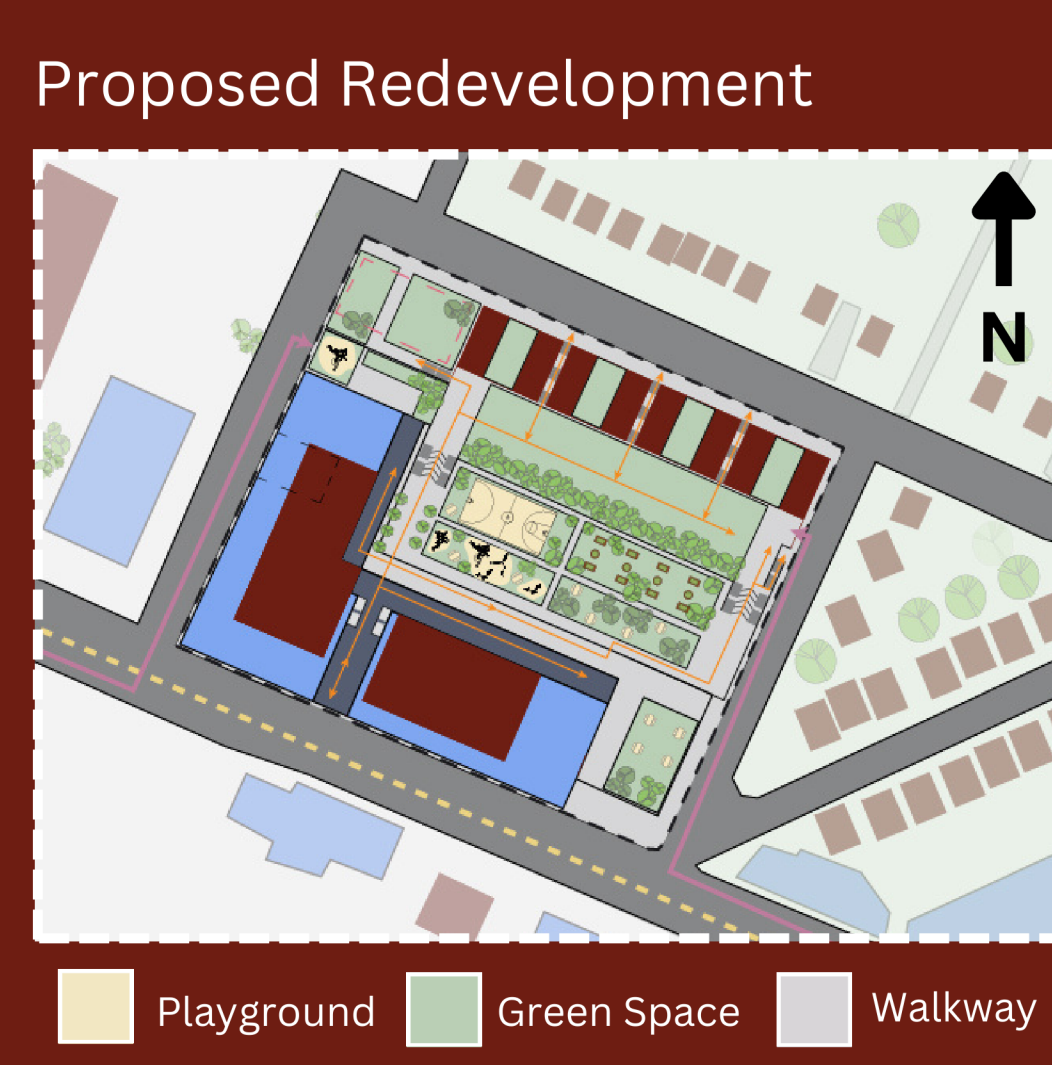


THE GREG

grand river estate gardens



SEAN Co. - AE425 - A9 Kitchener Community Redevelopment

In Phase 1, Sean Co. responded to the Ontario Government's plan to develop The Greenbelt land by using the concept of intensification. This land was under threat of urban sprawl and development when the project began, but in September 2023, plans to develop were canceled. Still, the housing crisis is ongoing, making intensification and redevelopment more important than ever.

