KALC
KENSINGTON ACADEMY AND LEISURE CENTRE

PLANNING APPLICATION
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DESIGN AND ACCESS STATEMENT
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THE ROYAL BOROUGH OF
KENSINGTON AND CHELSEA

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This Design and Access Statement has been produced to accompany a planning application submitted by Taylor Young on behalf of the Royal Borough of Kensington and Chelsea. The proposed development which constitutes a new 1140 place Academy, the re-provision of a Leisure Centre, a 35 unit residential development and re-appointment and extension of Public Realm facilities is covered by an adopted Supplementary Planning Document (SPD) / Planning Brief that sets out detailed planning policy and associated parameters and expectations of the Borough’s Planning Authority. The brief was adopted in May 2011 and supplements policy CA4 of the adopted Core Strategy.

A feasibility study was undertaken during the last quarter of 2011 and its recommendations, in line with the SPD / Planning Brief were ratified by the Borough’s Full Cabinet on 12 December 2011. Both feasibility work as well as subsequent development of design proposals has been informed by regular pre-application planning meetings as well as a programme of public consultation events.

The statement includes a site analysis, commentary on the use and quantum of the development, an explanation of the master plan strategy, details of layout, scale, and appearance of the buildings, along with an explanation of the landscape and security strategies and access arrangements.

The statement is considered to be fully in accordance with Government Circular 01/06 “Guidance on Changes to the Development Control System”.

The statement should be read in conjunction with the Planning Statement prepared by Taylor Young and other supporting documents and plans that accompany the planning application.
2.0 THE SITE

2.1 CONTEXT

The Kensington Academy and Leisure Centre 2.35 hectare site is located in Notting Barns Ward on the Lancaster West Estate. It is bounded by Silchester Road to the north, Grenfell Walk and Bomore Road to the south, Walmer Road and Verity Close to the east and the Hammersmith and City Railway Line to the west. The Latimer Road tube station is approximately 100m to the south-west of the site.

The geometry of the site boundary is irregular with the 23 storey Grenfell Tower intruding on the south western edge and Verity Close forming a re-entrant on the north east. Most of the neighbouring properties are residential and of varying scales: two, three, four, five and six stories. The exception is the 23 storey Grenfell Tower which dominates the site and at its base houses a nursery and a boxing club. The archways under the elevated railway provide accommodation for a range of small businesses, mainly motor workshops.

The site includes the existing Kensington Leisure Centre, two car parks, three multi-use pitches, a children’s playground and disconnected pockets of a public park with many large established trees.

2.2 RECENT HISTORY

The site is surrounded by residential properties that in part follow a historic street pattern and in part represent post war medium to high rise estates. The Lancaster West Estate to the south and the residential development to the north of Silchester Road fractured the earlier urban grain, with the loss of through routes along Lancaster Road and Walmer Road and the total loss of Clarendon Road. The clearance of Blechydren Mews and Kensington Public Baths on Silchester Road permitted the provision of open green space, multi-use pitches, and a public car park. New public baths were created on Bomore Road / Walmer Road and subsequently were extended to also provide a range of dry sports facilities. The Lancaster West Estate, that includes the 23 storey Grenfell Tower, was designed around an elevated pedestrian deck principle, destined to be linked into an extended network that never materialised. Gardens originally dedicated to Grenfell Tower were opened up to become generally accessible to the public.
2.3 ACCESS

The main vehicular access points to the site are on Silchester Road and Walmer/Bomore Road boundaries, the latter comprising two separate car parks for the existing Leisure Centre. Grenfell Road is currently un-adopted and is the principle route for service vehicles to the tower and the undercrofts to the three linear residential wings – Barandon, Hurstway and Testeron Walks. There is potential vehicular access to all four sides of the tower.

The three blocks mentioned above are entered at the upper level on Grenfell Walk. This high level walkway has two connections to the site via a stepped ramp and a small, concealed stair. Grenfell Tower itself is entered at ground level on the south side. The undercroft to the walkway is the service route and yard to the estate and this presents an unsightly aspect towards the site. There is an un-used stair connection to the first floor of the tower that also falls within the site.

2.4 PUBLIC PATHS

Public paths run across the site:

- Station Walk along the western perimeter adjoining the elevated railway, links Grenfell to Silchester Road.
- An east-west pathway runs south of the multi-use pitches and car park.
- A north-south path runs from Grenfell Road, through Lancaster Green and the car park to Silchester Road.
- An east-west path runs south of the Leisure Centre connecting Lancaster Green with Bomore Road.

2.5 TOPOGRAPHY

In general the topography falls from north to the south to the northern edge of the 1970’s residential blocks of Hurstway, Barandon and Testeron. Within the site there is a broad upper plateau running east – west occupied by the Five a Side Courts the Public Car Park and the Leisure Centre. The ground falls away steeply from this plateau along its southern edge, the north end of Grenfell Road and the base of Grenfell Tower are set 2 metres lower. Within the areas of green space there are significant undulations these spaces having been mounded up to form a series of low grassy berms, it is understood that at least some of this earth mounding was created to accommodate demolition arisings from the former Public Baths.

Below: Existing Site Analysis
2.0 THE SITE

2.6 TREES

The site currently contains 122 trees. These were surveyed by arboriculturalist Jim Unwin in November 2011 with a view to assessing their existing condition and value. The survey was carried out in accordance with BS 5837:2005 which sets the methodology for identifying the value of trees and the potential impact of construction on their future well-being. The purpose of the exercise is to provide a means of assessing whether development, and in particular tree loss arising as a result of development, would be reasonable. The condition and value of the trees is assessed against standard criteria which apply to all sites nationally, so it could be possible for all trees on a site to be of a high value and equally it would be possible that they could all be poor. Trees are assigned a value of A when they are of high merit to C when their value is low. If a tree is in a dangerous condition such that immediate removal is recommended it is assigned an R grade. At Lancaster Green there are a few notable specimens, only 6 being assessed as Category A, but the majority are of medium to low quality as individual specimens assigned a grade C or R accounting for over half of the total. However, as a collection these trees do soften the impact of the bigger buildings and give the general area a green character. Jim Unwin’s full report, which gives the assessment for each tree, is included in the Appendix.

Few if any trees are more than 50 years old which means that the general tree population is still only reaching the early stages of maturity. Given the age of the trees and the relative low value of some specimens there is a strong case, on the basis of sound tree management, for removing some of the weaker less promising trees as part of a long term management plan. If such a plan is not carried out then the stronger more aggressive specimens, particularly the London Plane will continue to dominate such that over the next 20-30 years the poorer specimens will continue to diminish in value and will probably die through natural suppression.

There are a large number of small ornamental trees which are reaching the end of their useful lives or which are starting to struggle due to the competitive effects of their larger more dominant neighbours. The London Plane are collectively the most important trees in terms of their condition, their life expectancy and their softening effect on the buildings. While these trees collectively are the most significant group, they are not without their problems. At ground level heave is already a cause for concern and will become a more significant issue over time. Some of the trees, including one or two of the Plane, were installed into low brick planters, which they have now outgrown and which are being demolished by the expanding tree roots. The dense shade created by the crowns is also likely to become a much greater problem over the coming years as they begin to coalesce to establish a continuous low level canopy, a problem which already exists along Grenfell Road.

In general the group of trees along the western edge of the site and those around the Leisure Centre appear to be of lesser quality, although there are notable exceptions to this rule. A group of Lime located alongside Bomore Road are set within a raised brick planter which means that their roots are constrained and their life expectancy limited.
2.7 PLANTING

There would appear to be a generally high level of investment in soft landscape both within the public domain and within private areas. The surrounding neighbourhood contains many choice plant specimens from quite diverse sources. It is clear that some of the local residents see horticultural as a valuable expression of their sense of belonging to the area, it is a means of taking occupation or putting down roots.

2.8 GREEN SPACES

The total area of green space within the site is 5250 m² which equates to approximately 20% of the total site area. The existing green spaces are concentrated in the western part of the site around Grenfell Tower and the Sports Courts, the key landscape features being a green spine which runs along the site’s west boundary and Lancaster Green, a mounded area of lawn surrounded by trees of varying quality.

While these spaces do represent a valuable resource for the neighbourhood in terms of their visual amenity, they are limited in terms of the activities that they support. Furthermore, the network of green space is fragmented with many small pockets of grass and shrub bed which are difficult to manage and to use in any meaningful way. One of the current problems with the volume of vegetation across the site is that it is starting to compromise visual permeability. While not advocating a scorched earth policy as a means of opening up vistas, a balanced approach to pruning and on-going management may be necessary in the future.
2.0 THE SITE

2.9 CONSTRAINTS & OPPORTUNITIES

The principal constraints of the site relate to:

- The surrounding residential properties that need to be considered in relation to the physical impact of the development. In particular the close proximity of Verity Close to the north and Grenfell Tower to the south.
- The temporary impact of construction in terms of managing construction traffic, noise and site cleanliness. Also impact on pedestrian routes across the site.
- Retention of existing trees, in particular along Silchester Road, within Lancaster Green and on the corner of Bomore Road / Walmer Road.
- The existing Leisure Centre and the timing of its demolition to minimise impact of temporary loss of facilities.
- The sewer that runs across the Leisure Centre site, and its diversion to allow the development to be implemented.

The site also offers a number of important opportunities:

- Existing precious spaces, most notably Lancaster Green and the children’s playground, need to be the springboard for improvement and creation of a sequence of similarly well appointed public facilities.
- The sites through routes that bind the location into its neighbourhood have the opportunity to be improved, making for much more pleasant, more inclusive and safer journeys across the site.

- The development offers the opportunity to improve on the site’s largely disconnected public realm to create a real neighbourhood centre.
- The large number of trees is an important asset that needs to be embraced by the development, in a managed way that integrates existing stock with new planting proposals.
2.10 PLANNING BRIEF

The Borough’s SPD Planning Brief for the project sets out six main issues that need to be addressed by the development. These are:

- **A new school building:**
  To establish a new school for the 21st Century, built using imaginative yet cost effective designs which maximise the educational and environmental potential of a constrained site.

- **Improved leisure facilities:**
  To rebuild a new leisure centre and swimming pool on the existing Leisure Centre site.

- **Recreation and Greenspace:**
  To ensure that as much of the green and recreational value of the site is maintained by:
  - retaining an area of external public open space;
  - re-providing the existing all-weather pitches at the Westway Sports Centre and ensuring the school’s recreation and sports facilities are open to the community out-of-hours;
  - providing better play facilities;
  - requiring a comprehensive landscape design including the planting of semi-mature trees.

- **Movement:**
  To connect the area better through a new high quality north / south route. This will re-establish the historic street grain and provide access to the main entrances for the school and new leisure centre. Significant improvements will also be made by enhancing the quality of the pedestrian route under Grenfell Walk, to make it a more pleasant route to take.

- **Residential amenity:**
  To locate the school buildings away from Grenfell Tower towards Silchester Road and the new north / south route and, as detailed design work progresses, to work with residents to find practical solutions to the impacts of noise which may arise from the academy, and to concerns surrounding traffic and the numbers of young people that will be in the area.

- **Housing:**
  To include new housing as part of any scheme to integrate the new development into the neighbourhood, so long as the housing does not compromise any of the other objectives for the site.

Feasibility work undertaken in the last quarter of 2011 included site investigations, consultations with the local community, consultations with Leisure and Academy stakeholders and regular reviews with the Local Planning Authority. A range of options were considered for the provision of the required facilities and a preferred development strategy recommended. This was approved by the Borough’s Full Cabinet on 12 December 2011.
3.0 USE

3.1 OVERVIEW

This is a proposal for a mixed development that is recognised as a major project for the Borough, presenting the opportunity to provide significant, high quality new public buildings for an area in need of improvement. The proposed facilities comprise:

- A new Academy for 1140 pupils
- A new replacement Leisure Centre
- A new 35 unit residential development
- Re-appointment and extension of Public Realm facilities

The fundamental disposition of facilities across the site follows the recommended zoning set out in the adopted SPD / Planning Brief, notably:

- The Academy on the western part of the site, on the existing multi-use pitches and car park, adjoining Silchester Road.
- The Leisure Centre on the eastern part of the site, more or less in the location of the existing centre.
- Retention, re-appointment and improvement / extension of Public Realm facilities surrounding Grenfell Tower and to the south of the Leisure Centre.
- Creation of a new north-south way through the centre of the site linking Silchester Road with Grenfell Road. A landscaped shared surface, designed to adoptable highway standards.
- A residential development on the corner of Bomore Road and Walmer Road.

