

# Land within the Olympic Park and at Rick Roberts Way, E15

Olympic Delivery Authority

(in the London Boroughs of Hackney, Newham and Tower Hamlets)

planning application no.11/90621/OUTODA

## Strategic planning application stage 1 referral (new powers)

Town & Country Planning Act 1990 (as amended); Greater London Authority Acts 1999 and 2007; Town & Country Planning (Mayor of London) Order 2008.

## The proposal

Comprehensive, phased, mixed use development within the future Queen Elizabeth Olympic Park, Stratford, as set out in the Development Specification & Framework. The development comprises residential uses (including student accommodation): a hotel; business and employment uses within the B1 use class; shopping, food and drink and financial and professional services within the A1, A2, A3, A4 and A5 use classes; community, health, education, cultural, assembly and leisure facilities, within the D1 and D2 use classes; new streets and other means of access and circulation, local utilities connections and diversions, construction of covered and uncovered car parking; re-profiling of site levels; the laying out of open space; removal of bridges; demolition and breaking out of roads and hardstanding; new and replacement bridge crossings; and other ancillary supporting infrastructure works and facilities.

## The applicant

The applicant is the **Olympic Park Legacy Company**, and the architect is **Allies Morrison**.

## Strategic issues

The application raises the following strategic issues: The **2012 Olympic and Paralympic Games, regeneration and employment, housing, social infrastructure, urban design, inclusive design and access, health, open space, climate change, waste, air quality, noise, flooding, waterways, equalities and transport and connectivity**.

## Recommendation

That the Olympic Delivery Authority (ODA) be advised that the application does not fully comply with the London Plan, for the reasons set out in paragraph 292 of this report; but that the possible remedies set out in paragraph 293 of this report could address these deficiencies. The application does not need to be referred back to the Mayor if the Authority resolve to refuse permission, but it must be referred back if the Authority resolve to grant permission.

## Context

1 On 6 October 2011 the Mayor of London received documents from the Olympic Delivery Authority, notifying him of a planning application of potential strategic importance to develop the above sites for the above uses. Under the provisions of The Town & Country Planning (Mayor of London) Order 2008 the Mayor has until 16 November to provide the Authority with a statement setting out whether he considers that the application complies with the London Plan, and his reasons for taking that view. The Mayor may also provide other comments. This report sets out information for the Mayor's use in deciding what decision to make.

2 The application is referable under the following Categories of the Schedule to the Order 2008:

- Category 1A - Development which comprises or includes the provision of more than 150 houses, flats, or houses and flats.
- Category 1Bc - Development (other than development which only comprises the provision of houses, flats, or houses and flats) which comprises or includes the erection of a building or buildings outside Central London and with a total floorspace of more than 15,000 square metres.
- Category 1Cc - Development which comprises or includes the erection of a building of one or more buildings more than 30 metres high outside the City of London.
- Category 3Da - Development on land allocated as Green Belt or Metropolitan Open Land in the development plan).
- Category 3E - Development 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 comprises or includes the provision of more than 2,500 square metres of floorspace for a uses falling within specified classes in the Use Classes Order.
- Category 3F - Development for a use, other than residential use, which includes the provision of more than 200 car parking spaces in connection with that use.

3 Once the ODA has resolved to determine the application, it is required to refer it back to the Mayor for his decision, as to whether to direct refusal or allow the Authority to determine it itself, unless otherwise advised. In this instance if the ODA resolves to refuse permission it need not refer the application back to the Mayor.

4 The environmental information for the purposes of the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999 has been taken into account in the consideration of this case.

5 The Mayor of London's statement on this case will be made available on the GLA website [www.london.gov.uk](http://www.london.gov.uk).

## Site description

6 The referred planning application seeks permission for development in seven "Planning Delivery Zones" around which the ODA and OPLC have structured the Olympic and Paralympic site at Stratford. These are shown on Plan 3 below and comprise:

- Within PDZ1: Land to the north of the Aquatics Centre, bounded to the west by Waterworks River and to the east by the London Overground rail line, and to the south by bridge F10B, together with land south of the Aquatics Centre, bounded to the west by Waterworks River; to the north by the highways to the south of the Aquatics Centre and to the south by the Stratford City access road and the power line tunnel headhouse compounds.

- Within PDZ2: Land bounded to the west by the City Mill River; to the north by the site of the ArcelorMittal Orbit; to the east by the Waterworks River and to the south by the Great Eastern Railway line.
- Within PDZ4: Land bounded to the west by the River Lea Navigation (Hackney Cut), together with land on the western bank of the Navigation, to the east by the Old River Lea and to the north by the London Overground Railway Line.
- Within PDZ5: Land bounded to the west by the River Lea Navigation; to the south by the London Overground Railway Line; to the east by the Parklands and to the north by the Eastway. These areas exclude the Multi Use Arena, Press and Broadcast Centres and Multi-Storey Car Park.
- Within PDZ6: Land bounded to the north by the Velopark (comprising Velodrome and BMX Track), to the east by Temple Mill Lane; to the south by the Athletes' Village (part of the Stratford City development) and to the west by the Parklands.
- Within PDZ8: Land bounded to the west by Cook's Road, to the north by Barbers Road, including land extending north to the Great Eastern Rail Line along Marshgate Lane, to the east and south by Bow Back Rivers, together with land between Warton Road and Bow Back Rivers to the south of the Great Eastern Railway Line.
- Within PDZ12: Land bounded by Stratford High Street to the north; the Greenway (Northern Outfall Sewer) to the west; Willis Road to the south and Rick Roberts Way to the east.

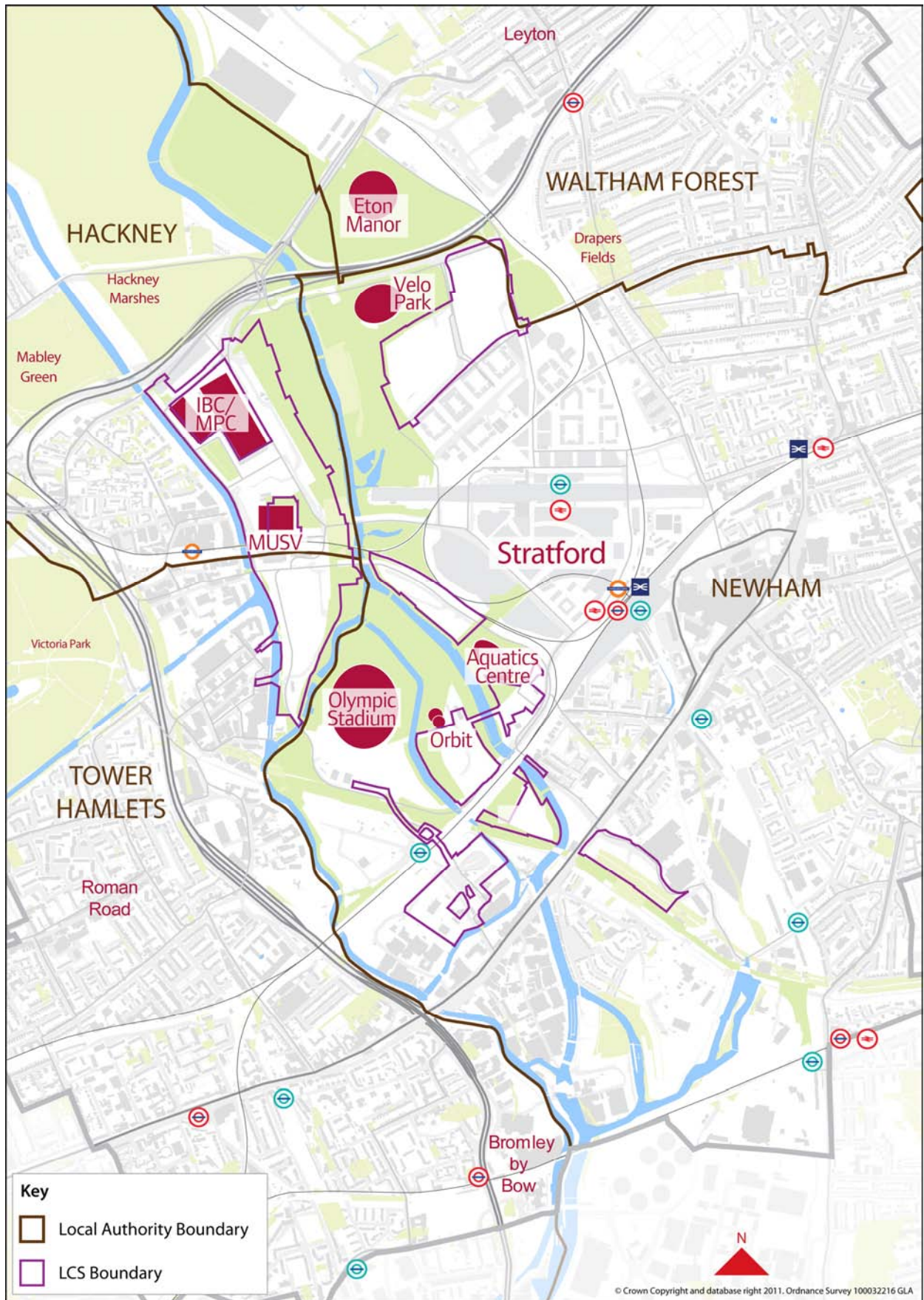
7 The LCS application boundary excludes:

- The majority of the future Queen Elizabeth Olympic Park;
- The International Broadcast Centre, Main Press Centre and multi-storey car park; and Multi-Use Sports Venue, located in Planning Delivery Zone 5;
- The Stadium Island (Planning Delivery Zone 3);
- The Aquatics Centre located in Planning Delivery Zone 1; and
- The Velopark located in Planning Delivery Zone 6.

8 The application site and local authority boundaries are shown on Plan 1 below.

## **Background**

9 The Legacy Communities Scheme (LCS) planning application boundary includes land within the London Boroughs of Hackney, Newham and Tower Hamlets, and adjoins but does not include land within the London Borough of Waltham Forest. The application has been submitted to and, subject to any decision by the Mayor of the Secretary of State, will be assessed and determined by the Olympic Delivery Authority (ODA). The ODA was established under the terms of the London Olympic Games and Paralympic Games Act 2006 and given development control powers by the Secretary of State through a Planning Functions Order made under Section 149 of the Local Government Planning and Land Act 1980.



**Plan 1 - LCS and local authority boundaries**

## Details of the proposal

10 The OPLC is seeking outline planning permission for the following:

- Residential (Use Class C3) - Up to 638,194 sqm of residential floor space in seven PDZs which the OPLC anticipate could deliver up to 6,800 homes in a mix of housing types including terraced and town houses, mews, maisonettes and apartments.
- Employment (Use Classes B1a, B1b, B1c) - A maximum of 46,139 sq. m. of employment (B1 Use Class) comprising up to 1,065 sq.m in PDZ4, up to 9,001 sq. m. in PDZ5, and up to 35,949 sq. m. in PDZ8.
- Retail, food and drink (Use Classes A1 to A5) - A maximum of 25,987 sq. m. in seven PDZs.
- Leisure and Community (Use Classes D1 and D2) - A maximum of maximum of 3,606 sq. m. of D2 uses and a maximum of 30,209 sq. m. of D1 uses.
- Hotels & Residential Institutions (Use Classes C1 and C2) - A maximum 14,500 sqm Hotel (C1) and a maximum 10,000 sqm of Student Accommodation (C2), within PDZ1.
- Construction of highways, pedestrian bridges and utilities - New primary and secondary streets and bridges, the construction of a new pedestrian/cycle bridge (H16), and local utilities connections, diversions and ancillary features. A separate non-referable planning application has been submitted by the OPLC for the extension of the heat network into PDZ12 which is not referable to the Mayor.

## Planning history

11 The London Development Agency (LDA) secured outline planning permission for the 2012 Games in September 2004 as part of London’s bid to host the Games. These permissions anticipated that the Games and their legacy would help secure a long-lasting transformation of the Lower Lea Valley and east London. These permissions were however not implemented and have now lapsed, and in 2006 the newly created Olympic Delivery Authority (ODA) prepared and secured new planning permissions on a slightly different site to that envisaged in 2004. These were approved by the ODA in 2007.

12 A number of further smaller applications were subsequently approved by the ODA for permanent and temporary buildings, as well as major landscape and public realm enhancements. These permissions form the baseline for the current LCS application and included the venues and facilities now nearing completion at Stratford. As set out above however, they did not grant permission for legacy use of the remainder of the Olympic and Paralympic site at Stratford - which is the subject of the current application. The following diagram from the OPLC’s Planning Statement depicts the different development stages. Pages 16-27 of the Statement set out a detailed planning history of the wider Olympic and Paralympic site.



Figure 3.1: The four stages of development from preparation for the Games in 2012 to the delivery of the post-Games Legacy.

## Strategic planning issues and relevant policies and guidance

13 The relevant issues and corresponding policies are as follows:

- Olympic & Paralympic Games *London Plan*
- Regeneration & employment *London Plan; the Mayor's Economic Development Strategy*
- Housing *London Plan; PPS3; Housing SPG; Housing Strategy; Interim Housing SPG; Housing SPG EiP draft, Draft Supplementary Planning Guidance Note on Affordable Housing*
- Social infrastructure *London Plan; Children and Young Peoples Play Strategy SPG*
- Urban design *London Plan; PPS1*
- Inclusive design and access *London Plan; PPS1; Accessible London: achieving an inclusive environment SPG; Planning and Access for Disabled People: a good practice guide (ODPM)*
- Health *London Plan*
- Open space *London Plan; PPG2; PPG17; draft PPS Planning for a Natural and Healthy Environment; East London Green Grid network SPG Children and Young Peoples Play Strategy SPG*
- Climate change *London Plan; PPS1, PPS1 supplement; PPS3; PPG13; PPS22; draft PPS Planning for a Low Carbon Future in a Changing Climate; the Mayor's Energy Strategy; Mayor's draft Climate Change Mitigation and Adaptation Strategies; Mayor's draft Water Strategy; Sustainable Design and Construction SPG*
- Waste *London Plan; the Municipal Waste Management Strategy; PPS10*
- Air quality *London Plan; the Mayor's Air Quality Strategy; draft replacement air quality strategy; PPS23*
- Noise *London Plan; the Mayor's Ambient Noise Strategy; PPG24*
- Flooding *London Plan; Mayor's draft Water Strategy; PPS25, RPG3B*
- Waterways *London Plan*
- Equalities *London Plan; Planning for Equality and Diversity in Meeting the spatial needs of London's diverse communities SPG; Diversity and Equality in Planning: A good practice guide (ODPM)*
- Transport and connectivity *London Plan; the Mayor's Transport Strategy; PPG13; Land for Transport Functions SPG, London Plan Alteration; Crossrail SPG, Mayor's Transport Strategy; PPG13*

14 For the purposes of Section 38(6) of the Planning and Compulsory Purchase Act 2004, the development plan in force for the area is the 2011 London Plan and the Core Strategies, saved UDP policies and adopted Area Action Plans of the London Boroughs of Hackney, Newham and Tower Hamlets. These documents together with additional borough material planning considerations are set out in Appendix 1 of this report.

15 The Mayor's 2007 Lower Lea Valley Opportunity Area Planning Framework (LLV OAPF) and Consultation Draft Olympic Legacy Supplementary Planning Guidance (OLSPG) are also material planning considerations.

## Key London Plan context

16 The London Plan sets out the Mayor's overarching vision for the sustainable development of London. This is that: Over the years to 2031 – and beyond, London should excel among global cities – expanding opportunities for all its people and enterprises, achieving the highest environmental standards and quality of life and leading the world in its approach to tackling the urban challenges of the 21st century, particularly that of climate change.

17 This high level, over-arching vision is supported by six detailed objectives which embody the concept of sustainable development and give more detail about how the vision should be implemented. These seek to ensure that London will be:

- A city that meets the challenges of economic and population growth in ways that ensure a sustainable, good and improving quality of life and sufficient high quality homes and neighbourhoods for all Londoners, and help tackle the huge issue of deprivation and inequality among Londoners, including inequality in health outcomes.
- An internationally competitive and successful city with a strong and diverse economy and an entrepreneurial spirit that benefit all Londoners and all parts of London; a city which is at the leading edge of innovation and research and which is comfortable with – and makes the most of – its rich heritage and cultural resources.
- A city of diverse, strong, secure and accessible neighbourhoods to which Londoners feel attached, which provide all of its residents, workers, visitors and students – whatever their origin, background, age or status – with opportunities to realise and express their potential and a high quality environment for individuals to enjoy, live together and thrive.
- A city that delights the senses and takes care over its buildings and streets, having the best of modern architecture while also making the most of London's built heritage, and which makes the most of and extends its wealth of open and green spaces, natural environments and waterways, realising their potential for improving Londoners' health, welfare and development.
- A city that becomes a world leader in improving the environment locally and globally, taking the lead in tackling climate change, reducing pollution, developing a low carbon economy, consuming fewer resources and using them more effectively.
- A city where it is easy, safe and convenient for everyone to access jobs, opportunities and facilities with an efficient and effective transport system which actively encourages more walking and cycling, makes better use of the Thames and supports delivery of all the objectives of this Plan.

18 Paragraph 1.54 of the Plan then goes on to confirm that all these objectives, and particularly the third (a city of diverse, strong, secure and accessible neighbourhoods), will be applied by the Mayor to the new and existing neighbourhoods in the Lea Valley that will develop and evolve following the 2012 Olympic and Paralympic Games.

## The 2012 Olympic and Paralympic Games

19 Policy 2.4 of the London Plan confirms that the Mayor will work with partners to develop and implement a viable and sustainable legacy for the Olympic and Paralympic Games to deliver fundamental economic, social and environmental change within east London, and to close the deprivation gap between the Olympic host boroughs and the rest of London. It also confirms that this will be London's single most important regeneration project for the next 25 years and will sustain existing stable communities and promote local economic investment to create job opportunities (especially for young people), driven by community engagement.

20 The Plan also commits the Mayor to prepare Olympic Legacy Supplementary Planning Guidance (OLSPG) that will:

- Set out his priorities for the Olympic Park and the surrounding areas
- Set out his long term vision for the Olympic Park and surrounding area.
- Clarify and emphasise the need for a planned approach to regeneration and change.
- Embed exemplary design and environmental quality including attention to the response to climate change and provision of exemplary energy, water conservation and waste management.
- Help meet existing and new housing needs – particularly for families.
- Consider social, community and cultural infrastructure requirements.
- Set out how the areas around the Olympic Park can benefit from, be accessible from and be fully integrated with, emerging legacy proposals.
- Promote the further managed release of appropriate industrial sites for mixed use development while still retaining key industrial land, particularly within established strategic industrial locations.
- Ensure that Legacy development within and surrounding the Olympic Park and the management of the Legacy venues and parklands focus on the development of the area for accessible and affordable sport and recreation and maximising opportunities for all to increase physical activity and reduce health inequalities.

21 Finally, policy 2.4 of the Plan confirms that the Mayor will and boroughs (in this case the ODA) should:

- Reflect and give maximum planning weight to the Olympic Legacy Supplementary Planning Guidance when preparing DPDs, and refer to and take account of the Olympic Legacy Supplementary Planning Guidance when considering planning applications within and outside the Olympic Park.
- Ensure transport projects associated with the 2012 Olympic and Paralympic Games contribute to the delivery of the Mayor's Transport Strategy and the wider needs of London.
- Establish new and enhanced north- south and east-west connections (particularly cycling and walking) within and to the Olympic Park.
- Ensure that development proposals in and around the Olympic Park embody the highest environmental standards and enhance open space provision and waterways in the area for the full range of benefits they bring.
- Promote the Olympic Park and venues as international visitor destinations for sport, recreation and tourism.



- Support the provision and creation of a range of workspaces suitable for new and existing enterprises of all kinds, including a high quality media and creative industry cluster at Hackney Wick that will provide premises and opportunities for local and global businesses, underpinned by strong technological infrastructure.
- Support the delivery of viable and sustainable legacy uses for the new permanent facilities in the Olympic Park. This will include ensuring that the facilities meet London's elite and recreational sport needs; that they are accessible and affordable; and that these objectives are fully reflected in detailed design, construction and transformation.
- Take the opportunities presented by the 2012 Olympic and Paralympic Games and their Legacy to increase participation in sport and physical activity among all sections of London's population and to address health inequalities.

