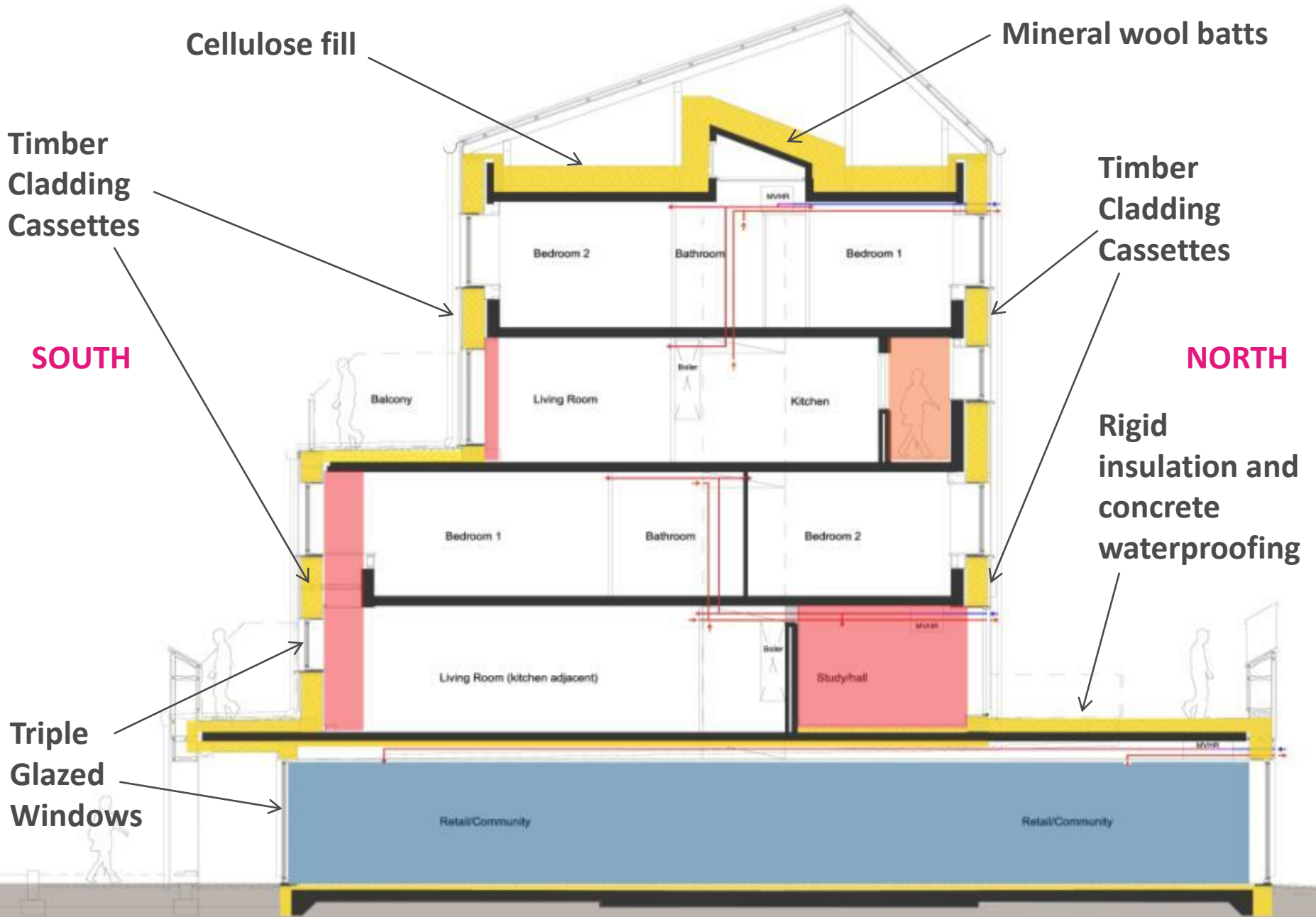


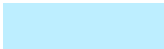
RETROFIT SECTION



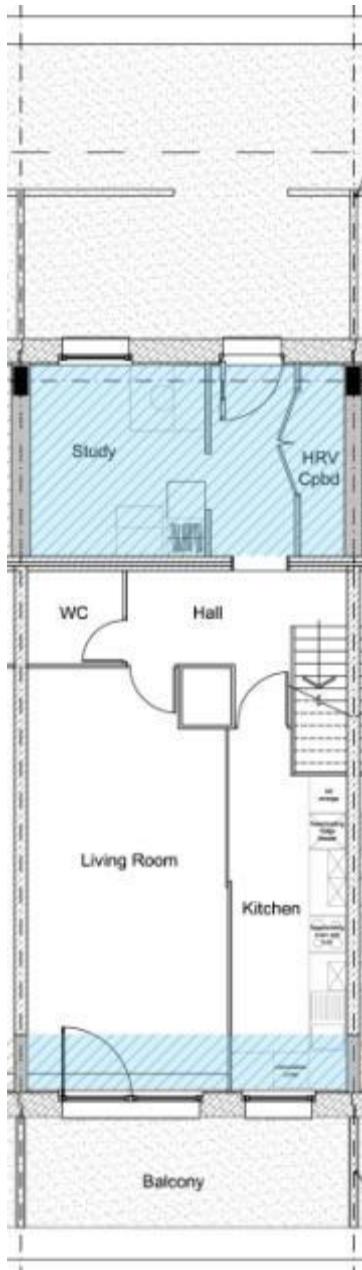
TYPICAL FLOOR LAYOUTS



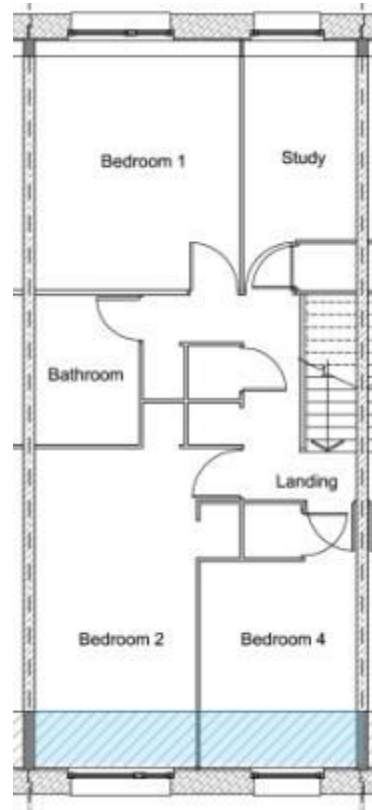
NORTH

 = new infill

