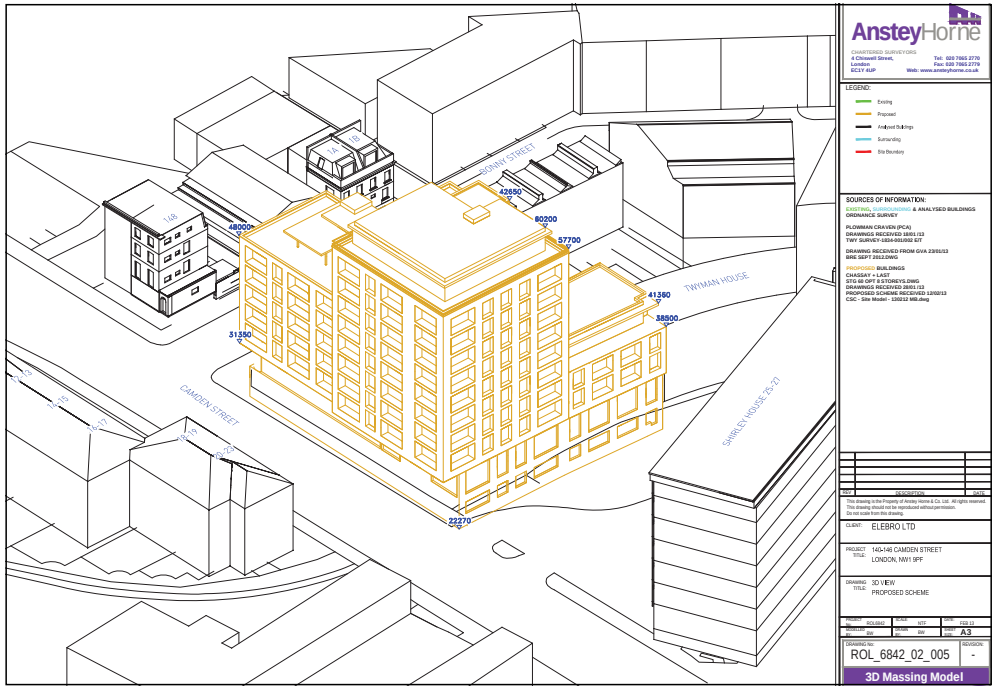
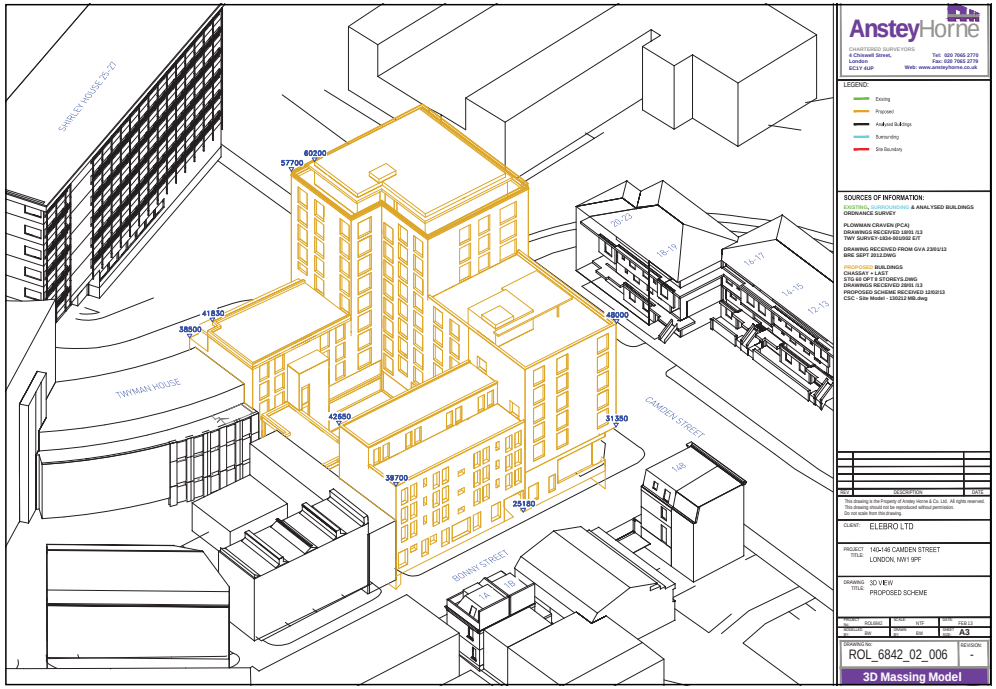
Daylight / Sunlight analysis for previous - 1st Pre-Application March 2013

