

REPORT

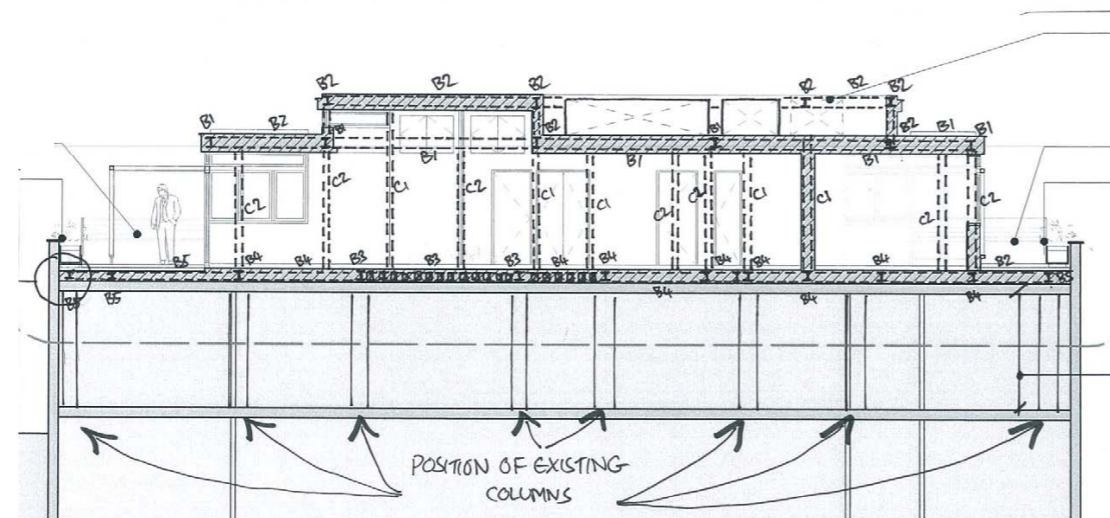
4.11 Structure

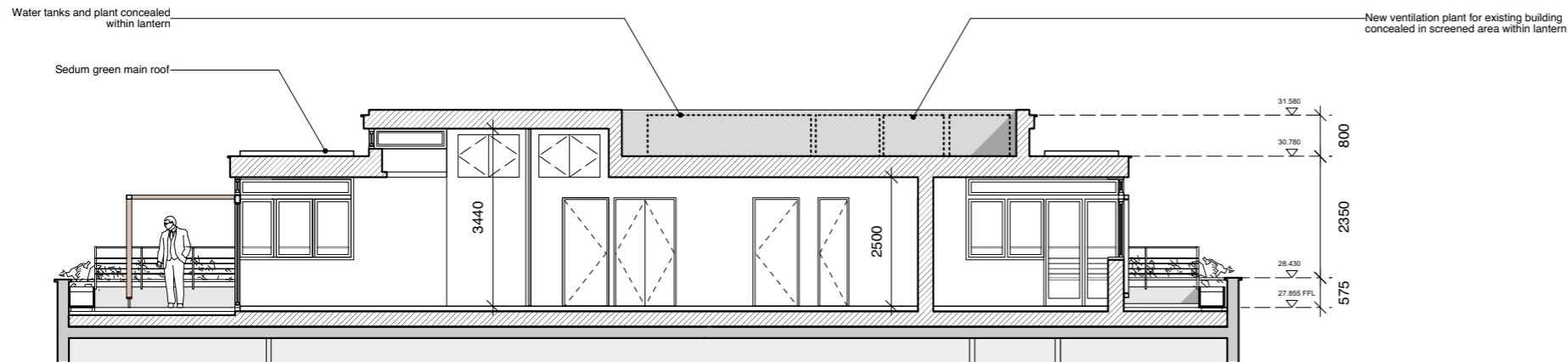
Structural assessments carried out by structural engineers Price & Myers conclude that the sub-soil has a decent bearing capacity and that the existing structure has **sufficient capacity** to support a single storey extension, provided that it is constructed in lightweight materials.

