Construction Logistics Plan

Uxbridge Rd, Hayes, London, UB4 0HD

Appian Construction Ltd

Oct 2023

Project Information

Title	Construction Logisitics Plan
Job Reference	ACL/UK046/CLP/01
Client	Shurgard UK Ltd
Revision	
Date of Issue	

Revision

Revision	Date	Author	Reviewer	Status	Remarks

Contents

Appendices:

1. Site Plan
2. Programme of Works
3. Swept Path Analysis

1 Introduction

1.1 Overview

Appian Construction Ltd have been commissioned on behalf of Shurgard UK ('the client') to produce a Detailed Construction Logistics Plan (CLP) to support a commercial extension to their current store at Uxbridge Road, Hayes, London.

This is required prior to the commencement of construction works at the site as part of the Local Authority (London Borough of Hillingdon (LBH)) Planning Application Reference: 49467/APP/2022/2801. The Planning Application was approved by the and so the proposed work can be undertaken at the site.

1.2 Site Context

The site is located off Uxbridge Road, Hayes and lies within the London borough of Hillingdon. It is adjacent to Uxbridge Road and faces the Grand Union Canal to the east. The site is currently in use by Shurgard as a self storage facility and the proposal looks to extend the existing facility.

The area is characterised by mixed uses - with residential, industrial and retail uses.
Site Area

The application site area is approximately 2.09 acres (0.85 hectares). The site boundary encompasses the existing facility as well as a host of direct access units buildings, a yard and a stand alone shop which is just of Uxbridge Road.

Topography, the site is a fairly regular in shape, sitting adjacent to the Grand Union Canal to the east. The topography of the site is generally flat.

The Site Location Plan, boundary plan and context plan are provided below in Figures 1.1 to 1.3.

