

Every **Child**
in Waltham Forest
Matters



BUILDING SCHOOLS FOR THE FUTURE

WILLOWFIELD SCHOOL - BLACKHORSE ROAD/HAWARDEN ROAD SITE
PLANNING BRIEF

May 2009

CONTENTS

1.0	INTRODUCTION	1
2.0	THE SITE AND ITS SURROUNDINGS	3
3.0	CONSTRAINTS AND OPPORTUNITIES	7
4.0	PLANNING POLICY CONTEXT	9
5.0	DEVELOPMENT GUIDELINES/PRINCIPLES	13
6.0	NEXT STEPS	17
	APPENDIX 1: PLANNING POLICY	19
	APPENDIX 2: SUSTAINABILITY AND ENERGY EFFICIENCY DESIGN	23

Background

- 1.1 Building Schools for the Future (BSF) is a major Government school buildings investment programme, which aims to rebuild or remodel every secondary school in England. The programme, launched by the Department for Education & Skills in February 2004, aims to transform education for over 3 million students aged between 11-19 years over a fifteen year period.
- 1.2 The Council is working to carry out a substantial programme of building work that will radically transform its schools and was one of the first local authorities to receive government funding to rebuild and remodel its schools. The first phase of building work within the Borough is well underway with two projects already completed:
- Aveling Park and Warwick School for Boys have combined to become the Frederick Bremer School and have moved onto a new site on Siddeley Road.
 - Refurbishment and new build at Kelmscott School is complete and pupils now benefit from new technology and purpose-built modern facilities.

- 1.3 The Council's strategy for change is ambitious, believing that its radical proposals for leadership and governance, networked learning through improved information and communications technology (ICT) and, where possible, all-age schools, will transform learning and outcomes for children and young people¹. The Council aims to develop schools as centres of their local communities, providers of services to their localities and agents for the promotion of community cohesion. They will offer the widest choice and opportunity for all.
- 1.4 The Council has five outcomes for ensuring the well-being of its children. These are:
- Happy and healthy
 - Safe and sound
 - Excellence and equity
 - On the right track
 - Staying on/economic well-being
- 1.5 The BSF programme is a main part of the Council's "sustainable communities strategy", which aims to manage population growth and change, create wealth for its residents and retain more wealth in the Borough. It is anticipated that schools will be transformed into community learning hubs and the opportunity to develop and learn new skills will be available to all and at times that will make school buildings more open to the community.

Purpose and Scope of the Planning Brief

- 1.6 This Planning Brief has been produced by Nathaniel Lichfield and Partners on behalf of the London Borough of Waltham Forest. The brief provides informal planning guidance for the relocation of Willowfield School as part of the Council's Building Schools for the Future Programme (BSF). The Council intends to establish a 6 forms of entry school on the site with provision for post-16 year old students. To assist the future development of the site, this brief offers advice, outlines the constraints and opportunities of the site and sets out guidelines for development and the requirement for future planning applications.
- 1.7 The views of the local community and key stakeholders were sought on the proposals for the site through a six week public consultation exercise. The consultation was advertised in Waltham Forest Magazine which was sent to all residents in the Borough on the 9th February 2009 and letters were sent to over 7,700 residents. The consultation included a number of public exhibitions held on 12th February 2009 at the Douglas Eyre Sports Centre (DESC), on 18th February 2009 at the Blackhorse Road Station and on 24th February 2009

- at Willowfield School. Council Officers also held sessions at Willowfield School on 11th February, 4th March and 11th March 2009, a staffed display was held at the West Walthamstow Community Council meeting on the 2nd March 2009, and finally, at the request of some local residents, a meeting took place on 18th March 2009. Consultation was also carried out with relevant Council Departments (including a Transport Officer and the Tree Preservation and Nature Conservation Officer).
- 1.8 This Planning Brief is structured in the following way:
- Section 2.0** describes the site and the surrounding area;
- Section 3.0** identifies the constraints and opportunities of the site;
- Section 4.0** provides an overview of the relevant planning policy context;
- Section 5.0** provides development guidelines; and
- Section 6.0** sets out the next steps.

¹ Further information can be obtained from the Council's BSF document "Every Child Matters"

Objectives

- 1.9 This Planning Brief responds to the Council's requirements for the site, which are:
- 1) To provide a 6 forms of entry school on the site, including provision for 55 post-16 students
 - 2) To provide a school which is fully equipped for 21st Century learning which is at the heart of the community. This Brief will guide the preparation of a project that will demonstrate how the best teaching, learning and social environments can be created in high quality and sustainable buildings, providing an environment that will inspire and motivate young people to learn and grow
 - 3) To provide state of the art, modern school buildings which are energy efficient, adaptable to climate change and incorporate on-site renewable energy, such as solar panels, wind turbines and ground source heat pumps, where feasible
 - 4) To create buildings with the inbuilt flexibility to respond to changing economic, social or environmental requirements and provide inclusive access for everyone.
- 1.10 The main objectives of this Brief are to:
- 1) identify the main constraints and opportunities that will be relevant to future development of the site;
 - 2) outline the planning policy context and identify any potential issues which arise;
 - 3) provide advice and guidelines on potential development options for the site, including details of:
 - i) Scale/massing
 - ii) Potential uses
 - iii) Floorspace requirements (in line with BB98² and Department for Children, Schools and Families guidance)
 - iv) Building lines
 - v) Provision of sports and leisure facilities
 - vi) Impact on adjacent playing field
 - vii) Relationship to neighbouring buildings and impact on amenity
 - viii) Highway/access considerations and improvements
 - ix) Sustainability
 - x) Criteria including energy efficiency and use of renewable energy
- 1.11 Consultation and feedback from local residents and key stakeholders were an integral part of the preparation of the brief.
- 1.12 In developing the site, proposals should meet the requirements of BB98, which stipulates that school buildings should inspire and enhance the following:
- 1) **Educational performance:** *opportunities to raise standards for all by offering an appropriate, adaptable and stimulating learning environment;*
 - 2) **Staff satisfaction:** *vital for the recruitment and retention of the school's most important resource, it is influenced by the various aspects of the working environment as well as appropriate space for all staff to work, rest and socialise;*
 - 3) **Pupil satisfaction:** *affecting behaviour and self-esteem, and ultimately the willingness and ability to learn; and*
 - 4) **Community involvement:** *an important way to extend the integration of the school and maximise the effective access to facilities.*

2 Building Bulletin 98 (BB98): Briefing Framework for Secondary School Projects published by Department for Education and Skills

2.0 THE SITE AND SURROUNDINGS

The Site

- 2.1 Covering an area of 1.83 hectares, the site is broadly triangular in shape. Blackhorse Road forms the eastern boundary of the site. Blackhorse Road Station is located to the north and the railway line adjoins the northern boundary of the site. The southern boundary predominantly comprises the rear gardens of properties which front onto Hawarden Road and the Douglas Eyre Sports Centre (DESC) and playing field. The DESC forms the western boundary of the site.
- 2.2 The site currently comprises two elements, including offices and maintenance store and a vacant building, which was last in use as a laundry. The site previously included the former maintenance store of the Hawarden Estate.
- 2.3 The main vehicular access to the site is obtained from Blackhorse Road. There is a secondary, currently unused, access serving the southern part of the site, which is obtained from Hawarden Road. There are a limited number of trees on the site with some located along part of the southern boundary, adjoining the rear gardens of properties fronting onto Hawarden Road, and a number located within the site.



