

Lena Holyoake – ARC605 Final Year Project

The project sets out to expand upon Revitalise UK holiday break destinations

To regenerate the old site, Islands revenue and job opportunities.

Dedicated, propose build facility.

Classic, modern architectural design combining the old castle estate and Island Victorian history.

Introduce previously requested facilities into a new holiday centre.

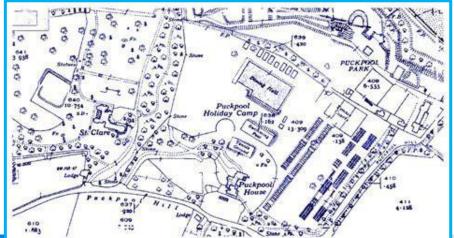




We're the people who create revitalising holidays for disabled people and carers.







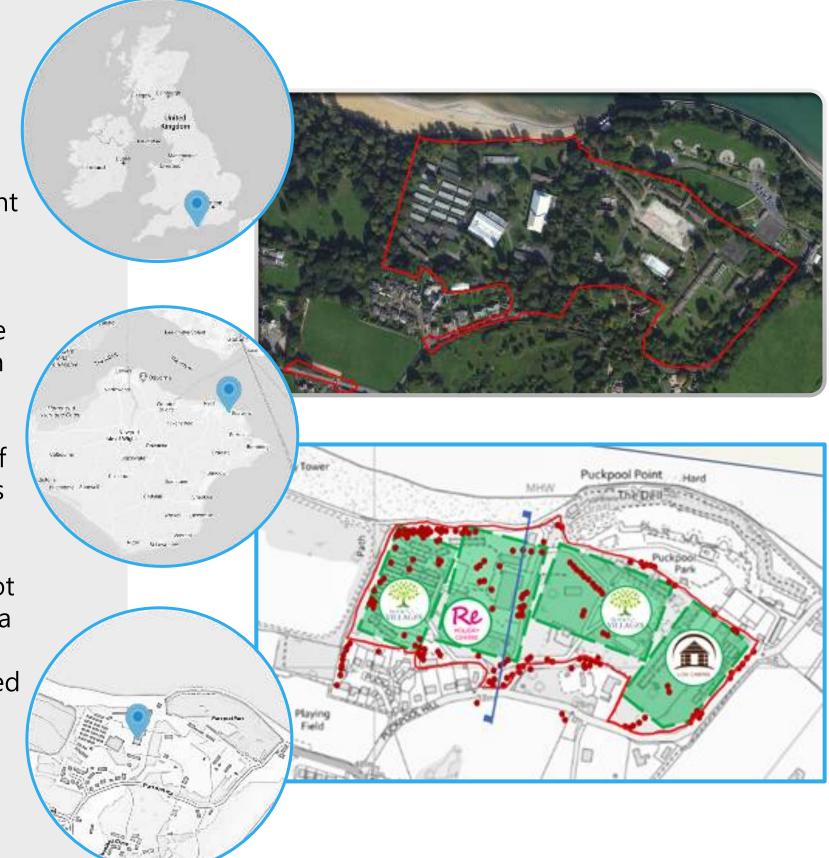




It's close proximity to Apply Beach provides scenic views across The Solent and Portsmouth shore line.

There are many sites of interest and attractions near by.

As this regeneration plot occupies a large 11.6 ha area, the site has been broken down into phased developments

