

Elephant Park H1 Development

# Construction Environmental Management Plan

May 2021

Prepared by Lendlease



# Application documents

**Affordable Workspace Strategy**

**Application Form and Ownership Certificate**

**Arboricultural Method Statement**

**Archaeological Desk-Based Assessment**

**Basement Impact Assessment**

**CIL Additional Information Form**

 **Construction Environmental Management Plan**

**Daylight and Sunlight Report**

**Development Consultation Charter Engagement Summary**

**Draft Delivery and Servicing Management Plan**

**Design and Access Statement**

**Detailed Circular Economy Statement**

**Drainage Strategy**

**Energy Statement**

**Environmental Statement**

**Existing and Proposed Drawings**

**Fire Statement**

**Flood Risk Assessment**

**Health Impact Assessment**

**Marketing Strategy**

**Phase 1 Geo-Environmental Assessment**

**Planning Statement**

**Reconciliation and Comparison Statement**

**Statement of Community Involvement**

**Sustainability Statement**

**Transport Assessment (inc. Travel Plan)**

**Television and Radio Reception Impact Assessment**

**Utilities and Infrastructure Statement**

**Whole Life-Cycle Carbon Assessment**

# Contents

<b>1. INTRODUCTION .....</b>	<b>4</b>
1.1. Introduction.....	4
1.2. Introduction to the Construction Management Plan.....	4
1.3. Construction Programme & Phasing.....	6
<b>2. SITE AND SURROUNDINGS .....</b>	<b>9</b>
2.1. Elephant Park.....	9
2.2. The Outline Planning Permission.....	9
2.3. Plot H1.....	11
<b>3. DESCRIPTION OF DEVELOPMENT .....</b>	<b>13</b>
3.1. Description of Development .....	13
3.2. The Proposed Development .....	13
<b>4. WORKS DESCRIPTION AND METHODS .....</b>	<b>15</b>
4.1. Construction Sequence .....	15
4.2. Enabling Works and Substructure Works .....	15
4.3. Superstructure / Frame .....	16
4.4. Envelope, Roof, Shell and Core.....	16
4.5. Fit-out, Finishes and External Works .....	16
4.6. Completion of Retail Units and Shell and Core Fit-out Works .....	17
4.7. Public Realm Works.....	17
<b>5. SITE LOGISTICS AND SETUP .....</b>	<b>18</b>
5.1. Logistics by Phase .....	18
5.2. Consents and Licenses.....	18
5.3. Asbestos Removal and Demolition .....	19
5.4. Site Establishment and Security .....	19
5.5. Site Management .....	19
5.6. Material Storage and Handling.....	20
5.7. Construction Traffic Management.....	21
5.8. Construction Routes and Access .....	23
5.9. Offloading and Storage .....	23
5.10. Personnel, Public and Vehicle Segregation.....	23
5.11. Temporary Road Closures .....	24
5.12. Crane Bases, Service Ducts, Tower Crane Erection .....	24
5.13. Building Frame, Envelope and Fit-out.....	24
<b>6. INFRASTRUCTURE WORKS .....</b>	<b>26</b>
6.6. Utility Infrastructure Works .....	26
6.7. Utilities Diversions .....	26
6.8. Public Realm Tree Management.....	26
<b>7 Safety, Health &amp; Environmental Considerations during Construction.....</b>	<b>27</b>

7.6	General Safety, Health and Environmental Consideration .....	27
7.7	Control of Substances Hazardous to Health .....	28
7.8	Outline Environmental, Emergency Fire and Accident Procedures .....	28
7.9	Particular Health, Safety and Environmental Considerations .....	30
7.10	Works close to TfL Highway Routes .....	30
7.11	Works close to Network Rail's Infrastructure .....	30
7.12	Pedestrian / Public Street Lighting Surrounding the Site .....	30
7.13	Air Quality .....	31
7.14	Noise and Vibration .....	33
7.15	Soils and Contamination .....	34
7.16	Waste .....	34
7.17	Hazardous Waste .....	36
7.18	Water Resources .....	36
7.19	Unexploded Ordnance .....	37
<b>8</b>	<b>COMMUNITY LIAISON AND PUBLIC RELATIONS .....</b>	<b>39</b>
8.1	Community Liaison .....	39
8.2	Considerate Constructors Scheme .....	39
8.3	Hoarding .....	40
<b>9</b>	<b>Workforce .....</b>	<b>41</b>
9.1	Employment and Management Workforce .....	41
9.2	Working Hours .....	41
<b>10</b>	<b>amendments to the CEMP .....</b>	<b>42</b>
10.1	Mechanisms to amend the CEMP .....	42
<b>APPENDIX 1 – LOGISTICS PLAN</b>		
<b>APPENDIX 2 – TRAFFIC HISTOGRAM</b>		
<b>APPENDIX 3 – LABOUR HISTOGRAM</b>		
<b>APPENDIX 4 – CONSTRUCTION TRAFFIC ACCESS ROUTES</b>		

# 1. INTRODUCTION

## 1.1. Introduction

- 1.1.1. This Construction Environmental Management Plan (CEMP) has been prepared by Lendlease Construction on behalf of Lendlease (Elephant & Castle) Limited (“Lendlease”) to support an application for full planning permission (“the Application”) for the redevelopment of land comprising Plot H1 (“the Site”) within the Elephant Park Masterplan, Elephant and Castle, London, SE1 (“the Elephant Park Masterplan”). This standalone development proposal is referred to as “the H1 Development”.
- 1.1.2. Plot H1 currently forms Phase MP5b within the Outline Planning Permission (“OPP”) granted on 23 March 2013 for the Elephant Park Masterplan (LBS Ref: 12/AP/1092). Outline planning permission was granted under the OPP for development of Plot H1 for a mix of land uses, with matters of scale, appearance and landscaping reserved. The approved development on Plot H1 under the OPP is referred to as “the OPP Plot H1 Parameters”.
- 1.1.3. The Application for Plot H1 seeks full planning permission to develop an office-led building (Class E) on the Site. It is being sought through a standalone planning application because it takes a form which is not capable of being approved in detail through the submission of reserved matters pursuant to the OPP. However, the H1 Development has been designed with the intention that it is to be delivered alongside the adjacent plots that have been and are being delivered under the OPP and will complete the Elephant Park Masterplan. In addition to the Application for the H1 Development, a non-material amendment application will be submitted in parallel to amend the Reserved Matters Application (RMA) approval for Plot H2, alongside a revised RMA for the Park, in order to align the public realm proposals hereby submitted with those approved on the neighbouring plots. This is explained further in Section 3.
- 1.1.4. The Elephant and Castle Town Centre has evolved significantly over the past decade and the Application for Plot H1 has been prepared to respond to the emerging context. Additionally, the New Southwark Plan and London Plan set ambitious targets for increasing employment space in the Borough within the Elephant and Castle Opportunity Area. The establishment of a new landmark commercial building in this location will provide new employment and business opportunities for local people and add to the vibrant mix of land uses at Elephant Park and the new Town Centre.

## 1.2. Introduction to the Construction Management Plan

- 1.2.1. This CEMP identifies implementation of effective management controls, for example the employment of dust suppression methods and use of effectively maintained plant. This CEMP sets out the management; monitoring, auditing and training procedures that will be put in place to ensure compliance with the relevant legislation and which ensures that any impacts on the surrounding environment are mitigated as far as possible. This CEMP is submitted on an indicative basis to support the H1 planning application and it is anticipated that a planning condition will be imposed on any H1 planning permission to require the submission of an updated CEMP prior to commencement of any works pursuant to the H1 permission.
- 1.2.2. The issues that have been considered within this document are described in detail within, as follows:
- Sequential phasing of the works, as detailed within Section 1.2
  - Site logistics
  - Construction traffic management
  - Infrastructure works
  - Works description and methods
  - Safety, health and environmental mitigation provisions

- Community liaison and public relations
- Workforce
- Future updates to this CEMP

1.2.3. Whilst the Application for the H1 Development does not form part of the OPP, it will be delivered alongside the wider Elephant Park Masterplan and as such, this CEMP has been prepared having regard to the following relevant CEMP requirements set out in Paragraph 3.3 of Schedule 3 of the OPP Section 106 agreement to ensure consistency throughout the construction period.

Paragraph of OPP S106	Description
Paragraph 3.3.2 of Schedule 3	The times during which works may be undertaken and the times during which deliveries may be made to the Site consistent with the Council's Environmental Code of Construction Practice;
Paragraph 3.3.3 of Schedule 3	The routes which construction traffic shall be directed to use so as to minimise insofar as reasonably practicable impacts of construction traffic on the transport network and the environment;
Paragraph 3.3.4 of Schedule 3	A detailed specification of construction works for that phase of the Development or (as the case may be) Plot including the relevant environmental impacts and the required mitigation measures. The Specification shall include details of the methods of piling so as to minimise noise and vibration impacts as well as damage or disruption to underground transport, utilities and services;
Paragraph 3.3.5 of Schedule 3	Engineering measures, acoustic screening and the provision of sound insulation required to mitigate or eliminate specific environmental impacts;
Paragraph 3.3.6 of Schedule 3	Measures to ensure continued access to Elephant Road and Sayer Street, Deacon Street, Castle Square, The Park and Walworth Road during construction;
Paragraph 3.3.8 of Schedule 3	Arrangements for publicity and promotion of the scheme during construction, including information on temporary closures and diversions of any part of the public highway and private roads, footways and cycle ways;
Paragraph 3.3.9 of Schedule 3	This should include management of Site access/egress by vehicles, cyclists and pedestrians;
Paragraph 3.3.10 of Schedule 3	Details of measures to prevent or control mud, dust, and waste being deposited on or affecting the safety and operation of the public highway and public transport;
Paragraph 3.3.11 of Schedule 3	Adoption and implementation of the Considerate Constructors Scheme (or equivalent at the time of submission);
Paragraph 3.3.12 of Schedule 3	Details of training undertaken by the road hauliers;
Paragraph 3.3.13 of Schedule 3	Any necessary temporary road closure orders or diversions on the highway network or in the vicinity of the Site;
Paragraph 3.3.14 of Schedule 3	Any necessary temporary means in the closure and diversion of any pedestrians or cycle routes through or adjacent to the Site;
Paragraph 3.3.15 of Schedule 3	The proposed measures and/or hoardings to separate and enclose any proposed demolition and/or construction works;

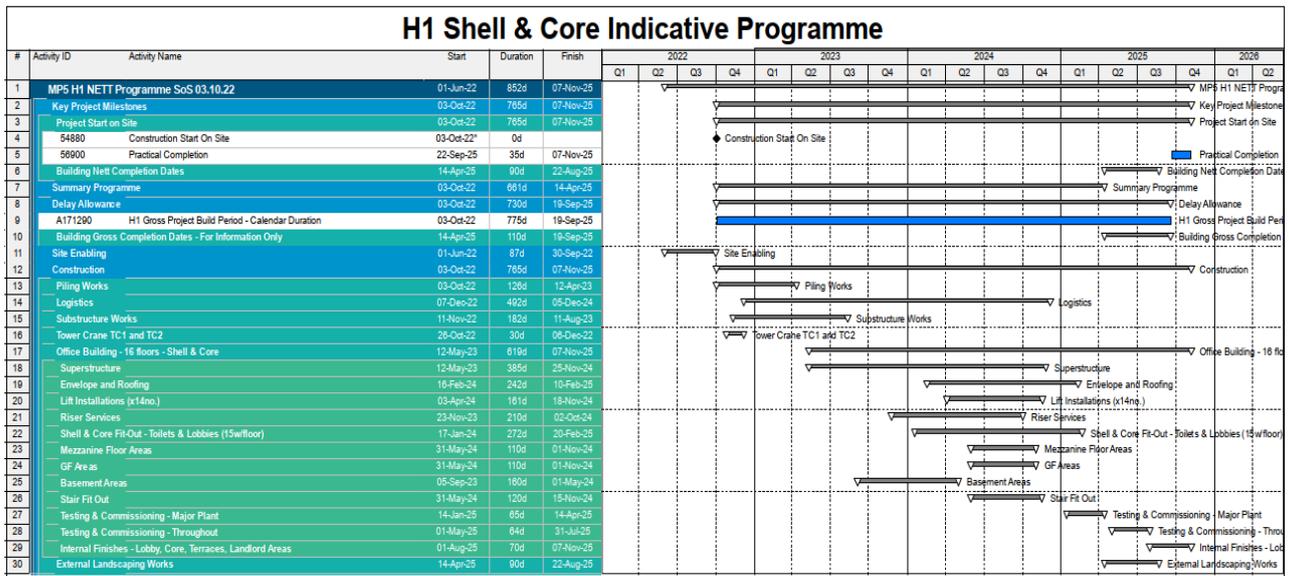
Paragraph 3.3.16 of Schedule 3	The interface between the Development and any works being carried out at the time to other developments in the vicinity of the Site;
Paragraph 3.3.17 of Schedule 3	Details of the form, siting and installation of temporary wayfinding signage to the destinations within the vicinity of the Site;
Paragraph 3.3.18 of Schedule 3	Measures necessary to ensure the continued provision of bus and taxi services within the vicinity of the Site; including the provision of bus stops necessary as a result of any road closures;
Paragraph 3.3.19 of Schedule 3	The timing and detail of any proposal to restrict, alter or stop bus access through the Site for any period of time;
Paragraph 3.3.20 of Schedule 3	Publicity requirements including provision for any periodic community liaison meetings and details of any specific publicity measures the Developer may wish to request Transport for London to carry out;
Paragraph 3.3.21 of Schedule 3	Measures to ensure the safety of the public during the period in which works are being carried out on the Site including lighting in the streets surrounding the Site;
Paragraph 3.3.22 of Schedule 3	Measures to mitigate as far as reasonably practicable construction traffic impacts generally;
Paragraph 3.3.23 of Schedule 3	Measures to mitigate against the effects of the Development including the effects of dust, noise and vibration on the amenity of occupiers in the vicinity of the Site and including any infrastructure protection measures in respect of Transport for London's assets including TLRN, Cycle Docking Stations, existing Cycle Routes and London Underground infrastructure plus Network Rail's Thameslink viaduct located in the area; and
Paragraph 3.3.24 of Schedule 3	Measures to be taken prior to road closures and construction.