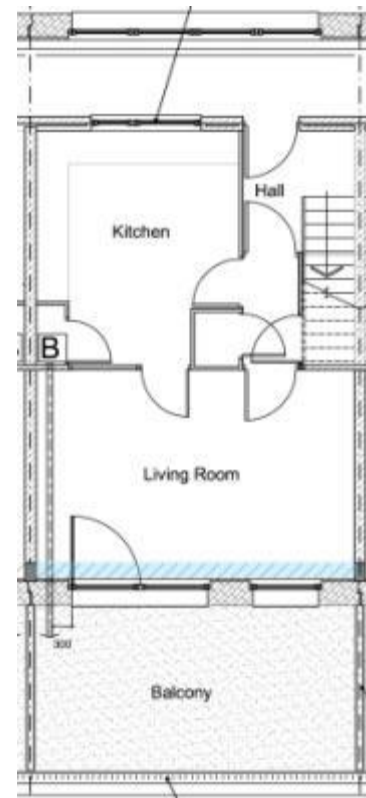
 = enclosed access



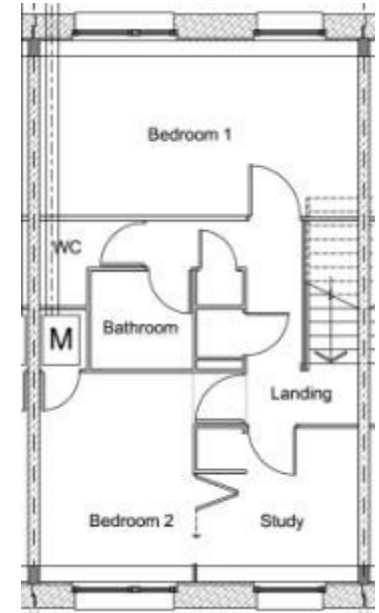
First Floor



Second Floor



Third Floor

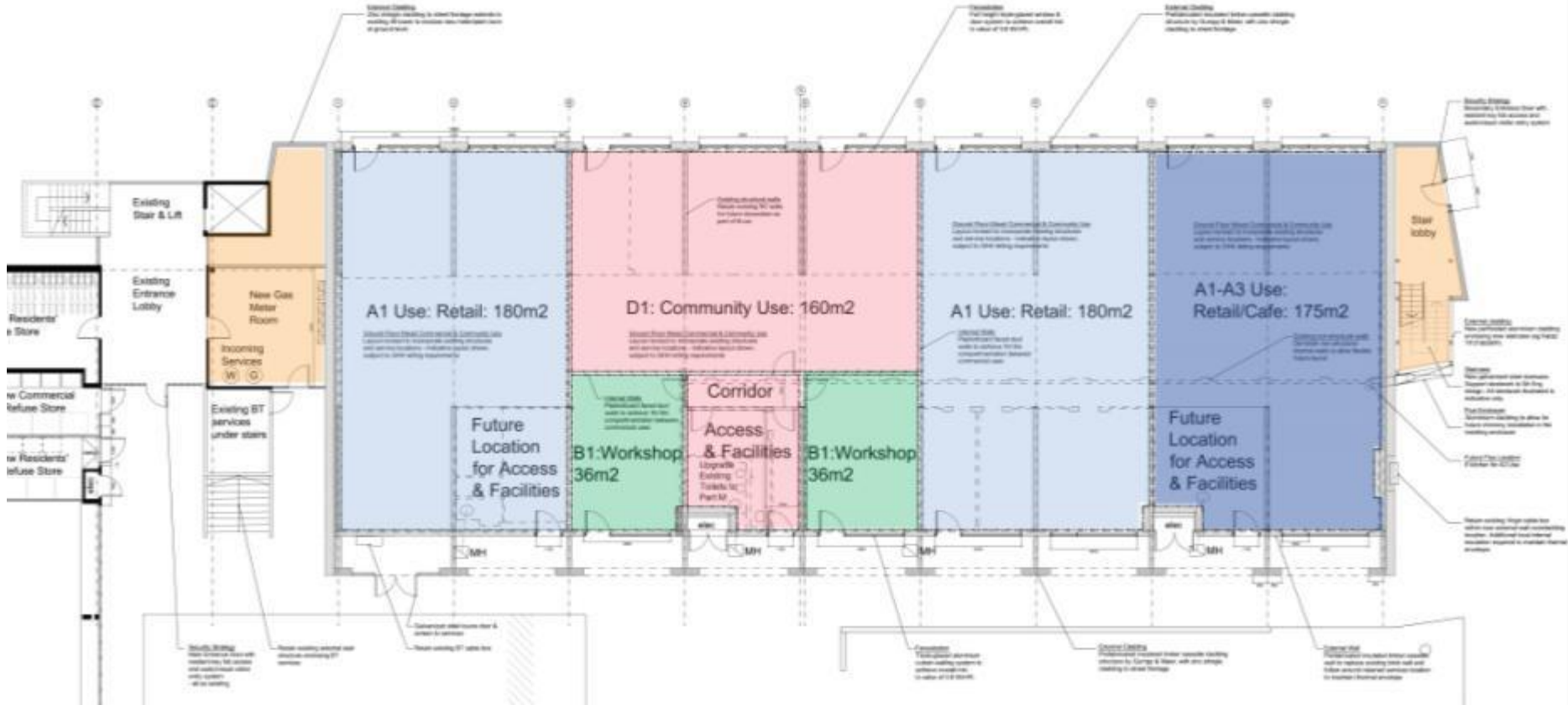


Fourth Floor

SOUTH

GROUND FLOOR LAYOUT

