



in partnership with



LATIFA MOHAMED

MEALAN; Versatile Food HUB



View showing, multipurpose subpods, urban farming on walls, the opaque building side is the residential and the transparent side is the market

DESIGN PHILOSOPHY

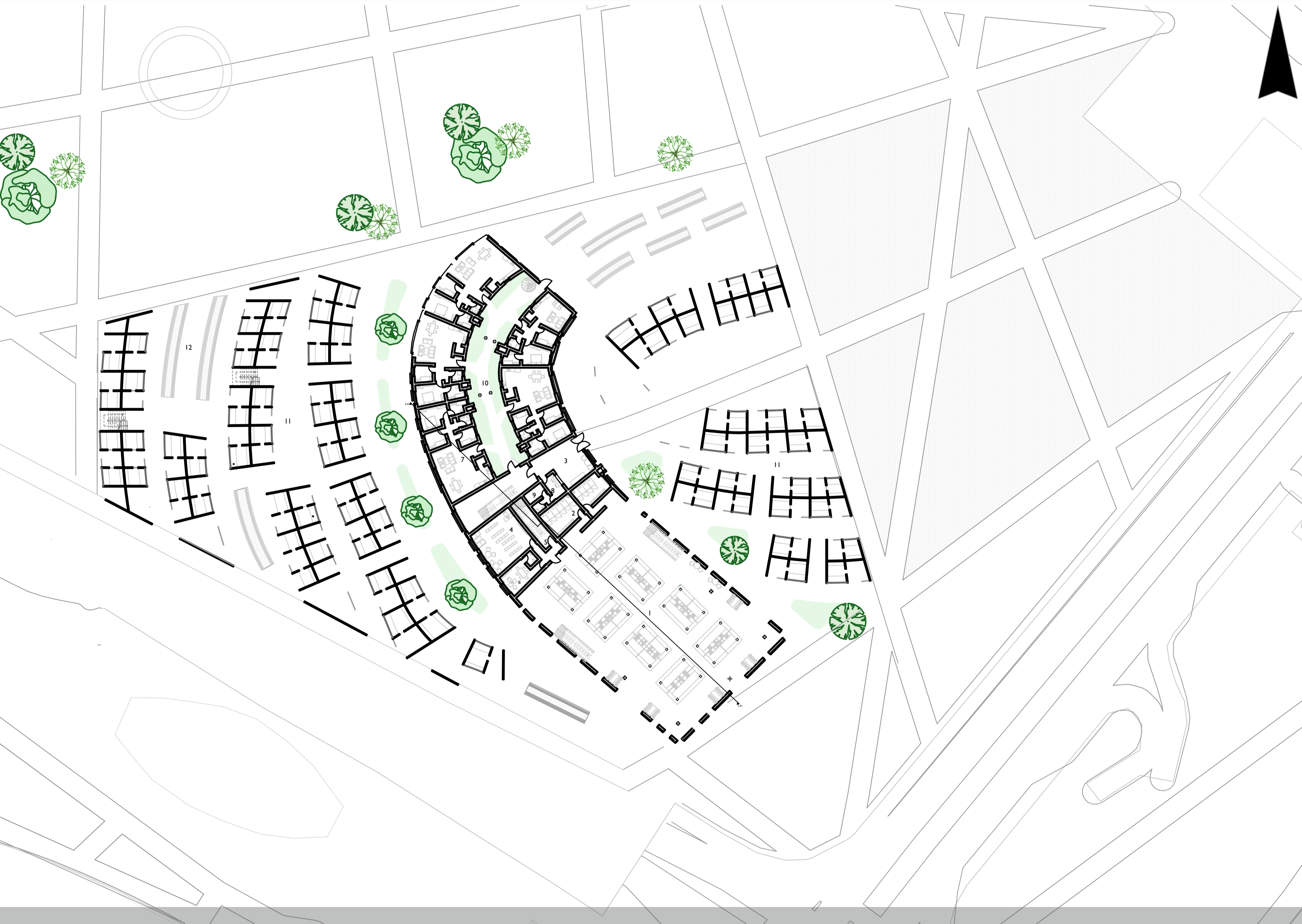
Milan, Italy is famous for food. The versatile food Hub is more than a street food Market but a learning, fun and cultural place with accommodation for both staff and students, because the Street food market will alternate between indoor and outdoor during winter and summer season to an indoor cooking class. During winter outdoor market is not conducive. The hub allows for food sustainability cycle on site and generation of solar energy from the transparent Market facade with installed Solar glass. The accommodation side has carefully considered Passivhaus strategies. Food Markets are places for experiencing the diversity and culture of a place. Since the site poses as a touristic destination incorporating a food hub will suit better. Thus a food market is an identity of a place and the concept behind is a fingerprint.