### 1.3. Construction Programme & Phasing

1.3.1. A flexible approach to planning, logistics and programming of the H1 Development has been applied to incorporate both the best practice currently available and to allow for future trade contractor input for these sequential phases of the works, which are detailed in this CEMP:

- Enabling works
- Substructure
- Superstructure
- Envelope, roof, shell and core
- Fit out and external works

1.3.2. The programme for the overall works is set out below:



1.3.3. The enabling works and substructure works will include but not necessarily be limited to:

- Amendments or replacement of existing site hoarding and facilities currently in place
- Site investigations and surveys in relation to ground conditions including contamination and unexploded ordnance
- Works to trees in accordance with the arborist’s advice and processes as listed in the Arboricultural Impact Statement
- Utilities diversions and reinforcements, drainage installation, buried cable protection
- Foundation removal of the former building’s substructure as required
- Excavation and levelling for temporary roads
- Temporary sheet piles or test piles as required as part of ground condition investigation
- Pile probing, further ground investigation and installation of piling mat
- Installation of drainage system, crane bases (in conjunction with the piling operations), raft foundations, CFA piling, attenuation tank, mass excavation and associated temporary works
- Temporary crossovers for site access, installation of construction related facilities (temporary welfare, offices, security provisions)
- Services infrastructure of water, power, district heating, ducts and road crossings for services
- Installation of utilities, diversions, new electricity sub-station, supplies and connections as agreed with the statutory authorities
- Excavation and installation of storm water attenuation tank and reinforced concrete crane bases (in conjunction with piling operations)
- Secant piling forming the external walls
- Reinforced concrete piles (CFA)
- Pile caps, deep drainage and service routing

- Reduced level dig for the raft foundations storm water attenuation tank and tower cranes
- Bases, deep drainage and service ducts for district heating connections
- Four tower cranes (exact number and plan to be confirmed within final CEMP) will be erected to assist with the erection of the concrete frames
- Concrete pumps will be employed in placing concrete
- Larger mechanical plant housed in the basement spaces may be installed as below ground level construction proceeds for ease of installation access
- Excavate, lay and test underground drainage, coordinate and install incoming services to plot
- Backfill including concrete surround and drainage
- Trim and prepare basement raft slab formation including concrete blinding and waterproofing system
- Install basement raft slabs - fix rebar, shutter and pour
- If obstructions are encountered, there may be the potential for short bursts of repetitive hammering to move the obstruction but will keep within noise restrictions as determined by the planning permission conditions

1.3.4. The superstructure works will include but not necessarily be limited to:

- Erection of the building cores and hybrid steel and Cross Laminated Timber (CLT) frame
- Cranage and access hoists
- Installation of in-situ, preformed stairs
- Early installation of certain M&E elements (such as storm drainage)

1.3.5. The envelope, roof, shell and core works will include but not necessarily be limited to:

- Initial mechanical, electrical and mechanical and electrical plant (MEP) fixings
- Cladding (unitised and precast), glazing
- All roofing works and installation of external doors
- Install major plant to roof platforms

1.3.6. The fit out and external works will include but not necessarily be limited to:

- Internal installation for MEP, dry lining to core areas, toilet fit out operations, finishes to common user areas throughout the building
- Plant rooms
- All public realm terrace landscaping
- Provision of trees and planting to podium and external areas
- Provision of furniture and lighting.

## 2. SITE AND SURROUNDINGS

This section provides details of the Elephant Park planning permissions and the Site in its existing context.

### 2.1. Elephant Park

2.1.1. Elephant Park is located in Elephant and Castle, within the administrative boundary of Southwark Council (“the Council”). The Masterplan occupies an area of 9.71 hectares, and is bounded by:

- New Kent Road (A201) to the north,
- Rodney Place and Rodney Road to the east,
- Wansey Street to the south; and
- Walworth Road (A215) and Elephant Road to the west.

2.1.2. Heygate Street bisects Elephant Park with junctions to Walworth Road to the west and Rodney Place and Rodney Road to the east.

### 2.2. The Outline Planning Permission

2.2.1. The Council granted two planning permissions for Elephant Park on 27 March 2013: the OPP and the Demolition Planning Permission (ref: 12/AP/3203).

2.2.2. In summary, the OPP granted consent for up to 254,400 sqm of residential floorspace, up to 16,750 sqm of retail floorspace, up to 5,000 sqm of business floorspace and up to 10,000 sqm of community, culture and leisure floorspace, alongside a new energy centre, a new park (“The Park”), and public realm.

2.2.3. The OPP reserved the detailed design elements of Elephant Park for future approval at the Reserved Matters stage but did establish a series of approved parameters and principles for the Development within three approved application documents: the Parameter Plans, the Development Specification and the Design Strategy Document (“DSD”), as well as being accompanied by a section 106 agreement that was entered into on the same date that the OPP was granted.

2.2.4. The OPP introduced five specific character areas within Elephant Park which were established to create a variety of experience and richness to the development: 1 - The Park; 2 - Walworth Road; 3- New Kent Road; 4- Walworth Local and 5- Rodney Neighbourhood. These are shown on Figure 1 below.



Figure 1 - Extract of character areas from the consolidated Design Strategy Document (Feb 2013)

- 2.2.5. Elephant Park was further sub-divided into 12 individual development plots (H1 to H7, H10, H11a, H11b, H12, and H13) plus a Pavilion to be located in the new park at the centre of the scheme (known as plot 'PAV1'), refer to Figure 2 below. The individual development plots comprise a mix of residential and/or other land uses and included varying heights and massing to fit into the specific character areas in which they are located and the surrounding urban context. In particular, the height and massing of all tall buildings within Elephant Park was informed by a townscape assessment that takes into account both local and strategic London views. The plots are delivered within five phases, which are defined on the Phasing Plan (the most recent version of which is provided in Figure 2 below).

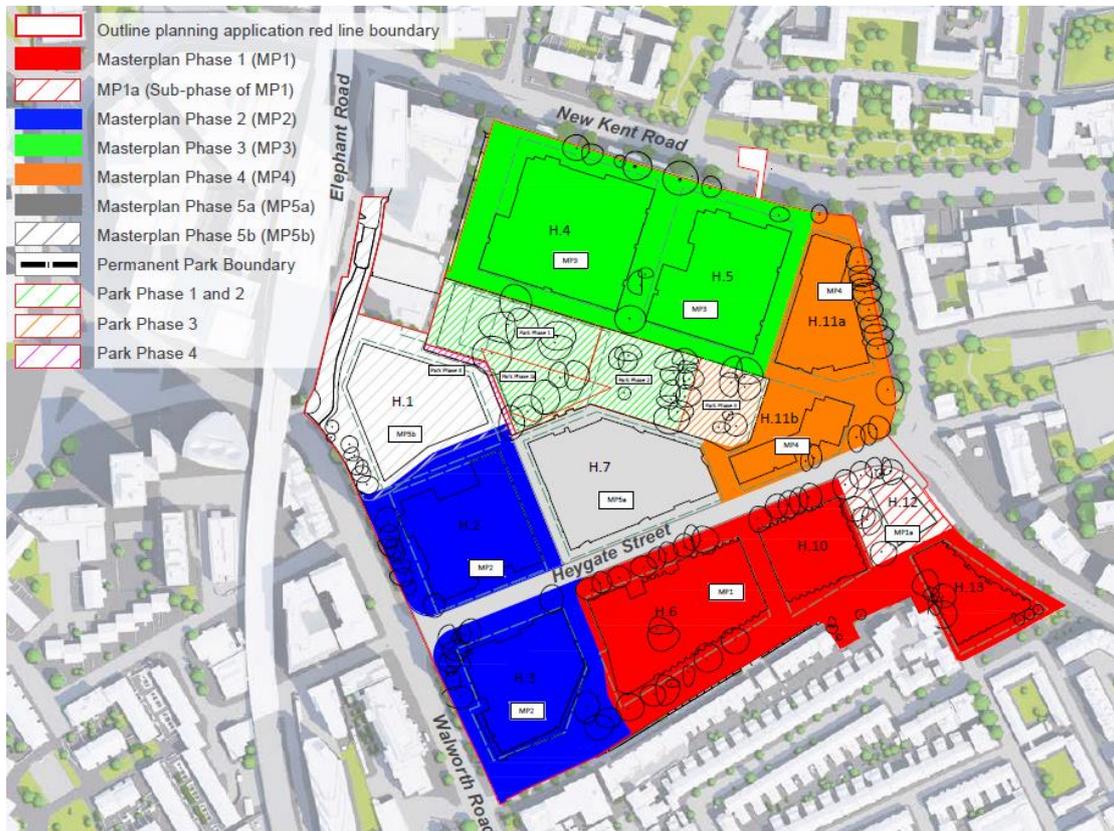


Figure 2 – Elephant Park phasing plan identifying the individual development plots

- 2.2.6. In addition to the built floorspace, the OPP provides significant areas of open space, including The Park, gateway spaces, pocket parks and new streets. Mature trees have been retained where possible and will be complemented with new landscape and new trees, which will ensure that there will be no net loss of trees on the Elephant Park site.
- 2.2.7. In March 2021, the Council approved a Detailed Phasing Plan for Elephant Park (Figure 2) setting out the current proposed sequence of construction works in respect of all phases and plots in the development. This Detailed Phasing Plan identified that Plot H1 would form part of the final phase MP5, sub-phase MP5b, of the Masterplan.
- 2.2.8. The Council approved the RMAs for the first phase of Elephant Park comprising Plots H6, H10 and H13 and associated public realm in February 2014. In December 2014, the Council approved the Reserved Matters Application for the second phase comprising Plots H2 and H3 and associated public realm. In October 2015, the Reserved Matters for the Energy Hub (Plot H12) and associated public realm were approved by the Council. RMAs for the third phase comprising Plot H4 and associated public realm, were approved by the Council in May 2017, and for Plot H5 and associated public realm in September 2017. RMAs for the fourth phase, comprising Plots H11a and H11b and associated public realm, were approved by the Council in September 2018. Most recently, the RMA for Plot H7 within Phase MP5a was approved by the Council in March 2020, and Reserved Matters for the Pavilion

(Plot PAV1) were approved in October 2020. Plot H1 is the only plot within the Masterplan that does not have Reserved Matters Approval.

- 2.2.9. In response to the increased employment targets of the Council and in the context of the evolving Town Centre, the H1 Development is being brought forward as an office, further enhancing the mixed use nature of the Elephant Park Masterplan. The H1 Development and the OPP have been designed to interface and co-exist to deliver the Elephant Park Masterplan, and it is the intention that H1 will be delivered alongside the development that has been constructed and/or approved under the OPP. The Application has been structured to interface with the OPP so that the OPP and the H1 Development can be developed out harmoniously and without either prejudicing the other. It is intended that a planning obligation will accompany the H1 Development and will secure that, upon commencement of the H1 Development, no further development will be undertaken pursuant to the OPP within the areas of the OPP that also benefit from the permission granted pursuant to the Application. In this way, it will be clear that the H1 Development supersedes the OPP in this area of the Elephant Park Masterplan. The H1 Development is brought forward without prejudice to the lawfulness, deliverability and acceptability of what has gone before under the OPP, and is capable of implementation alongside the OPP.
- 2.2.10. The Planning Statement submitted in support of the Application describes how this planning application has been structured in relation to the OPP. In order to explain the relationship between the H1 Development and the OPP more generally, a Reconciliation and Comparison Statement is included in Appendix 1. The Reconciliation and Comparison Statement provides a technical overview of the H1 Development in comparison with the OPP Plot H1 Parameters and a reconciliation of the Elephant Park Masterplan to show how the H1 Development and the composite RMA approvals for all other Plots granted under the OPP come together to provide a final reconciliation against the development controls of the OPP.

