



Fire
 This development will contain a mixture of users and vulnerable occupants, therefore Part B of the Building Regulations will be applied to the site to ensure protection from fire. The development site as a whole will be accessible to emergency services in order to contain the spread of fire. In addition, measures will be taken throughout the buildings to protect the occupants in case of an emergency. The site is a mixed-use development and is used commercially by the general public, which means that many stakeholders are interested. The client, designers, local authorities/governing bodies, the public, occupants, and users are among them. As a result, these stakeholders will need to be considered along with Part B and M of the Building Regulations in accordance with this and BS 5499 to control the placement of emergency lighting and signage to indicate escape routes. The development would need to be designed to prevent possible fires and to safeguard the building's occupants. Buildings must be designed to allow occupants to escape safely in the event of a fire. This includes fire doors, fire prevention and reduction systems, escape exits, and ample core spaces. During an emergency, emergency vehicles can gain access to the building, and there will be adequate fire extinguishing supplies on site. Experts in fire safety, as well as specialists in aging and dementia, will be needed in the design. This will ensure that venerable people will be able to get out of the building safely.

Environmental
 Taking forward developments and creating large-scale projects must take the environment into account. The site for this project has several advantages, not the least of which is that it is a brownfield site, so we are recycling land. We are preventing urban sprawl and protecting the environment. In terms of the development's design, I have sought to create an open but safe environment for the occupants. I am incorporating green living in a city environment by using landscape features such as hedges, trees, green walls, and open green spaces. By designing the walkways and cycle tracks out of 100% recycled plastic, I have created a usable surface that flows with the environment. This encourages recycling as well as providing a route for emergency services. As much as possible, the buildings need to be off the grid and powered by renewable energy sources such as solar, wind, and water. Having a consultant such as the local authority, the environmental agency, or a renewable energy consultant is the right way to achieve an environmentally designed site.

Sustainability
 Several sustainable techniques have been used to make this development as environmentally friendly as possible, including solar and air-source energy. In addition to the green roof system, the building will be designed to be thermally efficient to reduce heat loss through the elements. Sustainable construction must comply with all of the Building Regulations Parts A, B, L, and P, which govern the design and installation of sustainable techniques. The local authority, building control, a renewable energy consultant, and an electrical contractor will all be involved in the project from the start to provide their expertise in creating a sustainable development.

