Appendix 1

Paragraph 18 of the Greater London Authority
Planning Report D&P/LDF24/LDD04/04
Dated 28 August 2006
Consultation on Pre-Submission Document


Strategic issues

The Development Management Policies Document is still not in general conformity with the London Plan in relation to its affordable housing policy. The report also raises issues with regards to student housing, transport and the site allocations.

Recommendation

That the Mayor agrees to submit the comments set out in this report to Merton Council as the formal response to the Pre-Submission consultation, and that Merton Council be advised that the Proposed Submission documents are not in general conformity with the London Plan in relation to the above strategic issues.

Context

1. On 15 July 2013 Merton Council consulted the Mayor of London on the above document. This report sets out information for the Mayor’s use in deciding what comments to make. The consultation period ends on 30 August 2013.

2. The Local Development Framework together with the Mayor’s Spatial Development Strategy ("London Plan") and the National Planning Policy Framework ("NPPF") provides the essential framework for planning at the borough level. The “development plan” in London for the purposes of section 38(6) of the Act is:

   • The London Plan (2011); and
   • Development plan documents produced by the borough councils (and saved unitary development plan policies in transitional period); and
   • Neighbourhood Plans as appropriate.

3. There are three types of Local Development Documents ("LDDs"): Development Plan Documents (DPDs); Supplementary Planning Documents ("SPDs"); and Statements of Community Involvement. All of the documents now being consulted on are DPDs with development plan status, which will be subject to an examination to test the ‘soundness’ of the plan.
4. The NPPF states that a plan is “sound” where it is positively prepared, justified, effective and consistent with national policy.

**The Mayor’s role**

5. All DPDs must be in general conformity with the London Plan, in accordance with Section 24(1)(b) of the PCPA. Section 24(4) of the PCPA requires boroughs prior to submitting it to the Secretary of State to request the opinion in writing of the Mayor of London as to the general conformity of a DPD with the London Plan and advises that they may request the opinion in writing of the Mayor as to the general conformity of any other LDD. The Mayor issues this opinion on DPD general conformity in accordance with Section 24(5) of the PCPA. Further to this Regulation 18 requires general consultation at the pre-submission stage. By virtue of Regulation 21(2) of the Regulations the Mayor has 6 weeks from the date of the request to provide his opinion on whether the DPD is in general conformity with the London Plan.

6. Mayor of London’s comments will be made available on the GLA website www.london.gov.uk.

**Previous representations**

11. The Mayor made representations on the previous stage 3 consultation stage of the plan preparation process on 27 February 2013 (planning report PDU/LDF24/LDD04/03) and representations were made by officers under delegated authority to the “Issues and Options” consultation stage on 23 March 2012. A number of the issues that were raised at these stages have been satisfactorily addressed; however, the following issues remain unresolved.

**Proposed representations**

12. The Merton Local Development Framework will replace the adopted 2003 Unitary Development Plan. It will set the Council’s approach to the planning of the borough up to 2023 and will consist of the Core Strategy, Proposals Map, Development Control Policies and Site Specific Allocations Documents and a number of supplementary planning documents. Some of the UDP policies have already been superseded by Merton’s Core Planning Strategy 2011, the South London Waste Plan and the London Plan 2011. The remaining policies will eventually be superseded by the final version of the Sites and Policies DPD and Proposals Map.

**Strategic Issues**

**Affordable Housing**

13. The document’s approach to affordable housing is not in general conformity with the London Plan and is not a basis for informing sites and policies on affordable housing. It is disappointing to see that the Council has not addressed the strategic issues raised by the GLA at the previous stage 3 consultation in respect to limiting average rent levels on the affordable rent product. As stated in our previous responses, setting rent caps on affordable rent (including relet conversions) at 65% of market rent could constrain delivery and prevent the maximisation of affordable housing delivery.

14. The London Plan Revised Early Minor Alterations (REMA) and the revised London Housing Strategy emphasise that the priority for affordable housing is maximising supply and increasing delivery, having regard to the availability of resources. The Secretary of State’s letter of 13 August 2013 which supports the publication of REMA also states that “imposing rent controls through local planning policies would inter this objective and risk letting Londoners down by limiting the supply of...
affordable housing, and reducing the choice for tenants." The nationally set definition of the affordable rent product as set out in the National Planning Policy Framework makes clear that affordable rent is up to 80% of market rent.

15. Merton Council’s Policy DM.H3 ‘Support for affordable housing’ and justification text which seek to impose local, lower rent ceilings through the planning system would compromise the flexibility necessary for the product to deliver affordable housing in different circumstances and in turn will not be compliant with national guidance and would not be in general conformity with the London Plan (Policies 3.11 & 3.12).

16. Officers would welcome further discussion regarding this non-conformity issue with the Council prior to its Examination In Public.

Student Accommodation

17. The amendments to the Policy DM.HF Student Housing are still considered unsatisfactory to address the issue raised in previous representations. The borough should not restrict student housing provision to meet the needs of particular borough but should meet strategic needs as well as local ones in line with London Plan Policy 3.8 Housing Choice. It is therefore suggested that the reference to specific south London boroughs in paragraph (vii) be removed and replaced by “catters for recognised educational establishments within a reasonable travelling distance.”

Wimbledon Greyhound Stadium

18. The GLA’s previous issues concerning the potential loss of an active greyhound stadium use at the site remain and would raise strategic policy concerns regarding the protection of London’s cultural heritage. The intensification of the site for uses that would support the continuation of the greyhound stadium would be supported, however, the provision of a substantial out of centre retail store as an enabling development at this site, would not be in conformity with London Plan policy.

Transport

19. Transport for London (TfL) generally supports the Site and Policies Plan DPD, but is disappointed that some important transport issues have not been addressed in the changes made to the document between the Issues and Options and Pre-submission stage, and as such the document is considered contrary to London Plan Policy 6.2 and the Land for Industry and Transport SPG (September 2012). The following comments set out those issues with regards to each site:

Site 01 - “P3” Hartfield Road Car Park, Wimbledon

20. TfL still has concerns over the proposal for the above site as the Sir Cyril Black Way Bus Stand is located within its boundary. As per TfL’s previous representations, this is a very important asset and must be protected from any potential development if bus services in the area are to be adequately provided for. TfL requires the site proposal be amended to safeguard the bus interchange, unless or until a suitable alternative is identified which results in no overall loss of capacity or operational convenience. Until the policy is amended to include this safeguarding, TfL object to this site allocation which is contrary to London Plan Policy 6.2 and the Land for Industry and Transport SPG (September 2012).

Site 65 - Kenley Road Car Park, Morden

21. TfL previously identified this site as a potential location to provide additional bus standing space as required to meet additional demand in the area. Following these comments the Council has published a draft Morden Station Planning Brief. Within the wider Morden Station site, bus stops and
standing must be protected unless a suitable alternative site within the town centre can be found which does not result in a loss of capacity or convenience for bus passengers. TfL maintains that the sites should be allocated for this purpose.

Site 69 – Sibthorpe Road, Mitcham

22. This site includes London buses driver facilities and toilets and any redevelopment of this site must maintain or replace these facilities. TfL requests that the policy wording includes safeguarding of these facilities in accordance with London Plan Policy 6.2 and the Land for Industry and Transport SPG.

General comments

23. In Chapter 9, Transport, Policy, point A, the 'Community Plan Infrastructure Levy' is mentioned. It is assumed that this is referring to the Community Infrastructure Levy, however, this should be clarified.

24. It should be noted that for any applications located within 50 metres of London Underground tunnels and Infrastructure London Underground Infrastructure Protection must be consulted. This would appear to be relevant for sites 5, 8, 12, 16, 57, 58, 59, 61, 65.

Legal considerations

25. All LDDs must be in general conformity with the London Plan in accordance with Section 24(1)(b) of the Act. This is a key test of the soundness of plans. The Mayor's representations made at this stage will go forward to the examination in public and must include an opinion regarding general conformity with the London Plan.

26. The fact that a development plan document is inconsistent with one or more policies in the London Plan, either directly or through the omission of a policy or proposal, does not, by itself, mean that the document is not in general conformity. Rather, the test is how significant the inconsistency is from the point of view of delivery of the London Plan.

27. Any expression of opinion from the Mayor that the Draft Sites and Policies Plan and Draft Policies Map DPD is not in general conformity will be treated as a representation to be dealt with by the Inspector at the examination. The Planning Inspectorate has stated that the view of the Mayor’s opinion ‘will be given considerable weight’ and that a lack of general conformity with the London Plan will need to be fully justified on the basis of local circumstances, based on relevant evidence.

28. The Mayor must also state why the policy is not in general conformity and his reasoning behind that opinion. The Inspector will determine whether he or she supports the opinion and recommend accordingly. The Mayor should provide the Inspector conducting the examination with any necessary additional information as appropriate, either through a representative or in writing according to the requirements of the Inspector. At the time of writing the date of the examination is not known.

Conclusion

\footnote{Development Plans Examination – A Guide to the Process of Assessing the Soundness of Development Plan Documents (The Planning Inspectorate, 2005), paragraph 1.2.6}
29. The Development Management Policies document submission version contains many positive aspects. The document however, remains to be not in general conformity with the London Plan in relation to the Council’s position on affordable housing, and specifically the new policy DM.H3, which proposes to cap affordable rent levels at 65% of market rent. Further discussion would be welcomed in relation to this point and those issues raised in respect of student housing, transport and the allocated use for the Wimbledon Greyhound Stadium site in order to bring a document forward that is in line with national guidance and the London Plan.

For further information, contact Development & Projects:
Stewart Murray, Assistant Director - Planning
020 7983 4721 email stewart.murray@london.gov.uk
Jonathan Finch, Case Officer
020 7983 4799 email jonathanFINCH@london.gov.uk
Appendix 2

Hume Consulting Submission

To be Treated as a Private & Confidential Commercially Sensitive Submission to Future Merton 18th April 2013
Our Ref. SMC/CMG

Thursday 18th April 2013

Mr Andrew Wood
Future Merton
London Borough of Merton
12th Floor Civic Centre
London Road
Morden SM4 5DX

Re: Wimbledon Greyhound Stadium

Submission of representations to the Sites & Policies DPD (Stage 3) – Wimbledon Greyhound Stadium (Site 37)

Dear Mr Wood

Further to our submission dated the 26th February 2013, we are pleased to attach, on behalf of Hume Consulting Ltd, our reports demonstrating the viability of our stage 3 Submission for the Wimbledon site, Plough lane. From our earlier discussions you are aware this entire document is commercially sensitive and it is submitted under the strict understanding and agreement that it shall remain private and confidential. It shall not be published on your website, or disseminated to any parties outside your planning office at this juncture. Our client is prepared to agree to the release of text describing the Submission; subject to them have prior approval of the text. Having considered how best to prepare such a synopsis we have concluded that you are best placed to prepare a draft text based on our submission and we can advise if any element of your synopsis is commercially sensitive. With this in mind we would be grateful if you would prepare a text for "publication", plus an indication of how this text will be published. We shall go through this with Hume Consulting Ltd and confirm approval (or if necessary highlight areas considered commercially sensitive), and quickly reach an agreed text.

We have worked closely with all our professional advisors throughout the process to date, and following our last meeting, we have asked our advisors to formally articulate their advice in specific reports to assist your deliberations. These reports include:

- Retail Assessment Report (dated 12th March 2013 by Turley Associates)
- Detailed Flood Risk Scoping Report (dated 25th March 2013 by RPS)
- Transport Enhancement Options Report (dated 17th April 2013 by RPS)
- Order of Cost Report (dated 17th April 2013 by Sammon Quantity Surveyors)
- Outline Development Appraisal (dated 17th April 2013)

We have provided an outline development appraisal, which contains the important caveat that the actual purchase price of the site is unknown to us at this stage (this further emphasises the confidential nature of our submission). We are aware that the site was purchased as part of a larger transaction for 6 greyhound tracks, of which Wimbledon was the central component. We do know that the original purchase price was well in excess of its true value in today’s market.
Added to this, the site will be costly to develop due to the flood plain and traffic requirements. Thus, when these extra costs are coupled with our desire to provide increased sporting activity at the site through provision of world class greyhound stadium and squash club, plus, low cost car-parking for St George's hospital staff, the development is marginal but we believe deliverable.

Our scheme is commercially deliverable subject to planning approval for the total package which we have submitted, with the commercial/residential element being required as enabling works for the world class sporting facilities. Our assumptions include that planning approval for the thirty five thousand square foot sales area commercial unit as illustrated on our submitted scheme and an element of affordable housing (within an overall four hundred unit development) shall be acceptable due to the delivery of the increased sporting activity and creation of a world class Greyhound Stadium which will serve as a further tourist destination venue for the borough. Our figures are based on the assumption that the site may be purchased for a realistic commercial value in today's market.

We would stress that the primary use we are proposing for the site is the retention of greyhound racing which has been present at the site since 1928, with further intensification of sporting activity through the provision of a world class squash club, capable of potentially hosting the British Open.