22 These London Plan policies and objectives, together with the draft OLSPG, provide a Mayoral planning context against which the OPLC's LCS planning application can be assessed.

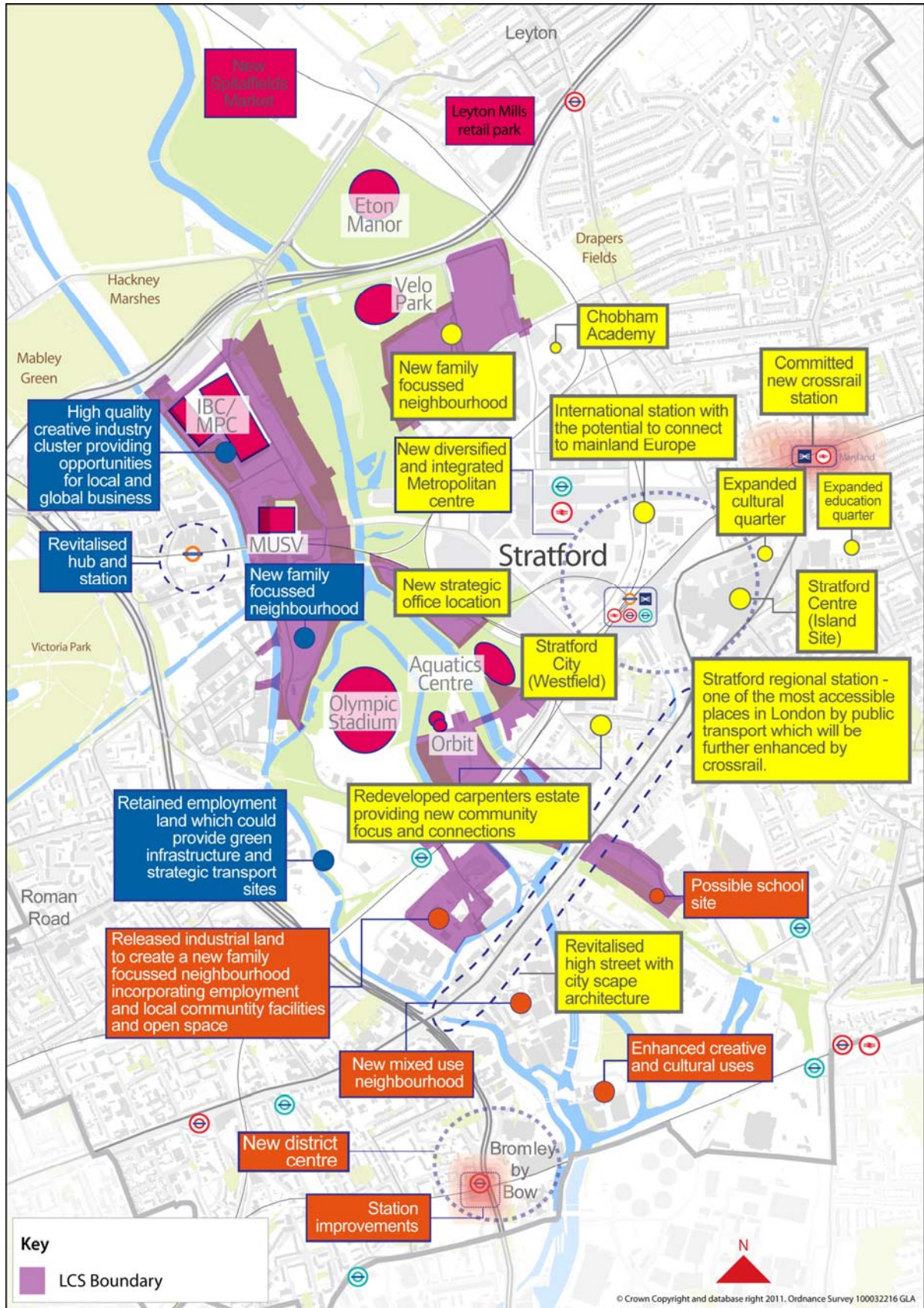
23 The Consultation draft OLSPG was agreed by the Chief of Staff and Deputy Mayor on the 26 July 2011 and is being consulted on until the 18 November 2011. When subject to an Integrated Impact Assessment and formally published by the Mayor, it will be a strong material planning consideration when the LCS planning application is determined. Plan 2 below depicts the strategic context the draft OLSPG promotes against the LCS application boundary.

#### Convergence

24 As set out above, policy 2.4 of the London Plan sets out the Mayor's commitment to use the Olympic and Paralympic Games to deliver fundamental economic, social and environmental change in east London and to close the deprivation gap between the Olympic Host Boroughs and the rest of London.

25 This is known as convergence and paragraph 2.20 of the London Plan confirms that the ambition to achieve convergence with the London average across a range of key indicators is shared by the Mayor, the Host Boroughs and Government, and that the GLA and its functional bodies will take account of this ambition in the development and implementation of all strategies, plans and business plans. This is further reinforced in the draft OLSPG.

26 Whilst the importance of convergence is acknowledged in the submitted material, it is felt that this matter has not been sufficiently addressed and the OPLC should produce a statement or report that specifically sets out how its proposals will help achieve convergence in accordance with the London Plan and draft OLSPG.



**Plan 2 – draft OLSPG context**

## Regeneration and employment

27 Policy 4.1 of the London Plan confirms the Mayor's commitment to promote a strong, sustainable and diverse economy across all parts of London, and to ensure the availability of sufficient and suitable workspaces. The Plan also confirms that planning should facilitate change to ensure that all kinds of enterprises can flourish, and contribute to the prosperity of the whole city, and all of its people.

28 The draft OLSPG confirms the Mayor's wish to promote Stratford as a new Metropolitan Centre, ensure land use change leads to a wide range of new business, training and employment opportunities across the OLSPG area, and to identify and protect sites needed for social infrastructure, (Overarching development principle - Business and employment).

29 The LCS scheme proposes up to 130,000 sq m. of non-residential uses across the Olympic site, with B1 employment floorspace focused within PDZ8 (Bridgewater Road/Pudding Mill Lane) and PDZ5 (Hackney Wick). PDZ1 (Marshgate Wharf - to the south-east of Stratford City), would accommodate up to 13,500 sq.m. of A1 (Retail), A2 (Financial and professional services), A3 (Restaurants and cafés), A4 (Drinking establishments) and A5 (Hot food takeaways).

**Table 5.1: LCS Maximum Floorspace Defined by Use**

Maximum Legacy Development Gross External Areas (sqm) by Use Class											
Planning Delivery Zone	Retail			Employment		Hotel	Leisure	Community Facilities	Accomm.	Residential	Maximum Floorspace Applied For
	A1-A2	A3-A4-A5	A1-A5 Total	B1a	B1b/B1c	C1	D2	D1	C2 Student	C3	
PDZ1	6,750	8,500	13,500	0	0	14,500	1,650	1,430	10,000	124,000	165,080
PDZ2	900	900	1,438	0	0	0	165	440	0	75,000	77,043
PDZ4	1,450	1,600	2,576	1,065		0	0	8,410	0	75,867	87,918
PDZ5	1,000	2,850	3,268	5,389	3,612	0	1,457	5,646	0	96,097	115,469
PDZ6	1,400	1,350	2,310	124	0	0	165	1,141	0	112,800	116,540
PDZ8	1,200	1,500	2,345	23,791	12,158	0	169	1,482	0	116,530	159,175
PDZ12	400	400	550	0	0	0	0	11,660	0	37,900	50,110
Site Wide Total	[13,100]	[17,100]	25,987	30,369	15,770	14,500	3,606	30,209	10,000	638,194	771,335

Source: LCS Technical Analysis (2011)

30 The OPLC estimate this floorspace would provide 4,421 jobs broken down as follows:

**Table 6.1: Floorspace and Employment by Development**

Development	Floorspace	Employment
Retail	25,988	1,216
Employment (Offices/ Light Industry)	46,140	2,361
Hotel	14,500	279
Leisure	3,606	52
Community Facilities/ Social Infrastructure/ Student Accommodation	40,209	513
<b>Total</b>	<b>130,443</b>	<b>4,421</b>

Source: LCS Technical Analysis (2011)

31 A further 3,800 jobs are expected to be created within the retained venues (Velodrome, Eton Manor, ArcelorMittal Orbit, Multi-Use Arena, Aquatics Centre, Main Stadium and the Press and Broadcast Centre), thereby providing around 8,220 new jobs in Legacy. This is welcomed and in accordance with London Plan policy and with the Business and employment development principles set out in the draft OLSPG.

32 A Retail and Leisure Impact Assessment has been submitted with the application as required by London Plan policy 4.7c, which looks at the impact of the new "A Class" uses on the area's existing town centres. It concludes that the proposed new local centres are intended to serve localised catchments, primarily orientated towards fulfilling the local shopping needs of the areas future residents and on site workforce, and that there would be only very limited trade drawn from existing centres.

33 The broad distribution of new uses around the application site is therefore supported, with the main retail and food and drink floorspace being located within PDZ1 - which will form an important element of the upgraded Stratford (Metropolitan) Town Centre envisaged in the London Plan and draft OLSPG.

34 However, it will be important to ensure that the new retail, food and drink uses that are proposed beyond PDZ1 do not undermine the viability of existing smaller centres. Furthermore, London Plan policy 4.9 (Small shops), states that when considering proposals for large retail developments, the Mayor will, and Boroughs should, consider imposing conditions or seeking contributions through planning obligations, (where appropriate, feasible and viable), to provide or support affordable shop units suitable for small or independent retailers and service outlets and/or to strengthen and promote the retail offer, attractiveness and competitiveness of centres.

35 It is therefore suggested that the ODA and OPLC develop and propose mechanisms to ensure that the new A1- A5 floorspace makes provision for affordable shop units suitable for small or independent retailers as required by policy 4.9, and that the new A Class uses beyond PDZ1 are clearly focused to meet the needs of the existing and proposed communities.

36 Finally London Plan policy 4.12B (Improving opportunities for all), confirms that strategic development proposals should support local employment, skills development and training opportunities. It is therefore similarly suggested that the OPLC commit to providing or facilitating tailored training and employment schemes that would meet this policy requirement.

#### Interim uses

37 The OPLC anticipate their full proposals being developed over a 20 year period, and whilst the current application does not seek planning permission for any interim use, (which would hence require further approval), the submitted material does include an Interim Uses Statement that envisages such uses lasting anything between one day and 15 years. Under existing Permitted Development rules, planning permission is not required for certain temporary uses of open land, and hence some such activities would not require planning approval.

38 However, where such an activity or use would require planning permission, clearly a balance would need to be struck on the degree of conformity with London Plan policies, and the scale, impact and anticipated length of the use or activity. As a general approach however, as any application for an interim use would need to be assessed against the Statutory Development Plan in force at that time, every effort should be made by the OPLC in its discussions with potential users, to meet the environment and sustainability objectives of the London Plan, (for example in respect of recycling and water use, connectivity and transport), and every effort should be made to provide tangible benefits to local people, (by for example targeted employment and training opportunities).

## Housing

### Introduction

39 The draft OLSPG confirms that a network of well-connected Lifetime Neighbourhoods should be created across the OLSPG area to help meet London's urgent need for new homes. These should be designed to meet the needs of existing and future communities, enable healthy and active lifestyles, maximise opportunities for family housing, promote community cohesion, and provide access to employment opportunities, local shops and community and social infrastructure, (Overarching development principle - Homes and communities).

40 The application proposes around 6,780 new homes within 7 development zones. This is welcomed in principle and would make a significant contribution to meeting London's need for new homes as required by London Plan policy 3.3 which establishes an annual average need for 32,210 net additional homes across London to enhance the environment, improve housing choice and affordability and provide better quality accommodation for Londoners.

Proposed Neighbourhood	Marshgate Wharf	Marshgate Wharf	Sweetwater	East Wick	Chobham Manor	Pudding Mill	Pudding Mill	
Location	North of Aquatics Centre & west of Stratford City	Between Aquatics Centre and main Stadium	Fish Island (East)	Terrace between Park and IBC/MPC	North of Olympic Village	Pudding Mill Lane (Part)	Stratford High Street/Rick Roberts Way	
	<b>PDZ 1</b>	<b>PDZ 2</b>	<b>PDZ 4</b>	<b>PDZ 5</b>	<b>PDZ 6</b>	<b>PDZ 8</b>	<b>PDZ 12</b>	<b>Totals</b>
Residential (C3) m2	124,000	75,000	75,867	96,097	112,800	116,530	37,900	638,194
Indicative Units	1,627	878	807	831	960	1,258	395	6,756
Private (Units)	1,058	571	525	543	624	818	258	4,395
Private (%)	65	65	65	65	65	65	65	65
Social rented (Units)	342	184	169	175	202	264	83	1,420
Social Rented (%)	21	21	21	21	21	21	21	21
Intermediate (Units)	228	123	113	117	134	176	56	947
Intermediate (%)	14	14	14	14	14	14	14	14
Affordable Units	570	307	282	292	336	440	139	2,366

Table 1 - OPLC's indicative housing mix

## Affordable housing and tenure

41 London Plan Policy 3.12 requires borough councils (and in this case the ODA), to seek the maximum reasonable amount of affordable housing when negotiating on individual private residential and mixed-use schemes. In doing so each council should have regard to borough targets for the amount of affordable housing provision. This target should take account of the requirements of London Plan Policy 3.11, which include the strategic target that 60% of new affordable housing should be for social rent and 40% for intermediate rent or sale. The Mayor has published an early minor alteration to the London Plan to address the introduction of affordable rent, with further guidance set out in a draft Affordable Rent SPG. The Mayor's position is that both social rent and affordable rent should be included within the 60%.

42 Policy 3.12 is supported by paragraph 3.71, which urges borough councils to take account of economic viability when estimating the appropriate amount of affordable provision. The 'Three Dragons' development control toolkit or other recognised appraisal methodology is recommended for this purpose. The results of a toolkit appraisal might need to be independently verified. Paragraph 3.75 highlights the potential need for re-appraising the viability of schemes prior to implementation.

Proposed Neighbourhood	Marshgate Wharf	Marshgate Wharf	Sweetwater	East Wick	Chobham Manor	Pudding Mill	Pudding Mill	
Location	North of Aquatics Centre & west of Stratford City	Between Aquatics Centre and main Stadium	Fish Island (East)	Terrace between Park and IBC/MPC	North of Olympic Village	Pudding Mill Lane (Part)	Stratford High Street/Rick Roberts Way	
	PDZ 1	PDZ 2	PDZ 4	PDZ 5	PDZ 6	PDZ 8	PDZ 12	Totals
<b>Studio, 1 and 2 bedroom</b>								
Total Units	1,448	702	404	299	115	780	194	3,942
Private	941	457	262	194	75	507	126	2,562
Social Rented	304	148	85	63	24	164	41	828
Intermediate	203	98	56	42	16	109	27	552
<b>3 bedroom</b>								
Total Units	155	167	383	253	442	396	194	1,990
Private	100	108	249	165	287	258	126	1,293
Social Rented	32	35	80	53	93	83	41	418
Intermediate	22	23	54	35	62	55	27	279
<b>4 and 4+ bedrooms</b>								
Total Units	24	9	20	283	403	82	10	831
Private	16	6	13	184	262	53	6	540
Social Rented	5	2	4	59	85	17	2	174
Intermediate	3	1	3	40	56	11	1	116

Table 2 - OPLC's indicative housing mix by unit size and tenure

43 The OPLC has indicated a “site wide target” of 35% affordable housing (with a 60:40 social rented/Intermediate split), and have prepared a viability assessment which is being discussed with the ODA Planning Decisions Team and GLA officers. However, this is indicative and it is not clear at this stage what actual level or type of affordable housing the OPLC is proposing, what mechanisms might be used to secure this, or how affordable rented units might also be provided.

44 This situation is compounded by the timescale within which the affordable housing would be delivered (up to 20 years), and uncertainty over future grant arrangements. Further discussions and clarification is therefore required from the OPLC to demonstrate full compliance with London Plan policy and in light of the Mayor’s draft Supplementary Planning Guidance note on affordable housing published earlier this month (November 2011).

#### Housing choice

45 London Plan Policy 3.8 and the associated supplementary planning guidance promote housing choice and seek a balanced mix of unit sizes in new developments. The London Housing Strategy sets out strategic housing requirements and Policy 1.1C of the Strategy includes a target for 42% of social rented homes to have three or more bedrooms.

46 Whilst the application is submitted in outline, the OPLC’s “indicative” housing mix is set out below and proposes that 42% (circa 2,820) of all the units would be 3 bed roomed or larger. This is welcomed and would make a significant contribution to meeting London’s need for new family homes. The OPLC is also suggesting that 42% (592) of the Social rented homes would be 3 or more bed roomed thereby complying with policy 1.1C of the Mayor’s London Housing Strategy and that 42% of the Intermediate homes would also be 3 or more bed roomed (395 out of 947). This is again welcomed. The indicative housing mix is therefore welcomed, but measures will need to be agreed to ensure that this mix is satisfactorily delivered in order to ensure full compliance with London Plan policy.

Proposed Neighbourhood	Marshgate Wharf	Marshgate Wharf	Sweetwater	East Wick	Chobham Manor	Pudding Mill	Pudding Mill	
Location	North of Aquatics Centre & west of Stratford City	Between Aquatics Centre and main Stadium	Fish Island (East)	Terrace between Park and IBC/MPC	North of Olympic Village	Pudding Mill Lane (Part)	Stratford High Street/Rick Roberts Way	
	<b>PDZ 1</b>	<b>PDZ 2</b>	<b>PDZ 4</b>	<b>PDZ 5</b>	<b>PDZ 6</b>	<b>PDZ 8</b>	<b>PDZ 12</b>	<b>Totals</b>
Family units (3 bed & 3 bed +)								
Total family units	179	176	404	536	845	478	203	2,820
Private family	116	114	262	348	549	311	132	1,833
Social Rented family	38	37	85	113	177	100	43	592
Intermediate family	25	25	56	75	118	67	28	395
Total affordable family	63	62	141	188	295	164	71	987

**Table 3 - OPLC’s indicative family housing mix by unit size and tenure**

## Housing for older people

47 London Plan policy 3.8e confirms the need for new housing to take particular account of the older people and in paragraph 3.50 identifies the growing and changing requirements for housing older people in London as one of the most important emerging planning issues for London. Given the increasing numbers of older people in London the LCS should therefore address how the varying needs of older Londoners, including for supported and affordable housing will be addressed.

48 The LCS's Equality Statement recognises the growing need to provide suitable accommodation for older Londoners but the scheme fails to make any specific provision. Although many older people will prefer to stay in their own home and the provision of Lifetime Homes and Neighbourhoods and wheelchair accessible homes will greatly assist this, many older people will also need and want to move into specialist supported accommodation.

49 New innovative approaches should be considered to provide specialist housing for older people, such as affordable extra care homes with a varying level of communal facilities and care and support, or private assisted living and registered care homes. Further work should be undertaken by the OPLC to establish what type of specialist provision may be appropriate to meet the current and future needs, and the LCS should identify the most appropriate locations. Integrating the specialist housing need of older people will contribute to achieving mixed, balanced and cohesive communities and should be considered for each of the new neighbourhoods and demonstrate full compliance with relevant London Plan policy.

## Student housing

50 The application proposes 10,000 sq.m of C2 (Student) housing within PDZ1 (Marshgate Wharf). London Plan policy 3.8h states that strategic and local requirements for student housing meeting a demonstrable need are to be addressed by working closely with stakeholders in higher and further education and without compromising capacity for conventional homes.

51 The London Plan recognises in paragraph 3.52 that London's universities make a significant contribution to its economy and labour market, and that it is important that their attractiveness and potential growth are not compromised by inadequate provision for new student accommodation. It also recognises that the provision of purpose-built student housing may reduce pressure on other elements of the housing stock currently occupied by students, especially the private rented sector. The Mayor has identified capacity for over 17,000 student places between 2011-2021.