The master plan strategy has sought to bring together the different uses proposed for the site into a common and coherent vision. There is a recognition that both the Academy and the Leisure Centre are significant public buildings that need to be sensitively and meaningfully integrated into the surrounding external Public Realm.
3.2 ACADEMY

The proposed new Academy is underpinned by a highly motivated educational vision, community orientated, that harnesses entrepreneurship as a catalyst for social change. Designs for its building facilities are to rise to the challenges of “a school for the 21st century, built using imaginative yet cost effective designs which maximise the educational and environmental potential of the constrained site.”

The Academy is required to accommodate 900 pupils aged 11 – 16 and 240 sixth formers. Staffing levels are estimated to be between 120 and 160. Many of the facilities will be made accessible to use by the local community.

The design proposals have sought to capitalise on the key aspects of the Academy’s educational vision, notably:

- Its specialism of Entrepreneurship and the Performing and Creative Arts
- Its mission which welcomes all young people, serving the personal well-being and educational needs of the North Kensington area, and embracing its ethnically and culturally diverse community which has high aspirations for its young people
- Its integrated community approach, seeking to foster community interfaces and to offer Academy facilities for community use

The educational vision seeks to blur the boundaries of learning and embed the vision into the building design. The Academy will foster an engaging learning ethos where creativity will be a key to independent learning within the school. These themes run throughout the scheme to provide a fully integrated design response. At the same time the design proposals have been carefully crafted to respect the sensitive surroundings seeking to minimise disturbance to the local community.

The Academy facilities, located over five levels, will consist of the following:

- Teaching facilities organised around three faculties – Communications, Science and Arts
- A theatre / assembly hall linked to a drama studio and supported by nearby performing arts teaching facilities
- A sports hall and dance studio
- A dining area with server and kitchen
- Faculty resource areas and a sixth form study area

- An entrance / reception also accommodating a series of enterprise units promoting business initiatives between the Academy and the community
- A specialist unit for children with special educational needs
- Support accommodation including administration facilities, storage, change rooms and toilets
- External facilities including a Multi-Use Games Area (MUGA), and a range of external recreational, social and learning spaces
Community Use

The sponsor’s educational vision places emphasis on an Academy strongly integrated into its surrounding community. The intention is to facilitate community use of as broad a range of facilities as is possible. Designs have been developed accordingly with strategic zoning of different parts of the building to permit out of school hours community use with remaining parts of the building secured. The zoning has in particular addresses two accommodation clusters:

- **Sports facilities**
  A separate “community” entrance permits access to a sports cluster of facilities that includes the four court sports hall, dance studio, change rooms, an external second-floor MUGA and recreational external spaces at first floor and lower ground level.

- **Social facilities**
  This cluster combines the ground level entrance, the theatre / assembly hall and adjoining drama studio at lower ground and the dining hall and dining terrace at the first floor.

The enterprise pods in the main entrance, supported by other facilities within the Academy will offer opportunities for entrepreneurial activities developed by members of the wider community as well as students.
3.3 LEISURE CENTRE

The new Leisure Centre is intended as a major public building of high design quality. It will provide a broad range of indoor sports and recreational facilities, catering to a wide variety of users, meeting the needs of the local community and the sports development aspirations of the Council.

The new building will replace the existing Kensington Leisure Centre, which is considered to have reached the end of its serviceable life. Built in the 1970s, the centre has undergone piecemeal extension and refurbishment over its lifetime. Whilst a further refurbishment was considered as part of the project feasibility study, the centre’s unsatisfactory and inefficient layout, which falls short of current sporting and accessibility standards, together with its inherent long term operational and maintenance problems, combined to make its continued use unsustainable.

Constructing a new facility will allow the Council to broaden the availability of sports and leisure services within the Borough, securing a long term, sustainable future for the centre, and providing access regardless of age, ability, gender, religion or ethnic background.

In terms of usage, the new Centre will continue to offer a similar mix of facilities to the existing, but with significant enhancements in provision and greater flexibility in use. The principal activities will be:

- Competition and recreational swimming
- Water confidence and play
- Competition and recreational dry sports
- Gala and sports match spectating
- Fitness workout
- Exercise classes
- Special use group swimming and exercise sessions
- Health treatments
- Spa relaxation and therapy
- Parties and other small functions
- Café uses
- Administration and other ancillary activities

This mix has been tested by the Council through a Business Case Analysis, which confirmed the demand for the proposed range of facilities, together with a need to focus on operational flexibility. Shared facilities with the Academy have also been considered, and the provision of a 4 court hall on the Academy site, available for community use outside school hours, is considered complimentary to the Leisure Centre provision.
3.4 RESIDENTIAL

The development of the residential component within the brief has served to provide a capital receipt providing additional funds which can be set against the cost of the combined Academy and Leisure centre development. Throughout the development of the master plan the residential component has always been considered subservient to the primary development focus of Academy and Leisure centre, with only options that have sought to strengthen the proposed master plan design ultimately being pursued.

Type and Number of Apartments

Given the restrictions on the amount of site available and the specific nature of the development it was determined that the residential component would consist of a limited number of market units only and not comprise of an affordable housing component. With this in mind an apartment mix of one and two bedrooms has been pursued with occasional 3 bed apartments on the corners and at pent house level.

At initial competition tender stage the residential block occupied the south east corner of the site utilising left over space, masking the bulk of the eight court sports hall and tying the master plan into the surrounding residential context. Following the discovery of a large diameter sewer running across the south portion of the leisure site and the subsequent evolution of the leisure centre design, the residential block took the form of a distinct block sitting to the south of the leisure centre on the east portion of the site, retaining the Grade A Plane tree on the corner of Bomore and Walmer Road. Ostensibly driven by the split created by the sewer this formed the basis of the scheme presented at AB stage. Further development of the Leisure Centre design, with renewed emphasis on a diagonal east west landscape route ultimately led to the decision to re-route the sewer to the south of the site skirting the edge of the site around Bomore and Walmer Roads. Following this the residential block returned to a position articulating the corner between Bomore and Walmer Road (still retaining the tree) this time fitting snugly around the black box of the partially sunken eight court sports hall and eliminating the slightly ambiguous circulatory routes of the earlier landscape master plans.

Expanding on the brief established earlier (and notably the unit numbers achieved in the AB report) the proposed scheme looked to maximise the corner aspect of the residential site whilst not detracting from the presence and principal function the leisure centre on the eastern side of the master plan. In order to achieve the most fitting solution and following a series of investigative studies and planning meetings, it was determined that the most appropriate response would ultimately result in a slightly lower apartment count from those shown in some earlier schemes with the final apartment count being determined by the constraints of the building footprint available and a planning requirement to stay within a five storey maxim.

Aerial view of residential building by the Leisure Centre
The total area of public realm, excluding the sports courts and the public car park is approximately 11500 m², of which just under 50% is green in the form of lawns or shrub beds. However, while the proportion of green space may be adequate, the amount of this space which is useable is limited.

The basic arrangement of the proposed new public realm is shaped by a desire to retain and reinforce the existing cross-site routes, in the form of a north–south and east–west connections. These corridors provide the pathways through site but also the means of accessing Grenfell Tower, the Academy and Leisure Centre. The south west façade of the Leisure Centre establishes a new diagonal axis and releases space at the top of Grenfell Road to create a zone of parkland which, in combination with the adjacent Lancaster Green, establishes a meaningful zone of usable open space.
4.1 OVERALL SITE ZONING

The proposed site split between the different facilities respects the guidelines set down by the RBKC SPD Planning Brief. Thorough analysis of the accommodation requirements for both the Academy and Leisure Centre was balanced with a review of different options for configuring the buildings in order to optimise reciprocal benefits between buildings and public realm. Open spaces have focused on improving and extending the existing public realm around Grenfell Tower and Lancaster Green. The Academy site footprint keeps clear of these spaces to the south, runs tight to the west boundary alongside the railway as well as the north boundary on Silchester Road and draws in along the east to retain the existing trees in the car park and to make space for the proposed new north-south way.

The Leisure Centre site footprint draws back along its south-east front to make space for extended public realm around Lancaster Green, runs in parallel to its north boundary along Verity Close and draws back from Walmer Road to create the site for a small residential development.

The residential development occupies the south east corner facing onto Walmer Road and Bowmore Road.

The resulting site area split is:

- Academy 5,860 m²
- Leisure Centre 5,675 m²
- Residential 1,060 m²
- Public Realm 10,940 m²
- TOTAL 23,535 m²

The public realm area includes highway / pavement works that will be required along Bomore Road, Walmer Road, Grenfell Road and Silchester Road.
4.2 ACADEMY

The size of the proposed Academy has been determined from government BB98 guidelines as well as specific requirements emerging from the Sponsor’s and Borough’s educational brief. The total internal gross area of accommodation is 11289.5 m² and has been distributed over five floors.

The site area of 5860m² is split between:

A  Building footprint   4192 m²  
B  Outside ground level space  1575 m²

Given the constrained site, with no direct access to playing fields or grass pitches, all available external space has had to be utilized to maximum advantage. External space provisions for the Academy rely extensively on utilisation of roofs and this generates the following external use split:

C  Lower ground level – informal and social areas  681 m²  
D  Ground and first floor – informal and social areas  1404 m²  
E  Second floor MUGA  594 m²  
F  Third floor learning terrace  592 m²  
G  Parking / delivery yard  58 m²  
H  Bicycle parking  252 m²  
J  Entrance approaches  116 m²  
K  Landscaped street frontage  184 m²
4.3 LEISURE CENTRE

The extent of facilities proposed within the new Centre has been established through a comprehensive process of brief analysis, building visits, user consultations, sports governing body advise, business case analysis and options appraisal, all undertaken in close consultation with the Council’s leisure services team and the existing centre operator.

This process has established a gross external area (GEA) of 9,570m², comprising the following facilities:

- 25m 8 lane main pool to county competition standard
- 20m x 10m teaching pool with mobile floor providing variable water depth
- Leisure pool with play equipment and water features for toddlers and young children
- 250 pool spectator seats
- 8 court sports hall
- 120 station fitness suite with separate spin studio
- 2 studio spaces of 200m² and 130m²
- 2 singles squash courts
- Health suite with treatment rooms and spa facilities
- Café with approx. 80 covers and outside seating terrace
- Multi-purpose room
- Associated ancillary accommodation

In comparison to the existing Centre, which has a GEA of 6,695m², the floor area of the new facility is some 2,875m² larger. As both have a similar facilities mix, the increased floor area is attributed to enhancements in both wet and dry side provision. These include:

- Larger changing spaces
- A multi-purpose room
- Spa suite and treatment rooms
- Increased spectator seating
- Larger café

In terms of building footprint, existing and proposed Centres are very similar, at 4,650m² and 4,980m² respectively. This is achieved through arranging the new accommodation across 3 storeys, including a basement level, resulting in a compact plan, which frees up the remainder of the site for a meaningful public space and residential development.

The new Centre is expected to generate approximately 500,000 visits per year, compared to 360,000 for the existing Centre, and provide the equivalent to approximately 50 full time posts.
4.0 AMOUNT

4.4 RESIDENTIAL

The building takes the form of a mansion block that seeks to articulate the corner transition around the east perimeter of the site knitting into the existing urban grain. Set over five stories the ground floor is elevated a meter above pavement level and sits over an additional part basement parking level. Responding in both massing and scale the residential block is in keeping with the general proportions of adjacent residential development both in the immediate context and borough wide. Consideration has been given to active street level in keeping with the predominantly residential context. This has been achieved by providing direct individual stepped access to ground floor apartments (as well as ramped access from the rear). Set over five floors with all apartments accessible from a central core, the block consists of 35 individual apartments, providing a mix of one, two and three bedroom apartment types. Dwelling types are evenly spread over five stories with larger three bedroom apartments occupying penthouse level and a strategic corner apartment at ground floor. Upper levels enjoy integrated external balcony space with extensive roof terrace areas at penthouse level.

The residential area breakdown is as follows:

- Residential site plan area 1087m2.
- 35 apartments are spread over 5 stories with a Gross External Area of 39m2
- An additional car parking level with 18 spaces occupies 758m2
- Building footprint 799m2
- Fourteen, One bedroom apartments vary between 49 and 58m2
- Eighteen, two bedroom apartments vary between 74 and 88m2
- Three, three bedroom apartments vary between 100 and 102m2
- 27 apartment balconies range in size between 7 and 18m2
- Fourth floor terrace provision totals 159m2 spread between 5 penthouse apartments
- Secure bike storage for 20 spaces is provided at lower ground with storage for 15 spaces at upper ground.