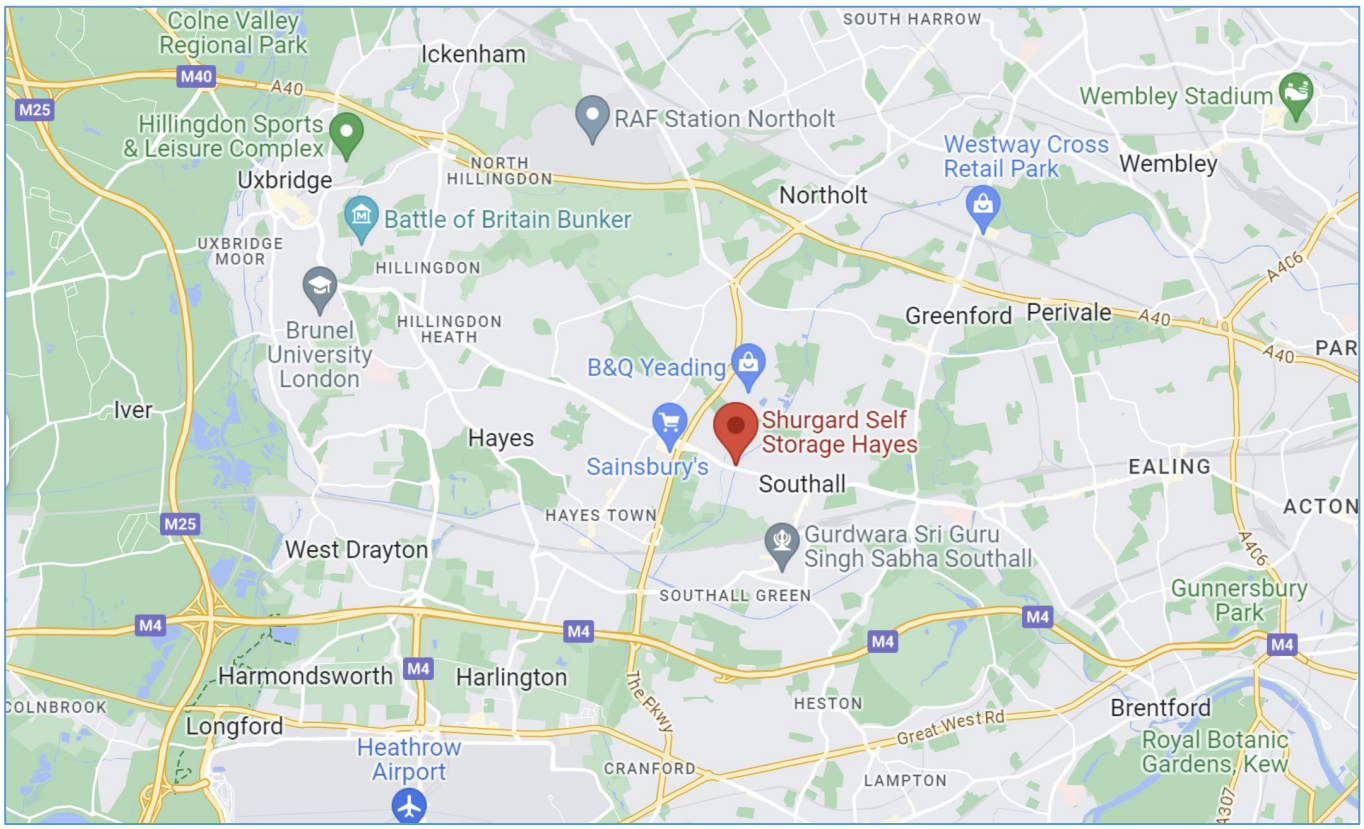


Figure 1.1 Regional Site Location

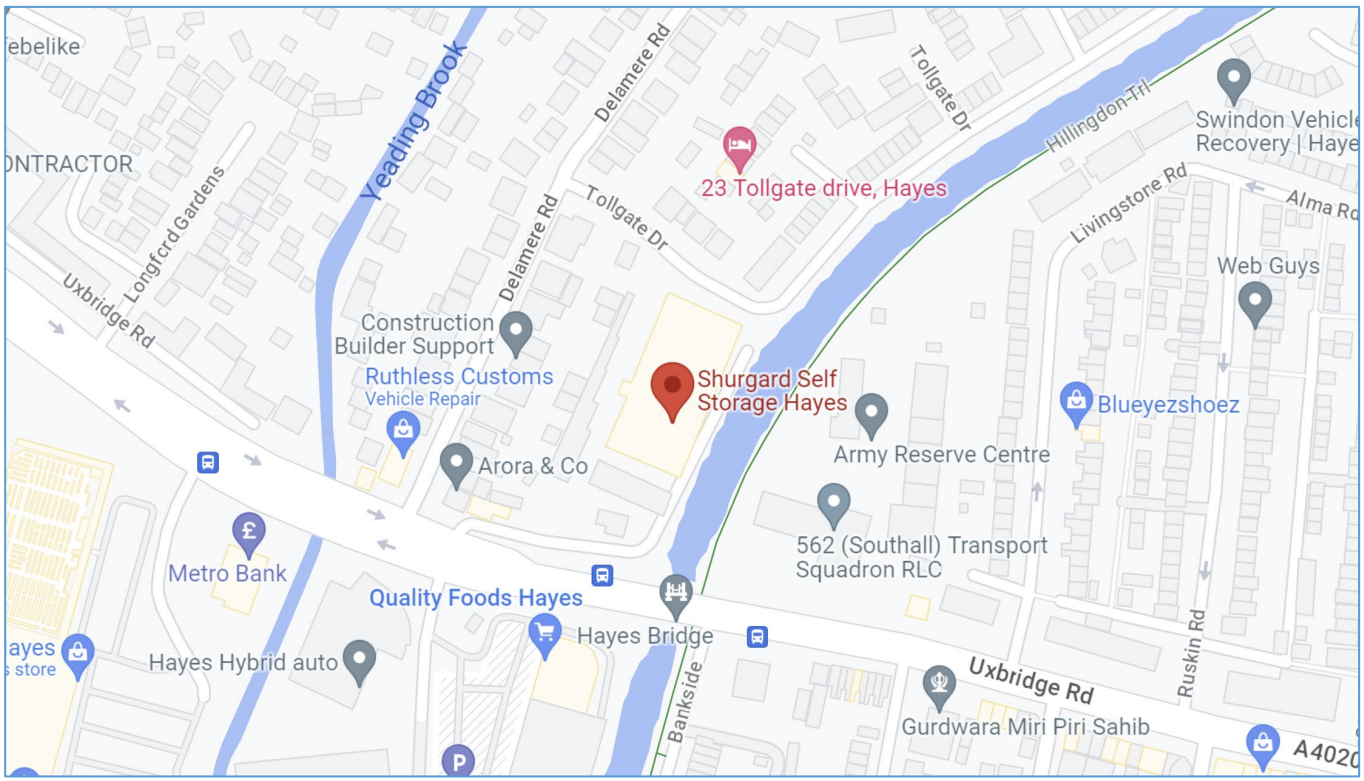


Figure 1.2 Local Context Plan

Figure 1.3 Site Boundary Plan

1.3 Development Proposals

The development involves the partial demolition and extension to the existing building to provide additional self-storage floorspace (Use Class B8) with associated new car and cycle parking, refuse storage, landscaping and other associated works ancillary to the development.

The Site Plan in Appendix 1 shows the site design for the construction works.

1.4 Objectives of the CLP

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 Feb 2024 and last for approximately 40 weeks. It will therefore finish around end of Oct 2024. A construction programme is provided at Appendix 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.

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.

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 Principle Contractor, which is Appian Construction Ltd. If the document is updated, it shall be approved by the Local Authority.

1.5 CLP Structure

The London Borough of Hillingdon Planning Application Requirements List states: '*Applications for major developments, or any develop which includes the creation of a basement, should submit details of how onsite impacts will be managed during the demolition/construction phase (particularly on homes, other sensitive uses and biodiversity), including traffic management, dust, noise, vibration and stability. To ensure that they incorporate adequate, effective and enforceable measures (with triggers) to protect inhabitants, their amenity and sensitivity of the surrounding area'.*

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

1.6 Contact Details

Developer

- Developer name: Shurgard UK 39 Ltd
- Contact: Uxbridge Road, Hayes, London UB4 0HD

Contractor

- Senior Site Manager: Jason Regis Phone Number: 07710 515692
- Email: jregis@appianconstruction.co.uk
- Logistics Provider Name: Appian Construction Ltd
- Phone Number: 07917 468097
- Email: connor@appianconstruction.co.uk

2 Context, Considerations and Challenges

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.