With a projected 19.8 million people by 2046 in Ontario, we no longer have the luxury of building homes that ineffectively utilizes the land. There are currently numerous potential sites within city limits that are extremely low density, such as parking lots. Sean Co. started the project by selecting a low-occupancy site in the heart of Kitchener-Waterloo. The current site encompasses a sea

of parking lots with three individual commercial buildings on King Street and single detached homes facing Linwood Street. **Sean Co. re-imagined the site by focusing on intensification, resident quality of life and energy sustainability.**

Sonya Sydoruk, Erin Hart, Aidan Moroz, Nadine Metwali



Residential Suite



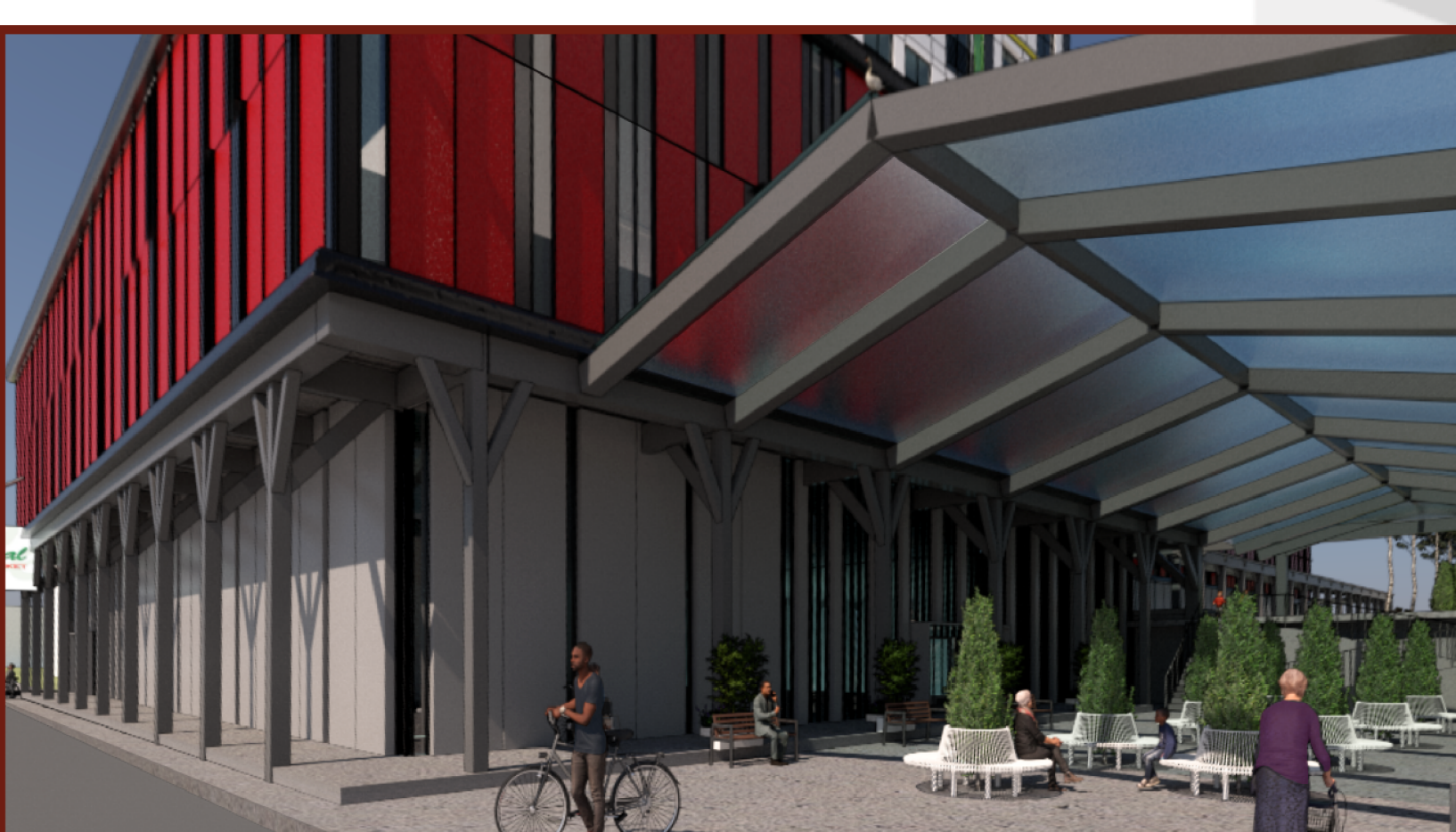
Typical Bedroom



Office Space



Grocery Store

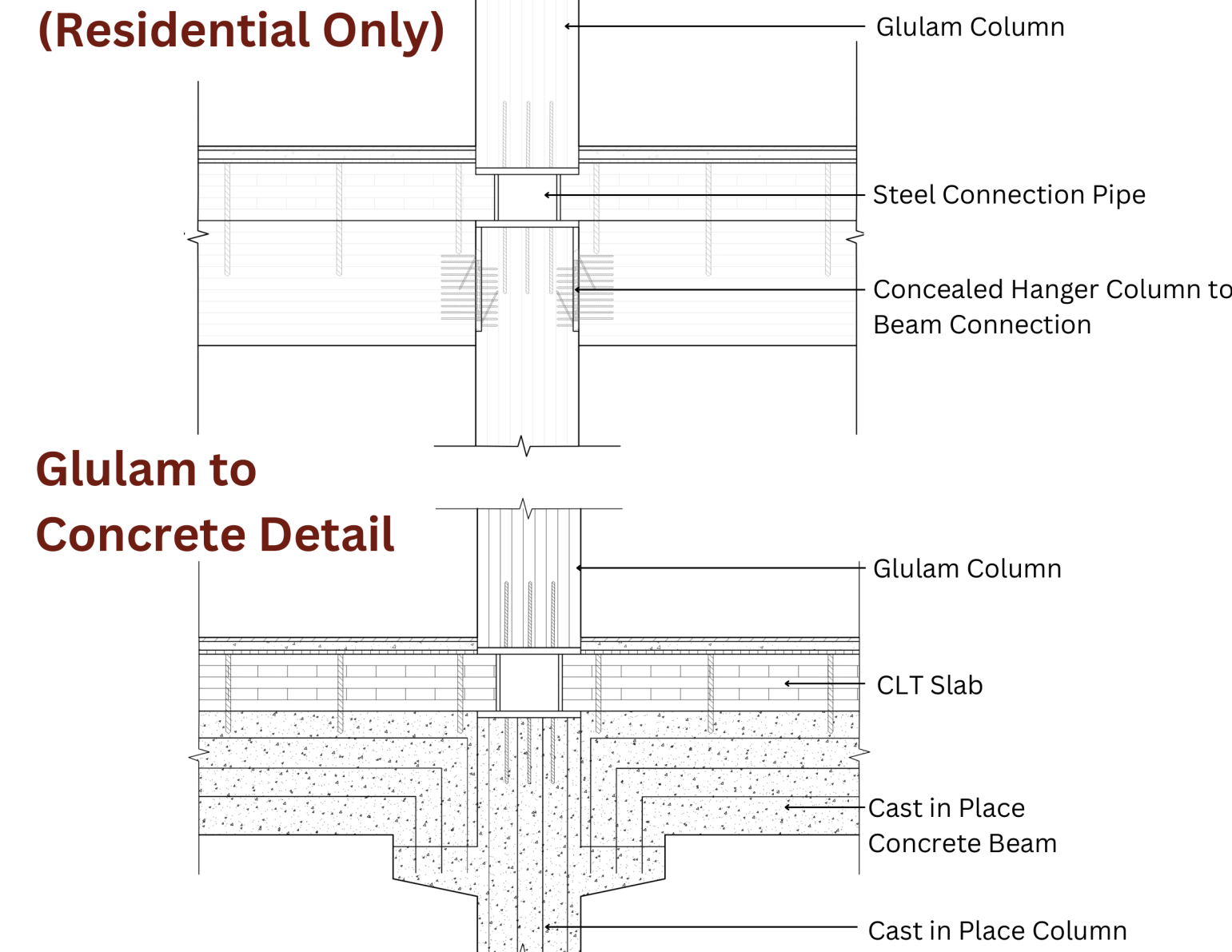


Exterior Entrance Canopy

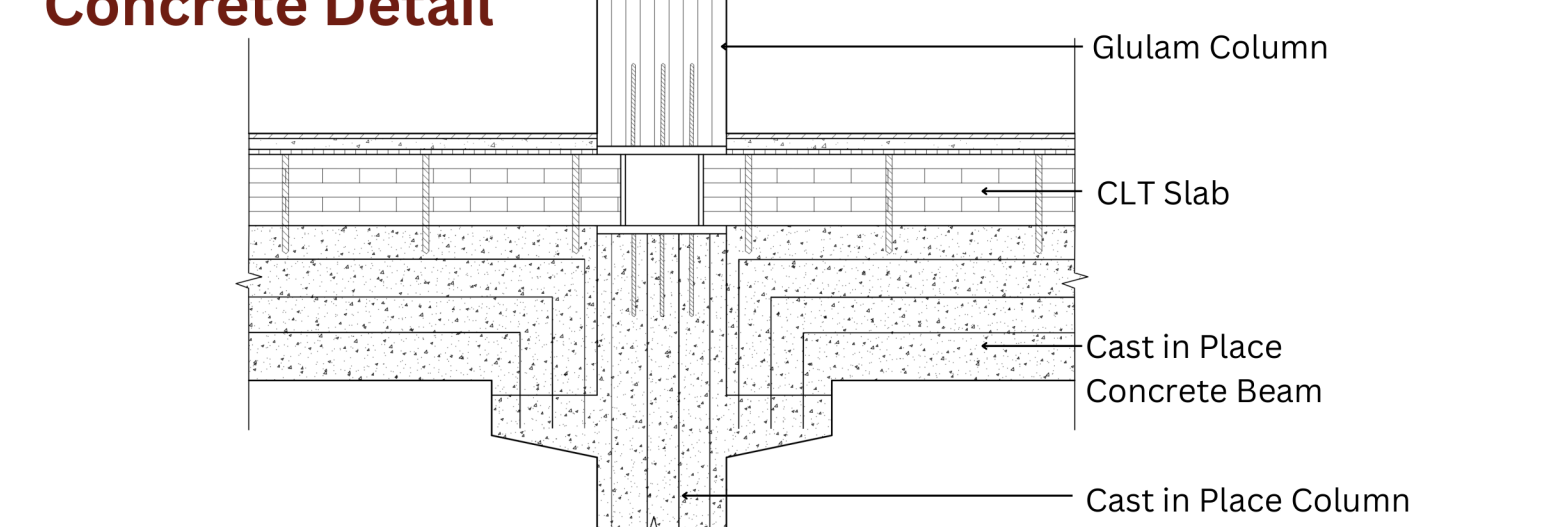
UNIVERSITY OF WATERLOO | FACULTY OF ENGINEERING

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<https://www.un.ca/sustainabledevelopment/cities/>