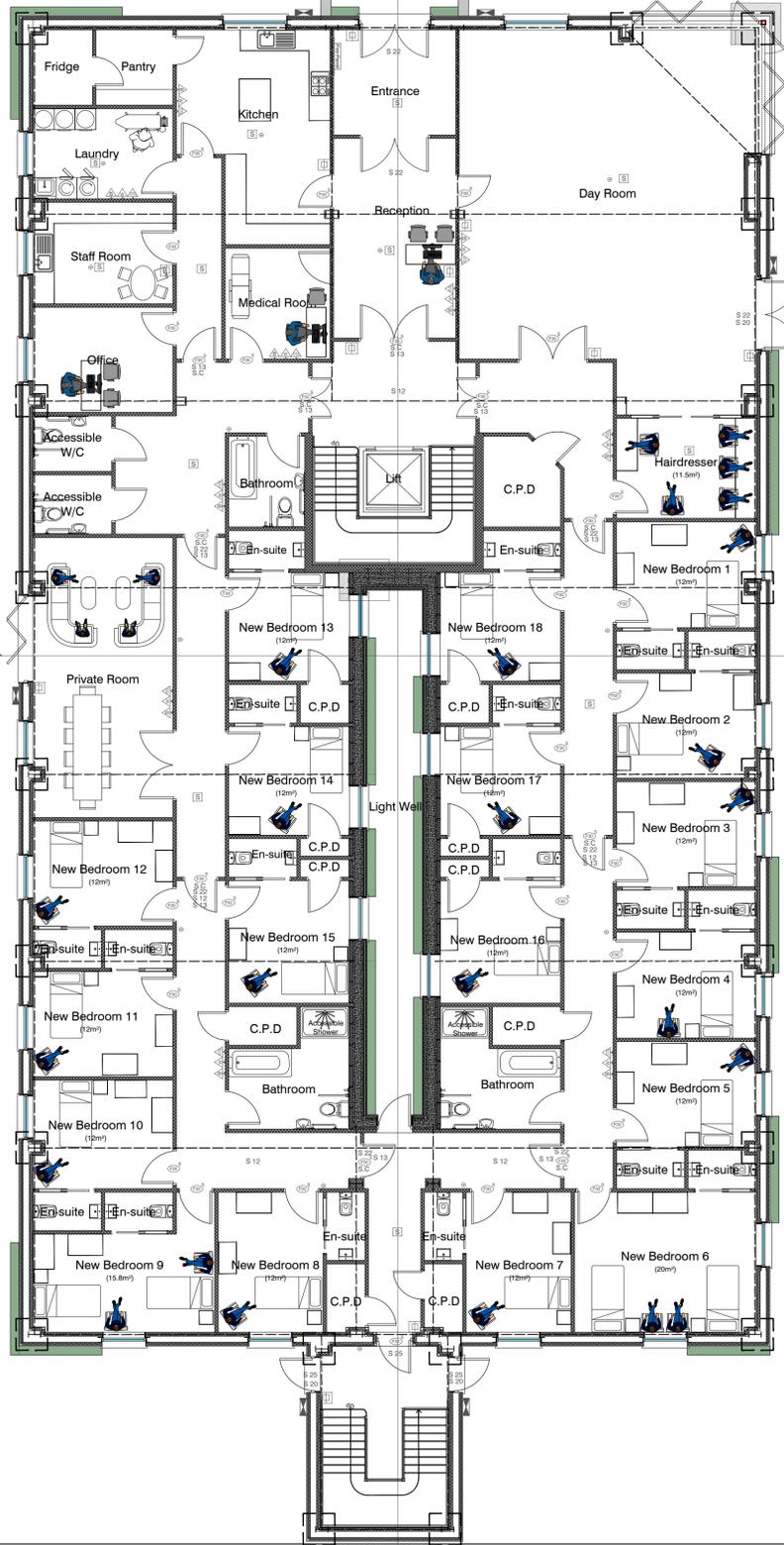
Access
 Vehicular access to the site will be limited to deliveries, refuse (at specified times) and emergency services. The result is an environmentally friendly and sustainable city living environment. There is, however, a designated ambulance parking area at the nursing home, as well as a pick-up and drop-off area at the school. To create an open community living environment, the site is open to all. However, it is imperative that the most vulnerable users are protected. In order to ensure their safety, certain areas of the site will be closed at appropriate times. The fact that this is a care home design and a mixed-use generational development means I have to take into account different types of disabilities that users may have. Therefore, I will have to include features such as ramps, handrails, large enough openings, tactile paving, etc. all so that the site can accommodate all users. After completing a topographical survey to determine the topography of the land, I would need to assess the levels of the land and plan a new level. This would make the site as accessible as possible. The land must be level for easy access. This may also include flood risk and heritage statements. To ensure that the building and surrounding area is designed to meet the needs of the users and occupants, it is crucial to involve specialists in the project. These can be healthcare consultants from the industry, landscaping consultants, and the Environmental Agency.

