6.0 LANDSCAPING

Grenfell Tower sits at the southern edge of the 2 hectare site which is the subject of development proposals associated with the Kensington and Chelsea Academy and Leisure Centre. The following text should be considered alongside current proposals for the KALC project currently the subject of a planning approval / conditions.

EXISTING CONDITION

The external areas to the four sides of the tower lack any real sense of place or arrival. The building sits within a skirt of low quality paving’s which allow pedestrians to move around its base on all sides.

The south side of the building provides the principal means of access to the tower for pedestrians. However this is also the primary access route for vehicles approaching from the south and Grenfell Road. This is an area with a utilitarian quality dominated by tarmac and paving slabs. The south side of the building gives access onto a narrow paved forecourt accommodating bicycle and motorbike stands. A low wall separates the space immediately adjacent to the tower from a service road which provides access to the baseline offices and the parking areas under the Testerton and Hurstway blocks. This area is dark and overshadowed sitting in part under the first floor access deck to the adjacent residential blocks.

To the west is the existing children’s playground which wraps around the north west corner of the building. In the south west corner is a brick stepped ramp which provides the means of access onto the raised deck. The ramp lands on a low raised platform which means that all pedestrians passing around this corner of the building have to go up and then down a small flight of steps, making access around the south side of the tower more difficult than it need be.

It is understood that the existing playground is very successful with children of all ages, including those attending the crèche, regularly using the facility, particularly during the summer months. The playground is currently divorced from the wider public realm by a high brick walls. The playground is sub divided into the main play space and a more secluded private garden space. It is understood that this second enclosure has only recently seen the addition of play equipment, previously this was a quieter more contemplative space. The playground is secured by 1.8 metre high railings. The area contains a number of existing trees, those along the southern edge being of slightly higher quality with 2 mature London Plane providing visual screening from the elevated Metropolitan Line. A high graffiti clad wall defines the southern edge of the space.

To the north of the tower is a narrow service road set behind a dense belt of shrubs and trees. The existing fire escape stairs on this side of the tower jut out into the space.

On the east side the tower overlooks a wide access road which then becomes a slabbed path containing 4 large London Plane the roots of which have lifted the paving. Lancaster Green is then to the immediate east providing a green outlook on this side of the building. The present mounded form of Grenfell Tower establishes a degree of visual separation between the base of the tower and the wider public realm.

Despite the presence of the playground which is clearly a valuable asset for the residents it would appear that the spaces immediately adjacent to the tower provide little significant benefit for the residents in terms of areas for active use, the majority of green space accommodates only informal relaxation and dog exercising. Given the space available, this is a missed opportunity.
PROPOSALS

The proposals for the base of the tower need to be read in association with the plans for the Kensington Academy and Leisure Centre. While it is essential that the spaces are integrated with the wider KALC project, it would be beneficial if the spaces immediately adjacent to the tower were seen belonging to the residents of the block. The removal of the existing stepped ramp will go a considerable way to delivering a more meaningful sense of space on the west side of the tower, providing level access from Station Walk around the south side of the playground and then along the south side of the tower onto Grenfell Road. While the east – west link remains the primary route for those crossing the site or accessing the Academy or the Leisure Centre, the removal of these steps will encourage short cutting by some local users which will encourage heavier use of the route and, in so doing, enhance passive surveillance. The playground is to be re-provided slightly further to the south, the quantity and quality of the play equipment will be retained or improved. The northern edge of the proposed play area is now defined by the east – west route and the secondary public entrance to the academy. Ground level changes are to be used to create a slight sense of division between the heavily used pathway and the spaces adjacent to the tower base. By elevating the east – west path by circa 500mm it is possible to achieve a sense of division without creating a narrow corridor like space along this side of the tower. A ramp leads down to the north east corner of the tower from Lancaster Green achieving fully inclusive access. It is envisaged that the space alongside the tower will be separated by a low fence with access via pairs of gates at both corners of the building.

On the east side Lancaster Green is drawn much closer to the tower absorbing the existing strip of broken paving slabs under the London Plane and part of the adjacent road. The shallow embankment which rises onto the green will be populated with small seating areas set amongst low shrubs providing quieter spaces for reading and for other passive recreation.

The southern side of the tower will experience the greatest level of transformation. The existing low brick wall will be removed and the bike stands re-provided under the elevated walkway. An expanse of open paving will then extend to the existing garage doors providing a simple uncluttered hard landscape space as a more appropriate threshold to Grenfell Tower.

