



## Nine Elms Battersea Development Infrastructure Requirements Refresh Study – As at 1<sup>st</sup> April 2024

Final report

On behalf of **London Borough of Wandsworth**



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## 1 Introduction

- 1.1.1 London Borough of Wandsworth (LBW) has commissioned Stantec (formerly Peter Brett Associates, PBA) to undertake a refresh of the Vauxhall Nine Elms Battersea (VNEB) Development Infrastructure Requirements Refresh (DIRR), published in 2020, which itself was a refresh of the original VNEB Development Infrastructure Funding Study (DIFS) prepared by Roger Tym and Partners, PBA, and GVA Grimley, published in October 2010.<sup>1</sup>
- 1.1.2 The purpose of the original DIFS was to understand “the range of infrastructure that will be required to support new development in the Opportunity Area (OA)...[and] identify how much will be collected in developer contributions in the OA, how much of this will be available for the proposed NLE [Northern Line Extension] and other infrastructure, the scale of the potential funding gap for the underground extension and a number of credible finance, funding and delivery models to close the gap and ensure viability for both development and infrastructure in the long term.”
- 1.1.3 The development of the OA, in terms of completion of new homes, commercial space and infrastructure, is now well underway, including a two stop extension to the Northern Line. While the changes that have taken place since the original DIFS was carried out to major development sites, such as Battersea Power Station, Embassy Gardens and New Covent Garden Market, are immediately obvious to those visiting the area, the supporting infrastructure which has also come forward is less visible. The OA is beginning to reach a point of maturity in terms of delivery of growth and infrastructure. However, there is still a significant quantum which will come forward over the next 10 years.
- 1.1.4 Rather than a full DIFS study, LBW initially commissioned a Development Infrastructure Requirements Refresh (DIRR) in 2019/2020 to report on matters relevant to development infrastructure funding that have emerged since the original study. This second publication of the DIRR, completed in April 2024, provides a further update on this matter. The scope of the combined DIRR, and approach taken to undertaking it are covered in Chapter 2 below.

Figure 1.1 VNEB Opportunity Area, looking north-east, 2009



Source: Wandsworth Guardian

<sup>1</sup> In addition to LBW, the client group for the original study included the Greater London Authority (GLA), Transport for London (TfL) and London Borough of Lambeth (LBL).

## 1.2 Background

- 1.2.1 In March 2012, Greater London Authority adopted the VNEB as an Opportunity Area Planning Framework (OAPF) for urban regeneration.<sup>2</sup> The OA spans 227 hectares of central London on the South Bank of the Thames. It extends from Lambeth Bridge in the north, to Chelsea Bridge in the south, covering the Albert Embankment, Vauxhall and a large part of north Battersea.
- 1.2.2 For the purpose of this DIRR, we are concerned only with the part of the OA that falls within LBW, which we refer to as Nine Elms Battersea (NEB). We elaborate on geographical scope in Section 2.2.
- 1.2.3 Over the course of this commission, the COVID-19 pandemic emerged and resulted in significant short-term disruption; as an example, in the first and second national lockdowns between March 2020 and December 2021, most construction sites were suspended which will have had an immediate impact on the progress of construction across the OA. While these factors are relevant to a degree, it is the medium and long-term impacts, such as a shift towards greater homeworking and potentially reducing demand for city centre living, many of which are still manifesting themselves, which will have a material impact on the development of the OA and the infrastructure implications.
- 1.2.4 The research to inform this study was initially undertaken in Q3/4 of 2019 and further updated in April 2024. Whilst the initial analysis was carried out in the context of the pandemic it was agreed with the Client that it was impossible to anticipate the potential impacts of the pandemic with any certainty and that this is an area which will require careful monitoring to ensure that infrastructure provision is not over-specified and is delivered at the right time, as the longer-term effects become clearer. This 2024 refresh will provide a better informed and clearer picture.

## 1.3 What has changed since the original study?

- 1.3.1 Since the original DIFS, the OA is now host to considerable development and infrastructure. Large development sites within the OA have completed and others are currently under construction. Completed phases of those sites have meant that new residents began moving into the area from 2015. The construction of the two stop extension to the Northern Line has been completed and opened in September 2021.
- 1.3.2 Planning is still very much ongoing. The most significant development sites, described in Section 3, are being delivered in stages. The upper limits of development, and phasing of delivery, have generally been defined through outline planning permissions, which have been refined through detailed planning permissions. As we can expect with large developments delivered over a long period, planning has not been a linear process, with many applications to amend applications, or vary planning conditions, approved along the way.
- 1.3.3 Commonly, the effect of these changes relates to the balance of land uses across development, the number of units, and associated infrastructure projects. Section 3 below considers what the trajectory was and how it has changed over the last 14 years.
- 1.3.4 Planning decisions in the OA have been guided by the local development plan consisting of various iterations of the London Plan and LBW local plans and core strategies. Since the original DIFS, major development sites at NEB have also appeared in LBW site-specific allocations documents (2012 and 2016) and Chapter 5 (Area Strategy for Nine Elms) and Policies Map 2 of the Wandsworth Local Plan 2023-2038 (adopted July 2023), further defining development expectations in the OA.

<sup>2</sup> The draft OAPF and original DIFS were developed concurrently. The draft VNEB OAPF originally went out for consultation in November 2009. The revised chapter 12: Section 106/CIL went out for consultation in February 2011, following publication of the DIFS.

1.3.5 A development map of VNEB, including indicative delivery status as of April 2024<sup>3</sup>, is attached in Appendix B.

### Objectives

1.3.6 Following the substantial changes that have occurred the study now updates the position in relation to the:

- Need for infrastructure and existing projects in the three broad categories of transport infrastructure, utilities, and social infrastructure (including open space),
- Associated funding arrangements,
- Review of the programme costs to date, and;
- Phasing requirements.

### Date of refresh

1.3.7 The research to inform the original DIRR was initially undertaken in Q3/4 of 2019, mainly using annual reporting to the end of March 2019. This has subsequently been refreshed to reflect the position as of 1<sup>st</sup> April 2024. This report reflects the strategic planning contributions relevant at that point in time, taken from multiple sources. Current views on the requirements, costs and funding of infrastructure needed for development are likely to be superseded as new information is published and the implications of the Covid-19 pandemic become clearer.

1.3.8 As with the previous DIRR, the findings presented represent a 'snapshot in time'. Infrastructure requirements and funding sources are vulnerable to uncertainty and therefore necessarily subject to a considerable margin for error. As such total precision is not possible and the findings within the spreadsheets should be monitored and updated regularly as more information becomes available.

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<sup>3</sup> Comprising a hybrid approach of using data up to 31<sup>st</sup> March 2023 with qualitative updates provided by London Borough of Wandsworth's planning, infrastructure and obligations teams.

## 2 Our scope and approach

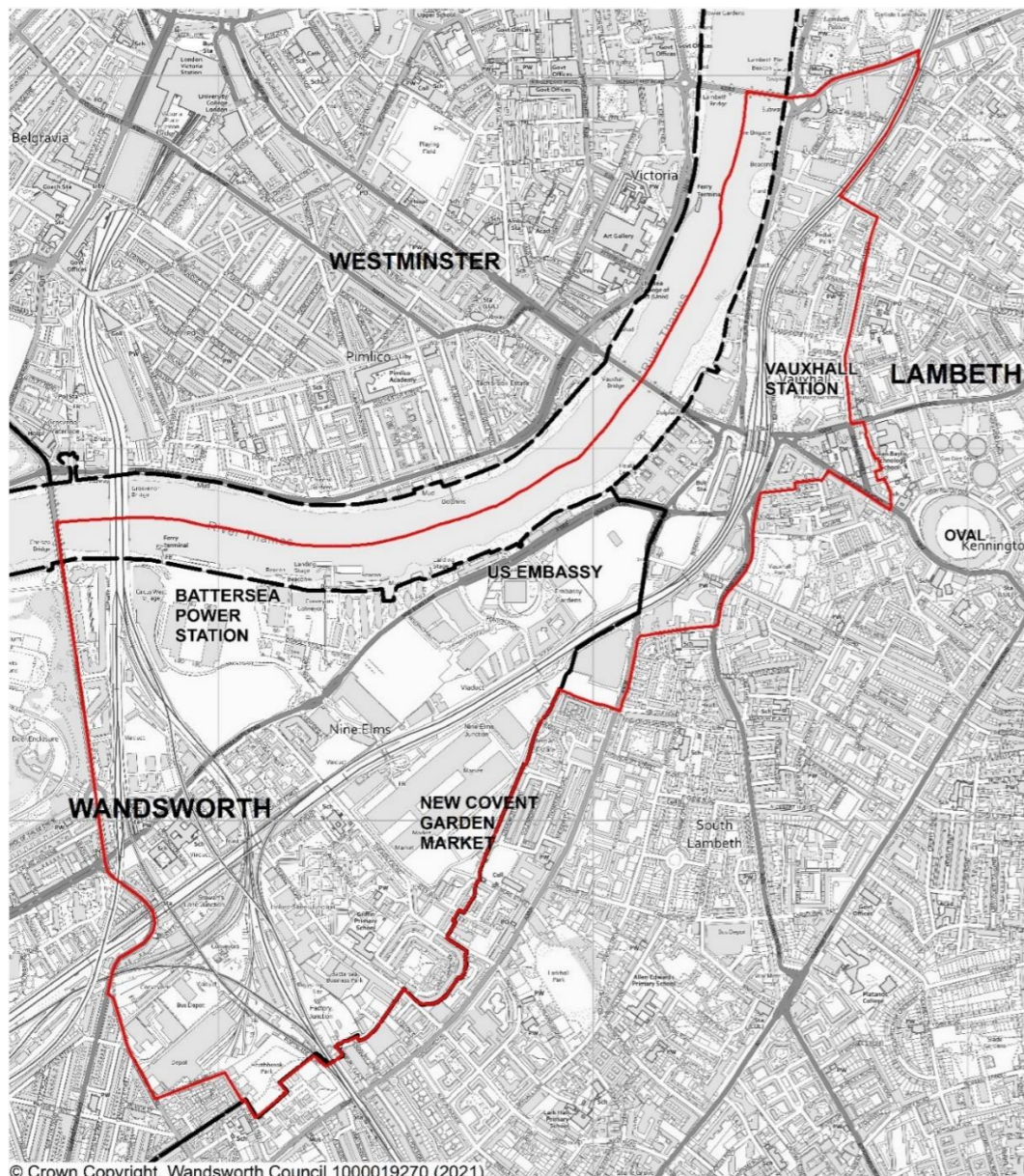
### 2.1 Introduction

2.1.1 This section defines the scope of our assessment, including key exclusions, and the approach we have taken to infrastructure costs, funding sources, and infrastructure phasing.

### 2.2 Geographical scope

2.2.1 The original DIFS covered Vauxhall, Nine Elms & Battersea (VNEB) in its totality, spread over LB Wandsworth and LB Lambeth. For this DIRR, we focus our attention on parts of the OA located in Wandsworth only, hence reference to Nine Elms Battersea (NEB).

Figure 2.1 VNEB Opportunity Area (red) and borough boundaries (black)



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2.2.2 Within NEB, we subdivide the area into key 'neighbourhoods', which we describe in Section 3.

### 2.3 Types of infrastructure we cover

2.3.1 The DIRR is fundamentally concerned with primary infrastructure, which we define as infrastructure required to accompany development in order to allow new households and jobs to function within a wider community. This infrastructure will be largely used by the community living and working in the development, but others would not be excluded from using these facilities.

2.3.2 Within primary infrastructure, we consider infrastructure in the three broad categories of transport infrastructure, utilities, and social infrastructure, each contained within their own chapter.

### 2.4 Key exclusions

2.4.1 The primary element of the original DIFS study was the two stop extension to the Northern Line. As this has been completed and was opened in September 2021, the NLE has been excluded from the scope of the DIRR. Funding for the NLE is generally isolated from funding for wider infrastructure and safeguarded for this purpose.

2.4.2 A second key exclusion is secondary infrastructure, which we define as infrastructure intended to create accessible, serviced and developable sites, for which developers build costs into their assessment of sites. Secondary infrastructure will typically include: internal access roads within sites; connections to the mains for drainage; sewage, gas, electricity, telecoms utility connections; small-scale communal / play spaces; and on-site or adjacent landscaping.

2.4.3 In addition to secondary infrastructure, we also exclude the following:

- Infrastructure that would normally be provided by central government, such as courts, prisons, hospitals,
- Privately owned developments that may fall under a looser definition of 'infrastructure', such as petrol stations, pubs, post offices,
- Care homes and adult social care. Whilst there is an aspiration to support their delivery, care homes are part of a quasi-private market in older peoples' residential care. Social care budgets pay for some places, whereas others are privately purchased, and;
- NHS-aligned (or otherwise) providers of health-related commercial operations, such as pharmacies, optometrists, and dentists.

### 2.5 Reviewing what infrastructure is needed – our approach

2.5.1 An important starting point for this DIRR is an accurate baseline position relating to the relevant projects to identify what has been completed, what is no longer being taken forward, and what is outstanding.

2.5.2 To inform our baseline assumptions we have used the list of projects from the Council's current Nine Elms Capital Projects and the expenditure on these as of April 2024<sup>4</sup> as the starting point for the current projects, their spending to date and future spending. This will supersede the list of projects in the original DIFS, which we have reviewed in terms of what has been delivered, what is outstanding, and for those outstanding areas, we have looked critically at whether it is still needed or can be better met in another form.

2.5.3 We have undertaken qualitative desktop research of documents provided by LBW in order to understand forthcoming infrastructure on a project-by-project basis. We have relied on a number of documents for this purpose, but particularly recent NEB Programme reports and other internal records relating to development phasing and infrastructure funding. Desktop research of documents held online include numerous Section 106 agreements and planning application documents held on the LBW planning application search database.

2.5.4 We have corroborated our findings with key contacts provided by LBW. This update is fundamentally reliant on information sharing with the various service providers and discussions we have had with them. We have sought to clarify the changing need for and provision of services, facilities and infrastructure within the Opportunity Area. Note that we have not been able to corroborate our findings in all cases.

2.5.5 Where this has not been possible, we have used industry standards to understand requirements.

## 2.6 Implications of population growth resulting from development

2.6.1 Growth from development can be measured using a number of different indicators, such as housing units, floorspaces by land use typology, and population. In turn, resident population estimates are typically driven by housing numbers and varies based on the balance of affordable, intermediate and market housing, and the mix of dwelling types according to bedroom numbers.

2.6.2 Sub-populations, particularly of children at different age levels, are relevant when estimating requirements for school places and for play and sports space. These are discussed in more detail under their relevant sections in Chapter 4.

2.6.3 Population estimates based on forthcoming development in NEB have been calculated using LBW's Population Yield Calculator for Nine Elms Vauxhall (NEV). This calculator was made specifically for the VNEB OA and was first produced in 2015 using specially commissioned 2011 Census data and the 2014 development phasing study, updated 2018, and the LBW 2017 Housing Survey<sup>5</sup>.

2.6.4 The Calculator has been populated with the total number of homes completed in NEB as of April 2024 to reflect a baseline position today. The Calculator has subsequently been populated with a phased annual trajectory for future housing delivery in NEB to illustrate cumulative population growth.

2.6.5 In summary, the gross population estimate for NEB by the end of the build-out period of 2033 is 33,353 inclusive of the large population already living in the area (c. 20,000). An annual breakdown is provided at Appendix C.

## 2.7 Our assumptions

2.7.1 Here we update some key *general* assumptions that were made in the original DIFS. Where more specific assumptions are relevant, they are discussed in their relevant chapters below. Note the discussion in Section 2.11 on caveats and exclusions.

2.7.2 After the balance of dwellings, office, retail, and other uses are known, one of the key assumptions relating to a DIFS is affordable housing, and how the amount of it affects the viability of developments, and the projected population and its demographic make-up. As we have been provided with population estimates by LBW, we have not sought to recreate or verify these calculations ourselves.

2.7.3 We do however note a key difference between the original DIFS and this DIRR being the implications of the Private Rented Sector (PRS) for infrastructure requirements. While some PRS developments have been approved within NEB, we do not in our main analysis make any additional adjustment for a higher level of PRS development than that already in the trajectory.

2.7.4 In infrastructure project terms, as set out above, we have not considered the extension to the Northern Line in this study.

## 2.8 The cost and funding of infrastructure – our approach

2.8.1 'Gross infrastructure costs' capture the total cost of all known items required to deliver and/or meet the needs of development in the OA. This is something of a catch-all category, and therefore includes items such as highway connections to the wider network. Where cost information is available, we have used that in the DIRR. In most cases, these costs are estimates in advance of the individual schemes being scoped in detail. Therefore, as more clarity on individual projects emerges, costs will need to be reviewed.

2.8.2 We have sought to adopt a consistent basis to reviewing the available funding. This is complicated here for several reasons:

- There are two different tariffs in place: those paid against the DIFS tariff, and the tariff conferred on Battersea Power Station, and;
- Tariff payments are not indexed but the price base reflects the year in which permission was granted for the relevant application. This means that payments cannot simply be added.

2.8.3 In setting out the costs (and also funding) we have made every effort to resolve this and have sought to express both in 2024 prices.

## 2.9 The funding sources – our approach

2.9.1 The report provides an assessment of the different funding sources, specifically what has been paid for and how and the different sources proposed for each of the remaining projects, whether directly from the developer, a S106 contribution, through CIL, or other sources.

2.9.2 This DIRR does not capture all the costs required to deliver all of the planned infrastructure. Some of the development provided under Section 106 agreements is 'in-kind', meaning the infrastructure is delivered by the developer instead of there being a transfer of funding to a public sector agency which then delivers that infrastructure. In these instances, we have described as accurately as possible what the infrastructure consists of (or is planned to) and noted information about the delivery agent.

2.9.3 In social infrastructure projects, there may be a combination of sources. For example, a developer may provide the shell and core of a building, with the fit out to be completed by a public sector provider using CIL or mainstream funding. We are concerned with costs in so far as they relate directly to the public sector, however, we still aim to capture the requirements for infrastructure regardless of who is providing it.

2.9.4 In looking at available funding, we have considered LBW CIL and S106 income, including non-CIL tariff payments made under DIFS or from Battersea Power Station. CIL is indexed at the point of permission being granted whereas S106 contributions are indexed at the point of payment being triggered or actual payment date. While it is regrettable to not be able to directly compare the data, on balance we think there is more value in leaving CIL indexed and account for this when trying to determine how much funding is available against the increased costs of infrastructure over time.

<sup>4</sup> Comprising a hybrid approach of using data up to 31<sup>st</sup> March 2023 with qualitative updates provided by London Borough of Wandsworth's planning, infrastructure and obligations teams.

<sup>5</sup> A summary of the process undertaken to determine these population estimates is contained in Nine Elms Population Projections Briefing Paper (January 2019) by LBW.



## 2.10 The phasing of infrastructure – our approach

- 2.10.1 We have talked to providers and used judgement to understand when infrastructure might be required to support different sites and phases of development. We caution that this is not always an exact science. Development phasing and the infrastructure need arising from it very much depends on economic cycles, funding availability, technological change, the levels of congestion considered tolerable and so on.
- 2.10.2 The development trajectory is an important input because infrastructure sequencing is intended to respond to levels of infrastructure demand created by growth.
- 2.10.3 Since we began this work, the economic uncertainty arising from BREXIT, the COVID-19 pandemic, Fire Safety Regulation changes and build cost inflation has meant that the trajectory (and potentially also the form) of development has shifted. While always a requirement of the brief, the added uncertainty to what was already a long build-out trajectory underlines the need to identify triggers for infrastructure, particularly in the case of social infrastructure, which are tied to progress on development such that if the phasing changes, it remains clear when infrastructure will be needed.

## 2.11 Caveats and exclusions

- 2.11.1 For consistency, we have aimed to retain the same caveats and exclusions as the original DIFS and DIRR, with some minor additions. These are summarised as follows:
- Infrastructure providers reserve the right to update the information provided. As might be expected, there are some gaps in knowledge and understanding of what is needed and how it might be paid for. Estimates will need to be refined.
  - The service providers are at different stages in their planning processes. In many cases further work is needed to identify specific infrastructure requirements.
  - The estimates of infrastructure requirements, costs and funding provided here involve generalisation. A study of this nature is by necessity a snapshot in time and the remaining development period is a further decade and it is not realistic to match resources, demand and location with the degree of precision necessary to reach perfectly reasoned conclusions on what infrastructure is required on any one given site or with any one service provider. As has been successfully done in the last ten years, s106 agreements will be subject to negotiation taking into account planning obligations SPD and requirements of site and the infrastructure needs and timing identified in this Study.
  - This infrastructure assessment is not itself a policy document. Information included in the assessment does not override or amend the various agreed/adopted strategies, policies, and commitments which local authorities and other infrastructure providers currently have in place.
  - This study will inform the refinement and definition of the LBW Nine Elms Infrastructure Programme over time.
  - Our assessment of potential developer contributions from potential future development in the area does not purport to offer a valuation of any particular piece of land. They were prepared with the objective of estimating potential overall levels of contributions that could be secured from development to help fund infrastructure. They are not suited to any other purpose.
  - Although this work can be used as a high-level guide, developers and Local Planning Authorities will not be able to solely rely on this work to negotiate individual Section 106 agreements. Our analysis is not at the level of accuracy that allows this function to be performed.
  - It will be important to allow sufficient flexibility around funding. In the case of S106, for example, there may be changes to the way that these policies are used to pay for different infrastructure items that differ from this report.

- Public services, and hence the infrastructure they demand for delivery, are in a constant state of flux. Policy or technology can change rapidly. Most service providers do not plan beyond three years, and so cannot by definition be expected to know their precise requirements in (say) 10 years' time.
- Public finances are uncertain. While there is a Central Government focus on investing in infrastructure delivery, this is against a backdrop of significant pressure on local government funding, particularly with the increased cost burdens and in some cases parallel drop in incomes associated with the pandemic. They may recover at some point, but we are currently unable to predict the extent to which this might take place, or when. This means that public service infrastructure requirements as a result of growth are difficult to predict and are necessarily subject to a margin of error.
- Our objective is to make the study as accurate as possible, and land costs are excluded. This is because we believe that the inclusion of land costs for infrastructure in a strategic area-wide study such as this is likely to make the study less (not more) accurate. When land is needed, its price will vary widely depending on development location and planned use. We cannot be certain what its value at that time and anticipated use is. Land for infrastructure can also sometimes be provided at nil cost, for a variety of reasons. In some instances, land is not needed, because infrastructure will be located on land already owned by the organisation or agency involved.
- Infrastructure income and expenditure figures:
  - The infrastructure and expenditure figures included in this report are Stantec's interpretation of the information provided by LBW.
  - Due to timing, the income and expenditure figures for the FY 2023/2024 are an estimate and may be the subject of adjustment once year-end reconciliation has concluded.
  - The cost of infrastructure and its funding sources between FY 2024/25 to 2032/33 are Stantec's interpretation of the information provided by LBW and are provided as theoretical estimates that are likely to be subject of adjustments.
  - No indexation has been applied in the calculations of the S106 future payments, except for Royal Mail Group where indexation as at today's date has been included.
- Housing delivery and trajectory figures:
  - The housing delivery and trajectory figures included in this report are Stantec's interpretation of the information provided by LBW.
  - Due to timing, the housing delivery and trajectory figures for the FY 2023/2024 is an estimate and may be the subject of adjustment once year-end reconciliation has concluded
  - The housing delivery and trajectory figures between FY 2024/25 to 2032/33 are Stantec's interpretation of the information provided by LBW and are provided as theoretical estimates that are likely to be subject of adjustments.
  - The data provided by LBW demonstrates that the past and future delivery of homes in the NEB area has, and will continue to be, flats (not houses).
  - Forecasted commencement date is one year before the end of the year when the units will have been completed as it is stated on the Housing Trajectory. For example, if the units will have been completed in 2030/31, the forecasted commencement date is the 31/03/2030.
  - Forecasted commencement date for sites that include multiple completion dates is one year before the end of the year when the latest completion of units will have occurred.
  - There is an assumption that all sites come forward meaning assumed delivery and funding may be overstated were key sites to stall or be brought forward for a different use.
  - Where no data exists on when permission will be granted or if there are no completion projections then dates have been pushed to end of date range.
- Non-residential floorspace figures:
  - The non-residential floorspace figures included in this report are Stantec's interpretation of the information provided by LBW. This includes non-self-contained accommodation such as hotel accommodation, hostel accommodation, student accommodation and HMO accommodation.

- Due to timing, the non-residential floorspace figures for the FY 2023/2024 are an estimate and may be the subject of adjustment once year-end reconciliation has concluded
- The non-residential floorspace figures between FY 2024/25 to 2032/33 are Stantec's interpretation of the information provided by LBW and are provided as theoretical estimates that likely to be subject of adjustments.

### 3 What growth is planned and when?

#### 3.1 Introduction

3.1.1 The amount of growth and its timing has a fundamental effect on the amount of infrastructure required, and when. The original DIFS provided guidance to this effect based on the estimated growth and development trajectory at the time for the chosen scenario (revised Scenario 5). These expectations are set out below in Section 3.2.

#### 3.2 Growth estimates in the original DIFS

3.2.1 The original OAPF (Revised Scenario 5) set out the broad proposals for the new space to be developed in the OA, which was then adjusted through the DIFS which tested following uses:

- 16,000 homes across the OA.
- At Battersea Power Station, 305,000 sqm (GIA) of non-residential ('employment') space comprising:
  - 56,000 sqm retail.
  - 155,000 sqm offices.
  - 94,000 sqm 'hotel and other commercial space'.
- Elsewhere in the OA, 200,000 sq. m (GIA) of 'mixed employment use'.