2.1 Local Road Network

The site is located adjacent to Uxbridge Road which forms part of the A4020 running West towards Uxbridge and east towards Shepherds Bush. The Northern boundary backs onto Tollgate Drive, on the opposite side of Uxbridge Road lies Bridge Retail Park and Brook Industrial Estate.

2.2 Strategic Road Network

The site affords easy access from the A412 from the site to the west. This connects to the A40 to the Horth and the M4 to the south. The nearest major road (A4020) is adjacent to the site.

Figure 3.1 in Section 3 provides the proposed construction vehicle routing plan and highlights the major routes the vehicles could take.

2.3 Considerations and Challenges

2.3.1 London Plan (2021)

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.

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. 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.

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.

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".

2.3.2 Mayor's Transport Strategy (2018)

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.

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".

2.3.3 Fleet Operator Recognition Scheme (FORS)

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.

2.3.4 London Freight Plan (2008)

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 l ocal 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 t hat 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.

2.3.5 Schools

The closest schools to the site are Yeading Junior School off Carlyon Road at the junction between Yeading Lane and Uxbridge Road and the Nanaksar Primary School located off Beaconsfield Road off Springfield Road. Neither school is likely to be impacted by the construction works due to their relative locations to the site.

2.3.6 Hospitals

The nearest hospital is the Hillingdon Hospital, Pield Heath Rd, Uxbridge UB8 3NN, due to the proximity to the site there will be no disruption from the construction works on site.

2.3.7 Local Residential Properties

The nearest residential properties are located along Delamere Road to the West and Tollgate Drive to the North, again due to the proximity to the site there will be no disruption from the construction works on site.

3 Vehicle Routing and Site Access

3.1 Access Arrangements for Vehicles

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).

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 Uxbridge Road.

The scheduling of materials, deliveries and waste collection will be managed by the Senior Site Manager 'Jason Regis' from Appian Construction Ltd (see Section 1.6). 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.

3.2 Proposed Vehicle Routes

The Contractor 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 3.1.

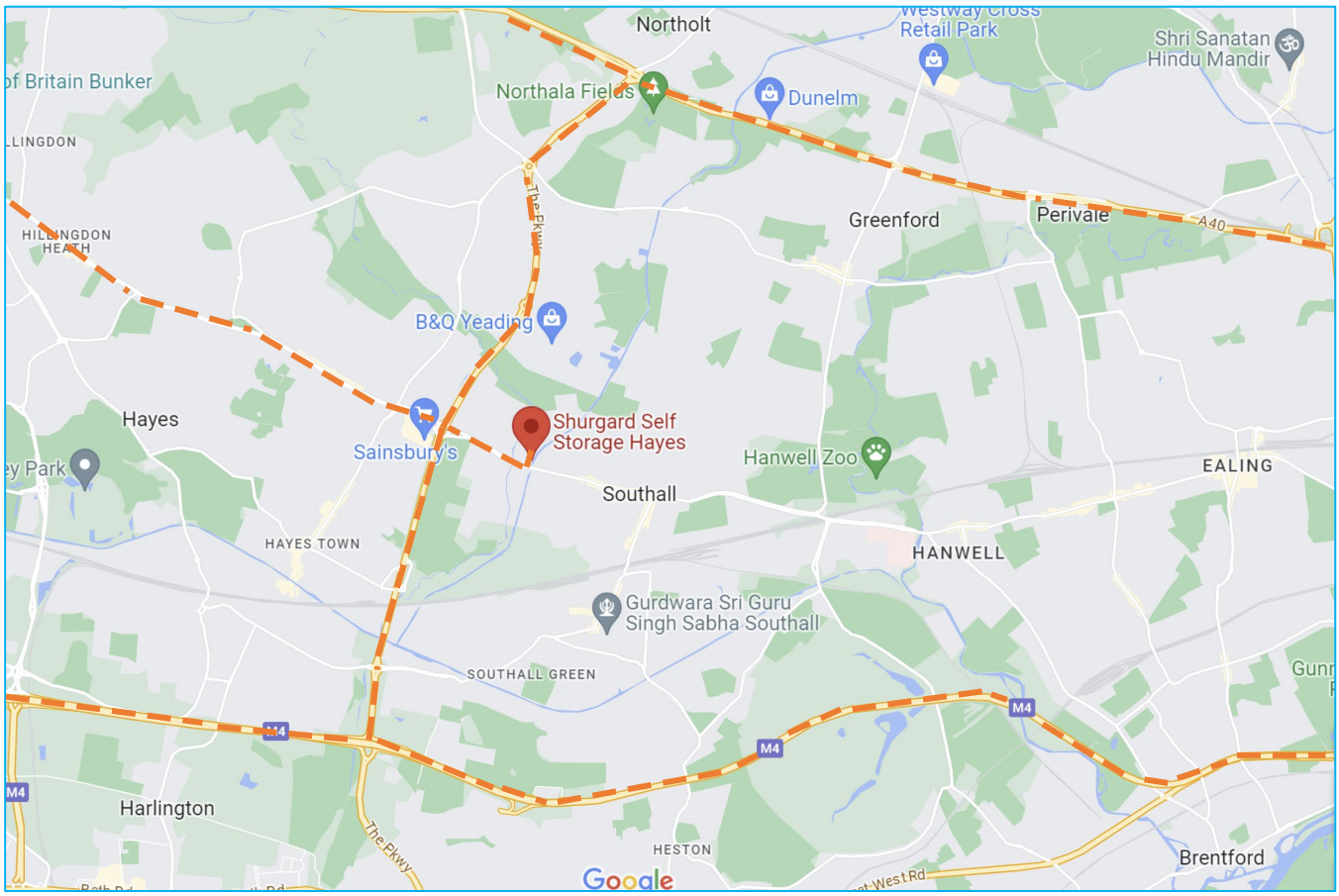


Figure 3.1: Proposed Arrival / Departure Routes

The proposed vehicle routes shown in Figure 3.1 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.

