

Appian Construction Limited Construction Logistics Plan for Shurgard UK48 Tottenham



**For and on behalf of Shurgard UK Ltd
January 2023**

Client: David Ross, Shurgard UK Ltd

Principle Contractor: Appian Construction Limited

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Document Control

Revision	Date	Details	Amended By	Remarks

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1 Introduction

1.1 Appian Construction Limited have been commissioned by Shurgard UK ('the client') to produce a Detailed Construction Logistics Plan (CLP) to support a commercial redevelopment at 45-47 Garman Road, Tottenham, London N17 0UR. This is required prior to the commencement of construction works at the site. The Planning Application was approved by the Local Authority (London Borough of Haringey (LBH)) and so the proposed works can be undertaken at the site.

2 Site Context

2.1 The site is located off Garman Road, Tottenham, London, W4 5QB and lies within the London Borough of Haringey. It is adjacent to the A1055 Watermead Way and is accessed via Garman Road. The site consist of an existing building and a car park situated on the site. The River Lee lies East of the site and the A406 is to the North. The area is characterised by commercial and industrial uses, with residential uses further West on the opposite side of the railway lines. The Regional Location Plan, Boundary Plan and Site Plan are provided below in Figures 1 to 3.

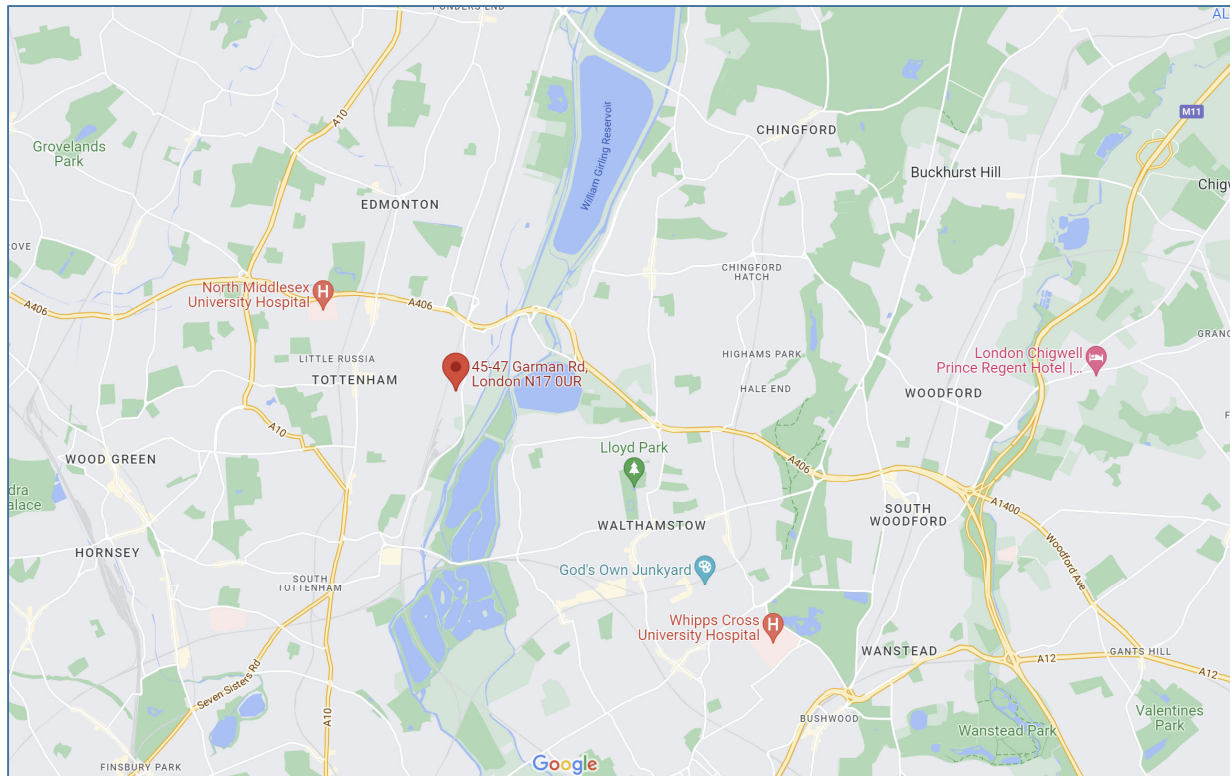


Figure 1. Regional Location Plan

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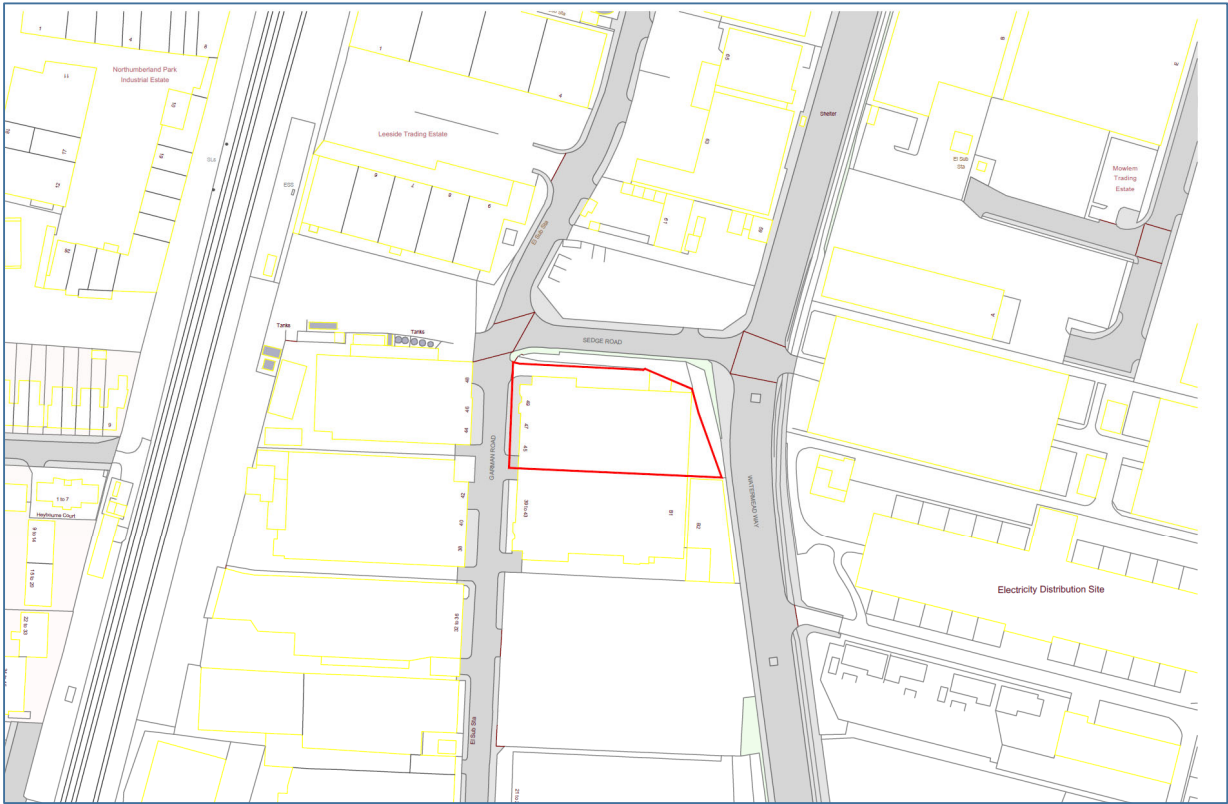


Figure 2. Boundary Plan

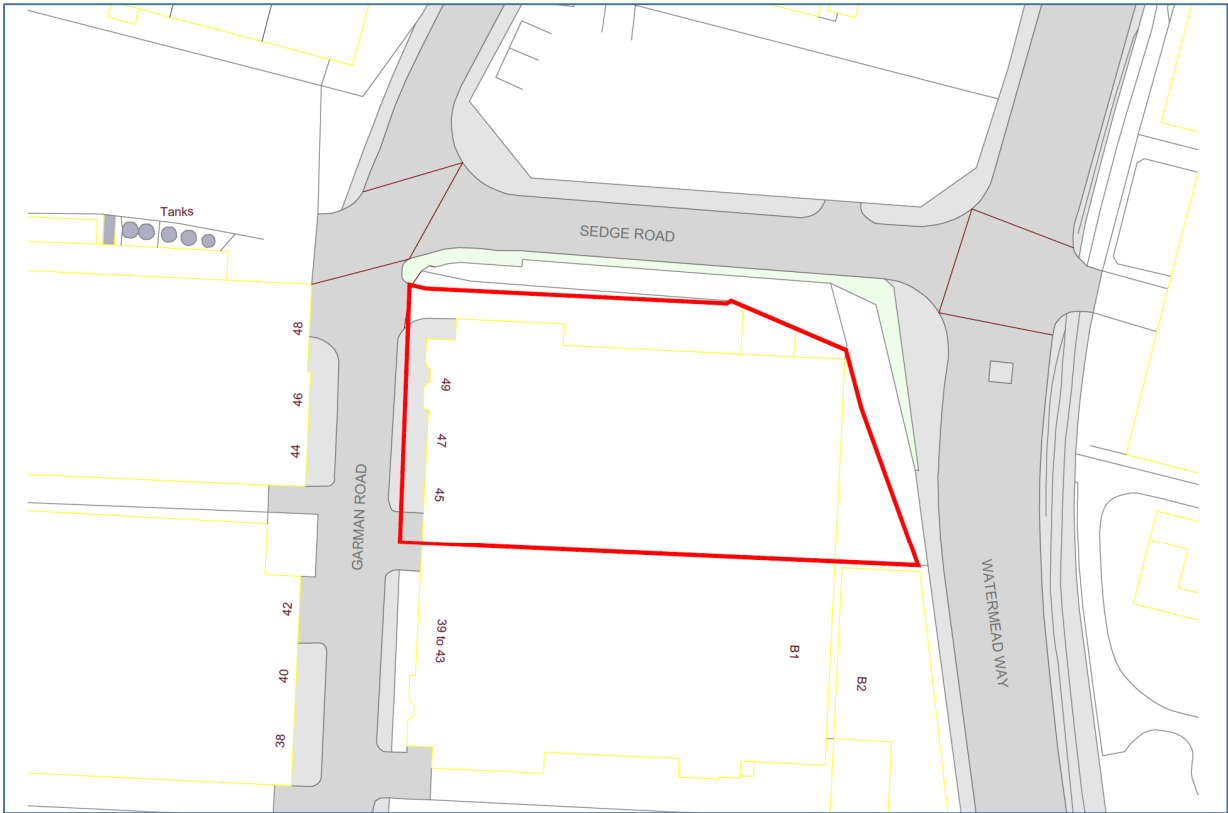


Figure 3. Site Plan

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3 Development Proposals

The project comprises of the demolition of an existing single storey building and the construction of a new Class B8 self storage facility with a demountable mezzanine and will also provide associated vehicle access, car and cycle parking and hard and soft landscaping. The project will be assessed as BREEAM 'Excellent'. Works are due to commence in the first quarter of 2023 for approx. 50 weeks

4 Objectives of the CLP

4.1 This Detailed Construction Logistics Plan (CLP) sets out the management of traffic during the construction period for the development, which is anticipated to start in early March 2023 and last for approximately 50 weeks. It will therefore finish around end of Feb 2024. A construction programme is provided in Appendix A.