Rendered view of residential building
4.5 PUBLIC REALM

The existing site contains approximately 11,500m² of Public Realm, excluding the public car park and the football courts, which equate to approximately 50% of the overall site area. This consists of green space and tarmac pavings in roughly equal parts. The new layout retains the same level of overall public realm provision i.e. 11,500m². It also retains the plan area of the existing green space at the centre of the site i.e. Lancaster Green. There is an overall reduction in green space of ... m² but this is offset by an increase in the areas of hard paving. Although the quantum of green spaces is reduced the overall green space framework is much better connected and offers greater opportunities for active use. The two existing public realm facilities, i.e. Lancaster Green and the Grenfell Tower Playground are both re-provided with either the same overall area or greater.
The master plan strategy was to a significant extent determined in the Borough’s SPD Planning Brief, notably the location of the Academy and new Leisure Centre, creation of the new north-south way and the retention and improvement of the amenity spaces around Grenfell Tower.

A range of alternative master plan strategies were considered through the subsequent design stages of the project, initially at the design competition stage and then through feasibility and into detailed design. In all instances a key objective has been to ensure that the proposed development becomes more than just a sum of its different parts, but that the significant new buildings are used as an opportunity to regenerate an urban nucleus in an area which through years of piece meal development has become disconnected and has lost its coherent identity.

Competition tender designs introduced, in addition to the required new north-south way, a significant east-west pedestrian route that would engage with and pass through the new Leisure Centre. Journeys through the site would be punctuated by a necklace of special events – the children’s playground, the Academy open space, Lancaster Green, forecourt to the Academy entrance, entrance to the Leisure Centre, Leisure forecourt on Walmer Road. Planning issues relating to the 24 hour operation of the passage through the Leisure, combined with limitations imposed by a significant sewer on the Leisure site prevented this option from moving forward.

Options developed through feasibility looked at different heights for the Academy, but retaining its ribbon plan configuration. On the Leisure side the centre was configured to avoid the sewer, keeping to the north of the eastern site, and leaving the south, facing Bomore Road for residential development. Though approved by the Borough’s Full Cabinet the compromised Leisure Centre was not well received by the LPA, the view taken that the public realm had not been well resolved and not ideally integrated with the new building.

A re-visit of the feasibility designs was largely made possible by the acceptance that the sewer would be diverted opening up new options for the configuration of the Leisure Centre. The result was a much improved public realm arrangement that increased Lancaster Green, created a new east-west link running towards Avondale and that provided an appropriately significant forecourt to the Leisure Centre entrance.

This master plan forms the basis for the detailed proposals set out in this Planning Application.

The Evolving Movement Strategy
Clockwise from top: 1- RBKC Planning Brief 2- At Tender 3- At Feasibility 4- At Outline Design
From the outset the proposals for the Academy have suggested a ribbon plan concept as the best response to the tight and complex constraints of the designated site. The key criteria guiding this choice have been:

- The ribbon form permits the Academy building to run close to its northern boundaries, keeping a maximum distance between itself and Grenfell Tower and Grenfell’s ground level facilities. The taller Academy facades keep 45 metres clear of the tower with only the lower level sports wing coming closer to within 25 metres.

- The ribbon form can twist and turn to fit the confines of the site and to miss significant trees as far as possible, in particular the trees along Silchester Road and those turning into the car park area of the site.

- A ribbon is able to embrace external space, and this has been used to advantage to create the Academy’s entrance plaza, as well as the re-entrant recreational space to the south.

- The main axis of the ribbon permits the Academy to achieve the optimum north-south building orientation which is critical to achieving an effective, environmentally friendly day-lighting strategy.

- A ribbon configuration, through its twists and turns, maximises the linear length of the building envelope which is critical when dealing with a large number of teaching spaces all demanding daylight, natural ventilation and views.
The Academy building has also been configured to maximise the potential of school / public interface. The balance between public integration and security is a conflict that needs careful design consideration and also clarity of management approach on behalf of the school. Important interfaces that form part of the design are:

**The main entrance:**

For the Academy the main entrance is not only the focus for access for the majority of the school population but also a showcase for its educational ethos and activity. The design has responded to this in terms of the entrance location, organisation and visual configuration.

- The entrance needs to be central to the school activities and so is located at the approximate mid-point of the building ribbon.
- The entrance needs to have a civic presence – a large internal space connected to an equally significant external space. The location of the entrance on the new north-south way permitted the latter to be developed on the principle of providing good sized external entrance plazza for the Academy.
- The entrance is directly accessed from the public realm i.e. no fences or external gates. Access is through a glassy facade with leads into a multi-storey foyer with a welcoming open plan reception and a range of enterprise units that are an important manifestation of the creative, entrepreneurial spirit of the Academy.

**The community entrance:**

The community entrance is the second most important access into the Academy. It offers carefully zoned internal and external sports facilities for out of hours community use. Key design considerations have been:

- Locating the entrance so that it is central to the sports facilities and that access can be secured away from the remainder of the Academy.

- Creating a welcoming entrance that is orientated towards the south onto the public realm that surrounds Grenfell Tower. The entrance looks out onto the re-organised children’s playground and internally the entrance space looks down into the adjoining sports hall and dance studio.

**The “shop window” enterprise pod**

One enterprise pod has been separated out from the remainder and located in the prominent “prow” of the Academy, at its south-east corner facing the Leisure Centre entrance and Lancaster Green. It will be an important shop window for the Academy’s entrepreneurial activities - most likely managed by the 6th form pupils.
The overall Academy facilities have been distributed over five levels respecting educational requirements as follows:

- The social cluster of lower ground theatre / drama and first floor dining has been focused around the main entrance
- The sports cluster of lower ground sports hall and dance studio together with the roof top MUGA have been focused around the community entrance
- The three Academy faculties – communications, science and arts have each taken a floor – first, second and third respectively
- External spaces at lower ground, ground, first floor and third floor have been carefully integrated with internal facilities to maximise accessibility and encourage a multiplicity of uses.
5.3 LEISURE CENTRE

A number of critical issues have influenced the development of the Leisure Centre layout, summarised under the following headings.

Existing sewer

The Leisure site features a major sewer, which runs east-west across the middle of the site under the existing centre. A number of early design options sought to retain this line, however it was agreed that the site layout was being compromised under this arrangement, and the decision was taken to seek approval from Thames Water to divert the sewer. This process is on-going, but the principals have been accepted on the basis of a diversion to the south of the site.

Orientation

The sun path across site has been examined in considering issues of useful solar gains, natural light, overheating and glare.

Adjacent buildings

The site is bounded predominantly by residential properties, requiring careful consideration of issues such as building mass, screening and noise control. Of principal concern are properties within Verity Close, which, at 2 storeys, are low in scale and directly abut the northern boundary. For the higher buildings, treatment of the roof plane is also of importance.
Access

A fundamental driver in the layout design was the need to create an open, welcoming and accessible facility, encouraging participation across all sections of the community.

As a large highly serviced building, the Leisure Centre also requires regular deliveries and collections which need to be considered in terms of access. This must work with the Academy, to ensure an efficient joined-up approach to access across site.

New Residential Site

The leisure brief included the requirement of a number of residential units, the sale of which could make a meaningful contribution towards the project funding. Restrictions on building height then dictated that a certain area of the leisure site needed to be allocated to this residential scheme, which should complement, but not overwhelm, the leisure development.

Public Realm

Key to the success of the project as a whole is the space generated by built form, the ‘glue’ which holds the development together. The design of the public realm therefore needed to be developed hand in hand with the building layouts, to produce the optimum relationship between internal and external space.

East-West Connection

As a combined development project, the Leisure Centre and Academy need to relate well to one another across the site. Important factors include approach, principal entrances, servicing, levels and the resultant public realm spaces between.

A key feature of this relationship is the provision of a 24 hour accessible public route across the site, with good site lines between the Academy and the eastern approach, reinforcing the diagram established at an early design stage.

Building frontage

The site is bounded on the east by Dulford Road, on the south by Bomore Road, and to the west by the Academy and new public realm spaces. In developing the leisure layout it has been important to consider how the building fronts each of these conditions, being mindful of the need for active frontages, which interact with the surrounding area, and announce the presence of the Leisure Centre on site.
Having established the principal design considerations presented by the site and brief, a design concept for the building layout was developed in response to these drivers, summarised under the following headings.

**Diagonal route**

Early design options explored a number of layout arrangements, looking at taking a route across site both north and south of the building, and even directly through the Centre itself.

Ultimately, it was felt that the optimum route lay diagonally from the south-east to north-west. This provides good clear sight lines across the site, linking the Academy to Bomore Road, and the route to Avondale Park beyond.

Having divided the site into two distinct zones, separated by a public route, the layout developed towards a large greened area to the south west, and a compact building form to the north east. In this way, open space on site is concentrated into a meaningful piece of public realm, with good orientation and a direct relationship to the Leisure Centre across a significant public route.

**Entrance foyer**

From this relationship, between landscape and built form, arose the concept of a linear entrance foyer, addressing this new piece of open space. This is conceived as a publicly accessible area, positioned on the pre-pay side of the Leisure facilities, which opens up to the landscape, and provides the opportunity for dual entrances addressing both the Bomore Road approach and the new north-south way. By glazing this space, and including public facilities such as the café, reception and information points, the foyer becomes a showcase for the Leisure Centre, eroding the boundary between inside and out.
Active frontage

For the building to engage with its site, it was felt vitally important that the facilities should be arranged so that they interact with their surroundings. This is particularly acute on a site which effectively has 3 public elevations, addressing 3 significant approaches from East, West and South.

Active spaces are therefore placed on the building edge, animating the façade and announcing the building’s function to the wider site, whilst closed spaces, such as changing areas, spa and plant, are brought into the centre of the built form.

The result is a highly legible building, which presents an open and welcoming frontage on all approaches.
5.0 LAYOUT

5.4 RESIDENTIAL

As described within the master plan strategy the residential component is located as a wrap around the southern and eastern edges of the leisure centre providing street frontage and contextual integration to the surrounding residential landscape. Wedged tightly between the mass of the leisure centre and street frontages of Bomore and Walmer Roads the layout of the building winds around the corner mimicking a regular set back from the pavement edge. The building takes the form of a loose ‘L’ shape which is set back and tucks in behind the leisure facade on Bomore framing the corner of the leisure centre on its approach from the south east. By snaking the facade along the outside edges of the available site, this maximises and reinforces the street edge. This is imperative given the restrictions of the inward facing elevation which is nestled tightly to the end elevation of the leisure centre sports hall. A small courtyard is created in the space between the two buildings and in order to create the most efficient access the core is served by a single open stair and lift which links all five residential floors and the basement. Open all the way down the bottom of the courtyard is planted and also serves as a means to vent the parking level.

The general strategy for the building has been to:

- Keep the number of residential floors to five.
- Create a semi underground parking level which provides limited parking to bolster the value of the associated apartments and reduce the strain on local on street parking.
- Raise the ground floor apartments by one metre to provide an element of privacy, (but not a blank facade) at pavement level.
- Create defensible space at ground level with a small set back and stepped access (a model not uncommon across the Borough)
- Create a plinth, central band and top to the building that helps modulate the overall proportion of the building and relates tentatively to the massing of the adjacent leisure centre.
- Set back the top floor to create larger pent house apartments and reduce the overall reading of the building mass from ground level.
- Orientate the apartments to maximise the amount of light and views from the principal living spaces.
- Use a palette of materials and surface treatment that is sympathetic and not competing with the leisure centre.
- Provide easy bin and bike access at street level

Residential building
The internal planning of the building responds to the client brief set by the sponsor, The Aldridge Foundation, in conjunction with the Borough’s Education Department. This has been carefully reconciled with the site specific strategic considerations as summarised in the preceding section “Layout”. The total internal gross area of Academy accommodation 11289.5 m² has been distributed over five levels, and the internal planning principles can be summarised as follows:

Ribon plan configuration

The reasons for the ribbon plan configuration have been addressed in earlier sections. The linear nature of the plan relies upon accommodation being arranged on either side of a central circulation spine and this brings clarity to the organisation of each level of the building. The circulation spine is much more than just a corridor. For most of its length it represents a concourse with integrated light wells that are fundamental to the building’s passive environmental strategy, bringing daylight to the heart of the building and also acting as a natural vent stacks. The linear circulation is punctuated by four staircases connecting the floors, three of the stairs combined with lifts.