3.2.2 The 2010 DIFS considered the implications of this scale of growth over the period to 2031, taking a longer view than the OAPF, which looked to 2026.

#### 3.3 Current growth estimates

3.3.1 The policy context has evolved since the original DIFS was undertaken. As set out in Section 3.2, additional new homes in the OA were expected to be in order of 16,000. The target for new homes across the whole OA was lifted in the London Plan 2021 to 18,500 based on the 2017 SHLAA. Reflecting this uplift, LBW now expect that delivery in the Wandsworth part of the OA will be in the order of 16,000 with the balance to be delivered in Lambeth.

3.3.2 Current growth estimates are informed by the most recent 'global' survey of planned development in the OA, which was produced by LBW in March 2024 in collaboration with developers. This gives us an indication of the amount of the development delivered to date, and what is left to be delivered.

3.3.3 In looking at growth, there is no longer a need for this study to consider two different affordable housing scenarios. Since the original DIFS, we have obtained more reliable information in terms of the actual expected affordable housing provision in individual developments and across the whole OA (around 33% on average across the OA) and more certainty around the delivery of key developments, such as the redevelopment of Battersea Power Station sites.

3.3.4 We make the following assumptions about the development that has not yet been built:

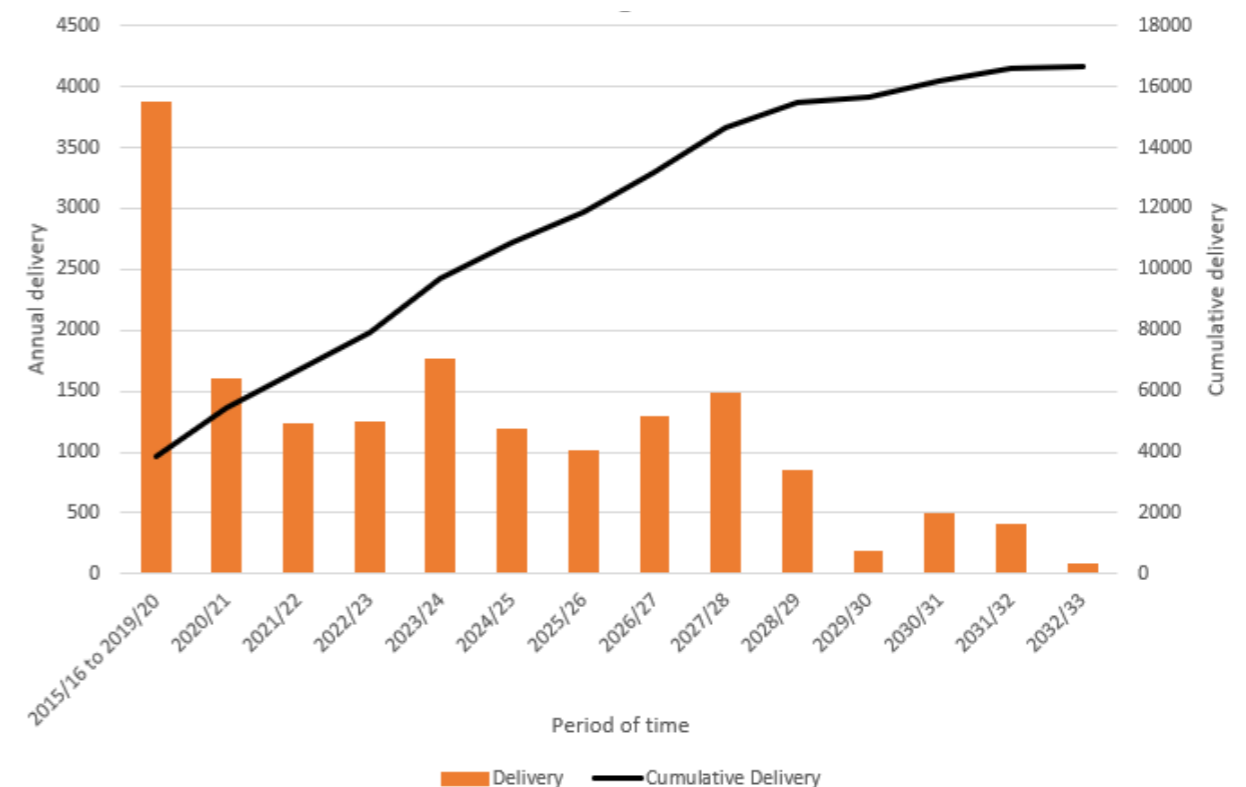
- Anticipated phasing has been provided to us by LBW aligned to the Housing Trajectory and Summary Tables 2022/23. This envisages that the whole NEB area will be largely completed by 2033.
- This does not take account of the potential for applications to come forward in the forthcoming 9 years which might seek changes to the numbers or type of development. For example, it is possible that in response to the current uncertainties generated by the pandemic, Brexit, built cost inflation and the Fire

Safety Regulations changes that the rate of development may continue slow down development and/or a mix of different uses that make up that development come forward.

- In many cases, infrastructure delivery is tied to development sites. This could be either through direct developer delivery or relevant land transfers already having been agreed through planning obligations. A change to individual project phasing may therefore have an impact on infrastructure delivery.
- There are a handful of development sites that do not yet have a planning permission in place or are the subject of site allocations e.g. the current Thames Tideway construction site, the Securicor site, Kirtling Wharf, the Cable & Wireless site and the Cloisters Business Centre site. We have not made any explicit assumptions about these beyond what has been provided to us by LBW.

3.3.5 The chart below shows the trajectory for the NEB area. This shows that while the NEB area forms a key housing delivery site for the Local Plan, a large proportion of growth has already have been delivered and is the subject of extant planning permissions.

Figure 3.1: Anticipated residential delivery (net additional) within NEB



#### 3.4 Key sites

3.4.1 Most future development is concentrated in a small number of large sites which we reference throughout this report. The map at Appendix B shows the key development sites. We include a further map below which also shows the distribution of commercial uses across the area. We then provide further information in Table 3.1 on the scale of uses in terms of what had been delivered by April 2024 and future delivery, broken out into residential units (net additional) and commercial floorspace.

Figure 3.2: Commercial uses within NEB

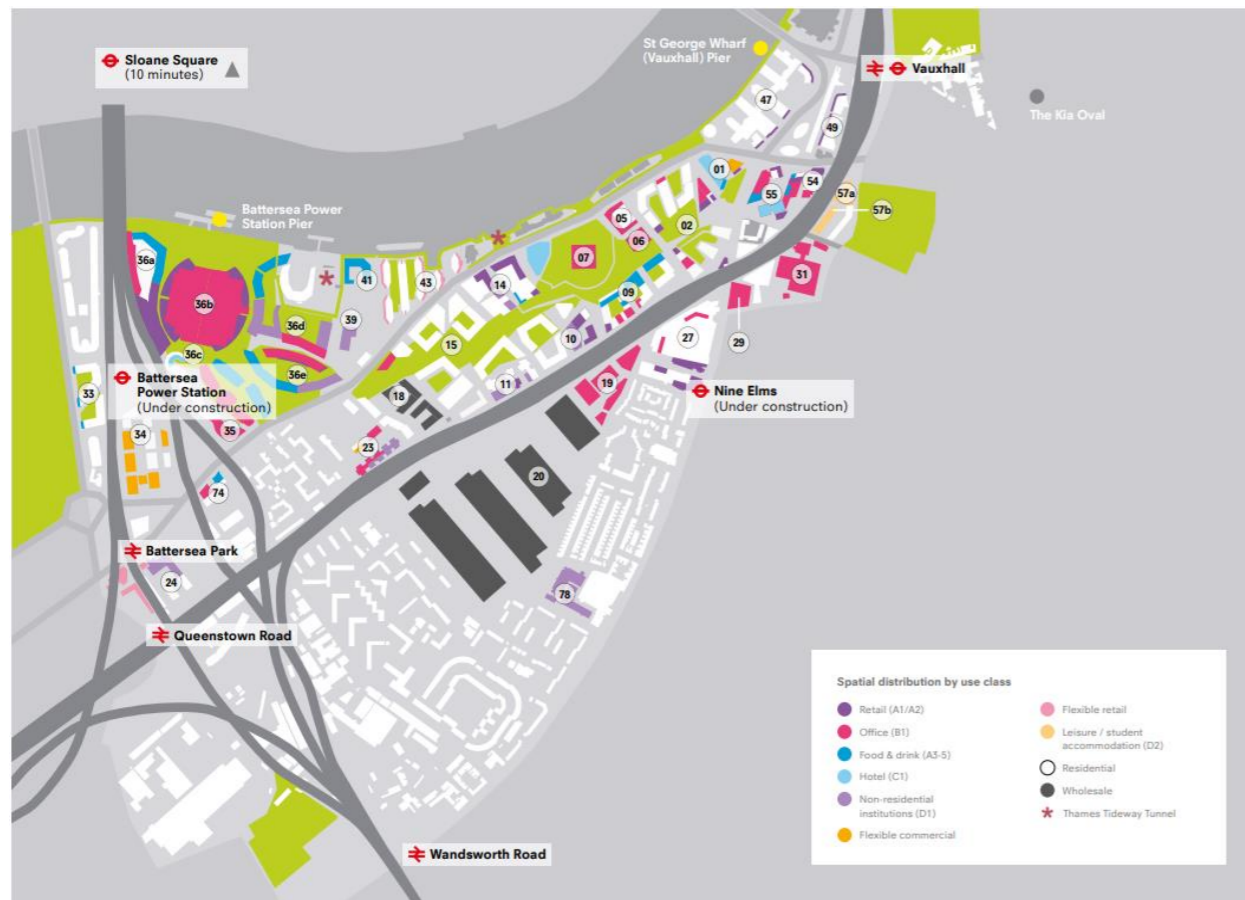


Table 3.1 NEB Site Delivery Summary as of April 2024

Site (Figure 3.2 number)	Use	Phasing		
		Delivered to date	Remaining to be delivered	Total
US Embassy (7)	Commercial (sqm)	51,350	0	51,350
Battersea Power Station (23, 35, 36, 39, 41,42)	Homes (net additional)	1,812	2,429	4,241
	Commercial (sqm)	229,056	148,681	377,737
Embassy Gardens (5,6, 9 & 14)	Homes (net additional)	1,223	224	1,447
	Commercial (sqm)	27,134	28,686	55,820
Nine Elms Parkside (15, 17)	Homes (net additional)	1,155	756	1,911
	Commercial (sqm)	-31,994	30,782	-1,212
Nine Elms Square (2)	Homes (net additional)	543	932	1,475
	Commercial (sqm)	0	13,181	13,181
New Covent Garden Market (18,19, 20)	Homes (net additional)	0	1,042	1,042
	Commercial (sqm)	15,460	9,462	24,922
101 Prince of Wales Drive (34)	Homes (net additional)	926	0	926
	Commercial (sqm)	6,302	9,455	15,757
Riverlight (43)	Homes (net additional)	813	-1	812
	Commercial (sqm)	2,275	0	2,275

Site (Figure 3.2 number)	Use	Phasing		
		Delivered to date	Remaining to be delivered	Total
The Residence (10)	Homes (net additional)	514	0	514
	Commercial (sqm)	2,474	0	2,474
One Nine Elms (1)	Homes (net additional)	494	0	494
	Commercial (sqm)	0	23,785	23,785
Vista (33)	Homes (net additional)	451	0	451
	Commercial (sqm)	1,100	0	1,100
Cringle Dock (37)	Homes (net additional)	0	20	20
	Commercial (sqm)	0	0	0
Lexington Gardens (11)	Homes (net additional)	360	0	360
	Commercial (sqm)	518	463	981
Booker and BMW sites (21, 22)	Homes (net additional)	0	312	312
	Commercial (sqm)	-1,224	2,882	1,658
Met Police warehouse (12)	Homes (net additional)	0	184	184
	Commercial (sqm)	0	0	0
Other Wandsworth sites	Homes (net additional)	2,453	1,276	3,739
	Commercial (sqm)	6,157	125,680	131,837
<b>Wandsworth total</b>	<b>Homes (net additional)</b>	<b>9,027</b>	<b>6,950</b>	<b>15,977</b>
	<b>Commercial (sqm)</b>	<b>306,134</b>	<b>379,876</b>	<b>686,010</b>

- 3.4.2 We note that many developments, or parts of them, have adopted different marketing names. In some cases, original references to the site simply referenced the site's owner, with all or part of that site now sold to other developers. We have tried to use the current branding for clarity; this is described below, along with a short description.
- 3.4.3 There may be theoretical capacity for a further 1,000+ more units by 2033, but these have not been included in this study due to the lack of certainty.

**Sites Under Development**

**Battersea Power Station (BPS):** the substantial phased development associated with BPS which includes the restoration and redevelopment of the Grade II\* Listed original building, and a number of surrounding sites between the bank of the Thames and the railway viaduct on the western end of NEB and around Pump House Lane and Cringle St, with a single development phase (4a) located towards the southern end of Sleaford Street. The development proposes a wide range of residential, office, retail, community/cultural space, and open space. The NLE terminates at a new station, Battersea Power Station, with two entrances - one at the bottom of BPS Phase 3b, and one to the east at the southern end of Prospect Park, on the boundary of the development and Battersea Park Road.

**New Covent Garden Market (NCGM):** this development is mostly comprised of the redevelopment of the NCGM site for similar purposes in a new layout on its large triangular land holding south of the railway viaduct. The development incorporates a revised road layout and new homes at the western and eastern ends. North of the railway viaduct, the development bookends the Linear Park at its western end with the 'Entrance site' which is currently the site of the 'temporary' flower market which will remain on site until the latter phases of the NCGM development are completed.

While not part of this site, the new Nine Elms Station, part of the NLE, is located nearby, south of the railway viaduct on the corner of Wandsworth Road and Pascal Street and the walking route from the station to the river and the northern side of the railway tracks will cross NCGM.

**Nine Elms Square:** this phased development, currently under construction, was granted permission as part of NCGM and forms the Linear Park at its eastern end. The Nine Elms Square development is located on the site known as the 'Northern Site', or the (former) flower market site. It is located at the north-eastern end of NEB, comprising mixed-use buildings and open space within the Linear Park. It neighbours Embassy Gardens - home to the US Embassy and Penguin - to the west. The site has been the subject of subsequent variations / reserved matters applications following the original permission.

**Nine Elms Parkside:** This site, on the former Royal Mail Group (RMG) site, comprises a residential-led development and includes sports pitches, a 2FE primary school and community facilities. The length of this development is largely separated from the railway viaduct by the **Lexington Gardens** residential-led site, and the **Metropolitan Police warehouse site**.

**Embassy Gardens:** this development comprises a mixed-use development surrounding the US Embassy building, completed in 2018. The development comprises dwellings, retail, cultural space, restaurants/cafes, and open space within the Linear Park and the final phases are now under construction.

#### Completed or largely completed sites

**Completed sites:** include One Nine Elms, Battersea Exchange, Riverlight, The Residence, 101 Prince of Wales Drive and Vista which together account for just under 3,500 homes. The other key completion is the US Embassy itself which is the largest concentration of commercial space outside the BPS site.

**Other notable sites:** Booker and BMW sites: the site, which fronts onto Nine Elms Road/Battersea Park Road, has planning permission for just over 300 residential units. The southern site boundary, along the railway viaduct, forms a key route within the Nine Elms Cycle Strategy but level changes across the site mean that a ramp structure will be needed to provide access into the adjacent BPS Phase 4a.

## 4 Social infrastructure

### 4.1 Introduction

- 4.1.1 In this DIRR, we will consider what was identified and assumed in the original DIFS, explore what has changed and why and set out what we think is now needed, the cost and timing for each of the following categories of social infrastructure:
- Education,
  - Health,
  - Community and cultural facilities,
  - Open space, play space, sport and leisure, and:
  - Emergency services.
- 4.1.2 We will also consider what has been spent to date and what funding is now required as well as identifying the likely delivery programme through a project schedule. We will also conclude on whether there are any risks and uncertainties that are relevant to each infrastructure sector.
- 4.1.3 Demand for social infrastructure is generally driven by population growth. As the development composition and phasing has changed, so have population estimates which, in turn, change the amount and timing of infrastructure provision required.
- 4.1.4 This fact has had varying effects on how we view different categories of social infrastructure in this DIRR. For example, where provision is made onsite, such as for some types of play space, area requirements can correlate to the number of children of a particular age group resulting from that specific development, and commensurate adjustments can be made and documented through planning permissions.
- 4.1.5 Where social infrastructure requirements are determined globally – as in, for all developments in the OA – we assess the requirements established in the previous DIFS against the requirements of new population figures. This is the case with education and health, but open space, as explained in the relevant section below, is an exception where both the original and new requirements would be met with under-provision due to constraints on the amount of space available.

Summary of the original DIFS' social infrastructure projects (LBW only)	
Education	Primary school/community centre/children's centre/sports etc. (and land) Secondary school contributions
Health	Primary care - space (and land) for c.9-10 GPs
Open space	Linear park Power Station Park Improvements to existing parks / outdoor sports Play space
Community	Community centre (and land) Library/archive (and land)
Emergency services	Police-neighbourhood & transport base Police-custody centre Police-patrol base Fire-upgrade of stations

### 4.2 Education

- 4.2.1 In this section, we assess the education needs of planned growth in the OA against current population projections to see if planned provision will meet the future needs of the OA. This planned provision takes the form of land secured through planning obligations, and development costs funded by developer contributions.
- 4.2.2 Education in the OA is provided by the education authorities of the London Boroughs of Wandsworth and Lambeth. We focus on the demand for school places generated in the Wandsworth part of the OA only (NEB).
- 4.2.3 We focus on state provision of early years, primary and secondary education (including sixth form), and the capital costs thereof that are either funded by development or mainstream sources. We do not address operational costs or maintaining schools.

#### Original projects

- 4.2.4 Estimates of required education provision were provided as part of the 2010 DIFS for VNEB. The analysis incorporated different scenarios in terms of key developments coming forward, and different levels of affordable housing provision (which in turn affected the population profile).
- 4.2.5 The 2010 DIFS identified school place projections based on population estimates at the time, for each of the education authorities, and offset these against projections for capacity of existing schools. The higher affordable housing scenario (40%) forecast that a maximum 1,129 places would be required for children at primary school level. This compared to only 680 places under the scenario which tested the lowest level affordable housing (15%).
- 4.2.6 To meet forecast need, a new two-form entry (FE) primary school was recommended, with the potential to expand this to four FE if required. The 2010 DIFS stated:
- 'Not all of these forms of entry would be needed when the school first opened. It would be possible to construct a two-form entry school and then expand it once the levels of demand required the additional two forms of entry. This would also provide flexibility if lower levels of affordable housing are achieved, so creating lower child yields.'*<sup>6</sup>
- 4.2.7 Flexible provision was therefore recommended to accommodate either scenario. It also recommended a 1.7ha site was safeguarded for a primary school, and that the site should allow for co-location with other facilities including a children's centre, community centre, and sports provision. Sports provision at the school is discussed in more detail in the Open Space, Play Space, Sports and Leisure section.
- 4.2.8 Specific locations were not identified in the 2010 DIFS but it did state a preference for a site on the south of the Linear Park which would facilitate a connection between the school, open space, and facilities within the school site that would be available for public use.

#### What has been delivered or is programmed

- 4.2.9 While none of the school places identified in the DIFS have been delivered to date, there has been progress on securing commitment for facilities.
- 4.2.10 In the outline planning permission for Nine Elms Parkside, the Section 106 agreement included a Draft School and Community Facilities Brief. In line with original DIFS and the subsequently adopted planning policy, this obligation was constructed on a flexible basis and specified provision of a minimum two-FE primary, with nursery, school hall, community space, indoor and outdoor play areas, and other facilities. Conditions to the planning permission required a Reserved Matters Application (RMA) for the school and

<sup>6</sup> p.102

associated facilities, referred to informally as Nine Elms Primary School, to be submitted before the end of March 2020.

- 4.2.11 The RMA submitted in March 2020 sought permission for a two-FE primary school and nursery, and sports and community centre within a singular building surrounding an external play area, as shown in Figure 4.2. The building would accommodate a total floor area of 5,995m<sup>2</sup> GIA with capacity for 420 primary school pupils and circa 52 nursery school pupils and 1,686m<sup>2</sup> GIA of community sports centre space. It is envisioned that the school, nursery, and community sports centre would be capable of operating independently, but that the school sports facilities (including a 614m<sup>2</sup> MUGA), and others, such as school hall should be available for community use despite being separate to the actual community sports hall itself.
- 4.2.12 Following two Design Review Panels (DRP) and further refinement of the building design, final designs were submitted for approval in April 2021. The RMA was granted permission to develop at WBC's Planning Committee on 27th July 2021. Following approval of the RMA, the Council had 2 years to commence on site with enabling works beginning in July 2023.
- 4.2.13 The submitted Design and Access Statement suggests that the earliest the school could be operational is September 2022, although it is now understood from LBW that this is likelier to be 2025/26. It also acknowledges the potential future expansion of the school to 4FE on the adjacent Metropolitan Police site, as described within the outline planning permission.

Figure 4.2: Excerpt of Proposed Nine Elms School and Community Facility Site Layout



Source: submitted drawing, ref. IBI-00-PL-100-0002, application ref. 2020/1119

- 4.2.14 In the original DIRR, costs in the order of £32 million were estimated in the process of developing a scheme for the school, and community facilities on the allocated plot<sup>7</sup>. At this time, approved funding from LBW's Capital Programme totals in the order of £55 million, including funds expended to date on land acquisition

<sup>7</sup> We note from experience that a typical two FE primary school costs in the region of £13 million, however this figure is not representative of the project at hand because of the additional community facilities.

and enabling works. There are currently inflationary cost pressures in the order of £15 million which the Council is exploring how best to address.

- 4.2.15 The original DIFS Schedule allocated a total of £45million for acquisition of the land and provision of the Primary school/community centre/children's centre/sports facilities in Wandsworth. This was inclusive of land acquisition costs for the RMG plot and the Metropolitan Police Warehouse site, now estimated to be £14.5 million.
- 4.2.16 In addition to the new school, LBW had been exploring the potential for a single FE extension to St George's primary school which is located within the NEB area. There is no firm programme attached to this at present; LBW's current expectation is that, in light of the long-term trend towards falling pupil numbers, there is no pressing need for additional places beyond those to be provided by the new primary school. The scheme does not have planning approval, and while some funding has been allocated (£1.35m) in the Nine Elms Capital Programme, this is unlikely to be enough to meet the costs of provision were LBW to go ahead with the expansion. The analysis of population yield and education requirements (refer to Appendix C) supports LBW's expectation that no additional school places beyond those to be provided by the new primary school are required.

### Analysis of future need

#### Population and school places

- 4.2.17 There is now greater certainty around population estimates for the developments globally. The child population estimates for different school age groups described in this section have been derived from overall estimates for NEB, amounting to 33,353 new residents over the years 2015/16-2032/33. Population estimates for each school phase age group are shown in Table 4.1 below.
- 4.2.18 The different needs of school age levels are considered when planning the amount, and location, of future provision. For example, primary school-aged children typically require smaller catchment areas to account for the transport needs of children at that age. By contrast, secondary school children will typically travel further within their home borough and may to travel to neighbouring boroughs.
- 4.2.19 As we are only concerned with place planning for state schools, we have adjusted the child yields to account for the proportion of children attending private schools (although this is of limited relevance for Early Years children for reasons discussed later). We have applied this in the form of a percentage discount. In discussion with staff from the LBW Education, Performance and Planning Division, we have agreed that across all levels only around 60% of children are likely to attend a state school. This is slightly lower than the figures suggested by the 2017 paper by BMG Research<sup>8</sup> (approximately 70%), but we have been informed that the lower figure more closely aligned with the figure for the borough as a whole.

Table 4.1 School place requirements for the overall development and from 2024/25 onwards

Age / school level	NEB total		NEB 2024/25 to 2032/33	
	School place requirement	Forms of Entry (FE)	School place requirement	Forms of Entry (FE)
2-3 / Early years	726	n/a	320	n/a
4-10 / Primary	1,581	7.5	741	3.5
11-15 / Secondary	646	4.3	308	2.1
16-17 / Sixth form	234	3.9	112	1.9
<b>Total</b>	<b>3,187</b>			

Source: Appendix C

<sup>8</sup> Nine Elms and Vauxhall Opportunity Area Household Research pp. 29-30.

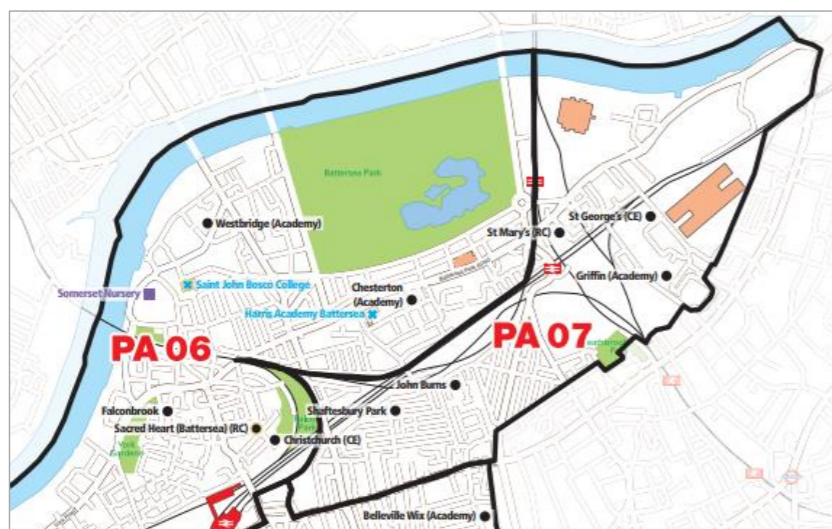
### Early years

- 4.2.20 The estimated population yield from growth in NEB for children aged 2-3 is 1,037 across the lifetime of the development. It is estimated that 580 of these are already living in NEB as of 2024, with the remaining 457 to yield from planned development between 2024/25 to 2032/33.
- 4.2.21 It is difficult to determine the exact need for early years places as they are not centrally planned, and we must assume that the population at this age group does not automatically translate into required places. For instance, not all children at this age group attend an early years' facility at all as they may be cared for at home. Additionally, children at this age might not attend nursery full-time as carers might only use the 15 hours allowance provided by the Government; this means that fewer places will be required to meet overall needs.
- 4.2.22 It is recognised that the new Primary School, once operational, is planned to include a 55-place nursery.
- 4.2.23 This analysis does not offset demand against provision by the private sector, which provides the majority of education at this level. However, it is noted that LBW maintains only three nurseries in the borough; therefore, it is likely that the figures above will overestimate need that will be met by LBW.