Site Boundary



Points of Interest



- 1. Douglas Eyre Sports Centre (DESC)
- 2. Tennis Court
- 3. Warehouse
- 4. Builders Yard
- 5. Blackhorse Road Station

Figure 2.1: Aerial Photograph of Blackhorse Road/Hawarden Road site (Image obtained from and used under licence from Google Earth Pro)



Figure 2.2 (top): View looking west across the site towards Warwick Reservoir East

Figure 2.3: View looking south along Blackhorse Road, with the site entrance on the right hand side of the photo

The Surrounding Area

- 2.4 The surrounding area is predominantly in residential use to the south and south east, comprising mainly terraced two-storey Victorian properties. There is a mixture of commercial and industrial uses to the east and north of the site with an office building directly opposite the site to the east. Beyond the railway line, to the north, is a garage with Forest Road and a Strategic Employment Area ¹ beyond.
- 2.5 The area to the west comprises the DESC. Warwick Reservoir East is beyond the playing fields to the west and High Maynard Reservoir is located to the north west of the site, with Low Maynard Reservoir beyond. The reservoir and associated land are designated as a Site of Special Scientific Interest (SSSI).
- 2.6 The boundary of the Lee Valley Regional Park, which incorporates the DESC and reservoirs, adjoins the site to the south west.
- 2.7 Stoneydown Park which is accessed from Blackhorse Road is located 110m to the south east of the site.
- 2.8 Forest Road Neighbourhood Centre is located 680m to the north east. The boundary of Walthamstow Major Centre is located 580m to the south east. There is also a local parade of shops on the eastern side of Blackhorse Road, to the north east of the site.
- 2.9 Blackhorse Road Railway Station is located directly to the north of the site and Walthamstow Queens Road Railway Station is located 1.2km to the south east, providing services between Barking and Gospel Oak. St James Street Railway Station and Walthamstow Central Railway Station are located 730m and 1.45km respectively to the south east of the site, providing a service between Chingford and Liverpool Street.
- 2.10 The London Underground (Victoria Line) can be accessed from Blackhorse Road and Walthamstow Central Underground stations providing services to central and south London.
- 2.11 There are also a number of bus routes which run close to the site, including the 158 and 230, serving Chingford Mount, Stratford, Upper Walthamstow and Wood Green. The 123 runs to the north of the site along Forest Road serving Wood Green and Ilford.

¹ As defined by the London Borough of Waltham Forest UDP (see Section 4.0 below)



Figure 2.4 (top): Blackhorse Road site entrance
Figure 2.5: Access to the DESC from corner of Hawarden Road/Edward Road

Figure 2.6 (top): View looking north along Blackhorse Road, with site boundary on left hand side
Figure 2.7: View looking east towards the site from DESC

Figure 2.8 (top): Hawarden Road/Blackhorse Road junction
Figure 2.9: Surrounding residential street of Hawarden Road



KEY

Site boundary	
Lee Valley Spine tunnel	
22m easement to tunnel	
Residential frontage	
Main/busy road	
Existing vehicular access	
Key pedestrian crossing	
Long range views	
Sensitive boundaries	
Sensitive boundary to land adjoining the DESC	
Existing building	
Gardens	
Blackhorse Road Station	
Playing field	
Green corridor	
Existing trees	
Lee Valley Regional Park	
Archaeological Priority Zone	
Railway / noise	
Green belt	
Bus stop	
Incline	
Flood zone boundary	
Flood zone boundary - (may be subject to amendment after more detailed flood risk assessment)	



Fig: 3.1: Constraints Plan

3.0 CONSTRAINTS AND OPPORTUNITIES

Introduction

3.1 The site is required for the relocation of Willowfield School. The main constraint arises from the site's limited size, but development should also be located away from the flood zones, which run along the site's western boundary. The shape of the site and access provision will also prove challenging, given the definitive boundaries of Blackhorse Road, Hawarden Road, the DESC and the railway line to the north.

Constraints

3.2 The development of this site is subject to a number of constraints. These can be summarised as follows:

- 1) The site is not currently within the Council's ownership.
- 2) The western-most part of the site might lie within flood zones 2, 3a and 3b with consequent impact upon the location of future development (before an application is submitted, the flood zones boundaries will need to be agreed with the Environment Agency).
- 3) Part of the site is located within a designated Archaeological Priority Zone (UDP).
- 4) Alignment of the Lee Valley Spine Tunnel, which cuts across the western end of the site, with an easement covering an area of approximately 22m either side of the tunnel's centre line.

- 5) The proposed site is small but should not be less than the minimum (confined) site size, in accordance with BB98 and Department for Children, Schools and Families (DCSF) guidance. The design should seek to minimise the building footprint and maximise the external areas.
- 6) Any proposal to use the adjacent playing fields (to gain up to 0.17 hectares for external space) would have implications in terms of ownership and depending on the nature of the proposal, possible designation issues (playing field, Green Belt, green corridor etc). Discussions with the London Playing Fields Foundation (LPFF) would be necessary.
- 7) Given the close proximity of residential properties to the south of the site, new development would need to ensure the protection of residential amenity, in particular issues of overlooking, privacy and overshadowing.
- 8) Proximity of the overland railway line along the northern site boundary means that measures will need to be incorporated to protect the amenity and health and safety of students/ staff.
- 9) The use of acoustic glazing and other noise attenuation measures etc will need to be incorporated.
- 10) Possible generation of increased traffic movements along Blackhorse Road and the surrounding residential streets, such as Hawarden Road and Edward Road.

- 11) The combination of the limited site area, the shape of the site, the proximity of neighbouring residential properties, the flood zones and the alignment of the Lee Valley Spine Tunnel, restrict the positioning of buildings on the site .
- 12) Change in level between Blackhorse Road and the eastern edge of the site and between the western edge of the site and the DESC.
- 13) Proximity of the existing, main site vehicular access to the Blackhorse Road/Forest Road junction.
- 14) Possibility of contamination on the site due to existing and previous land uses (including scrap yard industrial uses, and former railway sidings).

Opportunities

3.3 Despite these constraints, the site offers a number of opportunities including:

- 1) Potential to enhance a visually unattractive site in a key location on Blackhorse Road.
- 2) Attractive quality and protected status of the adjacent land including its designation as Green Belt, Green Corridor, Playing Fields, as well as the proximity of the Lee Valley Regional Park boundary.
- 3) Relatively good pedestrian routes and transport links, as the site has a medium Public Transport Accessibility Level (PTAL) rating, located adjacent to Blackhorse Road Station.

- 4) Opportunity for a future partnership with the LPFF, who own the DESC and possible future integration and possible use of the DESC for external space.
- 5) Potential to facilitate a new fully accessible pedestrian and cycle route from Blackhorse Road and Coppermill Lane to Forest Road via a reopened underpass under the railway line at the northern end of the playing fields.
- 6) The site is located within the preferred Willowfield School catchment area and close to a large residential population.
- 7) There may be an opportunity to incorporate residential accommodation above the school building on the Blackhorse Road frontage.
- 8) Potential to enhance the quality and security of the boundaries of the residential properties backing onto the site from Hawarden Road and retain the existing trees.
- 9) Improvements to the existing site access and pedestrian access to the playing fields for pupils and other users, subject to agreement with the LPFF.
- 10) Improvements to long range views into the site from the playing fields to the south.
- 11) Creation of a habitat/ecology area related to the existing green corridor.
- 12) Provision of an attractive, environmentally sensitive "landmark" building which responds to its context and enhances its surroundings.
- 13) Potential to optimise community use of the site outside school hours.