NORTH



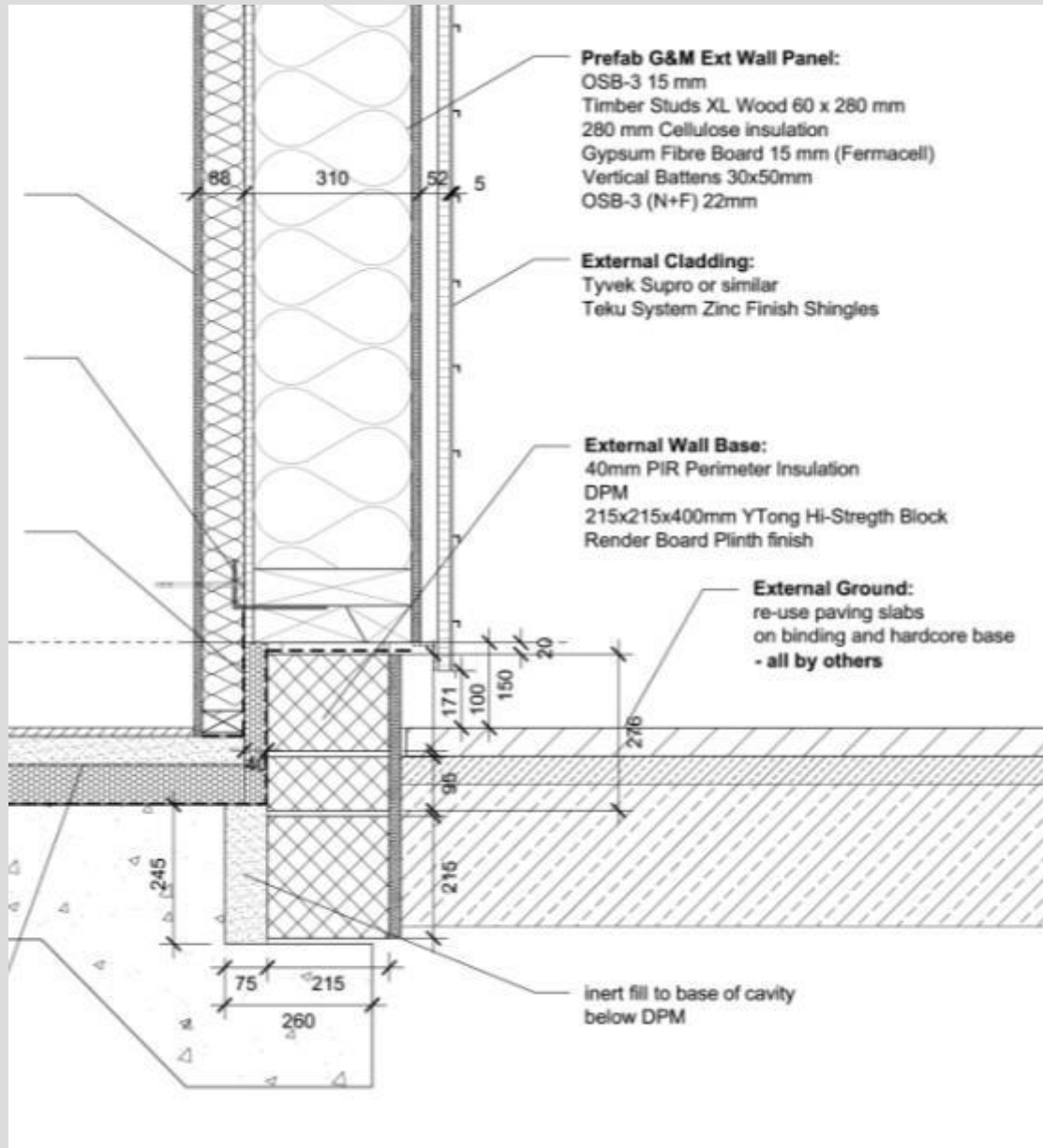
SOUTH



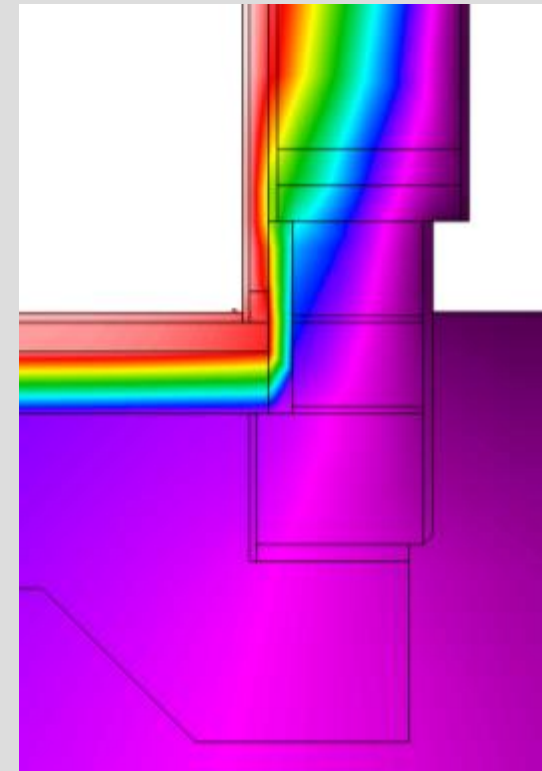


- Technical design workshops in London and Germany
- Demystify the prefabrication and factory process