52 Paragraph 3.53 of the London Plan confirms that addressing the demands for student accommodation should not compromise the capacity to meet the need for conventional dwellings, especially affordable family homes, or undermine policy to secure mixed and balanced communities. It recognises that this may raise particular challenges locally and especially in parts of inner London where almost three quarters of the capacity for new student accommodation is concentrated. Student accommodation should therefore be secured as such by planning agreement or condition relating to the use of the land or to its occupation by members of specified educational institutions. If the accommodation is not robustly secured it will normally be subject to the requirements of affordable housing policy.

53 It is therefore suggested that the OPLC clarify the educational institute the student accommodation is intended for and that this is secured through a S106 Legal Agreement to ensure full compliance with London Plan policy.



54 Finally, educational establishments have a duty under the Disability Discrimination Act 2005 to ensure that their facilities and services are accessible for disabled students. There is currently a shortage of wheelchair accessible homes in London, and one of the biggest barriers to disabled students being able to live and study in London is access to suitable accommodation. In the context of ensuring equal life chances for all, meeting the needs and expanding opportunities for all Londoners and promoting social inclusion, the ability to accommodate disabled students should be fully integrated into the student housing development.

## **Social infrastructure**

### Introduction

55 A number of London Plan policies deal with the provision of new social infrastructure to support new large scale housing developments. Policy 3.7 requires that schemes on sites of over five hectares or capable of accommodating more than 500 dwellings should, where necessary provide social, environmental and other infrastructure and create neighbourhoods with distinctive character, sense of local pride and civic identity, and policy 7.1 confirms that people should have a good quality environment in an active and supportive local community with the best possible access to services, infrastructure and public transport. It also confirms that neighbourhoods should provide a character that is easy to understand and relate to.

56 Social infrastructure covers a wide range of facilities such as health provision, nurseries, schools, colleges and universities, community, cultural, play, recreation and sports facilities, places of worship, fire stations, policing and other criminal justice or community safety facilities and many other uses and activities which contribute to making an area more than just a place to live.

57 However, planning for major infrastructure in London is complex, with a wide range of providers and stakeholders, and various degrees of clarity and certainty around future provision and funding. Policies about, and responsibilities for, provision are therefore subject to significant change and London is a city with a large diversity of neighbourhoods, communities and infrastructure and each area presents its own individual challenges.

58 At a more local level, other facilities may also need to be provided, including informal recreation facilities (policy 3.6), public toilets, drinking water fountains and seating (policy 7.5). The whole range of social infrastructure has a major role to play in supporting London's expected growth, particularly in places where significant new housing is proposed, such as the OLSPG area. This will help make them more attractive and develop into sustainable lifetime neighbourhoods and communities. It is therefore essential to plan for high quality social infrastructure alongside development particularly in major new development and regeneration areas.

59 Policy 3.16 deals with the protection and enhancement of social infrastructure, policy 3.17 deals with the provision of health and social care facilities, policy 3.18 with education facilities, and policy 3.19 with sports facilities. Policy 3.6 deals with the provision of children's play space.

60 Development principle 3 in the Mayor's draft OLSPG reinforces this approach and confirms that new development should be supported by necessary social infrastructure, and that planning contributions should be secured to ensure the needs of existing and new communities are met, through a Community Infrastructure Levy or planning obligation.

61 Paragraph 3.89 of the London Plan confirms that existing or new developments should, wherever possible, extend the use of facilities to serve the wider community, especially within regeneration and other major development schemes and that shared and extended use of facilities, including those of schools, commercial and community-based organisations, can help ensure the effective use of resources and land, encourage joined-up and coherent service delivery and shared maintenance and management costs. It can also help minimise travel distances for users and encourage community participation and inclusion. Multi-use community centres that provide flexible and accessible spaces adaptable to communities' needs should be encouraged.

62 Boroughs are also encouraged to develop a criteria-based approach to the provision of different types of social infrastructure facilities and the expansion of existing facilities, taking into account the location and layout. Such facilities should be:

- easily accessible to all sections of the community (including disabled people and older people) by meeting inclusive design principles.
- easily accessible by walking and cycling.
- well connected to public transport.
- affordable and compatible with social infrastructure service delivery plans well laid out and flexible, so that all the space is used efficiently.
- safe and user-friendly.
- integrated with or complementing other neighbouring facilities or services as part of achieving a lifetime neighbourhood.

63 Policy 3.6 of the London Plan deals with play and informal recreation provision for children and young people and states that development proposals that include housing should make provision for play and informal recreation based on the expected child population generated by the scheme and suggests use of the Mayor's Supplementary planning guidance 'Providing for Children and Young People's Play and Informal Recreation'.

#### Population estimates and social infrastructure

64 The OPLC has used population and child yield estimates to assess the likely scale of social infrastructure needs that its proposals would generate, and is proposing a range of social infrastructure to support its development including schools, healthcare and community facilities. This is set out in Appendix 2 of this report.

65 This approach is welcome and in accordance with relevant London Plan policies. The broad locations of these facilities are also supported. However, estimating future population characteristics and need is complex and influenced by a variety of factors. To seek to best address this matter, the Host boroughs have commissioned the GLA's Demography Team to prepare independent advice to help assess the OPLC's legacy proposals in light of their own experience and evidence of local population needs and growth. It may therefore be necessary to revisit the OPLC's population assumptions in light of this work. Furthermore it is not clear how the facilities the OPLC is proposing will be delivered. At this stage it is therefore not possible to confirm full compliance with relevant London Plan policies in this regard.

### Education facilities

66 The multiple use of educational facilities should be encouraged in line with policy 3.18E of the London Plan, and necessary arrangements to resolve security and access issues should be made to enable the community to use the facilities outside school hours. Opportunities for on-site or off-site sharing of services between schools, colleges and other providers should be supported in line with policy 3.18F of the London Plan.

### Community facilities

67 The flexible use of community spaces is encouraged as proposed in policy 3.16C of the London Plan. Opportunities for the Idea store to be located in an accessible town centre site should be explored.

### Healthcare facilities

68 Different options for the location, timing and specification of healthcare facilities will need to be explored, depending on existing and future healthcare need, catchments for different services, and the cumulative impact of development in the wider area. Given the phasing of housing and population, temporary facilities or enhancements to existing facilities may be required.

### Children and young peoples play space

69 Policy 3.6 of the London Plan confirms that all children and young people should have safe access to good quality, well-designed, secure and stimulating play and informal recreation provision, that wherever possible incorporates trees and greenery. The policy also confirms that development proposals that include housing should make provision for play and informal recreation based on the expected child population generated by the scheme and an assessment of future needs. The guidance sets a benchmark of 10 sq.m. of well designed child play space to be provided per child, with under-5 child play space provided on-site.

70 The OPLC estimate that that its proposals would result in the following population profile in 2031, which in turn would result in 3,306 children aged 0 to 15 living in the approximately 6,775 homes it is seeking planning permission for.

**Table 10.7: Total Population by 2031 across the LCS**

Total Population (2031)		
Aged 0-3	1,101	8%
Aged 4-10	1,407	10%
Aged 11-15	798	6%
Aged 16-17	262	2%
Aged 18-19	252	2%
Aged 20-24	912	7%
Aged 25-29	2,488	18%
Aged 30-34	2,336	17%
Aged 35-39	1,545	11%
Aged 40-44	885	7%
Aged 45-49	511	4%
Aged 50-54	377	3%
Aged 55-59	226	2%
Aged 60-64	146	1%
Aged 65-69	91	1%
Aged 70-74	78	1%
Aged 75+	99	1%
<b>Total</b>	<b>13,513</b>	<b>100%</b>

Source: LCS technical analysis (2011)

71 The OPLC in its submitted Development Specification and Framework have identified the following formal provision:

- A minimum of 2,616 sq.m of doorstep play space for children under 5;
- A minimum of 3,524 sq.m. of local play space for children under 12;
- A minimum of 2,663 sq.m. neighbourhood play space for children of all ages; and
- A minimum of 1,900 sq.m. of youth play spaces targeted specifically at young people aged 12 and over.

72 The submitted Green Infrastructure Strategy identifies provision for a total of 10,703 sq.m. of formal play and amenity (designated) space and provision of a further 22,041 sq.m. informal play space. This would provide 32,744 sq.m. of designated and informal play space.

73 The Mayor's SPG on play supports the creation of designated play spaces as well as informal play space that can be used by a variety of recreational activities (including children's play). However, it is not immediately clear from the submitted material exactly where these different types of space would be located and how close they would therefore be to the proposed family housing areas, some of which should be "doorstep" and some within 400 sq.m.

74 In future detailed planning applications, it will be important to ensure that sufficient designated as well as informal play space is provided in accordance with the Mayor's SPG on Play and be accessible to all children (London Plan policy 7.2), create a sense of place, and reflect the character of the space and the neighbourhood (London Plan policies 7.1 and 7.6).

75 It is therefore recommended that the OPLC clarify its housing mix and play space assumptions and locations to fully demonstrate compliance with all relevant London Plan policies and SPG Guidance.

### Delivery

76 The LCS application does not clarify how much or how the social infrastructure it includes in its application might be delivered. Mechanisms will therefore need to be put in place between the OLPC, the host boroughs, and relevant social infrastructure providers to identify responsibility for delivery, sources of funding, priorities and timing for the development of infrastructure, as well as a programme for monitoring progress against the proposed plan. A social infrastructure delivery plan or published programme may be a useful tool to clarify these mechanisms and help assess future planning applications for development within the LCS area that affect existing, new or replacement social infrastructure.

77 Given the long-term phasing of the LCS over the next 20 years, it will be important that the needs for social infrastructure are regularly assessed in accordance with the London Plan policies 3.16Da, 3.17Ea, 3.18Ga and 3.19D. The provision of this infrastructure will need to closely align to the phasing of housing and new population. The GLA has commissioned a Delivery Study as part of its work the draft OLSPG that could assist.

78 The OPLC also has a key land owner role and should work with the host boroughs and relevant social infrastructure providers in securing sites and buildings for future social infrastructure provision. In light of assessments of need for social infrastructure, particular regard should be given to Policy 3.16Db, 3.17Eb 3.18Gb and, 3.19D which state that sites and buildings should be secured for or contribute to future provision for the range of social infrastructure facilities and services identified in the LCS application, recognising local needs and particular requirements of the different sectors. Accessible town centre sites and edge-of-centre sites can be appropriate to consider for future provision or reorganisation of social infrastructure. Future development proposals should refer to the Mayor's forthcoming draft Town Centre Supplementary Planning Guidance.

## Urban design

### Introduction

79 Good design is central to all objectives of the London Plan and is specifically promoted by the policies contained within chapter seven which address both general design principles and specific design issues. London Plan policy 7.1 sets out a series of overarching design principles for development in London. Other design policies in this chapter and elsewhere in the London Plan include specific design requirements relating to maximising the potential of sites, the quality of new housing provision, tall and large-scale buildings, built heritage and World Heritage Sites, views, the public realm and the Blue Ribbon Network. New development is also required to have regard to its context, and make a positive contribution to local character within its neighbourhood (policy 7.4).

80 The draft OLSPG sets out the Mayor's strategic views on land use, scale and form of development and connectivity within the LCS application site, based on typology and housing mix assumptions that are relevant to this report. It also confirms an overarching development principle to use the area's unique open spaces, waterways, heritage buildings and contemporary city scale architecture and sporting facilities to create a network of new linked, inclusively designed and revitalised Lifetime Neighbourhoods.

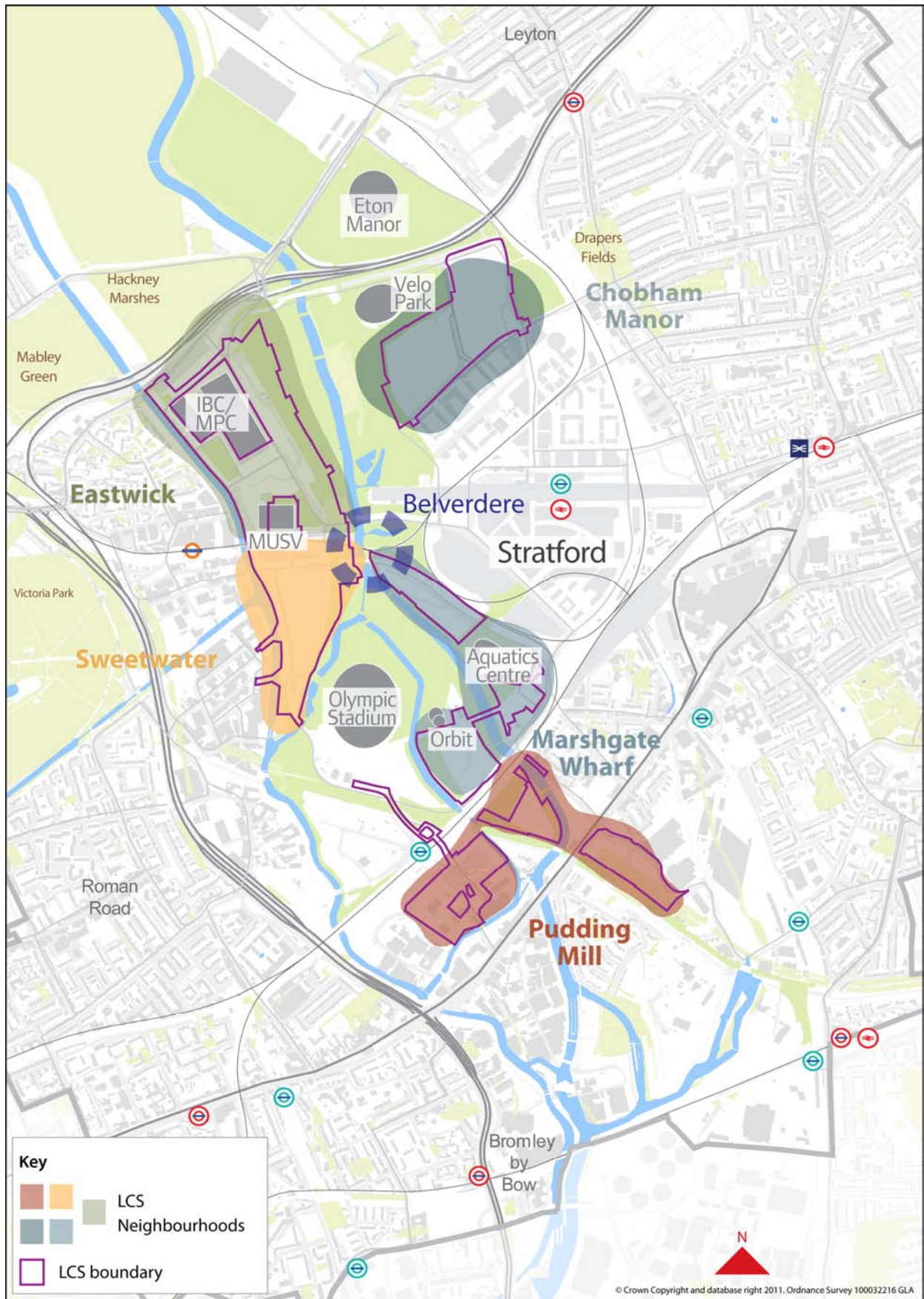
81 The application is submitted in outline, and given its proposed scale and anticipated delivery timescales, this is considered the most appropriate format. Overall, the design of the proposal is of a high quality and the development areas correspond with the areas of change the draft OLSPG anticipated. The application comprises parameter plans, which are generally tight and generally provide limited room for deviation in important elements such as building heights, ground floor frontages and road widths. A design code for the scheme's site-wide principles, and individual codes for each development zone provide further detail of building form and scale, locations of minor roads and appearance of buildings. A development specification explains the tenets of the application, setting out the information within the design codes and parameter plans, defining floorspace limits, and minimum and maximum levels of elements such as play space.

82 Information on appearance of buildings is limited, as this would be considered in detail as each of the individual development zones is subject to detailed planning consideration. The Design and Access Statement uses the information within the codes and parameter plans to provide examples of how buildings in each zone may look, using images of precedents. Within the design codes, efforts to control appearance generally rely on codes controlling massing, although detail on active frontages and residential core entrances is welcomed, and is generally appropriate.

### General layout

83 The principle of the design is a series of neighbourhoods – generally connected with existing communities on the edges of the site – connected with a system of parkland-based routes. Densities and building heights rise around Stratford City (PDZ2), around the Energy Centre at Hackney Wick (PDZs 4 & 5), and in Pudding Mill (PDZs 8 and 12). With the exception of Hackney Wick, (which will require more detailed assessment), this generally accords with the suggested building heights proposed in the draft OLSPG and with the locations Newham identified as suitable for high buildings in its December 2010 Stratford Masterplan.

84 The Queen Elizabeth Olympic Park would be the main recreational area and subject to the design issues outlined elsewhere in this report, would provide an excellent quality of open space for the new neighbourhoods and additional open space (primarily gardens and children's play space) would also be provided within each of the new neighbourhoods, for both private and public use. Strong building edges, generally taller than the areas that they would envelop, mark the boundaries between the urban form and green space. These edge buildings would contain either commercial or residential uses, depending on their context.



**Plan 3 – LCS Neighbourhoods**

85 The development is not designed to form a separate development; rather, the five new neighbourhoods are proposed to mesh with existing (or in the case of the Olympic Village, emerging) development, with strengthened links between the adjoining existing and new, in the manner of urban extensions. This would allow new residents to use facilities within the existing areas, and provide access for existing residents to the new social infrastructure proposed within each neighbourhood.

86 The efficacy of the linkages are therefore crucial to the application, to ensure that the new areas do not become enclaves and promote and facilitate social cohesion. This aim is supported, as is this underlying principle of the layout, which accords with the principles set out in the London Plan and draft OLSPG, although some additional information is required as set out in this report.

87 Additionally, new connections across the site between the new neighbourhoods are generally optimised for cyclists and pedestrians, though as identified by TfL, further work is needed to develop these connections and to ensure viable alternatives to car-use. One potentially negative effect of this design approach is that the new communities might evolve without a centre, or heart, and the emphasis on existing centres would place a strong importance on the need to promote and facilitate social cohesion between the new and existing communities. In physical terms, this is generally positive, but concerns are raised over the relative isolation of some of the proposed housing, for example within Marshgate Wharf.

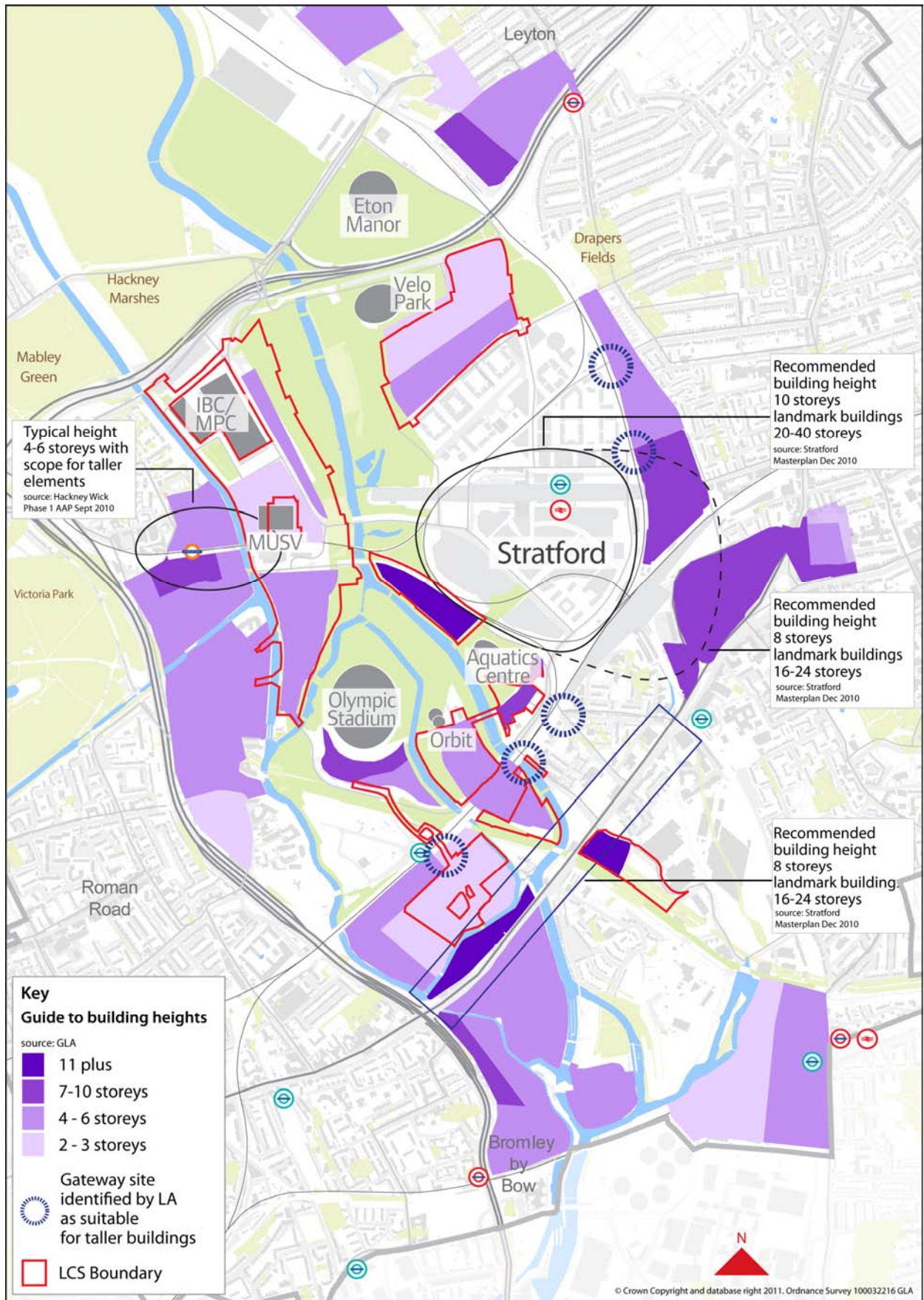
88 As set out in the Connectivity section below, the draft OLSPG identifies and proposes a series of key connections across the OLSPG area. These should be maintained where they already exist and provided where missing, in order to reduce physical severance and improve connectivity across the OLSPG area. Connections into and across the application site will therefore be critical to achieving this, but it is currently not clear whether the OPLC's proposals fully take these into account, particularly within PDZs 1, 2, and 8. This should therefore be clarified by the OPLC and provision made for their implementation, if this is not currently allowed for.