### Primary education

- 4.2.24 By our calculation, NEB will yield a need for 1,581 primary school places, which would require the equivalent of 7.5 FEs. However, it is estimated that that the yield for primary school places created by NEB between the years 2015/16 to 2023/24 accounts for 840 of the total places required and it is assumed that these children are already attending an existing primary school and therefore their needs are accounted for.
- 4.2.25 It is estimated that between 2024/25 and 2032/33 a further 741 primary school places will be required to support NEB, which is equivalent to 3.5 FE.
- 4.2.26 LBW School Places Planning team prepares annual estimates of the surplus and deficit of school places based on Planning Areas (PAs). Since 2019, primary schools planning areas have been realigned in line with new ward boundaries and NEB is now located within PA7 (Nine Elms and Shaftesbury & Queenstown wards) which contains five existing primary schools, shown in Figure 4.1.

Figure 4.1: LBW Planning Area 5B



Source: LBW School Place Planning Department

- 4.2.27 As PA7 is a larger area than the previous PA5b, which just included the old Queenstown ward, precise projections for Nine Elms are more difficult. Since 2019, primary school rolls across the borough have fallen by 11.3% with a 21.7% surplus of school places in PA7. Looking at the last projections in 2022 for PA5b, a deficit of places would begin to emerge at reception year level from 2025 (14.4%) with the new school expected to open in September 2026. Demand is expected to plateau from 2032.
- 4.2.28 LBW's current projections indicate that the subsequent (and at present uncommitted) two-FE expansion will not be required for the foreseeable future. The analysis of population yield and education requirements (refer to Appendix C) supports this position.
- 4.2.29 Consultation with LBW confirmed that estimates were more conservative than our own, however it is acknowledged that a faster development construction programme would likely make the need for this expansion come forward in the DIFS period.

### Secondary education

- 4.2.30 It is estimated that NEB will yield a need for 646 secondary school places and 234 sixth form places over the lifetime of the development (Appendix C). In line with the original DIFS, these do not amount to need for a new secondary school. Furthermore, as with primary education, it is estimated that that the yield for secondary and sixth form school places created by NEB between the years 2015/16 to 2023/24 accounts for 338 and 121 of the total places required respectively and it is assumed that these children are already attending existing secondary or sixth form provision and therefore their needs are accounted for. It is estimated that between 2024/25 and 2032/33 a further 308 secondary and 112 sixth form places will be required to support NEB, which is equivalent to 2.1 FE and 1.9 FE respectively.
- 4.2.31 PAs do not apply at secondary level; the capacity of all 11 states schools is considered together. This accounts for the fact that pupils at this school level are typically more able to travel throughout a borough, or outside it, for secondary schooling<sup>9</sup>.
- 4.2.32 Secondary school place projections (2023) by LBW, including the development at NEB, show a small surplus of Year 7 places (3.2%) increasing to 15.4% by 2028.
- 4.2.33 These estimates take into account phases of expansions as well as 'bulge' classes which accommodate temporary spikes in growth. Deficits are therefore kept relatively low, and as a result, it is not expected that a new secondary school would be required as a result of the growth from NEB. It is expected that population growth will be able to be absorbed by existing secondary schools in LBW. This will continue to be monitored in following reports.

### Outstanding requirements

- Nursery education: there is an overall shortfall in programmed provision; however, this is likely to be overstated because typically nursery provision is met in the main part by the private sector.
- Primary education: Current LBW projections indicate that the need for additional places will emerge from 2025/26 and be met by the new school from 2026. There is currently no indication that further places will be required from the identified reserve projects, although this will continue to be monitored.

### Risks and uncertainties

#### Primary school provision

- 4.2.34 Since the last DIRR was prepared, an RMA has been approved for the new Primary School, in line with planning conditions for the Nine Elms Parkside planning permission. This represents a more solidified position than was available at the time of the last DIRR.

<sup>9</sup> Paper no. 19-55 notes LBW is currently a net exporter of pupils by a small margin (1.2%). This is not considered sufficiently great as to warrant an adjustment in school place estimates.



4.2.35 That planning application indicated the earliest that the two-FE school would be provided is September 2022. However, current LBW projections indicate that the need for additional places will emerge from 2025/26 and be met by the new school from 2026.

#### Early years provision

4.2.36 It is noted that provision was made for 'nursery accommodation' within the BPS outline planning permission<sup>10</sup>, and sets out some overarching standards for the facility. The BPS permission (as varied) included 6,363m<sup>2</sup> of D1/D2 uses in development zones RS1, RS2 and RS6. While a nursery school/crèche *could* be provided within this floorspace, among other uses, no further detail has been provided, so we have no certainty will come forward<sup>11</sup>.

### 4.3 Primary healthcare

4.3.1 This section looks at the primary healthcare infrastructure impact of planned growth in NEB and compares the current position with that described in the original study, and subsequent developments.

4.3.2 As with the 2010 DIFS, this review considers primary healthcare only. Ambulance services for NEB are principally provided by St Thomas' Hospital on Westminster Bridge Road. Funding for this health infrastructure is outside the remit of this study as it is derived from different tax sources. We also discount standalone dentists, pharmacies and optometrists.

4.3.3 At the time of the previous DIRR, primary health care services across NEB were the responsibility of Wandsworth NHS Clinical Commissioning Group (CCG). From July 2022, CCGs were replaced by new Integrated Care Boards (ICBs). As a result, primary healthcare services across NEB are now the responsibility of the South West London ICB.

#### Original projects

4.3.4 The original demand for primary healthcare was driven by estimates contained in the Healthy Urban Development Unit (HUDU) modelling provided by the Wandsworth NHS Primary Care Trust (PCT), as the predecessor to the CCG. It estimated a requirement for 9-10 GPs based on an assumed additional population of 28,000 for Wandsworth, and importantly, no additional capacity in any other local practices. In addition to these 9-10 GPs, further GPs were identified as necessary to meet demand for part of the NEB within LB Lambeth.

4.3.5 The client group at the time believed that the HUDU model had overestimated the requirements for GPs, and instead recommended a total of 11 GPs for the entire OA to be accommodated in one facility, which formed the basis of the original DIFS recommendation.

4.3.6 It was noted at the time that sources of funding, particularly CIL, were in a state of flux, and that sources of funding would likely be from some combination of mainstream funding and development contributions, with the land secured by a Section 106 Agreement.

#### What has been delivered or is programmed

4.3.7 The 2010 outline planning permission at BPS<sup>12</sup> includes a health facility in Phase 6. The Section 106 Agreement states the requirement for, inter alia, the shell and core of a 2,000sqm GEA, including all utility connections, at ground level with inclusive access.

4.3.8 Since 2015 the then NHS CCGs for Lambeth and Wandsworth collaborated on a business case for facility delivery and investment in healthcare in OA in the years 2016-2030. This full business case (FBC) from December 2019 identifies the Sleaford Street Health Centre that forms part of BPS Phase 4a (brought

forward from Phase 6) as required to support the primary healthcare needs of population growth in the OA over this period and follows on from a March 2016 Feasibility Report.

4.3.9 While the original DIFS identified a need for 11 GPs across the whole OA, the detailed assessment undertaken as part of the FBC indicates a requirement of '19 new healthcare practitioners and uplift in other services of 6% in 2029/30 compared to the 2013/14 baseline'. To address this, CCGs proposed staged provision comprising using existing facilities to absorb early demand, renovation, and extension of existing practices to deliver some further provision, a new facility at Sleaford Street and finally a new facility at Nine Elms Square (NES).

4.3.10 The FBC confirms that at least some of growth that has already occurred in the OA has been accommodated by the practice at Riverside Medical Centre at St George's Wharf (LBL), whose patient list has grown by 61%. To mitigate additional pressure, provision has been made for the temporary upgrades on existing practice sites in years prior to the facility being delivered. Investments in temporary upgrades to other local facilities are proposed, which will ensure that demand for primary healthcare is met while the Sleaford Street Health Centre is awaiting delivery. Three of these facilities are in LB Lambeth.

4.3.11 Since the last DIRR was prepared, the shell and core of the Sleaford Street Health Centre has been completed with the building formally handed over to the NHS Property Services. Once operational, it is expected to accommodate around 19 new healthcare professionals, including GPs, based on a population of 33,780 for the entire OA, in a facility of 1,868m<sup>2</sup> GIA. Costs and timing of the facility are outlined in the following section.

4.3.12 Delivery of the Sleaford Street Health Centre has been reliant on the construction programme for other developments on the same site and was originally expected to be delivered by 2023 but is now likelier to be delivered from 2025/26 onwards. Temporary upgrades to the Thessaly Road practice to accommodate growth from development in the interim were completed in 2020.

4.3.13 Developer contributions to the order of £13 million have been identified towards Sleaford Street Health Centre within LBW's Capital Programme, including funding expended to date. This includes funding towards the purchase of the lease, design and fitout of the health centre.

4.3.14 The NES s106 requires provision to be made for the delivery of a separate Primary Health Care Facility with a minimum floorspace of 1500 sqm as part of the development. The agreed Health Care Delivery Plan sets out a timeline for the delivery of this space and indicates that a decision on when the NHS Wandsworth CCG (now South West London ICB) will take the space and how much space it will require would be made in 2025. Revised timings of the NES development now indicate that the delivery of the space will likely fall beyond this decision-making timeline. Until such time as the South West London ICB concludes on the nature of additional health care requirements at NES, this project remains aspirational and no commitments are currently made in LBW's Capital Programme towards the NES Healthcare. It remains the case that whilst the provision ought to be safeguarded, there is a degree of uncertainty about when or if the overall demand will materialise, and reservations about the form in which it is expected to come forward across two units. Provision is made for regular review of requirements in the Health Care Delivery Plan.

#### Analysis of future need

4.3.15 The overall requirement for a primary health facility in the OA is not known to have changed since the 2010 DIFS. We have not revisited the calculations as part of this study because of the extensive work that has been undertaken by the CCGs, now ICBs, to inform their business case.

<sup>10</sup> S106 (Schedule 10) attached to the Battersea Power Station and Adjoining Lands 2009/3975.

<sup>11</sup> See Revised Development Specification, p. 25, BPS S73 application 2014/2837.

<sup>12</sup> 2009/3575, as amended.

### Outstanding requirements

- 4.3.16 At the time of the last DIRR, the investment for the Sleaford Street Health Facility was valued at £12.99 million<sup>13</sup>. This budget allocation was approved by LBW in July 2017<sup>14</sup> and subsequently a funding agreement between the Council and NHS was entered in 2020. This will be paid by LBW from the Nine Elms tariff/CIL.
- 4.3.17 While there is no certainty that it will be needed, the FBC sets out that the likely cost of the final phase of additional provision at Nine Elms Square of £10.63m.

### Risks and uncertainties

- 4.3.18 Delivery for the temporary facilities concluded in 2020, and the Sleaford Street Health Centre is now expected to be operation from 2025/26. Until such time as the Sleaford Street Health Centre is operational, there remains a degree of uncertainty as to its overall delivery timetable and costs. Whilst a large allocation of developer contributions has been allowed for, these funding estimates were derived from some years ago and further allocations, or scope revisions, may be required.
- 4.3.19 The business case acknowledged that the rate of uptake at the Sleaford Street Health Facility, which was expected to be completed in 2023, would be influenced by the completion of developments, which were projected to be ongoing until 2029. In the intervening years it was suggested that the facility will be underutilised, and that potential void costs may need to be underwritten by the Wandsworth CCG if temporary tenants cannot be found. This risk has been accepted by the CCG when the FBC was approved but is likely to now be partially mitigated by the delay to delivery of the facility.
- 4.3.20 If the second facility at Nine Elms Square is brought forward, the patient list is likely to be derived from both Wandsworth and Lambeth and the CCG Funding implications of this will need to be considered when the Business Case is developed. We have nominally allocated 75% of the costs to the tariff and 25% to 'other' sources to reflect this.

## 4.4 Community and cultural facilities

### Original projects

- 4.4.1 The original DIFS reported findings on 'Community centres, libraries/archives and youth provision' in Chapter 12, and 'Arts and cultural centres' in Chapter 13. This section focuses on the facilities (normally in former Classes D1 or D2 use) that are (or were) intended to be public and subject to a legal agreement with, and/or funds contribution to LBW. It is noted that there is a lot of D1 and D2 floor area to be developed that will be owned and operated by the private sector.
- 4.4.2 It anticipated a 500m<sup>2</sup> multi-use community facility was required in Nine Elms, to be co-located with the proposed primary school, now referred to as the Nine Elms primary school on the Nine Elms Parkside site. The original DIFS envisaged that this would serve the purposes of a 'traditional' community hall, capable of accommodating meetings, productions, and night school classes, rather than indoor sports facilities, to be provided separately.
- 4.4.3 It was suggested that this facility would cost £650,000, although it was acknowledged that there may be cost savings from construction with the primary school, reducing the cost by as much as 25% to £487,500. In addition to capital costs, it was recommended that the tariff should contribute £14,550 towards the annual operational costs of the community centre.

- 4.4.4 The original DIFS recommended a library of 1500m<sup>2</sup>, possibly located in the BPS development, at a cost of £600,000. This library would possibly also include an archive, at a slightly higher cost (£769,202). The operational costs of the facility would be the responsibility of LBW.
- 4.4.5 The discussion on arts and cultural centres was more hypothetical, with a more definitive strategy pending further analytical work by LBW. Specific facilities required at in Nine Elms were not identified in the original DIFS, however, it did give some consideration to provision of facilities across a broad set of categories with some potential associated costs<sup>15</sup>. It assumed any arts and cultural facilities would be contained within developments and would be phased accordingly. It was also recommended that art located in the public realm should be part of a separate strategy, which could then justify developer contributions.

### What has been delivered or is programmed

#### Community facilities and libraries

- 4.4.6 A co-located community facility was written into the requirements of the Section 106 agreement for the Nine Elms Parkside site<sup>16</sup>. The approved 'Outline School and Community Facilities Brief' makes reference to minimum areas for sports provision and community facilities but did not provide details of the community space to be provided. We note that the illustrative 2FE expansion scenario, on the neighbouring Metropolitan Police Site, also includes potential community space.
- 4.4.7 A community facility (1,575m<sup>2</sup>), in the form of a sports and leisure facility, is now proposed as part of the Nine Elms Primary School development on plot C2 of the Nine Elms Parkside site. An RMA for the school site was approved in July 2021. This development is described in closer detail in the Section 4.5 as its use is clearly aligned with sports and leisure, rather than a more 'traditional' community hall although there is potential for community use of other facilities within the school including the assembly hall on a dual-use basis.
- 4.4.8 The original 2011 Section 106 agreement for BPS included provision of a 1500m<sup>2</sup> library for occupation by LBW in the area adjacent to what would become The Prospect development<sup>17</sup>. However, the vision for this facility moved on from that of a typical library on the basis that '[often a library serves as the meeting space and backdrop for [nurturing and supporting local people], yet the reality is many libraries are either no longer fit for purpose or having to shut their doors due to funding cuts'<sup>18</sup>. This is enshrined in the 2014 Section 106, including the expectation that the facility would be operated by LBW<sup>19</sup>. The Summary of Proposals document for the S73 application confirmed:
- "This will replace a library that was originally to have been provided in Phase 6 of the masterplan. Instead, the Community Hub will provide library and other education, social and cultural facilities, accessible to all, to be delivered earlier and funded by the developer (fit out and operation of the approved library was to have been paid for by the Council under the approved masterplan)".*
- 4.4.9 The community hub would be leased to and maintained by a community interest company or social enterprise. The hub would be subject to a Community Hub Management Plan, to be approved by LBW, who would also have some reasonable influence on the facilities and services within the hub. Public access to public facilities within the hub would be ensured.
- 4.4.10 The provision of a Community Hub has remained through to the most recent Eleventh Deed of Variation to the Section 106 agreement for BPS, dated 28 February 2022. This confirms the location of the facility as Phase 3C, above part of the station box for the NLE's Battersea Park Station, at the southern end of Prospect Park.

<sup>13</sup> Nine Elms Infrastructure Programme Report to Nine Elms Programme Board, 12 June 2019.

<sup>14</sup> Paper 17-225 - June 2017 (Finance and Corporate Resources Overview Scrutiny Committee).

<sup>15</sup> These included: galleries; multi-use arts venues and theatres; production rehearsal and education space for arts activities; museums; and art in the public realm. The report emphasised that this space had to be separate from community centres.

<sup>16</sup> 2011/2462, Part Two of the Third Schedule.

<sup>17</sup> Part 5, Schedule 10, 2009/3575.

<sup>18</sup> Battersea Power Station Phase 3 Exhibition Boards, 2015.

<sup>19</sup> Schedule 10, S106 agreement Third Deed of Variation dated 5/12/2014, BPS S73 amendment 2014/2837.

- 4.4.11 As of May 2024, there is a Reserved Matters application awaiting determination which provides, inter alia, details of the precise location and disposition of the Community Hub. The Planning Statement confirms the intention of BPS to provide further details, including the specification and management plan, at subsequent stages of Phase 3. LBW's 2022-23 Housing Trajectory indicates this phase should be completed by 2029, albeit it is recognised the Community Hub could be operational sooner.
- 4.4.12 The extant Reserved Matters application confirms the intention to provide a 1,500m<sup>2</sup> community hub facility within Phase 3c of the development "to be utilised by community / cultural groups, with the programming to be managed by a specialist provider." The Planning Statement also outlines a non-material amendment sought to incorporate 191m<sup>2</sup> of community hub space within Phase 3a.
- Arts and culture**
- 4.4.13 The Nine Elms Cultural Strategy 2017-2020 sought to develop the OA as a vibrant and successful 'place'. The intended approach to achieve this includes enhancing the neighbourhoods and promoting the growth of creative clusters, particularly around a Food and Horticulture Quarter, Visual Arts Quarter, and Battersea Design and Technology Quarter.
- 4.4.14 The strategy outlines several high-level outcomes for culture in Nine Elms by 2020. Relating to potential cultural facilities, this includes that 'at least two world-class cultural institutions will have established a permanent base in Nine Elms'<sup>20</sup>. Rather than connected to social infrastructure, it is assumed these institutions would be located within some of the larger spaces delivered and operated by the private sector.
- 4.4.15 Since the last DIRR was prepared, LBW have continued to deliver an Arts and Culture Programme for the NEB area, including a variety of public art installations, temporary artworks and securing cultural anchor tenants. The impact of this programme was reviewed by LBW in 2022<sup>21</sup> which outlined:
- 28 commissions for permanent or long-term works of art in the public realm,
  - 5 cultural anchor tenancies secured,
  - Space reserved for cultural or creative industries across 11 developments,
  - Over 126,000m<sup>2</sup> of dedicated space for creative and tech sector within Battersea Design and Tech Quarter, and;
  - An overall estimation of £13.4m total investment in cultural activity, infrastructure and support of which 40% or more was secured via planning obligations.
- 4.4.16 In March 2024, LBW also learned that it was to be designated as London Borough of Culture for 2025 which may provide opportunities to support further investment in arts and culture within NEB.
- 4.4.17 LBW's 2020 Planning Obligations SPD does not provide a population to floorspace ratio requirement for culture, community, and library space, as the previous 2015 SPD did. However, based on the 2015 requirement, it is estimated that NEB will require 6,700 sqm of community floorspace (refer to Appendix C).
- 4.4.18 As of 2020, approximately 5,200sqm has been secured for arts and culture and community space in development that was planned or underway. The delivery trajectory for this space shows that it will be delivered in advance of the need arising and that the deficit does not appear until later in this decade. It is therefore important that space that has been secured but not yet delivered is brought forward as planned or increased, and not diminished, and in future appropriate facilities are secured within the sites in the OA that do not yet have permissions, and that where revisions to existing permissions are sought this deficit is considered.
- 4.4.19 As sites come forward, it will continue to be necessary to provide appropriate facilities in accordance with policy. This reinforces the need for active and ongoing management of infrastructure delivery in the area

over the long term to ensure that what is brought forward meets the current policy, an identified need and has a robust business case.

- 4.4.20 The D1 and D2 floor area secured within individual developments at the time of the original DIFS has begun to come forward and cultural anchor organisations have been appointed in line with the Nine Elms Cultural Strategy. Space has been secured within all development sites and Matt's Gallery and World Heart Beat appointed as the cultural anchor tenants at Bellway and Ballymore's sites respectively. Likewise, BLINK Dance Theatre will be taking on a tenancy in BPS Phase 4a, this space is expected to become operational in 2024/25. Theatre 503 will also be taking on space at the RMG development, which is expected to become operational in 2025.

#### Analysis of Future need

- 4.4.21 Much of the guidance that was in place at the time of the original DIFS remains relevant, and we now have greater clarity about the timing of development coming forward.
- 4.4.22 We have identified need for 6,700 sqm of community space, 1,000 sqm library space and 1,500 sqm of arts and cultural space arising from the development. As this need is based on requirements that are no longer referenced in the 2020 SPD, it is pragmatic to take a rounded view of how these are provided. We therefore think it is worth considering community, library, and arts and culture needs holistically, as the programmed hub at BPS does; our analysis indicates an overall requirement of 9,200 sqm.
- 4.4.23 On the basis that approximately 5,200sq m has already been secured, there is an outstanding need for 4,000 sqm of floorspace.
- 4.4.24 Using the standards contained in the 2015 SPD, there would therefore be a deficit of equivalent to 13 community centres at 300 sqm each. This is evidently impractical and intuitively would result in an over provision. We therefore propose the equivalent funding (£18.8m, discussed below) should be allocated to either new facilities, if space can be identified, or upgrades to existing facilities.
- 4.4.25 We note that it will be challenging to find accommodation for space of this scale and that the school facilities (1,575 sqm) are intended to provide out-of-hours access, which will be of benefit to the community as well.

#### Outstanding requirements

- 4.4.26 Applying a typical cost per sqm of £4,700 which we have found in work elsewhere in London, this indicates that a further c. £18.8m funding could be set aside to meet outstanding community needs, proportionately reduced if alternative provision comes forward through direct or organic delivery.
- 4.4.27 In relation to cultural and arts space, again the guidance on the form of this is the same that existed when the original DIFS was undertaken and many of the conclusions that we drew in that study about why it was not sensible to attach a detailed requirement and cost to those facilities remain valid. However, greater clarity is emerging with the development of the cultural strategy; and to allow those aspirations to be realised, we suggest that it is sensible to set aside funding based on a blended cost of cultural facilities i.e. £4.7m. This can then be directed to suitable projects as they arise.

#### Risks and uncertainties

- 4.4.28 In line with planning conditions for the Nine Elms Parkside planning permission, an RMA for the primary school and community facility and was approved in July 2021.

<sup>20</sup> Nine Elms Cultural Strategy 2017-2020, p. 5.

<sup>21</sup> Cultural Strategy and the Transformation of Nine Elms and Battersea, LBW 2022.

## 4.5 Open space, play space, and sport and leisure

### Original projects

#### Public amenity space

- 4.5.1 It was acknowledged prior to the original DIFS that NEB is poorly served by open space<sup>22</sup>. It was identified by the report that, due to land constraints, it would be impossible to apply the same level of provision afforded other parts of LBW if development in the OA were to be viable at all.<sup>23</sup>
- 4.5.2 Two main public open spaces were recommended:
- Linear Park: the larger open space was the 3.5-hectare park, envisaged as a strategic green link connecting Battersea Park and Lambeth Palace Gardens, and has been a central element of master planning for NEB since the OA's inception. The linear shape of the park means that it is highly accessible to all the contributing developments; however, it was noted at the time of the original DIFS that this shape would likely mean the park 'will not be possible to accommodate formal outdoor sports provision and only minimal play provision along with seating areas, etc.'<sup>24</sup>.
  - Power Station Park: a two-hectare park at Battersea Power Station was also recommended. The Power Station Park was incorporated into the original BPS planning permission (Phase 2), located between the north-facing elevation of BPS and the Thames.<sup>25</sup>
- 4.5.3 Power Station Park formed part of the original BPS hybrid planning permission. An Open Space Audit (OSA) Technical Note stated that a significant increase in provision of public open space at the site would have to be achieved to meet the target provision of 2.15 hectares (ha) per 1,000 population recommended by LBW's Open Space Study (as much as 14.8 hectares). In agreement with the original DIFS, this would be unfeasible due to the proposed density of the development, and credit was given for the offering of a 'significant amount of open space' in the form of Power Station Park.