0m 50m
 Scale 1:500 @ A1

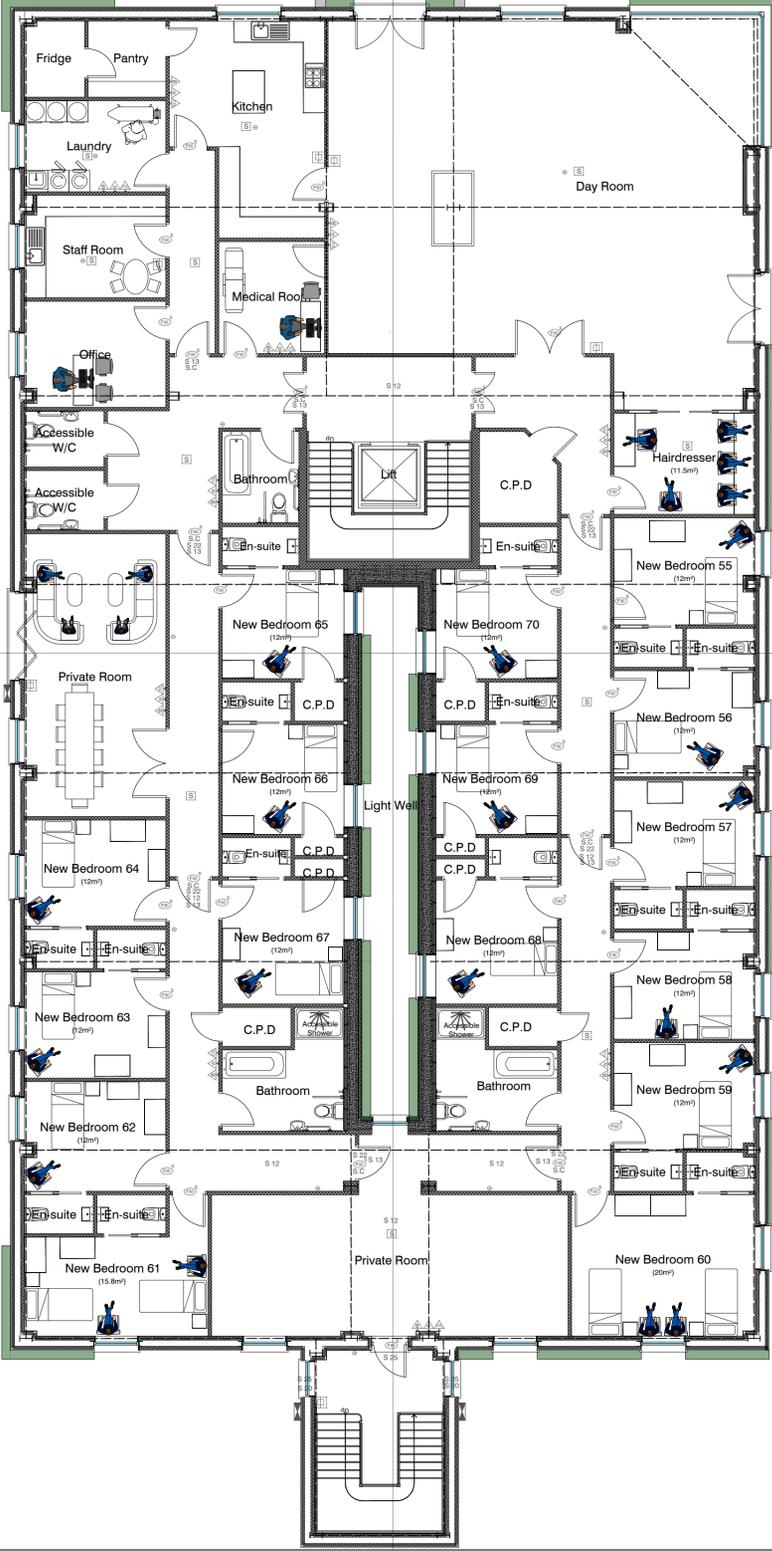
Material Key:

Existing Tree	Proposed Tree
Grass Area	Area Separated Off For Services And Sustainable Techniques
Elite Grass Grid or similar filled with grass	Ronacrete - Ronadeck permeable resin surface
Elite Grass Grid or similar filled with Gravel	Visitor parking Area
Green Roof System Accessed by occupants	Laurel Hedging