89 Notwithstanding this detailed concern, the concept of development zones as linked neighbourhoods separated from each other by green space is supported and with the exception of the areas identified above (which will need further assessment), overall residential densities are generally appropriate and suitably relate to their strategic context.

#### Tall buildings and views

90 London Plan policy 7.7, which deals with design issues associated with tall and large-scale buildings, is of particular relevance to the proposed scheme. This policy sets out specific additional design requirements for tall and large-scale buildings, which are defined as buildings that are significantly taller than their surroundings and/or would have a significant impact on the skyline and are larger than the threshold sizes set for the referral of planning applications to the Mayor. Policies 7.10 and 7.11, which set out the Mayor's approach to protecting the character of strategic landmarks as well as London's wider character, are also relevant. The draft OLSPG sets out the Mayor's views on the overall scale of development in Figure 2.D.2 - Proposed context, which is reproduced in Plan 4 of this report below.

91 The majority of the proposed new development is below ten storeys, with each of the main development plots subject to detailed parameters that would define building heights. The exceptions are three buildings proposed within Marshgate Wharf (PDZs 1 and 2), which are proposed to rise up to approximately 30 storeys (99m AOD maximum height). These are however located close to existing and proposed tall buildings within Stratford City and are therefore considered appropriate in this context.



**Plan 4 – draft OLSPG Proposed context**



92 Other tall buildings, such as those proposed around the 'Belvedere', and buildings taller than the prevailing general height, would be clustered, following a logical rather than disparate approach and heights and positions generally accord with those proposed in the draft OLSPG, and although some locations have changed, the principles of tall building siting are in line with the marked locations of the draft OLSPG.

93 The tall buildings are likely to be visible in long views and appear within London Panoramas as defined within the London View Management Framework. Affected views would include Greenwich Park (General Wolfe statue) and Alexandra Palace. However the proposed scale and massing of the buildings is unlikely to have a detrimental effect in any of these views, given their proximity to and contribution to the emerging tall buildings cluster in this area. Effects on the World Heritage Site at Greenwich would be negligible, given that the buildings would appear in the background to the Canary Wharf cluster, with far less immediacy in views.

94 The draft London World Heritage Sites SPG notes the Outstanding Universal Value of the site, but having assessed the proposal in conjunction with the draft, and the London View Management Framework, it is apparent that the proposal would have no effect on this value. Nonetheless, the size of the development site makes it likely that new development would still be visible within these views. The addition of landscaping and variations within the built form are likely to improve the appearance of the site compared with its Games-phase condition.

95 Views from areas around the site are included within the applicant's environmental statement. New development would obscure existing views of the Stadium and Aquatics centre, which have quickly become new local landmarks due to their scale and role. Some views of these structures would be enhanced through creation of view corridors (defined by new buildings). Sensitive locations where views are obscured, such as canal edges, would benefit from new development and uses alongside. In medium range views of the site, such as from within adjoining Conservation Areas or major road approaches, the existing landmarks would remain prominent.

#### Form and development zones

96 Although only at outline stage, the residential approach adopts a modular form of development, based on the London vernacular. Various forms of housing would be constructed across the site: mews houses, terraces, stacked maisonettes, mansion blocks and apartments. The variation in housing types is supported and the illustrative typologies are generally conducive to family accommodation.

97 Marshgate Wharf would be the most isolated area of the proposal. Although it is close to Stratford City, it is separated by major physical infrastructure such as roads and railways. Access between the centre and the proposed hotel and student housing plots would be circuitous and lengthy, given the reliance on the central bridge link between Westfield and the Aquatics Centre, rather than the existing road bridge, which would be more direct but less attractive to pedestrians. Active frontages on these blocks are designed to address the proposed park rather than the railway, which is logical but further reinforces the primacy of the longer route.

98 As set out elsewhere in this report, the relationship of these connections to the key local connections the OLSPG identifies also needs to be clarified.

99 The mixed-use nature of the area would respond to the Park uses and proximity to Stratford town centre, accommodating active uses at ground floor level, and predominantly flatted accommodation. The improvements to the canalside environments, enabling active use of the waterfront, are supported.

100 The proposal enables glimpses of the Aquatics Centre to be retained from the Stratford City approach, and clear views from external viewpoints such as the mainline railway, and from other areas of the proposed Queen Elizabeth Olympic Park, but also uses the proposed tall buildings for a wayfinding and legibility role. While the contribution of the buildings to the Stratford City cluster is not disputed, the role of the tall buildings as a wayfinding element requires further discussion. The proximity of significant buildings of scale – the stadium, the Orbit and the Aquatics Centre – will perform a landmark and legibility role, with high visibility from many areas of the park. The duplication of this role is questioned, though the form and scale of the majority of proposed development generally accords with the draft OLSPG.

101 Sweetwater is also relatively isolated from other residential development, although this will improve in the future as the proportion of residential development on Fish Island and the southern part of Hackney Wick increases, in accordance with the release of strategic industrial land as proposed within the draft OLSPG and local plans. Connectivity to the area would be improved with a new canal crossing and further station improvements at Hackney Wick Overground Station. The general form of the area – predominantly terraced and mews housing development – and the new canalside open spaces are welcomed.

102 The area within Sweetwater, and extending northwards into East Wick, referred to within the proposals as 'The Belvedere', would have tall buildings of between 30 and 40m. These are intended, in the case of those at the park edge and around the multi-use arena, to frame the large scale of the open spaces with a clearly urban edge. The buildings at the Belvedere are intended to form a focus point from which views of the retained legacy landmark buildings would be prominent. These buildings will serve as a useful legibility feature for both the built and natural landscapes. Their scale is therefore considered appropriate for this purpose, but density and PTAL issues will require further assessment.

103 Taller buildings would continue towards the west, forming an east-west route (Carpenters Road) lined with buildings of a significant scale. While the scale and siting of these taller buildings would be visually beneficial to the design of the park and its internal views, they would suggest residential densities that are higher than those suggested in the draft OLSPG and potentially above the levels sought by London Plan policy 3.4 and Table 3.2 of the London Plan (Sustainable residential quality matrix). The proposed scale of development in this area therefore requires further assessment, particularly with regard to accessibility.

104 Within the East Wick zone, the integration of the Press and Broadcast Centres with the outline proposals is difficult as final uses are not yet known. However the general typology and mix of residential uses within the zone is supported and the scale and form of development generally accords with draft OLSPG guidance, specifically in providing attractive access to park and canal areas, and creating suitable transitional edges between urban and the recreational areas. The content and parameters of the relevant submitted Design Code may need to be adjusted to respond to this situation.

105 Given the current uncertainties around the future use and form of the main Stadium, it is also difficult at this stage to fully understand and assess the relationship between the LCS proposals and the Stadium, and further design analysis is required to take account of the impact of potential options regarding the ultimate capacity and scale of the stadium, and the content and parameters of the relevant submitted Design Code may need to be adjusted to respond to this situation.

106 Chobham Manor is generally appropriately designed to manage the change of scale between the Athletes' Village and more traditional forms of family housing further away from the application site with terraced and mews housing being the predominant form. This approach accords with the draft OLSPG.

107 Pudding Mill would be the most mixed-use area, as a result of new and retained employment uses, though it would include a medium-density residential development and also accommodate the proposed secondary school, whose location, on the southern side of Stratford High Street and adjacent to the Greenway, is supported.

108 The land between the High Street and Bow Back River is substantially developed and the potential for disparate forms of development in this area is heightened by separation caused by the river and the 'cityscape' architecture of the High Street corridor. This also limits opportunities for improved connectivity, though provision should be made for the connections identified in the draft OLSPG for this area.

109 The proposed mixed-use development envisages medium-rise housing, rather than the more family focused housing envisaged in the draft OLSPG. However, given the evolving character of this area, its proximity to Stratford High Street, the proposed emphasis on retained and new employment, the poor environmental quality adjacent to the A12 and substation, the potential opportunities for increased connectivity provided by the reconstructed DLR station, and the fact that the OPLC are proposing 42% family housing over the LCS scheme as a whole, such a deviation from the draft OLSPG is considered acceptable, although PTAL levels will require further assessment and the key connections the draft OLSPG envisages clarified and delivered where appropriate.

#### Residential quality

110 Policy 3.5 of the London Plan introduces a new policy on the quality and design of housing developments. Part A of the policy states that housing developments should be of the highest quality internally, externally and in relation to the wider environment. Part C of the policy states that new dwellings should generally comply with the dwelling space standards set out in Table 3.3, have adequately sized rooms and convenient and efficient room layouts. Part E of the policy states that the Mayor will provide guidance on implementation of this policy including on housing design for all tenures. The reasoned justification provides further guidance and explanation. In particular, paragraph 3.32 makes clear that "Securing new housing of the highest quality and protecting and enhancing residential neighbourhoods are key Mayoral priorities". The Mayor's draft Housing Design Guide (July 2009) and the Interim Housing SPG (EiP version – August 2010), provides further guidance on the implementation of these policies.

111 Residential quality across the development would be generally good and the use of traditional typologies meaning that there would be a high level of dual-aspect housing. However other design requirements within the emerging Housing SPG – which is likely to have been adopted when detailed planning applications are considered – should be included within the application. For example, the development specification should ensure that new development is required to comply with the guidelines and requirements of both the SPG (the standards of which are expected to be broadly similar to the London Housing Design Guide) and the aforementioned London Plan space standards for new dwellings. The design codes for each parcel should also include the heights from ground level of podium spaces within flatted blocks, to ensure that access will be attractive to residents; these are presently not included in either the codes or the parameter plans. The OPLC should also provide scalable indicative house and flat layouts for each typology to demonstrate these standards can be met.

## **Inclusive design and access**

### Introduction

112 London Plan policy 7.2 requires all new development to meet the highest standards of accessibility and inclusion, and requires that Design and Access Statements (DAS) submitted with planning applications explain how the principles of inclusive design, including the specific needs of disabled people, have been integrated into the proposed development and how inclusion will be managed and maintained. Effective implementation of this policy is particularly important given the nature of this proposal and the impact it will have on the ability of disabled and older people to enjoy and be part of the new communities being created. The LCS provides a unique opportunity to extend the Olympic and Paralympic Games ambition of being 'the most accessible Games ever' into delivering highly accessible new neighbourhoods in legacy.

113 There are a number of other London Plan policies which directly affect the inclusivity of proposals including London Plan policy 3.8 (Housing Choice), which requires all new homes to meet Lifetime Homes standards and 10% to be wheelchair accessible or easily adaptable for wheelchair users; policy 3.5 (Quality and design of housing developments), which aims to achieve minimum space and other design standards which help to achieve high quality accessible developments.

114 Further policies include policy 4.5 (London's Visitor Infrastructure) regarding the provision of accessible hotels; policy 7.1 (Building London's Neighbourhoods) – meeting the principles of Lifetime Neighbourhoods helps to ensure neighbourhoods are accessible, safe and convenient for everyone, particularly disabled and older people; policy 7.5 (Public realm) and 7.6 (Architecture), which aim to achieve the highest standards of accessibility and inclusivity in the design of the public realm and the design of buildings and structures. Other policies deal with transport and movement and social infrastructure.

115 The approach to embedding inclusive design from the outset established by the Olympic Delivery Authority (ODA) has been effective at integrating inclusive design principles into the development process and should be used as a model of good practice. The LCS Equalities Statement recognises that the processes, procedures, Inclusive Design Strategy and Standards, consultation and implementation mechanisms developed by the ODA can be used and built upon in legacy. This commitment should be conditioned and/or embedded into the S106 requirements.

### Strategic Access Forum

116 Stratford City Consultative Access Group (SCCAG) should also be used as an example of good practice. Consideration should be given to how the processes and mechanisms used at Stratford City can help to deliver an inclusive process in the LCS, particularly given the ambition to connect to adjacent communities. The OPLC has already met with the ODA's Built Environment Access Panel or BEAP (a panel of disabled people and inclusive design experts), has consulted them on various aspects of the scheme, and has now assumed responsibility for the BEAP, which is welcomed. This arrangement should be continued and enshrined in a S106 Agreement. The S106 which set up the SCCAG is a good model to follow when setting up the arrangements for a strategic access forum and should be used as a basis for formalising the arrangements for the BEAP.

## Inclusive Design Strategy

117 The LCS DAS has integrated the principles of inclusive design throughout the document which is welcome. It highlights how the proposals help to achieve inclusive access and makes a number of specific references regarding the impact on disabled people. The OPLC has produced a draft Inclusive Design Strategy although it has not been submitted with this planning application. This should be finalised and submitted for approval prior to the application being considered at Stage 2. The DAS makes a number of commitments to continue the approach taken by the ODA which should also be secured by condition and/or Section 106 Agreement. One commitment is to update the ODA's Inclusive Design Standards, particularly in relation to housing design. This should be undertaken in consultation with the BEAP and should once finalised be incorporated into the Design Codes. Further discussion on the heads of terms in the S016 in relation to access and inclusive design should take place with the GLA before the scheme is returned at Stage 2.

## Residential

118 The commitment to meet Lifetime Home standards in all new homes and 10% to be wheelchair accessible or easily adaptable for occupation by a wheelchair user is welcomed. This does, however, need to be demonstrated with indicative scalable flat layouts. The applicant should therefore submit examples of flat layouts showing the design of such units to ensure that the standards will be met and clarify its access and inclusion approach to the proposed student housing. The Mayor's Best Practice Guide on wheelchair accessible housing provides a useful checklist that can be used to demonstrate (non-structural) adaptability.

119 As the three Host Boroughs have begun work on implementing an Accessible Housing Register, it is appropriate for the applicant to further consider whether the strategic target of 10% wheelchair accessible homes will meet the current and future housing needs of disabled and older people in this part of London. Given the aim of achieving a high quality of design it may, with careful layout and innovative and creative design, be possible to achieve a greater proportion of homes that can be easily adapted to suit the needs of disabled and older people, helping to provide greater choice for people who use a wheelchair or who benefit from a wheelchair accessible flat (such as older people who also have mobility equipment space and storage needs and benefit from level access showers etc). The need for specialist housing provision for older people and students is addressed elsewhere in this report.

120 The DAS has made a useful assessment of the different housing typologies proposed against the achievement of wheelchair accessibility. The only typology which may not achieve this is the stacked maisonette. The urban design benefits of individual front doors directly onto streets is fully appreciated, however, it may be appropriate at detailed design stage to see if in some circumstances there are any alternative solutions to achieving visitability for disabled and older people to the upper floors of stacked maisonettes, thereby helping achieve more socially cohesive communities.

121 The LCS's DAS refers to adopting and extending the ODA's Inclusive Design Standards to housing. This should be undertaken in conjunction with the BEAP with the aim of meeting or exceeding current best practice standards and included in the schemes Design Codes.

## Public realm

122 Extending the Lifetime Home concept to the neighbourhood level can help to ensure that the public realm, the parking areas, the routes to the site and links to adjacent public transport and local services and facilities are also designed to be accessible, safe and convenient for everyone, particularly disabled and older people. This concept can also help to meet the specific needs of older people. The LCS's DAS seeks to improve on traditional urban models and aims to deliver a world class model of inclusive urban regeneration – however, the mechanisms to ensure that this ambition is fulfilled need to be clearly established and secured by condition or Section 106.

123 The design of the landscaping and the public realm, including the entrances to buildings, is crucial to how inclusive the development will be to many people. The pedestrian routes to all of the buildings, and within the buildings and courtyards, should be designed to ensure full and easy access for all users. Design standards to achieve this should be included in the Design Codes. In addition, all public spaces and recreation/play facilities should be designed to ensure access for all. The DAS has begun to address issues such as the design of inclusive play which should be addressed at detailed design stage in consultation with the BEAP. Further consideration, in consultation with the BEAP, should be given to how the proposed shared space will be designed, particularly in the proposed mews developments to ensure that sufficient space is designed in from the outset for safe pedestrian only zones, and that the boundary between the routes shared with vehicles is clearly demarcated. The space required for safe pedestrian only routes should be included in the schemes Design Codes.

## Blue badge parking

124 The DAS states that blue badge parking will be provided in all areas close to facilities and services. This is welcome but further work will need to be undertaken on the proportion of blue badge bays as the 10% of the total number of parking bays suggested may not be appropriate in all circumstances, given the aim to provide a low number of parking bays overall. It is not just occupants of wheelchair accessible homes that use blue badges but many older people and people with other physical and sensory impairments who may live in Lifetime Homes or be visitors to the many services and attractions that will be provided in the new communities. Although delivering an accessible public realm and an accessible public transport system will encourage many disabled and older people to use public transport, there will always be a number of people who are unable to use public transport and are reliant on a private car. A specific blue badge parking strategy and management plan should therefore be developed for each of the neighbourhoods. The implications on the design of the public realm of the increasing use of mobility scooters and the ability for disabled people to use electric charging points should also be considered.

125 A feasibility study should also be undertaken to understand the need for a shop/park mobility scheme and whether there are any opportunities to inherit aspects of the Olympic and Paralympic Games Mobility Scheme and/or to connect with the Shopmobility scheme recently provided at Westfield Shopping Centre. The development of the proposed visitor hubs in the north and south parts of the park may be appropriate locations for a park mobility scheme (where disabled and older people can hire a mobility scooter or wheelchair for the day and obtain other assistance to enable them to visit and enjoy the facilities on offer).

126 At this stage however, it is not possible to determine whether the proposals fully accord with relevant London Plan policies.

## Health

127 The submitted Health Impact Statement (HIS) does not fully satisfy the requirement for a Health Impact Assessment as required by the London Plan policy 3.2c by adequately demonstrating how the development has been designed, constructed and managed in ways that will improve health and promote healthy lifestyles to help reduce health inequalities in line with London Plan policy 3.2d. For example, the HIS statement only includes a partial assessment of local health issues and priorities, and does not comprehensively and systematically assess both the negative and positive health impacts of the OPLC's proposals and needs to better outline measures to that would maximise health benefits and mitigate negative impacts.

128 Such measures and commitments should then be carried forward into the reserved matters applications and ideally monitored by way of a longer-term health study. The use of indicators and targets would assist with this, perhaps using those in the Host Borough's Strategic Regeneration Framework and better help demonstrate compliance with the Convergence Development Principle (F1) in the Mayor's draft OLSPG.