#### Sport, leisure, and play space

- 4.5.4 The original DIFS considered sport and play space in the same chapter. Play space is driven by child population growth and has three main types based on child age group: Doorstep (0-4), Neighbourhood (5-11), and Local (12-18). The type provides guidance on what the space should contain, and how far it should be from development. Greater London Authority (GLA) Supplementary Planning Guidance (SPG) requires 10m<sup>2</sup> of play space per child at new developments<sup>26</sup>.
- 4.5.5 Doorstep play spaces are separate from private amenity spaces (such as balconies, terraces, and private gardens on ground level), but are generally located in communal amenity spaces within developments, within courtyards, on roofs, terraces or podia. Like private amenity spaces, communal amenity space is assumed within development costs.
- 4.5.6 The play space needs of older children (Neighbourhood and Local categories) are generally co-located with public amenity space. These spaces can be in the form of play areas, sports fields, and Multi Use Games Areas (MUGAs) and other playable space which children have unrestricted access to. These spaces are described in this chapter.
- 4.5.7 Sport and leisure provision is of course not limited to children. In this report we do not consider provision in the form of commercial gyms; however, we do note the intention for indoor sports facilities located at Nine

Elms primary school to be available to the general public at agreed times, as an arrangement which was promoted in the original DIFS.

- 4.5.8 The original DIFS recorded high level contributions from CIL that would go towards paying for improvements within public amenity spaces, on a per hectare basis. This assumed a more active LBW involvement in the delivery of these open spaces, which has since reduced. Instead, improvements would be delivered, and maintained, by individual developments, with LBW maintaining some operational oversight through the Delivery and Management Plans and ensuring the public nature of public amenity spaces is not eroded.

### What has been delivered or is programmed

#### Public amenity space

- 4.5.9 Linear Park: this remains the key piece of open space in the NEB area and now is expected to extend to 4.26 ha (compared to 3.5 ha in the original DIFS). The designs for the park, in various stages of detail, have been determined by the development proposals for individual sites that are host to it, particularly in design codes and parameter plans. Our current understanding of the Linear Park is therefore informed by multiple planning permissions (as varied), reserved matters approvals and associated legal agreements. LBW maintains some strategic oversight of the park's delivery. It means that the park will only be complete when all those schemes are completed; their status is summarised below.
- **NCGM - Entrance site:** the majority of which is located on the southern side of the railway viaduct (the site of the redeveloped market) within NCGM. This was granted hybrid planning permission in February 2015.<sup>27</sup> The Entrance site, comprises the western approach to the Linear Park, made up of 3,392m<sup>2</sup>, or 0.34 hectares, linking Nine Elms Lane to the Linear Park on the Royal Mail Group Site. This section of the Linear Park, being relatively small, would range from 30-45 metres in width and comprise grassed areas with some plantings and a bosque of trees.
  - **Nine Elms Parkside:** Sitting at the heart of the Nine Elms regeneration area, Parkside is a residential led mixed use scheme of 1,870 units on the site of the Royal Mail sorting offices. Structured as a series of perimeter blocks with taller elements of 23 storeys, the scheme is set around the new Nine Elms Linear Park.
  - **Embassy Gardens:** detailed design for most of the Linear Park would be determined through reserved matters applications. Some of the broad parameters of the park, and locations of key features such as play space, were put forward in the revised planning application documents<sup>28</sup>. Overall, the planning approval required 1.2 hectares for the Linear Park between Nine Elms Parkside and Nine Elms Square, spread over three key spaces: Embassy Square (5,280m<sup>2</sup>), Meux's Green (2,370m<sup>2</sup>), Mill Pond Green (2,564m<sup>2</sup>).
  - **Nine Elms Square:** the park is located in phases 1A, 2A and 2B of the development, each subject to their own approval of details with regard to landscape. The park would be between 35 and 65 metres in width in this section, and make up 10,428m<sup>2</sup>, or 1.04 hectares. At its easternmost portal the park would contain a 'gateway' public plaza opening out to an open space at the centre of the site surrounded by tall residential buildings. The open space would visually 'merge' with communal (private) open spaces associated with the residential buildings but would be separated by step changes and planting.<sup>29</sup> The development would provide a total of 12,134m<sup>2</sup> of communal amenity space located on ground level in courtyards, as well as on podium and terrace levels.

<sup>22</sup> LBW Open Space Study (2007).

<sup>23</sup> The Open Space Study recommended a quantity standard for public parks of 2.15ha per 1,000 population. Based on the population yields analysis, this would create a need for between 52ha and 55ha of land. It was also due to space limitations that allotments, at 0.077ha per 1,000 people, were considered undeliverable by the original DIFS.

<sup>24</sup> Ibid, p. 132.

<sup>25</sup> Planning permission ref. 2009/3575.

<sup>26</sup> The Mayor's Shaping Neighbourhoods: Play and Informal Recreation SPG (September 2012).

<sup>27</sup> Planning permission ref. 2014/2810.

<sup>28</sup> Design and Access Statement, Design Principles Document, revised 2012.

<sup>29</sup> 2014/2810, revised Design Code (September 2014) pp. 24-25.

- **One Nine Elms:** a relatively small open space located at the northern-most part of the Linear Park, and comprising soft landscaping and a public plaza, forming the gateway to the park.

4.5.10 Provision has been made in LBW's Capital Programme for repayments of developer contributions to the developers of the RMG, and VSM / R&F sites to reflect the direct delivery of the linear park within their sites as required by S106 legal agreements, up to a total value in the order of £10 million.

Figure 4.3: Linear Park landowners



Source: Adapted from Gillespies / Camlins Nine Elms Linear Park Ownership Plan

- **Power Station Park:** this remains the principal public amenity space at BPS. Proposals for the development known as The Prospect were amended in 2014 to include additional public amenity space and a playground, currently estimated to be 0.27 hectares. This is discussed in the following section. The majority of the park was delivered in Phase 2, except for a small corner on the Phase 1 site which is also complete.

**Prospect Place:** this forms part of the BPS scheme as was initially envisioned as a 'linear open space' comprising a large pond, before being proposed, instead, as a green space called Prospect Park with a children's play area and community hub. Prospect Park opened in 2022 and is estimated by LBW to provide 0.27 hectares of public open space.

Figure 4.4: Illustrative Masterplan – BPS Phase 2 Landscaping



Source: RMA 2019/1420, Illustrative Masterplan, DWG. NO. 3692-01-LPR-PL-LDA-DGA-P00-010.

Figure 4.5: Play Area



Source: Battersea Power Station.

4.5.11 Adjacent to the OA, the Oasis green space on Thessaly Road is a significant area of open space, at over 3,000m<sup>2</sup>. The green space had previously been closed to the public, however in May 2024, the Council

announced<sup>30</sup> its intention to re-open the space and invited the community to help shape the future of the site, including to explore the potential for utilising developer funding to improve the space.

#### Park management

- 4.5.12 Management requirements are standard for all Section 106 agreements relating to the development of the Linear Park, pertaining to security, insurance and maintenance. Initially, these are required to be undertaken via the establishment of a single entity park management company for each individual development. Associated real estate management costs would be charged to residents as part of lease agreements and would be ringfenced for management of the park parcel associated with their development.
- 4.5.13 In the longer term, 'Parkco' has been proposed as a special purpose entity to undertake these functions on behalf of the developments collectively. It also proposes to establish an advisory board consisting of representatives of each developer, and one from LBW, to manage the park, co-ordinate events, and so on. Instead of specific byelaws imposed by LBW, it is proposed that a 'voluntary community charter', also referred to as the POPS Charter for the Linear Park, drafted collaboratively, would govern use of the park.
- 4.5.14 The Section 106 agreements also require the submission and approval of Delivery and Management Plans to LBW, to assist co-ordination of the phased delivery of the park and account for specific management requirements. Parkco would implement each landowner's approved Management Plan.
- 4.5.15 The Management Plan for Embassy Gardens (Ballymore) was approved by LBW in 2016. Management Plans for other development are under preparation but have yet to be submitted. It is understood that a similar management arrangement would be established for public amenity spaces at the BPS site.

#### Play and sports space

- 4.5.16 **Playspace:** the revised hybrid planning application documents identified an overall need for 6590m<sup>2</sup> of playable space at NCGM. Doorstep playable space would be provided in communal courtyard areas of residential buildings. Neighbourhood playable space would be located within the Linear Park, with additional space located opposite the railway arches in the Apex Site.
- 4.5.17 **Sports and leisure space:** The Nine Elms Parkside development will contain two open-roof MUGAs, with one associated with the community facility, and the other with the school, although it is understood that the building has been designed to ensure flexibility between uses and enable sharing of these facilities<sup>31</sup>.
- 4.5.18 The second MUGA, nominally associated with the school, would be located on the second-floor roof above the school's main hall. In addition to the MUGA, play space for the use of the school has been provided in an external courtyard space at the centre of the school site, to be used as 'soft and hard play space' as well as 'outdoor classrooms' as extensions of internal classrooms that face out onto this space. Other outdoor play spaces are proposed to be located on roof terraces.
- 4.5.19 The 1,545m<sup>2</sup> sports and community centre would be accessed from School Lane and be spread across three levels. The reserved matters application approved in July 2021 includes provision for staff amenities; a café; changing facilities; a fitness studio; accessible changing area; and a lobby with access to a 614m<sup>2</sup> MUGA, located on the north-eastern corner of the site.
- 4.5.20 **Sports pitches:** five-a-side football pitches have been delivered on the market site of the NCGM development, on the roof of the car park building. This provides play space requirements for children and young people aged 12-18 as part of the NCGM development, with community use agreements allowing local organisations to use facilities out of hours..
- 4.5.21 Because most development has already been approved at least to outline level, open space and play space is largely committed through those permissions. We set out below a table of those key developments and

their respective commitments for dedicated open and play space and also communal or public realm, with the following section providing further analysis.

#### Future analysis of need

- **Public amenity space:** using LBW's policy standards, we estimate there is need for 6.7ha open space.
- **Playspace:** using the GLA playspace requirement of 10 sqm per child aged 0 to 17 years, we estimate there is a need for 6 ha of play space to be provided across the NEB area.
- **Sports:** we have used the Sports England Sports Facility Calculator to identify sports needs. This indicates that there is a single artificial pitch requirement and also a need for two four-court sports halls.

#### Outstanding requirements

- 4.5.22 It has already been noted that land ownership of public amenity spaces is to be maintained by developers. Development and maintenance costs are the responsibility of the developers, therefore we assume that no CIL funding is allocated to public amenity spaces or its future maintenance. This may change in the event that any of the open space were to be transferred into public ownership; however, we are not aware of any specific plans to do so or requirements through any legal agreements for this to happen.
- 4.5.23 Land for the school site will be transferred to LBW in line with agreed Heads of Terms. The funding required for the construction of the school and associated community and sports facilities is currently budgeted for in the Council's Capital Programme to the order of £55 million.
- 4.5.24 The delivery of public amenity spaces and associated play and sports facilities are subject to the development phasing of multiple developments. As landscaping and public spaces generally fall late in the phasing of developments, it can be assumed that the Linear park, as a continuous space at least, will be delivered late in the build-out of the OA.

#### Risks and uncertainties

- 4.5.25 The space within NEB is finite. LBW have already accepted that there will not be a guidance-compliant level of open space provided. In reviewing most schemes, it appears for the most part, a substantial quantum of open space has been secured.
- 4.5.26 While LBW have some oversight of the operation of the majority of public open space across NEB, there is a risk in that it is primarily in private control and therefore access to the space could be subject to control by future management operations. In order to ensure that current and future NEB residents have access to sufficient open and play space, it will be important to ensure that this access is not compromised.

#### 4.6 Emergency services

- 4.6.1 Emergency services considered in the original DIFS were policing, fire brigade and ambulance services. Engagement with the latter two is not believed to have significantly advanced since the previous DIRR; we therefore do not anticipate there is an urgent requirement for them within NEB. As noted in the Health chapter, ambulance services for NEB are principally provided by St Thomas' Hospital on Westminster Bridge Road and funding for this health infrastructure is outside the remit of this study as it is derived from different tax sources.

#### Original projects

- 4.6.2 According to the original DIFS, the Metropolitan Police Service (MPS) stated a requirement for one Neighbourhood Team Base and one Transport Team Base, partially funded by OA development, with a cost estimated at £1.38m. This assessment used the proposed number of dwellings and commercial floorspace

<sup>30</sup> [Help the council bring a neglected Battersea green space back to life - Wandsworth Borough Council](#)

<sup>31</sup> 2020/1119, submitted Planning Statement (March 2020), p. 18.

to derive a need, based on the average size of a police base and the standard number of officers required, as well as the overall impact of the increase in population would have on policing and custody requirements in the wider area.

- 4.6.3 In addition, MPS would require a contribution towards the costs of a proposed Wandsworth Custody Centre extension, located at Wandsworth Police Station at a cost of £0.75m, and potentially a new patrol base (£0.63m) to support the proposed growth. Total contributions from OA would be £2.13m funded by tariff, which were expected to be required between 2014-17.
- 4.6.4 Provision was made in Schedule 10 of the original 2011 Section 106 agreement for BPS for a 170m<sup>2</sup> 'police community office' in RS-4. Subsequent deeds of variation have changed the exact provisions, although the basic premise that a 170m<sup>2</sup> police office will be provided at 'shell and core' standard has remained intact in the Eleventh Deed of Variation, dated 28 February 2022.
- 4.6.5 The original DIFS assumed upgrades to local fire stations in the form of some new builds and refurbishments on existing sites. This could mean stations at Lambeth, Brixton, Clapham, Battersea, or Wandsworth, and a cost of £8m-£13m. The need for new station was not ruled out. Required by completion of 4,000<sup>th</sup> dwelling (then assumed to be 2017), with £0.8m attributable to OA development (tariff derived).
- 4.6.6 Since the last DIRR was prepared, there has been little indication from the Fire Service that such contributions remain required. As such, we are not aware of further developments on the discussion on fire brigade provision specifically for NEB, however we note a planning application for redevelopment of the London Fire Brigade headquarters at 8 Albert Embankment was refused by LBL. The application was for a major mixed-use development, fire brigade museum, and re-provision of the working fire station on site.<sup>32</sup>
- 4.6.7 The London Ambulance Service NHS Trust concluded at the time of the original DIFS that it had no specific capital needs arising from the proposed growth in the OA. No further comment has been provided by the NHS.

#### What has been delivered or is programmed

- 4.6.8 Key amendments to proposed MPS accommodation were made in the Fourth Deed of Variation to the Section 106 agreement for BPS. These include: an additional 13m<sup>2</sup> police facility located in RS-1; relocation of the main 170m<sup>2</sup> facility to RS-2; location of the office would be alongside a nursery.<sup>33</sup> The requirements for the larger accommodation are not substantively changed. No requirements for the smaller accommodation, other than its size, are specified.
- 4.6.9 We note that the extension to the Wandsworth Custody Centre has been delivered.

#### Future analysis of need

- 4.6.10 As noted in DIRR1, the approach to police service provision has changed substantially since the time of the original DIFS.<sup>34</sup> as police budgets have been refocused on retaining front-line staff while reducing the number of counter points to one per borough, the nearest to Nine Elms being Lavender Hill Police Station. Borough-level police units have merged into Base Command Units (BCU), responsible for 2-4 boroughs each.
- 4.6.11 This required a re-evaluation of policing requirements at Nine Elms. MPS staff responsible for the South West BCU provided some feedback on this at the time of the previous DIRR, although with the caveat that planning is ongoing, and no definitive position has been arrived at. The need for police services was also discussed with LBW's Community Safety Team at that time.
- 4.6.12 It will fall to MPS to determine the exact requirements for policing at NEB. When determining the need for police resources, the analysis takes into account population growth, local crime trends, existing provision,

and the future development context, among other inputs. It is estimated that a police presence similar to that at Westfield Stratford, being two sergeants and twelve PCs, would be appropriate, although further analysis is required. At the time of preparing DIRR1, MPS unofficially recommended a police community office capable of accommodating 8-10 staff members, fitted out to police requirements<sup>35</sup>.

- 4.6.13 We consulted the British Transport Police (BTP) in preparation of DIRR1. Our contact indicated BTP had not yet engaged in any exercise in predicting what services would be required from them as development comes forward. Engagement between BTP and LBW on this issue is expected to be forthcoming.

#### Project schedule and funding

- 4.6.14 MPS will determine the exact requirements for policing at NEB, but we assume that the accommodation provided as part of the Section 106 agreement will be required as a minimum. We note, however, that if less than what is provided for is required by MPS, any such changes must be agreed between MPS and BPS, and evidenced to LBW.
- 4.6.15 Costs for the fit out are not known but it is understood they would be met by mainstream funding from MPS.

#### Risks and uncertainties

- 4.6.16 Although it is evident that the discussion is ongoing, it is not clear exactly when decision making around the MPS presence at NEB will occur, when the services will be in place, or how much they will cost.

### 4.7 Conclusions

#### Key findings

- 4.7.1 Because the overall quantum of development is broadly established and in the years since the original DIFS was undertaken, social infrastructure providers have undertaken significant additional work to establish what that means for the delivery of infrastructure, while we have set out a short summary here, we focus primarily on phasing i.e. the trigger points at which the infrastructure might be needed.
- 4.7.2 **Education:** Since the DIFS, it has been possible to establish a more accurate population projection for NEB. Age group projections have been used to estimate need at different school levels, subject to discounts, undertaken in collaboration with LBW's Education, Performance and Planning Division. It is assumed that the education needs of children already residing in NEB (as of 2024) are already being met via the existing education provision. Therefore current requirements are based on need arising over the period 2024/25 to 2032/33.
- 4.7.3 The two-FE Nine Elms Primary School would accommodate all of the current requirement (3.5 FE) when it becomes operational. Permission was granted in July 2021, with enabling works commencing July 2023. It is anticipated that the earliest the school could be operational is 2025/26. The cost of this school, and co-located community and nursery facilities, would be around £55 million with approved funding from LBW's Capital Programme. However, there remains a potential funding gap in the order of £15 million, but there is the potential to close this gap or seek third-party funding. The additional expansion of St George's Primary School is no longer considered necessary.
- 4.7.4 52 early years places are expected to be delivered alongside Nine Elms Primary School, with potential for more as part of the BPS development. It is expected that the majority of early years schooling will be provided by the private sector.

<sup>32</sup> LBL application reference 19/01304/FUL.

<sup>33</sup> Schedule 10, S106 agreement Fourth Deed of Variation dated 3/12/2015, 2015/3555; these amendments remain intact in the most recent Ninth Deed of Variation, signed 4/11/2019.

<sup>34</sup> See Greater London Authority's MOPAC/MPS Public Access Strategy (2017).

<sup>35</sup> Requirements would include changing room and lockers, welfare area, meeting room, interview room.

- 4.7.5 There is a current requirement for 2.1FE of secondary provision and 1.9FE of sixth form provision. No new provision is required as result, as need is expected to be accommodated in existing and planned growth of secondary schools in the borough.
- 4.7.6 **Primary healthcare:** Since the last DIRR was prepared, the Sleaford Street Health Centre has significantly progressed and will provide a 1,868m<sup>2</sup> GIA facility supporting 19 healthcare professionals. It is anticipated that the facility will be operational from 2025/26 onwards Developer contributions to the order of £13 million have been identified towards Sleaford Street Health Centre within LBW's Capital Programme, including funding expended to date. The delivery of an additional separate Primary Health Care Facility with a minimum floorspace of 1,500 sqm is required by the NES s106. The requirement for this is due to be reviewed by South West London ICB in 2025.
- 4.7.7 **Community, library & cultural facilities:** A community facility (1,575m<sup>2</sup>), in the form of a sports and leisure facility, is now proposed as part of the Nine Elms Primary School development on plot C2 of the Nine Elms Parkside site.
- 4.7.8 The library facility that was originally envisioned in the BPS Section 106 has emerged from subsequent variations as a 1500m<sup>2</sup> Community Hub, to be located on the southern end of Prospect Park above the NLE station portal, and developed to shell and core standard. The hub would provide a mix of community, cultural and arts facilities, and a library.
- 4.7.9 Based on existing requirements, there is a shortfall in provision on a square meter basis. As discussed in the section above it may not be practical to provide this onsite, but it may be appropriate to use the equivalent contributions towards provision to enhance the existing facilities in future.
- 4.7.10 **Open space, play space, sport & leisure:** The majority of the open space available for future residents of NEB will be in the linear park, a central feature of master planning in the OA from early days, and comprising land contributions from four large development sites. Delivery of each development's section of the park is funded by the developer.
- 4.7.11 It was acknowledged prior to the original DIFS that the provision of the linear park would not supply residents with the same level of open space afforded in the rest of Wandsworth, however the estimate given around time of the DIFS would be a park of 4.5 ha. The current estimate is slightly less at 4.26 ha.
- 4.7.12 Key public spaces associated with BPS are Power Station Park, divided between BPS Phases 1 and 2 and located between the north-facing façade of BPS and the Thames, and the smaller Prospect Park in Phase 3. Both parks are now open.
- 4.7.13 Play space requirements vary according to population projections of different age groups for each development, which have been subject to ongoing variations as the balance of residential units has shifted within sites. Doorstep and neighbourhood typologies are typically located in communal courtyards and on roof terraces. A larger, publicly accessible Neighbourhood playing space is proposed at the Basin Fields within the linear park. Play space for older children and adults, suitable for organised sports, is located offsite at Battersea Park, in the case of BPS, or MUGAs. MUGAs have already been provided onsite at the RMG site, and are proposed on the Nine Elms School site.
- 4.7.14 **Emergency services:** During the preparation of DIRR1, commentary on emergency services were provided by the Metropolitan Police, but no updates were provided for fire, ambulance services, or by British Transport Police. This position is unchanged at the time of writing.
- 4.7.15 Provision was made for police services in the Section 106 agreement for BPS, as amended. The space provided for police would comprise a 170m<sup>2</sup> area in in RS-2, and a 13m<sup>2</sup> space in RS-1. Policing in London has been substantially restructured in London in the years since the original DIFS. The Metropolitan police are undergoing an evaluation of the precise policing requirements at NEB, which has yet to be formalised. It is understood facilities would be provided to shell and core standard, with fit-out funded by the police.



## 5 Transport infrastructure

### 5.1 Introduction

- 5.1.1 In this section we will consider what was originally identified and assumed, explore what has changed and why, consider what we think is now needed, and set out the cost and timing for a similar range of transport infrastructure projects that meet the principles and objectives of the DIRR1 which is itself based on the original DIFS.
- 5.1.2 We will also consider what has been spent to date and what funding is now required, as well as identifying the likely delivery programme through a project schedule. We conclude by identifying the risks and uncertainties in relation to the provision of transport infrastructure.
- 5.1.3 It should be noted that we capture urban realm improvements in this chapter, as opposed to another, as infrastructure that encourages modal shift.

### 5.2 Original projects

- 5.2.1 The key transport projects identified in the DIRR1 were the Northern Line Extension (NLE), which provided two new stops within NEB (at Nine Elms and Battersea Power Station) on a new branch from Kennington, an upgrade to Battersea Park station and a holistic corridor improvement scheme on Nine Elms Lane which includes highways and bus improvements, together with pedestrian and cycle improvements. These three schemes were envisaged as being key in opening up the accessibility of the OA from the wider area.
- 5.2.2 More broadly it was envisaged that substantial costs (£50m) would arise from changes and extensions to bus services, as well as new routes within the OA. Other public transport projects entailed upgrades to a number of the existing stations including Queenstown Road, Battersea Park and Vauxhall, the latter in neighbouring LBL.
- 5.2.3 The DIRR1 identified a range of pedestrian and cycle links and improvements. These new links were primarily aimed at repurposing what were previously industrial or commercial routes, improving connectivity within the OA, particularly focused on overcoming the north/south severance associated with the elevated railway lines, and opening access to the river through projects such as the river walk. Related to this, new river piers were identified to support river boat access to the OA.

#### Summary of the DIRR1 transport projects (LBW only)

Combined	Nine Elms Lane highways, pedestrian and cyclist improvements, public realm and bus
Public transport	Queenstown Road Corridor Scheme Northern Line Extension Increased bus capacity Minor improvements to Queenstown Road station Improvements at Battersea Park station New piers for boat service
Pedestrian & cycle links	Improve pedestrian connection between Battersea Park station and OA River walk Cycle hire Pedestrian and cycle bridge to Pimlico Road improvements including Thessaly Road links

- 5.2.4 The NLE, which opened in Autumn 2021, did not form part of the study. Funding for the NLE project was in part secured through Section 106 contributions from developers, with the balance to be funded from the uplift in business rates generated in the area through a TIF (Tax Incremental Financing) arrangement.
- 5.2.5 While outside the NEB area, there have been extensive improvements to Vauxhall station which were identified in the original DIFS but not funded from the tariff and instead were funded by TfL and Network Rail.

