

passivhaus

a quality assured methodology for designing low energy homes

16.10.2014

Kim Ebling

Edelmann & Ebling (2e architects)

Eric Parks

Ecological Architect

Sustainable Building Consultant

Certified Passive House Designer



rgen

Eric Parks 

Erneley Close – Longsight, Manchester. EnerPHit

EnerPHit / Passivhaus principles

- Continuous super-insulation
- Airtightness
- Controlled ventilation & heat recovery
- Use of PHPP

EnerPHit Certification requirements

Specific Space Heat Demand
25 kWh/m².yr

Specific Primary Energy Demand
120 + kWh/m².yr

Airtightness of
1.0 ach @ 50Pa or lower

< 25 C for under 10% of the year



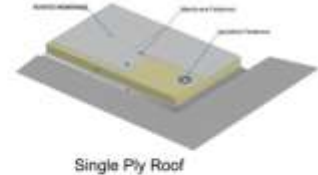
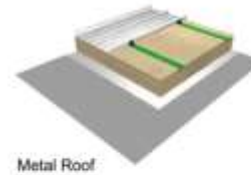
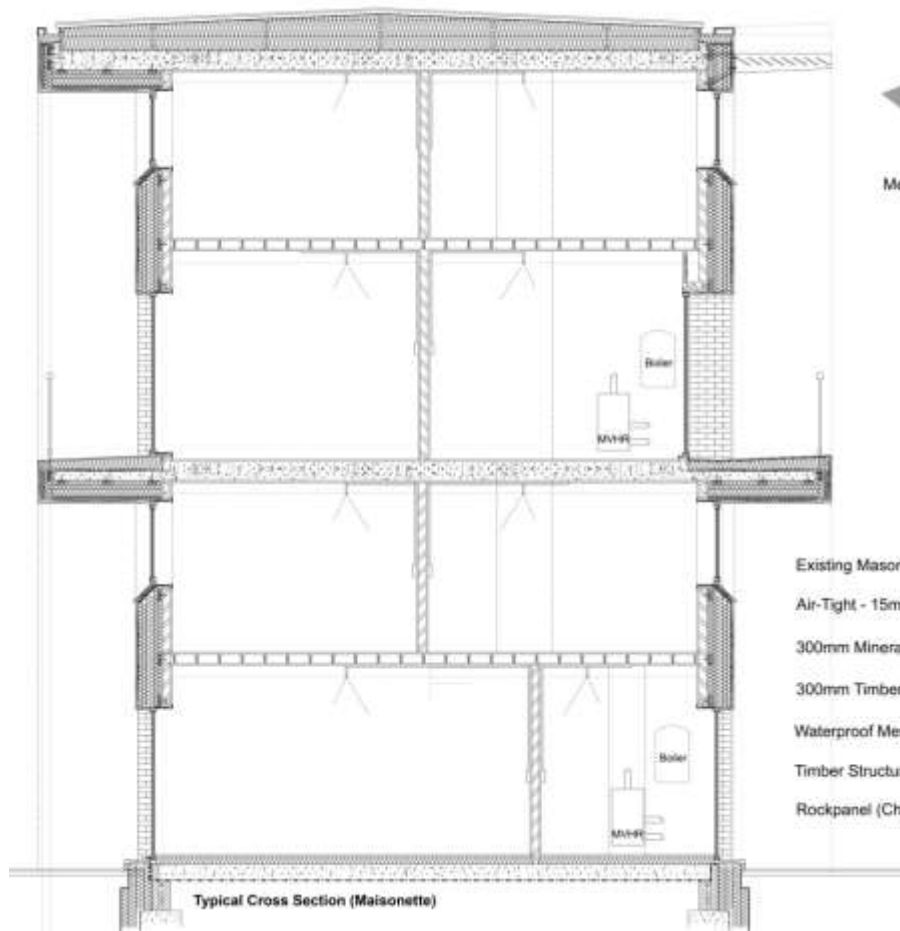
Erneley Close – Longsight, Manchester. Existing Context



