

<b>Plan: A</b>	<b>DC/04/01230/OUT</b>	<b>Ward: Thames ( A )</b>
<b>Address:</b>	Land at Barking Riverside, Barking Reach, south of A13 and north of the river Thames, Barking	
<b>Development:</b>	Development comprising or to provide a mixed use development for up to 10,800 residential dwellings and up to 65,600 sq.m. of built floorspace – see below for full description of development	
<b>Applicant:</b>	Barking Riverside Limited (BRL)	
<b>Summary:</b>		
<p>This report considers the planning issues raised by the planning application submitted by Barking Riverside Limited proposing comprehensive development of the Barking Riverside site. This substantial site occupies a large area of brownfield land in the south-western part of the Borough with a 2km frontage to the River Thames. The application proposes a residential-led, mixed use development of the site on a phased basis over a period of some 20 years. The application has been submitted in outline form though limited elements of the proposals are submitted for full consideration at this stage. The application raises a number of complex planning issues related to topics including transport, provision of social infrastructure, sustainability, energy, flood risk etc which are considered in the main report. The application was accompanied by an Environmental Impact Assessment which has been the subject of extensive consultation. Given the long timescale for build-out of the site the application seeks to establish a number of strategies and targets which will inform future applications. These strategies will be written into planning conditions and a Section 106 agreement to ensure consistency and compliance over the lifetime of the development which will assist in the creation of a sustainable community providing a wider choice of housing and contributing to strengthening the economy of Barking and Dagenham.</p> <p>The Barking Riverside site forms one of the largest regeneration sites in London. At some 179 hectares in size the site occupies a large part of the Borough south of the A13 and adjacent to the River Thames. The impact of the development of the site would affect the whole of the Borough but the site is also important in strategic terms for east London and the Thames Gateway area. Development proposals for the site have been subject to extensive consultation both in the pre-application stage and also when the current planning application was formally lodged for consideration. The planning application which is the subject of this report proposes a residential-led redevelopment of the site with up to 10,800 residential units. A range of supporting infrastructure is required to support this new community and therefore the proposals make provision for retail facilities, healthcare, schools, community uses and both formal and informal open space. A full description of the development proposals is provided on page 5 of the report.</p>		

Given the large scale of the proposals the build-out of the entire site would take some 20 years. This long timescale forms one of a number of risks involved in the development of the site alongside site remediation, provision of services, infrastructure and public realm. A degree of flexibility is therefore required in order to accommodate the way in which the site will be built out. At the same time any grant of planning permission must give sufficient certainty that the approved development is capable of implementation within an agreed policy framework with acceptable levels of impact on the delivery of the required benefits and quality of the area.

Members will be aware that recent Government guidance on planning and development has stressed the importance of building sustainable communities. The overriding objective for the Council in approaching this development opportunity has been to achieve a high quality sustainable community on a large and strategically important site with a mix and range of housing opportunities, leisure, community and cultural facilities within an exemplary public realm and taking into account the need to minimise the impact on the environment. It has always been important that the development is not self contained but integrates into the existing communities at Barking Reach, Thames View and the wider Barking area and contributes to community cohesion. If planning permission is forthcoming the scheme would provide significant employment opportunities and the benefits of the regeneration should be spread to benefit the whole of the Borough.

Sustainability issues are also highly relevant to the proposals and the achievement of high specifications on buildings, energy consumption, recycling and transportation is a key objective for the Council.

**Recommendation(s)**

That the Development Control Board is minded to grant planning permission, subject to no direction to the contrary from the Mayor of London and the Secretary of State, the conditions listed and following the completion of a Section 106 legal agreement. The legal agreement covers the heads of terms referred to in this report. That the Director of Regeneration be authorised to negotiate such an agreement and upon completion to grant planning permission on the basis of the heads of terms in this report and subject to the conditions listed.

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## **Introduction**

### **Purpose of the Report**

The purpose of this report is to determine an outline planning application for the comprehensive development of the site. Any resolution to grant planning permission will be referred to the Mayor of London and the Secretary of State. Such a resolution would also be subject to conditions and a satisfactory Section 106 legal agreement.

### **Structure of the Report**

The report fully considers the application in relation to the main policy frameworks of the London Plan, the adopted Unitary Development Plan and other policy and guidance documents. The report considers the likely impact of the scheme and considers the views and representations of statutory bodies and individuals. The report comprises sections dealing with policy, transport, housing etc. Each topic has its own introduction and description of the proposals in so far as it relates to the individual topic. The sections on policy and consultation are descriptive summaries. There is an overall conclusion at the end of the report and appendices including a set of heads of terms covering access, affordable housing and housing, community development trust, design, education, energy and sustainability, local employment, neighbourhood centres, open space and play space, transport and waste and a set of conditions.

### **Full Description of Development**

The full description of development as set out in the application submitted to the Council in December 2004 is as follows:

“Development comprising or to provide a mixed use development for up to 10,800 residential dwellings and in addition up to 65,600 sq.m. of built floorspace for retail uses (Classes A1 to A3), business premises (Class B1), hotel (Class C1), communal care home and other residential institutions (Class C2), sui generis live work units, community and social facilities (Classes D1 and D2) (for uses such as libraries, primary health care facilities, places of worship, community facilities, crèche and pre-school facilities, care facilities for the young, old and/or infirm, sport and leisure development). In addition, development will also provide: one secondary school of up to 8 forms of entry (with maximum gross site area of 44,585 sq.m.) including ancillary accommodation and facilities plus a sports field up to 14,313 sq.m. (gross site area); up to 2no.; up to 3-form entry primary schools (with a maximum gross site area of 15,000 sq.m. each). Additional educational accommodation (Class D1) is also to be provided in the form of an ecology centre of up to 250 sq.m., and in addition, a maximum of two multi-storey car parks to provide for 1000 spaces in total. Such development to include the remediation of the former Renwick Road landfill site and power station foundations, and the continuation of the remediation of the remainder of the site in accordance with the principles established by the 1994 permission (LPA Ref. TP/43/93) to

provide for revised ground contours and development platforms, strategic landscape and works to create new and improved / retained ecological reserves, retention of City Farm, open space (including parks, play spaces, promenades and piazzas, formal and informal play space) laying out and or improvement or alteration to existing service infrastructure (to include the laying out of foul and surface drainage infrastructure and water attenuation), new and alteration to existing vehicular and pedestrian access and routes, diversion of existing statutory public footpath no. 47, works to existing river wall, bund and flood defences, alterations to existing T jetty and coal wharf. Ancillary engineering and other operations. All such development shall accord with the Application Plans and Development Parameters Schedule.”

As mentioned at paragraph 2.2 below this description of development is now approximately two years old and elements of the description have changed through negotiations. The changes are set out in the Section 106 Heads of Terms from page 135.

## **1.0 Site Description**

- 1.1 The application site comprises an open area of predominantly grassed land, with associated electricity infrastructure, totalling 179.3 hectares generally located north of the River Thames, west of Dagenham Dock, south of the London-Tilbury-Southend railway corridor and east of River Road. The site is irregular in shape and has maximum dimensions measured east to west of some 2.2km and 1.1km measured north to south.
- 1.2 The southern boundary of the site lies adjacent to the River Thames and the site has an overall frontage to the river of some 2km. The western part of this river boundary is formed by the coal wharf and T jetty associated with the former power station. To the east of the T jetty the site frontage lies adjacent to the undeveloped Thames foreshore area. The River Thames and its foreshore are designated as a site of metropolitan importance for nature conservation.
- 1.3 The eastern boundary of the site includes the Goresbrook watercourse which is designated as a site of Borough importance for nature conservation.
- 1.4 The north-eastern boundary of the site lies to the south of the railway corridor and includes the Ship & Shovel sewer which links to the Goresbrook and is also classified as a site of Borough importance for nature conservation. Further to the west the site boundary adjoins existing residential development forming Phase 1a of the Barking Reach development now known as Great Fleete. On the western side of Renwick Road the site boundary runs along the southern side of Thames Road and to the south of Phase 2a of the Barking Reach

development. The final stretch of the northern boundary lies to the rear of commercial units on the southern side of Thames Road.

- 1.5 The western boundary of the site is adjacent to commercial units within the Creekmouth Industrial Estate on River Road.
- 1.6 Two roads cross the application site. Renwick Road passes north to south through the centre of the site before changing to a south-westerly alignment and linking into River Road. Choats Road passes through the north-eastern part of the site linking Renwick Road to Dagenham Dock to the east of the site.
- 1.7 The application site contains a number of distinct elements namely the former Long Reach allotment site, the former power station site, Ripple Nature Reserve and the former Renwick Road landfill site.
- 1.8 The former Long Reach allotment site, totalling some 16 hectares in area, forms the north-western part of the site. The site comprised a temporary allotment site which was vacated in 2004. This part of the site is generally low lying and flat and crossed by a number of ditches. The Buzzards Mouth Creek watercourse forms the eastern boundary of this area. Overhead power lines cross the southern part of the former allotment site in an east-west direction.
- 1.9 The former power station site is a roughly rectangular area of some 21 hectares located between River Road and the Thames frontage. This area was formerly occupied by the 3no. Barking power station buildings, referred to as the A, B and C stations, which were developed between 1925 and 1954. The power station buildings have been largely demolished and the site cleared. A total of 4 buildings associated with the power station remain on the site namely the office / control room for station A, the switch house / control room of station B, the switch house of station C and the coal wharf. All of these structures apart from the control room of station C lie within the application site. This part of the application site is largely open and occupied by a number of temporary uses including the Dagenham Sunday market. The coal wharf and T jetty associated with the power stations form a hard edge to the river frontage.
- 1.10 Ripple Nature Reserve totals some 6 hectares in area and links Thames Road to River Road. The reserve is positioned in between Phase 2a of Barking Reach to the west and the Renwick Road switching station to the east. The Renwick Road switching station and compound site totalling 5.5 hectares in area and located on the western side of Renwick Road close to the centre of the site does not form part of the application site.
- 1.11 The former Renwick Road landfill site forms the eastern part of the Barking Riverside site. This area totals some 26 hectares and lies

between the railway corridor and the river Thames immediately to the west of the Goresbrook.

- 1.12 Ground levels across the site, as at July 2004, vary between a lowest point of 1m AOD on the former allotment site and a highest point of 14m AOD on the former landfill site. Members will note from the planning history of the site that planning permission was granted in 1994 (ref. 93/00043/TP) for the “use of approximately 370 acres (149 hectares) for the deposition of Category A fill material in connection with use for residential and associated development”. The site has therefore been subject to remediation for over 10 years and this process is ongoing. However, this permission does not include the former Renwick Road landfill site of the former power station foundations.
- 1.13 Footpath no.47 passes through the application site. This path starts at the southern end of Renwick Road and crosses the site in a south-easterly direction to emerge at the Thames frontage to the east of the T jetty. The footpath then follows the foreshore in an easterly direction before turning north on the eastern side of the Goresbrook. The footpath then turns eastwards again passing through Dagenham Dock to emerge onto the A1306.
- 1.14 All of the application site is subject to the safeguarding direction for London City Airport. The direction applies to buildings or structure more than 15m in height in the south-western corner of the site, 45m on the western part of the site and 90m on the remainder of the site.
- 1.15 As noted above there are a variety of land uses immediately surrounding the site. The southern boundary of the site is formed by the river Thames and associated foreshore mudflats. The foreshore area is a designated site of metropolitan importance for nature conservation. Adjacent to the south-eastern corner of the site is the RMC Roadstone safeguarded wharf site. This is an operational wharf handling a range of aggregates for use in road maintenance and construction.
- 1.16 Land within Dagenham Dock lies adjacent to the remainder of the sites eastern boundary. Outline planning permission has been granted for Class B1, B2 and B8 development on this adjoining land which formed part of the RWE Innogy landholdings. Recently full planning permission has been granted for the ‘Closed Loop’ plastics recycling facility close to the eastern boundary of the site. The majority of the northern boundary of the site lies adjacent to the existing railways corridor and residential development in phases 1a and 2a of Barking Reach. Industrial and warehousing uses located in Thames Road, Creek Road, Longreach Road and River Road adjoin the site to the north-west and west. Adjacent to the south-western corner of the site is the safeguarded De Pass wharf. This wharf site has planning permission for the open storage and processing of asphalt.



- 1.17 All of the application site is within flood risk zone 3 as defined by the Environment Agency. This is the high risk zone where there is a 1 in 100 (1%) or greater chance of fluvial (river) flooding or a 1 in 200 (0.5%) or greater chance of tidal or coastal flooding.

## **2.0 Description of Proposals**

- 2.1 The planning application has been submitted in outline form with all matters reserved for subsequent approval except for strategic landscape. However, full planning permission is sought at this stage for finished ground levels and ground remediation. The 1994 planning permission for remediation of the site (ref. TP/93/00043) did not include the former Renwick Road landfill site or the former power station foundations. This application therefore seeks full planning permission to remediate these two areas as a continuation of the methodology established by the 1994 permission. The proposals are therefore a mix of outline and detailed proposals which may be considered as a 'hybrid' application.
- 2.2 The full description of development appears on page 5 of the report and can be summarised as follows:

up to 10,800 residential dwellings;

up to 65,600 sq.m. of built floorspace of which –  
no more than 19,700 sq.m. within Use Classes A1-A3 within which only one unit shall be greater than 2,500 sq.m. but no more than 9,500 sq.m.  
no more than 11,250 sq.m. within Use Class B1  
no more than 2,400 sq.m. for live-work units  
no more than 4,800 sq.m. within Use Class C1  
no more than 22,000 sq.m. within Use Class C2  
no more than 2,450 sq.m. within Use Class D1 (excluding education)  
no more than 3,000 sq.m. within Use Class D2

Class D1 educational use comprising 2no. three-form entry primary schools of no more than 15,000 sq.m. gross site area each and 1no. eight-form entry secondary school not more than 44,585 sq.m. plus a playing field not more than 14,313 sq.m.

ecology centre of up to 250 sq.m.;

a maximum of 2no. multi-storey car parks providing 1,000 spaces in total;

remediation of the former Renwick Road landfill site and power station foundations;

strategic landscaping;

creation of new ecological reserves;

retention of city farm;

open space;

service infrastructure (foul and surface drainage and water attenuation);

vehicular and pedestrian access and routes;

diversion of footpath no. 47;

alterations to river wall, bund and flood defences;

works to T jetty and coal wharf;

ancillary engineering and other operations.

This description of development is two years old and elements of it have changed as a result of negotiation in the planning process. These changes are described in S.106 Agreement Head of Terms at the end of the report

- 2.3 The applicant is Barking Riverside Limited which is a joint venture company established between English Partnerships and Bellway Homes. The submitted planning application may be considered as a 'masterplan' seeking permission to establish the broad parameters of development. The drawings submitted for approval at this stage reflect this approach. **If planning permission is forthcoming the applicant intends to submit up to 5 detailed masterplans, known as sub-framework plans, covering the 4 main development phases and infrastructure.**
- 2.4 It is emphasised that Barking Riverside Limited itself will not build houses on the site. The purpose of the joint venture company is to prepare the site for future development by undertaking remediation and providing the required infrastructure. It is understood that Bellway Homes have an option to construct up to half of the available development plots with the remainder of the plots made available to other developers. On each phase it is envisaged that there will be more than one housebuilder.
- 2.5 Extensive documentation has been submitted to support the application including a transport assessment and Environmental Impact Assessment. The original planning application submitted in December 2004 comprised a total of 17 documents and accompanying appendices as follows:

- Document 1 Description of Development & Parameters;
- Document 2 Urban Design Framework;
- Document 3 Application Drawings;
- Document 4 Planning Statement;
- Document 5 Ground Conditions Assessment & Outline Remediation Strategy;
- Document 6 Strategic Overview;
- Document 7 Statement of Community Consultation;
- Document 8 Transport Assessment;
- Document 9 Sustainability Framework;
- Document 10 Commercial & Community Objectives;
- Document 11 Flood Risk Assessment;
- Document 12 Retail, Leisure & Community Facilities Assessment;
- Document 13 Landscape & Ecological Framework;
- Document 14 Foul Drainage Strategy;
- Document 15 Environmental Statement;
- Document 16 Non-Technical Summary to Environmental Statement;
- Document 17 Index of Application.

2.6 With reference to the Town & Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 the proposals constitute an urban development project under Schedule 2, Section 10(b). Circular 2/99 (Environmental Impact Assessment) suggests at paragraph A19 that development proposals involving a site area of more than 5 hectares, or providing more than 10,000 sq.m. of new commercial floorspace or development having significant urbanising effects (e.g. more than 1,000 dwellings) are more likely to require an Environmental Impact Assessment. The development proposals exceed these thresholds and therefore the application has been accompanied by an Assessment.

2.7 The Environmental Statement, listed above as Document 15, is accompanied by a large number of technical appendices. Some of these appendices serve a dual purpose as both Environmental Statement appendices and application documents in their own right. The appendices are listed as follows:

- Appendix 2 Existing Site Contours Drawing;
- Appendix 3 Environmental Impact Assessment Scoping Report & Responses;
- Appendix 4 Electromagnetic Field Survey;
- Appendix 5a Landscape & Ecological Framework (Document 13);
- Appendix 5b Commercial & Community Objectives (Document 10);
- Appendix 8 Landscape & Visual Assessment;
- Appendix 9 Ecological Survey & Assessment;
- Appendix 10a Socio-Economic Baseline Report;
- Appendix 10b Retail, Leisure & Community Facilities Assessment (Document 12);
- Appendix 11 Transport Assessment (Document 8);

- Appendix 12 Noise & Vibration Survey Data
- Appendix 13 Air Quality Impact Assessment;
- Appendix 14a Archaeological Desk Based Assessment;
- Appendix 14b Building Assessment;
- Appendix 17 Ground Conditions Assessment & Outline Remediation Strategy (Document 5);
- Appendix 18 Flood Risk Assessment (Document 11).

- 2.8 Of the documents listed above the majority have a status of supporting the application. However three of the documents are submitted for approval: Documents, 1, 3 and 5.
- 2.9 Document 1 (Description of Development & Parameters) contains the submitted application forms, certificates, notices and description of development. The parameters of the development are described to reflect the details contained in the submitted application drawings. This document also includes a draft phasing schedule and suggested triggers relating infrastructure provision to development. The phasing schedule describes 4 no. five-year phases of development. The suggested development triggers set out a series of numeric thresholds which limit residential occupations subject to the provision of transport infrastructure, community facilities and open space.
- 2.10 Document 3 (Application Drawings) contains eight drawings for approval which set the broad parameters for development and are summarised below.
- 2.11 Application Boundary – this drawing defines the boundary of the application site as described more fully in the Site Description part of this report. It is notable that 2 buildings namely Renwick Road switching station and the former control room of power station C are located in the central part of the site but do not form part of the proposals and the red-line boundary of the site excludes these two sites.
- 2.12 Framework Plan – this drawing sets out the disposition of land uses across the site. The drawing also gives indications of the location of public open space, community facilities and infrastructure. New areas for residential development are indicated across substantial parts of the site though land adjacent to the Ripple nature reserve, Thames foreshore, watercourses and the overhead power lines are avoided. Areas of public open space would include ‘Barking Riverside Park’ which is a substantial area south of both the railway corridor and Phase 1a underneath the power lines. This open area also includes land on both sides of the Goresbrook and land around the Renwick Road switching station. The Thames foreshore area is designated as an ecology park. The Ripple Nature reserve is retained as open space as is the City Farm on Thames Avenue. Substantial areas of open space are indicated in the north-western part of the site underneath the overhead power lines. Elsewhere smaller local parks are indicated at

various locations through the site. The Framework Plan indicates locations for the education uses serving the development. The secondary school and associated grounds would be located on the northern side of River Road opposite the former power station site. The first primary school is proposed adjacent to the western neighbourhood centre close to the existing development at Phase 2a. The second primary school is indicated at the centre of the site in the district neighbourhood adjacent to the eastern side of Renwick Road. On the eastern part of the site a business zone is proposed around a local park. Finally a riverfront commercial centre is proposed close to the T jetty and river edge. Indications of transport infrastructure are also shown on the Framework Plan including main and secondary roads, East London Transit and Docklands Light Railway routes and cycle links.

- 2.13 Finished Ground Level Plan – this drawing indicates levels ranging from 1m to 13.5m AOD. Two small ‘hills’ are created within the development located on the former landfill site and south-east of the former allotments.
- 2.14 Land Capable of Built Development – this drawing shows an area of 116.3 hectares as the gross developable area of the site. This area is calculated by removing land not in the ownership of the applicant, the Ripple Nature reserve, City Farm a 30m stand-off from the power lines, watercourses and small fringe areas from the gross site area of 179.3 hectares.
- 2.15 Average Housing Density Plan – this drawing shows a total of 13 residential development Zones across the site and provides average density for each zone. Average housing densities vary between 40-240 dwellings per hectare. The lowest densities are located in the north-western corner of the site on the former allotments. The highest densities would be achieved adjacent to the coal wharf and T jetty.
- 2.16 Maximum Building Heights – this drawing expresses maximum building heights both in terms of maximum storeys and maximum heights in metres. A range between a maximum 4-storeys and a maximum 20 storeys is indicated. Maximum heights would be between 20m and 76m. This drawing relates closely to the Average Housing Density Plan with lower building heights located at the lower density locations on-site and vice-versa.
- 2.17 Road Infrastructure – indicates the location of primary and secondary roads through the site and the route of the ELT. Renwick Road is the primary north-south road across the site. River Road is extended north-eastwards across the site to link to Choats Road at Dagenham Dock forming the main east-west link. The current alignment of Choats Road from Phase 1a to Dagenham Dock would be re-aligned where it crosses the site.

- 2.18 Main Streets – this drawing refers to the street zones of the primary and secondary roads, that is, the roads and associated public realm of pavements and verges. Length and widths of these main streets are also provided. Some 8.6km of main street length is proposed across the site. A variety of street widths are indicated for these primary and secondary roads ranging from 12m to 41m.
- 2.19 Document 5 (Ground Conditions Assessment & Outline Remediation Strategy) is a lengthy and detailed document examining the ground conditions of the site and setting out proposals for remediation. This document notes that large areas of the site comprise contaminated land and that the development of the site could pose risks for a number of receptors including watercourses, local ecology, existing / future residents and site workers. Remediation measures are intended to mitigate the potential impacts and reduce the risks from contamination sources to negligible levels. Remediation measures are based on introducing capping onto the site at various depths. However, for small areas of the site where contamination has not occurred no remediation measures are proposed.
- 2.20 Following the initial consultation exercise in the early part of 2005 a number of detailed issues were raised particularly related to design issues, flood risk, the transport assessment and the environmental statement. In order to address these concerns the Council requested further information from the applicant under Regulation 19 of the Environmental Impact Assessment Regulations. In October 2005 additional documents were submitted by the applicant in response to the Regulation 19 request. These documents are as follows:
- |              |   |
|--------------|---|
| Document 18  | Urban Design Guidelines (Revised);                  |
| Document 19  | Landscape & Ecology Design & Management Guidelines; |
| Document 20  | Spatial Programming;                                |
| Document 21  | Flood Risk Assessment Addendum;                     |
| Document 22  | Updated Flood Risk Assessment;                      |
| Document 23a | Finished Ground Level Plan;                         |
| Document 23b | Spatial Programming Drawing;                        |
| Document 24  | Transport Assessment Executive Summary;             |
| Document 25  | Transport Assessment Top Down Assessment;           |
| Document 26  | Highway Assessment;                                 |
| Document 27  | Flood Risk Assessment Breach Assessment;            |
| Document 28  | Environmental Statement Review;                     |
| Document 29  | Environmental Assessment Non-Technical Summary;     |
| Document 30  | Scope of Submissions & Revised Index.               |

These documents were the subject of consultation

- 2.21 As with the original planning application submission (December 2005) a number of the above documents support the application and a number are items for approval at this stage. From the above list of

additional submissions Documents 18, 19, 20, 21, 23a and 23b are items for approval. A brief description of these items for approval is given below.

- 2.22 Document 18 Urban Design Guidelines (Revised) – these guidelines further develop the principles explored in Document 2 (Urban Design Framework) and responds to concerns that key urban design elements need to be ‘fixed’ at this stage in order to inform future planning applications. This document provides a set of briefing requirements for urban planning, public realm and landscaping and ecological issues. The Guidelines are divided into two sections dealing with general or site-wide issues and guidelines for specific locations relating to the public realm, neighbourhood character areas and ecological / landscape areas. Individual guidelines are for approval at this stage and for each guideline the Document contains illustrative-only examples of how the guidelines could work in practice. For example the first public realm guideline suggests that cars cannot drive along the foreshore. The illustrative example for this guideline suggests that streets closest to the river should stop short of the foreshore and cars will not be allowed near the riverfront. A total of 37 guidelines are provided for the public realm, 101 guidelines for the neighbourhood character areas and 57 guidelines for ecology and landscape areas. A revised version of this document dating from August 2006 includes reference play, sport and recreation principles and accessibility issues under the heading of Inclusion Principles. A total of 14 guidelines are provided for play sport and recreation and 31 separate inclusion principles.
- 2.23 Document 19 Landscape & Ecology Design and Management Guidelines – this document expands on the Landscape & Ecological Framework (Document 13) which was originally submitted with the application. Document 19 establishes a set of briefing requirements for ecological and landscape issues. The document notes that some 40% of the site will be allocated as public park or nature conservation area linked through a primary park or ‘Green Bracelet’ system and a network of neighbourhood green space. The document also proposes management plans to integrate landscape, ecology, hydrology and recreation and recognises that aspects of design and management are closely linked in order to incorporate mitigation for loss of habitat areas. The guidelines include, inter-alia, advice on the roles of various stakeholders in management of landscape and ecology, objectives for target habitats, measures to balance recreational needs and ecological interests, guidelines for public art, guidelines for hard and soft landscaping, guidance for street trees, lighting principles and positive management of hydrology for ecological and recreational use.
- 2.24 Document 20 (Spatial Programming) – this document responds to an earlier concern for information regarding the spatial pattern of development on the site. Information had already been provided in the application regarding the timescales and quantitative phasing details.

Document 20 provides a plan of the site and information on how the phasing of development would occur 'on the ground'. The spatial programming has taken into account proposals for submission of Sub-Framework Plans, the timing of remediation works and land preparation, delivery of public transport, off-site highway improvements and the delivery of social and community infrastructure. Implementation of building works would occur in four spatial Stages (Stages 1 – 4). These stages are identified on drawing 13647 / 102A which forms an appendix to this report. It has been agreed in the Heads of Terms of the S.106 Legal Agreement that BRL can commence construction on Stages 1 and 2 concurrently. Stage 1 must be complete before commencement on Stage 3 and Stage 2 must be complete before commencement of Stage 4. The Stages of development refer to the spatial development of the site. Each stage is further sub-divided into a number of Zones to be remediated, serviced and made available for leasehold disposal to developers. These Zones are identified on drawing 108F030.C appended to the report. During the course of negotiation with the Council, BRL have agreed to provide a revised mix of uses as set out below in paragraphs 2.26 to 2.29. Separate stand alone planning applications will be submitted for the two additional primary schools.

2.25 The Stages of development (The Sub Framework Plans) are described as follows.

2.26 The Sub Framework Plan, Stage 1 (Western Quarter) located west of Renwick Road and north of River Road and includes 4 Zones. This Stage would deliver some 1,575 dwellings and the following non-residential uses:

2,200 sq.m. Use Classes A1-A5;  
 1,800 sq.m. additional Use Class C2;  
 3 form entry primary school;  
 350 sq.m. community facilities;  
 250 sq.m. ecology centre;  
 1050 sq.m. Primary Health Care Centre (subject to agreement with the PCT);  
 11 hectares public open space.

2.27 The Sub Framework Plan, Stage 2 (Eastern Quarter – West) located east of Renwick Road but excluding former landfill site includes 4 Zones would deliver 2,429 dwellings and non-residential uses as follows:

8,000 sq.m. Use Classes A1-A5  
 3 form entry primary school;  
 2000 sq.m. Use Class B1;  
 3,800 sq.m. Use Class C2;  
 500 sq.m. healthcare (subject to agreement with the PCT);  
 250 sq.m. indoor play;



28 hectares public open space.  
200 sq.m. community facilities  
Temporary Secondary School  
This forms the required District Centre.

- 2.28 The Sub Framework Plan, Stage 3 (Eastern Quarter –East (plus permanent Secondary School site to the west) located on the easternmost part of the site would include 5 Zones delivering 2,726 dwellings and non-residential uses as follows:

5,500 sq.m. Use Classes A1-A5;  
3,000 sq.m. Use Class B1;  
2,400 sq.m. live-work;  
7,800 sq.m. Use Class C2;  
secondary school;  
school play ground;  
3 form entry primary school;  
600 sq.m. healthcare (subject to agreement with the PCT);  
350 sq.m. Community uses;  
500 space multi-storey car park;  
10 hectares public open space.

- 2.29 The Sub Framework Plan, Stage 4 (Riverside Quarter) located on the former power station site would include 2 Zones delivering 4,070 dwellings and non-residential uses as follows:

4,000 sq.m. Use Classes A1-A5;  
4,250 sq.m. Use Class B1;  
4,800 sq.m. hotel;  
7,800 sq.m. Use Class C2  
2,000 sq.m. health and fitness;  
500 space multi-storey car park;  
4 hectares public open space.  
200sq.m community facilities.

Other triggers have now been agreed as reflected in the Section 106 Heads of Terms. However, there is no conflict with the triggers set out in Document 1.

- 2.30 Document 21 (Flood Risk Assessment Addendum: Drainage and Flood Defence Strategy) – this document responds to consultation comments made by the Environment Agency and a request for further information issued under Regulation 19 of the Environmental Impact Assessment Regulations. The document present a scheme for dealing with surface water drainage and a strategy for dealing with flood risk on the site and its impact off-site. The proposed drainage and flood defence strategy consists of fluvial flood storage compensation, runoff attenuation the raising of ground levels and River Thames defence works. The document considers that these measures will reduce the risks from the River Thames and also potential flooding from the Goresbrook and

Buzzards Mouth Creek. The strategy removes the risk of flooding from the Zones and removes the flood risk from the development as a consequence of breach or sluice failure scenario. The flood risk to areas surrounding the application site is described as negligible.

- 2.31 Document 23a (Finished Ground Level Plan) – this drawing supersedes the levels plan originally submitted in Document 3 (Application Drawings). The revised drawing incorporates changes to the drainage strategy and responds to comments raised by the GLA and Environment Agency. Site levels across the site vary from 0-13.5m AOD. Two distinctive features of the site would be the eastern and western ‘hills’. At the eastern end of the site on the former landfill levels would peak at a maximum of 13.5m. To the west of the Renwick Road switching station level would increase to a maximum of 12m AOD. Development Zones on the site would have minimum level of 5m AOD. The lowest lying areas of land are not shown to be developed but instead would be used for open space and flood storage / attenuation areas.
- 2.32 Document 23b (Spatial Programming Drawing) – the spatial programming drawing accompanies Document 20 (Spatial Programming). This drawing shows the position of the 4 Stages of Development beginning at the north-western part of the site with Stage 1. Stage 2 is located east of Renwick Road, Stage 3 on the easternmost part of the site and Stage 4 on the former power station site.

### **3.0 Background**

- 3.1 There is an extensive planning history for the application site. The most relevant planning history can be summarised as follows:

52/00107/BAR (Land east of Renwick Road) – Refuse tip – Approved;

62/00032/BAR (Land east of Renwick Road) – Development of land for residential and allied purposes – Withdrawn;

73/00532/TP (Land east of Renwick Road) – Construction of 2000Mw generating station – Withdrawn;

85/00172/TP (Barking Reach Phase 2a)

Use of approximately 8 acres of land for the testing of motor vehicles built and repaired as part of the motor vehicle project of the intermediate training centre – Approved;

85/00172/TP1 (Barking Reach Phase 2a)

Continuance of use of approximately 8 acres of land for the testing of motor vehicles built and repaired as part of the motor vehicle project of the intermediate training centre – No decision taken;

87/00291/TP (Barking Reach) – Retail park – Withdrawn;

87/00292/TP (Barking Reach) – Retail park – Withdrawn;

89/00500/TP (Barking Reach) – Redevelopment of site for mixed development of residential, shopping and leisure together with infrastructure provision – Withdrawn;

89/00501/TP (Thames Road allotment site) – Redevelopment of site for mixed development of residential, shopping and leisure together with infrastructure provision – Withdrawn;

89/00502/TP (Renwick Road landfill site) – Redevelopment of site for mixed development of residential, shopping and leisure together with infrastructure provision – Withdrawn;

93/00043/TP – (Barking Reach) – Use of approximately 370 acres for the deposition of Category A fill material in connection with use for residential and associated development – Approved;

93/00465/TP – (Barking Reach Phase 1a) – Redevelopment of site for residential purposes to provide 473 units in 2, 3 and 4 storey buildings with attached garages together with access roads, car parking and landscaping – Approved;

94/00338/TP1 (Barking Reach Phase 1a south) – redevelopment of site to provide 285 units in 2,3 and 4 storey buildings together with access roads, garages, car parking and landscaping – Approved;

95/00015/ADV (Barking Reach Phase 1a south) – Erection of externally illuminated housing development advertisement board – Approved;

96/00165/TP (Barking Reach Phase1a)  
Construction of compensation storage pond – Approved;

97/00068/TP (Barking Reach Phase 1a north) – Redevelopment of site for residential purposes to provide 203 units in 2, 3 and 4 storey buildings together with access roads, garages, car parking and landscaping – Approved;

97/000358/TP (Barking Reach) – Application under Schedule 6 of the Channel Tunnel Rail Link Act 1996: construction arrangements for major utility diversions – Approved;

98/00022/TP (Barking Reach) – Outline application: erection of dwellings, shopping and community facilities including a secondary school, enhancement and creation of open space and construction of roads – Withdrawn;

98/00030/TP (Barking Reach Phase 2a) – Redevelopment of 9.9 hectares of land for residential purposes to provide 378 units in 1, 2 and 3 storey buildings comprising 30 no. one-bedroom and 76 no. two-bedroom flats, 139 no. two-bedroom, 129 no. three-bedroom and 4 no. four-bedroom houses together with access roads, car parking and landscaping – Approved;

98/00078/TP (Barking Reach) – Erection of 40m high anemometry monitoring mast – Approved;

99/00454/CTRL (Barking Reach) – Construction arrangements for the advanced utility diversions required to accommodate the CTRL within LB Barking & Dagenham – Approved;

00/00119/FUL (Zones 3 and 4 Barking Reach Phase 2a)  
Amended application: redevelopment to provide 44 units comprising 29no. 2-bed and 15no. 3-bed houses together with access road, car parking and landscaping – Approved;

00/00156/FUL (Zone 5 Barking Reach Phase 2a)  
Amended application: redevelopment to provide 40no. 2-bed flats in 2no. 3 / 4 storey blocks together with car parking and landscaping – Approved;

00/00474/FUL (Zones 10, 12 & 13 Barking Reach Phase 2a)  
Amended application: redevelopment to provide 140 units in 2, 3 and 4 storey buildings comprising 20no. 2-bed flats, 50 no. 2-bed, 59 no. 3-bed and 11 no. 4-bed houses with access roads, car parking and landscaping – Approved;

00/00489/FUL (Zone 9 Barking Reach Phase 2a)  
Amended application: redevelopment to provide 36 units in 2 and 3 storey buildings comprising 12no. 1-bed flats, 14no. 2-bed and 10no. 3-bed houses together with access road, car parking and landscaping – Approved;

01/00526/FUL (Zone 11 Barking Reach Phase 2a)  
Amended application: development of Zone 11 to provide 56 residential units comprising 19no. 3-bed houses, 25no. 2-bed houses and 12no. 1-bed flats together with access road, car parking, play area and landscaping – Approved;

01/00747/FUL (former power station)  
Use of land as temporary retail Sunday market – Approved;

02/00198/FUL (Zones 6, 7 and 8 Barking Reach Phase 2a)  
Amended application: development of zones 6, 7 and 8 to provide 88 residential units comprising 20no. 3-bed houses, 32no. 2-bed houses, 22no. 2-bed flats, 13no. 1-bed flats and a 3-bed maisonette together with access roads, car parking and landscaping – Approved;

02/00618/OUT (Land east of Renwick Road) – Outline application: proposed new community secondary school with associated community facilities, key worker housing and neighbourhood square – Approved;

05/00735/FUL (Barking Riverside) – Temporary use of 8.09 hectares of land as a motor cross facility with associated access and car park – under consideration;

05/00792/FUL (Barking Riverside) – Erection of open storage containers and demountable buildings – Temporary permission granted;

06/00132/FUL (former power station)  
Continued temporary use as retail Sunday market until January 2011 – under consideration.

## **4.0 Consultations**

4.1 After receipt of the planning application in December 2004 press notices publicising the proposals appeared in the Barking & Dagenham Post newspaper dated January 12th and January 19th 2005. A total of 60 site notices were displayed throughout the site and in adjoining commercial and residential areas dated 11th and 12th January 2005. A column publicising the proposals also appeared in the February 2005 edition of the Citizen Magazine distributed to all households in the Borough. Application documents and the EIA were available for inspection at the main reference library in Barking as well as the planning department offices. Further application documentation was submitted for consideration in October 2005 and a further consultation exercise was conducted at that time which is described at paragraph 4.34 below.

4.2 The following consultees were notified during January and February 2005:

Government Office for London;  
Greater London Authority;  
Environment Agency;  
English Nature;  
Countryside Agency;  
East London Waste Authority;  
Office of the Deputy Prime Minister;  
London Development Agency;  
London Thames Gateway Development Corporation;  
CABE;  
English Heritage (Archaeology);  
Housing Corporation;  
London City Airport;

National Grid Company;  
National Grid Transco;  
Network Rail;  
Strategic Rail Authority;  
RSPB;  
London Wildlife Trust;  
Transport for London;  
Friends of the Earth;  
DLR;  
Metropolitan Police (Dagenham);  
Learning & Skills Council;  
Port of London Authority;  
LFCDA;  
LFEPA;  
Thames Gateway London Partnership;  
Barking & Dagenham PCT;  
London Riverside Ltd;  
London Borough of Bexley;  
London Borough of Greenwich;  
London Borough of Havering;  
London Borough of Newham;  
London Borough of Redbridge;  
Barking & Dagenham Chamber of Commerce;  
Barking & Dagenham Allotment Society;  
Disablement Association of Barking & Dagenham;  
East Thames Housing Group;  
Thames Power Services Ltd,  
Essex & Suffolk Water;  
Thames Water;  
London Electricity plc;  
Union Railways (North) Ltd;  
Ramblers Association;  
University of East London;  
Margaret Hodge MP;  
Jon Cruddas MP;  
London River Services;  
London Cycling Campaign;  
Docklands Consultative Committee;  
Neighbourhood Watch Association;  
Reach Out;  
East London Business Association;  
Metropolitan Police Authority;  
British Telecommunications;  
Health & Safety Executive;  
Barking & Dagenham Historical Society;  
EDF Energy;  
C2C.

**In response to this initial consultation exercise (January / February 2005) the following replies were received:**

### 4.3 **Greater London Authority**

Draft comments in relation to submitted environmental information. Comments given at officer level only. (Formal Stage I comments are described at paragraph 4.36 of this report).

#### The Thames

Flood Plain – fluvial flood risk issues comprehensively addressed. Positive approach to sustainable drainage also supported. Tidal flood risk assessment is inadequate in assessing threat of flooding from Thames. FRA should consider the need for flood warning, evacuation procedures and means of access / escape.

Riverfront – Overall approach of urban western riverfront and natural eastern riverfront is welcomed. Retention of T jetty welcomed. However, opportunity to provide river bus services has been missed. Developer should determine feasibility of a river bus.

Additional River Related Facilities – provision for sailing, watersports, mooring facilities should be made.

Sustainable Transport of Construction Materials – Development should examine ways to use Thames for delivery of materials and export of waste.

#### Noise

Few strategic noise / vibration aspects in conflict with London Plan. Mitigation measures in Noise & Vibration chapter of the ES should be secured through conditions. Elements of high quality acoustic design should be encouraged.

#### Specific Comments

Single aspect design should be incorporated facing industrial noise sources.

Clarification required regarding impact from road traffic noise and DLR.

#### Biodiversity

Wintering birds on foreshore – important area of the Thames for waders and waterfowl (teal, redshank & shelduck). Impacts are likely from more frequent use of riverside path and cycleway, use of the jetty, and riverside buildings. Concerns are raised regarding proposed 12 storey heights at eastern end of site and tall buildings west of jetty. Wader's eye view should be submitted and more detail of screening to walkway / cycleway.

Grassland – Loss of grassland habitat is noted. Extensive brownfield roofs are welcomed. However ES underplays loss of grassland bird populations. More detail required on habitat creation. New park should include significant areas of sparse, flower-rich grassland.

Ditches – New ditches represent an opportunity for habitat enhancement. Clarification of the proposals for wetland habitats is required.

Seawall & Saltmarsh – Retention of waterfront in its present form is welcomed. Care is required in detailed plans for cycleway.

Marsh Warbler – Important to retain some suitable habitat for these protected birds.

#### Air Quality

Clarification required as to whether non-traffic emissions have been taken into account. The assessment indicates increased levels of particulate matter and nitrogen dioxide from the A13 as a result of the increase in traffic. Mitigation in the construction phase is detailed. The applicant should consider routine monitoring of particulate matter during construction. The applicant is strongly recommended to consider a code of practice in relation to the control of dust from construction. The applicant should consider further mitigation to reduce impacts on completion of the development such as:  
expanding public transport networks, cycling and pedestrian provision;  
minimising parking allocations;  
clean engine / alternative fuel service vehicles;  
traffic reduction for the A13.

#### Energy Efficiency

There should be a site-wide energy strategy for the development prior to consideration by the Mayor. The strategy should set a likely energy demand and the approach for future applications in terms of energy efficiency and renewable energy. A district heating approach is expected.

### 4.4 **Environment Agency**

Objects to the development for the following reasons:

- i) Flood Risk Assessment has not been submitted as part of the formal planning application rather it is a supporting document. The FRA should be submitted as a document for approval.
- ii) Technical details of the FRA raise concerns as follows -  
More information required regarding floodplain mitigation  
Adequate access, future inspection, raising and renewal works should be demonstrated  
Applicant should demonstrate that the life of flood defences will be the minimum life of the development, or 50 years, whichever is the greater  
Applicant should demonstrate that there will not be an increase in tidal flood risk and that residual flood risk has been mitigated



- iii) Insufficient detail to allow full assessment of remediation strategy and continuing contamination risks
- iv) Landscape & Ecology Framework will not lead to the conservation and enhancement of the landscape, Thames and Goresbrook. Proposed locations for green space miss the opportunity to provide riverside parkland.

The Agency state that the objections may be withdrawn if the issues raised are satisfactorily addressed. Providing that the objections are resolved the Agency request a number of planning conditions imposed on any grant of permission covering the following issues:

Surface water control measures;  
Details of site drainage system;  
Provision of buffer zones adjacent to Thames;  
Limitation of light spillage to watercourses;  
No storage of materials adjacent to watercourses;  
Details of a masterplan for ecological enhancements and mitigation;  
Details of a landscape management plan;  
Detailed designs for the T-jetty, promenade and coal wharf;  
Detailed designs for cycle tracks and paths.

A number of informatives are also requested referring to water resources.

In a subsequent letter the Environment Agency confirm the removal of objection no. 3 (remediation strategy & continuing contamination risks) subject to conditions requiring a qualitative risk assessment, a remedial method statement and a remedial strategy. See also paragraph 4.54 below.

#### 4.5 **English Nature**

Unable to provide detailed comments on individual applications. Attach copy of pre-application comments. In determining the application the following should be considered:

site supports priority habitats as defined in UK Biodiversity Action Plan;  
site supports priority species as defines in UK Biodiversity Action Plan;  
not convinced that development and protection / enhancement of biodiversity assets can be achieved.

#### 4.6 **English Heritage (Archaeology)**

Site is located within archaeological priority area therefore a programme of archaeological field evaluation and geoarchaeological investigation is required. A suitably worded planning condition is requested.

#### 4.7 **Housing Corporation**

Supports broad vision. Pleased to see proposal for Community Development Trust. In short / medium term will specify eco-homes

“very good” standard for any homes it invests in. Expectation that recipients of Social Housing Grant to achieve “excellent”. Expectation of a car club. 100% targets for Modern Methods of Construction. Provision of incubator business premises expected.

#### 4.8 **London City Airport**

Confirm that the site is within the Outer Transitional and 154.95m (AOD) Horizontal Surfaces. Concerns regarding height of cranes. Suggested conditions as follows:

no construction of permanent buildings, structures or plant to a height in excess of safeguarding surfaces;  
details of height of buildings, structures and plant submitted to and approved in writing by LPA in consultation with London City Airport;  
details of methods of construction including cranes and plant to be submitted to and approved in writing by the LPA in consultation with London City Airport;  
details of siting, design and external appearance of buildings, structures and plant to be approved in writing;  
details of landscaping to be approved in writing;  
details of external lighting / signage to be approved in writing.

#### 4.9 **National Grid Transco**

Presence of equipment within the site is stated. NGT’s policy to retain existing high voltage substations, underground cable and overhead line in-situ. No objections arising from the presence of equipment to development. Concerns that the design intention and response to the presence of overhead lines may be lost in the translation to a built place. NGT does not set ‘stand-off zones’ from lines. Statutory safety clearances are the only distances required to be maintained. Unfortunate that the main north-south access follows the existing route alongside the substation as this limits opportunities to screen the substation. Need to maintain future access to substation compound and tower bases. Standard Information (informatives) are suggested

#### 4.10 **Network Rail**

Significant concerns regarding impact on Barking and Dagenham Dock stations. Barking station is near to its pedestrian capacity. The proposed phasing means that 6,000 dwellings occupied before DLR is built and residents will therefore use Barking station to access central London. Planning obligations are required to upgrade the station. The Transport Assessment gives no consideration to impact on Barking and Dagenham Dock stations. General improvements to Dagenham Dock station are also required. Proposals may have an impact on level crossings locally. The assertion in Transport Assessment that passenger services on LTS are restricted by freight is not strictly correct.

#### 4.11 **Strategic Rail Authority**

In principle express support for a high density, mixed use scheme. However, concerns are raised regarding impact on railway network and services. SRA formally object on 3 grounds:

i) impact on station capacity at Barking – TA mentions overcrowding at the station and need for improvements. Development prior to DLR extension will place further pressure on the station. Presence of ELT may increase propensity for modal change at Barking. The station is not currently configured to meet additional passenger demand generated by the development. A mitigation proposal / contribution from the applicant is therefore required. TA should be revised to examine the number of passengers using the station with or without DLR.

ii) impact on Dagenham Dock station – TA recognises that improvements are required at this station. There is no commitment to upgrading of this station.

iii) impact on railway services along LTS line – existing peak hour services are close to capacity. TA doesn't address overcrowding on mainline services via Dagenham Dock / Barking pre-DLR extension. Mainline services as currently configured may not meet additional passenger demand. Longer trains may be required. TA should examine phasing in association with mainline capacity and if there is a deficiency a contribution from the applicant should be provided for enhanced infrastructure. This could comprise platform lengthening or additional rolling stock.

Additional observations –

a) potential for conflict with rail freight aspirations in Barking – clarification required as to compatibility of development with emerging proposals for a rail freight facility.

b) lack of clarity regarding potential new Renwick Road station. Such a station would be the closest mainline station to the development served via a bus service. Developer contribution required if the new station goes ahead.

#### 4.12 **Royal Society for the Protection of Birds (RSPB)**

Comments raised relate solely to potential impacts on bird populations. The site supports marsh warbler (national importance) wintering waterfowl and black redstart (metropolitan importance). The proposed shielding mound to the riverside footpath and restricted access to the foreshore are welcomed. The provision of a viewing point and interpretation are welcomed. The provision of brown roofs and nesting / foraging habitat will enhance the area for black redstarts. The retention of the reedbed to the Goresbrook is essential to retain the marsh warbler on-site. The nature conservation measures set out in Document 13 should be made conditions of any permission. A condition requiring BREEAM EcoHomes very good standard is suggested.

#### 4.13 **London Wildlife Trust**

Support the recognition of the Ripple nature reserve as a site of Metropolitan Importance. Support the value given to ecological receptors. Important to establish a monitoring programme for water voles during construction. Stress the duty on the developer under the Wildlife & Countryside Act 1981 and Countryside and Rights of Way Act 2000. Express support for broad objectives of public realm management. LWT happy to be involved as a consultee during development of the COCP. Agreement of the COCP between the listed organisations should be a condition. LWT would like to be consulted at further design stages on the use of the public realm. LWT supports principle of a CDT but stress the need to consider feasibility of sustaining a CDT. LWT support proposal for new Ecology Centre and wish to be consulted on the precise location. LWT recommend that location and design of the building and assessment of impact on ecology are controlled by condition.

#### 4.14 **Transport for London**

TfL have reviewed the TA with regard to impact on the road network, bus services, DLR, ELT, access and car parking. In principle support is expressed for the development. However there are a number of concerns regarding modelling, impact on the highways network and the timing of transport infrastructure. Clarification is required on the phasing of transport infrastructure delivery. Key points raised can be summarised as follows:

- TA is in places repetitive and unclear on how conclusions have been reached;
- TA does not contain a top down assessment of overall trip generation and modal split distribution;
- justification for modal split assumption is not clear;
- integration of public transport and highway modelling is not clear;
- assessment of access to and from the site and how the transport network will meet requirements is not clear;
- zoning of transport models should be more thorough;
- queries regarding ELT annual and peak flows;
- highways base should be re-run;
- concerns raised regarding distribution of traffic between junctions;
- PM peak analysis is required;
- clarification of commitment to public transport provision on-site is required;
- ELT segregation through site is unclear;
- commitment to protect bus operations must be provided;
- proposals lack delivery of a north / south bus connection;
- clarification required on 2 or 3-car DLR operation;
- PTAL calculated incorrectly;
- parking not restrictive enough by full build out;
- use of the River Thames for commuter services needs consideration

A detailed report of TFL's conclusions is provided.