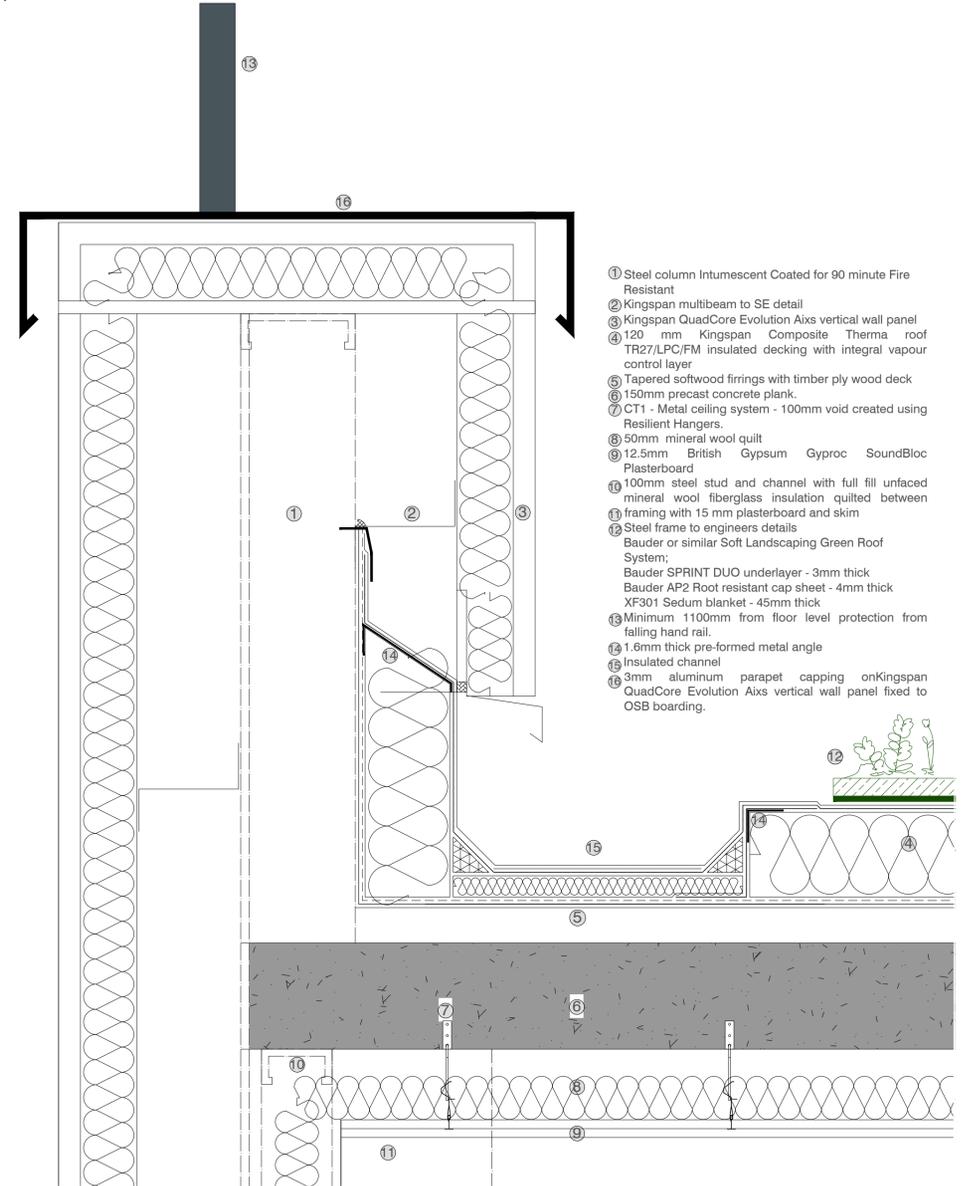
Proposed Ground - Second Floor Plan
(Scale 1:100 @ A1)