Existing Elevations

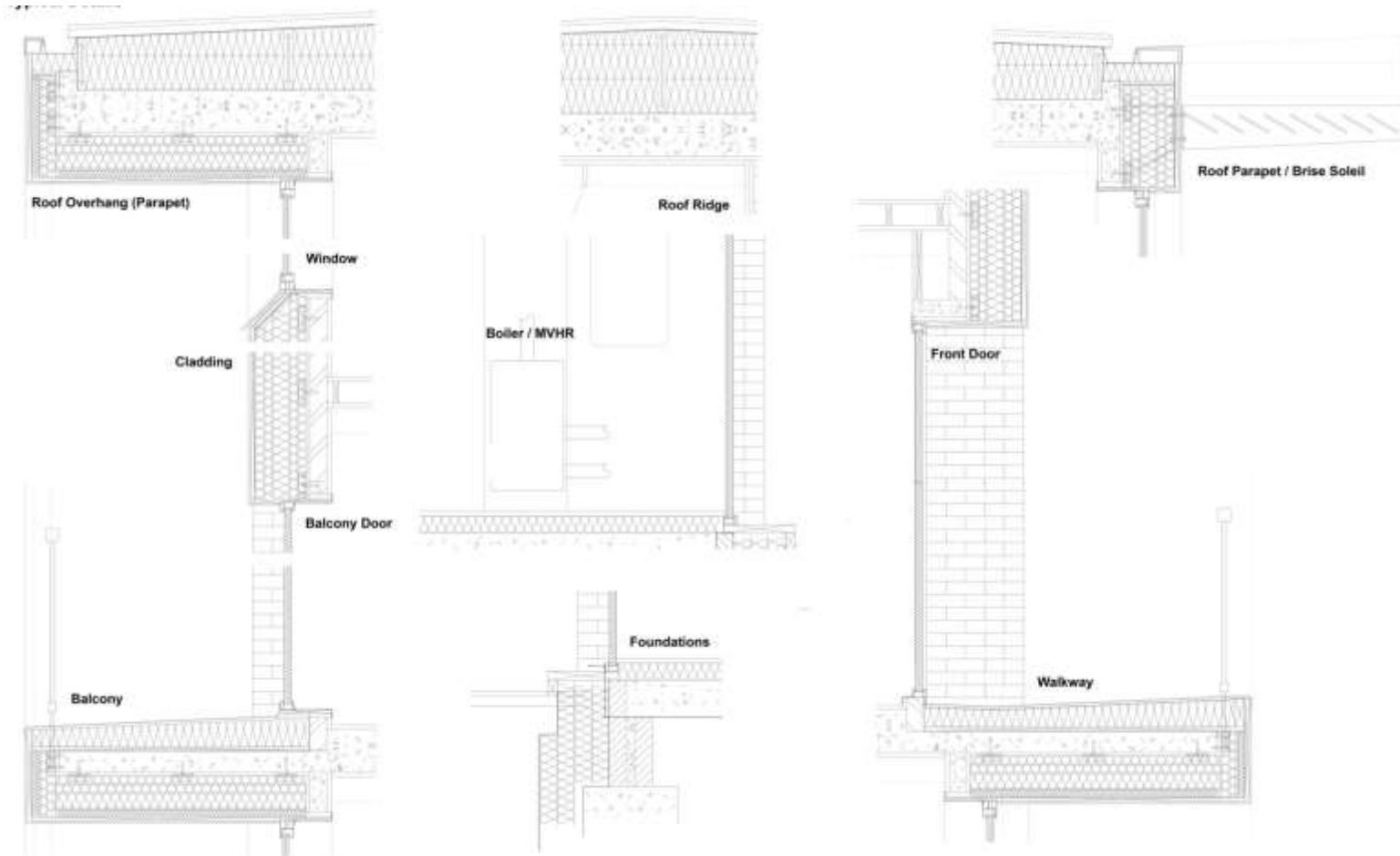


Proposed Section, pre opening up works



-
- Existing Masonry Wall
- Air-Tight - 15mm Plastering (Parging)
- 300mm Mineral Wool Insulation
- 300mm Timber/Ply Beams (Larsen Truss) @ 600mm Centres
- Waterproof Membrane
- Timber Structural Battens (air-gap + service zone)
- Rockpanel (Chameleon)
- The diagram shows a 3D cutaway of a wall assembly with various layers and components labeled. The layers from top to bottom are: Existing Masonry Wall, Air-Tight - 15mm Plastering (Parging), 300mm Mineral Wool Insulation, 300mm Timber/Ply Beams (Larsen Truss) @ 600mm Centres, Waterproof Membrane, Timber Structural Battens (air-gap + service zone), and Rockpanel (Chameleon).