### 2.3. Plot H1

- 2.3.1. The Site is bounded by:
- Castle Square and Sayer Street to the north,
  - Sayer Street, the Pavilion and The Park to the east,
  - Walworth Road and Elephant Road to the west; and
  - Deacon Street and Plot H2 to the south.
- 2.3.2. As shown in Figure 3 below, the Site is largely surrounded by other elements of Elephant Park and sits at the confluence of The Park and Walworth Road Character Areas, marking the westernmost plot within the Masterplan. The Site is largely vacant however, at present, it contains a temporary modular building providing staff welfare in relation to the ongoing construction of the Elephant Park Masterplan along with accommodating the meanwhile use of the Urban Farm, as consented by Southwark (20/AP/2612) in November 2020.
- 2.3.3. The land uses surrounding the Site, particularly within the Elephant Park Masterplan, are primarily residential in character with commercial uses at ground level. To the east of the Site is The Park, the main public open space within the Elephant Park Masterplan. The southern boundary is characterised by Plots H2 and H7 which comprise mixed residential and commercial land uses. The area to the north and west is more varied and is characterised by the commercial uses within Castle Square and along Walworth Road, one of the main arterial routes in the Borough. There are no designated heritage assets (Conservation Areas or Listed Buildings) in close proximity to the Site.
- 2.3.4. The Site is situated within close proximity to the significant transport infrastructure around Elephant and Castle, with the Underground Railway Station to the north-west, and mainline Railway Station on the west side of Elephant Road. Further details are provided in the Design and Access Statement, prepared by Acme, that accompanies the Application.



## 3. DESCRIPTION OF DEVELOPMENT

This section describes what is being applied for in the Application for the H1 Development, explains why it is coming forward as a standalone planning application and how it relates to the Elephant Park Outline Planning Permission (OPP).

### 3.1. Description of Development

- 3.1.1. This section should be read in conjunction with the Design and Access Statement which is submitted in support of the Application and describes the principal components of the H1 Development.
- 3.1.2. This Application seeks full planning permission for the H1 Development. Specifically, the Application seeks approval for:

*'Redevelopment of the site to provide a building of ground plus 17-storeys (including a mezzanine floor) with basement and rooftop plant providing office floorspace (Class E) and areas of flexible floorspace for the following uses; office/retail/services/food and drink/medical or health floorspace (Class E), including ancillary cycle parking, accessible car parking, servicing, landscaping, public realm improvements and other associated works incidental to the development.'*

### 3.2. The Proposed Development

- 3.2.1. Working in partnership with Southwark Council, Lendlease is delivering a £2.5 billion regeneration programme on 28 acres of land in the centre of Elephant and Castle creating one of the capital's most exciting places to live, work and visit. The vision for Elephant Park is to breathe new life into this special part of Central London, building on Elephant and Castle's heritage to create thousands of high-quality new homes, jobs, business opportunities and green space for locals and Londoners.
- 3.2.2. The H1 Development will contribute to this vision by delivering an employment led development with an emphasis on health and wellbeing which maximises the connection with The Park. The vision for the Site is a direct response to its location, which will complement the transformation of Elephant and Castle Town Centre by diversifying the mix of uses in the neighbourhood and providing local employment and business opportunities to the area, whilst strengthening the connection between Elephant and Castle Town Centre and Walworth.
- 3.2.3. The H1 Development comprises ground plus 17 storeys (including mezzanine) with a basement level and rooftop plant, extending to a maximum height of 85.730 m AOD (including rooftop plant). The building will serve as a key focal point within Elephant Park and along Walworth Road, with the tallest element situated adjacent to the railway line and stepping down towards the neighbouring residential buildings.
- 3.2.4. The Application proposes 63,599 sqm (GIA) of floorspace, comprising 49,351 sqm (GIA) of offices, 8,681 sqm (GIA) of flexible of floorspace at ground floor, mezzanine and first floor level suitable for office, retail, food and drink, medical and health uses, alongside 5,566 sqm of shared plant, servicing and cycle parking facilities. All proposed uses fall within Use Class E of The Town and Country Planning (Use Classes) Order 1987 (as amended). A full breakdown of the proposed floorspace is provided in Table 3.1.

Table 3.1: Total Development Floorspace

Land Use (All Class E)	Floor Level	NIA (sqm)	GIA (sqm)	GEA (sqm)
Offices	02 - 16	40,783	49,351	49,565
Offices / medical or health	Mezzanine - 01	4,300	6,728	6,795
Offices / retail / services / medical or health	GF	259	264	277
Offices / retail / services / food and drink	GF	1,683	1,689	1,728
Ancillary (loading bay, plant, cycle facilities and other BOH space)	GF / Roof / Basement	-	5,566	6,258
<b>Total</b>	<b>All</b>	<b>47,025</b>	<b>63,599</b>	<b>64,624</b>

- 3.2.5. The H1 Development also proposes to provide 10% (GIA equivalent) of the office floorspace in the H1 Development as affordable workspace in line with emerging policy. As an alternative to the proposed affordable workspace, there is also a possibility that a new health hub to serve the local area could be provided within the H1 Development. Further information is provided in the supporting Affordable Workspace Strategy.
- 3.2.6. A key ambition of the H1 Development is to be open and accessible, evident through the provision of the active lobby - an extensive, publicly accessible ground floor space serving both future office occupants and the wider public. The ground floor frontages around the building will reflect the hierarchy of the adjacent streets and routes, with the frontages along Sayer Street North, Elephant Road and Walworth Road providing the main active frontages. This will enhance the surrounding streetscape and the relationship between the H1 Development and The Park, whilst also helping to strengthen the relationship between Elephant and Castle Town Centre and Walworth. The main office entrance is situated along the north elevation fronting Sayer Street North as it turns to meet Elephant Road, ensuring maximum visibility and accessibility for workers and visitors accessing the building from Elephant and Castle Railway and Underground Stations (through the viaduct archway pedestrian routes to be delivered as part of Delancey's Elephant and Castle Town Centre development).
- 3.2.7. The proposed H1 Development building will be complemented by the enhancement of the surrounding public realm, including Sayer Street North, which will be a pedestrian priority route and cycle route, along with improvements to Deacon Street and completion of the Elephant Road and Walworth Road landscape. The H1 Development public realm proposals have been developed in response to the key landscape Character Areas identified in the OPP, which define Elephant Park. The stepped approach to the massing facilitates the provision of external amenity space serving the office accommodation in the form of roof terraces, which will also allow for a strong visual connection between The Park and the building, whilst responding positively to the Site's prominent position on Walworth Road. The outdoor terraces and integration of public realm in the design of the H1 Development is also increasingly important in supporting occupier health and wellbeing in a post-Covid-19 workplace environment.
- 3.2.8. All servicing will be carried out from an internal loading dock, accessed from Deacon Street, with vehicles both entering and exiting Deacon Street from Walworth Road to minimise disruption to the wider street network within the Masterplan. The H1 Development will be car free other than allocated accessible spaces located on Deacon Street. Long stay cycle parking is proposed within the basement of the H1 Development, accessed from Walworth Road with further short stay cycle parking in the surrounding public realm.

## 4. WORKS DESCRIPTION AND METHODS

### 4.1. Construction Sequence

4.1.1. The construction sequence for the H1 Development is outlined below; minor changes may occur subject to detailed design development and procurement activities in accordance with Section 10 of this document.

### 4.2. Enabling Works and Substructure Works

4.2.1. This phase includes:

- Amendments or replacement of existing site hoarding and facilities currently in place;
- Site investigations and surveys in relation to ground conditions including contamination and unexploded ordnance;
- Works to trees in accordance with the arborist's advice and processes as listed in the Arboricultural Impact Statement;
- Utilities diversions and reinforcements, district heating network and drainage installation, buried cable protection;
- Foundation removal of the former building's substructure as required.
- Excavation and levelling for temporary roads;
- Temporary sheet piles or test piles as required as part of ground condition investigation;
- Pile probing, further ground investigation and installation of piling mat;
- Installation of drainage system, crane bases (in conjunction with the piling operations), raft foundations, CFA piling, attenuation tank, mass excavation and associated temporary works;
- Temporary crossovers for site access, installation of construction related facilities (temporary welfare, offices, security provisions);
- Services infrastructure of water, power, district heating, ducts and road crossings for services;
- Installation of utilities, diversions, new electricity sub-station, supplies and connections as agreed with the statutory authorities;
- Excavation and installation of storm water attenuation tank and reinforced concrete crane bases (in conjunction with piling operations);
- Secant piling forming the external walls;
- Reinforced concrete piles (CFA);
- Pile caps, deep drainage and service routing;
- Reduced level dig for the raft foundations storm water attenuation tank and tower cranes;
- Bases, deep drainage and service ducts for the district heating distribution etc;
- Four tower cranes (TBC) will be erected to assist with the erection of the concrete frames;
- Concrete pumps will be employed in placing concrete;
- Larger mechanical plant housed in the basement spaces may be installed as below ground level construction proceeds for ease of installation access;

- Excavate, lay and test underground drainage, coordinate and install incoming services to plot;
- Backfill including concrete surround and drainage;
- Trim and prepare basement raft slab formation including concrete blinding and waterproofing system;
- Install basement raft slabs - fix rebar, shutter and pour; and
- If obstructions are encountered, there may be the potential for short bursts of repetitive hammering to move the obstruction but will keep within the agreed noise restrictions.

### 4.3. Superstructure / Frame

- 4.3.1. The building will incorporate a reinforced concrete ("RC") core for the full height. The structure will also be formed of reinforced concrete up to level 1, at which point it will be constructed from a hybrid steel and CLT construction.
- 4.3.2. Four number tower cranes (exact number and plan to be confirmed within final CEMP) will be erected sequentially to suit the timing sequence between the groundworks and superstructure works interface. Noting the volume of works and crane interfaces, safety exclusion zones will be established around the foundations, fix core wall steel and assembly core wall shutters. These will potentially be formed utilising a jump form system.
- 4.3.3. The majority of concrete frame works will be conducted via tower crane.
- 4.3.4. The core will be constructed as the frame rises via jump form. This will proceed four floors ahead of the trailing hybrid frame – but will be confirmed via temporary works calculation. Operative access to the working decks will be via either 'Haki' staircases within the void or permanent staircases installed through the jump form rig. Reinforcement will be lifted by tower crane and concrete pumped using concrete pumps supplemented by tower crane.
- 4.3.5. The permanent stair and therefore permanent fire escape will be installed as soon possible utilising hatches in the jump form to install as the structure progresses.
- 4.3.6. The tower crane will be utilised to install the steel beams and CLT decks which will form the main structure.
- 4.3.7. To facilitate the safe construction of the frame and subsequent cladding works, the potential to erect a crash deck fan or tunnels out on the Deacon Street and Elephant Road elevations will be considered and agreed through the necessary channels. This will form a secondary protection measure for the public.

### 4.4. Envelope, Roof, Shell and Core

- 4.4.1. Cladding to the building will be formed utilising a unitised system. The cladding will incorporate diagonal fins which will be installed on the floor plate prior to installation on the building. Materials will be handled by tower cranes, tele-handlers and goods/ passenger hoists operating externally to the facade. Access for operatives will be from inside the floor plates of the new building and hoists. At completion of the lift installation and appropriate completion of large items within the fitout activities, beneficial use will be allocated for distribution of materials.
- 4.4.2. Several terrace areas will be incorporated through the main structure. These will be weathered as soon as possible after installation, including the roof area to allow for placement of plant elements.
- 4.4.3. Mechanical plant and roof materials will be placed by crane.

### 4.5. Fit-out, Finishes and External Works

- 4.5.1. The fit out, finishes and external works include:

- Toilet fit out to all floors;
- Fit out to stair cores and lobbies;
- Fit out to other common areas;
- As the fitout progresses, the electric hoists will be removed. Operative movements and materials for the latter stages of fit-out and services will continue with the beneficial use of the internal lifts. Throughout the fit out, prefabricated components will be utilised where practical to limit the extent of Site works; and
- Public realm and terrace landscaping.

#### **4.6. Completion of Retail Units and Shell and Core Fit-out Works**

4.6.1. The retail units will be completed to the minimum standard to allow flexibility to the incoming tenant. Our current intent is that all services will be brought into the units and capped off for tenant relocation. Demised walls where applicable will be built and left in its raw form (white box only).