## Open space

### Strategic policy context

129 The London Plan establishes the strategic planning context against which the OPLC's planning application must be assessed, and the following London Plan policies are particularly pertinent.

130 Policy 7.17 which strongly supports the current extent of Metropolitan Open Land, its extension in appropriate circumstances, and its protection from development which would have an adverse impact on its openness. The policy also confirms that to designate land as MOL, a borough would need to establish that the land meets at least one of the following criteria:

131 Policy 7.18 which confirms the Mayor's support for the creation of new open space to ensure satisfactory levels of local provision to address areas of deficiency and categorises different types of open space according to their size and function in Table 7.2 of the Plan.

132 Policy 7.19 which stresses the need for a proactive approach to the protection, enhancement, creation, promotion and management of biodiversity in support of the Mayor's Biodiversity Strategy. It also confirms that development proposals should wherever possible; make a positive contribution to the protection, enhancement, creation and management of biodiversity.

133 The draft OLSPG stresses the need for development proposals in the Lower Lea Valley to create a network of parks and open spaces focused on the River Lea and that these spaces and pedestrian links should be used to help connect the area's new and existing communities, improve connections south to the Thames and north into the Upper Lee Valley, and link with and into the open spaces and sports facilities provided by the Lee Valley Regional Park Authority. The draft OLPG also confirms that new development should carefully consider the relationship between buildings, activities and the public realm, and help link the area's green and blue spaces.

134 Whilst the current application does not include the main extent of the proposed Queen Elizabeth Olympic Park, it will establish the physical context to the Park, potentially include elements of the Park within it, interact and connect to it, and help define its boundaries. The application must therefore be considered in the context of the OPLC's wider ambitions and plans for the Queen Elizabeth Olympic Park as well as the inherited obligations, commitments, and expectations arising from the earlier Olympic planning permissions.

## Metropolitan Open Land

135 Condition LTD.22 of the ODA's 2007 Facilities and Legacy Transformation planning permission, (07/90010/OUMODA), and the S106 planning agreement that accompanies that permission, required that at the conclusion of the Legacy Transformation Development (i.e in 2014), 102 ha of open space be provided, and that unless otherwise agreed by the Local Planning Authority, it should be designed to meet the criteria in the London Plan for designation as Metropolitan Open Land and be available for public use as public open space for amenity and recreational purposes. Informative 2 of the 2007 permission confirmed that public open space had the same meaning as is given to open space in PPG17 - as in existence as at the date of the permission.

This requirement still applies, and the 2004 London Plan (which was in force in 2007), used the following criteria to define land that could be designated as MOL.

- land that contributes to the physical structure of London by being clearly distinguishable from the built-up area.
- land that includes open air facilities, especially for leisure, recreation, sport, arts and cultural activities and tourism which serve the whole or significant parts of London.
- land that contains features or landscapes of historic, recreational, nature conservation or habitat interest, of value at a metropolitan or national level.
- land that forms part of a Green Chain and meets one of the above criteria.

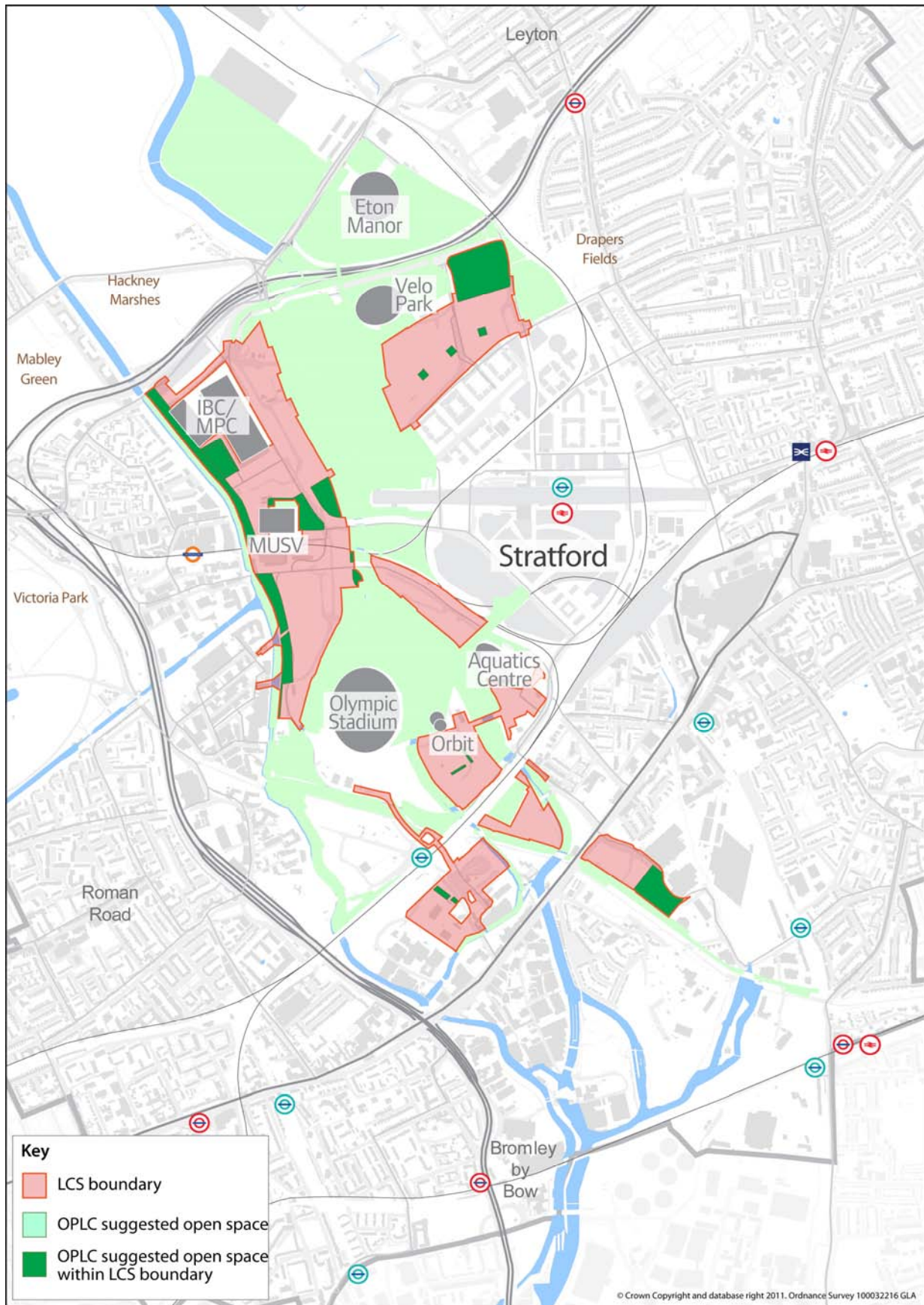
136 These definitions are substantially maintained by the current (2011) London Plan. The OPLC therefore inherited a planning permission that required 102 ha of open land to be provided that would meet the following three requirements:

- Be designatable as Metropolitan Open Land.
- Meet the criteria for open land in PPG 17.
- Be accessible to the public.

137 Part of the rationale for these requirements was the need to replace and increase the quantum of Metropolitan Open Land that was in the area before work started on the 2012 Games, and for all such land to be provided in a form that would allow the four local authorities to formally adjust their MOL designations after the Games.

138 Plan 5 of this report shows the OPLC's suggested approach to open space to meet these requirements. GLA officer analysis of the submitted material has identified the potential for the OPLC to meet these requirements though with a slightly different configuration. It is therefore suggested that this matter be clarified by the OPLC in order to fully demonstrate compliance with London Plan policy and the requirements the 2007 consent, in particular the need for the MOL land identified by the OPLC to be clearly distinguishable from the built-up area by for example forming either a single or a small number of coherent open spaces.





**Plan 5 – LCS open space**

## Other Public Open Space

139 As set out in this report, policy 7.18 of the London Plan confirms the Mayor's support for the creation of new open space to ensure satisfactory levels of local provision to address areas of deficiency, and categorises different types of open space according to their size and function. The OPLC area committed to providing a new park which depending on its final configuration would probably be of Metropolitan scale (i.e. around 60 hectares). It is also committed to providing a number of play spaces for children and young people of different ages and has used the categories set out in Table 7.2 of the London Plan to conclude that residents in the LCS will all fall within the catchment areas the Table promotes and that there will be considerable improvements to open space access for residents outside of the LCS application area, (page 57 - Green Infrastructure Strategy). This is welcomed but should be secured by appropriate detailed analysis and planning conditions.

## Biodiversity and urban greening

140 The Legacy Communities Scheme (LCS) does not significantly alter the layout of the core parkland area that will be created by the Legacy Transformation Development, (a requirement of the extant Olympic Transformation Legacy planning permission). The OPLC has committed to creating 102 hectares of open space of which 45 hectares would be wildlife habitat that would meet criteria set out in the Olympic Park Biodiversity Action Plan (BAP).

141 However, the LCS envisages reconfiguration of some areas of open space currently identified in the Legacy Transformation Development to accommodate logical workable boundaries to the proposed Planning Delivery Zones. This reconfiguration should not result in a reduction in the amount of BAP habitat to be provided.

142 The approach to delivering both the open space and BAP habitat commitments are set out in a comprehensive Green Infrastructure Strategy. In addition to the Green Infrastructure Strategy the applicant has also provided a Site Wide Design Code, and bespoke Design Codes for each PDZ which set out, inter alia, how prospective developers are expected to meet objectives relating to 'Landscaping'. The 'Landscaping' section of each Design Code sets out design principles in relation to ecology, green roofs, rain gardens and open space. These principles are consistent with the aims and objectives of the Mayor's biodiversity and urban greening policies and the LCS is considered acceptable with respect to urban greening and biodiversity, subject to confirmation of the OPLC's open space boundaries and designations.

## **Climate change**

### Adaptation

143 The London Plan sets out key climate change adaptation principles in Chapter 5 that promote and support the most effective adaptation to climate change. These are to minimise overheating and contribution to heat island effects; minimise solar gain in summer; contribute to flood risk reductions, including applying sustainable drainage principles; minimise water used; and protect and enhance green infrastructure and urban greening. Specific policies cover overheating, urban greening, living roofs and walls and water.

144 The draft OLSPG confirms that the sustainability infrastructure inherited from the 2012 Games, should be used to promote and achieve exemplar standards of sustainable design and construction and environmental quality across the OLSPG area, and to create a new part of London which is ready to respond to the challenge of climate change.

145 A "Sustainability Statement" supports the application and promotes compliance with relevant London Plan policies on climate change adaptation.

146 The application detail comprehensively addresses climate change adaptation including the use of water, and is considered to generally comply with the requirements set out in the London Plan in these respects. It also comprehensively uses the Games infrastructure in Legacy. However policy 2.4 of the London Plan confirms that the Mayor wishes development within and around the Olympic Park to embed exemplary design and environmental quality and secure exemplary energy, water conservation and waste management provision. As set out below, GLA analysis confirms that the proposed CO2 savings will exceed current 2011) London Plan targets and in this sense would be exemplary.

147 The application is submitted in outline form and could be implemented in phases over the next 20 years, it is therefore suggested that subsequent reserve matter applications be required to demonstrate compliance with the relevant national and London Plan environmental standards in force at the time they are submitted, rather than the standards currently in force.

148 It is further suggested that the OPLC look to go beyond minimum London Plan standards by for example using the Olympic site's non-potable water network, exploring with Thames Water how they might introduce additional leakage detection and reduction measures, or incorporating measures to encourage environmental behaviour change such as displays where residents, workers and visitors can view the environmental performance of local areas or view environmental infrastructure. This could be areas where people congregate and information provided to encourage people to save energy, carbon and water. Displays could also show how the development has been designed to improve infrastructure maintenance and efficiency.

149 Another opportunity for such enhancement is water metering which should be linked with energy metering to ensure that networks work together, and be installed so that changes of use or sub division would allow sub-metering.

150 The application proposes that all homes will meet Code for Sustainable Homes Level 4, and as an exemplar scheme, with key elements of infrastructure in place, i.e. a district heating system, public transport and decontaminated, serviced land - the scheme could for example aim to achieve Level 5.

## Mitigation

### Be Lean

#### Energy efficiency standards

151 A range of passive design features and demand reduction measures are planned to reduce the carbon emissions of the proposed development. Both air permeability and heat loss parameters will be improved beyond the minimum backstop values required by building regulations. Other planned features include maximum daylighting and energy efficient ventilation. The demand for cooling will be minimised through, among other features, external adjustable shutters to control solar gain.

152 Through energy efficiency alone, the development is estimated to achieve a reduction of 845 tonnes per annum (5%) in regulated CO2 emissions compared to a 2010 Building Regulations compliant development.

## Be Clean

### District heating

153 All homes and buildings within the development area are planned to be connected into the Olympic Park district heating network fed from the existing King's Yard Energy Centre. Drawings showing the existing heat network and planned extensions have been provided. There is some doubt about whether planning delivery zone (PDZ) 8 and PDZ 12 will be connected, as the existing network does not yet extend to these zones and connecting these two zones will require new pipe work to pass beneath existing transport related infrastructure. The extension of the network to PDZ8 and PDZ12 is the subject of a separate but related utilities planning application. Connection of PDZ8 and PDZ12 to the Olympic Park district heating should continue to be prioritised.

154 The existing King's Yard Energy Centre has been designed with space and capacity to meet the full heating demands of the LCS development in addition to the energy demands of the retained Games venues and Athletes' Village.

### Combined Heat and Power

155 The King's Yard Energy Centre already contains large gas fired CHP plant. Space has been set aside for up to five 3.3MW gas fired CHP units. These will be installed as the connected heat load on the district heating network builds up. CHP is envisaged to supply approximately 57% of the development's total heat demand. A reduction in the development's regulated CO<sub>2</sub> emissions of 6,579 tonnes per annum (43%) is envisaged through the second part of the energy hierarchy.

## Be green

### Renewable energy technologies

156 Under existing agreements relating to the King's Yard Energy Centre, biomass boilers are required to produce approximately 20% of the heat required by the Olympic Park district heating network. Provision has been made within the buildings at King's Yard for the supply, delivery and storage of biomass. A reduction in the development's regulated CO<sub>2</sub> emissions of 2,212 tonnes per annum (26%) is envisaged through the use of biomass.

157 Tower Hamlets Council is also currently in the process of planning a new waste facility to meet London Plan targets for waste treatment provision within the Borough and to enable a sustainable approach to waste management and low carbon energy supply. The preferred timescale for delivering this aligns well with the timing of new development on the LCS. Its preferred approach is to deliver an advanced thermal treatment process plant which produces syngas and its preferred site for this facility is within Fish Island, close to the Park. This provides a strategic opportunity to use this facility to meet the low carbon energy demands of the LCS by piping the syngas from Fish Island to the King's Yard Energy Centre. The applicant is working with Tower Hamlets and Cofely East London Limited, the operators of the Olympic Park district heating network, to explore the feasibility of using syngas of a sufficient quality to supply CHP engines in the King's Yard Energy Centre. This approach could lead to substantial further reductions in carbon dioxide emissions.

158 As an alternative to waste derived syngas, the applicant has also investigated a 1.5MWe biomass CHP system, whereby woodchip is gasified for use in a gas engine. However, this is not the preferred option.

159 If it is not possible to supply syngas using the routes described above and it is necessary for the residual regulated carbon dioxide emissions to be reduced further to meet the zero carbon definition, developers will either install roof mounted PV or contribute to initiatives which reduce off-site carbon emissions.

### Overall carbon savings

160 The estimated regulated carbon emissions of the development are 6,450 tonnes of CO<sub>2</sub> per year after the cumulative effect of energy efficiency measures, CHP and renewable energy has been taken into account. This equates to a reduction of 9,636 tonnes of CO<sub>2</sub> per year in regulated emissions compared to a 2010 Building Regulations compliant development, equivalent to an overall saving of 60%. The carbon dioxide savings therefore exceed the targets set within policy 5.2 of the London Plan.

### **Waste**

161 The LCS's Environmental Statement proposes an outline Waste Strategy for Construction and Demolition Wastes in section 7.6.3.2. This proposes a number of targets including: 90%, (by weight) of arisings from demolition works to be re-use or recycled; and diversion of 90% of construction waste from landfill through re-use, recycling and recovery. However, London Plan policy 5.16 requires that by 2020, 95% of such materials should be re-used or recycled. This requirement should be acknowledged and incorporated into the relevant legal agreement(s) that cover waste. Finally, in order to demonstrate exemplary environmental quality it is suggested that the OPLC consider an automated vacuum based waste collection system for the new neighbourhoods.

### **Air quality**

162 London Plan policy 7.14 states that the Mayor recognises the importance of tackling air pollution and improving air quality to London's development and the health and well-being of its people, and that he will work with strategic partners to achieve reductions in pollutant emissions and minimise public exposure to pollution. It goes on to confirm that development proposals should minimise increased exposure to existing poor air quality and make provision to address local problems of air quality, particularly within Air Quality Management Areas (AQMAs).

163 The site is within an Air Quality Management Area and the applicant has submitted an "Air Quality Impact Assessment" which compares existing levels of air pollutants against current standards and concludes that the site is suitable for its proposed use. Nevertheless, it is recommended that the applicant considers how to minimise exposure to poor air quality, particularly in the design and operation of ventilation systems.

164 The submitted ES identifies that the LCS has the potential to affect air quality during its construction and operational phases, as well as to introduce new residents into areas of existing poor air quality. The ES concludes that it is considered unlikely that there would be any adverse effects upon air quality during the construction period, assuming that the mitigation measures contained in the Mayor's Best Practice Guidance are implemented.

165 The assessment has considered the effects of the proposed development on existing nearby residential and other sensitive receptor locations and also the issue of potential exposure of future residents of the proposed development to poor air quality.

166 Emissions from the King's Yard (Olympic Park) and Stratford City energy centres were included in the assessment and worst-case emissions based on the maximum output from the two energy centres with plant running on full load at all times were assumed. It was identified that residential units in PDZs 8 and 12 would not be connected to the DHN and therefore, emissions from domestic heating sources were added separately to the operational model.

167 The assessment included atmospheric dispersion modelling, using AAQulRE 6.2 for road sources and Lakes AERMOD 6.7.1 for point and area sources. Meteorological data from London City Airport was used in the modelling. Emissions of nitrogen oxides (NOx), NO<sub>2</sub> and PM<sub>10</sub> were also included in the assessment. The dispersion modelling was undertaken for the baseline year of 2008 and output from the dispersion modelling was verified against local continuous monitoring data.

168 As the proposed LCS will be constructed over a prolonged period, potential air quality impacts during the operational phase were considered following two distinct phases of construction, 2015-2021 and 2022-2031; an interim year of 2026 was also assessed.

169 The assessment identified that in PDZ 4 the emissions from nearby King's Yard energy centre "have a significant effect on local air quality at proposed sensitive receptors" in 2021. Predicted annual mean NO<sub>2</sub> concentrations in development parcels 4.1, 4.2 and 4.3 would be close to the Air Quality Objective (AQO) of 40 g m<sup>-3</sup> in 2021 (<39.6 g m<sup>-3</sup>) and therefore the introduction of new exposure to pollution across PDZ 4 was concluded to be of slight adverse significance.

170 The earliest date Development Parcel 4.1 would be occupied is 2017 with the remainder occupied by 2021 and it is therefore possible that residents would be exposed to air quality that exceeds the AQO. It is however recognised that predicted concentrations continue to reduce beyond 2021 and by 2026 the maximum modelled annual mean NO<sub>2</sub> concentration in PDZ 4 was 32.8 g m<sup>-3</sup>.

171 From the results presented in the report, it is not possible to identify at these receptors the proportion of the total modelled concentration that is due to the energy centre when compared to road traffic and other background emission sources. Although it is stated that the approach to modelling the energy centre emissions was worst-case, it is noted that only 1-year of hourly sequential meteorological data was used in the assessment of these emissions (year 2009); the Environment Agency's guidance suggests the use of five years' data, with results presented for the worst-case year for each averaging period. The 1-hour mean NO<sub>2</sub> AQO has not been considered in the context of emissions from the energy centres.