- Shared objectives with capacity to listen and adapt





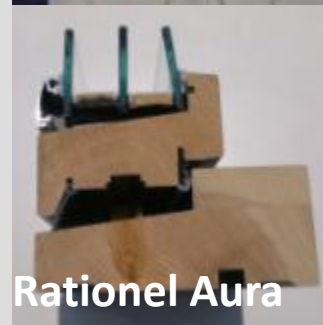
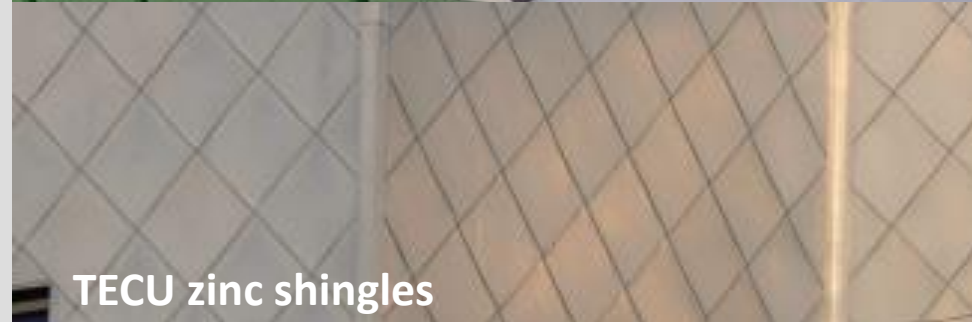
- Default solution had high psi-value
- Refined using Therm to -0.05 W/mK



- Ext walls $U = 0.13 \text{ W/m}^2\text{K}$
- Windows $U_w = 0.87 \text{ W/m}^2\text{K}$ ave
($U_g = 0.53 \text{ W/m}^2\text{K}$)
- Roof $U = 0.09 \text{ W/m}^2\text{K}$
- Floor $U = 0.28 \text{ W/m}^2\text{K}$
- Deck $U = 0.11 \text{ W/m}^2\text{K}$