#### **4.7. Public Realm Works**

4.7.1. Works in the public realm will be carried out at the back end of the project, to complete the H1 Development to the red line boundary, ready for opening to the public. These will include but not be limited to the following:

- Removal of all Site hoardings upon completion of the works;
- Removal of all temporary services required for the construction periods;
- Removal of all CCTV and security services associated with the works;
- Removal of all temporary wayfinding and signage;
- Removal of environmental monitoring stations; and
- Remediation and installation of all permanent Section 278 works within the Site including:
  - Removal of any temporary wearing services required during the construction period;
  - Cutting back and installation of permanent base and wearing courses to all public highways within the red line demise of the Site;
  - Installation of street furniture and lighting; and
  - Installation of soft landscaping and planting.

## 5. SITE LOGISTICS AND SETUP

### 5.1. Logistics by Phase

5.1.1. This section describes the general principles of the Site logistics following permission and before commencement of works, including:

- Consents and Licenses
- Asbestos Removal and Demolition
- Site Establishment and Security
- Site Management
- Material Storage and Handling
- Construction Traffic Management
- Construction Routes and Access
- Offloading and Storage
- Personnel, Public and Vehicle Segregation
- Temporary Road Closures
- Crane Bases, Service Ducts and Crane Erection
- Building Frame, Envelope and Fit-out

### 5.2. Consents and Licenses

5.2.1. All statutory consents and licences required to commence an activity will be obtained ahead of elements of works commencing and allowing for the appropriate statutory notice period. These will include:

- Notices for works within any areas of highway, in accordance with the Highways Act 1980
- Road Traffic Act 1998
- Hoarding and scaffold licences for works on the perimeter boundary
- Construction notices
- Section 61 of the Control of Pollution Act 1974
- Connections to existing utilities and main sewers
- Licence to discharge water from the Site into the public sewer
- Consents will be obtained from the relevant authority where tower cranes over sail the public highway. The construction programme and precise requirements for aeronautical obstacle lighting to the mast of the tower cranes will be discussed with the appropriate airport and the Civil Aviation Authority when the construction programme and crane methodology is finalised and prior to work starting.
- Close coordination will occur with the railway interface to the west of the site. Cranes will be 'locked out' such that they cannot operate over the railway lines etc. This will be coordinated with relevant parties once detail is progressed and will be subject to the Network Rail asset protection requirements (pursuant to a legal agreement between Network Rail and the Contractor).

### 5.3. Asbestos Removal and Demolition

- 5.3.1. During enabling works, surveys will be undertaken which may identify contaminants in the ground. It is anticipated that a planning condition will be imposed on the H1 permission which provides that in the event that contamination not previously identified is found to be present, no further groundworks on that part of the site affected by such contamination shall be carried out until Lendlease has submitted to and obtained approval from the Council (in consultation with the Environment Agency) for a remediation strategy. The remediation strategy shall be implemented in accordance with the approved strategy.
- 5.3.2. Previously in Elephant Park, contaminants found have been in the form of cement board chrysotile and some fibre tracing in waste. If asbestos fibres are discovered, the appropriate asbestos management procedures will form part of the remediation strategy, including all relevant statutory requirements, industry best practice and serving relevant notices. All spoil material removed from Site will be tested for any trace asbestos prior to removal.
- 5.3.3. Demolition of the foundation removal of the former building's substructure as required.
- 5.3.4. By the time of vertical construction (commencing with piling), all demolition works will be complete and as such there is no possibility for encountering asbestos.

### 5.4. Site Establishment and Security

#### Site Hoarding

- 5.4.1. The majority of the Site is hoarded at the present time, but the hoarding line will need to be adapted as needed, to allow for works and allow for logistical access around the perimeter of the building.
- 5.4.2. The perimeter of the Site will be secured by hoarding constructed of solid ply and a minimum of 2.4m high. Site hoarding will be inspected daily and maintained by the logistics contractor. Hoarding licences will be secured for these works from TfL where necessary as the configuration is finalised.
- 5.4.3. Subject to the necessary consents being obtained from the highway authority, the intent is to partly occupy the Elephant Road pavement, with the hoarding extending to the highway kerb line. Some areas of Deacon Street will also be required to allow for the swept path of lorries to be accommodated during the construction works. Access for pedestrians will be maintained at all times along Walworth Road.
- 5.4.4. Security lighting will be secured on to the hoarding facing the street and internal face for Site pedestrian routes. All temporary lighting on Site will be installed and maintained by the specialist temporary power contractor.
- 5.4.5. When specific works within the highway are required these will be secured by temporary hoardings and managed in accordance with Chapter 8 of the New Roads and Street Works Act – Signing, lighting and guarding.

#### Tree Protection

- 5.4.5.1. Works to trees and tree protection zones in accordance with the arborist's advice and processes as listed in the Arboricultural Impact Statement.

### 5.5. Site Management

#### Security and Lighting

- 5.5.1. All Site welfare facilities will be contained within the Site or on an adjacent area of the Elephant Park Masterplan.
- 5.5.2. All gates will be maintained by security officers during working hours.

- 5.5.3. Floodlighting in areas adjacent to sensitive receptors (i.e. nearby residential properties) will generally be limited to the working hours identified in this document.
- 5.5.4. Site lighting will be kept to a minimum taking into account the needs of site health, safety and security
- 5.5.5. Security patrols on Site will be established, in operation 7 days a week including times when the Site is closed.
- 5.5.6. Site access will be controlled in accordance with Lendlease security and safety protocols as established and in use on other Elephant Park plots. All operatives, staff and escorted visitors will be required to comply with minimum safety standards before being issued with a pass. Personnel gates will be controlled by secure turnstiles for entry and exit from within the wider development and no pedestrian access will be permitted through vehicle gates to or from the public highway. Personnel will not be permitted to loiter outside the Site entrances and fire assembly points will be located within the Site hoarding wherever possible.

#### Welfare and Site Access

- 5.5.7 It is intended that the primary welfare will be located in the area between the building structure and Castle Square, along with the closest corner of The Park. This will incorporate the use of a structure to support the accommodation over the Site haul road within the curtilage of the Site.
- 5.5.8 It is expected that approximately 25 Lendlease staff will be allocated to the H1 Development and based on Site on all working days to oversee and manage the construction process and, in that time, circa 450 operatives (at peak) will be required to undertake the works.
- 5.5.9 Provision for bicycle storage for Site staff and operatives will be made at the entrances to the Site and the use of cycling and public transport is promoted for all personnel. No provision is made for vehicle parking upon the Site and this is communicated to trade contractors at the time of tender and throughout the construction period.
- 5.5.10 Visitors will only be allowed to enter the Site via designated pedestrian security access gates leading to a dedicated segregated footpath to the main site offices for registration and obtaining PPE prior to entering the Site;
- 5.5.11 Visitors will be expected to attend a specific Site induction unless being accompanied by a member of the Site team.
- 5.5.12 Anybody visiting the Site for more than a single visit of up to a day or who intends a repeat visit will be required to undergo Lendlease's Incident and Injury Free Induction programme to ensure they have a shared understanding of the implications of health and safety in a construction environment and of Lendlease's approach to ensuring everyone leaves the Site in the same condition they arrived.

#### Traffic Marshals

- 5.5.13 Traffic marshals will ensure all people enter and exit the Site via the designated pedestrian entrances. Gates will be "manned" continuously during site hours or kept locked if left unsupervised.
- 5.5.14 For the first Enabling works and Substructure phase of works, the vehicle count will be high due to the volume of excavated material, steel reinforcement and concrete deliveries required, please refer to Appendix 2 for vehicle flows.
- 5.5.15 Wheel cleaning facilities will be provided at the Site exit gates using large collection gullies and water hoses as necessary to ensure no dirt is tracked onto public areas and highways. All efforts will be made to minimise the number of access and egress locations to assist and manage the safe public interface between construction vehicles, pedestrians, cyclists and other road users. For the H1 Development, it is intended that there will be one entrance (on Deacon Street) and one exit (on Elephant Road).

### 5.6 Material Storage and Handling

- 5.6.1 Contractors and their subcontractors will maintain a tidy site and operate a “Just-in-Time” policy for the delivery and supply of materials for the works in order to minimise disruption to the local community. This will include potentially hazardous materials whereby deliveries will be supervised.
- 5.6.2 Just-in-time delivery is managed by a web-based system to ensure only approved vehicles arrive at their approved time, whilst also maintaining vehicle conformity to the project Fleet Operator Recognition Scheme (FORS) standards.
- 5.6.3 Any materials that are required to be stored on Site will be sufficiently protected to minimise damage by vehicles, vandals, weather or theft.
- 5.6.4 Tanks and drums of liquid chemicals and fuels are not encouraged but where unavoidable they will be stored in fully bunded and covered compounds with relevant Control of Substances Hazardous to Health’ regulations (COSHH) and assessments implemented.
- 5.6.5 Packaging will be returned, wherever possible, and minimised as a procurement requirement for sustainability standards.
- 5.6.6 Cranes will be used for general unloading and hoisting during the structural and envelope works.
- 5.6.7 Passenger/goods materials hoists will be used to hoist materials vertically to the floors, and forklift trucks used to distribute and transport façade materials to loading bays and hoist positions.

## 5.7 Construction Traffic Management

- 5.7.1 The works will be carried out in such a way that inconvenience to the public arising from increases in traffic flows and disruptive effects of construction traffic on local and main roads is limited wherever practical. All diverted or replaced rights of way will be notified in advance and where appropriate, temporary routes will be provided.
- 5.7.2 A key principle of the traffic management strategy is to ensure the safety of all personnel (drivers and pedestrians). This means that separate dedicated routes will be established for vehicles and pedestrians. The onsite traffic flow will change through the course of construction, however a one-way system will be set up as early as possible and for the majority of the works, with designated areas for unloading which prevents, or minimises, reversing and turning.
- 5.7.3 All Site traffic will be subject to speed restrictions. Failure to comply with onsite traffic rules shall result in appropriate measures being taken.
- 5.7.4 Vehicles and pedestrians will be segregated on the one-way system and at Site entrances by means of physical barriers. Site operatives will be required to wear high visibility clothing and full PPE. It is intended that the interface will be further managed via the incorporation of a bridge over the haul road from the welfare area, if required and practical.
- 5.7.5 Banksmen will be clearly and separately identified in high visibility clothing.
- 5.7.6 Plant operators and drivers will be required to hold valid certificates and to have undergone the relevant safety training.
- 5.7.7 Lendlease has committed, where possible, to ensuring that all HGV class drivers delivering to Site have attended the FORS course.
- 5.7.8 Wherever applicable, Contractors and Subcontractors operating HGVs will have a minimum FORS Silver Level accreditation, with an aspiration for the project to be Gold Level.
- 5.7.9 Specific materials’ storage areas will be identified for each area of the Site and managed as the interface locations between the bulk deliveries and the on-site distribution by forklifts, cranes and hoists.
- 5.7.10 Dedicated circulation routes for site spoil movement will be set up and segregated where possible from the material delivery route.

- 5.7.11 For large pre-planned loads, or abnormal loads, TfL, Council, Metropolitan Police guidelines and designated routes will be complied with.
- 5.7.12 Routes within the Site are unlikely to change during the construction sequence and are designed to provide the safest, most economical traffic circulation and the minimum environmental impact through noise and dust. Where modification is required due to re-sequencing of works or impacted by the future phases the CEMP will be amended in accordance with section 10.
- 5.7.13 Site personnel access to the Site will be via security-manned posts/gates and will be segregated from on-site construction traffic by means of vehicular barriers/fencing/hoardings etc.
- 5.7.14 The siting and installation of the temporary wayfinding signage to the Site will use many of the signs already in place for the previous construction traffic.
- 5.7.15 A Traffic Management Plan will be developed (in accordance with the HSE Guide – The Safe use of Vehicles on Construction Sites) prior to any Site works commencing. This will take into account current legislation, Police, Fire Authority and HSE guidance, local authority transport schemes and neighbourhood lorry restrictions. The Traffic Management Plan will be reviewed and updated in line with the construction programme and will typically include details of the following:
- Temporary traffic control measures;
  - Temporary and permanent access to the works for personnel and vehicles;
  - Off-loading and storage areas;
  - Traffic management procedures for waste disposal vehicles;
  - Personnel and vehicle segregation;
  - Equipment, e.g. road cones, temporary fencing and signage etc.;
  - Ensuring all work is planned and method statements prepared detailing safe systems of work;
  - Ensuring that all sub/trade contractors make adequate provision for vehicle selection and supervision of drivers; i.e. their own banksmen/traffic marshals;
  - Making vehicle safety an integral part of the H1 Development health and safety plan;
  - Defining standards for driver competence, vehicle safety and maintenance in accordance with Southwark Council and TfL guidelines and initiatives;
  - Ensuring co-ordination and co-operation between contractors;
  - Ensuring all workers receive Site induction training covering safe traffic routes and Site rules for operating vehicles;
  - Establishing safety monitoring procedures for the use of vehicles on Site e.g. permit to work etc.;
  - Ensuring HGV drivers working on or delivering to the Site undertake Southwark Council's cyclist awareness course;
  - Ensuring all vehicles that enter Site go through either a mechanical or manual wheel wash before re- entering the public highway; and
  - Confirming the public highway condition will be monitored by Lendlease Site staff and a road sweeper deployed if required during a heavy period of Site traffic.