### 5.3 What has been delivered or is programmed

- 5.3.1 Since the DIRR1 was written, a number of transport projects have completed, others are in a development or delivery phases, and others are yet to start. A number of projects have been identified or further defined through work over the last ten years including the Cycling Strategy and TfL “Nine Elms on the South Bank (NESB) Designing for Cycling 2013”, and the Battersea Design and Technology Quarter study which are aligned with the principles of improving ‘Strategic Links’ articulated in the original OAPF and DIFS.
- 5.3.2 **Nine Elms Lane / Battersea Park Road Corridor Scheme:** A programme of improvements along the Nine Elms Lane / Battersea Park Road corridor have already been delivered, including along Nine Elms Lane and Battersea Park Road, focusing on cycle improvements, improved crossings and pedestrian and street scene improvements that provide a holistic scheme for the whole corridor in line with the Healthy Streets agenda. An interim scheme improving walking and cycling infrastructure had been delivered, at the time of DIRR1. Since then, a section of improvements around Battersea Power Station was completed to coincide with the opening of the NLE.
- 5.3.3 Progress has also been made with the design stages of a permanent scheme from Vauxhall to Macduff Road, with Public Consultation held in 2017. Following this, the western end of the scheme from the Duchess Bridge to Macduff Road returned to the design stage to address issues raised in the original consultation. A new consultation on proposed improvements between Duchess Bridge and Macduff Road was held between February and April 2022. In early 2022, consultation was held on some design changes to the scheme affecting the western section on Battersea Park Road, between the junction with Macduff Road and the Duchess Bridge. Given the time that has elapsed since the original consultation, the nature of further improvements required will need to be subject to further consideration by WBC and TfL, on the basis of relative need and value for money.
- 5.3.4 Experimental changes were implemented to Cycleway 8 between Chelsea Bridge and Wandsworth town centre in June 2021. Cycleway 8 is in the top five per cent of routes in London with the greatest potential for people to cycle<sup>36</sup>. Following favourable analysis of the route’s performance and assessment of the consultation responses, TfL decided to implement a number of changes with respect to Cycleway 8 as it currently stood, including on Prince of Wales Drive, Macduff Road, Battersea Park Road and York Road. The changes included provision of bus and cycle lanes, amendments to parking, changes to junctions including advanced stop lines (ASLs) and banning certain movements, and enhancing wayfinding. These changes are expected to be implemented by spring 2026.
- 5.3.5 The 2022 LBW Infrastructure Delivery Plan estimated the overall delivery cost of the Nine Elms Lane / Battersea Park Road Corridor Scheme at £24m. These costs assume the delivery of the full improvement programme, which, as above, it would be prudent to monitor and review on the basis of relative need and value for money.
- 5.3.6 While build out within NEB is on-going, with several key sites including NCGM interfacing directly with Nine Elms Lane, it remains the case that improvements which are primarily focused on cycling, walking and the wider public realm are being carried out in phases. At the western end, Nine Elms Lane connects with Battersea Park Road which forms part of the Queenstown Road corridor.
- 5.3.7 **Queenstown Road Corridor Scheme:** Improving this key north south route is a priority for LBW, with the safety upgrade looking to tackle the pedestrian and cyclist collision hotspot. WSP undertook a study on behalf of LBW on the Queenstown Road Corridor (January 2020). This study was underpinned by the Mayor’s Healthy Streets approach and therefore focused on supporting more active modes of travel along the

<sup>36</sup> <https://haveyoursay.tfl.gov.uk/walking-and-cycling-changes-chelsea-bridge-wandsworth-town>

- corridor, as well as promoting bus usage, through road space reallocation including around Battersea Park station (but retaining general traffic), integrated local transport hubs again including Battersea Park station as well as corridor-wide public realm enhancements. This report was considered by LBW committee in February 2020.
- 5.3.8 In February 2024, LBW's Transport Committee resolved to approve a section of improvements between Chelsea Bridge and Queen's Circus. Detailed design work is now underway for this section with ongoing discussions with TfL, which is part-funding the improvements. It is intended that construction is coordinated around works on Battersea Bridge (TfL-led) and works on Wandsworth Bridge (LBW-led) with works expected to start in late 2024/25.
- 5.3.9 Works to bring forward improvements south of Battersea Park Road are ongoing.
- 5.3.10 **Increased Bus Capacity through Nine Elms:** There has been less certainty about the nature and scale of potential bus network changes. In 2013 TfL undertook a comprehensive review of the future demand for bus patronage in the OA which was expected to occur by the time the NLE was operational in 2021, and then by the time the VNEB developments area were occupied in 2031. The review identified two suitable options catering for the future bus demand, each with similar costs of approximately £4m per year. Section 106 financial contributions from developers in the area would be required in order to support the increases in bus capacity.
- 5.3.11 TfL undertook a comprehensive review of future demand in the OA in 2013<sup>37</sup>. Based on the then-phasing of development in the OA, it was expected that route reinforcements would be needed by 2018 when it was forecast that 34% of development would be complete, generating up to 4,000 bus trips per day on Nine Elms Lane. Two main options were identified, both with similar cost implications of approximately £4m per year:
- Extension of routes 417 (then terminating at Clapham Old Town) to Waterloo via Queenstown Road and Nine Elms Lane, and 452 to Vauxhall (from Wandsworth Road Station), together with some frequency increases<sup>38</sup>, or;
  - New Nine Elms Lane and Queenstown Road route, linking Sloane Square, the OA and onto Waterloo, together with frequency enhancements to route 77.
- 5.3.12 As part of a review undertaken by TfL in 2018, it was confirmed that there were no plans for new bus routes or increased frequency along Nine Elms Lane and Battersea Park Road. As set out above, the scale of contributions that were expected were significant and while there have been some incremental changes to the network in that time, there have been no wholesale changes and these have not required funding via any tariff contributions.
- 5.3.13 The OA is currently served by a number of bus routes including:
- Route 77: Tooting to Waterloo via Nine Elms Station and Vauxhall;
  - Route 156: Wimbledon to Vauxhall via Battersea Park Station and Battersea Power Station;
  - Route 344: Clapham Junction to Liverpool Street via Battersea Park Station, Battersea Power Station and Vauxhall;
  - Route 436: Lewisham to Battersea Park Station via Vauxhall and Battersea Power Station; and
  - Route 452: Ladbrooke Grove to Vauxhall via Nine Elms Station.
- 5.3.14 Several of these services run 24 hours a day.
- 5.3.15 The aforementioned extension of route 417 has not yet taken place at the time of writing (June 2024).
- 5.3.16 Our discussions with LBW at the time of the DIRR1 indicated that, although NEB had a large residential population, there had been several factors which delayed decision making on bus investment in the OA, namely: whether the Vauxhall Island site which accommodates both the Vauxhall gyratory and bus station will be redeveloped; and whether a new pedestrian/cycle bridge will be introduced over the river to Pimlico. The Secretary of State has now approved the Island site planning application and planning permission for changes at Vauxhall was granted in April 2020; however given that at the time of writing (June 2024) the Vauxhall bus station works have not been implemented and it is not clear whether the permission remains extant, it is likely that TfL would need to apply again for planning permission if it wishes to progress with the works at Vauxhall.
- 5.3.17 A further conundrum is about wider network changes; the question of whether there is a new river crossing from NEB is also a consideration, such that introducing an additional pedestrian and cycle crossing may reduce the rationale for cross-river bus route enhancements.
- 5.3.18 In 2022, TfL consulted on a Central London Bus Review<sup>39</sup> which included proposed changes to route 211 between Hammersmith and Waterloo which could see this route rerouted at Chelsea Bridge Road and Waterloo so that it would serve the VNEB area. If this rerouting were to go ahead, a new link would be created between the VNEB area and central areas north of the river. In its Consultation Report and Decision Summary, published in early 2023, TfL announced its intention to proceed with the changes as proposed; however, at the time of writing (June 2024) the changes are yet to be implemented.
- 5.3.19 Overall, discussions with LBW have indicated that spending on bus services improvements is still expected to be incremental rather than wholesale, to reflect changes in travel patterns as they emerge.
- 5.3.20 **Extension of Bus Route 315 from Balham Station to Springfield University Hospital:** As part of the redevelopment of Springfield University Hospital (planning application reference 2010/3703), buses are proposed to be extended from their existing terminus at Balham Station to serve the hospital. This will provide connectivity throughout the week, daytimes and evenings, to Northern Line and Southern rail services at Balham and Tooting Bec stations. At the time of writing (June 2024), the route has yet to be extended from Balham to serve the hospital. TfL stated that the route extension would be introduced subject to funding and the provision of future infrastructure. A bus service support contribution of £1.515m is due to be paid by the applicant to TfL to fund bus service improvements, which are expected to be put in place in summer 2024.
- 5.3.21 **Thames River Path:** Improvements to the Thames River Path are now underway, with Phase 1 of the Thames Path improvements project now complete. Engagement with LBW indicates that the completed sections of the River Path are well used following this investment. Further phases are not proceeding at this time, although some localised safety improvements will be taken forward in the short-term, including illumination of the link bridge under Chelsea Bridge connecting the River Path to Battersea Park.
- 5.3.22 The Nine Elms Pavilion, constructed in Phase 1 of the Thames Path improvements, was granted a temporary planning permission that expires in June 2024. The project will require a proposal to either extend the existing permission, seek an alternative use for the Pavilion to maximise the opportunity of the infrastructure provided or remove the structure in accordance with the temporary permission and reinstate the land within the public realm. Each option will come with a different level of expenditure, but illustrative figures are £20k to remove the Pavilion and reinstate, with the repurposed Pavilion potentially ranging from £20k to £250k.
- 5.3.23 Improvements to the River Path are now underway, with Phase 1 of the Thames Path improvements project now complete and Phase 2 in the planning stages. However, the walk itself cannot be completed until all the riverside development sites come forward, so that while there remains uncertainty over the future of sites such as Cringle Dock where works are expected to continue to 2025, the walk will continue to have a

<sup>37</sup> <http://content.tfl.gov.uk/future-bus-demand-in-the-vauxhall-nine-elms-battersea-opportunity-area.pdf>

<sup>38</sup> Note this refers to the 452 extension which happened, but not the 436 extension which was also extended to Prince of Wales Drive from Vauxhall.

<sup>39</sup> <https://haveyoursay.tfl.gov.uk/busreview>.

number of inland diversions in place in the interim. The proposals for the Nine Elms – Pimlico bridge offer an opportunity for continuing and improving the Thames Path at its landing location on the southern side (see Figure 51).

- 5.3.24 **Nine Elms – Pimlico Pedestrian and Cycle Bridge:** LBW had previously been a promoter of a new pedestrian and cycle bridge over the river, which was proposed to have its southern landing site in the Kirtling Street cluster of development east of Battersea Power Station. The new bridge would connect Wandsworth to Pimlico, serving both local trips (such as to the nearby Battersea Power Station) as well as forming part of longer-distance journeys for cyclists in particular who would be displaced from their existing river crossings (Chelsea or Vauxhall bridges).
- 5.3.25 The bridge has gone through several stages of both design and business case and is referenced in the LBW adopted Local Plan (2023). This confirmed a preferred southern landing site as the Kirtling Street / Cringle Street riverside site, which will only become available for development when the Tideway project is complete i.e. post-2024. Further design work on the bridge was paused in 2020 pending further discussion with Westminster City Council (WCC) and the GLA on their support for the project.

Figure 5.1 Indicative location of the proposed Pimlico to Nine Elms pedestrian and cycle bridge



Source: Wandsworth Local Plan 2023-2038

- 5.3.26 Unlike many of the other projects identified within this study, the proposed bridge would serve both NEB residents and workers as well as providing a link for residents and workers in Pimlico and further afield to the new town centre at Battersea Power Station, as well as providing an alternative route for pedestrian and cycle trips over the river which currently cross over Chelsea or Vauxhall bridges i.e. benefits will accrue out with the NEB area.
- 5.3.27 The current cost estimate for the construction of the bridge is estimated at £42.5m, of which £2.4m has been spent. Whilst the project has concluded RIBA Stage 2 and gone through an extensive period of consultation to select a preferred location, the project has not substantially progressed since DIRR1 and is not subject to active development. Therefore, were the project to resume, this estimate should be viewed as an order of magnitude rather than a precise costing.
- 5.3.28 **River services:** On the river itself, two new riverboat piers are now operating within the OA, including one within the NEB area at Battersea Power station. This is served by the RB1 between Barking and Embankment, RB2 between North Greenwich and Putney (weekends only) and RB6 between Putney and Canary Wharf (weekdays only). No further stops are expected to be introduced.
- 5.3.29 **Improvements at Battersea Park station:** The need for upgrades to Battersea Park station were identified in the DIRR1 as a result of higher passenger flows from both new residents and workers, together with future potential interchange opportunities with the NLE. Further feasibility work has now been undertaken to progress the details of this scheme which comprise opening a new entrance to the north, away from the existing building on Battersea Park Road, together with a new pedestrian walkway on the eastern side of the station linking to Battersea Park Road and Prince of Wales Drive, to GRIP stage 3 (Governance for Railway Investment Projects). LBW considered the outcome of GRIP 3 in September 2021 and agreed to move the scheme forward to PACE 2 (National Rail's equivalent to GRIP 4 and 5).

- 5.3.30 We understand that LBW, as part of its developer service agreement with Network Rail whereby it has committed to funding GRIP stages 3-5 (PACE 2) i.e. to detailed design, has sought to limit its capital liability to £16.89m, in expectation that Network Rail will be leading negotiations with the Department for Transport to meet any funding shortfall, estimated by the previous DIRR at £14m. Authorisation to proceed with PACE 2 (Project Acceleration in a Controlled Environment) work was obtained through the committee process in September 2021, although some delays have been experienced to allow for the franchising process to conclude. Pre-PACE 2 work is now expected to conclude in 2024.
- 5.3.31 Policy PM3 of LBW's Local Plan adopted in 2023 also states that the Council will work with partners including TfL and Network Rail to deliver a future all-day London Overground service from Battersea Park station.
- 5.3.32 Costs of between £34.1m and £35.6m, including 40% allowance for risk and contingency, were identified for the second entrance at Battersea Park station. However, so too was a potential funding gap; previous estimates for this project had been in order of £20m, and funding was largely secured on this basis, including c.£4m from S106 agreements within the NEB area. LBW now has approximately £17m at its disposal for the project, plus a further £4m of DfT Access for All funding; there are therefore plans to revise the proposals to work within the available budget of circa £21m.
- 5.3.33 **Improvements at Queenstown Road station:** A new entrance is proposed at Queenstown Road station, in order to improve connectivity with nearby Battersea Park station. The entrance would be located on Patcham Terrace, thus offering a more direct route between stations. The works would also represent the opportunity to deliver step-free access for Queenstown Road station which at present, like Battersea Park, is not fully accessible. The 2022 LBW Infrastructure Delivery Plan refers to the cost of the new station entrance as £700,000, to be funded by the developer, Taylor Wimpey, through the s106 agreement. Access will be provided, as a minimum, between 7am and 7pm or the existing hours of the station (whichever is later). These improvements have been the subject of delays with current expectations around a start date within 2024/25.
- 5.3.34 **Battersea Power Station Western Tube Entrance:** The NLE opened in September 2021, including the terminus station at Battersea Power Station with one entrance, accessible on street level from Battersea Park Road. In future this will be the station's eastern entrance; primary enabling works for a western entrance to Battersea Power Station Tube station commenced in late 2023 and are programmed to be completed in 2025. The western entrance will be accessed from Electric Boulevard within the wider Battersea Power Station development.
- 5.3.35 **Duchess Road underpass:** Plans are also underway to refurbish and re-open the disused underpass under Duchess Bridge for public use. This investment, planned to be delivered under a Battersea Power Station S106 obligation, would enable improved pedestrian access between Stewarts Road and the Battersea Power Station development.
- 5.3.36 **Cycle Hire:** There have been other shifts since the original DIFS was undertaken; for example, the study made provision for cycle hire stands. However, while TfL continues to operate a cycle hire network with fixed stands, increasingly it is competing with private non-fixed bicycle provision such as Lime/Jump. Consequently, the rationale for the infrastructure is no longer solely the responsibility of the public sector and instead commercial operators are expected to meet the need.
- 5.3.37 LBW is currently conducting consultation on up to 141 proposed bays for dockless e-bikes and e-scooters. LBW is in discussions with providers of both these forms of transport to bring them to the borough: the e-bike bays would double as e-scooter bays assuming the completion of agreements between TfL, operators and LBW to extend the e-scooter trial into Wandsworth. Within the OA, parking bays for e-bikes and e-scooters are proposed on Ace Way, Sleaford Road, Stewart's Road and two on Thessaly Road.
- 5.3.38 **Cycle Parking at Railway Stations:** The 2022 LBW Infrastructure Delivery Plan refers to £500,000 of strategic CIL (SCIL) funding allocated to improving cycle parking provision at railway stations across the borough, several of which are within NEB. The requirement is expected to be relaxed to cover a greater range of locations beyond just railway stations.

- 5.3.39 **One-way Street Conversion to Two-way Cycling:** The Infrastructure Delivery Plan also saw £495,000 of SCIL allocated for the conversion of a number of one-way streets across LBW to facilitate contraflow cycling, though details are not provided with regards to the location of these within the borough.
- 5.3.40 **Speed Limit Reduction:** In 2024 TfL was in the process of reducing speed limits to 20mph on its roads within the borough, to complement the existing 20mph limit across all residential streets managed by LBW. Among the key TfL roads affected by the speed limit reduction include Nine Elms Lane, Battersea Park Road, Wandsworth High Street and Balham High Road.
- 5.3.41 **Wandsworth Local Plan 2023-2038:** The most recent Wandsworth Local Plan was adopted in July 2023, setting out the policies and guidance for the development of the borough for this 15-year period.
- 5.3.42 The Local Plan considered the need for creating a safe connection between Nine Elms Lane and Cringle Street, as well as introducing improvements to Sleaford Street to create a path of a usable width for walking and cycling. LBW will support the creation of a pedestrian and cycling link between Havelock Terrace and Ingate Place, as currently the width is sub-standard. The Council considers the reconfiguration of Nine Elms Lane to be required in order to provide a high-quality pedestrian environment, along with providing links from the south. The creation of a new east-west pedestrian route as part of the New Covent Garden Market development would connect Pascal Street to the railway viaduct and Arch 42.
- 5.3.43 The Local Plan encourages connectivity between different links including either side of the main railway line, such as a pedestrian and cycling link between NE6 Havelock Terrace and NE7 Ingate Place.
- 5.3.44 **ANPR:** An aspirational project led by LBW's community safety team would have seen automatic number plate recognition (ANPR) technology used in Nine Elms. While it did receive funding approval in 2021, the challenges around the project, and in particular the ongoing maintenance requirements on behalf of the Metropolitan Police, make it unlikely that the project will proceed in the foreseeable future.
- 5.3.45 **Thessaly Road Links:** Implementation of improvements to Thessaly Road along its entire length and in the context of surrounding regeneration have been delivered. Initially this included the Yinka Illori Bridge Art Installation in 2019 followed by CPZ implementation in 2020, and finally the implementation of highways improvements along the length of Thessaly Road to improve facilities for pedestrians and cyclists.

## 5.4 Analysis of future need

- 5.4.1 Since the original DIFS was written, the Cycling Strategy and NESB Designing for Cycling 2013 were produced, which identified a number of key projects in line with the principles of the original projects identified in the DIFS.
- 5.4.2 **Viaduct Cycle Route:** The NESB Designing for Cycling 2013 identified a continuous cycling link running parallel to the South West Main Line as a key active transport link. Whilst the majority of the route would see pedestrians and cyclists using secondary roads e.g. Ponton Road, it would also require provision of a car-free link across the NCGM entrance, to link Ponton Road with Sleaford Street and Thessaly Road. The study attributes responsibility for this to TfL and the Covent Garden Market Authority as landowner of NCGM. An estimate has been made in the project schedule of the likely costs for the delivery of this route. However, there are other land interests that abut the route, and there is no obligation in the outline NCGM permission that requires the delivery of such a link; therefore, whilst desirable in order to deliver a cycle link running alongside the railway arches running along the spine of the NEB site, there is currently no delivery mechanism for the project.
- 5.4.3 In 2019, LBW commissioned a study to define the strategic direction for the **Battersea Design and Technology Quarter**, to validate the concept of a creative design and technology cluster to the south west of the OA. That study reflected the strong existing design community in this part of Battersea and leveraged the opportunities that will arise from the expansion of the Royal College of Art's Battersea campus and the 'Apple effect'. The study defined the scale of the opportunity together with recommendations on how the council can facilitate and shape the Quarter, which included two major infrastructure proposals – creating a pedestrian connection between Havelock Terrace and Ingate Place, and improvements to Silverthorne Road & Queenstown Road Junction. These potential improvements are not currently in LBW's Capital Programme

and their feasibility has not been confirmed. Were they to be progressed, the next step for each of these schemes would be for LBW to bring forward feasibility studies that will assess the feasibility and costs for both schemes to inform future programming and funding decisions and allocate these appropriately to future development schemes.

- **Pedestrian and cyclist connection between Havelock Terrace and Ingate Place:** Providing a new walking and cycling connection that links the Havelock Terrace industrial area with the Ingate Place industrial area will help to create a more connected car-free network. This is particularly important in an area that suffers from significant severance primarily as a result of the multiple railway lines that cross it. The LBW Local Plan 2023-2038 states that LBW will support the creation of a pedestrian and cycling tunnel between Havelock Terrace and Ingate Place. This was further confirmed via the Extending the Low Line vision report (produced by the LBW and LBL, 2024); however, the report classified the scheme in the highest category for both complexity and cost of delivery, and it remains a long-term project.
- **Silverthorne Road & Queenstown Road junction:** Due to the current land uses, a high number of HGVs access the site throughout the day. The study established that it is not appropriate to relocate these uses, however, significant issues remain, not least of which are the conditions along the largely residential Silverthorne Road, which suffers from a lack of positive, active frontage along its eastern edge in addition to the aforementioned HGV movements. The study identified that one possible solution would be to relocate the access to the Abellio site, such as by creating a new arm to the existing junction of Queenstown Road with Silverthorne Road. That option would potentially enable HGV's to be re-routed to avoid Silverthorne Road and potentially enable a new, positive frontage to be introduced.

- 5.4.4 **Ponton Road improvements:** when Ponton Road was diverted to its current location in 2012, it was specifically designed at its northern end to facilitate construction and no changes were made along its east-west axis which follows the viaduct. LBW has identified that as this will be a critical north-south connection that crosses the future Linear Park, and a key east-west pedestrian route, it is necessary for a more holistic public realm scheme to be brought forward that re-prioritises active travel modes in the future state. Improvements to the southern end have already been brought forward through s278 agreements, with funding secured for improvements to the east-west axis. As the road abuts a number of development sites at its northern end that are yet to complete construction there is an opportunity for this approach to be applied to future developments and for the improvements scheme to be brought forward by developers in the first instance. Such improvements are not currently in LBW's Capital Programme and any decision to progress with improvements depends on the completion of further construction in the NEB area. The vision for Ponton Road is further set out in the Extending the Low Line vision report as shown in Figure 5.2 including a potential link to Thessaly Road.

Figure 5.2 A Vision for Ponton Road



Source: Extending the Low Line.

5.4.5 **Extension to the Lowline:** An extension of the very successful Lowline in Southwark to the Opportunity Area has been identified by LBL as a potential project to bring forward in partnership with LBW. This sets out a vision and strategy for the 299 viaduct arches in VNEB and spaces/routeing around these arches. The Low Line: Vision for Activation and Delivery study<sup>40</sup> is now complete and was formally launched in January 2024 at a joint event with LBL. LBW is now considering the development of a delivery strategy which can prioritise specific project plans and identify appropriate funding. Outputs of the strategy could include improved branding, wayfinding and lighting.

5.4.6 The strategic project areas set out in the vision document are set out below with some of the key projects:

- New Covent Garden Market – public realm upgrades, new gateway, improved arches, and establishing a last mile delivery hub,
- Goding Street – lighting, arch improvements, and Goding Street transformation,
- Randall Road – public realm improvements and gateways, and;
- Newport Street – Newport Street transformation, junction improvements, gateways and public realm works.

5.4.7 The projects mentioned above are assessed in terms of their impact, complexity, cost and timescale.

5.4.8 **Arch 42:** Arch 42 is a project to provide gateway improvements to the new continuous north-south pedestrian and cycle link along Panton Road and Pascal Street by opening Arch 42 beneath the railway line. The project is currently paused.

5.4.9 **Freight consolidation:** Given the high density of development within the OA, there is potential for freight consolidation which would lead to more environmentally friendly deliveries. This would not necessarily require a physical piece of infrastructure dedicated to processing logistics within the study area, though the Wandsworth Local Plan 2023-2038 lends its support to urban logistics hubs where their locations do not

conflict with adjoining land uses. The OA's adjacency to the Thames also offers the possibility of freight being brought in via river and transferred onto bike for last-mile delivery within the OA.

5.4.10 A scheme of this nature has been identified as a possible measure to reduce congestion and improve air quality in the long term. This would require coordination of delivery and service plans to identify opportunities for efficiencies and consolidation of deliveries by sector within NEB. This is at the earliest stages of discussion and costs and requirements will need to be developed and costs apportioned accordingly.

5.4.11 **Wandsworth Infrastructure Delivery Plan:** The Wandsworth Infrastructure Delivery Plan was published in January 2022<sup>41</sup>, subsequent to the DIRR1. It identifies infrastructure requirements across the borough, and therefore overlaps with the DIFS and its successors in terms of many of the projects listed. Elements of transport infrastructure within the borough which were highlighted by the report as being under pressure or which could benefit from investment included:

- Buses: while poor network coverage can be an issue further within western parts of the borough, further east into the OA the dominant challenge becomes overcrowding. Population growth has contributed to this, as has the high public transport mode share within LBW. Within the OA, river buses represent an increasingly attractive option with the ability to take pressure off buses, and there is the opportunity to explore how this could be further enhanced through pricing structures etc. in future by TfL. Active travel modes, too, can play an increasing role in taking pressure off buses.
- The Infrastructure Delivery Plan also notes that many bus routes have average speeds of 10mph or less on many roads; collaboration between LBW and TfL should be adopted to increase the efficiency of bus speeds.
- Cycling: TfL's Analysis of Cycling Potential 2016 study identified 37,200 existing cycling trips and 302,400 potentially cyclable trips per day that could be made by residents of the borough. Not only could a large number of trips currently made by private car switch to cycle, but there is also the potential to switch from public transport to cycle which in turn relieves pressure on elements of the network which are under strain. As this study dates to 2016 there will have been further change in travel patterns (including due to Covid-19) since that report. This makes it more likely that the strong demand for cycling can replace certain journeys made by other modes now that the NLE is open and bus route changes have been made within the OA.

