

5.0 SUSTAINABLE CONSTRUCTION CHECKLIST

In accordance with the requirements of the Richmond Planning Department, the 'Sustainable Construction Checklist' has been applied to the project and principles of sustainability adopted in the design of the project in order that it create minimum environmental impact. Specialist consultants have been employed to prepare assessments and reports where required, as identified below.

Environmental Rating of Development :

Code for Sustainable Homes (See Appendix 2 for report and findings) :

An accredited Code for Sustainable Homes assessor, Trinity Construction Consultancy Ltd, has been appointed to prepare a Preliminary Assessment of the scheme. The proposals achieve a Code Level 3 rating.

Energy Statement

Energy Assessment: (See Appendix 2 for report and findings)

An accredited Energy Assessor, Trinity Construction Consultancy Ltd, has been appointed to prepare an Energy Assessment Report for the scheme.

5.1 ENERGY USE & POLLUTION :

5.1.1 Need for Cooling

The building fabric will be insulated to Part L standards, thus providing a high level of insulation to walls and roofs.

Shading has been provided from terraces generally, so as to prevent solar heat gain into living areas, and windows will be double glazed with high performance solar glazing.

All rooms will have openable windows to allow for natural ventilation, therefore the requirement for cooling to the building will be achieved through natural sources.

5.1.2 Heat Generation

It is proposed to use energy efficient gas combi-boilers for providing heating and hot water to individual apartments, together with under floor heating, in order to reduce CO2 emissions.

5.1.3 Pollution : Air, Noise & Light

It is proposed to implement a Considerate Constructors Scheme during the construction phase, and the contractor for the project will be required to produce method statements of how construction dust, particularly during demolitions, will be controlled. Wetting down the structure during the demolitions will be a requirement.

The site is located on a busy public highway and subject to both traffic and aircraft noise. The proposed development will have high performance double glazing which will protect the occupants from external ambient noise levels.

The requirements of Part E of the Building Regulations will be met so as to ensure that the building is acoustically treated between different apartments, both in the floor and wall construction. Robust details will be used to implement this.

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5.2 TRANSPORT STATEMENT

In accordance with the LBRUT Development Management Plan, Appx.4, the site incorporates car parking facilities for each of the 9 proposed dwellings, sited within a lower ground floor parking area. One of the car spaces is suitable for disabled use.

There is also provision for 12 on-site cycle parking spaces, in excess of one for each of the 9 residential units, located in a secure area in the lower ground floor parking area, to Council recommendations.

Electric Cars :
Provision will be made in the lower ground floor area for electric charging points for the use of electric cars.

Cycling & Walking:
There are numerous cycle routes in the area, thus promoting the use of the cycle in lieu of cars or public transport. This is in line with the UDP aims of "promoting sustainable transport choices, including reducing the need to travel ..."

Links with Transport Networks
The proximity of a good network of public transport train and bus links together with cycle pathways make the site highly suitable for residential development. Public transport links provide several suitable alternatives to the car and would encourage the use of sustainable means of transport.

It should be noted that the site is in a CPZ zone, with easy access to a range of amenities including shops and services. This has the advantage of promoting "better utilisation of town centre sites", achieving higher quality designs and potentially reducing car ownership and usage.

Nearby British Rail Stations comprise:
- Mortlake – provides access to all stations between Waterloo, Kingston & Richmond
- Barnes Bridge - provides access to all stations between Waterloo, and Hounslow

Nearby buses outside the site are:
- No.209 – provides access to Hammersmith, which connects with the London Underground service.
- No.419 – provides access between Richmond & Hammersmith, both of which connect with the London Underground service.

