

Greenwich Peninsula Masterplan 2015

in the Royal Borough of Greenwich

planning application no.15/0716/O

Strategic planning application stage 1 referral

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

The proposal

Outline planning permission with all matters reserved for the demolition of buildings and mixed use redevelopment including buildings up to a maximum of 133.5 metres AOD and comprising Class C3 (dwellings) use up to 12,678 residential dwellings (or up to 1,171,909 sq.m.) and up to 220 serviced apartments (or up to 20,306 sq.m); Class A1-A5 use (food and non-food retail, restaurants, bars and cafes) up to 23,475sq.m; Class B1(a)(b)(c) (business) up to 59,744sqm; Class C1 (hotel) up to 35,999sqm for up to 500 rooms; Class D1 (education facilities) up to 37,900sqm; Class D1 (health care facilities) up to 1,462sqm; Class D1/D2 (visitor attraction) up to 19,526sqm; sui generis use for film and media studios up to 38,693sqm; residential and non-residential car parking as well as up to 2000 AEG parking spaces (for the O2); cycle parking; associated community facilities; public realm and open space; hard and soft landscaping; a new transport hub and associated facilities; works to the river wall; a ferry jetty terminal; a 5 km running track traversing the entire site (P5K running track); highway and transport works, including amendments to the Thames Footpath and Cyclepath; and, associated ancillary works.

The applicant

The applicant is **Knight Dragon** and the architect is **Allies and Morrison**.

Strategic issues

Given Greenwich Peninsula's **Opportunity Area** status, the principle of the **large scale mixed-use redevelopment** that would deliver a significant number of homes and jobs is supported. Furthermore, given the peninsula's **strategic role as a major contributor towards meeting London's need for additional housing**, the proposed residential intensification of the site is also supported, subject to the outline application successfully securing the highest quality of urban and residential design, generous open space provision and an increase in the quantum of affordable housing to be provided.

In light of the above, issues including **retail, housing, affordable housing, residential quality, urban design, inclusive access, sustainable development, air quality, waste management** and **transport** should, nevertheless, be addressed and resolved before the application is referred back to the Mayor at his decision making stage.

Recommendation

That Greenwich Council be advised that while the principle of development is generally supported in accordance with the strategic aims of the Opportunity Area, as set out in paragraph 150, there are some outstanding issues that need to be resolved and these are set out below.

Context

1 On 25 March 2015 the Mayor of London received documents from Greenwich Council notifying him of a planning application of potential strategic importance to develop the above site for the above uses. Under the provisions of The Town & Country Planning (Mayor of London) Order 2008 the Mayor has until 5 May 2015 to provide the Council 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 Categories 1A, 1B, 1C and 2C of the Schedule to the Order 2008:

- 1A – *“Development which comprises or includes the provision of more than 150 houses, flats, or houses and flats.”*
- 1B(c) – *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 of Central London and with a total floorspace of more than 15,000 square metres.”*
- 1C – *“Development which comprises or includes the erection of a building more than 30 metres high outside the City of London.”*
- 2C – *“Development to provide a bus or coach station and a passenger pier on the River Thames.”*

3 Once Greenwich Council 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; take it over for his own determination; or allow the Council to determine it itself.

4 The environmental information for the purposes of the Town and Country Planning (Environmental Impact Assessment) Regulations 2011, as amended, 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.

Site description

6 The revised masterplan site is similar to the 2004 masterplan site, with the exception of excluding those plots which currently have consent and are under construction or have been completed. The O2 Arena, including the surrounding waterfront land and Plot N0201 adjacent North Greenwich Station are also not within the site boundary. The site is an identified Opportunity Area within the London Plan.

7 The site is 79.5 hectares and is approximately bounded by John Harrison Way, the Greenwich Millennium Village and Greenwich Millennium School to the south. To the southwest is the A102 Blackwall Tunnel Approach Road which is part of the Transport for London Strategic Road Network (TLRN), to the west of which is industrial and commercial premises and the safeguarded aggregate processing wharves at Delta Wharf and Victoria Deep Water Terminal. The site has approximately 2.5km of riverside frontage. Existing developments on the peninsula include the O2 Arena and its associated structure, car and coach parking, the North Greenwich Transport Interchange, Ravensbourne College and a number of mixed use commercial buildings

at Pier Walk and Mitre Passage. In the centre of the peninsula is Central Park; within the park are eight listed workers' cottages and the Pilot Public House. Much of the internal infrastructure on the peninsula, including Millennium Way, John Harrison Way, East Parkside, West Parkside and the Riverside Walkway were constructed at the same time as the O2 Arena. For further clarity, the map appended to this report illustrates the extent of the current revised site boundary.

8 Access to the Jubilee Line is available at North Greenwich station. In addition, eight bus routes provide high frequency links south west towards Greenwich Town Centre and central London, Lewisham to the south and Charlton, Woolwich and Thamesmead to the south east. River bus services operated by Thames Clippers from North Greenwich Pier provide a twenty minute frequency service and the Emirates Airline provides a link between North Greenwich and The Royal Docks. The public transport accessibility level (PTAL) varies across the peninsula from a highly accessible score of 6 for those sites closest to North Greenwich Interchange to less accessible sites scoring 1b towards the southern part of the site.

Details of the proposal

9 The revised masterplan for Greenwich Peninsula comprises a large scale, mixed-use development including 12,678 new homes, open space, leisure development, film studios, a new transport hub, office use, retail use and community use. The proposals are driven by a vision to create new neighbourhoods with individual characters for residents to live, work and play that are complemented by high quality landscaping and public realm; to provide mixed-use development that contributes to the streetscape; provide a wide range of jobs; a new and improved transport interchange; provide new social infrastructure facilities to support a new residential community and to improve connectivity to the wider Greenwich area.

10 The following table indicates the overall quantum of the individual land uses proposed:

Land Use	Use Class	Maximum development envelope sq.m.	No. of units/rooms/spaces proposed
Residential	C3	1,171,909	12,678 units
Employment	B1	59,744	-
Retail	A1-A5	23,475	-
Hotel	C1	35,999	500 rooms
Serviced apartments	C3	20,306	220 units
Visitor attraction	D1/D2	19,526	-
Education	D1	37,900	-
Film studios	Sui Generis	38,693	-
Health care facilities	D1	1,462	-
AEG Parking	Sui Generis	68,297	2,000 spaces
TOTAL		Approx. 1,477,311	

Neighbourhood zones

11 The masterplan consists of five different neighbourhood zones which will each have their own character as described below and within the design guidelines that will accompany the parameter plans. The table below provides a breakdown of the proposed land uses set out above for each neighbourhood which will be secured by planning condition:

Land Use	Neighbourhood/development zones					Total sq.m.
	A	B	C	D	E	
Residential (C3)	467,232 (5,005 units)	106,500 (1,152 units)	148,654 (1,608 units)	279,056 (3,019 units)	170,467 (1,844 units)	Up to 1,171,909 or 12,678 units
Employment (D1)	46,563	-	-	13,181	-	59,744
Retail (A1-A5)	21,574	-	-	1,851	50	23,475
Hotel (C1)	35,999 (or 500 rooms)	-	-	-	-	35,999 or 500 rooms
Serviced apartments (C3)	20,306 (220 units)	-	-	-	-	20,306 or 220 units
Visitor attraction (D1/D2)	-	-	-	19,526	-	19,526
Education (D1)	4,189	-	22,372	11,339	-	37,900
Film studios (Sui Generis)	-	38,693	-	-	-	38,693
Health care facilities (D1)	483	-	542	437	-	1,462
AEG Parking	68,297	-	-	-	-	68,297
TOTAL	664,643	145,193	171,568	325,390	170,517	1,477,311

12 The locations of the neighbourhood zones within the wider masterplan site are identified on the development zone masterplan appended to this report (see appendix two) and a summary of their character is described below:

Zone A – Meridian Quays

The aspiration for Meridian Quays is to create a high density mixed-use residential neighbourhood of an urban scale orientated towards the river, situated in the north-west of the site and based around a permeable network of new streets and spaces that respond to the adjacent scale and structure of Canary Wharf. The tallest buildings on the Peninsula will be located in this district. The neighbourhood will include a new park connecting the improved transport interchange to the River and a new river jetty, which will include a Thames Clipper stop. The neighbourhood will also deliver a landscaped pedestrian bridge that will traverse the Blackwall Tunnel Approach road and Millennium Way improving access to the river. Meridian Quays will also deliver a new primary school, some local retail and the proposed widening of Central Park. The proposed maximum building height in Zone A will be 133.5 metres AOD.

Zone B – Upper Brickfields

Upper Brickfields is the most central zone and will deliver a mixed-use neighbourhood that will provide a residential edge to the widened Central Park and deliver the proposed film studios. The scale of development should respond to the taller scale at Meridian Quays and address the Lower Riverside park edge on the adjacent side of the park. The proposed maximum building height in Zone B will be 113.5 metres AOD.

Zone C – Lower Brickfields

Lower Brickfields is the most southern zone and includes the lower portion of Central Park and the plots on its western edge. This area will comprise a mainly residential neighbourhood of a lower scale which is orientated around families. This neighbourhood will provide a comprehensive school at the centre and create active frontages to Millennium and John Harrison Way. The layout will enable a permeable street network that could facilitate movement from future development sites west of Millennium Way and outside of the masterplan boundary. The proposed maximum building height in Zone C will be 75 metres AOD.

Zone D – Upper and Lower Riverside

The Riverside area is split into two neighbourhoods referred to as Upper and Lower Riverside and forms the eastern edge of the peninsula. Upper Riverside is characterised as a mixed-use neighbourhood including Peninsula Square, the proposed Design District at the northern head of Central Park and the visitor attraction and will integrate the existing and consented developments to the east of Peninsula Square with new enhanced landscaping. Lower Riverside will be a residential neighbourhood comprised of the development plots to the south of the Emirates Air Line between the River and Central Park. The proposed urban form will create direct routes to the River from the park. The proposed maximum building height in Zone D will be 113.5 metres AOD.

Zone E – Meridian Quays (South)

This zone is situated to the south of the newly proposed Meridian Quays Park and will comprise a residential neighbourhood including some of the tallest buildings within the masterplan. The southern boundary is adjacent a safeguarded wharf and the proposed buildings must therefore be designed in order to successfully mitigate any impact on wharf operations. The proposed maximum building height in Zone E will be 133.5 metres AOD.

13 As set out in the development specification that supports this outline application, each of the above development zones will be the subject of its own zonal masterplan, the submission of which will be secured by condition. This document provides the specification that each zonal masterplan must adhere to; most importantly that it must conform to the approved parameter plans, design guidelines and development specification. All reserved matters applications must also be in compliance with the zonal masterplans. A condition will be attached to secure environmental assessment screening is undertaken for all zonal masterplan and reserved matters stages in order to address any potential significant environmental effects that are unable to be identified at this outline stage. This is welcomed.

14 For the purposes of this assessment, the proposals form an outline application with all matters reserved including access, appearance, landscaping, layout and scale. The application is supported by a suite of documents, of which the design specification, parameter plans and design guidelines are for approval.

Case history

15 In 2004 an outline masterplan for the Greenwich Peninsula was granted planning permission which comprised 10,010 dwellings, 343,600 sq.m. of offices, research and development and light industry, 60,000 sq.m. of retail, food and drink and hotel facilities, 3,650 sq.m. of student accommodation and up to 29,900 sq.m. of special needs accommodation, in addition to a site for new secondary school and open space provision. This also included the proposals for the retention of the Dome and the waterfront areas surrounding it as multi-event centre/destination. Subsequently, there have been a number of individual applications on various plots for schemes that have exceeded the permitted parameters of the outline consent, as well as variations to take account of the Emirates Airline.

16 Since then, in order to respond to the changes in the development environment over the last decade, the applicant has sought to revise the existing masterplan proposals. Given the large-scale and strategic nature of the application, the applicant has positively engaged in early pre-application discussions with GLA officers for a number of months and a formal pre-application meeting to discuss the revised masterplan proposals was held in January 2015. The discussions concluded that the principle of the revised masterplan to deliver the large-scale mixed-use redevelopment of the Greenwich Peninsula that would deliver a significant number of new homes and jobs was generally supported in accordance with the strategic aspirations of the Opportunity Area. The introduction of a new film studio and visitor attraction to complement the emerging character of the peninsula as an entertainment and leisure destination was also supported. It was considered that the proposed residential intensification of the masterplan site could be supported subject to the outline application successfully securing the highest quality of urban and residential design, generous open space provision and an increase in the quantum of affordable housing.