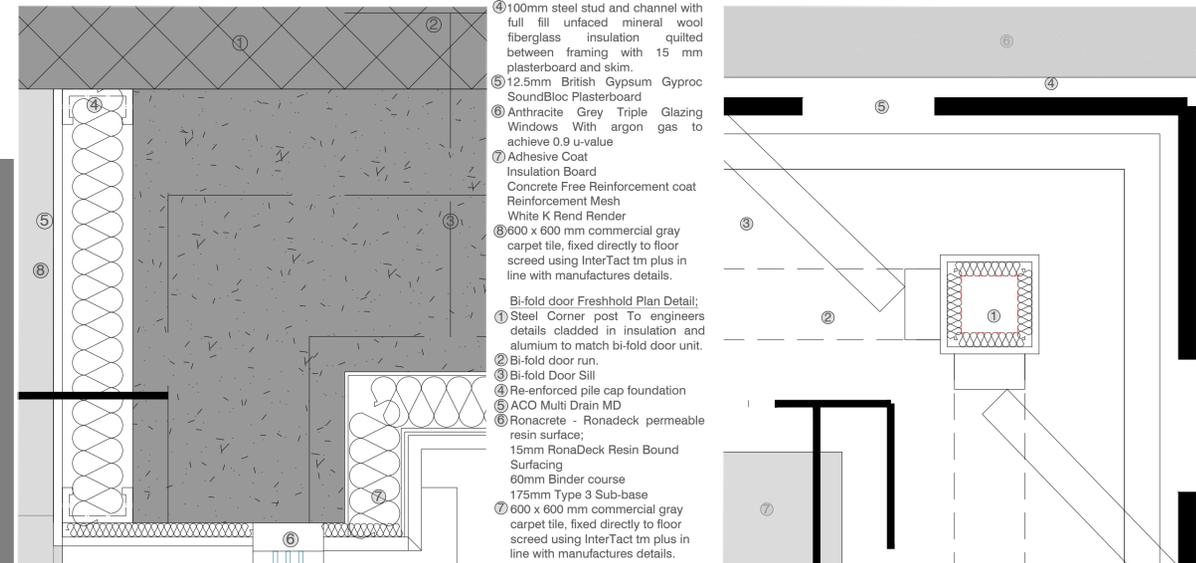
Proposed Third Floor Plan
(Scale 1:100 @ A1)



Proposed Section Detail
(Scale 1:5 @ A1)



Proposed Plan Details
(Scale 1:5 @ A1)



FIRE DETECTION KEY	
	Wall mounted fire panel SMOKE DETECTOR
	Wall mounted fire blanket
	Wall mounted portable water extinguisher
	External waterproof non-maintained emergency lights
	Wall mounted portable Carbon Dioxide extinguisher
	FIRE ESCAPE KEEP CLEAR
	FIRE EXIT SIGN WITH RUNNING MAN
	PUSH BAR TO OPEN SIGN AND DEVICE
	GLOW IN THE DARK FIRE ACTION
	FIRE ALARM CALL POINT
	INDICATES SELF CLOSER
	30 min FIRE DOOR WITH SMOKE SEAL
	60 min FIRE DOOR WITH SMOKE SEAL
	FIRE DOOR KEEP SHUT
	BREAK GLASS FIRE ALARM CALL POINT
	Fire alarm bell/sounder

0m 10m
Scale 1:100 @ A1



South Western Elevation
(Scale @ 1:100)



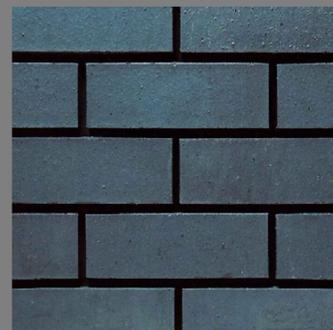
South Eastern Elevation
(Scale @ 1:100)



North Eastern Elevation
(Scale @ 1:100)



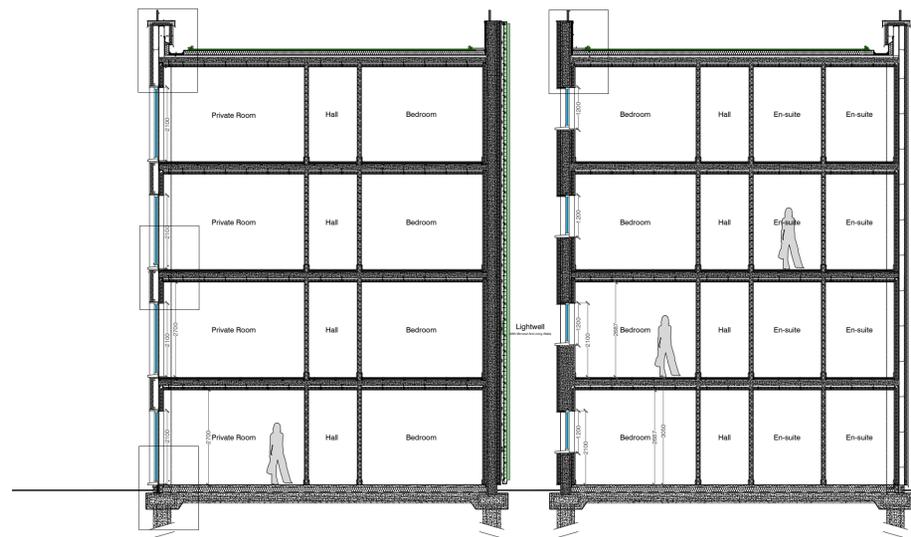
North Western Elevation
(Scale @ 1:100)