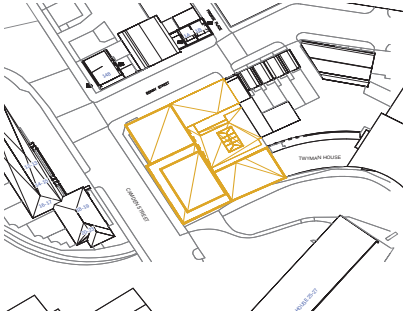
A full daylight & sunlight analysis has been commissioned from Anstey Horne Chartered Surveyors.

This involved fully modelling the proposed building and matching it with its surroundings and was based on measured survey data from Plowman Craven.





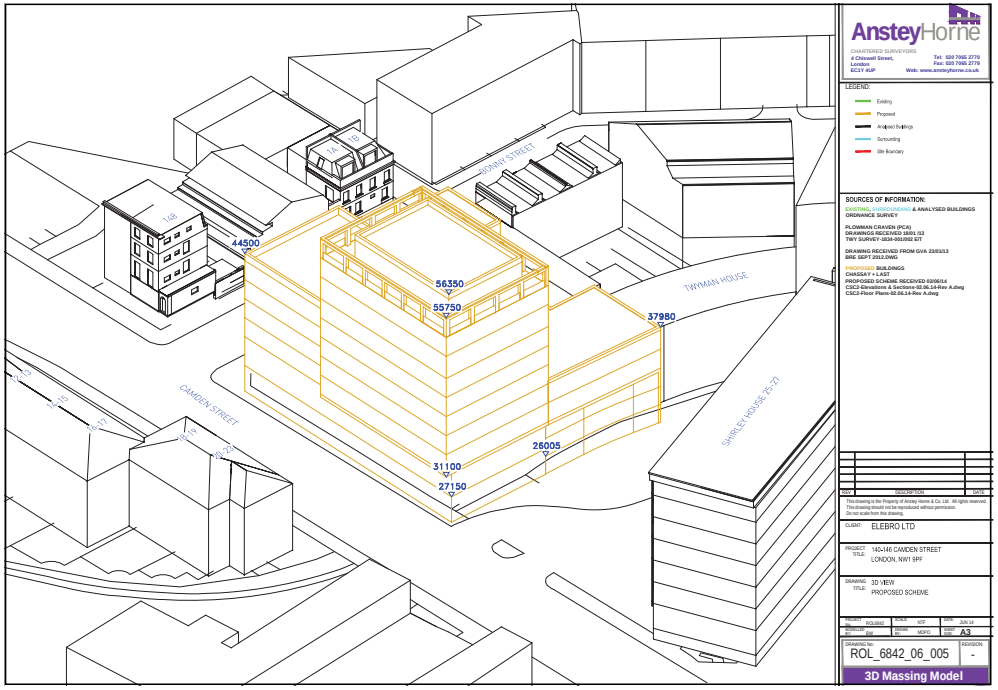
Daylight / Sunlight Proposed Scheme - June 2014 Scheme