## 5.5 Conclusions

### Key findings

5.5.1 With the transformational NLE now operational, there are a number of other transport projects within the OA which have the potential to deliver further transport benefits to the study area. Many of these are smaller in scale including a focus on active travel at a local scale; however, this makes them no less important, particularly for example when viewed in the context of providing additional entrances and step-free access to railway stations.

5.5.2 TfL's current expectation is that future bus provision changes are likely to be incremental in response to other projects and changes. The developments taking place in NEB have progressed in recent years and this has in turn led to the bus network being reshaped as a result, as such, further modifications to routeings cannot be ruled out. It is proposed to modify the cost implications accordingly.

5.5.3 A number of future transport infrastructure improvements are identified, and while some may be subject to greater uncertainty than others (as discussed below), there are a range of opportunities for LBW to improve transport within the borough directly, as well as to work with other partners through the use of funding.

<sup>40</sup> [https://lambethnow.co.uk/wp-content/uploads/2024/01/240130\\_Low-Line-VNEB\\_REPORT\\_FINAL\\_Digital\\_compressed-2.pdf](https://lambethnow.co.uk/wp-content/uploads/2024/01/240130_Low-Line-VNEB_REPORT_FINAL_Digital_compressed-2.pdf).

<sup>41</sup> Wandsworth Infrastructure Delivery Plan Local Plan Publication (Regulation 19) Version – January 2022.

### Risks and uncertainties

- 5.5.4 Overall, since the DIRR1 was completed, the level of transport infrastructure change has been characterised by fewer major projects compared to before (e.g. NLE which opened shortly prior to the previous iteration of the report).
- 5.5.5 At the same time, for several projects which have already been subject to a considerable degree of work there is uncertainty as to whether they will be subject to delay or cancellation. The redevelopment of the Vauxhall Gyratory will have implications for the NEB area as it is likely to be accompanied by reviews of bus routes travelling through the area. TfL is facing unprecedented challenges to its finances following the large reduction in use of public transport during the Covid-19 pandemic, the impacts of which are still being felt. While we would acknowledge that this is likely to be a temporary issue, it does present some longer-term challenges when reviewing the impact of new development on public transport use and therefore the need for any enhancement of bus services.
- 5.5.6 Extensive changes are planned at Vauxhall Gyratory following the grant of planning permission for the redevelopment of the Vauxhall Island site, along with the uncertainty surrounding the bus station whose planning permission may lapse prior to construction. While the Vauxhall Gyratory is outside the NEB area, it is a key transport interchange that will have impacts on NEB and specifically on decisions about bus routes, and which will then have wider ramifications for investment on cycle and pedestrian infrastructure.
- 5.5.7 For the NEB area, the passenger numbers at the two new NLE stations have been rising year-on-year since opening; it remains to be seen what pattern will persist going forwards. In recent years Underground usage had been subject to a more marked drop-off in patronage than bus services. While the NLE is not expected to be at risk of overcrowding, it is recognised that the numbers and patterns of journeys differ compared to when both the NLE and the OA were being planned in a pre-Covid scenario. By way of example, a rise in hybrid working has resulted in journeys at certain off-peak times outstripping demand pre-pandemic. A second, western entrance to Battersea Power Station Tube station is now proposed on Electric Avenue, reflecting Battersea Power Station's role as a growing leisure destination.
- 5.5.8 With regards to the Nine Elms - Pimlico Bridge, the question of the additional river crossing has yet to be resolved. The emerging WCC Local Plan, while not precluding a new crossing landing within that borough, does not support it either. Some work was done with TfL several years ago to examine the business case for the bridge; however, there is a risk that wider funding issues within TfL and the need to invest in a number of existing river crossings may push the question of another crossing at Battersea further back in the queue of potential projects.
- 5.5.9 The completion of the Thames Path is also dependent on all of the riverside development sites come forward, including the site currently occupied by Thames Tideway Tunnel Ltd, and resolution of the future plans for the Cringle Dock Waste Transfer Station. While development along the riverside has continued to progress since DIRR1 was issued, there remains the potential for uncertainty around the remaining elements. This also relates to the Nine Elms – Pimlico bridge which would potentially be located close by once the Thames Tideway Tunnel is commissioned; however, the current lack of support for the project from WCC makes it unlikely that this infrastructure would progress. In turn, there would be the opportunity to safeguard a future southern landing point but to proceed with the remaining elements of the Thames Path in line with LBW Local Plan policy PM3.
- 5.5.10 Other active travel projects would depend on the completion of further construction work in the NEB area, such as the aforementioned Ponton Road improvements. As these are not currently in LBW's Capital Programme, any decision to progress is dependent on additional private sector projects coming forward alongside.
- 5.5.11 To conclude, it is noted that the uncertainties around these projects are generally not related principally to funding, but rather to the feasibility of the scheme (for example the Nine Elms – Pimlico bridge where agreement would need to be reached between LBW and WCC even if funding is secured). This means that there is a good range of transport infrastructure projects onto which funding can be reallocated, if a particular scheme is cancelled, delayed or paused, and there is both depth and breadth of projects to which funding can be apportioned. Engagement with LBW has indicated that, whilst not directly appraised as part of this study, this also presents opportunities to consider alternative uses of funding which contribute to meeting local needs by responding to transport infrastructure pressures more holistically or innovatively.
- 5.5.12 Greater innovation in technology means that there are increasing opportunities for transport infrastructure to become more efficient, environmentally friendly and attractive. Emerging fuel types such as batteries but also hydrogen offer the potential for cleaner air amongst private and public transport modes alike; community transport and freight hubs can reduce trip generation entirely by promoting last-mile freight logistics; and amendments to active travel infrastructure reflecting guidance note LTN 1/20, plus a move to a Vision and Validate approach in transport planning, are increasingly a sign that a new approach to monitoring and managing transport infrastructure provision and mitigation is required.

## 6 Utilities infrastructure

### 6.1 Introduction

- 6.1.1 The utilities requirements of VNEB were discussed in Chapter 16 of the original DIFS.
- 6.1.2 Utilities are normally among the first elements of infrastructure to be delivered in new schemes as they are necessary to enable development. This is the case for NEB and the majority of utilities have been delivered. We comment in this chapter on the main categories of utilities and where there are noteworthy changes to the requirements assumed in the original DIFS.
- 6.1.3 The utilities projects contained in the project schedule are generally expected to meet the needs of development at NEB under the categories discussed in the original DIFS. Outside the project schedule, we provide some commentary on how utilities usage may change in the future due to legislation, government programmes and new technologies. We conclude with an assessment of the risks and uncertainties in relation to the proposed delivery.
- 6.1.4 One of the challenges in delivering the utility requirements for a large-scale development, is providing the necessary infrastructure at the right time. Delivery needs to be sufficiently in advance of the development to not impose delays on it, but not so far in advance that the investment cannot be justified or is directed to other users before it can be utilised as intended.

#### Utility Infrastructure Collaboration Report (2013)

- 6.1.5 We also note that since the original DIFS, a Utility Infrastructure Collaboration Report was published in 2013 by consultants Hoare Lea. This went on to inform parts of the utilities delivery approach in VNEB.
- 6.1.6 The purpose of the study was to investigate the opportunities, benefits, and disadvantages of a collaborative approach to utility procurement in the Nine Elms area. The report found that there were a varying number of benefits for each service and on this basis made several recommendations to support collaboration and implementation, including establishing a special purpose vehicle.

### 6.2 Original projects

#### District Heating

- 6.2.1 Planning for district heating at the time of the original DIFS was at early stages, however it identified two key projects and outlined some general approaches to safeguarding of routes and delivery.
- 6.2.2 The key project was a district energy scheme across the OA, identified originally in the OAPF prior to the original DIFS. It identified a cost of £15m-£20m. This was assessed in the DIFS to be accurate and the upper limit – £20m – was included in costing of the original tariff.
- 6.2.3 The DIFS also assumed a Combined Cooling Heating and Power facility at Battersea Power Station at a cost of £16m. All costs associated with the facility are non-tariff costs.

#### NCGM Anaerobic Digester

- 6.2.4 The original DIFS contained an anaerobic digester at the New Covent Market Garden Site at a cost of £4m. It was noted the main benefit to NCGM would be to reduce waste costs rather than generate heat and electricity.

#### Modernisation of Cringle Dock

- 6.2.5 Western Riverside Waste Authority (WRWA) owns the Cringle Dock waste transfer station that is located within the OA. Options to either modernize or relocate the Cringle Dock waste transfer station were considered in the original DIFS, with costs of £5m or nil respectively.

#### Gas Utilities

- 6.2.6 In the original DIFS gas requirements for the development based on traditional loading requirements were calculated to be 440 MWh peak demand and 530 GWh annual demand as a robust indication of need. No allowance had been made here for renewable energy sources or potential reductions in energy demand due to improved building efficiencies.
- 6.2.7 During consultation for the original DIFS, National Grid confirmed that it has an existing gas main within the OA that is capable of meeting the requirements of the development and that there should not therefore be any off-site reinforcement costs associated with the provision of a new gas supply.

#### Water (potable, wastewater, river flooding and surface drainage)

- 6.2.8 Supply of potable water and treatment of waste-water is the responsibility of Thames Water (TW).
- 6.2.9 The original DIFS calculated water requirements for the development based on traditional loading requirements to be 9750m<sup>3</sup> per day with a peak demand of 480 litres per second, although it was noted TW was yet to confirm this through renewed modelling. No costs were provided for the utilities to carry this. The report noted that, as with the other utilities, within each development parcel, the on-site potable water network can be laid by TW, thus incurring a charge “up front” or it can be constructed owned and operated by a MUSCO via an inset agreement.
- 6.2.10 Offsite infrastructure reinforcements for potable water were not anticipated by TW as access was not seen to be constrained.
- 6.2.11 The foul drainage requirements reported in the original DIFS, based on traditional loading requirements, was calculated to be to be 9,750m<sup>3</sup> daily demand and 729 litres per second peak demand. The report identified, in collaboration with TW and developers, that there would likely be constrained wastewater infrastructure capacity due to development and so it was likely that the pumping station and the pumping main in the OA would need to be upgraded so that they can accommodate the additional flows. No costs were identified for this, but it was assumed that TW would fund this, and costs would therefore not be part of the tariff.
- 6.2.12 The original DIFS discusses river flooding and surface drainage, does not identify specific infrastructure requirements or costs, but suggests that surface water drainage and any associated Sustainable Urban Drainage Systems (SuDS) features would most likely be dealt with on a site-by-site basis. It noted the OA was at risk of river overtopping but that defences existed in the form of the Thames tidal barrier, which it noted may require improvements in coming years.

#### Primary Substation

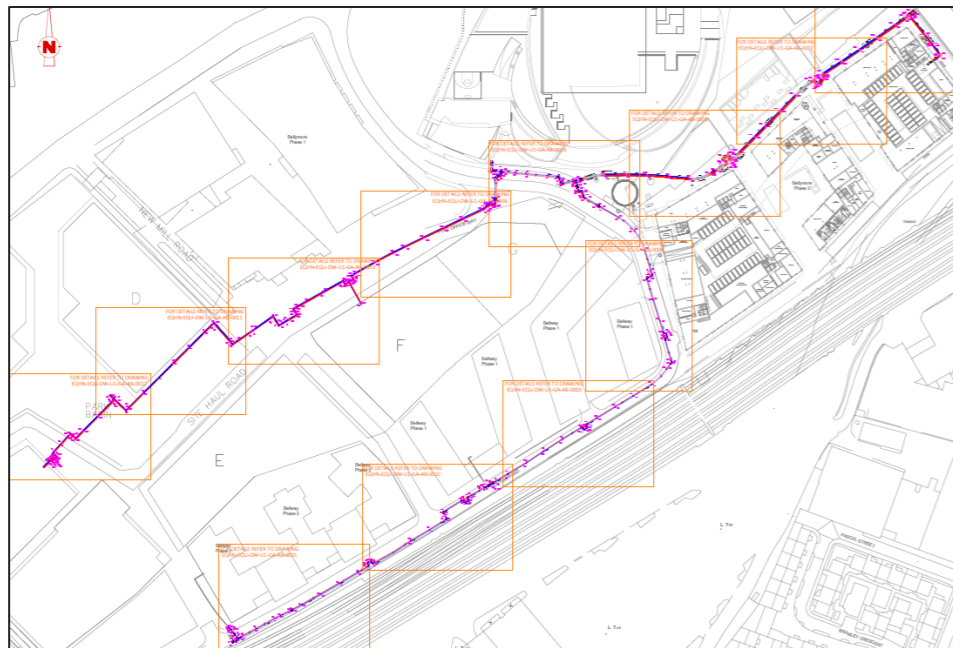
- 6.2.13 The original DIFS remarked that a substation may be required due to limited capacity, but that a formal study undertaken by the energy provider UKPN (formerly EDF) would be required to confirm this. They did however indicate that for a development of this scale, a new primary sub-station would be required, and that this could be fed from their 33kV network and providing an 11kV network for the development.
- 6.2.14 An indicative cost of £15m-£20m was provided in the OAPF and EDF supported this range as reasonable. For the purposes of the study, it was assumed the new primary sub-station is required at a cost of £20m. This would include cost of land, sufficient to accommodate a 50m x 50m substation facility.

### 6.3 What has been delivered or programmed

#### District heating network

6.3.1 As shown in Figure 6.1, as part of the US Embassy development Equans has delivered an energy centre with a generating capacity of 3MW, along with a 1.5km district heating network.<sup>42</sup> It is envisaged that eventually over 3,500 homes and 75,000m<sup>2</sup> of commercial space in the Nine Elms vicinity will be able to benefit from the new network.

Figure 6.1: EQUANS US Embassy DHN As Built



6.3.2 A 73,000 sq. ft district heating and cooling centre has been installed in the basement of BPS and the operation of the centre and network has been adopted by Equans. The energy centre has a total heating capacity of 42.75MW, cooling capacity of 30MW and electrical capacity of 7.3MW. The total pipe length of the district heating network is 6.4km and serves the entire BPS site including key residential developments like Circus West Village, and outside the BPS site at Phase 4A. Other surrounding developments in the future will have the option to join the network.

6.3.3 We note that within the NEB area it will be important to ensure that through planning obligations, developers are obliged to connect into either of the two new DHNs in the future. It will also be important to safeguard routes and major crossings as far as possible so that the DHN can be extended in the future without undue cost. In major utility corridors linking the key sites across the area, provision for two insulated pipes to be laid horizontally with overall trench dimensions 1,500mm wide 1,500mm deep being typical.

6.3.4 District heat networks are an effective means of reducing energy consumption and potentially lowering carbon emissions. They are not widely adopted but they are becoming more common in London and the UK, with support from BEIS. Further decarbonisation of the district heating networks to improve carbon emissions performance is likely to be priority for the DHNs in the network in the future. There may therefore be opportunities for conversion to new technologies and retrofitting infrastructure as part of this process.

#### Utility Corridors

6.3.5 In 2014 Arup proposed a utility ducting corridor through the Linear Park, outside of the road network to ensure that future development can connect to and maintain utilities infrastructure with minimal impact on the

road network. To this end, a 6m strip of hard landscaping was outlined in each s106 to be safeguarded for the housing of utilities infrastructure. This has enabled LBW to bring forward proposals and incremental delivery of a unified pre-emptive ducting corridor that runs across the multiple development sites and this has been brought forward with individual developers in line with the Utilities Strategy.

6.3.6 Figures 6.2 and 6.3 below show As Built records of the duct routes that have been installed to date.

Figure 6.2: As Built Service Duct Routes – New Covent Garden Market

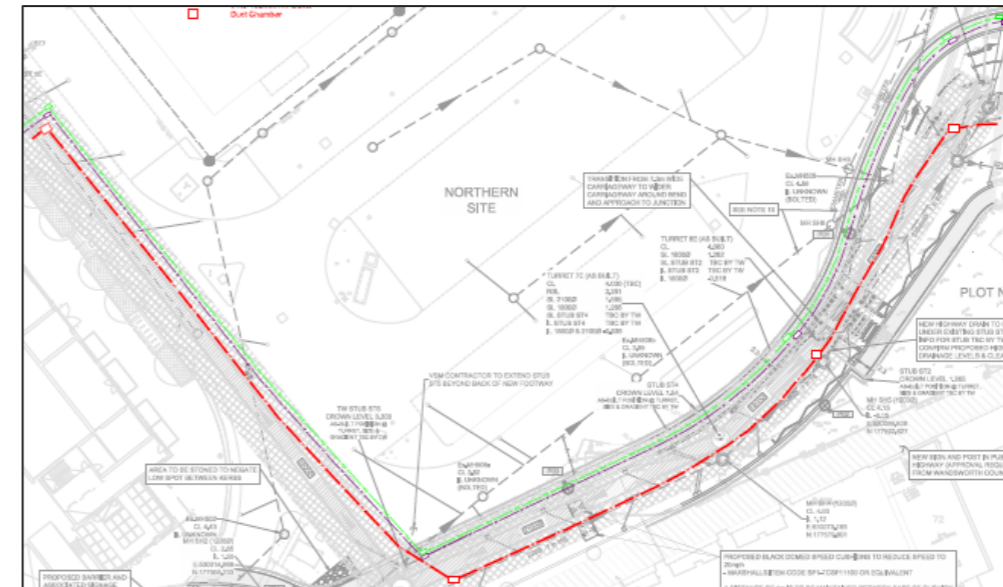


Figure 6.3: Pre-Emptive Ducting As Built – Ballymore Embassy Gardens Phase 2



<sup>42</sup> <https://www.engie.co.uk/about-engie/news/nine-elms-london/>.



### Water Infrastructure

- 6.3.7 Within NEB, Thames Water have constructed a new pumping station and installed a large new sewer to reservoir the surface water through the development and along Nine Elms Park. This is to be extended onto Wandsworth Road and north to Nine Elms Lane.
- 6.3.8 The rainwater will then drain into large underground pipes buried beneath the new Nine Elms Park which will be a new green channel through the area from Vauxhall to Battersea Power Station.
- 6.3.9 After heavy rainfall the water will be gradually pumped from this underground reservoir into the River Thames via an upgraded pumping station
- 6.3.10 The project is believed to be the largest Sustainable urban Drainage System(SUDs) scheme in the UK.

### Gas Utilities

- 6.3.11 The Government published its 'Heat and Buildings Strategy' in October 2021 (updated March 2023)<sup>43</sup> which sets out an ambition of phasing out the installation of new natural gas boilers from 2035. The future is likely to see a mix of low-carbon technologies used for heating: electrification of heat for buildings using hydronic (air-to-water or ground-to-water) heat pumps, heat networks and potentially switching the natural gas in the grid to low-carbon hydrogen.
- 6.3.12 The overall need for new gas infrastructure should start to reduce for residential and non-domestic units, as developers look at alternative heating and cooking facilities in the lead up to these anticipated government directives.
- 6.3.13 However, we understand that gas network operators are investigating the potential for 'green gas' to continue to form a part of the energy mix. This is at least in part a consequence of their argument that there is little merit in abandoning the asset represented by the gas distribution network.
- 6.3.14 New non-domestic gas infrastructure will be provided (if required) to the development from the existing low pressure (LP) network and medium pressure (MP) gas via a pressure reducing station. However, it is anticipated that if this is required in NEB, the cost will be borne by providers and the costs recouped through bills from future residents and businesses in the area.

### Primary Substation

- 6.3.15 UK Power Networks (UKPN) is the incumbent electricity distribution network operator (DNO) for London.
- 6.3.16 In 2020 a new 132/11kV primary substation was installed at Stewarts Road to accommodate future growth within the VNEB area.
- 6.3.17 Table 3B – 'Load Data (True Peak)' shown below and taken from UKPN's 5-year Long Term Development Statement (LTDS) which was last published in November 2023, confirms firm capacity at Stewarts Road substation of 83MW. The table shows that the 23-24 forecast showed a maximum demand of just 4.4MW, leaving an approximate available capacity at this stage in time of circa 78.6MW. By 2027/2028 the forecast maximum demand is still just 10.2MW, leaving an available capacity of circa 73MW.

GSP	Sub-station	Season	Maximum Demand 2022/23		Forecast (Maximum Demand) MW					Firm Capacity
			MW	PF	23/24	24/25	25/26	26/27	27/28	
Wimbledon 3&4 132kV	Moreton Street 11kV GTS GTS	Summer	14.5	0.96	14.5	14.5	14.6	14.6	14.6	83
Wimbledon 3&4 132kV	Stewarts Rd 11kV	Winter	3.6	0.96	4.2	8.5	9	9.6	10.1	83
Wimbledon 3&4 132kV	Stewarts Rd 11kV	Summer	3	0.96	4.4	8.4	9	9.6	10.2	83

- 6.3.18 Following further discussions with UKPN, the anticipated capacity of 74.69MVA for the proposed VNEB development (as summarised within Appendix E) can be accommodated within the 2No. newly installed

transformers at Stewarts Road, rated at 83MVA. However, if there is a future requirement for additional capacity, a third transformer can be connected in addition to the two existing, to increase the total capacity to circa 150MVA. Refer to the note from UKPN within Appendix F for further details.

### Electric vehicle charging infrastructure

- 6.3.19 The electric vehicle (EV) market, while expanding quickly, is still in its infancy in the UK. As electric vehicles become more popular, it is commonplace for developers to install 7kW EV charging points to new residential units. In general, these can be installed without affecting the existing incoming supply, consumer unit or triggering infrastructure upgrades.
- 6.3.20 Under Building Regulations 2010, Approved Document S - Infrastructure for the charging of electric vehicles (2021)<sup>44</sup>, Requirement S1 and Regulation 44D set out a requirement for each new dwelling with an associated parking space to have a 7kW EV charge point installed.
- 6.3.21 Requirement S4 and Regulation 44G cover new buildings other than residential or mixed-use buildings, and this stipulates that where a building has more than 10 parking spaces, one of those spaces must have access to an electric vehicle charge point, and cable routes for further charge points must be installed in a minimum of one fifth of the total number of remaining parking spaces. .

### Telecommunications - 5G networks

- 6.3.22 The Government has an ambition for the UK to be a global leader in the next generation of mobile technology. 5G represents a step up in mobile connectivity with potential to boost productivity and grow the economy.
- 6.3.23 5G has the potential to impact many sectors across the economy, including transport, health and social care, retail and industrial. Next generation 5G fibre technology is currently available in over 100 towns and cities across the UK and will continue to be rolled out, with most of the UK expected to have a fully functional 5G network by 2027. 5G fibre promises to be up to 100 times faster than 4G and 2,000 times faster than 3G.
- 6.3.24 5G is available across a wide range of network providers who take their service from the four major mobile networks; EE, O2, Three and Vodafone.
- 6.3.25 A review of the 5G Coverage Map Checker<sup>45</sup> confirms that 5G coverage is available in South West London and the surrounding areas. However, coverage will vary based on exact location and network.

## 6.4 Project schedule and funding

- 6.4.1 The utilities projects contained in the project schedule are generally expected to meet the needs of development at NEB under the categories discussed in the original DIR.
- 6.4.2 The only residual utilities infrastructure costs anticipated to be met by the Tariff is the potential extension to the pre-emptive ducting corridor from the boundary of Ballymore Embassy Gardens Phase 2 across Ponton Road and along Post Office Way to connect with the infrastructure installed by Royal Mail Group.
- 6.4.3 There is some potential for 5G infrastructure costs but these are expected to be met by the private sector.
- 6.4.4 While power demand will increase in the future, we expect that the investments already made in bolstering local supply should be sufficient to support the remaining growth. However, while it is possible to enhance capacity and then 'reserve' it so that it is only taken up by the development that it is intended to serve, the DNO, in this case UKPN, will charge a significant fee for this; there is therefore limited take up of this approach. This does however present the risk that capacity will be taken up by growth elsewhere in the network. In that instance, any future upgrade costs required in relation to the new Stewarts Road primary

<sup>43</sup> <https://www.gov.uk/government/publications/heat-and-buildings-strategy>.

<sup>44</sup> [https://assets.publishing.service.gov.uk/media/6218c5d38fa8f54911e22263/AD\\_S.pdf](https://assets.publishing.service.gov.uk/media/6218c5d38fa8f54911e22263/AD_S.pdf).

<sup>45</sup> <https://5g.co.uk/coverage/>.

substation, electricity and network reinforcement works, and gas infrastructure would be met by the relevant developer in the normal way.

- 6.4.5 The Government is committed to investing in delivering more extensive full 5G fibre networks. This manifested itself in a Government funding round (5G Create) which ran within the Department for Digital, Culture, Media & Sport (DCMS) 5G Testbeds and Trials Programme between April 2020 and March 2022. The 5G Create fund made up to £30 million available to applicants but was however limited and aimed primarily at assisting R&D and innovation rather than in established locations. Instead, most of the capital investment for 5G will need to come from the private sector but it is not something that infrastructure providers are rolling out as matter of course at present. The Government is of course letting contracts for the rollout of 5G and therefore we expect this to change before the development is complete at the end this decade.
- 6.4.6 All onsite civils works will typically be undertaken by the developer using free issue ducts and joint box chamber lids provided by the provider (e.g. Openreach / Virgin Media) with the developer providing and constructing the joint box chambers in accordance with the provider's standards. The provider will pull cables through the newly installed ducts as and when required.
- 6.4.7 The provider will normally undertake to provide telephone and broadband services to all new developments free of charge with the end user ultimately paying for connection costs. For larger residential developers, it is sometimes possible to negotiate for the telecoms provider to pay the developer per dwelling connected and this should be reviewed further. We understand that a combination of the two has happened to date at NEB.