PROJECT FACTS

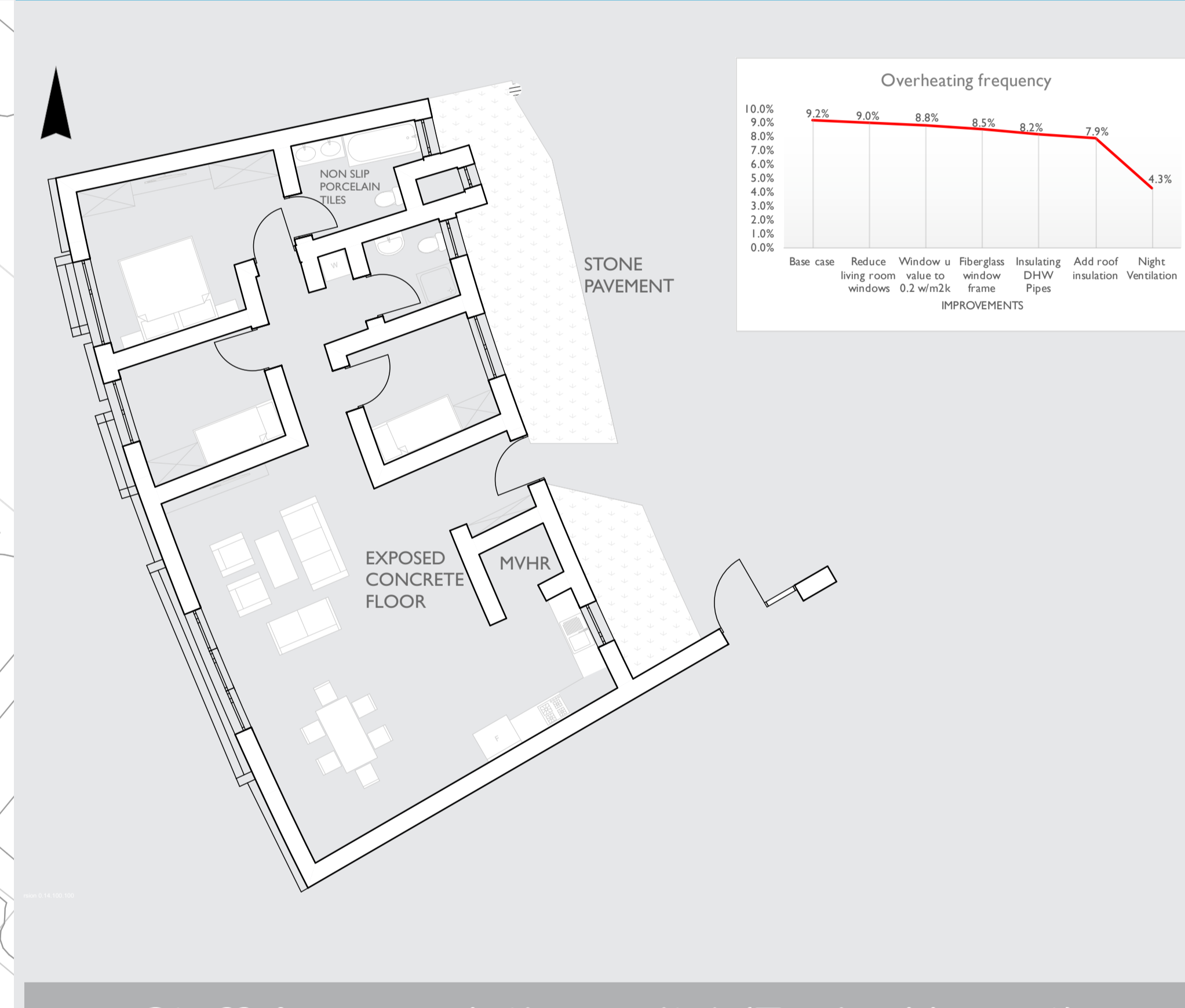
Residential Building Use	City Milan	107.9m² TFA
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PASSIVHAUS STRATEGY