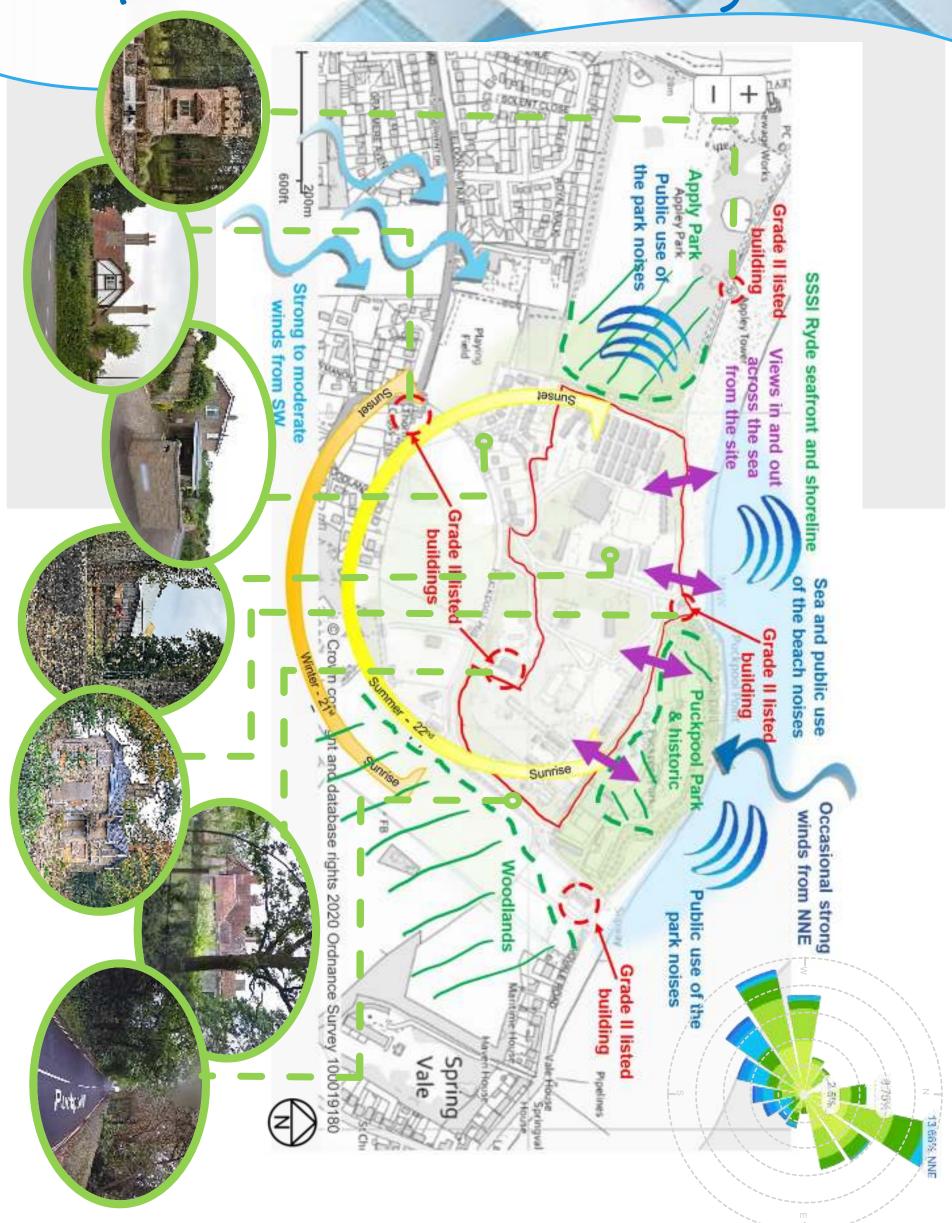


KFIELD

Topography & Positioning. Sun Path and Ordination Security Access & Flooding Transport & Amenities Puckpool Point **Existing Facilities** ey Park Wind and Noise