17 In this context, it was set out that the overall success of the revised masterplan would be subject to the outline application delivering an appropriate amount of detail in order to ensure that the on-going regeneration of the peninsula will deliver the highest quality of urban design in accordance with the policies set out in chapter seven of the London Plan and continue to grow as a successful and vibrant place to live and work.

18 Notwithstanding this, further information and engagement was sought on the nature of the planning application, the reduction in employment floorspace, housing, affordable housing, residential quality, urban design, sustainable development and transport. The applicant has continued to engage with the GLA regarding the development of the proposals which is strongly welcomed.

Strategic planning issues and relevant policies and guidance

19 The relevant issues and corresponding policies are as follows:

- Principle of development *London Plan*
- Regeneration *London Plan; the Mayor's Economic Development Strategy*
- Tourism/leisure *London Plan*
- Housing *London Plan; Housing SPG; Housing Strategy; Shaping Neighbourhoods: Children And Young People's Play And Informal Recreation SPG*
- Employment *London Plan; Land for Industry and Transport SPG*
- Retail/town centre uses *London Plan; Town Centres SPG*
- Social Infrastructure *Draft Social Infrastructure SPG*
- Safeguarded Wharves *Safeguarded Wharves Review; Safeguarded Wharves on the River Thames Implementation Report*

- Urban design *London Plan; Shaping Neighbourhoods: Character and Context SPG; Housing SPG; Shaping Neighbourhoods: Play and Informal Recreation SPG*
- World Heritage Site *London Plan; World Heritage Sites SPG*
- Inclusive design *London Plan; Accessible London: achieving an inclusive environment SPG;*
- Sustainable development *London Plan; Sustainable Design and Construction SPG; Mayor's Climate Change Adaptation Strategy; Mayor's Climate Change Mitigation and Energy Strategy; Mayor's Water Strategy*
- Air quality *London Plan; the Mayor's Air Quality Strategy; Control of dust and emissions during construction and demolition SPG*
- Waste/minerals *London Plan; the Municipal and Business Waste Management Strategies;*
- Transport *London Plan; the Mayor's Transport Strategy; Land for Industry and Transport SPG*

20 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 Greenwich Core Strategy and Development Management Policies Development Plan Documents 2014 and the London Plan (Consolidated with Alterations since 2011).

21 The following are also relevant material considerations:

- The National Planning Policy Framework and Technical Guide to the National Planning Policy Framework.
- National Planning Practice Guidance.
- 2004 Greenwich Peninsula Masterplan.

Principle of development

22 Greenwich Peninsula is identified as an Opportunity Area in the London Plan (Map 2.4). Annex 1 of the Plan provides further policy guidance under ref 11, Greenwich Peninsula, and identifies this area as an internationally significant leisure attraction capable of delivering a minimum of 13,500 new homes and 7,000 jobs. Annex 2, table A2.2 also identifies North Greenwich as having potential for District Town Centre status subject to capacity analysis, impact assessments, land use and accessibility, planning approvals, town centre health checks and full implementation.

23 In 2004 an outline masterplan for the Greenwich Peninsula was granted planning permission which comprised 10,010 dwellings, 343,600 sq.m. of offices, research and development and light industry, 60,000 sq.m. of retail, food and drink and hotel facilities, 3,650 sq.m. of student accommodation and up to 29,900 sq.m. of special needs accommodation, in addition to a site for new secondary school and open space provision. This also included the proposals for the retention of the O2 Arena and the waterfront areas surrounding it as a multi-event centre/destination. As set out above, the O2 Arena, Plot N0201 and the adjacent waterfront land to the west are not included within the proposed masterplan revision.

24 Since 2004, a number of the plots identified by the masterplan in areas to the south-east, north-east and north-west have come forward, either through submission of reserved matters or slot in applications for approval and so far a total of 2,822 residential units have gained consent and some sites have been implemented. The applicant has confirmed that the application does not include land which has already been developed under the 2004 masterplan, the O2 Arena, plots

which are already under construction and those which have extant permissions and are to be built out.

25 As set out above, the proposals seek to revisit the original masterplan consent and come forward with a new outline masterplan application that would significantly increase the total number of residential units to be delivered as part of the mixed-use regeneration of the peninsula to approximately 15,700 units. This is in addition to an overall increase in public open space provision, the introduction of a film studio, a new visitor attraction, office use, community use and a new transport hub.

26 Therefore, given that the existing masterplan consent has broadly established the principle of the proposed mix of land uses (with the exception of the film studio and visitor attraction) and the peninsula's Opportunity Area status within the London Plan, as expressed at the pre-application stage, the principle of the large scale mixed-use redevelopment of Greenwich Peninsula that would deliver a significant number of homes and jobs is supported. Furthermore, given the minimum housing target of 13,500 set out within the Opportunity Area guidance in the London Plan and the Peninsula's strategic role as a major contributor towards meeting London's need for additional housing, the proposed residential intensification of the site is supported, subject to the outline application successfully securing the highest quality of urban and residential design, generous open space provision and an increase in the quantum of affordable housing to be provided. These other policy matters are discussed in further detail throughout this report.

Loss of employment floorspace

27 In addition to the residential intensification of the peninsula in order to contribute towards meeting London's housing supply, another key driver for revisiting the existing masterplan is to address the low demand for large floor plate office floorspace that is currently consented under the existing masterplan. The proposals therefore seek a significant reduction in the amount of consented B1 commercial floorspace from 343,600 sq.m. to 59,744 sq.m. As set out at the pre-application stage, while, there is not an in principle objection to the reduction in commercial floorspace, given the strategic aspirations to provide 7,000 jobs within the Opportunity Area the applicant was requested to provide further information to support this reduction and information on projected employment yields to ensure that the revised approach would continue to deliver the strategic employment aspirations of the Opportunity Area.

28 In response, the applicant has provided an independent strategic office market report that assesses the impact that the proposed reduction in floorspace would have on current and future demand for office space in London and the future trends in the market. The findings of the review demonstrate that the supply of office floorspace in the capital currently exceeds demand by 84%, but this falls to 42% when the latest employment projections contained in the London Office Floorspace Projections 2014 (LOFP) are considered and therefore in this respect the current market seems well balanced.

29 However, the report goes on to highlight that there is currently a potentially large over supply in Greenwich, Newham and Tower Hamlets which is reflected in the commentary in the London Office Policy Review 2012 (LOPR) that recommends that the development of Greenwich Peninsula be "*closely monitored with particular attention to potential impact on the viability of future development at Stratford.*" The report concludes that in light of this current over-supply in London, the reduction in B1 floorspace as part of the revised masterplan would not have a detrimental impact on supply and demand balances. When considering the projected demand and capacity figures in the LOPR and LOFP, the revised quantum of office floorspace would reduce the excess in capacity in Greenwich from 591% to 155% which is more comparable with the London-wide ratio (138%). Notwithstanding this, the equivalent calculation for the three east London boroughs would still significantly exceed current demand projections.

30 The principle of the proposed reduction in office floorspace is therefore acceptable as this will not have a detrimental impact on current forecasts for the demand of office floor space in East London or the capital as a whole. Furthermore, it could also be considered helpful in addressing the current imbalance of supply and demand Greenwich, Tower Hamlets and Newham as identified in the LOPR. In addition, given the supply capacity, GLA officer's agree with the findings of the report that suggest that given the competition from other nearby, well-established office markets in Stratford and Canary Wharf it seems logical to reduce the amount of consented B1 floorspace in this location and provide employment space more aligned with wider economic trends.

31 In light of the above, the revised masterplan adopts an alternative employment strategy that builds upon the peninsula's established leisure, retail and digital economies and the introduction of a new film studio and visitor attraction at the centre of the site; these are discussed in more detail below. Most notably, the strategy aims to capitalise on and support the growing digital and tech sector already established around the Digital Greenwich Innovation Centre in Mitre Passage; it is understood that over 150 start-ups and tech businesses are already located on the peninsula. The digital and creative industries are experiencing rapid growth in the capital and the regeneration of Greenwich Peninsula, with its already established hub and the presence of Ravensbourne College and Greenwich University, is well-placed to meet the needs of this growing sector. In this respect, the masterplan proposes to develop highly flexible floor space suitable for SME's focussed at the heart of the masterplan, specifically in the area referred to as the "Design District" at the north end of Central Park. It is proposed that the flexibility of the space will suit the needs of established and emerging businesses and promote the organic growth of an established digital and tech business cluster in Greenwich.

Leisure and entertainment

32 The other key change in land use compared to the existing masterplan is the provision of a large film studio and visitor attraction at the heart of the site. The introduction of these new and unique uses is welcomed in accordance with the strategic aspirations of London Plan 4.6 which supports the enhancement of arts, culture, sport and entertainment provision in the capital and will complement the emerging character of Greenwich Peninsula as a leisure and entertainment destination. This use will also contribute to the overall quantum of employment opportunities which is welcomed. According to the submitted information, it is understood that the UK film industry currently employs in excess of 44,000 full-time equivalents. The presence of the film studio also provides a significant opportunity to support the growth of digital enterprises on the peninsula through the generation of related TV and film post-production work and link this should be secured as part of the masterplan via appropriate planning obligations or condition.

33 With specific regard to the film studio, the proposals to have a 500,000 sq.ft. studio with production facilities in Central London would be a very welcome addition to the existing facilities. However, if delivered, while it would be one of the largest in the UK and somewhat unique in having a location within the centre of a capital city, it would require significant levels of business in order to remain viable. Therefore, while strongly supported in principle it is critical that it is a sustainable project with realistic long-term economic prospects. Further information should therefore be provided regarding the breakdown of floorspace between studio space and ancillary offices, which will be key to the flexibility of the site, in addition to the management and operational expertise identified to run the studio. Furthermore, it is understood that there is currently a skills shortage across the production and studio sector and therefore a clear skills and talent development plan for the site should be established. The applicant is strongly encouraged to engage with London's strategic film agency, Film London for further specialist advice.

34 With regards to the proposed visitor attraction, the applicant has considered the potential for a new theme park, a hands-on science centre and a media attraction. While little further information has been provided at this stage, given the available floor space, the media attraction is currently considered to be the most likely option. While the introduction of this new use is

supported from a strategic perspective, given the outline nature of the application and its D1/D2 land use classification, it is important that the final use does not directly compete with the function of the O2 Arena.

Overall employment generation

35 The supporting environmental statement has assessed the employment generation potential for the revised masterplan based on the proposed mix and quantum of uses. The statement estimates that the masterplan would directly provide approximately 6,787 fulltime equivalent jobs and a further 5,345 indirectly, which equates to a total of approximately 12,132 fulltime jobs. This is welcomed and is a positive contribution when considered against the strategic aspirations of the Opportunity Area to deliver a minimum of 7,000 jobs. The statement has also estimated the existing levels of employment on the masterplan site and when the projected number of jobs are considered with the estimated 4,738 fulltime position that currently exist, the revised approach to the regeneration of the peninsula has the potential to deliver a total of 16,870 jobs which is a significant contribution to the Councils overall target of 21,000 jobs identified in its core strategy.

Retail impact

36 Greenwich Peninsula does not currently form part of London's strategic town centre network, however, as described above, the London Plan identifies that North Greenwich could be re-classified as a District Centre over the plan period as set out in Table A2.2. This potential change is reflected in the Council's Core Strategy which promotes the creation of a new leisure-led District Centre adjacent to the North Greenwich underground station and the O2 Arena which will provide for the retail and recreational needs of local residents and workers and will also complement the O2 Entertainment District to become an entertainment hub for national and international visitors. With regards to assessing the potential retail impact of a new District Centre at this location, local policy sets out that the scale of retail provision should be appropriate to the size of the centre and that the total quantum of retail floorspace within the centre should not exceed the upper floorspace limit of 50,000 sq.m. as set out in the London Plan classification for District Centres.