4.0 PLANNING POLICY CONTEXT

Introduction

- 4.1 This section provides a brief summary of the main policy issues which relate to the redevelopment of the site, including:
 - 1) Provision of education facilities;
 - 2) Site designations;
 - 3) Flood risk;
 - 4) The open environment; and
 - 5) Design.
- 4.2 More detailed policy analysis is provided in Appendix 1. This policy summary is based on national planning policy and the development plan for the site, which comprises:
 - *The London Plan (consolidated with alterations since 2004) - the Mayor's Spatial Development Strategy (The London Plan) adopted in February 2008; and*
 - *Waltham Forest Unitary Development Plan First Review (UDP) adopted in March 2006.*
- 4.3 The Council adopted an Interim Planning Policy Framework "*Blackhorse Lane: Fulfilling the Potential*" (IPPF) in September 2006. This was prepared following extensive consultation with local residents, businesses, landowners and other key stakeholders. The Framework does not replace policies contained within the UDP, but is a material consideration in the determination of planning applications and provides a "*framework for the period between the time of adoption of the UDP and the introduction of the Waltham Forest Local Development Scheme*" (Para 1.2). This Framework should be read alongside the London Plan and the UDP.

4.4 The Council is at a relatively early stage of the Local Development Framework (LDF). The Council completed consultation on its *Core Strategy - Issues and Options* in August 2008 and is currently drafting policies for its pre-submission draft of the *Core Strategy*.

Designations

- 4.5 As the extract from the Proposals Map in Figure 4.1 shows, the site was designated as a Major Opportunity Site (although from 1 April 2009, this policy has not been saved and no longer applies) and part of the site is located within an Archaeological Priority Zone.
- 4.6 In addition, the Lee Valley Regional Park boundary and a green corridor run along the south western boundary of the site. The area adjacent to the south west boundary of the site (the DESC) is designated as Metropolitan Green Belt and as a Playing Field.
- 4.7 Parts of the western end of the site might fall within flood zones 2, 3a and 3b (before an application is submitted, the flood zone boundaries will need to be agreed with the Environment Agency).
- 4.8 The vision set out in the IPPF is for residential development on the site (BHL2a) and a relocated Willowfield School on the northern end of the DESC (BHL2b).

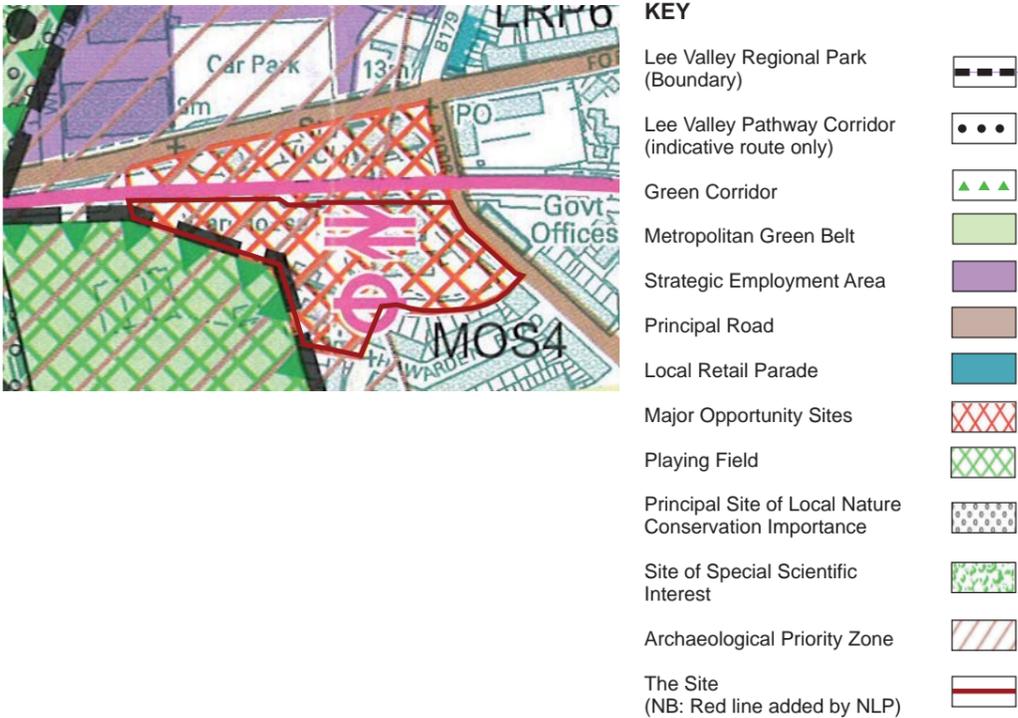


Fig: 4.1: UDP Proposals Map Extract

Provision of Education Facilities

- 4.9 Planning policy recognises that the Borough has a duty to provide schooling for children of compulsory school ages (5-16 years old) and that many of the Borough's education sites and buildings fall below modern curriculum standards and Government space requirements (UDP paras 5.9, 5.17 and 5.52).
- 4.10 The Council is committed to improving standards of education accommodation in schools to meet the Government's space requirements (UDP GCS6). The London Plan encourages Boroughs to adopt a criteria based approach to the provision of different types of educational facilities and the expansion of existing facilities, taking into account the need for new facilities; the potential for expansion of existing provision; and the proximity to homes and workplaces (Policy 3A.24).
- 4.11 The use of schools in the evenings and at weekends by the wider community is encouraged (London Plan para 3.114; UDP para 5.56). The emerging Core Strategy recognises that regeneration opportunities may exist to develop suitable, well-sited schools as 'community hubs' that offer a range of learning and related facilities in conjunction with other providers offering services to the wider community to provide better, joined-up service delivery (Issue 6.3).
- 4.12 The IPPF notes that it is proposed to move Willowfield School to a new site just south of Blackhorse Road Station.

Flood Risk

- 4.13 Parts of the site may fall within Flood Zones 2, 3a and 3b. If this is the case, accordingly, the Council requires that development proposals do not result in an unacceptable increase in the risk of flooding. Where appropriate a Flood Risk Assessment will be required in accordance with PPS25¹(UDP Policy WPM18).

1 Planning Policy Statement 25: Development and Flood Risk (December 2006)

The Open Environment

- 4.14 The DESC to the south west of the site is subject to the following site specific designations:
- 1) **Green Belt** - the UDP endorses the principles set out in PPG2² that the essential characteristic of Green Belts is their permanence and their protection must be maintained (UDP policy ENV2 and ENV3). PPG2 requires that the visual amenity of the Green Belt should not be injured by proposals for development visible from the Green Belt, which might be visually detrimental by reason of their siting, materials or design (para 3.15).
 - 2) **Playing Field** – the UDP confirms that the Council will seek to retain existing playing fields and seek to secure their improvement where appropriate policy (policy ENV20);
 - 3) **Green Corridor** – the UDP confirms that development which endangers the integrity of Green Corridors will be resisted, but the conservation and enhancement of such features will be promoted (policy ENV11); and
 - 4) **Lee Valley Regional Park (LVRP)** – policy ENV13 supports the LVRP Authority’s efforts to increase the range and quality of leisure and amenity provision available to the Borough’s residents.

2 PPG2: Planning Policy Guidance 2: Green Belts (published January 1995 and amended in March 2001)

Design

- 4.15 In general terms, planning policy at all levels requires development to maximise the potential of sites and promotes high quality inclusive design (PPS1³; London Plan Policy 4B.1; UDP policy BHE2).
- 4.16 The following are also important design considerations:
- 1) The impact of development upon the amenity of neighbouring properties (UDP policy BHE3);
 - 2) The creation of an inclusive environment; and
 - 3) New development should be designed to reduce the opportunities for crime.
- 4.17 The IPPF identifies a number of key development and design issues for the area, including the potential to create a dramatic gateway or landmark development of exceptional quality and improve access to green space and DESC.