Three of the stairs, at the extreme east and west ends of the ribbon, and one in the centre provide means of escape as well as acting as accommodation stairs. A further central open plan stair and lift forms an exciting connection between the main entrance and the lower ground theatre, the first floor dining area and upper level faculty hubs.

Flexibility / adaptability

The building’s structure is a flat slab concrete frame which gives maximum potential for future adaptation as virtually all partitions are non-structural. This combined with raised floors through most of the facilities will allow the Academy to flex its use patterns responding to changing educational needs.

The building’s structural grid of 6.0 metre and 7.5 metres translates to a 1.5 metre facade grid with the facades themselves, including window and natural vent distribution, permitting maximum flexibility in terms of locating cross partitions.
Lower ground

The lower ground has been created in order to deal with the Academy’s large spaces – the theatre / hall and the sports hall. Dropping these to this level optimises the relationship between these double height spaces and the ground level, permitting exciting overlooking views down from both the main entrance area into the theatre as well as the community entrance into the sports hall. Other accommodation at this level is the drama studio, attached to the theatre and the dance studio and change rooms forming part of the sports cluster. A central plant room services the whole building.

Ground

The ground level incorporates all the external entrances to the building:

- The main entrance on the north-south way
- The community entrance facing south onto Grenfell
- Delivery access at the north-west and south-east corners of the ribbon

As described earlier the main entrance incorporates an open plan reception and the enterprise pods. It also leads directly to, and overlooks, the theatre. On both its sides the entrance foyer is flanked by business / vocational classrooms which have a significant interface with the enterprise pods. Music and performing arts adjoin the theatre for convenient access in supporting productions. A specialist suite of accommodation for children with special educational needs is located in the south-east wing, close to the main entrance and with good access to a dedicated external landscaped space. On the whole staff and administration facilities are distributed throughout the building but a ground level hub provides accommodation for the head teacher and for an internal student reception area.
First floor

The first floor accommodates the dining area and kitchen, the sixth form study area and the Communications faculty.

The dining area is located directly off the central circulation hub and, facing south, enjoys views towards Lancaster Green and has access to an external terrace over the theatre below. The adjoining servery and kitchen is accessed from the ground via the south-east stair and lift.

The sixth form study area has been placed at the prominent south-east “prow” of the building, again enjoying views of Lancaster Green and towards the new public realm areas created in front of the Leisure Centre.

The Communications faculty occupies the main wing running east to west. Cellular classrooms are interspersed with open plan learning areas that face directly onto the central concourse and also have direct connections to the outside terrace spaces. The faculty resource hub is placed axially on the central feature stair, in an open plan configuration – a balcony overhanging the main entrance. This pattern repeats on the next two levels – a cascade of faculty hubs symbolically located above the enterprise units at ground level.

Second floor

The second floor is dedicated to the Science and Maths faculty. The maths classrooms are located in the east wing with their circulation overlooking the double volume dining area below.

The science classrooms occupy the wing running east-west and follow the pattern of cellular spaces interlaced with open plan teaching areas.

One again the learning resource hub overhangs the main entrance.

Third floor

The third floor, which steps back on its north side to create a roof terrace, is dedicated to the art and design faculty.

Design technology is located in the east wing focused on a central open plan learning area.

Art studios adopt an open plan configuration within the east-west wing with subdivision being achieved within the furnishing arrangements. The studios are able to access the roof terrace which will be used as an external learning area, with access only under staff supervision.

The learning resource hub overhangs the entrance
6.0 INTERNAL PLANNING

6.2 ACADEMY EXTERNAL AREAS

Academy external space will be spread across the ground level plus a basement kick-about area and a series of four terrace areas. This stacking arrangement necessitates external connections in terms of stairways and ramps which all need to conform with the recommendations of Part M of the Building Regulations.

In all areas the external terraces will be used to provide an extension to the internal academic areas, the objective being to encourage use for both learning and socialising by staff and pupils. The aim will be maintain visual connectivity between the various levels, however, where possible the pupils will be kept away from parapets by planting in order to minimise the temptation to jump or to throw things between levels.

Given that the building opens out southward, wrapping around to form a bowl, it is possible that the terraces could be usable by the pupils throughout the academic year, even in the early spring and late autumn. Ample seating and benching will encourage use of these spaces to be more passive, it is not envisaged that these terraces act as playgrounds in the conventional sense.

Opportunities will be explored to maximise the greening potential of the Academy. All areas that have ground contact rather than being above structure will be seen as potential sites for large trees and climbing plants. Similarly off site planting opportunities will be maximised with a view to achieving an acceptable level of visual separation between the Academy and the adjacent buildings, the strip of green space south of the boundary being particularly important in the establishment of a green buffer between the Academy and Grenfell Tower.

On the terraces planting will inevitably be much more restricted in that it will be limited to raised boxes and beds. However, this will not prevent the incorporation of planted areas with a focus on the use of drought resistant species. In order to minimise maintenance demands the planters will all be fitted with rainwater retention devices so that water can be stored in the base of the troughs after periods of rainfall thereby improving the chances of the plants survival.
6.0 INTERNAL PLANNING

Basement Play Area
This will be a simple flat open space with a rubber crumb surface to accommodate informal ball games. It also provides an informal performance area adjacent to theatre space. On the south side of this space is a stepped ramp which provides emergency egress and access for disabled pupils but also acts as a spectator area either to watch performances or games.

Ground Level
At the south east corner of the Academy is a secure garden for the Special Educational Unit. This area contains a mature sycamore tree which it is intended will be retained during the project’s construction. It is intended that additional large trees will be installed at this location in order to provide a degree of greening to the upper terrace levels.

Also at this level there is a small performance courtyard which will be provided with timber benching and perhaps a stage.

First Floor
This level accommodates the main external areas, the dining terrace and the Science / Humanities Garden.

The dining terrace is an open paved terrace, with a protective perimeter of planters and a canopy adjacent to the building to provide all weather external dining. Fixed tables and chairs, provided as part of the FF&E package will accommodate up to 90 pupils.

The Science / Humanities terrace is the largest of the external areas measuring 585.5 m² in area, it is hoped that this space will be actively used for group and individual study as well as socialising at break times. It is envisaged that a canopy will extend along the west side of this terrace, although there is no allowance currently within the budget for this. Low level planters along the western edge will provide the opportunity to establish climbers onto the adjacent building walls. The southern end of the terrace is laid out as a hardwood deck rather than paved and there is a circular planter which will accommodate a medium sized tree. While it would have been desirable to have a lawn at this level this may well be impractical given that grass would need to be maintained regularly. As an alternative the bed could be covered in astro turf so that it provides an informal sitting out area for use in the summer.

Second Floor
The MUGA has been located at this level over the sports hall. Accessed from the Academy’s western stair, it is entirely enclosed with a mesh and cladding fence 4 metres high. The play surface finish will be a rubber crumb.

Third Floor
At this level the external space switches to the north side of the building where it relates directly to the Arts Faculty. Running virtually the full length of the Academy this terrace is circa 8 metres wide and 70 metres long which means that it provides educational opportunities for a number of class groups and external space for a range of arts activities, including fabrication and display of completed works. External benching will provide opportunities for drawing or for practical tasks. This area, which is less likely to be used informally during break times, will also accommodate scientific apparatus including a weather station and a pollution monitoring station.

Planting is likely to be limited to a perimeter planter, although the space does enjoy borrowed greening from the adjacent trees in Silchester Road.
6.0 INTERNAL PLANNING

6.3 LEISURE CENTRE

Key to the internal organisation of the new centre is the concept of a centralised circulation hub, around which all the facilities are arranged. Whilst this helps to organise the building to activate the facades, it also provides visitors with a rapid sense of orientation, and avoids unnecessarily long internal circulation routes.

By organising the building over 3 storeys, this hub is maintained at the building’s core, further aiding a clear understanding of the building, and creating a sense of visual drama and anticipation across different levels.
Ground Floor

The building’s two main entrances bring visitors into a large double height foyer, containing reception, café and viewing areas. Its glazed length addresses the new public space, permeated with further openings to encourage movement between these spaces, and attract visitors into the Centre.

The café has views over both leisure and teaching pools, although these can be visually screened for special group sessions.

Entry into the paying facilities is controlled through turn-style barriers adjacent to the reception desk, ensuring good visual control and operational security for the Centre.

Once through the barriers, visitors move through an open, uncluttered circulation space, with good visual connection through glazed screens into the main pool, down to the sports hall, and up to the fitness suite. A feature staircase links first floor and basement, bringing further visual excitement and a sense of the anticipation to this space.

Wet changing areas are positioned centrally between the pool halls, designed to offer a wide range of changing spaces to suit different user groups.

The main pool is a 25m 8 lane competition pool, with a varying depth from 1m to 2m. Two large rooflights bring high levels of natural light into the space, which steps in section to form a dynamic volume.

Spectator seating, also accessed from the circulation hub, provides good sight lines for competition viewing.

The teaching pool is 20x10m with a mobile floor, which allows the depth to be varied down to 1.8m. The leisure pool will be designed to encourage toddlers and young children to gain water confidence, with shallow water, play features and sprays. This space is again top lit with a central conical rooflight, filtered by a perforated aluminium louvred ceiling.
**First Floor**

The upper level of the building contains the fitness suite, studios, dry changing, spa suite, treatment rooms and admin spaces. Again these are arranged around a central hub, providing good orientation and views down into the main pool hall and reception.

Three studios of varying size provide flexibility, with the potential for further subdivision of the largest space with a sliding screen.

The fitness suite looks out over the foyer and new open space, but with a solid back wall to allow areas to be screened off for privacy.

The dry change is split into single sex spaces, with open benching and cubicles in each. A rear stair, with access control, links these spaces to the main pool hall.
6.0 INTERNAL PLANNING

Basement

The basement level is set at 4.9m below ground, and contains the sports hall, squash courts, changing and WC areas, boiler room and pool plant.

The depth of the excavation is driven by the need for a compact plan, stacking accommodation over the hall, which at the same time disguises its volume within the ground. With a clear height of 9.1m, the hall can accommodate county competition level participation, with retractable bleacher seating on two sides for spectator viewing.

The squash courts are glass-backed with their own viewing terrace, and a movable central partition for flexible use.

Finally changing is provided at this level to serve the hall and courts, all accessed from the feature stair, lift core and central circulation space.
6.4 RESIDENTIAL

Arranged over five floors of apartment and one of parking the residential layout is served via a central core comprising of an open stair and lift. The apartments themselves are approached via stepped and ramped access directly off Bomore Road at the junction between the leisure and residential buildings and in the case of ground level apartments directly from street level. Entering through an enclosed glazed entrance lobby visitors arrive in the central circulation area where they can travel vertically to the appropriate level. Walkways at each level access the various apartments with six at upper ground, eight at levels one through three and five larger apartments on the top floor.

The apartments themselves are set out such that the entrance lobbies, wet rooms, kitchens and risers are located towards the inner courtyard with principal living spaces and bedrooms located towards the external street edge elevation to maximise light, views and aspect. Principal bedrooms have dedicated ensuite bathrooms while secondary bedroom spaces, where provided, typically provide the option to double as secondary receptions rooms or study areas opening directly into the main living area via sliding wall arrangements. Kitchen areas are open plan with separate hall lobby separation on two and three bedroom apartments. Ground level apartments have small entrance lobbies separating the off street access from the main living areas. Apartments on upper levels all have dedicated integrated balconies accessible via sliding gazed doors. Top floor apartments have additional terraced provision created by the set back.

At the lower ground level there are 18 parking spaces as well as bike storage, water storage, electrical intake and gas meter room provision. The car park itself is accessed via a ramp exiting at the north of the residential footprint at a convenient recessed turn off at the corner where Walmer road turns into Dulford street. At ground floor, close to the glazed entrance lobby, and immediately adjacent to the central stair and lift provision is made for refuse storage and an additional bike storage room. Both these spaces provide convenient and direct access between the central circulation and ramped egress at street level.
7.0 SCALE

7.1 OVERVIEW

The Borough’s SPD Planning Brief calls for a development of high quality with an integrated concept for the proposed buildings, open spaces and access requirements. An Academy of up to 5 storeys (in part) and with a basement is considered acceptable in principle. Subsequent planning briefings have indicated that 4 / up to 5 storeys would be acceptable, in principle, for the eastern component of the site.

The proposed designs have taken into consideration the scale and proximity of the surrounding residential properties, notably:
- 3 storeys on Silchester Road
- 2 storeys in Verity Close
- 4 storeys on Walmer Road
- 2 storeys on Bomore Road
- 5 storey Treadgold House
- 23 storey Grenfell Tower

The site wide design principles have sought to develop a synergy between the proposed building forms, the open spaces and the site surroundings.

