

# THREADING THE NEEDLE ON MASS TIMBER DESIGN



**Matt Durnan**

A mass timber affordable seniors' housing development under construction on a church site on the Danforth is nearing completion, offering a leading-edge example of what is possible to accomplish when redeveloping tight urban sites, while preserving a prominent church building that has stood in the neighbourhood for nearly 100 years through adaptive reuse.

Social services agency **WoodGreen Community Services** and prefabricated modular homebuilders **Assembly Corp.** have been hard at work on a site at 60 Bowden Street in Toronto's Danforth neighbourhood assembling an eight-storey mass timber mixed-use building that will bring 50 new affordable housing units geared to seniors to the area. This includes 18 aging-in-place dwelling units for seniors that require day-to-day care.

The development retains the front façade of the existing church on the site and its entryway, along with portions of the east and west façade and a turret at the rear of the site.

The front (north side) of the existing church will serve as the entrance to the new building from Danforth Avenue and the retained sections of the church will remain open to members of its congregation.

The site has been the home of the Danforth Baptist Church for nearly a century. WoodGreen was working through the site plan approval

phase of the development process back in March of 2023. Now, construction on the project is nearing completion, with occupancy expected by fall of this year (See: "Surgical Retrofit", *Novae Res Urbis Toronto*, March 24, 2023).

"For the longest time, when the market was still much more open, we would be able to find rental accommodations for

most of our clients. And our client base is hard to house. In the last 10 years, the market has really dried up. And we jumped into the field of now having to develop our own buildings," WoodGreen vice president of housing services **Mwarigha** told *NRU*.

"In doing that, we were guided by a number of principles, one of which is obviously affordability. But the second thing is we have a strong tradition of being embedded in terms of our buildings and housing to create a mixed neighbourhood situation. Tapping into some of the community resources that could be leveraged to provide affordable housing was important. And a couple of years ago, we actually built our first building by purchasing an

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Image of the proposed partial demolition of the Danforth Baptist Church. The areas of the existing church building shaded red would be removed in order to accommodate an eight-storey mass timber seniors' residential building. The areas outlined with white dash marks will be retained.

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old church and turning that into housing at 117 Gerrard Street.”

The concept of developing an eight-storey mass timber building on the site was a fairly innovative one three years ago, but in the time since 2023, the **Province of Ontario** has amended the *Ontario Building Code* to increase height allowances for encapsulated mass timber buildings.

“The timing has been interesting with this in that when we started out, eight storeys was still kind of a notion. And since then, the Province has updated the [Building] Code that allows us to make eight-storey wood a little more cost-effective,” Assembly Corp co-founder and principal **Leith Moore** told *NRU*.

“They’ve mimicked the encapsulation standards for six storeys and below mass timber and they’ve now brought that up to eight storeys, so that allowed us to expose more cross-laminated timber (CLT), especially the ceilings in the buildings, and that’s something that allowed us to demonstrate more wood. There’s health and wellness benefits that come with wood—we did a lot of studies about that—but also just less drywall, and it made it more cost-effective to build.”

While pre-fabricated mass timber builds like this are lauded for being cost-effective and fast to construct, Moore says that there is still a conversation to be had when it comes to form versus function, adding that the Bowden Street project serves as an example of how design is still an important element of these developments.

“Yes, it’s off-site. Yes, it’s pre-fabricated. But it’s also quite beautiful. There is a lot of detailing to it in terms

of it’s not just a flat box that everybody always assumes you’re going to come up with as a mass timber building and that they’ll all look the same,” Moore said.

“This is a good example of how you can use mass timber to achieve a higher design standard.”

Another noteworthy element of the project is the adaptive reuse of the existing church building that was at one time being proposed for heritage designation. Although that designation was put on hold, the City’s heritage planning department was still quite hands-on with respect to how they wanted to see the site redeveloped.

“The City told us that if we’re going to do an adaptive reuse that it has to be a true and qualitatively useful adaptive reuse. A lot of other proposals that were being made on this site previously were just going to tear it all down and build a new building and keep nothing,” Moore said.

“The fact that our system can really involve selective demolition, and with the ability to float panels in and drop them within an inch of the existing structures, it really is sort of ‘threading the needle.’ That’s why we’ve been able to demonstrate the precision of a pre-fabricated wood structure. It’s light enough to be able to crane it around

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Illustration looking west across Bowden Street. The front and rear sections of the Danforth Baptist Church are being retained and an eight-storey mass timber building accommodating 50 affordable rental dwelling units for seniors is currently being constructed in between the two retained sections of the existing church building.

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3D massing diagram with a view looking southwest from Danforth Avenue at the redevelopment of the Danforth Baptist Church at 285-297 Danforth Avenue and 60 Bowden Street. The pink shaded area of the illustrated structure shows the eight-storey mass timber residential building that is currently being built behind the existing façade of the church, which is being retained through the redevelopment, along with portions of the Bowden Street façade. The retained elements of the existing structure appear in grey.

SOURCE: ASSEMBLY CORP. (FORMERLY R-HAUZ)  
ARCHITECT: MCCALLUM SATHER

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and drop it in. Seeing it up above the church and being so tight to that heritage piece that we're keeping, I think that from a design aspect, and the ability to work within tight, adaptive sites, makes this really exciting.”

That excitement goes beyond just the manufacturer and builder on the project, as WoodGreen is relishing the opportunity to be involved in other innovative housing projects like this one and contemplating what it could mean for the future of non-profit housing in the city and beyond.

“I think this is an opportunity to show those who think that the non-profit sector

is only about just creating units for the disadvantaged or hard-to-house. While that is true,

we're also at the forefront of innovation and taking some risk in using mass timber on this site. Most private developers would just walk away, but we have the privilege of balancing square footage, return, and costs, but also recognizing that we need to make sure the product is fit for

the purpose,” said Mwarigha.

“We now have a solid showcase that we can take to financial institutions and [approach] new financing opportunities like Build Canada Homes where we can say ‘We have done this, and now you need to support us in our journey to scaling this’. We need to accelerate and scale from 1,000 to 5,000 units in the next four years. This is not only a good and fast way to get to that outcome, but we also get to nurture local industry and producers or new construction materials. The downstream effect of being able to support more projects like this is huge.”

The development team expects construction to be completed later this year, with occupancy expected this fall.



Photos showing views of WoodGreen Community Services' currently under construction eight-storey mass timber building at 60 Bowden Street in the Danforth neighbourhood. The new building will provide 50 affordable housing units geared to seniors, including 18 units that will be dedicate to seniors who are aging-in-place with daily care needs. Assembly Corp is the manufacturer and builder of the pre-fabricated construction project that is also an adaptive reuse project that incorporates a portion of the Danforth Baptist Church that has existed on the site for nearly a century. Construction on the project is expected to be completed later this year, with occupancy slated for this fall.

SOURCE: ASSEMBLY CORP.