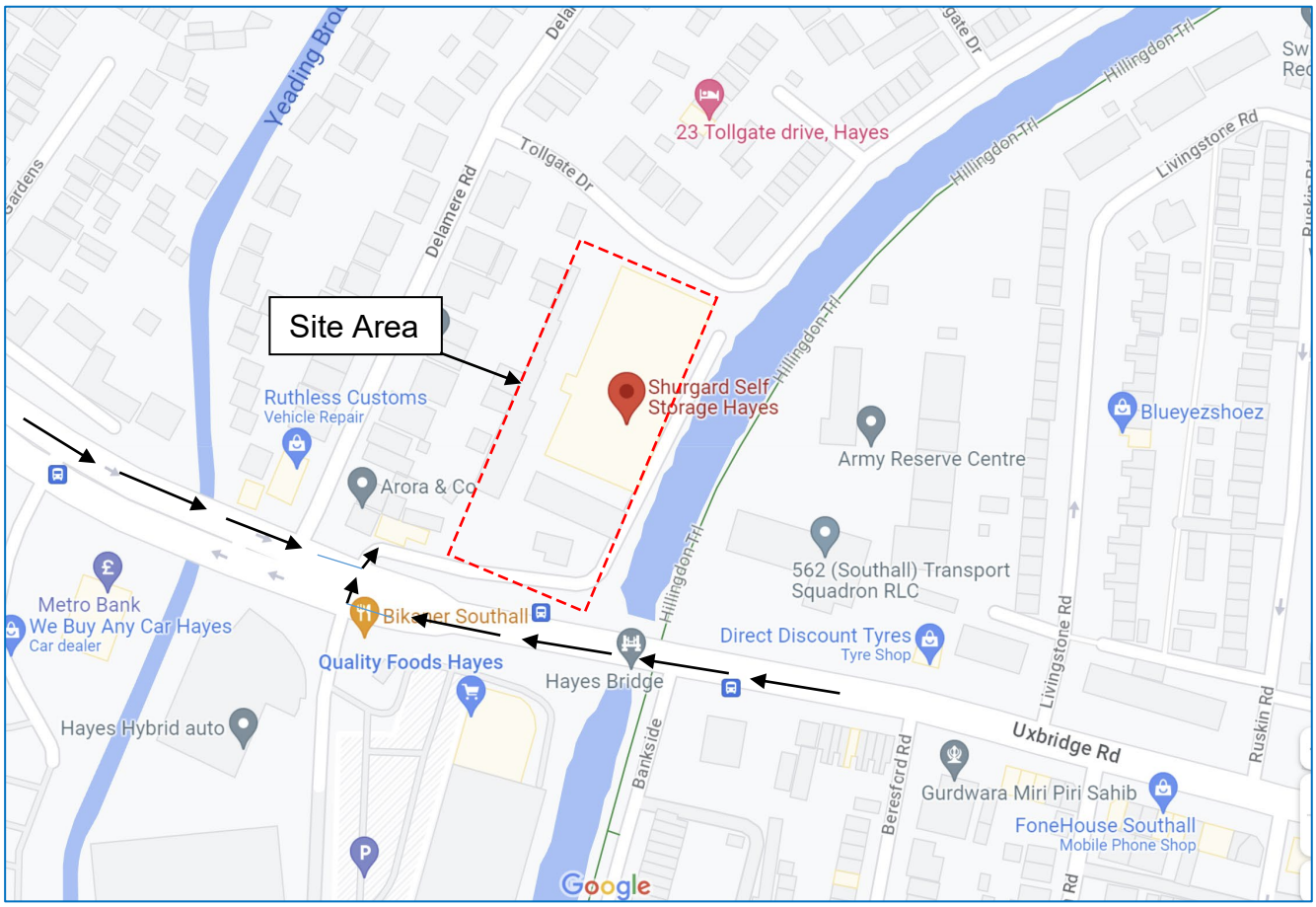


Figure 3.2 Proposed Route on Local Network

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

There will be a pre-start record of site conditions on the adjoining public highway (Uxbridge Road), which will be undertaken with Hillingdon 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.

The figures in Appendix 3 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.

3.3 Loading Arrangements

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 Uxbridge Road.

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.

3.4 Public Highway

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.

3.5 Road Safety

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).

3.6 Pedestrian and Cyclist Safety

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.

Hoarding around the site, where required, off the access way from Uxbridge 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 Uxbridge 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.

A secured turnstile will be installed for site personnel and visitors to ensure no unauthorised entry to site.