The diagrams overleaf illustrate the current and proposed access arrangements to the site.
ACCESS DIAGRAMS

26 Existing - Circulation and Access at Ground

27 Proposed opening up of pedestrian routes

28 Existing - Deck Level Access

29 Proposed replacement of stepped ramp with new internal stair
7.0 APPEARANCE

EXISTING BUILDING

Grenfell Tower is a concrete structure with mill finished (unfinished) aluminium windows. The external walls to the finger blocks are brick but there is relatively little used on Grenfell tower and only at the ground level. For the upper 20 storeys precast concrete cladding has been used: one panel type serves as a structural spandrel under the windows (horizontal) and the other is a decorative facing to the triangular pilasters, each a full storey height of 2.6m (vertical). This system sets up a simple visual language of modular elements: horizontal rough, washed aggregate for the spandrels, lighter and sharper detail on the vertical columns with cast-in vertical grooves, and aluminium framed “strip glazing” between. The infill panels between each window are a smooth white panel so that the assembly reads as a light weight infill in a concrete frame.

The original tower is divided compositionally into a base – the podium up to Walkway +1 level, a middle – the 20 residential floors, and a top – the plant room and pre-cast “crown” of tapered pilasters and a ring of perforated pre cast concrete panels as a cornice. The perimeter columns have been rotated by 45° to read as diamonds in plan, and this generates the distinctive triangular pilasters running the full height of the building and grid across each elevation.

The existing windows are single glazed and sliding opening, each half sliding across the other so that it is in theory possible to clean the outside of outer half with the inner open and the outside of the inner half by moving it left and right of the outer window positioned mid-way in the opening. The low (980mm) internal cill height and need to reach up and out of an open window makes cleaning the windows potentially very dangerous. Retrofit restrictor devices have been fitted to all the windows which limit the opening to approximately 150mm. These can be disengaged but they do provide a measure of safety for residents, and in particular young children.

An Integrated Receiver System has recently been installed to Grenfell tower meaning all wall-mounted satellite dishes will be permanently removed as part of these proposals.

CONCEPT

Grenfell Tower was designed as a large rectilinear mass lifted high off the ground on stilts-like columns and nestled in an urban garden. We interpret the original intent behind this concept was to mitigate the density of the development by handing over of the lowest levels to outdoor and community use. The latter part of this vision has been completely lost. The lowest levels are now entirely defensive in character and the building is separated by a tarmac road from what little garden there is. The under-utilized outdoor deck and stairs to Grenfell Tower are prime locations for mischief rather than community use, and plagued by pigeons.

The original pre-cast concept is a simple and direct solution for the elevations, albeit very uniform and even monotonous. The tower offers only limited interest in the modelling and silhouette at roof level and the constraints of existing structure and plant mean there is no opportunity to add new habitable space at roof level.

Our response to the detail design of the over-cladding to the residential floors has been to respect the visual language of the original: light verticals, darker horizontals and “window strips” as used throughout Lancaster West, including the finger blocks. We have also sought to maintain the podium or lowest four levels as a distinct “base” zone with more transparent connections to the proposed public realm works. The full height glazed screens across the four podium levels on the two centre bays of the north and south elevations (Fig 33), and on the south-west corner where the new stair is situated. The large scale glazed openings are based on existing tower proportions on the upper floors brought down to ground level with the purpose of reinforcing the entrance spaces and expanded entrance forecourt on the south.
CLADDING DESIGN BRIEF

The over-cladding works are an integral part of the upgrade to the heating of the building, while also being a complete overhaul to its appearance. New windows will deliver improved thermal performance and better functionality. The existing windows are 40 years old and at the end of their design life. More detail on the proposed energy efficiency of the complete building envelope and the parameters used in identifying the preferred window option can be found in the Sustainability Statement. In consultation with the Design Team, the TMO and through several open workshops with residents we arrived at the following objectives for over-cladding:

• A dramatic improvement in heat loss with new insulation and air sealing which will generate significant energy savings.
• Windows which can be opened sufficiently to naturally ventilate the building throughout the year, without contributing to a risk of falling.
• Windows that can be safely cleaned from the inside.
• Windows that maintain the existing good levels of natural daylight internally.
• Improved acoustic performance which will bring the noise levels inside the flats to within Planning policy targets.
• To re-compose the tower with the reconfigured spaces at the lower floors into a coherent single entity and improve the overall appearance of the tower which is such a dominant presence in the public realm that will be upgraded as part of the KALC project.

WINDOWS

Powdercoated aluminium windows are proposed as replacements for the existing. The proposed configuration is not dissimilar to that illustrated below (33): A narrow “purge panel” opens inward to allow rapid ventilation. It is screened by horizontal louvers to ensure large objects cannot fall out. The larger panel is a tilt & turn window which is the default means of ventilation and it will be restricted to a narrow opening in normal use. Both window halves can be cleaned safely from inside: the tilt and turn window can be disengaged from the safe position and opened inwards.