4.2 It seeks to provide a robust construction strategy that will minimise the potential for disruption to local residents, businesses, members of the public and visitors to the site, as well as other users of the adjacent highway network.
The key objectives are:

- Lower emissions;
- Enhance safety – improved vehicle and road user safety; and
- Reduce congestion – reduced trips overall, especially in peak periods

4.3 To support the realisation of this objective, several sub-objectives have been agreed and include:

- Encouraging construction workers to travel to the site by public transport/non-car modes of transport;
- Promote smarter operations that reduce the need for construction traffic or that reduce or eliminate trips in peak periods;
- Encouraging greater use of sustainable freight modes;
- Encouraging the use of greener vehicles;
- Managing the on-going development and delivery of the CLP with construction contractors;
- Communication of site delivery and servicing facilities to workers and suppliers; and
- Encouraging the most efficient use of construction freight vehicles.

4.4 The contents of the CLP will be complied with, unless otherwise agreed with the Council (LBH). The CLP is a live document that will be updated as necessary to include relevant information and address issues that may be identified through consultation with local stakeholders as the project progresses and the main contractor, which is Appian Construction Ltd. If the document is updated, it shall be approved by the Local Authority.

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5 CLP Structure

5.1 The London Borough of Haringey Planning Application Requirements List states:
'Prior to the commencement of development, a Construction Management Plan (including a Construction Logistics Plan) shall be submitted to and approved in writing by the Local Planning Authority. The document shall include the following matters and the development shall be undertaken in accordance with the details as approved:

5.2 The CLP provides the details of the construction process, the type and size of vehicles expected to be used on-site, expected arrival times of construction vehicles, access arrangements and any necessary temporary highway works and traffic management orders. It considers and addresses the following:

- Project Manager and/or Contractor;
- Working hours;
- Site Plan;
- Site arrangement;
- Pre-start record of conditions;
- Proposed methodology;
- Sizes and numbers of construction vehicles;
- Parking and loading arrangement of vehicles and delivery of materials and plant to the site;
- Access to the site;
- Vehicle routing to the site;
- Security hoarding;
- Provision of wheel washing facilities;
- Details of any measures designed to reduce the impact of associated traffic;
- A scheme for recycling/disposing of waste resulting from demolition and construction works;
- Measures to ensure the safety of all users of the public highway especially cyclists and pedestrians in the vicinity of the site and especially at the access;
- A commitment to liaise with other contractors in the vicinity of the site to maximise the potential for consolidation and to minimise traffic impacts;
- Avoidance of peak hours for deliveries and details of a booking system to avoid vehicles waiting on the public highway;
- All necessary traffic orders and other permissions required to allow safe access to the site to be secured and implemented prior to commencement of construction;
- Details of the construction programme and a schedule of traffic movements; and
- The use of operators that are members of TfL's Freight Operator Recognition Scheme (FORS) and are FORS Silver accredited or better.

6 Contact Details

6.1 Developer name: Shurgard UK 39 Ltd

6.2 Contact: 45-47 Garman Road, Tottenham, London, N17 0UR

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6.3 Principle Contractor: Appian Construction Ltd

6.4 Senior Site Manager: Jason Regis.

- Phone Number: 07710 515692
- Email: jregis@appianconstruction.co.uk

7 Context, Considerations and Challenges

7.1 Detailed below are the details of the current situation on and around the site. It includes a description of the local and strategic highway network and site. It also describes the local context and issues identified that will need to be considered and addressed during construction.

Local Road Network

7.2 The site is located within a commercial setting with Sedge Road to the north, Marigold Road to the South and Garman Road to the West. There are commercial buildings located to the Eastern, Western and Southern boundaries. The existing access to the main entrance which operates as a driveway for both 'in' and 'out' is from Garman Road.

7.3 In terms of the roads adjacent to the sites, the A1055 Watermead Way is accessed via Marigold Road or Sedge Road and is subject to a 30mph speed limit. Garman Road is in an industrial estate with a speed limit of 20mph. The A1055 Watermead Way connects to the A406 via North and the A10 via South. It is evident that the site location allows for numerous routes.

7.4 Outside the site there is very limited however, construction vehicles would be able to stop here briefly to access the development. It is intended, however, that all deliveries and construction activity including offloading materials will take place on site only. It should be noted that refuse vehicles and other heavy goods vehicles already use Garman Road for waste removal and other services.

Strategic Road Network

7.5 It is easy to access the A406 from the site to the North. This connects to the M11 to the West and the A10 to the East. The nearest major road (A406) is less than a 5 minute drive from the site. Garman Road has a speed limit of 20mph past the site, which is conducive with cycling. The proposed construction vehicle routing plan at Figure 4 below highlights the major routes the vehicles could take.

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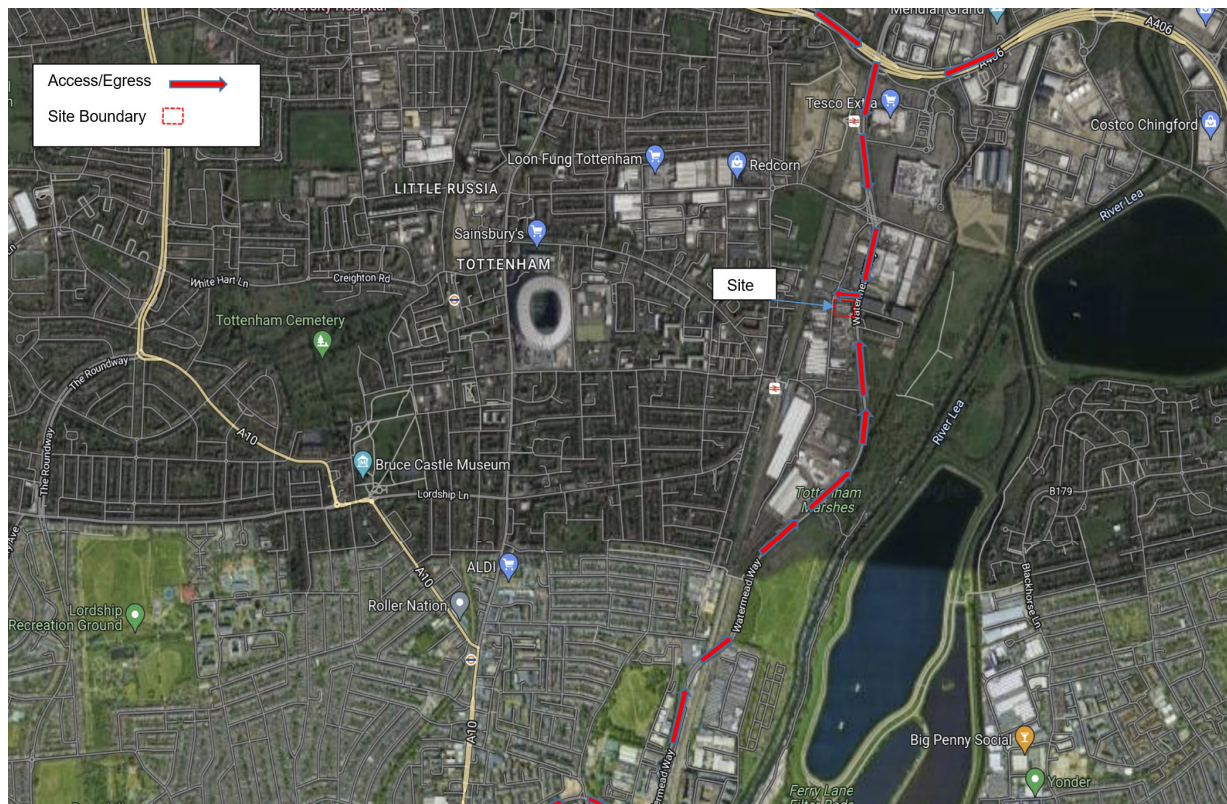


Figure 4. Proposed Construction Vehicle Routing Plan

8 Considerations and Challenges

London Plan (2021)

8.1 This provides the overall strategic plan for London setting out an integrated economic, environmental, transport and social framework for the development of London over the next 20-25 years. The latest version of the current London Plan was published in March 2021 and the most relevant policies are; S17, SI10 & T7. Addressing the key trends and challenges that London will face, this Mayor's document pays particular attention to encouraging sustainable modes of travel.

8.2 Policy 6.3 states that CLPs should be secured in line with the London Freight Plan and should be co-ordinated with Travel Plans. In addition, Policy 6.14 stresses the need to promote movement of freight by rail and waterway.

8.3 Development proposals promoting the uptake of the Fleet Operators Recognition Scheme (FORS), CLPs and Delivery and Servicing Plans (DSP) to consolidate freight will be encouraged.

8.4 Policy 6.3 on 'Assessing Effects of Development on Transport Capacity' states that development proposals should ensure that impacts on transport capacity and the transport network are fully assessed.