37 The applicant has set out that there is currently 12,700 sq.m. of existing retail floorspace (A1-A5) within the O2 Entertainment District and that a further 12,200 sq.m. could be delivered if the current reserved matters applications, including the designer retail outlet village within the O2, are implemented. This therefore equates to a total of 24,900 sq.m. of retail space either already existing or likely to come forward outside of the 2015 masterplan proposals. However, it is important to note that this does not account for the remaining 11,900 sq.m. retail floor space that is permitted under the outline planning permission for the O2 Arena. However, it is accepted that this maximum quantum would not be delivered due to the flexibility afforded by the permitted ranges in use classes secured by the planning permission. Notwithstanding this, when combined with the 23,500 sq.m. of retail floor space proposed within the revised masterplan, the total amount of retail likely to come forward in the envisaged North Greenwich District Centre amounts to 48,400 sq.m. The applicant has argued that as the total amount of floorspace is less than 50,000 sq.m. a retail impact assessment, in principle, is not therefore strictly required. However, in agreement with the Council a proportionate assessment has been carried out to respond to the objectives of the Core Strategy and to demonstrate that the masterplan proposals would not have a negative impact on other town centres in the borough, which is welcomed.

38 Notwithstanding the above, given that the potential quantum of retail floorspace to be delivered is towards the upper limit for District Centres and that the outline permission for the O2 Arena provides additional net surplus retail capacity, significant strategic concerns would be raised if this limit were to be breached in the future.

39 The masterplan proposes that 16,900 sq.m. of retail will be accommodated within the Retail/Transport Hub building and a further 4,700 sq.m. on the plots immediately adjacent. While the majority of the new floorspace is proposed within the District Centre boundary defined in the Core Strategy, approximately 1,900 sq.m. will be provided elsewhere on the peninsula to meet the local retail needs of the future residents. While the overall breakdown of retail uses is unknown at present, the following indicative breakdown has been adopted for the purposes of the impact assessment:

Use class	Category	% of total floorspace	Floorspace (sq.m.)
Class A1	Comparison goods	45	10,600
Class A1	Convenience goods	10	2,350
Class A1	Non-retail services	10	2,350
Class A2	Financial/professional services	10	2,350
Class A3-5	Restaurants/cafes/drinking establishments/hot food takeaways	25	5,850
Total		100	23,500

40 The retail assessment specifically sets out that *“the proposed retail facilities are expected to complement rather than compete with the existing and proposed leisure-led facilities within the O2 Entertainment District.”* While the accompanying impact assessment suggests that the masterplan proposals would not negatively impact on planned retail and food and beverage investment within the O2 due to their different catchments, ensuring this intention is carried through to the detailed design stages will be critical to achieving a competitive, viable and successful future for the regeneration of the peninsula. Therefore, GLA officers strongly encourage continued dialogue between the applicant and AEG to ensure both developments progress in complementary way.

41 The retail impact assessment has looked at the potential diversion of comparison retail and food and beverage trade from nearby town centres in the borough and those in the London Borough of Lewisham for various different scenarios for comparative purposes. These scenarios comprise base year (2015) trading levels, design year trading assuming no further development has occurred, design year trading taking account of current retail commitments likely to affect expenditure patterns in the study area, design year trading with the 2015 masterplan proposals and post development trading levels (horizon year). The centres considered to potentially be impacted by the cumulative proposals are The O2 Entertainment District, Woolwich Town Centre, Greenwich East/West, Eltham Town Centre, Lewisham Town Centre, Blackheath District Centre and Surrey Quays/Canada Water District Centre.

42 The assessment concludes that while all centres will experience some loss of trade to the masterplan area and current retail commitments, this would be adequately offset by the projected growth in population and associated expenditure in these areas as to not impact on their overall vitality and viability and that there would be sufficient expenditure capacity to not jeopardise existing or planned investments. While the conclusions of the assessment are accepted in principle, the Council should satisfy itself of the robustness of this assessment and further discussion is required around the phasing strategy, as the timing of both the retail delivery and population growth from the proposed residential development will have some effect on the projected retail impact in nearby centres. Notwithstanding this, it also important to note that the level of proposed retail floorspace is significantly less than the quantum considered acceptable for the 2004 masterplan consent and therefore the retail impact of revised masterplan on nearby town centres should be less.

Sequential test

43 As more than 90% of the proposed retail floorspace is located within the proposed North Greenwich District Centre boundary identified within the Council's Proposals Map, the applicant has stated that in accordance with the NPPF if it not necessary for the sequential test to be applied. While the applicant has had regard to the test, given the scale and nature of the masterplan and that it would not be considered appropriate to disaggregate the development into a number of smaller sites, it is generally accepted that the revised masterplan would nevertheless satisfy the test.

Safeguarded wharves

44 As set out above, plots 3.01 to 3.04 in Meridian Quays (South) are adjacent the safeguarded wharves at Victoria Deep Water Terminal and Tunnel Wharf. Safeguarded wharves are afforded the highest level of protection within the London Plan. Policy 7.26 aims to increase the use of the Blue Ribbon Network for freight transport and requires that *"development proposals adjacent or opposite safeguarded wharves should be designed to minimise the potential for conflicts of use and disturbance."* It is important to note that wharf uses are wholly dependent on the tidal Thames, and therefore operational uses do occur at any time, day or night.

45 The outline application is supported by an environmental statement which sets out that the detailed design of any residential building adjacent to the wharves, or any that will have line-of-sight of them, will need to provide appropriate mitigation against the environmental impacts associated with the wharf operations. Officers note that this requirement is included in the relevant section of the design guidelines, which set out that any future residential development in Meridian Quays (South) closest to the wharves *"will adopt a mitigation strategy to minimise potential conflicts of use...so as to not prejudice the operation of the wharves."* The strategies include orientating principle windows and habitable rooms away from the wharves, acoustic mitigation, raising ground floor level to increase screening, reducing light pollution through detailed design and introducing a landscape buffer.

46 While the above design guidelines are welcomed and go some way to ensuring the above land use principles will be considered at the detailed design stages, given the high level of strategic protection afforded to the wharves and the mitigation requirements highlighted by the environmental statement, an appropriate condition should be secured as part of any outline permission. This condition should require that any reserved matters application for those plots adjacent or within line-of-sight of the wharves must demonstrate how the detailed design will successfully mitigate against any potential impact from the operations of the safeguarded wharves and achieve a high standard of living environment in accordance with the relevant standards.

Housing

47 In addition to delivering a significant amount of jobs, the other major role identified for the Greenwich Peninsula Opportunity Area in the London Plan is as a major contributor to meeting London's need for additional housing. Taking this into account the London Plan identifies that development in the Opportunity Area should provide for a minimum of 13,500 new homes.

48 As set out above, the revised proposals seeks to deliver 12,678 residential units and up to 200 serviced apartments. Taking into account a further 2,822 units that either currently exist, are under construction or are to be implemented shortly, this would bring the total potential housing delivery on the Peninsula up to 15,700 units. The new homes would be delivered within the five neighbourhood zones described above, each with its own character, decreasing in density and scale as development progresses southwards along the peninsula. The increase in housing capacity is supported.

Affordable housing

49 It is understood that discussions are still ongoing with regards to the proposed level of affordable housing to be provided as part of the revised masterplan and at the time of writing an affordable housing offer had not been presented.

50 However, at the pre-application stage, the applicant had indicated that it would seek to maintain the quantum of affordable housing units secured as part of the existing masterplan consent. The approved section 106 agreement for the existing masterplan consent sets an affordable housing target of 38% across the wider peninsula site, which equates to approximately 3,800 units as a proportion of the 10,010 units. When considering this number of units as a percentage of the revised masterplan housing total this would represent approximately 24% of the overall housing delivery.

51 Notwithstanding the above, GLA officers reiterate the position outlined at the pre-application stage; that given that the revised proposals represent more than a 50% increase in residential development over the existing consent, the GLA expects an increased provision in the quantity of affordable housing over the existing 2004 masterplan consent and further negotiation and discussion with the applicant and the Council is strongly encouraged with regards to this issue. The application indicates that affordable units will be provided in all five of the neighbourhood zones, which is welcomed and will help contribute towards providing mixed and balanced communities.

52 In accordance with London Plan Policy 3.12, the applicant will be required to demonstrate that any future planning application delivers the maximum reasonable amount of affordable housing. As part of this a financial viability appraisal will be required and this should be independently assessed on behalf of the Council, with the results to be shared in full with GLA officers. The applicant has committed to providing an appraisal for review, which is welcomed.

Housing choice

53 London Plan Policy 3.8, together with the Mayor's Housing SPG seeks to promote housing choice and seek a balanced mix of unit sizes in new developments, with particular focus on affordable family homes. The proposals seek to deliver a range of sizes and tenures across the peninsula at the following indicative mix:

- Studios: up to 10%
- One beds: 25-50%
- Two beds: 20-40%
- Three beds plus: 5-30%

54 Given the size of the overall masterplan site, it is envisaged that the above mix will vary in accordance with different characteristics of each neighbourhood zone, hence the ranges for each unit size. For example, the applicant has set out that the higher density zones surrounding the transport hub and the O2 Arena would be more suited to higher proportions of one and two bedroom units, where as those lower density neighbourhoods in the south, closer to the park and the proposed school would be more suited to larger family units. While this approach is acknowledged, as the zonal masterplans are progressed, the applicant should ensure each neighbourhood zone will promote a genuine choice of all unit types in accordance with the aspirations of London Plan Policy 3.8.

55 Notwithstanding the above, with regards to the overall housing mix, the development would be expected to have regard to the strategic priority afforded to the provision of affordable family housing and provide a range of unit sizes to meet both local and strategic housing needs, established in consultation with the Council's housing officers.

Residential quality

56 As set out at the pre-application stage, while it is acknowledged that a certain degree of flexibility is required for an outline application of this size, given the proposed increase in residential density and height across the peninsula, it is critical that an appropriate level of detail is secured to ensure the highest quality of residential design is achieved throughout the regeneration of the peninsula.

57 As requested, the applicant has provided a sample of block studies within the illustrative design and access statement for each of the neighbourhood zones to illustrate how the proposed masterplan parameters and design guidelines could be interpreted at the urban block scale and how the detailed design could meet the good practice standards established in the Mayor's Housing SPG.

58 The block studies demonstrate that all indicative building typologies in each of the neighbourhoods could deliver buildings where no more than eight units would share an individual core that are formed around well enclosed courtyards for amenity provision. Furthermore, the block studies promote active ground floor uses and the use of individual ground floor entrances where possible. This is welcomed, although it is recognised that this is indicative in nature.

59 With regards to other aspects of residential design, the design guidelines promote useable roofs and terraces where possible to maximise amenity provision, the maximisation of sunlight penetration to courtyard spaces through set backs in building massing and by introducing frequent gaps between buildings which simultaneously promotes visual permeability. The guidelines also highlight the requirements for buildings to meet outdoor communal amenity and play space provision within the city blocks, clear and legible entrances and to provide flexible ground floor units where possible to accommodate potential non-residential uses to further animate the public realm. These are all considered positive qualities and officers strongly welcome their inclusion in the design guidelines as they will help achieve high quality living environments for future residents. However, the guidelines should make more specific references to future development securing the good practice standards in the Mayor's Housing SPG such as minimum unit sizes, minimum private amenity space provision, floor to ceiling heights, unit aspect, and outlook. This is particularly important, as this will establish residential quality and strategic policy aspirations at the highest level, which will then influence all other stages of design.

60 As set above, it will be necessary for the residential design to successfully mitigate against any potential environmental impacts from existing infrastructure, most notably the safeguarded wharves on the western edge of the peninsula. In addition to the condition required in paragraph 46 above, officers would welcome further information on how the outline permission seeks to address any impact on residential quality from the vent shaft of the Blackwall Tunnel.

61 Overall, subject to the above comments being addressed, GLA officers welcome the innovative approach adopted to develop a new typology for the city block. The methodology established in the design guidelines that encourages multiple buildings heights, types and uses to sympathetically share the same block has the potential to deliver a varied and interesting urban form that not only seeks to address the complexity of issues posed by delivering large scale, high quality residential development at high densities, but will also positively contribute towards place making by creating a unique identity for Greenwich Peninsula.

