haymarket

Proposed Residential Redevelopment – Broom Road, Teddington TW11 9BE

Teddington Riverside Design & Access Statement

February 2014

tp bennett

Front cover: typical view of the proposed redevelopment

Preface.... in the beginning

Above: Introductory Panels from one of the Public Consultations outlining the initiative in general and the scheme proposal in particular

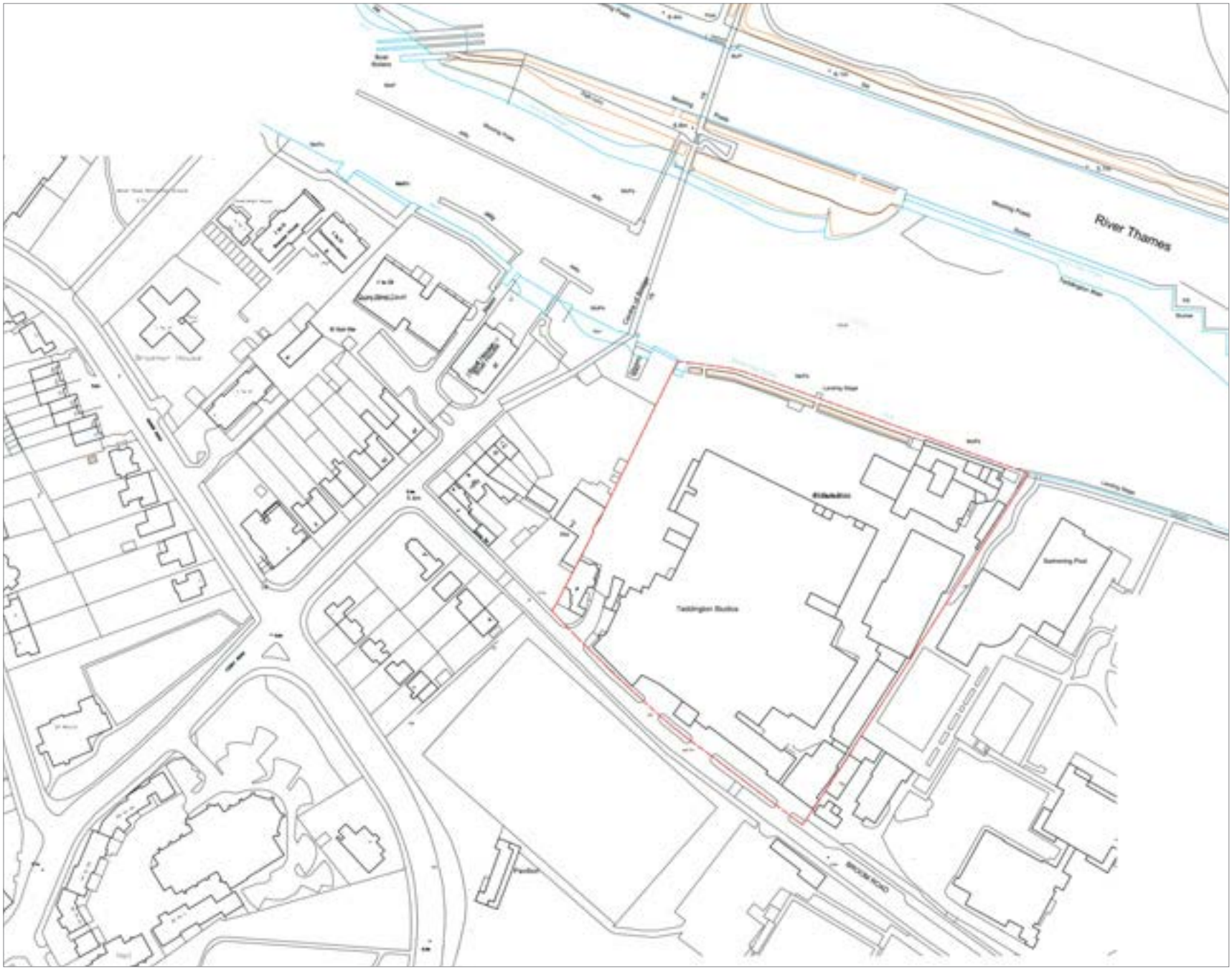
This is a Design and Access Statement (DAS) to accompany a major planning application for the redevelopment of the former Teddington Studio site on Broom Road Teddington. It arises in part from the planned departure of one of the site's major tenants and the aspiration of the site owners, **The Haymarket Media Group** to consolidate its present two site operation onto one new site elsewhere in the Borough of Richmond upon Thames, and one that would be more readily accessible for business use.

As a major employer in the borough, sharing such ideas, aspirations and plans with the wider community and its administrators is especially important. Opposite are reproduced two of the exhibition banners from the initial public consultation, when the ideas were first shared with the public in July 2013, following the launch of the website for the project and following even earlier briefing to local administrators.

As that text informs us….

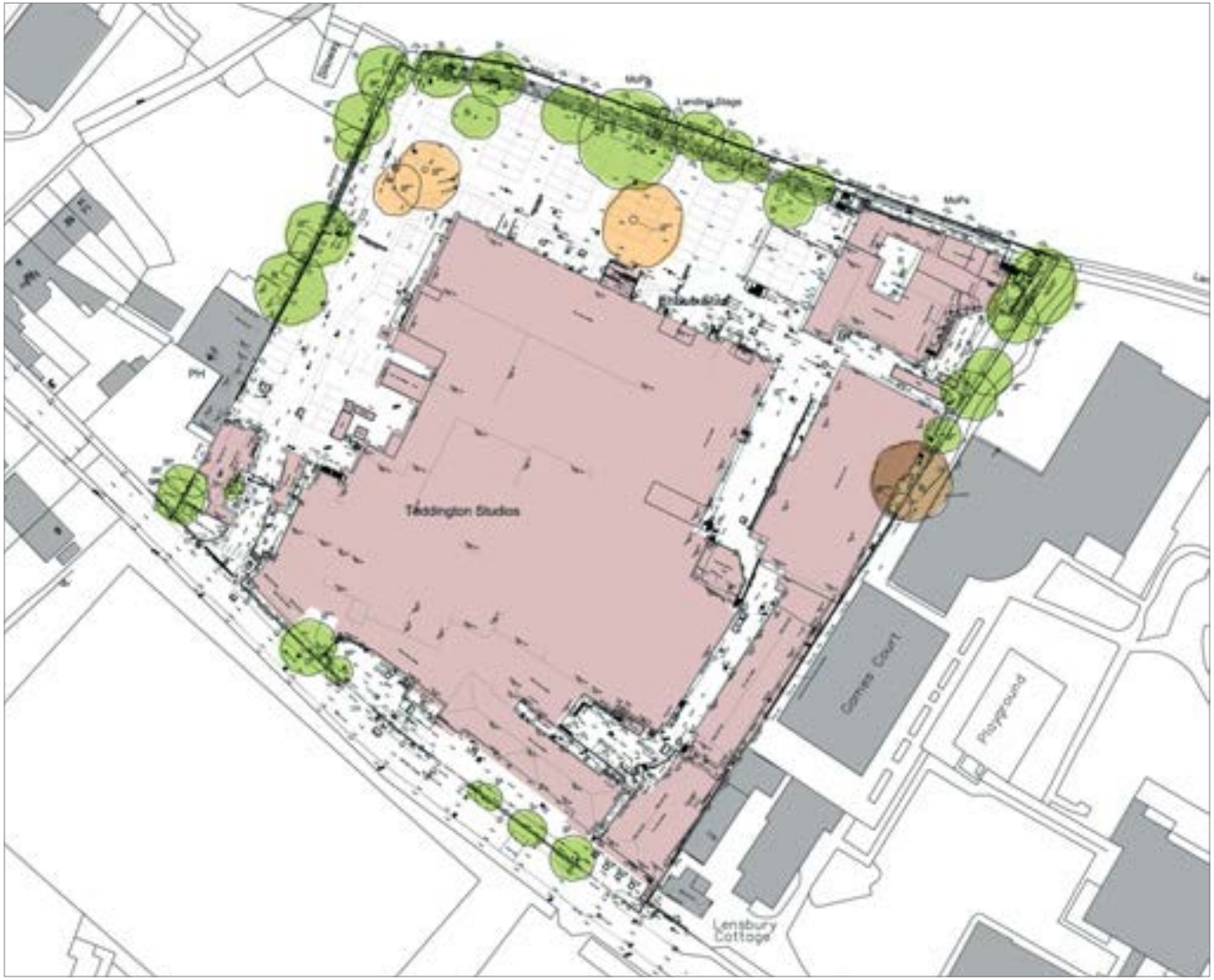
"Haymarket Media Group … are a major employer in the Borough and have 650 staff based at Teddington Studios…. Redevelopment would help underpin our move, thereby securing our long term future in the Borough… our 450 staff currently based in Hammersmith will temporarily relocate to our Teddington site pending the final move"….

This DAS should be read in conjunction with the application drawings, technical documents, and Environmental Impact Assessment that accompanies the application. It is a DAS that envisages relocation of business space from the application site to elsewhere in the borough and redevelopment of this application site primarily for residential purposes.



Above: Site location – the two church buildings (bottom left) form the key landmark buildings of the locality

Above: The site from the air looking North West – The site has developed incoherently over the last century



Above: The application site as shown on survey information prepared for the application

Contents

Background Introduction

…''redevelopment would help underpin our move''…
Public Consultation Information banner 2

The form of redevelopment chosen for the application site is a residential one, comprising residential accommodation, both for the affordable and open markets and both in the form of houses and a range of generously sized apartments, complimented by a very open landscape, giving access to the riverside for both residents and for the first time, the wider community.

The concept is one of a green, quasi, “parkland” character; a local destination for recreation, set in a high quality apartment led setting, combining high quality public landscape of both a hard and soft nature based on two sunlit avenues or boulevards leading to a tree lined promenade walk overlooking the river.

The site owner’s and applicants are **The Haymarket Media Group**. They have assembled a comprehensive multi-disciplined team to undertake all the complex tasks implicit in such a major proposal, which is seen as key to facilitating their wider ambition of consolidating elsewhere in the borough their specialist media and information companies.

Output	Producer
Architect & Urban Designers	tp bennett
Planning Consultant	CgMs
Heritage Consultant	CgMs
Archaeology Consultant	CgMs
Transport Consultant	Savill Bird and Axon
Flood Risk Assessment & Foul Sewerage Consultant	Hydro-Logic
Sustainability Consultant	Cundall
Landscape Architect	Allen Pyke
Statement of Community Engagement	GKA
Ground Contamination Consultants & Structural Engineers	Campbell Reith
Services Consultant	Cundall
Residential Advisors & Project Managers	Savills
Ecology Advisors	Catherine Bickmore Associates
Noise & Vibration Consultants	Moirhands Acoustic
CDM Consultant	Leslie Clark
Air Quality Consultant	AQ Consultants
Micro Climate Consultant	RWDI
Daylight & Sunlight Consultant	Savills
Construction Management Plan	Wates Construction

Above: the comprehensive team assembled for the project by The Haymarket Media Group

History

Good architectural and urban design is informed by policy and specialist input and shaped by area analysis and local built-form audit. Understanding the historic evolution of a locality and what were, and are, its key stages of development, is a vital part of understanding the present, and indeed appraising latter day local character. Enhancing that local character is a key requirement of good design. The creation of carefully crafted contemporary regeneration that fits positively into its surroundings and improves the quality of life for the occupiers of the area, both on site and in the wider vicinity, is central to the project philosophy.

Teddington was first documented in the 11th Century and takes its name from ‘Tuda’, a Saxon occupant of a farm “tun”. It lies north of Bushy Park, one of the largest, but least well known of the Royal Parks, and south of Twickenham, a much older settlement, where both Roman and pre-Roman occupation has been found.

Teddington grew up around the church of St Mary and the nearby manor, and naturally first developed from a cluster there, then along a ribbon both westwards and eastwards to the Thames, which runs in a north west/south east direction at this point. A two mile frontage of riverside has ensured that Teddington has always been closely associated with the river and indeed the vicinity of the application site marks the extent of the tidal Thames, which until the coming of the railways was the superhighway to nearby Hampton Court. The maps opposite show the “explosion” of development in little less than one hundred years between 1816 and 1911. The application site is shown in red.

1816

1911

1861

● indicates application site location

Right: map extracts from “Village London”

In greater detail the application site is shown opposite in maps from 1865, 1897 and 1943.
There had been a weir hereabouts as early as the Fourteenth Century and the lock was formed in 1811. The modern weir, which gave its name to Weir House (the original building on the application site), was formed at the same time. Both were later rebuilt in 1858 however, and the lock again, in 1904.

Above: Teddington Lock from “The Historic Thames” – By Hilaire Belloc, painting by Alfred Quainton painted in the last decade of the Nineteenth Century. This view is looking up river towards the application site.

Above 1865. The application site is outlined in red. Development along Broom Road cut off access to the river.

Much of the land around the general location remained open heathland until inclosure from 1800 onwards, when the village first started to take on the inclosure that was in turn to lead to the later street patterns these emanated outwards from the original cluster and ribbon around the church and which by this time had taken on the guise of a typical “High Street”.

Above 1897

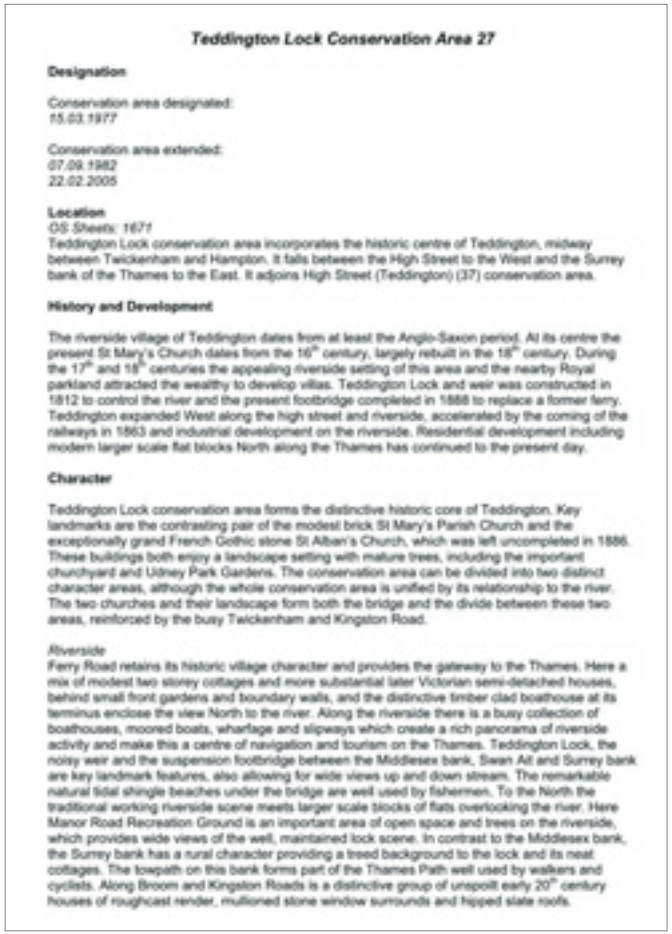
Above 1934

The application site itself, was first developed in the early Victorian period as one of many villas on large plots running between Broom Road (named after the earliest of these grand villas – Broom Hall) down to the riverbank. Weir House was to last a hundred years, although some carvings in stone were salvaged and built into later works, albeit in a less than distinguished, sunless location. Also, surviving is a small cottage, Weir Cottage, at the present day entrance to the application site, although this was not contemporary to the original villa, but a later provision some forty years or so after the erection of the original Weir House.

Broom Lodge, the lodge to set back Broom Hall, stood on the south west quadrant of the large Broom Hall estate. The lodge was also lost at about the same time as Weir House, when The Lensbury Club, an early Twentieth Century arrival, continued to expand. The application site has only Broom Road as a public road frontage, but the nearby Ferry Road is a reminder of the ferry that once crossed the river close by, until replaced by the present late Victorian foot bridge in 1889. The application site also has a public frontage from the boat traffic and from the island, Swan Ait, to the north.

Another nearby road, Manor Road, is a reminder of the one time location of the manor opposite St Mary's Church. It was the breaking up of the manor in the 1850s and the arrival of the railway in 1863, that finally proved the catalyst to the area's growth, as the larger scale maps so dramatically show. It was to be an expansion that continued well into the Twentieth Century.

It is this legacy that informs the historic appreciation we have of the immediate vicinity today and which is so evident in the Teddington Lock Conservation Area 27 character appraisal leaflet reproduced below. It is also graphically shown in context to other conservation areas and in its own right in the maps opposite. A full assessment of it, its now listed buildings, designated and undesignated heritage assets is given in the Heritage Statement that accompanies this application.



Teddington Lock Conservation Area 27

Designation

Conservation area designated:
15.03.1977

Conservation area extended:
07.09.1982
22.02.2005

Location
OS Sheets: 1671
Teddington Lock conservation area incorporates the historic centre of Teddington, midway between Twickenham and Hampton. It falls between the High Street to the West and the Surrey bank of the Thames to the East. It adjoins High Street (Teddington) (37) conservation area.

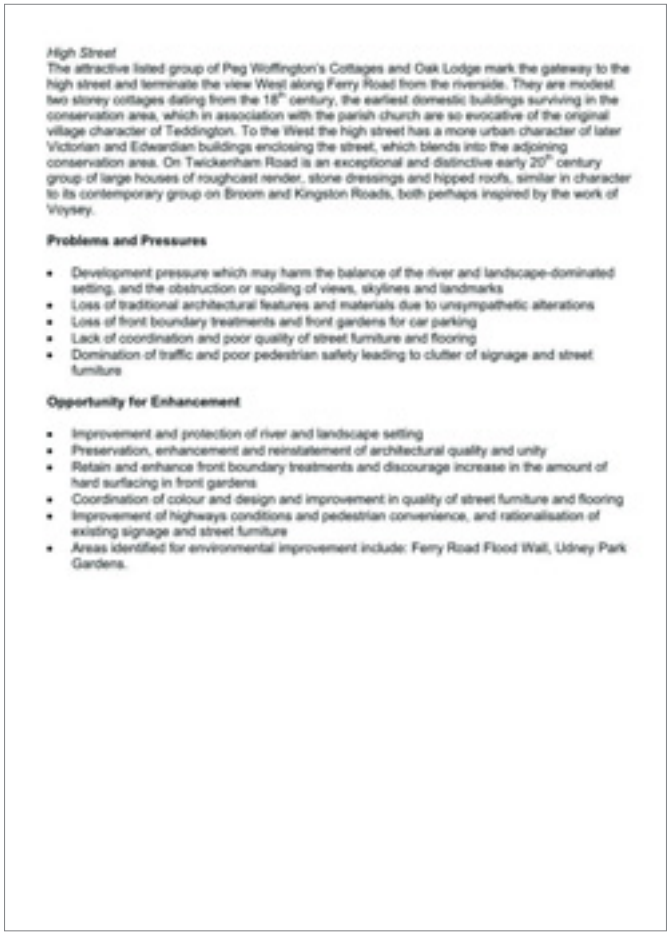
History and Development

The riverside village of Teddington dates from at least the Anglo-Saxon period. At its centre the present St Mary's Church dates from the 16th century, largely rebuilt in the 18th century. During the 17th and 18th centuries the appealing riverside setting of this area and the nearby Royal parkland attracted the wealthy to develop villas. Teddington Lock and weir was constructed in 1812 to control the river and the present footbridge completed in 1888 to replace a former ferry. Teddington expanded West along the high street and riverside, accelerated by the coming of the railways in 1863 and industrial development on the riverside. Residential development including modern larger scale flat blocks North along the Thames has continued to the present day.