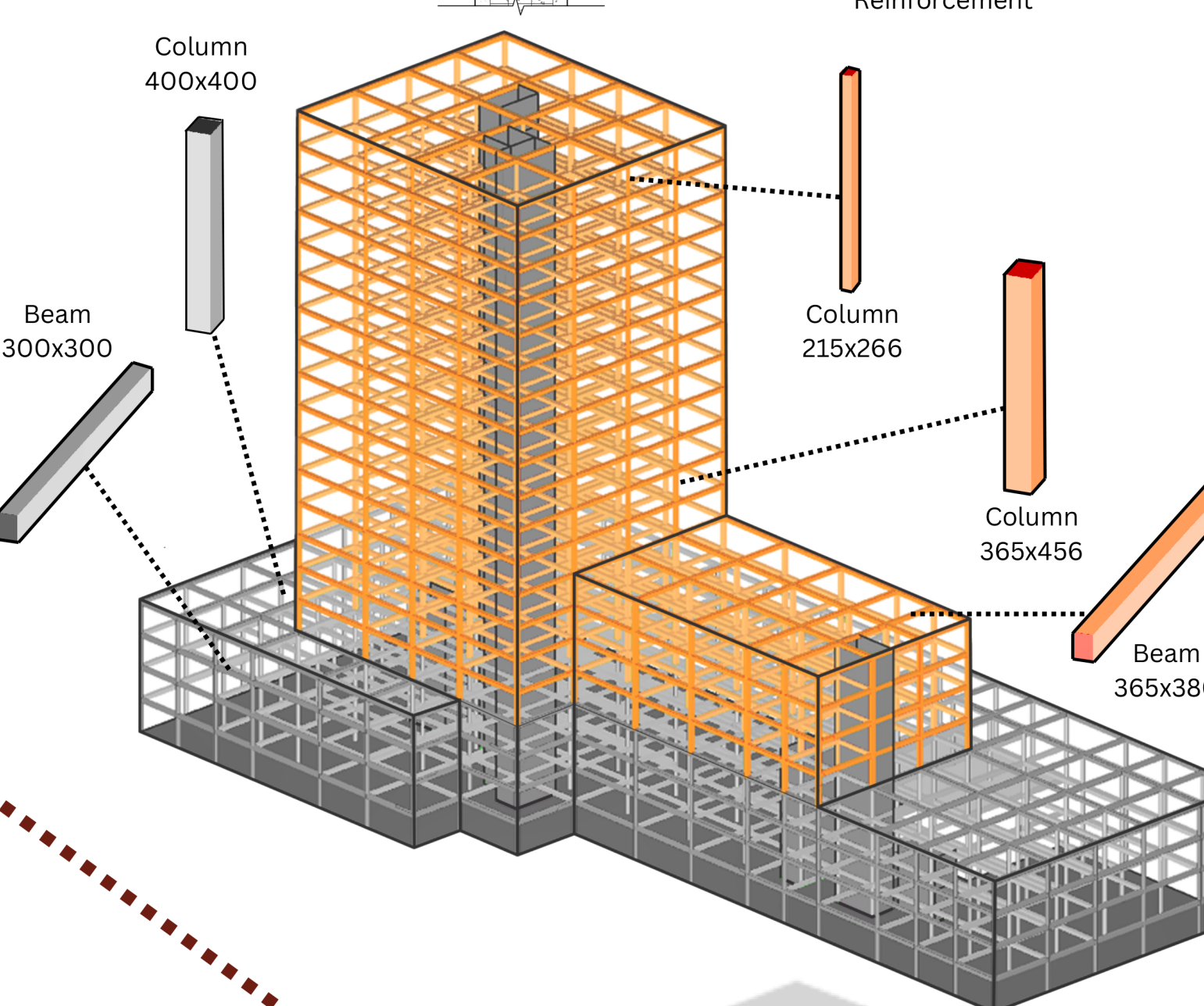
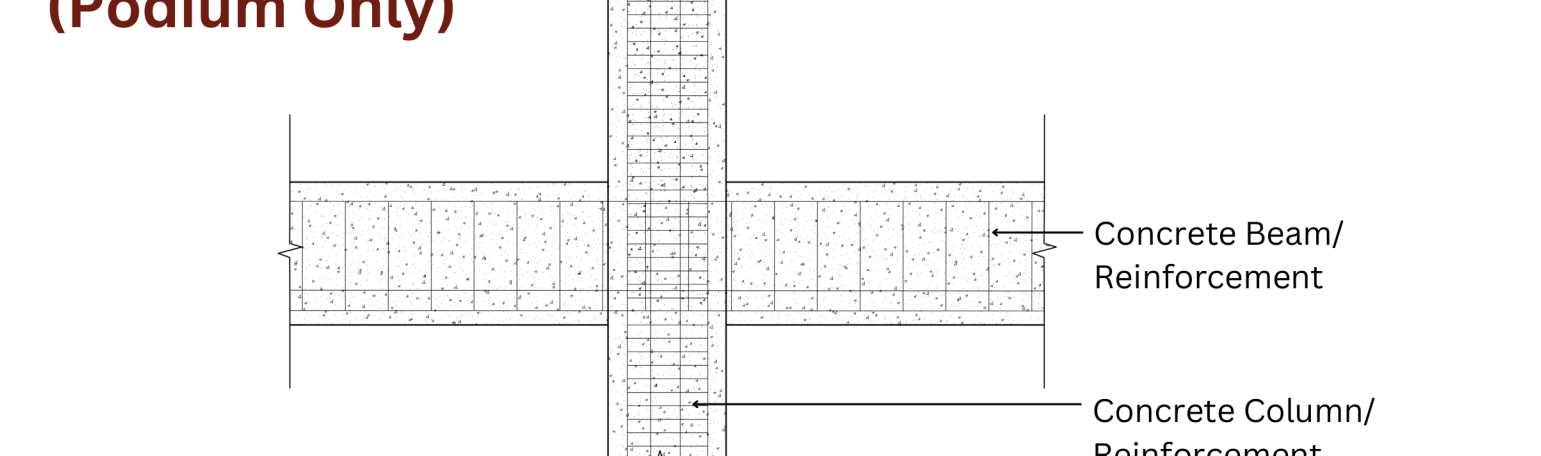
Glulam Detail (Residential Only)