The flood plain issues have been addressed in our report by RPS. We are aware that substantive negotiation and possible redesign will be required in order to obtain final approval for all that is shown in our proposal. Our consultants, experienced in this field, have advised precedent has been established elsewhere which would indicate the substantive requirements of our scheme should be acceptable on this site. The traffic consultants, RPS, have demonstrated that there are practical solutions to all of the challenges in terms of traffic flow and congestion. The traffic report indicates one possible solution for discussion and is for illustrative purposes only. The illustration suggests compromise by Hume Consulting Ltd by accepting some small loss of site area. Clearly in the final analysis our client would prefer a proposal which did not reduce the site area but has indicated that, subject to a final overall agreement to the required commercial, housing mix etc as well as the Greyhound Stadium and Christopher's Squash club, Hume Consulting Ltd would be prepared to consider this or similar compromise.

We have demonstrated within the attached reports that the Mayor of London's office strategic objective of retaining Greyhound racing in the capital, plus Merton Council's aspiration of increased sporting activity on the site can be commercially delivered by Hume Consulting Ltd, and we recommend this proposal to you for consideration.

Yours sincerely

Seamus McCloskey
For:
Hamilton Architects

Enc.
WIMBLEDON GREYHOUND STADIUM
PLOUGH LANE
SW17 0BL

DETAILED FLOOD RISK SCOPING REPORT
FOR
HAMILTON ARCHITECTS

March 2013
<table>
<thead>
<tr>
<th>Report Status:</th>
<th>Draft Rev A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Reference:</td>
<td>RCEF25593-002 R</td>
</tr>
<tr>
<td>Name:</td>
<td>Carina Clarke</td>
</tr>
<tr>
<td>Signature:</td>
<td></td>
</tr>
<tr>
<td>Technical Reviewer:</td>
<td>Neil Bagley</td>
</tr>
<tr>
<td>Date:</td>
<td>25 March 2013</td>
</tr>
</tbody>
</table>

This report has been prepared in the RPS Group Quality Management System to British Standard EN ISO 9001:2008

RPS Health, Safety & Environment is part of the RPS Group Plc with around 5,000 staff based at over 55 offices located throughout the UK, Ireland and the Netherlands and in the USA, Canada, the Russian Federation, Australia, Malaysia, Singapore and Abu Dhabi. RPS offers an unparalleled range of commercially focused services relating to property and land due diligence, site development and post-environmental investigations (including liability reviews, planning feasibility, EIAs and flood risk, energy & sustainability assessments).

RPS Health, Safety & Environment (London office) is certified to Environmental Management Standard ISO 14001.
RPS HEALTH, SAFETY & ENVIRONMENT

General Notes

1. The following notes should be read in conjunction with the report:

2. This report contains only that available factual data for the site, which was obtained from the sources, described in the text. These data were related to the site on the basis of the location information made available to RPS by the client.

3. The assessment of the site is based on information supplied by the client. Relevant information was also obtained from other sources.

4. The report reflects both the information provided to RPS in documents made available for review and the results of observations and consultations by RPS staff.

5. Where data have been supplied by the client or other sources, including that from previous site audits or investigations, it has been assumed that the information is correct but no warranty is given to that effect. While reasonable care and skill has been applied in review of this data no responsibility can be accepted by RPS for inaccuracies in the data supplied.

6. This report is prepared and written in the context of the proposals stated in the introduction to this report and its contents should not be used out of context. Furthermore new information, changed practices and changes in legislation may necessitate revised interpretation of the report after its original submission.

7. The copyright in the written materials shall remain the property of the RPS Company but with a royalty-free perpetual license to the client deemed to be granted on payment in full to the RPS Company by the client of the outstanding amounts.

8. This report contains Environment Agency information © Environment Agency and database right.
## CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 INTRODUCTION</td>
<td>5</td>
</tr>
<tr>
<td>2 PLANNING POLICY CONTEXT</td>
<td>6</td>
</tr>
<tr>
<td>3 CONSULTATION</td>
<td>10</td>
</tr>
<tr>
<td>4 SITE DESCRIPTION</td>
<td>11</td>
</tr>
<tr>
<td>5 PROPOSED DEVELOPMENT</td>
<td>12</td>
</tr>
<tr>
<td>6 HYDROLOGICAL SETTING</td>
<td>14</td>
</tr>
<tr>
<td>7 HYDROGEOLOGICAL SETTING</td>
<td>15</td>
</tr>
<tr>
<td>8 EXISTING DRAINAGE / WATER MAINS</td>
<td>16</td>
</tr>
<tr>
<td>9 FLOOD RISK AND MITIGATION</td>
<td>17</td>
</tr>
<tr>
<td>10 SURFACE WATER MANAGEMENT</td>
<td>25</td>
</tr>
<tr>
<td>11 SUMMARY AND CONCLUSIONS</td>
<td>27</td>
</tr>
</tbody>
</table>

## FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>SITE LOCATION PLAN</td>
</tr>
<tr>
<td>2</td>
<td>ENVIRONMENT AGENCY FLOOD MAP</td>
</tr>
<tr>
<td>3</td>
<td>CROSS SECTIONS THROUGH ENVIRONMENT AGENCY MODELLED NODE LEVELS</td>
</tr>
<tr>
<td>4</td>
<td>1 IN 20 YEAR SITE LEVELS</td>
</tr>
<tr>
<td>5</td>
<td>CROSS SECTIONS THROUGH ACCESS AND EGRESS ROUTES</td>
</tr>
</tbody>
</table>

## APPENDICES

<table>
<thead>
<tr>
<th>Appendix</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>ENVIRONMENT AGENCY MODELLED WATER LEVELS</td>
</tr>
<tr>
<td>B</td>
<td>DEVELOPMENT PROPOSALS</td>
</tr>
<tr>
<td>C</td>
<td>THAMES WATER PUBLIC SEWER AND WATER MAINS PLAN</td>
</tr>
</tbody>
</table>
1 INTRODUCTION

1.1 RPS was commissioned to undertake a Detailed Flood Risk Scoping Report of Wimbledon Greyhound Stadium in relation to the proposed mixed use redevelopment of the site.

1.2 The aim of the Detailed Flood Risk Scoping Report is to outline the potential for the site to be impacted by flooding, the impacts of the proposed development on flooding in the vicinity of the site, and the potential measures which could be incorporated into the redeveloped site in order to mitigate the identified risk. The report has been produced recognising guidance detailed in the National Planning Policy Framework (NPPF). Reference has also been made to the London Boroughs of Wandsworth, Merton, Sutton and Croydon Strategic Flood Risk Assessments (SFRA) (Level 1 dated December 2008 and Level 2 dated April 2009).

1.3 This report has been produced in consultation with the Partnership and Strategic Overview Team at the Environment Agency. The site is not located within an Internal Drainage Board (IDB) District.

1.4 This report is not intended to provide formal details of the final drainage design for the development.

1.5 The desk study was undertaken by reference to information provided / published by the following bodies:

- Environment Agency
- London Borough of Merton
- Ordnance Survey
- Thames Water
2 PLANNING POLICY CONTEXT

Regional Planning Policy

2.1 The proposed redevelopment site is within the London Borough of Merton which is covered by The London Plan (2011). The London Plan contains a wide range of policies including policies that cover flood risk and drainage; the relevant aspects of these are referenced below.

2.2 Policy 5.11 Green roofs and development site environs

This policy promotes the use of green roo’s and walls where feasible, to deliver objectives including sustainable drainage amongst other wider environmental and sustainability benefits.

2.3 Policy 5.12 Flood risk management

This Policy identifies that the Mayor will work with all relevant agencies including the Environment Agency to address current and future flood issues and minimise risks in a sustainable and cost effective way.

Development proposals must comply with the requirements of planning policy and have regard to measures proposed in Thames Estuary 2100 and Catchment Flood Management Plans.

Requirements are set out for developments where the NPPF Exception Test is applicable, and for developments adjacent to flood defences.

2.4 Policy 5.13 Sustainable drainage

This policy identifies that developments should utilise Sustainable Drainage Systems (SuDS) unless there are practical reasons for not doing so; there should be an aim to achieve Greenfield run-off rates and ensure that surface water run-off is managed as close to its source as possible in line with the following drainage hierarchy:

- Store rainwater for later use
- Use infiltration techniques, such as porous surfaces in non-clay areas
- Attenuate rainwater in ponds or open water features for gradual release
- Attenuate rainwater by storing in tanks or sealed water features for gradual release
- Discharge rainwater direct to a watercourse
- Discharge rainwater to a surface water sewer/drain
- Discharge rainwater to the combined sewer
Drainage should be designed and implemented in ways that deliver other policy objectives of the London Plan, including water efficiency and quality, biodiversity, amenity and recreation.

2.5 The London Plan is supplemented by Supplementary Planning Guidance: Sustainable Design and Construction, May 2006. In relation to flooding, the guidance states that the 'Essential Standard' is to use SuDS wherever practical and to achieve 50% attenuation of the undeveloped site's surface water run off at peak times. The Mayor's preferred standard is to achieve 100% attenuation of the undeveloped site's surface water run off at peak times.

Local Planning Policy

2.6 The London Borough of Merton Local Development Framework contains the following policies relating to flood risk and drainage:

2.7 Core Planning Strategy Policy (adopted July 2011) - CS16 Flood Risk Management

24.4 - to minimise flood risk in Merton, development is only permissible in areas at risk of flooding where it can be demonstrated that there are no reasonably available sites in areas of lower risk and that the benefits outweigh the risks from flooding, for example, the development must first pass the sequential test and where necessary, the exception test.

24.5 - to assess vulnerability to flooding and inform suitable protection and mitigation measures, flood risk assessments should be undertaken for all developments within flood zones 2 and 3 to assess the risk of flooding to the development and identify options to mitigate the flood risk to the development, site users and the surrounding area.

24.8 - in order to reduce flood risk, the council will work with landowners, developers and other stakeholders to:

- Ensure that floodplains operate efficiently, are protected and where possible restored
- Realise the multifunctional nature of floodplains and deliver this through effective land use planning
- Improve flood risk management infrastructure
- Deculvert watercourses and restore natural river channel where possible
- Ensure any flooding impacts can be reduced and managed

2.8 The London Borough of Merton 'Sites and Policies Development Plan' is currently in the public consultation period; once adopted, this will replace the Unitary Development Plan (2003). The 'Draft Detailed Planning Policies' (January 2013) provides information relating to flood risk and drainage and relevant parts are reproduced overleaf:
DM F1 Support for flood risk management - to minimise the impact of flooding in the borough the council will:

- Encourage development to locate in areas of lower risk by applying the Sequential Test; any unacceptable development and land uses will not be permitted
- Ensure that flood resilient and resistant measures are incorporated into design of development proposals in any area susceptible to flooding to minimise and manage the risk of flooding
- Ensure that developments consider all sources of flooding from fluvial, groundwater, surface water run off, ordinary watercourse, and sewer; and including the risks of flooding arising from and to the development

DM F2: Sustainable drainage systems- the council will require all developments to reduce water consumption, the pressures on the sewer network and the risk of flooding by:

- Ensuring all new developments have to consider SuDS and demonstrate sustainable approaches to the management of surface water in line with the emerging National SuDS standards
- Seeking mitigating measures against the impact of flooding from all sources; and surface water run-off through the inclusion of SuDS including green roofs rainwater harvesting and other innovative technologies where appropriate
- Ensuring developers demonstrate the maintenance and long-term management of SuDS through a SuDS Management Plan
- Requiring developers where feasible, are required to ensure designs incorporate soft landscaping and permeable surfaces into all new developments including non-residential developments to.

Wherever possible, the council encourages:

- The retention of soft landscaping and permeable surfaces in front gardens and the reduction of, or at least not an increase in, the amount of hard standing associated with existing homes
- New driveways or parking areas associated with non-residential developments and those located in front gardens should be made of permeable material wherever possible
- When discharging water including wastewater into the public sewer, development proposals are required to demonstrate that the local public sewerage network has adequate capacity to serve the development and existing developments. If the public sewer does not have adequate capacity, the developer should demonstrate alternative sustainable approaches to the management of water
The London Boroughs of Wandsworth, Merton, Sutton and Croydon SFRA identifies and maps flood risk from all sources at a borough-wide scale as well as providing guidance on addressing site specific flood risk. Relevant information from the SFRA has been referenced throughout this report.
3 CONSULTATION

3.1 Modelled flood level data has been obtained from the Environment Agency, as well as details of historic flooding and flood defences within the vicinity of the site. The information provided by the Environment Agency is included as Appendix A.

3.2 The site is not located within an IDB District.

3.3 The public sewer network within the vicinity of the site is operated by Thames Water. A pre-development enquiry with Thames Water has not been undertaken as part of this Detailed Flood Risk Scoping Report.