## 5.8 Construction Routes and Access

- 5.8.1 Due to the positioning of the Site and restricted access, construction traffic routes are being discussed and agreed with The Council, Transport for London (TfL) and other stakeholders as part of a joint construction group to coordinate works. Construction vehicle movements will be restricted to the main arterial routes where possible and through discussion, the routes into the Site will be formally agreed. The vehicle routes form an integral part of the supplier subcontract.
- 5.8.2 Delivery drivers will be issued with agreed routes during induction which they will be required to sign off and further informed that breaching these will result in disciplinary action and preclude them from entering any Lendlease site. To enforce adherence, the Site management team will undertake “spot” visual vehicle tracking checks on a monthly basis for a two hour period. The outcomes of these spot checks will be reported to Southwark Council.
- 5.8.3 Please refer to Appendix 1: Site Logistics Plan for vehicle access routes for the proposed Site including routes across the wider construction site.
- 5.8.4 The majority of construction traffic including HGV’s will use the main TFL road network routes to access the Site, this would be via the A2 to the South Circular (A205) and the A3. Please refer to Appendix 4 for details of wider access to Site areas from surrounding roads.
- 5.8.5 Appendix 2: Histogram of Site Vehicle Movement shows the peak in HGV trips coinciding with the busiest periods of construction.
- 5.8.6 On the basis of 5 working days per week and a 10-hour working day, an average of 5 hourly HGV construction trips may be expected across the period as outlined in Appendix 2.
- 5.8.7 Movements of large or unusual loads will be addressed in advance with the relevant highway authorities and the police in order to ensure compliance with regulations and to provide advance notification for local residents.
- 5.8.8 The Site is located close to the Elephant and Castle rail and underground stations and a number of bus stops. Given this proximity to public transport services, it is envisaged that the majority of construction personnel would travel to Site by public transport. There is no provision for onsite parking and this will be advised in placement of Contractors Orders and further reinforced during the Site inductions.
- 5.8.9 In addition, the passage of vehicular traffic to and from the Site would adhere to the environmental procedures contained within the Environmental Management Plans and enforced on all contractors involved within the H1 Development.

## 5.9 Offloading and Storage

- 5.9.1 Once vehicles have entered the Site, they will be checked for compliance, then directed to the booked in offloading point.
- 5.9.2 All Site deliveries will be notified in advance to the on-site Lendlease logistics team and access slots will be allocated.
- 5.9.3 Where possible, no delivery vehicle will leave the Site empty. A “take-back” policy will be encouraged whereby all returning vehicles will take associated waste/packaging with them on their return journey for recycling.

## 5.10 Personnel, Public and Vehicle Segregation

- 5.10.1 All pedestrian routes on and around the Site will be clearly defined utilising the perimeter hoarding / temporary fencing, vehicle barriers and pedestrian route signage with traffic marshals at all public interfaces. Pedestrian crossover routes will have appropriate warning signs displayed, e.g. give-way signs, vehicles crossing etc.

- 5.10.2 All Site operatives will be given a specific Site induction and briefed with reference to the use of designated pedestrian access ways and crossover points.
- 5.10.3 Action will be taken against Site operatives deviating from defined routes with a yellow and red card system (yellow for first offence and red for dismissal and removal from the Site).

### 5.11 Temporary Road Closures

- 5.11.1 Part of our measures to mitigate the impact of construction activities will be to create temporary footpath closures and diversions as required whilst the hoardings are erected or modified and works within the public highway are completed. Any closure will be closely monitored by Site operatives to ensure safe access and egress to the Site.
- 5.11.2 Temporary road closures may be required in order to establish and remove the cranes or to deliver large items of building plant and infrastructure items. This will be agreed with the Council and TfL in advance.
- 5.11.3 Notices regarding any planned closures and diversions of either roads or footpaths will be given to the Council, bus companies, TfL, the police, fire brigade and other emergency services. The Council generally will undertake the relevant letter drop to the local residents should a road closure or diversion be required, however should an unforeseen emergency arise and with the Council's approval, Lendlease will undertake the notification.

### 5.12 Crane Bases, Service Ducts, Tower Crane Erection

- 5.12.1 Crane bases will be constructed at such a time, and number of weeks, prior to tower crane installation as agreed with structural and temporary works engineers. The crane bases will be constructed as a piled reinforced foundation with a tower crane mast section cast within. The level will allow for the service ducts and drainage to pass around them if required. Erection of the tower cranes will commence upon proof of cube test results reaching required strength and temporary works approvals. The reinforced concrete frames will follow the release of the foundations.
- 5.12.2 The cranes will be installed sequentially following the substructure and superstructure interface, as cranes will be used for the concrete frame installation. The four number cranes proposed are positioned in such a way by a specialist crane company so as to overlap and interface in terms of lifting radii but not clash. For the H1 Development it is intended that one crane will be outside the building line (but within the curtilage of the Site). The other three will be within the building boundary.

### 5.13 Building Frame, Envelope and Fit-out

- 5.13.1 Concrete will be delivered directly to the point of pouring by concrete wagon or distributed by both mobile and static concrete pumps for access to all areas of the Site. The filling of concrete columns will use concrete skips and tower cranes. This will be for the core construction and all works up to and including the first-floor slab.
- 5.13.2 Other structure formation will be via steelwork and CLT. These will be delivered via HGV and unloaded from the pick points located around the perimeter of the haul road within the boundary of the Site.
- 5.13.3 Once panels are delivered to the completed floor, they will be decanted from their stillages onto lifting tables. The diagonal fin sections will be installed onto the panel at which point they will be installed. Craneage will be via mini crane located on the floor above the installation zone. At all stages of installation operatives will be behind collective edge protection. No person zones around the base of the building will be managed such that they are clear at all stages whilst lifting is in progress.
- 5.13.4 Bulk roofing materials will be delivered by crane to roof level. Platform hoists will be taken to roof level for on-going sundry materials and final roof materials.

- 5.13.5 The façade construction for the H1 Development will be of a unitised variety. Panels will be delivered to the floor below the area of installation via hoist and/or Cantideck. Works will be closely coordinated with the structural installation above to ensure there is no risk of interfacing elements fouling each other.
- 5.13.6 All materials for the fit out will be delivered using a “just-in-time” (JIT) approach and will be distributed to working floors by the methods described above including cranes, hoist and beneficial use of the passenger lifts.

## 6 INFRASTRUCTURE WORKS

### 6.6 Utility Infrastructure Works

- 6.6.1 Separate soil / waste and rainwater drainage has been designed to connect to the existing below ground drainage infrastructure.

### 6.7 Utilities Diversions

- 6.7.1 If there is a need for diversions, disruption to existing services and highways will be minimised where possible, however, this will be dependent upon discussions with the statutory providers. Lendlease will manage the installation of the utility infrastructure within the Site to the point of connection on the Site boundary.

### 6.8 Public Realm Tree Management

- 6.8.1.1 Where trees are identified for retention, works permitted will be undertaken in accordance with relevant guidelines in BS 5837:2012 ('Trees in relation to Construction - recommendations') and in line with the Tree Protection Plan and Arboricultural Method Statement.

## 7 SAFETY, HEALTH & ENVIRONMENTAL CONSIDERATIONS DURING CONSTRUCTION

### 7.6 General Safety, Health and Environmental Consideration

- 7.6.1 Lendlease is committed to operating Incident & Injury Free (IIF) wherever we have a presence and exploring every opportunity to have a positive impact on the environment. The Group's Environment, Health & Safety (EH&S) approach is based on this vision and is supported by the operating discipline and behaviours within the organisation. The linked elements of vision, operating discipline and behaviours form the core of the EH&S culture at Lendlease.
- 7.6.2 Lendlease strives to go beyond mere compliance with statutory and organisational minimum requirements. Consequently, the Lendlease Global Minimum Requirements (GMRs) set out the minimum environment, health and safety standards designed to control the risks associated with both asset and construction operations. The GMRs include common criteria for the planning and delivery of assets and construction operations, with the physical GMR standards being established for asset and construction operations separately due to the differing nature of hazards and activities. The GMRs apply to all Lendlease operations – which include construction projects, developments, offices, and assets we develop, control, maintain, own, or operate.
- 7.6.3 The centrepiece of Lendlease EH&S culture is what is termed “Uncompromising Leadership”. This requires leaders at all levels of the organisation to not only understand the vision of the organisation, but also the systems, standards and responsibilities applicable to them. This will enable leaders to continually make decisions that contribute towards eliminating incidents and injuries and create positive EH&S outcomes within assets we develop, control, maintain, own, or operate.
- 7.6.4 Construction works will be carried out in such a way as to limit, as far as is practicable, adverse environmental impacts and works will be carried out in accordance with the following general provisions:
- Planning approvals from The Council;
  - Lendlease Incident and Injury Free procedures;
  - Lendlease Global Minimum Requirements;
  - Considerate Constructors' Scheme;
  - Requirements of highways and utilities authorities;
  - Design for durability and low maintenance;
  - Design for flexibility and adaptability;
  - Use of materials from sustainable sources; and
  - Use of locally sourced materials where possible.
- 7.6.5 Safety, health and environmental issues on the H1 Development are the primary factor influencing the construction methods adopted. The construction team will develop detailed health and safety plans, specific environmental, fire and accident procedures to suit the construction sequences of the H1 Development. It is intended to agree a protocol process with Southwark Council Environmental Services Division under Section 61 of the Control of Pollution Act: 1974 in relation to controlling hours of operation, noise, vibration and pollution impacts of equipment used on the Site.
- 7.6.6 Contractors involved in the development will ensure:
- That all non-English speaking employees are provided with relevant health and safety information in their national language;

- That adequate multi-lingual supervision is provided to ensure that employees continue to be adequately and effectively informed and supervised on all matters affecting their health and safety; and
- That suitable bi-lingual arrangements are in place to ensure that statutory related matters are complied with.

7.6.7 All contractors will be required to adopt the Construction Skills Certification Scheme (CSCS) or equivalent skills certification. This will be combined with the Lendlease IIF health and safety training scheme for personnel involved with the project including all sub-contractor personnel who will be involved in the project for over a day. General operatives will be required to complete the health and safety training element of the CSCS scheme and may be given the opportunity to pursue a relevant NVQ qualification. All contractor supervisors will receive additional Lendlease training which is a prerequisite to any orders being placed.

7.6.8 A formal Health & Safety Policy Statement will be adopted in accordance with the requirements of the Health & Safety Executive and other statutory and local authority guidelines. Compliance with the following mandatory provisions will be carefully monitored and, where required, enforced:

- COSHH, 1999
- Provision and Use of Work Equipment Regulations, 1998
- Highly Flammable Liquids & Petroleum Gases Regulations, 1972
- Health & Safety at Work Act, 1974
- Mandatory attendance at Lendlease's IIF training programme
- Equality Act, 2010

## 7.7 Control of Substances Hazardous to Health

7.7.1 All substances coming onto site and all work activities which may involve or generate hazardous substances will be managed and controlled in accordance with COSHH regulations and best practice guidance, such as that published by the Environment Agency.

7.7.2 Examples of the control measures to be employed are as follows:

- All fuels and chemicals will be stored in designated areas, with deliveries of all hazardous materials supervised;
- Storage tank or container facilities will be appropriately bunded with designated areas as far as possible from any watercourses or surface drains;
- In case of spills or discharges, immediate remedial action will be undertaken in line with Lendlease's Health and Safety Plan;
- A logistics plan will be developed to take into account the management and control of hazardous substances on site; and
- Personal protective equipment (PPE) suitable to prevailing conditions will be used by all construction workers.

## 7.8 Outline Environmental, Emergency Fire and Accident Procedures

### Environmental Incident Procedures

7.8.1 The overall strategy in the event of a spillage will be to "Stop-Contain-Notify (SCN)",

7.8.2 Measures will be carried out to avoid environmental incidents, however if these occur then the following types must be reported to the responsible person within the construction team.