Glulam to Concrete Detail

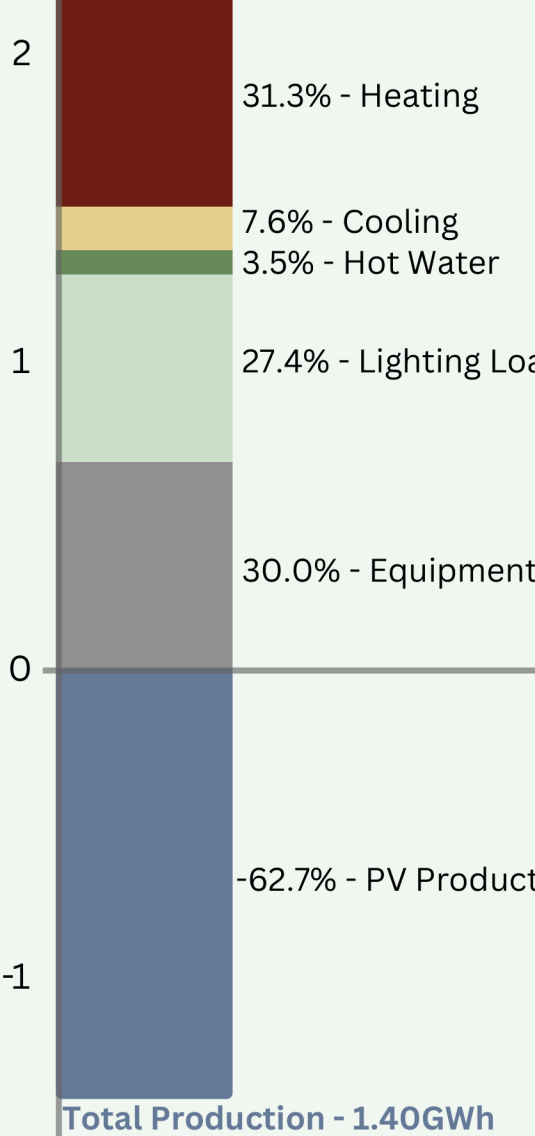


Concrete Detail (Podium Only)