The narrow module of the grille to the purge panel introduces a new and interesting rhythm to the otherwise very rigorous existing geometry. Calculations prepared by Max Fordham demonstrate the need to for this amount of openable area to safeguard the thermal comfort of the occupants. The windows are slightly larger than existing to compensate for the heavier frames and to therefore to maintain the good levels of natural daylight.

MATERIALS

A zinc composite rainscreen cladding is proposed to the upper levels. Zinc has the advantage of being a self-finished natural material that will not corrode or weather as a coated finish eventually would. It offers a clean appearance, crisp detailing at joints and an attractive dull lustre. It is not sufficiently robust to use at low level so a combination of dark brick and new high quality concrete facings for the columns is proposed for the podium level. The colour of the brick is selected to match the pallet of the tower rather than the red multi brick used on the rest of the estate. Our view is that the tower has always had a different treatment; the precast panels complemented the raw and rough brick used on the finger blocks and the neutral grey zinc will do the same in the overclad condition, albeit a lightweight and more refined material. Colour is proposed in a controlled way to the solid infill panels to the new areas of curtain wall and windows. This is proposed as coloured opaque glass.
CANOPY

As part of refurbishment works to the entrances in the early 1990’s a 2.5m wide steel and polycarbonate canopy was added to the perimeter of Grenfell Tower. Prior to that access at ground and walkway level were set well back from the edge of the building and therefore effectively sheltered from the rain. The 1990’s canopy provides a protected route around the base of the tower at the expense of the poor day lighting to the mezzanine floor. The canopy has also suffered from impact damage from objects being anti-socially dropped from above.

Several options for replacing the canopy were explored and it was felt a continuous ribbon or “skirt” would conflict with the vertical articulation of the tower so it is proposed to design the canopy as four independent lengths rather than a continuous strip. A small gap between the canopy and the building is introduced to allow the pilasters to run visually uninterrupted down to the ground.

To improve the daylighting to the new residential units at mezzanine level and to provide cover to the new entrance at Walkway level, the proposed canopy has been raised up a full storey height. Instead of a downward pitch following the existing it is pitched upward with a gutter and rainwater pipes against the building allowing for a visually more slender and uncluttered profile when viewed from ground level. The proposed canopy is to be a plywood deck with solid metal deck finish. The underside will be a flush ceiling board, detailed so as to limit opportunities for pigeons to roost, a problem with the current canopy. Maintenance access to the gutters and hoppers will be via hydraulic “cherry picker” platforms.

GARAGES

The public realm areas of the undercroft and service yard will be transformed as part of these proposals. A new ceiling and lighting system will brighten the space and conceal the numerous pipes and cables mounted to the soffit. The garage doors will be replaced with glazed shopfronts for the new offices. The existing louvres in the opposite south facing wall (Figure 40) will be replaced with windows to match those to the Baseline Studios.

The Bins area will be screened and new paving to the shared surface will extend up to the entrance of Baseline, across the front face of the proposed converted garages up to the existing retractable gate to the remaining garages.
8.0 SUSTAINABILITY

This project targets the main environmental deficiency of Grenfell Tower at its root: it is hugely wasteful of energy, even to the point of the heating system contributing to regular complaints of overheating in the flats during the summer.

The improved envelope performance and proposed replacement heating system reflect current energy standards for new residential buildings. The proposed changes to the envelope and heating form part of an integrated solution tackling energy inefficiency within the existing building and extending the life of the existing boilers serving the low level finger blocks as well as future flexibility by reducing the complexity of replacing a combined system by introducing a stand-alone replacement heating system for the tower.

The underlying concrete frame to the tower is in good condition and there are no concerns as to its lifespan. The selection of materials for the cladding have also been made with a view to achieving maximum life out of the investment. The Zinc and aluminium systems have lifespans of 30-50 years and can be easily recycled when the time comes to replace them. Both require little or no maintenance.

The policy context for the environmental and sustainable issues are covered in the accompanying statements. RBKC Policy CE1 requires the development to achieve a score of "Very Good" under the new BREEAM for Domestic Refurbishment assessment, and a draft is included with this application.

41 The 40-year-old boilers under Grenfell tower serving all of Lancaster West 1.
9.0 ACCESS

The diagram opposite illustrates the existing vehicle access arrangements to the area opposite Grenfell Tower. Grenfell Road is the only approach for refuse trucks serving the whole estate, the resident’s parking garages, deliveries to Grenfell tower and the Baseline, the small business units created from the garages under Barandon Walk, and the large basement plant under Grenfell Tower itself. The fire strategy for Grenfell Tower requires that the Fire Tender be parked close to the entrance to be able to connect to the dry riser in the lobby and pressurize the hydrants at each floor. This can be a busy and congested area and it is managed by the EMB Estate Inspectors. Their new office on the SE corner of Grenfell Tower will give them excellent views and access to this service area.