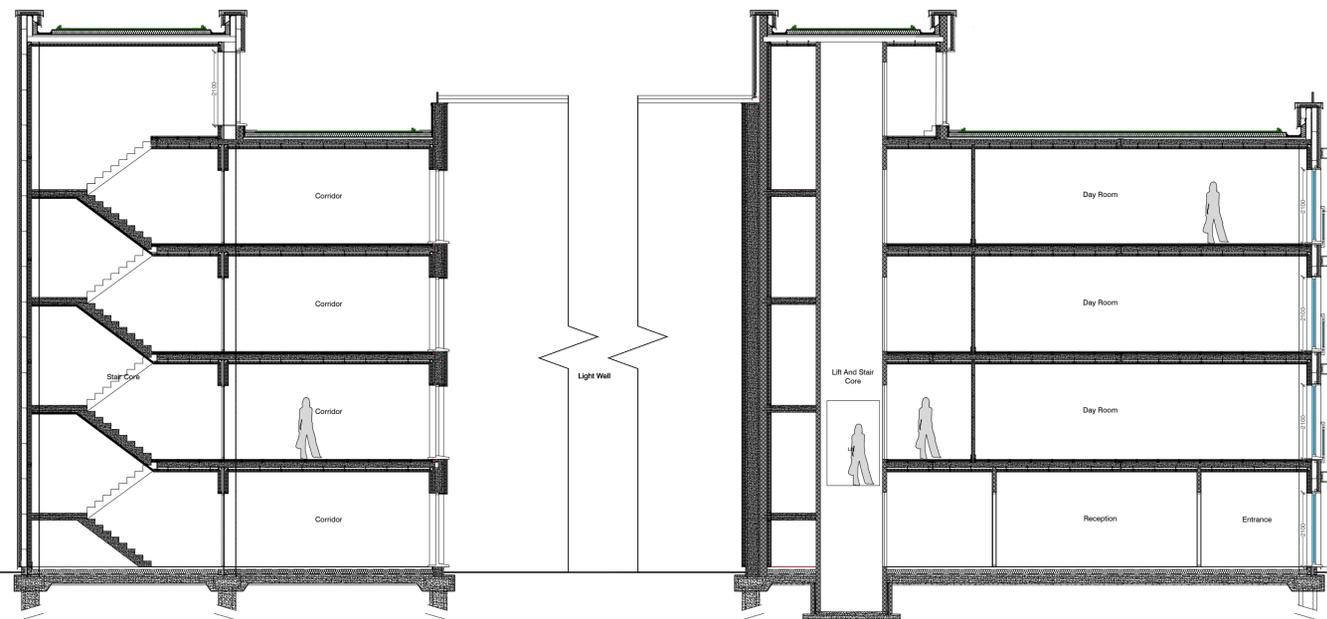
Material Key;

- 1 - Anthracite Grey Kingspan Insulated Panel Facade
- 2 - 10mm Wire Balustrade
- 3 - Green Wall Facade System
- 4 - Anthracite Triple Glazing Windows
- 5 - Burnt Orange Kingspan Insulated Panel Facade
- 6 - Zinc Canopy
- 7 - Engineering Brick Work