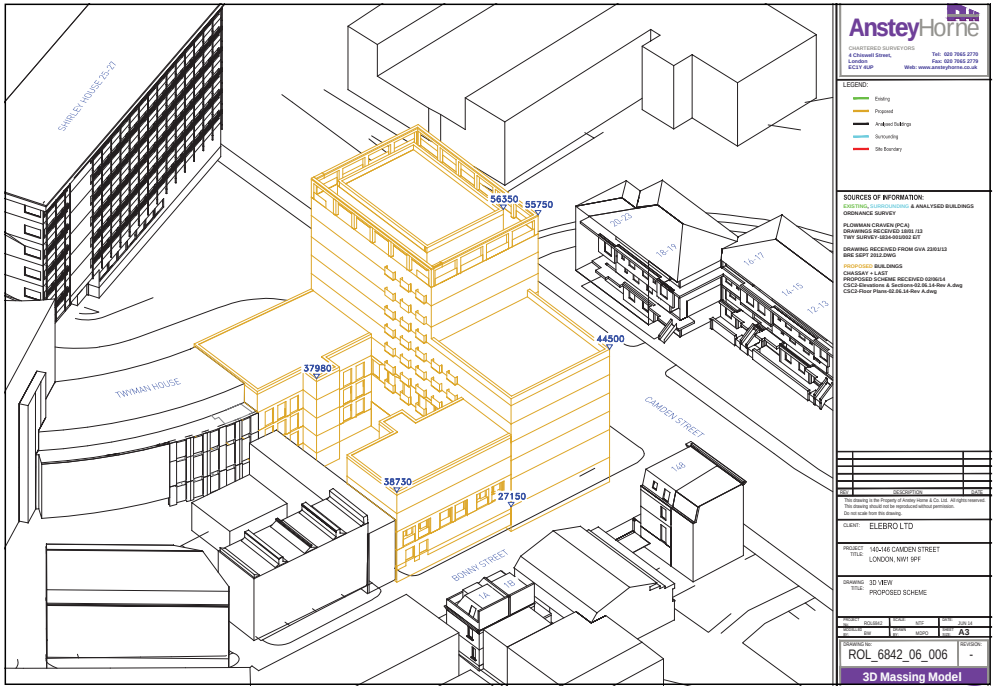


The technical assessment based on the BRE Report 209 2nd edition 2011 'Site Layout Planning for Daylight and Sunlight – A guide to good practice (2011)' has shown that a good level of compliance will be achieved for an urban scheme within context.

Alterations to scheme:

- From the previous sunlight & daylight model a floor has been removed from all the Blocks.
- The roof parapet level of Block B has been reduced to 44.500 from 48.000
- The Roof level of Block C has been reduced from 60.200 to 56.350





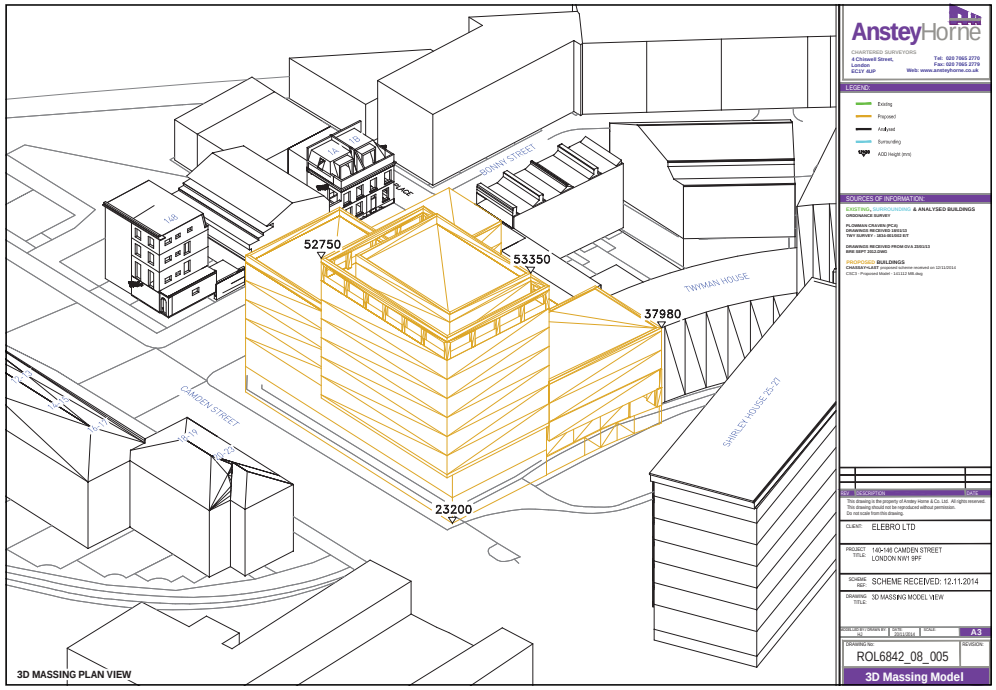
Daylight / Sunlight analysis for current scheme December 2014