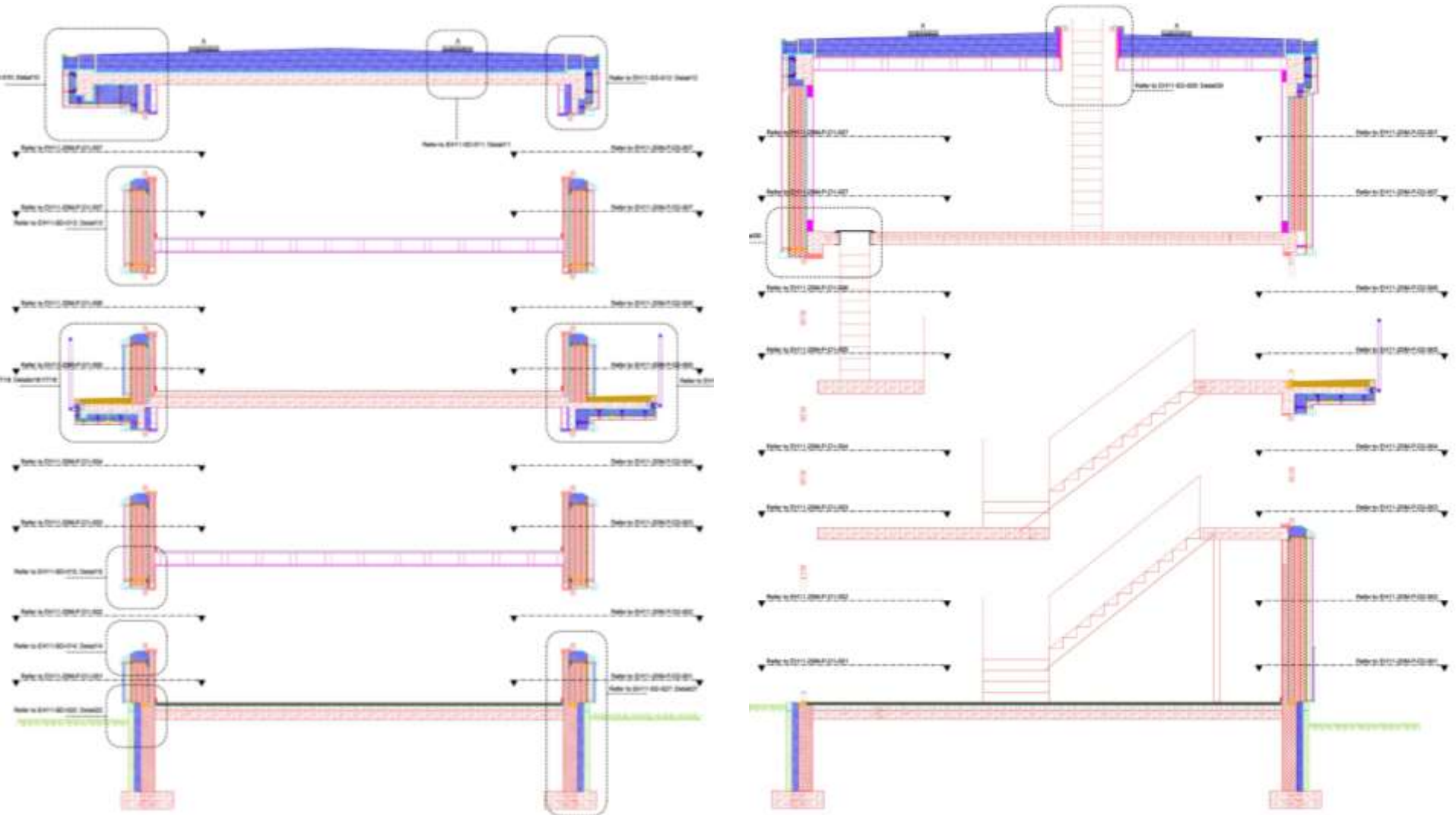
Proposed Details, pre opening up works



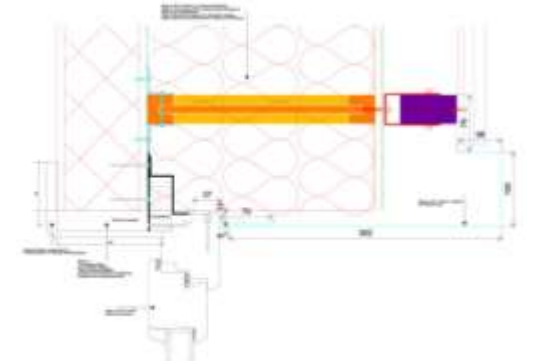
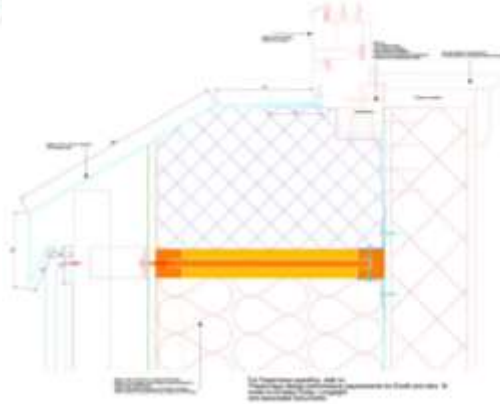
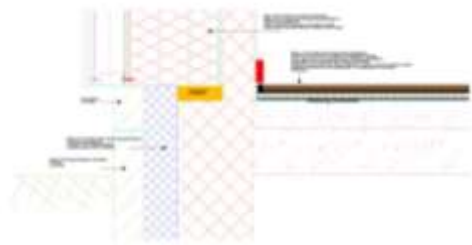
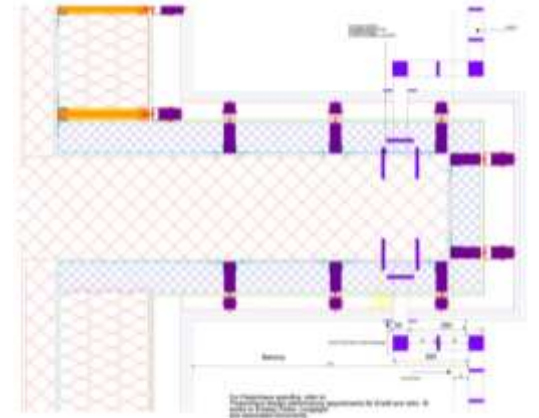
