

Harmony Commons

University of Toronto Scarborough



Harmony Commons, situated in the center of the University of Toronto Scarborough 300-acre campus, was developed to elevate and invigorate the standard for student housing. Designed to house 746 first-year undergraduate students, this new student residence will serve the wider campus with its first full dining hall, and house central offices and event spaces to support student life.

Harmony Commons is one of the largest projects in Canada to incorporate Passive House Design, a

German certification program, which significantly reduces the energy needed to operate a building. The high-performance building envelope utilizes vertically patterned aluminum paired with earthy tones that were inspired by Scarborough's regional geography for its dynamic pattern.

Team

Design Architect - Handel Architects

Executive Architect - CORE Architects

Architect of Record - IBI Arcadis

Interior Designer (dining & event spaces) - PARTISANS

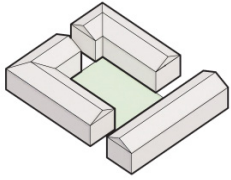
"Harmony Commons is a demonstration project to the world. We took on the challenge of building it as Passive House because it is the right thing to do for so many reasons. We are so proud of everyone that worked to make Harmony Commons a reality!"

- Andrew Arifuzzaman, Chief Administrative Officer, University of Toronto

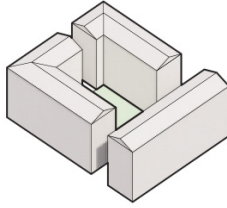


The Vertical Quadrangle

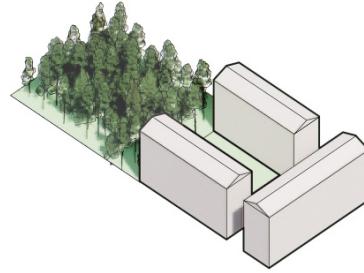
Handel Architects' approach is based on the organization of the traditional campus quad.



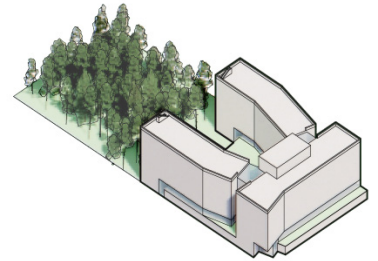
Traditional campus quad.



The number of residences was increased vertically.



One side was removed in order to open the building up to embrace a treasured grove of trees.



The form was then sculpted to improve views, create defined living wings, and mark the formal corner entry.

Facade

Double-story layering reduces the apparent verticality of the building, enhancing its "fit" into the low-rise neighborhood, and creating an informal domestic feel. The window size was selected in order to maximize exposure to natural light, while minimizing potential heat loss and maintaining functional operation without sacrificing the layout of the internal spaces. The 400mm/16" thick envelope is tightly sealed and contains triple glazed windows with UPVC frames. Min 200mm/8" of insulation at the roof keeps conditioned air in.

Component	Efficiency
Roof	R-40
Walls	R-30 Avg.
Windows	U: .013



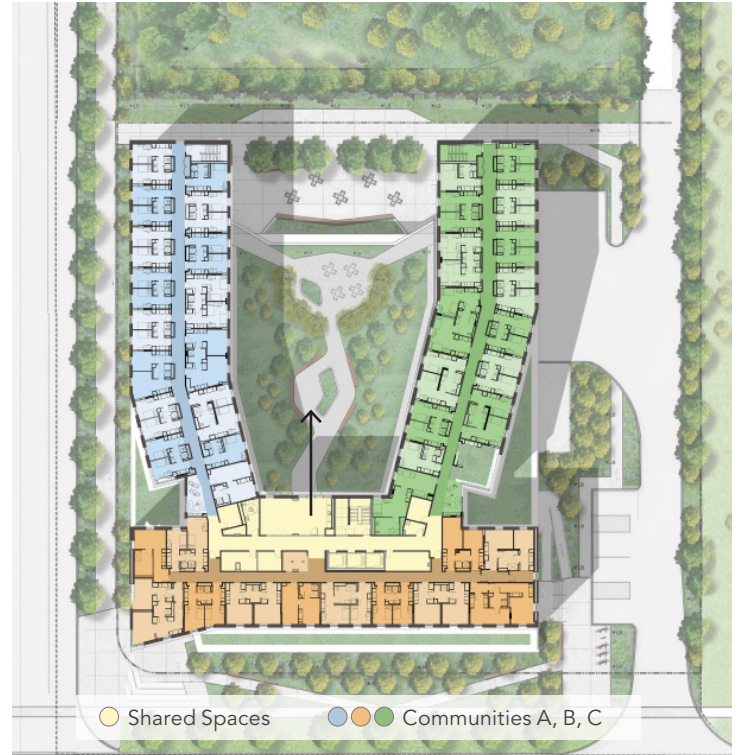
Dining hall



Common connector



Two-story entry



Individual Communities, Typical Floor Plan

Dormitory rooms are arranged in clusters or "communities," each having their own identity. At the entry to each community students pass by their resident advisor and a gathering space. The floor is served by 2 group study rooms, and a common kitchen/activity room for planned or impromptu interactions. The common room overlooks the landscaped terrace and grove of trees in the distance.

Healthy Occupant Experience



1. Fresh air
2. Sound isolation
3. Biophilic colors
4. Even temperatures

Heating/Cooling and Ventilation

The building is heated and cooled by a VRF split system with condensers sitting on upper roof and each room has a dedicated fan coil unit. Energy recovery ventilators provide filtered fresh air. Additionally, an active drain water heat recovery system pulls heat off of waste water.