Character

Teddington Lock conservation area forms the distinctive historic core of Teddington. Key landmarks are the contrasting pair of the modest brick St Mary's Parish Church and the exceptionally grand French Gothic stone St Alban's Church, which was left uncompleted in 1886. These buildings both enjoy a landscape setting with mature trees, including the important churchyard and Udney Park Gardens. The conservation area can be divided into two distinct character areas, although the whole conservation area is unified by its relationship to the river. The two churches and their landscape form both the bridge and the divide between these two areas, reinforced by the busy Twickenham and Kingston Road.

Riverside
Ferry Road retains its historic village character and provides the gateway to the Thames. Here a mix of modest two storey cottages and more substantial later Victorian semi-detached houses, behind small front gardens and boundary walls, and the distinctive timber clad boathouse at its terminus enclose the view North to the river. Along the riverside there is a busy collection of boathouses, moored boats, wharfage and slipways which create a rich panorama of riverside activity and make this a centre of navigation and tourism on the Thames. Teddington Lock, the noisy weir and the suspension footbridge between the Middlesex bank, Swan Ait and Surrey bank are key landmark features, also allowing for wide views up and down stream. The remarkable natural tidal shingle beaches under the bridge are well used by fishermen. To the North the traditional working riverside scene meets larger scale blocks of flats overlooking the river. Here Manor Road Recreation Ground is an important area of open space and trees on the riverside, which provides wide views of the well, maintained lock scene. In contrast to the Middlesex bank, the Surrey bank has a rural character providing a treed background to the lock and its neat cottages. The towpath on this bank forms part of the Thames Path well used by walkers and cyclists. Along Broom and Kingston Roads is a distinctive group of unspoilt early 20th century houses of roughcast render, mullioned stone window surrounds and hipped slate roofs.



High Street
The attractive listed group of Peg Wolffington's Cottages and Oak Lodge mark the gateway to the high street and terminate the view West along Ferry Road from the riverside. They are modest two storey cottages dating from the 18th century, the earliest domestic buildings surviving in the conservation area, which in association with the parish church are so evocative of the original village character of Teddington. To the West the high street has a more urban character of later Victorian and Edwardian buildings enclosing the street, which blends into the adjoining conservation area. On Twickenham Road is an exceptional and distinctive early 20th century group of large houses of roughcast render, stone dressings and hipped roofs, similar in character to its contemporary group on Broom and Kingston Roads, both perhaps inspired by the work of Voysey.

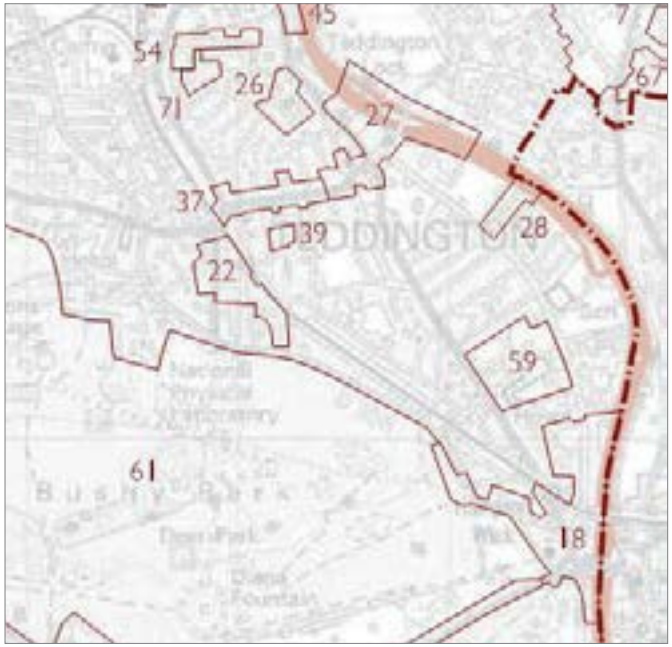
Problems and Pressures

- Development pressure which may harm the balance of the river and landscape-dominated setting, and the obstruction or spoiling of views, skylines and landmarks
- Loss of traditional architectural features and materials due to unsympathetic alterations
- Loss of front boundary treatments and front gardens for car parking
- Lack of coordination and poor quality of street furniture and flooring
- Domination of traffic and poor pedestrian safety leading to clutter of signage and street furniture

Opportunity for Enhancement

- Improvement and protection of river and landscape setting
- Preservation, enhancement and reinstatement of architectural quality and unity
- Retain and enhance front boundary treatments and discourage increase in the amount of hard surfacing in front gardens
- Coordination of colour and design and improvement in quality of street furniture and flooring
- Improvement of highways conditions and pedestrian convenience, and rationalisation of existing signage and street furniture
- Areas identified for environmental improvement include: Ferry Road Flood Wall, Udney Park Gardens.

Above: Conservation Area Note 27



Nearby conservation areas

Teddington Lock conservation area adjoining the application site

As can be seen, the application site borders the conservation area on the river edge to the north and a narrow strip of the application site is actually included in the conservation area, due mainly to the presence of Weir Cottage, a small Arts and Craft inspired former coach house and lodge to Weir House. This cottage probably dates from circa 1885 and is clearly visible on some of the maps reproduced.

Above: the grain of the locality as seen from the air

No historical resume however would be complete without a reference to the application site in the Twentieth Century; a story that began twenty years before that new century dawned. Wealthy stockbroker, Henry Chinnery, bought Weir House in 1880. He was very involved in the building of St Alban's Church; a monumental French Renaissance styled building nearby. An interest in cinematography led to him giving refuge in his large greenhouse to passing film makers out on location when a storm broke. From these humble beginnings a long history unfolded through silent movies, "talkies" and on to television, but not before a V1 Rocket exploded on the site in 1944. For a long time a WW2 Dunkirk "Little Ship" was tied up on the waterside and used for corporate hospitality. The site today is shown below and opposite prior to the removal of the jetty that served as a berth for the corporate hospitality vessel.

North view

South view

These aerial views dramatically show the amorphous jumble of lean-tos, bolt-ons and extensions that have developed over the last seventy years. In earlier presentations we frequently superimposed as-existing and as-proposed massings so that the significant reduction in mass and volume could be seen together. So useful did consultees say they found this, that we have been asked to insert them again in this, the application iteration. Accordingly they are included at Appendix A to the rear of this document and one set of elevations also have had the outline of the existing buildings superimposed as well (see Pages 74 & 75).

Context

The immediate locality that we have inherited through this history is today mixed and diverse, united by the proximity to the river, but in all other considerations diverse.

For all practical intents and purposes, the application site sits outside the Teddington Lock Conservation Area (no 27), but forensically part of the application site lies within its western edge, while its northern edge faces the southern edge of the conservation area in the form of the river and more particularly the weir.

The application site indeed is further bounded to the west by a blind wall of The Angler's Hotel, now no longer residential, as well as The Lensbury Leisure Centre to the east and the open green recreational fields of St Mary's Twickenham on the opposite side of Broom Road to the south.

Broom Road is itself also very diverse with a broad mix of uses and consequently building forms. Narrow pavements widen only occasionally, large built forms sit alongside smaller older properties, built form varies from back of pavement structures, shallow front gardens to other properties and indeed more set back properties. Only the very north western end of Broom Road sits in the conservation area, where several early Twentieth Century 'Voyseyian' like detached houses face the much older Angler's Hotel.

Weir Cottage apart, the application site contains a range of non-descript buildings of considerable bulk, that over the years have been fused into one amorphous mass of no cohesion or sense of place; no permeability, connectivity or quality of public realm. Further along Broom Road again, The Lensbury displays a range of diverse buildings and uses, embracing various built forms and a vast array of indoor and open air sports pitches, facilities and courts, all based around its imposing 1930s "civic" clubhouse building and a recognised building of local townscape merit. It is set in 25 acres of grounds.

Approximately, half the conservation area is open space or open water and it falls into two distinct parts with the two churches of St Mary and St Albans (now the Landmark Arts Centre) as the link and pivot. The large form and scale of St Albans sits alongside the small scale of St Mary and this epitomises the prevailing cheek by jowl juxtaposition of the large and small that characterise much of the conservation area in particular, and the locality in general.

To their west, the Conservation Area is dominated by the narrow plots of a typical High Street, predominantly low rise often with shop fronts that step forward from the main building line in a range of tight knit buildings in which only occasionally does a larger, taller, usually late Victorian building, break rank.

The open space around the churches adds to the sense of the pivotal hub these buildings perform at this point. The natural progression east to the river and former ferry, sees a cameo in the form of the Ferry Road terraced cottages of circa 1800 close to the water's edge, sitting neatly alongside later four storey imposingly sturdy and handsome Victorian merchant houses. The charm of a horizontally timber boarded boat house, from which the one time ferry ran down stream diagonally across the river to the western end of the "Swan Ait" island, and to the leafy Surrey bank that marks the edge of the Conservation Area, is a further survivor and link with the past. The Borough of Richmond upon Thames C.A. character appraisal of Teddington Lock succinctly sums up this water's edge quality and nature as follows.

"…Along the riverside, slipways create a rich panorama of riverside activity and make this a centre of navigation and tourism on the Thames…. (While).... to the north the traditional working riverside scene meets larger scale blocks of flats overlooking the river…. (Where) Manor Road Recreational Ground is an important area of open space and trees on the riverside, which provided wide views of the lock scene…"

Both this built and natural context is illustrated in the series of images reproduced opposite and below as well on pages 14 – 19.

Above: 4 storey Victorian villas facing Broom Road

Above and below: the pivotal hinge of the Conservation Area and local context. The "little and large" juxtaposed St Alban and St Mary Church that link the two distinct parts of the Conservation Area.

Above and below: The charm and intimacy of the Ferry Road two storey cottages sit comfortably across from the more substantial four storey Victorian villas.

Above and below: the late Victorian footbridge, no doubt unwelcomed by the ferryman, and the boathouse which still stands alongside. The ramped approach (above with cyclist) is a modern addition.

Above and below: Two modern interventions on the Miiddlesex Bank.
The discipline and rigour of the limited palette of Quay West's contribution to the locality, contrasts with The Wharf which provides an exuberance of shape and palette further downstream. The calm quiet of the former is by far the more convincing and supportive intervention.

Above and below: More contrast and variety at the point where Broom Road is in the Conservation Area. Voyseyian Twentieth Century houses and much earlier pre-Victorian back of pavement structures modestly mark the exit from this part of the Conservation Area. The application site is barely visible beyond the pub signpost.

Above and below: the application site seen from Kingston Road. The absence of coherence on the application site is all too evident and below when seen in street perspective from Broom Road looking west.

Above and below: further Broom Road views showing more of the variety that characterises the location.

Sundry on site views: clockwise from above: Weir Cottage, not contemporaneous with the original Weir House, but a building of streetscape merit nonetheless, albeit not a statutorily listed building. The blind rear ivy clad face of The Anglers Hotel. The sea of car bonnets that front the riverside and finally looking east from the on site multi-storey car park. Over 300 vehicles on site represent 600 daily trips, 3,000 trips a week and up to 150,000 car journeys per annum going back and forth. Weir Cottage itself has a ground floor at 6.92m AOD and would be extensively refurbished internally and externally as a large single family dwelling. The TA based upon the survey results of existing traffic conditions shows 612 two-way trips generated between 7am & 7pm.

Sundry river views – The extensive foliage ensures there is considerable screening of the site for much of the year. Nowhere is this more readily illustrated than in the view below from Burnell Avenue, where boats on the river are just visible beneath the tree canopy, but no sign of any buildings whatsoever.

Below: looking across the water from the application site and towards the site from far off Burnell Avenue to the north. A series of key views have been identified by the team and while key views to the site are with the exception of views from the river and island, limited to generally far off long views, heavy foliage for much of the year often screens the less than coherent amorphous massing of the present accommodation.

Above: High Street shop fronts developed out of former front gardens

Above: A grand parade graces the High Street: mass orchestrated by composition

Far left: more variety within an overall uniformity of plot width where strong chimney lines create rhythm and scale.

Left: The High Street closer to the focal hinge of St Mary and St Alban shows a strong horizontally of line.

High Street..... this page & facing page

The High Street provides a telling example of variety coming together to produce an overall cohesive linearity of much interest through which, despite the traffic, the historic charm remains very evident.

Above: further variety, this time a taller more eclectic expression with more than a hint of French roof form.

Left: evidence of one time front areas to narrower pavements prior to the commercialisation of the High Street: a scene repeated across much of the country.

Top right: looking towards the river with the French Renaissance styled Landmark Centre on the horizon.

Bottom right: well presented original residences

CABE & By Design Touchstone

....Two touchstones of best practice. The CABE key considerations & the By Design principles of good design

The Process

How the physical characteristics of the scheme have been informed by a rigorous process which should include the following steps:

- Assessment
- Involvement
- Evaluation
- Design

In the next sections the design will be described with reference to the key touchstones of CABE guidance including consultations, dialogue and feedback into the proposal.

Use – What buildings and spaces will be used for.

The Use will be explained as an extension to the established use of the vicinity.

Amount – How much would be built on the site.

The amount will be demonstrated through the design led process informed by the area audit, sunlight, daylight analysis and the sustainability lynch pin of making more effective use of previously developed land, while enhancing character and safeguarding amenity, where density is the product of design and not its predeterminant.

Layout – How the buildings and public and private spaces will be arranged on the site, and the relationship between them and the buildings and spaces around the site.

The layout will be explained, from the inclusion of the principal sunlight boulevards, providing public access to the riverside, through to the retention and refurbishment of Weir Cottage and the enhancement of heritage.

Scale – How big the buildings and spaces would be (their height, width and length).

Closely related to amount and layout it will explain how the mass and form is arranged, but scale should never be confused with size, an error made by many.

Landscaping – How open spaces will be treated to enhance and protect the character of a place.

Landscape will be examined from the key considerations of safeguarding key onsite trees, introducing on site external amenity and chiming with a wharfside ambience in the aesthetic.

Appearance – What the building and spaces will look like, for example, building materials and architectural details.

Closely related to scale and layout, this will examine the choice of materials, the reasoning behind those choices and the symbiosis this will have with the locality overall.

CHARACTER

A place with its own identity

To promote character in townscape and landscape by responding to and reinforcing locally distinctive patterns of development, landscape and culture.

CONTINUITY & ENCLOSURE

A place where public & private spaces are clearly distinguished

To promote the continuity of street frontages and the enclosure of space by development which clearly defines private and public areas.

QUALITY OF THE PUBLIC REALM

A place with attractive & successful outdoor areas

To promote public spaces and routes that are attractive, safe, uncluttered and work effectively for all in society, including disabled and elderly people.

EASE OF MOVEMENT

A place that is easy to get to & move through

To promote accessibility and local permeability by making places that connect with each other and are easy to move through, putting people before traffic and integrating land uses and transport.

LEGIBILITY

A place that has a clear image & is easy to understand

To promote legibility through development that provides recognisable routes, intersections and landmarks to help people find their way around.

ADAPTABILITY

A place that can change easily

To promote adaptability through development that can respond to changing social, technological and economic conditions.

DIVERSITY

A place with variety & choice

To promote diversity and choice through a mix of compatible developments and uses that work together to create viable places that respond to local needs.

Design Evolution – The Iterative Process

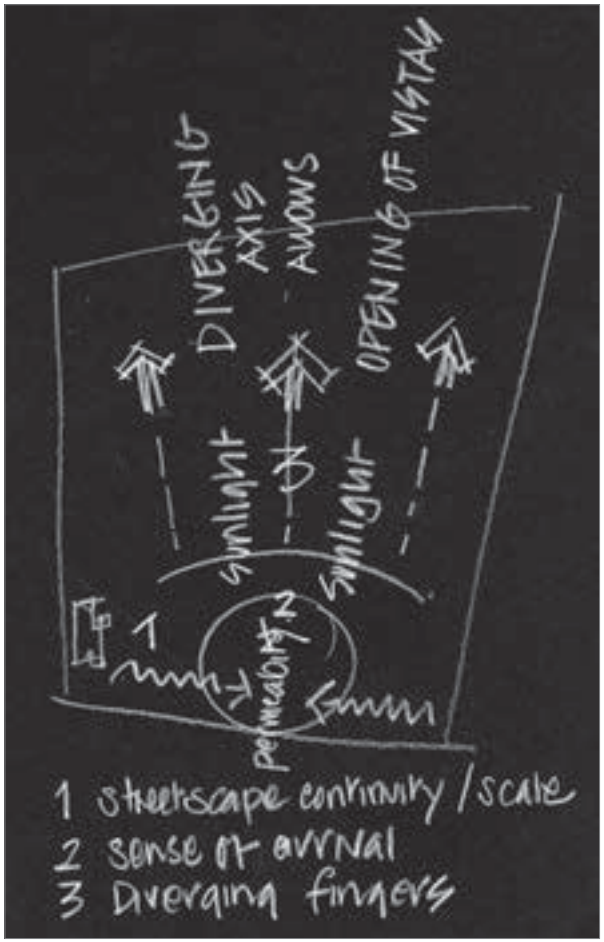
Concept Iterations & Consultations…the area audit feeds the design process

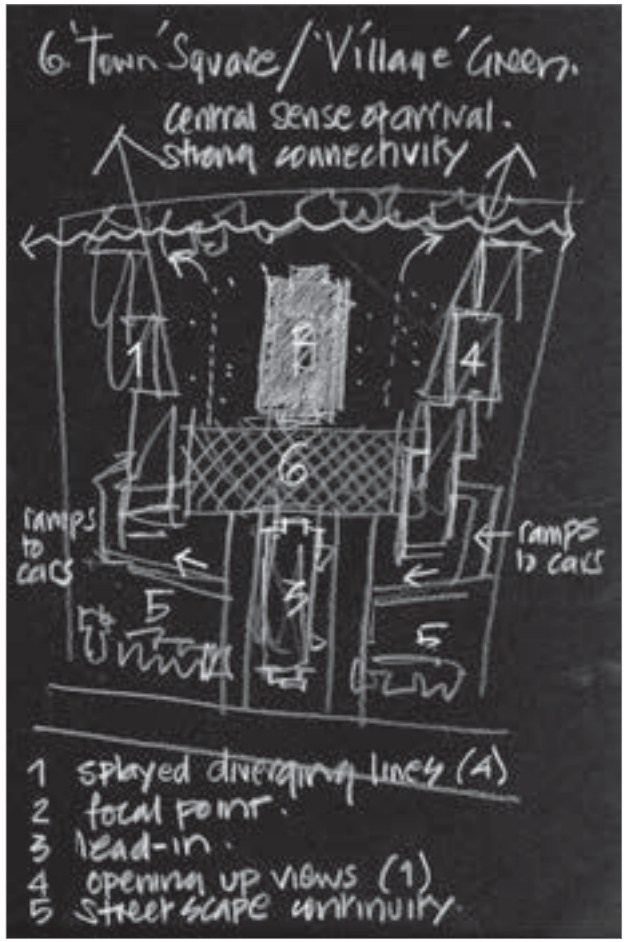
The influence of context on concept strategy – optimising more effective use of previously developed land (pdl,) while enhancing local character and safeguarding established amenity is the prime mantra of sustainable re-use of brown-field land. These sketches show some of the earliest concept ideas and while detail has continued to evolve throughout this essentially collaborative design period, the overall concept as illustrated has remained very much a constant through these iterative stages. This can clearly be seen by comparing the formative layouts below with the later plans illustrated on pages 43 onwards.