Targeted Space Heat Demand
- less than $20 \text{ kWh/m}^2\text{.yr}$

- Certify residential block only as ground floor contract is shell and core















EXTERNAL ELEMENTS ON SITE

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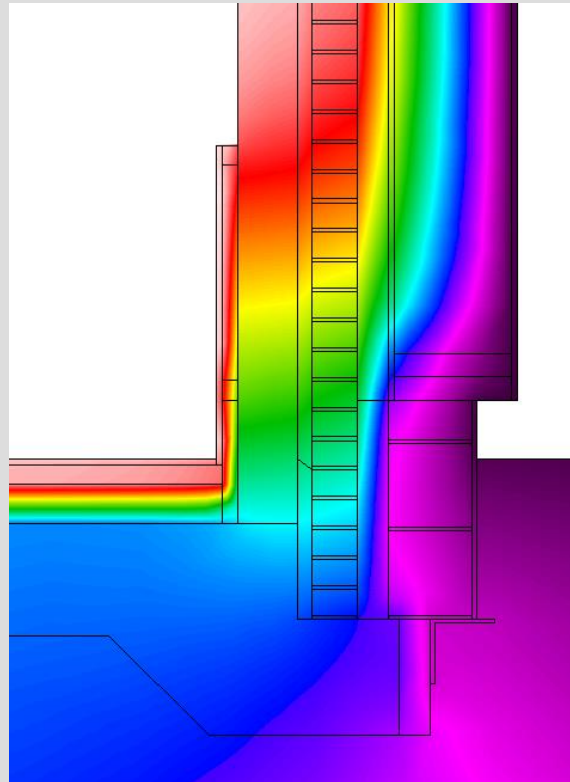
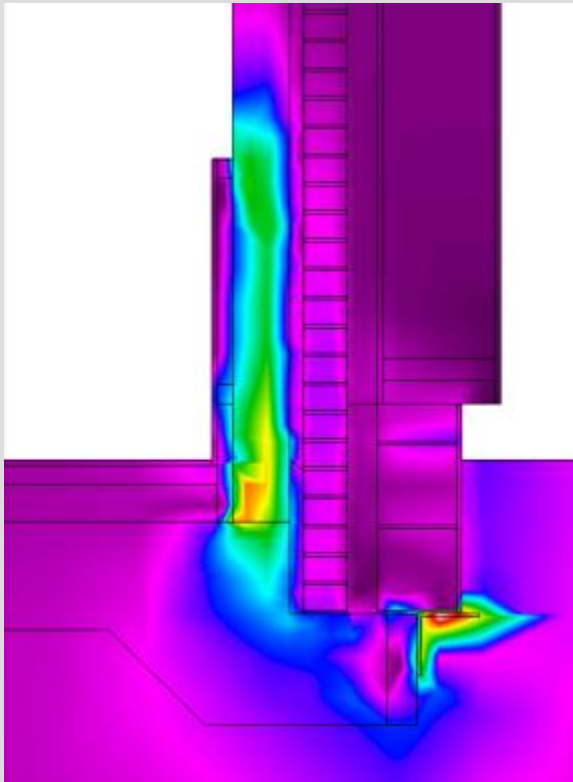


TIDY SITE, SAFE SITE

sustainableBYdesign



- Refinement of plinth detail to gable panel base
- Psi-value at gable footing improved from 0.27 W/mK to 0.01 W/mK