172 As concentrations are presented at modelled receptors that represent large parcels of development and therefore multiple residential properties, it would be possible that overall exposure could be underestimated.

173 The ES also concludes that mitigation measures should be considered for those PDZs where sensitive receptors have the potential to be introduced to pollutant concentrations above the AQO's. It also states that consideration should be given to maximising the distance of these sensitive receptors from nearby roads, and following this, if the AQO's are still likely to be exceeded when the units are first occupied, consideration should be given to the use of mechanical ventilation. It is stated that these matters will be carried forward to detailed design and reserved matters applications.

### Conclusion

174 The LCS development is located within an area where exceedances are identified of the Air Quality Objectives and any grant of planning permission needs to be considered in this context.

175 The effects of the proposed development on local air quality have been fully evaluated and the assessment concludes that despite the large scale of development, the significance of the proposals on local air quality is negligible.

176 Owing to potential issues around exposure of new residents to poor air quality, the Environmental Statement concludes that further consideration should be given to operational phase mitigation measures at detailed design stage and in reserved matters applications. This must be a requirement going forward.

177 There are also some potential uncertainties concerning the effect of emissions from the King's Yard energy centre on new residential receptors forming part of the proposed development. At detailed design stage and in reserved matters applications the observations made in this review in terms of the use of only 1-year of meteorological data and the need to consider compliance with short-term Air Quality Objectives should be considered.

## Noise

178 London Plan policy 7.15 (Reducing noise and enhancing soundscapes), states that the Mayor will, and boroughs should reduce noise by, among other things, "minimising the existing and potential adverse impacts of noise on, from, within, or in the vicinity of, development proposals", and that new noise sensitive development should be separated from major sources of noise wherever practicable. The advice contained in Planning Policy Guidance Note 24 (PPG24): Planning and Noise, is also relevant, as is the Mayor's Housing Design Guide that seeks to avoid single aspect units exposed to noise categories C and D.

179 Given that Olympic and Paralympic-related construction is currently still in progress across the sites, 2013 baseline noise levels have been derived from modelling of road and railway noise, rather than from noise measurements. Although these sources will not provide a complete picture of noise exposure, worst-case assumptions have been made (e.g. assuming the noisiest typical road surface in road traffic modelling rather than the quieter surfaces likely to have been used on many relevant surfaces). Background noise levels will be measured in due course, for example, to set noise limits for fixed plant, and this should, of course, be made a requirement in any outline planning permission.

180 The suitability of the sites for residential development was assessed by modelling for 2013, 2021 and 2031 in scenarios for both day and night-time periods. Noise mitigation measures (e.g. building layout, form and orientation, noise barriers and building insulation) are outlined where appropriate in accordance with Planning Policy Guidance Note 24. The most-affected sites, affected by night freight trains, are near Stratford Regional Station, but even here, the ES identifies that residential development can be carried out with suitable mitigation in accordance with PPG24.

181 The proposed development also includes mixed use, schools, health facilities and other noise sensitive uses. The ES identifies where mitigation may be required, and outlines potential measures where necessary, which would be worked up at a more detailed design stage. The ES also includes a worst-case construction noise assessment, with an outline of suitable mitigation measures. Overall, the ES concludes that, with mitigation as outlined, the development would not result in any unacceptable noise effects.

182 In regard to matters which might have been given greater consideration, the ES does consider the effects of a 60,000 capacity legacy Olympic Stadium in terms of traffic generation. However, the legacy status of the stadium has not yet been fixed and the noise impact of events such as pop concerts should be assessed and suitable analysis and references included in the ES.

183 The ES refers correctly to development sites being outside those noise contours for London City Airport which imply development constraint in terms of PPG24. However, at detailed design stage, it is suggested that designers of housing, schools and other noise-sensitive development check the then current and projected flightpath plots with the Civil Aviation Authority, and consider avoiding development forms such as small courtyards with a high proportion of non-acoustically absorptive surfacings, having regard to frequency of noise events from overflights.

184 The ES assesses open space and amenity issues adequately in noise terms, i.e. addressing potential negative impacts. However, it is suggested that future design should explicitly consider positive experience of outdoor acoustic environments, e.g. in the context of a soundscape management plan for the Lea Valley.

## **Flooding**

185 Part of the application site is located within a Flood Zone 3a, as defined by the Environment Agency, indicating it might suffer from a high probability of flooding. London Plan Policy 5.12 states that “Development proposals must comply with the flood risk assessment and management requirements set out in PPS25 over the lifetime of the development...” Given that residential uses are proposed, an exceptions test is required under PPS25. London Plan Policy 5.12 states that “Developments which are required to pass the PPS25 Exceptions Test will need to address resilient design and emergency planning by demonstrating that the development will remain safe and operational under flood condition; a strategy of either safe evacuation and/or safely remaining in the building is followed under flood conditions; key services including electricity, water etc will continue to be provided under flood conditions; and buildings are designed for quick recovery following a flood”. These should be secured by planning condition or S106 agreement.

186 The applicant has submitted a flood risk assessment in response to national, strategic and local policy requirements with regard to flood risk. This includes details regarding emergency planning in the event of a flood. As part of the wider flood risk strategy, the applicant is proposing sustainable urban drainage measures, including permeable surfaces, swales, and green roofs. These measures are supported in accordance with London Plan policies 5.11 and 5.13.

187 PDZ8 specifically includes Development Parcels at risk of flooding in the light of the weak existing defences. Options to address this are mentioned, however, it may be appropriate to more specifically identify such mitigation measures and to set out in line with London Plan policy 5.12C how the buildings in this area will remain safe.

## **Waterways**

188 A suite of Blue Ribbon Network policies in the London Plan (policies 7.24 – 7.30) promote the use and protection of London’s Waterways. Policy 7.30 specifically addresses canals and sets out that development should contribute to their accessibility and active water related use. Accessibility to the waterways through the Olympic Park have already been significantly improved by the current and proposed Games and Transformation measures and further enhancements are set out in the draft OLSPG. However, the OPLC’s Green Infrastructure Strategy does not propose specific actions to facilitate this for recreational purposes.

189 London Plan policy 7.27 sets out the promotion of waterway support infrastructure including moorings and slipways and the draft OLSPG confirms that the OPLC is working with British Waterways to explore the possibility of providing wharf capacity within its land holdings. This should be clarified and if appropriate, specific sites identified and provided.

190 Finally, London Plan policies 6.14 and 7.26 promote the use of water transport for demolition and construction material and section 4.3 of the Transport Assessment acknowledges the opportunities of water transport. However, this is not reflected in any measures as part of the development proposals, and would for example require the identification of (un)loading points. The use of water transport for waste management should also be considered for the operational phase of the development.



## Equalities

191 The 2010 Equality Act places a duty on public bodies, including the GLA, in the exercise of their functions, to have due regard to the need to advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it. This requirement includes removing or minimising disadvantages suffered by persons who share a relevant protected characteristic that are connected to that characteristic and taking steps to meet the needs of persons who share a relevant protected characteristic that are different from the needs of persons who do not share it. The Act defines protected characteristics and the GLA in the discharge of its planning function must engage this duty, in so far as it is applicable to a particular case.

192 In this instance the OPLC has prepared and submitted an Equality Statement (ES) which considered the needs of the following groups

- Gender and gender reassignment: women, trans people and men;
- Race: black, Asian and minority ethnic (BAME) people (including Gypsy and Traveller communities);
- Disability: disabled people;
- Faith: people from different faith groups, and no faith;
- Sexual Orientation: lesbian, gay and bisexual people (LGB);
- Age: older and young people, and children.

193 The ES also sets out a series of actions and commitments which the OPLC has identified as appropriate and necessary to address the equalities issues it identifies.

194 These include preparing and adopting an Equality and Inclusion Policy and Inclusive Design Strategy, assumed responsibility for the ODA's Built Environment Access Panel (BEAP), has regard to the Equality consultation carried out by the LDA when it was preparing its Legacy Masterplan Framework (LMF), established Equalities Focus Groups to discuss proposals and gather feedback,

195 Specific actions include adopting inclusive design standards, providing 42% family housing, continuing to work the Clays Lane Travellers and the London Borough of Newham to establish future Traveller requirements following the LDA's 2006 Compulsory Purchase Order, including the provision of multi-functional community spaces that could be used by faith groups, seeking to create cohesive walkable neighbourhoods and providing children's play spaces.

196 This approach is welcomed and if secured through appropriate planning conditions and agreements and the relevant equalities matters identified in this report should be satisfactorily addressed and it is considered the GLA's equalities obligations in respect of this application and key policy requirements of London Plan policy 4.12 (Improving opportunities for all) would be met.

## Transport and connectivity

### Introduction

197 The LCS site will see significant new public transport infrastructure associated with the development of Stratford City and the 2012 Olympic and Paralympic Games. It has been estimated that the site, while currently under construction for the Olympic Games, records public transport accessibility level (PTALs) ranging from 1 to 6, on a scale of 1 - 6, where 6 is classed as excellent. It is understood that the PTALs across the site will be further improved to between 3 (in parts of PDZs 4, 5 and 6) and 6 (in PDZs 1 and 2 close to Stratford) by the above improvements including the proposed indicative bus network through the site.

198 Stratford Regional station is located to the east of the LCS, which currently provides National Rail, London Underground (Central and Jubilee), London Overground and Docklands Light Railway services and in the future will also be served by Crossrail. Stratford International station is also located to the east of the LCS and provides High Speed domestic and Docklands Light Railway services as well as potentially in the future international rail services. There are other stations within the vicinity of the site at Leyton (LU), Maryland (National Rail/Crossrail), Stratford High Street (DLR), Pudding Mill Lane (DLR), and Hackney Wick (London Overground). Following the opening of the Stratford City development in September, there are now two bus stations on the north and south sides of Stratford Regional station which are served by numerous bus routes.

199 The nearby highway network includes the A12, which forms part of the Transport for London Road Network (TLRN), the A112 Leyton Road and A118 Stratford High Street which both form part of the Strategic Route Network (SRN). While the Barclay's Cycle Superhighway 2 also currently runs west along the A11 from Bow Roundabout, TfL proposes to extend it further along A118 to Romford after 2012, subject to consultation.

#### The Mayor's draft Olympic Legacy Supplementary Planning Guidance

200 The Connectivity and Transport section of the consultation draft Olympic Legacy Supplementary Planning Guidance (OLSPG) and its associated Strategic Transport Study describes the transport issues in the OLSPG area and the interventions required to enable the development the draft OLSPG anticipates to be delivered. Specifically, the draft OLSPG describes three types of connections which need to be maintained, improved or implemented.

201 These are: strategic links, local connectivity and neighbourhood permeability. The draft OLSPG and its associated Strategic Transport Study also highlights that there is now and will be in the future crowding and congestion on parts of the area's public transport and highway networks, rail crowding on some routes into central London and at some key public transport interchanges. There is also significant highway congestion on some of the area's strategic roads and junctions, particularly in the evening peak, which has a negative impact on journey times for all road users including buses and freight.

202 The highway network (especially the strategic sections) is one of the key concerns to address to accommodate the quantum of development the draft OLSPG identifies. The draft OLSPG and its associated Strategic Transport Study both state the need for significant mitigation measures to maintain and safeguard the current and future performance of the road network, to be identified and fully funded. Failure to do so will affect reliability of the road network which includes key corridors serving the whole of London. Demand also needs to be managed through a number of complementary mitigation measures to smooth traffic flow and tackle congestion.

203 The draft OLSPG therefore highlights a number of interventions that are required to improve the strategic connectivity and capacity on the area under development principle C1. This includes schemes which will support the OLSPG area, for example, improvements to stations, as well as schemes which will provide a significant benefit to the OLSPG area and other areas of London, for example DLR 3 car upgrades. Development principle C2 – improving local connectivity and permeability describes a list of 16 schemes which are required in order for the OLSPG area to work.

204 Following the Games and Post Games Transformation (PGT) measures, further transport and connectivity improvements will be crucial to the integration of the LCS area with its surrounding neighbourhoods.

## Modelling

205 Having reviewed the Transport Assessment (TA), there are several overarching concerns which will need to be addressed, and further information will be required so that TfL can accurately assess the impact of the application and whether it is compliant with London Plan transport policies. A separate log of detailed comments on the TA and sensitivity tests has been provided to the ODA. While this should be the subject of a Regulation 22 request for further information and clarification, some key points are set out below in the subsequent sections.

206 The existing base year network conditions must be established and modelled reliably before using these models for assessment of proposals for future years. To date, this has not been sufficiently demonstrated. Further evidence also needs to be provided between the Base scenario to 2014, 2014 to 2021 and 2021 to 2031 without development scenarios. This will assist in understanding the impacts of the LCS proposals and the corresponding mitigation measures over those interim years.

207 The transport impact assessment of the scheme, by reference to 'without scheme baseline' modelling results, presumes that network performance / traffic conditions under the future year (without scheme) baseline are acceptable, this is not the case.

208 No junction models have been included in the TA, and there will need to be an assessment to demonstrate that the existing junction models are fit for purpose.

209 The assessment of highway effects states that these are minor because of the assumed modal split which favour public transport. This 'theoretical' approach is not acceptable as no evidence has been provided to support this and further information on highway impacts will need to be provided.

210 There is a concern that only two screenlines have been used to assess changes in traffic flow and that there should be a wider assessment of flows. The assessment criteria should be agreed to ensure that these screenlines do cover all highway movements, as well as impacts on existing roads outside the park. Discussions will therefore need to be held to agree a better set of assessments.

211 Given that TfL will be checking the use of the strategic models (Regional Railplan and ELHAM phase 1), TfL is currently scoping what information will be needed to do this and will inform the applicant.

212 It should also be noted that the version of Railplan used in the assessment of the effects is underestimating future demand on DLR and London Overground given recent growth. This should therefore be addressed.

213 There is generally little explanation of the changes in the modelling outputs and their causes. It has previously been requested that assessment of changes within congestion and crowding diagrams would need to be carried out, such as annotation or explanation of diagrams, to ensure that there is an understanding of the changes even though the change was not sufficient to change levels of congestion or crowding.

214 The presented highway information and diagrams are tightly drawn to show the impacts close to the park, whereas zoomed out plots would show the extent of impact on the wider highway network.

215 The Interim Uses Sensitivity Test sets out that the impact of the currently assumed interim uses are unlikely to have a greater impact on the networks compared to the 2031 scenario with scheme. This is accepted, however, this depends on the assumption that the full build out would happen. TfL therefore recommends that a further sensitivity test is carried out with the assumption that there is only 2021 plus interim development and therefore this would need to be run on the 2031 background growth. This would identify what improvements are required to mitigate any impacts until the full build out occurs or not.

216 There may be opportunities to explore recent survey data and analysis from the opening of Westfield Stratford City, for public transport, highways and parking to further validate the analysis. Additional station boarding and alighting data can be made available.

#### Phasing and construction

217 The phasing and construction of the zones of the park will need to be supported by transport infrastructure and service improvements. It is essential that a network of walking, cycling and public transport routes be in place – the TA suggests that it is envisaged that walking and cycling routes would be constructed at the same time as the PDZs they serve. TfL would however recommend that plans are in place to provide safe and secure interim routes to ensure that there are no gaps in the network. This will encourage use of walking, cycling and public transport routes from the outset of development, as opposed to trying to change travel patterns post development through behaviour change programmes. It is the intention to introduce bus services in 2013/14 and bus routes will need to be kept open during construction.

218 TfL supports the new infrastructure links the LCS will provide, and would wish to see these delivered as quickly as possible, particularly the bus only link between Eastway and the retained IBC/MPC. In the wider OLSPG area beyond the LCS boundary, there are other infrastructure schemes that have been identified which would also help to improve accessibility and connectivity into and across the LCS site. LCS and other developments in the OLSPG area will be expected to provide contributions through S106 or CIL to deliver these improvements.

219 The application includes a Code of Construction Practice, which in its current form appears sufficient at this planning stage, in line with London Plan policy 6.3 which is looking to minimise highway and traffic impact on the highway network during the course of construction. Further details will however need to be prepared in due course, and these will need to be discussed with TfL and the local highway authorities.

220 While each PDZ or development within a PDZ will require their own construction logistics plan, TfL would nevertheless strongly encourage the following measures:

- use of rail and water, especially given the establishment of water freight facilities for the construction associated with the Olympic Games
- booking systems
- consolidated or re-timed trips
- secure, off-street loading and drop-off facilities
- using operators committed to best practice, demonstrated by membership of TfL's Freight Operator Recognition Scheme (FORS), or similar
- protection of vulnerable road users.

#### Highways

221 The general comments on modelling have set out the additional requirements which are needed to allow TfL to have confidence in the work produced to date and to assess the modelling and conclusions that have been reached. The TA generally has little description of the affected junctions and links and lacks explanations related to the changes seen in the modelling and their causes.

222 Initial assessment suggests that the summary of highway measures is felt to be insufficient given the existing traffic congestion on the road network, the committed developments and the magnitude of planned and proposed development. The committed highway schemes and other mitigation measures are considered to be lacking in strategic consideration. While TfL has particular concerns about the impact of the proposed development on the operation of the A12 and Bow Interchange, there are also other junctions on the perimeter of the site and in the wider area which will need to be assessed.

223 The application does not propose any particular highway measures, but does conclude that there are a number of (unidentified) highway junctions that are expected to reach or exceed acceptable capacity. The section below on approach to mitigation provides further details regarding the opportunity for interventions.

### Parking

224 The amount of car parking provision for which planning permission is being sought is 5,403 spaces, although there seems to be some discrepancies in the car parking tables presented within the TA which will need to be clarified. There is concern with the way that parking ratios have been set by applying different standards. For example, in PDZ5 and PDZ 6, the latter has a larger number of larger houses so it would be expected that the car parking ratio would be higher than PDZ 5. This therefore needs clarification.

225 Although the levels of car parking are within London Plan maximum standards, it is felt that in the context of London Plan Policy 6.13 the overall proposed provision is considered excessive, particularly in locations with a predicted PTAL of 5 or 6 and for non-residential uses. In addition, the vision for on-street parking within PDZs may not match with wider public realm and other streetscape objectives of the LCS such as streetscape and doorstep play, for example, PDZ6 which will have 71% on-street parking. TfL would therefore expect this provision to be reduced, particularly in those areas to demonstrate the highest standards policy 2.4 of the London Plan requires for this development.

226 The TA mode split forecasts and Framework Travel Plan (FTP) mode split targets are ambitious but fail to demonstrate how using car parking restraint and increasing public transport capacity will help achieve them. For example, the TA should demonstrate how car parking restraint will contribute to achieving mode split targets.

227 TfL will require car parking standards to be consented on a zone by zone basis and set to a dwelling type considered against transport accessibility by reference to site wide car parking ratios and caps. Future detailed planning applications should also be considered against achievement of mode shift targets set by reference to network capacity and performance. A site wide parking management plan and accumulation plan will be required to inform the decision making process.

228 For disabled parking, the TA sets out London Plan guidance, and the Design and Access statement states that 10% of bays have been presumed to be designated as Blue Badge bays, and that in line with wheelchair standards, one space per adaptable unit will be provided. The DAS sets out that the approach for PDZs will be determined at reserved matters stages, which is accepted.

229 The TA does not consider the provision of Car Clubs, although there are references in the Travel Plan. As this would be a suitable mechanism in line with London Plan policy 6.11 to help minimise the use of the private car and potentially the need for high levels of car parking and inefficient use of space, through reducing car use and any associated impact of trips on the highway network, such an initiative is strongly recommended.

230 There is no consideration of Electric vehicle charging points, which in line with London Plan policy 6.13 should provide 20% of spaces with active charging points and a further 20% of spaces with passive provision.

231 TfL requires these issues to be satisfactorily addressed before the application can be considered to comply with London Plan policy 6.11 and 6.13.

#### Public transport - general comments

232 Similar to highway matters, a log of detailed comments from TfL has been provided to the ODA. While this should also be the subject of a Regulation 22 request for further information and clarification, some key points are set out below in the subsequent sections.

233 There may be an error in Table 4.19, where all of the schemes in this table with the exception of Crossrail should be included in 2014 modelling. The demand plots do not suggest that items such as the North London Line upgrade have been included in 2014 scenarios, and so this will need to be clarified.