4 Construction Programme and Methodology

4.1 Programme / Phasing

Construction is expected to begin in early Feb 2024 and continue for approximately 40 weeks until end of Oct 2024.

A construction programme is provided below, this sets out the timescales for each phase of construction / key construction stages with the practical completion in 2024.

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

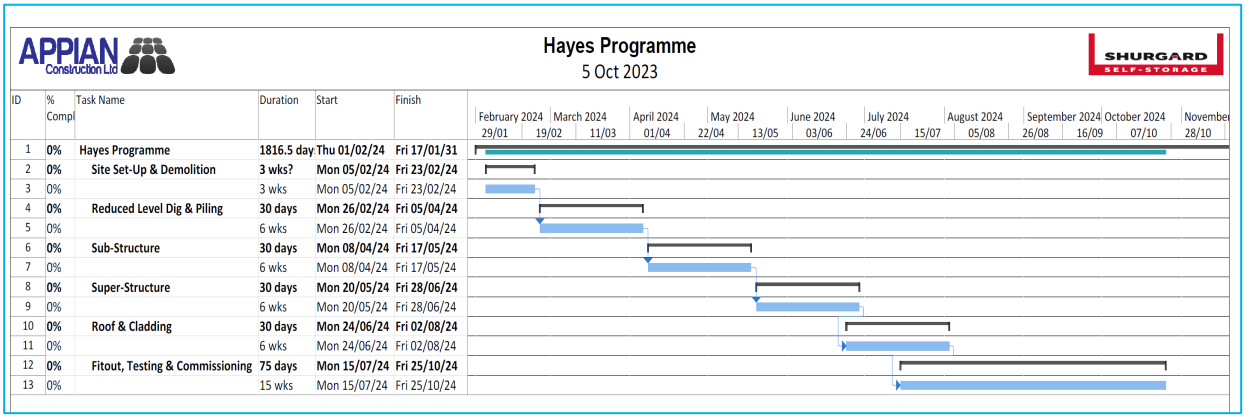


Figure 4.1 Construction Programme

Phase No.	Construction Phase	Start	Finish
1	Site Setup and Demolition	Feb 2024	Feb 2024
2	Reduced Level dig and piling	Feb 2024	Mar 2024
3	Sub-structure	Mar 2024	Apr 2024
4	Super-structure	Apr 2024	May 2024
5	Cladding and Roof	May 2024	Jul 2024
6	Fit-out, testing and commissioning	Jul 2024	Oct 2024

Table 4.1 Construction Phases

4.2 Construction Phases Detail

The proposed development is due to start at the Feb 20 and will take approx. 40 weeks to complete. The development comprises of the demolition of partial structures and construction a new of multi-storey self storage extension to the existing store with associated car park facilities. The proposed phases of construction are:

4.2.1 Site Setup & Demolition

Phase 1 - The site setup and demolition works will take approx. 3 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 dump trucks.

The demolition will include; the soft strip and demolition of the existing 2 single storey direct access units and 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 stages 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.

4.2.2 Reduced Level Dig & Piling

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. 4 weeks to complete.

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.

4.2.3 Sub-structure

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. 6 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.

4.2.4 Super-structure

The super structure will consist of a structural steel frame which will be built using a mobile crane and will take approx. 6 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.

4.2.5 Cladding & Roof

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. 6 weeks to complete.

4.2.6 Fit-out, testing & commissioning

The internal fit out will consist of the storage unit partitioning, M&E and general builders works, and will take approx. 15 weeks to complete. Contractors will be encouraged to manufacture, where possible, items off site including the kitchen, shop units and the component parts for the plant and electrical rooms to reduce the requirement for multiple deliveries.

4.3 Hours of Operation

It is proposed that the hours of operation will be between:

- Weekdays: [08:00–17:00];
- Saturday: [08:00 – 13:00]; and
- Sunday: [No noisy activities on-site]

Deliveries will only occur between 9.15am-4pm. See Section 6 of this CLP for more information.

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.

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.

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.

4.4 Site Arrangement

The site will be secured with a security hoarding to all exposed boundaries where there is an interface with / reliance on the public highway. The entrance off Uxbridge Road will remain as the vehicle access into the site. Graphic banners will be added to the fencing for privacy and advertising. The hoarding will be provided in line with LBH regulations.

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

Visitors to the site can park on site.

Wheel washing will be required on exit before accessing Uxbridge 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.

4.5 Measures to protect the Grand Union Canal SINC

The construction site area will be fully hoarded and the perimeter fence will be covered by Monoflex to ensure that there is no encroachment of plant equipment, vehicles or materials from crossing the boundary to the Grand Union Canal Site of Importance for Nature Conservation.

4.6 Utility Connections

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.

4.7 Recycling

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.

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

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 Uxbridge Road will be limited to vehicle activity only. All loading/unloading and material storage will be undertaken on-site.

4.8 Abnormal Roads

There is no requirement for any short term road closures in order to undertake any element of the works.

4.9 Control of Dirt and Dust

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.

4.10 Noise

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.

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.

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

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.

5 Non-Road Mobile Machinery (NRMM)

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.