13.66% NNE

Crown copyright and database

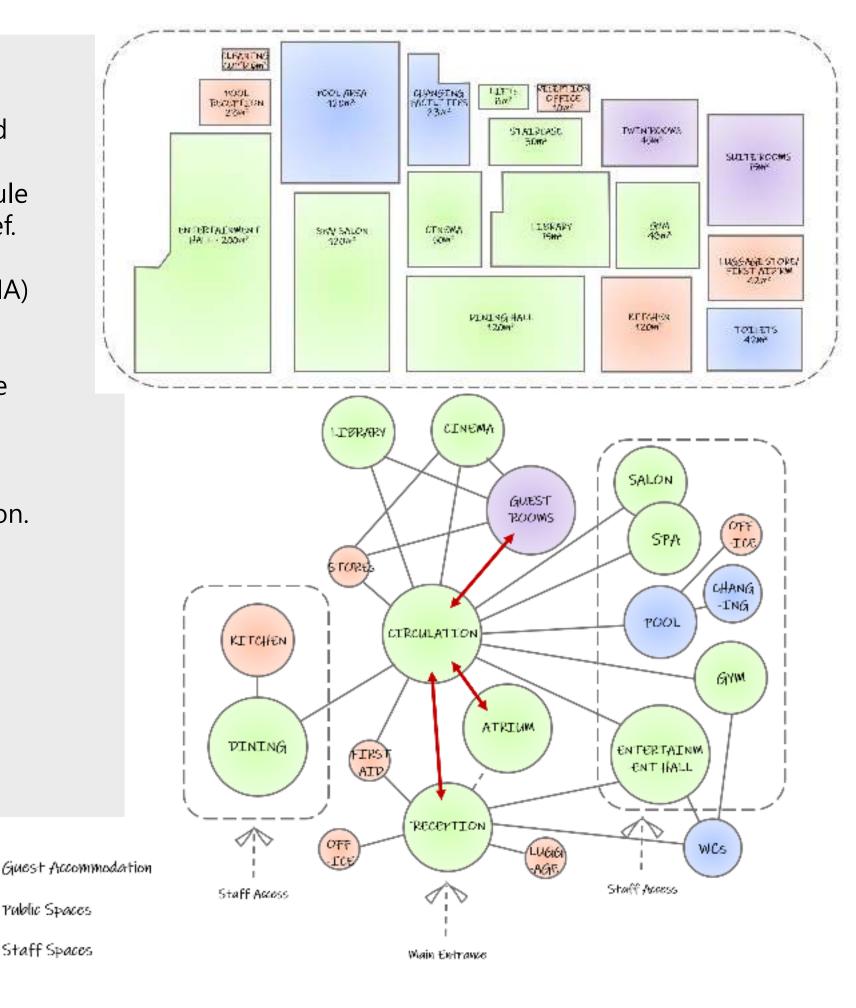


Gross Internal Areas (GIA)