0m 10m
Scale 1:100 @ A1

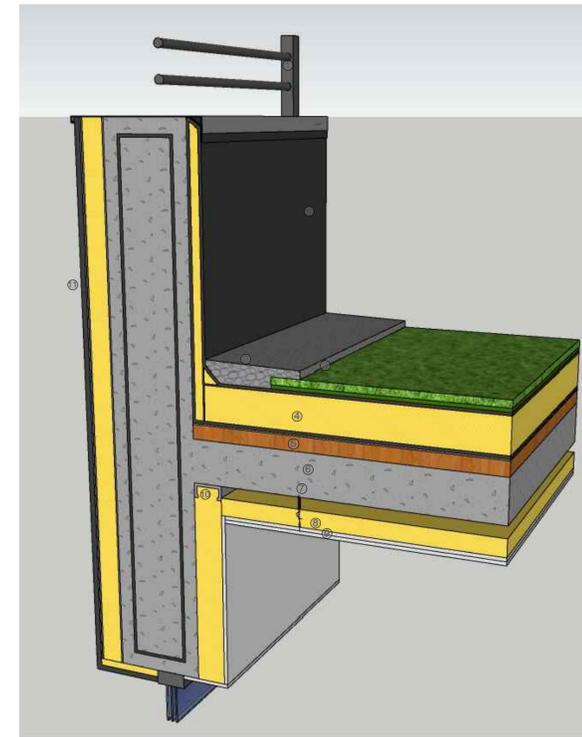
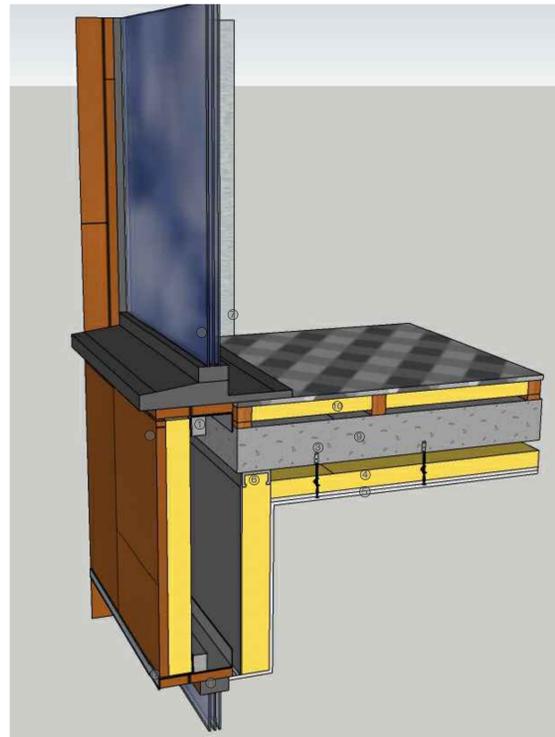
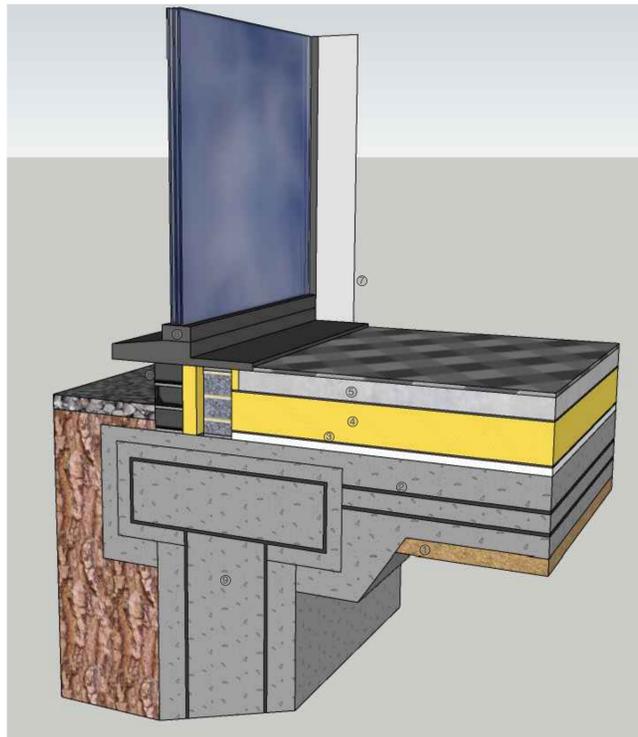