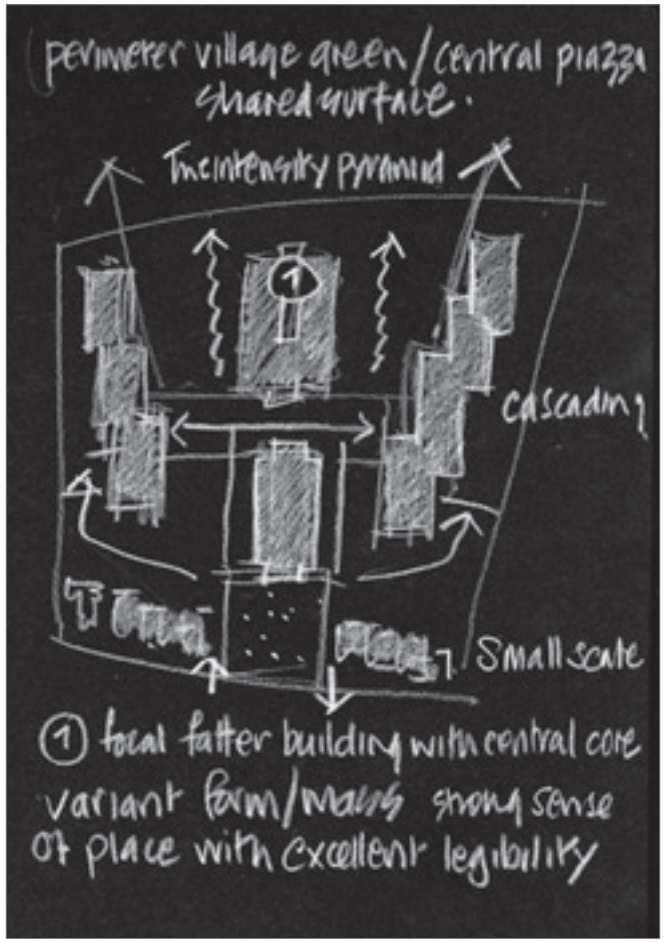
The area analysis left a number of overriding impressions, which were in time reinforced by Third Party feedback.

- **Despite the major influence of the river, access to it was very limited, as were views towards it from the Teddington or Middlesex side.**
- **Car parking and Trip Generation – pedestrian safety was a problematic characteristic raised during consultation and an ever present consideration.**
- **Streetscape enhancement was necessary whenever the opportunity allowed.**
- **New interventions, especially of any scale needed to be subordinate and supportive of local context, be of limited palette, with a discipline and rigour to enhance the character and quality of the Conservation Area and promote local amenity.**

The present long established site arrangement lacked coherence and legibility and suffered from very little sunlight penetration and a complete unawareness for the passer by on Broom Road that the river lay behind.







.....“the traditional working riverside scene meets larger scale blocks of flats”.... (Source: Conservation Area Character Appraisal 27)

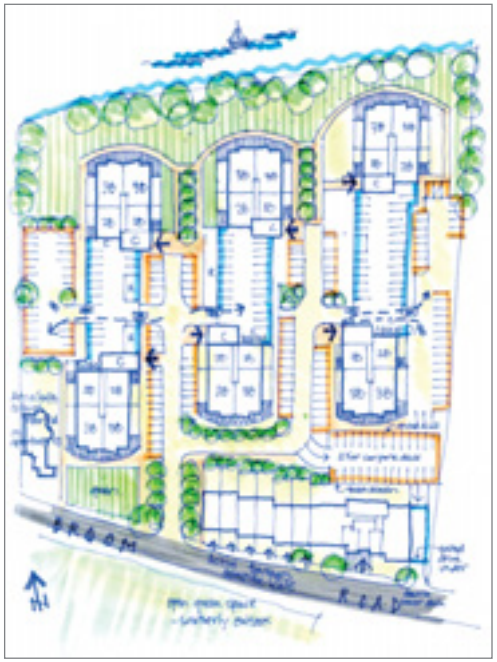
....It was also a characteristic of the locality recognised by the Conservation Area appraisal, that apartment buildings leading to the river was an increasingly contributive component of area character.....

In an initial concept workshop numerous design approaches were considered but only those shown here provided the key components of:

- Coherence
- Legibility
- Connectivity
- Permeability
- Sunlight penetration
- Streetscape reinforcement
- Character enhancement
- Public Realm amenity
- Adaptability

Place Making

Early meetings were also held informally with Council officers and officials to outline proposals and share ideas, including but not limited to 28th May and 21st June 2013. Some of the illustrative material discussed at those times is illustrated on the following pages as indicative of the iterative evolution and collaboration central to the design process. During this process, although buildings were reduced in size, and refined in form and footprint, they remained consistent to the public realm driven concept of sunlight boulevards leading to a riverside promenade for the benefit of all residents and the wider community. The essence of the scheme is to enhance community benefit by creating a local destination, a civic “green” parkland setting, distinctive and highly legible from the public frontage of Broom Road.



The limited palette of nearby Quay West compared to the less disciplined palette of other contemporary interventions was also considered and a collective decision made to reflect a wharf like riverside ambience, of strong rigour, limited palette of high quality materials characterised by a soft buff mellow brick of distinctive quality. North-South axes to the main buildings would ensure sunlit routes through the development adding permeability and legibility. Soft curved headed larger lintol aperture soldier courses were seen as a contemporary reflection of this wharf like association, as was the appropriate treatment of apartment balconies. Such treatments would flank the western and eastern fringe, while a more pavilion like form and aesthetic would be introduced into the two central buildings and be set between the two main public boulevards.

Low rise Town Houses onto Broom Road could feature, as the only east-west linearity, as these would instate greater streetscape (the now lost ribbon villa developments of the 1850s had ensured there had never been a strong streetscape, unlike for example, in High Street itself), while the predominantly north south running apartment buildings would ensure good sunlight penetration into the site. In addition an underground secure car park would ensure a strong sense of landscape setting, another key component of successful character enhancement.

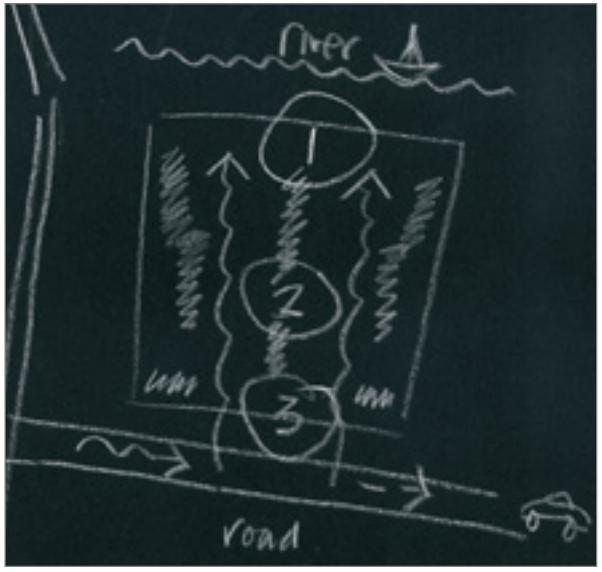
Three variations on this concept were considered in detail, and illustrated graphically below (bottom left).

These were whether the main public/residential open space should be at the water edge (1) or at the site entrance in the form of a pocket “green” (3), or centrally as a pocket piazza (2). There were merits in each.

- **Providing public access along two new avenue boulevards to the river promenade which was seen as a key reinforcement of local character should not end in anti climax.**
- **Providing a small “village green” frontispiece would mean the apartment building behind would not break the streetscape linearity of the three storey Broom Road townhouses and affordable apartments would help further ‘invite’ pedestrian movement into the site**
- **A pocket piazza at the centre would provide a natural fulcrum off which the development would set.**

It is not surprising that given the townscape, and amenity benefits these would provide that the design evolved to provide all three by shortening the middle built form and breaking it into two separate forms (pragmatically termed ‘B’ and ‘D’, but originally part of an **alpha, beta, gamma, delta, epsilon and zeta** nomenclature).

Above and below: Early imagery exploring the sense of added value and wider community benefit. The sense of a local destination and a green, almost civic, parkland like ambience.



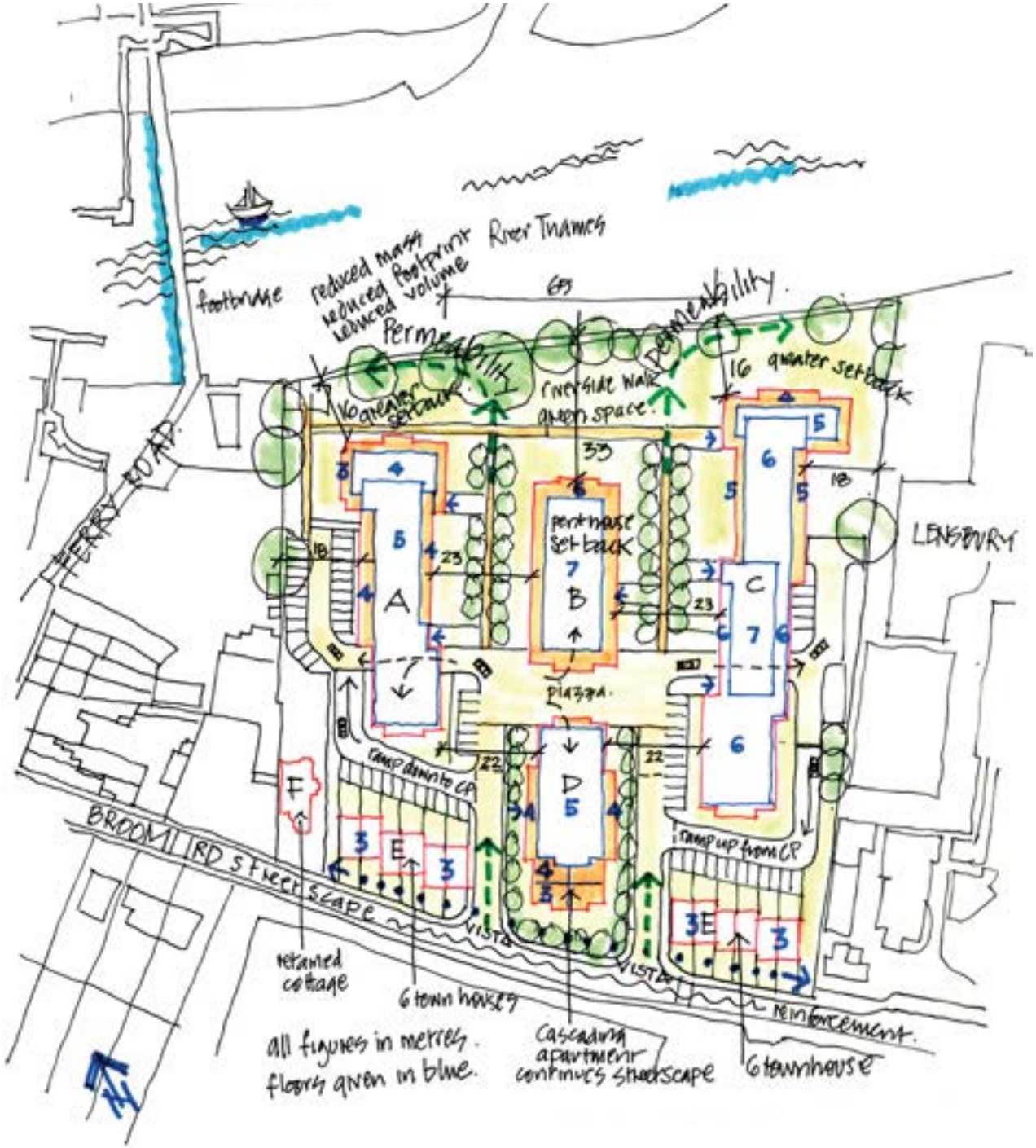
Boulevards leading to Promenade – the art of public realm place making

Other key early factors revolved around car parking and as with any site alongside a major waterway, flood risk. A below ground carpark, as with the proposed buildings above, would need to be flood proofed, and such concealed parking would be essential in terms of providing a qualitative landscape of public realm proportion, not to mention in terms of **Secure By Design**. This carpark was conceived to provide more than adequate carparking, both for residents and their visitors. It would be well lit, secure, give direct lift and stair access to apartments and be designed to **Secure By Design Car Park** manual best practice. Flood risk safeguarding was also incorporated and all due protocol for such waterside consideration reflected from the outset.

The full team of consultants contributing to the design process is set on page 4 of this DAS and who all collaborated in the gradual evolution of the proposal that now forms this planning application. This collaboration is a hallmark of the proposal given its role as part of the wider local aspiration of the application; a collaboration and consultation which took in other parties beyond local officers to include the EA, the GLA, local police, the general public and interested local Third Parties such as The Teddington Society.

These consultants ensured the proper level of detail design fed back into the concept consolidation: plant, structure, landscape, flood risk management, costings, CDM, heritage, transport, ecology, sunlight and daylight.

Right: evolution and iteration as at the middle of 2013 along with opposite some of the emerging sketch imagery. An early decision was also to widen the pavement onto Broom Road by releasing a strip of application site to The Highways Department. A one way system would apply on site. Arrivals would be from the western boulevard and departures from the eastern boulevard. No traffic would proceed beyond the piazza other than occasional maintenance vehicles. The six eastern townhouses onto Broom Road, shown opposite, were destined to become an affordable homes apartment building but in the same aesthetic as originally envisaged and which is illustrated on the facing page.



... Some of the early three dimensional appearance studies reflective of the Seven Pillars of By Design are shown on these illustrations & studies below...

View from Broom Road across The Green. Making more effective use of previously developed land while enhancing local character and established community amenity; the very mantra of sustainable development. Throughout the evolution of the proposal the narrow pavement has been increased to 3.0m width.

Early view from the listed footbridge prior to proposed buildings being reduced in footprint and height.

Collaboration & Consultation.....place making continued

Illustrated left and opposite are further panels from the 2013 public exhibition presentations, hosted by the applicant, planning consultants, architects and landscape architects and well attended by the public. These were held at The Landmark Centre to whom we extend our thanks for such an excellent venue. The main points to emerge, from what was consistently a well attended and an encouraging public response, was support for the opening up of public accessibility, concern over car parking and traffic generation, and appreciation of both pavement widening, and the amount of open space being incorporated into the scheme.

The carefully composed aesthetic “calm” of the “appearance” was well received as was the choice of quality light cream, mellow buff brickwork, and wharf like ambience within a parkland like setting. The integration of a heritage trail was also very positively commented upon, as was the reduction in massing.

We would express our appreciation to all who attended the presentations and contributed to the wider engagement the application sought to offer.

While consultation at the public exhibitions was primarily, but not exclusively of a generalised nature, consultation with officers was by its nature often more detailed and both officer and public commentary was reflected in design evolution throughout the iterative process. This saw a progressive reduction and refinement as the design exercises themselves became more detailed and advanced.

The team made various adjustments to the exact positioning of elements and to their massing. Building A was moved back further from the waterside by over 5.0m and in so doing further away from The Anglers pub grounds, while the southern end of Building A was reduced to three floors, chiming with the adjacent townhouses and similarly styled affordable housing apartment E7. At the same time footprints were reduced so that no development was within 16 metres of the flood defence line. An additional step was also inserted into Building C and punctuating glass corners introduced to the staircase corners to modulate the composition overall.

While much of this refinement came out of the dialogue with local officers and the general feedback from the public, the team also met with The Environment Agency, local housing provider Richmond Housing Partnership, the Metropolitan Police’s ALO for the area and others. The team met with the GLA who provided support in principle at a stage when the project was still evolving and details still emerging.

Designing alongside a major waterway always poses special challenges and great care has been taken to ensure these challenges are thoroughly met. As a result of consultation we reconsidered the possibility of having many more entrances and traditional front gardens and front doors, especially at the northern

end of the site. This had been examined at earlier stages, but was not compatible with designating areas that could hold in excess of a 1.0m depth of flood storage water, as was required by policy. Nor was it particularly compatible with the overall concept of a green quasi parkland ambience providing recreational opportunity to a wider off-site community of local people as well as the residents of the development.

The building frontages onto the two boulevards and promenade are nonetheless still fully active with a variety of full balconies, terraces and Juliet balconies all providing energisation and interaction between internal and external space, with the raised 7.3m AOD ground floors ensuring privacy by virtue of being set so much above the adjacent external landscape. Entrances are provided at regular points in each apartment building; an entry phone system to each is standard, normally only four or five apartments per floor are serviced by each stair and lift core and only on one occasion is the maximum recommendation of eight apartments per core per floor utilised. No apartment layout exceeds this maximum recommendation and all apartments are fully accessible, even in the event of a 1.20 year or 1.100 year major flood and are at 7.3m FFL, calculated to be dry in the event of such extreme weather producing floods. It is worth noting in this respect that the site has remained dry this winter (2013/2014).

Some interest during collaboration and consultation was also expressed in having front entrances to individual residences facing onto the river. However, as noted above, it is simply not policy compliant to have habitable floor levels and single residence entrances in a flood storage perpetuation zone that could be under a depth of over 1.0m of water. The present long established flood storage capacity of the site at circa 2,000m^3 volume needs to be reprovided in any new proposal such as this, in order to be policy compliant. Another point raised during consultation was aspect from the various residences, but with 70% of units being dual aspect and none of the remaining single aspect units facing north, the proposal was quickly seen to be entirely policy compliant.