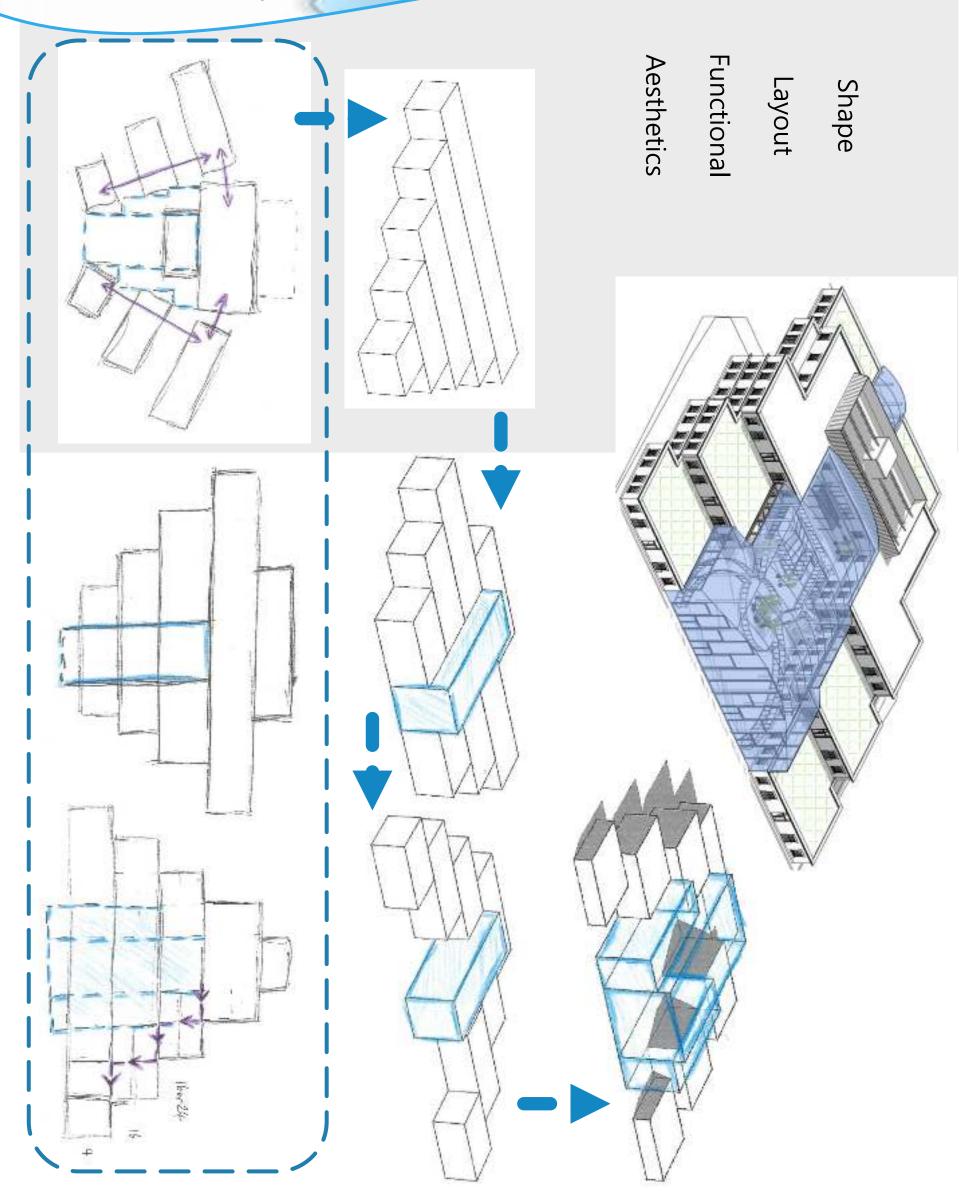
Depicted circulation adjacencies and space relationships.