#### 4.15 **Friends of the Earth**

Concerned that improved public transport should be in place before first occupation. Car use / ownership is likely to increase in the absence of ELT / DLR. Car parking provision is too high and will not result in sustainable development. Traffic increases will affect local roads and air quality. Proposed retail provision would, in the absence of public transport, attract car use. The proposed food store could result in a net loss of retail employment. Concern regarding loss of allotment land as 'London Food' (GLA / LDA initiative) promote use of allotments. Large area of public open space under pylons will not be attractive to residents. Burying of overhead power lines should be investigated. Adverse effect on breeding birds and waterfowl. Remediation of contamination on-site should use best available techniques. Concerns regarding flooding and the cumulative impact across the Thames Gateway. Development should be designed to minimise surface run-off. Social housing should be integrated within the development and not concentrated in less desirable positions.

#### 4.16 **Port of London Authority**

The site lies between 2 safeguarded wharves (de Pass and RMC Roadstone). Most wharves operate 24-hours a day, due to tides, and can be noisy and dusty. New residential uses next to wharves can lead to complaints from neighbours. The proposals should take into account the potential for noise and other disturbance from the wharves. London Plan includes policies aimed at protecting and promoting usage of wharves. PLA welcomes landscaped buffer zones between development and the wharves. However, concern that western boundary buffer is narrow. Appropriate mitigation and design measures needed to avoid conflict. PLA would like to be consulted on future measures. Suggested approach of requiring the developer to adopt measures achieving World Health Organisation (WHO) guideline values for community noise. Such an approach was taken at Greenwich Peninsular. Residents should be informed of location of safeguarded wharves closeby and their 24-hour operation. Suggested condition requiring erection of large information signs at strategic locations explaining nature and operation of safeguarded wharves. PLA welcome proposed re-use of power station jetty. Suggested condition / 106 requiring details of and implementation of a public slipway. Suggested condition requiring provision of life saving equipment. Water transport should be used for construction traffic.

#### 4.17 **London Fire & Emergency Planning Authority (LFEPA)**

Satisfied with proposals. No adverse comments on overall concept. Will want to comment on access & water supply when detailed plans available.

Cannot make observations at this point. Detailed plans requested when available. Definite need for additional hydrants.

#### 4.18 **LB Bexley**

Acknowledge receipt. Undertaking consultation. No further comments received.

4.19 **LB Greenwich**

Acknowledge receipt. No objections or further observations to make.

4.20 **LB Havering**

Acknowledge receipt.

4.21 **LB Newham**

Upgrading of transport infrastructure is crucial to underpin regeneration. The development will assist the business case for DLR extension. Regeneration of Barking Riverside acts as a continuation of the regeneration of western and southern Newham. ES only refers to Barking TC and Dagenham Heathway in assessing retail impact. No information on potential impact on East Beckton or Gallions Reach.

4.22 **LB Redbridge**

No comments.

4.23 **Barking & Dagenham Allotment Society**

Barking & District Allotment Holders' Society Ltd – object on the grounds that Long Reach is statutory allotment land. Require confirmation that the consent of the Secretary of State was obtained for the disposal and that the proceeds of the disposal have been used for allotment purposes and that suitable replacement land will be provided.

4.24 **Thames Power Services Ltd**

Nabarro Nathanson (acting for Thames Power Services Ltd) – no objection in principle. However, no proposals for safeguarding of a route for high voltage power cable across the site. Such a route would allow for the installation of additional cables. Provision of a safeguarded route is also a requirement of UDP SPG. The UDP (policy BR1) seeks the removal, relocation or under-grounding of power lines. SPG refers to undergrounding by way of S.106 agreement. Query whether the Council wishes to depart from its policy in this respect. Wish to be kept fully informed of any proposals for Combined Heat & Power (CHP) and re-use of waste heat from the power station.

4.25 **Essex & Suffolk Water**

Concerns regarding mains within development. Cannot accept buildings or structures within 3m of mains. No soft landscaping or non-boundary fencing within 3m and no change in levels.

4.26 **Thames Water**

Suggested condition: no development till details of on-site drainage works submitted to and approved by LPA in consultation with sewerage undertaker. No works which result in discharge of foul or surface water from the site shall be commenced until on-site drainage works

completed. For off-site drainage works a clause for a S.106 is suggested.

Public sewers cross the site – no building within 3 metres without approval.

Surface Water Drainage – developer has responsibility to make proper provision for drainage to ground, water courses or surface water sewer.

#### 4.27 **Union Railways**

No objection in principle. Detailed comments: parts of the site are within CTRL safeguarding limits and it would have been appropriate to include this designation in Document 4, Appendix 4 (Planning Designations). The proposal has the potential to impact upon the Barking Portal and the Exchange Lands Sidings in both fluvial and river flooding. URN is concerned that works should not have an adverse impact upon CTRL infrastructure. URN wish to be kept advised and have the opportunity to comment on future details. URN would like to comment further if this application is varied or further information submitted in respect of drainage matters.

#### 4.28 **Ramblers Association**

Disagree with paragraph 11.93 of the ES (which states that there is currently limited demand on-site for pedestrian/ cycle movement). Reference is made to attempts to rectify the alleged failure to protect the route of FP 47. A Rights of Way improvement plan should be prepared by all Local Authorities. FP 47 should be kept clear and easy to walk. Walking is a mode of transport and a leisure activity contributing to health and well-being.

#### 4.29 **Metropolitan Police Authority**

CgMs Consultants (on behalf of MPA) – creation of a new community will have implications for MPA resources. The developer should make provision for appropriate police related facilities. Development on this scale will result in the need for some facilities. Recommend that an approach, similar to the Olympic proposals, is adopted to secure police requirements. The developer should be required to agree a framework for provision prior to commencement of development.

Further letters received from CgMs welcome the inclusion of a planning condition to address policing requirements for the development and suggest a form of wording for the decision notice.

#### 4.30 **British Telecommunications (BT)**

Apparatus may be affected. Copies of detailed drawings requested when available.

#### 4.31 **Health & Safety Executive**

The application site lies outside of the consultation distance for the major hazard site at TDG (UK) Ltd (Dagenham Dock) and therefore no comments are made.

**4.32 Transport 2000**

Express concern regarding the number of parking space on-site and potential traffic impact. Public transport infrastructure will not serve the earlier phases of development and large scale car dependency will have been built into the development. Therefore public transport infrastructure should precede housing development. A range of amenities should be provided to reduce car use.

**4.33 Industrial Mission In The London Thames Gateway**

Highlight the potential for 'cliff-edges' between the new and existing communities. In the wider Thames View area existing community provision may need to be enhanced as development takes place. The development should incorporate designated places for community uses including places of worship and welfare uses.

**4.34 Consultation on Additional Consultation Documents**

Following the submission of the additional application documents and amendments in October 2005 the original interested parties were re-consulted along with those individuals or groups who had made representations. The amendments and additional application documents were re-advertised in the local press. In response the following replies have been received.

**4.35 Greater London Authority**

Flood Risk – Note that the draft revision to PPS25 (Flood Risk) is out for consultation and this may alter the planning position on flood risk. The treatment of fluvial and surface water flood risk is generally acceptable. Note that in the relatively unlikely event of an extreme tidal flood event approximately 7% of the built development would be affected. These affected areas would be located to the east, west and northern perimeters of the site. Main access roads into the site are likely to be flooded in the event of a tidal breach or flood. Work should be undertaken to ensure that, in such an event, the roads remain dry. The potential tidal flooding of the east, west and northern perimeters would mainly affect ecology areas which is considered acceptable. However, further clarification of the potential effect on residential areas is required.

Riverside Areas – support the principle of an undisturbed Thames foreshore with river path route. Active use of the 'Coal Wharf' is welcomed though use of the river and potential encroachment need clarification. River related uses are encouraged.

Sustainability Benchmarking – the submitted Sustainability Benchmarking Document is welcomed as a tool for delivering



sustainable development. However, concerns are raised regarding the strength of commitment within the document. A number of detailed points are made in relation to site layout, open spaces and landscaping, transport and the movement framework, sustainable procurement, sustainable resource consumption, carbon reduction and climate change, waste management, social enterprise, health and site management.

#### 4.36 **Greater London Authority Stage 1 Report**

4.37 A Stage 1 referral Report was presented to the Mayor of London on 4 October 2006. In summary the Mayor has concluded that the principle of the scheme is acceptable in strategic planning terms and that the redevelopment of the site to create a sustainable community is supported. The report is divided into a number of subject headings which are summarised below.

#### 4.38 **Housing and Density:**

The report recognises that, given the long timescale of development and uncertainty over future subsidies, costs, demand and sales, there have been difficulties in negotiating affordable housing provision. Nevertheless it has been agreed that affordable housing would be provided at 41% based on habitable rooms. It is vital to the acceptability of these proposals that the Council agree to this approach:

a minimum of 41% of habitable rooms across the site, and within each phase, to be affordable subject to the availability of social housing grant, to be demonstrated by financial appraisal before permission is granted;

a minimum of 50% of affordable housing provision, by habitable rooms, to be provided as social rent;

intermediate provision to meet affordability criteria set out in the Mayors' Supplementary Planning Guidance for Housing and updated annually;

no cap on affordable housing provision or the social rented proportion in any zone;

minimum of 30% of all units to be 3 or more bedrooms;

minimum of 40% of all social rented units to be 3 or more bedrooms.

It is requested that a copy of the draft S.106 agreement and planning conditions are provided which should reflect the targets set out above.

With reference to density the report notes that a range of densities will be provided across the site ranging from 30-39 dph to 340-359 dph

related to public transport. This approach is considered acceptable in strategic planning terms. The London Plan requirement for Lifetime Homes should be included within the S.106 agreement.

**4.39 Urban Design:**

The report refers to the development of the Urban Design Guidelines (Document 18) and to the way that the Document has responded positively to advice from GLA officers. However, the Guidelines are not considered to adequately address the relationship between the development and surrounding areas and the development of sub-framework plans should address these relationships. The importance of the Document in future planning decisions is emphasised and therefore the status of the Guidelines needs to be included within a planning condition or the S.106.

A number of detailed comments are offered regarding the role and composition of the design panel. The terms of reference for the panel need to be included within the S.106 agreement.

**4.40 Children's Play Space:**

London Plan policy 3A.15 requires the adequate provision of play space especially in major areas of new development. In response the applicant has submitted a child play space strategy. The report notes that there may be some double-counting of facilities and therefore a definitive table of provision should be submitted and incorporated into the S.106.

**4.41 Access and Equal Opportunities:**

It is noted that the submitted access strategy comprises a document for approval and therefore carries weight in the assessment of future proposals. However, the report refers to the importance of establishing site-wide design principles and to this end the guidelines within Document 18 should be included within the access strategy. The inclusion of the Disabled Person's Transport Advisory Committee's (DPTAC) standards within the access strategy is supported. However, these standards should be adapted together with CABE guidance and adopted as inclusive design principles within the strategy. The requirement to meet these standards should be included within the S.106 agreement.

The access strategy refers to the establishment of an access forum but further details are required regarding its membership, role and management. The terms of reference for the forum should be included within the S.106. A number of parameters for the access forum are suggested.

A planning condition is required to ensure that future developments are in accordance with the approved access strategy. The following requirements should be written into the S.106 agreement:

future sub-framework plans and reserved matters applications should include an access statement illustrating accordance with the access strategy, Document18 and inclusive design principles;

the CDT should assist financially with disability adaptations to social housing;

the Transport Steering Group should include representation from disabled people;

the CDT should fund a shop mobility scheme if required.

**4.42 Education, Social and Community Infrastructure:**

London Plan policy 3A.15 notes that adequate provision of social infrastructure and community facilities is particularly important in major areas of new development and regeneration. Whilst the provision of serviced sites for community facilities is welcomed there is a serious concern regarding availability of future funding to deliver facilities. The S.106 should therefore seek to secure funds from future development on-site when financial testing of such development indicates that funds are available.

Given the scale of regeneration proposals in the wider London Riverside area land currently reserved for community uses should only be released if current / future demand both on and off-site shows that the facilities are not required. These sites should therefore be safeguarded through planning conditions / S.106.

**4.43 Sustainable Development:**

The report notes the work undertaken by the applicant on sustainability benchmarking which largely reflects London Plan policy. However a number of detailed suggestions are made to encourage developers to go beyond minimum targets in order to achieve a truly sustainable development. It is further suggested that the current 60% 'pass mark' is raised to 70% and included within the S.106. A review mechanism for this figure should also be included.

**4.44 Energy:**

London Plan policy generally aims to reduce CO<sub>2</sub> emissions through energy efficiency and renewable energy measures in new development. The sustainability benchmarking includes 6 measures relating to energy which are generally welcomed.

The targets which have been set across the site within the four phases of development for reductions in CO<sub>2</sub> are supported and should be included within the S.106 with opportunities for review. The terms of reference for the energy panel should also be included within the S.106.

**4.45 Flooding and the River Thames:**

GLA officers have previously commented on the matter of flood risk (noted above) and revisions to the FRA have been made in response. The principle of the development is considered acceptable with regard to flooding subject to conditions. In the unlikely event of a flood the site will be safe and will be an 'island'. A condition is suggested that development infrastructure should remain operational during a flood event. A condition is also suggested to ensure adequate flood warning systems are incorporated into the development. Within the S.106 it is suggested that provision is made for detailed design of access routes to ensure they remain dry.

Regarding the potential use of the river Thames it is suggested that the development should include a pier and terminal for river ferries the detail of which can be agreed at sub-framework plan stage. This requirement should be written into the S.106. The provision of water sports, boating and mooring facilities should also be included within the legal agreement.

**4.46 Biodiversity:**

Landscape and ecology guidelines within Document 18 respond positively to previous concerns raised by the GLA and from an ecological point of view are described as 'quite good'. However, the potential to link zones together to provide more connectivity should be made more explicit through the S.106. A planning condition is also suggested requiring the submission of detailed landscape plans for each sub-framework plan and zonal application.

**4.47 Open Space:**

The provision of open space in accordance with submitted strategies is welcomed. However, the areas of open space should be protected for public use through the S.106.

**4.48 Noise:**

A concern is raised relating to the issue of noise sensitive design. It is stated that the current application does not explicitly include proposals to tackle the issue of noise sensitive buildings being affected by major noise sources. The S.106 should therefore include reference to separating noise sensitive development from major noise sources. A further statement from the applicant dealing with this issue is also required. Internal noise limits should be to the 'good' standard as defined by BS8233 and this requirement should be written into the S.106.

**4.49 Transport for London:**

A package of transport infrastructure and service improvements will be needed to provide high public transport accessibility and capacity to support the development. A schedule of public transport infrastructure and service improvements has been agreed with the applicant in principle. It has also been agreed with the Council and BRL that TfL will be a party to the S.106. Despite agreement between the parties

about the measures that are required the funding to deliver the measures falls significantly short. Additional funding from public sector agencies will be required in addition to S.106 contributions. TfL estimates the total cost of transport improvements to deliver the whole development of 10,800 units to be £419 million. Funding from BRL and secured public sector funding totals only £60.5 million and therefore a significant shortfall remains.

Bus services are particularly important in the early years of development before ELT infrastructure is completed. A minimum contribution of £10.8 million has been agreed between TfL and BRL to provide pump priming for bus and ELT services. This should be secured through the S.106.

The applicant has agreed to construct a fully separated ELT alignment through the site. ELT infrastructure would be developed on a phased basis in-line with development build out. Off-site highway improvements to accommodate ELT and bus services have been identified but are reliant on funding being made available.

TfL undertook modelling work in 2003 which indicated that once Barking Riverside is developed beyond 6,000 units further public transport capacity in addition to bus and ELT would be required. This additional capacity is in the form of an extension to the DLR. Route options for an extension from Gallions Reach to Dagenham Dock with 3 stops serving the site are being developed and the business case for the extension is positive. £4.5 million from TfL's Investment Programme has been allocated to feasibility work and TfL is working towards a Transport & Works Act Order submission in January 2008. On such a timescale construction could start in 2011 allowing for opening in 2015/16. However, this is reliant on funds being available in a future spending review. Operating costs from DLR would only be recovered at full build out of the site and therefore TfL require a mechanism to provide protection against passenger revenue shortfall.

TfL note the objections raised by Network Rail regarding impact of development on Barking station. However, the work of LTGDC in examining station capacity is noted.

TfL consider that Renwick Road will provide the primary access road into the site and that a grade separated junction at Renwick Road / A13 is needed early on in the development to manage traffic flow. The applicant has suggested various measures which would allow up to 4,000 dwellings to be built without provision of the grade separated junction. These modifications would need to be in place at the start of development and are only temporary measures. A significant funding gap in the provision of the upgraded junction remains and it is considered essential that funding is secured through the Government's 2007 spending review. This would enable a timetable for completion prior to 2012 to avoid disruption to the Olympics. As there remains

uncertainty over funding a Grampian condition is required to ensure that the development cannot proceed beyond 4,000 dwellings without the grade separated junction being in place.

In addition to the Renwick Road junction further off-site junction improvements are required and should be secured through the S.106.

TfL state that it is essential that the provisions of the Transport Strategy are reflected in the S.106 agreement.

With reference to car parking provision the original Transport Assessment proposed some 14,846 spaces, 13,328 to serve the dwellings and 1,518 to service the remainder of land uses. This was unacceptable to TfL and proposals now indicate average residential parking ratio of 0.7 spaces per unit. TfL are concerned that if parking is not strictly controlled a high degree of car dependency may be established. Therefore a cap on total parking provision should be secured through the S.106.

In summary the funding shortfall means that essential transport infrastructure to support the development cannot be guaranteed at this stage. Grampian conditions are therefore required to restrict development until funding is secured. Without these conditions the development would have unacceptable impacts on the road network and would not provide good public transport access for residents.

**4.50 London Development Agency (LDA):**

In principle the LDA support the proposals which will act as a catalyst to further regeneration. The Council is therefore encouraged to condition the phasing of the development to ensure that the potential of the scheme is fully delivered. It is considered that the figures for employment generation on-site may be optimistic and further details are required on this topic. The LDA welcomes the provisions made for local employment and training but these should be written into the S.106 agreement.

**4.51 Conclusions of the GLA:**

The redevelopment of the site is supported. However, key to the delivery of the project are transport improvement and given the funding gap the required transport infrastructure cannot be guaranteed at this stage. Development is therefore phased with a cap at 4,000 dwellings which must be secured by condition.

The scheme responds positively to the Mayor's energy requirements and sets an acceptable affordable housing target. However, there are concerns regarding the access strategy, sustainability strategy, phasing and unit numbers, and the lack of funding for education and health infrastructure.

It is crucial that the negotiated targets and strategies are secured and delivered through the sub-framework plans and reserved matters applications. In summary:

A requirement is needed to ensure that sub-framework plans and zonal masterplans are in accordance with strategic documents;

Housing - 41% of habitable rooms should be affordable, 30% are 3-bedroom or more with a 50:50 intermediate and social rented split. These targets should be minimums with no cap on affordability. 100% of units should be to Lifetime Homes Standards and 10% to wheelchair standards;

Energy - a requirement that phase by phase targets for renewable energy and energy efficiency are delivered. These targets should be expressed as minimums;

Sustainability – developers must meet a minimum target for the sustainability framework. The target should be agreed with the GLA. The 'C' target should be updated and revised as policy develops and the issue of double scoring should be resolved;

Transport – mechanisms to secure funding and deliver transport improvements are required. Conditions are necessary to ensure that this is phased with development;

Access – each sub-framework plan and zonal masterplan should include an access statement. Terms of reference for the access forum should be included within the access strategy and S.106. The strategy should include inclusive design principles specifically included in the S.106;

Children's Play Space – the quantum and type of play space and sports provision should be included in the S.106;

Biodiversity and Open Space – each sub-framework plan and zonal masterplan should include a landscape strategy. A condition is required to protect water voles and an agreement that the Council will adopt the open space. The developer should not close off open space for more than the minimum period;

River Thames – sub-framework plans and zonal masterplans must include details of a flood warning system, protection of development infrastructure, secure river transport provision and promote river uses;

Noise – future sub-framework plans and zonal masterplans should include detail on noise sensitive design and internal noise standards;

Community, Social and Education Infrastructure – a condition is required to protect land designated for these uses and that resists loss

of the land. A condition requiring future development to contribute to infrastructure provision, subject to financial viability, is needed;

Local Employment – further detail on initiatives is required.

4.52 Shortly before the presentation of the Stage 1 report a meeting took place between the Mayor of London, the Secretary of State and the Leader of the Council to discuss the transport infrastructure for Barking Riverside. In a subsequent letter from the Mayor to the Leader it was recognised that the DLR extension is an important part of the transport infrastructure necessary to support the development. The Mayor confirms that the DLR extension is second only to Crossrail in his personal priorities. The Mayor confirms that TfL have established a team to progress the project and to seek an Order under the Transport and Works Act (TWA) for powers to construct the extension. Funding for feasibility work has been increased and TfL currently estimates that an application for the TWA Order will be made in January 2008. On such a timetable construction may start in 2011.

4.53 This letter provides confirmation of the importance which the Mayor attaches to the DLR extension and therefore the letter is reproduced as an appendix to this report.

4.54 **Environment Agency**

In a response dated 28 April 2006 the Environment Agency removed all previously raised objections to the proposals subject to a number of conditions and informatives being placed on any grant of planning permission.

4.55 **London Thames Gateway Development Corporation (LTGDC)**

Generally welcome the proposals and the contribution that full implementation of the proposal could make to regeneration and a sustainable community. A number of issues need to be addressed as follows:

Public transport provision is essential especially the DLR extension. Such provision should be provided at the appropriate times in order to achieve the range of densities proposed. DLR is important in raising land and property values. It is questioned whether the reliability on ELT addresses the infrastructure requirements of the development; Agreeing the appropriate proportion of car parking per residential unit is important. There is a concern that early phases may have too much parking and consequently future modal shift to public transport may be difficult;

Certainty that high quality design will be carried through to each development phase is required;

Proposed trigger points for residential development allow too many units to be built before provision of supporting land uses and transport infrastructure;

Certainty is required for the delivery of retail and business floorspace;



More detail is required on the level of S.106 contribution and the role of other agencies in infrastructure provision;  
Clarity with regard to the amount and type of affordable housing is required;  
Queries over the role and funding of the proposed CDT.

4.56 **London City Airport**

Confirm that previous comments are still valid;

4.57 **Barking & District Allotment Holders' Society Ltd**

Object to the planning application on the basis of lack of consultation regarding the disposal of allotment land;

4.58 **Commission for Architecture and the Built Environment (CABE)**

Request copies of submitted plans (these have been provided);

4.59 **Nabarro Nathanson** (on behalf of Thames Power Ltd)

No comments in relation to the additional information;

4.60 **Ramblers Association**

Raise the question of small boat launching and recovery from the jetty. Note that the legal route of footpath no. 47 is blocked to the north and east of the site.

4.61 **Thames Water**

Reiterate previous comments regarding site drainage and sewerage;

4.62 **LB Newham**

Refer to previous comments regarding transport and retail issues;

4.63 **Countryside Agency**

Make no formal representation on the proposals though commend the Council and the developer for their efforts in preparing this mixed-use proposal. The Agency welcomes the inclusion of public open space and riverfront access. Note that sustainable and accessible public transport is crucial for the development;

4.64 **Union Railways**

Make no further representations;

4.65 **LB Bexley**

Raise no objections;

4.66 **Port of London Authority**

Provided that points already raised are addressed no objections are raised;

4.67 **LFEP**

No adverse comments though more detailed plans will be required.

4.68 **Indigo Planning Ltd** (on behalf of Maersk Company Ltd)  
object to the planning application on behalf of their client who operate from the Box Lane rail freight depot. General support for the principle of redevelopment is expressed however the objector is concerned that the redevelopment would impact upon the surrounding highway network particularly the A13 and Renwick Road. It is suggested that the provision of a grade separated junction at Renwick Road / A13 is brought forward in the development to alleviate highway congestion. It is emphasised that the Box Lane depot is of strategic importance and that increased traffic congestion could undermine the viability of the operation. Concerns are raised that the proposals are not sufficiently detailed to adequately assess the proposals as required by the EIA Regulations. The objector has commissioned a consultant to review the Transport Assessment submitted with the application. The report concludes that the redevelopment will have a significant impact on traffic levels and therefore the operation of the freight depot. The report also makes a number of recommendations to reduce levels of congestion including early implementation of a grade separated junction and signalisation of the Renwick Road . Box Lane junction.

4.69 **CABE**

The application has been considered by the CABE design review team. Pre-application comments from CABE to the planning agent representing the applicant are referred to as still being relevant. Additional comments are made as follows:

Query the appropriateness of considering such a large application given uncertainty over the delivery of public transport;  
Pylons represent a blight which should be addressed;  
Any planning permission should be subject to conditions adopting the principles and details of the Urban Design Guidelines (Document 18).

Pre-application comments offered by CABE can be summarised as follows:

Access and connectivity from the site across the A13 is essential;  
The masterplan is strongest when dealing with landscape issues. The riverside landscape has the potential to create a strong character for the development;  
The masterplan could respond better to weather conditions and their effect on microclimate;  
CABE are unconvinced that the character of the pylon park will alleviate the visual intrusion of the pylons. Early establishment of the landscaping and public access to the riverside are important;  
CABE are encouraged by the development of character areas and the use of density in order to develop block typologies. The use of Dutch examples to illustrate typology is welcomed though the ability of UK housebuilders to deliver this approach is queried;  
Guidelines and standards are essential for developing public realm to a high standard;

The legibility of the development, i.e. how a visitor would use visual clues to find a given location, is important.

#### 4.70 **Internal Consultation Replies**

4.71 The following replies have been received from internal Council consultees:

4.72 **Area Regeneration (Urban Design)** – detailed comments are provided in relation to the submitted Urban Design Framework document as follows:

Successful management of the public realm is critical to the success of the scheme;

Commitment to achieving design quality throughout the lifetime of the development is crucial;

The use of clay in the ground remediation strategy may have implications for soft landscaping;

Sustainability measures should include reference to environmental sustainability, energy efficiency, bio-diversity etc;

Delivery of infrastructure to support the development needs to be established through S.106;

Public use of T-jetty is encouraged;

Robust design codes are required to ensure success of the perimeter block building typology;

Building heights at south-eastern corner of the site (adjacent to the Goresbrook and safeguarded wharf) needs consideration;

Accommodating car parking conveniently and unobtrusively is a major challenge;

Good estate management and management of the public realm are essential;

Ensuring design quality throughout the course of the development is important.

4.73 **Leisure & Community Services (Parks)** – key objectives of the Landscape and Ecology Strategy are welcomed. Water Voles must be protected during construction. Network of proposed green spaces is welcomed.

Detailed points are raised as follows:

Public access of the Thames foreshore area requires sensitive management to protect wildlife;

Lighting to this part of the site should be sensitive to wildlife;

Viewing points over the foreshore need to minimise disturbance;

Clarity required on the functional use of proposed green space within the development;

The impact of the proposed Ecology Centre on existing facilities such as the Millennium Centre requires consideration;

General approach to 'leisure' appears to be commercial / retail and car-based;  
No mention of 2012 Olympic Games in the leisure assessment;  
Reference should be made to playing field provision;  
Phasing of leisure facilities should be commensurate with population growth.

4.74 **Children's Services** – the development could create approximately 6,000 pupils when completed. The following facilities would need to be provided:

3no. primary schools with some extended facilities;  
an extended secondary school to include a children's centre, community library, adult and lifelong learning;  
a fourth reserve school site.

Expansion of existing facilities at Thames View Infant and Junior schools is not a preferred option;

Contributions towards some of the cost of providing new schools is required.

4.75 **Sustainable Development Group** – comments on the submitted Sustainability Framework as follows:

A BREEAM rating of good is unsatisfactory;

Use of the open areas as flood storage space is welcomed but the use of green roofs and grey water systems is also encouraged;

The development should make best use of the river frontage and southern orientation;

All units should be connected to broadband and communal blocks should share one satellite dish;

Local area maps to be provided at transport interchanges;

Extensive secure cycle storage should be provided;

Flatted blocks should incorporate secure storage space;

Car share priority for parking lots;

Roads should be designed as avenues;

An energy assessment should be submitted in line with London Plan requirements;

On-site renewable energy should be generated as required by London Plan policy;

An energy statement is required to address the issue of carbon emissions;

The potential for using waste heat from Barking Power Station should be explored;

The use of an ESCo should be explored;

Cooling and ventilation measures should be incorporated into the development;

Non-essential street furniture should be solar powered;

A zero carbon development should be included within the scheme;

Construction materials should enter the site via the Thames or railway links;

The construction phase(s) should include a green travel plan;

Locally sourced materials should be used;

All wood sourced from sustainable sources;  
Use of modular buildings supported;  
Houses with gardens should have water butts and composting bins;  
Bottle bank sites should be provided per 500 units;  
Noise mitigation required from the DLR;  
Sound barriers required between the site and Dagenham Dock;  
Green roofs and soft landscaping employed to minimise run-off;

**4.76 Area Regeneration** – (comments relating to Urban Design Framework)

Underground cables affect the proposed secondary school site and should be diverted or removed to provide an unencumbered site. Similarly the switching station in this part of the site should be relocated;

The site includes part of the former Bellway Phase 2a land reserved by S.106 for use as a primary school. The agreement will need to be varied in this respect;

Potential discrepancy in building heights on zones 2.11 and 2.12;

The intention of preserving the coal wharf may conflict with the aspiration of a high quality development;

Important design elements of the scheme should be 'fixed' at this stage.

**4.77 Customer Services** – (comments relating to Code of Construction Practice)

Emission Control: a definition of site boundary will need to be agreed as works progress in relation to particulate matter;

Wheel washing facilities should be provided and utilised;

Haul roads should be hardsurfaced;

Hoardings or screens around work areas are only of value close to housing;

There should be a commitment to investigate complaints;

Noise and Vibration: the developer should commit to making an application for prior approval under the Control of Pollution Act;

The action level for noise must include time as well as level;

The developer should commit to best practicable means;

Temporary barriers should be used to mitigate noise close to noisy equipment.

Working hours should be restricted within normal Council guidelines.

**4.78 Community Services, Libraries and Heritage** – in relation to the extended secondary school including children's centre and library it is noted that there are benefits in locating libraries in district centres. It is also noted that future funding sources for library provision need to be identified.

**4.79 Response to Specific Comments Raised in Consultation**

- 4.80 A wide range of comments on the application have been raised through the consultation process. These comments are summarised above. A small number of the replies listed above raise specific objections or queries to elements of the scheme. A response on these matters is given below.
- 4.81 **CgMs Consultants (on behalf of the Metropolitan Police Authority)** – concerns were raised that a development of this scale would have implications for police facilities and resources and that the provision of facilities should be agreed prior to development. Further correspondence has been received from CgMs and a meeting has taken place between the applicant and CgMs. Broad agreement has been reached on a planning condition to require that the form and content of future sub-framework plans shall address, inter-alia, provision of facilities to meet the requirements of the emergency services, including the police service. CgMs has confirmed that in order to meet the operational requirements of the Metropolitan Police a number of Safer Neighbourhoods Offices would be required. These Offices are typically 150 sq.m. in floorspace and located within local centres. In response the applicant has confirmed that these requirements can be accommodated at the Sub-Framework planning application stage.
- 4.82 **Barking & Dagenham Allotment Society** – in response to the original consultation the Society objected to the application on the grounds that Long Reach allotments were statutory allotments. A further objection was received following consultation on the additional application submissions referring to a lack of consultation regarding the disposal of allotment land. At the same time as objecting to the planning application the Society had lodged a corporate complaint based on similar issues. The Council's response to the corporate complaint noted that the Society was offered the Long Reach allotment site on the sale of the Thames Road allotments in 1994. For Members information statutory allotments cannot be disposed of without the consent of the Secretary of State whilst non-statutory sites do not require such consent for disposal. The Thames Road allotment was a statutory site and permission for the disposal of this site was obtained from the Secretary of State. In 2001 the Council sought legal advice regarding the acquisition of the Long Reach allotment site for the Barking Riverside development. Notices were served on Long Reach allotment holders in 2002 and the Allotment Society's response to the notices stated that the Society understood the Long Reach site to be non-statutory. Further legal advice was sought at this time as there was some debate as to the status of the allotments. The advice suggested that the Council was able to proceed with disposal indicating that the allotments were non-statutory. The timescales for challenge to this decision have now lapsed and therefore no outstanding issues remain with regard to the Long Reach allotment site.

- 4.83 **Network Rail / Strategic Rail Authority** – both of these consultees expressed concerned regarding the impact of the proposals on Barking and Dagenham stations. It was stated that Barking station is near to its passenger capacity at peak times and that development, prior to the delivery of DLR, would place further pressure on the station. It was suggested that a contribution was sought from the applicant to upgrade the station. For Members information the Strategic Rail Authority has now been ‘wound-up’ and its functions have been taken over by the Department of Transport. Also London Rail as part of the Transport for London Group will next year have some locus in relation to the Station. The applicants’ position regarding this objection is that no Section 106 contributions are available to contribute towards station improvements. However, London Thames Gateway Development Corporation, in partnership with the Council and TfL , have earmarked funds for a range of major improvements to Barking station. The applicant supports the LTGDC in this regard. It should be noted that the heads of terms for the S.106 legal agreement includes a substantial list of obligations relating to transport. Inter-alia these heads of terms refer to the DLR through the site, ELT, bus services, a public transport plan, works to the Renwick Road junction, off-site highway and bus priority works, a transport strategy and the establishment of a sustainable transport fund. The transport section of the S.106 forms a considerable part of the agreement and notwithstanding the objection from Network Rail and the Strategic Rail Authority it is considered that the transport implications of the development proposals are satisfactorily addressed.
- 4.84 **Environment Agency** – the Agency initially objected to the planning application on the grounds that:
- i) the Flood Risk Assessment (FRA) had been submitted as a supporting document rather than a document for approval;
  - technical details of the FRA regarding mitigation etc.;
  - iii) insufficient details regarding the land remediation / contamination strategy;
  - iv) failure to enhance the landscape of watercourses on-site.
- 4.85 Following discussion with the Environment Agency the objection relating to land remediation and contamination was removed in May 2005 subject to requirements for a qualitative risk assessment and remedial strategies to be secured via planning condition. These suggested conditions appear as item numbers 45, 46 and 47 on the list of planning conditions.
- 4.86 The remaining objections to the proposals, items (i), (ii) and (iv) above, were removed by the Environment Agency in April 2006. With regard to objection (i) the Agency considered that subject to condition the

updated flood risk information contained within Documents 21, 22 and 27 was satisfactory. Objection (ii) related to technical details within the FRA and after discussions the Agency removed the objection subject to condition. Finally the Agency removed objection (iv) subject to condition and the application of the Urban Design Guidelines contained within Document 18. The conditions suggested by the Environment Agency in connection with the removal of objections are as follows:

- a) Prior to the commencement of any works a scheme for mitigation of increased flood risk to third parties in the event of a breach in the tidal defences shall be agreed in writing by the local planning authority in consultation with the Environment Agency. Development shall proceed in accordance with approved details.
- b) The layout and form of built development and associated landscape proposals fronting / adjacent to the watercourses on-site shall be submitted to and approved in writing by the local planning authority in consultation with the Environment Agency prior to development commencing.
- c) At sub-framework stage: the form and content of the sub-framework plan shall address the following matters:  
the submission of a green roof masterplan.
- d) No development approved by this permission shall be commenced until a scheme for the design, extent and location of green roofs has been approved in writing by the local planning authority in consultation with the Environment Agency. Development shall commence in accordance with approved details.

4.87 Members will be aware that any conditions attached to a grant of planning permission have to pass tests set out in Circular 11/95 (The Use of Conditions in Planning Permissions). In particular conditions should be necessary, relevant to planning, relevant to the development to be permitted, enforceable, precise and reasonable in all other respects. The applicant has raised a concern that condition (a) above may not be lawful or reasonable assessed against the tests set out in Circular 11/95. The wording of the condition requires that before any works commence on-site flood risk mitigation, in the event of a tidal breach, for third parties (off-site) is agreed. The applicant contends that the submitted FRA demonstrates that there are no third party impacts for the 1 in 100 year fluvial and 1 in 200 years tidal floods. The FRA also suggests only minimal third party impacts in the event of an unlikely extreme breach event. In any case mitigation is proposed to address this risk as summarised in the Flood Risk section of this report. The sluice failure and breach events modelled within the FRA are considered to be extremely unlikely and modelling indicates that the effects of these scenarios off-site, with or without development, are minimal. Accordingly the FRA is considered to be PPG25 compliant and the condition is therefore unnecessary.



- 4.88 One of the requirements for conditions within Circular 11/95 is that of precision. The wording of the condition offered by the Agency does not define 'third parties' and this term could be taken to include any number of occupiers within the wider Barking area and beyond. Accordingly it is not considered that the suggested condition passes the test of precision. The condition is also considered to be unreasonable as it restricts any works from occurring prior to a scheme for mitigation. For these reasons it is not recommended that this condition be attached to any grant of planning permission.
- 4.89 Conditions (c) and (d) above relate to the provision of green roofs on the development. Members will note that condition no. 6 within the schedule of conditions refers to the form and content of sub-framework plans. Item (w) of this condition refers to the provision of a green roof masterplan. Condition no. 7 requires that reserved matters should reflect and be in general accordance with the sub-framework master plans required by condition no. 6. In these circumstances it is considered that the matter of green roof provision is adequately addressed.
- 4.90 **Indigo Planning Limited (on behalf of Maersk Company Limited)** – expressed significant concerns regarding the likely impact of the proposed development on the surrounding highways network in particular the A13 / Renwick Road / Box Lane area. It is recommended that the proposed grade separated junction (A13 / Renwick Road) is constructed at the end of Phase 1 of the development to alleviate potential congestion. Indigo suggest that the proposed development will have a significant impact on traffic levels to the detriment of the viability of occupiers in Box Lane. In addition to the accelerated provision of the grade separated junction it is also suggested that proposed interim arrangements for a left-in left-out at the A13 / Renwick Road junction are removed, that the Box Lane / Renwick Road junction is permanently signalised and that weight restrictions on the Renwick Road bridge are maintained.
- 4.91 As originally submitted the planning application envisaged a series of triggers to limit the number of residential occupations subject to provision of associated infrastructure. Under the heading of highways and transport these triggers suggested that not more than 2000 dwellings shall be occupied in advance of the provision of a left-in left-out junction at the A13 / Renwick Road. A trigger also limited the occupation of no more than 7000 dwellings in advance of the provision of a grade separated junction at the A13 / Renwick Road.
- 4.92 Since the first submission of the application and the suggested triggers there has been considerable discussion about the timing of transport provision in relation to residential occupations. Officers have a concern that if improvements to the A13 / Renwick Road junction are provided too early then new residential occupiers may become reliant on the

upgraded junction and use of the private motor car. Therefore early provision of the junction improvements would not contribute towards sustainable travel patterns. There is an obvious link between the timing of the junction improvements and provision of public transport infrastructure to serve the new dwellings. Members will note from the heads of terms for the S.106 agreement that it is intended to introduce bus services and ELT into the development at the earliest possible opportunity. In light of the above the heads of terms relating to works to the A13 / Renwick Road junction suggest a review, prior to the occupation of 2500 units, to assess if funding has been allocated in the 2007 spending review to provide a grade separated junction. If such funding has been allocated then works will be started at the occupation of 2500 dwellings. If funding is not allocated in the 2007 review then Barking Riverside Limited will undertake interim works to the junction prior to more than 2500 occupations. If interim works are undertaken at 2500 occupations then no more than 4000 homes can be occupied before the grade separated junction is to be provided.

- 4.93 The objection from Indigo Planning Limited suggests that the grade separated junction should be provided by the end of Phase 1 of development (i.e. approximately 1784 occupations). As mentioned above Officers have a concern that if junction improvements are provided too early this may not result in sustainable travel patterns for occupiers and users of the development. Considerable effort has gone into agreeing the triggers as set out in the heads of terms and it considered that these triggers represent a reasonable balance between minimising highways congestion and encouraging sustainable forms of transport.
- 4.94 No representations were received during any of the consultation exercises from private householders.

## **5.0 Planning Policy**

- 5.1 Members will be aware that Section 38(6) of the Planning and Compulsory Purchase Act 2004 requires that planning applications are to be determined in accordance with the development plan unless material considerations indicate otherwise. There are a large number of policy documents which refer to the Barking Riverside (Reach) site at a regional, London-wide and Borough level. These documents can be summarised as follows:
- 5.2 Strategic Policy Framework –
- 5.3 RPG9a – Thames Gateway Planning Framework (1995) – this document first described the Thames Gateway (formerly known as the East Thames Corridor) as an area of opportunity extending from Docklands to Tilbury and the Isle of Sheppey. Paragraphs 6.4.1 – 6.4.8 of this document specifically refers to Barking Reach as a significant new community of about 5,500 homes. The document also

refers to relationship between new development and employment opportunities and existing communities. The need for coordinated planning of transport and land use is emphasised. The opportunities afforded by the river frontage, the relationship between residential uses and adjoining commercial uses and access arrangements to the A13 are all mentioned.

- 5.4 RPG3 – Strategic Planning Guidance for London Planning Authorities (1996) – paragraph 2.39 mentions Barking Reach as an Area of Opportunity within the Thames Gateway.
- 5.5 London Plan (2004) – London Plan policies adopted in 2004 replace strategic planning guidance contained within RPG9a and RPG3. London Plan policy 2A.2 is however consistent with earlier guidance in identifying Barking Reach as an Opportunity Area. Chapter 5C of the Plan refers generally to East London and the Thames Gateway and Policy 5C.2 lists Barking Reach as an Opportunity Area for 10,000 new homes and 200 new jobs up to 2016. Paragraphs 5.75 and 5.76 suggest that the site is London’s single largest housing development opportunity with capacity for up to 10,000 new homes if transport and development constraints can be addressed. The creation of a high quality environment and a full range of community facilities is mentioned. The development is described as a new urban settlement with strong links to Barking town centre. The development should include a local centre with mixed-use development, leisure facilities and other services. Improvements to public transport such as a DLR extension and implementation of ELT are suggested. Development of the site will need to deal with contamination, provide new access roads and utilities, deal with the issue of overhead power cables and provide new public open spaces.
- 5.6 A number of detailed London Plan policies apply to the proposals as follows:
  - 3A.1 Increasing the Supply of Housing;
  - 3A.2 Borough Housing Targets;
  - 3A.4 Housing Choice;
  - 3A.5 Large Residential Development;
  - 3A.7 Affordable Housing Targets;
  - 3A.12 Improved Underground and DLR Services;
  - 3A.13 Enhanced Bus Priority, Tram and Bus Transit Schemes;
  - 4A.7 Energy Efficiency and Renewable Energy;
  - 4A.8 Energy Assessment;
  - 4A.9 Providing for Renewable Energy;
  - 4A.11 Water Supplies;
  - 4B.1 Design Principles for a Compact City;
  - 4B.3 Maximising the Potential of Sites;
  - 4B.5 Creating an Inclusive Environment;
  - 4B.6 Sustainable Design and Construction;
  - 4C.6 Flood Plains;

#### 4C.8 Sustainable Drainage.

- 5.7 Supplementary Planning Guidance to the London Plan for Housing (November 2005) and draft Supplementary Planning Guidance on Sustainable Design and Construction is also relevant.
- 5.8 London Riverside Urban Strategy & Interim Planning Guidance (2003) – identifies Barking Reach as one of London’s largest housing sites. The site will become a new urban community with a mix of housing types and tenures served by public transport and local services.
- 5.9 Unitary Development Plan (1996) – Strategic Policy D of the UDP states that Barking Reach will be comprehensively developed primarily for residential development of up to 6,000 dwellings and employment uses.
- 5.10 National Planning Policies –
- 5.11 Planning Policy Statement 1: Delivering Sustainable Development (2005) – this document sets out the Government’s four aims for sustainable development namely social cohesion and inclusion, protection and enhancement of the environment, prudent use of natural resources and sustainable economic development. In order to deliver sustainable development planning authorities are encouraged to:
- promote urban regeneration and high quality, safe development;
  - promote mixed use development with linkages between uses;
  - bring forward sufficient land for housing needs;
  - provide improved access to jobs and facilities;
  - focus development in existing centres
  - promote more efficient use of land;
  - enhance and protect biodiversity;
  - promote good design.
- 5.12 Planning Policy Guidance 3: Housing (2000) – the Government’s objectives include reference to greater choice of housing for all sections of the community. In order to promote more sustainable patterns of development and make better use of previously developed land additional housing should be concentrated in existing towns and cities. New housing should be well designed and improved the quality of life. Local planning authorities are encouraged to, inter-alia, give priority to re-using previously developed (brownfield) land within urban areas, create sustainable patterns of development, make more efficient use of land and promote good design. Further detailed guidance within PPG3 refers to the creation of mixed and inclusive communities which offer a choice of housing. The need for a mix of housing types, including affordable housing, is mentioned as a material planning consideration. Under the general heading of ‘creating sustainable residential environments’ several key objectives are promoted including the linking of development to public transport, mixed use development,

a greener residential environment, an increased emphasis on quality of design and more efficient use of land.

- 5.13 Planning Policy Statement 6: Planning for Town Centres (2005) – the role of planning in facilitating sustainable and inclusive development is emphasised. The Government’s key objective for town centres is to promote their vitality and viability by focusing development in town centres and encouraging a wide range of services in a good environment. In assessing proposed developments local planning authorities should assess the need for the development, the scale of the development, accessibility of the location and impact on existing retail centres.
- 5.14 Planning Policy Statement 9: Biodiversity and Geological Conservation (2005) – this document sets out the Government’s objectives for promoting sustainable development by ensuring that biological and geological diversity are conserved and enhanced as an integral part of development. The objective of conserving, enhancing and restoring the diversity of wildlife and geology by sustaining or improving the quality and extent of habitat is mentioned. The final objective is to contribute to the urban renaissance by enhancing biodiversity in green spaces and among developments and ensuring that developments take account of the role and value of biodiversity.
- 5.15 Planning Policy Statement 10: Planning for Sustainable Waste Management (2005) – the key objectives of this document can be summarised as addressing waste as a resource with disposal considered as a last option, providing a framework where communities take more responsibility for waste, implementing targets for waste reduction, re-use, recycling, composting and using waste as a source of energy.
- 5.16 Planning Policy Guidance 13: Transport (2001) – the broad objectives of this guidance are to promote sustainable transport choices, promote accessibility to jobs, shopping, leisure facilities and services by public transport, walking and cycling and reduce the need to travel, especially by car. In considering planning applications local authorities should, inter-alia, manage the pattern of growth to make full use of public transport, locate facilities in local centres, accommodate housing within existing urban areas with increased density of development at highly accessible locations, use parking policies to reduce reliance on the car for journeys, give priority to people over cars, ensure that the needs of disabled people, pedestrians and public transport users are catered for in the design of schemes, secure community and road safety through design and protect routes critical in developing transport infrastructure.
- 5.17 Planning Policy Guidance 16: Archaeology and Planning (2001) – this document provides advice on the handling of archaeological remains and the weight to be given to them in planning decisions. Developer

and local authorities should take archaeological considerations into account from the beginning of the development control process.

- 5.18 Planning Policy Guidance 17: Planning for Open Space, Sport and Recreation (2002) – local authorities should ensure provision for local sports and recreational facilities where planning permission is granted for new developments. In assessing planning applications local authorities should seek to improve the local open space network.
- 5.19 Planning Policy Statement 22: Renewable Energy (2004) – the Government’s energy policy aims to cut carbon dioxide emissions by 60% by 2050. The Government has also set a target to generate 10% of energy from renewable sources by 2010. Increased development of renewable energy resources is vital to the delivery of commitments on climate change and renewable energy. In their approach to planning for renewable energy local planning authorities should adhere to a number of key principles including accommodating renewable energy where viable, economic and where impacts can be addressed. The wider environmental and economic benefits of renewable energy projects, whatever their scale, are material considerations that should be given significant weight in determining planning applications. Development proposals should also demonstrate environmental, economic and social benefits and how environmental and social impacts have been minimised through consideration of location, scale, design and other measures.
- 5.20 Planning Policy Statement 23: Planning and Pollution Control (2004) – this statement advises that the consideration of land, air or water quality and impacts arising from development are capable of being a material planning consideration. In exercising development control functions local planning authorities must be satisfied that planning permission can be granted on land use grounds taking full account of environmental impacts. The local planning authority should also satisfy itself that the potential for contamination and any risks arising are properly assessed and that the development incorporates any necessary remediation and subsequent management measures.
- 5.21 Planning Policy Guidance 24: Planning and Noise (1994) – states that the impact of noise can be a material consideration in the consideration of planning applications. Introduces the concept of noise exposure categories (NEC’s) for new residential properties near existing noise sources.
- 5.22 Planning Policy Guidance 25: Development and Flood Risk (2001) – this Guidance states that the susceptibility of land to flooding is a material planning consideration. Local planning authorities should adopt the precautionary principle to the issue of flood risk, using a risk-based search sequence to avoid such risk where possible and managing it elsewhere. Planning decisions should recognise that the consideration of flood risk and its management needs to be applied on

a whole-catchment basis and not be restricted to flood plains. Applicants for planning permission should assess the risk posed by flooding to a development. The Government places emphasis on the need for urban regeneration of brownfield land. Such sites may be vulnerable to flooding and local planning authorities should consider the risks of flooding, the standards of existing flood defences and the ability to improve such defences.