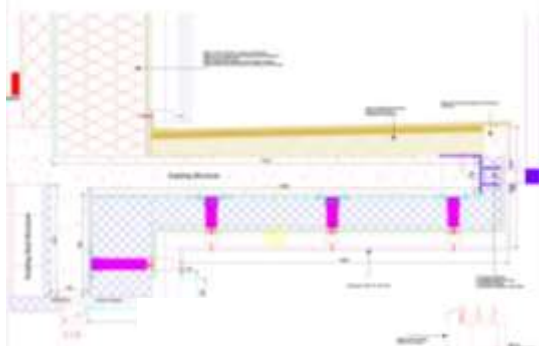
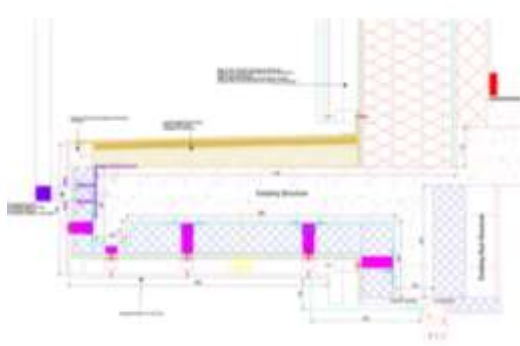
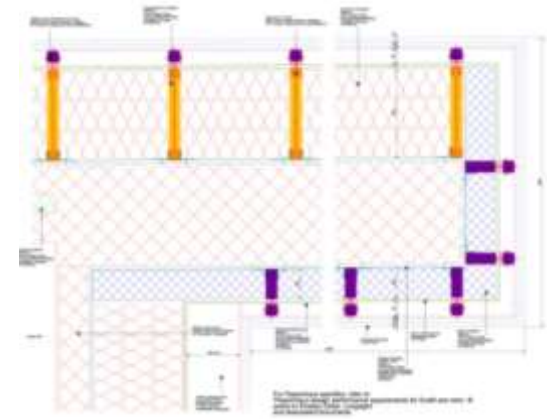
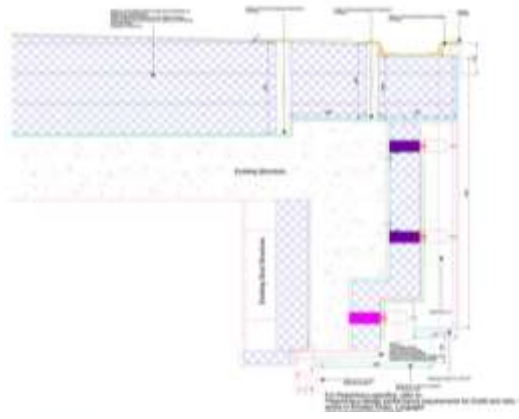
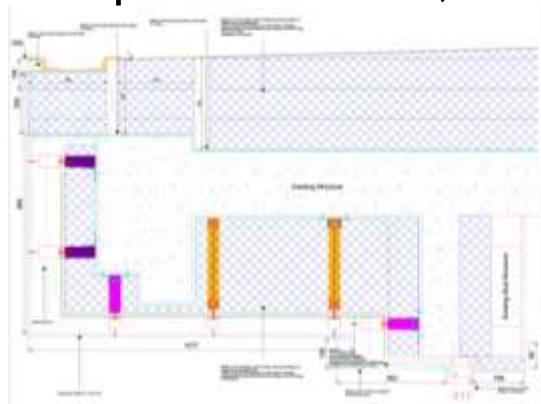
Proposed Elevations