7.8.3 Spills or discharges to the atmosphere, water supplies, sewerage systems, rivers and other watercourses, or to the ground of:

- Any chemical product or formulation
- Oils and fuels
- Effluents/fumes and gases
- Waste or contaminated materials

7.8.4 Damage to existing:

- Trees and wildlife
- Flora and existing local habitats

7.8.5 Any environmental incident that could lead to:

- Local authority or regulatory enforcement
- Public complaint

#### Fire and Emergency Routes and Procedures

7.8.6 Emergency routes and procedures will be continuously adapted to suit the construction sequence and stage of the development. An Emergency Fire and Accident plan will be prepared, generally following the guidelines for plan contents below and updated on a regular basis to take account of construction progress:

- Definition of the management organisation and responsibility for safety;
- Definition of appropriate fire prevention measures, including good housekeeping of site, welfare facilities and offices;
- Use of non-flammable/fire retardant materials for protection of finished works;
- Safe use and safe storage of flammable materials of all categories, whether solid, liquid or gas;
- Appropriate waste management procedures;
- Monitoring the type and frequency of fire inspection/audits;
- Suitable site accommodation location, construction and detection/firefighting systems;
- During construction, the installation of temporary detection and alarm systems will be implemented;
- Development of evacuation plans, to include escape routes, muster stations, means of sounding alarms and the setting of systems in place to ensure that emergency vehicles have been called and all personnel have safely left the area;
- Training and fire drills;
- The application of permit systems for Hot Works, Confined Space Entry and Electrical Access Control;
- The provision of Fire Watchers and First Aiders;
- Checking that emergency routes/exits are available and unobstructed at all times;
- Dissemination of the plan; and

- Continuous liaison with fire brigade/police/ambulance services and other emergency services, plus clients/occupants of adjacent buildings.

7.8.7 The Emergency Fire and Accident Plan as outlined above will be developed in consultation with the local Fire Brigade and emergency services. As sites are dynamic environments, emergency planning will be under constant and critical review to ensure the continued relevance of the plan and procedures. This will be the responsibility of the Fire and Emergency Co-ordinator - appointed by Lendlease Construction during the construction process. First aid facilities will also be established in locations as appropriate around the site.

## 7.9 Particular Health, Safety and Environmental Considerations

7.9.1 An Arboricultural Method Statement details site specific mitigation procedures for the works required when working in close proximity to retained trees such as

- Assessment of location of roots;
- The Root Protection Areas (RPA) will be designated as a construction exclusion zone (CEZ) within which trees will be protected from activities that have a potential to cause damage. CEZ's will be appropriately protected, e.g. fencing. Any works within a CEZ will need to be undertaken by hand or heavily supervised with machines;
- Where root conditions are such that it is not possible to confidently accept the RPA as providing a more or less accurate illustration of the location of roots, then it will be necessary to carry out soil investigation to ascertain location of roots;
- Prepare detailed Arboriculture Method Statements for specific operations near trees;
- Training (e.g. tool box talks) in how to avoid tree damage;
- Facilitation pruning;
- Supervision of sensitive operations and regular monitoring by the Arboriculture Consultant;
- Appropriate tree protection fencing and barriers;
- Appropriate ground protection measures; and
- Contingency planning.

## 7.10 Works close to TfL Highway Routes

7.10.1 Works shall be carried out in accordance with the Council and TfL approval procedures for all activities in close proximity to existing assets.

## 7.11 Works close to Network Rail's Infrastructure

7.11.1 A Basic Asset Protection Agreement (BAPA) has been agreed to enable protection of the neighbouring railway line and the associated infrastructure associated with the Thameslink railway line to the west of Elephant Road.

## 7.12 Pedestrian / Public Street Lighting Surrounding the Site

7.12.1 The current proposals do not anticipate reducing the street lighting surrounding the Site. This will be reviewed on a monthly basis and any impacts on the surrounding street lighting will be dealt with as necessary in the interest of public and pedestrian safety.

## 7.13 Air Quality

### General Provisions

7.13.1 Construction works will be carried out in such a way as to limit the emissions to air of pollutants (particularly dust and fine particles (PM10)), employing Best Practicable Means. The Site will be managed to minimise the potential effects on air quality from construction.

### Effective Material Storage and Handling

7.13.2 Handling and storage areas will be sited as far away as is reasonably and practically possible from public/residential areas. Handling and storage areas will be actively managed and fine, dry material will be stored inside enclosed shield/coverings or within a central storage area. Any storage areas that are not enclosed will be covered/sheeted. Prolonged storage of debris on site will be avoided.

### Construction Plant

7.13.3 Construction plant can be a significant source of emissions although control measures can be implemented to minimise any adverse impacts. The following measures will be employed:

- It is intended that as much plant as possible will be powered via Hydrogenated Vegetable Oil (HVO) fuel. Although this technology is relatively new, it will be written into the relevant scopes, where possible.
- Site plant and equipment will be kept in good repair and maintained in accordance with the manufacturer's specifications. Plant will be selected on the basis of which has the least potential for dust and emissions.
- Plant will not be left running when not in use.
- Plant with dust arrestment equipment will be used where practicable.
- Enclosures will be erected around major construction plant items as appropriate and where practical.
- The project will ensure compliance with the emission requirements for Non-Road Mobile Machinery (NRMM), as set out in the Greater London Authority's Control of Dust and Emissions during Construction and Demolition Supplementary Planning Guidance (2014). The project will ensure all plant in use on site meets EU Stage IV in accordance with Central London guidance.

### Vehicle Movements

7.13.4 Vehicle movements may result in dust emissions (by re-suspending dust from the road or from spilling dusty loads) and exhaust emissions. However, a number of control measures will be adopted to eliminate or minimise such emissions:

- Wheel washing facilities on Site to prevent mud from construction operations being transported on to adjacent public roads;
- Damping down of Site haul roads by water bowser during prolonged dry periods;
- Regular wet cleaning of hard-surfaced roads used to enter Site;
- Ensuring that dusty materials are transported appropriately (e.g. sheeting of vehicles carrying spoil and other dusty materials);
- Confinement of vehicles to designated haul routes within the Site;
- Restricting vehicle speeds on haul roads and other unsurfaced areas on the Site;
- Hoarding and gates to prevent dust breakout; and

- Appropriate dust Site monitoring will be included within the Site management practices to inform management of the success of dust control measures used.

## Dust

- 7.13.5 Control measures would be implemented to prevent the release of potentially contaminated dust entering the atmosphere and/or being deposited on nearby receptors. These would include the use of water sprayers and hoarding, dust covers, the restriction of drop heights onto lorries and appropriate storage locations of dusty materials.
- 7.13.6 Dust control will be best achieved at sources and, if possible, activities will be carried out in a manner to preclude dust generation.
- 7.13.7 Dust levels will be controlled and, if required, consent sought from the Council under the Control of Pollution Act 1974, Environmental Protection Act 1990 and local policy guidelines, to ensure that the H1 Development is operated in a way which is not detrimental to the amenity of local residents.
- 7.13.8 If dust is generated, steps will initially be taken to protect workers in the vicinity who shall, as a minimum, be issued with dust masks. Dust will, if possible, be contained in the location in which it is generated and be controlled and managed therein. Dust suppression measures will be carried out to ensure that dust nuisance affecting neighbouring properties is minimised.
- 7.13.9 Dust emissions from construction will be controlled through careful pre-project planning and effective site management. The following control measures and good management practices will be employed:
- Site operations will be planned to take into account local topography, prevailing wind patterns and local sensitive receptors e.g. schools, residences and ecological designated sites;
  - Burning of materials on Site will be prohibited;
  - Loading and unloading will only be permitted in designated areas;
  - Provision of water sprays and wind/dust fences where possible, particularly in dust sensitive locations, for example, during demolition works. Water spraying and/or screening will be undertaken prior to and during demolition;
  - Stockpiles of soil or other granular material will be sheeted and/or treated using “Dust Buster” or similar to prevent dust raising that may cause risk to health or nuisance to the public;
  - An appointed person will oversee/control activities and handle complaints; and
  - Dust on tree foliage will be minimised where practical.
- 7.13.10 During construction works that are well known to cause excessive dust, the project team will monitor air quality. This will be undertaken in line with IAQM Guidance on Air Quality.
- 7.13.11 Monitoring to ensure active response to air quality conditions.
- 7.13.12 If there are a series of dry and windy days which cause significant dust arising from the Site, works will be ceased until the dust can be reduced to a manageable level.

## Ecology

- 7.13.13 All construction works will be carefully planned and managed to minimise and mitigate their potential environmental impact as agreed with all relevant statutory bodies.
- 7.13.14 Procedures to minimise risk of pollution incidents relating to machinery or building materials will be as agreed with the Council and EA, with facilities installed for rapid appropriate response to any accidental spillages.
- 7.13.15 Should roosting bats be discovered during any tree works, works will cease and an appropriate mitigation strategy will be agreed with and approved by Natural England.

- 7.13.16 If required, the removal of trees on the Site will be undertaken outside the bird breeding season.
- 7.13.17 A strategy of eradication or control of noxious weeds will be developed before works commence.
- 7.13.18 Monitoring, control and eradication will take place on a continual basis. Japanese Knotweed (*Reynutria japonica*) has not been identified on site to date.

## 7.14 Noise and Vibration

### General Provision

- 7.14.1 In a project of this scale and nature, it is recognised that noise, vibration and dust could give rise to local disturbance. These impacts are an inevitable consequence of the HGV traffic, and other heavy construction activities. Site-specific best practice measures, and the principles of 'best practicable means' (BPM), as defined in the Control of Pollution Act (CoPA) 1974 would therefore be implemented by contractors to minimise the disturbance to local residents and other potentially sensitive receptors.
- 7.14.2 These measures would include:
- Appropriate and well-maintained marketing and attractive hoardings constructed on the boundaries of adjacent noise-sensitive premises, which may include sound absorbing materials;
  - Careful selection of construction methods and plant to be used, including its location;
  - Switching off plant when not in use;
  - Regular maintenance and servicing of vehicles, equipment and plant;
  - Operational hours (to be agreed with the Council);
  - The use of temporary acoustic barriers where appropriate and the use of enclosures and screens around noisy fixed plant where practicable;
  - Appropriate handling and storage of materials;
  - Damping down surfaces during dry weather;
  - The use of dust screens;
  - Adherence to relevant British Standards; and
  - An appropriate choice of plant that would ensure compliance with the vibration targets agreed with the Council.

### Construction Noise

- 7.14.3 Infrastructure works, excavations and foundation construction will be among the most significant activities. The noisiest activities are likely to be concreting operations although the levels generated would not be considered to be significant.
- 7.14.4 As construction commences above ground, there will be noise from works support elements such as scaffolding and formwork erection but most activities and plant (e.g. concrete pumping and crane movement) are considered to generate low noise levels.
- 7.14.5 On occasions it may prove necessary to carry out noisy activities outside of normal working hours. In such instances prior consultation and agreement will be requested from the Council, with works only commencing once approval is received.
- 7.14.6 During elements of the construction works that are well-known to cause excessive noise and dust, the project team will monitor noise at the Site perimeter. In line with this noise trigger levels shall be:
- 70dB(A) Laeq 10hr 08.00 - 18.00hrs

- 75dB(A) Laeq 15min

7.14.7 Noise Action levels shall be:

- 75dB(A) Laeq 10hr 08.00 - 18.00hrs.
- 80dB(A) Laeq 15min

## 7.15 Soils and Contamination

7.15.1 A desk-based study of ground contamination and an intrusive Site Investigation at the Site have established that owing to historical activities on the Site, there is the potential for localised contamination to exist on the Site. Due to the historical redevelopment of the Site, the most likely source of contamination is likely to relate to the presence of made ground on the Site.

7.15.2 During the enabling works phase, surveys will be undertaken. If a contamination hot spot is identified on Site, further Site investigation and details of the removal of this will be agreed with the Council prior to its removal.

7.15.3 The strategy for controlling and mitigating potential adverse environmental or health and safety effects during construction will be to adopt the procedures and methods set out within this CEMP.

## 7.16 Waste

### Construction Waste Management Plan (CWMP)

7.16.1 In advance of the enabling works, a CWMP will be produced using Lendlease's Footprint environmental metric reporting system. A Resource Management Plan will then forecast waste and identify options for reuse, recycling and avoidance of landfill and also record actual waste arisings.

7.16.2 The CWMP will also record responsibilities for waste management on Site, any waste eliminated or reduced through the design process, compliance with the "Duty of Care", Environmental Protection Act 1990, any training or awareness raising measures undertaken and reviews undertaken. It will also provide environmental KPIs which will be used to demonstrate performance levels against specified targets. The CWMP will be used in evidence toward environmental building assessments, such as BREEAM.

7.16.3 Packages will be bought on the basis of trades disposing of their own major packaging waste in a sustainable fashion, as far as possible. For example, materials should be packed in re-usable crates which are returned with the delivery transport or recyclable packaging which also leaves Site in the same way.

7.16.4 Shared skips will be provided as necessary for fitting out trades where use will be controlled and segregated at site as far as possible, although space limitations are likely to dictate that segregation will be undertaken away from site by the skip provider.

### General Provision

7.16.5 This section forms the CWMP and provides details of how the waste will be recycled and/or disposed of during construction.

7.16.6 The disposal of waste generated during construction, including any surplus spoil, will be managed to maximise the environmental and development benefits from the use of surplus material and to reduce any adverse effects of disposal. In general, the principles of the waste management hierarchy, which favours waste minimisation, re-use of materials and recycling over disposal to landfill will be favoured.