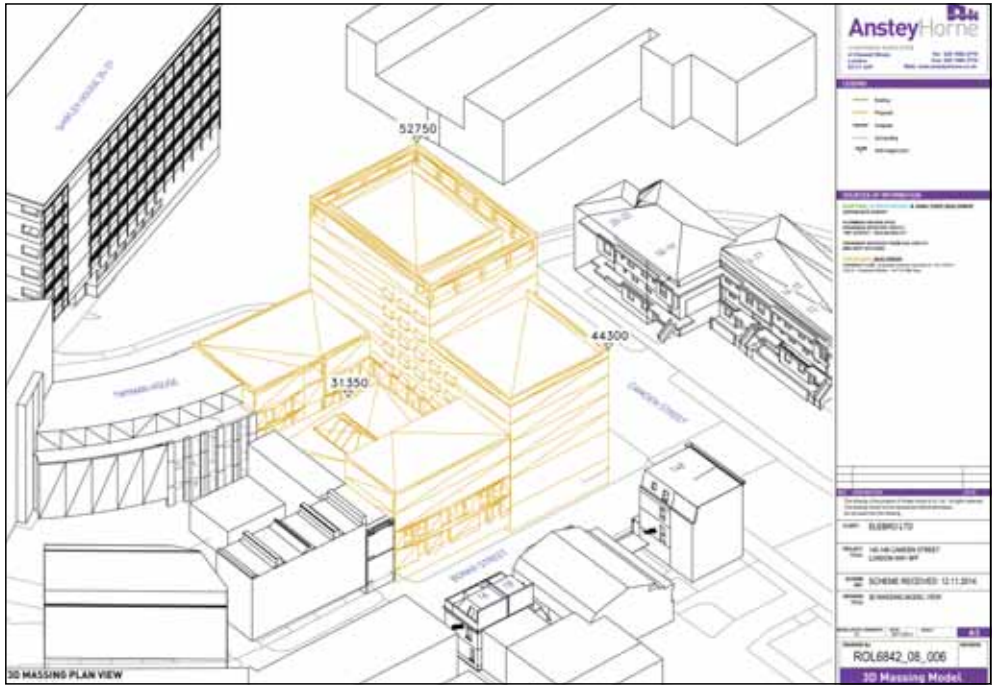
A full daylight & sunlight analysis has been commissioned from Anstey Horne Chartered Surveyors.

This involved fully modelling the proposed building and matching it with its surroundings and was based on measured survey data from Plowman Craven.

Alterations to the scheme

- From the previous sunlight and daylight model a floor has been removed from block C.
- The roof level of block C has been reduced form 56.350 to 53.350 and the parapet arcade level to 52.750.





3D MASSING PLAN VIEW

Summary Notes from Daylight and Sunlight report prepared by Anstey Horne & Co. Please refer to Anstey Horne & Co report of 9th December 2014 Ref MC/AJ/ROL6842.

8.1 The London Borough of Camden's planning policy seeks to safeguard daylight and sunlight to existing buildings and points to the guidance published in BRE Report 209 'Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice'.

8.2 We have undertaken a comprehensive study of the impact of the proposed development on the relevant rooms in all of the surrounding dwellings. The BRE guidelines give useful advice and recommend various numerical guidelines by which to assess the impact of development on daylight and sunlight to existing surrounding properties.

8.3 The assessments have highlighted that the occupants of 12-23 Camden Street will experience noticeable reductions in daylight to the kitchens and bedrooms with the proposed development in place. It is inevitable that there will be daylight reductions greater than the BRE guidelines due to the overhanging walkways and recessed design.

The current daylight levels obtained to the bedroom and kitchens are already below the BRE guidelines in a number of areas and this is why it is inevitable that the development will have a noticeable effect in places. It should be noted that the main habitable spaces, these being the living rooms, face away from the development site over the canal. Therefore the occupant's main aspect is looking away from the development.

The BRE guidelines highlight that where adjoining properties have limited daylight availability due to projecting balconies and overhangs tests can be undertaken with and without the balcony effects in order to establish whether the existing constraints are the key driver for the effects. It is evident when looking at the windows that are not significantly affected by the overhead walkways that good levels of daylight are obtained to the windows in the proposed condition.

8.4 148 Camden Street has some effect from the proposed works but the daylight and sunlight tests show that a good level of compliance is obtained and that the main habitable rooms are also lit by windows on Camden Street. Therefore the occupants will maintain good levels of daylight and sunlight in the proposed conditions.

8.5 With regard to 1a & 1b Bonny Street, 1a Bonny Street will experience small reductions in daylight and sunlight only marginally below the recommended guidelines which we consider to be acceptable. The occupants of 1b Bonny Street will not experience a noticeable reduction in daylight when comparing the existing and proposed conditions, with good sunlight levels being obtained also.