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8.5 Policy 6.14 on ‘Freight’ states that development proposals that generate high numbers of freight movements should be located close to major transport routes. London Plan – Intend to Publish (2019) Policy T7 Deliveries, servicing and construction states that: “Development proposals should facilitate safe, clean, and efficient deliveries and servicing. Provision of adequate space for servicing, storage and deliveries should be made off-street, with on-street loading bays only used where this is not possible. Construction Logistics Plans and Delivery and Servicing Plans will be required and should be developed in accordance with Transport for London guidance and in a way which reflects the scale and complexities of developments”.

Mayor’s Transport Strategy (2018)

8.6 Proposal 16 of the strategy states that “The Mayor, through TfL, and working with the boroughs and members of the Freight Forum, will improve the efficiency of freight and servicing trips on London’s strategic transport network”. This will be achieved by identifying opportunities for moving freight on to the rail network, utilising London’s waterways and reviewing the potential benefits of a regional freight consolidation and distribution network.

8.7 Proposal 117 acknowledges the incorporation of DSPs, CLPs and the FORS; “the Mayor, through TfL, and working with the London boroughs, and other stakeholders in the public and private sectors, will improve the efficiency and effectiveness of freight operations through the promotion of ‘delivery and servicing plans’, ‘construction logistics plans’, the Fleet Operator Recognition Scheme and other efficiency measures, across London”.

Fleet Operator Recognition Scheme (FORS)

8.8 FORS is a unique, industry-led, membership (bronze, silver, gold) scheme to help van and lorry operators become safer, more efficient and more environmentally friendly. It’s relevance to the CLP is via its mention in the Mayor’s Transport Strategy and requirements will be relayed to all operators engaged during the development.

London Freight Plan (2008)

8.9 The London Freight Plan acknowledges the important role of the movement of goods in supporting future growth of London’s economy. The Plan also recognises that such transport can have negative impacts on the local environment. CLPs, along with transport assessments, travel plans and DSPs, are key documents that support the aims of the London Freight Plan. They have all subsequently been incorporated within the Mayor of London’s Transport Strategy (2018) and the London Plan (2021). Local authority policy London’s local authorities develop their own guidance and policies about the use of CLPs and what they need to include. However, they must conform with the London Plan. Croydon, for example, has produced guidance for developers outlining that a CLP must include measures to improve air quality, reduce carbon dioxide (CO2) emissions, and minimise the disturbance to local residents and businesses caused by construction.

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Schools

8.10 The closest schools to the site are The Merdiain Angel Primary School to the North located off Ladysmith Road and the Harris Primary Academy Coleraine Park located off Glendish Road and Halefield Road. Neither school is likely to be impacted by the construction works due to their relative locations to the site.

Hospitals

8.11 The nearest hospital is the North Middlesex University Hospital, due to the proximity to the site there will be no disruption from the construction works on site.

Local Residential Properties

8.12 The nearest residential properties are located along Willoughby Road, again due to the proximity to the site there will be no disruption from the construction works on site.

9 Vehicle Routing and Site Access

Access Arrangements for Vehicles

9.1 All personnel responsible for delivering material to and / or transporting material away from the site will be advised in writing of the proposed and agreed vehicular access route(s).

9.2 Vehicle arrivals and departures will be scheduled and staggered to reduce the potential for unnecessary delay and congestion at the site and to avoid conflict on Garman Road and Watermead Way.

9.3 The scheduling of materials, deliveries and waste collection will be managed by the Senior Site Manager 'Jason Regis' from Appian Construction Ltd (see Section 6.4).

9.4 Deliveries and collections are expected to be arranged on a 'just in time' basis to avoid more than one construction vehicle seeking access to the site at any time. Suppliers will be given instructions asking the vehicle driver to call ahead to ensure that the site is ready to receive a vehicle. In addition, verbal briefings of the access route will be provided to all suppliers, contractors and visitors prior to them undertaking a journey.

Proposed Vehicle Routes

9.5 Appian Construction will liaise with LBH with the aim of agreeing vehicular routes to and from the site for vehicles during the construction stages. Details of the agreed routes will be provided to drivers, which will need to be adhered to at all times unless otherwise instructed by the Council. The objective of agreeing approach / exit routes is to minimise the impact on commercial streets and sensitive locations which are nearby, with reliance on the strategic road network as much as it is possible. The vehicle routes proposed during construction are shown in Figure 4.

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9.6 The proposed vehicle routes shown in Figure 4 are currently considered to be the most appropriate and suitable for larger vehicles and seek to reduce and minimise disruption to local road users, whilst providing flexibility for the suppliers and construction vehicles.

9.7 All construction vehicle arrivals will be managed at the site to ensure appropriate safety and traffic management measures are adhered to.

9.8 There will be a pre-start record of site conditions on the adjoining public highway (Sedge Road), which will be undertaken with Haringey Highways. This will involve a meeting and site visit from the developer or Senior Site Manager with Highways to assess the current road conditions, so they can note if anything is negatively affected from the construction vehicles after the site has been built. The Contractor will be responsible for the making good of any damage caused by the works once the construction process is complete.

9.9 The figures in Appendix 2 show the vehicle swept path analysis for both a 16.5m articulated lorry and a 10m rigid lorry accessing and egressing the site. Further figures also show the vehicle tracking within the site for each of the current sub-phases of the construction programme.

Loading Arrangements

9.10 Loading and unloading of material exported or imported to the site and rubbish removal during the construction process is expected to be undertaken within the site accessed from Garman Road.

9.11 All site operatives and visitors will be encouraged to travel to and from the site by public transport, however, in the event operatives are required to bring vehicles to site, operatives will be expected to unload any materials or equipment on site, as there is no on-street parking locally during the day.

Public Highway

9.12 The Contractor will agree a schedule which details the condition of the public highway in the immediate vicinity of the site with the Highway Authority prior to works commencing. The Contractor will be responsible for the making good of any damage caused by the works once the construction process is complete.

Road Safety

9.13 A dedicated road marshal will supervise all arrivals and departures of construction traffic. All contractors and suppliers will be required to achieve silver accreditation of FORS (Fleet Operator Recognition Scheme) where applicable and to be signatories of CLOCS (Standard for Construction Logistics: Managing Work Related Road Risk).

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Pedestrian and Cyclist Safety

9.14 Construction traffic poses a potential risk to pedestrian and cyclist safety. The use of banksmen during all periods of operation at the site will assist pedestrian and cyclist safety.

9.15 Hoarding around the site, where required, on Garman Road and Sedge Road will protect the safety of pedestrians passed the site. Safety at the access will be considered, as vehicles will enter and leave the site, however, signs will be installed on Sedge Road and Garman Road to inform the public/drivers/cyclists about construction works/construction vehicles nearby. The construction vehicle drivers and other HGV drivers in relation to this site will need to be aware of pedestrians and cyclists.

10 Construction Programme and Methodology

Programme / Phasing

10.1 Construction is expected to begin in early March 2023 and continue for approximately 50 weeks until end of March 2024. A construction programme is provided below, this sets out timescales for each phase of construction / key construction stages with the practical completion in 2024.

10.2 The durations below cover all six sub phases of the construction programme.

Task Name	Duration	Start	Finish	Predecessor	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	1st Quarter
Tottenham Programme	277 days	Mon 06/03/23	Tue 26/03/24						
Site Setup & Demolition Works	4 wks	Mon 06/03/23	Fri 31/03/23						
Reduced Level Dig & Piling	6 wks	Mon 03/04/23	Fri 12/05/23	2					
Sub-Structure	8 wks	Mon 15/05/23	Fri 07/07/23	3					
Super Structure	10 wks	Wed 02/08/23	Tue 10/10/23	4					
Cladding & Roof	10 wks	Wed 11/10/23	Tue 19/12/23	5					
Fitout Testing & Commissioning	13 wks	Wed 20/12/23	Tue 19/03/24	6					

Table 1. Construction Phases

Site Setup & Demolition

10.3 The site setup works will take approx. 4 weeks to complete and will include; fully enclosing the site using timber hoarding and installing secure vehicle and pedestrian gates, the site welfare compound will use Heras fencing to delineate vehicle and pedestrian routes. The construction plant required will include 360 excavators and a crusher unit.

10.4 The demolition will include; the demolition of the existing structures, the grubbing of hard standings and the recycling of construction materials. All building rubble and any obstructions will be crushed on site to use as 6f2 for the piling mat and general fill. During these initial months there will be some waste to be removed from the site via grab lorries and 40-yard skips, however, where possible materials will be stored for future reuse on site.

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Reduced Level Dig & Piling

10.5 Once the demolition phase has been completed the reduced level dig will commence using 360 excavators and dumper trucks, the piling mat will then be laid, and plate tested. The proposed piling solution will be a combination of CFA or CHD depending on further site investigations and to reduce muckaway where possible. The reduced level dig and proposed piling solution works will take approx. 6 weeks to complete.

10.6 The number of vehicles arriving each day are envisaged to be predominantly concrete delivery vehicles and muck away lorries where necessary. There will be several additional deliveries of steel reinforcement for the piling however, these are not envisaged to be delivered every day.

Sub-structure

10.7 The sub-structure will consist of the foundations, pile caps, perimeter beams and the R/C slab for the ground floor and will take approx. 8 weeks to complete using 360 excavators, dumper trucks and a concrete pump truck. The deliveries of steel reinforcement and cement lorries will be the primary vehicles accessing the site during this stage of construction. There are expected to be some muck away lorries visiting site to remove any waste materials however as above, where possible materials will be stored for future reuse on site. Lorries will be offloaded in designated loading areas across the site as close as possible to the final destination for the materials.

Super Structure

10.8 The super structure will consist of a structural steel frame which will be built using a mobile crane and will take approx. 10 weeks to complete. The main deliveries during this phase will be hot and cold rolled steel beams, columns and cladding purlins. Steel loads will be optimised to reduce the number of deliveries to site.

Cladding & Roof

10.9 The composite roof panels will be delivered in the largest loads possible and distributed using a self-erecting T crane. The composite wall panels and glazing will be lifted into position by a mobile crane. The deliveries will be arranged to take place in larger batches to reduce the number of vehicles accessing the site on a daily basis. It is envisaged that these works will take approx. 10 weeks to complete.