## 6.5 Conclusions

### Key findings

- 6.5.1 This DIRR(2) has considered the progress and remaining need in relation to District heating, utilities corridor and electricity provision. As development in the Opportunity Area is relatively advanced, the delivery of utilities is by necessity advanced. According to the Project Schedule included within Appendix D, the delivery of two District Heat Networks is now complete, as is the utilities corridor that crosses multiple land parcels and the sub-station at Stewarts Road.
- 6.5.2 Since the original DIFS study there has been significant change in policy, particularly in relation to de-carbonising the heat and power networks. The impact that the anticipated requirement to install low carbon technology heating in new build residential homes will have on the existing electrical infrastructure, is currently not fully understood. With the completion of the Stewarts Road works, we have confirmation from UKPN that there is sufficient capacity within the network to serve the estimated demands for the proposed development, with some headroom to increase the available capacity if required without any constraints in the upstream network.
- 6.5.3 Future electricity capacity will need to include suitable provision for 7kW EV chargers to be installed to all new residential units and to every 1 in 5 car parking bays for non-residential uses. The capacity will reflect the requirement to use alternative heating systems in new homes, following the anticipated transition to low carbon technology heating systems by 2035.
- 6.5.4 New technology such as 5G will create additional infrastructure requirements. At present, these requirements are typically met by the private sector and not through coordinated infrastructure delivery. While to an extent, the market will dictate and deliver on these needs, there may be opportunities to take a more joined-up approach within the NEB.
- 6.5.5 Taking this forward would require the identification of a digital champion to act as the single point of contact and responsibility for mobile connectivity and data architecture in the NEB area, responsible for liaising with the network of developers and landowners in the NEB area to work through the complex privacy issues associated with building a digital twin but which could result in significant benefits for those parties, as well as LBW as the local authority. This should be considered in the context of wider Borough resources and strategies in relation to digital infrastructure.

## Risks and uncertainties

### Decarbonising heat network

- 6.5.6 Decarbonisation of the heat network is likely to be a priority for future upgrades to the network in order to meet Net Zero targets in line with industry standards by 2030. EQUANS will require an appropriate heat source in due course, which could be air source or ground source, unless other technologies emerge in the interim period.
- 6.5.7 New installations of central heat sources (DHN / CHP) should comply with the standards set out in Section 6 of Approved Document L (Conservation of Fuel and Power), Volume 2; Buildings other than dwellings. As an extension of the Future Buildings Standard, this document was updated in 2021 and further amended in 2023, specifically relating to district heat networks and community heating performance standards.

### 5G

- 6.5.8 We understand early discussions regarding fibre optic infrastructure are underway to identify opportunities to provide 5G network and improve mobile phone coverage across the OA; however, 5G itself remains in relatively early stages of rollout.

## 7 Infrastructure costs and funding

### 7.1 Introduction

7.1.1 This section sets out the costs and funding assumptions the three main infrastructure categories: utilities, transport and social infrastructure. Within each of these categories, some infrastructure themes are identified and for each theme we set out what infrastructure is needed, how the infrastructure can be paid for and any notes, issues and recommendations.

### 7.2 Total infrastructure cost

7.2.1 In identifying the remaining infrastructure requirements, we specifically attributed cost as it relates to development within the site (NEB area). While we do not look specifically at any needs arising from the LBL part of the OA, some infrastructure either extends across both parts, or is serving a much wider catchment altogether. However, the principle of funding infrastructure need that arises from development remains consistent and the scale of growth in the NEB area justifies funding from developer contributions.

7.2.2 Some projects have already commenced and have already incurred expenditure. We have therefore subtracted the amount already spent on these from the total “estimated remaining costs to identify” the remaining funding required.

7.2.3 There are also a number of projects which have been identified as required, but which it is not yet possible to estimate costs for (such as the Silverthorne and Queenstown Road Junction improvements in the Battersea Design and Technology Quarter), but which are expected to have significant costs associated with them.

7.2.4 In addition to CIL, DIFS Contribution and BPS tariff, S106 has been a key mechanism for securing mitigation measures. Where infrastructure has been directly delivered by a developer or group of developers, or another third party such as an infrastructure provider, while we go through the same exercise of attribution, we do not include neither a cost nor a funding input because funding is already provided as a work in kind and it is placing no burden on CIL revenues.

7.2.5 Finally, and as we set out at the beginning of this report, we do not factor in the cost of the NLE. It does not appear in our schedule and to ensure we have not double counted funding, any funding allocated to the NLE does not feature either.

Table 7.1 Remaining Infrastructure costs summary (£M)

	Estimated Remaining total cost <sup>46</sup>	Funding Secured and Forecast (CIL / DIF / S106)	Other Funding Required (Other / Developer)
Social infrastructure	£115.897		
Transport	£95.658.		
Utilities	£0.248		
<b>Total</b>	<b>£211.803</b>	<b>£234.58.</b>	<b>£18.03</b>

Source: Appendix D

7.2.6 The schedule of larger projects and indicative costs is provided at Appendix D. This schedule also includes analysis on funding which we discuss below.

7.2.7 While these costs initially appear lower than those stated in the previous DIFS, they should not be directly compared. This is partly because the previous DIFS included all costs for infrastructure, across the whole Opportunity Area, including those being delivered directly by developers or infrastructure providers, whereas

those above are primarily those costs arising which will be paid for out of a tariff or CIL. As NEB development is now entering a phase of majority, it also follows that remaining infrastructure costs will be lower than identified at the outset, reflecting the quantum of infrastructure delivered to date.

### 7.3 Funding of infrastructure

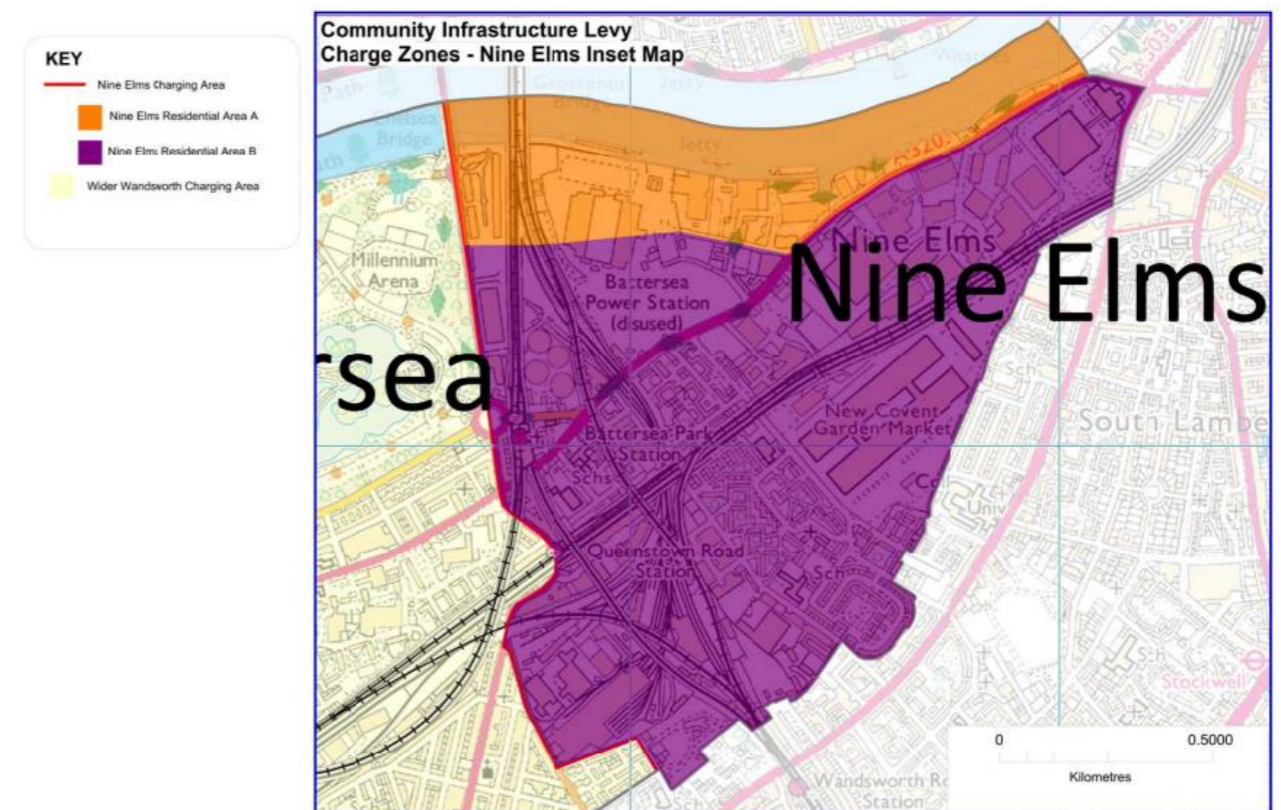
7.3.1 Infrastructure in NEB that is not delivered directly by a developer or infrastructure provider, is funded in one of three ways. All developments are subject to the current CIL tariff structure which has been in place since 1st November 2012 and remains the key mechanism for capturing contributions within NEB.

7.3.2 In addition, most developments, except BPS, were originally required to make a “DIFS contribution”. However, since the introduction of the CIL Charging Schedule, DIFS contributions have no longer been secured by LBW. DIFS secured on planning permissions originally granted prior to the introduction of the CIL Charging Schedule continues to be collected upon trigger and has to date largely been prioritised for the NLE.

7.3.3 Finally, the first key permission for BPS was granted before LBW had the current CIL regime in place and therefore the contributions secured against BPS are a combination of “S106 Infrastructure Contributions” primarily ring-fenced to the NLE, and CIL.

7.3.4 The figure below shows the two CIL charging zones that apply to NEB: the same rate of £100/sqm applies to all B1a and A use classes across the whole site; however, residential development is subject to a higher £575/sqm in the orange shaded area (Residential Area A) compared to £265/sqm in the purple shaded area (Residential Area B)<sup>47</sup>.

Figure 7.1 LBW CIL charging zones in Nine Elms



7.3.5 The picture is further complicated by the scale and duration of many of the NEB developments which mean that while an outline permission may have contributions agreed through CIL and/or S106, whether through

<sup>46</sup> Excluding the funding already incurred or allocated to be spent up to April 2024

<sup>47</sup> 2012 prices, and then indexed to current prices upon grant of planning permission.

the reserved matters applications, S73 applications or completely new permissions, these have in some cases been superseded. To avoid any double counting, we have used data provided to us by LBW in April 2024 which removes any older permissions (and associated funding) that have been superseded by a new planning chapter.

7.3.6 The table below provides a summary of monies received and due through the various contribution streams, assuming that all the current planning permissions are completed. A further deduction has been made to exclude those monies which was/is set aside for the NLE. Again, this information has been provided by LBW.

Table 7.2 CIL and S106 contribution summary (£M) as of April 2024

	CIL & DIFS	S106	Total
<b>Received to date &amp; Spent<sup>48</sup></b>	£393.8	£1.99 <sup>49</sup>	£395.8
<b>Received to date &amp; Unspent<sup>50</sup></b>	£136.8	£0.84	£137.64
<b>Forecast contributions</b>	£115.55	£2.01	£117.56
<b>Total</b>	£646.15	£4.84	£650.99

Source: LBW

7.3.7 Of these contributions, a portion has already been allocated i.e. either spent on projects since 2012 or allocated to budgets in the forthcoming financial years as part of the WBC Capital Programme.

7.3.8 Our analysis indicates that between 2024 to the completion of development (in circa. 2033), there is in the order of £234m available at this point in time to pay for infrastructure from CIL/DIF/S106 sources<sup>51</sup>; this exceeds the known outstanding costs of all potential infrastructure projects identified at circa. £211m (Appendix D) and outstanding NLE contractual payments. Having said this, we anticipate that there may be other draws on expenditure which we have not accounted for in our analysis. For example, there are new projects such as the BDTQ project that have not been costed (or the revenue expenditure excludes the costs of the delivery team and the joint employment unit. While we cannot comment on the latter, we anticipate that the delivery team will continue to require resource over the course of the development.

7.3.9 Even taking account of these additional draws on spending it is likely that there will be surplus funding which could potentially be utilised towards new or different projects within Wandsworth tied to future decisions on which projects to progress based on need and feasibility. Set out below is what we conclude could be the surplus amounts under three scenarios:

- **Scenario 1:** Only the projects committed in the existing VNEB Capital Programme go ahead, within their allocated budgets, leads to a surplus in the order of £120m by 2033
- **Scenario 2:** As scenario 1, but CIL / DIFS / S106 is also used to cover any potential funding shortfall in Capital Programme allocations, leads to a surplus in the order of £85m by 2033
- **Scenario 3:** As scenario 2, but CIL / DIFS / S106 is also used to fund all identified aspirational and reserve projects at their anticipated cost as described in Appendix D, leads to a surplus in the order of £20m by 2033

7.3.10 It is important to recognise that a large portion of any surplus is contingent on developer funding which has not yet been received, which affects its usability in the short term. In the very short term there is near parity between currently held funding and commitments made in LBW's Capital Programme. It would be prudent therefore for LBW to continually monitor and update its forecasts to ensure decisions at any time are based

on reliable information, as well as any subsequent changes to that Capital Programme. This degree of unreliability will inevitably decrease over time as more developments are completed.

7.3.11 It is also important to note that varying restrictions will apply to different funding sources which will impact their usability towards different projects. DIFS and tariff funding secured under Section 106 is generally subject to more restrictive conditions on its use, tied to specific wording within the legal agreement, whereas CIL can be spent on supporting development more generally by funding the provision, improvement, replacement, operational maintenance of a range of infrastructure as defined in the Planning Act 2008. The CIL Regulations do not expressly require CIL collected from developments in an area to be spent within that area, unlike DIFS and S106 contributions which can be geographically/locationally specific in their use. . In this context, DIFS and tariff funding should generally be used preferentially to CIL funding where possible to ensure any surplus can be used more flexibly. The amount of usable surplus will ultimately be tied to the individual sources of funding, and any restrictions placed on that source.

## 7.4 Risks and uncertainties

### Project related risks

7.4.1 There are a number of areas where it has not been possible to accurately forecast infrastructure costs. This includes emergency service provision and the impact of future technology on potential changes to utilities provision and the proposals that relate to the Battersea Design and Technology Quarter. A generally risk averse approach has been taken which assumes that funding will be required even where it is not possible to say this definitively.

### Wider environment

7.4.2 The forecast of future available funds is based on the current trajectory of development and the assumption that development continues as currently planned. It must be emphasised that even on this trajectory, there are still another 9+ years over which development will be built out which can be expected to experience a number of economic cycles. The full impact of BREXIT, Covid19, build cost inflation and fire safety regulation changes on the construction industry and wider economy and the development trajectory is also unknown at this time.

7.4.3 Given the scale of change that has happened in the NEB area in the first 14 years of its development i.e. since the original DIFS was completed, it is likely that further shifts in technology and demand will mean that the infrastructure needs, and the associated costs, continue to evolve and will require regular ongoing monitoring at a borough level, balancing the available and committed funds with the emerging needs. .

<sup>48</sup> To April 2024

<sup>49</sup> Indexed

<sup>50</sup> To April 2024 and inclusive of outstanding NLE contractual payments

<sup>51</sup> Excluding funding from other / developer sources

## 8 Conclusions and recommendations

### 8.1 Introduction

8.1.1 This study was commissioned by LBW in order to understand whether the infrastructure requirements set out in the original DIFS for the NEB part of the wider OA were still relevant and to update them as necessary.

### 8.2 Summary

8.2.1 A significant quantum of infrastructure has already been delivered both within NEB and in the wider OA, although some of this infrastructure has not been immediately visible with substantial investment being made in the utilities networks serving the area. This study has identified that the next few years of development in NEB will entail significant placemaking infrastructure as the development within the area begins to meet the critical mass required to support (and require) this infrastructure. Because a lot of utilities investment has already taken place, it is social infrastructure in the form of a new school, health provision and other community facilities that accounts for much of the rest of infrastructure needs.

8.2.2 Transport projects make up the majority of infrastructure needs. These projects are focused primarily on enhancing walking and cycling access within and to the NEB area, as well as enhancement to public transport services. While there is a recognition that there is major highway infrastructure which runs through the NEB area, the focus of investment is on changing the balance in favour of other road users.

8.2.3 In relation to social infrastructure, the trigger points for this are intrinsically linked to residential delivery within the NEB. We have identified points at which we expect those facilities to be needed; however, if the development trajectory shifts or the make-up of development changes, this may change the scale and nature of social infrastructure. Notably, it is expected that the primary school will come forward in two phases. This flexibility is helpful in the context of falling pupil rolls across central London which may mean that the child yield within NEB is lower than forecast and therefore overall requirements for education may be lower than previously forecast.

8.2.4 In overall terms, the current analysis suggests that there will be more than sufficient funding available from development within the NEB to fund the infrastructure identified in the current VNEB schedule. In coming to this view, we have identified areas of uncertainty but also opportunities which will require monitoring to ensure that expenditure does not exceed funding sources. This relates to draws on revenue funding for the delivery team but also for the cultural and placemaking strategy initiatives which includes a range of revenue spending.

### 8.3 Implications

8.3.1 This suggests that, at present, there is no requirement to increase the current charging regime within the NEB area and that, subject to the caveats in the previous section, a surplus of funding is likely to be generated relative to identified projects by 2033. This assumes that development will come forward as approved, and therefore the infrastructure needs identified realised, but also that developer contributions are received in line with forecasts to pay for that infrastructure. In light of the potential surplus, and subject to ensuring sufficient funding for required projects, the previous ringfencing regime may no longer be appropriate if LBW takes a view that local infrastructure needs can be met more effectively or holistically by funding infrastructure more widely...

8.3.2 While we have based this study on the current view of future development, it must be underlined that even on this trajectory, there are still another 9 years+ over which development will be built out. Given the scale of change that has happened in the NEB area in the first 14 years of its development i.e. since the original DIFS was completed, it is likely that further shifts in technology and demand will mean that the infrastructure needs continue to evolve.

8.3.3 The potential headroom in funding also creates some opportunities within the NEB area. We have identified in our utilities analysis that new technology such as 5G will create additional infrastructure requirements. At

present, these requirements are typically met by the private sector and not through co-ordinated infrastructure delivery.

8.3.4 As we have flagged in our analysis, smart city technology has the potential to deliver economic and environmental benefits by ensuring a more responsive and resilient development. As such, identifying a digital champion to act as the single point of contact and responsibility for mobile connectivity and data architecture in the NEB area presents a key opportunity. This person would be responsible for liaising with the network of developers and landowners in the NEB area to work through the complex privacy issues associated with building a digital twin, but which could result in significant benefits for those parties, as well as LBW as the local authority.

8.3.5 As identified above, there are several factors which are combining to create an uncertain environment for investing in public transport in the NEB area. However, there are a number of other projects which either cannot be fully scoped at present, or which do not have full funding available to support their delivery; if these come forward they will also result in shifts in patterns of access across the NEB area.

### 8.4 Monitoring

8.4.1 With another nine years of development anticipated on the current trajectory it is reasonable to expect that further shifts in technology and demand, as well as changes to the policy environment and the models of service delivery will continue, particularly in relation to social infrastructure. Continuing monitoring of the arising infrastructure need, delivery plans and funding will remain an important priority for all stakeholders.

8.4.2 The shift in focus over the nine-year period to more social infrastructure will require greater engagement with social infrastructure providers to ensure that the changes in demography that will closely impact demand are carefully monitored. The challenge will be to ensure that infrastructure that isn't yet required is appropriately safeguarded at the same time as ensuring that decisions are made in time to ensure delivery in line with emerging demand. The consequent revenue challenges that may arise from those decisions will need to be managed within the business cases for individual projects.

8.4.3 The Infrastructure Steering Group and the programme oversight of the Borough will continue to have an important role in monitoring and managing these risks, uncertainties, and opportunities, although as big schemes, such as the NLE or Tideway move towards completion the focus is likely to shift more to operational issues and the impact on new communities.

8.4.4 The conclusions of this study are based on a certain trajectory – if this significantly changes the funding available will come forward differently and the profile of the infrastructure required may also change.

## Appendix A Abbreviations

ANPR	Automatic Number Plate Recognition
BPS	Battersea Power Station
CIL	Community Infrastructure Levy
DfT	Department for Transport
DIFS	Development Infrastructure Funding Study
DIRR	Development Infrastructure Requirements Review
FE	Form of Entry
GIA	Gross Internal Area
GLA	Greater London Authority
GRIP	Governance for Railway Investment Projects
HMO	House in Multiple Occupation
LBL	London Borough of Lambeth
LBM	London Borough of Merton
LBW	London Borough of Wandsworth
MPS	Metropolitan Police Service
NCGM	New Covent Garden Market
NEB	Nine Elms Battersea
NES	Nine Elms Square
NESB	Nine Elms on the South Bank
NLE	Northern Line Extension
OA	Opportunity Area
OSA	Open Space Assessment
PACE	Project Acceleration in a Controlled Environment
PRS	Private Rented Sector
RMG	Royal Mail Group
S106	Section 106 agreement
SCIL	Strategic CIL
TfL	Transport for London
VNEB	Vauxhall, Nine Elms & Battersea
WCC	Westminster City Council

## Appendix B VNEB Development Map April 2024



### Complete

- 01 One Nine Elms
- 06 Embassy Gardens – Phase 3
- 07 US Embassy
- 09 Embassy Gardens – Phase 2
- 10 The Residence
- 11 Lexington Gardens
- 14 Embassy Gardens – Phase 1
- 15c Nine Elms Park – Plot D
- 17a Nine Elms Park – Plot C1
- 17b Nine Elms Park – Plot C2
- 18a New Covent Garden Market – Temporary Flower Market
- 23 Battersea Power Station – Phase 4a
- 24 Battersea Exchange
- 27 Nine Elms Point
- 28 Wendle Court
- 29 Sky Gardens
- 31 Keybridge
- 33 Vista
- 34 101 Prince of Wales Drive
- 35 Battersea Power Station – Phase 3b
- 36b Battersea Power Station – Phase 2
- 43 Riverlights
- 47 St George Wharf
- 49 South Lambeth Place
- 54 Aykon
- 56 Urbanest Vauxhall
- 57a Atlas
- 57b Rudolf Place
- 61a Spring Mews – Phase 1
- 61b Spring Mews – Phase 2
- 62 Merano Residences
- 63 The Dumont
- 64 The Corniche
- 66 101 Albert Embankment
- 67 81 Black Prince Road
- 73 Palace View
- 76 Tintagel House
- 77 Mount Carmel
- 89 Tidbury Court
- 90 Hain Court

### Under Construction

- 02 Nine Elms Square (New Covent Garden Market Northern Site)
- 05 Embassy Gardens – Phase 3
- 15a Nine Elms Park – Plot A
- 15b Nine Elms Park – Plot B

- 17c Nine Elms Park – Plot E
- 17d Nine Elms Park – Plot F
- 17e Nine Elms Park – Plot G
- 18b New Covent Garden Market – Temporary Flower Market
- 19 New Covent Garden Market – Food Exchange and IDU
- 20a New Covent Garden Market – Market Site
- 20b New Covent Garden Market – Market Site
- 25 New Covent Garden Market – 50 Thessaly Road Site
- 30 Grand South (12-20 Wyvil Road)
- 36a Battersea Power Station – Phase 1
- 36c Battersea Power Station – Phase 3a
- 36e Battersea Power Station – Phase 4
- 38, 46 and 58 Thames Tideway Tunnel Sites
- 39a Battersea Power Station – Phase 5a
- 42 Battersea Power Station – Phase 5b
- 55 Vauxhall Square
- 72 Westminster Tower
- 74 Palmerston Court
- 75 Chelsea Bridge Wharf
- 79 Patmore Centre

### Application Approved

- 25 Nine Elms Overstation Development
- 36d Battersea Power Station – Phase 6
- 41 Battersea Power Station – Phase 7
- 50 Vauxhall Cross / Island
- 97 28 Thessaly Road

### Pre-Development

- 12 Metropolitan Police Warehouse
- 21 and 22 BMW Garage and Booker
- 37 Cringle Dock
- 70 London Fire Brigade HQ
- 80 6-10 Ingate Place
- 81 Dominvs Site
- 84 Securicor Site
- 85 Kitling Wharf
- 86 Cable & Wireless Site
- 87 Brooks Court
- 97 Battersea Park Road Site
- 99 Battersea Ring Main
- 100 Patmore Estate

### Open spaces

- Roads
- Railway Lines

Source: Adapted by LBW from Vauxhall & Nine Elms Development Map, [www.nineelsmlondon.com](http://www.nineelsmlondon.com)

## Appendix C Social infrastructure requirements

**Table A - population yield**

	NEB Total: 2024/25 to											
	NEB Total	2032/33	2024	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33
Population (cumulative)	33353	14236	19117	21536	23615	26251	29273	31010	31372	32368	33206	33353

Source: NEV Population Yield Calculator

**Table B - child yield**

	NEB Total: 2024/25 to											
	NEB Total	2032/33	2024	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33
Nursery (2 to 3 years)	1037	457	580	658	725	809	906	962	973	1005	1032	1037
Primary (4 to 10 years)	2259	1059	1200	1380	1534	1730	1955	2084	2111	2185	2248	2259
Secondary (11 to 15 years)	923	441	482	557	622	703	797	851	862	893	919	923
Sixth Form (16 to 17 years)	334	160	173	201	224	254	288	307	312	323	332	334

Source: NEV Population Yield Calculator

**Table C - education requirements**

	NEB Total: 2024/25 to											
	NEB Total	2032/33	2024	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33
Nursery (2 to 3 years)	726	320	406	461	507	566	634	673	681	704	723	726
Primary (4 to 10 years)	1581	741	840	966	1074	1211	1369	1459	1478	1530	1573	1581
Secondary (11 to 15 years)	646	308	338	390	435	492	558	595	603	625	643	646
Sixth Form (16 to 17 years)	234	112	121	140	157	178	202	215	218	226	233	234