Notwithstanding the quite different functional requirements for the Academy and Leisure Centre it was recognised that both were public buildings that needed to complement each other and to relate meaningfully to their surrounding public realm external spaces. The idea of a ribbon winding through and uniting the currently split site has been a strong underpinning theme influencing both master plan and building designs.

Earlier sections have addressed the considerations that influenced the development layouts, and this has gone hand in hand with the developed building forms, the ribbon of the Academy echoed by the ribbon southern facade of the Leisure Centre, both working with a landscape that has also drawn on the ribbon theme in the way spaces and pathways unfold through the site.
The ribbon is a concept that allows building flexibility not only in plan but also in three dimensions. It is also very suited to the organisational and environmental needs of its educational users. Critical considerations that have influenced the proposed building form and massing have been:

**Height and section**

The required accommodation area and available building length generated the need for a building that would be 5 storeys in height – one storey at basement level and 4 storeys above ground. The building section was driven by environmental considerations to make the daylight and natural ventilation work. The overall width of the building, 21 metres, extrapolates from the ideal classroom depth and the width of the central circulation concourse that integrates linear light wells that double as vent stacks. In section the building also steps down from south to north by one storey to bring north daylight into the lowest levels of the scheme.
Relationship to Silchester Road

The step down on the Academy’s north side permits the building to present a 3 storey facade to the street, in scale with the properties across the road. The building also draws back by 3 metres from its boundary permitting the retention of the four plane trees that make an important contribution to the character of the street. At the east end, at the Academy’s entrance, the building rises to its full 4 storey height.

Entrance on north-south way

This prominent corner is the showcase entrance for the Academy. The four storey height and “prow” form gives the building civic presence and the full height is expressed internally with a foyer and a “cascade” of balcony resource areas above. Horizontal external louvres control glare and heat gain but will not block views into the interior from street level. Again the facade alignment has been tuned to permit the retention of the three plane trees that continue the tree line into the site. A further turn of the building ribbon on the southeast corner gives a partial enclosure and identity to the north-south way to form a plaza in front of the Academy entrance.

Right: View of academy entrance
Relationship to Grenfell and Lancaster Green

The principles underpinning the ribbon in terms of layout have been addressed earlier. As a three dimensional form the Academy’s ribbon embraces space between itself and Grenfell Tower and the Academy’s linearity complements the verticality of the tower. The Academy’s need to exploit roofs as recreational terraces has been used as a device to break up the 5 storey south facing facades and to layer the Academy into the landscape. Lower ground recreational space, with terraces at ground and first floor level and a MUGA at second floor, are located to face south for the sun and for the views towards the green leaf of Lancaster Green. They will form an animated, stratified backdrop to the public realm recreational spaces surrounding Grenfell.

Relationship to the Leisure Centre

The ribbon form of the Academy engages with the ribbon of the Leisure Centre’s southern facade. Split by the north-south way, the two buildings nonetheless call to each other with the Leisure Centre cafe on one side and the Academy’s shop front enterprise unit on the other. The four storey Academy and three storey equivalent on the Leisure Centre frame a 20 metre wide passage north-south and also punctuate the cross-roads with the east-west pedestrian route. A further prominent plane tree has been retained as centre piece to this junction.

Right: Across Lancaster Green
The new Centre has been developed as a series of stepped volumes, each breaking down the mass of the building and responding to various conditions around the site.

The main volume is positioned to the south of the site, addressing the new public way, and reflecting the scale to the adjacent Academy and new residential block.

The mass of this element is further broken down by introducing an overhang at first floor level to the south east, and a canopied arcade to the south west. These elements are tied together visually with a band of brise soleil running across these elevations at first floor level, described in detail under the next section.

The roof over this main volume is articulated with a series of rooflights, louvres and an acoustic plant enclosure, profiled to reflect the building forms below.

At ground floor level, a single storey canopy extends out from the entrance lobby, providing a sheltered approach linked to the adjacent overhang, and a drop to a more humane scale at this main entry point.
To the north, the building steps down to reflect the lower building heights of Verity Close. On the north east side of the centre, the main pool hall features two large sloping rooflights which make the transition from the main roof down to the lower parapet height adjacent to the north boundary. Moving west, the roof steps down a further level where the rear elevation of existing properties at Verity Close face onto the Leisure site.

In considering the scale of the building, the decision was made early in the design to sink the sports hall into the ground, disguising its volume, and providing the opportunity to view down into it from the building’s perimeter.

Sections included overleaf show the relative heights of these elements, and an indication of the existing building profile.
Section C-C: Relationship to west end of Verity Close

Section D-D: Relationship to east end of Verity Close
Building Form

The location of the residential building was to a large extent predetermined by the principal elements of the master plan design and these have presented a number of constraints on the proposed residential scheme. The form, massing and appearance of the building has been governed by the following considerations:

To complement rather than detract from the principal functions of the master plan in providing a new Academy, Leisure Centre and Public Landscape amenity
Respond to the contextual residential precedent in the immediate vicinity and Borough-wide
Complement/enhance the current local residential mix.
Pick up and enhance positive aspects of local residential precedent but avoid what are largely viewed in planning terms as ideologically flawed building approaches from recent history, notably local concrete high rise construction from the sixties and seventies.
Produce a building that makes the most of the surroundings, immediate context, views and aspect.
Create a building that respects the particulars of the site, planning guidelines and site sensitivities.
Create a building that balances capital return with the interests of the overall master plan.

Building Height

In determining the building height a number of considerations were taken into account;

Residential floor plates with a three-metre floor to floor height.
Raised ground floor not more than one metre above pavement level to facilitate underground parking with minimum clear height of 2.1m.

No more than five storeys of apartment accommodation so as not to exceed the heights of similar adjacent residential blocks – four and five storeys on Walmer Road and five storey Treadgold House.
Total building height that does not overshadow or detract from the adjacent leisure centre development.
The resulting scheme has an overall height of 16.5m above pavement level with a top level pent house set back at 13.0m above pavement level.
Relationship to Adjacent Leisure Centre

The reading of the residential scheme relative to the adjacent leisure centre is especially relevant on the south and eastern elevations where the two buildings meet.

On the south elevation the residential scheme snakes back and recesses to create a reveal or large shadow gap effect exposing and adding prominence to the leisure building as it is approached from the east along Bomore Road. The scale and proportions of the residential block are such that they complement the leisure massing creating a plinth, central band and top to the building. The most prominent element, the central band, consists of three apartment floors and lines through tentatively with upper massing of the leisure centre. A notable set back at the interface between the two buildings and sensitive detailing ensure that the residential scheme sits respectfully, enhancing rather than occluding the leisure centre architecture.

On the east elevation the residential block stops at the north end of Walmer Road to reveal the leisure centre window openings at the end of the main pool hall. Neatly framing the view as Dulford Street turns into Walmer Road the composition between the two buildings articulates the corner and allows a convenient recess to ramp down to the below grade parking level within the residential footprint.
7.5 THE PUBLIC REALM

The public realm has been embraced by the scheme as the glue that binds the various facilities together. The levels of the site have been exploited in the landscape proposals to give the pathways and green spaces a subtle terrace quality which engages with the buildings, but in particular with the southern stratification of the Academy. The southern perimeter of the Academy is a composition of terraced landscaping, hedge planting and fencing – a security line that blends the landscape with the building aesthetic.
8.0 PUBLIC REALM

8.1 OVERVIEW

The public realm is common ground, accessible to all, although different parts will have a different character and emphasis related to their position relative to the respective buildings. Given that the site is currently, and will remain, a local intersection crossed by a number of important desire lines, it needs to facilitate an efficiency of movement between the key nodes within the site and within the wider neighbourhood.

In recognition of these movement patterns the proposed plan seeks to establish 2 major through routes, a north-south connection linking Silchester Road with Grenfell Road and an east-west pathway between Station Approach and Bomore Road. This pair of intersecting pathways has underpinned all of the design iterations prepared by the Studio E team for this project. The routes, and their intersection at the heart of the site are fundamental to the organisation of the proposed plan.

The existing site contains approximately 11500m$^2$ of Public Realm, excluding the public car park and the football courts, which equate to approximately 50% of the overall site area. This consists of green space and tarmac pavings in roughly equal parts. The new layout retains the same level of overall public realm provision i.e 11500m$^2$. It also expands the plan area of the existing green space at the centre of the site i.e Lancaster Green. There is an overall reduction in a green space of 1180m$^2$ but this is offset by an increase in the areas of hard paving. It will be possible as the scheme develops to tighten up the area of hard landscaping such that the nett loss is reduced even further.

Although the quantum of green spaces is reduced the overall green space framework is much better connected and offers greater opportunities for active use. The two existing public realm facilities, i.e Lancaster Green and the Grenfell Tower Playground are both re-provided with either the same overall area or an increased footprint.
The form of the public realm reflects the level changes within the site and reinforces the ribbon-like shape of the new buildings. The landscape is arranged as a series of terraces which ascend from the southern boundary up through the various external terraces of the Academy, in effect creating a series of platforms for use by the public and by the Academy.

The concept of terracing is extended across the retained areas of green space. Most of the existing area of lawn and shrubbery have a mounded profile, particularly Lancaster Green which rises more than 2 metres partly due to the retention of demolition materials on site after the removal of the old swimming baths. This mounding has created a series of spaces which are difficult to use and have restricted visibility. The base of Grenfell Tower in particular suffers from the screening effects of the earthworks and from the major trees. The proposal is to remove the mounding in part in order to achieve more useable open space.
The aim is to retain all of the key trees and to design the new landscape around them. There will inevitably be some losses due to the scale of the new buildings and the constrained nature of the site, but these will be kept to a minimum and will involve only trees of medium to low quality. All removals will be compensated by the planting of new semi mature trees.

The key trees are used as sentinels within the scheme, defining thresholds, acting as focal points and providing milestones along the main routes.

In planting new trees there will be an emphasis on the use of species which a) enhance biodiversity and b) reinforce the rich horticultural heritage of the neighbourhood. This will involve a predominance of native species but it will not exclude the incorporation of non-natives so long as the plants chosen support communities of invertebrates, bats or birds.

Where trees are to be planted in hard paving, such as along the north – south link, they will be given the best possible chance of establishment through the use of integrated underground planting systems including root directors and root cells which avoid collapse of the surrounding paving and maintain a healthy rootzone for the tree. All trees planted in paved areas will be either Semi mature (25-40 cm girth), or super semi mature specimens (50-70cm girth) with a view to ensuring that they are fully robust and able to withstand the pressures of a heavily used urban environment. It is likely that the trees used along this spine will have high open crowns supported on a clean trunk, such as Pin Oak (Quercus palustris) or Manna Ash (Fraxinus ornus).

Trees planted in soft areas will be mixed species with an emphasis on fastigiate oak (Quercus robur Fastigiata). This particular tree has good biodiversity credentials while retaining a broad columnar form, achieving a good volume of foliage while maintaining visual permeability. Again all trees will benefit from well prepared and well detailed planting stations with a view to achieving good establishment and rapid growth.

In addition to the oak based indigenous plantings it is proposed that a range of more unusual focus trees will be introduced in order to continue the current horticultural diversity. This might include Indian Bean Tree (Catalpa) Handkerchief Tree (Davidia involucrata) Cockspur Hawthorne (Crataegus prunifolia) Crab Apples (Malus John Downie and species) and Pomegranate (Punica granatum).

The following text describes the character of the key parts of the public realm.

Quercus robur Fastigiata
8.3 NORTH-SOUTH LINK

The north-south link is a shared surface, accommodating both pedestrian and vehicular traffic. While vehicles can enter and move through this space, they are not the dominant users, this is not a road in the conventional sense, it is treated as a common space with a unified floorscape, devoid of kerbs and standard roadside markings. Traffic has the facility to move through the space in both directions, however the route has the facility to be controlled through the use of retractable bollards, which could be located at two points along the route, at the pinch point where Academy and Leisure Centre converge, and at the junction of the link with Grenfell Road. During school hours the bollards might be in the up position, which will mean that any traffic entering the link would have to request that the bollards are dropped before they can continue through the site. Outside school hours, the bollards might be dropped which will mean that the traffic can flow through the space in both directions. While there are no kerbs, the route is defined by items of street furniture, lighting masts, trees, drainage channels, limited seats and, where absolutely necessary, fixed bollards. It is anticipated that the detailed management of the bollards will be the subject of a planning condition.