3.4 The site is shown to be located in a Critical Drainage Area (CDA) and as such London Borough of Merton has been consulted in order to confirm any requirements that should be considered; a response is currently awaited.
4 SITE DESCRIPTION

Site Description

4.1 The site is located at National Grid Reference TQ261718, and occupies an area of approximately 5.0 hectares. A site location plan is provided in Figure 1.

4.2 The site is currently occupied by the existing Wimbledon Greyhound Stadium and associated car parking, along with a fitness club, commercial vehicle hire facility, and a café.

4.3 Currently, main pedestrian and vehicular access to the site is provided via two points located directly off Plough Lane. Additionally, there is an access point located directly off Summerstown (B235), and an access point located directly off Riverside Road.

4.4 The site is comprised entirely of hardstanding areas (buildings and car parking), with the exception of two small soft landscaped areas in the centre of the stadium track.

Surrounding Land Uses

4.5 The site is bordered by Garratt Business Park to the north and retail and industrial units to the east and south. A National Grid substation is located adjacent to the south-west boundary of the site.

Topography

4.6 No topographic survey of the site is currently available. LiDAR data has been obtained in order to ascertain levels across the existing site (Figure 3).
5 PROPOSED DEVELOPMENT

5.1 Current proposals are for redevelopment of the existing site to include:

- A new 4500 person capacity greyhound stadium and reoriented racing track
- A kennel block, equipment store, trainer's area along with associated car parking located in the west of the site
- 400 residential apartments provided in three separate blocks (A – C) located in the north (C), north-east (B), and east of the site (A)
- A multi-storey car park (located adjacent to apartment block A)
- A supermarket including two-storey parking below the store and a fitness centre above the store, located in the south-east of the site
- Soft landscaped areas across the site

5.2 Through redevelopment of the site, there will be an increase in the building footprint from 12,256m² to 13,790m².

5.3 Development proposals are shown in Appendix B.

5.4 It is proposed that both vehicular and pedestrian access to the site will be provided via three points:

- Plough Lane – to serve the greyhound stadium, apartment block A, the multi-storey car park, and the supermarket, fitness centre and associated parking
- Copper Mill Lane – to facilitate access to the kennel block, equipment store, trainers area and associated car parking
- Riverside Road – to serve apartments blocks B and C

5.5 The current proposals include portions of soft landscaped areas across the site. In addition, it is proposed that the centre of the track is also soft landscaped with the potential to utilise this area for the attenuation of surface water runoff (see Section 10 – Surface Water Management). Through redevelopment of the site there will be a reduction in hardstanding areas when compared with the existing situation.

5.6 Within the NPPF, the proposed uses of the site are classified as:

- Greyhound racing stadium – less vulnerable development
• Kennel block, equipment store and trainer’s area – less vulnerable development

• Residential apartments – more vulnerable development

• Supermarket and fitness centre - less vulnerable development

5.7 At this stage, an indicative drainage layout has not been designed for the site

5.8 The potential to provide surface water attenuation, including consideration of the use of SUDS, is considered in Section 10 – Surface Water Management.
6 HYDROLOGICAL SETTING

Nearby Watercourses

6.1 Reference to Ordnance Survey Mapping indicates that the nearest watercourse to the site is the River Wandle, which flows in a north-westerly and northerly direction approximately 130m to the west of the site (beyond the National Grid Substation).

6.2 No artificial watercourses / features (e.g. canals, reservoirs) have been identified within 1km of the site.

Flood Risk Classification

6.3 The Environment Agency’s indicative floodplain map is provided in Figure 3. This indicates that the site is mainly located within Flood Zone 3, with small portions of the site shown to be located in Flood Zone 2.

6.4 Flood Zone 3 is divided in Flood Zone 3a (high probability) and Flood Zone 3b (functional floodplain). Flood Zone 3a is defined in the NPPF as land assessed as having a 1 in 100 or greater annual probability of river flooding in any year. Flood Zone 3b is defined in the NPPF as land where water has to flow or be stored in times of flood.

6.5 Flood Zone 2 is defined in the NPPF as land assessed as having between a 1 in 100 and 1 in 1000 annual probability of river flooding in any year.

6.6 The SFRA contains a flood map for the site which is based on the Draft River Wandle (June 2008) modelled outputs. This map suggests that the majority of the site is located within Flood Zone 3b, with the eastern boundary of the site shown to be located in Flood Zone 3a.

6.7 Modelled flood levels have been obtained from the Environment Agency for fluvial flooding associated with the River Wandle (Appendix A). The modelled flood levels have been taken from the River Wandle Flood Modelling and Mapping Study (2010) and are considered to be the most up to date information available. The node points for the modelled flood levels are shown on the Environment Agency map ‘Modelled Node Levels Location Map’ provided in Appendix A.

6.8 Based on the modelled water levels provided, and the existing site levels, the site is shown to be located mainly in Flood Zone 3b, with the whole site shown to be inundated in all events up to the 1 in 1000 year event. This is discussed in more detail in Section 9 – Flood Risk and Mitigation.
7 HYDROGEOLOGICAL SETTING

7.1 Reference to the British Geological Survey (BGS) online mapping (1:50,000 scale) indicates that the site is underlain by superficial strata comprising clay, silt, sand and gravel. The superficial strata are identified as being underlain by bedrock comprising the London Clay Formation (clay and silt).

7.2 At this stage no site specific intrusive investigation data has been made available for the site. BGS online borehole logs are available within close proximity to the northeast and east of the site. The borehole logs (drilled to 45m) identifies that the strata is comprised of the London Clay Formation.

7.3 The Soliscapes Maps provided by the National Soil Resources Institute indicate that the soils at the site are generally loamy with naturally high groundwater.

7.4 According to the Environment Agency Groundwater Vulnerability Mapping, the underlying superficial strata are classified as a Secondary Aquifer.

7.5 Reference to the Environment Agency Groundwater Source Protection Zone maps indicates that the site is not located within a Groundwater Source Protection Zone.
8 EXISTING DRAINAGE / WATER MAINS

8.1 Reference has been made to public sewer plans provided by Thames Water (shown in Appendix C). This indicates that there is a public surface water sewer located in Plough Lane which flows in a north-easterly direction to the junction with Summerstown where it joins two public surface water sewers which flow from a south-easterly direction. At this point, the surface water sewer enters the site, flowing in a westerly, northerly and north-westerly direction adjacent to the easterly boundary of the site. The diameters for the public sewers are not shown on the Thames Water plan. Node 2802 is located towards the eastern boundary of the site. This has a cover level of 8.84m AOD and an invert level of 7.43m AOD.

8.2 Reference to water network plans provided by Thames Water indicates that the site is served by a pipe located in Plough Lane. The Thames Water plans of clean water pipes are included as Appendix C.
9 FLOOD RISK AND MITIGATION

9.1 The key sources of flooding are discussed below:

Fluvial Flooding

9.2 As previously noted, the Environment Agency indicative floodplain map (Figure 2) indicates that the site is mainly located within Flood Zone 3, with small portions of the site shown to be located in Flood Zone 2.

9.3 The SFRA flood map indicates that the site is mainly located in Flood Zone 3b, with the eastern boundary of the site shown to be located in Flood Zone 3a.

9.4 The Environment Agency has provided modelled water levels for the following events:

- 1 in 20 year event – Flood Zone 3b (functional floodplain)
- 1 in 50 year event
- 1 in 100 year event – Flood Zone 3a
- 1 in 100 year plus climate change event
- 1 in 1000 year event – Flood Zone 2

9.5 These levels have been compared with existing site levels (taken from LiDAR data) to confirm the anticipated depths of flooding across the site (see Table 1 overleaf; nodes 3, 5 and 6 are located within the site boundary) for each of the modelled events.

9.6 A plan showing cross sections through the site and the Environment Agency modelled node locations are shown in Figure 3.
Table 1: Environment Agency Modelled Flood Levels and Flood Depths

<table>
<thead>
<tr>
<th>Site Level</th>
<th>Node</th>
<th>Flood Depths (mm)</th>
<th>Annual Exceedence Probability and Maximum Water Levels (mAOD)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>8.84m</td>
<td>9.165 325 9.612 727 9.909 1069 10.129 1299 10.400 1569</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>8.79m</td>
<td>9.142 352 9.612 822 9.908 1118 10.128 1338 10.397 1607</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>9.05m</td>
<td>9.110 60 9.612 562 9.908 858 10.129 1079 10.402 1352</td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>11.01m</td>
<td>- - - - - - 10.904 - - 10.929 -</td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>9.69m</td>
<td>- - - - - - 9.908 218 10.129 439 10.401 711</td>
</tr>
</tbody>
</table>

Mechanisms of fluvial flooding

9.7 As previously noted, the River Wandle flows in a north-westerly and northerly direction to the west of the site. The Environment Agency modelled water levels indicate that during the 1 in 20 year event (and the 1 in 50 year event), the river flows out of channel at a low point in the bank (adjacent to node point 1 to the north-west of the site).

9.8 The LiDAR data indicates that in general, the topography across the majority of the northern and central areas of the site is lower than the worst case 1 in 20 year modelled water level (Figure 4).
9.9 Consequently, floodwaters are shown to flow onto the site from a northerly direction during this event.

9.10 1 in 20 year event - at the northern portion of the site (node 4) in the proposed location of residential block C and the northern section of residential block B, depths are shown to be in the region of 352mm. No inundation is shown in the northeast of the site (node 2) in the proposed location of the main portions of residential block B.

Depths of up to 60mm are shown in the eastern portion of the site (node 6) in the proposed location of residential block A. The maximum depth of inundation is 569mm at the centre of the stadium (node 5). The southern portion of the site (node 3) in the proposed location of the retail store is not shown to be inundated during this event.

9.11 During the 1 in 100 year, 1 in 100 year plus climate change, and 1 in 1000 year event, the river is shown to flow out of bank upstream at node 8 (adjacent to the substation) with floodwaters flowing onto the site from both a westerly and southerly direction.

9.12 At the northern portion of the site (node 4) in the proposed location of residential block C and the northern section of residential block B, depths of inundation range from 1118mm in the 1 in 100 year event, rising to 1338mm in the 1 in 100 year plus climate change event. During the 1 in 1000 year event, depths are in the region of 1607mm.

9.13 At the northeast of the site (node 2) in the proposed location of the main portions of residential block B, depths of inundation range from 548mm in the 1 in 100 year event, rising to 788mm in the 1 in 100 year plus climate change event. During the 1 in 1000 year event depths are in the region of 1040mm.

9.14 At the eastern portion of the site (node 6) in the proposed location of residential block A, depths of inundation range from 858mm in the 1 in 100 year event, rising to 1079mm in the 1 in 100 year plus climate change event. During the 1 in 1000 year event, depths are in the region of 1352mm.

9.15 The maximum depths of inundation for these events are at the centre of the stadium (node 5), ranging from 1348mm in the 1 in 100 year event, rising to 1569mm in the 1 in 100 year plus climate change event and 1841mm in the 1 in 1000 year event.

9.16 At the southern portion of the site (node 3) in the proposed location of the retail store, maximum depths of inundation are shown to be in the region of 658mm during the 1 in 100 year event, rising to 879mm in the 1 in 100 year plus climate change event. During the 1 in 1000 year event, depths are in the region of 1152mm.
Flood Defence

9.17 The Environment Agency has confirmed that there are no formal flood defences at this location.

9.18 A recently constructed wall at the adjacent substation may potentially have an impact on the flood flow mechanisms both at the redevelopment site and the surrounding areas. No further information with regards to this has been found at this stage.

Functional floodplain

9.19 The modelled water levels confirm that the majority of the northern and central portions of the site are located within the 1 in 20 year flood outline or functional floodplain.

9.20 Planning Policy Statement 25: Development and Flood Risk (PPS25) was superseded by the NPPF in March 2012. However, the PPS25 accompanying Practice Guide (December 2009) is still considered to provide the most relevant advice and guidance in terms of addressing and managing flood risk. Section 4.90 and 4.92 of the Practice Guide states ‘areas which would naturally flood with an annual exceedance probability of 1 in 20 or greater, but which are prevented by doing so by existing infrastructure or solid buildings, will not normally be defined as functional floodplain’. ‘Developed areas are not generally part of the functional floodplain’.

9.21 The existing site is a developed area with solid building across the site (including a large stadium building which surrounds the racing track). Recognising the above guidance, the built areas would not be classified as functional floodplain.

Potential Mitigation Options

9.22 A flood mitigation strategy would need to be designed in order to demonstrate how the site could be safely and sustainably redeveloped. Based on the previously detailed depths of flooding across the site, the following mitigation measures could be considered:

9.23 Greyhound Stadium and Track, and associated trainers buildings

The maximum depths of floodwaters at the existing site are shown to occur at node 5 at the existing stadium. The existing stadium building surrounds the racing track and in the event of a flood would impede flows. The current proposals include the demolition of this building to allow the track to be ‘open’. This also offers the potential for the centre of the new racing track to be utilised as a storage area for surface water runoff.