3 PPS1: Planning Policy Statement 1: Delivering Sustainable Development (2005)

Other issues

- 4.18 A number of other issues are relevant to the preparation and consideration of development proposals for this site, which are set out in more detail in Appendix 1, but include:
- 1) **Movement/Travel:** planning policy encourages the use of more sustainable transport and integration with development to reduce the need to travel, especially by car. A restraint based approach to car parking provision is also adopted (PPS1, PPG13⁴; London Plan policies 3C.1, 3C.3 and 3C.23; and UDP policies TSP9 and TSP17). The Lee Valley Authority Park Plan 2000 includes a Park-wide proposal for a combined pedestrian and cycle route running north-south throughout the length of the Park, on its eastern side (Proposal PW6);
 - 2) **Archaeology:** as the site is within an archaeological priority area, PPG16⁵ requires that archaeological considerations should be dealt with from the beginning of the process. The development plan requires that archaeological heritage is preserved and protected where possible (London Plan policy 4B.15; UDP policy BHE17);

4 Planning Policy Guidance 13: Transport (2001)

5 Planning Policy Guidance 16: Archaeology and Planning (1990)

- 3) **Protection of Trees:** the protection, maintenance and enhancement of trees, which are of public amenity value and of value to nature conservation is encouraged (London Plan policy 3D.15; UDP policy ENV22); and
- 4) **Sustainability:** energy efficiency and renewable energy is encouraged through all levels of planning policy (See Appendix 2 for further details)

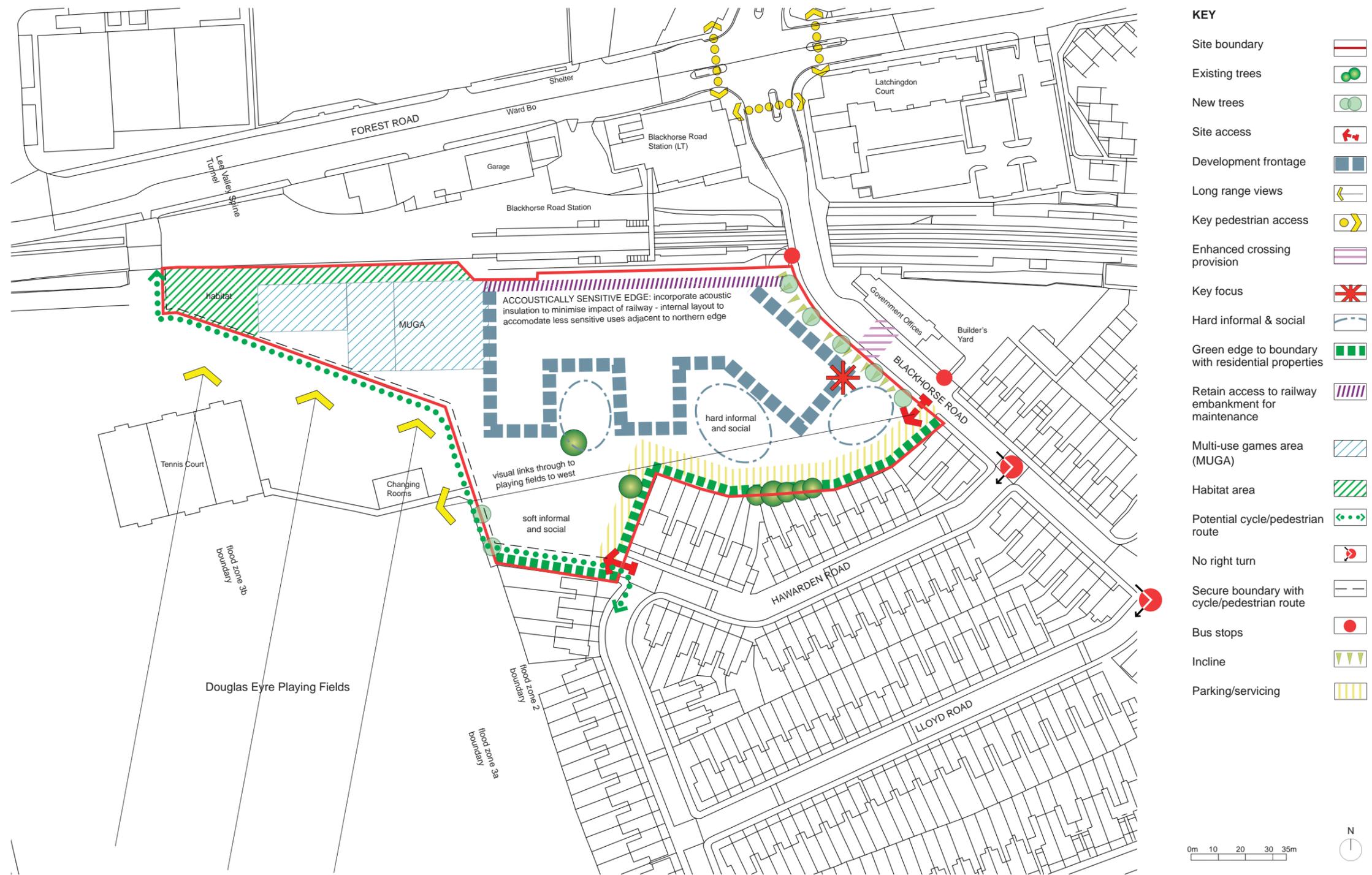


Fig: 5.1: Opportunities Plan

Introduction

- 5.1 This section sets out development principles that takes into account the site constraints (outlined in section 3.0 above), educational and space requirements, together with a desire to encourage a successful development which will enhance the local context and be a hub of activity throughout the day.

The Principle of a School Development

- 5.2 Council officers recognise that the development of a school on the site could be viewed as an alternative use to that which is stipulated within the IPPF (see the policy outlined in section 4.0 above and at Appendix 1). However, given that the proposed school will have a range of uses, including, but not limited to, the use of the school building out of hours as a 'community hub' and provision of 55 post-16 students for higher education, the development will retain a broad range of functions that will fully utilise its value. The development of this site should consider the co-location of housing development on-site, in conjunction with the school, potentially for key workers. Furthermore, mixed use development opportunities should be investigated within the redevelopment of the existing Willowfield School site, as a means of addressing any loss of mixed use opportunity.

Area Requirements

- 5.3 The area requirements will be in accordance with Department for Children, Schools and Families (DCSF) guidance for a 6 forms of entry pupil school comprising provision for 11-16 secondary including 55 post-16 places.

Buildings and Site Features

- 5.4 There are limited features which will be retained within the site, however, they include:
- Existing trees along the site's boundaries (where feasible)
 - The change in level between the eastern edge of the site and Blackhorse Road and between the western edge of the site and the playing fields.

Site Layout

- 5.5 As the analysis in section 3.0 above has highlighted, the site presents three key constraints to development:
- 1) The position of the railway line to the north of the site not only creates a physical barrier to movement, but also creates a potential noise issue for any proposed development.
 - 2) The proximity of residential properties to the south will require that a sensitive approach is taken to the layout of the site to minimise any adverse impacts.
 - 3) The limited site area, combined with restrictions imposed by the flood zones, the easement to the Lee Valley Spine Tunnel and the proximity of residential properties, restricts the positioning of buildings on the site.
- 5.6 Given the position of the site adjacent to residential properties, it is important that development takes into account issues of privacy and overlooking, and that the impacts on daylight and sunlight are examined (following the Building Research Establishment (BRE) "*Site Layout Planning for Daylight and Sunlight: A Guide to Good Practice*" (BR209, 1991).
- 5.7 When considering the relationship between the rear of existing residential properties and any new development, distances should be in accordance with LBWF Supplementary Planning Guidance '*Residential Development Design Standards*' (June 1996), which requires the distance between windows to be 10m per storey, or 6m per storey where blank walls face the rear of a residential property.