Fit-out, testing & commissioning

10.10 The internal fit out will consist of the storage unit partitioning, M&E and general builders works, and will take approx. 13 weeks to complete. Contractors will be encouraged to manufacture, where possible, items off site including the kitchens, shop units and the component parts for the plant and electrical rooms to reduce the requirement for multiple deliveries.

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11 Hours of Operation

11.1 The proposed site operating hours are as follows:

- Monday to Friday 0800hrs – 1800hrs
- Saturday 0800hrs – 1300hrs

11.2 Appian Construction will endeavour so far as is reasonably practical to keep to these hours for the construction activities. Excessively noisy operations will be limited to periods not more than 2 hours' duration on an on/off basis.

11.3 Deliveries will only occur between 9:30am – 4:00pm.

11.4 In certain circumstances, it is anticipated that there will be a requirement for vehicles to arrive and depart outside of usual construction hours to allow specialist construction activities to be undertaken. Any special dispensation with regards to out of hour's vehicle activity will require prior agreement with the local authority.

11.5 There will be no working on Sundays unless there is a requirement for emergency works or abnormal deliveries. These would be agreed in advance with the highway authority.

11.6 All vehicle activity will be scheduled and undertaken in accordance with LBH guidelines. Vehicle activity will primarily take place outside of peak periods in order to minimise disruption to the local road network.

12 Site Arrangement

12.1 The site will be secured with a security hoarding to all exposed boundaries where there is an interface with / reliance on the public highway. Graphic banners will be added to the fencing for privacy and advertising. The hoarding will be provided in line with LBH regulations.

12.2 Construction office and welfare facilities will be provided on site where possible. Plant and materials will be stored on-site and vehicles will access the site from Garman Road. This will be their only point of access into the site. Vehicles will drive down the access road from Sedge Road into the site to unload materials and collect waste and materials. The storage of all materials will be on site.

12.3 Wheel washing will be required on exit before accessing Garman Road. The construction team will set up a wheel wash on site prior to vehicles leaving, this will consist of a 2-man team jet washing vehicles, and water will run off to a soak away on site. Excavation works will be undertaken on-site, and the removal of material is expected to be undertaken on-site.

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13 Utility Connections

13.1 Should the development require any new utility connections, the project manager will make contact with the relevant utility companies in order to co-ordinate any scheduled work with the highway authority.

14 Recycling

14.1 The removal of material is expected to be undertaken on-site. Material will be transferred directly into vehicles on-site. Where possible, segregation of recyclable and non-recyclable material will be employed for all waste generated throughout the construction process. Initially, all waste materials will be deposited into containers held on site. All site waste will be collected by a licensed waste carrier, who will enter the site briefly to collect. The waste will be taken to a registered waste transfer station for sorting and recycling, and re-use.

14.2 A Site Waste Management Plan (SWMP) will be implemented to detail the disposal and management procedures relevant to the demolition and construction phases. The SWMP will seek to minimise and reduce waste production.

14.3 Plant and materials will be stored on-site, there is not expected to be a requirement to make use of the public highway for storage purposes. As such, the use of Garman Road and Sedge Road will be limited to vehicle activity only. All loading/unloading and material storage will be undertaken on-site.

15 Abnormal Roads

15.1 If short term road closures are required in order to undertake any element of the works then the appropriate consents and licenses will be obtained. If required, road closures will be planned in advance, in accordance with the LBH and in compliance with prescribed notice periods.

16 Control of Dirt and Dust

16.1 The objective is to ensure footways and carriageways adjacent to the site are kept clean at all times. The following measures will be implemented:

- All HGVs removing demolition spoil and soil will be sheeted over before leaving the site;
- Wheel washing may be carried out where necessary (although this is unlikely to be appropriate);
- The Project Manager will ensure that the perimeter of the site is patrolled twice a day to ensure that the footway is kept clear of any construction debris.
- Road sweeping to clean the site hard standing, and any mud or debris deposited by site vehicles on roads or footpaths in the vicinity of the site;
- Sufficient bins and waste facilities.
- Litter picking facility for un-attributable materials; and
- Facilities to minimise the formation and spread of dust by continuous fine water spray.

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17 Noise

17.1 Noise and Vibration caused by site activities will be controlled as far as is reasonably practicable so that surrounding receptors are protected from excessive levels arising from the construction process.

17.2 All hand operated tools and equipment shall be effectively silenced to industry standards and will bear the manufacturer's guaranteed maximum sound level generated. The recommendations made in BS 5228-1: 2009 "Code of Practice for Noise and Vibration control on Construction and Open Sites" will be applied at the site.

17.3 The Contractor will work under the guidelines set out in the legislation below:

- Public Health Act 1961
- Health & Safety at Work act 1974
- Control of Pollution Act 1974
- Environmental Protection Act 1990
- The Noise at Work regulations 2005
- British Standard 5228

17.4 The Contractor will aim to keep noise levels to a minimum. This will be carried out by:

- Ensuring all plant is fitted with the correct and working exhaust mufflers and noise suppression kits.
- Changing methods and processes to reduce noise levels where possible.
- Position plant as far away from existing residential property as physically possible.

18 Strategies to Reduce Impacts

Overview

18.1 This section describes measures that can be implemented to ensure this CLP is effective in achieving the aims of reducing environmental impact, road risk, congestion and cost.

18.2 Planned measures are specific techniques that are agreed through the planning process. Planned measures need to be SMART (Specific, Measurable, Agreed, Realistic, Timely), easily interpreted, implemented and monitored. The detail of them is defined prior to starting construction activities.

18.3 The measures are categorised as follows:

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18.3.1 Committed - indicates a measure that shall be implemented as part of the CLP, secured by planning condition or, where applicable, through the Section 106 agreement. These measures shall be included in any tendering documents for the contract to build the development. If the developer's contractors do not comply with these requirements, it will be classified as a material breach of their contract and could lead to them being refused access to the site. It is the developer's responsibility to ensure their requirements are part of the main contractor and subcontractor contracts. The main contractor is responsible for ensuring that all sub- contractors conform to these contractual requirements.

18.3.2 Proposed – indicates a measure that is feasible and shall be studied further to determine its practicality. If a measure is not feasible, the CLP must contain justification and evidence as to why it has been rejected. Proposed measures should be discussed with potential contractors during the procurement stage with a view to including them in the contract and agreeing to them in the Detailed final CLP (the version following this).

18.3.3 Considered – indicates a measure that is not currently relevant but may be in the future. These measures should be proposed if suitable.

Planned Measures

18.4 The measures considered suitable for this site are shown in Table 5.1. Given this development is considered to be a medium sized site, it is considered a medium impact site, as discussed in the TfL Construction Logistics Plan Guidance.

Measures	Committed	Proposed	Considered
Safety and environmental standards and programmes	X		
Adherence to designated routes	X		
Delivery scheduling	X		
Re-timing for out of peak deliveries		X	
Re-timing for out of hours deliveries		X	
Use of holding areas and vehicle call off areas		X	
Re-use of material on site		X	
Smart procurement		X	
Collaboration with other sites in the area	X		
Vehicle Choice			X
Use of Logistics and Consolidation Centres		X	
Freight by Water			X
Freight by Rail			X
DfMA and off-site manufacture		X	
Prepare a Staff Travel Plan	X		

Table 2 - Measures Checklist

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Estimated Vehicle Movements

18.5 Vehicle Types and Number of Movements, There are no anticipated restrictions to the size of heavy goods vehicles servicing the site. There appears to be no height restrictions on the highway network surrounding the site and therefore numerous types of vehicles will be used to bring materials to and from the site.

18.6 It is expected that the online Freight Journey Planner will be able to be utilised by drivers.

18.7 The main vehicle types and their typical height are shown below:

- Skip Lorry: 6.3m (L), 2.5m (W), 3.65m (H) - 45 minutes maximum dwell time/per visit.
- Heavy Good Rigid Flatbed: 10.0m (L), 2.5m (W), 3.65 (H) - 60 minutes maximum dwell time/per visit.
- Articulated Lorry: 16.5m (L), 2.55m (W), 120 minutes maximum dwell time/per visit.
- Concrete Mixer: 8.4m (L), 2.5m (W), 4.0m (H) - 60 minutes maximum dwell time/per visit.
- Rigid Truck: 12.0m (L), 2.5m (W), 3.93m (H) - 120 minutes maximum dwell time/per visit.

18.8 The majority of vehicle movements to and from the site will be carried out by concrete delivery vehicles and muck away lorries. The first construction phase involving demolition will be dominated by these two vehicle types.

18.9 The busiest times for construction vehicles will be during the reduced level dig, piling and sub-structure phases, where it is anticipated there will be a maximum of 10 tipper trucks 4 days per week in May/Jul 2023. Other than these times it is expected that there will be no more than 6 deliveries per day to the site, it is also unlikely that all construction vehicles will stay for the maximum dwell time outlined above.