7.16.7 The Elephant Park Masterplan is established on 'Footprint', to collect and monitor environmental performance concerning waste, energy, and water aspects. This is an online system which is continually updated throughout the life of the project. In addition, the Resource Management Plan

will need to meet Lendlease's mandatory environmental requirements as well as those set by BREEAM for waste reporting.

- 7.16.8 It is an effective system which accurately captures information on the forecasted waste volumes and contains options for waste avoidance, re-use, and recycling that are tailored to the limitations and opportunities of the project.
- 7.16.9 The working version of the document has been attached at Appendix 5. Once the procurement of the individual trades has been finalised, the forecast section of the document will be completed, specifying the types and quantities of waste expected to be produced.
- 7.16.10 Alongside the forecasting, planning and monitoring, Lendlease will carry out ongoing training via toolbox talks and inductions to educate Site operatives on the importance of waste reduction and recycling on Site. At the end of the H1 Development, a final report will be produced from Footprint and will be handed to the client in conjunction with the Resource Management Plan.

#### Monitoring, Review and Actions to Improve

- 7.16.11 The Footprint online system has and will be used to accurately monitor and review waste arisings as they occur.
- 7.16.12 Active monitoring through the online system enables quick identification and review of high-volume waste streams. Material take-back schemes are in place which include large volumes of packaging, pallets and other temporary materials.
- 7.16.13 Inductions will include education to all staff and operatives on the "No Waste" Strategy to eliminate waste from creation rather than focusing on disposal methodology.
- 7.16.14 The Lendlease team will work closely with design teams and supply chain to eliminate waste through design. Primarily by reducing off-cuts and standardising design and material sizing. Pre-fabrication and off-site manufacturing will reduce the volume of materials brought to Site and waste associated with their manufacture.
- 7.16.15 A logistics contractor will enable effective management of all deliveries, materials storage and movement. This results in reductions in damage, lost materials and over-ordering as well as tighter controls on waste management, segregation and removal.
- 7.16.16 The Elephant Park streamlined practices will continue for the Site as the construction practices are joined up through the use of Lendlease's Footprint system and overall site Project, Environment and Sustainability Managers to cascade information.
- 7.16.17 Best practice will continue to be developed throughout the project utilising technology to enable data collection and reporting to review practices throughout the project whilst on-site and after practical completion. Lessons learned will be spread and actions set for improvements as and when they are identified.

#### Construction Waste

- 7.16.18 Methods for waste reduction will form a basic strategy for construction waste management from the start. These materials will generally be inert or environmentally benign and may have alternative uses elsewhere on the Site. Opportunities will be investigated to maximise the recycling potential of construction materials.
- 7.16.19 Some contaminated materials may be found during the H1 Development. Any contaminated materials that may be generated shall be stored and disposed of in accordance with relevant best practice guidance and legislation.
- 7.16.20 Licensed carriers will remove other residual waste, i.e. general office waste, etc. from site to suitable licensed disposal sites. Where possible, segregation and recycling of materials, such as office paper and food waste will be undertaken.

## Control during Construction

7.16.21 The contractors will ensure minimisation of waste arising on site and its reuse where possible, either directly or by recycling, waste monitoring and target setting. Recyclable materials such as metal, timber, cardboard and office paper will be put in colour-coded bins, ready for collection by the appropriate contractor.

7.16.22 Initiatives to reduce other waste streams include as far as practically possible:

- Minimising raw material waste through analysing design and construction techniques where possible;
- A commitment to develop waste minimisation opportunities by maintaining a role in the management of the supply chain during construction. Measures such as bulk buying will be utilised to facilitate this;
- Liaison with suppliers to enable packaging material to be sent back for reuse, the use of off-cuts where possible and the recycling of off-cut material by the supplier;
- Engaging contractors in the process of maximising the use of recycled aggregates for hard-core and alternative cements according to application;
- To ensure compliance with legislative requirements, only Environment Agency licensed waste hauliers, waste management contractors and landfill sites will be used;
- Suitable protection measures will be incorporated in the design of the waste management area to prevent pollution, and regular inspections carried out to ensure that stored waste is covered to prevent accidental spillage and from being blown away;
- Movement of waste by haul road and public highways will avoid, where possible, the use of access routes through residential areas. When leaving site, vehicles will be sheeted/covered to prevent any escape of materials onto the public highway;
- Waste transfer notes will be retained and will fully describe the waste in terms of type, quantity and containment in accordance with relevant regulations. Information regarding the type and quantity of material returned to the supplier and the contractor or contractors will also hold copies of all waste documentation; and
- Materials stored on site for disposal (e.g. spoil arising) will be subject to the provisions of the duty of care and may require a waste management permit. Where this is identified the permit, or any exemption will be managed by Lendlease.

## 7.17 Hazardous Waste

7.17.1 Hazardous wastes will be segregated and stored separately from other waste fractions to avoid contamination and risk to the environment and personnel.

## 7.18 Water Resources

7.18.1 The works will be carried out and working methods adopted to ensure that construction activities do not disturb ground contamination to adversely affect surface water and ground water quality. The following best practice measures will be adopted:

- Discharge to public sewers after prior agreement with Thames Water;
- The existing storm water drainage system will be retained where possible during construction, with modifications made as necessary to prevent ingress of debris utilising silt traps etc.;
- Discharge via sediment traps/settlement tanks or ponds;
- Installation of interceptors;

- Control of spoil and other materials to prevent spillage, particularly during period of high local surface flood risk (September to March), and through appropriate handling and selection of spoil/material storage locations;
- Issues relating to contaminated land affected by the construction, together with proposals for protection of surface and groundwater;
- All drainage arrangements will be determined in consultation with the Environment Agency and the Council; and
- Careful siting and bonding of fuel storage facilities and any areas used for the storage of potentially hazardous materials.

7.18.2 Appropriate construction techniques will seek to ensure that groundwater seepage into excavated areas does not take place.

7.18.3 Groundwater discharges will be via consent from Thames Water to foul sewerage network, and not to surface drains.

7.18.4 Thames Water's requirements include consents to discharge from the Environment Agency or Thames Water itself. Monitoring will be undertaken as appropriate and records kept demonstrating compliance with any specified conditions.

## 7.19 Unexploded Ordnance

7.19.1 All Groundworks in all areas will follow the below risk mitigation measures:

- Operational UXO Risk Management Plan;
- Appropriate Site Management Documentation will be held on Site to guard and plan for the actions which should be undertaken in the event of a suspected or real UXO discovery. (This plan will be supplied by a relevant subcontracting specialist in the field of Unexploded Ordnance such as 6 Alpha and Bactec (Safelane Global));
- Bactec (Safelane Global) were commissioned to complete the UXO risk assessment for the Elephant Park Masterplan. The report confirms Elephant Park has areas of Medium and Low risk only. These areas have specific mitigation measures established as detailed below.
  - The H1 Development specifically has a large area of medium risk, with the remainder of the Site low risk.
- UXO Safety & Awareness briefings;

The briefings are essential when there is a possibility of explosive ordinance encounter and are a vital part of the general safety requirement. All personnel working on the Site should receive a briefing on the identification of UXO, what actions they should take to keep people and equipment away from such a hazard should it be encountered and in what way to alert the Site Management. Information concerning the nature of UXB threat should be held in the Site office and displayed for general information on notice boards, both for reference and as a reminder for the ground workers. The safety awareness briefing is an essential part of the Health & Safety Plan for the Site and helps to evidence conformity principles laid down in the CDM (Construction Design and Management) Regulations 2015. (This briefing will be supplied by a relevant subcontracting specialist in the field of UXO and UXB such as 6 Alpha and Bactec).

- Piling and Bore Holing in all medium/high risk areas;

An Intrusive Magnetometer Survey; An intrusive survey (employing down hole Magnetometer or ConeMag techniques) ahead of piling and bore holing activities is

strongly recommended. Such surveys should extend to the estimated bomb penetration depth or the maximum depth of works or whichever is encountered first.

- Bulk excavations and trenching in all previously Undisturbed Medium/High Risk Areas;  
Engineer equipped with a hand-held magnetometer; EOD engineer to “scan ahead” as the work proceeds and to oversee the intrusive construction activities in the EOD banksman role.

## 8 COMMUNITY LIAISON AND PUBLIC RELATIONS

### 8.1 Community Liaison

8.1.1 Throughout the planning process, Lendlease has engaged as widely as possible with the local community and neighbours. This process has involved a range of activities such as flyers, emails, exhibitions, one to one meetings and meetings with Resident Association's (RA's). Before and during any construction works for the H1 Development, Lendlease will maintain a number of methods to communicate with the local community to keep them informed of progress on the scheme and enable concerns to be voiced and listened to, such as:

- A regular project newsletter will be circulated to the surrounding streets and works will be coordinated as far as possible with the works on adjacent sites on the Elephant Park Masterplan and surrounding sites.
- Meetings will also be held with particular stakeholders such as residential neighbours in West Grove, Elephant Central, Strata and other nearby buildings, retailers, other local businesses and park users, and also attendance at local TRA's.
- Any special or unusual activities to take place (such as road closures or deliveries of large plant) will be notified by way of a supplementary letter, issued to the relevant neighbours and local amenity centres.
- A single point of contact will be provided to the neighbouring residents and relevant statutory and non-statutory bodies and a contact telephone number (which is already established) will be provided to ensure clarity of communication and respond to any concerns.
- A complaints register will be established to provide a permanent record of the performance of the project. Any complaint from residents or other parties will be treated seriously, and the complaint logged, and cause investigated. Analysis of any complaints made will allow procedures to be implemented with the aim of avoiding any re-occurrence.

8.1.2 The Site hoarding will be used to display information regarding the H1 Development, in order that the local community and passers-by can be informed of progress. Drop-in sessions will be held at a publicly accessible location so that people are able drop in to discuss any questions or concerns with members of the project team directly.

### 8.2 Considerate Constructors Scheme

8.2.1 The Site will be registered with the 'Considerate Constructors Scheme' which is a self-financing organisation owned by Construction Umbrella Bodies (Holdings) Ltd. This is a voluntary code of practice that seeks to:

- Minimise any disturbance or negative impact (in terms of noise, dirt and inconvenience) sometimes caused by construction sites to the immediate neighbourhood;
- Eradicate offensive behaviour and language from construction sites; and
- Recognise and reward the constructor's commitment to raise standards of site management, safety and environmental awareness beyond statutory duties.

8.2.2 The scheme requires constructors to adhere to a Code of Practice that includes the following principles:

- Be environmentally aware in the selection of resources. Pay particular attention to pollution avoidance and waste management. Use local resources wherever possible and keep to a minimum at all times noise from construction site activity;

- Be considerate to the needs of all those affected by the construction process and of its impact on the environment. Special attention to be given to the needs of those with sight, hearing or mobility difficulties;
- Keep the site clean and in good order and ensure that the surrounding area is kept free from mud, spillage and any unnecessary construction debris;
- Be a good neighbour by undertaking full and regular consultation with neighbours regarding site activity from pre-start to final handover. Provide site information and viewing facilities where practical;
- Promote respectable and safe standards of behaviours and dress. Derogatory behaviours shall not be tolerated under threat of the strongest possible disciplinary action;
- Be safe. All construction operations and vehicle movements to be carried out with care of the safety of passers-by, neighbours and site personnel;
- Be accountable to the public by providing site contact details and be available to deal with their concerns and develop good local relations;
- All contractors will be required to adhere to the requirements of the code of practice;
- Information about the scheme will be provided to all personnel at induction and through on-going awareness raising such as posters and tool box talks as appropriate; and
- The scheme will also be publicised to local residents by the use of appropriate banners and posters with contact details posted at the boundary of the Site.

### 8.3 Hoarding

- 8.3.1 The Site will be completely hoarded in accordance with the relevant planning conditions imposed by the H1 planning permission, designed to limit noise and in a secure fashion. The hoarding will prevent public access to the Site. Any hoarding which encroaches onto the public highway will have a necessary Southwark Hoarding License.
- 8.3.2 The hoarding will be used to display publicity about the H1 Development including; programme, telephone contact numbers for complaints and enquiries, the name of the site representative as well as statutory health and safety information. If possible, a provision of safe observations panels will be included in the hoarding.
- 8.3.3 The hoarding will also be used for marketing, community messaging and where possible and relevant, to support a local community project. The details of these proposals will be discussed in full detail with the Council prior to implementation. A separate application for advertisement consent will be made if required. The proposed hoarding line is shown on the logistics drawing in Appendix 1.

