell and elevator cores; it creates great social opportunities," says Venini.

Thimm adds, "We tried to think about scales of community. As you move through the building we have informal spaces on all floors, but the lounges that serve two floors at a time give a different sense of community. You are guaranteed to have face time with students and it is here you can hold a Thanksgiving dinner, for example."

In addition to the expanse of curtain wall and glass, Down says that Linea wood ceiling panels were added to provide a warm, homely environment and break up the visuals, while copper metal architectural panels by Keith Panel Systems that have already been oxidized, connect the building from outside to in.

While the podium level contains a variety of amenity program areas such as a multipurpose room, games room, fitness room, music practice room, two staff faculty apartments, house lounge, as well as a lobby with front

desk, bathrooms, and service spaces, the residential floors above are all single occupancy bedrooms for a total of 482 beds. These floors also contain commonly accessed private washrooms, laundry facilities, study rooms, and informal seating areas. Every two





floors share an interconnected double-height floor lounge, however the top floor lounge is single-height and serves that floor only.

As part of SFU's commitment to sustainability (the building is targetting LEED Gold), attention was not only paid to ensure minimum waste, but one of the sources of heat for the new Residence Buildings now comes from the SFU District Energy System (DES) through means of an Energy Transfer Station (ETS) located within a basement mechanical room. The system uses clean wood waste to create an 80 percent reduction in greenhouse gas emissions when compared to fossil fuel and electricity use.

In addition, attention has also been paid to aspects such as increasing

student safety, as Venini explains: "We have installed a state-of-the-art security system. All the locks are electronic and managed by a centralized system, rather than being wireless. This is a first for SFU. The cost per lock was significantly more than keyed locks, but worth it. It's a very skookum system!"

With an expected completion date at the end of April, the team reflects on what has been a very impressive project constructed during the throes of a pandemic.

"The real takeaway for me with this project is the approach in how the project was contracted [it was a CM Roll-over contract model]. It really allowed you the opportunity to develop worthy relationships with the consultant group, the owner group, and the trades, and to bring forward your expertise. It created a team culture before we even started," says Down.

For Venini, he is overjoyed with the project, and adds: "What really stands out to me is the high quality of the architecture. SFU wants to build buildings that will last for another 50 years and what the team has achieved here will help us with our mission to create successful student experiences today and for many years to come."