The north-south link provides the primary access into the Academy. The layout of the paving, particularly the alignment of the courses, has been set out so that it draws the pedestrian toward the main entrance. The north end of the corridor is a very ample space which will become heavily occupied and highly animated at the beginning and the end of each school day. Outside these limited periods pedestrian use is likely to be light, however, passing foot traffic and light vehicle traffic, serving both the Leisure Centre and the local neighbourhood, will ensure that the space remains activated at most times.

Planting within this area is restricted to super semi mature trees which define the vehicle route. A deep planting bed to the east of the Academy and its shared surface consists of robust low level evergreen ground cover with medium to tall shrubs with an open habit such as Dogwood (Cornus) Spindle (Euonymus) and Hydrangea together with medium – large sized trees including Manna Ash (Fraxinus ornus) and Alder (Alnus cordata).

In its central section the link narrows where the projecting geometries of the Academy and Leisure Centre come close together, this space being dominated by two mature London Plane. The area has a split level arrangement as the ground plane starts to fall away to the south, on the Academy side of the “street” the levels fall around the corner of the building while on the east side they remain flat, proving a gathering space and an area for potential extension of the café activities.

The south end of link falls steeply toward Grenfell Road, the overall change of level being circa 2 metres. Here the shared surface forms an intersection with the East-West link and then passes between two landscaped spaces, to the south east the Leisure Centre garden and to the north west the reconfigured Lancaster Green.

Two existing London Plane at the corner of Grenfell Road effectively mark the threshold of the site, these trees being set on mounds which will be retained.
8.4 EAST-WEST TERRACE

While the north south link has primacy in that it accommodates both pedestrian and vehicle movements, the east- west link is significant in that it links the Leisure Centre, secondary Academy entrance and Grenfell Tower into the wider network of public routes, specifically the connection to Latimer Road tube station in the South West and to Avondale Park in the south east. This is a narrow pathway suitable for pedestrians and cyclists flanked on either one or both sides by lawned embankments.

Moving east the pathway passes around the relocated Grenfell Tower playground which will remodelled and fitted with new play equipment, the detailed play brief being the subject of further discussion with the Grenfell Tower Residents and the Crèche. To the north the path provides access to the secure bicycle storage area for the Academy. The north side of the route is defined by the Academy boundary which is marked by a perforated metal panel screen, some 2.4 metres high. The screen, which runs along the south side of the basement playground and around the Academy bike compound is a key visual feature and an important component at the interface between the Academy and the Public Realm. This screen needs to achieve a secure boundary without dominating the adjacent spaces in terms of its height, detailing or level of transparency. The design provides a common language with subtle variations along its length, achieving visual separation in sensitive locations but maintaining a degree of porosity and visual connectivity elsewhere. Due to the variation in level across the site the bottom of the fence rises and falls by nearly 2.5 metres along its length, so the vertical relationship between the east-west path and the fence is constantly changing, the change in profile achieved with grass slopes. The fence is clad in perforated metal panels which have differing spacings and sizes of hole so that the mid zone of the fence around eye level is of low permeability whereas the higher levels are much more perforate, allowing high level views of the sky and the tree canopies. It is anticipated that this style of detailing will be transferred onto other elements of the academy’s external fabric particularly canopies on the terraces, low permeability being provided where shelter from rain is required but a more perforate structure being used where only a sun shielding is necessary. This variation in density is reinforced by the planting of hedgerows alongside the fence, those lengths of fence providing greatest visual separation using evergreens while the lengths where visual connection is desirable screened by deciduous hedgerows. The ribbon of green space between the Academy boundary and Grenfell Tower is critical in terms of the establishment of a new spine of trees which weaves through the site. If this area is occupied by trees which are more than 10 metres high then they will in effect provide a green screen between these buildings. It is envisaged that this strip is planted with upright trees such as fastigiated oak, robinia and alder perhaps with birch as a nurse crop.
In its mid section the path passes to the north of Grenfell Tower, the base of which will be remodelled. The design for this area is still being developed but the general strategy will be to give the base of the tower its own sense of identity while still achieving a sense of connection with the wider network of paths. The aim will be to achieve a strong sense of connection between Grenfell Tower and the adjacent spaces, the playground and Lancaster Green.

The route passes around the remodelled Lancaster Green, the basic pentagonal shape being retained, but the existing mounded form being levelled at the northern end to provide a space for more active informal pursuits. The current mounding is retained to the south and west edges, in part to maintain the existing mature trees but also to give a greater sense of use and ownership to the residents of Grenfell Tower.

The intersection with the north-south link is the heart of the whole site, large numbers of residents and student walking from Latimer Road tube station passing through this space on their way to the Leisure Centre, the Academy or to the wider neighbourhood.

The more generous open space of the central section is then extended across the north-south link to a new area of green space to the front of the Leisure Centre. The paved terrace in this area is also relatively wide to accommodate external café areas, exercise equipment, table tennis tables and small play equipment. The final configuration and content of these areas will be conditioned if the planning application is approved which will ensure that the residents of Grenfell Tower can still be actively involved in its detailed design.

The external terrace is also extended into the adjacent internal spaces within the front of house areas of the Leisure Centre, providing a very broad and ample area of internal/external public realm.

The pathway then extends further south east, exiting onto Bomore Road and providing a connection to Avondale Park Road.

In total this east–west link is circa 200 metres long.

Table-tennis tables

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8.0 PUBLIC REALM
8.0 PUBLIC REALM

8.5 GREEN SPACE

The proposed plan provides a much more coherent network of green spaces with the main areas now being focused around the heart of the site and at the point where it is needed, i.e. to the fronts of Grenfell Tower and the Leisure Centre. Although these spaces will be dominated by lawns and mixed planting, the precise character of the green spaces has yet to be determined, i.e. whether they provide areas for quiet enjoyment or for more active play for small children is not yet decided.

The plantings within these areas will be focused around species that enrich the current horticultural mix, maximise visual interest and enhance biodiversity. The intention is to establish a layered planting structure which is similar to that found in a London Square which usually comprises a monocultural upper storey, normally London Plane, a mid-storey of mixed tall shrubs and a very diverse ground layer of mixed hard-wearing herbaceous and low ground cover. It is intended that the planting strategy follows a similar pattern. The existing London Plane and Sycamore would provide the upper storey, Witch Hazel (Hamallies) Cockspur Thorn (Crataegus prunifolia) and Cornelian Cherry (Cornus mas) could provide the mid-level while reliable evergreen or semi-evergreen understorey would provide the ground layer.

8.6 SILCHESTER ROAD FRONTAGE

The main elevation of the Academy is set back from the edge of kerb by 3 metres in order to protect the row of 4 existing pollarded Lime. This leaves a narrow strip within the Academy boundary which has no active educational use. Security of the building is achieved within the detailing of the façade so there is no requirement for a high fence. However, there is a preference from the Academy Sponsors to prevent direct access to the face of the building and particularly to windows, passing foot traffic being potentially disruptive to the classes. The proposal is therefore to install a bed of low, clipped, utilitarian shrubs which are dense and robust in terms of their growth and habit so that they provided a soft / effective barrier, which can tolerate low level abuse and misuse.

8.7 BOMORE ROAD / DULFORD STREET FRONTAGE

The new public realm will extend around the South East corner of the site across the frontage of the Leisure Centre and the residential development. The existing London Plane at the corner of Bomore Road and Dulford Street will be retained as a major natural feature on this corner. The existing raised bed beneath this tree will be rebuilt to suit the new residential development and the reconfigured footway alignment. Demolitions and rebuilding will have to be undertaken with extreme care in order to avoid damage to the roots. The bed will be planted with a utilitarian evergreen ground cover mix.

The residential frontage running along Dulford Street is set back from the pavement with a row of narrow planters separating the property facades from the public realm. These planters will be filled with low level ground cover plants and medium height open canopy shrubs, the mix in the corner planter under the London Plane being extended along this site edge.

In the north east corner a small area of hard paving will lead on to the ramp which descends to the car parking area beneath the residential block. Due to the limited area available and the nature of the areas use, it will be difficult to do anything other than to plant 2 or 3 large trees within the paving. With adequate infrastructure underground in the form of root cells, trees with large canopies could be successfully established at this corner, thereby bookending the residential development with large canopies. Climbing plants will be located on the adjacent Verity Close flank wall.

8.8 RESIDENTIAL COURTYARD

The residential development will contain a small sunken internal courtyard as an extension to the basement parking. Due to the lack of sunlight that this space will enjoy it is proposed that the entire courtyard area is planted with shade tolerant plants, ferns, mosses and herbaceous perennials. In addition it is likely that 2-3 small multi-stemmed trees will be added to this area. It is intended that the planting bed is set 1 metre higher than the basement car park thereby achieving the 1.0 metre depth of topsoil required by the Planning Authority.
9.0 APPEARANCE

9.1 OVERVIEW

The designs respond to the Borough’s SPD planning brief:

“The Council is committed to delivering a project within a strict financial framework. The development must be of a high quality of design. The design of the buildings, open spaces and accesses must be of good quality, including their appearance, materials, massing, public realm and their relationship to each other and to their surroundings.”

The external appearance of the individual buildings is a development of the site wide strategy which established principles for building form and layout and an integrated approach to interfaces with public realm and immediate surroundings. The building forms, working with the landscape, bring unity across the overall development. However the differing functionality of the Academy and Leisure Centre has placed different demands on the external treatment of the two buildings with a resulting contrast in their materiality and detail. Nonetheless the ribbon concept holds true and the variety in detail enriches the whole. Colour, texture and rhythm plays an important role, with the Academy adopting a stratified horizontal approach to interpret the ribbon, whereas the Leisure Centre utilises a vertical brise soleil.

In both cases the building appearances seek to express the sense of purpose of each facility – educational excellence and creativity for the Academy, the excitement and exhilaration of sport for the Leisure Centre.
9.2 ACADEMY

The external design vocabulary of the Academy has been influenced by a range of key aesthetic and technical considerations. Aesthetically the objective has been to provide the Academy with a strong contemporary image that not only reflects its strength of purpose and educational vision but also respects the sensitivities of the site and surroundings. This is balanced by functional and practical issues which are equally important in ensuring that the building aesthetic is robust and maintainable in the longer term.

The proposed designs have sought to make the building form, massing and appearance work together. A palette of materials has been selected and a detailed language developed that responds to the buildings internal demands as well as respecting the ribbon concept of the overall building form. Critical considerations have been:

### A layered strategy

The building has been given a distinctive layered character with robust masonry forming its base, for all levels up to first floor, a horizontal cladding aesthetic for upper levels and window walling for the set back north light / roof light that runs along the spine of the building.

This layered strategy is sympathetic to the building’s ribbon form and also integrates well with the terracing at the lower levels of the south facing facades. The colouring and proportions of the cladding, the proportions of the windows and the treatment of external acoustic vents all combines to give the building a stratified appearance.

### Passive environmental strategy

Notwithstanding the external facade considerations the envelope detail is equally influenced by internal environmental requirements. The windows respect internal daylighting demands with 40% glazing required for most spaces with an emphasis for clerestorey windows to maximise daylight throw into the interior. Given the noisy urban location, natural ventilation can only be achieved by acoustically attenuated openings which has generated the angled vent that has become a feature of the design. The combination of these three elements – windows, vents and cladding has been forged into an aesthetic that brings richness, texture and variety to the facades.
9.0 APPEARANCE

Glass facades

Glass facades have been used to articulate the main interfaces between the Academy’s interior and the outside, notably:

- The main entrance has a set back four storey glass façade revealing the showcase interior. Horizontal external louvers are a fragmented extensions of the building’s horizontal cladding, and will be finished in a similar palette of colours.
- The dining hall opens onto the first floor terrace via a double height glazed frontage, also offering leafy views towards Lancaster Green.
- Glazed expression is also given to the community entrance into the sports facilities as well as to the shop front enterprise pod on the south-east corner of the building.

Staircases

Stairways have been expressed externally in a more regimented variation of the cladding design. They form a subtle punctuation within the continuity of the ribbon design.

Sports hall and MUGA

The sports hall and MUGA enclosure are an extension of the building’s stratified approach. The MUGA’s mesh “cage” is layered between cladding that defines the top of the sports hall and a further band of cladding at the top of the “cage”.

Terraces and roof

The terraces and roof have been treated as the building’s fifth facade. They will be visible from high level in Grenfell Tower. Terraces will be paved and landscaped and populated with furniture and equipment to support external school activities. Terraces at the first floor, in front of the dining hall and alongside the sports hall will be provided with bespoke external canopies employing an aesthetic that is in harmony with the facades.