62 As set out in the associated development specification, it will be secured by planning condition that all zonal masterplans must conform with the design guidelines, unless minor variations are agreed in writing by the Council, which is welcomed.

Children’s play space

63 A key benefit of the revised masterplan proposal is the enlargement of the Central Park and the provision of a new riverside linear park to be known as Meridian Quays Park, which will help provide the future residential population with convenient access to high quality and varied green spaces and help meet their amenity and recreational needs. It is understood that both formal and informal play provision will be accommodated throughout the masterplan site in the form of the new parks, public squares and proposed communal courtyard gardens associated with the new residential buildings.

64 As requested, in accordance with the methodology set out in the Shaping Neighbourhoods: Play and Informal Recreation SPG 2012, the applicant has calculated that the anticipated total child yield for the overall masterplan site will be 3,463 children, which translates to an overall play space requirement of approximately 34,630 sq.m. This can broken down into the following age groups:

Age profile (years old)	No. of children	Play space requirement (sq.m.)	Potential illustrative masterplan provision
Under 5’s (door stop)	1,826	18,354	40,468
5-11’s (local)	1,042	10,389	41,299
Over 12’s (neighbourhood)	595	5,887	48,985
Total	3,463	34,630	130,752

65 It is proposed that the above potential provision of play space will be delivered via a network of open spaces appropriate to the differing age groups comprising the internal residential courtyards, local neighbourhood parks and the primary open spaces such as Central and Meridian Quays park. Based on the illustrative masterplan proposals, the submitted design and access statement demonstrates that it would be able to accommodate the amount of play space required by each age group as defined by the above SPG and that door-stop, local and neighbourhood scale play could be evenly distributed across the wider masterplan site and within the required walking distances.

66 Notwithstanding the above, it is understood that the zonal masterplans will revisit play space provision at the neighbourhood scale and requirements will be based on a revised SPG calculation and again at the reserved matters stages. While it is noted that the submission of design details for play space are secured within the zonal masterplan specification, a play space strategy detailing the minimum requirement and quantum of play space to be provided within the subject neighbourhood zone should also be required to confirm that each neighbourhood can meet the recreational needs of its future population. This is important given the overall increase in residential density across the masterplan site and particularly for the highest density neighbourhoods.

67 From the material provided, GLA officers are content that based on the illustrative masterplan proposals modelled in the design and access statement, it has been demonstrated that the outline stage of the scheme can meet and exceed the on-site play provisions required by the SPG and subject to securing the above requirement within the more detailed design stages, is in general accordance with London Plan Policy.

P5k Running Track

68 In addition to the above ambitions set out in the design and access statement, the masterplan proposes to deliver a five kilometre, partly elevated, sculptural shaped running track with associated public realm interventions that navigates the masterplan site linking the network of public spaces. The aim of the project is to combine sport, culture and entertainment and will be lead by a renowned artist. This is a welcome addition to the masterplan site and will help increase participation in sport and physical activity in accordance with London Plan Policy 3.19 and contribute towards place making on the peninsula. In light of the above, the running track should be secured by planning condition/obligation and GLA officer’s welcome further information on this innovative recreational feature.

Residential density

69 The masterplan has a varied public transport accessibility level (PTAL) that currently ranges from 1b to three in the south to between five and 6a in the north, on a scale of one to six, where six is excellent. Furthermore, when considering the characteristics of this large site, officers recognise the importance of having regard to the emerging and consented developments on the peninsula and the overall aspirations of both the existing and proposed masterplan of making a significant contribution towards meeting London’s housing needs. In this context, given the extent of the proposals, the peninsula will arguably establish its own character, which is more akin to a ‘central’ area as defined in table 3.2 of London Plan and therefore local context and design will form key factors in considering an appropriate density. In this respect, the guidance in the London Plan would suggest residential densities of between 105 to 405 units per hectare (u/ha). Notwithstanding the above, it is also important to acknowledge that the site is an identified Opportunity Area and is therefore a location where residential output and densities should be optimised and one where development proposals should contribute towards meeting, or where appropriate, exceeding the minimum guidelines for housing, in accordance with London Plan Policy 2.13.

70 While not considered an appropriate measurement for assessment given the scale of the masterplan site, the applicant has provided a residential density figure for the entire masterplan site (excluding the film studios) of 166 u/ha. As requested, the applicant has provided density calculations for each of the proposed neighbourhood zones, with the exception of the Upper Riverside district as this area has recently been granted planning permission under ref: 14/1799/F. The Mayor considered this high density development to be acceptable in the context of the existing masterplan and Opportunity Area status (ref:D&P/0519o/02). The indicative neighbourhood density calculations for the masterplan are set out in the table below:

Neighbourhood	Site area (ha)	No. of units	Density (u/ha)
Lower Brickfields	9.1	Up to 1,609	175
Upper Brickfields	7.3	Up to 1,153	157
Lower Riverside	7.8	Up to 2,608	332
Peninsula Central	9	Up to 1,460	161
Meridian Quays	13.4	Up to 5,853	436

71 The varying density ranges set out above correspond with the height rationale for the peninsula and therefore, the highest density neighbourhoods are proposed in those areas to the north of site, closest to the transport interchange or where they will benefit from river prospects or views over the primary open spaces/parks. The lower density neighbourhoods are located towards the south of the site where a more family-orientated character is envisaged, focussed around the proposed school and large open spaces. This rationale is generally supported and accords with the narrative of London Plan and Housing SPG.

72 Given the number of units proposed, it is accepted that the density ranges recommended in Table 3.2 of the London Plan will be exceeded in some neighbourhoods, as demonstrated in the table above. However, as previously acknowledged these density ranges should not be applied mechanistically and that PTAL alone is not an appropriate measurement to inform residential density. In line with London Plan Policy 3.4 other factors such as local context, design, transport capacity, social infrastructure and amenities such as open space and play space should also be taken into consideration when optimising housing potential.

73 In light of the above, having regard to the site's Opportunity Area status, existing transport links and the proposals for their improvement, the amenity offered by the site's extensive river frontage, the generous open space and public realm provision proposed and the provision of social infrastructure and local amenities aimed at meeting the needs of the new residential population, it is considered that the proposed densities could be achieved without negatively impacting on other local amenities, and therefore no in principle objections are raised subject to the issues identified within this report particularly those regarding design and transport being addressed. Furthermore, as discussed above, the design guidelines demonstrate the potential to achieve a high standard of residential quality across the peninsula and the framework afforded by the development specification and proposed conditions, should ensure these principles are delivered through the detailed design stages.

74 In the context of the masterplan aspirations, the approved residential densities of schemes elsewhere on the peninsula and the sites location within an identified Opportunity Area the proposed residential densities are generally supported.

Social infrastructure

Education facilities

75 The 2015 masterplan will provide a new through school towards the south of the site in the Lower Brickfields neighbourhood zone which would provide an additional 1,600 school places on site, and a new primary school within the Meridian Quays quarter, which is welcomed. The capacity of the primary school has not yet been finalised. In addition to the new schools, it is proposed that the existing Ravensbourne College will increase in capacity by expanding into the proposed new 'hub' quarter to the south of the existing college site. Further information on the expansion of the higher education facilities is welcomed and the phasing/timing of delivery.

76 Using the Council's methodology for calculating child yields for the purpose of securing developer contributions for education, the revised masterplan will yield a total of 2,362 school-aged children, assuming full occupancy of all the dwellings at all times. The accompanying environmental statement has audited local school capacity and has identified that local primary schools within one kilometre of the site are currently operating under capacity with a net surplus of 325 places available, including schools in the London Boroughs of Tower Hamlets and Newham. In addition, secondary schools currently have a surplus of 541 places. However, a further breakdown of this capacity between boroughs is required in order to ensure that there is not a larger reliance on capacity within other boroughs and in order to assist officers in making an appropriate assessment. Notwithstanding this, when considering the masterplan provision, this would create an overall net surplus of 104 school places on the peninsula, excluding the additional provision to be

delivered in the primary school with Meridian Quays. This is welcomed in accordance with London Plan Policy 3.16 and will help mitigate the overall residential intensification of the site.

Urban design

General comments

77 The 2004 Masterplan was based around a radial structure emanating out from The Dome with a large park at the heart of the site. The revised plan has moved away from this radial structure towards a more regular grid that when viewed on plan reflects the grid structure on the adjacent riverbank at Canary Wharf. This helps create a legible and visually permeable structure that will allow views in, out and through the site from both sides of the river which is welcomed. The other key move is the extension of the Central Park by widening the northern end and the introduction of a new riverside park to the west of the site in the Meridian Quays district. The new park will form part of a new east-west green link from the west bank, through Mitre Square and towards the consented Peninsula Central East development on the east bank of the peninsula in the Upper Riverside district. This is made possible by a proposed raised green walkway over the Blackwall Tunnel Approach Road. The new park in addition to the extended Central Park are part of an ordered crucifix structure to the open space that forms a key part of the masterplan and will further help reinforce the overall legibility and enable open views towards the river. These principle moves are supported and further detailed points on how this plan form will manifest itself in a built urban form are discussed below.

Height and scale

78 The applicant's early engagement with the GLA and the collaborative approach to design taken thus far is strongly welcomed. The general approach of modulating the overall massing in order to ensure the disposition of the towers responds to their context and in particular the location of open spaces and development at Canary Wharf is welcomed and the rationale of locating the tallest buildings (133.5 metres AOD) towards the north west of the peninsula in the Meridian Quays neighbourhood to respond to the adjacent height and scale of Canary Wharf, with a varied and stepped reduction in height as development progresses southwards along the peninsula is generally supported. These key principals are secured in the design guidelines and the parameter plans which is welcomed. The height parameter plans have taken account of key existing constraints such as existing and consented developments, the Emirates Air Line, the O2 Arena, City Airport safeguarding restrictions, Port of London navigational constraints and sunlight/daylight/overshadowing studies.

79 The guidelines go further to provide a more detailed overall framework for the distribution of height over the masterplan site by requiring that development adheres to the following height strategy:

- Development will be taller in the north closer to the O2 Arena and lower towards the south of the peninsula towards Millennium Village.
- Towards the centre of the site, development should generally focus taller elements along the park edge and the eastern riverfront, while retaining lower building heights in between. The film studios will provide for a significantly lower scale than the adjacent eastern park edge residential development.
- In Meridian Quays, building heights will generally decrease towards the river edge to allow views towards the river from further within the district.
- The Design District will generally be a maximum of five storeys in height in order to enhance views of the O2 Arena from the Central Park.

80 In addition to the above height strategy, with regards to the street hierarchy and primary public open spaces, the guidelines promote a level of enclosure that is appropriate to the scale and character of each street and space, which is also welcomed as this will help contribute towards successful place making and legibility. The requirement that building heights in Meridian Quays step-down towards the park edges and the river is strongly welcomed as this will create a more pedestrian scale to this riverside park that is located in the highest density district. This will not only allow for wider views of the river from towards the centre of the site, but will also open wider views back towards Central Park and the south of the peninsula. The lower scale of the film studio towards the centre of the site will also assist in enabling longer views from this district.

81 With regards to the placement of tall buildings, the guidelines seek to deliver a varied and informal urban composition that promotes visual permeability and daylight/sunlight penetration through height modulation and staggered building placements both within the individual city blocks and adjacent plots, while ensuring they address the street level through encouraging passive surveillance at ground level.

82 While the above strategies secured in the design guidance are welcomed as they will help define a framework for delivering an interesting and varied urban landscape that responds to its immediate and wider context and promotes views in, out and across the site, it is acknowledged that the ultimate success of this approach will be subject to how the outline parameter plans and guidelines are interpreted at the detailed design stages. However, officers consider that the guidelines provide sufficient design detail to inform a cohesive approach to the overall height and massing on the peninsula at the zonal masterplan stage.

83 The applicant was previously asked to consider the role smaller scale buildings could play in key locations, such as adjacent park spaces and on the riverside (similar to that of the listed pub and workers cottages in Central Park). This has not been captured in the design guidelines or design and access statement and the application should explore this further.