	NEB Total: 2024/25 to											
	NEB Total	2032/33	2024	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33
Forms of entry												
Primary single FE = 210 children (30 x 7 yrs)	7.5	3.5	4.0	4.6	5.1	5.8	6.5	6.9	7.0	7.3	7.5	7.5
Secondary single FE = 150 children (30 x 5 yrs)	4.3	2.1	2.3	2.6	2.9	3.3	3.7	4.0	4.0	4.2	4.3	4.3
Sixth Form single FE = 60 children (30 x 2 yrs)	3.9	1.9	2.0	2.3	2.6	3.0	3.4	3.6	3.6	3.8	3.9	3.9

	NEB Total: 2024/25 to											
	NEB Total	2032/33	2024	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33
Primary schools - delivery and residual need												
Primary (Forms of Entry)	4.0											
Residual primary needs (Forms of Entry)		0.5										

**Notes:**

Levels of private provision has been based roughly on those presented in *Nine Elms and Vauxhall Opportunity Area Household Research (BMG Research, 2017) paged 29-30*  
 For all stages of education, we have included a 30% discount to the child yield to account for students attending private schools, and account for the 70% attending state schools  
 Delivery of a new 2FE primary school (Nine Elms Primary School) in 2025/26 with the expansion to the school to 4FE on the adjacent Metropolitan Police site  
 The delivery figures exclude the potential for a single FE extension to St George's Primary School which LBW have been exploring



**Table D - community facilities & library requirement**

	NEB Total	NEB Total: 2024/25 to 2032/33	2024	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33
Cumulative community space need (sqm)	6671	2847	3823	4307	4723	5250	5855	6202	6274	6474	6641	6671
Community centres (1 = 300 sqm)	22	9	13	14	16	18	20	21	21	22	22	22
Cumulative library needs (sqm)	1001	427	574	646	708	788	878	930	941	971	996	1001
Libraries (1 = 750sqm)	1.3	0.6	0.8	0.9	0.9	1.1	1.2	1.2	1.3	1.3	1.3	1.3

**Notes:**

LBW Planning Obligations SPD identifies a development generating 1,500 residents could be required to provide 300 sqm of community space i.e. 0.2 sqm per new resident

Museum Libraries and Archives Council Report 'Public Libraries, Archives and New Development, a Standard Charge Approach', 2008, identifies 30 sqm of library floorspace per head of population i.e. 0.03 sqm per new resident

**Table E - arts and cultural space needs**

	NEB Total	NEB Total: 2024/25 to 2032/33	2024	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33
Cumulative arts space requirement (sqm)	1501	641	860	969	1063	1181	1317	1395	1412	1457	1494	1501
Costs by type (£m)												
Type 1	£5.10	£2.18	£2.92	£3.30	£3.61	£4.02	£4.48	£4.74	£4.80	£4.95	£5.08	£5.10
Type 2	£5.55	£2.37	£3.18	£3.59	£3.93	£4.37	£4.87	£5.16	£5.22	£5.39	£5.53	£5.55
Type 3	£3.42	£1.46	£1.96	£2.21	£2.42	£2.69	£3.00	£3.18	£3.22	£3.32	£3.41	£3.42
Blended cost (£m)	£4.69	£2.00	£2.69	£3.03	£3.32	£3.69	£4.12	£4.36	£4.41	£4.55	£4.67	£4.69

**Notes:**

Arts Council England (2009) recommends a benchmark for arts space, which can come in various forms, of 45 smq per 1,000 population i.e. 0.045 sqm per new resident

Living Places guidance on 'art provision and sustainable communities' indicates a construction and fit-out cost estimate for cultural centres as follows:

Type 1: Galleries, housing permanent and temporary exhibitions = £3,400 per sqm

Type 2: Multi-use arts venues and theatres = £3,700 per sqm

Type 3: Production, rehearsal and education space for arts = £2,280 per sqm

**Table F - open space needs**

	NEB Total	NEB Total: 2024/25 to 2032/33	2024	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33
Cumulative open space need (sqm)	66,706	28,472	38,234	43,072	47,230	52,503	58,546	62,020	62,745	64,736	66,411	66,706
Cumulative open space need (ha)	6.7	2.8	3.8	4.3	4.7	5.3	5.9	6.2	6.3	6.5	6.6	6.7

**Notes:**

LBW Planning Obligations SPD (2015) sets out a requirement of 2sqm open space per resident

**Table G - play space needs**

Child yield by age group	Total	NEB Total: 2024/25 to										
		2032/33	2024	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33
0 to 17 years	5955	2708	3247	3707	4102	4604	5178	5509	5578	5767	5927	5955
Cumulative requirement	Total	NEB Total: 2024/25 to										
Playspace requirement (sqm)	59,547	27,082	32,465	37,067	41,022	46,037	51,785	55,089	55,779	57,673	59,267	59,547
Playspace requirement (hectares)	5.95	2.71	3.25	3.71	4.10	4.60	5.18	5.51	5.58	5.77	5.93	5.95

Notes:  
 GLA playspace recommendation is 10 sqm per child aged 0 to 17 years

**Table H - sports facilities**

Cumulative artificial grass pitch requirement	Total	NEB Total: 2024/25 to										
		2032/33	2024	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30	2030/31	2031/32	2032/33
Cumulative artificial grass pitch requirement	1.11	0.47	0.64	0.72	0.79	0.88	0.98	1.03	1.05	1.08	1.11	1.11
Artificial grass pitch costs (£m)	£1.64											
Cumulative sports hall requirement	2.6	1.11	1.49	1.68	1.84	2.04	2.28	2.42	2.44	2.52	2.59	2.60
Sports hall costs (£m)	£9.59											

Notes:  
 Sports requirement and costs have been calculated using the Sport England Active Power Places Sports Facility Calculator populated with the population yield (Table A)

## Appendix D Project schedule

Category	Project name	Description	Status	Delivery organisation	Gross Cost	Funding <sup>52</sup>			Phasing		Capital Programme? (Y or N)	Aspirational or Reserve? (Y or N)	
						£000s	Required	Spent	Residual	Start			End
							£000s	£000s	£000s				
Social infrastructure	Nine Elms Primary School	Land and construction costs for proposed 2FE Primary School and community facilities	Feasibility Stage	LBW	£73,000	£73,000	£15,933	£57,067	2021	2026	Y	N	
Social infrastructure	Sleaford Street Health Centre	Provision of approx. 1,800 sqm NHS health facility with capacity for up to 12 GPs in order to meet the service demand from new and existing population growth, in response to NHS Healthcare assessment for Nine Elms.	Feasibility Stage	South West London ICS	£12,990	£12,990	£2,186	£10,804	2020	2026	Y	N	
Social infrastructure	Nine Elms Square Health Centre	Potential for 2nd health centre identified in NHS Healthcare assessment for Nine Elms; will only be brought forward if long-term need dictates requirement	Feasibility Stage	South West London ICS	£10,630	£10,630	£0	£10,630	Subject to demand		N	Y	
Social infrastructure	Arts and cultural facilities	Fit out of any required arts and cultural space	Feasibility Stage – not subject to active work	LBW	£3,800	£3,800	£0	£3,800	2024	2033	N	Y	
Social infrastructure	Improved Community Facilities	Improved or additional facilities to meet residual identified need	Feasibility Stage – not subject to active work	LBW	£14,000	£14,000	£0	£14,000	2024	2033	N	Y	
Social infrastructure	BPS Community Hub	BPS Community Hub to be provided within BPS Phase 4 in line with S106 obligation	Feasibility Stage	BPS	N/A	£0	£0	£0	2024	2033	N	Y	
Social infrastructure	Contribution to fire station expansion	Pro rata contribution towards expansion of Fire Stations	N/A	London Fire Brigade	£3,100	£3,100	£0	£3,100	2024	2033	N	Y	
Social infrastructure	Contribution to Ambulance service expansion	Pro rata contribution towards expansion of Ambulance Stations	N/A	LBW	£2,000	£2,000	£0	£2,000	2024	2033	N	Y	
Social infrastructure	Nine Elms Art Centre Lease	Costs associated with the lease for the Nine Elms Art Centre	Complete	LBW	£180	£180	£0	£0	2018	2018	N	N	
Social infrastructure	Battersea Power Station S106 Sports and Playspace Improvements	Sports and Playspace improvements in relation to the Battersea Power Station development	Complete	Developer	£198	£198	£198	£0	2022	2023	N	N	

<sup>52</sup> Only includes funding from CIL, DIFS, tariff or cash via S106, excludes direct delivery or assumed third-party funding

Social infrastructure	Power Station Park	A six-acre riverside park delivered alongside the Battersea Power Station development	Complete	Developer	N/A			£0		2023	N	N
Social infrastructure	Prospect Park	A playground delivered alongside the Battersea Power Station development	Complete	Developer	N/A			£0		2023	N	N
Social infrastructure	Cultural Anchor Tenants	A programme to support the attraction of key cultural tenants to support the Council's vision for the OA as a key cultural destination	Complete	LBW	£0	£0	£0	£0	2018	2023	N	N
Social infrastructure	Policing Hub	Facilities to address a potential requirement for policing space within the OA, to be delivered through the s106 for Battersea Power Station	Feasibility Stage	Police Service	N/A				2024	2033	N	N
Social infrastructure	Primary School - Expansion onto Met Police Site	Additional 2FE of primary school places in Nine Elms, depending on eventual population yield and demand for school places	Feasibility Stage – demand dependent	LBW	£1,300	£1,300	£0	£1,300	Subject to demand		N	Y
Social infrastructure	Primary School - expansion of St George's	A potential expansion to St George's Primary school, depending on eventual population yield and demand for school places	Feasibility Stage – demand dependent	LBW	£4,500	£4,500	£0	£4,500	Subject to demand		N	Y
Social infrastructure	Nine Elms Park	Delivery of a new c.4.5 hectare linear park with public realm improvements within the OA, being mostly delivered by developers	Feasibility Stage	LBW / Developers	£10,374	£10,374	£1,678	£8,696	2021	2026	Y	N
Social Infrastructure	Cultivated Art Strategy	Delivery of a programme of arts and cultural events within the OA	Completed	LBW	£20	£20	£20	£0	2017	2018	N	N
Transport	Nine Elms Lane / Battersea Park Road Corridor Scheme	Creation of a corridor that provides benefits which support the Healthy Streets Approach to promote active travel, public transport and essential traffic	Under construction	TfL Developer (Battersea Power Station)	£28,248	£28,248	£7,617	£20,631	2020	2033	Y	N
Transport	Thessaly Road links	Streetscape and highway improvement proposals that enhance the look and feel of the area, improving safety and connection for all street users where possible (Nine Elms Lane to Borough Boundary)	Completed	LBW	£2,420	£2,420	£2,420	£0	2020	2023	Y	N

Transport	Key Gateways	Improving key gateways into the OA, including Stewarts Road and Arch 42 once opened	Various depending on project	LBW	£3,000	£3,000	£221	£2,779	2021	2033	Y	N
Transport	Queenstown Road corridor scheme	Chelsea Bridge to Queen's Circus carriageway narrowing and Queen's Circus to Battersea Park Road (bus/cycle only)	Feasibility Stage	LBW	£4,000	£4,000	£169	£3,831	2020	2033	Y	N
Transport	Improvements to bus services and capacity	Longer-term revisions to bus network to reflect new neighbourhood, as well as impact of changes outside including redevelopment of Vauxhall Cross and potential for additional river crossing.	Feasibility Stage	TfL	£5,014	£5,014	£3.7	£5,010	2022	2033	Y	N
Transport	River walk	Upgrading the two sections of Thames Path within LBW identified in OAPF as missing links not improved by development	Stage 1 completed	LBW	£4,728	£4,728	£2,730	£1,997	2013	2033	Y	N
Transport	Nine Elms-Pimlico pedestrian/cycle bridge - Remaining Design and Construction	New river crossing	Feasibility Stage – not subject to active work	LBW	£42,500	£26,850	£2,425	£26,847	2020	2033	N	Y
Transport	Queenstown Road station minor improvements	New entrance for Queenstown Road station	Feasibility Stage	Developer / Network Rail	N/A	£0	£0	£0	2024	2033	N	Y
Transport	Viaduct Cycling Route	Continuous cycling route along the viaduct Ponton Road to Sleaford St, including raised link across NCGM Entrance Site to enable continuous cycle access	Not started	Developers / LBW	£2,000	£660	£0	£660	2024	2033	N	Y
Transport	Pedestrian connection between Havelock Terrace and Ingate Place	Costs and phasing to be established by feasibility study for new pedestrian connection within BDTQ	Feasibility Stage – not subject to active work	LBW	TBC				TBC		N	Y
Transport	Silverthorne & Queenstown Road junction:	Costs and phasing to be established by feasibility study for improved junction gateway to BDTQ	Feasibility Stage – not subject to active work	LBW	TBC				TBC		N	Y
Transport	Ponton Road improvements	Streetscape and highway improvements which can only be delivered after construction traffic leaves the area.	Under construction	Adjacent Developers	£3,500	£700	£0	£700	2028	2030	N	Y
Transport	Lowline Extension	Scope, costs and phasing of range of individual projects to be established further to recently completed feasibility study	Feasibility Stage	LBW	TBC				TBC	TBC	N	Y

Transport	Battersea Park station improvements	Upgrades to station to accommodate increased services and improve access including new entrance	Pre-construction Stage	Network Rail	£35,600	£35,600	£2,484	£33,116	2021	2024	Y	N
Transport	Legible London	Wayfinding improvements to be funded from specific s106 contributions and delivered within Nine Elms Lane Scheme and other specific interventions identified by strategy	Started	LBW / TfL	£750	£87	£0	£87	2021	2033	N	N
Transport	Key Gateway Western Entrance (Tube)	Improvements to open up a new western entrance to Battersea Power Station LUL	Under Construction	TfL	£2,500	N/A	N/A	N/A	2023	2025	N	N
Transport	Strategic Links	Improvements to strategic links within the OA	Completed	LBW	£19	£19	£19	£0	2022	2023	N	N
Utilities	District heating infrastructure	DHN's at Embassy Quarter network (serving Embassy Gardens, RMG, R&F and Bellway sites) and at BPS, both with potential for future extension.	Completed	MUSCO/ESCO	N/A				2019	2023	N	N
Utilities	Primary substation	New substation on Stewarts Road	Completed	UKPN	N/A				2018	2020	N	N
Utilities	Future network upgrades	Potential requirement to upgrade network capacity (electricity) to cope with banning of gas boilers in new build flats post-2025 and increased requirement for EV charging points. Cost cannot be quantified at present and may not be required.	Feasibility Stage	UKPN	TBC				2025	2033	N	N
Utilities	Utility Corridor - pre-emptive ducting	Co-ordination of delivery and potential onward future connection past RMG site on Post Office Way	Completed	LBW	£982	£982	£982	£0	2018	2024	Y	N
Utilities	5G infrastructure	Upgrading the network to support 5G	Completed	Private sector	N/A				2019	2022	N	N
Utilities	Strategic Planning & Coordination	Costs associated with co-ordination of utilities	Ongoing	LBW	£955	£955	£707	£248	2016	2033	Y	N
Utilities	Other Electricity Network Upgrades	Further upgrades to the electricity network as may be required to support the delivery of the OA	Feasibility Stage	UKPN	TBC				2024	2033	N	N
<b>Total</b>					<b>£272,308</b>	<b>£246,355</b>	<b>£39,793</b>	<b>£211,803</b>				

## Appendix E Anticipated Electricity Demands

This note has been prepared to provide a summary of the anticipated electricity demands to be generated by the VNEB development forecast, and to investigate any capacity constraints on the network, to identify whether any further upgrade works are required to deliver the proposed trajectory.

### Anticipated Residential Demands

The latest housing trajectory plan received from LBW shows 7,174 residential units still to be constructed.

Following the government guidelines on the installation of low-carbon technologies to reduce the use of fossil fuels, we have assumed heat pumps will be installed to heat the dwellings.

Based on an estimated demand of 3.41kW per dwelling, in line with recent industry guidance, we anticipate a demand of 24.46MW for the remaining residential units.

### Anticipated Commercial Demands

Commercial demands have been calculated based upon use type percentages taken from historic developer phasing study questionnaires (dated 2015) provided by LBW. From this, we have assumed a breakdown of commercial areas as follows: -

- Use type E(g) - Offices 60.00%
- Use type E(a) – Retail 37.00%
- Use type E(b) – Sale of food and drink 0.19%
- Use type E(c) – Financial and Professional 0.02%
- Use type E(d-f) / F1 – Non-residential Institutions 0.40%
- Use type F2 – Assembly and Leisure 0.43%
- Use type C2 - Residential Institutions 1.30%
- Schools 0.76%

Based on these assumptions, the total estimated commercial electricity demand is 38.39MW, as per the table below.

Type	Electrical Loads	Units	Demand kW	Diversity (No Diversity = 1.0)	Diversified Demand kW	Diversified Demand KVA
C2 Residential Institutions (Residential School/College)	28	W/m2	143.08	0.85	121.62	135.13
E(a) Display or retail sale of goods not food - Shops	160	W/m2	23268.96	0.85	19778.62	21976.24
E(b) Sale of food and drink for consumption - Restaurants/snack bars/cafes	225	W/m2	168.075	0.85	142.86	158.74
E(c) (i) Financial Services - banks, building societies	150	W/m2	11.85	0.85	10.07	11.19
E(d) Indoor Sport, Recreation or Fitness (not involving motorised vehicles or firearms)	50	W/m2	30	0.85	25.50	28.33
E(e) Provision of Medical or Health services	65	W/m2	32.5	0.85	27.63	30.69
E(g)(i) Offices to carry out operational or administrative functions	87	W/m2	20517.558	0.85	17439.92	19377.69
F1(a) Provision of Education Primary School	150	kW/school	150	1	150.00	166.67
F1(a) Provision of Education Secondary School	621	kW/school	621	1	621.00	690.00
F2(b) Halls or Meeting Places for the Local Community use	50	W/m2	49.15	0.85	41.78	46.42
F2(d) Indoor or Outdoor Swimming Pools or Skating Rinks	50	W/m2	35.4	0.85	30.09	33.43
<b>Commercial Electric (Without EVCP)</b>					<b>38389</b>	<b>42655</b>

### Electric Vehicle Charging

Building Regulations 2010, Approved Document S - Infrastructure for the charging of electric vehicles (2021), Requirement S1 and Regulation 44D sets out a requirement for each new dwelling with an associated parking space to have a 7kW EV charge point installed.

Requirement S4 and Regulation 44G cover new buildings other than residential or mixed-use buildings, and this stipulates that where a building has more than 10 parking spaces, one of those spaces must have access to an electric vehicle charge point, and cable routes for further charge points must be installed in a minimum of one fifth of the total number of remaining parking spaces.

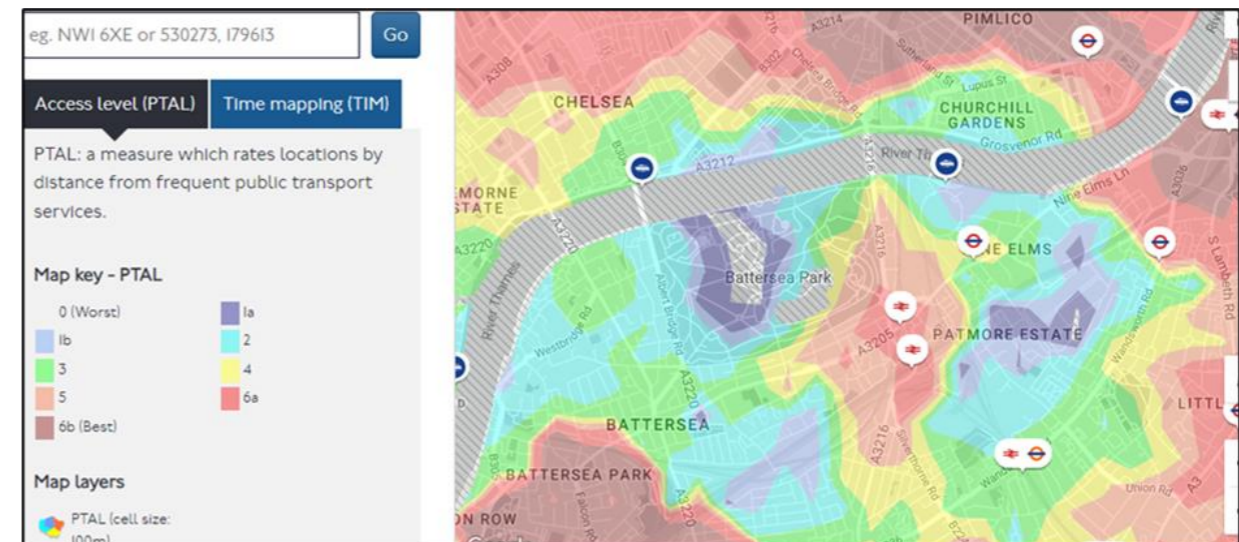
Local policy on parking requirements, as noted within Wandsworth's Adopted Local Plan 2023-2038 (LP51 – Parking, Servicing and Car Free Development), states: -

- Car parking in new shopping and leisure developments in Town Centres provides short stay parking and serves the Town Centre as a whole rather than being reserved solely for use in connection with the proposed development and be in accordance with Table 10.5 of the London Plan on maximum retail parking standards;
- Electric vehicle charging capacity is provided in accordance with the London Plan and any subsequent amendments; and
- Office parking provision is provided in accordance with the London Plan and any subsequent amendments.

Within the London Plan 2021, 'Policy T6 – Car Parking' states: -

*'Where car parking is provided in new developments, provision should be made for infrastructure for electric or other Ultra-Low Emission vehicles in line with Policy T6 .1 Residential parking, Policy T6 .2 Office Parking, Policy T6 .3 Retail parking, and Policy T6 .4 Hotel and leisure uses parking'*

Copies of these tables are shown below and should be read in conjunction with the following TfL PTAL (Public Transport Accessibility Levels) map of the VNEB development area.



Residential Parking

Based on the information provided within Table 10.3 below, we have allowed for a total of 1,794 EV parking spaces. This has been estimated allowing for some development areas to be car free and others ranging between 0.25 – 0.75 spaces per dwelling. Therefore, using the mid allocation of 0.25 spaces per dwelling, we have allowed for 7,174 units x 0.25 spaces, providing a total of 1,793.5 EV charging points.

**Table 10.3 - Maximum residential parking standards**

Location	Number of beds	Maximum parking provision*
Central Activities Zone Inner London Opportunity Areas Metropolitan and Major Town Centres All areas of PTAL 5 – 6 Inner London PTAL 4	All	Car free~
Inner London PTAL 3	All	Up to 0.25 spaces per dwelling
Inner London PTAL 2 Outer London Opportunity Areas	All	Up to 0.5 spaces per dwelling
Inner London PTAL 0 – 1	All	Up to 0.75 spaces per dwelling

Anticipated additional EV demand to serve the residential dwellings is estimated at 2.76MW, based on the installation of a 7kW charge point per associated parking space, with a diversity factor of 0.22, as per UKPN's diversity factor table contained within their guidance document EDS 08-5050 Electric Vehicle Connections.

Commercial Parking

Tables 10.4 and 10.5 below from The London Plan advise that new offices within inner London should be car free, and the maximum number of spaces for retail is up to 1 space per 75 sqm, except for in PTAL zones 5 and 6 where there should be no provision for parking.

On this basis, we have assumed an allowance of 287 EV commercial parking spaces, each installed with a 7kW charge point, and with a diversity factor of 0.8 applied as per UKPN's guidance note referenced above. Therefore, using the mid allocation of car free spaces and 1 space per 75 sqm for retail, we have allowed 43,057 sqm / 75 sqm / 2, providing a total of 287 EV charging points. This equates to a potential commercial EV demand of 1.60MW.

**Table 10.4 - Maximum office parking standards**

Location	Maximum parking provision*
Central Activities Zone and inner London	Car free^
Outer London Opportunity Areas	Up to 1 space per 600 sq.m. gross internal area (GIA)
Outer London	Up to 1 space per 100 sq.m. (GIA)
Outer London locations identified through a DPD where more generous standards apply	Up to 1 space per 50 sq.m. (GIA)

**Table 10.5 - Maximum retail parking standards**

Location	Maximum parking provision*
Central Activities Zone and all areas of PTAL 5-6	Car-free^
Inner London Outer London Opportunity Areas Outer London retail below 500 sq.m.	Up to 1 space per 75 sq.m. gross internal area (GIA)
Rest of outer London	Up to 1 space per 50 sq.m. (GIA)



## Appendix F UKPN Note on Stewarts Road Substation

In 2015, UK Power Network’s began work on the construction of a major substation serving the Battersea and Vauxhall, Nine Elms Opportunity Area. The substation was commissioned in 2020 following the construction of a new tunnel under the Thames River. The substation comprises of 2x 132kV/11kV 66MVA transformers and an 11kV switchboard. This provides a firm capacity of 83MVA. The substation has been designed and constructed to accommodate a third transformer, which will increase the firm capacity to approximately 150MVA. The peak demand in 2023 was 8MVA, leaving a headroom of 75MVA.

The substation is modelled and monitored on a continual basis to assess the impact of load growth and new connections. Before a third transformer is triggered, UK Power Networks, through its DSO and DNOA process will seek technological solutions and flexibility services to unlock capacity. Based on our latest Planning Load Estimates we do not foresee any future capacity constraints. The below diagram details the assessment cycle for the substation.