- 5.8 One possible approach to the development of this site is illustrated in the plan shown in Figure 5.1 (opportunities plan) and described below:

- 1) The main body of the development is located towards the northern site boundary, exploiting its longest axis, minimising impact upon the residential properties to the south and limiting the potential of overshadowing of residential properties.
- 2) Development wraps around the eastern boundary to provide a strong frontage to Blackhorse Road and a degree of enclosure to the remainder of the site.
- 3) Site usage is maximised by incorporating service functions to the northern side of the building, together with elements requiring limited/no windows.
- 4) The design of the building will need to take into account the railway line to the north and will need to incorporate appropriate acoustic protection etc.
- 5) Development should be located away from the western edge of the site, due to the proximity of the spine tunnel and associated easement zone, together with possible flood zone constraints.

- 5.9 In accordance with the aspirations of the IPPF, development of the site should also seek to:

- 1) Improve access to the playing fields for pupils and other users (subject to agreement with the LPPF)
- 2) Maintain and improve sports facilities
- 3) Minimise noise and traffic disturbance and
- 4) Maintain open views

Access

- 5.10 The Council instructed JMP Consultants Ltd (JMP), to provide specialist transport and highways advice in respect of relocating Willowfield School.
- 5.11 Three possible options have been considered and the associated opportunities and challenges of these options have been identified. However, further analysis would be required before the most appropriate option emerges, as well as consultation with Transport for London.
- 5.12 The possible options that have been assessed are set out as follows:

Option 1: Single Point of Access (from Blackhorse Road)

- 5.14 This option would mean that all vehicle movements, as well as the main pedestrian and cycle access, would be obtained via Blackhorse Road. A secondary access for pedestrians, cyclists and emergency vehicles only, would be provided on Hawarden Road and the access would be secure (i.e. locked) to prevent unauthorised access.

Opportunities:

- 1) Land take from internal roads is minimised
- 2) Options for single or multiple car parking areas
- 3) Unlikely to require any interventions on roads to the south
- 4) Closest option to preferences expressed by local residents and interest groups

Challenges:

- 1) Cumulative effects of traffic on Blackhorse Road would need careful assessment and considerable parking restraint would be required
- 2) Location of access is likely to be highly constrained by visibility issues
- 3) Proximity of access to Hawarden Road needs to be considered
- 4) Some on-street parking on Blackhorse Road may be lost

Option 2: Access on Blackhorse Road and Staff Parking Access on Hawarden Road

- 5.15 The option would mean that the main pedestrian, cycle, servicing, emergency, visitor and disabled access is obtained from Blackhorse Road. Staff car parking and secondary emergency vehicle, pedestrian and cycle access would be obtained via Hawarden Road. This option assumes that access from Hawarden Road would be strictly controlled (i.e. by card-activated gates).

Opportunities:

- 1) Large vehicles do not need to travel on the local, residential roads
- 2) Staff car trip numbers are relatively modest, so impact on local roads is constrained
- 3) Reduces traffic using the Blackhorse Road junction, which may reduce the complexity of highway works needed at this location
- 4) Circulation strategy for the wider residential area can be developed
- 5) Does not require a continuous road throughout the site

Challenges:

- 1) Location of Blackhorse Road entrance remains constrained by visibility
- 2) Staff require proper access to school buildings and therefore additional entry points may be needed
- 3) A turning circle or hammerhead for large vehicles would be required

Option 3: Circulatory Route for Site Traffic

- 5.16 This option involves a possible circulation route through the site (i.e. “in and “out” access points), although the degree of circulation employed could be flexible. The main vehicle, pedestrian and cycle entrance would be obtained from Blackhorse Road. JMP has confirmed that large vehicles are physically capable of exiting via Hawarden Road (following tracking tests), but exit via Edward Road would not be possible.

Opportunities:

- 1) Potential for removal of left-turn exit on to Blackhorse Road if visibility or other safety problems are identified
- 2) Could allow narrower internal routes through the site, due to a one-way only operation
- 3) Depending on location of servicing areas, the requirement for turning circles or hammerheads may be unnecessary

Challenges:

- 1) Any servicing or bus movement along Hawarden Road would require careful management (i.e. avoiding peak times)
- 2) More land take within the site would be needed internally for roads compared to other options
- 3) Internal roads could cause severance between different areas of the Site

Scale/ Massing

- 5.17 Development will need to take into account the existing urban fabric, with the surrounding streets (including Blackhorse Road and Hawarden Road) being primarily two storey residential properties.
- 5.18 Development immediately to the west of the site should take into account not only the flood zone constraints, but also the proximity of, and potential impact upon, the adjacent Green Belt and green corridor.
- 5.19 Given the restricted developable area, it is anticipated that the main built element of the school could be three-storeys or more in height. Locating the higher elements towards the northern edge of the site will limit any impact upon the more sensitive residential uses to the south.
- 5.20 Development immediately to the north of the site will need to consider the proximity of the railway embankment, both in terms of access for maintenance purposes and as a source of noise.

Boundary Treatment

- 5.21 In accordance with ‘Secured by Design’ principles, the entire site perimeter should be enclosed in order to control access via a minimal number of access points (see 5.14 above).
- 5.22 Given the level change between the site and Blackhorse Road, it may be possible to minimise the height and subsequent visual impact of fencing along this key boundary, by exploiting the change in level together with the possible inclusion of “defensive planting”.
- 5.23 In order to retain views through to the DESC and beyond and to maximise natural surveillance, a visually permeable boundary treatment should be used along the site’s western boundary. Generally fencing along this boundary should be a minimum of 2.4m in height, vandal resistant, anti-climb and unobtrusive (e.g. painted green). Planting alongside the fencing would improve the appearance. If the change in level permits, the use of a lower fence with defensive planting should be considered.
- 5.24 A similar specification of boundary treatment used along the western perimeter will be required along the northern boundary, to provide a barrier to unwanted entry into the site from the north, and to create a secure boundary preventing trespass onto the railway embankment to the north.
- 5.25 The boundary with the residential properties to the south will require a sensitive treatment in order to minimise impact upon residents and to reduce the potential for rear boundaries to be breached. The use of “defensive planting” along the bottom of the boundary wall/ fence could provide an additional barrier/ deterrent.
- 5.26 Development should avoid any adverse impact upon existing trees, either within the site or along its boundaries. The distance of development from trees should conform with BS5837: 2005 ‘*Guide for Trees in Relation to Construction*’, and be agreed with the Council’s Tree Preservation and Nature Conservation Officer.

Focal Points

- 5.27 There is the potential to create a landmark building towards the north-eastern corner of the site, addressing Blackhorse Road. Such an approach has been highlighted within the IPPF as an aspiration for the site. It would act not only as a beacon for the wider area, but also provide a strong presence for the school on this key site.