84 As requested, the applicant has also provided a detailed townscape assessment within the environmental statement which provides modelled views from London Panorama 5A.1 Greenwich Park towards Greenwich Palace. The masterplan site sits to the far east of the panorama and the revised massing is not considered to have a negative impact on the protected vista of Greenwich Palace. This is also reflected in paragraph 5.8.3.4 of the recent World Heritage Site Management Plan when considering the impact of 2004 masterplan and the recently approved application at Peninsula Quays which comprises towers of up to 33 stories. It is noted that the revised massing would further obscure the view of the O2 Arena when considered against the 2004 masterplan massing with only a small portion of the stanchions remaining visible. However, the O2 Arena is not included within the description of the panorama and is not listed as a strategically important landmark within this view and is not therefore afforded strategic protection. Notwithstanding this, it is noted that the revised massing will significantly improve views of the O2 Arena from within Central Park when considered against the 2004 Masterplan massing, as a result of the enlarged park pushing the western building frontage back thus opening up views to the north. This is strongly supported and will help with way finding around the site.

85 The applicant has also provided modelled cumulative views from the opposite side of the river around Canary Wharf, showing the existing 2004 masterplan massing, the recent Peninsula Quay consent and the 2015 proposed massing. While it is acknowledged that the revised massing will increase the overall height and scale of development on the peninsula, particularly in the north-west portion, it does not appear out of scale with the existing masterplan massing, recently approved consents or the emerging AEG Hotel development in these views. The principles of modulating and distributing the building heights established within the design guidelines would also help mitigate the increase in massing by maximising the potential amount of space between towers and reducing any potential 'wall' effect.

Legibility

86 As mentioned above, the improved visual permeability as a result of a more regular grid structure, the reduction in the height of the towers that front onto the edges of the enlarged Central Park and the management of their spatial organisation through the proposed design guidelines is welcomed. This will help improve views from within the park towards the Meridian Quays district in the west and Upper Riverside in the east and improve the overall legibility when navigating the site. As discussed above, the improved view of the O2 Arena from within the park as a result of the proposed widening of its northern reaches will also significantly contribute towards pedestrian way finding. In addition, this modelled view also illustrates the potential level of enclosure to the park edges which appears proportionate to the scale of the enlarged park. The staggering of the taller elements that define the park edge will also promote long views through the gaps in buildings towards the north east and west.

87 In addition to the above, the design guidelines promote a cluster of taller buildings located on the transport interchange building and the Western Boulevard (principle urban street from the centre of the site to the western river front). The guidelines specifically promote two landmark buildings on the east and west corners of the interchange building as part of this cluster. These taller elements are proposed to address the longer views from Central Park, the O2 Arena and Meridian Quays Park and are welcomed as they will assist with overall wayfinding and legibility when navigating the peninsula.

Ground floor interaction and public realm

88 The success of the public realm will be dependent on how the proposed buildings interact with the street level. Chapter 4.5 'Active Streets' of the design guidelines specifically deals with this issue and requires that *"all development will demonstrate how it contributes to the creation of vibrant, active, walkable and well-defined streets"*. More specifically, the guidelines require that all buildings should maximise the amount of active frontage onto the proposed public realm where possible to encourage natural surveillance and that street frontages will not be dominated by parking or servicing. Parking and servicing will be required to be integrated into the building facades in order to minimise their potential negative impact. This is most successfully dealt with in the Meridian Quays neighbourhood where all servicing and parking is located below a raised ground floor level that simultaneously resolves the change in topography in this part of the site. As a result this allows for the maximisation of active frontages across this neighbourhood with minimum impact on the street scene and also means that the ground plane of this part of the plan is level with the flood defences allowing views to the river from street level, which is welcomed. In other neighbourhoods where parking will be provided at grade, it will be wrapped by active frontages, as will be the case with the multi-storey car park to accommodate the relocated AEG parking requirement. Chapter 4.9 provides specific guidelines for successfully integrating the multi-storey car park within a mixed-use city block and requires that active retail, business and education uses wrap the lower storeys as much as possible and that they animate the public facing edges to ensure key pedestrian routes feel safe and enjoyable. This is welcomed.

89 In addition to the above, the guidelines promote the placement of primary pedestrian access for residential and non-residential directly on the street and the provision of individual entrances and defensible space for ground floor residential units where possible which is also welcomed in accordance with the Housing SPG.

Open space and green infrastructure

90 As alluded to above, the masterplan will deliver a generous amount of open space and public realm; approximately thirty hectares, in addition to the communal amenity space provided within each development plot. This represents an increase in open space provision over the existing consent through the extension to the Central Park, the introduction of the new riverside park at

Meridian Quays and the efficient building forms proposed. This is strongly welcomed and will provide valuable recreational space for future residents. The cruciform structure of open space and public realm provided by the inter-linked central spine comprising Central Park, the Design District and Peninsula Square, and the east-west link from Meridian Quays Park through Peninsula Square to the consented scheme at Peninsula Central East by utilising the newly proposed land bridge is also strongly welcomed.

91 As set out at the pre-application stage, given the high density nature of the masterplan, the landscaping and planting strategy will be fundamental to creating a pleasant living environment due to the visual amenity value trees and plants provide and the role mature planting plays in moderating the perceived scale of development. It was advised that this will be particularly important when considering the spaces between buildings and the landscaping opportunities provided within the broken perimeter block/tower hybrid typology proposed. In particular, breaks in the perimeter blocks provide an opportunity for the internal private amenity spaces to potentially provide visually shared, though still private, public realm and open spaces, and well considered tree planting in these spaces including large structural tree species, can help increase the overall sense of a character more familiar to London in these high density districts by punctuating the overall built form. It is evident from the submitted design guidelines that this advice has been fully considered by the applicant and has informed the residential development principles that specifically promote the introduction of frequent gaps between buildings on city blocks to enhance visual permeability and provide landscaping opportunities. This is welcomed and should be promoted at the park edges to allow visual connections between the larger open spaces and the smaller internal courtyards to maximise the integration of green infrastructure and the built environment throughout the site. In addition more specific reference in the guidance to the soft landscaping opportunities provided between buildings described above is encouraged.

92 Overall, the illustrative landscape strategy offers a significant opportunity to deliver a high quality landscape with significant tree planting including the ability to accommodate large structural tree species to complement the high density development. The landscape framework has considered the use of structural tree planting to express the hierarchy of the proposed street network to help mediate the built form which is welcomed. However, as the more detailed landscape strategies for the zonal masterplans are developed, officers would like to reiterate that careful consideration should be given to the important interplay between landscape and built form. In accordance with London Plan Policy 5.10, the objective should be to create a 'green infrastructure' of green spaces that is planned, designed and managed to deliver a range of benefits, including recreation and amenity, healthy living, flood mitigation, improving air quality, cooling the urban environment, encouraging walking and cycling, and enhancing biodiversity and ecological resilience in order to create pleasant, green and visually stimulating neighbourhoods in a high density environment.

93 In addition to the above and as emphasised in the transport comments, while strongly welcomed, further information on the nature and design of the proposed raised green walkway over the Blackwall Tunnel should be provided.

Design district

94 At the pre-application stage, the proposal to provide a hub area to the south of Peninsula Square to include incubator spaces for small businesses and retail is supported in principle, however, further information on the aspirations for this district was requested.

95 The applicant has provided further information within the design guidelines which seek to deliver a unique, low scale, small grain district on the peninsula focused around education, design, digital media and creative industries. The proposed buildings will be no more than five stories in height, representing the lowest area in the masterplan, and will have non-residential active frontages aimed at providing flexible business and incubator floorspace. The guidelines require that this district has a minimum of twelve buildings to ensure a fine urban grain is developed and that at least three north-south streets linking Central Park to Peninsula Square are created, with a number of streets punctuating the district east to west, where at least two will lead directly from the centre to the multi-storey car park and to Upper Riverside. This structure will aid legibility within the district which is welcomed. Notwithstanding this, the layout should also allow for easy way finding to the O2 Arena.

96 Further consideration should be given to the potential impact the adjacent bus station could have on this unique environment, particularly issues associated with noise and pollution, and how this could be mitigated. The servicing requirements of each of the units will also need to be addressed at the more detailed design stages in order prevent back of house uses dominating the proposed lanes.

Relationship between film studio and residential

97 As set out above, the introduction of a film studio to the peninsula is welcomed and will contribute towards the unique character of the area. However, concerns have been previously expressed over the relationship between the large studio building and the adjacent residential blocks to the east, particularly, the potential for the units to look out on to a large flank wall. The applicant has provided a study of this area which suggests that a double podium car park could be utilised to raise the residential element in order to enable a more favourable outlook, which would be further improved by the use of green/brown roofs on the studio. While this goes some way towards mitigating the issue, officers still have some concern over the potential quality of environment for the lower residential units. Furthermore, in the worked example it is not clear whether the film studio use spans both sides of the proposed north south route, as this area is identified as film studio use in the parameter plans. Further information is therefore requested with regards to these points.

98 Notwithstanding the above, the increased permeability in this area provided by the north-south route and potential east-west route is welcomed. In particular, the northern route could provide an alternative pedestrian route towards the O2 Arena for residents of the Lower Brickfields neighbourhood. However, the design of the studio perimeter will be fundamental to the success of this route and in order to minimise any impact on adjacent uses, most importantly the residential buildings to the east. This issue is reflected within the design guidelines which is welcomed and will be a key consideration when assessing the more detailed design stages.

99 Overall, the supporting design guidelines reflect the strategic urban design aspirations of the London Plan and the level of detail, in most cases, has allowed officers to make an appropriate assessment of the masterplan at this outline stage. The guidelines establish a coherent set of principles that all future zonal masterplans and reserved matters application will need to comply with and will go some way to ensuring that the on-going regeneration of the peninsula will deliver the highest quality of urban design and continue to grow as a successful and vibrant place to live and work. Notwithstanding this, the comments provided above should however be addressed and further information provided where requested.

Inclusive design

Consultation

100 The applicant presented the revised masterplan proposals to the Strategic Access Panel in April 2015 and this engagement is strongly welcomed. The comments provided at the panel will be forwarded to the applicant for further consideration.

Lifetime Neighbourhoods

101 The aim of London Plan Policy 7.1 is to ensure that people have a good quality environment in an active and supportive local community with the best possible access to services, infrastructure and public transport. This can be achieved by meeting the Lifetime Neighbourhood principles. The London Plan provides three principles to help frame the concept of lifetime neighbourhoods as places where people at all stages of their lives can 1) get around – neighbourhoods which are well-connected and walkable; 2) as far as possible, have a choice of homes, accessible infrastructure and services, places to spend time and to work, with a mix of accessible and adaptable uses; and 3) belong to a cohesive community which fosters social interaction and social capital.

102 The design guidelines address many of the issues relating to the creation of lifetime neighbourhoods. However, the applicant is recommended to address these principles within the design and access statement and most importantly the design guidelines for the masterplan to ensure it develops in conformity with London Plan Policy 7.1.

Inclusive design

103 In accordance with local, strategic and national policy, the design and access statement highlights that the masterplan aims to maximise access to all parts of the proposed development and its facilities and services for future residents, visitors and employees regardless of disability which is welcomed. The masterplan also recognises the requirement to design inclusively, which means designing beyond the minimum requirements of the Building Regulations Part M to ensure that all people, regardless of age, sex or ability can use and enjoy the built environment. This commitment is welcomed and in accordance with London Plan Policy 7.2.

104 The design and access statement highlights certain parameters that will be addressed as the design develops in more detail to ensure an inclusive environment. The development specification requires that individual access statements must be developed and brought forward as part of future zonal masterplans and reserved matters applications. This is also welcomed, however, it is noted that inclusive design is not specifically addressed within the design guidelines supporting the masterplan.

105 In light of the above, to ensure that the commitments and parameters outlined in the application are followed through it is recommended that the applicant provides an inclusive design strategy to support the masterplan prior to any further submissions. The strategy should set out the vision and establish appropriate mechanisms and inclusive design standards for ensuring inclusive design is integrated into the zonal master plans and sets standards which designers abide by in the delivery of reserved matter applications.