Proposed Section A - A
(Scale 1:100 @ A1)



Proposed Section B - B
(Scale 1:100 @ A1)

Proposed 3D Details NTS



- ① Min. 50 mm thick Sand blinding layer
- ② 225 mm deep Reinforced Concrete Floor Slab (to eng. details) with 3 No. layers of A393 r/f mesh (1 top layer with 50 mm cover and 2 No. bottom layers with 50 mm cover)
- ③ Visqueen (or similar) V20 membrane to top of r/f concrete floor slab
- ④ 1200 gauge polythene membrane on 140mm thick Kingspan K103 Floorboard
- ⑤ 65 mm sand and cement screed with light gauge wire mesh reinforcement properly compacted to CP204. Screed to have perimeter insulation maximum thickness 25 mm to full depth of screed (to the external perimeter of slab and to perimeter of internal loadbearing walls for a distance of 1 m from the junction with the external walls. Seal between the wall and floor air barrier with a flexible sealant OR seal the gap between the skirting board and the floor using a flexible sealant) U-value of 0.15W/m²/k.
- ⑥ Blue engineering brick
- ⑦ Steel frame to engineers details Intumescent Coated for 90 minute Fire Resistant
- ⑧ Anthracite grey Triple glazed bifold doors With argon gas to achieve U-value of 0.09W/m²/k.
- ⑨ Re enforced pile foundation

- ① Kingspan multibeam to SE detail
- ② Kingspan QuadCore Evolution Axiis vertical wall panel
- ③ CT1 - Metal ceiling system - 100mm void created using Resilient Hangers.
- ④ 50mm mineral wool quilt
- ⑤ 12.5mm British Gypsum Gyproc SoundBloc Plasterboard
- ⑥ 100mm steel stud and channel with full fill unfaced mineral wool fiberglass insulation quilted between framing with 15 mm plasterboard and skim
- ⑦ Steel frame to engineers details Intumescent Coated for 90 minute Fire Resistant
- ⑧ Anthracite Grey Triple Glazing Windows With argon gas to achieve U-value of 0.09W/m²/k.
- ⑨ 150mm precast concrete plank.
- ⑩ FFT 1 - Resilient composite deep batten system Resilient composite deep battens in-filled with 50mm insulation leaving air gap and service void.
- ⑪ Insulated up-stand support bracket 25mm thick LPCB / FM certified PIR insulation board colour to match cladding, any gaps filled with fire rated canister insulation. With Drip flashing with 100mm sealed butt straps air sealed with foam tape

- ① Minimum 1100mm from floor level protection from falling hand rail.
- ② Vegetation Barrier
- ③ Bauder or similar Soft Landscaping Green Roof System; Bauder SPRINT DUO underlayer - 3mm thick Bauder AP2 Root resistant cap sheet - 4mm thick XF301 Sedum blanket - 45mm thick
- ④ 120 mm Kingspan Composite Therma roof TR27/LPC/FM insulated decking with integral vapour control layer
- ⑤ Tapered softwood firrings with timber ply wood deck
- ⑥ 150mm precast concrete plank. All to achieve minimum U Value of 0.18W/M²/K.
- ⑦ CT1 - Metal ceiling system - 100mm void created using Resilient Hangers.
- ⑧ 50mm mineral wool quilt
- ⑨ 12.5mm British Gypsum Gyproc SoundBloc Plasterboard
- ⑩ 100mm steel stud and channel with full fill unfaced mineral wool fiberglass insulation quilted between framing with 15 mm plasterboard and skim
- ⑪ 300mm reinforcement concrete core
- ⑫ Bauder insulated upstand support bracket and suitable fixings for use with 30mm thick insulation with Suitable counter flashing to be fixed and plugged as per manufacturer's recommendations. Chase to be primed with Bauder sealant primer. Counter flashing to be pointed in Bauder sealant.

0m 10m
Scale 1:100 @ A1