The proposed load increase that the extension would place on existing foundations is negligible. The proposed structural design includes a new grillage of steel floor beams above the existing roof slab to transfer new point loads to the existing columns below.

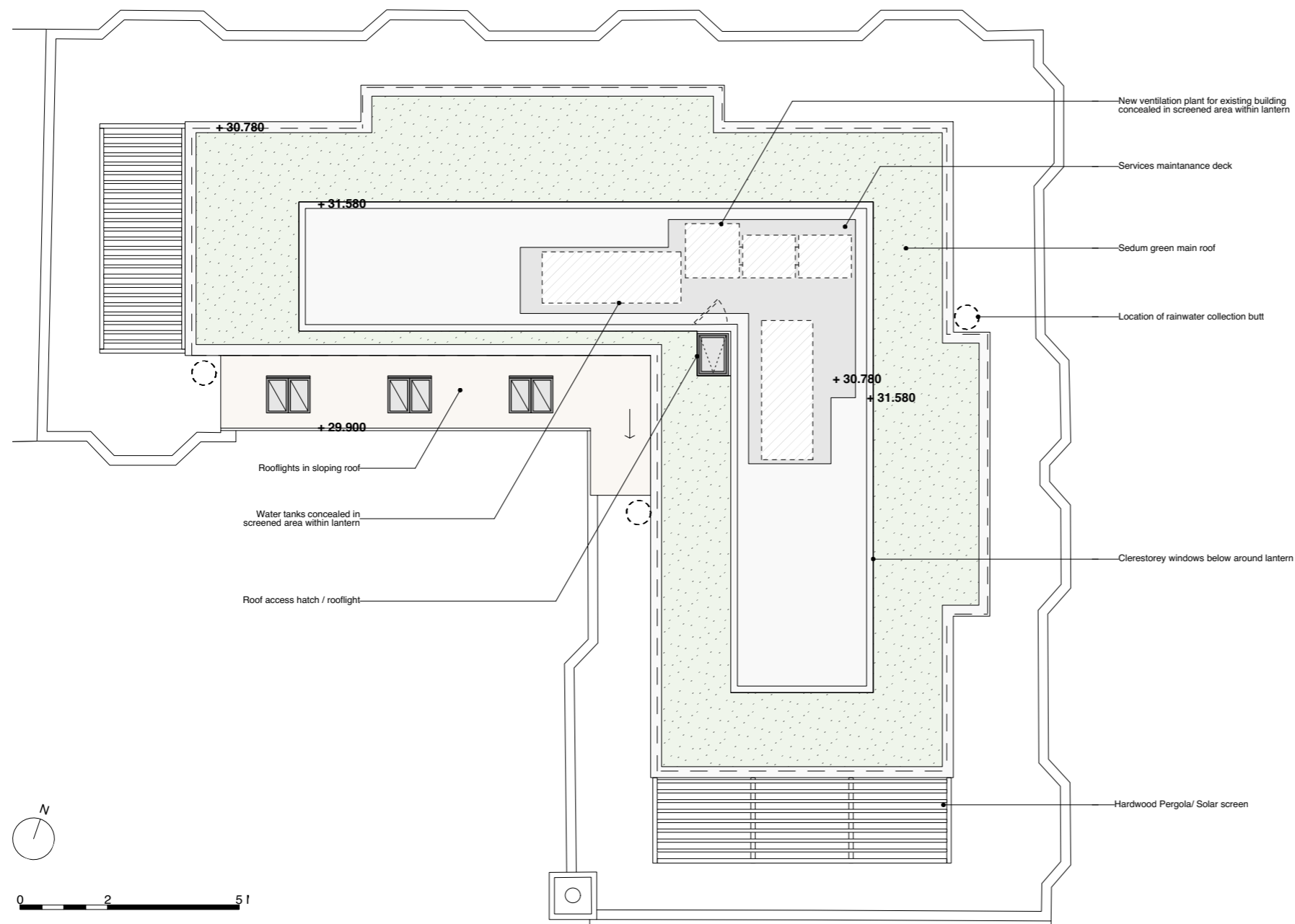
The proposed structure is formed of **timber joist** roofs and floors spanning onto a **steel frame**. Timber stud walls with ply skins will be used to stabilise the structure.