Open Space/ Playing Field Provision

5.28 The open space requirements for this site, as determined using BB98 & BB99 key formulae (and calculated by Studio Aitken using 'confined site' formulae) are as follows:

Type of provision	ON SITE Outdoor space provision		Off site provision
soft informal & social	3,200 sq.m	To be accommodated within development site	-
games courts (MUGA)	2,520 sq.m	To be accommodated within development site	-
hard informal & social	1,840 sq.m	To be accommodated within development site	-
habitat	1,160 sq.m	To be accommodated within development site	-
float	5,800 sq.m	To be accommodated within development site	-

5.29 Due to the restrictive nature of the site, pitch provision will need to be made off-site preferably within the adjacent DESC, working with the LPFF who own the DESC.

5.30 A well designed practical habitat area with an associated pond is key to the school's aspirations and could be incorporated within Sustainable Drainage Systems. This could be accommodated on the north western edge of the site, linked in with the adjacent 'green corridor' that runs along the boundary of the site and within the possible flood zone area.

5.31 Opportunities should be taken to enhance the natural environment within the site, including additional planting outside the habitat area, and the incorporation of bird boxes etc.

Sustainability and Energy Efficiency

5.32 It is a priority for the Council that this development provides a high quality, energy efficient development with sustainability being central to its design and construction. It should aim to:

- 1) Minimise pollution;
- 2) Conserve water;
- 3) Reduce waste;
- 4) Encourage recycling; and
- 5) Promote biodiversity.

5.33 The detailed design should aim to be a resource-efficient layout and enable sustainable construction.

5.34 Levels of sustainability of the development will be guided by the following methods of control:

- 1) The Government requires all new school building projects to achieve at least a "very good" standard on the internationally recognised independent BREEAM design assessment – which assesses energy and water conservation, sustainable transport, low impact construction material use and biodiversity on school sites
- 2) Application of the Building Regulations (in particular "Part L: Conservation of Fuel and Power") which aims to reduce significantly carbon emissions
- 3) Adherence to local planning policies which encourage sustainable development

5.35 Overall development should seek to deliver a sustainable and energy efficient development through creating well designed and laid out building(s) that minimise resource consumption, with full consideration being given to the use of renewable energy sources.

5.36 Further details concerning potential sustainability and energy efficiency measures are included at Appendix 2.

Introduction

- 6.1 Once a scheme has been finalised, including further consultation, it will be necessary to seek planning permission. In respect of this, this section sets out the following:
- 1) Anticipated requirements for a full planning application submission
 - 2) The site is over 0.5 hectares and it will be necessary for the Council to provide a Screening Opinion in connection with the requirement for an Environmental Statement (the relevant Regulations are set out below) and
 - 3) Consultation requirements

Anticipated Planning Application Submission Requirements

- 6.2 Based on the DCLG guidance *'The Validation of Planning Applications Guidance for Local Planning Authorities'* (December 2007) and the Council's Validation Checklist (updated April 2008), the following documents will be required to accompany the planning application:
- 1) Design and Access Statement
 - 2) Planning Statement
 - 3) Transport Assessment
 - 4) School Travel Plan
 - 5) Flood Risk/Sustainable Drainage Statement
 - 6) Statement of Community Involvement
 - 7) Archaeology Statement
 - 8) Air Quality Assessment
 - 9) Sustainability and Energy Efficiency Statement (including a Feasibility Study)
 - 10) Noise Impact Assessment (to address issues associated with the railway)
 - 11) Vibration Study
 - 12) Tree Survey/Arboricultural Survey
 - 13) Nature Conservation and Ecological Assessment
 - 14) Contaminated Land Study
 - 15) Crime Prevention Report
 - 16) Sunlight/Daylight Assessment
 - 17) Lighting Assessment
 - 18) Refuse and Recycling Strategy
 - 19) Site Waste Management Plan

Requirement for an Environmental Impact Assessment (EIA)

- 6.3 As the site is over 0.5 hectares it will be necessary for the Council to provide a Screening Opinion to establish whether an Environmental Impact Assessment would be required.
- 6.4 Under Schedule 2 of the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 (as amended by the 2008 Regulations¹), an *"Urban Development project on a site exceeding 0.5 hectares (category 10(b))"*, requires that an EIA be undertaken where *"the development is likely to have significant effects on the environment by virtue of factors such as its nature, size or location"*.
- 6.5 In determining whether the development is likely to give rise to significant environmental effects, reference should be made to Schedule 3 of the 1999 Regulations, which set out the *"Selection Criteria for Screening Schedule 2 Development"*. This identifies three categories of criteria:
- 1) Characteristics of the development (such as size, cumulative effects, use of natural resources, production of waste, pollution and nuisance, and risk of accidents)
 - 2) Location of the development (by reference to the environmental sensitivity of the area)
 - 3) Characteristics of the potential impact (having regard, in particular to the extent of the impact, its transfrontier nature, magnitude and complexity, probability and duration, frequency and reversibility)

Consultation

- 6.6 Consultation should be carried out with local residents and key stakeholders through the normal planning process.
- 6.7 Proposals should also be discussed with statutory consultees and the relevant Council departments at an early stage in the preparation of the more detailed development proposals.
- 6.8 The following potential statutory consultees will need to be consulted:
- The Greater London Authority (GLA)
 - The local highway authority
 - Transport for London (TfL)
 - The Environment Agency
 - English Heritage
- 6.9 In addition, given the proximity to the railway line, consultation with Network Rail and the London Underground will

¹ The 2008 amendments came into effect on 1 September 2008.

also need to be carried out.

Referral to the Mayor

- 6.10 The scope for the GLA's intervention is contained within the Town and Country Planning (Mayor of London) Order 2008. Under Article 3, Local Planning Authorities (LPAs) are required to notify the Mayor of "*applications of potential strategic importance*". Applications for development that meet or exceed the following category of thresholds can trigger the potential for the Mayor's intervention in determining the applications:

Category 3E	Development - (a) which does not accord with one or more provisions of the development plan in force in the area in which the application site is situated; and (b) comprises or includes the provision of more than 2,500 square metres of floorspace for a use falling within a use class including class D1 (non-residential institutions).
----------------	--

- 6.12 On this basis, any proposed planning application would be referable to the Mayor.

Contacts

Ian Ansell
Section Manager
(Development Management)

Development Management
Environment & Regeneration
London Borough of Waltham Forest
Sycamore House
Forest Road
E17 4JF
T: 020 8496 6706
E: ian.ansell@walthamforest.gov.uk

Ron Presswell
Programme Manager

Urban Design team
Environment & Regeneration
London Borough of Waltham Forest
Sycamore House
Forest Road
E17 4JF
T: 020 8496 6736
E: Ron.Presswell@walthamforest.gov.uk

Introduction

1. This Appendix sets out in more detail national policy, statutory development plan policy and other material planning considerations which relate to the site.
2. The development plan comprises
 - *The London Plan (consolidated with alterations since 2004) - the Mayor's Spatial Development Strategy* (The London Plan) adopted in February 2008
 - *Waltham Forest Unitary Development Plan First Review* (UDP) adopted in March 2006
3. The Council adopted an Interim Planning Policy Framework "*Blackhorse Lane: Fulfilling the Potential*" (IPPF) in September 2006. This was prepared following extensive consultation with local residents, businesses, landowners and other key stakeholders. The Framework does not replace policies contained within the UDP, but is a material consideration in the determination of planning applications and provides a "*framework for the period between the time of adoption of the UDP and the introduction of the Waltham Forest Local Development Scheme*" (Para 1.2). This Framework should be read alongside the London Plan and the UDP.
4. The Council is at a relatively early stage of the Local Development Framework (LDF) process. The Council completed consultation on its *Core Strategy - Issues and Options* in August 2008 and is currently drafting policies for its pre-submission draft of the *Core Strategy*.