Landscape, Sustainability & Ecology

Landscape

The landscape strategy utilises the stepped form of the proposal to create a series of landscaped amenity areas.

Biodiverse extensive green roofs to Blocks A and C will create benefit for the urban context; by reducing storm water run off, and lessening urban heat island effect (thereby reducing ozone production and improving air quality).

The roofs to Blocks B, D and E provide decked areas for use by residents surrounding by planning to create privacy and reduce noise nuisance.

The central courtyard over Block E benefits in addition from a living green wall on the back of Block A which will further reduce sound and continues down to provide amenity for the occupiers of the commercial space below.

The planting selection will provide interest in all seasons and use native species to encourage wild life.


Decked private terrace


Biodiverse roof planting


Greenwall


Seating to communal terrace


Timber decking to roof level

Roof gardens

1.- Reduced carriage way to Bonny Street, new service and parking with integrated bays.

2.- Upgraded paving to Bonny Street and Camden Street frontages.

3.- Paving feature to mark the River Fleet.

4.- Extensive green roofs.

5.- Terraces with communal resident access.

6.- Terraces with private resident access.

7.- Courtyard garden for commercial office users.

8.- Green wall.

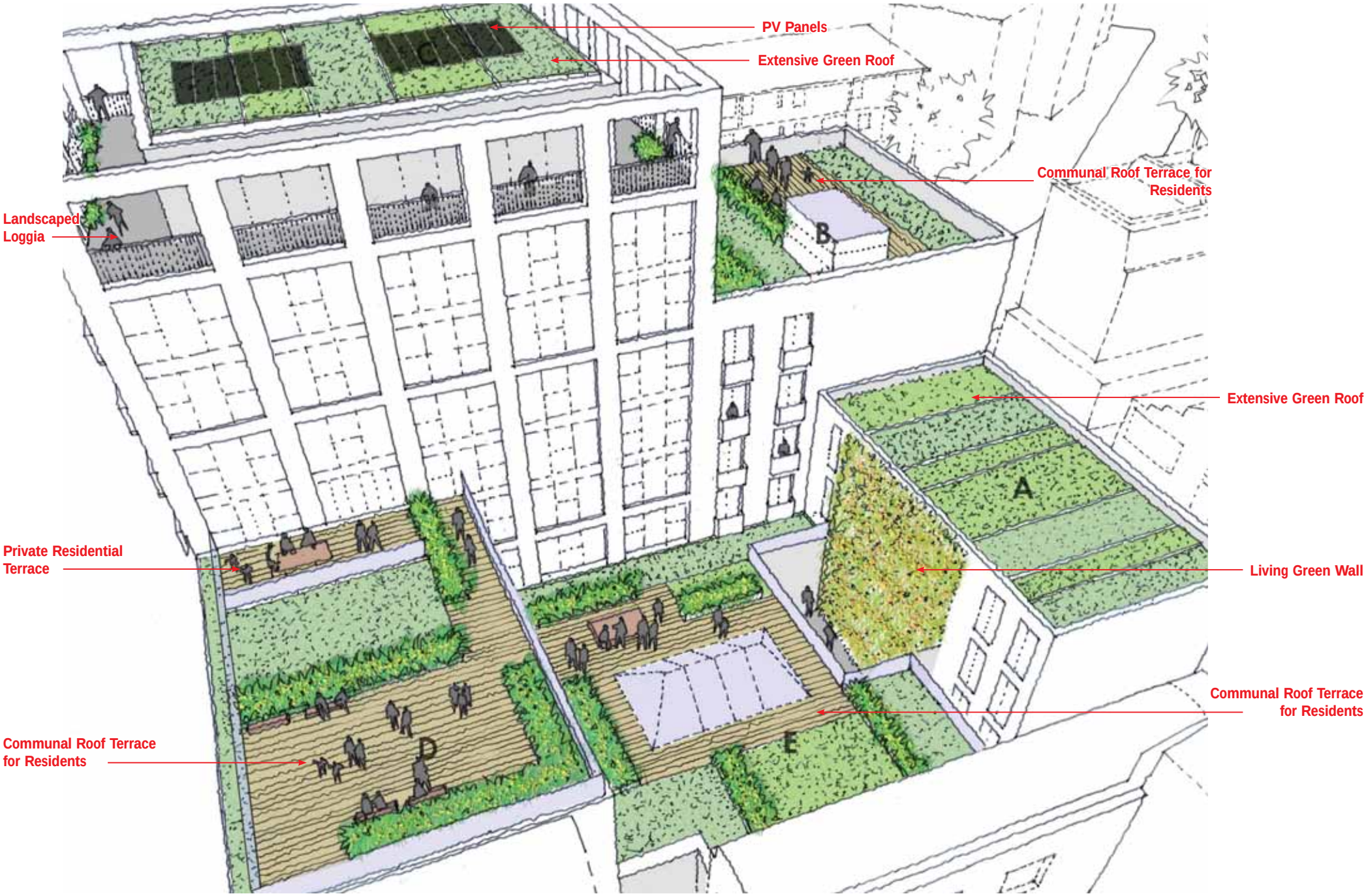
Ecology

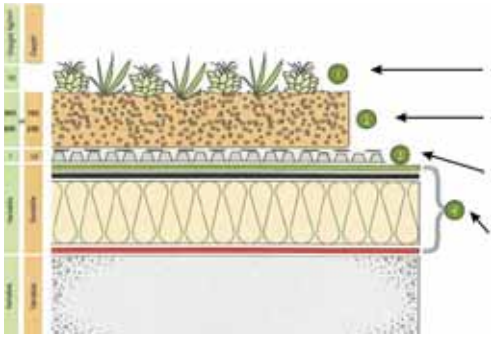
An Ecology Appraisal and Daytime Bat Assessment has been carried out by The Ecology Consultancy Ltd. It was concluded that the development of the site would not impact on any statutory or not statutory designated sites due to the distance they are from site.

All the habitats within the site were assessed as having negligible to low habitat value. Biodiversity enhancement measures which are planned into the development will provide increased biodiversity potential for the site.

The biodiversity enhancement measures include:

- Provision of bird bricks
- Provision of bat bricks
- Creation of a biodiverse green roof with night scented flowers to attract insects
- Provision of insect boxes on the green roof
- These provisions will enhance the local natural habitat.


PV Panels