The existing lift frame will be adapted and re-hung from a new steel frame above.





Proposed typical detailed section at roof level (from drawing 312.PL.015)



Proposed Roof Plan (from drawing 312.PL.004)

4.12 Energy, sustainability and services

The proposal has been designed with a range of measures to increase sustainability and, although because of its size it falls below the threshold where an Eco-homes or BREEAM Residential Assessment would be required, the pre-assessment carried out during the design process shows it will easily achieve **at least Level 3** of the Code for Sustainable Homes.

Measures include high standards of thermal insulation and fabric energy efficiency including high performance windows, responsible sourcing of materials including timber from certified sustainable sources, low energy lighting, water-efficient fittings, extensive green roof and intensive terrace planting, rainwater collection, good daylighting, natural ventilation through openable windows all round.

Space and domestic hot water heating is provided by **air-source heat pumps**. Units are located on the terrace of each dwelling. A **whole-house ventilation system** with heat recovery is provided in each unit.

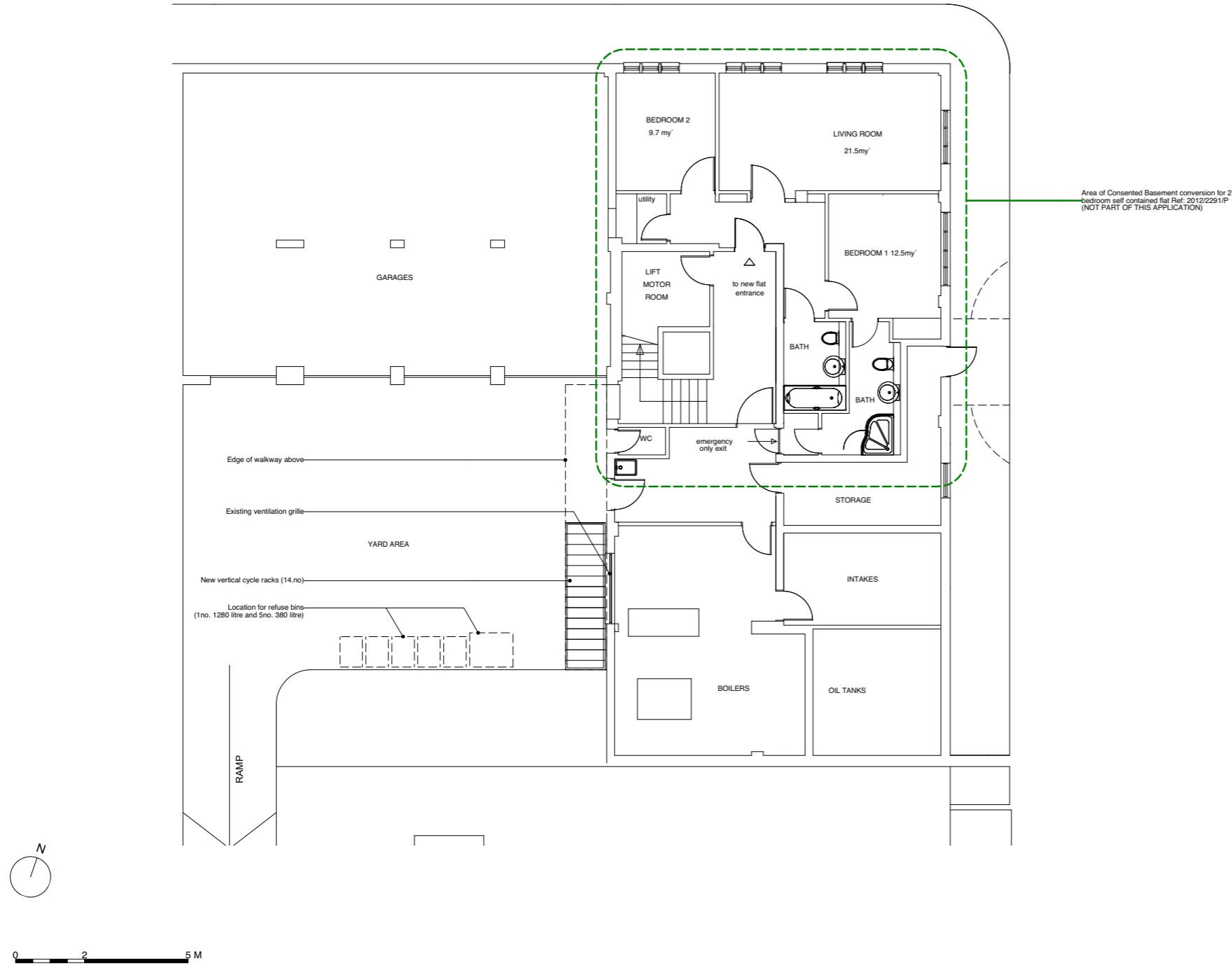
Within each new flat a **home office** area is provided and space for laundry/drying as well as for **waste/recycling** storage. Provision is made in the rear courtyard for secure **cycle** storage for 2 cycles for each new flat plus a further 10 for existing residents. Provision is also made there for additional waste and recycling bins.