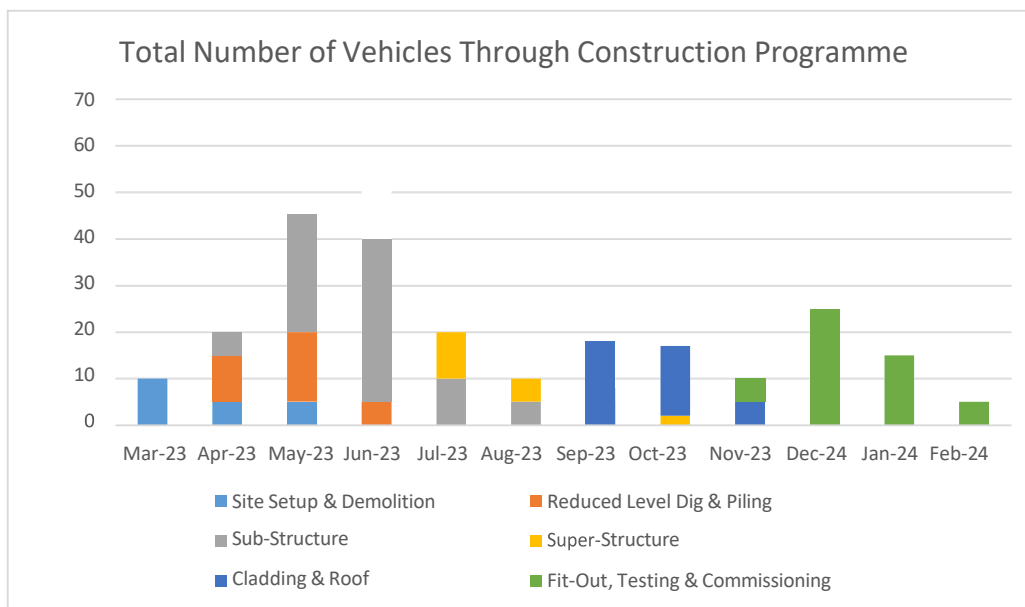


Figure 5 - Total Number of Vehicles at Stages of Construction Programme

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Construction Stage	Period of Stage	No.of Trips (monthly)	Peak No. of Trips (Daily)
Site Setup and Demolition	Q1 2023	20	4
Reduced Level dig and piling	Q2-Q3 2023	30	6
Sub-structure	Q1- Q3 2023	80	12
Super-structure	Q3-Q4 2023	20	2
Cladding and Roof	Q4 2022-Q1 2023	30	4
Fit-out, testing and commissioning	Q1 2024	50	8
Peak periods of construction	Q2-Q3 2023 and Q1 2024	570	28

Table 3 - Estimated Construction Vehicles – Monthly and Daily

The number of vehicles accessing the site has been estimated according to each of the 6 phases of construction and based on previous experience, proposed programme and construction methodology. Appian Construction Ltd have estimated the number of vehicle movements by construction stage.

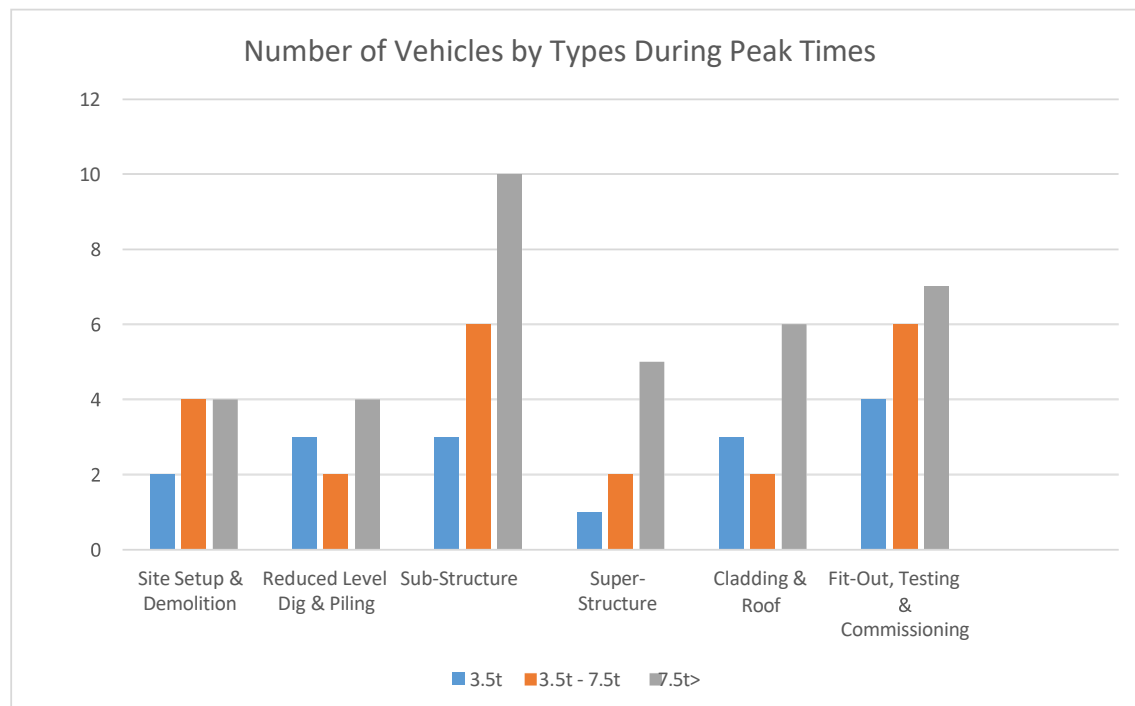


Figure 6 - Total Number of Vehicles by Types During Construction Phases

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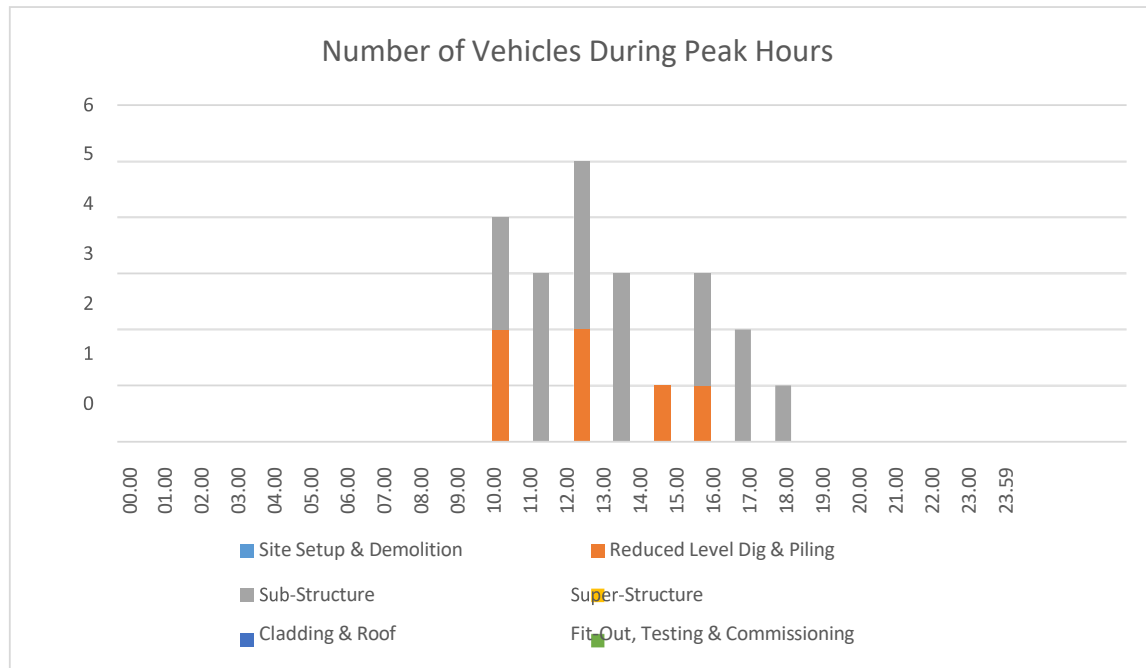


Figure 7 - Number of Vehicles During Peak Hours

19 Implementing, Monitoring and Updating

Role of Project Manager

19.1 JCT Construction Contracts will be the Contractor and they will appoint a project manager who will assume all responsibility for implementing the measures within the CLP, alongside the Site Manager from Appian Construction Ltd. The contact details for the project manager will be displayed at the site and published on any temporary licenses granted by LBH as the Highway Authority (such as for hoarding or scaffolds).

19.2 The project manager will liaise with local stakeholders and the project managers for other construction activity in the local area when and where it is relevant to do so. They will also commit to liaising with other contractors in the vicinity of the site to maximise the potential for consolidation and to minimise traffic impacts.

19.3 The project manager will also be responsible for monitoring and reviewing this CLP on an ongoing basis to reflect the changing needs of the project and/or any changes to the local road network.

19.4 The appointed Project Manager will act as a point of contact between local stakeholders / businesses / residents so that in the event of issues / concerns arising during the construction process, action can be taken as quickly as possible. Information boards will be displayed at the site highlighting the key personnel on site including their contact details. A 24-hour emergency contact number will also be provided.

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19.5 Local businesses and residents will be able to call the site office to raise any concerns and the Project Manager will personally deal with any comments or complaints and will ensure that they are resolved quickly. A record will be kept of any / all comments and complaints.

Monitoring and Updating

19.6 This CLP is expected to be a 'living document' and so should be updated during construction if any significant changes to the scope or programme of construction occur. Although the CLP can be reviewed at any time, CLPs are typically reviewed prior to the start of a new phase of construction.

19.7 Where there is a concentration of construction activity, it is good practice to set up a construction working group, with representatives from all interested parties, including TfL and the London Borough of Haringey. The working group should share the results of the CLPs, broken down so that people can see the impact for each individual development phase and the numbers and types of vehicles in use. There is an expectation that the contractor will participate and work together with others in the area to minimise impacts.

19.8 Online delivery booking and tracking systems also provide detailed evidence about the number and type of delivery vehicles, and the efficiency and accuracy of the deliveries made. All this information will help highlight actual impacts of deliveries against predictions and help set targets for future impact assessments.

Contractors' Handbook

19.9 A Contractor and Driver Handbook can be used to distribute information to those responsible for abiding by this CLP. A handbook is recommended to aid in implementing the CLP.

19.10 Producing a handbook is an effective way to ensure that all contractors are aware of their obligations, this should include the following:

19.10.1 Safety toolbox talk – setting out how and when these will take place, including frequency and duration and an outline of topics to be included. These should be environmental and safety orientated.

19.10.2 Anti-idling toolbox talk – setting out how and when these will happen for all drivers, including frequency and duration.

19.10.3 Vehicle routing and delivery scheduling system – an explanation to the contractor of the routing and delivery system in use. The vehicle routes to take are discussed earlier in this CLP in Section 3. The Figures 3.1 and 3.2 show the routes recommended to take.

19.10.4 Driver training – an outline of how and when this will happen during the contract, and the company that will carry out the training.

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19.10.5 Safety and environmental standards.

Contract Compliance

19.11 Contractors must report on any requirements that are part of the planning condition and / or this CLP. This must happen at a pre-agreed time, such as daily, weekly or monthly.

Drivers' Handbook

19.12 Owing to the subcontracted nature of the construction industry, it is important that all drivers are aware of their obligations. Therefore, a drivers' handbook should include essentials relating to environment and safety. It should be concise, specific to the individual construction programme, and should include:

- Authorised routes to and from the site
- Site opening times
- Booking and scheduling information
- Site entry and exit points, and other information relating to access
- Anti-idling
- Vulnerable road user safety

Considerate Constructors Scheme

19.13 The construction project will be registered with the Considerate Constructors Scheme in order to minimise negative impacts that construction activity may have on the local area.