Existing site levels are shown to be in the region of 8.85 – 9.08m AOD in the location of the proposed stadium building, and 8.76-8.99m AOD in the location of the proposed equipment store and kennel block.
In order to satisfy the potential requirements of both the Environment Agency and any future insurers of the stadium, the finished floor levels of the new stadium building (and equipment store and kennel block) would need to be raised to a minimum of 10.429m AOD which is 300mm above the 1 in 100 plus climate change modelled water level of 10.129m AOD (at nodes 5 and 8). In addition, a flood management plan should be developed in order to ensure that safe operation of the stadium should a flood event occur.

9.24 Residential blocks A - C.

Finished floor levels would have to be raised above the 1 in 100 year plus climate change modelled water levels. In general the Environment Agency would require a freeboard of 600mm to be provided for residential development. However, given the high quality data of the modelled water levels provided, it may be that the Environment Agency would agree to a 300mm freeboard.

<table>
<thead>
<tr>
<th>Block</th>
<th>Approximate Existing Ground Levels (m AOD)</th>
<th>1 in 100 year + CC (m AOD)</th>
<th>300mm freeboard</th>
<th>600mm freeboard</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>8.98 - 8.16</td>
<td>10.129</td>
<td>10.429</td>
<td>10.729</td>
</tr>
<tr>
<td>B</td>
<td>8.71 - 8.98</td>
<td>10.128</td>
<td>10.428</td>
<td>10.728</td>
</tr>
<tr>
<td>C</td>
<td>8.60 - 8.87</td>
<td>10.128</td>
<td>10.428</td>
<td>10.728</td>
</tr>
</tbody>
</table>

This could be achieved through raising the slab, or by providing an undercroft which could allow floodwater to flow beneath the dwellings.

A flood management plan should be developed in order to ensure the safe operation of the multi-storey car park.

9.25 Supermarket, car park and fitness centre

The supermarket and fitness centre are to be raised above the car park which is located at ground level (noting that existing ground levels at this location are in the region of 8.82 - 9.29m AOD). A flood management plan should be developed in order to ensure the safe operation of the car park, should a flood event occur.

9.26 The Environment Agency will require evidence to demonstrate that redevelopment of the site will not increase flood risk both at the site and in the surrounding areas, and that there will be no impedence of flood flows. Given the extent and depths of flooding at the site, further modelling...
would need to be undertaken in order to confirm this instead of providing level for level flood storage compensation.

9.27 As part of the mitigation strategy, there would be no costs associated with defending the site in terms of formal flood defences. Any cost implications would be associated with the actual flood mitigation measures such as raising finished floor levels, flood management plans, and any surface water attenuation systems (as discussed in Section 10 – Surface Water Management).

Access and Egress

9.28 As previously noted, the main access and egress routes for the redeveloped site are to be located off Plough Lane, Copper Mill Lane (both to the south of the site) and Riverside Road (to the north of the site).

9.29 The SFRA includes a flood hazard map which is based on flood depths taken from the Draft River Wandle (June 2008) study. This indicates that the site and surrounding areas including access and egress routes are located within ‘medium’ hazard zones. It should be noted that this model is now considered to be out of date.

9.30 Node 3 is located to the south of the site at the junction of both Plough Lane and Copper Mill Lane. During the 1 in 20 year event, this point is not shown to be inundated and as such dry access may be provided. During the 1 in 50 year event, depths of inundation are shown to be 362mm, rising to 658mm during the 1 in 100 year event and 879mm during the 1 in 100 year plus climate change event. During the 1 in 1000 year event, depths of inundation are shown to reach a maximum of 1152mm.

9.31 Nodes 1 and 4 are located on Riverside Road. During the 1 in 20 year event, flood waters are shown to reach a maximum depth of 352mm.

9.32 The redevelopment proposals include a number of paths across the site. As previously detailed, a large portion of the site is shown to be inundated in the 1 in 20 year event.

9.33 It is likely that the Environment Agency would require safe access and egress to be provided in the 1 in 100 year plus climate change.

9.34 Cross sections through the access and egress routes are provided in Figure 5. These illustrate that the access routes lead away from the site to higher ground.

Potential Mitigation Options

9.35 Flood management plans should be prepared in order to ensure that the car parking areas can be safely operated.
In order to provide safe pedestrian access and egress across the site, raised walkways could be provided between the buildings.

Critical Drainage Area

The site is located in a Critical Drainage Area. London Borough of Merton has been consulted in order to confirm any requirements that they may have; a response is awaited. As previously detailed, and as discussed further in Section 10, the current proposals would allow significant betterment to be provided in terms of reducing surface water flows from the site and subsequently surface water flows entering the drainage system, and 50% betterment provided in accordance with the London Plan.

Flooding from sewers

Sewer flooding can occur during periods of heavy rainfall when a sewer becomes blocked or is of inadequate capacity.

As previously noted, the site is currently served by Thames Water (as detailed in Section 8).

A public surface water sewer is shown to cross the site; Thames Water will require an easement to be provided which is generally in the region of 6m. It is likely to be beneficial if the development if the sewer was relocated. Further consultation with Thames Water should be carried out.

The proposed discharge rate to the existing sewer should be agreed with Thames Water to ensure that there is capacity to receive discharge from the site without significantly increasing flood risk.

Potential Mitigation Options

Based on the current proposals, through redevelopment of the site there would be a reduction in hardstanding areas at the site, and subsequently there would be a reduction in surface water runoff entering the public sewer system. This would ensure that flooding from sewers is not exacerbated. 50% betterment will also be provided in accordance with the London Plan.

Surface water flooding (overland flow)

This can occur during intense rainfall events, when water cannot soak into the ground or enter drainage systems.

Surface water flooding from on-site sources is considered in Section 10 of this report.
Potential Mitigation Options

9.45 As previously noted, the current redevelopment proposals illustrate that there will be a significant reduction in hardstanding areas at the site, and as such there would be a significant reduction in surface water flows from the redeveloped site when compared with the existing situation.

Groundwater flooding

9.46 This can occur in low-lying areas when groundwater levels rise above surface levels, or within underground structures. As previously noted, BGS mapping indicates that the site is underlain by superficial strata of clay, silt, sand and gravel. The underlying bedrock is comprised of the London Clay Formation.

Potential Mitigation Options

9.47 Through the incorporation of appropriate flood mitigation measures across the site (such as raising finished floor levels), this would mitigate any residual risk of groundwater flooding.

Other Sources

9.46 There is a limited risk of flooding occurring as a result of a break in a water main. The locations of the water mains in the immediate vicinity of the site are described in Section 8.

9.49 There will be no increase in flood risk from sources such as water mains, canals or other artificial water bodies as a result of the development.

Event Exceedence and Residual Risk

9.50 The mitigation measures proposed as part of the redevelopment scheme should be appropriate to mitigate any residual risks or event exceedence scenarios.
10 SURFACE WATER MANAGEMENT

Introduction

10.1 As previously detailed, based on the current proposals through redevelopment of the site there will be a significant decrease in hardstanding areas when compared with the existing situation.

10.2 The London Plan and accompanying Supplementary Planning Guidance: Sustainable Design and Construction (May 2006) sets out requirements for surface water management (see Section 2). The ‘Essential Standard’ is to use SuDS wherever practical and to achieve 50% attenuation of the undeveloped site’s surface water run off at peak times.

10.3 Preliminary calculations have been carried out using MicroDrainage WinDES in order to provide an initial indication of storage volume requirements, recognising the requirements of the London Plan.

10.4 The calculations also take into account the recommended national precautionary sensitivity ranges for peak rainfall intensity (Table 5 in the NPPF) and as such a 30% increase in peak rainfall intensity has been included as climate change allowance.

Consideration of Sustainable Drainage Systems

10.5 As previously detailed, the current development proposals include the removal of the stadium blocks which surround the racing track; the new proposed track will ‘open’ with a stadium building located in one block to the east of the track. There is the potential to utilise the soft landscaped centre of the racing track as a storage area for surface water runoff.

Conceptual Surface Water Attenuation Scheme

10.6 On the basis of the above, the preliminary calculations indicate that a total attenuation volume of 1972.90m$^3$ would be required to achieve the required reduction in run-off. The soft landscaped area in the centre of the track comprises 11800m$^2$ and as such there would be the potential to feasibly attenuate the required storage volume in this area.

Event Exceedence

10.7 The proposed indicative surface water drainage concept should provide storage up to the 1 in 100 year plus climate change event. In an event exceeding this magnitude, detailed drainage design will identify mitigation measures to ensure that the resulting above-ground flooding will be confined to temporary shallow flooding of the on-site road network and will not affect the buildings on site or significantly increase flood risk to off-site locations.
10.8 Event exceedence planning will be undertaken as part of the final design process. Suitable mitigation measures should be incorporated into the development to ensure water is retained on-site should surcharging of on-site drains occur during extreme rainfall events.
11 SUMMARY AND CONCLUSIONS

11.1 The aim of the Detailed Flood Risk Scoping Study is to outline the potential for the site to be impacted by flooding, the potential impacts of the development on flooding both onsite and in the vicinity, and the proposed measures which could be incorporated into the development to potentially mitigate the identified risks.

Functional Floodplain and Proposed Further Modelling

11.2 The site is largely shown to be located within the 1 in 20 year flood outline. Given that there are buildings on the existing site (which have a combined building footprint of 12,256m²), the built areas should not be considered as functional floodplain. The proposed built footprint is 13,790m².

11.3 As part of a detailed planning application 1D/2D hydrodynamic modelling would be required in order to accurately assess the impact of the redevelopment proposals on the flood risk at the site and surrounding areas. Given the extent of the existing built footprint, and that these built areas should not be classified as function floodplain, the modelling would also aim to demonstrate that compensation for loss of floodplain storage would not be required and that any changes in flood flow routes would not lead to off site impacts.

11.4 At this stage alignment and massing would be assessed in more detail. At present the suggested massing of the development is considered commensurate with the existing situation. In addition the more open nature of the proposed development provides opportunities to provide wider benefit to the local area through provision of additional surface water attenuation.

Flood Mitigation Strategy

11.5 A flood mitigation strategy designed in order to demonstrate how the site could be safely and sustainably redeveloped. Based on the previously detailed depths of fluvial flooding across the site, the following mitigation measures should be considered:

Greyhound Stadium and Track, and associated trainers buildings

- Finished floor levels of the new stadium building (and equipment store and kennel block) to be raised to a minimum of 10.429m AOD (noting that existing site levels are shown to be in the region of 8.85 - 9.08m AOD in the location of the proposed stadium building, and 8.76 - 8.99m AOD in the location of the proposed equipment store and kennel block)

- Development of a flood management plan in order to ensure that safe operation of the stadium should a flood event occur

- Opening up the racing track area (through the removal of the surrounding stadium areas) to allow storage of surface water runoff
Residential blocks A – C

- Finished floor levels to be raised above the 1 in 100 year plus climate change modelled water levels. For residential development the Environment Agency would generally request a 600mm freeboard to be provided. Given the high quality data of the modelled information, in the first instance, we would consult with the Environment Agency in order to try and agree a 300mm freeboard.

<table>
<thead>
<tr>
<th>Block</th>
<th>Approximate Existing Ground Levels (m AOD)</th>
<th>1 in 100 year + CC (m AOD)</th>
<th>300mm freeboard</th>
<th>600mm freeboard</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>8.71 - 8.98</td>
<td>10.128</td>
<td>10.428</td>
<td>10.728</td>
</tr>
<tr>
<td>C</td>
<td>8.60 - 8.87</td>
<td>10.129</td>
<td>10.428</td>
<td>10.728</td>
</tr>
</tbody>
</table>

- A flood management plan should be developed in order to ensure the safe operation of the multi-storey car park.

Supermarket, car park and fitness centre

- A flood management plan should be developed in order to ensure the safe operation of the car park, should a flood event occur.

11.6 Provision should be made for additional design costs associated with flood mitigation. Any cost implications in terms of providing flood mitigation measures would be associated with the actual engineering measure such as raising finished floor levels, providing undercroft areas, flood management plans, and any surface water attenuation systems. As part of the mitigation strategy, there would be no costs associated with defending the site in terms of providing formal flood defences.

Access and Egress

11.7 The main access and egress routes for the redeveloped site are to be located off Plough Lane, Copper Mill Lane (both to the south of the site) and Riverside Road (to the north of the site). These routes (in the immediate vicinity of the site) are shown to be largely inundated during the 1 in 20 and 1 in 50 year events. It is likely that the Environment Agency would require safe access and egress to be provided in the 1 in 100 year plus climate change.
11.8 Cross sections through the access and egress routes (provided in Figure 5 of this report) illustrate that the access routes lead away from the site to higher ground.

11.9 Flood management plans should be prepared (in consultation with Local Authority Emergency Planners) in order to manage the operation/activity on the site during a flood event.

11.10 In order to provide safe pedestrian access and egress across the site, raised walkways could be provided between the buildings.