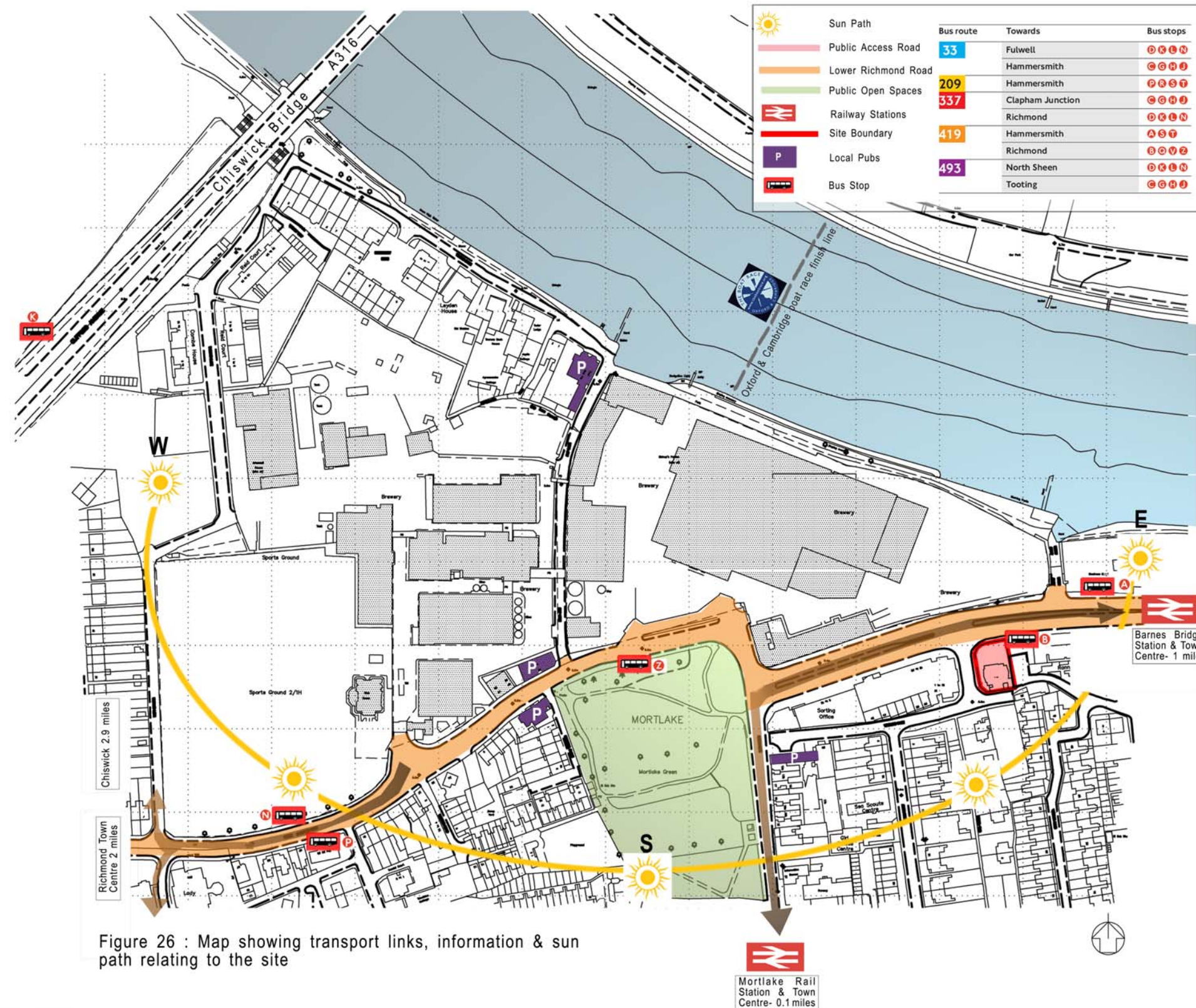


Figure 26 : Map showing transport links, information & sun path relating to the site

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5.3 BIODIVERSITY :

Site Ecology

The site presently consists of a single building plus hardstanding areas for car parking at grade. There is no vegetation or potential for wildlife presently on the site.

The site is not within a conservation area, neither is it within close proximity to parks or areas where there are likely to be bat or wildlife habitats.

An earlier site ecological report from the 'Ecology Consultancy Ltd.' reported no signs of bats or protected species of animal, nor of plant life.

Development of the site would not lead to the loss of any garden or green space .

Trees :

At present the site is devoid of any landscaping, therefore there would be no loss of trees as a result of the proposed development. Whilst there are existing trees within the public footpath, these would be unaffected by the development.

The development proposals include for planting of soft landscaping to the frontage as well as to the rear of the site, and a screen of planting to the eastern boundary, thus enhancing the present biodiversity of the site.



Figure 27 showing nature of existing site

5.4 FLOODING & DRAINAGE

Flood Risk Assessment (See Appendix 3 for report and findings)

A flood risk assessment has been prepared by Herrington Consulting Ltd.. The report shows that, whilst the site lies within a zone 3A flood risk area, the actual risk factor is not significant. This assessment has been made on the basis of hydro-dynamic modeling of nearby sites, prepared by Herrington Consulting and as described in the FRA, which shows that there is no risk of flooding to the site.

Site Drainage & Surface Water Run-off:

There is no hard landscaping proposed at ground level, therefore all surface water to the ground level of the site will be absorbed by the soft landscaping.

Provision has been made within the basement for storage of surface water from the roof and terraces of the proposed development, as can be seen in the basement floor plan. It is envisaged that this water will be utilized for servicing the soft landscaping to the front and rear of the site. Any residual water would be released slowly into the main drain system in accordance with requirements of the Council's drainage policies.

5.5 IMPROVING RESOURCE EFFICIENCY

5.5.1 Reduction in Waste Generation

Recycling of Site Waste

During the construction process, a 'Considerate Contractors' scheme will be adopted to ensure best practice site management principles.

The contractor will be required to recycle demolition materials wherever possible, and to utilise recycled equipment such as hoardings and scaffolding site where feasible.

Site Contamination: (See Appendix 4 for report and findings).