Sustainable development

Climate change mitigation

106 The applicant has applied the energy saving hierarchy detailing savings from energy efficiency measures of 5% and savings of 32% through the provision of Combined Heat and Power (CHP), which results in a total carbon reduction of 35% compared to a 2013 Building Regulations compliant development. However, it is noted that the savings have been calculated using CIBSE benchmarks rather than Part L modelling. The applicant should provide sample modelling using Part L 2013, for example typical units, to support the savings claimed and further information on how the 5% carbon improvement for the energy efficiency measures was estimated given that these figures are benchmarks. This exercise should also be carried out the savings from CHP. The applicant should commit to meeting Part L 2013 by efficiency measures alone.

District heating

107 The applicant has identified that the Greenwich Peninsula Low Carbon Energy Centre (LCEC) is within the vicinity of the development and is proposing to connect to the network, this is strongly supported and connection should be secured by planning condition.

108 The LCEC is located on the 'Gateway Site' adjoining the south-west boundary of the masterplan site and is currently under construction. The applicant has provided details of the proposed expansion of the LCEC for the revised masterplan with increased capacity scheduled by 2019 and 2028. However, the applicant should provide timescales for connection to the network. Connection to the network should continue to be prioritised and evidence of correspondence with the network operator should be provided including details of the potential timescales for connection and confirmation that capacity will be built in to serve the entire site.

109 The applicant has provided details of the plant to be located in the LCEC, which includes CHP and gas boilers. The carbon emission content of the network used for the modelling was 0.124 kgCO₂/kWh based on information provided by Pinnacle Power. The applicant should provide details of how this carbon emission figure was estimated, including whether the above figure accounts for losses in the distribution network.

110 The applicant has stated that temporary energy centres using gas boilers only will be implemented to serve the plots completed before the Energy Centre is operational. The applicant should provide further information on the phasing of the masterplan in terms of the energy infrastructure, including the number of temporary energy centres that will be required and their location. The applicant should also investigate how the number of temporary energy centres can be minimised.

111 The applicant is proposing to install a site heat network and has stated that all buildings will be connected. A schematic showing the route of the heat network linking all buildings on the site should be provided.

Renewable technologies

112 The applicant is not proposing to install any renewable energy technology for the development. Connection to the Greenwich Peninsula network should continue to be prioritised over on site solutions. However, as the figures in the energy statement are based on benchmarks and estimations of the network carbon intensity meeting the target emissions through the network alone is not certain and renewable energy technologies may be required. The applicant should therefore provide an appraisal of renewable technologies suitable for the development.

Summary and suggest conditions

113 While the modelled carbon savings meet the target set within London Plan Policy 5.2, the reductions have been calculated using benchmarks rather than Part L modelling and therefore it is not possible to carry out an accurate assessment at this stage. The savings should therefore be revised accordingly and the comments above addressed before the savings and compliance with London Plan energy policy can be verified.

114 Notwithstanding the above, a planning condition should be secured requiring the applicant to submit an energy statement for each reserved matters application that demonstrates compliance with London Plan energy policies using detailed Part L compliant modelling rather than benchmarks. This should require that both the domestic and non-domestic elements of the development shall be designed to meet Part L 2013 criterion 1 target carbon emissions through fabric energy efficiency measures alone.

115 Furthermore, in order to assess compliance with London Plan Policy 5.9, the submission of an overheating study that accords with CIBSE guidance TM52 and TM49 to demonstrate that dwellings are not at risk of overheating for each reserved matters application should be secured by condition.

Flood risk and sustainable drainage

116 The applicant has submitted a flood risk assessment to support the masterplan proposals which has been reviewed by GLA officers and considered to be acceptable in flood risk terms and compliant with London plan Policy 5.12.

117 With regards to drainage, it is understood that all surface water drainage from the site will be discharged directly to the Thames via an existing drainage system constructed at the time of the site's development for the Millennium Dome (O2 Arena). The masterplan will utilise this existing network which includes pumping facilities such that the system can discharge at all states of the tide. The assessment goes further to state that any rainwater in excess of the one in thirty year design storm that the existing drainage system cannot cope with, will be directed to temporarily flood landscaped/open space areas. This approach is acceptable.

118 Overall, the drainage strategy is acceptable in terms of London Plan policy 5.13 and no further attenuation is required.

Waste management

119 The commitment to develop a site waste management plan setting out how waste will be reduced, reused on site and recycled during the construction phase is welcomed in accordance with London Plan policies 5.3 and 5.18. However, the plan should commit to using recycled materials where possible and meet the Mayor's 95% construction waste recycling targets as set out within London Plan Policy 5.16.

120 As highlighted at the pre-application stage, a commitment to develop suitable waste and recycling storage facilities, including those within individual housing units, that meet BSI Waste Management in Buildings Code is welcomed, particularly the proposed separate containment for food waste. This commitment should be included with the residential design guidelines. Notwithstanding this, the applicant should confirm that sufficient storage space will be provided for bulky waste items from residential properties. Furthermore, the applicant should explore the feasibility and appropriateness of underground vacuum waste and recycling collection systems.

121 In addition to the above commitments, the applicant should ensure that suitable waste and recycling storage space and recycling collection services to support high recycling performance from non-residential activities, namely business activities is provided in accordance with London Plan policies 5.16 and 5.17. The applicant should also explore opportunities to provide heat and power and cooling from waste generated from the development, namely onsite micro anaerobic digestion of food waste.

Air quality

122 The masterplan is within an Air Quality Management Area where the concentrations of NO₂ are already high and therefore the applicant will be required to ensure that emissions are minimised. Given that the masterplan is at the outline stage, it is important to note that many details have not been specified and the comments below may highlight issues more relevant to the detailed design stages. Notwithstanding this, the overall development is not air quality neutral and further offsetting and onsite mitigation measures must be secured and implemented within the more detailed design stages.

Construction

123 The assessments conclude that the impact from construction traffic will not be significant, although the maximum concentration of NO₂ modelled with construction traffic in 2021 does highlight an increase over existing levels. Therefore, options to reduce road traffic by maximising the use of the river for delivering materials and the use of low emission HGV's (Euro VI HDV's) should be thoroughly explored and secured where possible.

124 Although not specified at this stage, the construction plant should meet NRMM ULEZ standards as specified in The Control of Dust and Emissions During Construction and Demolition SPG, which should also be referred to as the detailed design progresses.

125 With regards to dust emissions, the applicant proposes mitigation suitable for a high risk site for construction and demolition impacts, such as automatic monitoring, with details to be finalised later and agreed with the Council.

Mitigation

126 In addition to the above comments in the sustainable development section, the applicant should seek to maximise the carbon emission reductions in line with planning policy at all stages of the development as this will help move it closer to being air quality neutral. At the detailed design stage the energy requirements of the scheme could be further reduced by applying additional principles from the Sustainable Design and Construction SPG.

127 If the development is still not air quality neutral the applicant will be required to off-set any excess in emissions as set out in paragraphs 4.3.26-4.3.28 of the SPG, which state that the developer should investigate options for providing NO_x and PM abatement measures offsite in the vicinity of the development. This should involve working with the Council or nearby property owners to identify suitable mitigation measures, which could include green planting, walls and screens with special consideration given to planting that absorbs or suppresses pollutants; upgrade or abatement to combustion plant; retro-fitting abatement technology for vehicles and flues; and exposure reduction.

128 Measures could be provided in whole or in part directly by the developer or by making a contribution to an existing project. Measures should be secured by planning condition or obligation, as appropriate. However, any agreement for off-site measures, including financial contribution, need to consider any restrictions imposed by the CIL Regulations.

Transport

129 Given the scale and nature of the application and the associated transport interventions a concise summary of the transport issues have been provided below for convenience. The Council and the applicant should also refer to Appendix one for full and detailed transport comments which must be addressed prior to determination.

130 The applicant must complete the strategic transport modelling in order to inform the necessary transport mitigation measures that are likely to be required and secured through a section 106 agreement in order for the development to be considered acceptable. A principal concern is how the additional homes will impact on the Jubilee Line and a greater reliance on buses to serve the peninsula.

Transport hub

131 The design of the new “transport hub” will need to be agreed with TfL and must continue to provide safe and operationally acceptable access for customers to the Jubilee Line during the build process. It is anticipated that a separate build over agreement, and subject to the extent of the works in the detailed design, a separate development agreement with TfL and London Underground will need to be secured through a planning obligation.

132 In addition, the proposed new bus station must also be agreed with TfL and London Bus Services Limited. A development agreement will be required, secured through the section 106 agreement, which will set out the design requirements. There are a number of concerns about the proposed uses around the perimeter of the bus station which may give rise to pedestrian desire lines and conflicts which will also need to be carefully managed and resolved. The terms under which TfL will accept the handover of the bus station including any lease agreements will also need to be agreed. The existing bus station must remain operational during any build period and hand over.

Bus services

133 The requirement for additional bus services to serve the development will in part be determined through the strategic modelling and an understanding of how the new masterplan will impact on the Jubilee Line and existing services. The bus way design including links to the western part of the peninsula will need to be agreed with TfL, together with bus priority measures to ensure bus journey time and reliability. Agreement on bus stop locations and bus shelters across the peninsula will need to be agreed with TfL.

Silvertown Tunnel

134 The phasing of development within proximity of the Silvertown Tunnel route will be critical. Provision for the appropriate legal agreements to be detailed in the section 106 agreement attached to any grant of planning permission will be required to ensure that the development does not prejudice the delivery of the tunnel.

Blackwall Tunnel

135 The proposed works over the Blackwall Tunnel and Blackwall Tunnel Approach Roads must be agreed with TfL and will need to be the subject of a separate build over agreement with TfL. Again this must be included in the section 106 agreement to ensure the tunnel’s safe operation both during construction and after the works are completed. The proximity of any

buildings to Vent Shaft 4 of the tunnel and access to the southern flood gates must also be agreed with TfL.

River services

136 The delivery of a new pier is supported and is consistent with the proposals outlined in the Mayor's River Action Plan. The detail of the pier and future operations should be agreed with TfL.

Taxis and private hire

137 The design of the new taxi rank(s), private hire vehicles, kiss and drop provision and planning for events at the O2 Arena must be agreed with TfL. This is particularly important as past experience of O2 events has highlight the need for marshalling and general management of taxis, private hire and other vehicles and this needs to be recognised and addressed by the masterplan.

Walking and cycling

138 Clear and legible pedestrian links to the Emirates Airline must be provided for in the detailed design stages together with appropriate signage through the use of Legible London. Greater clarity on the walking and cycling links to and around the new transport hub links and Meridian Quays in particular are required, which should also be supported by Legible London signage.

139 A cycle super hub is supported and an appropriate cycling strategy to be developed in the detailed design stages to encourage cycling should be achievable. Cycle parking must meet London Plan standards.

Car and coach parking

140 The reduced car parking provision is supported together with the proposed pedestrian links to the AEG car park over the proposed bus station, as this will avoid pedestrians passing through the bus station and conflicting with bus passengers. Electric vehicle parking provision must however, meet London Plan requirements.

141 Coach parking is essential particularly for O2 events and further discussion with the O2 Arena will be appropriate to agree the final coach parking requirements and operation.

Construction and servicing

142 The use of the river for the transportation of goods and construction materials should be supported through construction logistics plans, which should comply with TfL's Fleet Operators Recognition Scheme. Delivery and servicing plans and the consolidation of deliveries on the peninsula should be secured through planning conditions or obligations.

Travel plan

143 The use of travel planning to encourage sustainable travel is supported and the appropriate monitoring and review mechanisms will need to be secured either through the appropriate planning conditions or obligations.

Community Infrastructure Levy

144 The Mayor has introduced a London-wide Community Infrastructure Levy (CIL) to help implement the London Plan, particularly policies 6.5 and 8.3. The rate for Greenwich is £35/sq.m.

145 The required CIL should be confirmed by the applicant and Council once the components of the development or phase thereof have themselves been finalised. See the 2010 regulations: <http://www.legislation.gov.uk/ukdsi/2010/9780111492390/contents> as amended by the 2011 regulations: <http://www.legislation.gov.uk/uksi/2011/987/made>

146 London borough councils are also able to introduce CIL charges which are payable **in addition** to the Mayor's CIL. Greenwich Council adopted a scheme on 25 March 2015. See the Council's website for more details.