**Surface Water Management**

11.11 Preliminary surface water runoff and storage volume calculations have been carried out. These indicate that a total attenuation volume of 1972.90m$^3$ should be provided in order to achieve the required reduction in run-off. The soft landscaped area in the centre of the track comprises 11800m$^2$ and as such there would be the potential to feasibly attenuate the required storage volume in this area. The use of alternative SuDS techniques should also be considered as part of any application.
Figure 1

Site Location Plan
Figure 2

Environment Agency Flood Map
Figure 3

Cross Sections Through Environment Agency Modelled Node Levels
Figure 4

1 in 20 year Site Levels
LiDAR data Showing levels on site at or below 9.11 m AOD
Figure 5

Cross Sections Through the Access and Egress Routes Surrounding the Site
Appendix A

Environment Agency Modelled Flood Levels
Product 4 (Detailed Flood Risk) for: Wimbledon Greyhound Stadium, Plough Lane, London, SW17 0BL

Requested by: Joshua Rigby

Reference: KSL130311/JB52
Date: 13 March 2013

Contents

- Flood Map Confirmation
- Flood Map Extract
- Model Output Data
- Data Point Location Map
- Modelled Flood Outlines Map
- Defence Details
- Historic Flood Data
- Surface Water
- Additional Data
- Environment Agency Standard Notice

The information provided is based on the best data available as of the date of this letter.

You may feel it is appropriate to contact our office at regular intervals, to check whether any amendments/improvements have been made to the data for this location. Should you re-contact us after a period of time, please quote the above reference in order to help us deal with your query.

This information is provided subject to the enclosed notice which you should read.
Flood Map Confirmation

The Flood Map:

Our Flood Map shows the natural floodplain for areas at risk from river and tidal flooding. The floodplain is specifically mapped ignoring the presence and effect of defences. Although flood defences reduce the risk of flooding they cannot completely remove that risk as they may be overtopped or breached during a flood event.

The Flood Map indicates areas with a 1% (0.5% in tidal areas), Annual Exceedance Probability (AEP) - the probability of a flood of a particular magnitude, or greater, occurring in any given year, and a 0.1% AEP of flooding from rivers and/or the sea in any given year. The map also shows the location of some flood defences and the areas that benefit from them.

The Flood Map is intended to act as a guide to indicate the potential risk of flooding. When producing it we use the best data available to us at the time, taking into account historic flooding and local knowledge. The Flood Map is updated on a quarterly basis to account for any amendments required. These amendments are then displayed on the internet at www.environment-agency.gov.uk.

At this Site:

The Flood Map shows that this property:

lies within the extreme flood outline (1% chance of flooding from rivers in any given year).

Enclosed is an extract of our Flood Map which shows this information for your area.

Method of production

The Flood Map at this location has been derived using detailed fluvial modelling of the River Wandle Flood Modelling and Mapping Study, completed in 2010 by Halcrow.
Flood Map centred on Plough Lane, London
Created 13 March 2013 (Ref: KSL130311/JB52)

Legend
- Main River
- Flood Defences
- Flood Storage Area
- Areas Benefiting From Flood Defence
- 1% AEP of Fluvial Flooding or 0.5% Tidal
- 0.1% AEP of Flooding

AEP = Annual Exceedance Probability
The probability of a flood of a particular magnitude, or greater, occurring in any given year.

Scale 1:10,000

© Environment Agency copyright and / or database rights 2013. All rights reserved. © Crown copyright and database rights 2013. Ordnance Survey 100024198.

Contact Us: National Customer Contact Centre, PO Box 544, Rotherham, S60 1BY Tel 03708 506 506 (Mon-Fri 8-6). Email: enquiries@environment-agency.gov.uk
Model Output Data

You have requested flood levels for various return periods at this location.

Any additional information you may need to know about the modelling from which they are derived and/or any specific use or health warning for their use are set out below.

**Table 1:** Modelled Undefended Flood Levels

<table>
<thead>
<tr>
<th>Node ID</th>
<th>Easting</th>
<th>Northing</th>
<th>1% AEP</th>
<th>0.1% AEP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>525926</td>
<td>171954</td>
<td>9.973</td>
<td>10.411</td>
</tr>
<tr>
<td>2</td>
<td>526266</td>
<td>171974</td>
<td>9.976</td>
<td>10.415</td>
</tr>
<tr>
<td>3</td>
<td>526209</td>
<td>171709</td>
<td>9.978</td>
<td>10.419</td>
</tr>
<tr>
<td>4</td>
<td>526090</td>
<td>172018</td>
<td>9.973</td>
<td>10.410</td>
</tr>
<tr>
<td>5</td>
<td>526142</td>
<td>171857</td>
<td>9.977</td>
<td>10.417</td>
</tr>
<tr>
<td>6</td>
<td>526305</td>
<td>171826</td>
<td>9.978</td>
<td>10.419</td>
</tr>
<tr>
<td>7</td>
<td>526093</td>
<td>171527</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>8</td>
<td>525967</td>
<td>171775</td>
<td>9.977</td>
<td>10.417</td>
</tr>
<tr>
<td>9</td>
<td>526226</td>
<td>172144</td>
<td>9.972</td>
<td>10.407</td>
</tr>
</tbody>
</table>

Data taken from the River Wandle Flood Modelling and Mapping Study, completed in 2010 by Halcrow.
### Table 2: Modelled Defended Flood Levels

<table>
<thead>
<tr>
<th>Node ID</th>
<th>Easting</th>
<th>Northing</th>
<th>20% AEP</th>
<th>5% AEP</th>
<th>2% AEP</th>
<th>1% AEP</th>
<th>0.1% AEP</th>
<th>1% AEP plus Climate Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>525926</td>
<td>171954</td>
<td>N/A</td>
<td>9.165</td>
<td>9.612</td>
<td>9.909</td>
<td>10.400</td>
<td>10.129</td>
</tr>
<tr>
<td>2</td>
<td>526266</td>
<td>171974</td>
<td>N/A</td>
<td>N/A</td>
<td>9.612</td>
<td>9.908</td>
<td>10.400</td>
<td>10.128</td>
</tr>
<tr>
<td>3</td>
<td>526209</td>
<td>171709</td>
<td>N/A</td>
<td>N/A</td>
<td>9.612</td>
<td>9.908</td>
<td>10.402</td>
<td>10.129</td>
</tr>
<tr>
<td>4</td>
<td>526090</td>
<td>172018</td>
<td>N/A</td>
<td>9.142</td>
<td>9.612</td>
<td>9.908</td>
<td>10.397</td>
<td>10.128</td>
</tr>
<tr>
<td>5</td>
<td>526142</td>
<td>171857</td>
<td>N/A</td>
<td>9.129</td>
<td>9.612</td>
<td>9.908</td>
<td>10.401</td>
<td>10.129</td>
</tr>
<tr>
<td>7</td>
<td>526093</td>
<td>171527</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>10.929</td>
<td>10.904</td>
</tr>
<tr>
<td>8</td>
<td>525967</td>
<td>171775</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>9.908</td>
<td>10.401</td>
<td>10.129</td>
</tr>
<tr>
<td>9</td>
<td>526226</td>
<td>172144</td>
<td>N/A</td>
<td>N/A</td>
<td>9.611</td>
<td>9.907</td>
<td>10.394</td>
<td>10.127</td>
</tr>
</tbody>
</table>

Data taken from the River Wandle Flood Modelling and Mapping Study, completed in 2010 by Halcrow.
Modelled Node Levels Location Map centred on Plough Lane, London
Created 13 March 2013 (Ref: KSL130311/JB52)
1. Modelled Undefended Flood Extent Map centred on Plough Lane, London
Created 13 March 2013 (Ref: KSL130311/JB52)

Legend
- Main River
- Undefended 1% AEP
- Undefended 0.1% AEP

AEP = Annual Exceedance Probability
The probability of a flood of a particular magnitude, or greater, occurring in any given year.

Scale 1:10,000

© Environment Agency copyright and/or database rights 2013. All rights reserved. © Crown copyright and database rights 2013. Ordnance Survey 100024198.
Contact Us: National Customer Contact Centre, PO Box 544, Rotherham, S60 1BY. Tel: 03708 506 506 (Mon-Fri 8-6). Email: enquiries@environment-agency.gov.uk
3. Modelled Defended Flood Extent Map centred on Plough Lane, London
Created 13 March 2013 (Ref: KSL130311/JB52)

Legend
- Red: Main River
- Yellow: Defended 1% AEP
- Brown: Defended 1%CC AEP

1%CC = 1% Climate Change extent
This is the 1% AEP event with an allowance for climate change (+20% on river flows).

AEP = Annual Exceedance Probability
The probability of a flood of a particular magnitude, or greater, occurring in any given year.

Scale 1:10,000

© Environment Agency copyright and/or database rights 2013. All rights reserved. © Crown copyright and database rights 2013. Ordnance Survey 100024198.
Contact Us: National Customer Contact Centre, PO Box 544, Rotherham, S60 1BY. Tel: 03708 506 506 (Mon-Fri 8.30-6). Email: enquiries@environment-agency.gov.uk.
Defence Details

Type and location – Classification. Fluvial / Coastal, condition. No significant flood defences at this location.

Plans for improvement / future schemes. No improvements planned to reduce flood risk in this area.
Historic Flood Data

We do not have any flood history data covering this site.

Please note that our records are not comprehensive. We would therefore advise that you make further enquiries locally with specific reference to flooding at this location. You should consider contacting the relevant Local Planning Authority and/or water/sewerage undertaker for the area.

We map flooding to land, not individual properties. Our historic flood event record outlines are an indication of the geographical extent of an observed flood event. Our historic flood event outlines do not give any indication of flood levels for individual properties. They also do not imply that any property within the outline has flooded internally.

Please be aware that flooding can come from different sources. Examples of these are:
- from rivers or the sea;
- surface water (i.e. rainwater flowing over or accumulating on the ground before it is able to enter rivers or the drainage system);
- overflowing or backing up of sewer or drainage systems which have been overwhelmed;
- groundwater rising up from underground aquifers.
Surface Water

You may also wish to consider contacting the appropriate relevant Local Planning Authority and/or water/sewerage undertaker for the area. They may be able to provide some knowledge on the risk of flooding from other sources. We are working with these organisations to improve knowledge and understanding of surface water flooding.
Additional Information

Use of Environment Agency Information for Flood Risk / Flood Consequence Assessments

Important If you have requested this information to help inform a development proposal, then we recommend that you undertake a formal pre-application enquiry using the form available from our website:

http://www.environment-agency.gov.uk/research/planning/33580

Depending on the enquiry, we may also provide advice on other issues related to our responsibilities including flooding, waste, land contamination, water quality, biodiversity, navigation, pollution, water resources, foul drainage or Environmental Impact Assessment.

In England, you should refer to the Environment Agency's Flood Risk Standing Advice, the technical guidance to the National Planning Policy Framework and the existing PPS25 Practice Guide for information about what flood risk assessment is needed for new development in the different Flood Zones. These documents can be accessed via:

http://www.environment-agency.gov.uk/research/planning/82587
http://www.communities.gov.uk/publications/planningandbuilding/ppp2technicalguidance

You should also consult the Strategic Flood Risk Assessment produced by your local planning authority.

You should note that:

1. Information supplied by the Environment Agency may be used to assist in producing a Flood Risk / Consequence Assessment (FRA / FCA) where one is required, but does not constitute such an assessment on its own.

2. This information covers flood risk from main rivers and the sea, and you will need to consider other potential sources of flooding, such as groundwater or overland runoff. The information produced by the local planning authority referred to above may assist here.

3. Where a planning application requires a FRA / FCA and this is not submitted or deficient, the Environment Agency may well raise an objection.

4. For more significant proposals in higher flood risk areas, we would be pleased to discuss details with you ahead of making any planning application, and you should also discuss the matter with your local planning authority.
Standard Notice [not for use with Special Data, Personal Data or unlicensed 3rd party rights]

Information warning
We (The Environment Agency) do not promise that the Information supplied to You will always be accurate, free from viruses and other malicious or damaging code (if electronic), complete or up to date or that the Information will provide any particular facilities or functions or be suitable for any particular purpose. You must ensure that the Information meets your needs and are entirely responsible for the consequences of using the Information. Please also note any specific information warning or guidance supplied to you.

Permitted use
The Information is protected by intellectual property rights and whilst you have certain statutory rights which include the right to read the Information, you are granted no additional use rights whatsoever unless you agree to the licence set out below.
Commercial use is subject to payment of a £50 licence fee (+VAT) for each person seeking the benefit of the licence, except for use as an Environment Agency contractor or for approved media use.
To activate this licence you do not need to contact us (unless you need to pay us a Commercial licence fee) but if you make any use in excess of your statutory rights you are deemed to accept the terms below.

Licence
We grant you a worldwide, royalty-free, perpetual, non-exclusive licence to use the Information subject to the conditions below.