- **Ventilation & summer comfort strategy:** MVHR of 91% efficiency maintains a comfortable air supply except in June (summer) when windows are opened for cross ventilation aided by Courtyard.
- **Shading strategy:** Vertical recycled timber screens on the windows to allow winter sun and overhang shading and excess window reveal depth from the living wall around to block summer sun.
- **Heating strategy:** High performance CUIIN windows, Fiberglass window frames, high insulation, Thermal bridge free, Thermal mass from a combination of medium weight timber construction and exposed concrete floor, all result to minimum heat loss, also proper orientation along N-S axis due to terraced housing design and solar gains from winter sun.
- **Airtightness:** Pro clima Intello plus offers high diffusion tightness and openness in winter and summer respectively and Pro clima Solitex for windtightness.
- **DesignPH analysis** is applied to apartment with the least favourable orientation



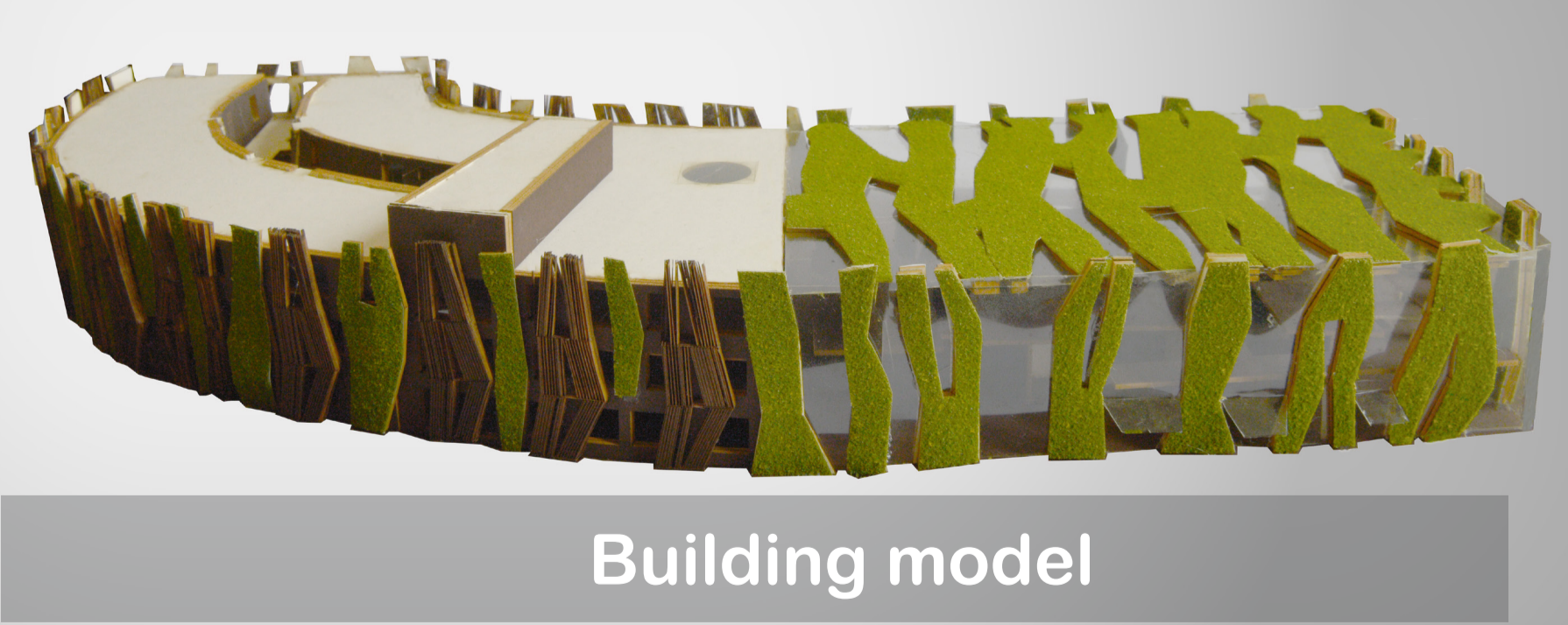
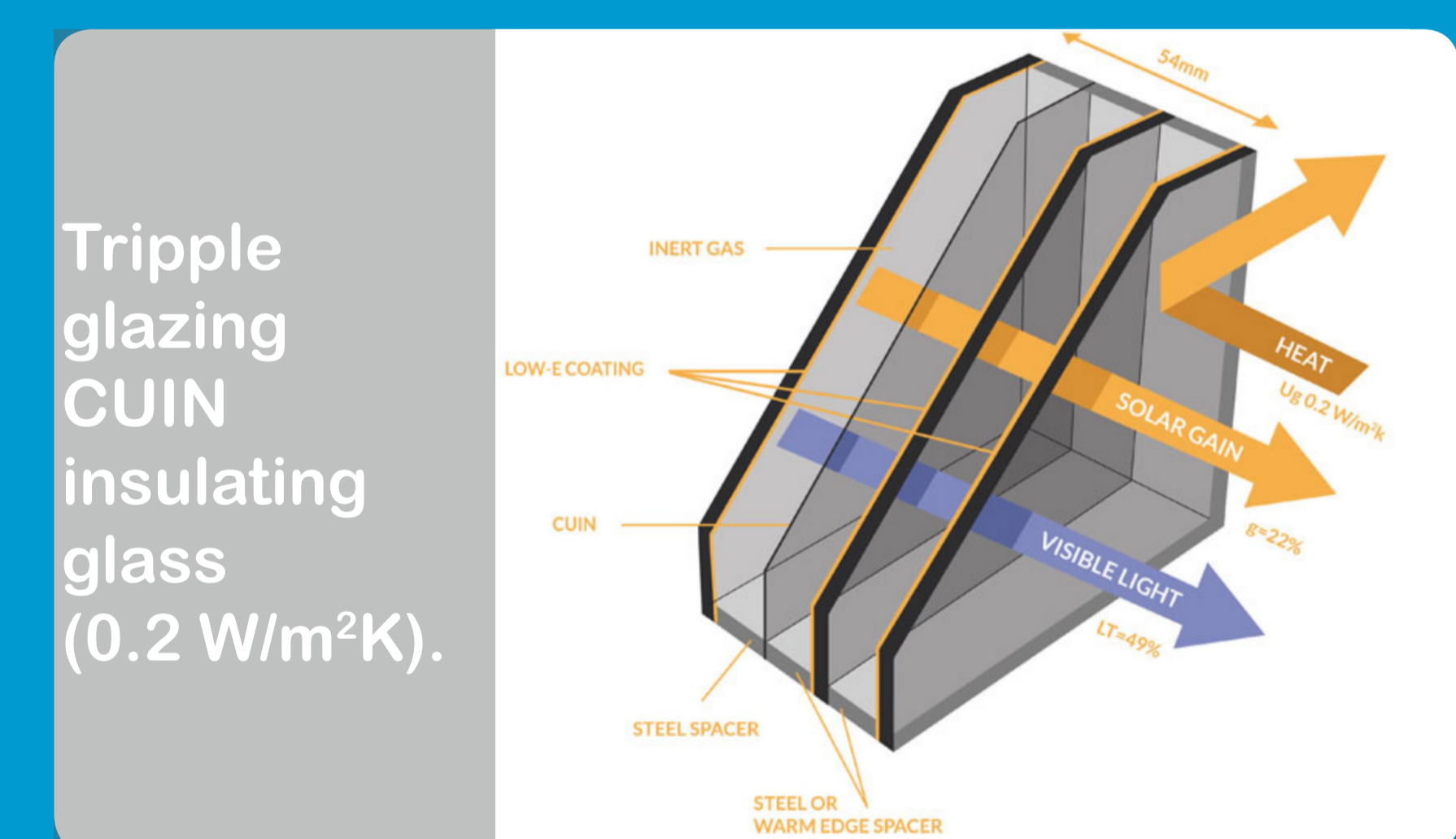
LEGEND:
1. Winter Street food market/ Summer cooking class; 2. WC; 3. Lobby; 4. Library; 5. Stairs to basement storage, preparation, loading; 6. Office; 7. Staff Accommodation; 8. Reception; 9. Storage; 10. Courtyard; 11. Outdoor stalls; 12. Subpods composting system.