Vehicle access will not fundamentally change as a consequence of these proposals but parking, particularly by contractors has been a major detractor from the quality and the use of this space. There is a desire to make those areas around the tower more usable by pedestrians and by residents transforming them from the current highway-like character, the objective being to establish an environment which looks like a plaza rather than a road. However, there are still traffic related issues which do need to be carefully considered and adequately addressed as part of introducing a shared space for vehicles and pedestrians.

CHANGES TO ACCESS AND PARKING

The design intention is to prevent free access by vehicles, through the entrance plaza area through a combination of timed and managed access restrictions. Surface changes will reinforce the message that the vehicle user has only permissive rights of access, pedestrian use being the primary focus. Motorists entering this area will be restricted to a 5 mph speed limit given the restricted nature of the space. However, it will also be necessary to prevent free vehicle movement in key areas through the installation of permanent bollards, furniture, trees, bike stands so that there is a discernible protective boundaries between pedestrian areas and vehicles.

It may also be necessary to place a retractable bollard at the south west corner of the tower following removal of the existing stepped ramp. This will prevent vehicles trying to circumnavigate the base of the tower.

[Diagram with annotations]

1. Permit holder parking along Grenfell Road
2. Railings and bollards preventing illegal parking
3. Bulk Storage – Estates Management Board
4. Bins
5. Euro bins collection point. Bins are walked from each finger block and Grenfell tower for emptying here.
6. Fire Tender. Gate in place to protect access.
7. Bike parking
8. Basement Plant replacement access.

Red Arrows indicate controlled access to garages (L) and delivery access to Baseline Studios (R).
INCLUSIVE DESIGN

The design has been formulated using best practice guidance:

- Approved Documents Part M and B of the Building Regulations
- BS9999:2008 Code of Practice for means of escape for disabled people
- BS 8300:2009 Design of buildings and their approaches to meet the needs of disabled people - Code of Practice
- Department of Transport – Inclusive Mobility
- Dulux – Colour and Contrast: A design guide for the use of colour and contrast to improve the built environment for visually impaired people
- Accessible London: achieving an inclusive environment, Lifetime Homes
- Lifetime Homes 21st Century Living - Habinteg
These documents will continue to be used through the design process as more information and detail comes to light.

External Environment

The proposed scheme has removed these steps providing level entry to the whole of the ground floor and walkway level, ensuring ease of access for all to the facilities. The surrounding landscape provides gentle slopes to access the site and other buildings within it.

There is currently no car parking within the curtilage of Grenfell Tower and this situation will remain. Permit-holder car parking is available on-street on Grenfell Road (22 bays, two of which are disabled,) there are additional bays nearby in Verity close (18, of which 2 are disabled). Beneath Hurstway and Testerton are a total of 109 garages available for tenants. The status of these garages is under constant review but as of July a significant proportion were not let.

Entrance/ Exit Doors

Entry to the main lobby, nursery and walkway foyer will be fully visible within the facade. All public entry doors will be 1000mm clear width; automation will be provided where required. Manifestation will be provided to meet the requirements of BS8300 and any door entry system will be positioned to suit all users.

Wayfinding

The development has two level entry points. Clear routes are provided between buildings and wayfinding tools will include the use of signage which meets the Sign Design Guide.

Internal Residential Arrangements

There is only one new floor of residential accommodation being provided, which contains four apartments. Whilst the internal walls are being gutted, there is a core of vertical circulation and services remaining; these impact on the final solution.

The following points identify the standards achieved for various elements and any deviations from them.

Corridors

The corridors within the residential zone exceed the 1050mm minimum width required, other than, one short section of corridor which is purely for means of escape.

Doors

All new doors will meet the clear opening width of 750mm applicable to the corridor widths and have the required clear leading edge to facilitate independent access.

Toilets and Bathrooms

The existing services are located within the central core of the building and the location of the sanitary facilities has been dictated by this. A bathroom and separate WC are being provided.

Due to the construction and overall plan layout the bathrooms cannot be located adjacent to a bedroom. However, the WC could be accessed off one of the bedrooms and the existing construction is being investigated to establish whether a floor drain can be installed to allow maximum flexibility in future use.

Sliding doors are being installed to the bathrooms to provide maximum manoeuvrability and a layout is provided to show a shower only alternative, should one be required.

All walls to the bathrooms will be of sufficient strength to allow the installation of grab rails.

Windows

The fenestration of the block remains and whilst windows are being replaced, there will not be any alteration to their size and shape. The windows will be chosen to allow ease of opening with the relevant safety features.

Finishes

Throughout the building materials and finishes will be chosen to ensure tonal contrast. This will include fixed furniture, decorations, carpets, all electrical and mechanical fittings, etc.

Switches and Sockets

All new sockets and switches will be located within the 450 – 1200mm of FFL range as recommended by Lifetime Homes.