5.23 Local Planning Policies –

5.24 Members may be aware that the Planning and Compensation Act 2004 replaces existing UDP's with a Local Development Framework (LDF). The LDF itself will comprise a number of documents setting out policies for meeting the social, economic and environmental needs of the Borough. Consultation on an Issues and Options Paper, a Sustainability Appraisal and a Statement of Community Involvement was undertaken in November 2005. Two of the Issues and Options Papers (Site allocation and Housing) identify Barking Riverside as a major development site and an area for regeneration. Nevertheless at this relatively early stage in the LDF process the documents have little weight and the UDP remains the development plan in force. The Barking Reach chapter of the Unitary Development Plan contains specific planning policies for the Barking Reach and wider Dagenham Dock area. In relation to the current application site the following policies are relevant:

5.25 BR1 – as part of comprehensive development the Council will require shopping facilities, including a district centre, schools, religious buildings, medical facilities etc, public open space, parks etc. together with the provision of adequate infrastructure. The Council will also seek the removal, relocation or burying of power lines.

5.26 BR2 – the Council will ensure the integration of Barking Reach into the rest of the Borough.

5.27 BR3 – the Council will seek to ensure that affordable, low cost homes are provided within the housing area.

5.28 BR7 – high quality development and landscaping will be south at Barking reach gateway sites.

5.29 BR8 – areas of nature conservation value will be protected and managed.

5.30 BR11 – new road junctions: development of the site would require an upgrading of the existing Renwick Road / A13 junction.

5.31 Supplementary Planning Guidance Note 6 – this Guidance sets out the Council's objectives and conditions for the Barking Reach site. In relation to the residential element of Barking Reach the objectives are:

To create a high quality living environment;  
To create a broad choice of housing by providing a range of housing types and tenures;  
To safeguard nature conservation interests and, wherever practical, to create new habitats,  
To create new opportunities for leisure and recreation and promote public access to the waterfront.

- 5.32 The Guidance includes reference to a design framework including the river frontage, Renwick Road and district centre. The requirement for schools to serve the development is also mentioned. Reference is also made to the power lines crossing the site. Phasing of development, likely S.106 matters and planning conditions.
- 5.33 There are also a large number of general UDP policies applying Borough-wide which are relevant to the proposals. These policies can be listed as follows:
- 5.34 H1 (Housing Supply) – encourages the development of additional dwellings through redevelopment, infilling or conversion where appropriate;
- 5.35 H4 (Low Cost Housing) – seeks the provision of affordable, low cost homes;
- 5.36 H5 (Sheltered Housing) – encourages the provision of sheltered dwellings in appropriate locations;
- 5.37 H6 (Housing for People with Disabilities) – seeks to ensure that new housing is built to mobility standards where appropriate;
- 5.38 H7 (Special Needs Housing) – generally supports special needs housing for the community;
- 5.39 G28 (Contaminated Land) – the Council will, inter-alia, seek the necessary treatment of contaminated land to enable future beneficial use;
- 5.40 G33 (Flooding) – flood protection will be required within development areas potentially at risk from flooding;
- 5.41 G40 (Energy) – the Council will encourage renewable energy, energy efficiency and development in accessible locations;
- 5.42 G41 (Overhead Power Lines) – the Council will consider the potential impacts of development adjacent to power lines;
- 5.43 G43 (Nature Conservation Sites) – development proposals adjacent to nature conservation sites should have no adverse impact;



- 5.44 G46 (New Developments) – the integration of nature conservation into new developments is encouraged;
- 5.45 G62 (Public Open Space) – the Council will seek to provide public open space in areas of deficiency;
- 5.46 G67 (Footpaths) – the Council will safeguard, maintain and improve existing footpaths;
- 5.47 DE6 (Safety & Security) – new development should enhance safety and security;
- 5.48 DE7 (High Buildings) – at the Barking reach site high buildings will be considered;
- 5.49 DE8 (Waterfront Development) – sets out design criteria for waterfront development;
- 5.50 DE16 (Hard Landscape) – high quality public realm is encouraged;
- 5.51 DE39 (Archaeological Sites) – the Council will liaise with English Heritage as appropriate;
- 5.52 C2 (Community Facilities) – planning permission will usually be granted for such uses;
- 5.53 C5 (New Developments) – the Council will encourage community facilities as part of new development proposals;
- 5.54 C15 (Access) – the Council will seek to ensure that all new development have suitable access;
- 5.55 AT6 (New Developments) – proposals for new arts, cultural and entertainment facilities will normally be allowed;
- 5.56 T1 (Accessibility) – new developments should be at locations accessible by public transport networks;
- 5.57 T5 (New Rail Facilities) – the Council will support the implementation of new rail infrastructure;
- 5.58 T7 (Bus Services) – the Council will support the improvement of bus facilities.
- 5.59 Supplementary Planning Guidance Note 11 – Riverside Design Guidelines:

- 5.60 This guidance emphasises the importance of the Thames frontage as an asset to the Borough and provides details regarding public access, landscape, nature conservation and building design.

## **6.0 Procedure**

- 6.1 The planning application under consideration was originally submitted to the Council for consideration in December 2004. Prior to the submission of the planning application the applicant produced an Environmental Impact Assessment Scoping Report in December 2003. Scoping is the process of setting out the issues to be considered in an Environmental Statement, the parameters and the broad approach to be taken during the assessment. After consultation and assessment of the Scoping Report the Council issued a 'Scoping Opinion' in July 2004 adopting the content of the scoping report. However, the applicant was advised to include further chapters in the Environmental Statement covering energy, micro-climate, waste and electro-magnetic effects.
- 6.2 Following receipt of the planning application in December 2004 a consultation and notification exercise was undertaken as required by the Town & Country Planning (General Development Procedure) Order and the Town & Country Planning (Environmental Impact Assessment) Regulations. A total of 60 statutory and non-statutory consultees were invited to comment on the proposals, site notices were displayed on and adjacent to the site, the application was advertised in the local press and an article appeared in an edition of the 'Citizen' magazine. The results of this consultation exercise are described more fully in the 'Consultations' section of this report.
- 6.3 The Council's Unitary Development Plan, as the development plan in force for the application site, states at Strategic Policy D that the Barking Riverside site will be comprehensively developed with up to 6,000 dwellings and employment uses. Clearly the proposed development of up to 10,800 dwellings on the site represents a significantly greater volume of development for the site. In these circumstances the application has been advertised and publicised as a departure from existing development plan policies.
- 6.4 Under the terms of the Town & Country Planning (Mayor of London) Order the Greater London Authority has been notified as the application is within the thresholds of potential strategic importance. The application has been referred under the following categories: new housing exceeding 500 units; new uses with a total floorspace of more than 15,000 sq.m.; new tall buildings; departure from development plan policies and development incorporating more than 200 parking spaces. A Stage 1 report for the planning application, whereby the Mayor sets out his initial views on the proposals, was produced in October 2006 and is referred to at paragraph 4.36.

6.5 After the initial consideration of the planning application in the early part of 2005 a consultant was appointed to review the Environmental Impact Assessment on behalf of the Council. The Council's consultant concluded that the Environmental Statement met the requirements of the EIA Regulations. However, there were a number of issues for which further information should be provided before the determination of the planning application. Consequently in August 2005 the Council issued a request to the applicant to provide further information under Part 19 of the EIA Regulations. The subject areas where further information was needed were:

- timing of DLR extension and effect on development;
- waste, energy and sustainability;
- mitigation;
- wind environment;
- water resources and flood risk;
- construction impacts and nature conservation;
- transport;
- noise and vibration;
- air quality;
- overshadowing, sunlight and daylights;
- electromagnetic radiation;
- ground conditions.

6.6 In response to the request for further information the applicant submitted additional information in October and November 2005. At the same time amendments to the planning application were submitted. Press notices publicising the amendments and additional information were placed in November 2005 and all original consultees for the planning application were re-consulted.

6.7 With reference to decision-making procedures if Members resolve to grant planning permission for the proposals the application will need to be referred to the Mayor prior to the issue of any decision. The Mayor has the power to direct refusal of the planning application. Similarly as the application has been treated as a departure from UDP policies, prior to any grant of planning permission the application will need to be referred to GOL.

6.8 Since the submission of the planning application in December 2004 the London Thames Gateway Development Corporation (LTGDC) has taken over powers as local planning authority for strategic planning applications. Therefore future planning applications for the Barking Riverside site, including applications for the approval of reserved matters will be determined by the Development Corporation and not the Council.

6.9 The eventual development of the site, if planning permission is granted, will take place after the completion of a series of steps involving the Council, LTGDC, TFL, BRL and individual Zone developers.

6.10 **Step 1 of this process involves the grant of outline planning permission by the Council. If approved, outline planning permission would establish the following development parameters:**

- general layout
- land use
- disposition between uses
- ground levels and contours
- scale of built form
- areas of open space and uses
- site access
- primary transport corridors
- remediation
- surface water drainage
- flood defence
- density
- phasing
- maximum height
- affordable housing mix, levels etc.
- design framework.

6.11 Any grant of outline planning permission would involve the approval of the following submitted application documents:

- Document 1 Description of Developers & Parameters
- Document 5 Ground Conditions Assessment & Remediation
- Document 13 Landscape & Ecology Framework
- Document 18 Urban Design Guidelines (Revised August 2006)
- Document 19 Landscape & Ecology Design & Management Guidelines
- Document 20 – Spatial Programming
- Document 21 – Drainage & Flood Defence Strategy
- Document 23b – Spatial Programming Drawing

6.12 The following application drawing within Document 3 (Application Drawings) would also be approved at outline stage:

- Application Boundary 108F000 Rev. D
- Framework Plan 108F100 Rev. D
- Finished Ground Level Plan 108F910 Rev. M
- Land Capable of Permanent Built Development 108F010 Rev. C
- Average Housing Density Plan 108F011 Rev. B
- Maximum Building Heights 108F013 Rev. D

- Road Infrastructure Primary & Secondary Road 108F200 Rev. C
  - Main Streets Length & Width 108F201 Rev. B
- 6.13 Outline planning permission would be granted subject to a number of conditions and the completion of a Section 106 legal agreement. The legal agreement, as well as formalising a number of obligations on the developer, would establish a number of strategies to be agreed by the Council and TFL. The strategies would cover the following subject areas:
- Transport
  - Affordable Housing
  - Energy & Sustainability
  - Play, Sport and Recreation
  - Education
  - Community Development Trust
  - Employment
  - Waste
  - Access Statement
- 6.14 **Step 2 of the approval process involves the set-up of a number of panels involving the input of LBB, TFL and LTGDC. The panels would be as follows:**
- Design Panel
  - Community Development Trust
  - Transport Strategy Steering Group
  - Energy Panel
  - Access Panel.
- 6.15 **Step 3 involves the submission of Sub Framework Plans which will be consistent with the outline planning permission and will be approved documents to cover each of the 4 Stages of the development. These plans will be submitted AND APPROVED IN ACCORDANCE WITH THE DETAILS IN THE SECTION 106 AGREEMENT AND WILL INCLUDE:**
- Housing mix
  - Code of construction practice
  - Code of construction management brief
  - Landscape & ecology design brief
  - Public realm, roads, open space and indicative housing plan with phasing
  - A strategic highway and public realm infrastructure application
  - S.106 strategy updates for transport, play sport and recreation, education, BRCDT business plan, affordable housing delivery strategy, access statement, infrastructure
  - Community development strategy

At step 3 a strategic highway and public realm infrastructure application would be submitted for approval

**6.16 Step 4 of the approval process involves the submission of reserved matters applications to LTGDC. A number of site-wide applications would be submitted by BRL as follows:**

- Car parking
- Loading / unloading arrangements
- Road layouts
- Lighting
- Footways & cycleways
- Play areas & open space.

For each of the 14 development Zones across the site individual developers would submit reserved matters applications to LTGDC for approval. The S.106 Heads of Terms for Energy and Sustainability require the completion of a sustainability benchmark document by ploy developers. After completion of Step 4 development of the site could commence.

<b>7.0 Environmental Impact Assessment</b>
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7.1 The planning application is accompanied by an Environmental Statement as required by the Town & Country Planning (Environmental Impact Assessment) (England and Wales) Regulation 1999. Schedule 1 of the above Regulations lists a number of significant developments where an environmental impact assessment (EIA) is always required. The proposals do not fall within any of the categories defined by Schedule 1. However Schedule 2 of the Regulations lists further categories of development where EIA may be required depending upon the scale of development, likely significant effects and whether the site is located within a sensitive area. The proposals are categorised as an 'urban development project' within Schedule 2, Section 10(b) of the Regulations. Circular 2/99 (Environment Impact Assessment) provides advice on thresholds where Schedule 2 development is likely to require an EIA. In the case of urban infrastructure projects paragraph A19 of the Circular states that development for sites which have not previously been intensively developed are more likely to require EIA if:

the site area is more than 5 hectares;  
it would provide a total of more than 10,000 sq.m. of new commercial floorspace; or  
the development would have significant urbanising effects in a previously non-urbanised area (e.g. a new development of more than 1,000 dwellings)

Clearly the proposals exceed these thresholds and therefore an EIA accompanies the application.

## 7.2 EIA Scoping

7.3 In December 2003, 12 months prior to the submission of the planning application, the applicant submitted an EIA scoping report to the Council. Under Part 10 of the above Regulations an applicant who is minded to make an EIA application can ask the local planning authority to state their opinion as to the information to be provided in the Environmental Statement (a 'scoping opinion'). The scoping report identified the key EIA issues as:

Socio-economic impacts;  
Landscape and visual impact;  
Ecology;  
Transportation and access;  
Noise and vibration;  
Air quality;  
Ground conditions;  
Hydrology;  
Cultural heritage.

7.4 The matter of electromagnetic forces was identified as a non-significant issue in the scoping report.

7.5 In accordance with the Regulations the Council consulted with appropriate bodies on the content of the scoping report. In July 2004 the Council issued its scoping opinion broadly endorsing the content of the scoping report. However, the scoping opinion suggested that further chapters should be included in the environmental statement covering the topics of energy, micro-climate, waste and the electromagnetic effect of the power lines.

## 7.6 Environmental Statement

7.7 The planning application, as originally submitted in December 2004, included an environmental statement main report and accompanying drawings referred to as volumes 1 and 2 of Document 15. A number of technical appendices support the environmental statement as follows:

Appendix 2	Existing Site Contours Drawing;
Appendix 3	EIA Scoping Report & Responses;
Appendix 4	Electromagnetic Field Survey
Appendix 5a	Landscape & Ecological Framework;
Appendix 5b	Commercial & Community Objectives;
Appendix 8	Landscape & Visual Assessment;
Appendix 9	Ecological Survey & Assessment;
Appendix 10a	Socio-Economic Baseline Report;

Appendix 10b	Retail, Leisure & Community Facilities Assessment;
Appendix 11	Transport Assessment;
Appendix 12	Noise & Vibration Survey Data;
Appendix 13	Air Quality Impact Assessment;
Appendix 14a	Archaeological Desk Based Assessment;
Appendix 14b	Buildings Assessment;
Appendix 17	Ground Conditions Assessment & Outline Remediation Strategy;
Appendix 18	Flood Risk Assessment.

7.8 Shortly after submission of the planning application and accompanying environmental statement the Council appointed an environmental consultancy to review and assess the its content. The consultants report, dated April 2005, concluded that the environmental statement and supporting appendices appeared to meet all of the requirements outlined in the EIA Regulations. However, the consultant advised that there were a number of issues for which further information should be requested prior to the determination of the planning application. The Council's legal advice concluded that any request for additional information should be made through Regulation 19 of the 1999 Regulations in order to maintain the transparency and procedural correctness of the EIA process.

7.9 Accordingly a request for further information pursuant to Regulation 19 was sent to the applicant in August 2005. This request highlighted a number of topic areas where both general and specific further information was required. General information was requested as follows:

impacts of the proposed development in the event of non-delivery of DLR;  
waste, energy and sustainability;  
mitigation measures and control plans;  
identification of the baseline for assessment;  
wind environment;  
water resources and flood risk.

7.10 Specific subject areas where further information was required were identified as:

construction impacts;  
ecology and nature conservation;  
transport;  
noise and vibration;  
air quality;  
overshading, daylight and sunlight;  
electromagnetic radiation;  
ground conditions.



- 7.11 In response to the Regulation 19 request and consultation replies from stakeholders the applicant produced and submitted a series of additional documents (Document nos. 18-30) in November 2005. Document 28 (Environmental Statement Review and Response to Consultation and Additional Submissions) responds to the issues raised by the Regulation 19 request.
- 7.12 The Council's environmental consultant was asked to review the content of Document 28. The consultant noted that applicant did not consider it appropriate for the non-DLR scenario to be tested through the EIA process as requested under Regulation 19. The reason behind this request was to ensure that development is delivered in a sustainable way in the case that DLR is not implemented. Nevertheless a number of planning conditions and triggers within the S.106 agreement are put forward consistent with the environmental statement to ensure delivery of the required mitigation measures.
- 7.13 The consultant concludes that only minor outstanding issues remain in relation to construction noise and traffic. These issues do not affect the assessment of likely significant impact. No other technical issues remain that would prevent the determination of the planning application.
- 7.14 The terms in which outline permission is sought are set out in the application, together with the plans and other materials which form part of the application (see Section 2 above). The development which has been the subject of the impact assessment is described in more detail in the environmental statement. In order to fulfil the requirements of the EIA Regulations it is necessary to ensure (a) that the Council has taken into account the environmental information submitted, and (b) that any planning permission granted is consistent with the development which has been assessed. To achieve this second objective the Council has the ability to impose conditions and secure mitigation measures by Section 106 obligations. Conditions will require that the details of the development which will be the subject of applications for approval of reserved matters must fall within the parameters laid down by the outline planning permission. By this means the details of the development, albeit in some cases approved subsequently, will not affect the assessment of the effects of the proposed development set out in the environmental statement.

## **8.0 Key Issues**

- 8.1 In the light of consultation replies received, negotiations with stakeholders and an assessment of the application a number of key issues are raised which will require consideration by Members. These issues include:
- mix of housing types and tenures;
  - economic impact;

- social infrastructure (schools, healthcare, community facilities, formal and informal play space etc);
- ensuring urban design quality throughout the lifetime of the development;
- sustainability issues (energy efficiency, renewable energy, waste etc.);
- impact on ensuring transport infrastructure and mechanisms for the delivery of public transport infrastructure (DLR / ELT / A13 junction improvements);
- access arrangements;
- effect of development on ecology and biodiversity;
- ground contamination / remediation issues;
- flood risk;
- air quality;
- visual impact;
- effect on the surrounding highways network;
- impact of power lines, pylons and switching stations on the development;
- levels of car parking on-site;
- impact of retail facilities on surrounding shopping areas;
- impact of the construction phase.

8.2 In addition to the issues listed above extensive negotiations have been ongoing to address the content of a Section 106 legal agreement. A long list of items are to be included in the S.106 Agreement under the following heads of terms:

- affordable housing;
- transport;
- education;
- neighbourhood centres;
- Barking Riverside Community Development Trust;
- Play, sport and recreation
- local employment;
- energy and sustainability
- design
- access
- waste.

8.3 Transport related issues form a substantial part of the S.106 Agreement and therefore Transport for London will be a signatory to this document.

8.4 In order to properly consider the environmental impacts of the proposed development the application was accompanied by an Environmental Impact Assessment (EIA). The Council has a statutory duty to consider environmental matters and an EIA is an important procedure for ensuring that the likely effects of new development are fully understood and taken into account before the development is

allowed to go ahead. EIA is therefore an integral component of the planning process for significant developments. EIA leads to improved decision making by providing the development control process with better information. Therefore EIA not only helps to determine whether development should be permitted but also facilitates the drafting of planning conditions and legal agreements in order to control development, avoid or mitigate adverse effects and enhance beneficial effects. It is vital that the environmental issues raised by the application are assessed in a robust and transparent manner. Any failure on the part of the Council to comply with the relevant regulations could result in a legal challenge to the decision.

## **9.0 Housing, Economic Impact and Social Infrastructure, Education and Community Development Trust**

- 9.1 The Barking Riverside site represents one of the largest brownfield housing development sites in Greater London and the Thames Gateway area. The Council's long-standing vision for the site has been to create an economically, socially and environmentally sustainable new community with a mixture of housing types and tenures, good local services and served by good public transport.
- 9.2 The site has an essential role in meeting demands for new housing both within the Borough and the wider London area. However, to achieve a sustainable new community it is essential that employment opportunities, educational, social and community uses as well as retail and leisure facilities are provided to support the new community and existing residents in the south of the Borough.
- 9.3 The application proposes a total of 10,800 residential units over a 20-year period. This total would contribute towards the implementation of a number of London Plan policies aimed at maximising levels of new housing London-wide, within the East London sub-region and for the Barking Reach opportunity area as well as widening choice locally for Borough residents.
- 9.4 With reference to housing density Members will be aware that national planning policies within PPG3 (Housing) and the emerging PPS3, as well as the London Plan encourage maximisation of density compatible with accessibility and impact on character. Paragraph 58 PPG3 states that local planning authorities should encourage housing development which makes more efficient use of land (30-50 residential units per hectare net) and seek greater intensity of development at locations with greater public transport accessibility. The London Plan in Policy 4B.3 provides more detailed guidance on this point and at table 4B.1 provides a density location and parking matrix linking residential density to public transport accessibility levels (PTAL) and setting. Based upon the net residential site area of 75.4 hectares (excluding major distributor roads, schools, strategic open space and significant landscaping) the net residential density would equate to 143 residential

units per hectare. PPG3 encourages local authorities to adopt net site density as a more refined measure than gross site density.

9.5 The push towards higher residential densities in recent years has often resulted in the building of flatted accommodation for smaller households. The applicant recognises that such high density housing makes an important contribution towards housing provision. However the application also emphasises that a full range of accommodation types is required to offer choice and promote a sustainable community. To be successful the development will need to deliver a wide range of housing choice from single person units to traditional family accommodation. Drawing 108F011.B within Document 3 (Application Drawings) shows average housing density for each of the 13 residential Zones. Densities would range between 40 dwellings per hectare (dph) to 240 dph. Drawing 108F011.B is submitted as a drawing for approval and would therefore 'fix' average density for each of the Zones. However, within each of the 13 Zones a range of densities could be achieved depending upon detailed design and public transport accessibility levels (PTAL). Drawing 108F012.B submitted in support of the application and Document 18 (Urban Design Guidelines) show housing density gradient plans indicating the range of densities which could be achieved per Zone within the confines of the 'fixed' average density. As an example within Zone 2.11 in the north-western corner of the site net densities of between 30-99 dph could occur. Maximum building heights for each of the Zones would be 'fixed' by drawing number 108F013.D (in Document 3) which is submitted for approval. Following the example of Zone 2.11 maximum storey heights would be fixed at 4 storeys. From the combination of average density and maximum building heights it is evident that a range of accommodation will be provided across the site as a whole.

9.6 Document 2 (Urban Design Framework) includes an indicative schedule of housing mix for the site which suggests the provision of 1, 2, 3 and 4 bedroom dwellings in the following proportions:

1-bedroom	11%;
2-bedroom	47%;
3-bedroom	30%;
4-bedroom	12%.

9.7 The above figures must be taken as indicative only as it is not proposed to fix the mix of accommodation at this point. As a general point the density of development and therefore mix is closely related to public transport infrastructure serving the site. Accordingly, during the early phases of development prior to infrastructure improvements development will be at the lower end of the density range and it would be reasonable to expect family housing in the early phases. The corollary of this is that higher density housing for smaller households would be more likely in the later phases of development when DLR has been delivered. However, what is certain is that at least 30% of all

residential units will be suitable for family accommodation, having 3 or more bedrooms.

- 9.8 London Plan policies and Supplementary Planning Guidance to the London Plan for Housing set a strategic target of 50% for affordable housing provision of which 70% should comprise social housing and 30% intermediate provision. On this point the applicant states that the application seeks to maximise the level of affordable housing in a form and manner that will ensure the delivery of a mixed and balanced community.
- 9.9 The Socio-Economic Baseline Report submitted by the applicant as part of the ES analyses data from the 2001 census and suggests that within Thames Ward, which contains the application site, 52% of all households lived in social rented property. This figure is twice the London average for social rented accommodation. Within the Borough as a whole 37% of households live in social rented accommodation, significantly above the London average of 26%. Given this existing tenure mix in the Borough the applicant has stated that a core aim of the proposals is to introduce variety into the housing market as well as making a contribution to affordable housing needs.
- 9.10 Following discussions with the GLA and the Council, BRL have agreed that 41% of the habitable rooms across the site will be affordable although there may be some variation between each Stage.
- 9.11 Of that 41%, 50% of the habitable rooms will be social rented accommodation unless BRL can demonstrate to the GLA and Council that 50% is unviable. In addition 10% of affordable housing units will be wheelchair accessible and all will be built to lifetime homes standards.
- 9.12 It is considered that the mix of sizes and the tenure agreed will help to ensure that a sustainable community is provided and a contribution is made towards both London's and the Boroughs housing needs.
- 9.13 Economic Impact and Social Infrastructure**
- 9.14 The broad spatial strategy for non-residential uses across the site is set out in the Framework Plan drawing (108F100.D). This will include a district centre, 2 neighbourhood centres and a local employment area. The first neighbourhood centre will be located in the north-western part of the site close to existing residents within Phase 2a of Barking Reach. It is intended that this local centre will provide retail facilities, healthcare, other community facilities and the first primary school. The main district centre serving the site would be located centrally within the site to the east of Renwick Road and adjacent to a proposed DLR station. This centre would provide a main foodstore of up to 8,000 sq.m. as well as healthcare facilities, employment opportunities and space for a temporary secondary school. The neighbourhood centre

located adjacent to the River Thames is intended to provide leisure retail facilities such as bars and restaurants adjacent to the T-jetty. At the eastern end of the site an employment zone is proposed offering small business units and live-work units plus another primary school and health facility.

- 9.15 Table 5C.1 of the London Plan (Opportunity Areas in East London) gives an indicative total of 200 new jobs for the site to the year 2016. However, Document 10 (Commercial & Community Objectives) suggests that employment levels could be considerably higher by the completion of the development. Levels of employment on-site will need to strike a balance between meeting the needs of the future community and ensuring compatibility with employment initiatives in the surrounding London Riverside areas. It is desirable for a number of reasons to provide employment opportunities on the site. The creation of jobs on-site may reduce the need for residents to travel to work and would provide daytime economic activity within the development. Based upon the range of proposed non-residential uses the applicant suggests that on completion of the development levels of employment by sector will be as follows:

retail	1,060 jobs;
education	378 jobs;
healthcare	96 jobs;
live / work	300 jobs;
office / business uses	535 jobs;
leisure	127 jobs.
 Total	 2,496 jobs.

- 9.16 Although the above figures are indicative it is clear that the retail, educational, healthcare, business and other non-residential uses within the development will generate significant long term employment opportunities. In the short and medium term the development of the site also offers enhanced employment and training opportunities to residents in the Borough in particular through construction related activity. In order to secure training and employment opportunities the Section 106 agreement includes heads of terms for local employment.
- 9.17 With reference to retail uses policy BR1 of the UDP states that as part of the redevelopment of the site for housing the Council will require, inter-alia, shopping facilities including a district centre. Policy 5C.2 of the London Plan also suggests that the site should include a local centre with mixed use development. The need for retail facilities to serve the development is clearly recognised in these policy documents. However, the level of retail provision has to be sufficient to meet the needs of residents without undermining the vitality and viability of existing shopping areas, especially Barking town centre. Floorspace provision across the Class A Uses (A1 Shops, A2 financial and professional services, A3 restaurants and cafes, A4 drinking

establishments and A5 hot food take-aways) would total 19,700 sq.m. Spatially retail provision would be concentrated within the district centre and three neighbourhood centres. The district centre would comprise the main retail centre and would include one foodstore in excess of 2,500 sq.m. but of no more than 8,000 sq.m. floorspace. This quantum of floorspace would indicate a superstore scale of building rather than a smaller supermarket. The first local neighbourhood centre in the north-western corner of the site and the eastern neighbourhood centre would provide a smaller convenience stores whilst the riverside local centre is intended to provide 'lifestyle' retail uses and café's / bars.

- 9.18 National Planning Policy Statement 6 (PPS6) sets out key considerations for local authorities in assessing retail proposals. Applicants are be required to demonstrate the need for development, that development is of an appropriate scale, that there are no more central sites, that there are no unacceptable impacts on existing centres and that proposed retail locations are accessible. In response to these requirements the applicant has submitted a Retail, Leisure and Community Facilities Assessment (Document 12). This assessment suggests that existing local retail and leisure facilities for potential occupiers at the site are poor. For example access to Barking Town Centre is across a major trunk road and provision of local shopping facilities within existing communities south of the A13 is particularly poor. Without new retail provision for the site it is suggested that residents would continue to rely on facilities outside of the immediate area which would be accessed by car. On this point it is concluded that there is clearly a need for retail facilities to serve the development.
- 9.19 With reference to the scale of retail facilities the stated objective of the applicant is to meet the majority of convenience shopping needs (food etc.) on-site and a limited proportion of comparison shopping needs (clothing, footwear etc.). Document 12 contains an analysis of other major housing growth areas in the South-East in order to assess the scale of retail provision. The nearest comparable site to Barking Riverside is the Thamesmead development with approximately 14,000 dwellings and including a district centre of some 18,500 sq.m. floorspace. If the population of existing communities at Thames View and Barking Reach Phases 1a and 2a are considered the total of households on completion of Barking Riverside will be some 13,500 with a retail provision of 19,700 sq.m. The level of proposed retail provision per household is therefore very similar to the Thamesmead development and assessed against the criteria within PPS6 the scale of retail development is considered to be appropriate.
- 9.20 One of the main thrusts of national retail planning policy in recent years has been to encourage new development in existing shopping areas rather than out-of-town locations. Previous national policy within PPG6 (Town Centres and Retail Developments) set out a 'sequential test' whereby developers were required to consider town centre locations

first then edge of centre locations and finally out of town locations. A similar approach is taken in the current PPS6. Clearly the proposals involve the creation of new local centres and a district centre. However, the need for new retail facilities at Barking Riverside to meet the existing and future needs of residents is accepted by both the UDP and London Plan. The normal requirements of the sequential test would apply. However, this is considered to be one of those exceptional circumstances where the sequential test and PPS6 should not apply.

- 9.21 Clearly there is a concern that the proposed new retail facilities should not harm the vitality and viability of existing shopping centres surrounding the site particularly Barking town centre and Dagenham Heathway. This issue is mentioned within PPS6 where it is stated that there should be no unacceptable impacts on existing centres. The interpretation of PPS6 states that small parades of shops of purely neighbourhood significance should not be regarded as 'centres'. Therefore it is not considered necessary to consider the impact of the proposals on the Farr Avenue local shopping parade. The applicant suggests that retail spending on convenience and comparison goods for the existing Thames View and Barking Reach populations and the new Barking Reach population will increase as the scheme develops. It is estimated that the percentage of retail expenditure retained within Barking Riverside will grow to a maximum of 85% for convenience shopping and 18% for comparison shopping. It is intended that the majority of retail floorspace would comprise convenience goods to meet the daily needs of existing and proposed residents. The limited amount of comparison shopping floorspace matched to population growth over the life of the development will ensure that there is no harm to Barking town centre. Indeed the applicant suggests that in the longer term the increased population at Barking Riverside will provide an additional source of income to Barking town centre. In a consultation reply the London Borough of Newham noted that the application does not provide an assessment of the potential impact on retailers at east Beckton and Gallions Reach. However, in light of the above conclusion that the proposals would not result in harm to Barking town centre it is considered that any impact on retailers in Newham would be negligible.
- 9.22 The proposed retail locations within the development are considered to be accessible as required by PPS6. The first local centre in the north-west of the site will be served by the ELT. The main district centre would be accessible by both ELT and DLR. The second local centre will be accessible by ELT and DLR. The Riverside local centre would be located a short distance from both ELT and DLR.
- 9.23 With reference to assembly and leisure uses within Class D2 of the Use Classes Order (cinemas, gymnasiums etc) Document 12 notes that there is a wide range of existing facilities located along the A13 corridor particularly the Goresbrook leisure centre and Jacksons Lane



leisure park in Newham. Within this document the applicant does not consider that the increased population of approximately 26,000 from the completed development would be sufficient to justify reserving a site for Class D2 uses due to concerns about financial viability. Nevertheless the applicant suggests that at the later phases of development there would be sufficient population to justify a health and fitness facilities such as a gymnasium or health club up to 3,000 sq.m. floorspace. Negotiations on the heads of terms for the S.106 agreement on the subject of the open space have resulted in agreement that leisure facilities will be provided on site during the latter stages of development. Such facilities may include a swimming pool. The requirements of the sequential approach to site selection, as set out in PPS6, would apply to the provision of such leisure facilities. However, the provision of these facilities would occur towards the end of the development within the riverside quarter of the site where the highest residential densities would be achieved. Such a location is considered to be sustainable with reference to public transport accessibility.

- 9.24 The application proposes the provision of floorspace for a variety of Class D1 (non-residential institutions) including community facilities, healthcare facilities and education provision. A total floorspace of 2,700 sq.m. is proposed for Class D1 excluding primary and secondary school provision. This floorspace includes 250 sq.m. which is specifically designated for use as an ecology centre. The majority of the remaining 2,450 sq.m. would comprise healthcare uses amounting to 2,150 sq.m. In a recent letter to BRL the Barking & Dagenham Primary Care Trust (PCT) indicated its overall healthcare requirements for the development. These requirements are based on 2 healthcare facilities located in the eastern and western quarters. Within the western quarter the requirement is for some 600 sq.m. floorspace by 2009 and a further 800 sq.m. by 2018 giving an overall requirement of some 1,400 sq.m. On the eastern quarter, within the district centre, the PCT have indicated a requirement for approximately 800 sq.m. by 2012 and a further 600 sq.m. by 2018. The overall PCT floorspace requirements for the entire development is therefore calculated at approximately 2,800 sq.m. Accordingly there is a small shortfall in the amount of floorspace allocated for healthcare in the submitted application and the approximate requirements of the PCT. However, this shortfall is not considered to be significant and can be resolved through negotiation on the S.106 agreement along with the exact location of any new health facilities.
- 9.25 Current Department of Health guidelines for GP provision suggest a maximum of 3,500 population per GP and ideally a GP:patient ratio of 1:2,000 should not be significantly exceeded. Based on a projected population of approximately 26,400 when development is completed there would be a minimum requirement for 8 GP's and ideally 14 GP's should be available. The application proposes, at Stage 1, 750 sq.m. floorspace for a doctor's surgery and 300 sq.m. floorspace for use as a

dentists. Stage 2 of the development proposes a further 500 sq.m. for healthcare provision and at Stage 3 600 sq.m. of healthcare floorspace is proposed. For the purposes of comparison the recent approval for a replacement building at the Annie Prendergrast Clinic at High Road / Ashton Gardens involves a gross floorspace of approximately 1,600 sq.m. This building provides accommodation for 11 consulting rooms, 4 nurse practitioner rooms, 8 treatment rooms and ancillary offices etc. It would be reasonable to assume that the proposed quantum of healthcare floorspace is sufficient to accommodate the GP's and other professionals required for the needs of future occupiers of the development although the actual configuration will need further consideration at each Stage.

- 9.26 In addition to the above community uses within Use Class D1 there are other facilities which have emerged as a result of S.106 negotiations. In particular there is a commitment to provide dual purpose community halls / places of worship at various trigger points throughout the development. Also any new library provision required will be included within the proposed secondary school.
- 9.27 There will be a requirement for children's centres linked with new school provision. The size and exact location will be decided at each Stage as part of the Education Implementation Plan.
- 9.28 With reference to residential uses, excluding dwellinghouses, the submitted application initially proposed a hotel of 4,800 sq.m. floorspace at stage 4 of the development. Within stage 1 a residential care home within Use Class C2 was proposed with a floorspace of 2,000 sq.m. Further elderly care was proposed at stage 4 comprising up to 4,200 sq.m. of floorspace. Both of these facilities will be considered further during the drafting of the Sub Framework plans in conjunction with the Council.
- 9.29 **Education**
- 9.30 An education delivery implementation plan will be used to predict when the various schools will be needed. It will achieve this by monitoring the number of pupils produced as new residential units are built on site, by reviewing actual pupil numbers in the schools already built on site and taking into account what is happening with school rolls elsewhere in the Borough. There will be Grampian triggers in the Section 106 legal agreement that prevent BRL from building beyond certain points until the schools are provided. There will be a primary school of up to 3FE in each of the neighbourhood centres, a secondary school in Stage 3 which will be an extended school of up to 8FE and a temporary secondary school of up to 4FE in Stage 2 provided that the education delivery implementation plan shows that these schools are needed. A study was carried out by the Council and English Partnerships to determine how many schools are likely to be needed due to this

development and developments elsewhere in the Borough. The number of schools proposed reflects the findings of that study.

- 9.31 It should be noted that the size of the proposed secondary school playing field is less than the area recommended by DfES standards. Nevertheless given the provision of sports facilities , as detailed at paragraph 20.24, including an all-weather facility and open space throughout the site it is considered that the merits of the scheme justify a shortfall in area.
- 9.32 The Council and the GLA had wanted BRL to provide funding for the school buildings. However, the demands on the S.106, particularly towards transport, do not make this possible at this point in time. The cost of providing the schools has been estimated, at today's prices, to be some £65 million. However, BRL have committed to providing serviced and remediated land for the schools at a cost of £22 million and have agreed to work with the Council to procure funding. It is considered that given the other contributions made by BRL and the high cost of remediation of the site that the proposed education offer is acceptable.
- 9.33 **Community Development Trust**
- 9.34 A Community Development Trust is to be established to actively develop a community within the new development. It will also hold open space that is not adopted by the Council or other body nominated by the Council and will manage this land using the Council's direct services. The Community Development Trust will comprise members from the Council, BRL and local residents. Registered Social Landlords and the Urban Development Corporation will also be invited to board meetings. The creation of this body is welcomed.
- 9.35 A community development strategy outlining how a sense of community will be created, how community capacity will be built and how community cohesion will be achieved will be developed prior to the approval of the first Sub Framework Plan.

## **10.0 Urban Design**

- 10.1 Good design is important for all types of development in all locations and is key to delivering sustainable development. The encouragement of good design is mentioned in several national planning policy and design guidance documents. In summary these documents state that design matters, design cuts across planning policy areas and that design is about how places work. The most relevant extracts from national planning policy documents are referred to below:
- 10.2 PPS1 (Delivering Sustainable Development) – 'good design ensures attractive, usable, durable and adaptable places and is a key element in achieving sustainable development. Good

design is indivisible from good planning ... good design should contribute positively to making places better for people ... high quality and inclusive design should be the aim of all those involved in the development process ... planning authorities should have regard to good practice set out in *By Design – Urban Design in the Planning System: Towards Better Practice*

- 10.3 Draft PPS3 (Housing) –  
'developments should be attractive, safe and designed and built to a high quality ... policies should be aimed at creating places, streets and spaces which meet the needs of people, which are attractive, have their own distinctive identity and positively improve local character'
- 10.4 PPS6 (Planning for Town Centres) –  
'well designed public spaces and buildings, which are fit for purpose, comfortable, safe, attractive, accessible and durable are key elements which can improve the health, vitality and economic potential of a town centre'
- 10.5 PPG13 (Transport) –  
'local planning authorities should actively manage the pattern of urban growth to make the fullest use of public transport ... and seek by the design and layout of developments and areas to secure community safety and road safety'
- 10.6 PPG17 (Planning for Open Space) –  
'local networks of high quality and well-managed open space help create urban environments that are attractive, clean and safe and can play a major part in improving people's sense of well being ... new open spaces should improve the quality of the public realm through good design'
- 10.7 The design guidelines contained within *By Design – Urban Design in the Planning System: Towards Better Practice* and referred to in PPS1 above contain seven design objectives or principles to assist in achieving good design. These objectives are:
- Character – planning should promote character in townscape and landscape to create places with their own identity;
  - Continuity and Enclosure – there should be a continuity of street frontages and enclosure of space in order to clearly define public and private areas;
  - Quality of the Public Realm – planning should promote public spaces and routes which are attractive, safe, uncluttered and effective for all in society;
  - Ease of Movement – accessibility and permeability should be promoted making places that connect and are easy to move

through putting people before traffic and integrating land use and transport;

- Legibility – development should incorporate recognisable routes, intersections and landmarks to help people find their way around;
- Adaptability – development should be capable of responding to changing social, technological and economic circumstances;
- Diversity – planning should promote diversity and choice through a mix of compatible developments and uses to create viable places which respond to local need.

10.8 As noted in the key issues section of this report the issue of ensuring high quality design throughout the lifetime of the development is an important consideration. The planning application has been submitted in outline form with the matters of design and external appearance reserved for future approval at the detailed application stage. With reference to design the current application seeks to establish the broad parameters of built development only and there is no indication at this stage as to the appearance of individual buildings on-site.

10.9 When the planning application was first submitted for consideration in December 2004 it was accompanied by an Urban Design Framework (Document 2). The stated purpose of this document was to set out the design concept underlying the Framework Plan and also to set out design guidelines to inform later planning submissions. However, the status of this document was to support the application only and consequently there was a concern that key design principles had to be 'fixed' at outline stage. Document 18 (Urban Design Guidelines) was therefore submitted in October 2005 (revised in August 2006) as a document for approval as part of the outline planning application. This document is intended to set out core design principles and interface with the Landscape and Ecology Guidelines (also submitted for approval) in order to inform subsequent sub-framework plans and reserved matters applications.

10.10 At a site-wide level a number of the application drawings, which have been submitted for approval, would fix the broad parameters of development. For example the framework plan establishes the disposition between different land uses across the site (drawing 108F100.D). This plan identifies net residential development areas and by association those areas of the site which will remain as open land. The broad position of schools and the district and local centres would also be fixed via this drawing though the detailed location will be established through the relevant sub-framework plan. Finally the main transport infrastructure of main roads, DLR and ELT alignment and cycle routes is shown on this drawing. Finished ground levels after remediation would also be fixed at this stage. Average housing density

and maximum building heights would be approved via the current application. Finally the lengths and widths of main streets within the site would be approved at this stage.

- 10.11 However, below this site-wide level the application, as originally submitted, did not provide further details which could be approved via the current application and thereby establish guidelines or codes to inform future development over the lifetime of the scheme. Both BRL and the Council aspire to a high quality development with its own distinct sense of place and identity. The submission of Document 18 (Urban Design Guidelines) for approval is therefore essential in securing the quality of design over the course of the development. Assessed in combination with the application drawings setting the broad parameters of development it is considered that future quality can be safeguarded.
- 10.12 Document 18 develops the objectives which were set out in Document 2 (Urban Design Framework) into a set of briefing requirements on urban planning, public and play space design, access issues, landscaping and ecological issues. The Urban Design Guidelines are divided into 2 sections: general / site-wide guidelines and specific guidelines referring to inclusion principles, play, sport and recreation, public realm, neighbourhood character areas and ecology / landscape areas.
- 10.13 Under the heading of public realm the Guidelines identify 9 distinct areas of streets, parks and squares as listed below:
- Foreshore Promenade
  - Coal Wharf
  - T-Jetty and Jetty Square
  - Western Centre
  - Secondary School
  - District Centre
  - Diamond Park
  - Eye Square
  - Primary and Secondary Streets.
- 10.14 The public realm involves the larger public spaces which give a structure and armature to the development as a whole. The public realm or urban space network as described in the Guidelines establishes the main routes and spaces throughout the development and link neighbourhood to neighbourhood. A total of 37 urban design guidelines are suggested under the heading of public realm to inform future applications. Different guidelines would apply to the 9 distinct areas of public realm identified above covering detailed design issues. It is not necessary to list all of the 37 guidelines covering the future design of the public realm. However, the following topic areas are addressed in the guidelines:

- Access to the Thames foreshore;
- Car / cycle access, street furniture and preservation of the Coal Wharf;
- Public access and views from the T-jetty;
- Arrangement of buildings and access routes in the Western local centre;
- Frontages, connections and building position on the secondary school site;
- Building edges, facades and positions within the District Centre;
- View, connections and corner buildings in the District Centre;
- Edges, levels, landscaping and views in Diamond Park;
- Use of topography and detailed DLR design at Eye Square.

10.15 Under the heading of primary and secondary streets illustrative examples of primary and secondary streets are provided for locations throughout the site. Indications of design speeds, carriageway / footway / cycleway widths, public transport routes / stops, traffic calming and on-street parking measures are indicated

10.16 The residential neighbourhoods across the site are divided into 8 character areas which are defined by site characteristics such as topography, orientation and proximity to focal points. The Guidelines suggest that development in each of the character areas should seek to strengthen the quality of that area. The 8 character areas are:

- Buzzards Mouth (north-western corner of the site);
- Ripple Gardens (west of Renwick Road switching station);
- Parkside Estate (east of Renwick Road and south of Barking Riverside Park);
- Diamond Courts (east and west of Diamond Park);
- Hillside (south-eastern corner of the site);
- Shoreview Terrace (adjacent to Thames foreshore);
- Shoreview Estate (between District Centre and the Thames);
- Riverside Heights (site for former power stations)

10.17 Across these character areas Document 18 sets out a total of 101 guidelines under the broad headings of street space, parking, built form and frontages. Their content can be summarised as follows:

Street Space –

- Boundary finishes, landscaping, home-zones and street alignments;
- Pedestrian networks, street structures, street orientation.

Parking –

- Use of street, undercroft, built and on-plot parking solutions.

Built Form –

- Active facades, private amenity space, building height adjacent to the Thames;

- Integration with DLR, using river views, disabled access;
- Building frontages, block sizes, massing.

Frontages –

- Pylon views, park / road / foreshore edges;
- Avoiding cliff-edges, building edges, building alignment, corner buildings.

Open Space –

- Communal courts, private gardens, pedestrian paths.

10.18 The ecology and landscape guidelines divide the site into 9 ecological zones as listed below:

- Goresbrook / Ship & Shovel Corridor (eastern / north-eastern edge of the site);
- Goresbrook Meadow (eastern part of Barking Riverside Park);
- North Meadow (remainder of Barking Riverside Park);
- Ripple Nature Reserve;
- Buzzards Mouth Creek Corridor;
- Wet Woodlands (western edge of site);
- Western Parks (west of Renwick Road switching station);
- Foreshore Park (Thames Foreshore);
- Residential Neighbourhoods & Green Corridors (areas within the built development).

10.19 A total of 57 guidelines apply to the ecological areas under the headings of management, planting, enclosure, night use, lighting, access, park service, habitat conservation, habitat creation and enhancement, ecology and hydrology. These guidelines apply alongside Document 19 (Landscape and Ecology Design & Management Guidelines) which is also submitted for approval at this stage.

10.20 There are some design constraints on the site. The pylons which run through it are not to be removed as part of this application, however, the area underneath the pylons will be safeguarded so that the relevant statutory undertaker could put the cables underground in the future if sufficient funding was available. There is also a switching station in the site. This is outside the application area and is not being moved.

10.21 It is considered that the Urban Design Guidelines provide a great deal of detail on design and give a good indication of how the completed development will appear to future residents, workers and visitors to the site. It is intended that the principles established by approval of the Urban Design Guidelines will inform the Sub-Framework Plans and the eventual reserved matters planning applications for each of the Zones. Each of the four Sub Framework Plans covering the four stages of development will include details of a Design Code. Such Design



Codes will include details such as density, details of building types, parking provision, materials, elevations, boundary treatments, landscaping and street furniture. Therefore, in future years as individual developers submit applications to build-out within the Zones the quality of urban design can be assessed against the guidelines which are established at this stage.

- 10.22 BRL emphasises that there is an additional level of control in ensuring design quality as BRL envisages retaining a freehold interest in the application site and will therefore take a proactive role in ensuring quality. It should also be noted that a Design Panel will be established inter-alia to provide advice on the formation of Design Codes and consistency of the sub framework documents with the relevant Design Code and Document 18, the Urban Design Guidelines.
- 10.23 In light of the above it is concluded that through a combination of the broad parameters which are fixed by the planning application and the details contained within Document 18 a satisfactory level of certainty regarding future design quality will be ensured. After the grant of outline planning permission a Design Panel and Design Codes at Sub-Framework Plan level will ensure that quality is carried through to the zones.

## **11.0 Access Issues**

- 11.1 During the consideration of the planning application the applicant was asked to produce an access strategy. Since the first submission of the planning application in December 2004 planning legislation has changed such that a Design and Access Statement is now required to accompany most planning applications. The access component of these statements should detail how arrangements will ensure that all users will have equal and convenient access to buildings, spaces and the public transport network. In consultation with the Council's Access Officer and Access Group the applicant has produced an Access Strategy for Barking Riverside.
- 11.2 The Strategy draws on a number of existing policy documents produced at national and London-wide levels. The applicant notes that there is a compelling moral and business case for an inclusive approach given the high incidence of disability and ill health in the Borough based on 2001 Census figures. According to the Census 19.9% of all residents have a limiting long term illness. This figure is above the England & Wales average of 18.2% and the London average of 15.5%. In terms of ranking within London the Borough has the highest proportion of residents with a limiting long term illness. Within the economically active age group (ages 16-74) 7% of Borough residents are defined by the Census as being permanently sick or disabled. This is the second highest percentage within London where the average figure is 4.6%. The Borough figure is also above the England and Wales average of 5.5%. The strategy notes that research

by the Department of Work and Pensions indicates that up to one third of people on incapacity benefit would like to work if the right support and environment are available. The Access Strategy for Barking Riverside covers a number of subject areas which are summarised below.

### 11.3 Inclusive Design

11.4 The Strategy sets out a commitment to meet and where possible exceed Part M (2004) of the Building Regulations (Access To and Use of Buildings) and BS 8300:2001 (Design of Buildings and Their Approaches to Meet the Needs of Disabled People – Code of Practice). Policy 3A.4 of the London Plan dealing with the issues of housing choice encourages all new housing to be built to ‘Lifetime Homes’ standards and the Strategy sets out a commitment to this aim. In addition to the Design Panel to be established to ensure design quality through the lifetime of the development, the Strategy refers to the establishment of an Access Forum. The chair of this Forum will also sit on the Design Panel. It is acknowledged that it may take some time to establish the Access Forum. Therefore the Strategy proposes that an interim panel is set up drawn from existing networks such as the Barking & Dagenham Access Group.