Proposed Section, Tender stage



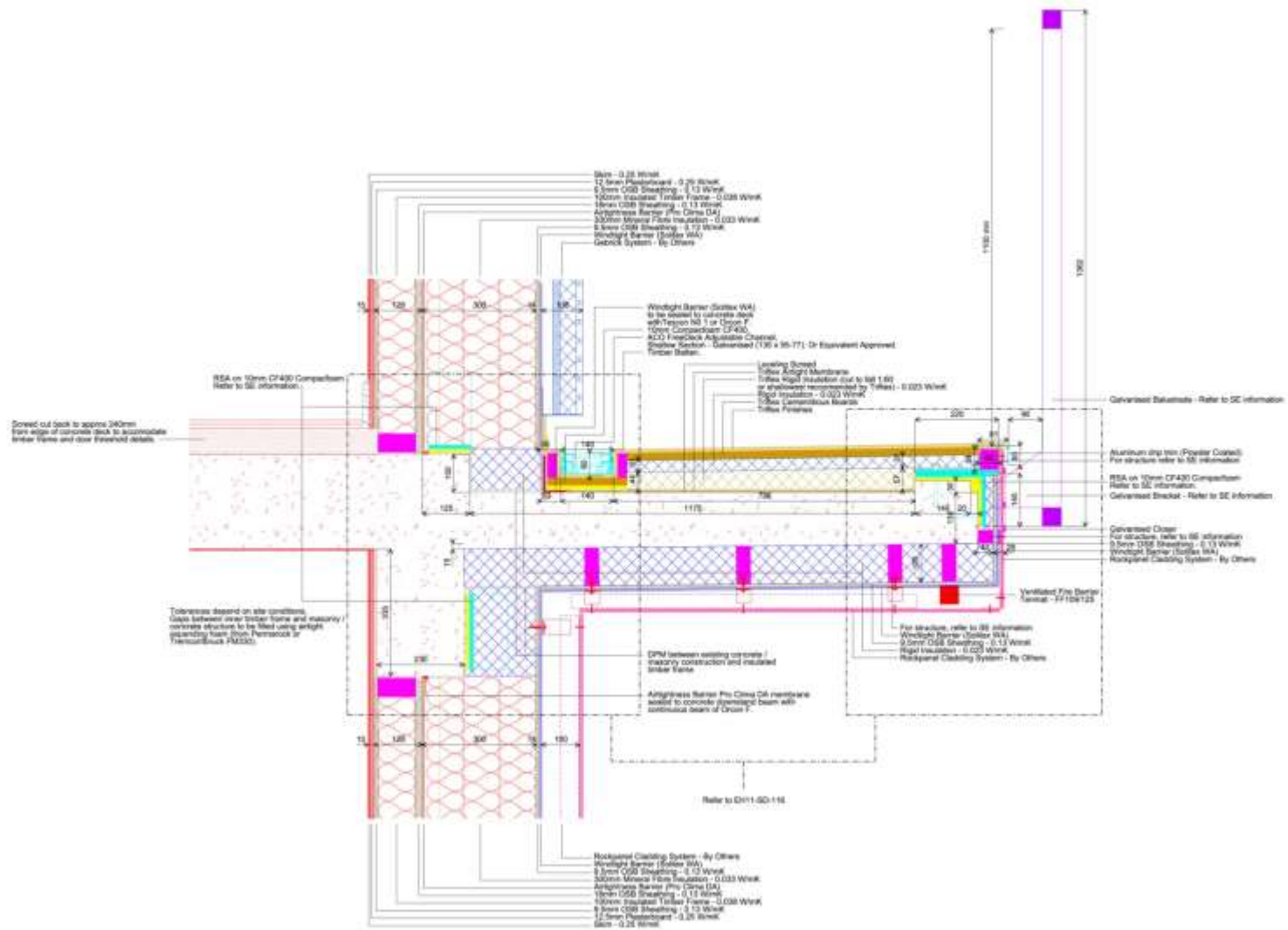
Proposed Details, Tender stage



Erneley Close – Longsight, Manchester. 'Exposed' Context



Proposed Detail (Walkway), Construction stage



Erneley Close – Longsight, Manchester. EnerPhit treatment