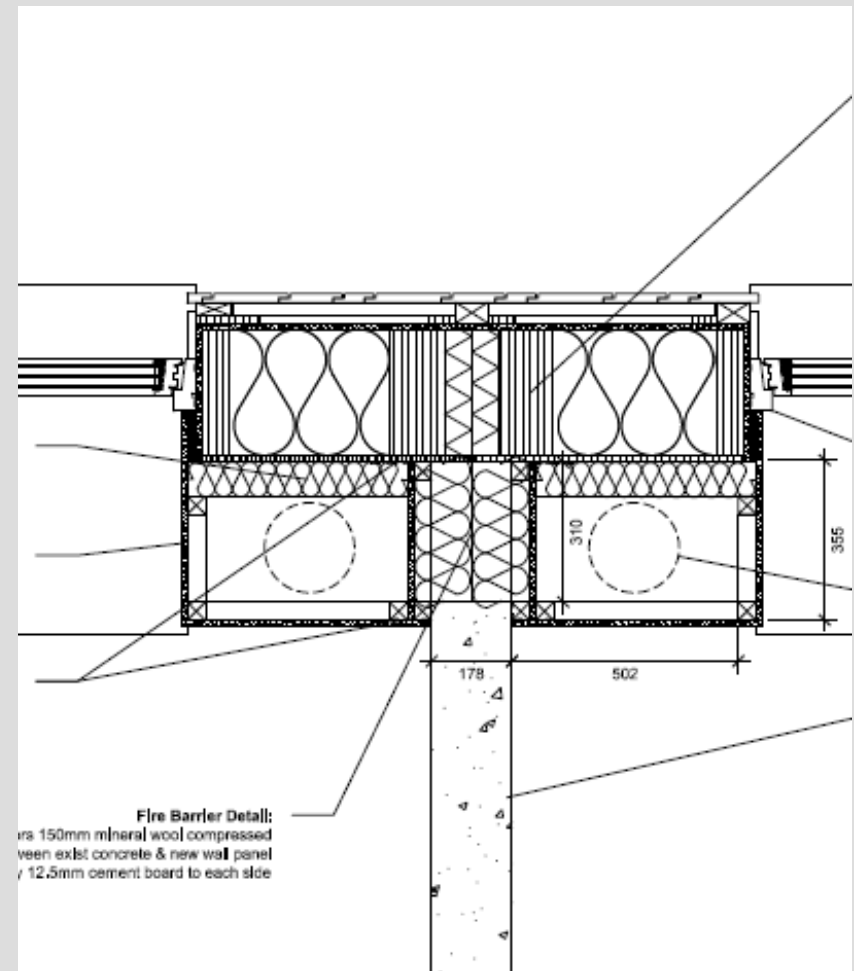
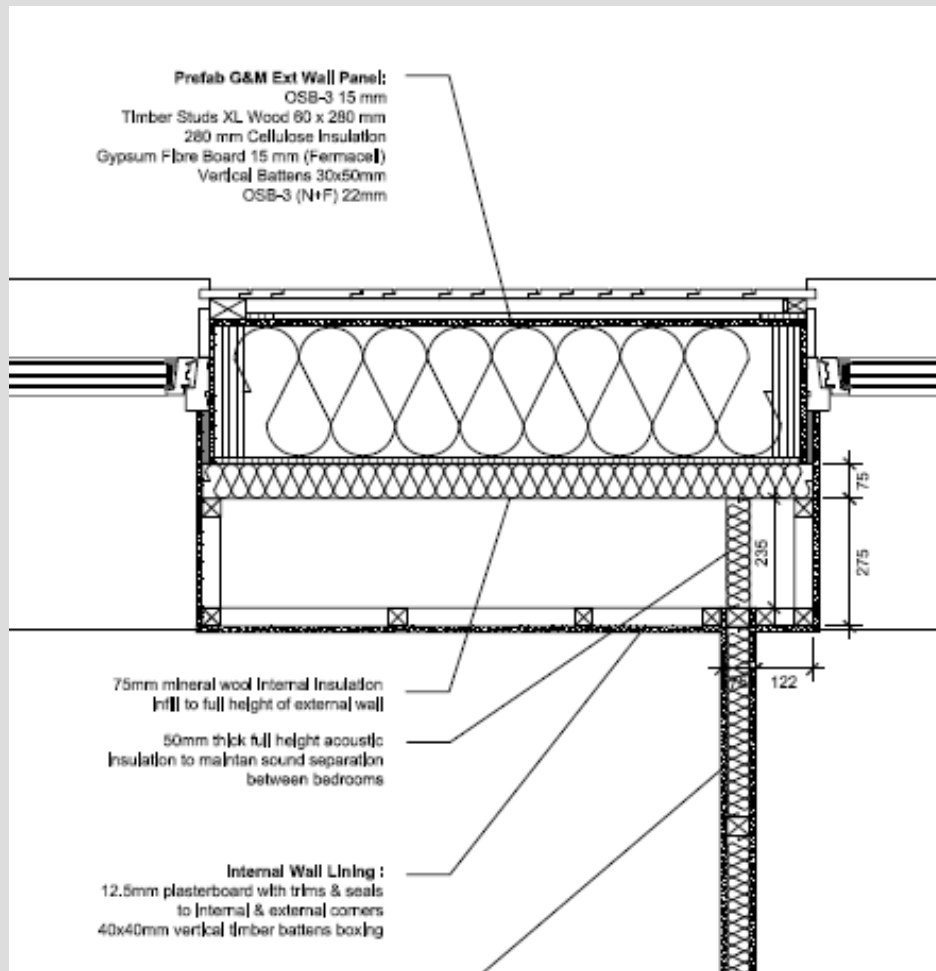