All Machinery (NRMM) and plant to be used on site of net power between 37kW and 560 kW shall comply with the emission standards set out in chapter 7 of the GLA's supplementary planning guidance "Control of Dust and Emissions During Construction and Demolition" and must be registered at http://nrmm.london/;

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

5.1 Management Procedures

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:

- Ensuring that all relevant site workers are aware of the requirements, carrying out their roles and adequately equipped to do so.
- Keeping all relevant machinery emissions information and documentation centralised on site.
- Ensuring that the NRMM online register is kept up to date (http://nrmm.london/)
- 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.

5.2 Sub-contractor checks

The maximum amount of time an item of non-compliant 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.

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

5.3 Site NRMM Inventory Spreadsheet

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. It is optional for subcontractors to keep similar spreadsheets of their own.

5.4 Primary Contractor Checks

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.

5.5 NRMM Inventory Spreadsheet

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.

5.6 Managing Non-Compliant NRMM

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.

It is also recommended that sites keep a record of actions taken to address any instances when non-compliant NRMM arrives on site. Permits will be required in accordance with the guidelines

5.7 Mobile Crushing Plant

A mobile crusher plant will be used to recycle the demolition materials into 6F2 for reuse on site. It will only be required during the end of the demolition phase for 3 days. The use of this crusher will comply with the DEFRA Process Guidance Note 3/16(12) Statutory guidance for mobile crushing and screening.
https://assets.publishing.service.gov.uk/media/5a7f778a40f0b62305b87529/mobile-crushing-and-screening-process-guidance-note-3-16_12_.pdf

6 Strategies to Reduce Impacts

6.1 Overview

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.

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.

The measures are categorised as follows:

6.1.1 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.

6.1.2 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).

6.1.3 Considered

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

6.2 Planned Measures

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 5.1 Measures Checklist

The measures shown in Table 5.1 are what Appian Construction Ltd and the Contractors are prepared to commit to during the construction period.

Appian Construction are committed to ensuring all contractor, sub-contractor and supply vehicles arriving at site comply with the FORS and CLOCS principles.

7 Estimated Vehicle Movements

7.1 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.

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

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.

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.

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 8 tipper trucks 4 days per week in Feb/Mar 2024. Other than these times it is expected that there will be no more than 4 - 6 deliveries per day to the site, it is also unlikely that all construction vehicles will stay for the maximum dwell time outlined above.

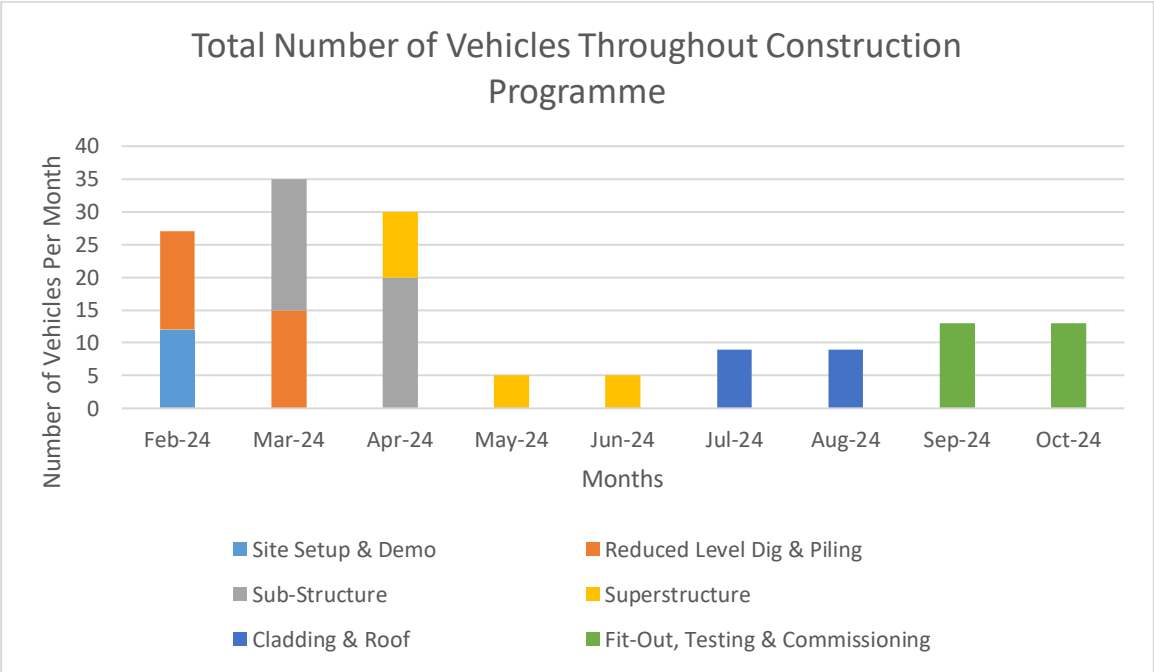


Figure 6.1 Total Number of Vehicles Throughout Construction Programme

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.