19.14 It is hoped that the construction drivers (who will be sub-contractors) participate in this scheme. Participation in the scheme will ensure and commit the construction project and its workers to providing competent management, efficiency and awareness of environmental issues. In addition, appropriate monitoring will be undertaken to review practices and assess performance.

19.15 Membership of the scheme requires compliance with a code of practice and seeks to:

- Minimise any disturbance or negative impact (in terms of noise, dirt, and inconvenience) caused by construction sites to the immediate neighbours.
- Eradicate offensive behaviour and language.
- Result in an improved understanding and respect from residents and others in the community, and fewer complaints.

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20 Precautions and Wheel Wash Facilities

20.1 All construction traffic entering site will follow a one way road system which utilises the current bitumen bound macadam road infrastructure, this will ensure there is a minimum chance of the vehicles collecting any mud and debris. Once loaded/unloaded the vehicles will be parked within a holding zone on site to be inspected for mud and debris, any vehicles that require cleaning will be jet washed by two operatives on a designated free draining hardcore surface. The operatives will use 2 jet washers to clean down the entire vehicle paying particular attention to the wheels, wheel arches, mud flaps and the underside of the vehicle.

20.2 A local road sweep contractor will also be employed on a standby basis to ensure that the adjacent roads are swept and maintained to be free from dust, mud and debris. No vehicles will be cleared to leave site without a thorough inspection by the site team.

21 Pedestrian & Vehicle Checklists

21.1 The following checklist and actions for pedestrian and vehicles are to implemented and adhered to at all times;

Pedestrian Route Checklist

Ser	Question	Yes	No	N/A
1	Are pedestrian routes clearly separated from vehicle routes by fencing and /or a kerb, or other suitable means? If "no" see action 1			
2	Are pedestrian routes wide enough to safely accommodate the number of people likely to use them at peak times? If "no" see action 2			
3	Do pedestrian routes allow easy access to work areas? If "no" see action 3			
4	Pedestrian routes are kept free of obstructions? If "no" see action 4			
5	Pedestrian routes are clearly and suitably signed? If "no" see action 5			
6	Can pedestrians safely cross the main vehicle routes? If "no" see action 6			
7	Do pedestrians have a clear view of traffic movements at crossings and at gates which lead onto traffic routes? If "no" see action 7			
8	Do pedestrians have clearly marked, separate access for use at loading bays and site gates? If "no" see action 8			
9	Do pedestrian routes provide safe access to welfare facilities? If "no" see action 9			

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Pedestrian Route Actions to be Taken

Ser	Action	Description
1	Ensure routes are clearly designated and protected	Pedestrian routes are shown on site drawing displayed in induction room. This is reviewed daily in accordance with risk assessments and updated if required. Pedestrian routes are explained during induction
2	Base Plan on peak numbers	The Traffic Management Plan will be monitored and adapted to suit the on-site conditions as construction progresses
3	Plan routes to allow safe access	Documents produced. All planned routes will be detailed in the logistics plan and highlighted to all personnel during the site induction
4	Ensure plan includes need to keep access routes clear	All personnel will be instructed to insure access routes are kept clear. This will be enforced during site inductions and toolbox talks. Action will be taken against repeat offenders
5	Ensure sufficient signage	All routes will be clearly signposted and new signage will be produced in advance of any planned changes to the access routes
6	Ensure sufficient crossing points are planned for	The only crossing point will be located at the main gate which will be permanently manned by a trained traffic Marshall during site hours
7	Ensure that blind spots are eradicated during the planning process	Noted
8	Consider separate access to loading bays and gates	N/A as the main loading/unloading area is located within the site boundary perimeter hoarding
9	Provide safe routes at parking areas. Plan site set up to avoid need for pedestrians to cross routes	N/A. No onsite parking, all operatives will be instructed to use public transport links.

Vehicle Routes

Ser	Question	Yes	No	N/A
1	Are routes clearly separated from pedestrian routes by fencing and/or a kerb or other suitable means? If "no" see action 1			
2	Are routes wide enough to safely accommodate the number of vehicles likely to use them at peak times? If "no" see action 2			
3	Do routes allow easy access to delivery areas? If "no" see action 3			
4	Are routes kept free of obstructions? If "no" see action 4			
5	Are routes clearly and suitably signed? If "no" see action 5			
6	Can pedestrians safely cross the main vehicle route? If "no" see action 6			
7	Do pedestrians have a clear view of traffic movements at crossings and at gates which lead onto traffic routes? If "no" see action 7			

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8	Do routes eliminate or reduce the need for reversing? If “no” see action 8			
9	At the final point of exit can the driver see pedestrians on the pavement? If “no” see action 9			
10	Are temporary structures protected from vehicle impact? If “no” see action 10			
11	Will parking areas be required? If “no” see action 11			

Vehicle Routes Actions to be Taken

Ser	Action	Description
1	Ensure routes are clearly designates and pedestrians protected	Vehicles routes are planned to be one way to minimize vehicle turning and reversing
2	Ensure the plan assumes peak number. Consider one-way system	Contractors are requested use reversing aids on vehicles delivering and it is a mandatory requirement for vehicles working on site
3	Plan routes to allow safe access	There will be appropriate traffic marshals to assist with reversing where necessary. Any reversing will be supervised by a trained Traffic Marshall
4	Ensure plan includes need to keep access routes clear	To be enforced by the site management team
5	Ensure sufficient signage	All inductions will include traffic management requirement
6	Ensure sufficient crossing points are planned for. Ensure drivers are told of crossing points	Appropriate Signage will be in place
7	Ensure that blind spots are eradicated during the planning process	Drivers will be made aware of where pedestrian crossings are by signage. Drivers will also be made aware of site traffic requirements before entering site
8	Plan routes to reduce or eliminate reversing	They have been eradicated from traffic routes
9	Ensure adequate sight lines or mirrors to assist driver. Angle hoarding line to assist vision	Vehicles routes are planned to be one way to minimize vehicle turning and reversing
10	Ensure scaffolds, falsework or other structures (LPG stores are protected from impact)	Roads will be swept and all exiting vehicles will have the tyres and undercarriage power sprayed to remove excess dirt
11	Ensure sufficient parking areas exist. If necessary provide banksman to ensure vehicles are parked safely. Ensure adequate lighting exists	Only self-sheeting vehicles will be permitted on site

Control Measures for Reversing Operations

Ser	Action	Description
1	Eliminate need to reverse	Implement one-way systems around the site and in loading and unloading areas. Provide designated turning areas
2	Reduce reversing operations	Reduce the number of vehicle movements as far as possible. Instruct drivers not to reverse, unless absolutely necessary
3	Ensure adequate visibility for drivers	Fit CCTV, convex mirrors, Fresnel lens etc. to overcome restrictions to visibility from driver's seat, particularly at the sides and rear of vehicle
4	Ensure safe systems of work are followed	Design vehicle reversing areas which: • Allow adequate space for vehicles to manoeuvre safely • Exclude pedestrians • Are clearly signed and have physical stops or buffers to warn drivers that they have reached the limit of safe reversing area Ensure everyone on site understands site rules on vehicle safety. Drivers and signallers need to be in constant communication during reversing operations. Signallers should not be put at risk from vehicle movement, e.g. by standing directly behind reversing vehicle. Ensure all vehicles on site are fitted with appropriate warning devices
5	Provide warnings when vehicles are reversing	Ensure reversing warning lights and alarms are in good working order and instruct workers to keep clear of moving vehicles

Signaller/Banksman Checklist

Ser	Description
1	Use relevant safety procedures and correct signalling systems
2	Ensure drivers understand the correct signalling systems
3	Signal instructions clearly
4	Ensure you are visible to the driver and the driver is visible to you; if not, stop the vehicle moving
5	Stand in a safe location at all times
6	Warn pedestrians and make sure they are kept away from vehicle operations
7	Wear appropriate protective clothing, including high visibility clothing
8	Report work hazards to supervisors
9	Make sure you can get to and from your work location safely
10	Do not ride on the vehicle you are directing unless you are in a designated safe position
11	Do not direct vehicles if your ability is affected by alcohol or drugs
12	Do not use a mobile phone whilst directing vehicles
13	Sign below to confirm acknowledgement of the above rules
	Signature Date

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22 The Siting of Site Infrastructure and Site Hoardings

22.1 All site welfare and infrastructure will be contained within the site boundary, the site layout can be seen at Appendix 3.

22.2 The site is bounded on all elevations by 18mm ply board hoarding, this is 2.5m high, is painted white and encompasses the entire site. The hoarding will be inspected daily for damage/graffiti and will be repaired/re-painted as required.

22.3 The site hoarding has been erected in accordance with the HSE guidelines as follows:

22.4 Hoarding checks will be carried out daily to ensure security, maintenance and the hoarding is clear of debris / obstructions.

22.5 Any access lighting will be suitably specified to avoid casting of significant shadows or glare.

22.6 Contact numbers will be clearly displayed on the outside of the hoarding. Including the details of the principle contact.

23 Details of the Proposed Security Arrangements for the Site,

23.1 The site and individual working areas will be kept secure at all times, including out of hours, by 24/7 security guards to prevent unauthorised personnel from gaining access to site. As the works progress in accordance with the program, hoardings and fencing will be removed or relocated as appropriate, to facilitate the external hard landscaping works.

23.2 During open times, access to the site will be by a manned secure access system. All site personnel will be briefed on Public awareness during a compulsory site induction. All access and egress routes to the site will be clearly identified and controlled as per the site layout plan.

24 Dust Emissions

24.1 Dust emissions and odours arising from a site can potentially annoy neighbours and even cause health risks at high concentrations. Under the Environmental Protection Act 1990 Appian Construction has a duty to avoid causing a statutory nuisance due to creating dust that may affect the workforce, neighbours' and the environment. Failure to do so is a criminal offence and may result in prosecution and an unlimited fine.