### 11.5 Disability Legislation

11.6 As a private company BRL are not subject to the requirements of the Disability Discrimination Act 2005 which introduce a disability equality duty on the public sector. However, Barking Riverside will ensure that subsequent sub-framework planning applications:

- i) actively engage disabled people early in the design stage;
- ii) embrace inclusive design principles;
- iii) gather appropriate evidence to support Disability Equality Schemes developed by English Partnerships and LBBD;
- iv) contain an appropriate Disability Action Plan;
- v) include design codes which incorporate disability equality impact assessments with sufficient details to inform housebuilders to incorporate relevant design criteria within their reserved matters planning applications;
- vi) include mechanisms to monitor progress.

11.7 The Access Strategy refers to the establishment of an Inclusion / Disability Champion as part of the senior project team. The role of the Champion can be summarised as integrating access issues at all stages of the project, translating access requirements into appropriately designed and constructed buildings and reviewing and evaluating completed elements of the scheme.

### 11.8 Accessible Housing

- 11.9 BRL will ensure that all homes built across the development are to 'Lifetime Homes' guidelines in accordance with London Plan policies. The Access Strategy also commits to 10% wheelchair accessible housing across all sectors. 'Lifetime Homes' are normal dwellings which incorporate a number of design features to ensure that the property is flexible enough to accommodate a number of different users from young children to the frail elderly. 'Lifetime Homes' guidelines at least meet and often exceed Part M Building Regulations Requirements and cover the subject areas of entrances to dwellings, internal layout and design.
- 11.10 Policy 3A.4 of the London Plan encourages 10% of new housing to be designed as wheelchair accessible or easily adaptable for wheelchair users. The Access Strategy sets out a commitment to achieve this aim. In terms of implementation the Urban Design Guidelines (Document 18) contains a general guideline applying across all housing character areas that housing typologies should provide sufficient solutions for disabled access thus allowing for trouble-free connections between public and private spaces. Document 18 is a matter for approval at this stage and therefore the requirement for disabled access will inform subsequent submissions. The Access Strategy will form part of the S.106 agreement if permission is granted and an access statement will be produced to support each sub-framework document. Reserved matters applications will be determined in accordance with access strategy.
- 11.11 Accessible Transport
- 11.12 The S.106 legal agreement establishes a Transport Strategy and a Transport Strategy Steering Group for the development made up with representatives from the Council, TFL and other key stakeholders. The primary goal of the Transport Strategy is to promote the delivery and use of integrated transport in order to create a sustainable community. One of the main elements supporting this goal is to promote safe and secure travel that meets the accessibility needs for all. This commitment is carried through to form part of the terms of reference for the Transport Strategy Steering Group.
- 11.13 Part M of the Building Regulations (2004) and BS 8300:2001 are relevant to the provision of public transport infrastructure. Furthermore, the Strategic Rail Authority have produced a Code of Practice entitled 'Train and Station Services for Disabled Passengers' (2001). All of these documents will be relevant to the provision of public transport infrastructure on-site.
- 11.14 Community Facilities
- 11.15 Shopping, healthcare, leisure and educational facilities will be provided by the development and will be subject to the requirements of Part M of the Building Regulations. A Play, Sport and Recreation Strategy has

been prepared by the applicant to accompany the planning application and will form one of the S.106 strategy documents. One of the design principles for play areas is that they are accessible to all and provide play equipment suitable for all abilities.

#### 11.16 Consultation

11.17 The Access Strategy notes the roles of existing groups such as the Disability Association for Barking and Dagenham and the Barking and Dagenham Access Group and commits to engage with these groups.

#### 11.18 The Environment

11.19 The Strategy emphasises the need to deliver inclusive environments within the 40% of the site area which is retained as open space. It is emphasised that detailed consideration will need to be paid to changes in levels, visibility, lighting and the use of colour. The landscaped areas within the site offer the opportunity to provide quiet areas or sensory gardens.

11.20 The Access Strategy details have been seen by the Council's Access Officers who are generally supportive of its content.

### **12.0 Play, Sport and Recreation Issues**

12.1 Although not forming part of the originally submitted planning application the applicant has in recent months produced a Play, Sport and Recreation Strategy to support the application. A number of the key guidelines within the Strategy are incorporated into the Urban Design Guidelines ((Document 18) which would constitute an approved document if planning permission is forthcoming. The Strategy is intended to provide general guidelines applying across the site. However, the Strategy would be reviewed and updated as necessary at each Sub-Framework Plan stage.

12.2 The Strategy document is divided into a number of different headings which are described and assessed in greater detail below.

#### 12.3 Vision and Objectives

12.4 The provision of comprehensive and high quality play, sport and activity facilities for all ages is described as critical to the success of the development and a fundamental component of the urban footprint. The Strategy emphasises that play and sport should be central to the design of each neighbourhood within the development and should form a focus for community activity. The Strategy aims to provide for a wide range of interests and activities such that play areas will cater for a number of different age groups and sport and recreation facilities will be accessible from all parts of the development. Both formal and informal areas will be provided. The Strategy emphasises the

importance of play, especially for children, and the role that play has in promoting emotional development, physical well-being, physical development, social development, citizenship and the appreciation and enjoyment of nature.

12.5 The principle objectives of the Strategy can therefore be summarised as:

to make play sport and recreation central to the urban framework;  
ensuring that play areas and the public realm feel safe and encourage free and spontaneous play;  
to create an inclusive play, sport and recreation environment which does not discriminate against age, race or disability;  
to create a child friendly environment;  
to make opportunities for play, sport and recreation available to all;  
to ensure that the public realm accommodates opportunities for spontaneous play;  
to engage the community in the development of facilities;  
to create spaces which are stimulating and exciting.

12.6 Context

12.7 The Strategy describes the site as a predominantly open landscape with the absence of recent human activity allowing the emergence of a number of habitats. However, apart from low level use from dog walkers and users of public footpath no. 47 the site is unused. It is also noted in the Strategy that there is a recognised deficiency in parks and green space in this part of the Borough and more generally south of the A13 trunk road. The UDP identifies virtually all of the Borough south of the A13 as being deficient in local park provision. More recently the Parks & Green Spaces Strategy suggests that the Barking Riverside site and Thames View estate are areas deficient in local park and small local park provision. The Strategy suggests that the existing setting of the site, its riverside location and historic uses provide a context which can inform the provision of new play sport and recreation facilities.

12.8 Policy Background

12.9 A large number of national, regional and local policy documents provide detailed guidance covering the provision of play, sport and recreation facilities. This key background policy documents are summarised below.

12.10 PPG17 (Planning for Open Space, Sport and Recreation) – states that open spaces, sport and recreation underpin the quality of life and that the provision of open space is fundamental to the Government's objectives of supporting an urban renaissance / renewal, promoting social inclusion and community cohesion, promoting health and well-being and promoting sustainable development. Standards for open space provision should be set by an individual local planning authority

based upon a robust assessment of existing provision. New open space, sports and recreational facilities should be based upon the principles of accessibility including the location of intensively used facilities at central locations, protection of amenity, high quality public realm, the creation of secure environments and the need to meet the regeneration needs of an area. With reference to open space, PPG17 sets out a typology of spaces which may be of public value including parks, green spaces, green corridors, outdoor sports facilities, amenity green space, provision for children and teenagers, city farms and civic spaces.

- 12.11 PPG3 (Housing) – advises that local planning authorities should promote good design in new residential developments in order to create attractive and high quality living environments. Local planning authorities should also have clear policies for the protection and creation of open space and playing fields. New housing developments should incorporate sufficient open space provision where such spaces are not already adequately provided within easy access of the new housing. Emerging national guidance in draft PPS3 (Housing) suggests that the residents of new dwellings should have easy access to sufficient open space (including play space) of good quality, either through additions or to improvements of the local open space network.
- 12.12 National Playing Field Association (NPFA) Six Acre Standard – the NPFA suggest an open space provision of 6 acres (2.4 Ha) per 1,000 population, commonly known as the six acre standard. The standard comprises 4 acres (1.6 Ha) of space for outdoor sport (pitches, courts etc) and 2 acres (0.8 Ha) designated for children’s play space. The NPFA have also introduced standards for Local Areas for Play (LAPs), Local Equipped Areas for Play (LEAPs) and Neighbourhood Equipped Areas for Play (NEAPs). It is suggested that LAPs cater for young children and should be within a 1 minute walking distance from home. LEAPs should cater for children of early school age providing items of play equipment and located within 5 minutes walk of the home. Finally NEAPs should accommodate children over the age of 8 and provide a range of play equipment within 15 minutes walking distance of the home.
- 12.13 London Plan policy 3D.7 (Realising the value of open space) sets out an intention of protecting and promoting London’s network of open spaces. Policy 3D.11 (Open space strategies) encourages Boroughs to produce open space strategies to protect, create and enhance all types of open space in their area. The GLA has produced subsequent guides to preparing open space strategies and preparing play strategies.
- 12.14 At a local level UDP policies G62 and G63 set out an intention to provide open space in areas of deficiency and ensure that open space is provided in any redevelopment of a site within an area of deficiency.

The open space provision sought will be fairly and reasonable related to the scale and nature of development.

#### 12.15 Design Principles for Play Areas

12.16 In order to achieve a successful play space the Strategy describes a number of key factors influencing design. These factors are:

- a location close to houses, within sight of travel routes or desire lines and overlooked;
- an attractive environment providing a variety of experiences;
- a well maintained space;
- a secure space;
- accessible to all.

#### 12.17 The Detailed Strategy

12.18 The detailed proposals set out by the Strategy are broken down into the component parts of provision for play, sport and recreation.

#### 12.19 Play Areas

12.20 Proposals for play provision comprise informal and formal play areas. Informal areas include the public realm and the Strategy suggests that a child friendly public realm should be provided which allows for spontaneous play. Design features for the public realm could therefore include careful use of street furniture, planting, water and artwork features, lighting and surfacing. As an example of child friendly public realm the Strategy looks at a possible future layout of the Western Centre. It is suggested that this area could incorporate surface mazes, climbing structures, landscaping, lighting and sculpture arranged in such a way as to encourage play and exploration by children. Informal play opportunities could also be located within the open areas of the site including nature trails, running loops and cycling paths.

12.21 Formal play provision across the site would comprise a series of play rooms, play stations, play ports and adventure playgrounds. Up to 30 Play Rooms could be provided across the whole development. Play Rooms would serve a small geographical area within a maximum walking distance of 2.5 minutes from the home and could provide a small range of play equipment and a kickabout area. Play Stations would serve a wider area a maximum of 10 minutes walking distance from the home. Approximately 10 Play Stations would serve the development and would cater for a wider age group with a broader range of play equipment and activities. A single Play Port could be located close to Jetty Square totalling some 0.5 Ha in area. The Play Port would serve as a community park and a destination for a number of cultural and community events. Finally Barking Riverside Park could accommodate a substantial adventure play area serving the development.

## 12.22 Areas for Sport

12.23 As with the play areas described above the Strategy suggests that provision will be made for participation in both formal and informal sports activities. Informal sports provision would be achieved through an arrangement of Activity Parks and Linear Activity Zones. Activity Parks are proposed at Jetty Square, Eye Square and the Western Centre Park and would cater for older children providing a multi use games area and activities such as skateboarding. Linear Activity Zones could be located within some of the landscaped corridors adjacent to secondary roads in the development. Activities could include kickabout areas, skate parks and climbing walls.

12.24 Formal sports provision will be predominantly accommodated within the school precincts across the site. Proposed facilities would comprise:

- 1no. full size all weather pitch;
- 2no. senior grass pitches;
- 5 no. junior grass pitches;
- 4no. mini soccer pitches;
- 9no. multi use games areas;
- 7no. tennis courts;
- 1no. junior cricket pitch;
- 1no. bowling green.

## 12.25 Recreation Strategy

12.26 Provision for recreation partly overlaps with play and sports provision and the three elements are not necessarily mutually exclusive. Recreational activities such as walking and cycling would use the public realm as well as areas set out for formal and informal play and sport. Barking Riverside Park in particular could play a role in accommodating recreational walks and cycling. The Recreation Strategy does however propose provision for dog parks in order to avoid conflict between dog owners and other open space users.

## 12.27 Management and Consultation

12.28 The Strategy stresses the importance of ongoing maintenance in order to maintain facilities at the highest possible level. The proposed BRCDDT will take responsibility for those elements of the public realm not adopted by the Council. With reference to community consultations the Strategy sets out an intention to consult with children and young people in order to inform the design and implementation of facilities. The Strategy envisages that community consultation will be an ongoing process.

## 12.29 Conclusions



12.30 The Play, Sport and Recreation Strategy sets out a broad indication for the provision of facilities across the site on a strategic level. Policy guidance advises that the provision of open space is essential for the well-being of new communities and that the amount of space should generally be commensurate with the scale of development. The Strategy indicates a range of formal and informal facilities and spaces to be used for play, sport and recreation. Although the Strategy defines play, sport and recreation as distinct elements in practice there is an overlap between play, sport and recreational activities. It is considered that the Strategy identifies a range of spaces at a local and site wide level which could accommodate a diversity of activities. At a site wide level it should be noted that some 40% of the gross area would remain as open space. The Strategy would be reviewed at the sub-framework plan stage but it is concluded that the Strategy as submitted is acceptable.

## **13.0 Transport Issues**

### **Introduction**

- 13.1 Due to the size and nature of the Barking Riverside development, there are a large number of local and strategic transport matters that need to be addressed in order for the development to be able to take place. Due to the length of the build out programme, it would also not be possible to solve all of the transport issues prior to the commencement of the development. Many of the issues will only become apparent as the development begins to take shape, and it is likely that new solutions will become available in the future that are more suited to dealing with a particular problem.
- 13.2 In order to cater for this, the approach to dealing with the transport needs of the development contains a combination of fixed measures to which the developer and other relevant stakeholders are tied, along with a system of monitoring and review which will enable the particular problems to be dealt with as and when they arise during the build out.
- 13.3 Where possible, transport improvements have been tied to triggers to ensure they are implemented by a particular stage of the development, particularly for the larger infrastructure proposals. As the transport impact will be directly related to the number of people occupying the site, these triggers are linked to the number of occupied residential units rather than a particular year. This also takes into account the fact that the build out programme could change during the construction period, and therefore ensuring that the proposals are delivered by the time they are actually required in transport terms. They are explained in more detail below in the relevant sections of the report.
- 13.4 A comprehensive Transport Assessment has been carried out for the development, from which a wide range of transport proposals have been developed. These include hard infrastructure measures such as

junction improvements and new public transport measures, and softer measures to promote sustainable transport such as travel plans and car clubs. Details of the Transport Strategy for the development and the various schemes are provided below.

### **13.5 The Transport Strategy**

- 13.6 In order to tie all of the transport elements together, a Transport Strategy has been produced to explain the various schemes and proposals and set out the methodology for their delivery. It is intended that this document will provide a single source of information about the transport related elements of the development and will provide the mechanism through which transport schemes and proposals can be revised and updated where necessary as the development is built out. It will be reviewed annually against expected values and where they are exceeded it will recommend measure to address this.
- 13.7 BRL will be responsible for the preparation, implementation, monitoring and review of the Transport Strategy and will report their findings to the Transport Strategy Group for consideration . The objective of the Transport Strategy as currently written is 'to promote the delivery and use of integrated transport at Barking Riverside, including the support of green travel initiatives, in order to reduce the reliance on the private motor car for the 10,800 home scheme that forms part of a new sustainable community, and that is an important contributor to the economic regeneration in the wider regional context'.
- 13.8 A Transport Strategy Steering Group (TSSG) will be set up to encourage a partnership approach to the delivery of the Transport Strategy. The group will consist of representatives from BRL, Transport for London (TfL), London Borough of Barking and Dagenham (LBBD), BRCDT and the London Thames Gateway Development Corporation (LTGDC). The TSSG will involve disabled people with experience of developing inclusive transport initiatives. Membership of the TSSG will not fetter the statutory roles of the any of the member bodies.
- 13.9 The Transport Strategy contains an overview of all of the transport proposals associated with the development. Those relating to bus services, East London Transit (ELT), Docklands Light Railway (DLR) and the A13 Renwick Road junctions are considered to be Primary Transport Deliverables, and delivery of these is the responsibility of TfL.
- 13.10 The Council will be responsible for approving the Transport Strategy both at first submission and for any subsequent revisions, except for where the Primary Transport Deliverables described above are concerned. Where this is the case, TfL and the Council will be the joint approving authorities.

13.11 The Transport Strategy is made up of five main elements, each dealing with a particular area of transport:

- The Sustainable Transport Plan – the framework for preparing and implementing sustainable transport measures;
- The Public Transport Plan – the framework for the provision of public transport infrastructure and services required to support the development both on and off site
- Highway Infrastructure Proposals – the proposals for highway schemes and improvements both on and off site;
- Car Parking Proposals – the framework for the provision and management of car parking; and
- The Lorry Management Plan – the framework for managing lorry movement within and through the site.

13.12 All of these documents will be submitted for approval by LBBD with the Transport Strategy, and can be updated as required through the monitoring and review process.

### **13.13 Sustainable Transport Plan**

13.14 One of the main aims of the Transport Strategy is to provide sustainable alternatives to the private car. Whilst the public transport proposals are key to the delivery of this aim, the Sustainable Transport Plan also plays a very important role. The measures included in the plan are designed to encourage the use of modes of transport other than the car, and to reduce the need to travel for residents, occupiers and employees wherever possible. These will include the following:

- Promoting efficient car use through car sharing databases and Car Clubs.
- Promoting the use of local transport provision such as community buses.
- Encouraging walking and cycling through the provision of secure cycle parking, showers and changing facilities and establishing walking and cycling user groups.
- Reviewing the feasibility of using river transport for construction, freight and passenger transport.

13.15 Wherever possible, BRL will enter into local partnerships to improve sustainable transport options. These may be with public transport operators, employers and developers at neighbouring sites, or cycle suppliers and repairers.

- 13.16 Travel Plans will be required for employers, schools and other major organisations, in line with the objectives of the Transport Strategy. These include appointing Travel Plan Coordinators and the regular monitoring and review of all plans.
- 13.17 A travel information pack will be provided by BRL to all new residents and occupiers to encourage sustainable travel behaviour. This will include information on public transport services and walking and cycling routes.
- 13.18 Possible uses for Intelligent Transport Systems will be identified and promoted, allowing travel demand to be managed in favour of sustainable modes. This may include, for example, providing real time information on public transport services to residents, occupiers and employees.

### **13.19 Public Transport**

- 13.20 The key to delivering a sustainable development at Barking Riverside is the provision of a high quality public transport network that provides a viable alternative to the private car.
- 13.21 The Public Transport Plan will be produced by BRL as part of the Transport Strategy prior to the commencement of development, and will set out the public transport proposals in detail. This has to be agreed by the Council before construction can commence.
- 13.22 ELT will provide a high quality bus service through the development, linking Dagenham Dock to Ilford, via Barking Town Centre. BRL is providing a segregated route throughout the development site for Phase 1B of the route, allowing ELT vehicles to run independently of other traffic, and providing priority to these vehicles wherever necessary. It will be delivered in phases as the development is built out. TfL will be responsible for defining the final route and operational specification of each phase of ELT.
- 13.23 Other local bus services will be provided where necessary. TfL will be responsible for defining these routes, and they are committed to providing a serviced public transport stop (bus, ELT or DLR) within 400 metres of every dwelling on the site. At the same time, BRL are committed to ensuring that each occupied dwelling is within 400 metres of a public transport stop.
- 13.24 A new bus route is proposed across the A13 from Renwick Road to Goresbrook Road. This will provide a much needed north-south link across the A13, and reduce the impact of the A13 as a physical barrier to movement. This can only be delivered once the A13/Renwick road grade separated junction has been implemented (see Highways Proposals below).

13.25 An extension to the DLR is proposed, linking the existing station at Galleons Reach with a new station at the Dagenham Dock interchange. This will provide a high quality and reliable public transport link to central London. Three stations are proposed within the development site, namely Creekmouth, Barking Riverside and Dagenham Vale. The Barking Riverside station will be located at the District Centre, and will provide an interchange with ELT and local bus services. The station at Dagenham Dock will provide an interchange with c2c rail services. A letter from the Mayor of London to the Leader of the Council outlines the way forward in providing this facility with construction due to start in 2011. There are two trigger figures within the Heads of Terms. One refers to TfL having achieved Transport and Works Act approval by the occupation of the 1,500<sup>th</sup> dwelling, otherwise the development will stop. Secondly the DLR must be operational by the time of the occupation of the 4,000<sup>th</sup> dwelling otherwise the development will stop.

### 13.26 Highways

13.27 The highways proposals associated with the development can be split into on site and off site works.

### 13.28 On Site Proposals

13.29 The outline planning application defines the primary and secondary highway networks to be constructed within the site by BRL. All detailed layouts and specifications will be agreed at the sub framework application stage. The design concepts for the different highway types are contained within the Transport Strategy, and show how pedestrians, cyclists, public transport and other road vehicles will be provided for.

13.30 Part of the development may require Choats Road to be stopped up during one of the later stages, although this will ultimately depend on the detailed design of that stage. Choats Road will be kept open until a suitable alternative is provided.

### 13.31 Off Site Proposals

13.32 As part of the Transport Assessment, comprehensive computer modelling was undertaken at both strategic and local levels to assess the impact of the additional traffic movements generated by the site. A number of proposals were then developed to mitigate the impact of the development.

13.33 A number of local junction schemes have been developed to improve the operation of existing junctions. These junctions are all on Council roads, but are also the responsibility of TfL where traffic signals are present. Outline plans of the schemes are provided with the outline

application, with details to be submitted at the relevant sub framework plan stage. Improvements are proposed at the following junctions:

- Renwick Road / Wanderer Drive / Bastable Avenue
- Renwick Road / Choats Road
- Lodge Avenue / Woodward Road
- River Road / Thames Road
- Renwick Road / Thames Road
- River Road bus lane
- River Road / Bastable Avenue

13.34 The improvements are programmed to take place as and when they are required in transport terms, as informed by the traffic modelling. The triggers associated with them are described in paragraph 12.54 onwards.

13.35 Along with these local junction improvements, a major improvement scheme is also proposed for the A13/Renwick junction. At present, vehicles cannot turn right out of Renwick Road, and vehicles have to stop at traffic lights on the A13 to wait for vehicles turning right into Renwick Road. Whilst this arrangement works at the moment, the increase in vehicles as a result of the development would lead to considerable increases in congestion at this and other junctions in the future.

13.36 The proposals involve constructing a grade separated junction, consisting of a signalised roundabout positioned above the A13 with connecting slip roads. This layout will allow traffic to flow freely along the A13 without being obstructed by traffic signals, and will also enable all movements to be made when entering and exiting Renwick Road. It will also allow for a bus route to be provided from Renwick Road to the north of the A13 to Goresbrook Road, therefore further enhancing the public transport connections to the development.

13.37 Interim measures will be put in place at the outset of the development to allow the junction to operate until the main scheme is implemented. As with the local junction improvements, implementation of the grade separated junction is subject to a trigger. If it is not possible to deliver it by the trigger date due to funding issues, interim measures will be put in place to increase the junction capacity until a later trigger point at which stage it will be constructed. At that later trigger either the works will be constructed or a decision may be taken by the Council and TFL that the works are not required until a later date following a review of the Transport Strategy in which case the trigger can be further delayed.

### **13.38 Car Parking**

13.39 In terms of residential car parking, the outline application proposes approximately 7750 spaces, at an average ratio of 0.71 spaces per dwelling. This is well within both the Borough and London Plan parking standards. The ratio will vary depending on the size of the residential unit, with more parking provided for larger units and vice versa. The details of the parking provision will be agreed at the relevant Sub Framework Plan Stage.

13.40 The level of car parking will also be related to access to modes of transport other than the car. For example, dwellings close the public transport interchange at the District Centre will have a lower parking provision. The ratio of car parking for units built before the DLR is operational will be approximately 0.97 spaces per unit, with an average of 0.34 per unit after DLR. This reflects the greatly improved public transport accessibility provided by DLR.

13.41 The residential parking spaces will be rented or leased to residents, with a proportion of the revenue going towards funding for sustainable transport measures. The proportion will be agreed with the Council and TfL, as will proposals for the control of on street parking.

13.42 In terms of non-residential parking, approximately 1150 parking spaces are proposed. Indicative ratios have been provided for each of the land uses, all of which fall within Council standards. The Riverside Zone will have lower parking ratios, as it will have better public transport accessibility due to its location near the District Centre public transport interchange. Further details of parking provision will be submitted at the Sub Framework Plan Stages.

13.43 All proposals for setting charges for on and off street parking, both residential and commercial, will be agreed with the Council to ensure that they are in line with Borough policies. The control and management of on street parking will be the responsibility of BRL until roads are adopted by the Council. There are caps on the amount of parking at various stages of the development which are set out in the heads of terms and will be secured by way of the Section 106 legal agreement.

### **13.44 Lorry Management Plan**

13.45 The Lorry Management Plan will control lorry movement and parking throughout the site and ensure that delivery vehicles use suitable routes to access and travel through the site. This may include co-ordinating deliveries to ensure they occur outside of peak hours, providing information about preferred delivery routes, and promoting the use of low emission vehicles.

13.46 As with the Sustainable Transport Plan, the potential for the use of rail and river for the transport of freight will be explored. Any neighbouring proposals for involving significant freight transport will also be taken into account.

13.47 The parking arrangements and the associated routes for commercial vehicles will be dealt with at the relevant sub framework plan stage.

#### 13.48 **Walking and Cycling**

13.49 The provision of on and off site footways and cycleways will be phased in line with phasing of the development. Details will be submitted at each sub framework plan stage to be agreed by the Council.

13.50 There are three links that will be provided in phases:

- A temporary pedestrian and cycle link between River Road and the waterfront in the general area of the pier.
- A footpath along the river between the pier and the edge of the tip following the general alignment of the existing footpath 47.
- A temporary pedestrian and cycle link from the Local Centre to Renwick Road, plus a permanent pedestrian and cycle link along the east side of Renwick Road connecting to the existing cycle lanes at Choats Road.

13.51 In addition to this, the Riverside Walkway will also be phased in line with the build out and the phasing is set out in the heads of terms and will be secured by way of the Section 106 legal agreement.

#### 13.52 **Transport Delivery Framework**

13.53 In order to deliver the Transport Strategy a Transport Delivery Framework has been produced. This is based on the agreed triggers, and defines which party is responsible for the implementation of each proposal. However, it will also be informed by future monitoring and review carried out to inform the Transport Strategy. As with the Transport Strategy, BRL will be responsible for preparing and maintaining the Transport Delivery Framework.

#### 13.54 **Triggers for Transport Strategy, Infrastructure and Services**

13.55 Prior to the commencement of development:

- The Barking Riverside Transport Strategy to be agreed by the Council.

13.56 Not more than 100 dwellings shall be occupied in advance of:



- Provision of an operating bus service within 400m walking distance of subsequent residential units.
- The Renwick Road/A13 interim improvements to be implemented.

13.57 Not more than 500 dwellings shall be occupied in advance of:

- Provision of the initial part of the Riverside Walkway.
- Provision of junction improvements and bus priority measures at the Lodge Avenue/Woodward Road junction.
- A bus service or ELT to be at the local centre by 500 units.

13.58 Not more than 1500 dwellings shall be occupied in advance of:

- Provision of a safeguarded route for Phase 1B of ELT through the western quarter of the development to the Local Centre
- The confirmation of the Transport & Works Act Order for the DLR extension through the site.
- Provision of local junction improvements and bus priority measures at River Road, the Renwick Road/Bastable Avenue junction and the Renwick Road/Choats Road junction.

13.59 Not more than 2000 dwellings shall be occupied in advance of:

- A review to ensure that the programme for delivering DLR is on track.
- Provision of improvements at the River Road/Thames Road junction.
- Review of the A13/Renwick Road junction grade separated junction implementation programme.

13.60 Not more than 2500 dwellings shall be occupied in advance of:

- Completion of the A13/Renwick Road grade separated junction improvement scheme. In the event that this is not complete, other measures will be put in place to allow the junction to operate satisfactorily provided public monies are available to fund it.
- A13/Renwick Road junction traffic management scheme.

- Improvements at the Lodge Avenue/Ripple Road junction.

13.61 Not more than 3200 dwellings shall be occupied in advance of:

- Provision of a temporary route for Phase 1B of ELT through the Eastern Quarter of the site.

13.62 Not more than 4000 dwellings shall be occupied in advance of:

- If it has not already been implemented, completion of the A13/Renwick Road grade separated junction improvement, including the provision of a bus route across the A13 from Renwick Road to Goresbrook Road. Development will stop if this has not been delivered, unless a revised trigger or other measures can be agreed with TfL and LBBB.
- The DLR to be operational through the site linking the existing station at Gallions Reach to Dagenham Dock.

13.63 Not more than 5000 dwellings shall be occupied in advance of:

- Provision of bus priority facilities at the Renwick/Road Thames Road junction.
- Design of the River Road / Bastable Avenue works

13.64 Not more than 6000 dwellings shall be occupied in advance of:

- Provision of the final segregated route for ELT Phase 1B through the site and provision for the diversion of ELT Phase 1A services from Choats Road to serve the north east section of the site. This includes the closure of Choats Road to through traffic and the provision of an alternative new route.

### 13.65 **Funding Arrangements**

13.66 A total of almost £300 million is required to provide the transport infrastructure and services necessary to support the development. The costs are split between BRL and the public sector (TfL and Department for Communities and Local Government (DCLG)).

13.67 BRL is providing the funds for the A13 interim works, plus all of the local junction improvement schemes. They are also providing a £10.8 million revenue support contribution to ELT to enable it to operate in the early stages of development (based on £1000 per dwelling), and the segregated route for ELT through the site at a cost of £8.25 million.

13.68 The current estimate for the cost of the A13/Renwick Road grade separated junction is £47.5 million, with BRL providing a contribution of £5.44 million. An additional sum of £5 million has been secured from

TfL, with a further £37 million still needing to be obtained from Central Government.

13.69 The estimated cost of the DLR extension is £226.5 million. BRL are providing safeguarded land for the route through the development site at a cost of £11.5 million. TfL are funding the Transport and Works Act application and a bid will be made by the Mayor of London for commitment to further funding through the Comprehensive Spending Review 2007. Funding of £215 million is therefore still required from Central Government. However, reference is made to Appendix (i) of this report regarding commitment to future funding.

13.70 In addition, a Sustainable Transport Fund will be set up to fund sustainable transport measures throughout the site as required by the Transport Strategy. Contributions to the fund will primarily come from revenue generated by on street parking, a fixed proportion of the BRCDT service charge, and any surplus monies that are no longer required for their original purposes described above. In addition BRL will make a temporary loan to the Sustainable transport Fund until it is self financing at which point the loan will be repaid to BRL.

#### 13.71 **Conclusions**

13.72 The emphasis of the Transport Strategy for Barking Riverside is on public transport and sustainable travel. Any adverse transport impacts arising from the development have been mitigated, and the strategy also allows for any unforeseen transport issues to be addressed through the monitoring and review process as and when they become apparent.

13.73 The bus, ELT and DLR proposals will ensure that the development benefits from excellent public transport links. All traffic impacts have been assessed and mitigation measures will be put in place where necessary.

13.74 Mechanisms will be put in place to enable the transport proposals to be monitored, reviewed and updated as required. This is important due to the length of the build out programme, and the fact that transport conditions may change throughout the lifetime of the development.

13.75 Officers are satisfied that the negotiated package of transport measures will satisfactorily address all of the transport issues raised by the transport assessment.

### **14.0 Energy and Sustainability**

#### 14.1 Energy Target

The Barking Riverside Energy and Sustainability Strategy sets out the carbon reduction targets that are going to be delivered and improved

on during the 20 year development life of the project and beyond in use.

- 14.2 BRL's vision is to create a new community that enjoys a basic utility network that exceeds current building regulations in terms of carbon emissions, and as the development phases progress, with new technology and further economic sustainability improvements being found, delivers further savings on carbon emissions.
- 14.3 From Stage 1 carbon dioxide savings of 23% over and above 2006 Building Regulations will be achieved using a combination of energy efficiency and renewable electricity technologies. Renewable sources of energy, a mix of wind and photovoltaic (solar electricity) cells will produce around 15% of this, with the remaining 8% due to gas fired Community Heating and Power Network.
- 14.4 Stage 2 and 3 may not begin construction until 2010, therefore it is not possible to provide precise carbon savings (as shown above) at these stages because the technologies used for energy generation have yet to be finalised. However, using a combination of renewable and other sources of low carbon energy Stages 2 and 3 will provide carbon dioxide savings of at least 50% above 2006 building regulations and finally Stage 4 will provide 80% carbon reduction compared to pre 2006 building regulations (2002), significantly exceeding the carbon targets for Stage 1.
- 14.5 Therefore, in terms of the overall position across the site at the end of the development, the target is to achieve an average 50% reduction in carbon dioxide emissions from 2006 building regulations.
- 14.6 How will this be achieved?  
Given the density and nature of the development, a Community Heating and Power Network will be adopted throughout the four Stages, as well as a mixture of renewable and other low carbon energy sources, while also incorporating measures to minimise energy demand.
- 14.7 This future proofing approach will provide fuel and technology flexibility over the timescale of development and beyond. This will allow for the further integration of zero carbon energy sources, such as biomass, hydrogen fuel cells or gasification of waste, from Jenkins Lane and SHANKS.
- 14.8 Although the waste heat from Barking Power Station (BPS) would strictly not be classed as renewable, it is a major supply of very low carbon heat that will be in close proximity as the site develops from west to east. This is a very large local resource that is currently being wasted as the hot water is discharged into the Thames. The recovery of heat from the power station will in part contribute towards the GLA's Community Heating and Power target for London. Although this

approach would not contribute towards targets for the use of renewable fuels taking heat from BPS would by itself provide carbon dioxide savings of around 25% compared to the total baseline emissions.

- 14.9 However one key objective should be not to exclusively rely on any one heat source and therefore the strategy does allow for Barking Riverside Community Heating and Power Network to look at other alternative sources. The East London Waste Authority (ELWA) might look towards gasifying residual waste with energy recovery as a means of meeting landfill reduction requirements (and other opportunities may arise from sewage cake waste from Beckton). Additionally, any waste to power plants might also provide a way for biomass, which could be burned to provide heat and power. Fuel cells that run on hydrogen that is produced by renewable energy are a fully renewable energy source with no carbon emissions and these too may be an additional energy source for the network in the future when this technology is proven.
- 14.10 If the waste heat from BPS is not used then the system of a Community Heating and Power Network will still be employed, but with the use of localised heat and power plants, located throughout the site.
- 14.11 Having this community utility network will also provide the best circumstances for the successful integration of renewable energy from micro wind turbines and photovoltaic (solar electricity) cells.
- 14.12 How will it be delivered?  
It is envisaged that the Community Heating and Power Network will be delivered through the provisions of a MUSCo (Multi Utility Services Company) with the ability for residents to take active investment in their local services. This MUSCo will recognise the ability that adjoining neighbourhoods (such as Thames View and Goresbrook) can in time be included to add further value and improvements to the principle objective of reducing carbon emissions over a wider area, achieving a higher regional standard of heating and power and at a sustainable cost.
- 14.13 BRL as a single entity are able to ensure that the strategy of a Community Heating and Power Network is implemented. Whilst BRL are not intending directly to build residential units, by implementing a single Community Heating and Power Network, they are able to ensure that all the development is connected into the Community Heating and Power Network provided.
- 14.14 To ensure that improvements in the Energy and Sustainability Strategy are maximised, an Energy Review Panel is being established, which will comprise the providers, BRL and a representative from the Council and the GLA. This panel will take a proactive part in the review and provide advice to BRL who are charged with implementing the strategy in the initial stage. Where applicable, BRL will also work with government funded organisations to identify how technologies could be

used to improve on the targets. These reviews and the strategies developed will be in line with national, regional and local energy policies.

14.15 Whilst BRL can implement the energy strategy, this is a source of community infrastructure, and as part of the energy vision a key issue will be to ensure the community itself is very aware of energy resources and the key objectives that emerge from this strategy. Therefore a key part of the Energy and Sustainability Strategy itself will be to ensure there are adequate community education resources available as part of the implementation. This will mean that as part of the MUSCo and Community Heating and Power Network will be IT connected, that real time information will be available on performance on the key energy objectives. Ensuring that the community will take some form of ownership in the actual delivery of the utility services.

14.16 Sustainability Statement

As with all major planning applications within the Borough this application is accompanied by a sustainability statement illustrating how sustainability has been incorporated within the proposals.

14.17 As this application involves one of the largest sites in the Thames Gateway, and due to the lifespan of the development, the applicant, with the Council and other parties (such as the GLA, LTGDC, EA), has produced a series of sustainability benchmarks, which will be used to assess future developments and their impacts on the surrounding environment.

14.18 The developers of plots of the site will need to complete the benchmarks document and demonstrate that the requisite minimum score has been achieved. This minimum score or “target” score has yet to be set, but will be reflected in the Section 106 agreement. The document will be filled in to describe how that developer's plot and the units in it are to be built out and the standard must be sufficient to gain the minimum score. This document will be submitted with reserved matters applications. The areas that are tackled by the sustainability benchmarking include:

Site Layout – designing out Crime, microclimate effects reduced, green roofs for flood protection;

Open Spaces and Landscaping – open play areas, allotments;

Transport and the Movement Framework – cycle and pedestrian walkways, car clubs;

Material Procurement – use of recycled materials, wood from sustainable sources, goods brought locally;

Sustainable Resource Consumption – waste reduction, water reduction and energy during construction, use of local labour;

Carbon Reduction and Climate Change – use of renewables, use of energy efficiency, use of community heating;

Waste Management – storage space for recycling, waste management plan for occupants;  
Water efficiency in use.  
Social Enterprise – small starter units in the development, wireless broadband, local training skills for constructors;  
Health and Well-Being – improved air quality and reduced noise pollution;  
Site Management and Evaluation – community development trust set up with budget and local powers;  
Influencing behaviour in use – educational packages to new residents, community centres.

- 14.19 Theoretically the minimum that can be achieved is in line with the London Plan policies, but this would not achieve the minimum score required by the section 106 agreement. The minimum score that will be accepted by the Council will be in line with BREEAM Ecohome “excellence”. This goes beyond the London Plan and helps the development in terms of Housing Association funding.
- 14.20 During the life of the development sustainability benchmarking will be reviewed and updated, the issues, or indicators (such as the topics listed above) will remain the same but the standards will increase to reflect changing Government policy and updated adopted London Plan policy for the minimum standard and there will be two higher level options above this minimum which developers can achieve.
- 14.21 Some of the sustainability targets are required to ensure that it reflects the needs of local, regional, and national guidelines and policies. Some of the targets are required to comply with the Environmental Impact Assessment and will be enforced to ensure compliance of the planning condition.
- 14.22 The water reduction targets for Barking Riverside go well beyond the guidelines in the London Plan and Supplementary Planning Guidance, and stretches the current best building practice. A target of 30 sq.m. of water per bed space has been set for Barking Riverside whereas the current London Plan suggests 40 sq.m. of water per bed space. Water efficiency measures such as spray taps, water metering, water efficient showers and dual flush toilets will be commonplace throughout the development. In addition, rainwater harvesting features are suggested on buildings with large roof areas, which are able to be used for non-drinking water systems such as toilets and landscaping.
- 14.23 The Barking Riverside Energy and Sustainability Strategy will deliver a development that is higher in environmental standards than the London Plan requires, and beyond current best practice. Targets such as the development of a Community Heat Main, Green Roofs and Water Reduction Systems, will deliver a development high in environmental sustainability

## **15.0 Waste**

- 15.1 A residential development of this size is likely to generate significant quantities of municipal waste, which will need to be managed in an appropriate and sustainable manner if it is not to impact detrimentally on residents' quality of life. This additional waste will impact on the Council's performance against recycling and composting (BVPI) and landfill diversion targets, therefore it is vital to plan for its impacts.
- 15.2 As part of the planning application process a waste strategy has been prepared for the Development between the Barking Riverside Limited and the Council's waste management and which includes two different collection options:
- A conventional approach based on the use of wheeled bins, segregated collections of recyclables at the kerbside and bring banks for cans and bottles serviced on a weekly basis by collection vehicles; and
  - Use of an underground vacuum collection system to transport waste to a centralised waste handling facility for bulking and subsequent transportation to suitable waste handling facilities (of the type offered by ENVAC).
- 15.3 A vacuum based system is a fully enclosed vacuum system, which removes the need for refuse vehicles, refuse collection rooms and containers in the streets. The system consists of a number of collection points, linked together by underground piping that transports the waste to a central collection station through the use of a large vacuum system. All the full inlets connected to the collection station are automatically emptied at regular intervals through a computerised network.
- 15.4 The system is ideal for separating waste for recycling, in which case there is an additional inlet and container for each category of refuse. The control system directs a diverter valve to convey each category of sorted waste into the correct container.
- 15.5 Both systems will be investigated fully in terms of capital costs, revenue implications and environmental performance. The preferred option will be agreed with the Council prior to the signing of the S.106 agreement.

## **16.0 Ecology & Biodiversity**

- 16.1 A number of the submitted application documents address the issues of the effect of development on the ecology and biodiversity. Document 13 (Landscape & Ecological Framework) is submitted for approval and sets out proposals for strategic landscape and addresses ecological issues. Document 15 (Environmental Statement – Main Report) described the effects of the proposed development on



biodiversity and nature conservation. Where potential adverse effects are identified mitigation measures are proposed. Appendix 9 to the Environmental Statement presents the results of an Ecological Survey & Assessment. Finally Document 19 (Landscape and Ecology Design and Management Guidelines) has been submitted as a document for approval and sets out design principles and mitigation.

16.2 Presently the site supports a number of habitats including grassland, scrub, disturbed ground, wetland, a small number of built structures and areas of hard standing. From the planning history of the site Members will note that there is an ongoing planning permission for remediation of the site. The implementation of this consent has meant that large areas of the site have been disturbed. From the 1920's onwards part of the site were developed for industrial and the by-product of pulverised fuel ash (PFA) from the coal fired power stations was deposited over large parts of the site. In some areas of the site such as the Ripple Nature reserve these deposited areas have regenerated naturally and support valuable habitats. The former Renwick Road landfill site in the east now supports rough grassland and scrub. The watercourses which cross the site namely the Goresbrook, Ship & Shovel Sewer and Buzzards Mouth Creek are notable features as is the Thames foreshore to the south.

16.3 There are no statutory designated sites within the application site boundary, the nearest such SSSI sites being located to the east of the Borough. However, within the site there are four non-statutory sites of nature conservation interest described as below:

- Ripple Nature Reserve – located to the north and west of the Renwick Road switching station this site supports a diverse botanical interest and an important invertebrate assemblage. The site is of Metropolitan importance for nature conservation;
- River Thames and Tributaries – this site includes the whole of the River Thames and its major tributaries within Greater London. The Thames foreshore area and mudflats adjacent to the site are of importance for flora habitats and fauna including wintering birds. This area is of Metropolitan importance for nature conservation;
- Goresbrook and Ship & Shovel Sewer – these features comprise the watercourses, ditches and associated wetland habitats. These are botanically rich areas and support water voles which are a protected species. These watercourses are of Borough importance for nature conservation;
- Thameside Park City Farm – this is a site of local importance supporting hedgerows, ditches, and pond and paddocks.

- 16.4 The Ecological Survey and Assessment, submitted as a technical appendix to the Environmental Statement provides detailed information describing the habitats, plant and animal species occurring on the site.
- 16.5 In terms of habitat the survey describes six types of habitat found in a 'mosaic' across the site. These habitats are woodland, grassland, wetlands, mudflats / saltmarsh, wasteland and flora. Of these habitats Ripple Nature Reserve is considered of metropolitan importance for its grassland, the Goresbrook, Ship & Shovel and Buzzards Mouth are of Borough importance as wetland and the Thames is of Metropolitan importance for its mudflat / saltmarsh habitat. The wasteland habitats are of some importance as they support a wide range of plant species.
- 16.6 The survey revealed a low incidence of amphibian and reptile species. The site has been used by four species of bat for foraging although there is no evidence of bat roosts on-site. Nevertheless due to declining number of bats the survey considers the site to be of Metropolitan importance for foraging bats.
- 16.7 Water vole populations have been recorded along the main watercourses and some ditched within the site. This species is again in decline and is protected under the Wildlife and Countryside Act 1981. Consequently the water vole population on the site is considered to be of Borough importance.
- 16.8 The ecological survey notes that 52 bird species have been recorded on-site and it is therefore of Borough importance. However, for a limited number of rare bird species (Black Redstart and Marsh Warbler) the site is of national importance and for a number of other bird species, including waterfowl and wintering birds, the site is of Borough or Metropolitan importance.
- 16.9 Finally the survey investigated populations of terrestrial and freshwater invertebrates on the site and considered those populations to be of regional and Metropolitan importance respectively.
- 16.10 The Barking Riverside proposals involve the development of approximately 60% of the site area. However, key ecological features on-site will be retained and enhanced. The proposals involve the retention of the Thameside Park City Farm, Ripple Nature Reserve and the Goresbrook / Ship & Shovel Sewer watercourses. Furthermore, a 'green bracelet' of open space totalling some 57 hectares will link these retained areas. This 'green bracelet' will provide new areas of habitat.
- 16.11 The development of the site will obviously result in a number of direct and indirect effects on the ecology of the site over the short, medium and long term. These effects may range from adverse through to beneficial. The Environmental Statement notes that the potentially adverse effects arising from the remediation and development of the site relate to:

- habitat loss from land reclamation / remediation and construction;
- reduction in species populations;
- increased human disturbance;
- increased noise and light pollution;
- changes in microclimate;
- risk of pollution and / or de-watering;
- disturbance to flora and fauna;
- fragmentation and isolation of habitats.

Once the development is completed the potential adverse impacts are described as:

- disturbance to wintering birds on the mudflats;
- risk of pollution to watercourses from fly-tipping and substance discharge;
- disturbance to habitat and species;
- predation of nesting birds, small mammals and reptiles from domestic pets.

16.12 The Environmental Statement provides a summary table of the significance of impacts on ecological receptors on the site during construction and when the development is complete. This table is reproduced below:

<u>Ecological Receptor</u>	<u>Value</u>	<u>Significance of Residual Effects</u>	
		Construction / Remediation	Completed Development
Ripple Nature Reserve	M	MinA	MinA
River Thames, mudflats & saltmarsh	M	N	N
Goresbrook	B	MinA	MinB
Ship & Shovel Sewer	B	MinA	MinB
Thameside Park City Farm	B	N	N
Neutral grassland outside of designated sites	L	MinA	MinA
Wasteland habitat	B	MinA	MinA
Plant assemblages	B	MinA	MinA
Nationally scarce plants	M	MinA	MinA
Amphibians & reptiles	L	MinA	MinB
Bats	M	MinA	MinA
Water Vole	B	MinA	MinB
Breeding birds	B	ModA	MinA
Breeding Black Redstart	M	MinA	MinB
Breeding Marsh Warbler	N	ModA	
		ModA	
Notable Breeding Birds	M	Mod A	MinA

Wintering Waterfowl	M	MinA ModA	
Wintering Linnets	M	MinA	MinA
Wintering Rock Pipits	M	N	N
Invertebrate (terrestrial & freshwater)	R	ModA ModA	
Benthic Invertebrates	M	N	N
Fish	M	N	N

Key: Value: L – Local, B – Borough, M – Metropolitan, R – Regional, N – National

Significance of Residual Effects: MinA – minor adverse, ModA – moderate adverse, MinB – minor beneficial, N – negligible.

16.13 From the above table it can be seen that during the construction phase of development the magnitude of effects generally range from minor adverse as a result of ground clearance and remediation to a negligible effect in areas not affected by clearance or capping. However, the effect of construction works on the breeding Marsh Warbler, other notable breeding birds, breeding bird assemblages as a whole and invertebrate fauna will be of moderate adverse significance. On completion of the development the most significant impacts will arise from the levels of human activity of residents, workers and visitors to the site and the pressure this will place on retained habitats and wildlife populations. Moderate adverse impacts are considered likely on wintering waterfowl and the breeding Marsh Warbler using the mudflats. All other impacts from the completed development are considered to range from minor adverse to minor beneficial.

16.14 In order to minimise the adverse effects of construction and development and provide compensation where effects cannot be avoided a number of mitigation measures are proposed by the Environmental Statement. These measures would be implemented via the Landscape and Ecological Framework (Document 13) and the Landscape and Ecology Design & Management Guidelines (Document 19).

16.15 The main aims of the Landscape and Ecological Framework are to:

- protect and enhance key retained habitats and species populations;
- enhance the 'Green Bracelet' in order to provide habitat;
- avoid or reduce human activity and building form adjacent to the mudflats;
- maintain good working practices during construction
- separate development from sensitive areas and watercourses.

16.16 Document 19 further develops the objectives of the Landscape and Ecological framework into a set of briefing requirements for design and

management of landscape and ecology on-site. Document 19 therefore includes guidelines for:

- the role of stakeholders in management;
- measures to implement target habitats;
- measures to avoid conflict between ecology and leisure use;
- guidelines for public art, lighting and street trees.