Construction Stage	Period of Stage	No. of Trips (monthly)	Peak No. of Trips (Daily)
Site Setup and Demolition	Q1 2024	12	3
Reduced Level dig and piling	Q1 2022	30	6
Sub-structure	Q1 - Q2 2024	40	6
Super-structure	Q2 2024	20	2
Cladding and Roof	Q2 - Q3 2024	18	2
Fit-out, testing and commissioning	Q3-Q4 2023	26	4
Peak periods of construction	Q1 – Q2 2024	35	12

Table 6.1 Estimated Construction Vehicles – Monthly and Daily

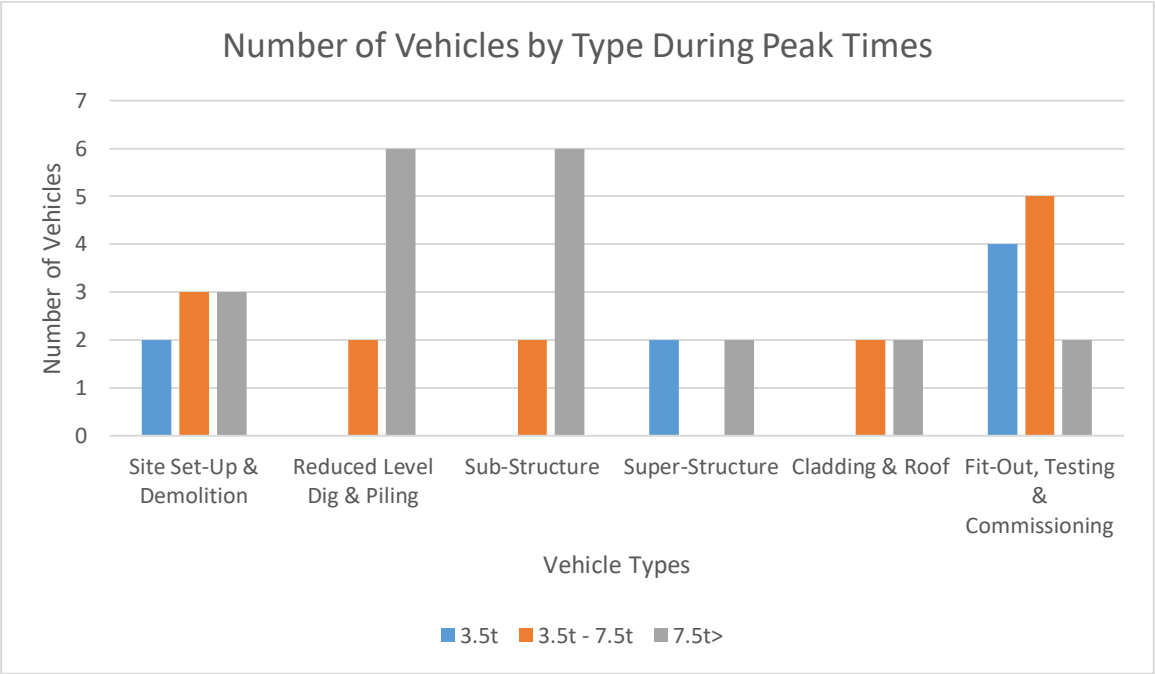


Figure 6.2 Total Number of Vehicles by Types During Construction Phases

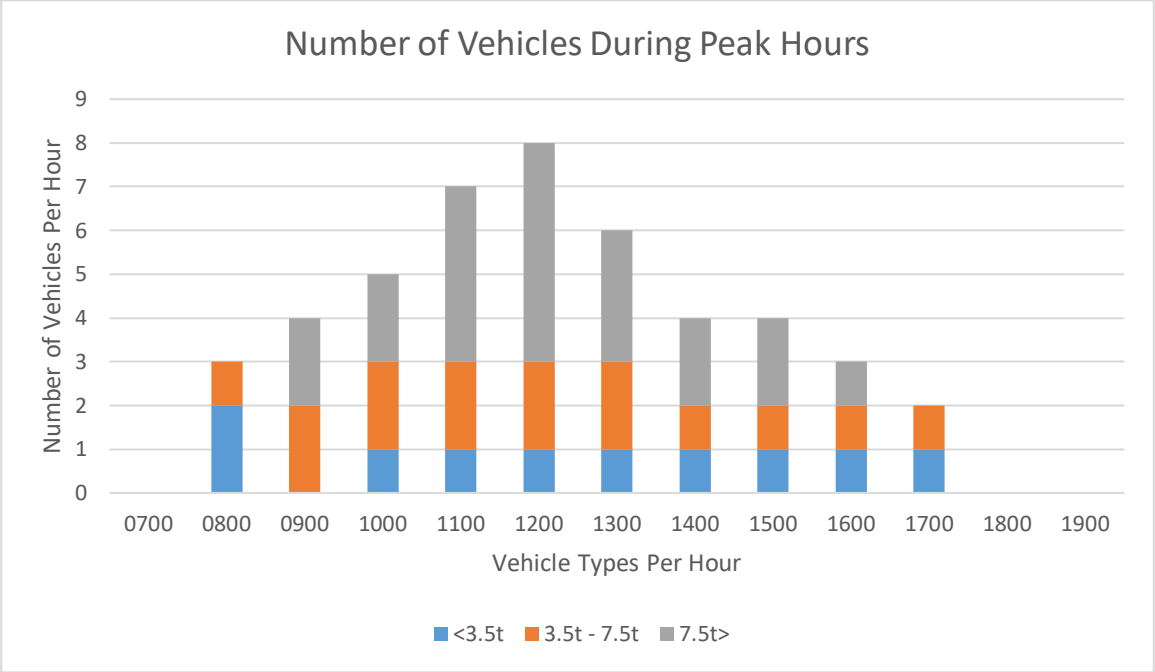


Figure 6.3 Number of Vehicles During Peak Hours

8 Implementing, Monitoring and Updating

8.1 Role of Project Manager

The Appian Construction Project Manager will assume all responsibility for implementing the measures within the CLP, alongside the Site Manager from Appian Construction. The contact details for the Project Manager will be displayed at the site and published on any temporary licenses granted by LBH (such as for hoarding or scaffolds).