There was too during this period some advocacy for what was called “through units”, but these would not be practical. They would be excessively deep in plan, be unrealistically oversized with inadequate external wall availability. Even if this were not the case, through units would preclude safe and easy evacuation in the event of fire, and regular access and egress in the event of major flooding. Much the same impracticality applied to one suggestion to put maisonettes on the lower floors with apartments over. All residences need to be accessed safely in the event of the flood and the design provides this via the 6.8m AOD piazza.

The landscape is shown opposite in its embryonic concept and has been fully developed by the architects and landscape architects (see pages 33 – 39 inclusive) around the theme of creating a local destination; a green parkland setting of sunlit walks to and from the river, available to the wider community as well as the residents.

Design in Detail – The application iteration

Above: concept refinement as at Autumn 2013: Sunlit boulevards and riverside promenade

Above: as further refined into the application proper: A green parkland like setting

Layout

While the layout concept of a sunlit, green, almost quasi civic parkland setting based around predominantly wharf inspired buildings has remained essentially the same, important refinements have been ongoing. The apartment building 'A' has been made shorter again and set back further from the waterside. Beta and Delta have been subtly adjusted to increase frontage onto Broom Road and amenity space onto the riverside. All apartments lift and stair cores can now be reached from the underground car park, which also accommodates secure cycle storage, allocated parking, security and CCTV, dual fuel charging facilities, a health and fitness club accessed from a prominent ground floor reception area, services plant associated with the development including CHP, stand by generation, substations and grey water harvesting. The carpark has been made split level, part at level 2.0m AOD and part at 2.8m AOD, while the water table has been established at level 2.0m AOD. A carefully worked up system of barrier control has been developed with Hydrologic, the flood risk consultants to ensure a flood secure basement at all time and a compliant flood risk management plan.

In other respects, all the long established merits of the proposal remain. It is a layout inspired by clarity, cohesion, permeability, distinctive sense of place, public access, sunlight penetration and greater vantage points for river views for the residents and wider community of The Thames, with two public boulevards leading from Broom Road to a riverside promenade along the entire river frontage of the site.

The waterside area of the site is the lowest part of the ground level redevelopment at circa 5.5m AOD, rising to circa 6.8m AOD at the centre of the site before falling away to circa 6.0m AOD at the Broom Road levels. With a total site depth varying between 120m and 160m such resultant inclines are, at circa 5º imperceptible and yet are important to the layout in that it provides a safe means of access and egress in the event of a major flood, via the 6.8m AOD 'safe' level set by the EA and LPA. The car park is flood "proofed" and the ground floor level is at 7.3m AOD, above the worst predicted flood risk levels, all as determined in consultation with the EA and LPA.

These levels when compared to the external levels described provide enhanced security for ground floor residences and a rare opportunity for landscaping enhancement.

Use

The use to which the redevelopment aspires is as set out in the preface, and is one of residential accommodation, for both the open market and affordable sectors, together with a small health club facility and car club. Given that this is a predominantly residential location, albeit the immediate vicinity contains a higher than elsewhere mix of other uses, given too, that residential uses remain in short supply, and that such a use would provide both apartments, houses and affordables, the proposed land use would clearly fulfil a most appropriate and compatible need. It would furthermore reinforce local character and the setting of Weir Cottage, which as a Heritage asset become flood proofed for the first time in its history. The Haymarket Group would be relocating its business floor space to another site in LBRUT and this decision will provide the replacement employment space required by policy.

As a move from non-residential to residential use it would drastically reduce current vehicular trip generation. The application site historically caters for well over 300 vehicle parkings every week day; 600 trips a day; 3000 trips potentially a week and up to 150,000 a year. The application envisages a little over 250 vehicle parkings with much reduced trip generation and amenity improvement, lowering the carbon emission of the site as part of a wider greener agenda for the location.

As such a change in land use it does require a Sequential and Exception Test under national flood risk policy and this has been robustly satisfied by the input of other members of the Consultant Team. Equally important the external space will provide wider community use and benefit for recreation and leisure, while the historic heritage of the site will be echoed in a Heritage Trail as discussed …..

Amount

The key to "amount" centres around the need to make more effective use of previously developed land while reinforcing local character and established amenity. The locality is predominantly low slung in that it has a predominantly horizontally arranged proportion. Within this context 'big' often sits alongside 'small' as we have seen, but generally no tall buildings exist and it is this context that helps determines "amount". In addition it is essential in policy terms to perpetuate or better the existing flood storage capacity of the site and the entire river frontage and northern parts of the public open space boulevards and rear private communal spaces serve this function. These areas have the potential to hold in excess of 2100cu. metres of flood storage at up to 1.0m or so depth, still well below the 7.3m AOD finished floor levels of the apartments.

How much "amount" is acceptable is largely driven by context and infrastructure – the relationship with adjacent features, both man made or naturally occurring, capacity of infrastructure, traffic generation, school places, whether a location is well served and well connected in a process in which density should always be the product of good design and not a pre-determinant of design.

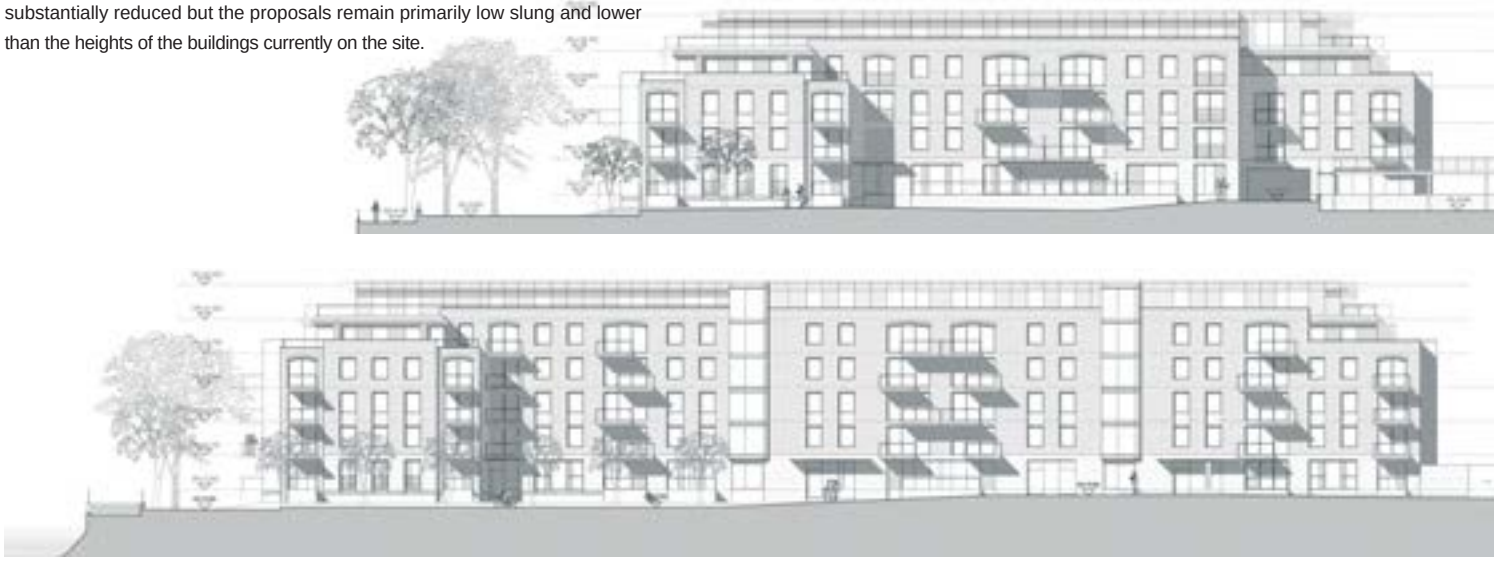
Left and Above. Weir Cottage. Currently its setting is undermined by a white garage shed of Twentieth Century origin, which would be removed. It is ill-set by pole barriers, tarmac car park, adjacent office and studio land use, flood risk and taller front brick wall on the building line which would also be removed. The low brick wall to the foreground would be removed and rebuilt as part of pavement widening and parking would be provided to the rear, accessible off the basement car park approach.

Scale

It is important that the scale of development is appropriate to context and local capacity as has been outlined under “amount”. Indeed layout, amount, scale and appearance are all closely related aspects of design. The predominant ambience of the proposal is one that connects with a wharfage and water front context and so the scale of development derives in part from this. Scale however is how we handle size, how we arrange the composition on the canvas. It is the canvas that is “size” and how we work within it is the “scale”.

Scale in this proposal is developed from a horizontal handling of the two flanking apartments Alpha and Gamma, the more contrasting organisation of the central Beta and Delta apartment pavilions along with the more historic street grain and plot width of the streetscape townhouses. While these town houses and pavilions then take on a more vertical theme, they do so for the very best of design reasoning. Beta and Delta provide a subtle contrast as befits their more pavilion like role, central in the proposal, and Epsilon town houses gives rhythm and repetition to help bolster what little tenuous streetscape quality exists at the Conservation Area end of Broom Road. In addition at the northern riverside end for Alpha and Gamma, as at their southern end, they both step down in scale as they come to ground.

Some concern was expressed at the height of the proposal and this has been substantially reduced but the proposals remain primarily low slung and lower than the heights of the buildings currently on the site.



Above: A & C step down at their northern and southern ends.

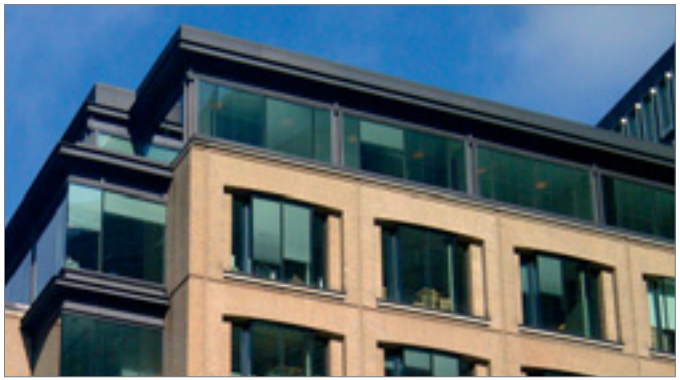
Appearance

Appearance, as described elsewhere, is soft, subordinate, of limited palette with mellow brick predominating. One brick such as a Leicester multi cream would be used for the two flanking buildings A & C and a similar but subtly warmer brick such as would be used on the two central pavilions. Bucket handle joints would be used on the flanking buildings and recessed joints or other slightly different joints on the centre buildings. Ground floors of the flanking buildings would be treated as a horizontal “plinth” with recessed brick courses banding the base in a contemporary rustication. Such bricks are of stock quality, not sharp arissed. The ‘street wall’ is the brick and the ‘roof’ takes the form of the lighter set back pent-floors in the case of the wharfage architecture. Elsewhere onto Broom Road, roofs are in traditional slate pitched roof form as in the case of the townhouses providing streetscape reinforcement. Sundry images of precedent are provided on the facing page and overleaf, while below and right are shown typical elevations of the general appearance of much of the scheme.

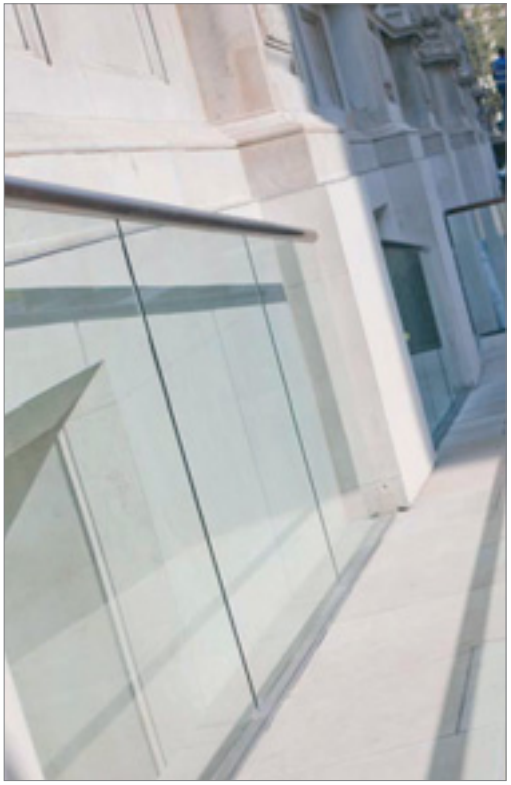
Also below right, is the key to the facing materials, and this is expanded on the facing page with manufacturers named only in an indicative capacity to suggest the type and quality of materials which ultimately would all be finalised via the submission of samples to the LPA as part of a discharge of conditions.

Above: The materials legend identifying the various finished proposed for the project

Flat Roof Precedents..... apartment buildings



Left: Windows would generally be reversible, obviating window cleaning from ground level, although this could still be used on the majority of residences. Patio sliders at upper levels occur behind a Juliette balcony which would have eye bolt anchors and latch cords internally. The patio sliders would comprise 2 no sliding leafs to facilitate cleaning when used with Juliette balconies. Full balconies would have a warm timber surface as illustrated.



Materials

Windows: typically such as Velfac composite 200 series, RAL finish to aluminium externally timber satin polished internal. Reversible range.

Patio Sliders: typically as Velfac 200 series finished as above with both panels sliding when onto a Juliette balcony.

Balconies: Glass of brushed stainless steel, typically such as Basystems AEON and Ice ranges.

Bricks: Facing bricks will vary within a limited palette typically such as Ibstock Bradgate Harvest and Leicester Light Cream; a simulated handmade facing.

Feature Simulated Stone: Such as Telling white concrete .

Security Screens to Ground Floor windows typically such as Webnet 316SS mesh system by Jakob MMA architectural systems.

Glazed Entrance Doors and Screens: Flood resistant grade entrance screens to match as Velfac typical/indicative patio units and reversible 200 series.

Timber brise soleil to townhouses: Sustainable Western Red cedar such as Solinear Medera sliding louvre or overhead systems.

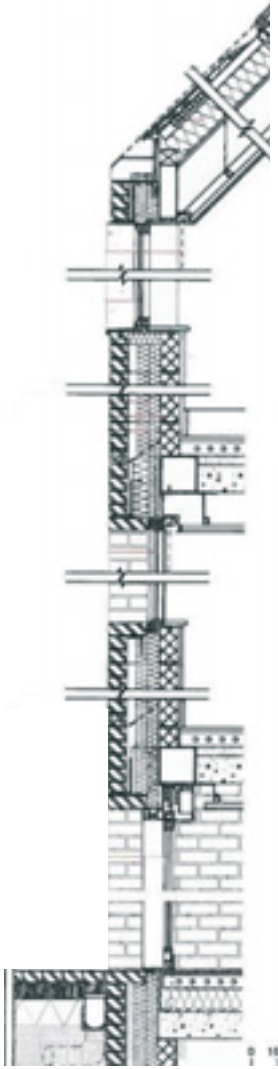
Aluminium Brise Soleil: RAL coloured aluminium static blades to apartment building such as Solinear Halo range.

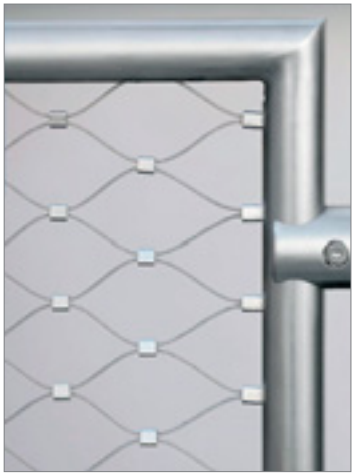
Aluminium Penthouse cladding: RAL coloured concealed fixing aluminium system such as Alucobond sandwich system composite panels.

Raised Walkway to FAV: Ppc aluminium walkway system complete with handrails such as Solinear Solway Access Walkways, handrails such as Jakob AISI316 SS architectural balustrade systems.

Steel Culvert such as Solinear Solway gav mild steel grids.

Pitched Roof Precedents..... Broom Road



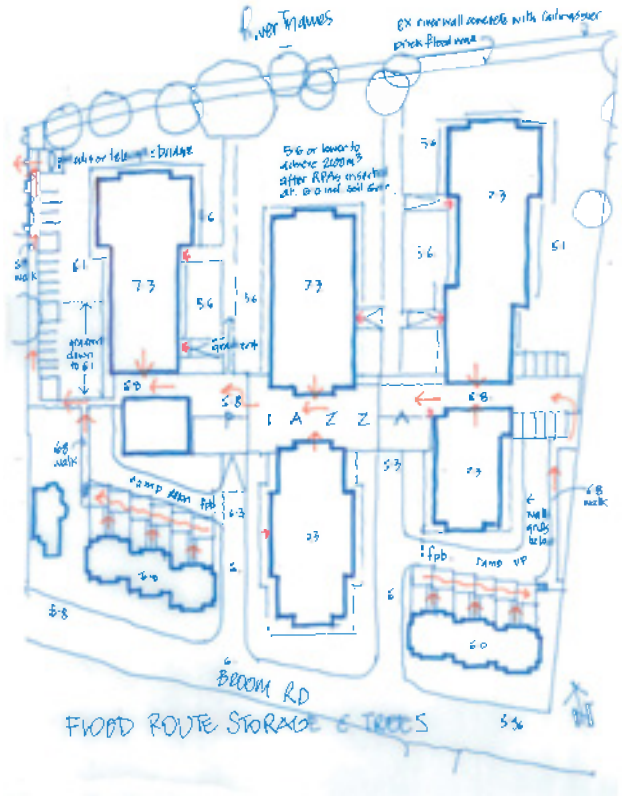


Above: Stainless steel mesh screens specified for selected Ground floor opening windows as part of a robust Secure By Design approach

Landscape

…boulevards leading to a promenade complete with public realm heritage trail

Architect and Landscape Architect have worked closely together on this shared vision of a parkland like green/civic local destination and their specialist landscape contribution is set out on the following pages. Both have also worked closely with the Flood Risk Consultant and below is the flood storage and safe egress/ access strategy. The northern half of the site will perpetuate the existing 2100m³ capacity of the present layout in terms of flood water storage. This part of the site could, in the extreme one hundred year cycle explored in the FRA, be under over 1.0m of flood and to be policy compliant safe access and egress must be maintained and these routes are shown by the arrows converging onto the safe 6.8 AOD level central piazza. The corridor common parts of the apartment buildings are normally of limited travel with the locked doors preventing intercommunication, only to be released by the onsite management in fire evacuation emergency or flood management plan conditions.



Above: north of the piazza could have over 1.0m of flood water stored on it. All apartments are in emergency accessible off the piazza, so while the northern entrances can be sealed off, daily life can continue with access and egress coming off the piazza. The piazza also provides access to the Broom Road properties.