You are free to:

☑ copy, publish, distribute and transmit the Information
☑ adapt the Information
☑ exploit the Information commercially, for example, by combining it with other Information, or by including it in your own product or application

You must (where you do any of the above):

⚠️ acknowledge the source of the Information by including the following attribution statement: “Contains Environment Agency information © Environment Agency and database right”
⚠️ ensure that you do not use the Information in a way that suggests any official status or that We endorse you or your use of the Information
⚠️ ensure that you do not mislead others or misrepresent the Information or its source or use the Information in a way that is detrimental to the environment, including the risk of reduced future enhancement
⚠️ ensure that your use of the Information does not breach the Data Protection Act 1998 or the Privacy and Electronic Communications (EC Directive) Regulations 2003

These are important conditions and if you fail to comply with them the rights granted to you under this licence, or any similar licence granted by us will end automatically.

No warranty
The Information is licensed ‘as is’ and We exclude all representations, warranties, obligations and liabilities in relation to the Information to the maximum extent permitted by law. We are not liable for any errors or omissions in the Information and shall not be liable for any loss, injury or damage of any kind caused by its use. We do not guarantee the continued supply of the Information.

Governing Law
This licence is governed by the laws of England and Wales.

Definitions
+ “Information” means: the information that is protected by copyright or by database right (for example, literary and artistic works, content, data and source code) offered for use under the terms of this licence.
+ “Commercial” means:
  - offering a product or service containing the Information, or any adaptation of it, for a charge, or
  - Internal Use for any purpose, or offering a product or service based on the Information for indirect commercial advantage, by an organisation that is primarily engaged in trade, commerce or a profession

Orchard House, Endeavour Park, London Road, Addington, West Malling, Kent, ME19 5SH.
Email: kslenquiries@environment-agency.gov.uk
Appendix B

Development Proposals
Appendix C

Thames Water Public Sewer and Water Mains Plan
<table>
<thead>
<tr>
<th>Manhole Reference</th>
<th>Manhole Cover Level</th>
<th>Manhole Invert Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>49EC</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>49EJ</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>49EB</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>49BH</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>49DA</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>49EA</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>49CH</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>49AH</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>49JH</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>49EA</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>39CJ</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>39EB</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>39EC</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>39FD</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>39EJ</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>39ED</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>390I</td>
<td>9.9</td>
<td>8.23</td>
</tr>
<tr>
<td>390G</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>39EA</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>39AH</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>39AJ</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>39FE</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>470I</td>
<td>10.91</td>
<td>7.29</td>
</tr>
<tr>
<td>375D</td>
<td>8.99</td>
<td>7.52</td>
</tr>
<tr>
<td>389I</td>
<td>8.91</td>
<td>7.5</td>
</tr>
<tr>
<td>3882B</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>4801</td>
<td>19.88</td>
<td>7.15</td>
</tr>
<tr>
<td>3805</td>
<td>9.48</td>
<td>7.61</td>
</tr>
<tr>
<td>3801A</td>
<td>9.39</td>
<td>6.82</td>
</tr>
<tr>
<td>3802A</td>
<td>8.92</td>
<td>7.48</td>
</tr>
<tr>
<td>3801B</td>
<td>10.18</td>
<td>6.81</td>
</tr>
<tr>
<td>3806</td>
<td>9.67</td>
<td>7.31</td>
</tr>
<tr>
<td>390J</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>3802A</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>3803</td>
<td>8.67</td>
<td>7.31</td>
</tr>
<tr>
<td>3804</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>3805</td>
<td>9.17</td>
<td>8.03</td>
</tr>
<tr>
<td>3806</td>
<td>9.17</td>
<td>8.03</td>
</tr>
<tr>
<td>3807</td>
<td>5.35</td>
<td>7.95</td>
</tr>
<tr>
<td>3808</td>
<td>9.35</td>
<td>6.83</td>
</tr>
<tr>
<td>3809</td>
<td>9.33</td>
<td>7.86</td>
</tr>
<tr>
<td>3810</td>
<td>9.07</td>
<td>7.33</td>
</tr>
<tr>
<td>3811</td>
<td>8.05</td>
<td>7.65</td>
</tr>
<tr>
<td>3812</td>
<td>9.04</td>
<td>7.55</td>
</tr>
<tr>
<td>3813</td>
<td>8.72</td>
<td>7.39</td>
</tr>
<tr>
<td>3814</td>
<td>9.1</td>
<td>7.51</td>
</tr>
<tr>
<td>3815</td>
<td>8.89</td>
<td>7.75</td>
</tr>
<tr>
<td>3816</td>
<td>8.6</td>
<td>7.85</td>
</tr>
<tr>
<td>3817</td>
<td>8.84</td>
<td>7.43</td>
</tr>
<tr>
<td>3818</td>
<td>9.92</td>
<td>7.42</td>
</tr>
<tr>
<td>3819</td>
<td>9</td>
<td>6.68</td>
</tr>
<tr>
<td>381B</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>2901B</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>2902</td>
<td>8.91</td>
<td>7.4</td>
</tr>
<tr>
<td>2901A</td>
<td>9.11</td>
<td>6.35</td>
</tr>
<tr>
<td>0701</td>
<td>9.28</td>
<td>5.99</td>
</tr>
<tr>
<td>0702</td>
<td>9.13</td>
<td>6.04</td>
</tr>
<tr>
<td>2507</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>2508</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>0518</td>
<td>12.1</td>
<td>8.58</td>
</tr>
<tr>
<td>2509</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>2505</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>1502</td>
<td>9.73</td>
<td>8.5</td>
</tr>
<tr>
<td>1501</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>1504</td>
<td>8.99</td>
<td>8.03</td>
</tr>
<tr>
<td>1501</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>1501</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>0602</td>
<td>10.82</td>
<td>6.25</td>
</tr>
<tr>
<td>1601</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>1604</td>
<td>9.45</td>
<td>6.08</td>
</tr>
<tr>
<td>1603</td>
<td>9.28</td>
<td>6.04</td>
</tr>
<tr>
<td>0605</td>
<td>9.76</td>
<td>6.49</td>
</tr>
<tr>
<td>3650</td>
<td>8.99</td>
<td>7.62</td>
</tr>
<tr>
<td>0604</td>
<td>9.7</td>
<td>8.98</td>
</tr>
<tr>
<td>1601</td>
<td>9.35</td>
<td>7.82</td>
</tr>
<tr>
<td>1602</td>
<td>9.29</td>
<td>8.33</td>
</tr>
<tr>
<td>1605</td>
<td>9.25</td>
<td>6.77</td>
</tr>
<tr>
<td>3601</td>
<td>9.31</td>
<td>7.28</td>
</tr>
</tbody>
</table>
ALS Sewer Map Key

Public Sewer Types (Operated & Maintained by Thames Water)
- **Foul:** A sewer designed to convey waste water from domestic and industrial sources to a treatment works.
- **Surface Water:** A sewer designed to convey surface water (e.g., rainwater from roofs, yards and car parks) to rivers or watercourses.
- **Combined:** A sewer designed to convey both waste water and surface water from domestic and industrial sources to a treatment works.

- **Trunk Surface Water**
- **Trunk Foul**
- **Storm Relief**
- **Trunk Combined**
- **Vent Pipe**
- **Bio-solids (Sludge)**
- **Proposed Thames Surface Water Sewer**
- **Proposed Thames Water Foul Sewer**
- **Gallery**
- **Trunk Foul Rising Main**
- **Surface Water Rising Main**
- **Combined Rising Main**
- **Sludge Rising Main**
- **Proposed Thames Water Rising Main**
- **Vacuum**

Sewer Fittings
A feature in a sewer that does not affect the flow in the pipe. Example: a vent is a fitting as the function of a vent is to release excess gas.
- **Air Valve**
- **Dem Chase**
- **Fitting**
- **Manhole**
- **Vent Column**

Operational Controls
A feature in a sewer that changes or diverts the flow in the sewer. Example: A hydrant limits flow passing downstream.
- **Control Valve**
- **Drop Pipe**
- **Ancillary**
- **Weir**

End Items
End symbols appear at the start or end of a sewer pipe. Example: an **Outfall** is the outlet of a sewer pipe, where it drains into a stream or river.
- **Outfall**
- **Undefined End**
- **Inlet**

Other Symbols
Symbols used on maps which do not fall under other general categories
- **Public/Private Pumping Station**
- **Change of characteristic indicator (C.O.C.I.)**
- **Invert Level**
- **Summit**

Areas
Lines denoting areas of underground surveys, etc.
- **Agreement**
- **Operational Site**
- **Chamber**
- **Tunnel**
- **Conduit Bridge**

Other Sewer Types (Not Operated or Maintained by Thames Water)
- **Foul Sewer**
- **Surface Water Sewer**
- **Combined Sewer**
- **Gutter**
- **Culverted Watercourse**
- **Proposed**
- **Abandoned Sewer**

Notes:
1. All levels associated with the plans are to Ordnance Datum Newlyn.
2. All measurements on the plans are metric.
3. Arrows (on gravity fed sewers) or flecks (on rising mains) indicate direction of flow.
4. Most private pipes are not shown on our plans, as in the past, this information has not been recorded.
5. ‘*’ or ‘0’ on a manhole level indicates that data is unavailable.
6. The text appearing alongside a sewer line indicates the internal diameter of the pipe in millimetres. Text next to a manhole indicates the manhole reference number and should not be taken as a measurement. If you are unsure about any text or symbols present on the plan, please contact a member of Property Insight on 0845 070 0148.
ALS Water Map Key

Water Pipes (Operated & Maintained by Thames Water)

- Distribution Main: The most common pipe shown on water maps. With few exceptions, domestic connections are only made to distribution mains.

- Trunk Main: A main carrying water from a source of supply to a treatment plant or reservoir, or from one treatment plant or reservoir to another. Also a main transferring water in bulk to smaller water mains used for supplying individual customers.

- Supply Main: A supply main indicates that the water main is used as a supply for a single property or group of properties.

- Fire Main: Where a pipe is used as a fire supply, the word FIRE will be displayed along the pipe.

- Metered Pipe: A metered main indicates that the pipe in question supplies water for a single property or group of properties and that quantity of water passing through the pipe is metered even though there may be no meter symbol shown.

- Transmission Tunnel: A very large diameter water pipe. Most tunnels are buried very deep underground. These pipes are not expected to affect the structural integrity of buildings shown on the map provided.

- Proposed Main: A main that is still in the planning stages or in the process of being laid. More details of the proposed main and its reference number are generally included near the main.

Valves

- General Purpose Valve
- Air Valve
- Pressure Control Valve
- Customer Valve

Hydrants

- Single Hydrant

Meters

- Meter

End Items

Symbol indicating what happens at the end of a water main.

- Blank Flange
- Capped End
- Emptying Pit
- Undefined End
- Manifold
- Customer Supply
- Fire Supply

Operational Sites

- Booster Station
- Other
- Other (Proposed)
- Pumping Station
- Service Reservoir
- Shaft Inspection
- Treatment Works
- Unknown
- Water Tower

Other Symbols

- Data Logger

Other Water Pipes (Not Operated or Maintained by Thames Water)

- Other Water Company Main: Occasionally other water company water pipes may overlap the border of our clean water coverage area. These mains are denoted in purple and in most cases have the owner of the pipe displayed along them.

- Private Main: Indicates that the water main in question is not owned by Thames Water. These mains normally have text associated with them indicating the diameter and owner of the pipe.
BRIEFING NOTE

Project: Wimbledon Greyhound Stadium Redevelopment

File Ref: TAGL2001

Date: 12 March 2013

Subject Retail Assessment

Scope and Purpose

The purpose of this Briefing Note is to outline the approach that is intended to be undertaken in relation to a retail assessment to inform the proposed site allocation of Wimbledon Greyhound Stadium for mixed use development including a foodstore. The full assessment would be undertaken in support of a subsequent planning application.

It is worth noting that the scale of the retail development envisaged at the site has been substantially reduced since the time of the previous (stage 2) submission by Hume Consulting Ltd.

Retail Policy

In retail planning terms the site falls in an out of centre location and the level of floorspace proposed exceeds the 2,500 sq m floorspace threshold set out in national planning policy. Therefore, it is necessary to assess new retail development against the sequential approach and impact assessment.

Retail Context

The retail assessment will be informed by the findings of the LB Merton ‘Retail and Town Centre Capacity Study’ (RTCCS), which was completed in August 2011. This study provides a sound basis to assess new retail development in the Borough being informed by empirical research, including the completion of a household survey.

Account will also be given to the findings of the ‘Retail and Town Centre Needs Assessment’ (RTCNA) completed in December 2012 for the neighbouring authority of LB Wandsworth. Whilst this study focused on centres within LB Wandsworth, given the site’s close proximity to LB Wandsworth and the fact that catchment of retail development in this location will cover both authorities this is an appropriate approach to adopt.