LATEST PANEL PROGRESS

sustainableBYdesign



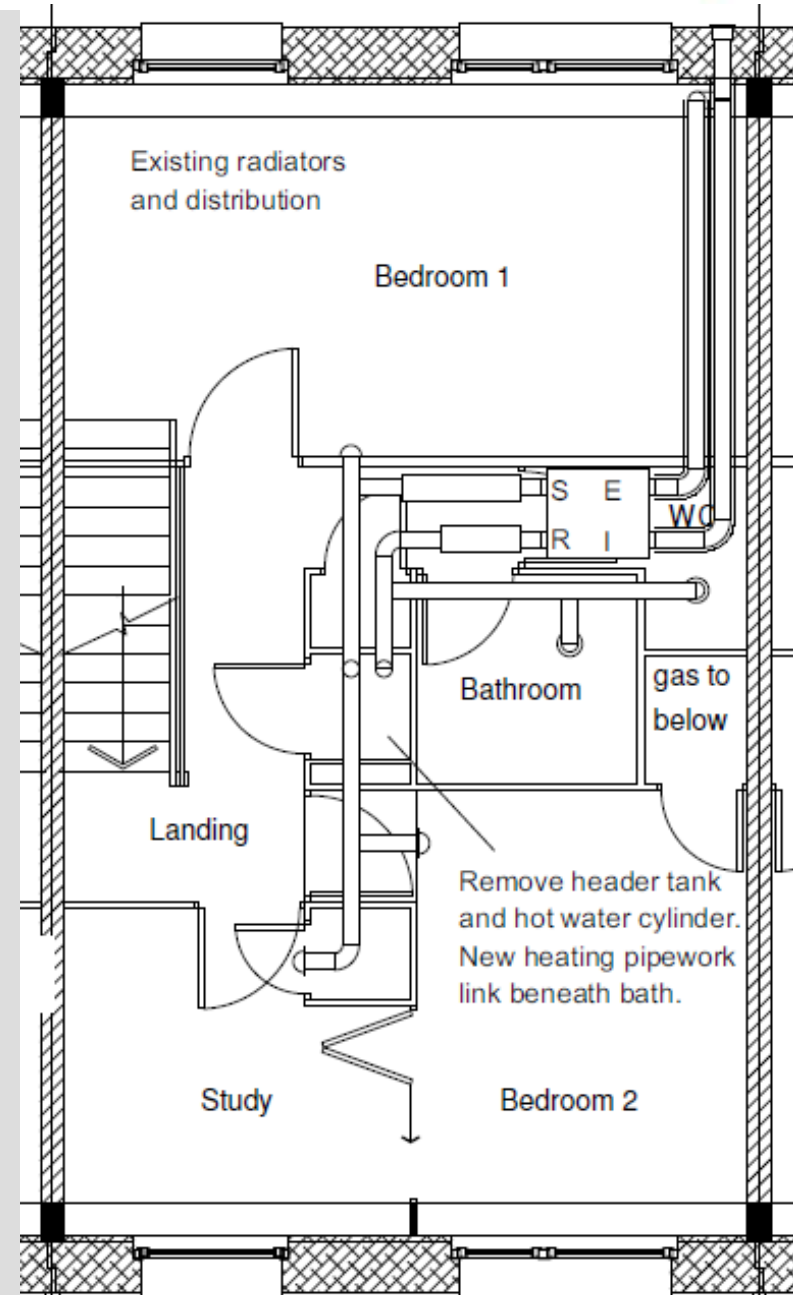
- Dry-lining to window reveals
- Deep cills and outward opening windows







- Zehnder Comfo Air systems
- Lower maisonette has dedicated cupboard in new extension
- Upper maisonette utilises former clerestorey lantern space
- Intake/exhaust outlets pre-fitted in factory



- Communal systems considered, gas + solar thermal
- Ruled out because of billing and means of escape within roof void
- Individual boilers fed within cladding via Tracpipe flexible pipe
- Common meter room in lobby





- Construction Budget (incl fees, prelims, profit and contingency but excludes VAT) - £2.8million
- Floor Area (incl grnd) – 2493m²
- Cost /m² – £1114 BUT a lot of new space and demolition
- First panel installed mid-September, due to complete install mid December.
- Residential fit-out complete in early spring 2014
- Ground fit-out follows



AMBITIONS

- 85-90% reduction in space heating demand
- Monitoring by Coventry University (kWh, CO₂, RH)
- Community focus – training, employment and social activity
- Opens up land to south and adds value to wider regeneration opportunities
- Future phases?



Thank You

Visit on iPHA
Open Days
8th November