Designations

5. As the extract from the Proposals Map in Figure 4.1 above shows, the site was designated as a Major Opportunity Site. This policy has not been saved and no longer applies. Part of the site is also covered by an Archaeology Priority Zone.
6. In addition, the Lee Valley Regional Park boundary and a Green Corridor run along part of the south western boundary of the site. This area adjacent to the site (the DESC) is designated as Metropolitan Green Belt and as a Playing Field.
7. The vision set out in the IPPF is for residential development on the eastern portion of the site (BHL2a), and a relocated Willowfield School on the northern end of the DESC (BHL2b) (see paragraph 5.2 above for further guidance).

Provision of Education Facilities

8. The Borough has a duty to provide schooling for children of compulsory school ages (5-16 years olds) (para 5.9). The UDP recognises that many of the Borough's education sites and buildings fall below modern curriculum standards and Government space requirements (paras 5.17 and 5.52). The Council is committed to continuing to improve standards of accommodation in schools to meet the Government's space requirements (UDP policy GCS6).

9. The London Plan encourages Boroughs to adopt a criteria based approach to the provision of different types of educational facilities and the expansion of existing facilities, taking into account the need for new facilities; the potential for expansion of existing provision; and the proximity to homes and workplaces (policy 3A.24).
10. Both the London Plan and the UDP encourage the use of schools in the evenings and at weekends by the wider community (London Plan para 3.114; UDP para 5.56).
11. Education sites that are no longer required for their existing use will be reallocated to alternative uses (UDP policy GCS8).
12. The emerging Core Strategy recognises that there is a need to provide more primary and secondary school places over the next ten years, setting out a number of options for achieving this; a) expanding existing schools, b) expanding schools only where there is a reasonable expectation of access to adjoining or nearby open space, or c) building new schools (Issues 6.1 and 6.2).
13. A regeneration opportunity may exist to develop suitable, well-sited schools as 'community hubs' that offer a range of learning and related facilities in conjunction with other providers offering services to the wider community to provide better, joined-up service delivery (Issue 6.3).

Flood Risk

14. Parts of the site may fall within Flood Zones 2, 3a and 3b. if this is the case, accordingly, the Council requires that development proposals do not result in an unacceptable increase in the risk of flooding. Where appropriate a Flood Risk Assessment will be required in accordance with PPS25 (UDP policy WPM18).

Design

15. Planning policy at all levels echoes national guidance, stating that developments should maximise the potential of sites and the promotion of high quality inclusive design (PPS1; London Plan policy 4B.1; UDP policy BHE2).
16. Development proposals should be compatible with, or improve their surroundings (in terms of layout, architectural style, scale, bulk, height and materials etc); should harmonise with the townscape and general character of the area; and provide appropriate facilities (UDP policy BHE1). Paragraph 8.9 of the UDP states that new buildings should respect local design and landscape characteristics, which include "*local design characteristics stating aspects such as orientation, detailing, roofscape, fenestration scale and the rhythm of adjoining development*".

17. The IPPF identifies that the key development and design issues for the area are:
- 1) The potential to create a dramatic gateway or landmark development of exceptional quality
 - 2) New buildings close to existing two-storey terraced housing on Blackhorse Road and Hawarden Road should be sensitive to the urban fabric
 - 3) Improve access to green space and access to the DESC for school pupils and other users by relocating the pavilion and main gate at the northern end of the facility
 - 4) Reintroduce a finer, more human scale urban grain including new fully accessible pedestrian and cycling routes, and
 - 5) Integration of school and sports facilities (and any housing development), ensuring that they complement each other. The proposals should facilitate a new, fully accessible pedestrian and cycle route from Blackhorse Road and Coppermill Lane to Forest Road via a reopened underpass under the railway line at the northern end of the playing fields. Community safety issues should be fully considered in designing this route.
18. The UDP (policy BHE3) requires that proposals do not harm the local environment of the amenity of neighbouring occupiers and states that permission for development will be granted if it:
- “a) provides a satisfactory level of sunlight, daylight, privacy and outlook for occupiers of existing and adjoining properties; and*
- b) does not prejudice the amenity of the occupiers of adjacent properties by reason of noise, vibration, fumes, smells, smoke, ash, dust, soot, grit, hours of operation or other forms of pollution; and*
- c) provides adequate arrangements for the storage, collection and disposal of refuse”*
- Creating an Inclusive Environment**
19. The London Plan (policy 4B.5) and the UDP (policy BHE5) requires that new development is designed to meet the highest standards of accessibility and inclusion. Proposals should allow disabled people to move easily through the site without unreasonable barriers or restrictions (UDP para 8.27).
- Crime and Safety**
20. Policy at all levels requires that new development should be designed to reduce the opportunities for crime, meeting the objectives of ‘Secured by Design’, ‘Designing out Crime’ and ‘Safer Places’. Buildings should provide an urban environment where outward looking buildings and natural surveillance contribute to, and benefit from, life at street level and entrances should be overlooked with good lighting (London Plan policy 4B.6; UDP policy BHE7).
- The Open Environment**
21. The DESC, to the south west of the site is subject to the following site specific designations:
- 1) **Green Belt** - the UDP endorses the principles set out in PPG2¹ that the essential characteristic of Green Belts is their permanence and their protection must be maintained (UDP policies ENV2 and ENV3). PPG2 requires that the visual amenity of the Green Belt should not be injured by proposals for development visible from the Green Belt, which might be visually detrimental by reason of their siting, materials or design (para 3.15);
 - 2) **Playing field** - the UDP confirms that the Council will seek to retain existing playing fields and seek to secure their improvement where appropriate (policy ENV20);
 - 3) **Green Corridor** - In such areas, the UDP confirms that development which endangers the integrity of Green Corridors will be resisted, but the conservation and enhancement of such features will be promoted (policy ENV11); and
 - 4) **Lee Valley Regional Park (LVRP)** - policy ENV13 supports the LVRP Authority’s efforts to increase the range and quality of leisure and amenity provision available to the Borough’s residents.

1 PPG2: Planning Policy Guidance 2: Green Belts (published January 1995 and amended in March 2001)

Movement/Travel

Highways

22. Planning policy encourages the use of more sustainable transport and integration with development to reduce the need to travel, especially by car (PPS1, PPG13; London Plan policies 3C.1 and 3C.3; and UDP policy TSP9).
23. Safe, convenient, accessible and direct pedestrian access should be provided from new developments to public transport nodes and key land uses e.g. town centres and schools. Safety for cycling and the safety and convenience of pedestrian routes to school should be encouraged and improved. The provision of sufficient, secure cycle parking facilities within developments should also be encouraged (London Plan policies 3C.21 and 3C.22; UDP policies TSP4, TSP5).

Parking

24. The Development Plan promotes a “restraint based” approach to parking provision that seek on-site car parking is the minimum necessary having regard to the public transport accessibility level (PTAL) rating of the site (UDP policy TSP17).

25. The site has a medium PTAL rating of 3, where the UDP stipulates the maximum parking provision is:
- 1 space per 2 staff members
 - 1 space per 15 students is permitted for a 6th form element, for facilities with more than 2,500sq.m of floorspace (Appendix 1)
26. Adequate disabled parking should be provided (London Plan policy 3C.23).
27. In line with the UDP, cycle parking should be provided at 1 space per 10 staff/ students (policy TSP5; Appendix 2). Cycle provision above minimum levels should be considered to allow for future growth.

Protection of Trees

28. The London Plan and UDP encourage the protection, maintenance and enhancement of trees, which are of public amenity value and of value to nature conservation. When appropriate, adequate provision should be made for the protection of existing trees and the planting of new locally indigenous species wherever possible (London Plan policy 3D.15; UDP policy ENV22).