Introduction

The design of the external spaces seeks to provide an integrated transition between the buildings and place within which they sit. The design of spaces reflect the quality and character of the new buildings and acknowledge the importance of the riverside setting, the heritage associated with Teddington Lock and adjacent Conservation Area as well as the relationship between the adjoining Metropolitan Open Land.

The design has evolved with an emphasis placed on both visual and physical permeability which will create a new and positive relationship between the buildings and the River Thames. This will be expressed through the creation of two publically accessible pedestrian boulevards connecting Broom Road with the riverside walkway and gardens.

The existing site contains no green open space though some trees are found along the boundaries and within the carpark alongside the river. The proposed development will see a significant increase in the amount of green, open space and the choice of plant species will provide an attractive setting to the development and residents and visitors will be able to enjoy the seasonal changes associated with specific trees and plants. An emphasis on the use of native species and those that attract wildlife will help to enhance the nature conservation value of the development and respond to the wildlife such as bats and birds found along the river corridor.

Due to the proximity of the site to the River Thames a detailed analysis of water movement relating to both rainwater and potential flood scenarios has been undertaken. The proposed level changes across the site have been carefully considered to address the future potential flood risk and includes routes at higher levels to allow access from buildings to nearby high elevated land. Other measures incorporated into the design include the refurbishment of the existing flood wall; the introduction of safe elevated routes which would only be used in case of emergency and the incorporation of a void between the building and underground car park which will provide a route for water movement under the buildings and out into the open spaces.

Landscapes

A number of ramshead carvings survive from the original Weir House and will be integrated into the Heritage Trail being developed by the Landscape Architects.

A heritage trail will incorporate salvaged blue plaques and stone carvings from the former Weir House that survive in the present day fabric as illustrated above.

A riverside walk would be integrated into the project between the waterside wall, where new railings would be installed and the retained / refurbished flood defence wall to the right of picture

Above: the parkland setting. The front handrail is at the very water edge, while the wall and steps beyond rework the flood defence walls that are perpetuated under the proposal. This involves delicate calculation and even the area beneath the steps is utilised to perpetuate flood risk criteria defences - 70% of units will be dual aspect and none of the single aspect residences are north facing.

Natural play elements using logs and felled trees sourced from the site

Sculptural timber seating around existing trees

Natural play area incorporating various sized boulders, timber logs, fixed pebbles, and sand

1 - Broom Road Frontage

It is proposed to widen the pavement to approximately 2.5m along Broom Road. The buildings will be set back allowing for private gardens which will be bounded by railings with gates and low hedge planting to provide a robust, secure and visually consistent treatment to the development frontage. An area of open space to the front of the central apartment block will be planted new street trees and with a lawn gently banking back towards the building with a formal line of shrubs and herbaceous planting around the periphery of the building.

2 - Shared Surface Boulevards

Connecting Broom Road with the Riverside walkway, the two pedestrian boulevards form key elements of the design. The boulevards can be divided into two zones – the first a shared surfaced route and the second a pedestrian route through areas of lawn and planting. The shared surface section, to the south-east, incorporates the pedestrian path which runs alongside the vehicular routes off Broom Road. This area will be paved using a similar high quality block paving with the pedestrian routes defined by a wide flush kerb in contrasting colour.

3 - The Piazza

At the junction between the shared routes and pedestrian routes a paved 'plaza' is proposed. This will be at an elevated level (part of the exit arrangements in times of flood) and again the use of a high quality surface paving material will assist in acting as a transition point at the junction between a number of routes and framed by several of the new buildings.

4 - River View Boulevards

The two pedestrian boulevards linked across the 'plaza' will lead people to and from the riverside gardens. The paths will run centrally through a formal area of lawn, with planting adjacent to the buildings. Some planting will be within raised planters which will assist in addressing the interface with the building façade and the adjacent lower lawn area. Part of the boulevards will be located above the underground carpark and the design will incorporate levels which sensitively address the requirements of the on-site flood and water management.

The paths will be of a generous width of some 3m and will be surfaced in a bound aggregate finish in a gold/buff to complement the colour of the brickwork on the buildings. Edged with a flush conservation style kerb, the paths will sit a slightly elevated level from the adjacent lawns. Beyond the underground car park, a formal avenue of trees will be planted within the open ground alongside both paths which will frame views and reinforce the connection with the riverside gardens.

5 - Riverside Gardens and Promenade

The area adjacent to the River Thames will become a destination for both visitors and residents, providing a new publically accessible garden and access to the river front.
The boulevard paths will provide access to this space and will connect in a central space that incorporates formal planting and seating. A bank of wide steps will connect with the riverside promenade and are designed to allow views out over the river from both the gardens and new riverside apartments. Formal in layout the steps will integrate with the existing flood defence wall at the required height of 6.1m AOD. The lower level area will is designed to include seating adjacent to the flood defence wall.
The existing flood defence wall will be retained and refurbished and the path will be paved in high quality slabs and with new railings incorporated on both the riverside wall and flood defence wall. The requirement for the flood defence wall to be a minimum of 16m away from the buildings means that to the north-east, the riverside wall will be raised to 6.1m allowing the adjacent gardens to grade back down to the level of the riverside path. The riverside promenade will address the planning policy requiring new development to provide access to the river.

A number of existing trees will be retained along river frontage which will positively contribute to the character of the new development. Elsewhere, new trees will be planted in the gardens.

Young children's play will be creatively incorporated into the gardens and will include both natural play features and timber play equipment which will be set, where required, within reinforced grass, safety surface.

6 - Communal Residents Gardens

Residents will have access to communal gardens to the east and west of the development. To the east, the gardens will combine areas of lawn, shrub planting and a serpentine path will connect two areas of seating. The boundary with the Lensbury will include a new timber fence, shrub planting and the area will benefit from the existing trees.
To the west, the communal area will include ground level car parking, paths and a linear garden with shrub planting, lawn and seats. Both gardens will be secured with managed access for residents only and a railing with hedge will restrict access from the riverside areas.

Planting Strategy

Trees and plants will be specifically selected to complement the development providing year round visual interest and enhancing nature conservation, particularly in respect of the river corridor. Species have also been selected for their tolerance of wet conditions.
Along some of the building facades, a raised planter is proposed and elsewhere shrubs and ground cover will be planted on banks. A native species hedge will be planted along the boundary with the Lensbury Club.

Broom Road
Acer campestre 'Streetwise'
Corylus colurna
Carpinus betulus - clipped hedge

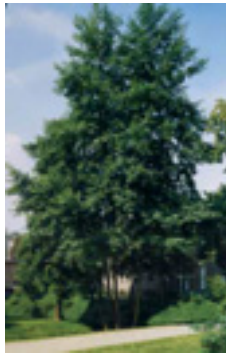
Boulevard
Alnus cordata

Riverside and Communal Gardens
Trees -
Acer negundo
Alnus glutinosa
Betual nigra
Carpinus betulus
Prunus serrula

Shrub and herbaceous -
Amelanchier lamarkii
Asplenium scolopendrium
Cornus sp.
Dryopteris affinis
Dryopteris erythrosora
Epimedium
Fatsia japonica
Hosta sp
Iris sp
Ligularia
Polystichum setiferum
Viburnum sp
Vinca sp


Betula nigra


Prunus serrula


Alnus glutinosa


Corylus colurna


Carpinus betulus


Acer campestre 'Streetwise'


Carved logs for balancing


Rocking disks


Informal logs and stumps for climbing and seating, sourced from trees felled on site.


Informal play boulders

Play Strategy

The provision of playable space will be in both the communal gardens and the publically accessible riverside gardens. Providing a range of play experiences, 'natural' play features will be targeted towards younger children and will include play boulders and timber features set within a reinforced grass matting.

Hard materials and street furniture

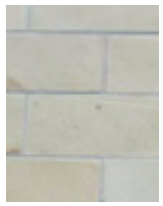
A high quality palette of paving materials, fencing and street furniture is proposed to compliment the buildings and sensitively integrate within the public realm. Paving materials will be predominantly permeable and will include bound gravel paths to pedestrian areas and block paving to shared surfaces. The river walkway will be paved in a high quality natural stone paving slab.
Seating will be limited to the riverside and communal gardens with complementary litter bins provided where required.
Lighting will be low key but designed to ensure a safe level of pedestrian movement avoiding incursion of light to upper floor apartments. Care will also be taken along the river with any lighting being limited to avoid any detrimental impact to bats.
Bollards will be used in shared surface spaces to identify pedestrian /vehicular movement and visitors cycle racks will be located throughout.
Boundary treatments will comprise timber fencing to the east and west. The river wall and flood defence wall will both include a railing in stainless steel. A 1m steel rail with clipped hedge behind, is proposed along Broom Road and a taller steel railing is proposed between the riverside gardens and communal gardens, with controlled gated access.

Surfaces

Permeable block paving to piazza with conservation kerb - eg graphite Mistral by Marshalls

Permeable block paving to access roads, parking bays and pathways with conservation kerb - eg traditional Tegula by Marshalls

Resin bound pedestrian routes with conservation pin kerb edging



Yorkstone to riverside path

Textured flag paving to private paths

Permeable asphalt to car parks and undercroft car park access roads

Lighting

Approximately 5m high column lighting - directional lighting onto paths away from buildings

Powder coated steel bollard lighting - Indicative area subject to design development.

Ballustrade lighting

Recessed ground lighting

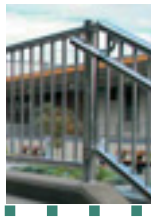
Boundary Treatments

1100m high metal railings and gates to boundary with Broom Road.

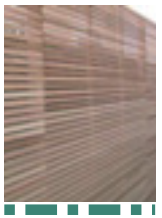
High quality hit and miss fence or slatted timber fence to communal gardens

Other Elements

1100mm high brick wall to compliment building with quality timber panel fence on top

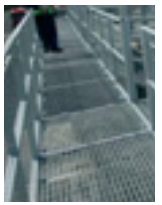


1100mm high railing to riverside walk and ruefurbished flood wall



Slated timber panel fence

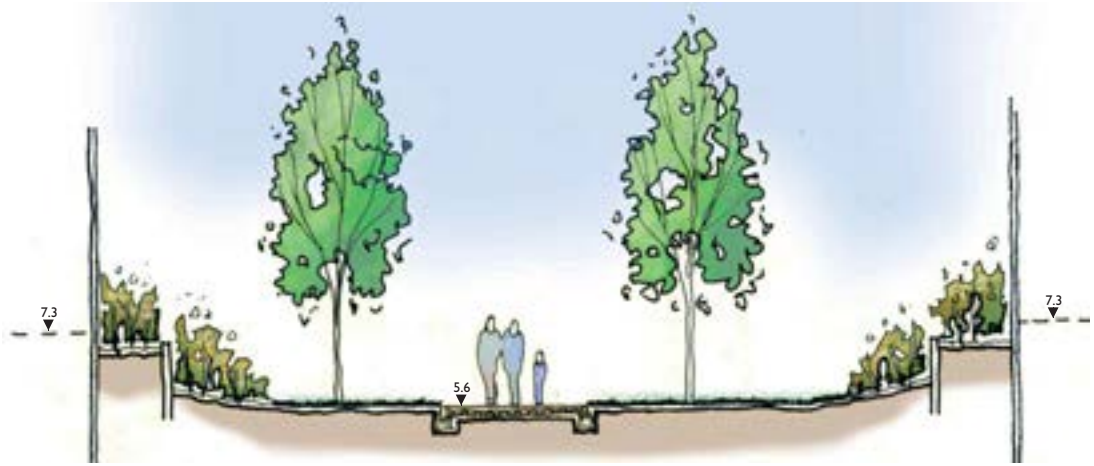
Car park ventilation



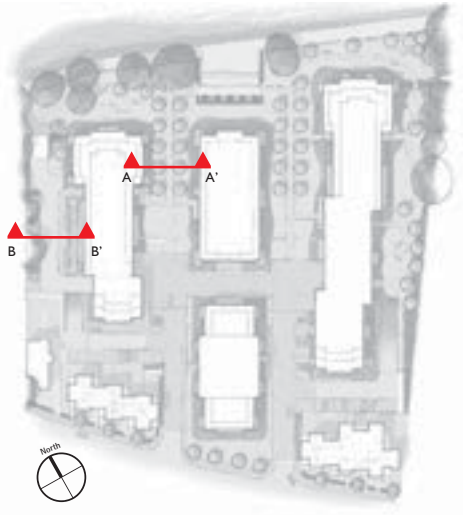
Safe access/egress walkway

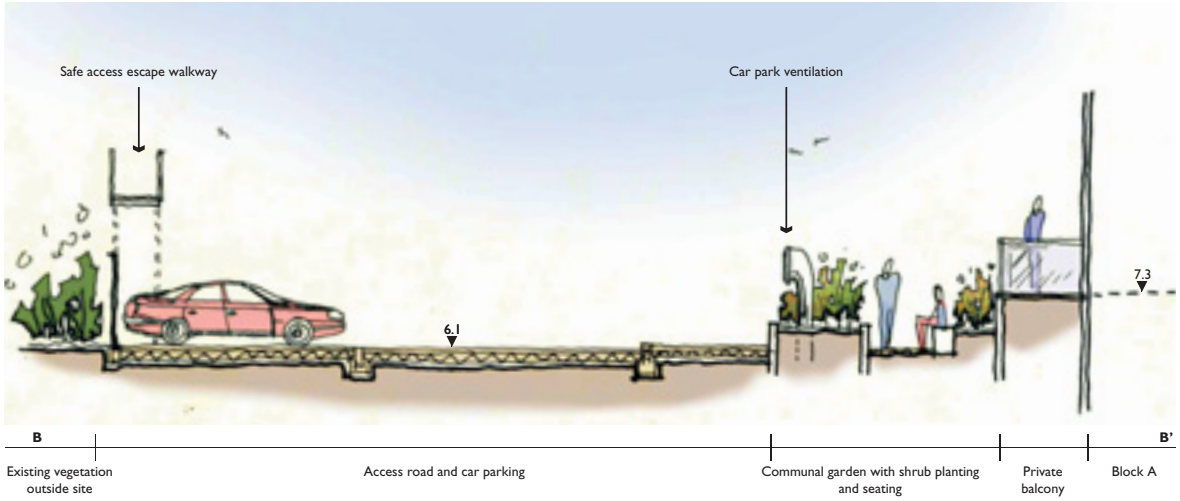
Vegetated entrance to undercroft car park

NOTES 1. All lighting numbers and locations are indicative and are subject to future design development and lighting engineer/designer specifications.
2. Excludes any lighting fixed to buildings
3. Granite setts to delineate thresholds and conservation kerb and pin kerb for edging