16.17 Mitigation measures are divided into general measures and more specific measures for valued ecological receptors. The general mitigation measures would be delivered through a Code of Construction Practice (COCP) and an Ecological Clerk of Works. During the remediation and construction phases general mitigation would comprise:

- protection of watercourses;
- fencing to protect retained habitat;
- removal of vegetation outside of the bird nesting season;
- eradication of invasive alien plant species (e.g. Japanese knotweed) prior to movement of soil;
- inspection of buildings for bats and nesting birds prior to demolition;
- phased preparation of receptor habitats to receive translocated species;
- construction lighting adjacent to watercourses to recognised standards;
- ecological induction / training for construction workers;
- minimisation of dust emissions;

16.18 Detailed mitigation measures for valued ecological receptors would be as follows:

Habitats and designated sites –

- route of cycle track through Ripple Nature Reserve selected to avoid sensitive sites / species;
- habitat management as per the Landscape and Ecology Framework;
- ‘Green Bracelet’ linking designated sites;
- creation of a variety of habitats within the ‘Green Bracelet’ including wetland, grassland and scrub;
- protection of retained habitat via the COCP.

Nationally Scarce Plants –

- retained in situ and protected where not directly affected by remediation / construction;
- where directly affected plants would be translocated to appropriate receptor locations.

Amphibians / Reptiles –

- watercourse habitat will be retained;

- creation of wetland habitat within the 'Green Bracelet'
- translocation of species where encountered.

#### Wintering Birds –

- screening and access controls to the mudflats in the form of mounds, planting and fencing to minimise disturbance;
- control of building heights adjacent to the foreshore;
- visual screening and controlled access to foreshore during construction;
- construction lighting to recognised standards.

#### Breeding Black Redstart –

- creation of grassland / scrub habitat;
- creation of brown roofs adjacent to Goresbrook;
- provision of nesting sites on buildings.

#### Breeding Marsh Warbler –

- protection and retention of reed bed habitat along Goresbrook;
- creation of new reed bed habitat;
- protection of watercourse during construction.

#### Water Vole –

- habitat retention and enhancement along watercourses;
- creation of new wetland habitat;
- creation of new habitat in advance of any relocation.

#### Invertebrates –

- habitat creation including brown roofs and insect nest boxes.

16.19 In summary, the site supports a range of habitats and plant and animal species ranging from local to national importance. As detailed above, parts of the site are designated as of importance for nature conservation. The site is also clearly identified in development plan documents as an opportunity area for new houses and jobs. A balance must therefore be struck between retaining the ecological receptors of importance and facilitating beneficial new development. In this respect the Environmental Statement identifies the effect of remediation, construction and the completed development on ecological receptors. With the exceptions listed above, the impact of the construction phases is generally of minor adverse significance or negligible significance. After the completion of development the impacts range from minor adverse to minor beneficial. A range of general and specific mitigation measures will be implemented through Documents 13 and 19 and the Code of Construction Practice (COCP) and are subject to conditions..

## **17.0 Ground Contamination & Remediation**

17.1 Members will be aware of the industrial history of the site associated with power generation from the 1920's until the decommissioning of the

three power plants. The demolition of the power station buildings did not involve the removal of underground basements and other features. Detailed survey work of the power station site has revealed widespread contamination comprising arsenic, lead, nickel and mercury. Concentration of these elements are found above the relevant exposure guidelines for residential land use.

- 17.2 Large areas of the application site to the east and west of Renwick Road were used for the deposition of pulverised fuel ash (PFA) which is a by-product from the coal-fired power stations. Surveys indicate that the areas of the PFA deposits are contaminated with asbestos and other elements above exposure thresholds for residential development. The Ripple Nature Reserve is sited on areas of PFA and there is potential for localised contamination on this part of the site.
- 17.3 The eastern part of the site comprises the Renwick Road landfill. The landfill site contains degraded domestic waste as well as commercial and inert waste. This area is also contaminated with soil concentrations above threshold levels for residential use.
- 17.4 In terms of other contamination on-site methane gas is generated from the landfill site but gas emission rates are low and declining. A survey of the site has also revealed the potential presence of unexploded ordnance on-site dating from the Second World War.
- 17.5 Notwithstanding the contamination detailed above there are two areas of the site where little or no contamination has been recorded: the former allotment site to the west of Buzzards Mouth and a strip of land north of Choats Road adjacent to the railway corridor. However, the fact remains that large areas of the site comprise contaminated land.
- 17.6 Members will note from the planning history that planning permission was granted in January 1994 for the remediation of the majority of the site (TP/43/93 – Use of approximately 370 acres of land for deposit of Category A fill material in connection with subsequent use for residential and associated development). The site area for this approved planning application included all of the current planning application site excluding the Ripple Nature reserve and Renwick Road landfill. The 1994 permission for remediation has been part implemented and works are ongoing. Existing residential development at Phases 1a and 2a of Barking Reach has already been constructed on land which has been remediated utilising a capillary break layer overlain with a capping layer. This method of remediation will be employed on remaining areas of the site proposed for permanent built development (residential and non-residential uses).
- 17.7 The capping layer for these parts of the site comprises a 350mm capillary break layer to prevent the upward migration of contaminants. This layer is overlain with a 1,650mm deep cap of clean clay soil to give an overall depth of at least 2m to the capping. This depth would

prevent human contact with the underlying contamination. For other areas of the site which are contaminated but not proposed for built development, such as the open space under the pylons, a 1m deep cap is proposed to provide an impermeable layer in which to construct water features and prevent human contact with underlying contamination.

- 17.8 As mentioned above the former allotments located in the north-western corner of the application site are not contaminated and therefore remediation is not required. This area was however, subject to the 1994 consent for deposition of fill material and it is intended that the former allotments will be capped with a clay layer 1m deep in order to provide a developable platform and address flood risk issues.
- 17.9 The Ripple Nature Reserve does not form part of the 1994 planning permission for deposition of material. However, localised areas of contamination exist within the nature reserve associated with the spreading of PFA. There is currently public access onto this site and this access will continue in the future. In order to mitigate the potential impact to humans a raised walkway is proposed with fencing in order to prevent direct contact with the ground surface.
- 17.10 The former Renwick Road landfill site and footprint of the former power station buildings were not included within the 1994 planning permission. Surveys have revealed that these two areas are contaminated. The current planning application therefore seeks full planning permission for the remediation of these two areas.
- 17.11 The Renwick Road landfill site is divided into two separate areas by Choats Road. The framework plan indicates that the area to the north of the road would be used for public open space whilst the area to the south would be available for permanent built development. The remediation proposals for the separate areas reflect these different end-uses.
- 17.12 Proposed remediation for the area north of Choats Road involves the re-profiling of land to allow for easier use through shallower gradients and to improve surface drainage. A semi-permeable membrane will be placed over the re-profiled soil and covered by a gas collection blanket. The membrane will prevent infiltration of rainwater and therefore control the generation of leachates without impeding the emission of soil gas. Rainwater would drain via gas collection blanket to perimeter collection drains. A clean topsoil cover would be laid over the gas collection blanket.
- 17.13 For the area of the former landfill site south of Choats Road where built development is proposed more extensive remediation proposals are involved. Firstly remediation would involve the removal of a concentration of hazardous waste near to the south-east corner of the site associated with a suspected former gas works site. The land



would then be re-profiled to create a developable platform. To enable built development a programme of ground engineering is required involving compaction, surcharging and vibro-improvement. These measures are intended to induce settlement prior to development and strengthen the stabilised soils. The re-graded and improved landform would then be covered with a gas dispersion blanket and cap to prevent infiltration. A clean cover layer would rest above the blanket to provide a suitable medium for landscaping and installation of services. Significant structural loads from the building development will be supported on special piles which minimise potential migration routes for leachate.

17.14 The site of the former power stations will be developed, if planning permission is forthcoming, for high density residential uses with associated hardstandings, access roads and transport links. Only limited areas of soft landscaping are proposed on this part of the site. Although the power station buildings have been demolished above ground level the floor slabs, substructures, tunnels, pipes and conduits below ground level remain. Subsurface conditions on this part of the site typically comprise made ground consisting of domestic waste, demolition rubble and PFA. Testing has shown widespread or frequent contamination of heavy metals, hydrocarbons, sulphate and asbestos which could pose a risk to construction workers and future occupiers of the site. The remediation strategy for the former power station can be summarised as follows:

- removal of concentrations of hazardous waste;
- barriers to break linkages with contamination sources;
- gas protection measures;
- infilling of sub-surface basements and tunnels etc where capping is impractical;
- infilling of underground utility corridors;
- capping of redundant cable tunnels;
- removal of underground obstructions where appropriate;
- use of piling techniques sympathetic to underlying groundwater.

17.15 It is considered that the proposed scheme of remediation would reduce the potential impacts of developing the site to acceptable levels and would break the link between contamination sources and receptors. In the longer term the remediation and development of the site would have a beneficial effect on receptors. Construction site control mechanisms set out within the COCP and Health & Safety protocols will reduce the potential impact on construction workers.

## **18.0 Flood Risk Issues, Drainage and Water Quality**

### **18.1 Policy Background**

18.2 National planning guidance within PPG25 (Development and Flood Risk) states that flood risk should be considered at all stages of the planning and development process in order to reduce future damage to property or loss of life. The guidance also confirms the importance the Government attaches to the management and reduction of flood risk and encourages a precautionary approach to land use planning taking account of climate change. PPG25 establishes a requirement for the submission of flood risk assessments (FRA) to accompany planning applications in flood risk areas. Such assessments should investigate the possibility of flooding on a development site and whether development will increase the risk of flooding elsewhere. Paragraph 57 of PPG25 states that the susceptibility of land to flooding is a material planning consideration in determining a planning application. The Environment Agency is referred to as a statutory consultee for developments with flood risk implications.

### 18.3 **Current Baseline Position**

18.4 When the planning application was first submitted in December 2004 it was accompanied by a Flood Risk Assessment (Document 11) which also formed a technical appendix to the environmental statement. This assessment confirmed the location of the site in the river Thames floodplain and the presence of three main rivers adjacent to or within the site namely the river Thames, Buzzards Mouth Creek and the Goresbrook. The Ship & Shovel Sewer connects to the Goresbrook at the north-eastern corner of the site. Modelling of the Buzzards Mouth Creek and Goresbrook within the FRA has predicted flood events for the worst case storm duration and tide level combination that affect the site and the wider Barking area. Both the Goresbrook and Buzzards Mouth Creek discharge into the river Thames via sluices and during the extreme tidal / storm events mentioned above surface water may backup along the Goresbrook and Buzzards Mouth Creek creating flooding. The site currently however contains areas that function as flood storage areas during large storm events located adjacent to the Ship and Shovel Sewer and Buzzards Mouth Creek. The current condition of the site is largely undeveloped and therefore an urban development as proposed will significantly increase the potential for surface water run-off into watercourses within and adjacent to the site.

18.5 Existing water quality in watercourses at the site can be described as poor. Within the Goresbrook surveys of water quality were undertaken in 1989, 2002 and 2004 which revealed elevated concentrations of chemicals associated with leachate from the adjacent Renwick Road landfill site. Low water quality is also a feature of the Ship & Shovel Sewer with poor oxygen levels and concentration of chemicals within sediments as a result of leachate from PFA. Concentrations of lead in the watercourse can be associated with pollution from road run-off upstream. Similarly water quality in the Buzzards Mouth Creek is low due to contamination from PFA leachate and sources upstream of the site.

18.6 The application site is protected from flooding of the river Thames by existing flood defences which offer protection to a 1 in 1,000 year standard. These defences comprise a grassed earthen levee or embankment, a section of concrete wall adjacent to the T jetty on the western part of the sites river frontage and tidal sluices. The earth levee within the site covers a river frontage of some 900m and is generally 7.5m AOD in height. On the eastern part of the river frontage the Renwick Road landfill lies adjacent to the levee for an approximate length of 350m. Ground levels rise from the levee across the landfill to reach a maximum of some 11.5m AOD. Further to the west the implementation of the 1994 planning permission for surcharging of the land has raised levels to a maximum of 11m AOD adjacent to the levee. The western river frontage of the site is protected by a reinforced concrete wall and earth levee to a length of some 500m and a height of 7.5m AOD. The flood wall / levee arrangement ties into the levee protecting the western part of the site. Finally at the eastern and western extremities of the Thames frontage are the Buzzards Mouth and Horseshoe Corner (Goresbrook) sluices. Both of these features control tidal ingress of the Thames.

18.7 As noted above the height of the existing flood defences for the site is some 7.5m AOD. The submitted FRA considered the adequacy of the existing defences and concluded that the site is protected from a 1:1,000 year tidal flood event (0.1 change of occurrence in any one year). Based upon existing site conditions a 'worst-case' storm and tidal combination has been modelled to establish a baseline flooding scenario. In terms of the Goresbrook watercourse network the existing worst case storm / tidal combination suggests a maximum flood level of 1.86m AOD. During such an event the Goresbrook would become tide-locked and therefore unable to discharge into the Thames. Surface water would back-up the watercourse until storage within the Goresbrook was exhausted. Overflow from the watercourse channel would then inundate low lying areas adjacent to the watercourse. Using this information an indicative floodplain for the Goresbrook has been mapped which shows areas of inundation to the west of the Goresbrook and both north and south of the Ship & Shovel Sewer. Minor ditches on the western part of the development site would be flooded as would a small area of developable land on the south side of Choats Road. With reference to the Buzzards Mouth Creek network the worst case combination based upon existing site conditions would result in a maximum flood level of 1.54m AOD within the watercourse. During such an event the watercourse would be unable to discharge into the Thames and inundation of adjacent low lying land would occur to a maximum depth of 1m. An indicative floodplain map of the Buzzards Mouth Creek suggests that large areas developable land comprising the former allotments in the north-western corner of the site would be flooded.

18.8 **Additional FRA Documents**

18.9 Following the initial consultation exercise for the application the Environment Agency, in their role as statutory consultee for flood risk issues, lodged an objection to the proposals. This objection was on the basis of the status of the flood risk assessment as part of the submitted planning application and detailed technical aspects of the FRA, in particular, a requirement for breach assessments. The Council issued a request for further information under the EIA Regulations in August 2005. This request included the additional information and assessments required by the Environment Agency. Following the Council's request further information on flood risk was provided by the applicant as follows:

- Document 21 – Flood Risk Assessment Addendum: Drainage and Flood Defence Strategy;
- Document 22 – Updated Flood Risk Assessment;
- Document 27 – Flood Risk Assessment: Flood Defence Breach Assessment.

18.10 Document 21 details a number of measures a number of mitigation measures to remove flood risk from the site. These measures are the incorporation of buffer zones adjacent to watercourses throughout the site, fluvial flood storage compensation to allow for the raising of ground levels, surface run-off attenuation basins, raising of ground levels to remove flood risk and upgrading / raising of the Thames flood defences.

18.11 With reference to buffer zones a minimum 8m wide strip would be maintained between any development and the banks of the Goresbrook, Ship & Shovel and Buzzards Mouth Creek. A minimum 16m wide zone would be maintained to the Thames frontage allowing adequate space for future maintenance and improvement.

18.12 The built development of the site will potentially result in the loss of flood storage capacity. However, mitigation is proposed through a fluvial flood storage compensation strategy to part retain existing storage areas and create new areas of flood storage capacity. Existing storage capacity serving the Goresbrook network has been calculated at 11,970 m<sup>3</sup> which would be increased to 15,320 m<sup>3</sup> by the development. This increased capacity would be in the form of 3no. permanent ponds with wetland fringes and 1no. dry attenuation basin. Existing flood storage capacity for the Buzzards Mouth Creek is some 16,450m<sup>3</sup> which would be increased to 21,910 m<sup>3</sup>. As with the Goresbrook network capacity would be in the form of permanent ponds and dry basin areas. The proposed increase in flood storage capacity across the site clearly represents a benefit.

18.13 As noted above the increased imperviousness resulting from built development of the site will potentially result in increases in surface run-off to the Goresbrook and Buzzards Mouth networks. In order to

control run off the scheme incorporates the principles of sustainable urban drainage systems (SUDS) directing surface drainage to a number of attenuation basins for storage and controlled release into the watercourse networks. Surface water will be generally conveyed to the basins and the River Thames by piped gravity drainage systems. However, in two instances a pumped system will be used similar to Barking Reach Phase 2a. The site has been divided into 13 sub-catchment areas with a number of these sub-catchments providing permanent ponds, wetland fringes and attenuation basins.

- 18.14 Document 22 provides an update of the flood risk assessment to respond to the concerns raised by the Environment Agency. In particular the potential for flooding as a result of breach and sluice failures at the Goresbrook and Buzzards Mouth Creek outlets has been investigated. The recommended solution to the potential for flooding in this scenario is to raise existing ground levels in the north-western part of the site on the site of the former allotments. A comparison of the existing baseline flood extent for the Goresbrook network (described above) and the post-development flood extent shows a reduction in flooded areas. Within the application site flooding is limited to an area north and south of Choats Road to the east of Barking Reach Phase 1a. New areas of compensatory flood storage are proposed for the Goresbrook watercourse network involving an increase in capacity, A similar comparison for the Buzzards Mouth Creek network shows a drastic reduction in areas affected by flooding for the post-development scenario. The area of flood extent is limited to the watercourse channel itself and no developable areas would be subject to flooding. This decrease in flood levels is attributable to the proposed surface drainage strategy and compensatory flood storage areas.
- 18.15 Document 27 provides a flood defence breach assessment as required by the Environment Agency in their first response to the planning application. The assessment investigated the effects of both a breach in flood defences and failure of the sluices protecting the site. A breach is described as an opening in a flood defence caused by a structural failure during high water conditions. Sluice failure refers to a situation where a sluice remains open due to a mechanical failure during high water conditions. Both the Goresbrook and Buzzards Mouth Creek are assessed. The assessment states that a sluice failure would be more likely to occur than a breach and the severity of inundation would be less than for a breach.
- 18.16 Modelling suggests that, due to the relatively high levels on-site, no part of the built development would be inundated by the failure of either the Goresbrook or Buzzards Mouth sluices. The wider areas of Barking beyond the application site are affected by sluice failure events. An area of 0.44km<sup>2</sup> would be inundated in the event of a failure of the Buzzards Mouth sluice and 1.81km<sup>2</sup> for a failure of the Goresbrook sluice.

- 18.17 Modelling of the breach events for both the Goresbrook and Buzzards Mouth show flooding to the northern and eastern edges of the proposed development. In the case of a breach to the Goresbrook 26% of the site area would be affected by flooding yet only a quarter of this area would contain built development (7% of the total site). The affected areas of built development being located on the former allotment site. In the event of a breach involving the Buzzards Mouth 23% of the total site area would be affected by flooding. Approximately one-third of the affected area would contain built development (7% of the total site area) and, as in the case of the modelled Goresbrook breach, the former allotment sites are affected by this breach scenario.
- 18.18 The modelling for all breach events and sluice failures considered both the existing topography of the application site and the proposed topography in order to identify the impact on areas surrounding the application site. The extent of flooding pre and post-development does not significantly change. Similarly, there are only minimal variations in the depth of flooding between the current baseline position and post development. The maximum increase in peak depth of flooding would be experienced at the Thames View estate in the event of a breach at the Buzzards Mouth Creek where an additional 9cm would occur. In the event of a sluice failure at the Goresbrook the same estate would experience a decrease in peak flood depth of 2cm post-development.
- 18.19 After receipt of the above additional application documents the Environment Agency were re-consulted and in a response dated 28 April 2006 the Agency removed their objections to the proposals.
- 18.20 **Mitigation**
- 18.21 The proposed built development would be set back from the existing flood defences to allow for potential future improvements to the defences as a result of climate change. The FRA confirms that the existing flood defence standard would be maintained and localised maintenance, repair or strengthening undertaken where necessary. Structural analysis of the existing flood defences indicates that the proposed remediation of the site and construction works will have a negligible impact on the integrity of flood defences.
- 18.22 The FRA has modelled the post-development scenario for both the Goresbrook and Buzzards Mouth Creek river networks. The modelling suggests that the proposed drainage strategy, including compensatory flood storage areas, attenuation basins and new surface water outfalls to the river Thames, would reduce the worst case flood levels in these two watercourse networks. Additionally there would be a slight decrease in the extent of flooding compared to the existing situation. The FRA therefore suggests that development would have a minor beneficial impact upon flooding within the site and the wider area.

18.23 With reference to water quality the proposed wetland fringes to the permanent attenuation ponds would assist in improving the quality of run-off discharged to the Goresbrook and Buzzards Mouth. The increases in hardstanding associated with the development of the site and clay capping associated with remediation will reduce rainwater infiltration and limit the further leaching of contaminants. It is therefore concluded that the proposals will improve surface water quality.

## **19.0 Archaeology and Buildings Assessment**

### **19.1 Archaeological Issues**

19.2 Unitary Development Plan policies DE36-DE39 relate to planning and archaeology and encourage the early evaluation of development sites in areas of archaeological potential and the preservation of archaeological remains in-situ. UDP policy also promotes the cooperation between developers and English Heritage and the early notification to English Heritage of development proposals.

19.3 National Planning Policy within PPG16 (Archaeology and Planning) sets out a framework to protect important archaeological sites in-situ, promote field evaluation and provide for site investigation of less important sites.

19.4 Finally London Plan policy 4B.14 supports the identification, protection, interpretation and presentation of archaeological resources.

19.5 Map 9 within the UDP (Areas of Archaeological Significance) identifies the entire development site as having archaeological potential. This is due to the position of the site on the Thames floodplain and the deep alluvial deposits under the site which preserve prehistoric remains.

19.6 The planning application includes an Archaeological Desk Based Assessment submitted as a technical appendix to the Environmental Statement. This document examines the geology and topography of the site, the archaeological and historical background, site conditions and implications of the proposed development.

### **19.7 Geology and Topography**

19.8 Numerous boreholes and test pits on the site have established the underlying geology with a degree of precision. Surface level geology for the majority of the site comprises made ground in the form of the Renwick Road landfill site and areas of PFA deposition. Beneath the made ground is a layer of alluvium (river-deposited silt) to a thickness of between 3 and 5m. Underneath the layer of alluvium is a strata of Thames gravel. The site occupies a position within the historic Thames floodplain where original topography would be essentially flat and low-lying. Higher ground levels to the north of the site are associated with the gravel river terrace demarcated by the line of Ripple Road.

However, on the application site the original flat topography associated with alluvial deposits has been altered by the made ground referred to above.

### 19.9 Archaeological and Historic Background

19.10 The Archaeological Assessment has reviewed the available data for the area surrounding the site with the aim of modelling the potential of the site. For each of the pre-historic and historic periods an assessment of the archaeological potential of the site is given as follows:

Pre-historic –	
Palaeolithic (450,000 – 12,000 BC)	low / no potential;
Mesolithic (12,000 – 4,000 BC)	high potential;
Neolithic (4,000 – 1,800 BC)	moderate potential;
Bronze Age (1,800 – 600 BC)	moderate potential;
Iron Age (600 BC – AD 43)	low potential;
Historic –	
Roman (AD 43 – 410)	low potential;
Saxon / Early Medieval (410 1066)	low / no potential;
Medieval (1066 – 1485)	low potential

19.11 The post-Medieval / Modern period is characterised by two distinct phases. Firstly the improvement of the land through drainage to enable use for grazing and secondly the industrial use of the site from the late 19<sup>th</sup> Century onwards.

### 19.12 Site Conditions and Implications of Development

19.13 As noted above large areas of the site comprise made ground through the deposition of PFA and landfill. Archaeological deposits on-site will therefore be sealed and protected by this layer which varies in depth between 2-10m. The implementation of the 1994 planning permission for the deposition of fill material across the majority of the site has also had the effect of sealing and protecting archaeological deposits. The current application would see the continuation of this process across the remainder of the site not included in the 1994 permission thereby protecting any underlying archaeology. Given these significant depths of made ground and clay capping across the majority of the site the effect of the proposed development, in terms of underground structures and foundations, would have little or no impact on the underlying archaeology.

19.14 However, two areas of the site have been identified as being intact and unaffected by PFA dumping or landfill and therefore representing the 'historic' land surface. These areas are the allotment gardens in the north western corner of the site and a small triangular shaped parcel of land south of the railway corridor approximately half-way between



Phase 1a and the Goresbrook. Implementation of the development proposals would impact upon the archaeology of these areas particularly the excavation of flood attenuation and balancing ponds. Within these two areas the Archaeological Assessment proposes a programme of mitigation measures.

19.15 English Heritage (Archaeology) have been consulted and have seen the submitted Archaeological Desk Based Assessment. In response English Heritage have requested that the 'standard' archaeological investigation condition is attached to any grant of planning permission.

#### 19.16 **Building Assessment**

19.17 Technical Appendix 14B to the Environmental Statement provides an assessment of the architectural and historic interest of the remaining building structures on-site associated with the former power stations.

19.18 Four structures are identified as follows:

Offices / control room of 'A' station built 1925-8;  
Switch house / backup control room of 'B' station built 1931-9;  
Switch room of 'C' station built 1952-4;  
Reinforced concrete coal-wharf and t-jetty.

19.19 All of these structures with the exception of the 'C' station switch room are within the application site. None of the structures are currently listed as being of special architectural or historic interest nor are the structures locally listed or within any conservation area.

19.20 Historically Barking Power station formed part of a long chain of power stations stretching from Deptford downstream of the Thames to the Isle of Grain and developed from the late 1890's. The site at Barking contained three individual stations named 'A', 'B' and 'C' developed between 1925 and 1954, stations 'A' and 'B' were coal-fired whilst station 'C' was oil-fired. Originally each of the stations would have comprised substantial buildings including boiler houses, turbine halls, engine rooms and control rooms. The coal wharf was extended as the power stations developed on-site.

19.21 Power generation at the Barking site ceased in the early 1980's and a substantial number of station buildings were demolished by the end of that decade. As listed above four of the original power station structures remain on-site, three of which are within the application site.

19.22 The westernmost structure comprises the offices and control room of 'A' station located some 45m south of River Road. This is a two-and-a-half / three-storey red brick building with stone detailing. The external style of this building has been described as architecturally unambitious neo-Georgian. Internally the building is architecturally unexceptional.

- 19.23 To the east along the River Road frontage is the former switch house and backup control room of 'B' station. This is a symmetrical red-brick building which is 'H' shaped in plan form. Internally it is a plain and functional building with full height internal spaces formerly accommodating machinery. The switch house has been described as being in the style of simple brick classicism. The backup control room to 'B' station was inserted into the switch house as a precaution against enemy attack. This part of the building has been described by the Royal Commission on the Historical Monuments of England (RCHME) as a striking example of 1930s industrial design. However, this judgement seems to be based on the survival of its internal apparatus and fittings rather than on its architectural merits.
- 19.24 Even further to the east along River Road is the switch house of 'C' station. This building is not within the application site and is owned and used by National Power. Similar to the switch house of 'B' station this is an 'H' shaped building but of a larger scale and with stark concrete elevations.
- 19.25 The coal wharf and T-jetty were developed between 1925-1954 for the purposes of unloading coal from vessels in the Thames. A number of the original features including bollards and metal rails. These structures are purely functional in style.
- 19.26 An overall appraisal of the architectural style of the remaining buildings on site concludes that none of the structures are of special architectural or historic merit. Although the interior to the backup control room to 'B' station contains a number of original fittings it is not of intrinsic architectural or historic interest.
- 19.27 Criteria for the listing of buildings is set out in PPG16 and include architectural interest, historic interest, close historical association and group value. The age and rarity of a building is also a relevant consideration. All of the remaining buildings on-site date from the 20<sup>th</sup> century. Paragraph 6.12 of PPG12 states that the approach for listing 20<sup>th</sup> century buildings is to identify key exemplars for each of a range of buildings (industrial, residential etc) and to treat these exemplars as broadly defining a standard against which to judge proposals for further additions to the list. Therefore only selected 20<sup>th</sup> century buildings will be listed. In respect of each of the four structures the following factors would weigh against their qualification for listing:

'A' station

it is not the work of a major or named architect;  
the building is substantially altered / extended;  
side and rear elevations are of little interest;  
original features (windows) have been destroyed;  
it represents only a fragment of the original station.

'B' station

low architectural quality;  
original machinery in backup control room is of interest as an example of surviving technology but is of little architectural or historic interest.

'C' station

functional building or little historic or architectural interest.

Coal wharf / T-jetty

- 19.28 Functional structure of little interest. Members may be interested to learn that Jetty No. 4 at Hansons Aggregates wharf in Dagenham Dock (formerly Samuel Williams & Co.) was recently listed Grade II by the Department for Culture Media and Sport (DCMS). This jetty is described as being of importance as being among Britain's earliest surviving reinforced concrete structures. The structure also has additional interest arising from the invention and early deployment of patented piles. No such historic interest applies to the coal wharf and jetty on the application site.
- 19.29 In these circumstances no objections are raised to the removal of the remaining 'A' and 'B' station buildings. The coal wharf and T-jetty would be retained by the development proposals.

## **20.0 Visual Impact**

- 20.1 The planning application is accompanied by a Landscape and Visual Impact Assessment submitted as a Technical Appendix to the Environmental Statement. The purpose of this assessment is to establish existing baseline conditions and the potential visual impact of the development from surrounding areas and in the wider context. The study area or zone of visual influence is defined by rising land to the north of the Borough, rising land south of the river Thames, Dagenham Dock to the east and the Royal Docks to the west.
- 20.2 A range of national, regional and local planning policy documents seek to promote high quality sustainable development. Within the context of new development and visual impact, a number of London Plan policies promote high quality design, landscaping, open space and access particularly in 'Blue Ribbon' locations adjacent to the Thames. Several UDP policies and associated SPG's encourage high quality urban landscape and appropriate scale and massing of development. The inclusion of tall buildings adjacent to the river is mentioned within the UDP. However, it is also recognised that the site is currently an open expansive landscape.

### **20.3 Visual Baseline**

- 20.4 The application site is broadly located in a wide, low lying area adjacent to the Thames. Long distance views of the site can be gained from the higher ground south of the Thames and also higher ground to the north and north-east beyond the Borough boundary. From the south the site can be seen from Plumstead Common (50m AOD) and Shooters Hill (125m AOD). However these views are from a great distance of 4km and 6km respectively. To the north-east the site is visible from Bedfords Park (95m AOD) but at a greater distance of 10km. To the east of the site partial views of the site are available from the elevated A13 trunk road as it passes through the Fords estate. From these long distance elevated vantage points the site is read in the context of dense surrounding commercial and residential development and therefore the likely effect of development on these views is low.
- 20.5 The site is more easily visible the southern bank of the Thames between Tripcock Ness (upstream of Thamesmead) and Jenningtree Point (opposite Rainham). On the northern bank of the river viewpoints are restricted to eastward views from Gallions Reach DLR station. These riverside views show a contrast between open areas on the eastern part of the site and the power station and other buildings at the western edge. Clear and unobstructed views of the site can be gained from the southern bank of the Thames.
- 20.6 Views of the site from the local area to the north are limited by the generally flat topography of the area and screened by the industrial development along the A13 corridor. Occasional views towards the site are available at a number of north-south aligned roads such as Ellerton Road and Flamstead Road and, at a greater distance, King Edwards Road. These views are restricted to the pylons and switching station which appear above the height of building fronting the A13. A clearer view of the site is gained from the footbridge across the A13 at the Scrattons Farm estate but again the site is seen in the context of adjacent commercial development.
- 20.7 Close-up the site can be viewed from a number of gateway locations along Choats Road, Renwick Road and River Road. The quality of these existing views may be described as poor, mainly due to the dominating visual influence of the pylons and switching station. However, good panoramic views of the site and the Thames can be seen from Footpath 47 as it crosses the site. Elsewhere within the site long-distance views are available from the elevated ground levels on the former Renwick Road landfill site.
- 20.8 Finally the application site is adjacent to and therefore clearly visible from existing residential properties located on Phases 1a and 2a and also at the eastern end of Thames Road. Commercial properties elsewhere along Thames Road and also along River Road, Creek Road and Longreach Road also border the site.

20.9 Night-time views of the site are clearest from Thamesmead to the south and show the area as generally dark. However within the wider area there are substantial light sources and resultant sky-glow notably located at the freightliner terminal, Ford estate and the Barking Creek flood barrier.

#### 20.10 **Visual Impact**

20.11 Maximum building heights for the development would be fixed at this stage with the greatest density of development, and therefore tallest buildings, located adjacent to the Thames on the former power station site. This concentration of tall buildings, up to a maximum of 20-storeys high, would have the most significant visual impact on the areas surrounding the site. In particular the tall buildings will be clearly visible from a number of vantage points on the south bank of the Thames especially parts of Thamesmead which is directly south of the former power station site at a distance of some 600m. However, it is considered that the completed development will represent a significant improvement on the existing views which are dominated by the switching station and pylons.

20.12 Long distance views of the development from Shooters Hill and Plumstead Common (mentioned above) will also encompass the tall buildings on the river frontage. At great distance however the tall buildings would not dominate but rather would serve to emphasise the location of the site on the Thames as an area of regeneration and as a visual reference point adding legibility to the view.

20.13 Local views of the site from Ellerton Road and Flamstead Road would be largely unchanged as a result of the development due to the screening influence of existing commercial development along the A13. Only the upper floors of the tallest buildings on-site would be visible at a distance of some 1.7km. In these circumstances the effect of the development would not be harmful to such views.

20.14 As seen from the elevated A13 and footbridges over the A13 a wider area of the development on the site would be more visible. However it is considered that the development would deliver an improvement to the quality of these views through a diminution of the visual impact of the pylons and the replacement of a post-industrial landscape with physical regeneration.

20.15 Perhaps the most significant change between existing and proposed views of the site would be experienced by residents at Phases 1a and 2a of Barking Reach. Phase 1a, located on the eastern side of Renwick Road comprises a mix of 2, 3 and 4-storey dwellinghouses and flats. The existing properties closest to the site in Great Galley Close, Wanderer Drive and Sovereign Road have rear gardens facing the site in a south-easterly direction. New built development on the application site would be separated from these existing properties by a

'cordon sanitaire' to the side of the corridor of power lines. A separation of some 130m would thereby be achieved between new development and the boundary of the site with Phase 1a. The submitted application drawings for the new development show a density range of 60-100 dph and a maximum building height of 8-storeys in the area of the site facing Phase 1a. Further information contained within Document 18 (Urban Design Guidelines) describes this part of the development as the 'Parkside' character area where indicative storey heights range between 2-6 storeys. Given the physical separation between new and existing development and the likely storey heights on this part of the site it is not considered that unreasonable harm to existing residential amenity would occur. The Environmental Statement accompanying the planning application includes an analysis of potential overshadowing from development on surrounding areas. This analysis show that the only potential for overshadowing of Phase1a would occur during early morning hours in mid-winter. For the majority of the year no such overshadowing would occur.

- 20.16 The buffer zone between existing and proposed development would not remain as existing. Document 18 describes this area as 'North Meadow' where a variety of habitats would be created to serve both recreational and ecological needs. The visual impact of the pylons which dominate this part of the site would be lessened, to a degree, by the opportunities for new tree planting in this area. Once established, tree planting could assist in breaking-up or screening views of the pylons and power lines leading to a visual improvement. Policy BR1 of the UDP states that the Council will seek the removal, relocation or burying of power lines across the site. The application does not include any proposals to achieve the removal of the power lines or pylons. Whilst this is unfortunate Members will be aware of the considerable costs associated with the removal or burying of such infrastructure. The pylons and lines are therefore likely to remain in-situ for the foreseeable future. Nevertheless it is considered that soft landscaping, once established, offers the potential to reduce the visual impact of the pylons.
- 20.17 An Electromagnetic Field Survey was produced as a technical appendix to the Environmental Statement. This survey assesses the likely environmental impact of overhead power lines and underground cables passing through the site. In particular the survey investigated levels of electromagnetic fields (EMF) on-site assessed against recommended exposure to humans and possible impact on the operation of electronic equipment. This survey concludes that EMF radiation levels do not exceed recommended UK and European health and safety limits. The risk of impact on domestic and commercial electronic equipment at a distance of 30m is considered to be low.
- 20.18 Phase 2a of the Barking Reach development comprising 2, 3 and 4-storey development is adjoined to the east by the Ripple Nature

Reserve which would remain unaffected by the development. Views from and the outlook enjoyed by residents in Anchor Close and Schooner Close overlooking the Reserve would not be significantly affected by the development with the nearest new buildings being located some 330m to the east on the eastern side of Renwick Road. However, new development would be located to the south and west of Phase 2a. To the south of Galleons Drive and to the west of Mallards Road development Zone 2.12 is located with a maximum building height of 8-storeys. Adjacent to the western side of Phase 2a development Zone 2.12 proposes a maximum building height of 4-storeys. Document 18 (Urban Design Guidelines) describes both of these Zones as falling within the 'Buzzards Mouth Courts' character area which generally forms the lowest density within the site. Document 18 describes the areas adjoining Phase 2a as between 2-5 storeys with density between 40-90 dph.

- 20.19 Existing two-and-a-half-storey and three-storey development in Galleon Drive and Mallards Road face southwards and westwards respectively towards Zone 2.12. Existing views from these dwellings look towards power lines and in the direction of the redundant power station buildings. Whilst the new development would 'close-off' these existing views the relationship formed between new and existing would be across a street and therefore no different from countless similar relationships across the Borough.
- 20.20 Zone 2.11 is located to the west of dwellings in Galleons Drive and Seagull Close. These existing dwellings face south and therefore views from inside the existing houses would be at an angle towards new development. In these circumstances, and given the presence of the Buzzards Mouth Creek 'green corridor' separating existing and proposed development, the impact of the proposals on visual amenity is considered acceptable.
- 20.21 As with Phase 1a an assessment of overshadowing on existing dwellings has been provided. This assessment indicates a degree of overshadowing during the winter months but little impact during the summer. The Environmental Statement concludes that the overall effect of overshadowing on Phase 2a will be negligible.

## **21.0 Noise and Vibration**

- 21.1 A chapter within the submitted Environmental Statement assesses the likely impact of noise and vibration during the construction phase and after the development is completed. The chapter is supported by a technical appendix providing details of survey data.
- 21.2 A number of national, regional and local planning policy documents address noise issues. National planning guidance within PPG24 (Planning and Noise) encourages local planning authorities to minimise the adverse impact of noise. In relation to residential development

PPG24 introduces noise exposure categories in order to assist in determining planning applications. London Plan policy 4A.14 states that Boroughs should reduce noise by minimising existing or potential noise impacts on development proposals, separating noise sensitive development from noise sources where practicable, supporting new technology, highway management and noise containment. UDP policies H19 and G36 require new residential developments to incorporate in their layout and design protection against noise and to protect noise sensitive development from noise sources.

21.3 Members will be aware from the location of the site that a number of noise sources have the potential to impact upon the development. Adjacent to the north-western and western boundaries of the site existing industrial and commercial uses are located along Thames Road, Creek Road, Longreach Road and River Road. Adjacent to the south-western corner of the site and located on the Thames frontage is the De Pass Wharf which is designated as a safeguarded wharf. Barking Stone Ltd has planning permission to use this site for the storage and processing of aggregates. Adjacent to the south-eastern corner of the site, again on the Thames frontage, is the RMC Roadstone safeguarded wharf site. This site is operational and processes aggregates. Further to the north along the eastern boundary of the site is the Dagenham Dock employment area which has outline planning consent for Class B1, B2 and B8 uses. The northern boundary of the site to the east of Phase 1a lies adjacent to the railway corridor which is another potential source of noise.

#### 21.4 **Baseline Conditions**

21.5 In order to establish existing noise levels across the site a survey was conducted during late 2002-early 2003 measuring day and night time levels at a variety of locations throughout the site. When the survey results are assessed against guidance within PPG24 large areas of the site not dominated by industrial noise can be classified as falling within noise exposure category B. PPG24 further advises that within category B noise should be taken into account when determining planning applications and, where appropriate, conditions imposed to ensure an adequate level of protection against noise. However, for Zone 2.21 industrial noise is a potentially dominant noise source and survey results indicate that complaints may be likely. Proposals for mitigation are set out from paragraph 17.18.

#### 21.6 **Construction Impacts**

21.7 There are a number of potential sources of noise and vibration during the construction phase of development. Construction noise, such as excavation, piling, compaction etc would potentially have the greatest impact on occupiers of Phases 1a and 2a. Predicted noise levels for a variety of construction activities, assuming a separation of 25m to the receptor, have been predicted as ranging between 59 – 75dB. For the



purposes of comparison heavy road traffic at 10m has a typical sound level of 75dB. Predicted construction noise is clearly higher than current ambient noise levels. Nevertheless the construction works are non-permanent and noise levels would reduce as construction activities move further away from receptors. Mitigation in the form of Code of Construction Management Guidelines can be secured by planning condition.

- 21.8 The majority of construction material would be delivered to the site by river and waste from the site would also be transported by river. Therefore predicted car and HGV movements associated with construction are lower than would otherwise be expected. Predicted highest daily traffic movements associated with construction on-site would result in an increase of road traffic noise of less than 1dBA. Accordingly the impact of road traffic noise from construction traffic is considered to be negligible.
- 21.9 An assessment of potential noise from the construction of the DLR through the site has been made on the basis of a receptor point located 15m from the DLR alignment. Construction noise will naturally affect those areas of development closest to the DLR works. However, these blocks will be laid out, designed and constructed to take into account the operational noise associated with the DLR when it is running. Mitigation measures for an operational DLR will also reduce the impact for the construction phase of DLR.
- 21.10 Temporary construction vibration associated with vehicles and machinery is likely to occur. However, any such vibration is unlikely to be perceptible at proposed or existing residential areas.
- 21.11 **Road Traffic Noise**
- 21.12 The Environmental Statement includes an assessment of predicted road traffic noise impacts on the proposed development. Noise exposure category contours have been mapped for the completed development which shows that at kerbside locations of the main through roads (River Road / Renwick Road) the predicted noise levels are within noise exposure category D. In such locations PPG24 advises that noise sensitive development, such as dwellings, should not normally be permitted. However, noise levels reduce to fall within noise exposure category C as the distance from the kerbside increases. Furthermore noise levels also reduce with height such that levels above ground floor also fall within noise exposure category C. Advice in PPG24 states that within category C where it is considered that permission should be given conditions should be imposed to ensure a commensurate level of protection against noise. Mitigation would need to be incorporated into the design, layout and construction of dwellings to ensure satisfactory living conditions.

21.13 An assessment of road traffic noise generated by the completed development on areas surrounding the site has also been produced. Results suggest that the development is only likely to marginally increase the percentage of existing residents who would be concerned by changes in road traffic noise levels. The overall impact can therefore be regarded as negligible except for two locations: Renwick Road (between Bastable Avenue and Thames Road) and the A1306 (between the A13 and Merriellands Crescent) where road traffic noise impacts can be assessed as moderately adverse. The effect of road traffic vibration has been assessed as less than for noise.

#### **21.14 Noise from Adjacent Commercial Uses**

21.15 A noise assessment for the existing industrial areas adjacent to the proposed development zones along the western boundary of the site (zones 2.11, 2.21 and 2.31) has been undertaken. The assessment indicates that complaints about industrial noise are likely and can be regarded as an adverse effect. Mitigation measures will be required in these areas.

21.16 On the eastern edge of the site a similar exercise has been conducted for Zones 1.23 and 1.33. Given the noise characteristics from the safeguarded aggregates wharf it is likely that complaints about industrial noise will be generated and mitigation will be required. Finally the western part of Zone 3.11 adjacent to De Pass wharf would be likely to experience adverse noise levels and mitigation to secure a satisfactory residential environment are required.

21.17 Noise from the electrical equipment at the Renwick Road switching station has been measured but the Environmental Statement concludes that the impact will be negligible and no mitigation is required.

#### **21.18 Mitigation**

21.19 In terms of construction noise and vibration it is possible that the Council, under Section 61 of the Control of Pollution Act 1974, could control construction noise levels and hours of construction. Section 61 can also require the contractor to provide detailed information on the proposed works and the measures that will be used to control noise and vibration. A planning condition can also be used to require the submission and approval of a Code of Construction Management.

21.20 As mentioned above there are areas of the site where mitigation measures are required to reduce noise disturbance from adjacent established industrial uses. The Environmental Statement suggests the following mitigation measures for these areas of the site:

- erection of a 2.5m high noise barrier along the boundary of the site adjacent to industrial uses;

- provision of a 25m wide buffer strip between the site boundary and the façade of noise sensitive development;
- building blocks closest to adjoining industrial uses should be used as barrier blocks to shield the rest of the development from noise. These blocks will require high performance insulation and ventilation or a single aspect design.

- 21.21 With reference to traffic noise from the completed development mitigation is necessary as most of the site falls within noise exposure category B and sites fronting main roads fall within category C.
- 21.22 Dwellings within category C should be subject to conditions to ensure a commensurate level of protection against noise. Single aspect design within category C areas is suggested to prevent windows serving habitable rooms from looking onto these 'noisy' roads. Acoustic double glazing and passive ventilation to the windows of non-habitable rooms overlooking these roads is required to ensure acceptable internal living conditions. Main gardens and outdoor amenity spaces should not directly adjoin these main roads and barrier blocks should be employed to protect the enjoyment of quiet facades and spaces. Within noise exposure category B areas, covering the majority of the site, windows will be thermal double glazed.
- 21.23 Docklands Light Railway once operational will create a noise corridor adjacent to the alignment. Block facades could be built as close as 15m from the tracks placing the blocks in a noise exposure category C. Similar to road traffic noise, mitigation in the form of single aspect design and acoustic double glazing would be required. If the separation between building block and the DLR increases to 20m then an exposure category of B is achieved in which case ordinary thermal glazing and passive ventilation would be satisfactory. Although the detailed DLR design may include screening to the edge of the tracks this would alter the B and C exposure categories.
- 21.24 In summary, subject to appropriate mitigation measures the impact of noise from traffic, construction, DLR and adjacent industry on the development ranges from a minor adverse impact to a negligible impact.

## **22.0 Air Quality**

- 22.1 The issue of air quality is included as a chapter within the submitted Environmental Statement and an Air Quality Impact Assessment forms a technical appendix to the Environmental Statement. The main air quality issues associated with the scheme are the emission of traffic generated pollutants, dust and emissions during construction and the impact of dust and odour nuisance from local industrial uses and sewage treatment facilities.

- 22.2 At a national level the Environment Act 1995 and Air Quality (England) Regulations 2000 set out the context for protecting and improving air quality. This legislation has established a UK air quality strategy and at local level Councils are required to review and assess air quality and declare an Air Quality Management Area where objective for pollutants are exceeded. Within Air Quality Management Areas local authorities must take account of development which will affect air quality.
- 22.3 National planning policy within PPS23 (Pollution and Planning Control) includes guidance on the issues which may be material in the consideration of planning applications. Such issues include the presence of Air Quality Management Areas and the need for compliance with air quality objectives. London Plan policy 4A.6 (Improving Air Quality) sets out a range of measures for improving air quality to meet air quality standard objectives. Unitary Development Plan policy G39 sets out an aim of reducing air pollution in the Borough.
- 22.4 **Current Baseline Conditions**
- 22.5 The Council has declared an air quality management area for nitrogen dioxide and particulate matter along parts of the A13 trunk road. It is also likely that there will be incidences of nitrogen dioxide exceeding target levels across the Borough but, as yet, no air quality management areas have been declared beyond parts of the A13. None of the industrial uses surrounding the application site are considered to have a significant impact on concentrations of nitrogen dioxide or particulate matter on-site. The majority of these contributions are generated by emissions from road traffic.
- 22.6 Monitoring of existing concentrations of carbon monoxide, benzene and 1,3-butadiene at a number of locations within and adjacent to the site reveal that these pollutants are all below air quality strategy objectives. As noted above baseline concentrations of nitrogen dioxide along the A13 exceed air quality standard objectives whilst roads adjoining the A13, such as Renwick Road, have nitrogen dioxide concentrations marginally below air quality standard objectives. The highest concentrations of particulate matter are again found along the A13 with no exceedence of air quality standard objectives within the application site.
- 22.7 Measurements of deposited dust on-site were undertaken in 2004. Results show the highest deposition rates occurring on the river frontage to the east of the T-jetty. Possible sources of dust for this location include stockpiles of aggregates to the west of the site and motorcycle scrambling tracks. Dust gauges sited close to the RMC Roadstone safeguarded wharf site also reveal deposition of dust as a result of the processing of aggregates. Dust deposition on-site has the potential to cause a nuisance and mitigation is summarised at paragraph 18.18.

22.8 An olfactory (odour) survey was also conducted across the site suggesting that the main source of odour originates from vegetation and mud along the Thames foreshore. However, anecdotal evidence also indicates episodes of odour associated with the Beckton sewage treatment works which impact upon the greater Barking area. There are ongoing discussions with Thames Water regarding this issue involving both the Council and LB Newham with a view to alleviating the problem.

## 22.9 Potential Impacts

22.10 Construction activities on-site have the potential to generate direct dust emissions and emissions from plant and other vehicles.

22.11 The projected timescale for construction on-site is some 20 years and in terms of construction vehicles the maximum level of traffic at any time during this period is estimated to be the year 2010. Approximately half of the construction vehicles at this time would be HGV's. Compared to background concentrations for the year 2010 levels of emissions of nitrogen dioxide, 1,3-butadiene and particulate matter would increase whilst level of carbon monoxide and benzene would remain constant. Predicted concentrations for all of these pollutants are predicted to be below air quality standard objective levels.

22.12 Construction activities would also generate the potential for increased dust associated with demolition of built structures, excavation, earthworks, stockpiles of materials, haul routes and the movement of vehicles and plant. The impact of dust generation obviously decreases further away from the source and therefore, without mitigation, the impact on receptors could range from substantial adverse impacts to negligible impacts. The impact on construction dust will also vary according to the phasing of development across the site.

22.13 Air quality impacts have been assessed for a baseline year of 2001, a no development scenario and a completed development scenario for the year 2025. Modelled concentrations of carbon monoxide, benzene and 1,3-butadiene would not exceed air quality strategy objectives for either scenario. However, there would be a slight increase in all concentrations with the completed development as a result of increases in traffic. Modelling for the year 2010 indicates that the highest concentrations of nitrogen dioxide and particulate matter are located along the A13 for both the no development and with development scenarios. However, on-site there would be no incidences of exceeding the air quality strategy targets for either the with development or without development scenarios.