Archaeology

29. PPG16 requires that archaeological considerations should be dealt with from the beginning of the process. It encourages discussion with the LPA at an early stage and that an initial assessment of whether the site is known or likely to contain archaeological remains (such as a desk based assessment) is carried out (para 19).
30. The London Plan and UDP require that archaeological heritage is preserved and protected where possible (London Plan policy 4B.15; UDP policy BHE17).

Sustainability

31. The London Plan states that the Mayor will work towards the long-term reduction of carbon dioxide emissions by 60 per cent by 2050 (policy 4A.2). To achieve this, the London Plan encourages the use of less energy, by adopting sustainable design and construction measures, supplying energy efficiently and in particular by prioritising decentralised energy generation (policies 4A.3 and 4A.6). The UDP requires that all new development has regard to the principles of energy efficiency (policy WPM20). Policy 4A.7 requires that developments should achieve a reduction in carbon dioxide emissions of 20% from on site renewable energy generation (which can include sources of decentralised renewable energy) unless it can be demonstrated that such provision is not feasible.

32. The London Plan promotes development that can effectively adapt to climate change, including minimising overheating and contribution to heat island effects; minimising solar gain in summer; contributing to reducing flood risk including applying principles of sustainable urban drainage; minimising water use and protecting and enhancing green infrastructure (policies 4A.10, 4A.10, 4A.13, 4A.14 and 4A.16). (additional information is contained within Appendix 2)

Noise

33. Policy 4A.20 of the London Plan requires that noise should be reduced by minimising the existing and potential adverse impacts of noise on, from, within, or in the vicinity of, development proposals.

APPENDIX 2: SUSTAINABILITY AND ENERGY EFFICIENCY DESIGN

Introduction

1. As section 5.0 above has highlighted, this development provides an opportunity to deliver a high quality, energy efficient development with sustainability being central to its design and construction. The following information presents concepts/ options which may be considered in the design and layout of the development.

Policy

2. The London Plan states that the Mayor will work towards the long-term reduction of carbon dioxide emissions by 60 per cent by 2050 (policy 4A.2). To achieve this, the London Plan encourages the use of less energy, by adopting sustainable design and construction measures, supplying energy efficiently and in particular by prioritising decentralised energy generation (policies 4A.3 and 4A.6). The UDP requires that all new development has regard to the principles of energy efficiency (policy WPM20). Policy 4A.7 of the London Plan requires that developments should achieve a reduction in carbon dioxide emissions of 20% from on site renewable energy generation (which can include sources of decentralised renewable energy) unless it can be demonstrated that such provision is not feasible.

3. The London Plan promotes development that can effectively adapt to climate change, including minimising overheating and contribution to heat island effects; minimising solar gain in summer; contributing to reducing flood risk including applying principles of sustainable urban drainage; minimising water use and protecting and enhancing green infrastructure (policies 4A.10, 4A.10, 4A.13, 4A.14 and 4A.16).

4. It should be noted that as of November 2008, the Climate Change Act commits the United Kingdom to an 80% carbon reduction target by 2050. This target is acknowledged as an important commitment to sustainability, and such commitment should be reflected in the BSF programme. It is understood that in the future the London Plan may be amended to reflect this Government target, and any further measures given to achieve this should be considered for this development.

General Design/Layout Requirements

5. To use the site to its full potential the requirement for short term flexibility (i.e. taking into account the need for change of use of the spaces from day to day) and long term adaptability (i.e. allowing for internal layouts to be altered with minimum disruption/cost to accommodate changing curriculum needs), will be of importance to the long term success and sustainability of the development.
6. Good quality design should also consider site security, wider community use, access and inclusion, including:
 - 1) Safe routes to school
 - 2) Provision of appropriate levels of cycle storage
 - 3) Clearly defined site boundaries, ensuring distinction between public and private space
 - 4) Appropriate levels of access control to site

Utilise renewable energy – reducing pollution

7. Proposals for this site should use on site renewable technology, such as:
 - 1) Solar energy technology; water heaters and photovoltaics (requiring south-east/ south facing aspect)
 - 2) Wind turbines (if deemed appropriate, in terms of context and conditions)
 - 3) Ground source heat pumps (where suitable conditions exist)
 - 4) Borehole cooling (where suitable conditions exist)
 - 5) Combined heat and power (CHP) plants
 - 6) Biomass heating systems
8. A Sustainability and Energy Efficiency Statement, including a feasibility study, will accompany any planning application, as a means of clearly assessing the site specific appropriateness of each of the above efficiency measures. It will clearly outline that the most efficient and the most sustainable method has been chosen.

Conservation of Water Supplies

9. The UDP highlights national objectives for the prudent use of natural resources (policies WPM17 and WPM19). The development of this site should endeavour to minimise demand and re-use water where possible, including measures such as:
 - Recycling rainwater and grey water where possible
 - Incorporating low flush WCs
10. Incorporating sustainable urban drainage (SUDS) is required, to reduce surface water run-off and minimise increased flood risk due to increased run-off.

Energy Efficiency

11. *Embodied Energy*: During the construction process operational efficiencies should be maximised to ensure a more energy efficient production process and to reduce the impact on the environment. Furthermore, to maximise the sustainability of this development, a careful selection of materials and use of resources should be undertaken.
12. *Passive solar design (PSD)*: The siting, orientation and design of buildings should be exploited to capture the maximum light and heat from the sun, whilst acting as a buffer to the worst of the elements. PSD can therefore reduce energy consumption through;
 - 1) The orientation of buildings and the arrangement of spaces within them. Whilst solar gain can make an important contribution to heating a building, care will need to be taken to ensure that excessive solar gain does not cause overheating (especially during the summer).
 - 2) The positioning and sizing of windows provides the potential to maximise natural daylight and reduce the need for electrical lighting.
 - 3) Utilise “*stack*” effect of rising warm air to naturally ventilate rooms, i.e. incorporating wind assisted chimneys where possible.
13. *Thermal Insulation*: To conserve energy, consideration will need to be given to:
 - 1) the provision of high levels of insulation to all exposed areas
 - 2) the sustainability level of the proposed insulation material
 - 3) the use of high performance glazing to minimise heat loss
14. *Resource control*: Wherever possible the school’s users should be made aware of their energy and water consumption, enabling teachers to make full use of the technology as a teaching resource. Lighting, heating and water usage should be minimised through incorporating;
 - 1) Energy efficient equipment
 - 2) Appropriate automatic controls
 - 3) Heat recovery systems
 - 4) Daylight sensors/ timer controls
 - 5) Zoned heating controls

Promotion of biodiversity

15. A designated ‘habitat’ area is to be provided to complement the school building, providing the opportunity to be used as an outdoor classroom resource. It should be able to support a variety of habitats which can enhance the existing provision and meet local requirements.
16. In order to further enhance the area’s biodiversity, the potential to incorporate green roofs should be investigated, providing the opportunity to:
 - 1) Reduce carbon dioxide and increase oxygen production
 - 2) Reduce the impact of runoff on the storm water drainage system
 - 3) Reduce the heat island effect
 - 4) Enhance thermal performance
 - 5) Ameliorate noise
 - 6) Potential use of recycled materials within its construction



Nathaniel Lichfield
and Partners

Planning Design Economics

Nathaniel Lichfield & Partners Ltd
14 Regent's Wharf
All Saints Street
London N1 9RL

T 020 7837 4477
F 020 7837 2277

london@nlpplanning.com
www.nlpplanning.com

Offices also in:
Cardiff
Manchester
Newcastle upon Tyne