234 The base network and proposed indicative bus network assumes increases in the PTALs of the site to between 3 and 6. The TA incorporates a higher PTAL based on "perceived accessibility" for certain parts of PDZ6 and PDZ8, based on walking proximity to Stratford Regional and the use of DLR to reach Stratford Regional respectively to move them to a higher PTAL band. Although this approach is welcomed if it enables a reduction in the level of car parking, there may be associated concerns that the "perceived accessibility" may not be realistic, and may subsequently have consequences on the acceptability of development density associated with PTALs. An assessment will need to be provided which shows the actual PTALs, and the likely associated consequences for density and car parking.

235 The draft OLSPG has identified a range of rail, LU and DLR interventions which will need to be implemented to accommodate the growth in the OLSPG area, in line with London Plan policy 6.4, some, but not all, of which are referred to in the TA and are considered in the following sections.

#### Stations and interchanges

236 The assumption that Stratford regional station can cope with the LCS application because it copes with Olympic spectators is not a fair comparison and will need to be expanded further. For example, during Games times, the station will have many crowd control staff and operational plans to manage the expected flows. Such measures are however not expected to be in place on a daily basis for the legacy phase and therefore overcrowding may well be experienced in the subways and at ticket hall gates. The TA refers to opportunities to open up station access to offer additional pedestrian connections to PDZ8, and this would require a financial contribution.

237 The TA suggests passenger usage at Leyton LU station falls slightly because of the development. This will need to be clarified as the draft OLSPG and its associated Strategic Transport Study have identified that Leyton station will experience congestion.

238 The TA notes that extra demand at Hackney Wick station will require improvements, in addition to the emerging unfunded scheme, and it is welcomed that the TA recognises mitigation will need to be agreed.

239 Pudding Mill Lane DLR station will become a key access point for the LCS, and TfL confirms that the station can accommodate typical daily additional boarders and alighters (although the new station will be constructed to provide safeguarding for installing escalators at a later time), however, this assumes that there will be capacity on the DLR network, which is considered below.

240 For the assessment of stations, changes in interchange flows should also be presented for Stratford High Street (DLR).

### Docklands Light Railway (DLR)

241 The TA states that generated trips will not exceed available capacity, however, this does not allow for any other cumulative development around the network which will need to be taken into account in any approach to mitigation. To enable a better assessment of the forecast growth, the future year forecasts will need to be separated by the two DLR branches to show the impacts on each branch.

242 The draft OLSPG and its associated Strategic Transport Study have identified two DLR related transport interventions, in line with London Plan Policy 6.4, including double-tracking of the line between Stratford and Bow Church. This would subsequently remove the single-track access to Stratford station and would enable greater DLR frequencies and therefore potentially higher PTALs could be achieved in PDZ8.

243 TfL wishes to safeguard a 5 metre strip of land on the south side of the existing Great Eastern and DLR rail corridor. However this appears to overlap with Development Parcel 8.1 and Development Parcel 8.4, identified for residential use. TfL therefore requests confirmation of the limits of deviation sought for Parcel 8.1 and whether they correspond with the requirements for safeguarding and construction of an additional DLR track. TfL will be pleased to discuss this further with the applicant.

244 As previously stated, the PTAL assessment for PDZ8 assumes that a higher PTAL is achievable based on a higher "perceived accessibility" by using DLR to reach Stratford station. This approach was queried above, and will need to be re-assessed. It is proposed that a further test should be carried out incorporating the double-tracking of DLR from Stratford to Bow and an associated increase in frequency to identify whether this intervention would itself provide the higher PTALs that the application is intending.

### Rail and High Speed Rail

245 It should be noted that demand has been increasing very rapidly on the London Overground network. Flows in general are now around 80% higher than they were when TfL took over services in 2007.

246 As set out in the modelling overview, there may be inaccuracies in the schemes included in 2014 model, as demonstrated by the low levels of growth forecast on the London Overground network between 2007 and 2014. The level of growth on services to and from Stratford is significantly lower than the increase in passenger demand that has already happened following the North London Line upgrade. It will need to be confirmed that the upgrade, including an 8 tph peak service, is included in the model.

247 In principle, although there are some detailed comments about the TA and modelling and assignment of trips and relationship with other modes, TfL supports the view that the railway services already delivered for the Olympics, and committed in the future (Crossrail), will provide sufficient railway capacity for the railway trips generated by the development proposed in this application. In this area Crossrail is primarily about replacing existing services and improving cross-London connectivity, and contributions towards Crossrail will be expected, as set out in the *Approach to mitigation* section below.

248 The safeguarded Chelsea Hackney line, which would provide additional strategic connectivity and capacity, passes just to the north of the LCS boundary, with the nearest safeguarded stations in the surrounding area at Homerton and Leytonstone. The Mayor has been asked by government to undertake a review of the route to ensure it will provide the maximum benefit and value for money, and a number of options are currently being developed and tested.

## Buses

249 The application includes the indicative bus network which has been developed in conjunction with TfL London Buses, and provision of new bus links is supported in line with London Plan Policy 6.7. However, some further information and clarification will need to be provided to enable TfL to assess the acceptability of the sequencing of improvements, and to accurately understand the effects of the development on the bus network. Delivery mechanisms and financial contributions will also need to be agreed. TfL will insist upon bus subsidies being paid directly to TfL who will ultimately decide the best way for those to be spent.

250 In summary, this further information includes:

- Detailed plans of the road network in 2014, 2021 and 2031 (if it changes at this stage) so it can be seen how it develops over time, and provision of lanes, basic junction layouts, and bus stop locations.
- The total number of forecast bus trips to/from/within the LCS arising from the proposals for 2021 and 2031. It would be satisfactory if this is calculated either for a weekday or even one peak and should be by PDZ.
- Sample bus journey times of routes passing through the junctions and roads which have been identified as raising concerns, for example Bow Interchange and Leyton Ladder, as well as some sample bus journey times through the site for 2014, 2021 and 2031. These sample bus journeys need to be agreed with TfL.
- Acknowledgement of the need for bus priority measures – the requirement for this will need to be re-assessed in the light of the traffic forecasts in this assessment and the information requested above will help with this. It is likely that extra measures will be required both within and outside the Park and this will need to be acknowledged.
- Confirmation that bridge H14 will be suitable for bus operation.
- Confirmation that buses will be allowed to operate on the road network within the Park.

251 TfL supports the potential increase in bus stands near the IBC/MPC and the statement that bus stop locations will be agreed at a later stage. A mechanism for these to be agreed by TfL needs however to be established as part of the planning permission.

252 It is expected that overall bus demand will fall between 2014 and 2021, primarily due to improvements to the rail network and Crossrail in particular. It would appear that the Crossrail sensitivity test table 8.3 incorrectly shows an increase in bus demand with the introduction of Crossrail, which will need to be clarified.

253 TfL will need to assess the bus network upon the opening of Crossrail, and if bus demand falls, to better match the level of service with the demand, and were there no development in the LCS or wider OLSPG area this would result in a reduced bus network. It should not be assumed that any spare capacity on the bus network arising from the introduction of Crossrail could be used to cater for increased demand from the LCS.

## Coaches

254 The approach for coaches is broadly supported, in line with London Plan Policy 6.8, although a long term proposal needs to be developed. Further details will be required on locations of set down / pick up facilities for schools and the hotel and as PDZ designs and Reserved Matters applications come forward, facilities for set down/pick up, and parking, will need to meet the size requirements to accommodate coaches.



## Walking, cycling and wayfinding

255 The Games and Post Games Transformation approvals set out a comprehensive infrastructure for walking and cycling networks, which forms the basis for an extensive network of walking connections. It appears to offer significant pedestrian permeability across the development site, which is broadly in line with London Plan Policies 6.9 and 6.10. However some further information and clarification will need to be provided at this outline stage and in subsequent reserved matters to understand the effect and mitigation measures for walking, cycling and wayfinding.

256 TfL would wish to clarify the statement "Potential for development to generate a moderate level of cycling trips requiring improved network provision, cycle parking and facilities. This has been assessed as minor beneficial" as the draft OLSPG establishes that the potential for cycling in the LCS area is high, and the provision for and promotion of cycling is stated as one of the underlying principles in the TA. It therefore appears contradictory to the highways effects described above, and this should be re-assessed.

257 The provision for cycle parking for B1 (Office) in Table 2.13 of the TA will need to be reassessed as the London Plan standard for employment is 1:200 sqm plus 1:200 sqm for visitors and not 1:400. This would equate to 230 spaces for workers and 230 for visitors.

258 The remaining cycle parking standards, with provision for 10,265 cycle parking spaces, is acceptable but will need to be updated to take into account the B1 parking standard noted above. It is welcomed that the applicant has taken the most stringent standards from Newham's LDF and the London Plan. The cycling measures envisaged refer to relevant best practice guidance, which is welcomed. Those will need to be secured as the designs of PDZs come forward at Reserved Matters stages. All cycle parking should however be provided to the highest quality standards and more information on the quality aspects of cycle parking would be useful. Information is available from TfL's London Cycling Design Standards; cycling for businesses guide and the relevant supplementary planning guidance for different land uses.

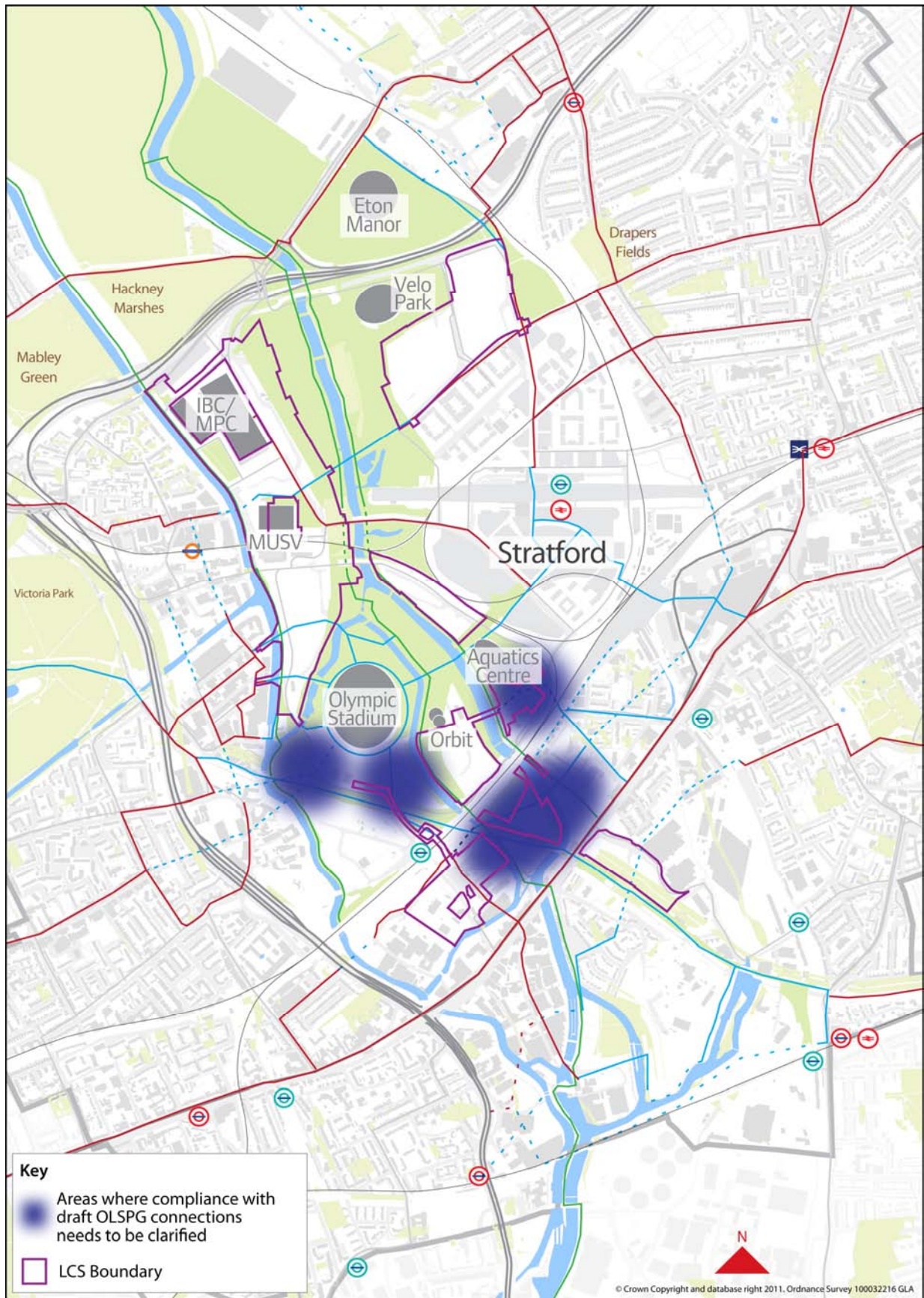
259 It would appear that many of the off-highway leisure paths are proposed to be shared between pedestrians and cyclists, without demarcated zones. If this is the case, then 2m paths will not be suitable widths for shared use between these modes. TfL's London Cycling Design Standards (LCDS) note that the recommended width for a shared use off road path is 3m. If this is confirmed, then TfL would expect off-highway path widths to be compliant with this minimum.

260 The TA states that bridge H14 will be converted to a highway bridge. Cyclists should still be able to use this bridge, but figure 4.22 suggests that cyclists will need to dismount, which should be clarified.

261 TfL welcomes the OPLC's interest in having Barclay's Cycle Hire in the Olympic Park site after the 2012 Games. At this stage, between 6 and 10 docking stations with a collective 230-300 docking points are estimated to be needed to cover the LCS area; the precise number and location, and financial contributions, will depend on the phasing and land uses brought forward.

262 There is no mention within the TA as to how the proposed pedestrian network will mesh together with existing local and strategic walking routes e.g. the Lea Valley Walk. It is also unclear whether any of these existing pedestrian routes outside the immediate LCS boundary will be impacted by the ongoing changes across the development site.

263 TfL specifically requests that a commitment to using Legible London be made to continue the provision of this system which is already ongoing as part of the pre-Games development around the Park site. This will also provide consistency of information for pedestrians throughout the Olympic fringe and Park environments. It should not be assumed that Legible London is suitable for cycle wayfinding, and the applicant should also outline the approach to this as it will be an integral part of providing a cycle friendly environment across the Park.



**Plan 6 – draft OLSPG key local connections**

## Connectivity

264 London Plan Policy 7.1D sets out the requirement for developments to reinforce or enhance the character, legibility, permeability and accessibility of neighbourhoods, so that communities can easily access community infrastructure, services and public transport. The Mayor's draft OLSPG recognises the importance of improving connectivity across the OLSPG area to overcome the severance caused by the area's many waterways, major roads and rail and tube lines, and to physically link the places and existing and new neighbourhoods that will come forward over the next 20 years.

265 The draft OLSPG confirms that addressing these issues requires a coordinated approach to land use and transport planning and that connectivity be addressed in three ways:

- Firstly, by improving strategic transport links to Stratford and the Queen Elizabeth Olympic Park from across London to help people reach them by public transport.
- Secondly, by improving local connectivity by creating a network of key walking and cycling routes across the OLSPG area. This will help reduce reliance on cars and link existing and new neighbourhoods with each other, with the area's main public transport nodes and centres, and with the new Park,
- Thirdly, by ensuring that the new neighbourhoods the draft OLSPG and borough planning documents promote are designed to achieve high levels of local permeability so that people can move safely and directly through local neighbourhoods.

266 The draft OLSPG identifies and proposes a series of key local connections across the OLSPG area. These should be maintained where they already exist, and provided where missing in order to reduce physical severance and improve local connectivity. These are illustrated on Plan 6 above which also shows the application boundaries, and some of the areas where additional detail is required. Connections into and across the application site will be critical to secure this improved connectivity across the OLSPG area, but it is currently not clear whether the OPLC's proposals fully take these into account. This should therefore be clarified by the OPLC with reference to the connections show in the draft OLSPG.

## Travel planning

267 The Travel Plan Framework does include some good ideas on both design and softer measures to ensure targets are met, however, the measures appear rather generic, have not been incorporated into the TA and do not give any confidence that Travel Planning will be embedded in the estate management and operation of the LCS, in particular to encourage sustainable measures to be incorporated through the phasing and delivery of the whole scheme.

268 The Travel Plan Framework has failed the ATTrBuTE assessment, and revisions will need to include details on phasing, monitoring, interim targets and budgets.

269 TfL would expect the LCS to be an exemplar to research and provide new and innovative ways to encourage sustainable travel. For the avoidance of doubt, TfL would wish to see the provision of real time information, such as Countdown for buses or DAISY (Dockland Area Information System) for DLR services in communal and public areas of the development. The TA identifies the opportunity to provide Barclay's Cycle Hire which can also be incorporated into the Travel Plan.

## Servicing and deliveries

270 Within the document, it is stated that a site wide servicing management plan will be submitted prior to submission of details. This is welcomed, but in line with London Plan policy 6.3, a Delivery and Servicing Strategy should have been included as part of the application.

271 This strategy will need to show how servicing will be rationalised with the aim of reducing the total number of trips made and to avoid critical times on the road network; it should also identify innovative ways to deliver efficiency and sustainability measures to be provided once developments are operational, including:

- Consolidation centres
- Local electric vehicles
- Booking systems
- Consolidated or re-timed trips
- Secure, off-street loading and drop-off facilities
- Using operators committed to best practice, demonstrated by membership of TfL's Freight Operator Recognition Scheme (FORS), or similar
- Swept-path analysis demonstrating sufficient access for delivery vehicles.
- Exemplary approach to waste collection.

#### Approach to mitigation

272 The draft OLSPG and its associated Strategic Transport Study identify that, besides public transport and highway mitigation, demand will need to be managed through a number of complementary measures, including highway improvement schemes, limiting car parking, reducing the number of short trips, co-ordinating land use and transport planning and managing demand.

273 Despite the TA introduction describing how the LCS will promote sustainable modes and minimise car use, it does not appear to provide any significant proposals to enable these objectives to be achieved.

274 It is therefore strongly suggested that an application of this scale, location and importance, provide adequate detail of mitigation measures. The Travel Plan will also require further work, to give confidence that the development would meet the primary transport objectives.

275 The application does not propose any particular highway measures, but does conclude that there are a number of (unidentified) highway junctions that are expected to reach or exceed acceptable capacity. Besides the impact on traffic, including buses, there will also be impacts on pedestrians and cyclists which will need to be addressed. Other factors associated with traffic such as noise and air quality may also need further consideration.

276 Further mitigation measures will also be required towards interventions including, but not limited to, public transport capacity and infrastructure improvements, local connectivity improvements such as walking, cycling (including cycle hire) and wayfinding, and other measures to support the Travel Plan such as car clubs which will need to be captured in any obligation.

277 TfL requests further information on the TA and will expect to enter into further discussions with the applicant on the above.

278 To address the above, the applicant has proposed a process similar to OPTEMS (Olympic Park Transport and Environmental Management Schemes) established for Transformation schemes. While TfL would support this in principle, it would however require discussions with local highway authorities regarding issues including its governance, scope, targets, monitoring and mitigation.

## Approach to transport contributions

279 Given the scale of the development, likely amount of contribution required for transport, and uncertainties surrounding the sequencing of development, Mayoral approval must be predicated on TfL being a party to the s106 agreement. This will give TfL greater comfort that the development can be managed and controlled post permission. TfL and the local councils as highway authorities and custodians of the public transport network are responsible for making decisions on their operation and management.

280 The TA notes that further discussions will be required in light of the Mayor of London's London-wide Community Infrastructure Levy (CIL) particularly with respect to Crossrail, and the proposals for a Mayoral Development Corporation (MDC) in this area, which is welcomed. The draft OLSPG and the Strategic Transport Study have identified the interventions required to enable the development the draft OLSPG anticipates to be delivered, of which the LCS application is a major component.

281 In accordance with London Plan policy 8.3, the Mayor of London proposes to introduce a London-wide Community Infrastructure Levy (CIL) that will be paid by most new development in Greater London. Following consultation on both a Preliminary Draft, and then a Draft Charging Schedule, the Mayor has formally submitted the charging schedule and supporting evidence to the examiner in advance of an Examination In Public. Subject to the legal process, the Mayor intends to start charging on 1 April 2012. Any development that receives planning permission after that date will have to pay, including:

- Cases where a planning application was submitted before 1 April 2012, but not approved by then.
- Cases where a borough makes a resolution to grant planning permission before 1 April 2012 but does not formally issue the decision notice until after that date (to allow a section 106 agreement to be signed or referral to the Secretary of State or the Mayor, for example).