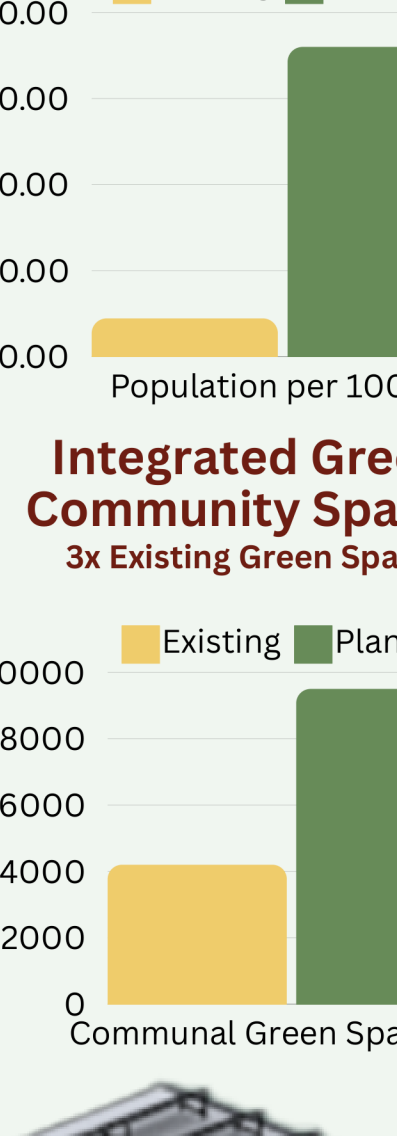


Success Criteria

Annual Energy Use
Energy Consumption - 0.83GWh
Total Consumption - 2.23GWh



Intensification
8x Existing Population
Total Consumption - 2.23GWh

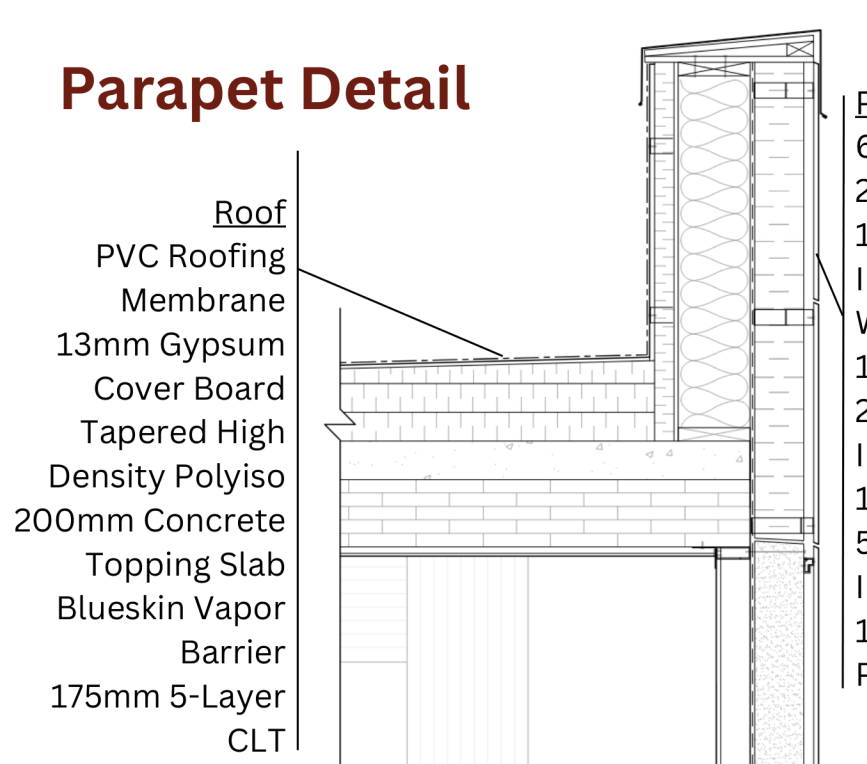


Integrated Green
Community Spaces
3x Existing Green Space

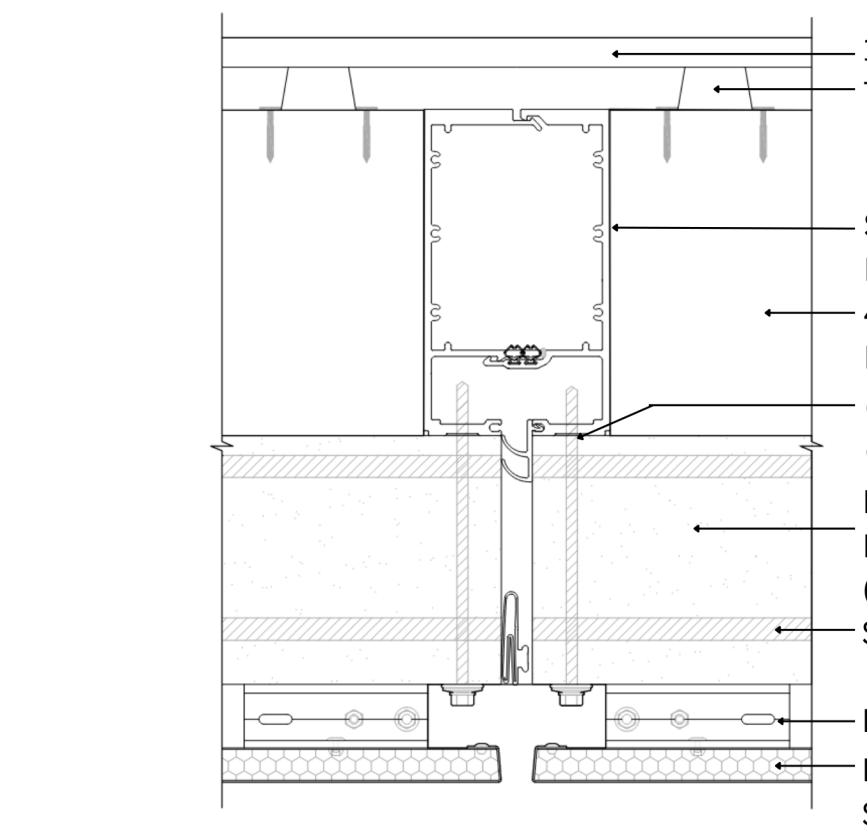


- 11.1 Increase access to housing and basic services
- 11.2 Access to public transport