Furthermore, the survey area identified for the RTCNA extends to cover the likely catchment of a foodstore at Wimbledon Greyhound and importantly the household survey that informed the RTCNA provides a more up-to-date assessment of shopping patterns. The household survey that informed
the RTCNA was completed in September 2012, whereas the survey for the RTCCS was completed in 2010. Accordingly, the survey takes into account new developments such as the Waitrose on Alexandra Road in Wimbledon, which have opened since the completion of the survey that informed the RTCCS.

In reviewing the findings of these two studies the following is to be noted:

**RTCCS**

- Collectively existing convenience goods floorspace within the Borough is trading well. Existing provision is trading some £40 million above expected levels;

- There is ‘capacity’, over and above commitments, for approximately 4,600 sq m (net) of additional convenience floorspace in the Borough by 2021.

- There is capacity for up 33,200 sq m (net) of additional comparison floorspace within the Borough by 2021;

- Most of the Borough’s centres are vital and viable; and

- The bulk of main food shopping undertaken in the local area that will be served by a new foodstore at Wimbledon Greyhound Stadium (i.e. Zone 2 and Zone 5 of the study area), is directed to Sainsbury’s stores within and outside the Borough. This suggests that there is a lack of choice and competition.

**RTCNA**

- Existing convenience floorspace within the five main centres within the LB Wandsworth were identified to be trading more than £195 million above expected levels;

- There is capacity within the Borough (over and above outstanding commitments) to support up to 15,232 sq m (net) of additional convenience floorspace by 2019, increasing to 18,455 sq m (net) by 2024;

- The study identifies that the priority for a large foodstore is the Putney, Balham and Wandsworth areas; and

- Reflecting the findings of the RTCCS, within the local area (Zone 4 of the study area identified) there is a lack of choice locally with Sainsbury’s dominating main food shopping patterns, particularly the stores at Colliers Wood and Tooting.

Overall, the findings of both the RTCCS and RTCNA demonstrate that there is a need for further retail floorspace, in order to provide improved consumer choice and competition in line with the objectives of national planning policy.
Sequential Approach

In terms of the sequential approach, it is important to note that the provision of a foodstore is critical in enabling the wider redevelopment of the site. In this context, the proposed retail element of the scheme is site specific and linked to the viability of retaining greyhound racing and other uses at the site.

Notwithstanding this, in order to adopt a robust approach to a future planning application, a review of sequential sites will be undertaken. Whilst planning policy at all levels outlines the preference that new retail development should be directed to in-centre locations and then edge of centre sites, planning policy does not preclude retail development coming forward in out of centre locations where no in-centre or edge of centre sites exist that are available, suitable or viable.

In considering the relevant centres where the search for sites should take place, the Practice Guidance to PPS4 (which has not been revoked following the publication of the NPPF) advises that this will be dependent upon the extent of the catchment that is likely to be served by the proposal.

Taking into account existing shopping patterns (as identified by the RTCCS and RTCNA) and the strength and proximity of competing provision, it is anticipated that the catchment area for proposal will extend to a five minute off-peak drive time from the site. A plan indicating the extent of this area is contained at Appendix 1.

It is notable that within the proposed catchment area there is a deficiency of main food shopping facilities. The principal destinations are either located at the periphery of the catchment or just beyond. Consequently, the introduction of a main food shopping destination in this location will improve the distribution of facilities.

Based on the catchment area identified, reflecting the approach advocated in the Practice Guidance, a review of sequential sites will be undertaken within this area. This will include a review of in-centre and edge of centre opportunities within Wimbledon town centre and Colliers Wood district centre within LB Morden together with Tooting town centre within the neighbouring authority of LB Wandsworth.

The catchment area also includes a number of small centres and shopping parades, such as Earlsfield and Arthur Road, whilst opportunities within and at the edge of these centres will also be considered as part of any sequential assessment in order to adopt a robust approach, it is likely that the scale of development proposed in these centres would be unsuitable in these locations.

In addition to considering in-centre and edge of centre locations, other out of centre sites will also be considered. Indeed, the NPPF (paragraph 26) highlights that when considering out of centre proposals preference should be given to accessible sites that are well connected to the town centre. In this regard the sequential assessment and wider retail assessment will sit alongside a comprehensive transport and highways strategy for the development.
In undertaking a sequential assessment, reference will be made to the findings of the RTCCS, which identified potential sites to accommodate new retail development. Likewise, a review of alternative sites will also be undertaken in the neighbouring authority of LB Wandsworth (including a review of the ‘Site Specific Allocations Document’ (February 2012).

In advance of undertaking the sequential approach discussions will be undertaken with both LB Merton and LB Wandsworth in order to identify a comprehensive list of potential sites that need to be considered.

Impact Assessment

Planning policy requires retail development outside a town centre and not allocated within an up-to-date development plan to be assessed against the following:

- The impact of the proposal on existing, committed and planned public and private investment in a centre or centres in the Study Area of the proposal; and

- The impact of the proposal on town centre vitality and viability, including local consumer choice and trade in the town centre and wider area.

These ‘impact tests’ will be assessed as part of the retail assessment. In assessing the potential impacts associated with retail development, the NPPF (paragraph 27) states that an application should only be refused where the proposed development is likely to have a ‘significant adverse’ impact on one or more of the above factors.

In assessing the likely trading effects of the proposal, the following factors will be considered:

- Updated population and expenditure data specific to the defined catchment will be utilised;

- Review of survey evidence in order to understand current and future shopping patterns. In line with the Practice Guidance, it is widely accepted that ‘like competes with like’. Therefore, it is anticipated that a foodstore of circa 3,500 sq m (gross) of floorspace that will serve a main food shopping role that will principally compete with similar facilities in the local area. In this context, it is expected that the proposal will draw the bulk of its trade from Sainsbury’s stores in Colliers Wood, Merton, Wandsworth, Tooting and Balham, Tesco in New Malden and the Morrisons in Wimbledon.

- The trading performance of the main food shopping provision within and beyond the catchment area. As previously highlighted, existing convenience provision is identified to be trading well and above expected levels. This strong trading performance will verified by site visits in order to understand if it is impacted upon the shopping experience through congestion in the store, queuing at check outs, etc.

- Health checks of the key centres within and outside the defined catchment area. This will include a review of Wimbledon, Colliers Wood, Balham and Tooting together with a number of
smaller local centres and parades, in order to understand their current role and function. This assessment will provide information such as diversity of uses and vacancy levels that will provide a sound basis to assess whether the anticipated trading effects of the proposal is likely to lead to a significant adverse impact upon the long term vitality and viability of existing centres.

- Account will be given to extant commitments for retail development permitted within the catchment area in order to provide a cumulative impact assessment.

- The trading effects of both the convenience and comparison goods element of any new retail development will be assessed.

- Account of any future proposals (both public and private) for new in-centre retail development within the defined catchment area.

Taking into account all of the above factors, the retail assessment will assess the proposal against the relevant policy tests.

**Initial Findings**

Whilst there is no policy requirement for applicants to demonstrate ‘need’ for new retail development, both the findings of the RTCCS and RTCNA together with our own assessment suggest that there is a need for further retail floorspace. Not only is existing floorspace overtrading, there is also a lack of choice for consumer and a specific deficiency in the part of the Borough that will be served by the proposal.

A foodstore as part of the redevelopment of the Wimbledon Greyhound Stadium will assist in meeting this need and also help to address the overtrading of existing facilities. Furthermore the provision of the foodstore, will be a key aspect of the proposed scheme as an enabling development that will help secure the future of greyhound racing at the site and the regeneration of the area.

Overall, our initial assessment demonstrates that there are clear retail arguments to support retail development at Wimbledon Greyhound Stadium as part of a high quality mixed use scheme that will deliver the Council’s planning policy objectives.
Wimbledon Greyhound Stadium
Transportation Enhancement Options

IBH0353/April2013
Wimbledon Greyhound Stadium
Transportation Enhancement Options
April 2013

DOCUMENT CONTROL SHEET

<table>
<thead>
<tr>
<th>Client</th>
<th>Hamilton Architects/Hume Consulting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Title</td>
<td>Wimbledon Greyhound Stadium</td>
</tr>
<tr>
<td>Document Title</td>
<td>Transportation Enhancement Options</td>
</tr>
<tr>
<td>Document No.</td>
<td>IBH0353/CDa/Apr13/TEO</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>This Document Comprises</th>
<th>DCS</th>
<th>TOC</th>
<th>Text</th>
<th>List of Tables</th>
<th>List of Figures</th>
<th>No. of Appendices</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>/</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Rev.</th>
<th>Status</th>
<th>Author(s)</th>
<th>Reviewed By</th>
<th>Approved By</th>
<th>Office of Origin</th>
<th>Issue Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>/</td>
<td>FINAL</td>
<td>CDa</td>
<td>COH</td>
<td>BD</td>
<td>Belfast</td>
<td>Apr 2013</td>
</tr>
</tbody>
</table>
Table of Contents

1.0 INTRODUCTION ........................................................................................................... 3
2.0 SITE ACCESS ARRANGEMENTS AND ROAD NETWORK CAPACITY ........... 5
3.0 WALKING AND CYCLING FACILITIES ..................................................................... 8
4.0 IMPROVED BUS INFRASTRUCTURE ........................................................................... 10
5.0 TRANSPORTATION ENHANCEMENTS FOR RESIDENTIAL UNITS .......... 12
6.0 CO-ORDINATED/MANAGED TRANSPORTATION .................................................. 13
7.0 CONCLUSION ............................................................................................................. 14

LIST OF APPENDICES

<table>
<thead>
<tr>
<th>Appendix</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appendix 1</td>
<td>Proposed Site with Possible Additional Highway Improvements</td>
</tr>
<tr>
<td>Appendix 2</td>
<td>Large Scale Drawing of Proposed Wandle Valley Regional Park</td>
</tr>
</tbody>
</table>

LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 2.1</td>
<td>Existing Sites and Surrounding Roads</td>
</tr>
<tr>
<td>Figure 2.2</td>
<td>Proposed Site with Possible Additional Highway Improvements</td>
</tr>
<tr>
<td>Figure 3.1</td>
<td>Location of the Proposed Wandle Valley Regional Park in relation to the site and the St George Hospital</td>
</tr>
<tr>
<td>Figure 4.1</td>
<td>Existing Bus Services and Routes Close Proximity to the Site</td>
</tr>
</tbody>
</table>
1.0 INTRODUCTION

1.1 In February 2013 a Transportation Assessment Methodology Statement (TAMS) was prepared by RPS to support the Hume Consulting proposals for the Wimbledon Greyhound Stadium. The TAMS gave a high level overview of the existing and proposed transportation facilities for the proposed Wimbledon Greyhound Stadium with associated, leisure, residential and retail development, and described how the Transportation Assessment (TA) will be carried out for the proposed development.

1.2 The Merton Council have requested further Highways & Transportation information to support the viability of the Hume Consulting proposals for the Wimbledon Greyhound Stadium in transportation terms.

1.3 Therefore this Transportation Enhancement Options report has been prepared to scope possible transportation enhancements/mitigation measures that are both feasible and potentially deliverable and that would enhance transportation accessibility at the site for all modes of transport.

1.4 The following actions have been carried out to inform and derive the list of possible mitigation measures listed in this report:
   • Liaise with Merton Council;
   • Liaise with Wandsworth Council;
   • Review relevant existing and draft policy documents;
   • Review Stage 3 submission information relating to the Wimbledon Stadium from other parties;
   • Review the existing transport facilities and amenities in close proximity to the site;
   • Review the existing bus and walking connections between the site and the train/underground hubs.

1.5 The headings used in this report are derived from the entry for the Wimbledon Greyhound Stadium (Site Proposal 37) of the Potential Sites and Draft Policies Maps January 2013 for the London Borough of Merton (Page 551).
1.6 It is highlighted that the possible transportation measures scoped in this report are for discussion/feasibility purposes only at this stage and do not represent a commitment from the developer to deliver any specific measures.
2.0 SITE ACCESS ARRANGEMENTS AND ROAD NETWORK CAPACITY

2.1 The site has a boundary with the following roads:
   - Plough Lane;
   - Copper Mill Road;
   - Summerstown;
   - Riverside Road.

2.2 Figure 2.1 below shows an aerial picture of the existing site (Map source - Bing Maps) with the existing roads labelled.