Water tanks to existing flats within the building will be re-provided, with the same capacity, within the lantern area above the main roof. The existing toilet extract fan will also be replaced with new twin fan set and located in this area. The plant area is screened from view by the lantern enclosure but is unroofed and open to the air above. Access to the roof plant area is via access rooflight and ladder stair within the common stairway.

4.13 Acoustics

The new dwellings will be acoustically well **separated** from the existing flats below. The new floor structure is set above and independent of the existing roof slab which will be retained.

All new external plant will incorporate **acoustic screening**, to achieve the required noise reduction. An **Acoustic Report** prepared by Hann Tucker Associates is submitted as an accompanying document, confirming the anticipated noise levels that will be achieved.



Proposed Basement Plan (from drawing 312.PL.005)

4.14 Waste management

While the existing building currently has no separate waste and recycling storage provision, as part of this proposal a location is provided in the **rear service yard** (at basement level) for new communal bins which will serve both the existing and new dwellings. Space is provided for at least 1 no. 1280L bin for waste and 5 no. 380L bins for separated recycling. Management of bins will continue to be provided by the resident building manager.

Ample **storage**, in excess of the requirements of CPG1, is provided within each new unit for waste and separated recycling storage.

4.15 Construction management

A **Draft Outline Construction Management Plan (CMP)** is submitted as an accompanying document with the application. This sets out preliminary proposals for construction access and method.

Primary construction access will be from the **rear** via the Colonnade and the existing vehicle ramp to the rear courtyard. A temporary hoist will be erected from there to provide main access to the roof extension works for materials and personnel.

Short term use of a mobile crane may be necessary in addition for installation of the larger elements structural and service elements.

As the proposed extension is set back from most edges of the building, scaffolding will only be required in the localised area of the south-facing rear wall where the existing tank enclosure wall is to be retained. This scaffold will be constructed to allow vehicles to continue to access the basement garages.

The new extension works will be protected by a temporary sheeted roof structure to prevent water ingress to existing flats during the works.

Hours of work and noise levels will be restricted and measures taken to suppress dust and other nuisance. The site will be registered with the Considerate Contractor Scheme.