22.14 By 2025 modelling suggests that both the with and without development scenarios are below air quality strategy objective for nitrogen dioxide and particulate matter. Comparisons between the with

development and without development scenarios suggest a small increase in nitrogen dioxide concentrations but little change in concentrations of particulate matter with the operation of the development. All pollutant concentrations are found to decrease in the with development and without development scenarios comparative to the baseline year mainly due to improvement in vehicle technologies over time.

22.15 However, the generalised assessment indicates a deterioration in ambient air quality due to the increases in traffic flows associated with the development. Nevertheless there are a number of existing properties that will experience a benefit in air quality due to the redistribution of traffic onto other areas of the road network as a result of the development.

#### 22.16 **Mitigation**

22.17 During construction mitigation and abatement measures to reduce impact will be incorporated into a Code of Construction Practice. This Code would cover a number of subject areas including haul routes, demolition, plant, earthworks, excavations, materials handling and cutting etc.

22.18 Based on the completed scheme no specific mitigation is required to reduce the impact of predicted traffic flows on air quality. Based upon the dust monitoring results the potential for dust disturbance would be reduced with the incorporation of a no-build zone 100m from the eastern boundary of the site.

#### 22.19 **Summary**

22.20 The development would have a negligible impact on local air quality particularly with regard to nitrogen dioxide and particulate matter. Although the operation of the development would increase emissions these will be bellows air quality strategy development objectives.

22.21 The potential for dust nuisance has been identified adjacent to the south-eastern corner of the site. However, a 100m wide buffer zone adjacent to this boundary will reduce the impact of dust below levels where a nuisance may be caused.

22.22 An odour assessment conducted by the applicant suggests that there is potential for localised odours associated with the mudflats but that this would be unlikely to cause a nuisance. With regard to odours from sewerage works adjoining the site the odour survey, conducted in December 2003, did not report any problems. The report does however note anecdotal evidence of short-term acute odour episodes from the sewage treatment works. These episodes impact upon the application site as well as a wider geographical area of Barking. The Air Quality Impact Assessment states that remediation to deal with the

issue of sewerage odours fall within the responsibility of the enforcing authority and therefore remediation is not considered as part of the Assessment.

22.23 The issues of periodic odour from the sewage treatment works has implications for Barking Riverside as well as potential development sites further a field in Barking town centre and LB Newham. Meetings have taken place between officers from the Council, LB Newham and LTGDC. The issue of odour from the sewage treatment works raises environmental health as well as planning issues. Powers under environmental health legislation look at the manner in which the treatment plant is currently operated and whether this operation is the best practicable means. There remain outstanding issues as to whether the plant should be upgraded to a higher standard in light of modern technology. The Council's Environmental Health department has proposed the commissioning of an odour consultant to investigate best practicable means and whether wider improvements are required. Dependant upon the results of the consultants report improvements in odour control could be negotiated. However, it is emphasised that the delivery of improvements may be a long term issue.

## **Conclusion**

Barking Riverside is one of the largest brownfield regeneration sites in the Thames Gateway area and offers the opportunity to create a sustainable new community of up to 10,800 new dwellings with a population of some 26,000. The site has been identified as an opportunity area for new housing and planning policies support the principle of a comprehensive residential-led redevelopment. In order to achieve the development of a sustainable community the proposals include provision for employment, leisure facilities, schools, shops and other communal facilities concentrated in neighbourhood centres. A sustainable community requires the creation of distinct, mixed-use neighbourhoods. The master plan as submitted envisages such neighbourhoods centred on a community space providing public services and shopping, each with a different and distinct feel. The master plan also provides substantial areas of public open space.

Whilst the principle of redevelopment is supported it is essential that transport and social infrastructure is delivered in order to support the emerging new community and achieve sustainable development. The full build-out of the site would take some 20 years and this long timescale introduces the need for some flexibility. The planning conditions and heads of terms for the S.106 agreement therefore introduce mechanisms to ensure that the delivery of infrastructure is commensurate with development.

A development of this scale obviously raises a number of significant key issues for consideration which are explored in detail in the report

above. After extensive consultation, negotiation and due consideration of the planning application it is concluded that, after referral to the Mayor of London and Secretary of State, planning permission should be granted subject to the completion of a S.106 agreement and conditions as listed below.

### **Recommendation**

That the Development Control Board is minded to grant planning permission, subject to no direction to the contrary from the Mayor of London and the Secretary of State, and the conditions listed in Schedule 2 below and following the completion of a Section 106 legal agreement. The legal agreement covers the heads of terms referred to in Schedule 1 below. That the Director of Regeneration be authorised to negotiate such an agreement and upon completion to grant planning permission on the basis of the heads of terms and subject to the conditions listed.

### **Reason for Approval**

Strategic Policy D and Policy BR1 of the Barking & Dagenham Unitary Development Plan (1995) identify the Barking Reach (Riverside) site as suitable for residential led comprehensive development with supporting retail, community facilities and open space. The London Plan (2004) also identifies Barking Reach as an opportunity area with the potential to provide 10,000 new homes and new jobs. The principle of residential development with accompanying uses is therefore supported by development plan policy. It is further considered that the proposals as submitted have the potential of creating a high quality sustainable community in a riverside location. The successful development of the site would make a significant contribution towards regeneration within the London Riverside and the wider Thames Gateway area. Subject to the imposition of suitable conditions and requirements within a Section 106 legal agreement to ensure a phased development with provision of necessary transport and social infrastructure commensurate with development, it is considered that the application is acceptable.



**SECTION 106 HEADS OF TERMS**

**ACCESS**

**1.0 Introduction**

- 1.1 BRL acknowledges that the objective of accessible and inclusive development is necessary in modern development.
- 1.2 It is necessary to establish the Barking Riverside Access Forum ("BRAAF") and submit access statements at sub-framework plan stage to achieve excellence at Barking Riverside.

**2.0 Access Strategy, Statements and BRAAF**

- 2.1 An access strategy will be appended to the Section 106 Agreement and access statements will be submitted at each sub-framework plan stage. The strategy will include the role, management and constitution of BRAAF. In broad terms, BRAAF will:
  - 2.1.1 consist of members with experience and skills in the field of access and inclusive design; and
  - 2.1.2 check compliance of the access statements submitted at each sub-framework plan stage with the access strategy, and advise on compliance of reserved matters proposals with the access statement;
  - 2.1.3 assist in resolving disputes where plot developers and the Council differ in their opinion on access issues.
- 2.2 Administrative provisions are as follows:
  - 2.2.1 BRAAF will be formed a minimum of eight weeks prior to the submission of the first sub-framework plan and meet a minimum of six weeks prior to the submission of the first sub framework plan
  - 2.2.2 The chair will lead on discussions, summarise the conclusions of the meeting and within 10 days draft a report for approval by members prior to submission to the Council
  - 2.2.3 Detailed notice of BRAAF's meetings will be circulated at least 20 days in advance of each meeting. By at least 10 days prior to

each meeting, all members will be provided with all necessary supporting documents and details of any intended presentations

2.2.4 Access statements will be submitted to the Council for approval at each Sub-Framework Plan Stage, showing compliance with the access strategy. This access statement will include confirmation of a commitment to the Disabled Person's Transport Advisory Committee standards and CABE guidance on inclusive design. The access strategy and statements will inform future reserved matters applications, which must be consistent with them.

2.2.5 BRL will be obliged to consult with and have regard to BRAF panel and their submissions when submitting Sub-Framework Plans for approval.<sup>1</sup> Plot developers will have to comply with the access strategy and sub-framework plan stage access statements through their obligations in the commercial disposal documents.

### 3.0 **Shopmobility**

3.1 If a need is identified, and the service is demonstrably required, then the BRCDT will fund (in whole or part) a shopmobility<sup>2</sup> service and suitable premises for it in accordance with the Access Forum.

<sup>1</sup> In accordance with paragraph 38 of the GLA stage 1 report

<sup>1</sup> Shopmobility is a requirement of the GLA and one which BRL will commit to. For reference, there are additional BRL obligations that help with access, for example the percentage of homes with full wheelchair access, and these can be found in the other s106 heads of terms/schedules

**SECTION 106 HEADS OF TERMS**

**AFFORDABLE HOUSING AND HOUSING**

**1.0 Amounts**

1.1 Overall, 41% of the habitable rooms across the development will be affordable housing regardless of availability of grant. This excludes any extra care housing. Unless otherwise agreed, affordable housing provision across each Stage shall also average 41% of the habitable rooms but subject to the following parameters:

1.1.1 If in any Stage the percentage of affordable habitable rooms varies from 41% then the degree of variance shall be taken into account and applied when fixing the percentage of affordable habitable rooms for the subsequent Stage(s) so that the aggregate provision of affordable housing across the site is never less than 41%;

1.1.2 In Stage 1 and Stage 2 a minimum of 25% and maximum of 50% habitable rooms are to be affordable housing. These parameters apply to the Zones within those Stages too. In Stage 3 and Stage 4 a minimum of 15% and maximum of 50% habitable rooms are to be affordable housing and these parameters apply to the Zones within these Stages.

1.2 The actual provision of affordable housing in any one Stage or Zone will depend on the viability of provision at the time, subject always to the parameters above and to the requirement that when the development is completed 41% of the habitable rooms will be affordable.

1.3 Of the affordable housing habitable rooms in each Zone, a minimum of 50% shall be social rented unless BRL are able to provide evidence which satisfies the GLA that 50% is unviable when lower provision of social rented habitable rooms can be agreed.

**2.0 Type of Housing**

2.1 The types of affordable housing to be provided will be:

2.1.1 social rented (managed by an Affordable Housing Provider for a minimum of 125 years) and where rent is no higher than target rents set by the Government for housing association and local authority rents); and

- 2.1.2 intermediate housing (managed by an Affordable Housing Provider for a minimum of 125 years) available to people with incomes at a level to be agreed between the Council and BRL prior to commencement of each Stage. Types of intermediate housing will be decided when the Strategy is formulated (see paragraph 7.1).
- 2.2 Within these categories there may be housing for the elderly, if rented, social rented elderly care housing, and otherwise, intermediate housing.
- 3.0 **Specification**
- 3.1 All affordable housing will be built in accordance with the access strategy and subsequent access statements and be built to lifetime homes standards and Housing Corporation Standards (where applicable). 10% of affordable housing units will be wheelchair accessible and BRL are obliged to try and maximise the proportion of this which is social rented.
- 3.2 Affordable housing units will be externally indistinguishable from market housing units.
- 3.3 Affordable Housing Providers will make a minimum contribution to financially assist with disability adaptations to social rented housing.
- 3.4 BRL in conjunction with the Council and the RSL alliance will establish a local housing company, details of this will be set out in the signed S.106. It is expected that this will be the major delivery vehicle.
- 4.0 **Nominations**
- 4.1 Affordable units are to be assigned to prospective residents in accordance with the East London Nominations Protocol.
- 5.0 **Timing**
- 5.1 No more than 75% of market housing in a Zone can be occupied until:
  - 5.1.1 80% of the affordable housing in that Zone has been completed;
  - 5.1.2 the leasehold interest in those units has been assigned to or granted to an affordable housing provider in accordance with the agreed terms;
  - 5.1.3 and satisfactory evidence of such assignment or grant has been provided to the Council.
- 5.2 No more than 99% of market housing in a Zone can be occupied until:

- 5.2.1 100% of the affordable housing in that Zone has been completed;
- 5.2.2 the leasehold interest in those units has been assigned to or granted to an affordable housing provider in accordance with the agreed terms;
- 5.2.3 and satisfactory evidence of such assignment or grant has been provided to the Council.

## 6.0 **Spatial Provision**

- 6.1 The agreement will not set out any clustering restrictions. Spatial provision will be approved by the Council through the Strategy for the Stage concerned.

## 7.0 **Affordable Housing Strategy**

- 7.1 An affordable housing Strategy will set the aspiration for the affordable housing to be delivered over a whole Stage. This will be based on the Council's housing needs survey and demand. The Strategy will also set out practical arrangements for dealing with affordable housing providers. The Council will approve the Strategy before BRL start work on the Stage to which it relates.
- 7.2 An affordable housing Scheme will be submitted to the Council for approval prior to commencement of each Zone. This will set out the actual amounts of affordable housing to be delivered in that Zone based on the need identified in the Strategy covering that Zone, taking into account any subsequent changes in need, and the viability of delivery, subject always to the parameters set out in section 1, above.
- 7.3 As a Stage is built out the level of affordable housing provided on a particular Zone will be recorded so that the amount of affordable housing required on further Zones in that Stage in order to comply with the parameters is tracked.
- 7.4 Every quarter BRL will provide information to the Council stating the number of units completed, the number of occupations in habitable room and unit terms and the number of affordable housing habitable rooms occupied in terms of mix and tenure. There will be a formal annual review to compare progress against the parameters each year.

## 8.0 **Housing Generally**

- 8.1 At least 30% of all housing (for the avoidance of doubt, market housing and affordable housing) will be suitable for family accommodation with 3 or more bedrooms.

## **SECTION 106 HEADS OF TERMS**

### **COMMUNITY DEVELOPMENT TRUST**

#### **1.0 Setting up the Community Development Trust**

- 1.1 The Community Development Trust is to be set up in two phases. An initial shadow company will be set up prior to submission of the first sub framework plan in order that it will be in place before the first of the residential units are occupied.
- 1.2 It is proposed that the Community Development Trust will have 4 directors with voting rights, 2 chosen by Barking Riverside Limited and 2 chosen by the Council. Registered Social Landlord partners and the Urban Development Corporation will be invited to all board meetings to observe or make representations. Other specialists may also be invited to board meetings such as the PCT to observe and make representations. The members of the Community Development Trust will rise to 6 when the sub framework parishes are formed i.e. when each stage of the development is 80% complete. Each parish i.e. one from each stage of the development gets one voting place on the Community Development Trust. Once all four stages are 80% complete and the places on the Community Development Trust are taken by each of the parishes Barking Riverside Limited will leave the Community Development Trust.
- 1.3 A voting system or means of deciding how the parish representatives will be chosen will be agreed with the Council.
- 1.4 There will be an independent non-voting chairman who has a close affiliation with the Borough and ideally with the development, has active experience of engaging in public social enterprise and is a credited upstanding member of the community.
- 1.5 Barking Riverside Limited shall be the sole owner of the shadow Community Development Trust until residential units are occupied. Once each residential unit is sold the purchaser will be given a single share certificate in the Community Development Trust (to be held in escrow until the full Community Development Trust is formed). Each occupant holding a share certificate has a 1/10800th vote and can join the AGM for the Community Development Trust. All of the votes for one stage of the development add up to the one vote allocated for that stage/parish which counts as one of the four resident's votes on the board of the Community Development Trust.

1.6 The suggested role of the Community Development Trust is set out in Appendix iv. The final form of the Community Development Trust will be agreed by BRL and the Council prior to approval of the sub framework plan. These will set out the roles and responsibilities of the Community Development Trust.

1.7 Barking Riverside Limited will set up the shadow Community Development Trust and the full Community Development Trust. Any surplus monies in excess of costs that the Community Development Trust makes will be spent by the Community Development Trust to benefit and develop the community at Barking Riverside.

## 2.0 **Adoption**

2.1 On submission of each Sub Framework Plan Barking Riverside Limited will offer all the open space and roads in that stage for adoption. At the same time BRL will provide details of proposed performance specifications and reasonable rates for maintenance of these spaces. The Council will have three months in which to decide which areas to adopt and to agree the rates and performance specifications for the areas that they wish to adopt. If land is adopted by the Council the parties will agree a commuted sum and if no commuted sum can be agreed then the land will not be adopted by the Council. Any disputes regarding the amount of the reasonable rates for maintenance can be referred to alternative dispute resolution.

2.2 Where the Council choose not to adopt land this will remain in Barking Riverside Limited's ownership until the full Community Development Trust is formed. Once the full Community Development Trust is formed any unadopted open space and roads will be transferred to the Community Development Trust for £1. For unadopted land Barking Riverside Limited must agree with the Council the management specification and a reasonable schedule of rates for maintenance of the area prior to approval of the sub framework plan. The CDT will manage the area using the Council's direct services and the Council will use reasonable endeavours to use local labour to do so.

2.3 BRL and the Council will investigate the possibility of creating a leisure trust to hold any sports facilities and grounds as set in the Play, Sport and Recreation Strategy

2.4 All roads will be constructed to an adoptable construction specification agreed with the Council; although the design may not be in accordance with normal adoptable standards, but all designs will be subject to safety audits and must meet the requirements of safety audits.

## 3.0 **Funding of the Community Development Trust**

3.1 Barking Riverside Limited will underwrite the costs of the Community Development Trust in the early years as per a pre-approved business

plan. Prior to the commencement of the first residential unit the business plan and method of reporting will be agreed with the Council.

- 3.2 At the end of each development year Barking Riverside Limited and the Community Development Trust will review the costs incurred in carrying out the duties of the Community Development Trust and the amount of money remaining in the maintenance account and the works that will be necessary to carry out the duties of the Community Development Trust for the next year. Barking Riverside Limited will then update the income and expenditure estimates in the business plan and the amount of money that Barking Riverside Limited are paying into the maintenance fund will therefore be adjusted to ensure that there are adequate funds in the maintenance fund. The revised business plan will be submitted for Council's approval.
- 3.3 Funds will also be accumulated for reserve items and replacement over time this will form part of the business plan.
- 3.4 At the submission of each Sub Framework Plan stage the business plan for the Community Development Trust will be submitted for that Stage and the overall master business plan for the Community Development Trust will be updated.
- 3.5 At each quarter date the Community Development Trust will issue its accounts to Barking Riverside Limited and to the Council.
- 3.6 The Community Development Trust will collect the monies it needs to carry out its duties as per the business plan. Barking Riverside Limited will ensure that there are provisions in the leases that it grants to dispose of sites that require payment of the various charges to the Community Development Trust.
- 3.7 The full Community Development Trust will be formed once it has sufficient income on an annual basis such that each sub framework plan area is economically sustainable in its own right. Within [30] days of the break even point the shadow Community Development Trust has to say whether it thinks the break even point has been reached and if it disagrees then the matter goes to alternative dispute resolution. Once the decision is made that the break even point has been reached the shadow Community Development Trust has three months to convert into the full Community Development Trust which will take over all responsibility for the ongoing maintenance of the public space from Barking Riverside Limited and Barking Riverside Limited no longer have to support it financially. The break even point is the time when the Community Development Trust is collecting enough revenue to meet all its obligations for the next year. Barking Riverside Limited have also suggested that the Community Development Trust will be self sufficient within the first four years of the development.



- 3.8 The Council can use unexpended funds from the previous development at Barking Reach as a reserve fund for this development for long term maintenance and replacement. These monies are not repayable to Barking Riverside Limited at any point.
- 3.9 Each time a property is sold a small percentage of the sale price will go to the Community Development Trust. This money is intended to go into a reserve fund that will be used for long term replacement and maintenance of any non-adopted public realm.
- 3.10 When each stage of the development is implemented Barking Riverside Limited will start paying monies on a monthly basis as per the projected shortfall in the business plan into a maintenance account.
- 3.11 The new communities on the Barking Riverside development site will be helping to fund the public space on the site through payments that will include estate service charges and an estate tithe, transfer fees and rent from commercial units but will also be paying the normal community charges i.e. council tax to the Council.
- 3.12 All residents that are members of the BRCDT will pay the estate service charge and estate tithe irrespective of tenure and this is taken into account in assessing any affordability.
- 3.13 Subject to details of procurement that will be determined within the energy implementation plan and agreed with the Council prior to the submission of the first sub framework plan there could be income from joint ventures with the utility companies.
- 3.14 There will be a Chief Executive /Director plus a small staff to administer the role and income of the BRCDT

#### 4.0 **Submission of documentation**

- 4.1 Prior to the approval of each Sub Framework Plan Barking Riverside Limited will submit to the Council for its approval the following documents relevant to that stage: the Community Development Trust business plan and strategy (as updated from time to time); the landscape and ecology design guidelines; a proposal for the amount of forward funding; and the community development strategy.
- 4.2 At the end of the first year of development and at the end of each subsequent year Barking Riverside Limited and the Community Development Trust will review the costs incurred and update each of the strategy documents to be submitted with the new sub framework plan for the next stage of the development.

#### 5.0 **Roles and Responsibilities**

- 5.1 BRL are not looking for a higher level of maintenance on the Barking Riverside site than elsewhere in the Borough if the Council is maintaining the open areas and roads.
- 5.2 The Community Development Trust in conjunction with the Council will determine how multi faith buildings are used.
- 5.3 BRL will work with the council to see how at an agreed point in time for the Community Development Trust to start to cover both the existing Barking Reach area and Thamesview and the level of maintenance and services should be consistent throughout the whole area , how this could be done would be a detail set out in the 106 schedule and will evolve over the period of the development.
- 5.4 The Community Development Trust will provide buildings, support and coordinate facilities to encourage social enterprise and social inclusion.
- 5.5 The Community Development Trust will help to ensure public safety and a sense of pride in the Barking Riverside development by encouraging the employment of local residents and support the widening of the Council's Street Warden network within the Barking Riverside area.
- 5.6 The Community Development Trust will seek to ensure that the communities on the Barking Riverside site are IT intelligent by providing the ability for these communities to be connected through a Community Development Trust hub providing on line management services for car clubs, utility billing and estate management. The Community Development Trust will also aim to ensure the provision of on line education and training services and the development of social enterprises supporting the local area.
- 5.7 The Community Development Trust will in conjunction with The Council contribute to the development of the arts and culture strategy and will contribute funding towards the maintenance of any arts activities undertaken or arts features provided.
- 5.8 The Community Development Trust will seek the use of local networks with on site local employment to encourage ownership of the management of the site staying with the local community that will benefit from this. It will consult with and take advice from existing local networks to ensure social cohesion with the Borough's wider objectives.
- 5.9 The Community Development Trust will be proactive in attracting funds by different ways of creating income other than just through estate service charges.
- 5.10 In ensuring maintenance of the open space the Community Development Trust will ensure that the Council contractors adhere to

the Landscape and Ecology Management Plan, the Landscape and Ecology Design Guidelines and the Landscape and Ecology Design Brief.

- 5.11 The Community Development Trust will hold suitable public liability insurance for non-adopted areas within the Barking Riverside site particularly areas open to the public and for special events.
- 5.12 The Community Development Trust will hold and maintain the river jetties and walkways within their existing arrangements within the lease from the PLA and will keep them open to the public at all times.
- 5.13 The Community Development Trust will hold all unadopted play areas including neighbourhood equipped play space, local area play space and local equipped area play space.
- 5.14 The Community Development Trust will participate in the Transport Strategy Steering Group.
- 5.15 The Community Development Trust will comply with the transport strategy.
- 5.16 The Community Development Trust will comply with the Play, Sport and Recreation and landscape strategies.
- 5.17 The Community Development Trust will ensure that the buildings within its control and management are maintained to a high standard and at an appropriate cost particularly community buildings and are open to all members of the public.
- 5.18 The Community Development Trust will fund the provision of local Street Wardens
- 5.19 The Community Development Trust will manage its own finances and expenditure.
- 5.20 The Community Development Trust will develop sound and robust business plans and ensure that those business plans factor in its roles and responsibilities.
- 5.21 The Community Development Trust will act as trustee of both the maintenance and sinking funds on behalf of Barking Riverside Limited and manage those accounts in accordance with the s106 agreement.
- 5.22 The Community Development Trust will adopt and follow its constitutional objects.
- 5.23 The Community Development Trust will comply with all obligations falling to it under the planning permission and s106 agreement.

- 5.24 As the Community Development Trust builds up over time it will develop a reserve/sinking fund for local repairs but will also be able to fund from the reserve/sinking fund the costs of landscape management and maintenance.
- 5.25 The Community Development Trust can enter into joint ventures with housing companies to generate dividends which they will share.
- 5.26 Rents from commercial buildings will be collected by the Community Development Trust. Either the Community Development Trust itself will be the landlord and retain the commercial rent to support itself or where there is a different landlord the Community Development Trust can collect the rent and charge a fee for this to the landlord.
- 5.27 Buildings for community use will be leased to the Community Development Trust on terms that require the Community Development Trust to submit a business plan to Barking Riverside Limited that shows that it can afford to run the building for the proposed use for the period of the lease. If the user can no longer use the building to benefit the public and support the original business case then the building reverts back to the Community Development Trust to be re-let to an alternative user.

## SECTION 106 HEADS OF TERMS

### DESIGN

#### 1.0 Introduction

- 1.1 BRL acknowledges that the strategic and geographic importance of the development demands a high standard of design throughout the development.
- 1.2 It is necessary to establish the design panel and identify the urban design guidelines as principal foundations of the process to achieve excellence at Barking Riverside.

#### 2.0 Urban Design Guidelines

- 2.1 The urban design guidelines have a critical role to play in the development control aspects of the development for the life of the development, and so the Section 106 Agreement must have a mechanism within it to ensure consistent application of those principles. This mechanism is by way of establishing the design panel and requiring that design codes submitted at the sub framework plan stage are in accordance with the urban design guidelines.
- 2.2 The urban design guidelines will be further detailed and improved at each sub-framework plan stage through the production of design codes to apply to each of the Stages on the site.
- 2.3 The design codes will address the relationship of the development to the surrounding areas. There will be clarity about the extent and configuration of interface and integration both within the site and with the surrounding areas of the site.<sup>3</sup>

#### 3.0 Design Panel

- 3.1 The design panel will have a critical role to play in the development control aspects of the development for the life of the development. The panel is the way in which the consistent application of agreed design principles are maintained.
- 3.2 The design panel will be formed ahead of final settlement of the brief for the first sub-framework plan. It shall consist of members of BRL and the Council, together with representatives of CABE, the London Thames Gateway Urban Development Corporation, the GLA, Architecture and Urbanism Unit and Design for London. The original

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<sup>3</sup> In accordance with paragraph 26 of the GLA stage 1 report

master-planner Rients Diestra of Maxwan will be invited to sit on the panel at each meeting as well. The design panel will include up to two qualified specialists with practical working experience in construction ,development , design, architecture or other appropriate industry trades to sit on the panel.

- 3.3 Each meeting of the design panel shall be chaired by a different member on a rotating basis, in accordance with the panel's terms of reference. The functions of the panel shall include:
  - 3.3.1 providing co-ordinated design advice prior to each sub-framework plan stage, having regard to the various internal and external development boundaries to ensure total integration in design terms;
  - 3.3.2 participating in the judging of any design competitions held in respect of individual buildings;
  - 3.3.3 advising as to the constitution of such competitions; and
  - 3.3.4 having an ongoing advisory role, seeking to ensure that the future reserved matters development attains consistency with the detailed design codes into which they had input at sub-framework plan stage.
- 3.4 The Section 106 Agreement will set out the terms of reference of the design panel<sup>4</sup>. The terms of reference will include the frequency of meetings, the documents to be supplied to the panel and the periods for the panel to respond.
- 3.5 BRL will be obliged to consult with and have regard to the design panel and their submissions when submitting sub-framework plans, particularly the design code, for approval<sup>5</sup> and in setting up and judging competitions.
- 3.6 Plot developers will have to comply with the detailed design codes established at sub-framework plan stage both through the s106 agreement and through their obligations in the commercial disposal documents.

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<sup>4</sup> In accordance with paragraph 28 of the GLA stage 1 report

<sup>5</sup> In accordance with paragraph 30 of the GLA stage 1 report

## **SECTION 106 HEADS OF TERMS**

### **EDUCATION**

#### **1.0 Key Triggers**

- 1.1 No more than 500 residential units can be occupied until the construction of the 1st primary school of up to 3FE has commenced in a location within the first neighbourhood centre to be agreed with the Council.
- 1.2 A trigger will be fixed by the Education Implementation Plan (“EIP”) EIP for provision of the second primary school of up to 3FE and construction cannot proceed beyond this trigger until the second primary school is provided. It will be in a location within the second neighbourhood centre to be agreed with the Council.
- 1.3 A trigger will be fixed by the EIP for provision of the third primary school of up to 3FE and construction cannot proceed beyond this trigger until the third primary school is provided. It will be in a location within the second local centre to be agreed with the Council.
- 1.4 A trigger will be fixed by the EIP for provision of the fourth primary school of up to 3FE and construction cannot proceed beyond this trigger until the fourth primary school is provided. It will be in a location to be agreed with the Council on site or offsite if the Council request at their sole discretion.
- 1.5 No more than 1500 residential units can be occupied until a temporary (up to 4FE) secondary school with appropriate playing fields for a school of that size has been provided on a site in a location within the district centre to be agreed with the Council. The site must be not less than 15,000 sq m. The temporary secondary school premises must be capable of being converted from secondary school use to primary school use (for the 2nd primary school) at the appropriate time.
- 1.6 A trigger will be fixed by the EIP for the provision of the final up to 8FE secondary school and construction cannot proceed beyond this point until the final secondary school has been provided in a location to be agreed with the Council. The size of the final secondary school will be agreed with the Council acting reasonably and fixed by reference to the EIP.
- 1.7 If the 2nd primary school is needed at the same time as the temporary secondary school (i.e. on the same site) then either a through school will be provided for both primary and secondary education on that site, or temporary primary facilities will be provided separately either on the

same site or in nearby buildings until the temporary secondary school is moved to the final secondary school site. If required BRL will provide additional space as required to accommodate both schools on the same site or an adjacent site at the same time.

- 1.8 There will be a need for children's centres which will be provided as part of one or more of the primary schools (within the agreed floorspace for that school) and will be built out in accordance with current legislation governing children's centres. The number of children's centres required will be determined by the EIP. Whether or not a children's centre is needed in a primary school is to be considered and agreed with the Council when the design brief for each primary school is considered.

## 2.0 **Specification**

- 2.1 For each primary school BRL will provide a remediated and serviced plot of not less than 15,000 sq.m. which includes adequate space for a building for up to a 3FE primary school (the size of the school will be agreed with the Council acting reasonably and fixed by reference to the EIP) and a children's centre and includes 5,000 sq.m. of grass space adequate in size to incorporate 2 junior football pitches or 3G astro turf, and adequate hard play space for the size of the particular primary school details and specification of which will be in accordance with the Play, Sport and Recreation Strategy.

- 2.2 For the final secondary school BRL will provide a remediated and serviced plot of a sufficient size to accommodate 54,633 sq.m. of playing fields in addition to adequate space for a building of up to 17,500 sq.m. for up to an 8FE secondary school (the size of the school will be agreed with the Council acting reasonably and fixed by reference to the EIP) with shared public facilities to include a public library, adequate circulation space, playing fields and open space.

- 2.3 The school sports grounds will not belong to the school but will be owned by the Community Development Trust or the Leisure Trust if the parties choose to create one.

## 3.0 **Dual Use**

- 3.1 The pitches and hard courts (including any associated changing facilities) at the schools will be available for use by Barking Riverside residents and their children living in the community when they are not needed by the school. This is subject to payment for this use by the members of the public who use it, such payments to be used to contribute towards the maintenance costs of the facilities.

## 4.0 **Education Implementation Plan**



- 4.1 The approved EIP will be appended to the s106 agreement. With the exception of the first primary school and the temporary secondary schools, the EIP determines when the various schools will need to be provided on the site.
- 4.2 The EIP is updated annually by BRL for approval by the Council (any dispute goes to agreed dispute resolution (ADR)) and used to monitor pupil numbers on site and predict new pupil numbers according to build schedules and the child yield model. Existing and predicted pupil numbers, capacity in existing on site schools and at Thames View Junior and Infants school and the location of schools and housing on the site and any statutory or Government requirements / guidelines will be considered when the Council sets the trigger for the provision of the next school.
- 4.3 The decision on where the new school premises shall be located shall be assessed at each of the 4 Sub Framework Plan Stages. At the sub framework plan stage the land for the school in that stage will be identified and reserved for use for that school. The school will then be built on that land in accordance with the trigger fixed by the EIP so each school is available when it is needed.
- 4.4 On each quarter date, BRL will submit a report to the Council setting out completions and sales figures for each zone, a forecast on the likely numbers of pupils BRL for each zone up until the later of the 3rd anniversary of the building phase in the last Sub Framework Plan Stage or the completion of the Development.
- 4.5 The Council will monitor pupil numbers at schools every October and January and supply the October data by the following December and the January data by the following March to BRL.
- 5.0 **Procurement of the Schools**
- 5.1 The Council and BRL will work in partnership to secure the procurement of each of the schools by or before a trigger is reached. They will agree a design brief for the school, agree an architect procurement/design competition process, including tender process, lists of architects, jointly appoint the chosen architect, agree the school promoter, agree a construction and procurement programme, enter into a contract to procure the school, jointly lodge the planning application for the school premises.
- 5.2 BRL will fund the planning application for each of the local centres which will include a school(s) and the children's centre if required.
- 5.3 BRL will provide the school sites on 999 year leases at no cost to the Council. Terms of the lease to be appended to the s106 agreement.

- 5.4 Where a LEP has been established BRL will work with the LEP to provide any of the schools.
- 6.0 **Reversion**
- 6.1 The lease terms will deal with any reversionary principles, but reversion of a school will only take place in very limited circumstances (for example if a school which has been used and becomes vacant because of falling school rolls and remains vacant for two consecutive years subject to the annual review of the EIP). Any unused building and the land on which the school is situated will be transferred to the BRC DT at no cost. It will then only be used by the BRC DT for social or community uses subject to obtaining any necessary planning permission(s).

## **Appendix to Education Schedule 106:**

### **Education Delivery Implementation Plan**

#### **1.0 Introduction**

- 1.1 Barking Riverside Limited's ("BRL") vision for education needs within the new community is one of the development's fundamental foundations to ensure a self supporting community that continues to raise standards. This can be achieved if the approach to design is integrated in a holistic way with the community it serves.
- 1.2 BRL will not only provide at its own cost the infrastructure and serviced land for schools to be constructed, it will integrate school design to ensure that educational needs are part of the community. BRL recognises this is best achieved in partnership with the Council as the education authority.

#### **2.0 Design**

##### **2.1 Submission of Details**

- 2.1.1 The detailed design for location of the schools will be provided on the submission of each sub framework plan supported and justified by a completed study of the plan monitor and review section covered later in this document.
- 2.1.2 The design of the school buildings should seek to reflect the following two issues to contribute to a sustainable community:
- (i) the role of the school within its community and neighbourhood; and
  - (ii) the role of the school in terms of teaching excellence.

Both are dealt with in more detail below.

##### **2.2 The Role of the School Within its Community and Neighbourhood**

- 2.2.1 The broad locations of the first two primary and secondary schools are fixed within the outline planning application. Their site selection has been influenced by the locations of important transport and environmental hubs to give easy and qualitative access to all.
- 2.2.2 These locations also give rise to more associated opportunities around the school which will help to support and sustain small businesses and other community facilities for all age groups. This leaves the way forward to actively encourage extended schools with some shared facilities to ensure school buildings are a part of the community. It is,

however, recognised that multi-use schools with shared facilities require forward thinking in terms of innovative design and management with appropriate controls on access so not to interfere with the proper day to day running of the school.

2.2.3 With multiple schools in what is a relatively short distance it also important to recognise choice and different needs by offering variety in design concepts.

2.2.4 When considering design thought should be given to each school having its clear identity in terms of environmental and urban space.

2.2.5 Innovative use of play space should be considered giving different environments and possibly looking at using adjoining environmental zones within the site's wealth of open space. Associated issues including security, timetabling, sizes and access will be considered at the sub-framework plan stage and in line with the child play strategy.

### **2.3 The Role of the School in Terms of Teaching Excellence**

2.3.1 BRL supports the priority of the London Borough of Barking and Dagenham ("the Council") as local education authority in continuing to build on its borough wide education strategy that has earned the Council Beacon Status for transforming secondary education in 2003/2004. This strategy has been achieved by ensuring that the schools maintain a high standard of pedagogical leadership. BRL recognises that the Council has a good record on pedagogical innovation in both the primary and secondary phases, in full partnership with schools.

2.3.2 Pedagogy is the key link between buildings and standards. The word is helpful because it has a wider meaning than simply teaching and learning. Pedagogy encompasses the performance of teaching together with the theories, beliefs, policies, controversies and spatial forms that inform and shape it. It connects the apparently self-contained act of teaching with culture, structure, mechanisms of social control and the physical context/built environment in which the teaching occurs.

2.3.3 School buildings should support a resilient and flexible pedagogical framework with continuing pedagogical leadership and innovation. They are important to the success of the changes in teaching and learning which are under way and planned for the future.

2.3.4 If school buildings are to support improvements to pedagogy they should aim to have:

1. classrooms that can accommodate interactive whole-class teaching/ teaching through dialogue. This form of teaching and learning is, as it were, the default mode – the mode which

maximizes access to one of the most important education tools, the able, knowledgeable teacher;

2. the flexibility to accommodate other pedagogical arrangements at small group, pairs and individual level;
3. ICT facilities that can be used effectively in whole-class episodes as well as the other configurations (e.g. pairs or individual stations) in which it is used at present;
4. excellent acoustics which support effective speaking and listening;
5. spaces which enable pupils and students to be cared for, guided and supported effectively, both in the classroom and elsewhere;
6. an overall design which maximizes the effectiveness of support staff in the new workforce remodelling agenda;
7. the capacity to become effective full-service schools which:  
  
maximise the support of external agencies and the Council departments to the aims and objectives of each school; and  
  
maximise the contribution of education and learning to the work of other agencies and departments of the Council;
8. excellent specialist facilities e.g. in science, music, design and technology etc;
9. plans which maximise teacher and learning efficiency through minimising movement around the school;
10. spaces which enable pupils' attitudes, values and other personal qualities to be developed to the full;
11. design which promotes and supports inclusion.

2.3.5 Section 4 deals with the delivery mechanisms for education provision together with the procedure for undertaking the design stages and associated funding applications.

### 3.0 **Planning, Monitoring and Reviewing the Need for Education Provision**

#### 3.1 **Objective**

3.1.1 One important objective of the education delivery strategy is to predict the likely need for school places by monitoring and reviewing actual pupil numbers in the schools already on the site and the numbers of

pupils produced by each occupied residential unit on site taking account of the current Child Yield Model to update predictions as to when schools will be needed.

- 3.1.2 The London Borough of Barking and Dagenham Education and English Partnerships , Education Planning Research Study developed a methodology for the assessment of child yield from developments in the Borough and applied this to data for planned developments including Barking Riverside. The assessment uses data on units by size (bedrooms), type (houses or flats) and tenure (social, intermediate and private) to identify the likely child product by unit.
- 3.1.3 The study identified a total likely demand for primary school places of 2,480 and for secondary school places of 2,230 for the development as a whole over a twenty year period (to 2025). This is likely to translate into fewer actual school places at any one time as the development matures and the number of children living in the earlier phases falls. In the long term this could reduce overall demand by 25%.
- 3.1.4 The report concluded that the anticipated level of demand could be achieved by:
1. the extension or re-development of Thames View school to provide an additional form of entry;
  2. the provision of a 3 form entry primary in the western zone of the site;
  3. the provision of a 3 form entry primary in the eastern zone of the site;
  4. the provision of up to 6 additional forms of entry – through a reserve site and/or co-location on the secondary school site.
- 3.1.5 Given the length of the development period and inevitable uncertainties over the timing and phasing of the housing developments, it is important for BRL and the Council to agree a process of child yield monitoring and the consequential review of triggers to ensure that school provision is planned effectively and in place as new homes are occupied.
- 3.1.6 The current outline application in terms of timing and unit breakdowns is likely to vary to some extent from the original assumptions to reflect markets as changing markets evolve. Table 1, below, identifies each of the development plots and the anticipated child yield by education phase for each plot.
- 3.1.7 Table 1 should be updated to reflect the actual numbers of young people occupying new properties both for completed and projected phases. BRL will be required to submit a school places demand report

with each additional development zone identifying, on the basis of previous monitoring of occupation and current capacity data, the net additional demand created by that phase

Table 1: Benchmark Indicative Child Yield by zone

Plot	Area	Child Yield	
		Primary	Secondary
1.21	East	254	228
1.22	East	269	241
1.23	East	33	29
1.31	East	193	174
1.32	East	126	113
1.33	East	372	334
2.11	West	142	127
2.12	West	22	20
2.21	West	62	56
2.22	West	212	190
2.23	West	10	9
2.31	West	-	0
3.11	Riverside	452	407
3.12	Riverside	333	300

#### 4.0 Education Provision

##### 4.1 Provision for Primary School Places

- 4.1.1 In line with the submission of sub framework plans for approval, detailed applications for new schools will also be required where there is a school within that sub framework plan. The intention will then be for BRL to monitor all new residents housed in the development to identify - inter alia – the number of children housed in the development, their ages and their previous (if joining the new school) or current place of education, and compare education need to the original benchmark position and assumptions.
- 4.1.2 BRL and the Council will also, in the context of monitoring data, review the anticipated overall demand for primary school places and therefore total forms of entry required. This monitoring will include a review of any existing capacity off-site when assessing child demand; equally the monitoring will take access by walking no longer than ten minutes into account.
- 4.1.3 After construction of the first two primary schools on the site, the need for all future primary schools spaces will be judged against the actual

outcomes of child yield monitoring and the occupancy of new school provision. .

## 4.2 Provision for Secondary School Places

4.2.1 Secondary school provision for Barking Riverside will be far less self-contained. In the early phases, Barking Riverside residents will be seeking secondary educational needs elsewhere in the Borough. Consequently the triggers for the provision of a secondary school will need to take place in the context of overall secondary school planning for the Borough.

1. At a fixed trigger, BRL and the Council shall apply the Child Yield Model, monitor and review process to assess the size requirements for the new school which needs to reflect the Borough-wide demand for places;
2. the potential revenue risk to the Council of running a secondary school at below capacity; and
3. the risk of adding to surplus places.

## 4.3 Design and Funding Process

4.3.1 The Council and BRL have agreed to work in good faith by working in partnership to secure additional public funding for the necessary education provision associated with the Barking Riverside development. The process can be summarised as:

### *Planning application(s)*

- 4.3.1.1 The first two primary schools and the secondary school fall within the outline planning permission for the development, but each school requires separate stand-alone detail reserved matters approval. The third and fourth primary school (if their need is identified by the education delivery strategy) will require separate stand-alone full planning permissions outside the outline planning permission for the Barking Riverside development.
- 4.3.1.2 During each part of the planning process for each individual school, the planning application will be submitted in the joint names of the Council as local education authority and BRL as developer. BRL will pay any proper applicable application fee - if the school forms part of a mixed use building then each user may be asked to pay a proportion of the application fee commensurate to their take up of the mixed use building.



### *Design - objectives*

- 4.3.1.3 The design for each school will be agreed between the Council and BRL within a partnership arrangement with the principal aims being:
- (a) to achieve the design aspirations set out in section 2 of this education delivery strategy;
  - (b) to be in accordance with the urban design guidelines and the child play strategy approved by the Council
  - (c) to secure delivery of school provision on time in order to meet the triggers and requirements of the associated planning obligations set out in the legal Section 106 Agreement and the planning conditions attached to the outline planning permission for the Barking Riverside development;
  - (d) at all times to be in accordance with the energy and sustainability strategy for the development as a whole and the child play strategy
  - (e) to encourage cross subsidies through the appropriate use of by mixed use buildings incorporating commercial and/or residential use(s) to capture cross subsidised building space and reducing the need for capital funding for education

### *Design - process*

- 4.3.1.4 The anticipated application process will mean :
- (a) BRL/and the Council procure a design brief that incorporates the design objectives set out above;
  - (b) BRL and the Council draw up a business plan;
  - (c) both the business plan and the design brief are sent out to competitive bidders as part of a tender process, the prize being the award of the design contract;
  - (d) a successful bidder is chosen by BRL and the Council (representative of the Director of Children's Services) with the outputs being built into the relevant sub framework masterplan approval .

4.3.1.5 All parties will commit to ensuring the process is well advanced prior to submission of sub framework plans

*Funding*

4.3.1.6 the Council and BRL will actively work together using their business plan and whatever other means to procure funding.

4.3.1.7 the Council recognises that BRL has not allowed for funding schools within their overall infrastructure provision. Equally BRL recognises that sustainable communities cannot be constructed without education provision to match the needs of the development in terms of child growth. These two factors mean that the Council and BRL will work closely together to deliver the needed education facilities at the appropriate times. BRL is also committed to:

- (a) provision of serviced land/building space to accommodate the necessary school provision to meet the needs of the development as the development is built out;
- (b) procuring the design competition process (above); and
- (c) assisting and working with the Council in its application to central government and its agencies for education funds.

4.3.1.8 the Council with BRLs assistance will work in good faith to apply for central government for education funds in order to pay for the education provision that meets the needs of the Barking Riverside development. BRL's contribution to the funding mechanism will be by way of them setting up and procuring the design brief, design competition and business plan, , planning applications and implementing the outputs within the relevant sub framework masterplan, all of which will demonstrate the need and commitment to education provision at appropriate trigger events. The Council will recognise the developers programme to deliver the overall development and demonstrate a level of commitment to those within the Council lobbying for central government funds.

**SECTION 106 HEADS OF TERMS**

**ENERGY AND SUSTAINABILITY**

**1.0 Energy Strategy**

- 1.1 BRL is committed to the principles of energy efficiency and sustainable development in bringing forward this development. As such, an energy and sustainability strategy for the whole site will be appended to the Section 106 Agreement demonstrating the development's delivery of these principles throughout the lifetime of the development. It sets out targets for reducing carbon emissions and providing renewable energy with suggested ways of achieving those targets, together with a method of sustainable benchmarking that ensures each plot developer improves on sustainability standard's in the built form.
- 1.2 The methods suggested in the energy and sustainability strategy are options for achieving reduced carbon emissions. The targets included in the strategy will set out the reductions in emissions and the amount of renewable energy which should be achieved at certain points in the development.
- 1.3 BRL will be obliged under the Section 106 Agreement to use reasonable endeavours to fulfil, observe and enable achievement of the energy and sustainability strategy, save for the targets which must be achieved.

**2.0 Energy Panel**

- 2.1 The Section 106 Agreement will require BRL to set up an energy panel comprising of 5 members (BRL, the Thames Gateway Urban Development Corporation, the Council, the GLA and BRE). The Section 106 Agreement will also set out the broad terms of reference for the panel.<sup>6</sup>
- 2.2 The panel will draft the invitation to tender notice and participate in the selection of the company to deliver the implementation plan. The main criteria for selecting the company will be (in no order of priority): ability to deliver the energy strategy; the company's aspiration and ability to reduce carbon emissions and commercial viability. BRL will appoint the company. The energy panel will advise the company in helping them to deliver the implementation plan.

**3.0 Implementation Plan**

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<sup>6</sup> This is in accordance with the comments at para 59 of the GLA stage 1 report

- 3.1 There will be an implementation plan which will build on the energy and sustainability strategy. It will encompass the commercial arrangements with the company which will deliver energy for the development.
- 3.2 The implementation plan will be approved by the Council prior to implementation on the site. Approval will be given if the implementation plan fulfils the energy strategy. The plan will be implemented prior to the first occupation.
- 3.3 In-use reports prepared by an independent consultant, detailing how the implementation plan is being put in place and how the community are being encouraged to reduce carbon emissions, will be submitted to the BRCDT prior to occupation of 2,000, 4,000, 6,000, 8,000 and 10,000 units.

#### 4.0 **Sustainability Benchmarking**

- 4.1 There will be a sustainability benchmarks assessment document. This will set out various objectives with a score, 'C', 'B' or 'A' (some objectives may not have an 'A' standard, in which case the scoring is adjusted accordingly). As part of the discharge of reserved matters each plot developer will be required to complete the sustainable benchmark assessment document and achieve a minimum of the set overall score.
- 4.2 Each of the 'A', 'B' and 'C' criteria will attract a score. Achieving the objective with a 'C' rating, the minimum threshold, will attract a lower score than the 'B' and 'A' (if there is one) scores. The 'A' (if there is one), 'B' and 'C' scores for each of the criteria in the sustainability benchmarks assessment document have explanations of what must be done in order to achieve that score. Each of the criteria in the document have a weighting. The weighting will affect the score achieved because achieving a, say, 'A' for criteria with more weight will contribute more towards the minimum overall score than an 'A' for which there is less weighting.
- 4.3 As mentioned in paragraph 4.1, the plot developers will submit as a reserved matter application a document demonstrating how the sustainability benchmarks apply to the development. This will need to show that a minimum of the overall score of 60% will be achieved to discharge their obligation to both the Council (via the Section 106 Agreement) and to BRL (via the disposal the disposal documentation).
- 4.4 An independent assessor (for BRE or NHBC or another approved assessment body) will have checked the tool at desktop to ensure that it achieves at least the overall score. The Council will be sent confirmation from the independent assessor which confirms this. The development will be implemented and constructed so that the overall score is achieved.

- 4.5 The benchmarks document will be reviewed prior to occupation of 2000, 4,000, 6,000, 8,000 and 10,000 units .
- 4.6 The review will look at the weighting accorded to each objective. If the weighting is no longer appropriate it will be altered to reflect what is considered the highest priority at the time. For example, if water conservation becomes a higher priority than security and crime (due to earlier good practice reducing the risks of crime) , more weight will be accorded to water objectives to encourage developers to pursue water conservation as a way of achieving the overall score.
- 4.7 At the review, any adopted alteration to the adopted London Plan which exceeds the standards set out in the 'C' category will be imported into the benchmarks.<sup>7</sup> This means that achieving the 'C' score will require doing what is required pursuant to the current adopted London Plan. In that case categories 'B' and 'A' (if there is one) will then also be increased so they always exceed category 'C', and 'A' (if there is one) is always the most difficult to achieve.