Local planning authority's position

147 It is understood the applicant is engaged in detailed discussions with the Council, however, the local planning authority's position is not known at the time of writing.

Legal considerations

148 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. Unless notified otherwise by the Mayor, the Council 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 Council under Article 6 of the Order to refuse the application, or issue a direction under Article 7 of the Order that he is to act as the local planning authority for the purpose of determining the application and any connected 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

149 There are no financial considerations at this stage.

Conclusion

150 London Plan policies on Opportunity Areas, employment, town centres, housing, affordable housing, play space, urban design, tall buildings, inclusive design, sustainable development, urban greening, flooding, waste, air quality and transport are relevant to this application. While the principle of the development is generally supported subject to the submission of details set out in this report, there are some outstanding issues that need to be resolved and these are set out below:

- **Principle of development:** Given the peninsula's Opportunity Area status within the London Plan, the principle of the large scale mixed-use redevelopment of Greenwich Peninsula that would deliver a significant number of homes and jobs is supported. Furthermore, given the minimum housing target of 13,500 set out within the Opportunity Area guidance in the London Plan and the Peninsula's strategic role as a major contributor towards meeting London's need for additional housing, the proposed residential intensification of the site is supported, subject to the outline application

successfully securing the highest quality of urban and residential design, generous open space provision and an increase in the quantum of affordable housing to be provided.

- **Loss of employment floorspace:** The principle of the proposed reduction in office floorspace is considered acceptable as it has been demonstrated that this will not have a detrimental impact on current forecasts for the demand of office floor space in East London or the capital as a whole. Furthermore, the masterplan adopts an alternative employment strategy that builds upon the peninsula's established leisure, retail and digital economies and the introduction of a new film studio and visitor attraction at the centre of the site and has the potential to directly and indirectly deliver approximately 12,132 fulltime jobs. This is welcomed and is a positive contribution when considered against the strategic aspirations of the Opportunity Area to deliver a minimum of 7,000 jobs and the Councils overall target of 21,000 jobs identified in the core strategy.
- **Film studio:** While the provision of a film studio is strongly supported, further information is required in order to ensure this will be a sustainable facility. The applicant is strongly advised to engage with London's strategic film agency, Film London for further specialist advise.
- **Retail impact on Town Centres:** The London Plan identifies that North Greenwich could be re-classified as a District Centre over the plan period and this is reflected in the Council's Core Strategy. In agreement with the Council, the applicant has carried out a proportionate retail impact assessment. This demonstrates that while the cumulative impact of the proposed and already committed retail development would draw some trade from nearby town centres, this would be adequately offset by the projected growth in population and associated expenditure in these areas as to not impact on their overall vitality and viability and that there would be sufficient expenditure capacity as to not jeopardise existing or planned investments. However, given that the potential quantum of retail floorspace to be delivered is towards the upper limit for district centres and that the outline permission for the O2 Arena provides additional net surplus retail capacity, significant strategic concerns would be raised if this limit were to be breached in the future. The Council should satisfy itself of the robustness of this study and further discussion around the phasing of the retail development is required.
- **Safeguarded Wharves:** The Council should secure a condition requiring that all reserved matters applications for developments adjacent to, or within the line-of-sight of the safeguarded wharves should demonstrate how they will successfully mitigate against any associated environmental impacts, so as to not prejudice the their future operation in accordance with London Plan Policy 7.26.
- **Housing:** The revised proposals seek to deliver 12,678 residential units which is a significant contribution towards the minimum housing target of 13,500 set out within the Opportunity Area guidance in the London Plan and is welcomed subject to the masterplan securing the other necessary mitigation measures outlined in this report. With regards to unit mix the applicant should ensure each neighbourhood zone will promote a genuine choice of all unit types in accordance with the aspirations of London Plan Policy 3.8.
- **Affordable housing:** Discussions are still ongoing with regards to affordable housing and at present an offer has not been presented. However, the GLA are of the expectation that there is an increased provision in the quantity of affordable housing over the existing 2004 masterplan consent and further negotiation and discussion with the applicant and the Council is strongly encouraged with regards to this issue. The applicant has committed to providing a financial viability appraisal for review, which is welcomed in accordance with London Plan Policy 3.12.

- **Children’s play space:** GLA officers are content that based on the illustrative masterplan proposals modelled in the design and access statement, it has been demonstrated that the outline stage of the scheme can meet and exceed the on-site play provisions required by the SPG and is in general accordance with London Plan Policy. In addition to requirements in the development specification, a play space strategy detailing the minimum requirement and quantum of play space to be provided within the subject neighbourhood zone should also be required to confirm that each neighbourhood can meet the recreational needs of its future population.
- **Residential density:** In the context of the masterplan aspirations, the approved residential densities of schemes elsewhere on the peninsula and the sites location within an identified Opportunity Area, subject to the issues raised within this report being addressed, particularly those regarding design and transport, the proposed residential densities are generally supported.
- **Urban design:** The applicant’s early engagement with the GLA and the collaborative approach to design taken thus far is strongly welcomed and the principles moves regarding the height strategy, open space provision and principles established in the design guidelines are generally supported. The applicant should however address those comments raised in paragraphs 73 to 94 above.
- **Inclusive design:** The masterplan recognises the requirement to design inclusively and addresses many of the issues relating to the creation of lifetime neighbourhoods. However, the applicant is recommended to secure these principles within the design guidelines for the masterplan to ensure it develops in conformity with London Plan Policy 7.1.
- **Sustainable development:** The carbon reductions have been calculated using benchmarks rather than Part L modelling and therefore it is not possible to carry out an accurate assessment against London Plan policy at this stage. The savings should be revised accordingly and the comments above addressed and suggest conditions secured before the savings and compliance with London Plan energy policy can be verified.
- **Flood risk and drainage:** The outline proposals are in accordance with London Plan policy regarding flood risk and drainage.
- **Air quality:** Given the outline nature of the application it is appreciated that many details are not available at this stage. However, the overall development is not air quality neutral and further offsetting and onsite mitigation measures must be secured and implemented within the more detailed design stages.
- **Waste management:** The commitment to develop an onsite waste management plan for the site and to provide suitable waste and recycling storage facilities within the individual housing units is strongly welcomed. The applicant should however, commit to meeting the Mayor’s construction waste recycling targets and explore the feasibility and appropriateness of underground vacuum waste and recycling collection systems and the opportunity to provide heat and power and cooling from waste generated from the development, in accordance with the above comments.
- **Transport:** Strategic transport modelling must be completed in order to inform the necessary transport mitigation measures that are likely to be required and secured in order for the development to be acceptable. A principal concern is how the additional homes will impact on the Jubilee Line and a greater reliance on buses to serve the peninsula. Further detailed discussion with Transport for London is required regarding the issues outlined in paragraphs 111 to 126 of this report and Appendix one.

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Appendix one: Detailed Transport comments

The applicant has received Transport for London (TfL) pre application advice with a formal letter being issued by TfL on 18th February 2015. Since that time the applicant's Transport Consultant's WSP have continued to progress the strategic transport modelling for the new proposals for the peninsula with TfL.

Given the importance of Greenwich Peninsula as an Opportunity Area, a strategic and coordinated approach to integrating transport and development that incorporates a range of relevant initiatives and projects as set out in London Plan Policy 6.1 will be critical. The policy provides a list of relevant projects to help achieve this policy aspiration; most notably the Silvertown Link, in addition to promoting a bus network that caters for population and housing growth, promoting cycling and pedestrian safety, promoting walking and the use of Legible London, travel planning and promoting freight best practice. Furthermore, Policy 6.2 requires planning decisions to provide adequate safeguarding for the schemes outlined in Table 6.1, in this respect the Silvertown Tunnel which is the primary infrastructure project in the area. There is a continued programme of investment in the Underground network with proposals to increase frequencies on the Jubilee Line to 36 trains per hour in the peak.

Strategic Modelling

London Plan Policy 6.3 requires development proposals to ensure the impacts on the transport network are fully assessed. The applicant's transport assessment acknowledges that further work is required as the strategic modelling has yet to be completed. It is only when the modelling outcomes have been validated and signed off by TfL can there be a discussion on the extent of any highway junction works or necessary public transport measures, including the proposed bus station capacity, to mitigate the impact of the development and then agreed and secured through a section 106 agreement with the Council. The following comments must therefore be considered in this context.

London Underground

The applicant has concluded that at full occupation the development has largely negligible impacts on the London Underground (LU) network. TfL is not convinced that this is the case and requires further modelling to be carried out by the applicant with the results validated by TfL. If the demands on the network, despite the introduction of Crossrail, mean that there are capacity issues on the Jubilee Line this will mean a greater reliance on other transport modes particularly, bus services and links to the Network Rail mainline services at Charlton and Westcombe Park. This will have implications for how people will travel to and from the Peninsula.

The transport assessment indicates that further work is required to assess the station capacity, which TfL will need to review and how the proposed transport hub designs including the new escalators to the upper level and pedestrian access link to the west of the Peninsula may impact on station operations.

The applicant is in communication with London Underground engineers, and if the transport hub design is to be agreed, this conversation must continue for plans to progress with any legal requirements to be secured through the section 106 agreement.

Transport Interchange

The current transport interchange has one of the highest customer satisfaction scores on the network and any new interchange should deliver a similar customer experience. It is proposed that the proposed bus station will achieve a link between the buses and London Underground services and will deliver an increase in bus station capacity. There are matters of detailed design and phasing to ensure the continuity of existing bus services at North Greenwich, delivery and hand-over, which will need to be secured through the necessary legal agreements with TfL through the agreed section 106 drafting.

There are concerns that the buildings around the new bus station may create a wind tunnel effect which will need to be assessed and mitigated in the detailed design. A canopy or canopies are seen as essential to provide shelter for passengers and the new design will need to create the clean, functional atmosphere of the facility it is replacing. There are concerns about the ground level plan and the proposed retail units immediately to the south of the bus station that have the potential to create pedestrian desire lines and potential vehicle/pedestrian conflicts across the operational deck of the bus station which will need to be carefully considered. Similarly, the upper level use plans shows a number of commercial uses, and careful consideration of their servicing arrangements will be required to avoid conflict with the bus station operations. Provision for a staffed information kiosk located conveniently for alighting passengers and associated office accommodation, in addition to boarding points will be required, as will easily accessible driver toilets and a mess room immediately adjacent to the bus station area preferably to the south of the bus station. The location of the new bus stops across the peninsula will need to be agreed.

The Interchange should continue to form a key edge to Peninsula Square with clear sightlines across the square to the Transport Interchange. This should be reflected in any design of any future reserved matter submissions.

The route through the Transport Interchange should be accessible on a 24 hour basis to allow Meridian Quays access, although details of how the link to the LU station can be secured will need to be agreed. Any alternative routes e.g. Western Boulevard and connections across Meridian Quays Park will need to be clearly legible and safe. The 'fine grain of streets' connecting to AEG parking shows an at-grade connection which should be avoided as people should not be traversing the busway giving access/egress to the bus station.

Whilst no proposals are indicated for the below ground London Underground (LU) station concourse, it is understood that the environment around the LU escalators will change. The designs include an additional set of escalators to the upper level which would provide pedestrian access to the west of the peninsula. Greater clarity is required on where the escalators will land to determine whether or not they will have an impact on station operations, as well as who will procure and install them, and who will be responsible for ongoing maintenance. It is envisaged that agreement will need to be secured through the section 106 drafting.

The wayfinding to the new interchange must provide customers with a legible approach to the bus station, LU entrance, taxi rank, private hire pick up and drop off area, river bus services and the Emirates Airline.

Bus Services

Bus services will provide access both to and across the Peninsula and are used as an important link to LU services at North Greenwich. Once the modelling work is completed TfL will consider how this impacts on bus services and inform any necessary site specific mitigation for bus services and bus service improvements secured through a section 106 agreement. TfL is however, aware that demand on all routes to and from North Greenwich is growing and depending on the additional new trip growth from this development further bus stand capacity may be required. The bus stops on the peninsula will also need to be agreed.