Extensive Green Roof
Communal Roof Terrace for Residents
Landscaped Loggia
Extensive Green Roof
Private Residential Terrace
Living Green Wall
Communal Roof Terrace for Residents
Communal Roof Terrace for Residents
A
B
C
D
E



Plug planting or approved Wildflower turf-see schedules

Specially adapted soil mix - 150mm to 200mm depth for acid & neutral grassland roofs; 150mm depth for lawn roofs;

Revervoir or water storage and drainage board, 50-75mm thick, with filtration layer or fleece to prevent substrate fines from washing into reservoir/drainage layer.

Protection, waterproofing and insulation layers overlaid on roof slab as adivsed by architects, nom. depth 100mm

Note - Approx. weight loadings for proposed soil profiles:
150mm depth = 500kg/m2
250mm depth = 800kg/m2

Schematic Section showing Soil Build-up for Green Roof Terraces

Planting Schedule

The proposal seeks to enhance ecological measures by incorporating green roof planting to both communal gardens on Block B +D as illustrated below.

Acid & neutral grassland roof planting for BlockC:

Two kinds of species rich grassland (acid and neutral) roots are proposed for Block C roof. Plants to be supplied as a 'wildflower turf' base, with specialist seeds for neutral grassland sown in, as supplied by coronet turf, Basingstoke (tel 01256 771222) or similar approved source. Wild turf base to comprise 50% Grasses, 50% Wildflowers including the following plants:

Grasses:

Sheeps Fescue, Small Leaved Timothy, Creep Red Fescue, Crested Dogstail

Wildflowers;

Yarrow, Common Knapweed, Field Scabious, Gallium Verum, Meadow Cranesbill, St. Johns Wort, Cats Ear, Oxeye Daisy, Birdsfoot Trefoil, Ragged Robin, Musk Mallow, Ribwort Plantain, Cowslip, Self Heal, Meadow Buttercup, Yellow Rattle, Salad Burnet, Red Capion, Betony, Turfed Vetch, Conon Vetch, Wild Carrot, Common Sorrel, Meadowsweet, White Campion, Autumn Hawbit, Greater Hawbit, Common Toadflax, Wild Red Clover, Bladder Campion, Wild Marjoram.

Specialist seeds to be sown into base for acid grassland mix to include:
Stachys officionalis, Luzula pilosa, campanula rotundaifolia, Stellaria graminea, Viola riviniana, Ranunculus accris, Carex ovalis, Sanguisorba minor, Geum urbanum Teucrium scordonium, Hypericum pulcrum.