## 5.0 **Compliance**

- 5.1 When a group of up to 200 units are practically complete and before occupation of any of those units, the developer of that group informs the inspecting body (BRE or NHBC) who will inspect a random 5% sample of that group of units. If, according to the inspection, the plot developer has constructed the unit(s) in accordance with the sustainability benchmark assessment document then it has discharged the requirement to achieve at least the overall score. The BRE or NHBC will then issue a compliance certificate, and all of the units within that inspected tranche will be released for occupation. This process of desktop and field assessment is similar to the ecohomes assessment.
- 5.2 If a unit fails the inspection:
- (a) All other units constructed by that plot developer will be inspected unless already occupied; or
  - (b) If the minimum overall score can be achieved by adding to that unit or other units (as opposed to removing items or materials from the unit which exacerbates the failure by being further unsustainable) the plot developer is to rectify the failure; or
  - (c) If the minimum overall score cannot be achieved by the plot developer by adding to their units the plot developer is to mitigate the failure through carbon offsetting (see below)

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<sup>7</sup> This is commended by the GLA (para 53 stage 1 report)

Carbon offsetting works by the plot developer contributing to a fund held by the BRCDT for installing renewable energy on the site. The amount of contribution is calculated by the cost of providing photovoltaics to make the plot developer's unit or units achieve the overall score in whole percentage points.

## **SECTION 106 HEADS OF TERMS**

### **LOCAL EMPLOYMENT**

#### **1.0 Introduction**

- 1.1 BRL acknowledges the Council's aspirations to provide enhanced employment and training opportunities to residents in the borough.
- 1.2 The Council requires that the Section 106 Agreement is used as an instrument to further these aspirations as they may be relevant to the development insofar as the law will allow.
- 1.3 To enable continuity for the Council's aspirations, a local employment and business co-ordinator will work with the Council, BRL and others.

#### **2.0 General**

- 2.1 Prior to implementation a 'Local Employment and Business Co-ordinator' will be funded by BRL, who shall attend meetings convened by the Council's Skills, Learning & Enterprise Division (SLE Division) in order to establish and maintain regular contact with all relevant training providers and employment agencies, and business support and enterprise agencies in the borough. In addition the Co-ordinator shall organise a local forum of local businesses and local residents' parties to enable an information exchange and consultation process to be established.
- 2.2 The Co-ordinator will be employed during construction and following completion of the development and will co-ordinate and ensure delivery of the obligations under the Section 106 Agreement insofar as they relate to the Non-construction activity alone. The Co-ordinator will also have a role in ensuring that at each Sub-Framework Plan Stage the employment strategy is supplied.
- 2.3 The Employment Strategy will be appended to the Section 106 Agreement and submitted at each Sub-Framework Plan Stage, in consultation with the LDA and SLE Division.

#### **3.0 On Construction Related Activity**

- 3.1 To set aside temporary accommodation on a lease basis (with no rent charge) within the construction compound/accommodation for construction activities on the site in a visible part of the construction compound to be agreed with the SLE Division on which a skills centre for training can be placed during the construction period and which will only be available for employment purposes.

- 3.2 Each Zonal Developer will be obliged to<sup>8</sup>:
- 3.2.1 provide its construction programme when submitting reserved matters and use reasonable endeavours to ensure that 25% of the construction weeks (1 construction week = employment for a person for 30 or more hours a week excluding breaks) for building out the Development employ Local Residents (defined as those living in Barking and Dagenham, postcodes to be specified in section 106) (and in this context reasonable endeavours shall include the offer of employment to Local residents but it is recognised that the Zonal Developer cannot force a Local Resident to take up the offer of employment);
  - 3.2.2 (when vacancies arise as part of the active construction of the development) notify the Council's SLE Division or its nominated agent and allow a period of 5 working days before other advertisements to fill the vacancies are issued unless compliance with this obligation would risk major disruption for the project or part of it;
  - 3.2.3 to place adverts in the local press when advertisements for job vacancies and contract opportunities are issued;
  - 3.2.4 to record by way of postcodes their own employees commute and provide BRL who in turn will provide the Council's SLE Division with that data (insofar as they are able under the Data Protection Act 1998);
  - 3.2.5 to use reasonable endeavours to provide adequate opportunities on the Site for work experience placements for local residents at schools and other educational establishments;
  - 3.2.6 to provide work placements for trainees from local colleges of LEA provision and permit reasonable access to mentors for assessment purposes provided that where these are paid placements they will contribute to the construction weeks target; and
  - 3.2.7 to use reasonable endeavours to provide adequate opportunities for local companies to supply the development, with zonal developers and their contractors providing the SLE Division with information on contract opportunities and by attending 'Meet the Buyer' Events organised by the SLE Division
- 3.3 BRL will submit a completed monitoring form substantially in accordance with the form attached as Annex 1 at the end of each month during which construction has taken place on Site

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<sup>8</sup> See paragraphs 107 - 110 of the GLA stage 1 report



#### **4.0 Ongoing community employment Activity**

- 4.1 To set aside desk space within community a community building in a local centre (built as part of the development) for training opportunities.
- 4.2 BRL will make a local employment contribution per residential unit of £100 payable quarterly in arrears (apart from the first payment which is payable in advance using anticipated sales figures, to be balanced with the actual sales figures at the next quarter), after the plots have been disposed of to Zonal developers, to the SLE Division. The SLE Division then, accounting publicly for these funds, in consultation with BRL and the BRCDT will distribute the funds only for bespoke employment training for local residents in order that they are suitably skilled for the employment opportunities generated by the BRCDT and its contractors in accordance with 2.2 of this Heads of Terms.
- 4.3 BRL will ensure that the Local Employment and Business Coordinator liaises with the SLE Division with the aim of maximising the opportunities for employment available at that unit to Local Residents and uses reasonable endeavours to publicise job opportunities in accordance with advice from the Council.

#### **5.0 Council's Covenants**

- 5.1 To use the information provided by the Local Employment and Business Co-ordinator and the Local Employment Contribution only for all or any of the following purposes deemed appropriate and to use reasonable endeavours:
  - 5.1.1 Through its designated agents, provide vocational training to give Local Residents the opportunity to gain the skills and/or qualifications needed to access job vacancies during construction of the Development
  - 5.1.2 Through its designated agents, provide skills training to enable Local Residents to access higher level jobs resulting from the Development
  - 5.1.3 Through its designated agents, to provide apprenticeships and other vocational training for young people needed to progress in construction trades, including the development of curriculum activities in local schools;
  - 5.1.4 With Jobcentre Plus, establish a dedicated recruitment office on the Site
  - 5.1.5 Monitor the effectiveness of the measures; and

- 5.1.6 Provide any other training of support determined by the SLE Division to be required for Local Residents to access and retain employment arising from the Development.
- 5.2 That when the SLE Division or nominated agent receives notification of employment vacancies at the Site it will notify local training providers and job brokerages by the end of the next working day when the SLE Division or nominated agent notifies of any jobs.
- 5.3 To arrange and attend meetings with BRL to discuss how local employment objectives can be achieved and notify BRL of the date and time of the meeting at least 1 (one) week before the meeting is to be held such meetings to be held no more frequently than monthly for the first 6 (six) months following the date of this Agreement and 4 (four) times a year thereafter.
- 5.4 To organise Meet the Buyer Events so that BRL, zonal developers and their contractors can meet local suppliers and promote supply chain opportunities.
- 5.5 To ensure that the SLE Division spends the Local Employment Contribution in accordance with paragraph 4.2 and to repay any surplus or unexpended sums (save for committed sums) within 12 months of receipt otherwise any money will be returned to BRCDT.

## **SECTION 106 HEADS OF TERMS**

### **NEIGHBOURHOOD CENTRES**

#### **1.0 General**

1.1 BRL will masterplan 4 neighbourhood centres within the Site. In the material supporting the outline planning application these 4 centres are referred to as:

- The Local Centre
- The District Centre
- Eye Square
- Riverside Plaza

#### **2.0 When and Where?**

2.1 BRL will build out Stages<sup>9</sup> 1 and 2 of the development concurrently and can only commence construction of Stage 3 when Stage 1 is complete and can only commence construction of Stage 4 when Stage 2 is complete.

2.2 Each of the neighbourhood centres will be built out as and when occupations reach a certain milestone<sup>10</sup> but for good planning and construction reasons each centre's own build out programme and the uses within will need to be programmed. Essentially the 4 neighbourhood centres will be built out as follows:

2.2.1 The Local Centre will be masterplanned and built out in Stage 1 ( part of sub framework plan<sup>11</sup> 1);

2.2.2 The District Centre will be masterplanned and built out in Stage 2 ( part of sub framework plan 2);

2.2.3 Eye Square will be masterplanned and built out in Stage 3 (therefore part of sub framework plan 3);

2.2.4 The Riverside Plaza will be masterplanned and built out in Stage 4 (therefore part of sub framework plan 4)

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<sup>9</sup> Note: "Stage" is a spatial phasing term. There are 4 Stages and each corresponds with the Sub Framework Plan ie SFP1 is Stage 1, SFP2 is Stage 2 etc. as shown on application drawing 13647/102/A. These terms will be clearly defined in the s106

<sup>10</sup> See section 3 for triggers

<sup>11</sup> Note: "sub framework plan" refers to the bundle of documents to be submitted for approval following the grant of outline consent and before submission of reserved matters in respect of a Stage.

- 3.0 Neighbourhood centre uses and their triggers for delivery, sizes, specification, management and maintenance**
- 3.1 Each neighbourhood centre will be home to a range of uses to serve the surrounding community. Where these uses are to be provided by BRL then BRL's obligation is to provide the building space serviced and to shell and core (wind and water tight) ("Building Space"). Fit out, fixtures, fittings and furnishings will be the responsibility of the service provider.
- 3.2 For some uses, floorspaces will be fixed via the Section 106 Agreement. These 'fixed floorspace uses' are:
- 3.2.1 Schools (primary and secondary) - sizes as per the section 106 schedule dealing with education ;
- 3.2.2 Community use/Metropolitan Police office (shared community uses) - 150 sq.m.
- 3.3 Other uses, in terms of their floorspaces within in each centre, will not be fixed at the outline planning permission stage but will instead be fixed at the relevant Stage. These 'flexible floorspace uses' are:
- 3.3.1 Places of worship (uses class D1) - one in each built centre sufficient in size to accommodate a congregation of a minimum of 100 people;
- 3.3.2 Health/social care (uses class D1) to be agreed prior to signing of S106;
- 3.3.3 Sport places - but always in accordance with the Open and Play Space heads of terms for the Section 106 Agreement schedule;
- 3.3.4 Play spaces - but always in accordance with the Open and Play Space heads of terms for the Section 106 Agreement schedule;
- 3.3.5 Public changing facilities/toilets;
- 3.3.6 Retail, leisure, food/drink, office, financial and professional services, business and general industrial (use classes A1-A5, B1 and B2);
- 3.3.7 Residential (use class C3);
- 3.3.8 Other Community space and non-residential (use classes C1, C2, D1 and D2);
- 3.3.9 Car parking;

3.3.10 Public realm space, public art, circulation space, roads/access, public transport interchanges, paths, foot/cycle ways, landscaping (hard and soft), open space (other than play and sports places) and associated infrastructure;

3.3.11 Library space;

3.3.12 Sui generis (e.g. live work units)

3.4 The total non-residential floorspaces (i.e. fixed floorspace uses plus flexible floorspace uses) shall not exceed:

3.4.1 65,600 sq m as an aggregate total across the four centres; or

3.4.2 each centre's proportion of 65,600 sq m

save for: a) car parking which is not controlled by this floorspace cap but is instead controlled by actual parking numbers as per the Transport Strategy/Transport section 106 schedule/conditions; and b) D1 education which is not controlled by this floorspace cap but is instead controlled by reference to the Section 106 Agreement education schedule.

3.5 Provided that the minimum floorspace requirements for education (paragraph 3.2.1 above), community use/Metropolitan Police office (shared community uses) (paragraph 3.2.2 above) and places of worship (paragraph 3.3.1 above) are met, healthcare facilities meet the requirements of the SFP ( the details of which will be in final S106),community meeting space the relevant sub framework plan will fix the final floorspace figure for each use within its neighbourhood centre by taking account of:

3.5.1 the floorspace ceilings for the relevant neighbourhood centre (individually and collectively) referred to in paragraph 3.4; and

3.5.2 the service provider's ability to demonstrate to BRL that it:

- has a proper need/demand for the space;
- has the ability: to run and manage the space and make it available for the whole community; to pay for upkeep and maintenance at their expense; to make sure the use is fully maximized; and to comply with the lease terms; and
- is able to pay open market rents and service charges (save for in the case of the places of worship when the setting of any rent shall reflect the faith's social standing and the income of their charitable organisation and be affordable for the faith selected to run the place of worship. This would also apply to Community Groups

wishing to use space where the setting of any rent needs to reflect the Community Group's ability to pay)

- 3.6 The detail on sizes and management of each use will form part of the sub framework plan documentation submitted to the Council for approval at the relevant Stage. That information will be accompanied by:
- 3.6.1 in the case of a place of worship, a report from the BRCDT ,the Faith Forum and the Council on the faith they would suggest is the faith elected to run and manage the place of worship (which shall include reasons for electing that faith) and the faith's expected roles and responsibilities in running and managing the place of worship;
  - 3.6.2 information identifying (in broad terms) the location for each use;
  - 3.6.3 indicative (but not for approval) building layout plans (but not elevations - they will be provided at the subsequent detailed design stage);
- 3.7 When the sub framework plan information has been approved, BRL will procure a design brief for each centre. This design brief will adopt the design principles set out in the Urban Design Guidelines (as approved from time to time), which will be overseen by the Design Panel.
- 3.8 Any dispute over the mix of uses or their floorspaces within any neighbourhood centre will be arbitrated first by the Council or, if after 3 months the dispute remains unresolved, then by reference to the dispute resolution procedure to be set out in the Section 106 Agreement.
- 3.9 For the purposes of the Section 106 Agreement, BRL will provide the following uses prior to the associated triggers but subject to the ceilings set in this schedule:

In the Local Centre:

- 3.9.1 Prior to 500 Occupations within Stage 1, BRL shall commence construction of the first primary school in or adjacent to the Local Centre in accordance with the Section 106 Agreement education schedule; and
- 3.9.2 Prior to 1000 occupations within Stage 1, BRL shall provide within the Local Centre:
  - Building Space of up to 150 sq.m. for use by the Metropolitan Police and other community/social care providers;

- Building Space of up to 250 sq.m. for shared use by the BRCDT (to perform its functions), the housing officer and the Site's management functions;
- The 'flexible floorspace' uses determined at sub framework plan Stage 1

In the District Centre:

- 3.9.3 Prior to 1500 Occupations within the site the temporary secondary school must be provided in or adjacent to the District Centre in accordance with the Section 106 Agreement education schedule; and
- 3.9.4 BRL shall provide the second primary school in accordance with the Section 106 Agreement education schedule; and
- 3.9.5 Prior to 500 Occupations following the completion of temporary secondary school, BRL shall provide within the District Centre Building Space for the 'flexible floorspace' uses determined at the sub framework plan stage for Stage 2, which may include temporary library facilities if required and to the extent that a need can be demonstrated.
- 3.10 In Eye Square: prior to 900 Occupations within Stage 3, BRL shall provide within the Eye Square Building Space for the 'flexible floorspace' uses determined at the sub framework plan stage for Stage 3.
- 3.11 In Riverside Plaza: prior to 900 Occupations within Stage 4, BRL shall provide within the Riverside Plaza Building Space for the 'flexible floorspace' uses determined at the sub framework plan stage for Stage 4.
- 3.12 In addition, it is recognised by the parties that if and when the requirement for a third and/or fourth primary school arises under the Section 106 Agreement education schedule, then either or both of those school may be located in or adjacent to either of the two remaining neighbourhood centres and therefore their spaces must be taken into account when judging the range of uses and their individual sizes against the overall floorspace ceiling set out in paragraph 3.4.
- 3.13 The sub framework plan documents will identify the broad location of each of the uses to go within the centre relevant to that particular Stage. The finer detail will be submitted for approval at the reserved matters stage.
- 4.0 **Ownership**

4.1 For each of the uses set out above, BRL will enter into lease arrangements with the relevant service provider prior to completion of the building space for that particular use. Lease terms will be set out in the Section 106 Agreement and will include terms on use, alienation, rent, service charge, alterations, management, maintenance, landlord/tenant rights and reservations.

5.0 **Additional terms specific only to places of worship**

5.1 Each place of worship will endeavour to be for multi faith use. The places will be for community use as well as for the faith or faiths.

5.2 Whether the places are for multi use or use by a single faith, the intention is that they will be run and managed by one faith. The faith which is responsible for the place of worship will be selected by the Council following liaison with the BRCDT and local Faith Forum - that managing faith will also be responsible for demonstrating that it can use the space properly and efficiently (bearing in mind a number of faiths and community interests may need to be catered for as part of social inclusion) and that it can cover service and maintenance costs (which will be set to be affordable for the faith selected to run the place of worship) through its normal collection and treasury activities.



**SECTION 106 HEADS OF TERMS**

**OPEN SPACE AND PLAY SPACE**

**PART 1 - OPEN SPACE**

**1.0 Provision, management and maintenance**

**1.1 BRL are to provide:**

1.1.1 both formal (i.e. play) and informal open space within each Zone in broad accordance with the objectives and guidance on design and specification as set out in the Play, Sport and Recreation Strategy (this has been submitted for approval at the outline planning stage and forms one of the strategic planning documents<sup>12</sup>); and

1.1.2 strategic open space within the site in accordance with the Landscape Management and Open Space elements of the Urban Design Guidelines approved by the Council at outline planning stage and submitted by BRL and approved by the Council at Sub Framework Plan Stage (“SFP Stage”); and

1.1.3 the Ripple Nature Reserve in accordance with plans to be approved by the Council. The broad location of the Ripple Nature Reserve is already fixed (shown in planning application drawing 108F01B); and

1.1.4 a serviced 250 sq.m. building (to shell and core, wind and water tight) for the use as an ecology centre prior to the occupation of 2000 dwellings (contract to be let for the construction by 1500 occupations).

1.1.5 a building space suitable for a leisure centre in Stage 4 Sub Framework Plan the details of which are to be set out in the Section 106 Agreement

1.2 Where practicable, all open space (strategic and non-strategic) will be made available in line with residential occupations. The finer detail of the phasing of open space delivery will be established at the SFP stage - BRL will produce the open space phasing plan in for approval by the Council and the Council agrees to work in good faith and diligence so not to unduly hold up the finalising of that phasing plan.

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<sup>12</sup> As requested by the GLA - para 33 of the Stage 1 report

1.3 Where approved open space within any Zone sits adjacent to a phase of residential construction within that same Zone, then that part of the Zonal open space shall, where practicable, be provided at the same time as the adjacent residential constructions and no later than practical completion of the last of those residential units and in quantities proportional to the amount of residential development (for example, if a plot of 100 units is built adjacent to the areas set aside for Barking Riverside Park then BRL will lay out an area of the park proportional to the size of residential units but does not have to lay out the whole park in one go). The open space phasing plan (see paragraph 1.2) will include sizes and locations where only part of a larger space is to be provided in any particular phase.

## 2.0 **Adoption and maintenance**

2.1 When open space has been laid out it will be transferred to the BRCDT or the Council for adoption and maintenance in accordance with paragraphs 2.1 – 2.2 of the Community Development Trust Heads of Terms. The Section 106 Agreement will set out the terms of a call option exercisable by the Council in accordance with the terms below.

2.2 At the sub framework plan stage, BRL will identify on a plan (“the Open Space Plan”) all areas of open space which the Council (or a body nominated by the Council) may elect to adopt. The Council will have 3 months from receipt of the Open Space Plan to decide whether or not to exercise a call option for any or all of the open space identified in the Open Space Plan for that Stage. If exercised, the Council then will adopt that open space two years after it is made available for use.

2.3 If any open space is not adopted or it has been called for adoption by the Council or some other adoption body but the adoption has not yet taken place then that space will be maintained in perpetuity by the BRCDT. There are separate provisions in the BRCDT schedule dealing with the BRCDT’s use of Direct Services.

## 3.0 **Maintenance specification**

3.1 All maintenance will be carried out to a performance specification agreed at the time of the SFP stage, irrespective of who maintains it.

3.2 All open space will be held on a 999 year lease. Broad lease terms will be set out in the Section 106 Agreement. Any open space not adopted by the Council or other nominated body will be transferred to the BRCDT under a 999 year lease.

3.3 The Council and BRL will use reasonable endeavours to set up a Barking Riverside Sport & Open Space Trust to maintain and manage the formal sports facility provision located adjacent to schools on the site and in other open space areas. The trust would have the necessary legal rights to the formal sports facilities and would grant

rights and licences to the school Governing Body so that they can run the school properly. This trust will have the ability and duty to seek available public funding e.g. from lottery grants.

#### **4.0 Public access**

4.1 The public will have access to all the open space. The Council's byelaws, as varied through agreement between the Council and BRL at the sub framework plan stage, will apply to it. Areas of open space which the Council has approved for use as concert venues will not be available for public use when a concert is in progress. However BRL must ensure that neighbouring open space is available when a concert is held.

#### **5.0 Pylons**

5.1 BRL will safeguard the area beneath the pylons in perpetuity so that if the Council or the utility provider has funds to run the cables under ground instead of between the pylons, this work can take place. At no time would any work be carried out which would incur cost for BRL and BRL will retain rights of access and drainage to the area.

#### **6.0 Interim landscaping management**

6.1 BRL are to implement an interim landscaping management regime to areas of the site which remain undeveloped and are not enclosed by hoardings because works are taking place. The interim landscaping management regime is to be scoped out in the relevant sub framework plan documents and agreed by the Council.

#### **7.0 Design and Specification**

7.1 BRL are to provide formal, informal and strategic open space within the site in accordance with the objectives and guidance on design and specification as set out in the Play, Sport and Recreation Strategy and Urban Design Guidelines approved by the Council. The Play, Sport and Recreation Strategy will be reviewed and if necessary updated at each SFP Stage.

## **PART 2 - PLAY SPACE**

### **8.0 Provision, management and maintenance**

- 8.1 As part of the play space provision BRL will provide the play spaces and sport provision set out in the attached table and in accordance with the corresponding triggers in that table<sup>13</sup>.
- 8.2 It has been agreed that part of the sport provision will go within the school sites for use by the school as well as by the wider community at appropriate times. The ownership and management arrangements put in place will not prohibit the ability of the various service providers or the Barking Riverside Sport & Open Space Trust to apply for public funding outside the education spectrum (e.g. lottery funding).
- 8.3 When play space has been made available it will either be transferred to the BRCDT for ongoing management and maintenance or the Council on the basis set out in paragraphs 2.1 – 2.2 of the Community Development Trust Heads of Terms.
- 8.4 Sports provision for the schools may be held by the Barking Riverside Sport & Open Space Trust (see part 1).

### **9.0 Design and Specification**

- 9.1 BRL are to provide play space within each Zone in accordance with the objectives and guidance on design and specification as set out in the Play, Sport and Recreation Strategy approved by the Council. The Play, Sport and Recreation Strategy to be reviewed and if necessary updated at each sub framework plan stage.

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<sup>13</sup> As requested by the GLA - para 33 of the Stage 1 report

**Table Summarising Proposed Play, Sport and Recreation Provision at Barking Riverside (see paragraph 8.1 above)**

	Trigger	Play Provision	Sports Provision required by schools	Sports Provision required by LBBD over and above schools requirements	Informal Sports and Recreation Facilities
1	500	4no. play rooms to service community courts  1no. play station to serve neighbourhood	1 mini soccer pitch 0.35ha on site WDC primary school  1 MUGA 0.12ha on site WDC primary school  1 junior football pitch 0.82ha on site WDC primary school	2 tennis courts 0.06ha	
2	1500	4no. play rooms to service community courts  1 no. play station to serve neighbourhoods	1 mini soccer pitch 0.35ha on site DC primary school  1 MUGA 0.12ha on site DC primary school  1 junior football pitch 0.82ha off site DC primary school  1 all weather pitch 1ha off site DC primary school	2 tennis courts at Diamond Park 0.06ha  1 bowling green at Diamond Park 0.15ha	1 activity park inc skate park and BMX  1 country park inc running trails, picnic etc
3	4000	7no. play rooms  1no. play port at Jetty Square	1 junior pitch 0.82ha on site secondary school  1 MUGA 0.12ha on site secondary school  1 senior football pitch 0.9ha on site secondary school	1 MUGA 0.12 ha  2 mini soccer pitches 0.35ha each  2 junior football pitches 0.82ha each	1 activity park inc skate park + MUGA at Eye Square  2 MUGA  1 tennis court  1 country park inc trails, picnic

			1 cricket pitch 1ha on site secondary school  1 senior football pitch 0.9ha off site secondary school		
4	7000	8no. play rooms  3no. play stations		1 tennis court 0.06ha	1 tennis court  3 MUGA 0.19ha each
	Ref	Refer to Section 7.0 Barking Riverside Play, Sport and Recreation Strategy	Refer to Section 8.0 Barking Riverside Play, Sport and Recreation Strategy	Refer to Section 8.0 Barking Riverside Play, Sport and Recreation Strategy	Refer to Section 9.0 Barking Riverside Play, Sport and Recreation Strategy

**SECTION 106 HEADS OF TERMS**  
**TRANSPORT**  
**as at 27.10.06**

**Transport**

**1.0 Docklands Light Railway**

- 1.1 BRL keep TfL informed of their build rate (completions and future build out).
- 1.2 No more than 1500 units can be built out until the TWA order is confirmed.
- 1.3 No more than 4000 units can be built out until the DLR is operational.
- 1.4 Reversion of excess land to BRL after DLR is built so BRL can utilize land adjacent to and underneath the viaduct (but within reasonable parameters to protect the running and maintenance of DLR).
- 1.5 BRL to remediate DLR site - spec not yet confirmed.
- 1.6 BRL and DLRL to work towards an overriding objective to procure the DLR Extension. The DLR is likely to be under construction by 2011 according to a letter from the Mayor of London to Councilor Fairbrass (LBBD) confirming the position following a meeting that took place on the 21<sup>st</sup> September involving the Mayor, the Secretary of State and officers and Members from LBBD.

**2.0 East London Transit and bus services**

- 2.1 No more than 70% of the residential units in a zone can be occupied until Transport for London has confirmed that the road is built to its satisfaction and Barking Riverside Limited have granted a licence at nil cost to Transport for London to use the unadopted road and a lease and any easements for the bus shelters, stops and terminals.
- 2.2 Transport for London will use their reasonable endeavours to ensure the East London Transit system will be operational along all of the completed roads designed to carry it prior to the occupation of 1500 residential units.
- 2.3 A bus service or the East London Transit system will be operational and running to the local centre within the Barking Riverside site prior to the occupation of 500 residential units.
- 2.4 Following the occupation of 100 residential units all subsequent residential units can only be occupied if there is a bus stop used by an operating bus service within 400 m walking distance of that residential unit or an alternative method of public transport operating within 400 m walking distance of that residential unit.
- 2.5 Barking Riverside Limited will ensure that the segregated East London Transit system route will be provided through the western quarter to the local centre prior to the occupation of 1500 residential units, through the eastern quarter prior to the

occupation of 3200 residential units and through the whole site prior to the occupation of 6000 residential units.

- 2.6 Barking Riverside Limited will provide revenue support of [£1000][*the agreed sum is £1000 per unit but whether payment is to be phased is under discussion*] per unit to pump prime the East London Transit system. Any monies left once the East London Transit system is self financing are paid into the sustainable transport fund. If public funding is available instead to pay for East London Transit then these monies will be used for other community measures.
- 2.7 The Council and Barking Riverside Limited are seeking a commitment from Transport for London regarding a minimum level of timing and regularity of bus services.
- 2.8 Covenants on the part of TfL concerning the delivery and operation of the ELT Extension remain under discussion.
- 3.0 **Off-site Highway Works to the A13 junction**
- 3.1 Barking Riverside Limited will at their own expense carry out initial works to A13 junction that gives access into the Barking Riverside site prior to occupation of 100 residential units. These works are to be funded by Barking Riverside Limited separately to the £5.4 million for the grade separation works.
- 3.2 There will be a review prior to the occupation of 2000 residential units to see if funding has been allocated in the 2007 spending review for the A13 grade separated junction works. If funding is allocated then the programme of works to implement the A13 grade separated junction works will be started prior to the occupation of 2500 residential units on the Barking Riverside site. In this case Barking Riverside Limited will pay to Transport for London £5.4 million on the occupation of 2500 residential units as a contribution towards the cost of the grade separation works.
- 3.3 If funding is not allocated in the 2007 spending review for the A13 grade separated junction works then Barking Riverside Limited will carry out interim works to the A13 junction including the works agreed for Lodge Avenue as described in TS05 prior to the occupation of 2500 residential units at Barking Riverside Limited's expense paid for out of the £5.4m budget for the grade separation works.
- 3.4 In the event that the interim works are carried out rather than the grade separation works at 2500 units then no more than 4000 residential units can be occupied before the A13 grade separated junction is to be provided. If both the Council and Transport for London agree that the grade separation works are not needed at this point then an alternative trigger will be fixed by the Council and Transport for London, the situation will be reviewed at that trigger, the monies for the grade separation works will only be paid to Transport for London when the trigger at which the works are required is reached and building can continue on the Barking Riverside site.
- 4.0 **Offsite highways works**
- 4.1 Barking Riverside Limited will at their own expense carry out and complete the following off site highways works at the following times by way of entering into an agreement pursuant to section 278 of the Highways Act 1980 with the Council:



- 4.2 Improvements to the Lodge Avenue/Woodward Road junction prior to the occupation of 500 residential units;
- 4.3 Improvements to the Renwick Road/Choats Road junction prior to the occupation of 1500 residential units;
- 4.4 Improvements to the Renwick Road/Bastable Avenue junction prior to the occupation of 1500 residential units;
- 4.5 River Road bus lane works prior to the occupation of 1500 residential units;
- 4.6 Improvements to the River Road/Thames Road junction including the provision of signalised junction works and minor widening with pedestrian crossing facilities prior to the occupation of 2000 residential units;
- 4.7 Prior to occupation of 5000 residential units Barking Riverside Limited shall present options to the Council on all the potential junction improvements or traffic management works that could be done to achieve the satisfactory operation of the River Road/Bastable Avenue junction in terms of safety and use by public transport, cyclists, pedestrians and other road users. The Council will select the most appropriate option and Barking Riverside Limited will carry out and complete the selected works. The works must then be done within a reasonable timescale, which the s106 agreement will define.
- 4.8 Improvements to the Renwick Road/Thames Road junction with bus priority measures prior to the occupation of 5000 residential units.

## 5.0 **Cycle paths and pedestrian links**

- 5.1 Barking Riverside Limited will at their own expense construct a phased network of cycle and pedestrian routes across the Barking Riverside site. Barking Riverside Limited will ensure that the cycle/pedestrian network is a continuous network across the site to ensure that the various sections of the network link to each other. The details of this will be contained in the s106 agreement. No residential units in each zone shall be occupied until the pedestrian and cycle paths in that zone have been completed and a certificate of compliance issued. Barking Riverside Limited will ensure that the cycle/pedestrian network on the Barking Riverside site is linked to the offsite cycle/pedestrian networks to form a continuous network. As part of this Barking Riverside Limited will make a contribution toward signage to direct cycle and footpath users from existing cycle/foot paths to those on the Barking Riverside site BRL will carry out works under a section 278 to provide off site cycle links in accordance with appendix TS04 on the approved transport strategy.

## 6.0 **Riverside walkway**

- 6.1 Barking Riverside Limited shall at their own expense construct the first part of the east side of the riverside walkway prior to the occupation of 500 residential units, the second part of the east side of the riverside walkway prior to the occupation of 4000 residential, the west side of the riverside walkway prior to the occupation of 7000 residential units, the part of the riverside walkway that runs along the jetty prior to the occupation of 10000 residential units on the Barking Riverside site.

## **7.0 Adoption of roads**

- 7.1 Barking Riverside Limited will at its own expense construct all the roads and cycle paths and footpaths and riverside walk on the Barking Riverside site to an adoptable standard in terms of construction rather than design (save for the main roads which shall be an adoptable design too) and offer them to the Council for adoption.
- 7.2 On submission of each sub framework plan Barking Riverside Limited will offer all roads in that stage for adoption. At the same time BRL will provide details of proposed performance specifications and reasonable rates for maintenance. The Council will have three months in which to decide which areas to adopt and to agree the rates and performance specifications for the areas that they wish to adopt. If land is adopted by the Council then a commuted sum for maintenance of the primary roads will be paid by Barking Riverside Limited (commuted sums will be agreed at the time of adoption, save for primary roads where commuted sums will be agreed by reference to a formulae set out in the s106 agreement). If the commuted sum cannot be agreed then the land will not be adopted by the Council. Any disputes regarding the amount of the reasonable rates for maintenance can be referred to alternative dispute resolution but any dispute regarding the amount of the commuted sum cannot. If, when the Council comes to adopt the roads a safety issue has been identified then this is to be rectified at Barking Riverside Limited's expense prior to the road being adopted.
- 7.3 Prior to adoption they will be maintained by Barking Riverside Limited to an adoptable standard.
- 7.4 Roads will be built out per zone unless otherwise stated in this document.

## **8.0 Stopping up of Choats Road**

- 8.1 The parties agree to work together in good faith to promote the stopping up of Choats Road in accordance with appendix TS07 of the Transport Strategy.

## **9.0 Public Footpath Stopping Up/Diversion**

- 9.1 The parties will work together in good faith to promote the stopping up and diversion of part of public footpath 47 working together to ensure minimal disruption to the users of public footpath 47.

## **10.0 Parking**

- 10.1 Barking Riverside will adhere to the car parking standards set out in appendix TS06 (see paragraph 10.3 below for key car parking caps). Barking Riverside Limited will draw up a parking strategy for the un-adopted roads on the Barking Riverside site to be approved by the Council which reflects the charges in Council run public car parks in Barking town centre and which is designed to discourage commuter parking on the Barking Riverside site. The parking strategy will be submitted to the Council for approval prior to occupation of the first residential unit on the Barking Riverside site. All monies received from parking charges on un-adopted roads( for clarity not from commercial car parks) within the Barking Riverside site will be paid into the sustainable transport fund. The parking strategy will only be amended if the Council agrees the changes.

- 10.2 Parking charges on adopted roads will be collected by the Council and will be paid into the sustainable transport fund minus the Council's costs of collecting the parking revenue and other administration costs incurred by the Council in administering the parking strategy for the adopted roads.
- 10.3 BRL will cap parking including non residential and on street parking at the following levels: 1600 (including 1,481 residential spaces) at 1500 occupations; 4350 (including 3,964 residential spaces) at 4000 occupations; and 8700 (including 7548 residential spaces) at 10800 occupations. BRL will only be able to change these caps with the agreement of the Council, Thames Gateway Urban Development Corporation and TfL.
- 11.0 Transport Strategy Steering Group**
- 11.1 Barking Riverside Limited will use all reasonable endeavours to set up a Transport Strategy Steering Group prior to implementation of the development in accordance with the terms of reference which will be appended to the s106 agreement.
- 11.2 The Transport Strategy Steering Group will consist of 2 members from each of Barking Riverside Limited, the Community Development Trust once it is established, Transport for London, the Council and the UDC. Each has two votes but in the event of any tied vote the CDT's votes shall count as 3. The Transport Strategy Steering Group will include representation from disabled people who have the experience of developing inclusive transport services. All members of the Transport Strategy Steering Group will be able to vote on the way in which the monies available to it are spent.
- 12.0 The transport strategy**
- 12.1 The transport strategy will be appended to the s106 agreement. The objectives of the transport strategy will be to promote the delivery and use of integrated transport at Barking Riverside including the support of green travel initiatives to reduce the reliance on the private motor car.
- 12.2 The transport strategy will be reviewed on an annual basis and on the submission of each sub framework plan for each stage to reflect the proposed development in terms of quantum and location of the development for that stage. Where the objectives of the transport strategy are not being met Barking Riverside Limited will at its own expense (and not using funds from the sustainable transport fund) during the construction life of the development up to a maximum of 25 years prepare an updated version of the relevant parts of the transport strategy to include measures to enable the objectives to be met and submit it to the Council for approval. After 25years, or after completion of the development whichever is sooner, this will be done by the Transport Strategy Steering Group and paid for from the sustainable transport fund.
- 12.3 Barking Riverside Limited will use all reasonable endeavours to adopt the measures recommended in the Transport Strategy that are within its power to carry out. Barking Riverside Limited are paying for and organising a transport coordinator for the Barking Riverside site to be in place throughout the construction life of the development (i.e. 25 years is the long stop period).
- 12.4 There will be an implementation section in the transport strategy which sets out the measures to be carried out in order to achieve the objectives of the transport

strategy. Each of the parties forming part of the Transport Strategy Steering Group agrees that they will adopt the measures in the implementation section of the transport strategy in so far as they are the direct responsibility of that party.

12.5 Occupiers of individual commercial units within each zone must comply with any BRL obligations in the transport strategy that relate to that zone.

12.6 The feasibility of using river transport for construction, freight and passenger activities will be reviewed as part of the sustainable transport part of the Transport Strategy. BRL will use its reasonable endeavours, where practicable, to keep the jetty accessible for potential river boat services subject to design, safety and other constraints in accordance with the requirements of the Transport Strategy.

### 13.0 **Sustainable transport fund**

13.1 Prior to implementation of the development at the Barking Riverside site Barking Riverside Limited will set up the sustainable transport fund.

13.2 The sustainable transport fund will be funded by way of revenue generated from on street visitor parking; any grants and voluntary contributions awarded to Barking Riverside Limited to promote or implement sustainable transport measures; revenue from sponsorship of and advertising on transport related infrastructure and equipment; surplus funds paid to implement other transport measures for example any surplus bus subsidy; a fixed proportion of the service charge paid by residents the amount of which will be determined by the business plan for the Community Development Trust on submission of the sub framework plan for each stage of the development.

13.3 As the sustainable transport fund will not initially be self financing particularly until there is sufficient parking on site, Barking Riverside Limited will also put money into the sustainable transport fund as and when there is a demonstrable need shown in the accounts as an interest free loan to be repaid to them once the annual review shows there is a surplus for a period of 12 months in the sustainable transport fund. These monies will fund all the implementation measures in the transport strategy.

13.4 The business plan for the sustainable transport fund and the business plan for the CDT will be submitted at the same time. Barking Riverside Limited will write the business plan for the sustainable transport fund and submit it to the Council for approval.

### 14.0 **Annual monitoring**

14.1 On occupation of the 500th residential unit and annually thereafter Barking Riverside Limited must prepare an annual monitoring report and submit it to the Council for approval. The scope and methodology of the annual monitoring report must be agreed with the Council.

14.2 The annual monitoring will be done by Barking Riverside Limited at its own expense for the construction lifetime of the development up to a maximum of 25 years. Thereafter it will be carried out by the Transport Strategy Steering Group and paid for from the sustainable transport fund.

- 14.3 The annual monitoring report will identify whether any expected values are exceeded and where they are exceeded will make recommendations for measures to remedy this. Barking Riverside Limited will use all reasonable endeavours to adopt the measures recommended subject to there being sufficient funds in the sustainable transport fund to pay for this. These measures will be set out in the implementation part of the transport strategy.
- 15.0 Transport Delivery Framework**
- 15.1 The transport delivery framework forms one appendix of the transport strategy (TS07). It sets out all the on site and offsite transport works or measures that may affect the achievement of the objectives of the transport strategy. All parties who belong to the Transport Strategy Steering Group agree to annually update the sections of the transport delivery framework that directly relate to them in time to feed in to the annual review of the transport strategy. The transport delivery framework will set out the timetable for implementation of the transport works and measures where known and will be updated each year so that an accurate picture of programmed transport works and measures in the area is maintained.
- 15.2 All parties who belong to the Transport Strategy Steering Group agree to adopt the measures for which they are directly responsible in the transport delivery framework document.

## **Appendix TS05: Barking Riverside – Off-site Highway Improvements**

### **Scheme Descriptions**

The following section sets down the details of the proposed off site highway improvements, which will be implemented in association with the Barking Riverside Development proposals. The locations of these improvements are shown on SK102, and are as follows:

#### **Before 100 Occupations:**

##### **A13/ Renwick Road Initial Improvement Works – 14053-002-001**

The proposals include the closure of the A13 central median to prevent A13 eastbound traffic turning right in to Renwick Road, and the extension of the westbound A13 left turning lane. These improvements should avoid any significant diversion of statutory undertakers plant.

#### **Before 500 Occupations:**

##### **Lodge Avenue/ Woodward Road – 14053-002-002**

This proposal aims to assist the flow of buses along the Lodge Avenue corridor by providing minor widening on the west side of Lodge Avenue, south of Woodward Road, to provide a right turn lane in to Woodward Road. This will allow straight on vehicles to pass waiting right turning traffic, including buses, avoiding blocking back to the A13/ Lodge Avenue junction. These improvements should avoid any significant diversion of statutory undertakers plant.

#### **Before 1500 Occupations:**

##### **Renwick Road / Wanderer Drive / Bastable Avenue – 14053-002-003**

The proposals involve the signalisation of the four arm priority junction. Protected pedestrian facilities are provided across the northern and eastern arms of the junction. It is assumed that the existing rising bollards and physical measures to limit the width of vehicles accessing Bastable Avenue are removed, although it is anticipated that the traffic order limiting the width of vehicles using Bastable Avenue to less than 7 feet (except for access) would be retained.

The main requirement for traffic signals is to provide priority for ELT buses through the junction. The Phase 1A scheme involves ELT travelling between Bastable Avenue and Choats Road, via Renwick Road. It is anticipated that both this junction and the Renwick Road / Choats Road junction would include selective vehicle detection features to allow priority to be given to the ELT vehicles. The signals would also make it easier for local traffic to exit Bastable Avenue.

##### **Renwick Road / Choats Road – 14053-002-004**

The proposals involve the signalisation of the existing 3 arm priority junction and include pedestrian facilities in the form of an “all red” stage.

The objective of the scheme is to provide priority for the ELT Phase 1a scheme to turn into and out of Choats Road and the signals would incorporate selective vehicle detection features. It is therefore linked to the proposals at the Renwick Road / Bastable Avenue / Wanderer Drive junction.

#### **River Road Bus Lane: 14053-002-005 & 14053-002-006**

This proposal involves the provision of a northbound bus lane on River Road from Long Reach Road to Bastable Avenue. These improvements should be contained within the existing carriageway, and avoid any significant diversion of statutory undertakers plant.

#### **Before 2000 Occupations:**

#### **Thames Road / River Road – 14053-002-007**

This scheme involves the signalisation of this 4 arm junction (including the access to Elizabethan House). The proposals include the provision of an “all red” pedestrian facility.

#### **Before 2500 Occupations:**

#### **A13/ Renwick Road Interim Improvement Works – 14053-002-008**

The progress of the A13 grade separated scheme towards implementation will be reviewed by the TSSG before 2000 occupations, and if sufficient public funding has been allocated to carry out the A13 grade separation works the programme of works to implement the A13 grade separated junction will be commenced prior to occupation of residential 2500 units. In these circumstances BRL will pay the A13 contribution of £5.4million to TfL on the occupation of 2500 residential units to partly fund these works. See below for a description of the works.

If insufficient public money has been allocated for the A13 grade separation works together with the BRL A13 contribution then BRL will carry out the interim A13 traffic management works at Renwick Road and Lodge Avenue prior to 2500 occupations, using funding from the BRL A13 contribution.

This interim scheme involves the closure of the A13 central median to prevent A13 eastbound traffic turning right in to Renwick Road, and the extension of the westbound A13 left turning lane. The scheme also provides segregation of traffic intending to travel through the Lodge Avenue / Ripple Road junction to the west and local traffic intending to access the Ripple Road / Lodge Avenue junction.

The segregation is generated through the use of hatched road markings to the east of Renwick Road and a constructed central reserve to the west. As part of this segregation, vehicles travelling from Renwick Road intending to access the Ripple Road / Lodge Avenue junction will be required to use the road to the rear of the Ship and Shovel public house. This exit will operate under a signal arrangement. Vehicles exiting Renwick Road intending to travel through the Ripple Road / Lodge Avenue junction are required to use the existing exit, again under signal control.

These improvements should avoid any significant diversion of statutory undertakers plant. This proposal involves the widening of Lodge Avenue to provide a bus lane and flared entry arm to the junction.

### **Before 4000 Occupations**

#### **A13/ Renwick Road Grade Separation**

If the A13 grade separation works have not been carried out at 2500 occupations due to lack of funding then they will be done prior to 4000 occupations. This scheme is currently being designed by TfL. The preliminary design proposed by BRL is shown on 14053/020/10/06 P1. BRL will make a contribution of £5.4M towards the implementation of this scheme. If both the Council and TfL agree that the grade separated works are not needed at 4000 occupations then an alternative trigger will be fixed by the Council and TfL. The situation will be reviewed at that trigger, the monies for the grade separation works will only be paid to TfL when the trigger at which the works are required is reached and building can continue on the Barking Riverside site until that trigger is reached.

### **Before 5000 Occupations:**

#### **Thames Road / Renwick Road – 14053-002-010**

This scheme involves the signalisation of the existing 3 arm priority junction and includes local widening within existing highway limits to allow two exit lanes to be provided from Thames Road and a right turn lane to be provided on the northern arm of Renwick Road. The scheme includes protected pedestrian crossing facilities across the southern and western arms of the junction. The implementation of the scheme will also assist the development of bus priority strategies along the Renwick Road corridor.

#### **River Road / Bastable Avenue**

Prior to occupation of 5,000 units BRL shall present options to the Council on all the potential minor junction improvements or traffic management works that could be done to achieve the satisfactory operation of the River Road/Bastable Avenue junction in terms of safety and use by public transport, cyclists, pedestrians and other road users. The Council will select the most appropriate option and BRL will carry out and complete the selected works within a reasonable timescale.



<b>Appendix TS07: Transport Delivery Framework: Summary of Transport Triggers</b>		
1.0	<b><i>Prior to commencement of development:</i></b>	<p>The Transport Strategy will need to be agreed by the Council. It will be substantially based on this document.</p> <p>Submission of a full application for on site Highway infrastructure and public spaces.</p> <p>Phasing of pedestrian and cycle routes, primary and secondary roads to form part of the application for approval.</p>
2.0	<b><i>Not more than 100 dwellings shall be occupied in advance of:</i></b>	<p><b>Public Transport:</b> A bus service will provide a public transport service for the development zone, (generally within a 400m walk of a bus stop).</p>
		<p><b>Off Site Highways:</b> The Renwick Road/ A13 initial improvements will be implemented, (as set out in Appendix TS05)</p>
3.0	<b><i>Not more than 500 dwellings shall be occupied in advance of:</i></b>	<p><b>Off Site Highways:</b> Provision of junction improvements/ bus priority measures to Lodge Avenue/ Woodward Road</p>
4.0	<b><i>Not more than 1,500 dwellings shall be occupied in advance of:</i></b>	<p><b>On Site Highways:</b> Provision of a segregated route for phase 1B of ELT through the western quarter to the Local Centre. When the segregated route has been completed, bus services using this alignment will be provided in accordance with the Public Transport Plan.</p>
		<p><b>Public Transport:</b> A review to ensure that the programme for delivering DLR is on track, including the confirmation of the Transport &amp; Works Act Order has been made, and a programme for letting the concession within 18 months.</p>
		<p><b>Off Site Highways:</b> Provision of local junction improvements/ bus priority measures to:</p> <ul style="list-style-type: none"> <li>• River Road Bus Lane</li> <li>• Renwick Road/ Bastable Avenue</li> <li>• Renwick Road/ Choats Road</li> </ul>
5.0	<b><i>Not more than 2000 dwellings shall be occupied in advance of:</i></b>	<p><b>Off Site Highways:</b> Provision of signalised junction improvements, minor widening with pedestrian crossing facilities at River Road/ Thames Road.</p> <p>Review of A13/ Renwick Road grade separation implementation programme. If this indicates that these works will not be complete by 2500 dwellings, the need to implement the A13 interim improvement works, (as set out in Appendix TS05), will be reviewed by the TSSG.</p>

		<ul style="list-style-type: none"> <li>• A13/ Renwick Road Interim Traffic Management Scheme, which will include maintaining Choats Road as a through traffic route.</li> <li>• Lodge Avenue/ Ripple Road junction improvement</li> </ul>
6.0	<b>Not more than 2500 dwellings shall be occupied in advance of:</b>	<p><b>On Site Highways:</b> Provision of a segregated route for phase 1b of ELT through the western quarter to the District Centre. When the segregated route has been completed, bus services using this alignment will be provided in accordance with the Public Transport Plan.</p> <p><b>Off Site Highways:</b> Completion of A13/ Renwick Road Grade Separation. In the event the grade separated junction is not complete, and subject to the review undertaken before 2000 occupations, a package of A13 interim improvement works at Renwick Road/ A13 and Lodge Avenue/ A13 will be implemented that would provide capacity for up to 4000 dwellings, (as illustrated in Appendix TS05). A rigorous system of monitoring and review is in place to manage the transport systems and the balance between them.</p>
7.0	<b>Not more than 3200 dwellings shall be occupied in advance of:</b>	<p><b>On Site Highways:</b> Provision of a temporary segregated alignment for phase 1B of ELT or similar through the eastern quarter on a phased basis to correspond with spatial phasing. When the segregated route has been completed, bus services using this alignment will be provided in accordance with the Public Transport Plan.</p>
8.0	<b>Not more than 4000 dwellings shall be occupied in advance of:</b>	<p><b>Off Site Highways:</b> In the event that it has not been implemented prior to this time, the A13 Renwick Road Grade Separation scheme shall be completed including provision of bus priority scheme across the A13 from Renwick Road to Goresbrook Road In the event that this scheme is not complete, the development will pause until either it is complete, or until a review has been completed to assess the need for the scheme, and either a revised trigger date or alternative measures have been agreed with the Council and TfL.</p> <p><b>Public Transport:</b> DLR to be operational throughout the site</p>
9.0	<b>Not more than 5000</b>	<b>Off Site Highways:</b> Provision of bus priority

	<b><i> dwellings shall be occupied in advance of:</i></b>	facilities at Renwick Road/ Thames Road and provision of a right turn ban or right turn facility at River Road/ Bastable Avenue – if required - subject to monitoring and agreement with TfL and the Council
10.0	<b><i>Not more than 6000 dwellings shall be occupied in advance of:</i></b>	<b><i>On Site Highways:</i></b> Provision of the final segregated route for ELT Phase 1b through the site, and provision for the diversion of ELT Phase 1a services from Choats Road to serve the north east section of the development site. When the final segregated route has been completed, bus services using this alignment will be provided in accordance with the Public Transport Plan. Closure of Choats Road to through traffic and provision of an alternative route through the development

## SECTION 106 HEADS OF TERMS

### WASTE

#### 1.0 Waste Strategy

- 1.1 The approved waste strategy will be appended to the Section 106 Agreement and will show how the development proposes to deal with the following issues:
  - 1.1.1 the collection and disposal of waste created as part of the construction of the development;
  - 1.1.2 locating waste stores within the boundary of private property, and appropriate signage to identify the same (if needed);
  - 1.1.3 considering use of containerised systems for waste storage to protect against animals and spillages;
  - 1.1.4 considering a dry bulky waste storage area;
  - 1.1.5 schemes to reduce the creation of construction waste in the first place;
  - 1.1.6 the collection and disposal of household and commercial waste produced by occupiers of the development; and
  - 1.1.7 schemes to reduce the creation of such waste and to encourage and provide opportunity for such waste to be reusable and recyclable.
- 1.2 A more detailed waste strategy (with necessary updates) specific to the SFP Stage is to be submitted to the Council for approval prior to commencement of development in each sub-framework plan stage. Reserved matters applications must demonstrate compliance with the strategy as part of their submission.
- 1.3 The development will be implemented in accordance with the waste strategy, and the BRCDT shall ensure appropriate publicity is given to raise awareness among occupiers of the development how to minimise waste and ensure the best objectives are achieved from the waste strategy.
- 1.4 BRL shall commission an “in-use” report annually to demonstrate the implementation of the waste strategy, and its success in meeting its stated objectives.
- 1.5 The Council shall comply with the waste strategy when carrying out its statutory functions under the Environmental Protection Act 1990 within the development.