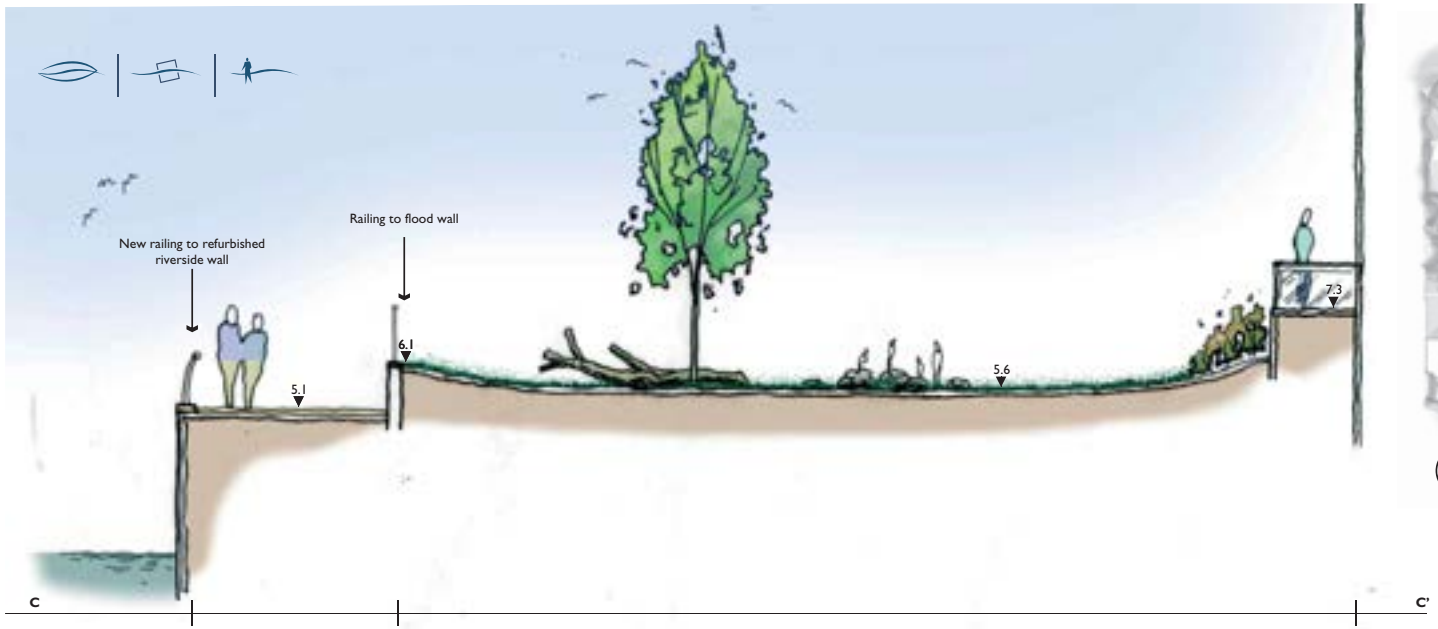


SECTION AA

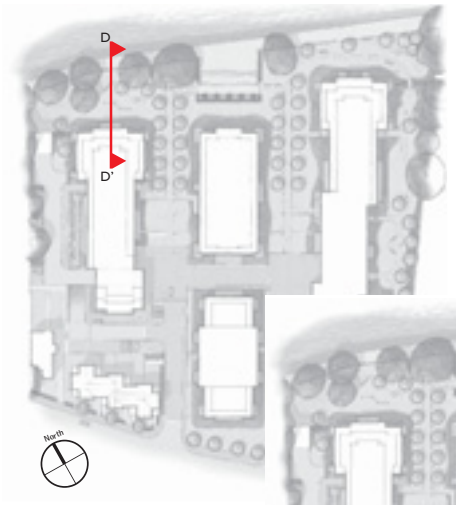


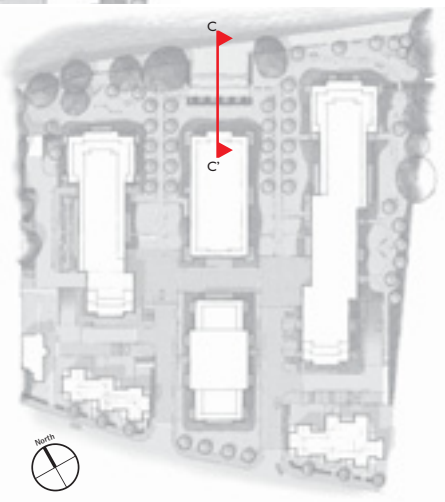


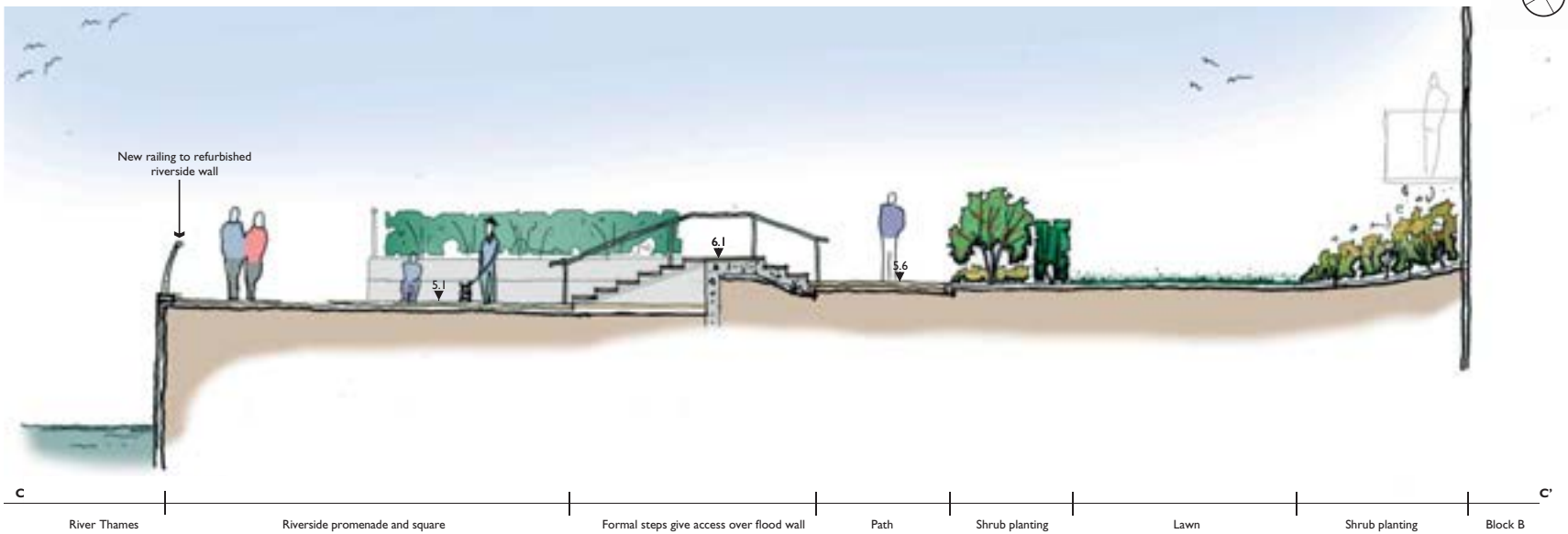
SECTION BB



SECTION DD

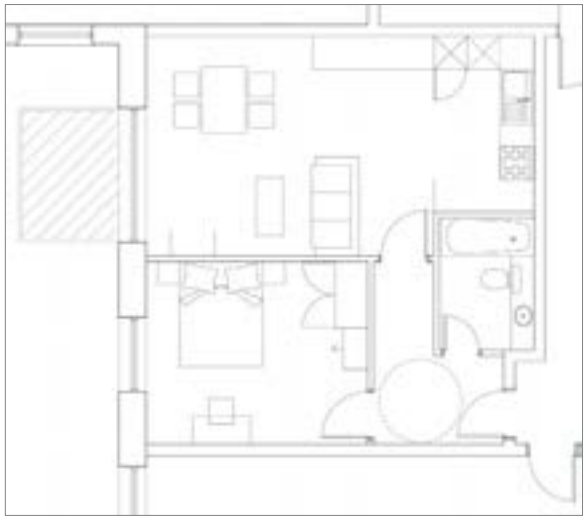






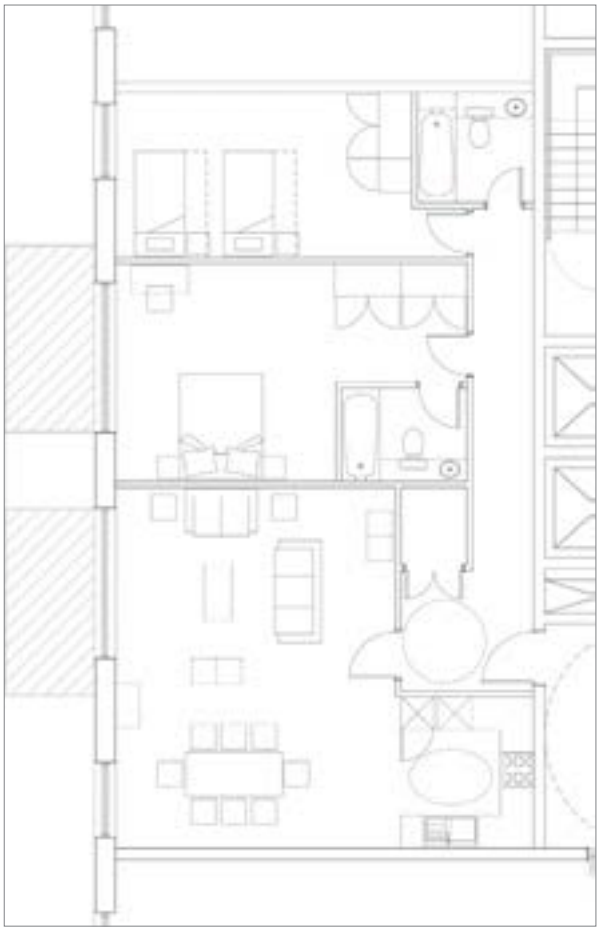
SECTION CC

Accessibility

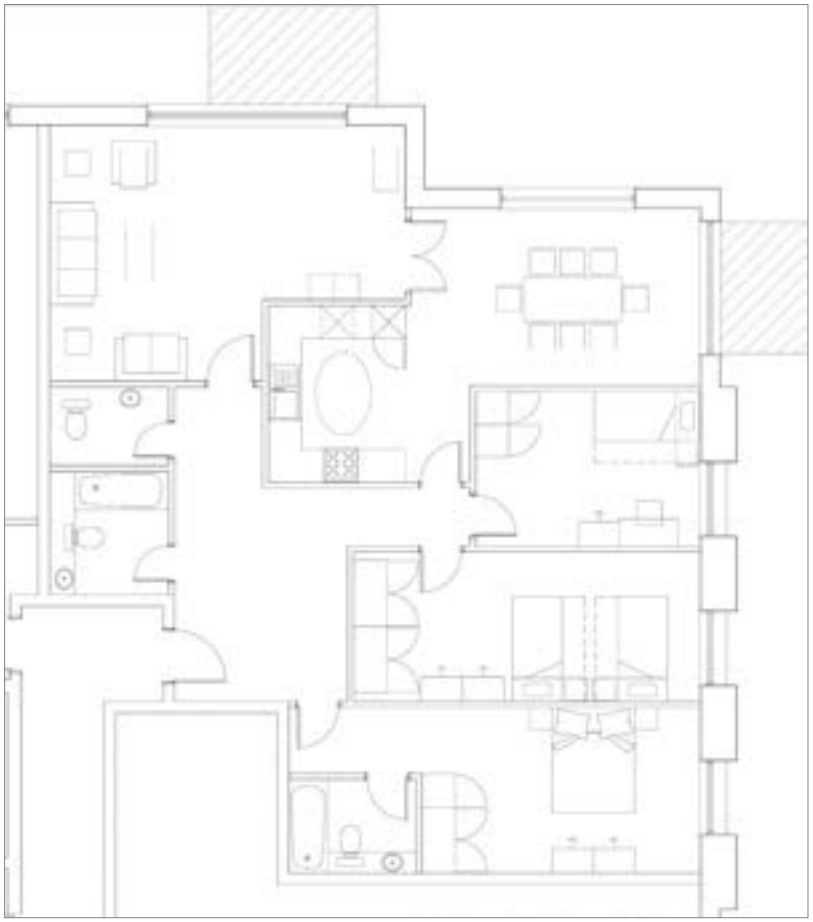


One bed unit

Units are accessible via DDA compliant lifts and corridors are short normally of 5-10m length from each core. Corridors do interconnect as part of the fire and flood plans but these are solid, unglazed, fire rated, acoustic doors kept locked shut electronically and remotely during normal circumstances. They are released by the onsite management in emergency conditions.



Two bed unit



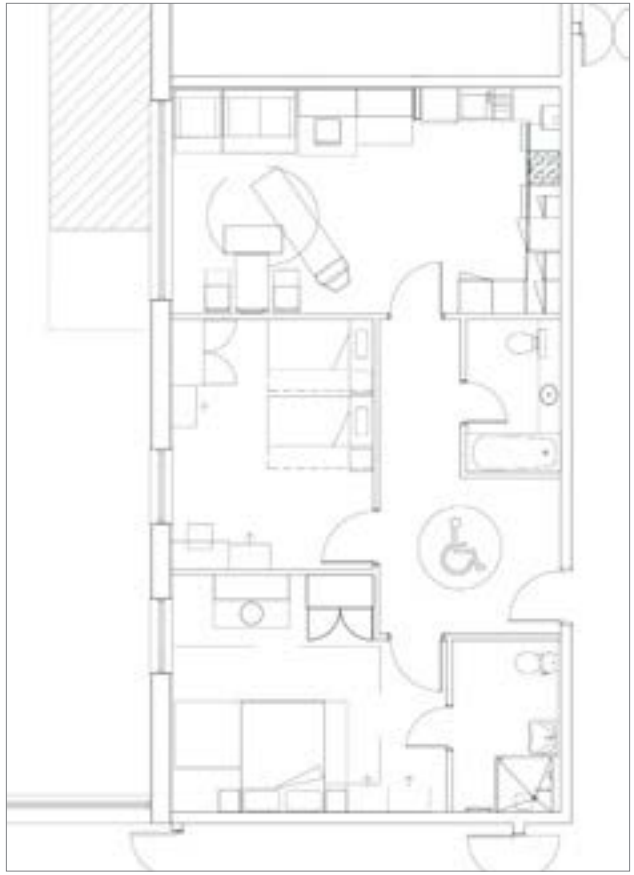
Three bed unit

All units are designed to be fully accessible. All gradients around the site are gently arranged for easy pedestrian use and all buildings are fully accessible and socially inclusive whether being accessed from the basement carpark, where numerous blue badge bays are provided close to lifts and stairs, or on foot at ground level. All lifts are DDA accessible, and at ground floor level feature double sided lifts to give access from entry level to the flood safe 7.3m ffl, a level set so as to cater for freak circumstances such as the widespread flooding nationally of 1893 and 1947.

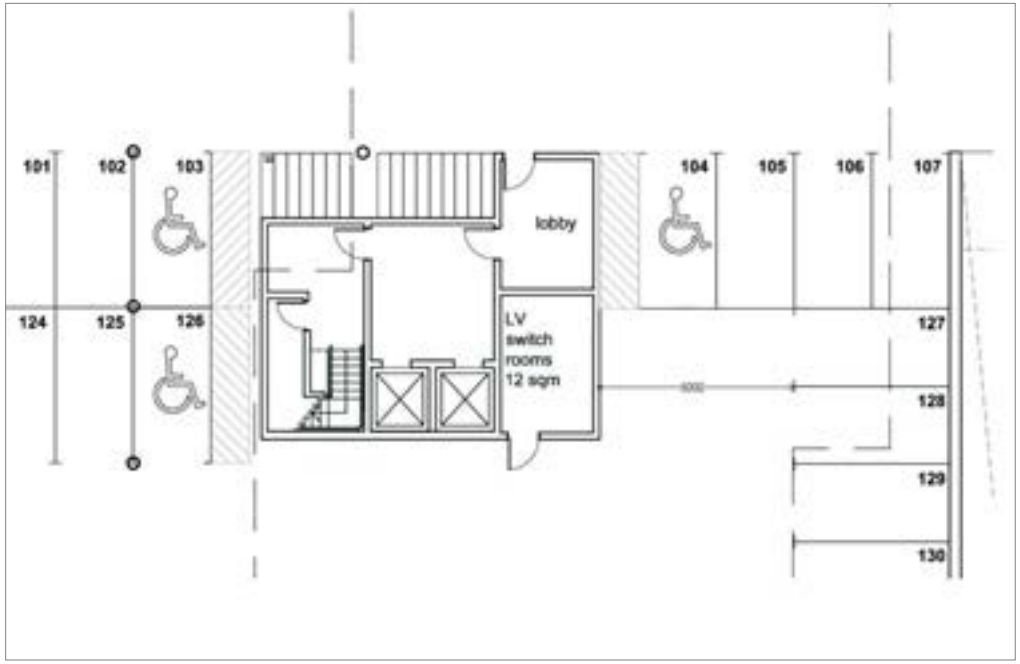
All levels will be well lit and boldly signed for users with visual impairment and 10% of all units, which are all generously sized, well above GLA minimum sizes, are capable of adaptation to suit wheelchair occupiers.

Units are designed to the GLA. SPD and CSH level 4 as well as to Life Time Homes Standards and all feature flush entry, flush balconies and all best practice. Internal partitions are conceived to be non-load bearing thereby optimising the potential for flexible rearrangement to suit future trends. Typical layouts are illustrated opposite while some overall plan layouts are shown in the application drawings section.

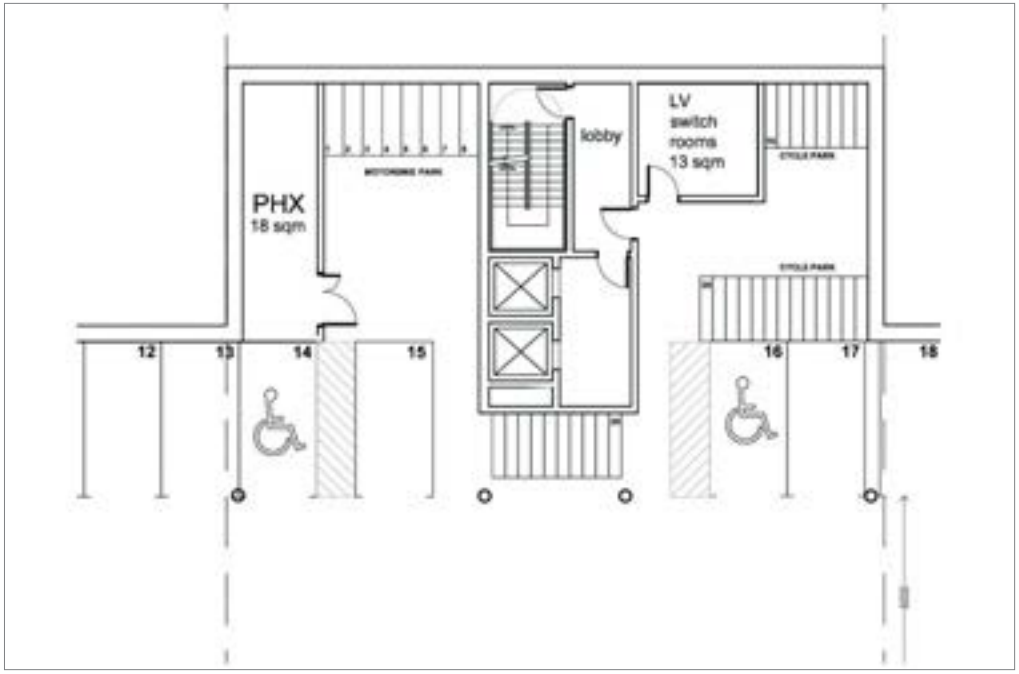
The scheme provides communal space and play space, which like internal floor areas, exceed the minimum guidance. Affordable Housing in E7 contains the correct level of provision as demonstrated by the Viability exercises and these also exceed the GLA space standards. The density at 118 units per hectare (409 hr per ha) also exceeds guidelines and are the natural product of the design quality that from the outset has sought to create a green parkland setting.



Two bed unit for wheelchair using family. All units whether for wheelchair users, others with physical or sensory impairments, or those who would not need any specific facility comfortable exceed the Mayor’s Housing SPG minimum guidelines.



10% of parking spaces are reserved alongside lifts for blue badge holders. All stairs are hobbled, as is the lift lobby. Cycles are secure by virtue of the overall car parks securely and are CCTV monitored. Screen walls are low level and all areas brightly lit and wall and floor surfaces decorated or demarcated.

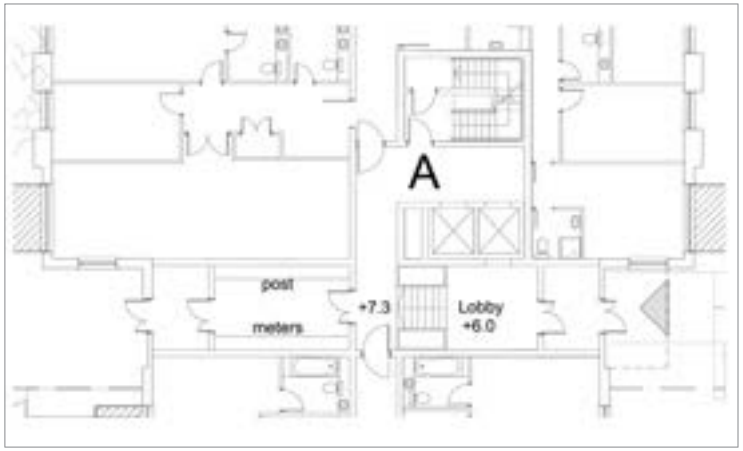


Other Considerations

Secure by Design

The scheme is designed to best practice principles: an ethos applicable to all our work.

- Ground Floors have lobbied entrances, voice link entry for visitors and CCTV
- Ground Floors are generally set at least 1.5 metres above surrounding main ground levels and raised planters act as a buffer to the building line preventing immediate access to windows from would be burglars
- The corridors have secure doors at key points controlled by swipe or similar device
- The car park is secure, well light with allocated bays CCTV cameras and lobbied secure access to lift and stair shafts
- There is a permanent on site management suite
- The layout is clear with minimal concealment opportunity and maximum passive surveillance
- All detailed specifications for doors, locks, windows etc are to SBD standards and rooted in best practice as pioneered by “Safer Places” and developed by such documents as we illustrate.
- Rear gardens to townhouses have high perimeter walls
- Lift controls are coded and post and meters arranged so as to limit further access



Above is shown a typical entrance arrangement. Postmen and meter readers cannot progress beyond the immediate entrance lobby, so tailgating by intruders is restricted in terms of access to the apartment areas. Lifts and stairs are envisaged to have a swipe or code access facility.