25 Dust Mitigation Measures

25.1 Appian Construction will maintain appropriate dust and pollution control measures during the course of construction of the development, having regard to Haringey Borough Councils 'Code of Practice on Control of Pollution and Noise from Construction sites', BS 5228, Section 61 consent under the Control of Pollution Act 1974, and the Mayor of London's 'Control of Dust and Emissions During Construction and Demolition' Supplementary Planning Guidance (July 2014).

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25.2 Appian Construction will ensure that all contractors follow best practice at all times to control and limit emissions of gaseous and particulate pollutants into the atmosphere from construction and demolition activities, including from vehicles and plant.

25.3 The focus of the dust and pollution control measures should be to reduce health and dust annoyance impacts on existing local receptors. Potential health impacts from dust emissions to site personnel should be addressed (e.g. through the use of face masks where appropriate) in the sites health and safety documentation.

25.4 To minimise the nuisance of dust generated by the construction operations the following operational constraints will be implemented:

25.4.1 Haul routes to be located away from sensitive areas, if possible.

25.4.2 Provide a length of paved road before the exit from the site.

25.4.3 Sweep public roads daily when potential traffic movements containing soil, spoil, hardcore, concrete etc. are being taken in or out of the site.

25.4.4 Ensure that all dust generating materials transported to and from site are covered by tarpaulins.

25.4.5 Traffic speed on site to be lowered to prevent the generation of dust.

25.4.6 Construction methods will be reviewed to limit the generation of dust i.e. wet cutting in lieu of dry cutting where practicable.

25.4.7 Control of dust to be implemented on site by the use of a water bowser unit to dampen site access roads.

25.4.8 Plant and equipment to be selected to minimise the generation of dust.

25.4.9 Dust migration to adjoining properties to be restricted by the use of debris netting fixed to all the perimeter fences.

26 Store materials as far away as possible from sensitive boundaries, whenever possible.

27 Monitoring Dust

27.1 Appian Construction will have in place, Health & Safety and Environmental procedures to ensure that the site team is fully aware of all those who may be affected by the work and to put in place control measures to minimise any nuisance or inconvenience.

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27.2 Effective planning and management of dust control requires a thorough understanding of the construction programme, the operations and their likely impact due to the changing weather conditions. The control measures that will be introduced reflect the site team's knowledge of the programme and site operations to combat dust.

28 Dust Mitigation Measures

28.1 The method Statements should include measures to reduce dust pollution and other airborne debris such as:

28.1.1 Ensuring that all materials transported to and from site are in enclosed containers or fully sheeted;

28.1.2 Ensuring stock piles of topsoil etc. are kept below hoarding heights and kept damp in dry windy conditions;

28.1.3 All vehicles removing dust generating materials or waste are to be completely sheeted with tarpaulin/ netting;

28.1.4 Ensuring materials have a minimum of packaging;

28.1.5 Ensuring all polystyrene and similar lightweight materials are weighted down;

28.1.6 Making sure all dust generating materials are adequately packaged;

28.1.7 Ensuring all vehicles leaving the site have been through the wheel wash and that loads are covered where spoil or demolition material is being removed;

28.1.8 Keeping the loading drop heights of soil into lorries as low as possible;

28.1.9 Establish air quality procedures to minimise dust generation and control plant and vehicle dust emissions;

28.1.10 Undertaking regular air quality sampling to monitor air quality levels.

28.2 In addition to the above provisions, the following measures will be taken to reduce any further negative effects on the environment:

28.2.1 Ensuring all contaminants on site are safely stored with the necessary procedures put in place for leaks and spillages etc.

28.2.2 A waste management system will be implemented on site.

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29 Noise Mitigation Measures

29.1 Prior to the commencement of the development, evidence of site registration at <http://nrmm.london> to allow continuing details of Non-Road Mobile Machinery (NRMM) and plants of net power between 37Kw and 560 Kw to be uploaded during the demolition/construction phase of the development shall be submitted to and approved by the Local Planning Authority.

29.2 Appian Construction will be responsible for ensuring that all plant and equipment, including any which may be on hire, is well maintained, properly silenced and used in accordance with the manufacturer's instructions, as required by the above British Standard.

29.3 In all instances where alternative working methods exist the minimisation of noise and vibration shall be a prime consideration in the choice of technique and equipment used and in compliance with BS 5228 'Code of practice for noise and vibration control on construction and open sites.

Noise screening measures

29.4 Measures to Minimise Noise Disturbance:

29.4.1 Scheduling certain works to more acceptable times of day.

29.4.2 Use of the most environmentally acceptable plant and equipment which is properly maintained and silenced.

29.4.3 Use of the least intrusive method of work.

29.4.4 Proper instruction and supervision of staff.

29.4.5 'Rest periods' during which operations are temporarily ceased.

29.4.6 Utilisation of acoustic screening.

29.4.7 Site infrastructure to be positioned to provide additional screening of works.

29.4.8 Turning space will be provided within the site in order to avoid the need to reverse and subsequently reduce the associated noise from reverse warning systems.

29.4.9 A temporary electricity supply will be provided on site. This will reduce the need for diesel generators which can have a localised noise and air quality impact.

29.4.10 All large concrete pours will be programmed to start as early as possible, within normal hours, to avoid overruns.

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29.4.11 When working within the building, wherever possible all openings (i.e. windows and doors) are to be sealed.

29.4.12 Before works commence, the site workforce will be fully briefed on the need to keep all noise generated to a minimum. Shouting and raised voices are not permitted other than in cases where warnings of danger must be given. Radios should not be played at a volume that is likely to disturb local residents.

29.4.13 During backfilling and ground compaction work, dead rollers should be used in preference to vibrating rollers where practicable.

29.4.14 Care will be taken when loading or unloading vehicles, dismantling scaffolding or moving materials etc to reduce impact noise. Proposals for monitoring noise and procedures to be put in place where agreed noise levels are exceeded.

29.5 General guidance as to the control of noise and vibration from the construction process is found in BS5228 parts 1 and 2 (Refs. 12.3 and 12.4). This standard represents the generally accepted industry best practice for controlling noise and vibration from works of construction, excavation, piling and demolition. It also contains a methodology for estimating noise levels that can arise from various construction techniques as well as recognised methods of mitigating excessive noise levels.

29.6 The assessment of potential noise and vibration effects resulting from or impacting upon the Project will be based upon the following:

29.6.1 Identifying potentially sensitive existing and future noise receptors on the Site and within the surrounding area.

29.6.2 Establishing baseline noise conditions currently existing at the Site and nearby receptor locations through noise surveys.

29.6.3 Assessing the suitability of the Site for the Project in terms of the prevailing baseline noise conditions.

29.6.4 Assessing likely noise and vibration levels generated during the construction works associated with the Project

29.6.5 Establishing design aims for plant and services to be located on, or within, the proposed new buildings at the Site.

29.6.6 Formulating proposals for mitigation, where appropriate; and
Assessing the significance of any residual effects.

29.7 A desk-based study and site walkover will be undertaken to identify existing and future noise sensitive receptors (NSRs) that could potentially be affected by noise arising from the construction works and the operation of the Project.

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29.8 Baseline noise surveys will be undertaken prior to commencement of works on site with additional surveys being completed periodically. Monitoring locations are to be selected in consultation with Haringey Council to represent both existing potentially sensitive receptors in the vicinity of the proposed Project and proposed potentially sensitive receptors within the Project.

29.9 As a minimum attended noise monitoring will be undertaken at the start of each new activity as identified in the Method Statement/Works Schedule and during out of hours work. Appian Construction will maintain a record of these noise monitoring results.

30 Proposals for monitoring vibration

30.1 Noise and vibration monitoring will be used by Appian Construction as a proactive tool to: improve work processes; identify and address issues as they arise; investigate complaints and check compliance with any noise predicted levels.

30.2 In certain circumstances, vibration monitoring may be required, although a subjective assessment of vibration will suffice in most instances.

30.3 If required, noise monitoring shall be undertaken with a hand held or tripod mounted integrating sound level meter to determine noise levels at specified locations at known times during the working day. The monitoring equipment shall comply with at least BS 7580-2: 1997 Type 2 specification, as required by BS 5228-1:2009 "Code of practice for noise and vibration control on construction and open sites" Part 1:Noise

30.4 Note: it is expected that vibration over 1mm/s measured as a peak particle velocity would constitute unreasonable vibration.

31 Consideration of Logistic Routes of Adjacent Sites

31.1 The site manager will, prior to commencement on site and at regular intervals during the construction and in liaison with relevant officers at Haringey Council to check for other local construction activity for the purpose of liaising with those sites on matters relating to construction activity (including vehicle movements).

31.2 Other than the Travelodge previously noted, there do not appear to be any other local developments in the vicinity of the proposed works which will still be in progress and/or at a similar stage during the construction works for the approved works on the site. It is requested that Haringey Council inform the Site Manager of any other potential construction activity in the vicinity of the site.

32 Monitoring Emissions from Non-Road Mobile Machinery (NRMM)

32.1 Currently NRMM on major construction sites within Greater London are required to meet Stage IIIA of EU Directive 97/68/EC as a minimum; and NRMM on all sites within either the Central Activity Zone or Canary Wharf (CAZ/CW) are required to meet Stage IIIB of EU Directive 97/68/EC as a minimum.

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The Greater London Authority Non-Road Mobile Machinery (NRMM) Practical Guide can be found at the following link:

<http://nrmm.london/sites/default/files/NRMM-Practical-Guide.pdf>

Management Procedures

32.2 Appian Construction will nominate a person to manage the NRMM requirements. It will be their responsibility to ensure that the site is compliant, which includes:

32.3 Ensuring that all relevant site workers are aware of the requirements, carrying out their roles and adequately equipped to do so.

32.4 Keeping all relevant machinery emissions information and documentation centralised on site.

32.5 Ensuring that the NRMM online register is kept up to date (<http://nrmm.london/>)

32.6 Each Sub-Contractor will nominate 1 person to be responsible for ensuring that the NRMM they are bringing to site is compliant and provide the Primary Contractor with the relevant details for each machine.

Sub-contractors checks

32.7 The maximum amount of time an item of noncompliant NRMM can stay on site without an exemption is 5 days, therefore NRMM should be checked by the sub-contractor, and Appian Construction notified within the first 5 days of its arrival.