Accessible, functional design and consideration.

Кеч

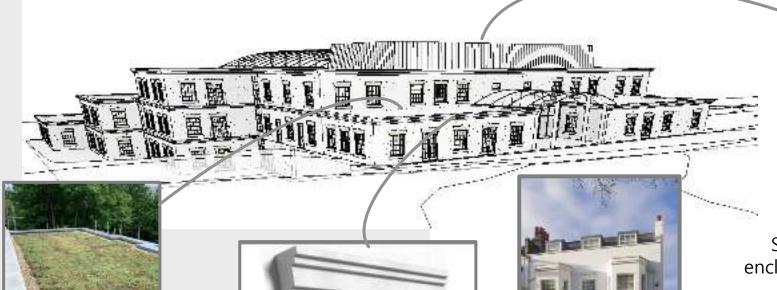


Concept Design

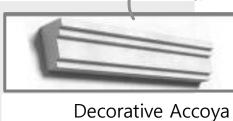








Warm flat green roof assimilating appearance



wooden stepped cornice defining elevations



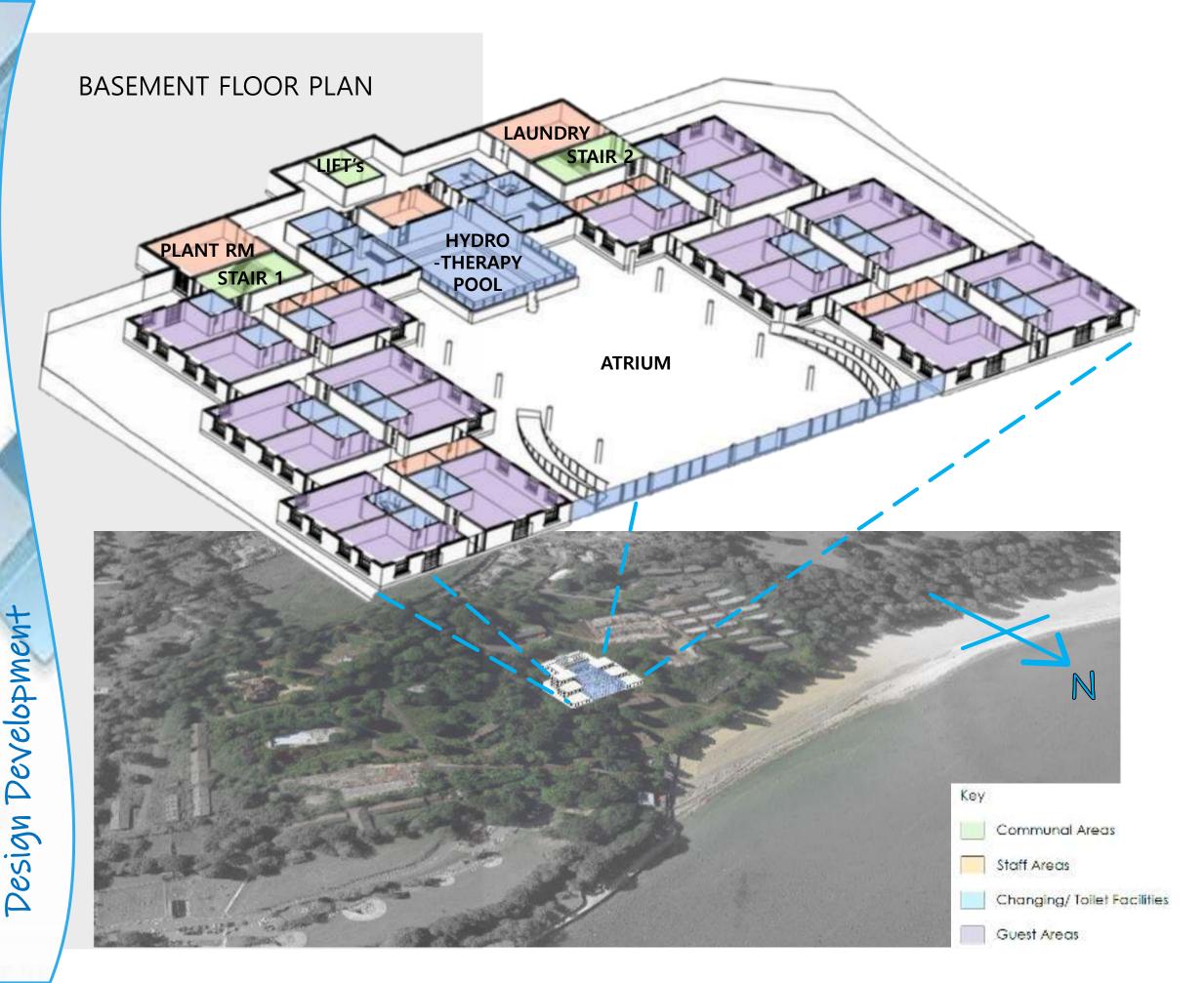
Light off white rendered facades



Glazed interconnecting atrium



Lightweight construction woodcrete ICF blocks



EII \blacksquare HE I E BEI NORTH ELEVATION \blacksquare 圃 圃 川川川 圃 圃 Ⅲ 圃 Ⅲ 1 **EAST ELEVATION** Ⅲ EE 圃 圃 H





WEST ELEVATION

Development Design







BAUDER GREEN ROOF

British Wildflower mix Biodiverse & Ecological potential

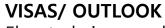
FABRIC FIRST APPROACH

With highly energy efficient SIP's and ICF woodcrete block systems.



SOLAR PANELS

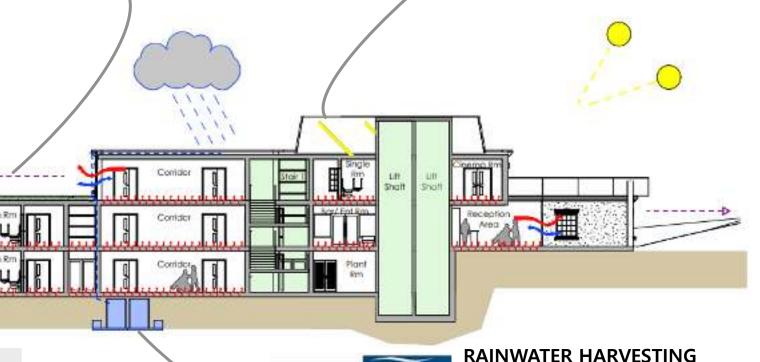
GB-SOL, Solar PV manufactured in UK Member of PV Cycle Lightweight & Slim



Elevated views and outside useable space, maximising views across the sea.