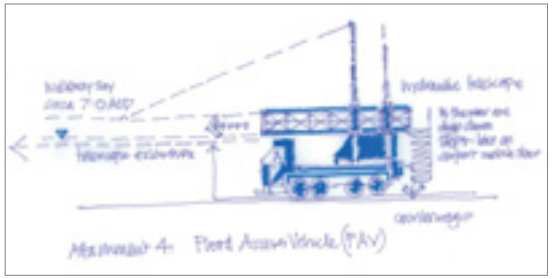
- Selected ground floor windows will have opening sash windows behind a fine S.S. security mesh and will operate in conjunction with the MVHR system described on page 43
- Most cores serve five or six apartments per floor and only in one instance does a core serve the maximum recommendation of eight apartments per core.
- No cores intercommunicate other than in fire evacuation or flood management activation when the permanent on site management team would supervise the automatically locking/unlocking corridor pass doors.

- Passive surveillance is also a strong character of the development with all faces and areas enjoying high levels of passive surveillance from windows and balconies. This in turn encourages quality public realm that feels safe, avoids honey spots, is activated by high levels of transparency, where external glazed balconies help energise the entire proposal.

The detail design has in addition been the subject of consultation with the LBRUT ALO and this is ongoing following an introductory meeting in November

Flood Risk

Hydrologic, leading flood risk consultants, with whom we work regularly, have provided the badged panels on these two pages and detailed compliant procedure followed, including the Sequential Testing by CgMs and the Exception Testing. The ground floors are set above the worst long term flood risk calculated levels and a designated access and egress route defined as illustrated right. There will also be an onsite permanent management suite dedicated to the site as a whole. Flood barriers are provided to protect the car park from ingress and full details are contained in the FRA that forms part of the application supporting documentation.



The FAV is just one option being pursued to provide safe egress and access in the event of a major flood by providing a link at circa 7.00 AOD to the modern ramp that serves the Grade 2 listed foot bridge. A telescopic bridge would extend the circa 25m from the FAV at the site boundary to the ramp, where one section of railing on the ramp could be formed into a deadlock gate to be opened in event of major flood.

Illustrated above is the original concept of the Flood Access Vehicle being developed by the architects with specialist engineers working in the field of hi-tec access systems. It would be kept permanently on site, tested annually and be deployed as part of the Flood Risk Management Plan. Opposite, on the facing page is illustrated one extending access system originally devised by others for a major pop concert.

Subject to satisfactory CDM considerations, other options are also being investigated including a “Burg Buggy”, inspired by the Burg Island courtesy vehicle that crosses the underwater causeway at high tide to connect the island with the mainland. A further investigation involves looking at the issues surrounding a possible reinstatement of a rise and fall jetty, complete with boat/barge link to reinstate a new version of the onetime ferry that operated close by.

Access

Safe access/egress to the site is a fundamental part of existing flood risk planning legislation in the NPPF/PPS25 documents. This is fully addressed in the Flood Risk Assessment that includes an Appendix detailing the Flood Emergency Plan. The Plan addresses the impacts of and response to different types of flooding, ranging from moderate tidal flooding to extreme fluvial flooding.

A safe access/egress route must be provided from all parts of the site to land wholly outside the flood zones, i.e. flood zone 1. Under extreme fluvial flows, safe access is not possible from Broom Road to such areas because of deep and fast flowing water on the flood plain to the south of Broom Road. The prescribed off-site route therefore involves use of the Teddington Lock footbridge to reach land in flood zone 1 on the Ham bank of the Thames. Access from the north-west corner of the site to the bridge is to be provided by a dedicated, bespoke, telescopic bridge, mounted on a rugged heavy-duty vehicle. This will be permanently based on the site and therefore available for deployment at any time.

Within the site, the access route will be at a minimum level of 6.8 mAOD, as discussed and agreed with staff from LBRT and the Environment Agency. The design of the Piazza has therefore used this level as a fundamental part of the design. The safe escape routes from all habitable parts of the site are shown in the figure below. Safe access is also available from the basement using lifts/stairwells that are themselves protected from flooding.

Figure 1 Access/Egress route – external to site

T
Design & Access Statement: Flood Risk & Drainage

Drainage

The proposed development incorporates a series of drainage mitigation measures. Their proposed design and layout results from iterative discussions between the Lead Architect, Landscape Architect and Flood Risk Consultant. All drainage measures have been incorporated into the design in an unobtrusive manner. The principal measures are reviewed in the Table below:

Measure	Purpose	Design impact
Flood storage	To match or better existing flood storage	Storage is in the landscaped area between the main Buildings and the realigned tidal defence wall. Flapped outlets have been included within the wall to allow the area to drain after a flood event.
Realigned tidal defence	To improve the river frontage whilst maintaining the existing level of defence.	The alignment of the wall will be subject to minor change to improve the accessibility to and safety of the river frontage.
Permeable surfaces	Reduce surface runoff	Wherever possible on site, permeable surfaces will be used for paths and access roads. This will allow rainwater to infiltrate into the soil, rather than flowing into storm drains.
Soakaways	Reduce surface runoff	Soakaways will be used to attenuate runoff from the impermeable surfaces. They will be located under the flood storage area between the main buildings and the tidal defence wall and therefore hidden from view.
Rainwater harvesting tank	Reduce surface runoff and treated water use	This tank will be located in the basement adjacent to Building C band therefore hidden from view.
Green roofs	Reduce surface runoff	There will be approximately 150 m^2 of green roof on Buildings A and D.
Culvert under Piazza	Maintain flow path	This culvert will be largely hidden from view, with grilles covering the inlet and outlet.

Flood Risk

The existing site is in flood zone 3a and has been subject to flooding. The requirement for safe design of the site to protect it from flooding has featured throughout the design process. The principal measures are reviewed in the Table below:

Measure	Purpose	Design impact
Finished floor levels at 7.3 mAOD	This is 300 mm above the 1% level with allowance for climate change.	The finished floor levels of the principal buildings (Blocks A, B, C, D and Affordable Housing) have been set at 7.3 mAOD as a fundamental design feature.
Flood resistance	To protect properties with FFL that is below 7.3 mAOD.	For the Town Houses and Weir Cottage, FFL will be below 7.3 mAOD. Flood resistance measures will therefore be incorporated into the design to prevent ingress of water. These will include flood proof doors to front and rear elevations plus non-return valves on drainage connections and masonry treatments.
Flood barriers for car park	To prevent ingress of floodwater to basement car park.	Movable flood barriers will be installed across the entrance and exit to the basement car park. These will be deployed in accordance with the Flood Emergency Plan by Site Management staff.
Demountable flood barriers for entrances from gardens to Buildings A, B & C.	To prevent floodwater from entering stairwell and lift area	Demountable defences will be stored in the basement car park and deployed in accordance with the Flood Emergency Plan by Site Management Staff. They will comprise posts and boards and can therefore be deployed to the required level.

Figure 2 Access/Egress route within the site

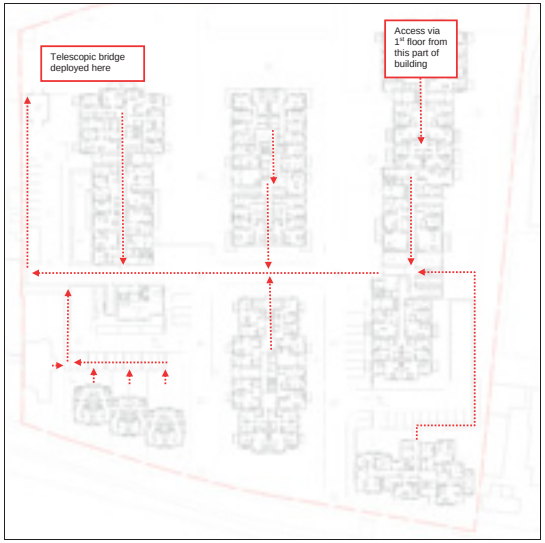
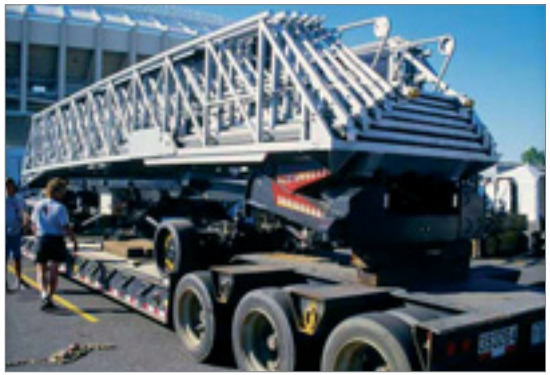
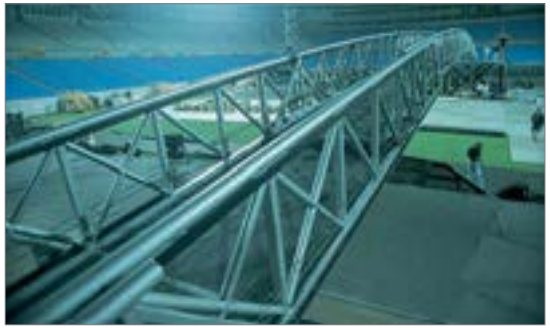


Table 1 Description of Access/Egress Route

Distance (m)	Description	Hazards
-	Walkway within site	Set at 6.8 mAOD on central Piazza and along western boundary to north-west corner.
0 to 25	Telescopic Bridge	Set at level of 6.8 mAOD, but able to traverse raised flood defences at 6.9 mAOD
25 to 40	Teddington Lock Footbridge	Ramp on left bank, with constriction in walkway to restrict unauthorized use.
40 to 205	Bridge over lock channel	Elevated well above lock with ramps as alternative to steps.
205 to 465	Path through park	Minimum ground level at base of bridge is 7.2 mAOD. No lighting in park.





Above Right: The “Burg Buggy”

Above: These routes are only activated in the event of flood.

Far Right: A similar concept, but on a larger scale of the telescopic FAV bridge. An extending mobile bridge developed by others for the celebrity access way to a major public pop concert. There has been no on site flooding during the severe rains of winter 2013/2014.

Sustainability & Services

1. Teddington Riverside Servicing Strategy

1.1 Existing Infrastructure

Water Services
Based on the record drawings from Thames Water, a 5" municipal mains water pipework currently runs along Broom Road to the south of the site. There is a 5" mains water pipe connection from Broom Road which serves the existing studio complex. There is also a separate 4" mains water pipe from Broom Road which serves the essential fire services. There are no existing municipal water pipework shown running below the site.

Drainage
The public sewer runs along Broom Road from the North West down to the South East. There are no existing public sewers shown crossing below the proposed site.

Gas Services
Record drawings from Southern Gas Networks indicate the municipal gas pipe to be running along Broom Road. There is a single gas connection from Broom Road that enters the site from the South West. There are no municipal gas pipework crossing below the proposed site.

Telecoms
The main BT cable ducts run along Broom road. There are also distribution BT cable ducts running along the west and north of the site. There are no main BT cable ducts running below the existing studio indicated on the record drawings.

Fibre optics
Record drawings from Virgin Media indicates fibre optic cables running along Broom Road. There are currently two fibre optic connections indicated on the record drawings. One connection is south of the site from Broom road and the second connection enters from South West of the site and connects to the west of the existing studio.

Mobile Mast
Initial search indicates there are currently two mobile phone base station located within the vicinity of the proposed site. The mobile masts will need to be temporary re-located during the construction of the proposed site. The proposed new location and temporary re-location of the mobile masts will need to be agreed with the mobile mast operators.

Electrical Services
The national grid search did not indicate any services within the vicinity of the site. However, record drawings from UK Power Networks indicates a number of high voltage connections to a substation located towards the north of the site.

1.2 Substation

New substations will be required to satisfy the electrical demand of the development. Subject to further design development and liaison with the utility supplier, an initial load estimate indicates that two double substations will be required. The substations are to be located on the ground floor with 24 hour access and will be naturally ventilated via louvres located at high and low level, in accordance with utility supplier's specific design requirements.

1.3 Electrical Distribution

Each block will have an individual low voltage switch room located within the basement and will distribute electricity to the apartments via risers within core area. Each apartment will be separately metered. These areas and their final locations will be subject to further design development. The tenants supplies will be taken from Ryefield panels separate from the landlord's loads. The landlord's electrical distribution will be served separately by a metered panel.

Life Safety and Critical loads will be supported by a dedicated back-up generator and an online UPS system (for security only) which will ensure power to essential services in the event of a failure . The generator is to be located within the basement level with dedicated intake and exhaust ducts/louvres. The generator flue will rise to and terminate at least 1m above roof level or any structure that is within 2.5m of the flue.

1.4 Security & Access Control

The buildings will be provided with an entry phone voice recognition system at all main entry points that will provide secure access for all residents.

General CCTV coverage will be provided at all main entrances, the car park areas, and pertinent external areas. The system will be monitored by the main site concierge. A remote dial out facility to a control centre and a panic alarm will be provided at the concierge.

1.5 External Lighting

The site will be provided with an external lighting system that is operated via photocell sensors and a time clock , a manual override will also be provided. The lighting system will be designed so that the light pollution is to a minimal level and to comply with the 'dark sky guidelines', and also reduce disturbance to bats at night. The car park lighting design will be provided in compliance with 'secured by design'.

1.6 Gas

A new gas intake room will be required for the development to serve the main energy centre. The gas intake room will be naturally ventilated in accordance with the Institution of Gas Engineers and Managers (IGEM) regulations.

There is currently no provision to supply gas to the apartments or houses for cooking or heating. Gas is provided to the main energy centre only.

1.7 Heating

Based on an initial desktop study on the district heating infrastructure within close proximity of Teddington Riverside, there is currently no existing or planned district heat network available for the site to connect to (refer to the sustainability statement for further details). As such it is proposed that a new central energy centre with combined heat and power (CHP) facility will be provided to supply heating and hot water to the individual apartments and houses via heat interface units.

The new energy centre is currently envisaged to be located at basement level and mechanically ventilated. Free access shall be provided for relief of any explosion overpressure to the atmosphere via the car park and the ramp. It is estimated the energy centre will consist of 4No. 500kW high efficiency natural gas-fired condensing boilers to satisfy peak heating and domestic hot water demand.

In-line with the sustainability strategy for the development, a 95kW$_e$/160kW$_{th}$ natural gas-fired CHP system with approximately 15m^3 thermal storage will form part of the central heating system to cover the base heating demand.

Boiler and CHP flues will rise to and terminate at least 1m above roof level or any structure that is within 2.5m of the flues.

A low temperature hot water circuit will flow from the energy centre to a plate heat exchanger in each apartment block. The plate heat exchangers are to provide hydraulic separation between the various buildings. Each flat will then be provided with a heat interface unit to serve final heating terminal units and domestic hot water. The houses and the larger 3 or 4 beds apartments will be provided with a heat interface unit coupled with local storage in order to meet the higher instantaneous hot water demand. Smaller apartments will have a heat interface unit only providing domestic hot water instantaneously.

1.8 Cooling

To minimise the carbon footprint of the development, it is currently envisaged that the development will generally be naturally ventilated by means of openable windows. The openable windows will be sized to ensure sufficient purging of the apartments can be achieved in-line with approved document Part F of the Building Regulations.

The penthouse apartments will be provided with comfort cooling. The external condensers serving the penthouse will be located within an acoustic enclosure on the terrace to each penthouse.

Where openable windows cannot achieve the required purge ventilation rate, local split type cooling systems may be required to avoid overheating in the summer. Any local cooling systems required will be selected to ensure the efficiency of the system complies with the latest Domestic Building Services Compliance Guide.

1.9 Ventilation

Individual dwelling mechanical ventilation units with heat recovery (MVHR) will meet the general ventilation requirements in accordance with Part F of the Building Regulations. Small inlet and outlet grilles will be integrated into the façade of each apartment/house.

Kitchens within the apartments will generally be provided with a recirculation cooker hood. The penthouses and houses will be provided with a dedicated cooker hood extract with separate discharge to outside or roof level complete with a weather louvre.

Internal escape staircases within the apartment blocks will be provided with a smoke extraction system to the staircase lobby and internal escape corridors with makeup air from the top of the staircase to ensure the staircase is free of smoke. Perimeter staircases will be naturally ventilated.

The underground car park will be mechanically ventilated by a series of impulse fans and two exhaust systems located remote to the driveway ramps used for air make-up. The fans are to be fire rated and used for smoke ventilation in the event of a fire to comply with approved document Part B of the Building Regulations. The exhaust fans will discharge away from the residential accommodation.

Refuse stores will be provided with dedicated extract system and exhaust air externally away from any circulation area.

1.10 Water Services

Cold Water
The existing water supply will be relocated/upgraded to serve the new cold water booster set and break tank located in the basement. From the new boosted set, separate metered pipework will distribute water to all apartments.

A central 25m^3 central insulated cold water tank will be required to provide approximately 12 hours storage for the development. A multi-stage cold water booster set will provide boosted potable cold water to the apartment blocks. The houses will have independent water mains services. Incoming water supply to the central storage tank will be conditioned and treated in-line with the water regulations.

The cold water tank room will be cooled by a split unit to prevent the room overheating.

Sprinklers

There is currently no sprinkler system envisaged for the development subject to design development with fire engineers and agreement by the fire officers.

Hydrants

Hydrant points will be provided at the fire vehicle access points feeding dry riser breeching inlets to the individual blocks subject to agreement with the Fire Brigade.

1.11 Above Ground Drainage

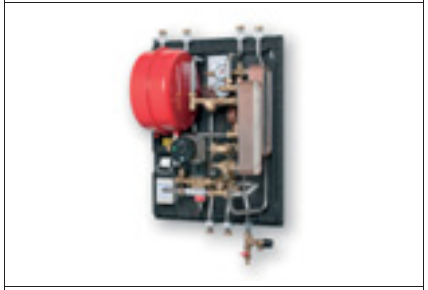
The soil and waste system to be provided for the apartments will be a single stack system dropping through the building serving bathrooms and kitchens, collecting discharge from all sanitary/kitchen appliances.

The layout of bathrooms in each apartment will be arranged to minimise offsets on vertical stacks. Soil and waste pipe work will be installed with adequate gradients to prevent blockages and noise when used. All stacks will be lagged acoustically, with fire sleeves at each floor.