The top, fourth floor roof, will not be accessible. Its character will be set by the spine rooflight and an extensive installation of photovoltaic arrays. A small area of sedum roof is being considered for the east end of the roof to give visual continuity with the sedum on the Leisure Centre roof.

Materials and construction

Proposed principal materials (to be confirmed through planning condition) are:

- Masonry construction in re-constituted stone
- Powder coated aluminium windows
- Powder coated metal cladding for the upper levels including the external acoustic vents
- Powder coated aluminium curtain walling for the large glazed facades
- Horizontal powder coated aluminium louvers to the entrance facade
- Architectural metal mesh to the MUGA enclosure
- Glass balustrades to external terrace perimeters
- Perforated metal fencing to the Academy’s southern ground level perimeter
9.0 APPEARANCE

9.3 LEISURE CENTRE

The new centre is conceived as a distinctive building of civic scale, which is none the less humane, welcoming and deeply embedded within its context.

Its appearance has evolved through a combination of functional and aesthetic considerations, central to which is a concern for the experience of those who will use the centre day to day. This extends from the building’s overall form, down to the details which people come into contact with.

Southern Approach

From Bomore Road, the building presents an active street frontage, with large glazed openings affording views down into the basement sports hall and up to the studios above. These over-sail the ground floor to provide a covered walkway, which draws users to the entrance.

This elevation also establishes the language of a terracotta brise soleil curtain which wraps across the overhanging volume. Set 300mm off the face of the building, these provide shading to internal space. Spacing is reduced across unglazed areas, continuing the theme across the length of the façade.

Solid elements at ground floor are also treated in terracotta, the narrow moulded profile of the panels reflecting the brise soleil above, and the curved forms established where the building turns a corner. Fire escape doors are also clad in matching panels, forming a seamless elevation.
Western Approach

The brise soleil continue across the glazed foyer as it addresses the new public space and Lancaster Green to the west. Set 2.5m off the façade, these provide shading to the café, reception and fitness suite at first floor, and form a transitional space or ‘Engawa’, an element common in traditional Japanese houses, which offers a contemplative space between inside and out.

At ground floor level, the foyer is largely glazed, giving views into, and out of, the café, teaching and learner pools; relieved only by the projecting form for the service pod, which is sculpted to reflect the curved forms used throughout the building.

Japanese “Engawa”

View from western approach
North East Approach

The north east elevation presents the form of the main pool hall to the Dulford Street frontage, signifying the Leisure Centre to those approaching the site from the east. Here, terracotta cladding expresses the hall’s internal form, framed in a glazed boarder. This is transparent at the edge, offering glimpses into the hall, and translucent below the terracotta, providing natural light and privacy to swimmers on this frontage.

The north wall is finished in brickwork, providing a ‘harder’ edge to the northern service passage. The stair core is finished with a translucent glass, providing a lightweight transition between Leisure Centre and adjacent residential.

View from eastern approach
Roof

Visible from the surrounding high rise buildings, the roof plane has been carefully considered for its impact on the area.

The large main roof is broken up by a number of roof lights, ventilation openings, an acoustic roof plant enclosure, and two areas of extensive ‘green’ roof, all composed to reflect the building form below.

Guarding is set back from the parapet, providing safe access to the roof for inspection and maintenance, without impacting visually from ground level.

The services design has ensured that all plant equipment and ductwork is confined within the upper plant enclosure, avoiding the clutter often associated with flat roofs. The area to the east of the enclosure has been left free for installation of photo voltaic panels if required.
Materials & Construction

A drive to simplify the building’s expression has led to a limited palette of materials, selected for their durability, longevity, low maintenance and tactile qualities.

The brise soleil are formed in a semi-glazed terracotta, back-fixed either to the curtain walling mullion or a secondary steel frame to give the impression of a lightweight veil drawn over the facade. The material is robust and will maintain its appearance for the life of the building.

Terracotta is also used at ground floor level as a profiled rainscreen panel, which is similarly robust and maintenance free. The cladding reverts to brickwork on the north wall, which is largely screened by the adjacent residual properties.

Both will be fixed back to a dry wall construction, which offers construction benefits in terms of programme, air-tightness and tolerances.
9.0 APPEARANCE

9.4 RESIDENTIAL

The external design vocabulary of the building has been influenced by a range of key aesthetic and technical considerations. Aesthetically the objective has been to provide a residential building that complements rather than detracts from the principal master plan focus on the Academy and Leisure Centre. As described earlier the proportions of the residential building have been broken down to plinth, central band and recessed top floor modulating the overall massing and scale.

Technical Considerations

At ground level stepped access to a slightly recessed elevated ground floor provides an element of defensible space that finds precedent elsewhere in the Borough. A masonry frontage is articulated with elegant punctuated window openings that incorporate secure opening for ventilation. The robust character of the plinth and ground level addresses both security and privacy but balanced with an appropriate level of street animation.

As well as stepped front access ground level apartments can be accessed via the internal circulatory route that serves all levels. Passing through a glass entrance lobby nestled between the junction with the leisure centre an open central lift and stair core sits in the middle of a small internalised courtyard and provides vertical access to all residential levels above and the parking level below.

Given the triangular and confined nature of the residential site, the apartments are single aspect and seek to maximise views looking out across Bomore and Walmer Roads. By virtue of their single aspect these elevations have sought to maximise natural light and views out, without creating an excessively glassy facade. Extensive balcony provision has helped to balance this by both modulating the rhythm of the facade, offering generous external space, providing a degree solar shading and privacy from street level looking up.

Aesthetic Considerations

The aesthetic of the apartment block reflects the fact that it comprises solely market units and projects an image of upmarket and desirable residency with tasteful materials and finishes. Its proximity to the leisure centre, and the desire to compliment rather than overshadow has also informed the subtle but considered aesthetic. Similarly through careful consideration of hard and soft landscape features such as planted zones around the base of the building the quality of the streetscape is also being transformed and enhanced.

Principal Materials

The building is concrete framed and the elevations combine high quality aluminium unitised walling and window systems with a rich mixture of masonry and secure venting elements. Careful and considered positioning of sliding door balcony access and ‘chair rail’ Mullions allow clear views out and good natural day lighting provision. Balconies and terraced areas are similarly glazed so as not to impede on views and natural light. Considered treatment of spandrel zones and transition between floors further enhances the eloquent linear composition.

Residential East Elevation
In the Royal Borough of Kensington and Chelsea the planning policy relating to sustainability is Core Strategy CE1, this states that all new non-residential buildings of greater than 1000m² must achieve BREEAM excellent and that all new residential developments over 800m² must achieve code for sustainable homes (CfSH) Level 4 (and seeks to achieve level 5 by 2015 and level 6 from 2016).

The Royal Borough also requires that the possibility of site wide energy be considered, in the case of this development this consideration has occurred in two stages, firstly the Borough commissioned a feasibility study for the inclusion of a site wide CHP fed heat network with wider connection outside of this site to nearby residential blocks of the Lancaster Green Estate. Further to that work a further assessment has been made of the possibility of connecting these dwellings that found it was unfeasible, this deprived the heat network of its major load and therefore rendered it unfeasible in general.

The strategy taken for each individual building on the site has been to follow the Mayor’s energy hierarchy; that is to:

- Be lean: use less energy
- Be clean: supply energy efficiently
- Be green: use renewable energy

The following sections briefly describe how this hierarchy has been applied to the three buildings.

**10.1 PLANNING POLICY - SITE WIDE STRATEGY**

The Academy has been designed to minimise its energy demand through good fabric performance, well beyond the minimum requirements of the building regulations. The U-values will be lower and the leakage test result will be better. The Academy has been designed to be naturally ventilated wherever possible so no fan power is used to ventilate it. Where areas cannot be naturally ventilated they will be mechanically ventilated with heat recovery to minimise heating energy use. The building is designed to be well daylit, both quantity and quality of daylight have been considered to achieve a pleasing comfortable internal visual environment with minimal use of the electric lighting.

The use of a CHP as part of the energy strategy for the Academy has been considered but found to be unfeasible due to the poor load factor that a CHP would achieve in a building of this type.

In looking at renewables the feasible options were limited to air-source heat pumps and photovoltaic panels. These are being used in combination to achieve the 25% reduction in CO₂ emissions required as a pre-requisite of achieving BREEAM excellent.

To achieve BREEAM excellent, many other sustainability features are required. The Academy will minimise water usage, use sustainable materials for construction and enhance biodiversity on site. A soft landings approach has been adopted for this building to enable the users to get the best out of the building after completion meaning that the operational CO₂ emissions will be closer to the modelled emissions than is typical.

**10.2 ACADEMY - DESIGN PRINCIPLES, CARBON EMISSIONS, BREEAM**

The Leisure Centre has been designed to minimise its energy demand through good fabric performance, well beyond the minimum requirements of the building regulations. The U-values will be lower and the leakage test result will be better. The building is heavily serviced, with many cooled areas, to minimise cooling loads there is extensive solar shading to the south-west façade of the building. Pool heat loss will be minimised by insulation of pool tanks and by minimising ventilation rate in pool halls and keeping the humidity as high as can be tolerated. The cooling system will be linked to the heating system recovering heat from cooled spaces and putting it in the pool, heating system and domestic hot water systems. All mechanically ventilated rooms will have heat recovery on their ventilation systems.

The use of use of a CHP as part of the energy strategy for the Leisure Centre has been considered and found to be uneconomical, this is caused primarily by the loss of available heat load in summer when cooling from the fitness suite and studios, this means that the CHPs running hours are reduced.

In looking at renewables the feasible options were limited to air-source heat pumps and photovoltaic panels. These are both being employed to reduce the CO₂ emissions to the required level.

To achieve BREEAM excellent, many other sustainability features are required. The Leisure Centre will minimise water usage, use sustainable materials for construction and enhance biodiversity on site. A soft landings approach has been adopted for this building to enable the users to get the best out of the building after completion meaning that the operational CO₂ emissions will be closer to the modelled emissions than is typical.
The housing has been designed to have very low U-values, lower even than the very low U-values of the non-residential buildings on site. This is a particularly good way to reduce emissions of residential buildings because they are occupied over-night, the coldest part of the day.

The use of CHP in the residential scheme has been ruled out because the scheme is too small to interest an energy services company. All flats are to be heated with gas-fired condensing combination boilers, this method minimises losses of energy, there is no storage loss on hot water systems and no distribution loss in hot water or heating systems.

To get to the code 4 energy target of a 25% reduction of BER relative to TER PVs will be mounted on the roof of the building.

Full details of the energy strategies of the buildings can be found in the Energy Statement.
11.0 ACCESS

11.1 OVERVIEW

The new site layout has been organised around existing and proposed movement corridors. The detailed site access and movement strategy is a development of planning policy and site zoning and seamlessly engages with the organisation of the buildings across the master plan.

Planning Policy

Throughout the planning process access planning policy has remained consistent across the site master plan with the following elements stipulated for inclusion:

- A north south road connection should be created linking Silchester and Bomore Roads
- The north south road connection should adopt a ‘shared surface’ treatment similar to that being deployed elsewhere in the Borough, notably Exhibition Road.
- Shared surface treatment should minimise street furniture and omit kerb edges or height differences.
- Onsite parking and drop off should be minimised, additional parking spaces should not be provided beyond the number currently provided in the dedicated leisure centre car park.
- Reconstituted stone finish should be used for principal road and walkways.

Pedestrian Routes

Two principal pedestrian routes operate across the site master plan. These run north south and east west across the site. The east west route is instrumental in connecting people movement from Latimer Road tube station and runs from the north end of station walk running along the south boundary of the Academy to intersect the north south route before heading diagonally across the site to connect into Bomore Road. The north south route travels between Silchester and Grenfell Road and follows the shared surface route travelling between the Academy site to the east and the Leisure Centre to the west. Both these routes seek to consolidate and enhance people movement across the site improving on what already exists while complementing the entrances and approaches to the proposed new buildings.

The retention of through routes for pedestrians remains a key part of the design strategy for the site. The intersecting north-south and east-west routes means that people from the surrounding neighbourhood can use the site as a means of reaching local facilities, Latimer Road Station, Avondale Park and local shops. A network of pathways of generous width with ample seating adjacent, will continue to facilitate foot traffic through the site.