The 'Special Projects Team' of Richmond Borough Council were consulted to assess the likelihood of contamination on site, and their findings confirm that the site is not determined as 'contaminated' as defined by Part IIA of the Environmental Protection Act 1990.

Recycling :

Provision will be made for recycling facilities during the occupation of the building within a central re-cycling area. Bins for the residential units, for mixed paper, card & cartons, and mixed containers are allowed for in accordance with the Borough's collection policies. These are sited in the refuse area adjacent the vehicular access to the site.

The Council's waste management team have been consulted and recycling facilities over and above the Council's requirements have been provided within the proposed development.

5.5.2 Reduction in Water Waste

Water Saving / Recycling:

It is intended to provide water storage under the building for storing and recycling rainwater for irrigation purposes in the ground level landscaped areas as described in Section 5.4 above.

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5.6 Design Standards & Accessibility

5.6.1 Residential Design Standards

The proposed apartments have been designed in accordance with Section 4 of Richmond Council's SPD 'Residential Development Standards', Appx. 4 of the Development Management Plan for car and cycle parking, as well as Appx 1 'Space Standards Study' of the 'London Housing Design Guide'

In particular, residential accommodation has been designed according to the following criteria :

1 bed flat :

- NIA = 45 sq.m min.
- Kitchen/dining/living area = 22 sq.m min.
- Double Bedroom = 12.8 sq.m min.
- Single Bedroom = 8.4 sq.m min
- Private outdoor amenity space = 5 sq.m min. (1-2 person dwellings)
- Car Parking = 1 space p. 1-2 bedrm. Apartment.
- Cycle Parking = 1 space p. 1-2 bedrm. Apartment

2 bed flat :

- NIA = 60 sq.m min.
- Kitchen/dining/living area = 24 sq.m min.
- Double Bedroom = 12.8 sq.m min.
- Single Bedroom = 8.4 sq.m min
- Private outdoor space = 6 sq.m min. (3 person units); 7 sq.m. min (4 person units)
- Car Parking = 1 space p. 1-2 bedrm. Apartment.
- Cycle Parking = 1 space p. 1-2 bedrm. Apartment

5.6.2 Lifetime Home Standards

In accordance with Core Strategy Policy CP14 of the Richmond UDP, all the new dwellings will be built in accordance with the 16 'Lifetime Homes' design criteria in order to facilitate use of the development equally for the elderly or wheelchair users as well for young families with pushchairs. As also required, 10% of the dwellings will be built to wheelchair standards.

It will be seen from the floor plans that access to the building and to individual apartments is made easier with the use of ramps, lift, and level thresholds. All apartments , except for Flats 8 & 9, are on a single level thereby permitting ease of access to all parts of the apartment. Living spaces and bathrooms provide sufficient space to manoeuvre to enable access to all facilities. Flats 8 & 9 will have the facility for a 'soft spot;' within the floor structure to allow for a platform lift between floors if required.

5.6.3 Accessibility for Wheelchair Users :

The 'Design for Maximum Access' guidelines prepared by Richmond Borough has been considered during preparation of the development proposals, and will be adopted during design development. The requirements of Part M of the Approved Documents will be complied with during the design development stage.

Pedestrian Access: A ramped entry from the street to the building entrance will be provided to ensure full accessibility for wheelchair users.

Disabled Lift Access : A lift, suitable for wheelchair users, is proposed to access the entrance floor of each flat from the ground floor entrance. The lift will descend to the basement car park, where provision has been made for a disabled car parking space, so that wheelchair users can access all parts of the building including car park.

6.0 PLANNING OBLIGATION STRATEGY

Account has been taken of the Richmond Borough's 'Planning Obligation Strategy' and it is recognised that contributions may be required under Section 3, 'School Places' and Section 5, 'Health', due to the proposed new residential development. It is also recognised that a contribution under Section 7, 'Transport' may be required due to the emphasis on use of public transport rather than cars for the site.

It is envisaged that these contributions will be discussed and agreed during the planning process.

7.0 CONCLUSION

The proposed scheme for the introduction of 9 new residential units in the Borough will provide an opportunity to increase the Borough's housing stock on a brownfield site in the most efficient way possible, bearing in mind the particular constraints of this site.

The proposals accord with the national and local development policies in terms of sustainability. They make use of existing transport and amenity infrastructure, optimize the use of scarce land resources, and at the same time contribute little to generation of traffic load or pollution.

In summary, the benefits of the proposals are to:

- Increase local residential accommodation by provision of 9 new units
- Increase density, thereby optimizing scarce land resources
- Utilise the already existing local infrastructure of shops, schools, clinics and transport in an efficient and sustainable manner, in keeping with government policies.
- Provide modern accommodation built to the latest energy efficient standards and in accordance with DDA recommendations
- Provide enhanced amenities for cyclists, recycling facilities and a 'secure by design' building.
- Provide sustainable development in line with national and local government policies.



Figure 28 : Proposed perspective from Mortlake High Street