The realignment of West Parkside and retention of the busway is supported. TfL wish to see further details of how the busway will operate, including reference to improving the existing junction layouts and signal control. TfL must be satisfied that general traffic does not impact on the operation of the busway. Consideration should be given to the restriction of through movements (access only) or turning movements onto West Parkside to improve the operation of the busway.

Silvertown Tunnel

The land required for the Silvertown tunnel has been safeguarded by the Secretary of State. However, the revised masterplan proposals introduce potential conflicts with the proposed construction phasing and methodology for the tunnel. It is imperative that the tunnel is built in advance of particular buildings proposed above or immediately adjacent to the tunnel and the land required for its construction, all of which is within the safeguarding area.

The revisions to the original masterplan also introduce increased loading on the proposed tunnel, which might affect its structural integrity. It is essential that any proposals within the safeguarded area are structurally independent of the tunnel and designed to resist likely ground movement and settlement which may occur as a result of the tunnel. Further discussions about the interface between the proposed buildings and the tunnel alignment are required to ensure these impacts are mitigated.

From an initial assessment the masterplan generally responds well to the tunnel as the proposals keep sensitive land uses away from the tunnel portal. However, the applicant will need to work with TfL to ensure all of the environmental impacts are fully understood. It is essential that these issues are resolved prior to the determination of the application and that the requirements are secured through the section 106 agreement.

Blackwall Tunnel

The proximity of any building(s) in relation to the Blackwall Tunnel and the approach roads, associated structures and Vent Shaft 4 in particular is critical and as part of any future detailed approval the access routes and working areas around Vent Shaft 4 and the Southern Floodgates need to be agreed. It is strongly recommended that ongoing conversations with TfL develop greater detail the on these aspects of the development in order to inform the design and ultimate decision by TfL on the acceptability of the phases of the development.

The construction of the bridge over the southern approach of the Southbound Blackwall Tunnel will require the necessary detail from the applicant's as to how this will be achieved without impacting on the tunnels structures or producing disruption to the safe and free flow of traffic on the TLRN. Tunnel Avenue will remain the diversion route for vehicles prohibited from travelling through the Northbound Blackwall Tunnel, this function must not be compromised by the development.

There will need to be the necessary “build over” agreements with TfL to allow the developer’s proposals to be brought forward which will need to be secured through a section106 agreement.

River Services

The proposals illustrate a new pier on the western side of the Peninsula. This is supported as it is consistent with the Mayor’s River Action Plan. TfL will have an interest in agreeing services and the operational requirements of any new pier if it is to be integrated as part of the current river services.

Taxi and Private Hire

There is reference in the transport assessment to a taxi rank and a private hire drop off and pick up arrangement being provided. TfL will require confirmation of the exact number of spaces in the new taxi rank (5metres for 1 taxi rank space). There is a need to ensure that the space proposed is equivalent or more (but no less) than the space currently available.

There is a pre-booked private hire area currently operating in one of the O2 car parks which operates during events. Initial discussions have indicated they are favourable to moving this activity to a new car park, however, the success of this move will depend on how this is managed including the wayfinding to a new private hire area. There also needs to be a consideration of kiss and ride and how this will be managed, allowing for set down for private hire vehicles and taxis. Illegal touting could become an issue as unbooked vehicles may be tempted to wait in this area so time restrictions on waiting and an enforcement regime will be needed. The size of this area must also be confirmed. Additionally, there needs to be a step free, sensible route to the station interchange.

More detail of the passenger queue system for the taxi rank will be required, the taxi rank must be sheltered from the elements with appropriate signage/taxi pole. The ramps in taxis can only be deployed on the nearside. This is currently the case at North Greenwich taxi rank and must remain so.

The proposed hotels will need to be served by taxis and any pre-booked private hire. If the station rank is to be relied on then there must be a step free route for those with luggage and disabled passengers. There was the suggestion that some of this activity may take place in the basement and further consideration is needed as to whether a rank needs to be provided at this level.

Any additional event or visitor attraction that is proposed will attract additional taxi and private hire use and therefore needs to be managed and how taxis can be hailed to the venue needs to be considered, which was a requirement requested as part of the AEG hotel development.

Emirates Airline

Clear and legible routes to the Emirates Airline will need to be part of the wayfinding strategy for the peninsula with Legible London being TfL’s preferred choice of wayfinding design. The Design District routes do not create obvious legible routes from the Interchange to the O2 and Emirates Air Line which will need to be improved. A restricted view to the Air Line from the corner of the Square is not an acceptable outcome and this should be considered in the design guidelines as the Airline offers the opportunity for journeys to and from the peninsula as an alternative to LU, bus, river services, walking or cycling.

Highway and Bus Priority measures

There is a package of highway measures, as well as the proposal to facilitate the former Greenwich Waterfront Transit (GWT) within the current section 106 agreement, which will need to be revisited and translated into the new agreement which is reflected in the applicant's transport assessment. Any planning permission, either through condition or section 106 agreement, will need to ensure that the highway design, if necessary, can accommodate a bus link to the West of Millennium Way.

Whilst the bus network on the peninsula itself has the benefit of the busway and proposed improved highway junction / links to the new bus station there are a number of links and junctions where there may be constraints which impact on the bus network that serves North Greenwich. There must be a robust and reliable bus network to serve the peninsula. The transport assessment suggests that future works to the committed junctions in the section 106 should be reviewed on a junction per junction basis to determine whether they are needed or not. TfL recommends a more holistic approach that looks at the bus corridors and links to North Greenwich.

This idea of a wider "Bus Service Improvements Strategy" was in the original section 106 and a collaborative approach is supported, but ultimately TfL will be required to agree any future changes to services (frequency, routing) to serve the peninsula.

Walking and Cycling and Cycle Parking

As the phases of the development are brought forward the walking and cycling environment will need to be revisited in order to be consistent with London Plan policies 6.10 Walking and 6.9 Cycling. The approach for a passive cycling and walking environment across the peninsula is generally supported; the challenge will be to ensure an integrated and coherent network with successful wayfinding.

While accepting that some flexibility in the parameter drawings is desirable, they should show more of the connections set out in the design guidelines and greater certainty of the arrangement of through routes to achieve pedestrian and cycle access. An example of which is the north-south and east-west movement in the Lower Brickfields area. This looks reasonable in the Design Guidelines but it looks much more impermeable in the Parameter Drawings.

Currently National Cycle Network route 1 (NCN1) cuts from east to west through what will become Central Park. It is good that this connection is being retained although there is some variation in how this is depicted. In section 3.2 of the Design Guidelines it shows some cycle provision similar to what already exists running from the park to the Thames Path, however in the parameter drawing this connection is lost east of blocks 19.04 and 10.05. For NCN1, this would therefore require a substantial diversion and loss of connectivity.

East Parkside, the pedestrian promenade running down the east side of the park, described as being a shared cycle pedestrian path between a double row of avenue trees is likely to be a very appealing quiet traffic free route. Access to this facility would be substantially improved by further east-west links through the park which would also better connect the residential areas either side. This should come through the detailed design of the park environment, but we suggest at this stage that it would be helpful for the Design Guidelines to make reference to the desirability of paths within the park area providing greater east-west connectivity for cyclists.

The connection between blocks and specifically how cyclists cross the main vehicle routes is very important to the quality of the cycle network within the site. Consideration should be given to linking the mesh of cycle routes to good quality crossings of the primary vehicle routes (Millennium Way, West Parkside, Edmund Halley Way).

There seems to be a disconnection between the Meridian Quays area, the central area and the eastern area, and a general need for more east-west links. The preferred option would be to open up the Green Link pedestrian bridge to cyclists as it would provide a good quality car free connection. However, if this cannot be realised then careful consideration needs to be given to the cycle link from Western Boulevard to West Parkside moving past the bus station, some form of segregation would be warranted due to the level of bus activity in this area. An option worth exploring would be to run cyclists through the Design District to the east. Edmund Halley Way is currently a bit of a barrier and, of all the primary vehicle routes, this looks to be the one where serious consideration would need to be given to how to accommodate cyclists, potentially with some kind of separated provision.

There are issues with connectivity moving south outside the site boundary and linking to planned future Superhighway infrastructure along the A206. The Thames Path south of Meridian Quays has sections of substandard width, poor lighting and parts that would feel isolated even during the day making this an unappealing link. Equally, Blackwell Lane and Bugsby's Way are busy multi-lane roads that lack provision and would be unappealing to a wide number of cyclists. This limits the number of connections moving south to the Boord Street crossing/Tunnel Avenue route. This is currently substandard and would benefit from being explored further in collaboration with the Council.

The West Parkside segregated cycle route should be shown as completed. The revised masterplan should not provide worse quality cycle and walking connections than previously proposed. It is not sensible for the segregated cycle path to fall away at the 'last mile' to the Cycle Super Hub. For the proposed cycle Superhub itself, a key design consideration is that this facility is safely accessible by bike from all directions and linked into the local and wider cycle network. It should also fit within the wider Superhubs project. This provision should not be adversely impacted by other development phases and once installed should remain accessible even if this means a temporary location during site construction.

During construction it will be important to establish safe diversion routes for cyclists in order to minimise conflict between cyclists and construction traffic. In terms of the cycle parking provision this must comply with the cycle parking minimum standards as set out in Table 6.3 of the London Plan. As set out above, the idea of a cycle super-hub at North Greenwich is supported. It should be noted that any Superhub parking spaces are in addition to and should not be included in the parking provision proposed in the Transport Assessment table 7.3.

Parking and servicing should be off the primary pedestrian and cycling routes wherever possible with active frontages through the concentration of non-residential uses with doors on streets.

As requested in the urban design section, further information on the north-south route is required, as it is unclear whether it is public and/or 24 hour.

Car Parking

The introduction of the high level walkway over the proposed bus station to the multi-story parking area is supported. There will need to be a management regime of the parking areas, particularly for short stay and pick up and drop off for certain O2 events where the audience profile is younger and will be dropped off by parents.

The lower car parking ratios being promoted for the peninsula are supported and the necessary provision for disabled car parking will also be required in line with Table 6.2 of the London Plan. In order to comply with the London Plan, the provision of electric vehicle charging points will need to be 20% of all spaces with an additional 20% passive provision for electric vehicles in the future.

Freight

London Plan 6.14 Freight, whilst promoting the update of the Fleet Operators Recognition Scheme for construction logistics plans and delivery and servicing plans, look to more innovative freight solutions in line with the London Freight Plan. These should be co-ordinated with Travel Plans. TfL would wish to see opportunities to use the Thames, particularly for any construction logistics, a consolidation centre and “break bulk” facility for the peninsula. There is reference to site waste management plans, improved procurement and consultation with selected suppliers regarding commitments to waste minimisation, recycling and the emphasis on continual improvement in environmental performance, which is supported, however, this needs to be translated to specific plans with targets that can be monitored and a review process.

Coaches

The proposed coach parking is required particularly for O2 events. It is essential to ensure that the coach parking requirements are addressed either through the quantum of spaces or by managing coach numbers in order to ensure that the operation of the highway is not compromised. This is a particular concern if these affect buses or taxis accessing the interchange.

Travel Plan

The Framework Travel Plan submitted with the application includes a number of SMART targets and a monitoring and review regime. It is however, questioned whether the review mechanism which is triggered at 75% occupancy is right for a development that will be phased over several years particularly if travel behaviour is to be influenced on occupation, which is referred to in the document.

Phasing

TfL is mindful of the need to accommodate O2 events and how the build out of the masterplan, the new transport hub, build over agreements and phasing in respect of the Blackwall Tunnel and the construction of the Silvertown Tunnel will be phased and managed. Agreement will therefore be needed with TfL on a number of these issues.

Appendix two: Neighbourhood zones



- Application Site Boundary
- Zone A
- Zone B
- Zone C
- Zone D
- Zone E
- Development Parcel Reference Number
- 1.01 — Development Plot Number

NOTES: Refer to Development Specification for further description of all plots, how to be accessed by road, and the position of the walls.

Refer to Design Guidelines document for particular guidelines and standards for development.



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