32.8 Sites must additionally ensure that the online register is kept up to date.

Site NRMM inventory spreadsheet

32.9 After being checked by the sub-contractor, the NRMM emissions information should be passed to Appian Construction, who will keep the relevant information for all NRMM on site centralised on their own spreadsheets.

Primary contractor checks

32.10 The information provided by the sub-contractors will be checked by Appian Construction once per month, this will be included in the site monthly/weekly environmental audits. These checks should be documented on the site NRMM inventory spreadsheet.

NRMM inventory spreadsheet.

32.11 For guidance on how to find the relevant emissions information on the engine, and how to confirm an engines emissions stage, see Section 4: Inspections and Assessing compliance of the NRMM Practical Guide.

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Managing non-compliant NRMM

32.12 If during any of these checks an item of NRMM is found to be non-compliant, the contractor should remove it from site within 5 days of its arrival. If this is not possible Appian Construction will apply for a 30 day exemption, explaining why the item of NRMM cannot be removed within the 5 day deadline. The application should include your intentions for the machine, for example when you plan to remove it from site or install a retrofit (see Section 4.6 for more information regarding retrofits). While the exemption request is awaiting approval the exemption is active, but be aware that these applications may be refused and sites should be prepared to remove the machine as soon as possible in those cases.

32.13 It is also recommended that sites keep a record of actions taken to address any instances when non-compliant NRMM arrives on site.

33 Site Administration

33.1 Responsibility for Construction Traffic movement is that of the Site Manager who together with the Site Team will:

33.1.1 Ensure that subcontractors and suppliers adhere to procedures set out in the Pre- commencement conditions by booking in deliveries giving the required notices.

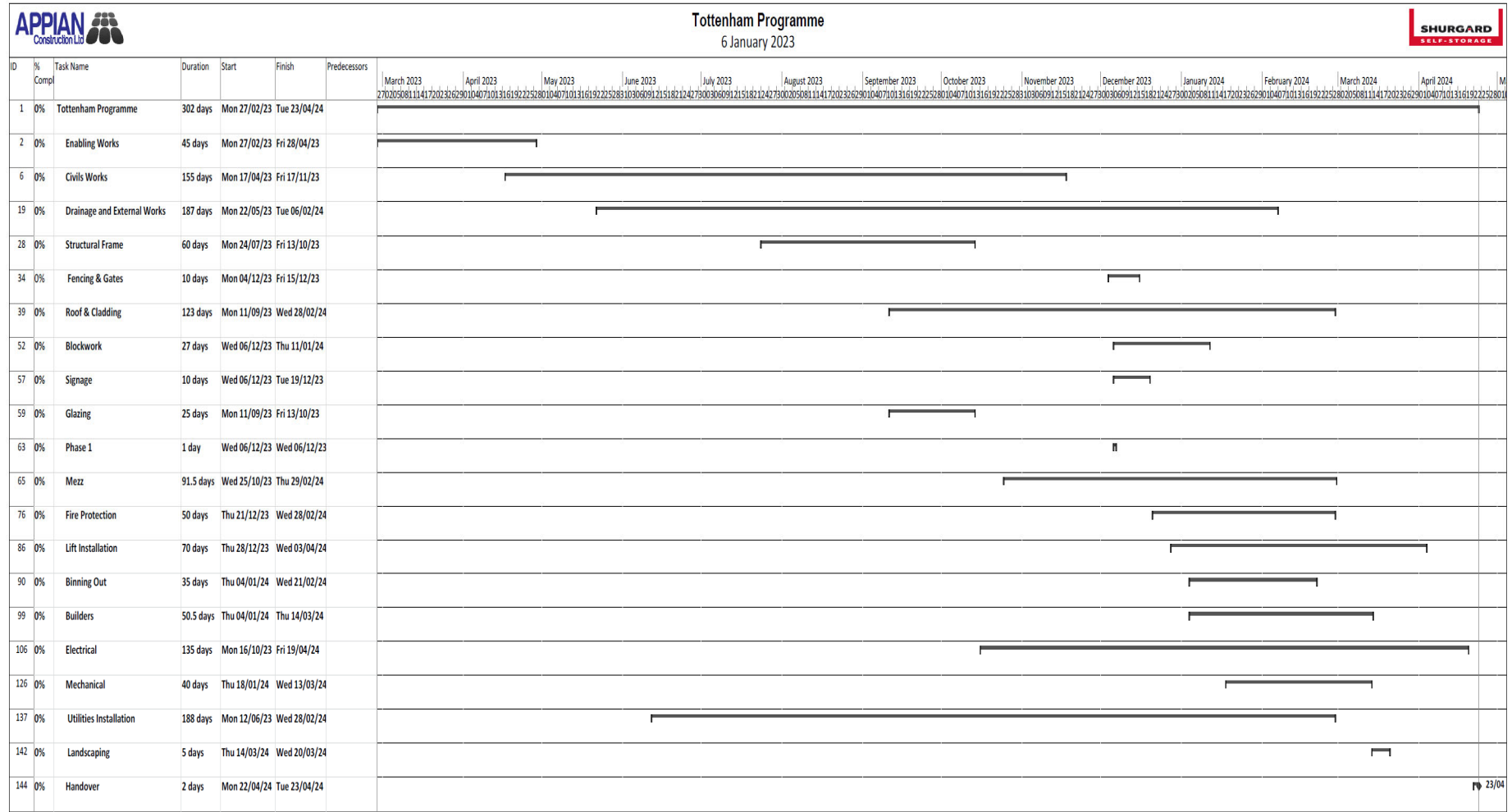
33.1.2 Prevent unauthorised contractors from parking in the lay down area. All personnel will be in contact with each other and the site management who in turn will have mobile and telephone contact with the subcontractors. The site will also;

33.1.3 Maintain roads in a clean and safe condition.

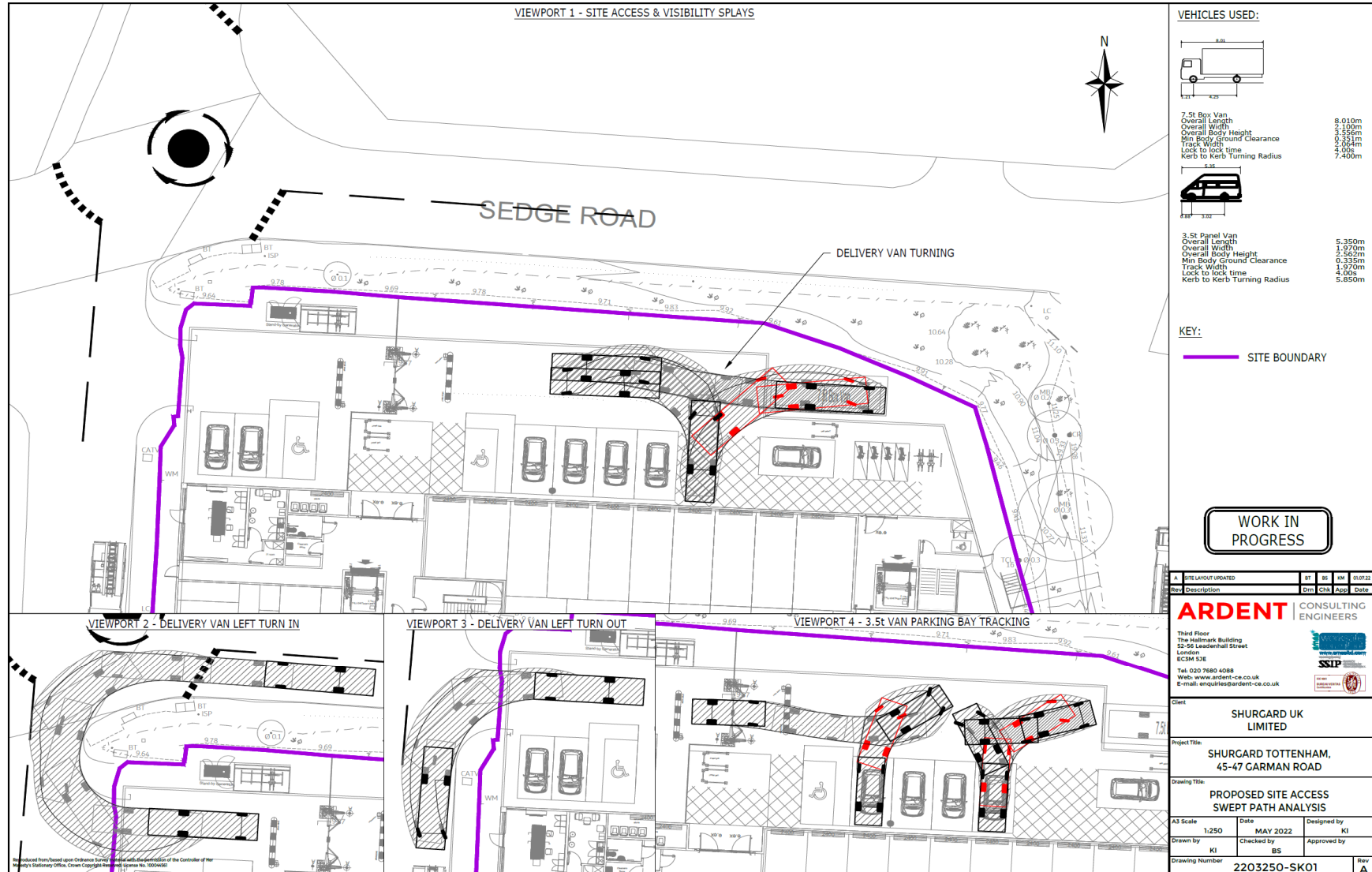
33.2 It is recognised that all deliveries are not notified to Appian Construction; such deliveries are usually smaller deliveries by third parties and on occasion simply not booked in. Deliveries from overseas often have difficulty in providing accurate arrival times. The Site Manager will then manage the delivery situation with the priority to get the vehicles off the entrance to site and into the site lay down area. Other options open to the site management team are to send deliveries away. We reiterate that vehicles will not be allowed to lay-up along or adjacent to public roads.

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Appendix 1 - Programme of Works



Appendix 2 – Swept Path Analysis



Appendix 3 – Site Layout