![Figure 2.1: Existing Site and Surrounding Roads](image)
2.3 The following physical highway improvements are feasible along these existing carriageways using land take from the site boundary:

- 4No lanes along the site frontage on Plough Lane, providing a lane gain;
- 1No dedicated lane for right turning into the Site Access, Copper Mill Lane and the existing retail park opposite the site;
- Possible signalisation of the proposed Plough Lane site access. To be determined by the TA;
- 4No Lanes on the Plough Lane internal access road;
- Set Down/Pick Up Lay-bys and/or Bus Lay-bys on Plough Lane;
- Removal of existing on-street parking along Plough Lane to within the site boundary;
- Improved/widened/formalised junction at Plough Lane/Copper Mill Lane Priority Junction;
- Reconfiguration of the Copper Mill Lane. The road into the site will become the main road and the remainder of the existing lane will become the minor road;
- Localised widening on approach to the Plough Lane/Summerstown junction on the Summerstown arm.
- Additional exit onto the Summerstown road.
- Widening of 2No existing lanes along Riverside Road;
- The existing on-street parking that occurs along the existing Riverside Road can be accommodated within the site boundary;
- Potential Signalisation of the 2No Mini Roundabouts at Plough Lane/Wimbledon Road/Blackshaw Road, to provide increase in vehicle capacity, safety and controlled pedestrian/cycle crossing facilities. (To be determined by the TA);
- The TA may also identify other off-site highway mitigation works, such as possible signalisation of the existing Summerstown/Garrett Lane Roundabout Junction.

2.4 These improvements are illustrated in Figure 2.2 below, with the full A3 version included in Appendix 1.
Figure 2.2: Proposed Site with Possible Additional Highway Improvements
3.0 WALKING AND CYCLING FACILITIES

3.1 The following enhancements to the walking and cycling facilities are feasible at the site:

- Cycle and pedestrian permeability can be provided through the site, reducing walking/cycling distances for new and existing users in the area. Figure 2.1 above shows the initial location of a pedestrian/cycle path within the site boundary to accommodate this (located at the bottom right hand corner of the proposed stadium);
- Widen footpaths along the site boundary;
- Provision of on-site cycle parking;
- Provision of showering/changing and locker facilities for staff at the various developments within the site to accommodate commuting to work on foot or by bike.

3.2 As mentioned above the potential signalisation of the 2No Mini Roundabouts at Plough Lane/Wimbledon Road/Blackshaw Road could provide controlled pedestrian/cycle crossing facilities.

3.3 As explained in the TAMS it is envisaged that some of the proposed residential units will accommodate staff at the St George Hospital. Also, the proposed 450No space car park may accommodate parking for the hospital during the day. Therefore the route between the site and the St George Hospital is likely to be a heavily used pedestrian/cycle desire line. The 2No Mini Roundabouts at Plough Lane/Wimbledon Road/Blackshaw Road are on the existing pedestrian/cycle route connecting the site to the hospital, and the signalisation of the 2No Mini Roundabouts would improve the existing pedestrian/cycle route.

3.4 The location of the proposed Wandle Valley Regional Park in relation to the site and the St George Hospital is shown in Figure 3.1 below. A large scale version in included in Appendix 2 for information.
3.5 If the Wandle Valley Regional Park proposals are brought forward it could provide a potential traffic free pedestrian/cycle connection between the site and the hospital. The possible improved walking/cycling crossing facilities at the 2No existing roundabouts would improve access between the site and the potential new route.

3.6 Other dominant pedestrian/cycle crossing points to the site could also be identified and controlled i.e. signalised.
4.0 IMPROVED BUS INFRASTRUCTURE

4.1 The following measures could be introduced at the site to enhance bus infrastructure:

- Provision of upgraded bus shelters with Real Time information along the site boundary;
- Possibility of using the additional lane along Plough Lane (as shown in Figure 2.2 above) for typical traffic, as a dedicated bus lane for event management or a combination of both;
- Set Down/Pick Up Lay-bys and/or Bus Lay-bys on Plough Lane (as shown in Figure 2.2 above).

4.2 Figure 4.1 below shows the existing bus services and routes in close proximity to the site.

![Figure 4.1 Existing Bus Services and Routes Close Proximity to the Site](image-url)
4.3 Using Figure 4.1 as a reference, the following measures could be considered to enhance bus provision to the site:

- Possible intensification of existing bus service 493 that currently runs along Plough Lane and the site boundary and links the Wimbledon Train station to the site by bus;
- Possible diversion of the 493 bus service to link the Wimbeldon Park Underground Station to the site by bus;
- Possible diversion of existing bus services 44, 77 or 270 along Summerstown road to the vicinity of the site, linking the Earlsfield Train Station, Tooting Train Station and Tooting Broadway Underground Station to the site by bus;
- Possible diversion of the 200 service to link Haydons Road Train Station and Colliers Wood Underground Station to the site by bus;
- Possible bus shuttle from St George hospital to site for staff and to accommodate the overflow car parking facility;
- Possible bus shuttle from surrounding train/underground stations to connect directly to the site during events at the stadium.

4.4 In order to encourage and promote sustainable transport use at the site there could be some form of subsidised travel by public transport for staff, residents, customers and/or attendees to the events at the stadium.
5.0 TRANSPORTATION ENHANCEMENTS FOR RESIDENTIAL UNITS

5.1 The proposals include 400 No ‘car free’ residential units i.e. there will be no private parking spaces allocated to the residential units.

5.2 Discussions with the Merton Council revealed that an existing Plough Lane Residential development located in close proximity to the site was permitted with a reduced car parking provision. The normal provision is 0.76 spaces per residential unit, and a rate of 0.25-0.3 spaces per unit was permitted and constructed. The site is now operational, and observations at the site show that the existing car park is significantly underused. This example supports the proposal for a ‘car free’ scheme at the Wimbledon Greyhound Stadium site.

5.3 Provision of some parking spaces on site can be provided for a Car Club for the residential units.

5.4 Provision of some parking spaces with electrical car charging facility for the residential units would support the use of electrical cars at the site. There may be an opportunity to combine both the car club and electrical car charging parking spaces.

5.5 Subsidised travel to encourage and promote the use of public transport by the residents could be considered.
6.0 CO-ORDINATED/MANAGED TRANSPORTATION

6.1 Both the normal day-to-day operation of the site and events at the Stadium can be managed via:

- Travel Plan;
- Event Management Plan;
- Service Yard Management Plan.

6.2 Travel Plans include a package of measures to encourage and support the use of sustainable transport at the site. They are normally progressed and monitored by a Travel Co-ordinator and/or by a Travel Steering Group. The Plan involves surveys and monitoring of travel patterns at the site, and can identify and resolve any issues that arise from sustainable transport users.

6.3 Travel Plans can be tailored for each individual use at the site i.e. Retail, Residential, Squash Club and Stadium, and/or can be combined for the entire site to ensure co-ordination between all users at the site.

6.4 The purpose of an Event Management Plan is to outline the actions and measures that need to be in place to successfully run an event at the Stadium. It also outlines the various interactions and responsibilities between stakeholders who are involved running an event.

6.5 The Service Yard Management Plan will formalise the servicing procedures at the site, including restrictions to servicing times and routes to ensure that the servicing is carried out with the minimum inconvenience to the other site users and minimum disruption to the external highway.

6.6 The provision and implementation of the Plans to encourage and provide co-ordinated/managed transportation can be secured through the planning system.
7.0 CONCLUSION

7.1 This Transportation Enhancement Options report has been prepared to scope possible transportation enhancements/mitigation measures that are both feasible and potentially deliverable and that would enhance transportation accessibility at the site for all modes of transport. Measures have been considered under the headings of:

- Site Access Arrangements;
- Roads Network capacity;
- Walking and Cycling Facilities;
- Improved Bus Infrastructure;
- Transportation Enhancement for Residential Units;
- Co-ordinated/Managed Transportation.

7.2 The transportation measures listed and discussed in this report will contribute towards alleviating movement and safety concerns at the site.

7.3 It is highlighted that the possible transportation measures scoped in this report are for discussion/feasibility purposes only at this stage and do not represent a commitment from the developer to deliver any specific measures.
Appendix 1

Proposed Site with Possible Additional Highway Improvements
Appendix 2

Large Scale Drawing of Proposed Wandle Valley Regional Park
Proposed Wandle Valley Regional Park

Site Location

St George Hospital
Appendix 3

Extract from the London Plan 2011
Charter 7 Pages 221/222 Policy 7.9 Heritage-Led Regeneration
monuments and 1 battlefield (Barnet)\textsuperscript{17}. Those designated assets at risk include 72 conservation areas, 493 listed buildings, 37 scheduled monuments and 14 registered parks and gardens\textsuperscript{18}. The distribution of designated assets differs across different parts of London, and is shown in Map 7.1. London’s heritage assets range from the Georgian squares of Bloomsbury to Kew Gardens (Victorian) and the Royal Parks, and include ancient places of work like the Inns of Court (medieval in origin), distinctive residential areas like Hampstead Garden Suburb (early twentieth century) and vibrant town centres and shopping areas like Brixton and the West End. This diversity is a product of the way London has grown over the 2000 years of its existence, embracing older settlements and creating new ones, often shaped by the age they were developed. This sheer variety is an important element of London’s vibrant economic success, world class status and unique character.

7.31 Crucial to the preservation of this character is the careful protection and adaptive re-use of heritage buildings and their settings. Heritage assets such as conservation areas make a significant contribution to local character and should be protected from inappropriate development that is not sympathetic in terms of scale, materials, details and form. Development that affects the setting of listed buildings or conservation areas should be of the highest quality of architecture and design, and respond positively to local context and character outlined in the policies above. When considering re-use or refurbishment of heritage assets, opportunities should be explored to identify potential modifications to reduce carbon emissions and secure sustainable development. In doing this a balanced approach should be taken, weighing the extent of the mitigation of climate change involved against potential harm to the heritage asset or its setting.

7.32 London’s heritage assets and historic environment also make a significant contribution to the city’s culture by providing easy access to the history of the city and its places. For example recognition and enhancement of the multicultural nature of much of London’s heritage can help to promote community cohesion. In addition to buildings, people can perceive the story of the city through plaques, monuments, museums, artefacts, photography and literature. Every opportunity to bring the story of London to people and ensure the accessibility and good maintenance of London’s heritage should be exploited. In particular, where new development uncovers an archaeological site or memorial, these should be preserved and managed on-site. Where this is not possible provision should be made for the investigation, understanding, dissemination and archiving of that asset.

**POLICY 7.9**

**HERITAGE-LED REGENERATION**

**Strategic**

A Regeneration schemes should identify and make use of heritage assets and reinforce the qualities that make them significant so they can help stimulate environmental, economic and community regeneration. This includes buildings, landscape features, views, Blue Ribbon Network and public realm.

**Planning decisions**

B The significance of heritage assets should be assessed when development is proposed and schemes designed so that the heritage significance is recognised both in their own right and as catalysts for regeneration. Wherever possible heritage assets (including buildings at risk) should
be repaired, restored and put to a suitable and viable use that is consistent with their conservation and the establishment and maintenance of sustainable communities and economic vitality

**LDF Preparation**

C Boroughs should support the principles of heritage-led regeneration in LDF policies.

7.33 Based on an understanding of the value and significance of heritage assets, the sensitive and innovative use of historic assets within local regeneration should be encouraged. Schemes like Townscape Heritage Initiatives, Heritage Lottery Fund, Heritage Economic Regeneration Schemes or Buildings at Risk Grants can play an important role in fostering regeneration of historic areas while also promoting the maintenance and management of heritage assets and developing community appreciation of them.

**POLICY 7.10 WORLD HERITAGE SITES**

**Strategic**

A Development in World Heritage Sites and their settings, including any buffer zones, should conserve, promote, make sustainable use of and enhance their authenticity, integrity and significance and Outstanding Universal Value. The Mayor will work with relevant stakeholders to develop supplementary planning guidance to define the setting of World Heritage Sites.

**Planning decisions**

B Development should not cause adverse impacts on World Heritage Sites or their settings (including any buffer zone). In particular, it should not compromise a viewer’s ability to appreciate its Outstanding Universal Value, integrity, authenticity or significance. In considering planning applications, appropriate weight should be given to implementing the provisions of the World Heritage Site Management Plans.

**LDF preparation**

C LDFs should contain policies to:

a protect, promote, interpret, and conserve, the historic significance of World Heritage Sites and their Outstanding Universal Value, integrity and authenticity

b safeguard and, where appropriate, enhance both them and their settings.

D Where available, World Heritage Site Management Plans should be used to inform the plan making process.

7.34 The World Heritage Sites at Maritime Greenwich, Royal Botanic Gardens Kew, Palace of Westminster and Westminster Abbey including St Margaret’s Church and Tower of London are embedded in the constantly evolving urban fabric of London. The surrounding built environment must be carefully managed to find a balance between protecting the elements of the World Heritage Sites that make them of Outstanding Universal Value and allowing the surrounding land to continue to change and evolve as it has for centuries. To help this process, the Mayor will encourage the development and implementation of World Heritage Management Plans.

7.35 Darwin’s Landscape Laboratory is currently included on UNESCO’s Tentative List for designation as a World Heritage Site. Development affecting Tentative List Sites should also be evaluated so that their Outstanding Universal Value is not compromised.

7.36 Development in the settings (including buffer zones where appropriate) of these World
Appendix 4

Feasibility Study
Feasibility Study can be found via

http://www.merton.gov.uk/environment/planning/planningpolicy/ldf/planningresearch.htm#1996greyhound