282 The Mayor is proposing to arrange boroughs into three charging bands with rates of £50 / £35 / £20 per square metre of net increase in floor space respectively (see table, below). The proposed development is within the London Boroughs of Hackney, Newham and Tower Hamlets and where the proposed Mayoral charge is £35, £20 and £35 respectively per square metre. Within London both the Mayor, boroughs and the proposed MDC are able to introduce CIL charges and therefore two distinct CIL charges may be applied to development in future. The Mayor's CIL will contribute towards the funding of Crossrail.

<b>Mayoral CIL charging zones Zone</b>	<b>London boroughs</b>	<b>Rates (£/sq. m.)</b>
1	Camden, City of London, City of Westminster, Hammersmith and Fulham, Islington, Kensington and Chelsea, Richmond-upon-Thames, Wandsworth	£50
2	Barnet, Brent, Bromley, Ealing, Greenwich, Hackney, Haringey, Harrow, Hillingdon, Hounslow, Kingston upon Thames, Lambeth, Lewisham, Merton, Redbridge, Southwark, Tower Hamlets	£35
3	Barking and Dagenham, Bexley, Croydon, Enfield, Havering, Newham, Sutton, Waltham Forest	£20

283 An approach has been developed for collecting further contributions towards Crossrail and is set out in Policy 6.5 of the London Plan and the Mayor's Supplementary Planning Guidance 'Use of planning obligations in the funding of Crossrail' which was adopted in July 2010. The SPG states that, for this "Rest of London" area, contributions should be sought through section 106 agreements in respect of office and retail development within 1km of a Crossrail station which involve a net increase in floorspace of more than 500 sq m. All of the PDZs are fully or partially within 1km of Stratford station, and an initial assessment indicates a potential Crossrail SPG contribution of about £1.5 million. This is based upon the entire site-wide floorspace amounts for each PDZ set out in the Planning Application Floorspace Schedule.

284 The principle of making this payment should be included in any S106 Agreement, though the actual amount to be paid will be dependent on the charging schedule in force at the time of each detailed zonal application and the final quantum of development within each such zone..

285 The Mayor intends to allow any payment of CIL to be offset against the sum otherwise due from a S106 payment levied solely for the purposes of contributing to Crossrail. This implies that for the land uses and geographical zones where Crossrail S106 charges apply, the S106 payment will be reduced by the CIL charge.

#### Transport conclusions

286 TfL continues to support the principles of development as proposed by the LCS; however, based on the information provided in the application, TfL is unable to make a firm recommendation to the Mayor that it complies with the transport policies of the London Plan until the issues set out above are satisfactorily addressed.

### **Local planning authority's position**

287 This is not known at this stage.

### **Legal considerations**

288 Under the arrangements set out in Article 4 of the Town and Country Planning (Mayor of London) Order 2008 the Mayor is required to provide the local planning authority with a statement setting out whether he considers that the application complies with the London Plan, and his reasons for taking that view.

289 Due to the Mayor's involvement and role in the 2012 Olympic and Paralympic Games, this application has been delegated to the Chief of Staff and Deputy Mayor.

290 Unless notified otherwise by the Mayor, the Authority must consult the Mayor again under Article 5 of the Order if it subsequently resolves to make a draft decision on the application, in order that the Mayor may decide whether to allow the draft decision to proceed unchanged or direct the Authority under Article 6 of the Order to refuse the application. There is no obligation at this present stage for the Mayor to indicate his intentions regarding a possible direction, and no such decision should be inferred from the Mayor's statement and comments.

### **Financial considerations**

291 There are no financial considerations at this stage.

## Conclusion

292 London Plan policies on the 2012 Olympic and Paralympic Games, regeneration and employment, housing, social infrastructure, urban design, inclusive design and access, health, open space, climate change, waste, air quality, noise, flooding, waterways, equalities and transport and connectivity are relevant to the application. The application complies with some of these policies, but not with others, for the following reasons:

- **The 2012 Olympic and Paralympic Games:** The application generally accords with London Plan policy 2.4. Further clarification and detail is required to demonstrate full compliance with this policy.
- **Regeneration and employment:** The application accords with London plan policy 4.1 and generally accords with London Plan policy 4.7c. Further clarification and detail is required to demonstrate full compliance with London Plan policies 4.7, 4.9 and 4.12.
- **Housing:** The application accords with London Plan policy 3.3. Further clarification and detail is required to demonstrate full compliance with London Plan policies 3.11 and 3.8.
- **Social infrastructure:** The application generally accords with London Plan policies 3.7, 3.16-3.18, 4.6 and 7.1. Further clarification and detail is required to demonstrate full compliance with London Plan policies 3.6, 3.7 3.16-3.18, 4.6, 7.1 and 7.5.
- **Urban design:** The application generally accords with London plan policies 3.4, 3.5, 7.1, 7.3, 7.4 and 7.7. Further clarification and detail is required to demonstrate full compliance with these policies.
- **Inclusive design and access:** The application generally accords with London Plan policies 3.5, 3.8, 7.1, 7.2, 7.5 and 7.6. Further clarification and detail is required to demonstrate full compliance with these policies.
- **Health:** The application generally accords with London Plan policy 3.2. Further clarification and detail is required to demonstrate full compliance with this policy.
- **Open space:** The application generally accords with London Plan policies 7.17, 7.18 and 7.19. Further clarification and detail is required to demonstrate full compliance with these policies.
- **Climate change:** The application generally accords with London Plan policies 2.4, 5.1-5.3 and 5.5-5.15. Further clarification and detail is required to demonstrate full compliance with these policies.
- **Waste:** The application generally accords with London Plan policies 5.16 and 5.18. Further clarification and detail is required to demonstrate full compliance with these policies.
- **Air quality:** The application generally accords with London Plan policy 7.14. Further clarification and detail is required to demonstrate full compliance with this policy.
- **Noise:** The application generally accords with London Plan policy 7.15. Further clarification and detail is required to demonstrate full compliance with this policy.
- **Flooding:** The application generally accords with London Plan policies 5.11-5.13. Further clarification and detail is required to demonstrate full compliance with this policy.
- **Waterways:** The application generally accords with London Plan policies 6.14 and 7.24-7.30 in respect of the Blue Ribbon Network. Further clarification and detail is required to demonstrate full compliance with these policies.

- **Equalities:** The application generally accords with London Plan policy 4.12. Further clarification and detail is required to demonstrate full compliance with this policy.
- **Transport and connectivity:** The application generally accords with London Plan policies 6.1-6.15. Further clarification and detail is required to demonstrate full compliance with these policies.

293 Whilst the application is broadly acceptable in strategic planning terms, on balance the application does not fully comply with the London Plan. The following changes might, however, remedy the above mentioned deficiencies, and could possibly lead to the application becoming fully compliant with the London Plan.

- **The 2012 Olympic and Paralympic Games:** Clarify compliance with the key local connections set out in the Mayor's draft OLSPG and demonstrate how the proposals will embody the highest environmental standards and embed exemplary design and environmental quality over the lifetime of the development to demonstrate full compliance with London Plan policy 2.4. Produce a statement or report that specifically sets out how the LCS will help achieve convergence in accordance with London Plan policy 2.4.
- **Regeneration and employment:** Develop and propose a mechanism to ensure that the new A1 - A5 floorspace makes provision for affordable shop units suitable for small or independent retailers to demonstrate full compliance with London Plan policy 4.9.
- Ensure that the new A Class uses beyond PDZ1 are clearly focused to meet the needs of the existing and proposed communities as to demonstrate full compliance with London Plan policy 4.7b.
- Commit to providing or facilitating tailored training and employment schemes to demonstrate full compliance with London Plan policy 4.12b.
- **Housing:** Develop and propose mechanisms to ensure that the maximum reasonable amount of affordable housing is provided over the lifetime of the development in accordance with policy 3.11a of the London Plan and that the indicative housing mix is satisfactorily delivered across each PDZ to demonstrate full compliance with London Plan policy 3.8.
- Consider and propose approaches to provide specialist housing for older people within each new neighbourhood to demonstrate full compliance with London Plan policy 3.8e.
- Clarify how the educational institute the student accommodation is intended for can be secured through a S106 Legal Agreement to demonstrate full compliance with London Plan policy 3.8h.
- **Social infrastructure:** Clarify and confirm delivery arrangements and provide more detail of site wide and local social infrastructure provision to demonstrate full compliance with London Plan policies 3.6, 3.7 3.16-3.18, 4.6, 7.1 and 7.5.
- **Urban design:** Provide more detail to demonstrate that local connections are optimised for cyclists and pedestrians and provide viable alternatives to car-use to demonstrate full compliance with London Plan policies 7.1, 7.3, 7.4, 7.5 and 7.7.
- Clarify the anticipated PTAL's, particularly around the Belvedere to demonstrate full compliance with London Plan policy 3.4.
- Provide scalable indicative house and flat layouts for each typology to demonstrate full compliance with London Plan policy 3.5.



- **Inclusive design and access:** Provide further clarification and detail to demonstrate full compliance with London Plan policies 3.5, 3.8, 7.1, 7.2, 7.5 and 7.6 by:
  - Conditioning and embedding the Inclusive Design Strategy and relevant standards, consultation and implementation mechanisms developed by the Olympic Delivery Authority.
  - Considering how the processes and mechanisms used by the Stratford City Consultative Access Group and the ODA's Built Environment Access Panel can help to deliver an inclusive access and design within the LCS.
  - Finalising and committing to adhere to an Inclusive Design Strategy.
  - Providing scalable indicative house and flat layouts showing that all such units will meet Lifetime Home standards and that 10% will be wheelchair accessible or easily adaptable for occupation by a wheelchair user.
  - Clarifying the approach to access and inclusion for the proposed student housing.
  - Working with the three Host Boroughs to consider whether the London Plan's strategic target of 10% wheelchair accessible homes can be increased to provide greater choice.
  - Developing and proposing a mechanism to ensure the Lifetime Home concept is extended to and delivered at neighbourhood level.
  - Developing and incorporating a Blue Badge parking strategy and management plan for each of the neighbourhoods that allowed for increased use of mobility scooters and electric charging points.
  - Commissioning a feasibility study to explore the possibility and need to connect with the Shopmobility scheme recently provided at the Westfield Stratford shopping centre.
- **Health:** Prepare and submit a Health Impact Assessment to demonstrate full compliance with London Plan policy 3.2c.
- **Open space:** Provide more detail in respect of land suitable for designation as Metropolitan Open Space, Other Public Open Space and biodiversity to demonstrate full compliance with London Plan policies 7.17, 7.18 and 7.19.
- **Climate change:** Provide more detail and a mechanism to embed exemplary design and environmental quality and secure exemplary energy and water conservation provision over the lifetime of the development to demonstrate full compliance with London Plan policies 2.4, 5.1-5.3 and 5.5-5.15.
- **Waste:** Provide more detail and a mechanism to embed exemplary environmental quality and secure exemplary waste management provision over the lifetime of the development to demonstrate full compliance with London Plan policies 2.4, 5.1-5.3 and 5.5-5.15.
- **Air quality:** Provide more detail to demonstrate full compliance with London Plan policy 7.14 by considering the operational phase mitigation measures at detailed design stage and in the reserved matters application, and review the short term air quality objectives.
- **Noise:** Provide more detail to demonstrate full compliance with London Plan policy 7.15 by more fully assessing the potential noise impacts of legacy events in the main Stadium, consider flightpath plots against noise sensitive uses over the lifetime of the development, and consider the creation of an exemplar outdoor acoustic environment.
- **Flooding:** Provide more detail to demonstrate full compliance with London Plan policies 5.11-5.13 by demonstrating and securing flood reliance measures over the lifetime of the development, implementing appropriate sustainable urban drainage measures, and developing and implementing mitigation measures where existing flood defences are weak.

- **Waterways:** Provide more detail to demonstrate full compliance with London Plan policies 6.14, 7.26, 7.27 and 7.30 by promoting waterway support infrastructure and facilitating the movement of demolition and construction material and freight.
- **Equalities:** Provide more detail to demonstrate full compliance with London Plan policy 4.12 by proposing mechanisms to deliver the equalities actions and commitments identified in the submitted material and addressing the equalities issues this report identifies.
- **Transport and connectivity:** Provide more detail to demonstrate full compliance with London Plan policies 6.1-6.15 by:
  - Addressing the modelling concerns set out in this report.
  - Ensuring the network of walking, cycling public transport routes will be put in place at appropriate times.
  - Preparing and committing to suitable construction logistic plans for each PDZ.
  - Preparing a fuller set of highway measures to address anticipated traffic congestion.
  - Clarifying possible discrepancies in car parking tables within the TA.
  - Looking to reduce carparking provision, particularly in areas with PTALs 5 or 6.
  - Ensuring carparking provision doesn't inhibit wider public realm and streetscape objectives.
  - Demonstrating how car parking restraint will contribute to achieving mode split targets.
  - Preparing site wide parking management and accumulation plans to inform the decision making process.
  - Considering and incorporating car clubs and electric charging points.
  - Addressing possible errors in the TA regarding Crossrail and North London Line upgrade modelling.
  - Clarifying PTAL assumptions.
  - Implementing a package of rail, LU and DLR interventions.
  - Ensuring reserve matter applications fully accommodate coach requirements.
  - Providing further information on walking, cycling and wayfinding.
  - Clarifying and appropriately implement the key local connections set out in the draft OLSPG.
  - Proposing additional measures to address Travel Planning concerns.
  - Preparing and submitting a Site wide Servicing Management Plan.
  - Clarifying and agreeing additional mitigation measures.
  - Clarifying and agreeing measures to ensure appropriate Crossrail contributions.

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## Appendix 1 – Local planning context

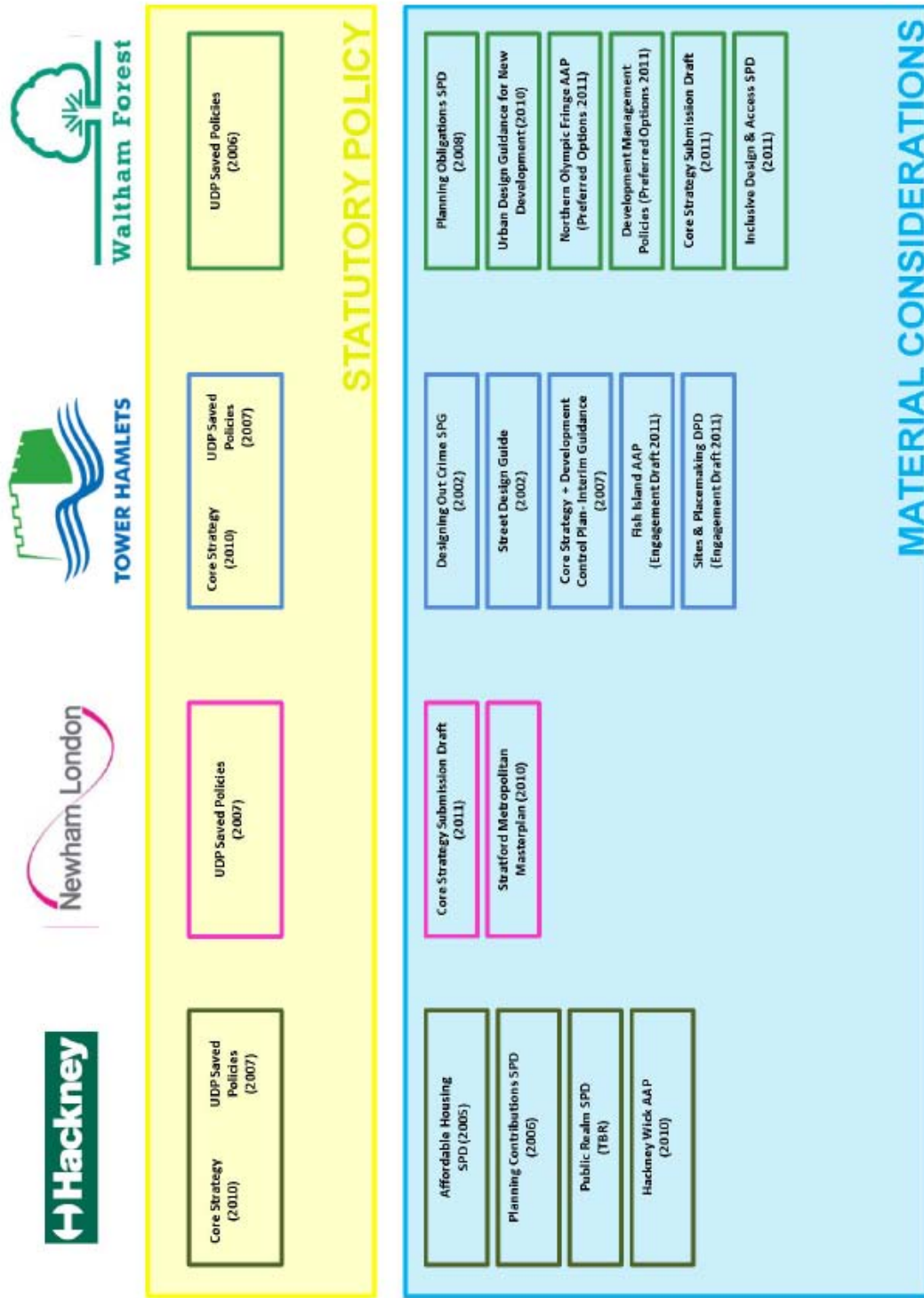


Figure 6.2: Graphical representation of applicable Local Statutory Policies and Material Considerations. The abbreviations included correspond to those used in the Policy Response table.

**Table 7.1: LCS Social Infrastructure Proposals**

Planning Delivery Zones	Education	Healthcare and Nursery	Multi-purpose Community space	Leisure and Recreation	Emergency Services	Site-Wide Olympic Venues & Parklands
PDZ1		220 m <sup>2</sup> Nursery (50 FTE places)	1,650 m <sup>2</sup> flexible leisure space	0.2 Ha of formal and informal space		
PDZ2		180 m <sup>2</sup> Nursery (60 FTE places)	165 m <sup>2</sup> flexible leisure space	0.3 Ha of formal and informal space		
PDZ4	3,176 m <sup>2</sup> (3FE) Primary school	2,554 m <sup>2</sup> Primary Care Centre (six GPs and six Dentists) 220 m <sup>2</sup> Nursery (60 FTE places) co-located with PCC		2,460 m <sup>2</sup> Ideas store 0.6 Ha of formal and informal space		
PDZ5	3,670 m <sup>2</sup> (3FE) Primary school	180 m <sup>2</sup> Nursery (60 FTE places) 180 m <sup>2</sup> Nursery (60 FTE places)	1,457 m <sup>2</sup> flexible leisure space 367 m <sup>2</sup> flexible cultural space 1,249 m <sup>2</sup> flexible community space	0.6 Ha of formal and informal space	110 m <sup>2</sup> SNT	Aquatics centre Parklands VeloPark/BMX Mountain biking venues
PDZ6		645 m <sup>2</sup> Walk-in centre (two GPs and two Dentists) 180 m <sup>2</sup> Nursery (60 FTE places) (Co-located with Walk-in Centre) 198 m <sup>2</sup> Nursery (60 FTE places)	165 m <sup>2</sup> flexible leisure space 118 m <sup>2</sup> flexible cultural space	0.6 Ha of formal and informal space	124 m <sup>2</sup> SNT	
PDZ8		645 m <sup>2</sup> Walk-in centre (two GPs and two Dentists) 180 m <sup>2</sup> Nursery (60 FTE places) (Co-located with Walk-in Centre) 180 m <sup>2</sup> Nursery (60 FTE places)	169 m <sup>2</sup> flexible leisure space 477 m <sup>2</sup> flexible community space	0.5 Ha of formal and informal space	110 m <sup>2</sup> SNT	
PDZ12	11,660 m <sup>2</sup> Secondary school (6FE)			0.4 Ha of formal and informal space		

Source: LCS technical analysis (2011)

## Appendix 2 – LCS Social infrastructure provision