Specialist seeds to be sown into base for neutral grassland mix to incude:
Lotus corniculatus, Hypocheris radiate, Gallium verum, Leucanthemum vulgare, Achillia millefolium, Salvia officionalis, Scabiosa columbaria, Rumex actosa, Prunella vulgaris, Clinopodium vulgare.

Installation & Maintenance:

Follow guidance from suppliers for correct laying of turf. Ensure all wildflower turf is well watered in at outset to fill reservoir boards below.

Make visit to plants at least two times per year to check health and establishment. Check drip irrigation system is functioning, and in times of drought, water using irrigation system to ensure plants do not dry out. Strim back dead flower heads after flowering season in autumn, and compost arising.

Green roof plant mix:

Planting for neutral grassland and heath roofs to be specially selected seed mix grown in nursery as plugs to be planted at a density of 16/m2 to form a full cover, and in random arrangement to achieve a naturalistic effect. Aim of planting is to provide a variety of attractive, bio-diverse, planted terraces requiring minimal irrigation & maintenance. See attached plant schedules for separate roof types. Planting for lawn roof types is to be species rich lawn mat as supplied by Cornet Turf or Lindum Turf or similar approved.

Irrigation:

Drip irrigation lines to be installed into soil at 300mm centres and fed by rainwater recycling tanks, topped up by automatic mains supply when required.

Chassay+Last Architects are committed to responsible and sustainable development. Sustainability will be considered in all aspects of the design. Measures proposed include:

- Level 4 of the Code for Sustainable Homes will be applied to the residential element.
- The commercial element will achieve BREEAM 'Excellent'.
- Renewable energy will be provided by photo voltaic panels.
- 100% energy efficient lighting.
- Passive design – to achieve the best practical levels of sustainability the design makes use of high levels of thermal insulation and mass.
- Re-use of a vacant brownfield site.
- Daylight and sunlight are maximized with large south-facing windows for passive solar gain. Protection from unwanted solar gain is achieved by deep reveals.
- Green roofs will provide good thermal insulation and new species habitats.
- Rainwater from all the roofs will be harvested for irrigating the landscaped areas.
- SUDS (Sustainable Urban Drainage System).
- Due to it's high rated PTAL of 6A, it is intended that this will be a car-free scheme.
- The residential units will conform to Lifetime Homes standards.
- The contractors will commit to the Considerate Contractors Scheme.
- Cycle storage facilities will be provided to encourage sustainable commuting.
- A full energy/sustainability analysis will have been carried out and submitted as part of the application.

Sustainability and carbon reduction will be incorporated into the development proposals for both the commercial and residential premises. This to include improvements, including increased energy efficiency of the building fabric and services.

- Reduction of carbon emissions from the development, by adopting the London Mayor's Energy Hierarchy, 'Be Lean, Be Clean, Be Green.
- Whole house ventilation with heat recovery.
- The use of combined heat and power plant (CHP).
- Highly efficient gas condensing boiler.
- Good heating control systems.
- Absorption chiller serving the commercial area.
- Energy efficient lighting
- Metering of ventilation, plant and lighting.
- Metering of water use.
- Solenoid valve to water supplies to toilets in commercial areas.
- Water leak detection.
- Solar and PIR control lighting.
- Smart electric metering to all residential and commercial units.
- Heat meters to all residential and commercial units.
- Rain water harvesting.

The property has reasonable access to public transport; the sites begin with potential for good environmental credentials.

Summary

The regeneration benefits for the site outweigh any value of retaining the existing buildings. We have worked together with the client and the council via the pre-application process to produce the Proposed development of high design standard of contemporary style which reflect the scale, bulk and height of the immediate surroundings. The Proposed Development will provided a new mixed use sustainable urban block of high quality design that will:

- Enhance the character and appearance of the Regents Canal Conservation Area
- Enhance the setting of the adjacent Jeffrey's Street Conservation Area.
- Regenerate this well located brownfield site
- Provide much needed housing, both private and affordable designed to the London Mayor's and Lifetime Homes standards
- Provide replacement employment space of a higher standard and quality than existing
- Provide good quality flexible employment space
- Provide flexible future proof scheme
- Provide a car free scheme
- Provide improved access for cycling with dedicated on-site cycle storage
- Provide increased amenity space
- Provide exemplar levels of sustainability
- Provide improved surveillance to the canal