The existing pathway along the west boundary will need to be closed in the short term for the purposes of construction but could be re-opened once the Academy works are complete.
Vehicular Routes

The primary vehicle access route will be the north-south link which will connect Silchester Road with Grenfell Road. The brief for this connection has been dictated by the Local Planning Authority and Local Highway Authority who wish to re-establish the historic vehicle connection through this part of the site. Vehicular routes are restricted to the north south access road between Silchester and Grenfell roads by a series of retractable bollards which control traffic movement through this route with the precise management plan and operation to be determined. The trafficable route, which is nominally 5.5 metres wide allowing for two way traffic, is visually defined by street furniture, lighting masts, trees, a limited numbers of seats and drainage channels. However, these are the only physical markers to contain moving traffic and restrict parking. It is intended that during school hours at least, bollards would remain in the upright position and prevent the route being used as a general thorough fare It is intended that the bollards will drop to allow service and delivery vehicles for the Academy and Leisure Centre to pass through. As well as a series of bollards located centrally an additional row is proposed at the junction to Grenfell Road. This is to prevent vehicles from backing into the shared surface space when accessing Grenfell West.

Parking

In keeping with planning directive a minimum amount of parking provision has been included within the proposed master plan. In addition to the 7 disabled bays on the north south link, there are a further 21 roadside bays located kerbside along Bomore Road and Dulford Street. A drop off facility would be provided on Bomore Road at the end of the east west link allowing easy access directly into the Leisure Centre. Two coach parking bays would be provided in Silchester Road alongside the Hammersmith line bridge.

Besides limited parking (18 spaces) provided at basement level as part of the residential development no further vehicular parking has been provided within the master plan boundary. The only exception to this are seven accessible parking bays located opposite the Academy entrance on the north south route. Four of these are reserved for the Academy and three for the Leisure Centre, both within permissible distance to the respective entrances.

Emergency

In order to facilitate emergency access both to the new and existing structures, such as around the base of Grenfell Tower, both the north and east west will be trafficable for Fire Engine purposes being a minimum of 3.7 meters wide. This is imperative to allow for sufficient access to a minimum of 50% of the elevations of the new buildings. Additionally this will permit ambulance access to the Leisure Centre and Academy main and community entrances. Grenfell Tower continues to be accessed from the north end of Grenfell Road.
11.0 ACCESS

11.2 ACADEMY

Main Entrance

The main entrance of the Academy is located on the North East corner of the building facing into the bend of Silchester Road and is accessed directly from the shared surface of the north-south link. A large triple height glazed lobby marks the entrance overlooking the junction of the north south route and Silchester road. A circular reception desk located at the apex monitors the external shared street surface that opens to a piazza space at the junction of the north south route to Silchester road. From this the main entrance takes the form of a wind lobby opening directly to the plaza. The shared surface will provide a very ample space at the front of the Academy which will be animated at the beginning and end of each school day. An additional approach can also be made through an entrance door directly from Silchester Road. This is intended as a visitors entrance that also serves the business pods located within the entrance volume all monitored and controlled from the main reception desk.

Community Entrance

An entrance on the south boundary of the Academy can be found adjacent to the sports complex which occupies the west wing of the building. Accessed from the east west route through the site, stepped and sloped access brings users to a recessed community entrance lobby. Entering through a glazed reception area views through to the main sports and dance hall area bring you into the sports wing arranged over two levels.

Deliveries

Two strategic delivery points have been created for the Academy. The first of these is located to the west of the building adjacent to the railway arches and accessed from Silchester Road. Here a gated recessed parking area is provided adjacent to a stair core and lift, allowing for delivery of materials to be dropped off and distributed throughout the building. The second delivery point is located on the south east corner of the building and is intended to serve the kitchen and refuse collection. Accessed via the north south route vehicles drop or collect as necessary with a bin store, storage area and direct access to kitchens by adjacent stair and lift access.

Vehicle Parking and Drop Off

As described above there is limited dedicated parking provision for the Academy which takes the form of four accessible spaces only. As the north south route is not intended as a through route during school hours it is not envisaged that this area will be used for general drop off. Occasional coach parking will be on the south side of Silchester Road sharing two prescribed bays with the Leisure Centre.
11.0 ACCESS

Bikes

A partially covered bike storage facility has been provided at the south west corner of the Academy adjacent to the main sports hall. The bike storage facility for 120 bikes is enclosed by architectural screening which encompasses an electrical substation at its southern end. Secure fob access allows cyclists to park their bikes before exiting the enclosure via a stair leading to the rear Academy, community entrance or by following the east west path around to the Academy main entrance. All of the pathways across site are wide enough to accommodate both pedestrians and cycles.

Emergency Access/ Egress

Emergency access and egress takes place from multiple points around the perimeter of the building. Principal escape stairs are located at three points across the building. Escape stairs at either end escape directly to outside the building boundary. A central stair exits first to external terrace levels within the building boundary before external horizontal travel to the southern boundary. External MUGA and terrace levels all escape through re-entrant protected core options and external interconnecting stairs that lead to the south boundary. Two escape stair continue to roof level. Emergency muster for the Academy is proposed on the new public realm space opposite the Leisure Centre entrance.

Internal circulation

Internal circulation focuses around 2 fire fighting cores at either end of the building which comprise both stair and lift and one central protected escape stair. An additional open feature accommodation stair and lift are located on axis with the main entrance and theatre spaces. These travel the full height of the feature lobby space encompassing open LRC (Learning Resource Centre) areas at each floor. Linear passages run centrally down the full length of the building ribbon with strategic floor openings bringing natural light deep into the horizontal circulation corridors.

Inclusion

The design of the Academy is fully inclusive with appropriate level of accessible change, WC provision and hygiene room to meet the requirements of the brief and current building regulations and standards. Three lifts are located across the building footprint to ensure good accessible provision for those not able to use stairs. Appropriate levels of accessible escape from all levels including external terrace areas has been considered within the fire and escape strategy.

All new pathways, entrance and access routes have been designed with gradients below 1 in 20 and regular landings in accordance with BS8300:2009.

Security

The Academy has a limited number of entrances in daily use and the school will be a secure environment for pupils within operational hours. The main entrance lobby is controlled by the central reception in this area. An additional reception desk and control point is provided at the community entrance. All service and delivery entrances will have controlled access arrangements and CCTV coverage. All final exit positions will be alarmed, low level window openings fitted with restrictors and comprehensive CCTV coverage installed throughout. Secure by Design consultation and recommendation is ongoing.

Signage

Appropriate level of signage and way finding will be provided throughout the school internally and externally. All signage will be compliant with current building codes.
The movement of people to, around and within the building has been approached throughout the design process with the goal of providing a highly accessible facility with barrier-free access to all who use the building. This process has been aided with input from a specialist Access Consultant and reference to current good practice guidance.

**Entrance**

The Centre has two public entrances, the principal of which is located on the southern approach, clearly denoted by the building’s form and elevational treatment. Shelter is provided by two arcaded approaches, linked to an entrance canopy which extends over a set of automatic sliding doors, leading to the reception area.

The second entrance is positioned on the west elevation, linking the Centre to the Academy and its new public realm spaces. Again a canopy extends over automatic doors, leading visitors through the foyer to reception.

**Vehicle Parking and Drop Off**

On-street visitor parking is provided around the perimeter of the site, with accessible bays located on the shared surface between Academy and Leisure Centre. A drop off bay is positioned to the south on Bomore Road. Two coach parking bays are proposed on the south side of Silchester Road serving the Leisure Centre, with drop off on the north-south way.

**Deliveries**

Servicing and deliveries for the Leisure Centre will be confined to the shared surface link, as set out in the transport statement. In brief, this will comprise refuse collection from a dedicated bin store accessed from north of the centre, pool chemical deliveries, again on the northern elevation, and finally deliveries to the café kitchen and general leisure stock rooms.

**Bikes**

Covered cycle parking for leisure users is positioned to the south of the main entrance, with good visibility from reception.

**Emergency Access**

Fire tender access to 50% of the façade is provided from paved areas to the west and south elevations and from Dulford Street to the north east.
11.0 ACCESS

Internal Circulation

Moving into the building, public access is provided to the south west foyer area, allowing visitors to use the café, viewing areas and associated WCs without paid entry. A prominent reception desk and dropped counter areas then controls entry to the paid facilities via barriers which include 1.2m wide lanes for sports wheelchair users, and other wide access chairs and buggies.

From here, the facilities have been arranged in order to simplify orientation and provide a highly legible building to the user. A central 3 storey circulation hub provides direct access to each of the facilities. This is linked vertically with a prominent feature staircase and 2 lifts, both with 1.2m clear door widths, and one of which will operate as an evacuation lift in the event of a fire.

Changing areas, WCs, circulation routes and spectator seating are designed for inclusion in accordance with current accessibility guidance, including the provision of a Changing Places Facility adjacent to the teaching pool.

Access to the main and teaching pools is provided both by easy going steps and a submergible platform lift, whilst the leisure pool will feature a graded ‘beach’ arrangement. Adjustable blinds to the teaching pool glazing will allow this area to be made available for special swim group sessions requiring visual privacy, with a direct link to dedicated group changing rooms.

As the design develops, this inclusive approach will continue to extend into the detailed consideration of finishes, signage, ironmongery and fittings.
11.0 ACCESS

11.4 RESIDENTIAL

Main Entrance

The main entrance to the residential block is via a glazed entrance lobby nestled in the recessed junction adjoining the leisure centre on Bowmore road. Stepped and sloped inclusive access forms a landscaped forecourt to the main entrance which provides a formal approach and defensible space set back whilst meaningfully demarcating the principal entrance. The glazed entrance through lobby will have secure access and intercom connection to all the apartments. Mail boxes and a waiting area would also be provided in this space. All apartments and the basement parking level would be accessible through this approach.

Street Access

Additional on street approach via stepped access is provided to all upper ground level apartments. These are located one metre above grade and approached via small single stair flights parallel with the street edge. Raised built in planters are interspersed between the stair flights to provide additional privacy and enhance the street edge.

Car Park

The car park occupies a below grade basement level and has parking provision for 18 spaces. Parking provision has been based on one space per 2 dwellings or 50% total apartment count. The car park is accessed via an inclined ramp to the north of the residential block sloping down from the corner of Bowmore and Dulford Roads and is single lane designed for one way traffic with access and egress operating on a traffic light system. The car park entrance will be securely gated with controlled fob access to residents only. There is limited amount of waiting space provided at the top of the ramp afforded by the reveal created in front the sports pool hall which limits the effect of any queuing scenario on street.

Bikes

Bike provision is split between 2 levels with secure storage for 20 bikes at lower ground and 15 at upper ground. Assumed provision is based on 1 per dwelling however an additional 20 spaces could be provided at basement level if additional Sustainable homes score credits were sought. Direct street level access from the basement level bike storage can be achieved either via the vehicle access ramp or lift to ground floor entrance ramps. From the ground level bike storage area direct access to street level can be obtained via secure doors fronting onto the intermediate landing of the sloped entry approach, permitting quick and easy access to street level.

Refuse

The refuse store is similarly located to the upper ground level bike storage area providing direct level access to the street edge via the intermediate landing on the sloped entry approach. The refuse store is also conveniently located beside the central circulation core to allow for easy access.
11.0 ACCESS

Emergency Access/ Egress

The apartment block is served via a central access core consisting of a lift and open stair. At each level the stair and lift core is accessed via an open access corridor in excess of 1800mm width. The external facade of all apartments is accessible via fire truck access from Bomore and Walmer roads.

Internal Circulation

Apartment types vary between one, two and three bedroom types in a variety of formats with varying balcony and terrace provision. Typically one bedroom apartments have an open kitchen, dining, living configuration that open up from an entrance lobby area. Bedrooms have direct sliding door access to the main living space. Two bedroom apartments typically occupy corner positions and have a similar layout with the second bedroom opening in a similar method to the main living space however separate access to both bedrooms is provided from a half hour rated central entrance lobby. Three bedroom apartments adapt the same principals as the two beds and are located typically at penthouse level with large external terraces.

Inclusion

With the introduction of the ground floor on a raised plinth consideration has been given to provide appropriate inclusive approach in the form of slopped access to the main entrance lobby. Where sloped approach has been introduced, access routes have been designed to gradients below 1 in 20 and regular landings in accordance with BS8300:2009. There is full lift access to all floors and basement parking.

Security

Appropriate level of security control measures have been proposed at both ends of the passive and active scale. These range from an elevated set back at ground level, through to integrated secure venting and more active measures such as controlled intercom access and secure parking.

The public-private zoning strategy is designed to provide a safe, secure environment for owner/occupiers. All external outdoor areas will be built with robust, non-slip materials conforming to current building regulations.