- 11.3 Sustainable urbanization
- 11.7 Access to green and public spaces
- 11.A Strengthening national and regional development planning
- 11.B Increase plans towards resource efficiency

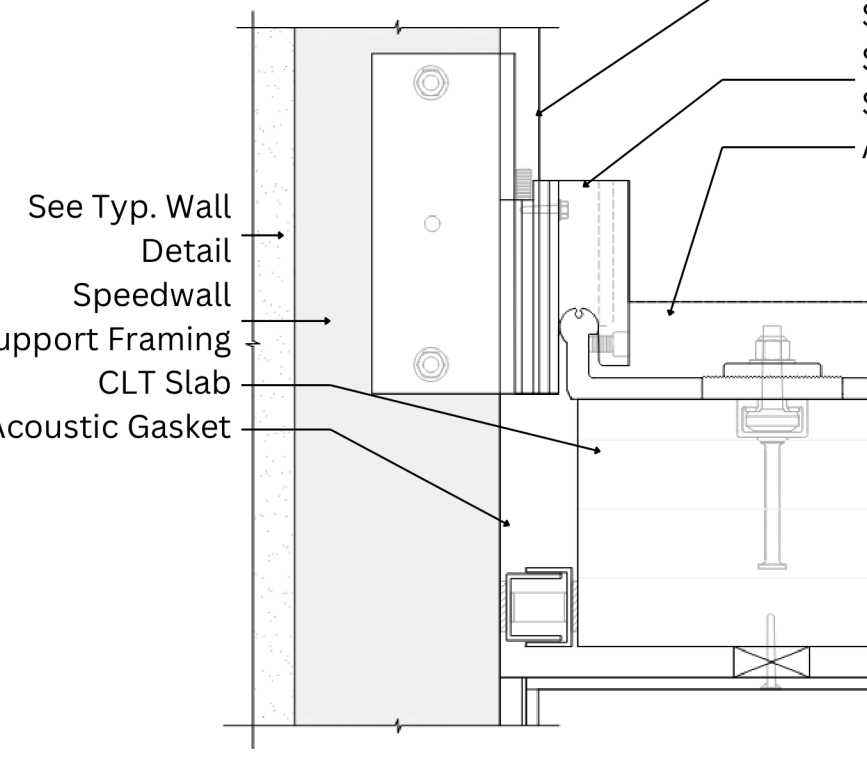
Parapet Detail



Typical Wall Detail - R48



Wall Anchor Detail



Speedwall Unitized System:
Fast Installation
Air Tight
High Performance
Integrated Thermal Breaks
Meets LEED V4, Net Zero
Targets, and Passive House

Service Diagram