Appendix A: List of planning application drawings

312.PL.001	LOCATION PLAN
312.PL.002	SITE PLAN
312.PL.003	PROPOSED 6TH FLOOR PLAN
312.PL.004	PROPOSED NEW ROOF PLAN
312.PL.005	BASEMENT FLOOR
312.PL.006	PROPOSED BERNARD STREET ELEVATION
312.PL.007	PROPOSED GRENVILLE STREET ELEVATION
312.PL.008	PROPOSED SOUTH ELEVATION
312.PL.009	PROPOSED WEST ELEVATION
312.PL.010	PROPOSED SECTION AA
312.PL.011	PROPOSED SECTION BB
312.PL.012	PROPOSED SECTION CC
312.PL.013	PROPOSED SECTION DD
312.PL.014	PROPOSED SECTION EE
312.PL.015	PROPOSED TYPICAL DETAILED SECTIONS
312.PL.016	PROPOSED TYPICAL DETAILED ELEVATIONS
312.PL.017	EXISTING 5TH FLOOR PLAN
312.PL.018	EXISTING 6TH FLOOR PLAN (ROOF)
312.PL.019	EXISTING STREET ELEVATIONS
312.PL.020	EXISTING REAR ELEVATIONS

Following are A3 reductions of all submitted application drawings.

LIFETIME HOMES ASSESSMENT SUMMARY
Downing Court, WC1: Proposed roof extension

ref: 324.a.03
date: 22 July 2013

Appendix B: Lifetime Homes Assessment

LIFETIME HOMES CRITERIA (as revised 5/7/2010)	SUMMARY OF CRITERION	COMPLIANCE OF PROPOSAL (including access via existing building)
(1) Parking (width or widening capability)	Provide at least one disabled parking space.	N/A (car-free development)
(2) Approach to dwelling from parking (distance, gradients and widths)	distance from parking space should be minimised and level or gently sloping.	N/A (car-free development)
(3) Approach to all entrances	Approach to all entrances should preferably be level or gently sloping.	Existing small 40mm step at pavement edge but not practical to change and not a requirement.
(4) Entrances	All entrances to be lit and have level threshold, clear width, weather protection external landing.	Complies with required specification.
(5) Communal stairs and lifts: a. Communal stairs b. Communal lifts	Principal access stairs should provide easy access (uniform rise and going, handrail height and length, distinguishable nosings, risers not open. When a dwelling is reached by a lift it should be accessible.	Existing handrails do not extend 300mm but cannot be extended due to layout. Nosings are not contrasting. N/A (lift does not reach the proposed dwellings). Existing lift does not comply but is impractical to enlarge due to layout.
(6) Internal doorways and hallways	Width of doorways and hallways to be convenient for widest range of people.	Complies with required specification.
(7) Circulation Space	There should be space for turning of wheelchairs in dining, living and basic circulation space	Complies with required specification.
(8) Entrance level living space	Living space to be provided at entrance level of dwelling.	Complies with required specification.
(9) Potential for entrance level bed-space	In dwellings with 2 or more storeys there should be bedroom or temporary bed space at entrance level.	N/A (single storey flats). All bedrooms at entrance level.
(10) Entrance level WC and shower drainage	Where (14) not met accessible WC required at entrance level.	N/A (criteria 14 met)
(11) WC and bathroom walls	Walls in all bathrooms and WCs capable of supporting grab rails etc.	Complies with required specification.
(12) Stairs and potential through-floor lift in dwelling (two or more storey)	In dwelling of 2 or more storeys incorporate potential for stair lift and identify space for through-floor lift.	N/A (single storey flats)
(13) Potential for fitting of hoists and bedroom /bathroom	Structure over main bed/bathroom capable of supporting hoist and reasonable route between bedroom and bathroom.	Complies with required specification.
(14) Bathrooms	Accessible bathroom on same storey as main bedroom.	Complies with required specification.
(15) Glazing and window handle heights	Windows in living space to allow seated people to see out and opening lights to be approachable by wide range of people.	Complies with required specification.
(16) Location of service controls	Service controls to meet dimensional criteria.	Complies with required specification.

The summary table opposite assesses compliance with the Lifetime Homes criteria (as revised 5 July 2010) of both the existing access arrangements and proposed new dwellings.

The assessment shows that proposed roof extension works meet all the criteria for accessible living. There are some minor details of the existing stair on the floors below which do not fully comply (ie: nosing visibility and handrail design). However it is proposed that this is reasonable provision in the context of the existing building and this approach was agreed with officers at the pre-application meeting.