Staff Accommodation unit 1 (Typical layout)

PREDICTED PERFORMANCE

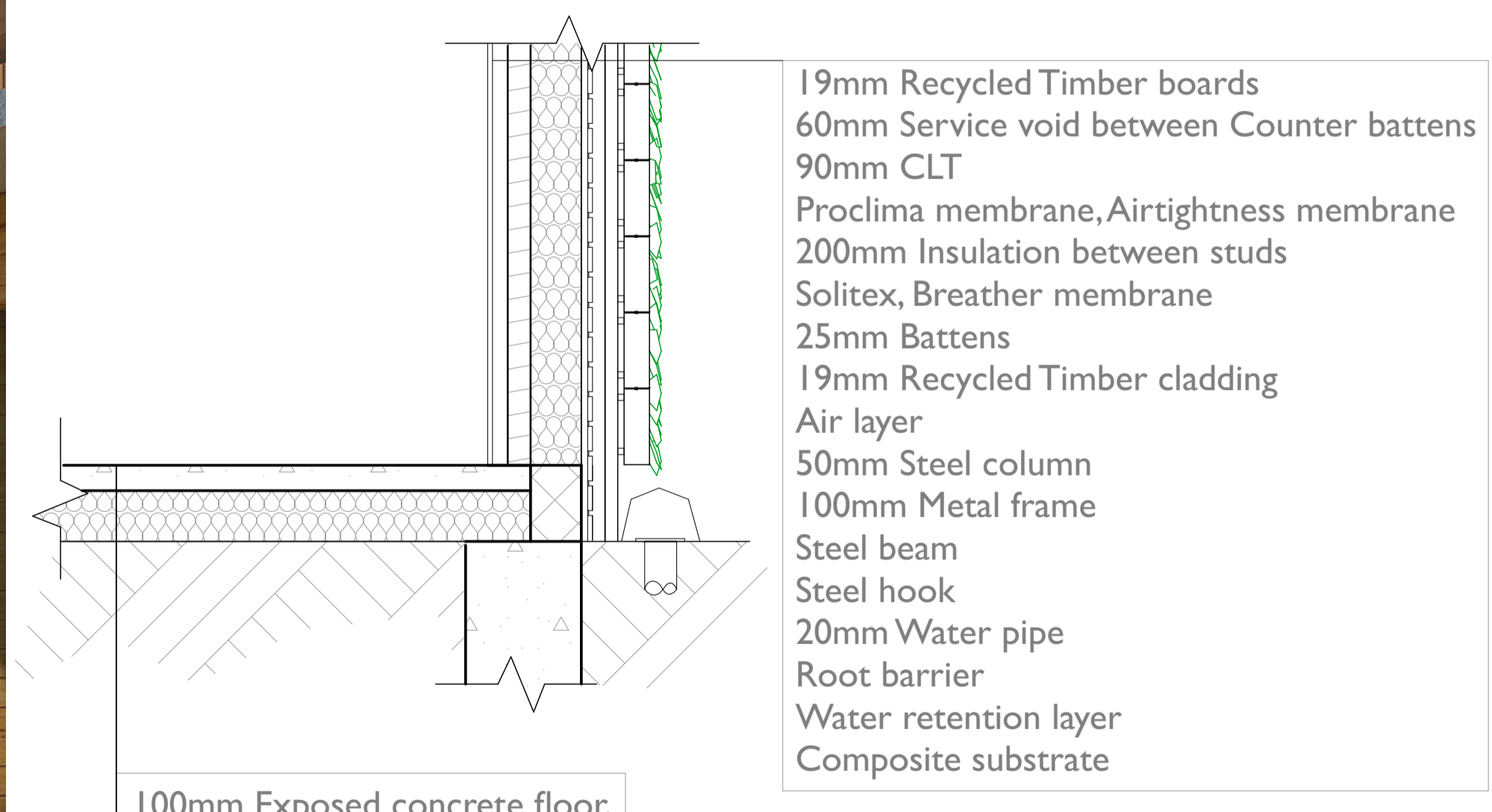
Walls 0.094 Floor 0.106 Roof 0.043 Windows 0.200	5 w/m² Heating Load	2.61 Form Factor
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Building model



Staff Accommodation view above the courtyard



(PH) Detail showing Living wall & Foundation.

Acknowledgements

Course name: MSc Sustainable Building; Performance and Design
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UK PASSIVHAUS STUDENT COMPETITION