Energy Centre - Combined Heat and Power Unit

Energy Centre – Centralised Boilers

Apartment MVHR Unit



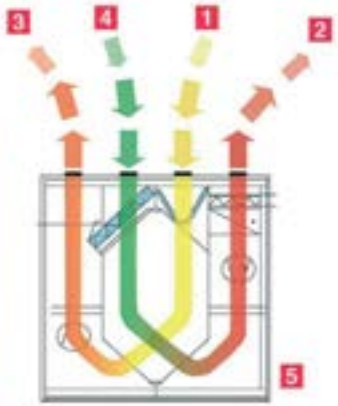
Heat interface unit (without casing)

Underground Car Park Impulse Fan

Dark Sky Compliant External Lighting

DOMESTIC HOMES AND COMMERCIAL PREMISES IN THE UK ARE BEING BUILT AS AIRTIGHT AS POSSIBLE TO CONSERVE ENERGY AND REDUCE THE AMOUNT OF FUEL WE USE TO HEAT THEM. HOWEVER, A SEALED BUILDING NEEDS AN EFFECTIVE FORM OF VENTILATION, MECHANICAL VENTILATION WITH HEAT RECOVERY SYSTEMS (MVHR) PROVIDE THE SOLUTION TO THIS PROBLEM.

Above & Right: A MVHR system is anticipated as an integral part of the detailed design to satisfy carbon reduction criteria and Part L of the Building Regulations.



Sunlight Daylight

The scheme is well lit and has no impact of neighboring properties which are virtually totally blind on their faces onto the application site as evidenced opposite. The various apartment buildings have well spaced separation to both the boundaries with neighbors and between each on site building. There are no single aspect north facing homes and a high proportion of dual aspect homes (139 out of 219). All rooms are well lit and look out onto sunlight surfaces. A negligible single figure number of rooms are marginally under lit due solely to the presence of balconies over. The sunlight/daylight consultant has given the scheme his full endorsement.

The rear gardens on the main road frontage are supplemented by raised sun decks, over the car ports. These decks are at 9.00 AOD and have timber screens to circa 1.8m high. The sun decks are similar on both sides of the development and form part of the flood risk egress and access plan for those residences.

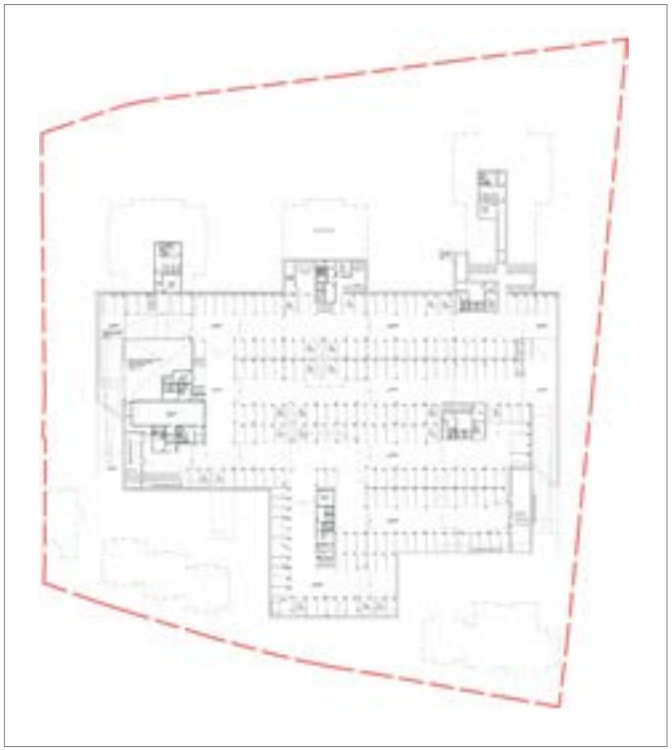
Above: high summer and midday on 21st June showing shadowing is negligible

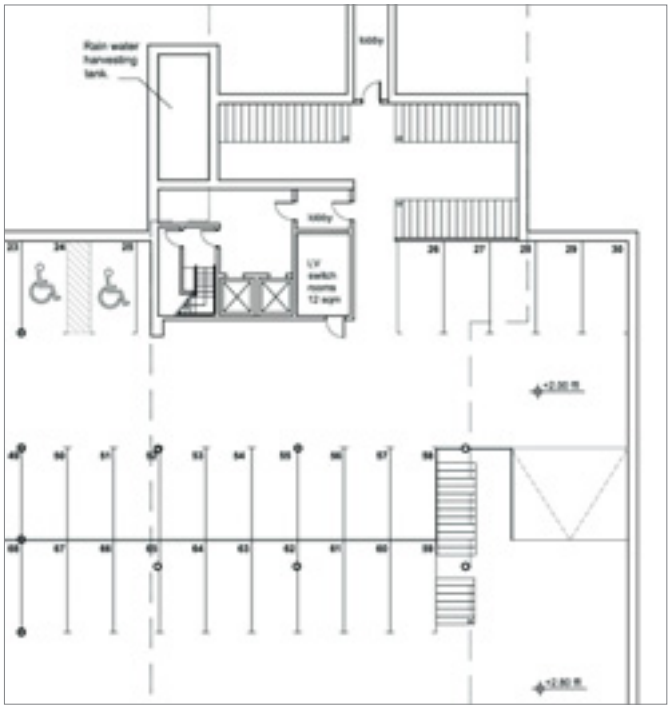
The gardens of the Town Houses onto Broom Road are split level with both front and rear gardens, allied to a sundeck over the car ports, which is endorsed in a timber screen. A similar facility applies in the case of the affordable unit apartments also onto Broom Road, which in addition features a roof level secure play space.

Car Parking & Cycles

Secure Cycle storage is provided in the flood proofed basement, allocated zonally to the various lift and stair cores above. These areas, like the entire car park, are remotely CCTV supervised and occasionally patrolled. They can be accessed via the secure entry ramp which has double control at both top and bottom of ramp. Alternatively they are accessed direct from the lift cores at ground level. Ample allocated provision is integral. One space per one and two bed units and two spaces for larger homes. The townhouses and one Broom Road apartment building have their own cycle storage and garaging facility, again secure and overlooked with excellent passive surveillance.

There are bays for electric and dual fuel vehicles. All allocated bays will have pop up barriers, and 10% of bays will be for blue badge holders. Other areas in the basement have motorcycle parking bays. Headroom will be 2.4m clear of obstruction.





The car park is entirely below ground (not a semi basement as was wrongly attributed by one consultee nor are ventilation grilles visible to pedestrians). As such the car park is fully concealed, secure and flood proof and designed to the very best of Park Mark standards. Again the lifts and stairs are anticipated to be swipe or code controlled.

Drawing Schedule

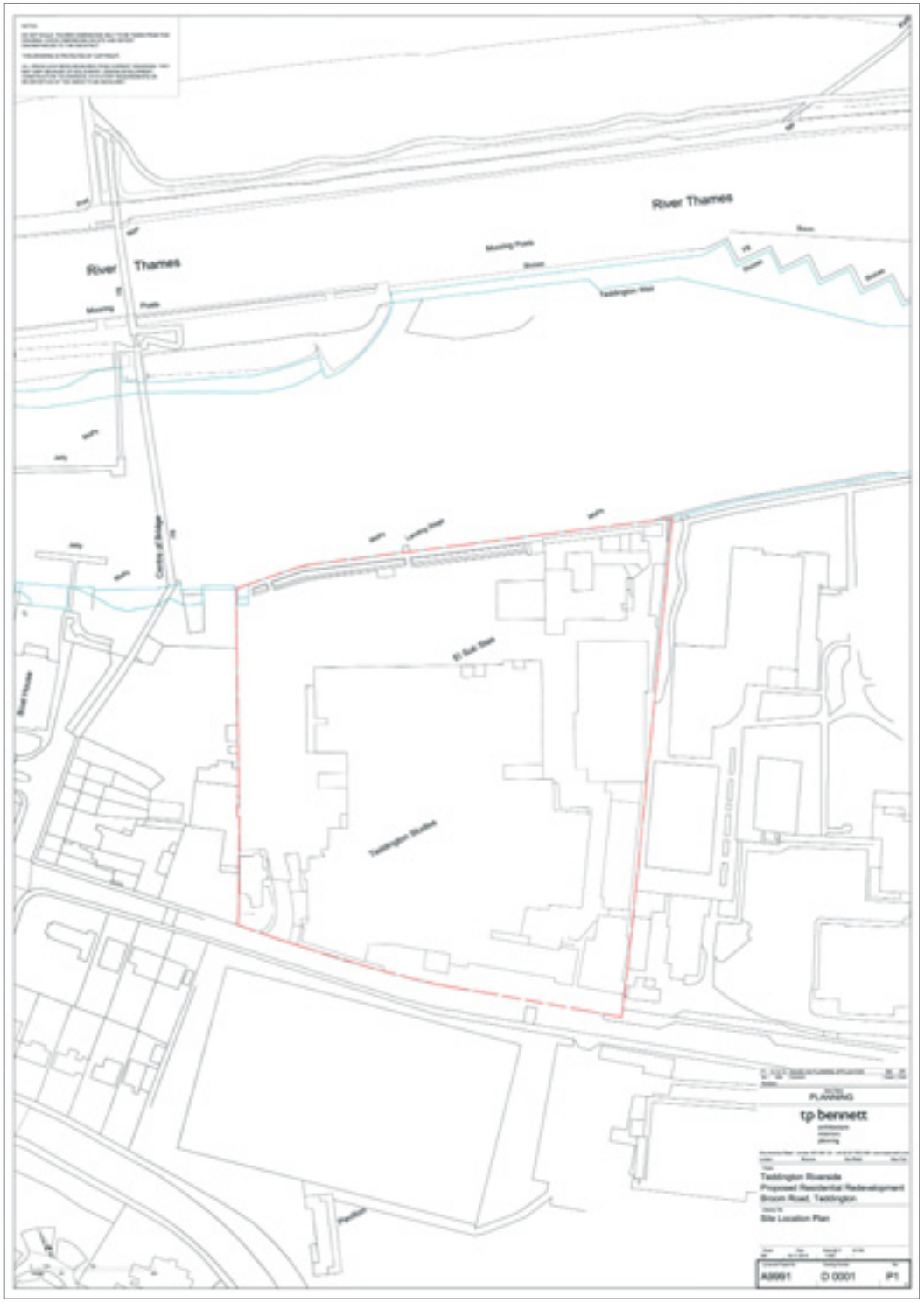
Drawing No.	Revision	Drawing Title	Scale
D Series	P1	Planning Drawings	
A9991 – D – 0001	P1	Site location plan	1:500
A9991 – D – 0002	P1	As proposed site location plan	1:500
A9991 – D – 0003	P1	As proposed site plan	1:250
A9991 – D – 0099	P1	Basement plan	1:250
A9991 – D – 0100	P1	Ground floor plan	1:250
A9991 – D – 0101	P1	First floor plan	1:250
A9991 – D – 0102	P1	Second floor plan	1:250
A9991 – D – 0103	P1	Third floor plan	1:250
A9991 – D – 0104	P1	Fourth floor plan	1:250
A9991 – D – 0105	P1	Fifth floor plan	1:250
A9991 – D – 0106	P1	Sixth Floor Plan	1:250
A9991 – D – 0107	P1	Roof plan	1:250
A9991 – D – 0500	P1	Car park ramp IN	1:100
A9991 – D – 0501	P1	Car park ramp OUT	1:100
A9991 – D – 0200	P1	Proposed elevation 1-1	1:100
Proposed elevation 2-2	1:250	Proposed elevation 1-1 // Proposed elevation 2-2	1:250
A9991 – D – 0201	P1	Proposed elevation 3-3	1:250
Proposed elevation 4-4	1:250	Proposed elevation 5-5 // Proposed elevation 6-6	1:250
A9991 – D – 0202	P1	Proposed elevation 5-5	1:250
Proposed elevation 6-6	1:250	Proposed elevation 9-9 // Proposed elevation 10-10	1:250
A9991 – D – 0203	P1	Proposed elevation 7-7	1:250
Proposed elevation 8-8	1:250	Comparative elevation 3-3 // Comparative elevation 4-4	1:250
A9991 – D – 0204	P1	Proposed elevation 9-9	
Proposed elevation 10-10	1:250	Perspectives 2 of 2	
A9991 – D – 0210	P1	Comparative elevation 1-1	1:250
Comparative elevation 2-2	1:250	Wall section 1-1	1:20/1:50
A9991 – D – 0211	P1	Comparative elevation 3-3	1:20/1:50
Comparative elevation 4-4	1:250	Existing Elevations 1-1 // Existing Elevations 2-2	1:250
A9991 – D – 0212	P1	Perspectives 1 of 2	
A9991 – D – 0213	P1	Perspectives 2 of 2	
A9991 – D – 0300	P1	Section 1-1	1:250
A9991 – D – 0301	P1	Wall section 1-1	1:20/1:50
A9991 – D – 0302	P1	Wall section 2-2	1:20/1:50
A9991 – F – 0200	P1	Existing Elevations 1-1	
Existing Elevations 2-2	1:250		
A9991 – F – 0201	P1	Existing Elevations 3-3	
Existing Elevations 4-4	1:250		
2459 – TS - 01		Trees to be retained/removed	1:250
2459 – LA - 01	P1	Landscape layout	1:250
2459 – LA - 02	P1	Illustrative landscape masterplan	1:250

Above: a more traditional streetscape onto Broom Road, respecting Wier Cottage, enhancing back of pavement lines which are widened across the site.

Below: the parkland riverside setting and opposite the central higher piazza maintaining a safe strategy in flood management terms and beyond the lower level which could hold up to 1.0m or so of flood water, still well below the 7.3 ffr of the apartments.

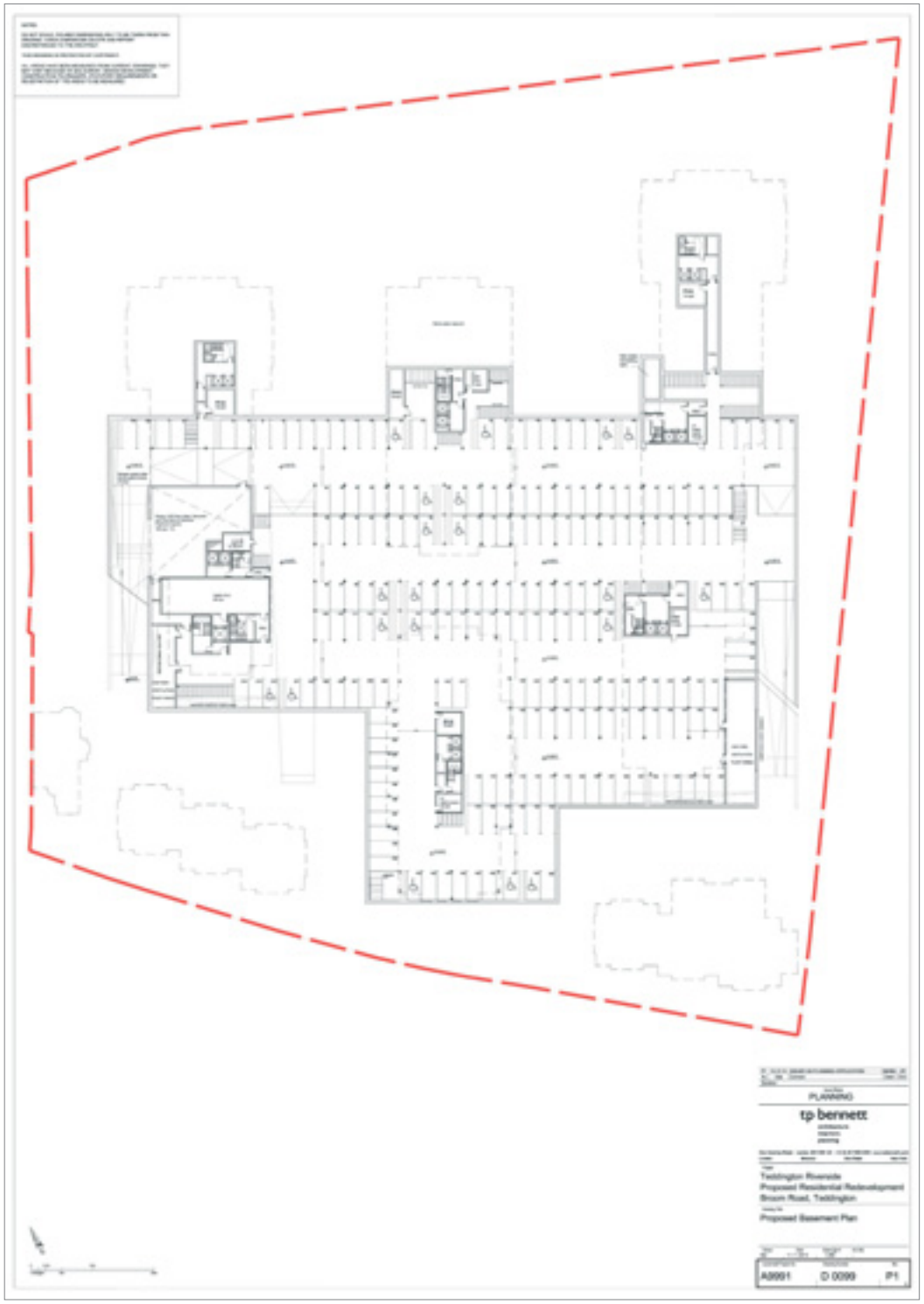
Above: one of the central boulevards. The northern areas are designed to hold over 1m of flood water as part of the need in policy terms to match the existing flood storage capacity.

Application Drawings




River Thames
River Thames
PLANNING
tp bennett
Twickington Riverside
Proposed Residential Redevelopment
Broom Road, Twickington
Proposed Site Location Plan
A9991
D 0002
P1


River Thames
Broom Road
St. Mary's Sports Ground
PLANNING
tp bennett
Teddington Riverside
Proposed Residential Redevelopment
Broom Road, Teddington
Proposed Site Plan
A999/1
D 0003
P1


PLANNING
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Teddington Riverside
Proposed Residential Redevelopment
Broom Road, Teddington
Proposed Basement Plan
A9991
D 0099
P1


River Thames
Broom Road
PLANNING
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Twickington Riverside
Proposed Residential Redevelopment
Broom Road, Twickington
Proposed Ground Floor Plan
A9991
D 0100
P1


PLANNING
tp bennett
Teddington Riverside
Proposed Residential Redevelopment
Broom Road, Teddington
Proposed 1st Floor Plan
A9991
D 0101
P1


PLANNING
tp bennett
Twickington Riverside
Proposed Residential Redevelopment
Broom Road, Twickington
Proposed 2nd Floor Plan
A9991
D 0102
P1


PLANNING
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Teddington Riverside
Proposed Residential Redevelopment
Broom Road, Teddington
Proposed 3rd Floor Plan
A9991
D 0103
P1


PLANNING
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Teddington Riverside
Proposed Residential Redevelopment
Broom Road, Teddington
Proposed 4th Floor Plan
A9991
D 0104
P1