NATURAL VENTILATION & LIGHT

Making use of the building orientation and light tubes to provide natural light and cross building ventilation



UNDER FLOOR HEATING

Lewis Dovetailed metal deck. Sustainable, versatile, high acoustic & thermal performance, with under floor heating.



'Fabric First' Approach



Sustainable Material Resources



Life Cycle of Products



Enhance & Increase Natural Environment



Promote Conservation



Below ground tanks allowing

recycling of grey water for use

within toilets etc. Water saving

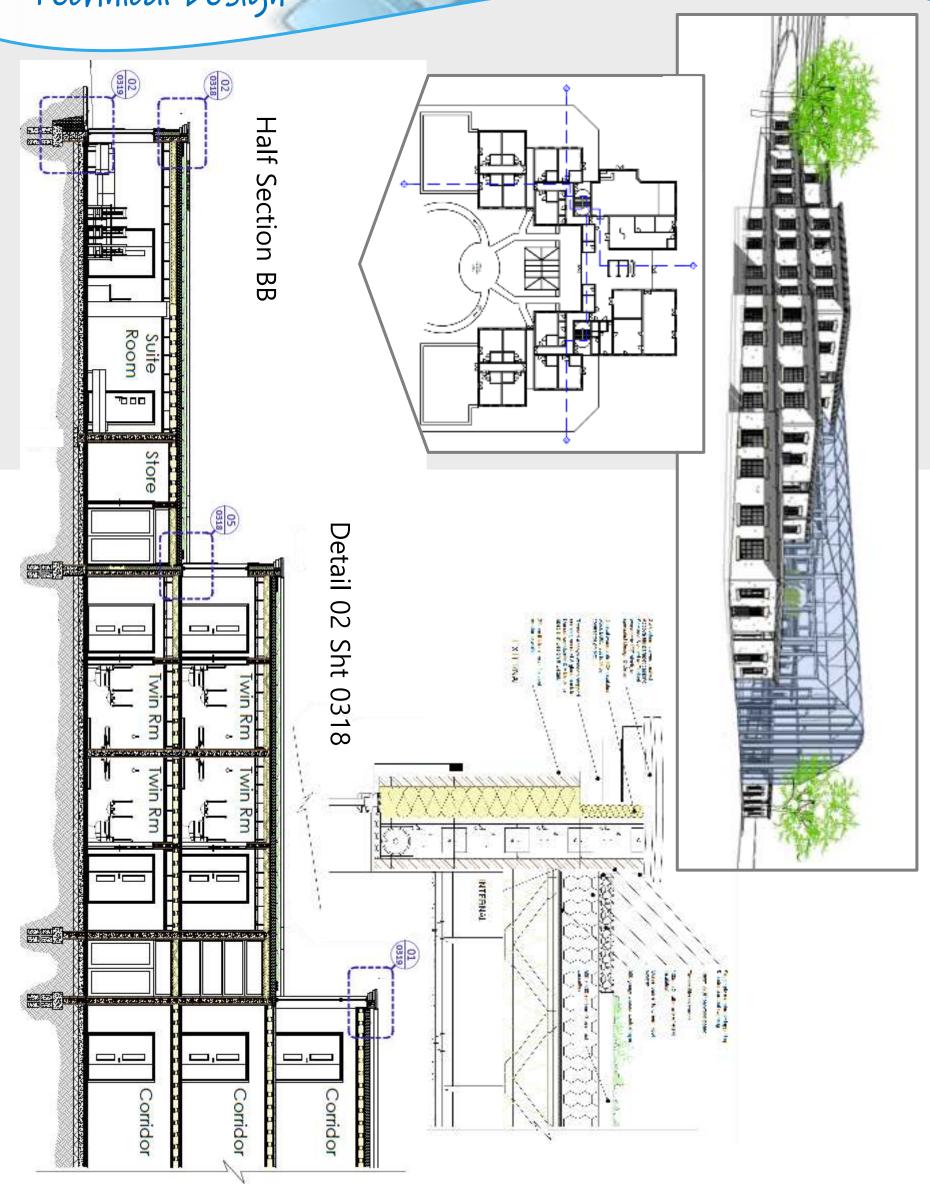
features to be installed such as

push button taps & showers in

communal areas...