**Summary of Conditions**

a) **Procedural Matters:**

1. Approval of reserved matters (1);
2. Approval of first reserved matters (2);
3. Approval of Reserved matters (3)
4. Time limit for commencement.

b) **Design Zone, Phase and Sub-Framework Plans:**

5. Staging;
6. Sun Framework Plan;
7. Form and content of sub-framework plans ;
8. Zone details;

c) **Strategic Infrastructure and Servicing:**

9. Details of strategic infrastructure and servicing.

d) **General Layout and Framework:**

10. Accordance with framework plan;
11. Density of residential development
12. Density of residential development (2)

e) **Partial Discharge:**

13. Partial Discharge of Conditions.

g) **Ground Levels:**

14. Finished ground levels.

i) **Code of Construction Management:**

15. Submission / approval of Code of Construction Management.

j) **Floorspace:**

16. Residential units;
17. Non-residential floorspace;

l) **Building Scale:**

18. Maximum height.

m) **Remediation:**

19. Remediation in accordance with details;
20. Remediation prior to occupation;
21. Landfill site.
22. Zone remediation (1)
23. Zone remediation (2)
24. Zone remediation (3)

o) **Nature Conservation & Landscaping:**

25. Protection of nature conservation areas.
26. Ecological monitoring
27. Landscape Management
28. Replacement of soft landscaping.
29. Buffer zones(1)
30. Buffer zones(2)

p) **Transport**

31. DLR & Transport Works Act
32. DLR to be operational
33. Roads To adoptable standards

q) **Footpaths / Cycleways:**

34. Provision by stage;

r) **Parking / Servicing:**

35. Accommodation by zone.

s) **Archaeology:**

36. Archaeological investigation.

t) **London City Airport – Safeguarding:**

37. Approval of details.

u) **Wharves**

38. Safeguarded wharves signage;
39. Life-saving equipment.

v) **Waste / Drainage:**

40. Details by Zone;

w) **Flood defence:**

41. Flood defence works;
42. Ground levels and flood risk;

- 43. River Thames Outfalls;
- 44. Development adjacent to watercourses;
- 45. Storage of materials adjacent to watercourses;

x) **Acoustics**

- 46. Acoustic performance of residential units

y) **Housing**

- 47. Housing mix
- 48. Affordable housing

z **Community Development Trust**

- 49. Community Development Trust
- 50. Community Development Strategy

**Informatives:**

- i) Flood defence level;
- ii) Buffer zones;
- iii) Controlled waters;
- iv) Dewatering;
- v) Works to river banks;
- vi) Works to tidal flood defences;
- vii) Waste Management Licensing;
- viii) Watercourse abstractions;
- ix) Archaeology;
- x) Overhead lines;
- xi) Ground clearance;
- xii) Ground levels;
- xiii) Plant, machinery etc;
- xiv) Mobile plant;
- xv) Landscaping and power lines;
- xvi) Excavation / test bores;
- xvii) Vehicle access;
- xviii) Energis Communications Ltd;
- xix) Local electricity distribution;
- xx) River works licence;
- xxi) Water mains;
- xxii) River frontage design.

**Schedule of Planning Conditions**

**Procedural Matters**

- 1. Application for approval of all the reserved matters must be made to the Council before the expiration of seventeen (17) years from the date of this permission.

Reason:

To comply with Section 92(2) of the Town and Country Planning Act 1990.

2. Application for approval of the first reserved matters must be made to the Council before the expiration of 2 years from the date of this permission.

Reason

To comply with Section 92(2) of the Town and Country Planning Act 1990.

3. The development hereby permitted shall be begun not later than whichever is the later of the following dates:

- (i) three (3) years from the date of this permission; or

- (ii) the expiration of three (3) years from the date of approval of the first reserved matters to be approved.

Reason:

To comply with Section 92(2) of the Town and Country Planning Act 1990.

4. Unless agreed otherwise in writing with the Council, the reserved matters to be submitted pursuant to condition 1 shall reflect and be in accordance with the Sub-Framework Plan submitted pursuant to condition 6.

Reason:

To ensure that the details of the development are acceptable to the Council.

### **Stages , Sub-Framework Plans and Zones**

5. The development shall be built out in four stages in accordance with plan 13647/102A. Stages 1 and 2 maybe built out concurrently. Development cannot commence on Stage 3 until Stage 1 has been fully completed. Stage 4 cannot be commenced until Stage 2 has been fully completed

Reason:

To comply with Section 92(2) of the Town and Country Planning Act 1990 and to ensure a sustainable community is achieved.

6. Prior to the submission of any reserved matters in respect of a particular Zone or part thereof, as defined by drawing Development zones 108F030.C, a sub-framework plan for the Stage within which that particular Zone is located shall be submitted to and approved by the Council in writing. One sub-framework plan will be prepared per Stage.

Reason:



To ensure that the relevant details are submitted in advance of the formal reserved matters stage.

7. The form and content of the sub-framework plan shall address the following matters and comply with the following statutes, guidelines and plans:
  - a. Identify the relevant Zones and the sequential phasing thereof.
  - b. The quantum of development per Zone, in terms of unit numbers, mix and tenure and sq m of non-residential accommodation.
  - c. Transport Strategy principles to be applied to each Zone.
  - d. The level of parking provision per Zone by land use.
  - e. The means, timing of delivery and details of types sizes and location of uses of serviced land for social and community facilities (Use Class D).
  - f. Identify those areas that will be retained and managed by BRL or the CDT or adopted by the Council or a body nominated by the Council. ('the retained land').
  - g. Identify those areas that will be developed by plot developers following remediation and servicing. ('the disposal land').
  - h. Confirm the application of the requirements of the planning permission and all subsequent approvals in relation to the disposal land.
  - i. The application of the landscape and ecology strategy the landscape and ecology framework and the landscape and ecology design and management guidelines to be accompanied by a detailed master plan for ecological enhancement and mitigation, including function of wildlife corridor, species and uses.
  - j. The application of the Urban Design Guidelines through the development of design codes to be applied to each Zone.
  - k. The provision of open space including sports facilities play areas and the phasing of them within the Stage,
  - l. The scheme for the routing of bus services through the Zone within each Stage, to include all necessary layover, driver facilities and temporary routings. Such routes to provide for the integration with existing public transport services provided and adjacent communities and adjacent industrial areas.
  - m. A waste strategy specific to the stage – setting out principles for the collection and management of waste, including recycling facilities.
  - n. The application of the Code of Construction Management Guidelines and requirements for construction, routing, implementation, safeguarding for

London City Airport, protection and ensuring amenity of completed areas of development, noise and dust minimisation.

- o. Identification of land reserved for ELT and DLR to include land for temporary works and construction and any additional protection or restriction zones.
- p. Details of the lighting scheme, having particular regard for the need to protect the riparian habitat and operational requirements of London City Airport
- q. Demonstrate compliance with the energy and sustainability implementation plan
- r. The provision of facilities as necessary to meet the operational requirements, where appropriate, of the emergency services, namely fire, ambulance and police.
- s. The application of the findings of the Updated Flood Risk Assessment (Document 22), Drainage and Flood Defence Strategy (Document 21) and Flood Defence Breach Analysis (Document 27).
- t. The provision of regulated buffer zones alongside the watercourses known as the Thames, Ship and Shovel sewer, Goresbrook, Buzzards Mouth Creek, ordinary watercourses and constructed wetlands.
- u. The setting-back of built development to minimise shading of watercourses (Thames, Ship and Shovel Sewer, Goresbrook, Buzzards Mouth Creek ordinary watercourses and constructed wetlands).
- v. Proposals for access design, general public movement, safety features and a strategy to promote, where appropriate, water recreation, provision of a public slipway or similar means to launch trailer borne craft, riverside amenity, marine management and river transport, in respect of the Riverside Promenade, Coal Wharf and T-Jetty.
- w. The provision of a green roof masterplan.
- x. Set out and demonstrate the measures to be employed to mitigate the effects of operations outside the site upon the future occupation and enjoyment of the development proposed.
- y. The provision of suitable flood warning measures and a scheme setting out their specification, implementation, management and maintenance.
- z. A statement describing compliance of the Zones and Stages with the access strategy.
- aa. A statement describing compliance of the Zones and Stages with the play sport and recreation strategy
- bb. Arts development

Reason:

To ensure that the details of the development are acceptable to the Council and that the subsequent reserved matters submission are appropriately considered.

*Note: The sub-framework plan will be accompanied by the various strategies identified in the S106, e.g. affordable housing, education, public open space, and sustainability management plans.*

8. Prior to the commencement of each Zone or part thereof, full details of the development of that part shall be submitted to and approved by Council. Development shall not be carried out otherwise than in accordance with the particulars and drawings so approved, such drawings to show:-
- a. The layout of the development on the Zone or part thereof;
  - b. The siting, design and external appearance of the buildings including materials to be used on external surfaces;
  - c. The means of access to the Zone or part thereof;
  - d. The use of any part of the Zone not proposed to be covered by buildings and their treatment (including roadways, pavings, gates, walls and fences and waterfront safety measures);
  - e. The extent, location and position of the floorspace to be devoted to each use hereby permitted;
  - f. The accommodation for car and coach parking, including the number of spaces, their location and a scheme for their management and signage taking account of disabled persons needs.
  - g. The accommodation for the loading and unloading of vehicles;
  - h. The layout of roads for the circulation of vehicles within the Zone or part thereof;
  - i. The layout of public footways, cycleways and other means of public access within the Zone or part thereof;
  - j. The scheme for lighting roads, footpaths, cycleways, the river frontage and all other areas accessible to the public (where appropriate), including the height of lighting columns and the types, colour and brightness of proposed lights;
  - k. Measures taken to protect and enhance areas of importance for their nature conservation value, particularly the nature reserve, the inter-tidal mud flats and relict areas of riverside marshland.
  - l. Details of play, formal and informal open space per Zone or part thereof.
  - m. Where the Zone or part thereof includes land that would comprise or form

part of the proposed Thames-side path, full details of the provision of access for servicing and maintaining the river defences and associated structures, access for emergency vehicles and access for recreation of that part where appropriate

Reasons:

- (i) To ensure that the details of the development are acceptable to the Council; and
- (ii) The application is submitted in part, in outline only and refers solely to the use of the land.

### **Strategic Infrastructure and Servicing**

9. Prior to the first submission of the first sub-framework plan, full details for the provision of strategic infrastructure and servicing shall be submitted to the Local Planning Authority. Occupation of any Stage shall not commence until such details are completed in accordance with an agreed phasing scheme. Such details to be approved in writing by the Council prior to commencement and shall address:
- (a) Primary and secondary roads and related infrastructure as shown on drawing 108F200C and 108F201B.
  - (b) Flood defence works and surface and foul waste attenuation, management and servicing. Flood defence works shall be repaired or otherwise altered as necessary to provide for a 50 year life and at a height, stability and strength to resist tides to a level of 8.1m AOD
  - (c) Service and infrastructure provisions, including diversions and phasing details.
  - (d) The phasing of the details having regard to the proposed Spatial Programming (Document 20) and condition 5.

Reason:

To ensure that strategic infrastructure and servicing is compatible with sub-framework plans and subsequent reserved matters.

### **General Layout and Framework**

10. The development of the open spaces local and district centres site shall accord with the Framework Plan No. 108F100D unless otherwise agreed in writing by the Council.

Reason:

To ensure that the scheme implemented is in accordance with the principles established by this permission

11. The development and density of the residential units shall be as shown on drawing 108F011B unless otherwise agreed in writing by the Council

Reason:

To ensure that the scheme implemented is in accordance with the principles established by this permission

12. Within each Zone, a range of densities shall be provided with the highest densities reflecting levels of public transport accessibility.

Reason:

To ensure a sustainable pattern of development.

### **Partial Discharge**

13. Unless otherwise agreed in writing, where any condition is discharged on a partial basis (i.e. in relation to a Stage, Zone or part of ), the submission shall be accompanied by a statement setting out the relationship of such details to previous Stages or Zones, or part of , the details of which have already been determined, and subsequent Stages Zones as appropriate. The statement shall demonstrate compliance and compatibility with the various details, strategies, drawings and other documents approved pursuant to this planning permission. The statement shall be submitted to and approved in writing by the Council prior to commencement of the relevant Stage, Zone or part of.

Reason:

To ensure that the scheme is implemented on a comprehensive and sustainable basis.

### **Ground Levels**

14. The proposed finished ground levels shall generally accord with those shown on drawing (108F910 Rev. M) unless otherwise agreed in writing by the Council.

Reason:

To ensure that the scheme implemented is in accordance with the principles established by this permission.

### **Code of Construction Management**

15. Prior to the first submission of the each sub-framework plan, a Code of Construction Management shall be submitted for approval in writing by the Council. No development shall commence on that Stage until the relevant code has been approved.

Reason:

To minimise impact on residential amenity and the environment.

## **Floorspace**

16. The total amount of residential development within Use Class C3 (Dwelling Houses) shall not exceed 10,800 units.

Reason:

To ensure that the scheme implemented is in accordance with the principles established by this permission.

17. Unless agreed otherwise, the total floorspace for uses other than those falling within Use Class C3, but excluding Use Class D1 educational floorspace shall not exceed 65,600 sq.m. of which:
- i) Not more than 19,700 sq.m. shall fall within Use Classes A1 to A5, within which only one unit falling with Use Class A1 shall be greater than 2,500 gross sq.m. which shall be no bigger than 8,000 sq.m.
  - ii) Not more than 11,250 sq.m. shall fall within Use Class B1.
  - iii) Not more than 2,400 sq.m. shall be provided as sui generis mixed use 'live-work' units.
  - iv) Not more than 4,800 sq.m. shall fall within Use Class C1 and 22,000 sq.m. within Use Class C2.
  - v) Not more than 2,450 sq.m. shall fall within Use Class D1 (excluding education uses) and 3,000 sq.m. within Use Class D2.
  - vi) Use Class D1 education uses shall comprise up to 4 no. up to 3 form entry primary schools, of a gross site area not more than 15,000 sq.m. each. A 1 no. 8 form entry secondary school totalling not more than 44,585 sq.m. shall be provided. In addition, a school playing field not exceeding 14,313 sq.m. shall be provided. A 250 sq.m. unit shall also be provided for an Ecology Centre for education purposes (Use Class D1).

Reason:

To ensure that the scheme implemented is in accordance with the principles established by this permission.

## **Building Scale**

18. The maximum height of development above existing AOD shall not exceed the parameters set out in plan 108F013D and shall not exceed 76m AOD. The height

of development within 50m of the river front as shown on the plan shall not exceed 12m AOD

Reason:

To ensure that the scheme implemented is in accordance with the principles established by this permission.

## Remediation

19. The site shall be remediated in accordance with the principles as set out in the Ground Conditions Assessment and Outline Remediation Strategy (Document 5), permission (LPA Ref. TP/43/93) dated 4 January 1994 and The Environmental Impact Assessment (Appendix 17 of EA).

Reason:

To ensure that the site is remediated to an appropriate level.

20. Any buildings proposed as part of this application, within any particular Stage of the remediation programme, shall not be occupied until the remediation of that Stage has been completed in accordance with the Ground Conditions and Assessment and Outline Remediation Strategy.

Reason:

To ensure that the site is remediated to an appropriate level.

21. Any buildings within 50m of the former landfill site shall not be occupied until the Landfill site has been remediated in accordance with condition 20

Reason:

To ensure that the site is remediated to an appropriate level.

22. No development of a Zone or part thereof approved by this permission shall be commenced until a remedial method statement for disused culverts, tunnels and sumps has been submitted to and approved by the local planning authority in consultation with the Environment Agency. Development shall then proceed in strict accordance with the method statement.

Reason:

To prevent pollution of the water environment.

23. No development of a Zone or part thereof approved by this permission shall be commenced until a Quantitative Risk Assessment (related to the end use for each part of the site) for TPH (Total Petroleum Hydrocarbon), PAH (Polycyclic Aromatic Hydrocarbons), phenols and cyanide has been submitted to and approved in writing by the Council in consultation with the Environment Agency. An appropriate

remedial strategy shall then be agreed and implemented as part of the development.

Reason:

To prevent pollution of the water environment.

24. No development of a Zone or part thereof approved by this permission shall be commenced until a concise summary of all elevated concentrations in the gravel groundwater in conjunction with groundwater remedial proposals have been submitted to and approved by the Council in consultation with the Environment Agency. An appropriate remedial strategy shall then be agreed and implemented as part of the development.

Reason:

To prevent pollution of the groundwater environment.

## **Nature Conservation & Landscape**

25. Prior to the commencement of each Stage a scheme for the protection and enhancement where possible of nature conservation areas and landscaping of that Stage shall be submitted to and approved by the Council. This scheme shall include measures to protect areas of nature conservation importance and details of planting; ground modelling and grading of landform; road and footpath surfaces; walls, fences, gates, street lighting and other features external to the built environment. The scheme shall be in accordance with the Urban Design Guidelines, Landscape and Ecology Strategy, Landscape and Ecology Framework and the Landscape and Ecology Design and Management Guidelines and shall be implemented throughout that Stage with; (1) measures for the protection of nature conservation areas being put in place before the relevant part of the Zone commences; and (2) the landscaping elements of the scheme adjacent to built development be put in place not later than the occupation of that adjoining development; and (3) other landscape elements within or adjacent to a Zone will be completed prior to the completion of the Zone.

Reason:

To ensure that the development makes positive contribution to the appearance of the locality, that the design of landscaping is properly integrated with the design of the remainder of the development and that the landscaping is provided as soon as possible after building work.

26. No development approved by this permission shall be commenced until an ecological monitoring scheme has been submitted to and approved in writing by the Council in consultation with the Environment Agency. The monitoring scheme shall be carried out as approved

Reason:



To demonstrate successful translocation of flora or fauna, mitigation and / or compensation measures.

27. Prior to the commencement of development of a Zone or part thereof, a landscape management plan, including long term design objectives, management responsibilities and maintenance schedules for all landscape areas, other than small, privately owned domestic gardens, shall be submitted to and approved in writing by the Council. The landscape management plan should include a planting scheme for the site. The approved scheme shall be carried out in accordance with a programme for planting and maintenance related to stages of completion of the development. The landscape management plan should also include proposed cladding / materials treatment of buildings and buildings form and use that face the river and the Jetty Square.

Note : Review against landscape and ecology guidelines.

Reason:

To protect / conserve the natural features and character of the area and to protect, restore or replace the natural features of importance within or adjoining the watercourses. To show how the buildings relate to the public domain and the vision of a vibrant riverside of destination quality.

28. In the event of any tree or shrub on the site, or provided as part of the approved planting scheme, dying or being removed during or within five years of the completion of each phase of the development, it shall, unless the Council has agreed to its removal, be replaced during the next available planting season by a tree of the same species or a species approved by the Council, provided that the maintenance of that tree or shrub is still the responsibility of BRL or BRCDT.

Reason:

To safeguard the appearance of the development and the character of the area and to protect the amenities of the immediate neighbourhood.

29. Prior to the first submission of the first sub framework plan a detailed scheme for the design and treatment of the riverside and wetland buffer zones (to include enhancements to the river wharf, design of the flood bund and other such enhancements as set within the Landscape & Ecological Framework) shall be submitted and approved by the Council. Development shall, be carried out in accordance with the approved details

Reason

To protect and conserve the natural features of importance within and adjoining the water courses and wetlands

30. Buffer zones shall be measured from the top of the bank and shall be free of structures, hardstanding (including footpaths) and fences. Domestic gardens should not be incorporated into the buffer zones. Details must include the design, method

of construction, dimension, elevations, profile, materials lighting and planting lists. Any planting should be limited to appropriate native species only

Reason

To protect and conserve the natural features of importance within and adjoining the water courses and wetlands

## **Transport**

31. No more than 1500 residential units shall be occupied until the Transport & Works Act Order for the DLR has been confirmed by the Secretary of State.

Reason

To ensure the development of a sustainable community

32. No more than 4000 residential units shall be occupied until the Docklands Light Railway extension is operational through the site

Reason

To ensure the development of a sustainable community

33. All roads will be constructed to an adoptable construction specification to be agreed with the Council and all designs for roads will be subject to safety audits and must meet the requirements of these audits.

Reason

To ensure highway safety

## **Footpaths / Cycleways**

34. The strategic network of footpaths and cycleways shall be provided concurrently with the completion of the relevant Stage

Reason:

To ensure that the public have maximum access to the area of the development, including the riverside areas.

## **Parking and Servicing**

35. The accommodation for car parking and for loading and unloading of vehicles to the development to be approved pursuant to condition number 8 shall be provided before the commencement of the use of the buildings hereby permitted in each

Zone of part thereof of the development and shall be retained permanently for the accommodation of the vehicles of the occupiers or persons calling at the premises only and shall not be used for any other purpose.

Reason:

To avoid the obstruction of the surrounding streets by waiting vehicles and to safeguard the amenities of adjacent properties.

### **Archaeology**

36. No development of any Zone or part thereof shall take place until the BRL have secured the implementation of a programme of archaeological work in accordance with a written scheme for investigation which has been submitted by the applicant and approved by the Council. The development shall only take place in accordance with the detailed scheme pursuant to this condition. The archaeological works shall be carried out by a suitably qualified investigating body acceptable to the local planning authority.

Reason:

Significant archaeological remains may survive on the site. The planning authority wishes to secure the provision of archaeological investigation and the subsequent recording of the remains prior to development in accordance with the guidance and model condition set out in PPG16.

### **Safeguarding Surfaces – London City Airport**

37. Prior to the commencement of each Zone or part thereof of the method of construction, including details of the use, location and height of cranes and other plant and equipment or temporary structures, shall be submitted to and approved in writing by the local planning authority in consultation with the operator of London City Airport.

Reason:

To ensure that safeguarded surfaces for London City Airport are not infringed.

### **Wharves / Slipway**

38. Prior to provision of the riverside walkway or part thereof, a scheme detailing the location, dimensions, content and maintenance of public information signs detailing the operation of safeguarded wharves adjacent to the site shall be submitted to and approved in writing by the Council. The approved signs shall be installed prior to the first occupation of residential units on the site.

Reason:

In order to publicise the operation and nature of the adjacent safeguarded wharves to prospective residential occupiers.

39. Prior to public access being provided to within 50m of the riverside, provision of riparian life saving equipment shall be made along the river edge to a standard agreed in writing with the Council.

Reason:

In the interests of public safety.

### **Waste / Drainage**

40. Development of a Zone or part thereof shall not commence until details of on-site drainage works have been submitted to and approved in writing by the Council in consultation with the sewerage undertaker. No works which result in the discharge of foul or surface water from the site shall be commenced until the on-site drainage works referred to above have been completed. Such scheme shall be in accordance with the strategic infrastructure scheme submitted and approved pursuant to condition 9.

Reason:

To ensure that foul and / or surface water discharge from the site is not prejudicial to the existing water sewerage system.

### **Flood Defence**

41. All details submitted pursuant to condition 7(s) shall be designed to ensure, so far as is practicable continued operation of infrastructure during a flood event.

Reason:

To ensure adequate flood defence.

42. Alterations to grounds levels shall be so programmed to ensure that at any time there is no increase in flood risk from a breach to third parties or unacceptable flood risk to occupants of those parts of the site that have already been developed. Flood risk shall be considered from all sources.

Reason:

To ensure adequate flood defence.

43. Outfalls to the River Thames shall be designed to minimise impacts on the structure of the tidal defence structures and the river environment.

Reason:

To maintain the integrity of the tidal flood defences and to protect / conserve the natural features and character of the area.

44. At a minimum the following areas shall be left free from permanent built development and all other significant development unless fully compensated and agreed in writing by the Council:

A horizontal strip 16 metres wide landward of and adjacent to the existing River Thames flood defences;

All land riverward of the River Thames flood defences;

A horizontal strip 8 metres wide adjacent to the Goresbrook, Ship and Shovel and Buzzards Mouth;

6m wide accesses from the public highway to these strips and land riverward of those flood defences with adequate provision for the manoeuvre of major engineering plant.

5m of any ordinary watercourses and constructed wetlands.

Reason:

To retain access to the watercourse for the Environment Agency to carry out its functions and to protect the river environment.

45. There shall be no storage of materials within 16m of the Thames, 8m of a main watercourse and 5m of an ordinary watercourse during construction. These areas must be suitably marked and protected during development. There shall be no access within this area during development, no firing, dumping or tracking of machinery within this area without the prior permission of the Council

Reason:

To reduce the impact of the proposed development on the buffer zone and the movement of wildlife along the river corridor.

## **Acoustics**

- 46 The developer shall ensure that the Acoustic performance of the residential units meets the requirements of BS 3233 'good' or such similar standard that may be revised from time to time

Reason

To protect the amenities of future occupiers.

## **Housing**

47. BRL must provide

- i) 41% of the habitable rooms across the whole development on an affordable basis
- ii) 41% of the habitable rooms in each Stage on an affordable basis unless otherwise agreed with the Council and if in any Stage the percentage of affordable habitable rooms varies from 41% then the variance shall be taken into account and applied when fixing the percentage of affordable habitable rooms for the subsequent Stage(s) so that the aggregate provision of affordable housing across the site is 41% of habitable rooms
- iii) Not less than 50% of the affordable habitable rooms on a socially rented basis unless otherwise agreed in writing by the Council and the GLA

Reason

In order to provide a good mix of development and ensure a sustainable community.

48. At least 30% of all residential units must have 3 bedrooms or more

Reason

In order to provide a good mix of development and ensure a sustainable community

### **Community Development Trust**

- 49. BRL must agree with the Council the final form of the BRCDT prior to approval of the first Sub Framework Plan
- 50. Prior to the approval of each Sub Framework Plan the community development strategy must have been submitted to and approved by the Council

**NOTE:** For the purposes of the above conditions the term “Council” means either the Local Planning Authority of the London Borough of Barking and Dagenham to be clarified prior to the signing of the S.106 agreement

## **.Informatives**

i) The applicant is advised that the tidal flood defence level, which is 7.1 metres AOD at this site, must be maintained at all times with temporary works if necessary. Contact: Ian Blackburn (Environment Agency) on 0207 091 4013 for further details.

ii) With regard to the buffer zones, the subject of conditions 6 and 42, the applicant is advised that:

buffer zones shall contribute towards protecting and enhancing the natural features of importance within or adjoining watercourses and wetlands. Detailed schemes for the design and treatment of buffer zones shall include the design, method of construction, dimension, elevations, profile, materials and planting lists. Buffer zones shall be subject to the following minimum requirements:

enhancements to the river wall, design of the floodbund and other such enhancements as set within the Landscape and Ecological Framework for the Thames buffer zone;

measurements shall be made from the top of the bank;

free from structures, hardstanding (including footpaths), fences and domestic gardens;

planting schemes consisting of native species only;

the setting back of built development to minimise shading;

external lighting shall be directed away from the buffer zones and associated watercourses and wetlands.

A wider buffer zone than 16m should be established in the waterfront hard landscaped section of the Thames frontage area as:

the width of the buffer zone must be in proportion to the planned density of buildings and height of buildings in this area;

the intended use of the river front in this section of the development is intensive and as such attention needs to be paid to the continued protection of biodiversity, landscape character of the Thames and recreational use of the Thames throughout this zone.

iii) Under the terms of the Water Resources Act 1991 the prior written consent of the Environment Agency is required for any discharge of sewage or trade effluent into controlled waters (e.g. watercourses and underground waters), and may be required for any discharge of surface water to such controlled waters or for any discharge of sewage or trade effluent from buildings or fixed plant into or onto waters which are not controlled waters. Such consent may be withheld.

Contact: Regulatory Water Quality (Environment Agency) on 01707 632442 for further details.

iv) Under the terms of the Water Resources Act 1991 the prior written consent of the Environment Agency is required for dewatering from any extraction or development to a surface watercourse.

Contact: Environment Agency on 01707 632707 for further details.

- v) Under the terms of the Water Resources Act 1991 and the Land Drainage Byelaws 1981 the prior written consent of the Environment Agency is required for any proposed works or structures in, under, over or within 8m of the bank of the Goresbrook, Ship & Shovel sewer and Buzzards Mouth sewer main river.

Contact: Nadia Brannon (Environment Agency) on 01707 632629 for further details.

- vi) Under the terms of the Water Resources Act 1991 and the Land Drainage Byelaws 1981 the prior written consent of the Environment Agency is required for any proposed works or structures either affecting or within 16m of the tidal flood defence structure.

Contact: Ian Blackburn on 0207 091 4013 for further details.

- vii) The proposed development may involve carrying out an exempt activity as set out in Schedule 3 of the Waste Management Licensing Regulations 1994. This would require registration.

Contact: Environmental Management (Environment Agency) on 01707 632702 for further details.

- viii) Proposed abstractions from watercourses may require consent from the Environment Agency.

Contact Kelly Pottle (Environment Agency) on 01707 632306 for further details.

- ix) The development of this site is likely to damage archaeological remains. The applicant should therefore submit detailed proposals in the form of an archaeological project design. The design should be in accordance with the appropriate English Heritage guidelines.

- x) The applicable guidance for working safely near to overhead lines is the Health and Safety Executive Guidance Note GS 6 – Avoidance of Danger from Overhead Electric Power Lines obtainable from HSE books, tel. 01787 881165. All relevant site staff should be aware of this guidance.

- xi) At 400,000 volts that statutory minimum ground clearance is 7.6m and 8.1m to a road. Further detailed clearances are stated within Technical Specification 43.8 which can be obtained from Engineering Directorate, Energy Networks Association, 18 Stanhope Place, Marble Arch, London W2 2HH, tel. 0207 706 5100.

- xii) If any changes in ground levels are proposed within the vicinity of the overhead line which might reduce safety clearances to the line, then further discussions with National Grid must take place prior to works starting to ensure these clearances are maintained.

- xiii) No plant, machinery, scaffolding or personnel should encroach within 5.3m of the 400,000 volt conductors (wires) when under their worse condition of maximum sag and swing.



- xiv) Should any mobile plant or equipment be brought on site which can extend its height from the standard position e.g. tipper wagon or crane, then further discussions with National Grid must take place prior to works starting to ensure these clearances are maintained.
- xv) If a landscaping scheme is proposed National Grid Transco advise that trees should not be planted directly beneath or immediately adjacent to the overhead lines as the height of those trees as they mature may affect statutory clearances. Should the developer wish to landscape the area beneath the overhead lines it is suggested that slow growing, lower height species should be considered.
- xvi) No excavation or test bores should take place which would disturb the overhead lines tower foundations, which can extend beyond the base area of the tower.
- xvii) The applicant should note that unrestricted vehicle access to towers and equipment is required at all times. During construction works the tower legs should be protected with suitable protective barriers.
- xviii) The applicant is advised to contact Energis Communications Ltd who may also have apparatus in the vicinity of the site. Their address for all plant enquiries is: Energis Enquiries, c/o Gridcom, Claremont House, Hatters Lane, Croxley Business Park, Watford, WD18 8TR.
- xix) The applicant is advised to contact the local electricity distribution company for any services they may have in the locality.
- xx) The applicant is reminded that any works in, on or over the mean high water mark of the Thames, such as the refurbishment and reuse of the jetty, will require the benefit of a Port of London river works licence.
- xxi) The applicant is advised that Essex & Suffolk Water Company mains cross the site. The company have advised that the mains are protected by an easement.
- xxii) The applicant is advised that public sewers cross the site and that no building will be permitted within 3 metres of the sewers without the approval of Thames Water.
  - a) Thames Water recommended that:
    - New connections to the public sewerage system do not pose an unacceptable threat of surcharge, flooding or pollution;
    - Wherever possible surface water is disposed on-site without recourse to the public sewerage system;
    - Foul and surface water are separated.
- xxiii) In preparing the Sub-Framework Plans and Reserved Matters pursuant, consideration should be given to the form and articulation of built development fronting the river. In accordance with the Urban Design Framework and Urban Design Guidelines the Local planning Authority will wish to avoid a uniform and continuous building-line to reduce visual bulk and prominence and maximise visual and physical permeability.

## List of Abbreviations

AOD	above ordnance datum
BRCDT	Barking Riverside Community Development Trust
BRE	Building Research Establishment
BREEAM	Building Research Establishment Environmental Assessment Method
BRL	Barking Riverside Limited
CABE	Commission for Architecture and the Built Environment
CDT	Community Development Trust
CHP	combined heat and power
COCP	Code of Construction Practice
CTRL	Channel Tunnel Rail Link
C2C	London Tilbury Southend rail link
DCLG	Department for Communities and Local Government
DfES	Department for Education and Skills
DLR	Docklands Light Railway
Dph	dwellings per hectare
EDS	Education Delivery Strategy
EIA	Environmental Impact Assessment
ELT	East London Transit
ES	Environmental Statement
ESCo	Energy Services Company
FE	form entry
FP	footpath
FRA	flood risk assessment
GLA	Greater London Authority
GOL	Government Office for London
HGV's	heavy goods vehicles
LAPs	local areas for play
LDA	London Development Agency
LEA	local education authority
LEAPs	local equipped areas for play
LFCDA	London Fire & Civil Defence Authority
LFEPA	London Fire & Emergency Planning Authority
LPA	local planning authority
LTGDC	London Thames Gateway Development Corporation
LWT	London Wildlife Trust
MPA	Metropolitan Police Authority
NEAPs	neighbourhood equipped areas for play
NGT	National Grid Transco
NHBC	National House Builders Confederation
NPFA	National Playing Field Association
PCT	Primary Care Trust
PFA	pulverised fuel ash
PPG	Planning Policy Guidance
PPS	Planning Policy Statement
PTAL	public transport accessibility level
RSPB	Royal Society for the Protection of Birds
SFP	Sub-Framework Plan
SLE	Skills, Learning and Enterprise (Division)
SPG	supplementary planning guidance
SSSI	Site of Special Scientific Interest

SUDS	sustainable urban drainage systems
TA	Transport Assessment
TFL	Transport for London
UDP	Unitary Development Plan
WHO	World Health Organisation

Councillor Charles Fairbrass

Leader of the Council

Members' Room

Civic Centre

Dagenham

RM107BN

[ ] September 2006

Dear Charlie

### **DLR extension for Barking Riverside**

Further to the recent meeting with you and your colleagues and the Secretary of State, I agreed to write to you confirming my and TfL's commitment to the development of the extension of the Docklands Light Railway which would serve the Barking Riverside development.

As the Secretary of State confirmed at our meeting, Barking Riverside is a flagship development for Government. The delivery of appropriate infrastructure, including transport links, is clearly an important element in delivering this development. I accept that the construction of the DLR extension for Barking Riverside is an important part of the necessary transport infrastructure to support the development. As a consequence, this project is second only to Crossrail in my personal priorities.

TfL's original 5 year Investment Programme only made provision for initial development work on this project. However, following discussions with Government and at my request TfL has now established a team to enable the project to be taken forward to seek an Order under the Transport and Works Act (TWA) for powers to construct the extension. Funding in TfL's Investment Programme which extends to 2009/10 was accordingly increased from the £0.4 million originally allowed for feasibility work to £4.5 million. The project is now being taken forward with all speed and TfL currently estimates it will be in a position to make application for the TWA Order in January 2008 in anticipation that the Secretary of State would be in a position to grant such an order in early 2009.

On this timetable, procurement of the project is likely to occur in the second half of 2010 with construction of the extension starting in 2011. These dates lie beyond the period to 2009/10 for which TfL has confirmed funding from Government. There will accordingly be a need in a subsequent Spending Review, probably beyond the Comprehensive Spending Review in 2007, for TfL to secure a funding settlement which will allow it to enter into the PFI contract.

The other issue we discussed was the Renwick Road junction, where it was agreed that we needed to look to DCLG and yourselves to help put together the funding package for the improvements. TfL may be able to offer some help with this, but there is no allocation in the current programme, and given the additional call on resources that I am prepared to make to take forward the DLR, it is only right that B&D and DCLG (probably through the Thames Gateway UDC, which I understand has some £27.4m unallocated in its transport budget) should help as well. It would be useful to have early confirmation from both B&D and the UDC, that this is the case.

I hope this letter provides the comfort you have been seeking as to the importance that I attach to this project and that TfL is setting aside the resources to take it forward with all speed.

Yours sincerely

## BARKING RIVERSIDE

### Executive Summary

#### 1.0 What does the BRCDT do?

- 1.1 The BRCDT's roles and responsibilities very much overlap with many other areas important to the creation of a sustainable community, including transportation, biodiversity, social inclusion, community cohesion, health and wellbeing, education, affordable housing, maintenance and management of social and community infrastructure, sport and play space and generally creating a community in which people want to live.
- 1.2 The primary objectives of the BRCDT include:
- 1.2.1 Acting as an interface between the new and existing communities by:
- (i) Being a port of call for members, residents of all tenure within the community to contact with any concerns, issues and suggestions with the running of their own emerging community e.g., how the open space, community buildings are managed and cared for;
  - (ii) Facilitate (and in some cases start) discussions between existing organisations and the potential users of new community interests, for example City Farm. In that example the BRCDT will be proactively managing the biodiversity of open space under the guidance of the London Wildlife Trust in order to enhance City Farm;
  - (iii) Employing residents from the wider community (i.e. both from within the development and outside) in the day to day management and maintenance of public space and uses and other social enterprises.
- 1.2.2 Provide open and useful space as a destination area in their own right. These areas will therefore become part and parcel of the everyday lives. They will be accessible to all, both in the immediate community and also for the wider public within the borough. The facilities will be open not only from an accessibility point of view but also from an interest point of view by involving a wide range of recreational facilities (i.e. a range of art, cultural, religious, health, recreational and sporting uses).
- 1.2.3 Work in partnership with LBBD to pro-actively manage sport, leisure and culture. Many services will be shared by different parts of the community to improve sporting standards and interests. The community will be invited to make their interests and preferences known so that the users can guide actual provision. For example, BRL is providing a series of sports facilities under the Section 106 Agreement that are capable of lasting for many years and if, over the years, the community decide that, for example, a football pitch is better turned into a series of tennis courts then the community and the BRCDT can work together to achieve that

change. Of course, all changes will be regulated by a fair and open and democratic process (see below for membership of the BRCDT and voting rights).

- 1.2.4 Work with LBBD to maximise local employment opportunities. There are specific obligations on BRL to provide job opportunities to the local community and coordination will be through the BRCDT.
- 1.2.5 Take an active role in the Barking, Riverside Transport Strategy Steering Group (the custodian of the Barking Riverside, transport strategy). This allows residents a unique opportunity to feed ideas and concerns into the provision of green transport measures that form an integral part of the development.
- 1.2.6 To provide funding to sustainable transport measures as set out in the Barking Riverside Transport Strategy (see below for information on how money is raised).
- 1.2.7 Be on the ground and at hand to implement the sustainable transport measures put forward by the Barking Riverside Transport Steering Group, for example implementing car clubs and shop-mobility.
- 1.2.8 Develop multi-utility service companies - these one stop utility service companies are the best and most efficient ways of providing heating, electricity and communication services in terms of user friendliness, cost and environmental impact and provide public information on sustainable uses of energy and waste.
- 1.2.9 Being the custodian and caretaker of community infrastructure including non-adopted streets, open space and public realm. These areas will be managed and maintained to LBBD's standards to ensure that there is consistency between the new and existing. In carrying out this role the BRCDT will employ Direct Services, just as LBBD would. As and when LBBD wish to take over the day to day management and maintenance responsibility of these areas it would be able to do so - the detail will be agreed at the first major master plan stage (known as a Sub Framework Plan Stage).
- 1.2.10 Providing, in conjunction with the Council, online education and training courses through the running of the free BRCDT website, which will include things like advertising new jobs and links to the wide range of training course that are available to the community but which often go unrecognised because of the lack of information sources. The same website will be used to advertise all of the other functions of the BRCDT and invite residents for their views on how things are run.
- 1.2.11 Facilitate socially enterprise and inclusion. What does this mean for residents? It means pro-actively working with the community to help set up a number of local initiatives that not only generate local employment and enterprise but help promote other ideologies such as sustainable development. Real life examples include organic farm box delivery and unwanted furniture collections for recycling.
- 1.2.12 Supporting nurseries in partnership with the LEA that can be afforded by all.
- 1.2.13 Organising the small things that can make a difference in everyday life but which inevitably do not always reach the top of the priority ladder and instead rely upon charitable organisations and donations; things like children's youth and sports clubs,

new mums and babies clubs and social clubs for the elderly to compliment those facilities that are already run by the social care providers.

1.3 The above list is a small snapshot of the BRCDT's role. Ultimately the list will be crafted by people within the community. There will be no restrictions upon what the list can include - the BRCDT is much more than a normal estate management company.

## 2.0 **Who makes up the BRCDT?**

2.1 BRL is committed to put in place the BRCDT prior to the first on site residential occupation. It is important the BRCDT is there for the first members of the new community.

2.2 From the early days, LBBD will play an active role by sharing the membership (and associated votes) with BRL. As and when the new community grows into new 'community parishes' the community will inherit the membership of BRL. The Section 106 Agreement will set out the terms of reference, details of membership and voting rights associated with BRCDT. This will ensure that as the local authority has a full involvement with helping the community to manage themselves and to make sure that links with existing communities of the Borough are fully maximised .

2.3 There will be separate and distinct parts of the BRCDT which might be owned slightly differently to the main entity. An example is a proposed Sports and Leisure Trust - a body aimed at owning and running the communities sports playing fields adjacent to the new schools. The Sports Trust might well be owned and controlled 100% by LBBD. The Sports Trust will ensure that the sports playing fields are available to the schools, and that the schools needs are fully met, but to maximise the accessibility of the spaces (which so often are left locked up after school hours) the Sports Trust will ensure that the spaces are made open to the community for their use. As a trust it will actively apply for various public support in terms of grant funding, for example from lottery grants.

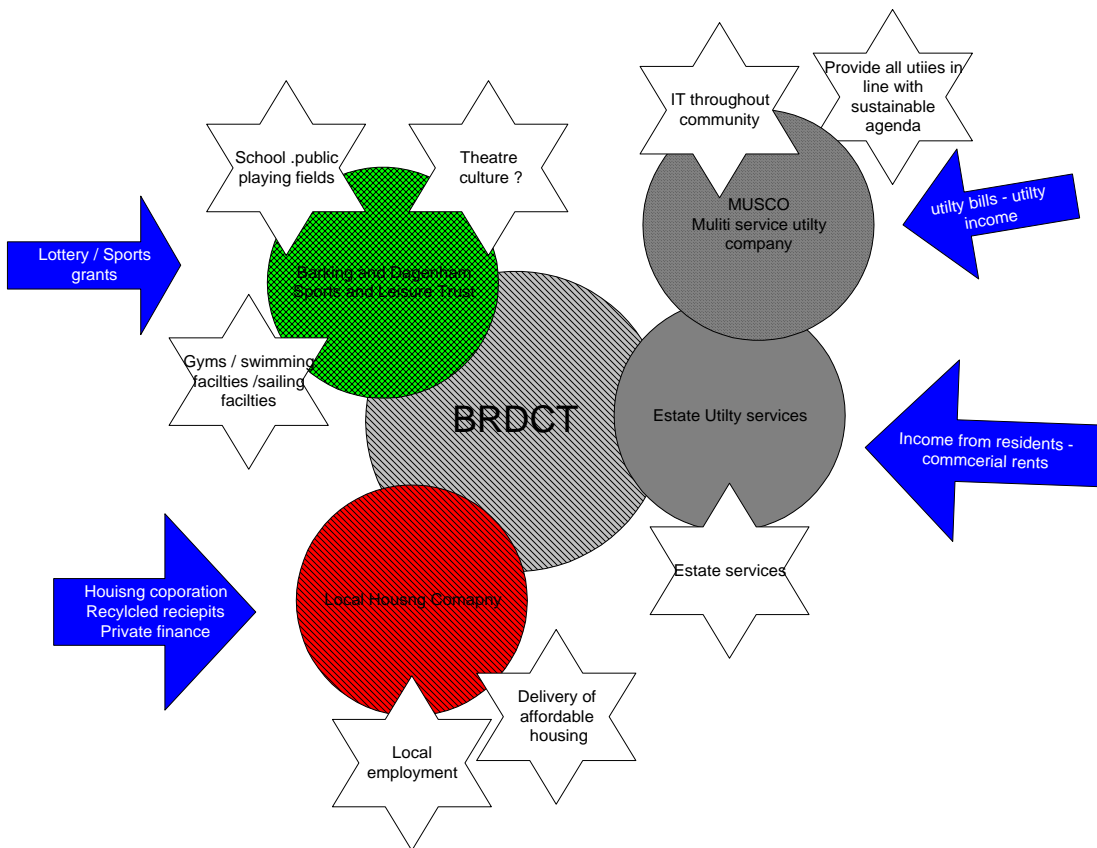
2.4 Many of the BRCDT's activities are capable of being carried out by a charity, and it is possible that part of BRCDT could actually be a charity through its services which will be for the benefit of the public. As charitable purposes, any income generated will be ploughed back in to those charitable purposes.

2.5 Residential occupiers will have their say and play an important part in the control of the BRCDT in a very similar way as a member would have a right to vote and speak if it owned shares in a listed company. The structure will be set up in a transparent way - essentially as and when a residential occupier bought their unit they will be offered a share certificate in the BRCDT. That share certificate will be passed on to any subsequent owner/occupiers. Any residential occupier owning a share certificate in the BRCDT will have a member's voting right equal to its share in the site and will be invited to join the BRCDT's general meetings and vote on key issues. In addition, there will be an open and informal process for residents to speak with the BRCDT and other members of the community via the BRCDT free website.

## 3.0 **Who will pay for this?**



- 3.1 BRL will underwrite the BRCDT until the BRCDT is self-sustaining i.e. being able to pay for the things needed to meet its roles and responsibilities. No financial burden will be placed on LBBD for items remaining within the BRCDT.
- 3.2 The BRCDT is expected to be self-sustaining quite early on in the expected 20 year build out programme (BRL will probably have to underwrite the BRCDT for the first seven years or so, or longer if needed). The BRCDT's main source of revenue will be through the collection of estate wide service charges, conveyancing fees and commercial rents. The BRCDT will also be able to apply for match-funding for both capital and revenue grants (where often the LBBD is prohibited) for example lottery funding, sports grants and charitable donations.
- 3.3 The BRCDT's income will be held in accounts properly audited and regularly checked by LBBD.
- 3.4 It is intended that LBBD will have the opportunity to look at adopting both secondary roads and open space. At the sub framework plan stage, BRL will submit to LBBD plans showing potential areas for adoption within three months of submission LBBD will advise BRL of their intention to adopt any of those areas within the SFP plan and those areas to be included within the Sports and Culture Trust. At this stage together with consideration to the submitted business plan by BRCDT for the relevant SFP area , both LBBD and BRL will seek to reach agreement on any affordable contribution towards ongoing maintenance of any adopted areas by LBBD , if agreed then LBBD will confirm the areas for adoption , which would then be adopted on practical completion. All the areas that are not adopted at this stage will then pass over to the BRCDT.
- 3.5 LBBD direct services will have the opportunity to agree contracting opportunities of behalf of the BRCDT. It is always the intention of the BRCDT to ensure full joint working with the boroughs existing services to maximise community cohesion.



Above is a illustration of the total structure , it is envisaged that LBBD as the Boroughs overall custodian will have those areas hatched if required to have a 20% holding , on those areas cross hatched 100% control and those areas dotted open for discussion but not more than 20% .