## 9 WORKFORCE

### 9.1 Employment and Management Workforce

- 9.1.1 An employment strategy will be delivered by Lendlease, BeOnsite, the Council, local agencies, training providers and Contractors. The Contractors will engage with the workplace training co-ordinator service to encourage local residents to apply to meet the employment requirements of construction.
- 9.1.2 Refer to Appendix 3 for an indicative labour histogram for the H1 Development.
- 9.1.3 The Contractor will endeavour to ensure that all appropriate measures necessary are taken to maintain good industrial relations in connection with the Development.
- 9.1.4 The Contractor will notify Trade Unions of the scheme and estimated timetable. A list of contractors together with, where applicable, the National Joint Council for the Building Industry (NJCBI) register number and/or reference with the Building and Civil Engineering Holiday Scheme Management or its equivalent will also be supplied.
- 9.1.5 The contractor/sub-contractors appointed must abide by the terms of National Working Rule Agreements as appropriate. Contractors outside Building Trades are to abide by their national agreements as appropriate.
- 9.1.6 An Equal Opportunities Policy will be adopted and contractors (and their sub- contractors) must adopt a positive approach to the employment and training of ethnic minority groups.

### 9.2 Working Hours

- 9.2.1 Prescribed hours of work will be agreed with the Council. Due to the proximity of residential dwellings and commercial activities to the Site, it is likely that the standard hours of work would be prescribed as follows:
- 08:00 to 18:00 hours Monday to Friday (with soft start from 07:00 to 08:00)
  - 08:00 to 13:00 hours Saturday
  - No undertaking of noisy works on Sundays, Bank Holidays or Public Holidays
- 9.2.2 In order to maintain the above working hours, the Principal Contractor may require at certain times a period of up to two hours before and after normal working hours to start and close down activities (known as soft start and soft finish, this will not include works that are likely to exceed agreed maximum construction noise levels). Specialist construction operations and deliveries may also be required to be undertaken outside these core hours in agreement with the Council.
- 9.2.3 Although night-time, out-of-hours or weekend working would not normally be undertaken, it is conceivable that certain specialist construction operations and deliveries may have to be undertaken during these periods. In such cases prior agreement with the Council will be sought.
- 9.2.4 If out of hours works are permitted by the Council, works will be within approved noise limits for those hours. Consultation with the Council will be required prior to noisy activities taking place outside normal hours of operation, with the exception of emergency work which may need to take place as required.
- 9.2.5 In the event that Covid related restrictions are in place at any time of the works, Elephant Park may still be required to operate amended working hours as agreed under LBS Reg. No. 20/AP/1177 (4/5/2020). These working hours would also apply to the H1 Development and as such temporarily supersede some of the prescribed hours of work.

## 10 AMENDMENTS TO THE CEMP

### 10.1 Mechanisms to amend the CEMP

- 10.1.1 This CEMP sets out the nature of the activities and programme for undertaking the works for the H1 Development. It identifies the environmental considerations associated with these activities and outlines appropriate measures that will be implemented for their mitigation.
- 10.1.2 This plan identifies implementation of effective management controls, setting out the management; monitoring, auditing and training procedures that will be put in place to ensure compliance with the relevant legislation and which ensure that any impacts on the surrounding environment are mitigated as far as possible.
- 10.1.3 Over the life of the project it is likely that some of these management controls need to be amended to make them more appropriate and effective. For this reason, a procedure is included below to allow for the amendment of the CEMP:
- Lendlease shall submit in writing to the Council any proposed amendment to the CEMP;
  - The Council shall respond in writing to the proposal. If the Council accepts the proposal, the amendment shall be incorporated into the CEMP on receipt by Lendlease of the Council's written acceptance. If the Council does not accept the proposed amendment, the Council shall provide written reasons for its decision to Lendlease.
  - If the Council fails to respond to Lendlease within 15 working days, the proposed amendment shall be deemed to be accepted.

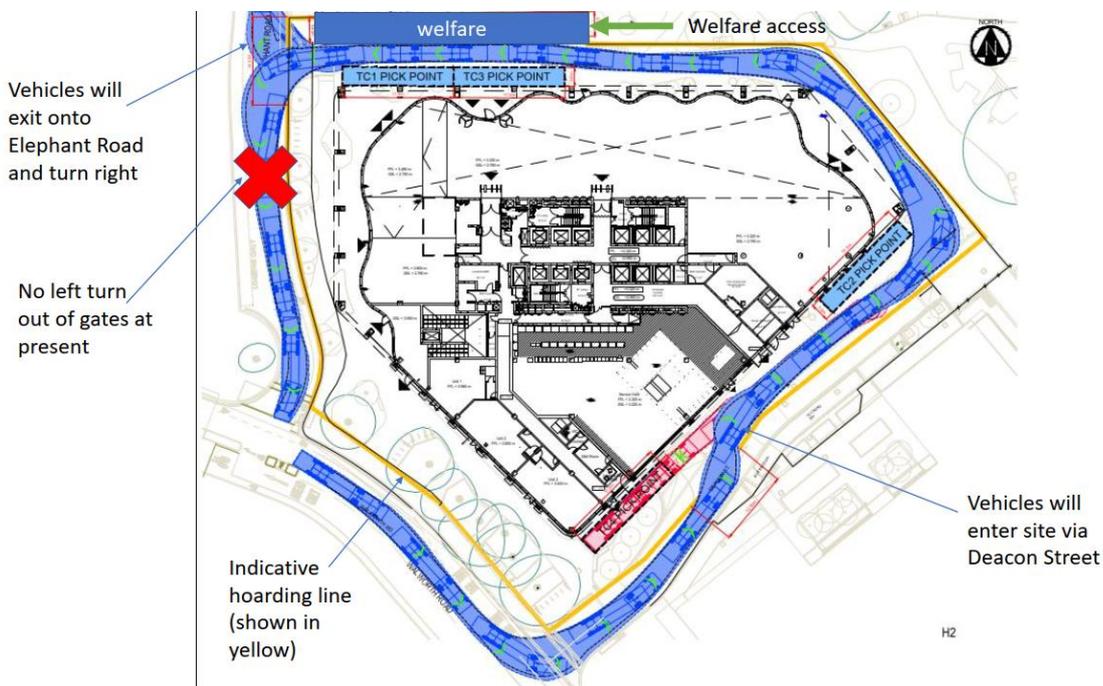
APPENDIX 1  
Logistics Plan

## APPENDIX 1 – LOGISTICS PLAN

Logistics arrangements are focused on the importance of prioritising safe access for the public using adjacent public realm and neighbouring buildings. The proposed logistics plan is based on this principle, along with considerations of other neighbouring and nearby works, which are anticipated to be undertaken concurrently with the H1 Development. Deacon Street is intended to be kept open for pedestrian and vehicular access between Sayer Street and Walworth Road.

Specifically, the Elephant and Castle Town Centre re-development is underway as at early 2021, so engagement has commenced with its developer and contractor to ensure the H1 Development access routes and locations, traffic direction, pedestrian and cyclist access, access to the Elephant and Castle Station, bus stops (temporary and permanent) and the businesses in the Elephant Road viaduct arches are co-ordinated.

Figure A1.1 – Site Logistics Plan



The Traffic Management Plan assumes a one-way vehicle route for all delivery and collection vehicles, including for access to Elephant Road, given the aforementioned likely interface and co-ordination with the Elephant and Castle Town Centre re-development works.

# APPENDIX 2

## Traffic Histogram

# APPENDIX 2 – TRAFFIC HISTOGRAM

H1 Projected Deliveries		Month																														
Activity	Reasoning	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	28	29	31
<i>20 days in month average</i>																																
H1 Piling	Based on programme data and pile numbers / volumes	320	320	122																												
H1 Piling - Muck Movements	Based on programme data and pile numbers / arisings	260	260	78																												
H1 Capping Beam	No comparison available on S9 - so based on quants	6	28	27																												
H1 Excavation	Based on basement box dimension - with added allowance for ground levels				400	1000	1000	1000																								
H1 Core Raft Foundation	No comparison available on S9 - so based on quants							60	18																							
H1 Pile Caps	No comparison available on S9 - so based on quants								20	15																						
H1 Basement Slab	No comparison available on S9 - so based on quants								25	175	25																					
H1 Ground Floor Slab	No comparison available on S9 - so based on quants										80	110																				
H1 Superstructure	5 pcs steel per woagon; 17 pcs of CLT per wagon											30	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	56	3	
H1 Concrete To Core	Assessment based on size of core															10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
H1 Reinforcement, Steel Decking, Slipform Concrete	Assessment based on size of core								20	40	20	40	20	40	20	40	25	45	25	45	25	45	25	45	25	45	25	45	25	45	28	
H1 Envelope	Based on extent of works, cross checked with S9																		60	56	56	56	56	56	56	56	56	56	56	56		
H1 Fit-Out - Base Build - HGV													45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45	45		
H1 Fit-Out - Base Build - LGV													15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15		
Services installation - HGV	Based on assumed extent of works, cross checked with S9																	40	60	60	60	60	60	60	60	60	60	60	60			
Services installation - LGV																		10	20	20	20	20	20	20	20	20	20	20	20			
H1 Others - HGV	inc lifts, ductwork, blockwork, BMU, waterproofing etc	10	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20		
H1 Others - LGV	inc lifts, ductwork, blockwork, BMU, waterproofing etc	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10		
Vehicle Movements		20	616	638	657	1090	1090	1090	93	240	175	190	186	166	186	231	281	321	337	317	337	317	337	317	337	179	146	90	90	90		
<b>Total Vehicle Movements</b>		<b>20</b>	<b>616</b>	<b>638</b>	<b>657</b>	<b>1090</b>	<b>1090</b>	<b>93</b>	<b>240</b>	<b>175</b>	<b>190</b>	<b>186</b>	<b>166</b>	<b>186</b>	<b>231</b>	<b>281</b>	<b>321</b>	<b>337</b>	<b>317</b>	<b>337</b>	<b>317</b>	<b>337</b>	<b>317</b>	<b>337</b>	<b>179</b>	<b>146</b>	<b>90</b>	<b>90</b>	<b>90</b>			

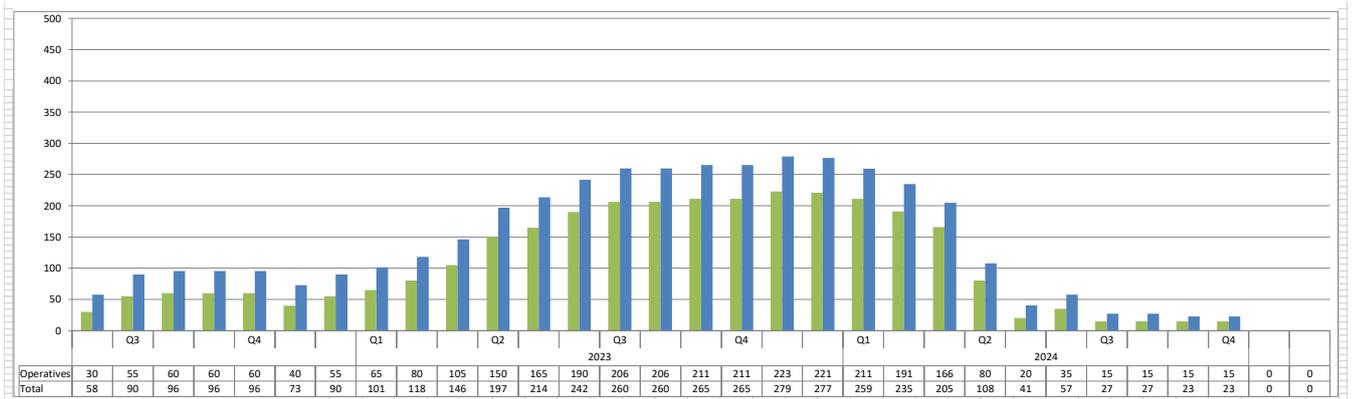
Using the delivery metrics for the previous developments and other projects of a similar size and complexity, it is forecast that the busiest period would be the 5<sup>th</sup> to 7<sup>th</sup> months. At this stage it is forecast the Site would receive an average of 50 vehicles per day, equating to 5 vehicles per hour. This will for a short window where the piling works and bulk excavation overlap.

A finalised submission of the vehicle forecasts will be included within the finalised CEMP to be submitted based on additional information to be sought from the trade contractors to be employed.

# APPENDIX 3

## Labour Histogram

## APPENDIX 3 – LABOUR HISTOGRAM



Labour is expected to be around 100 people per day for the first ten months, before increasing to an average of more than 200 people per day, once internal fit-out works commence.

Further reviews of these vehicle histograms will be made as additional information is received from the trade contractors to be employed.

APPENDIX 4  
Construction Traffic Access Routes

## APPENDIX 4 – CONSTRUCTION TRAFFIC ACCESS ROUTES

All vehicles will access the Site in a one way route through the Site entrance in Deacon Street. Once through gates into a corral area, vehicles will be checked for CLOKS / FORES, then directed to the correct pick point for the unloading operation.

All vehicles will follow the one-way system around the Site boundary and exit via Elephant Road.

All Site entrances and exits will be provided with full time traffic marshals to assist in the safe access and egress of construction traffic and to provide an interface for the public to ensure sufficient management is in place during construction.