Protect **Biodiversity**

Technical Design



Technical Design

WALL CONSTRUCTION PLAN DETAILS



NEW INTERNAL WALL CONSTRUCTION

3mm Universal One coat skim plaster.

12.5mm plasterboard on dot 'n' dab (Aqua board where required)

170mm Durisol woodcrete ICF full fill D170 block to receive not less than S4 concrete poor fill.

12.5mm plasterboard on dot 'n' dab(Aqua board where required) with

3mm Universal One coat skim plaster.



NEW INTERNAL WALL CONSTRUCTION

3mm Universal One coat skim plaster.

12.5mm plasterboard on dot 'n' dab (Aqua board where required)

250mm Durisol woodcrete ICF full fill D250 block to receive not less than S4 concrete poor fill.

12.5mm plasterboard on dot 'n' dab(Aqua board where required) with

3mm Universal One coat skim plaster.



NEW EXTERNAL OFLOOR WALL CONSTRUCTION

22mm Three coat painted render.

365mm Durisol woodcrete ICF insulated D365 block to receive not less than S4 concrete poor fill.

12.5mm plasterboard on dot 'n' dab

3mm Universal One coat skim plaster.

To achieve U-value of no less than 0.28W/m²k.

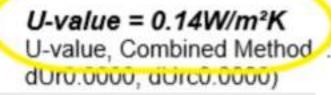


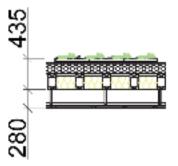






From left to right the D365, D300, D250 and D170 Units





KEY CONSTRUCTION SECTION DETAILS

NEW GREEN ROOF CONSTRUCTION

500 x 500 x 50mm Green roof cassettes to Specialist Design & Detail.

Single ply high performance membrane on

12mm plywood board.

130mm Xtratherm FR/ BGM insulation.

500 Gauge Vapour Control Layer on

18mm OSB 3 board

WS200 easi joist @ 400mm centres to be hung off wall mounted hangers.

200mm PIR insulation Ecotherm Eco-versal or equivalent fitted between joists.

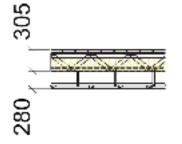
Suspended ceiling system to create service void at varying height.

25mm attachment/ separating layer.

12.5mm soundbloc plasterboard or Enviroboard fire board (rated at up to 60mins, where required) with

3mm Universal One coat skim plaster.

To achieve U-value of no less than 0.18W/m²k



NEW FIRST FLOOR CONSTRUCTION

50mm flocrete sand and cement screed to accommodate underfloor heating system to Specialist Design & Detail.

16mm depth Lewis sheeting (100mm overlap at sheet junctions).
20mm Lewis mineral wool resilient strips.

WS200 easi joist @ 400mm centres.

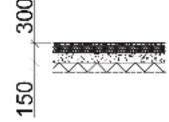
200mm PIR Ecotherm Eco-versal or equivalent soundbloc insulation fitted between joists.

suspended ceiling system to accommodate service void.

25mm attachment/ separating layer.

12.5mm Enviroboard fire board (rated at up to 60 mins) with 3mm Universal One coat skim plaster.

To achieve U-value of no less than 0.20W/m²k



NEW GROUND FLOOR CONSTRUCTION

50mm flocrete sand and cement screed to contain U/F heating to specialist Design & Detail.

500 Gauge Visqueen Vapour Control Layer.

100mm Xtratherm XT/UF insulation with 25mm Xtratherm XT/UF upstand to perimeter of screed.

150mm reinforced thick ground bearing slab to Structural Engineers Design & Detail.

1200 Gauge Damp Proof membrane.

150mm well compacted hardcore.

To achieve U-value of no less than 0.22W/m²k

Crystal Sands: Isle of Wight Technical Design LAYOUT & FIRE STRATEGY Twin & Double Room Arrangement Scale 1: 50 g At - 1: 100 g A3 DOUBLE ROOM TWIN ROOM 3 3 Suite Room Arrangement STORE SUITE STORE