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.

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.

The 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.

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.

8.2 Monitoring and Updating

This CLP is expected to be a 'living document' and will 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.

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 Hillingdon. 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.

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.

8.3 Contractors' Handbook

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.
Producing a handbook is an effective way to ensure that all contractors are aware of their obligations.

This should include the following:

- 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.
- Anti-idling toolbox talk – setting out how and when these will happen for all drivers, including frequency and duration.
- 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.
- Driver training – an outline of how and when this will happen during the contract, and the company that will carry out the training.
- Safety and environmental standards.

8.4 Contract Compliance

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.

8.5 Drivers' Handbook

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

8.6 Considerate Constructors Scheme

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. 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.

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.

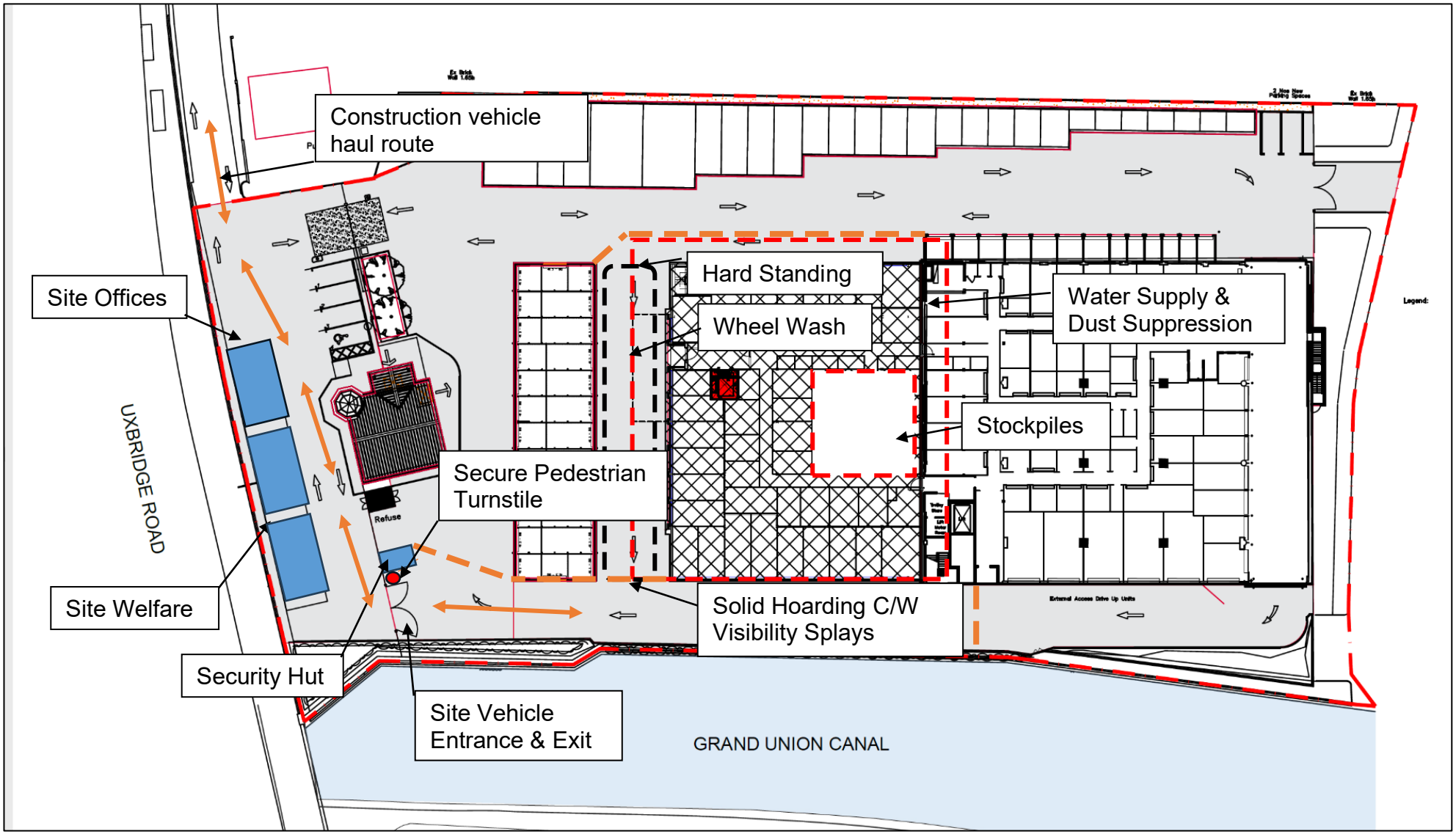
- Result in an improved understanding and respect from residents and others in the community, and fewer complaints

Appendix 1 - Site Plan

Appendix 2 - Programme of Works

Appendix 3 – Swept Path Analysis

Site Plan

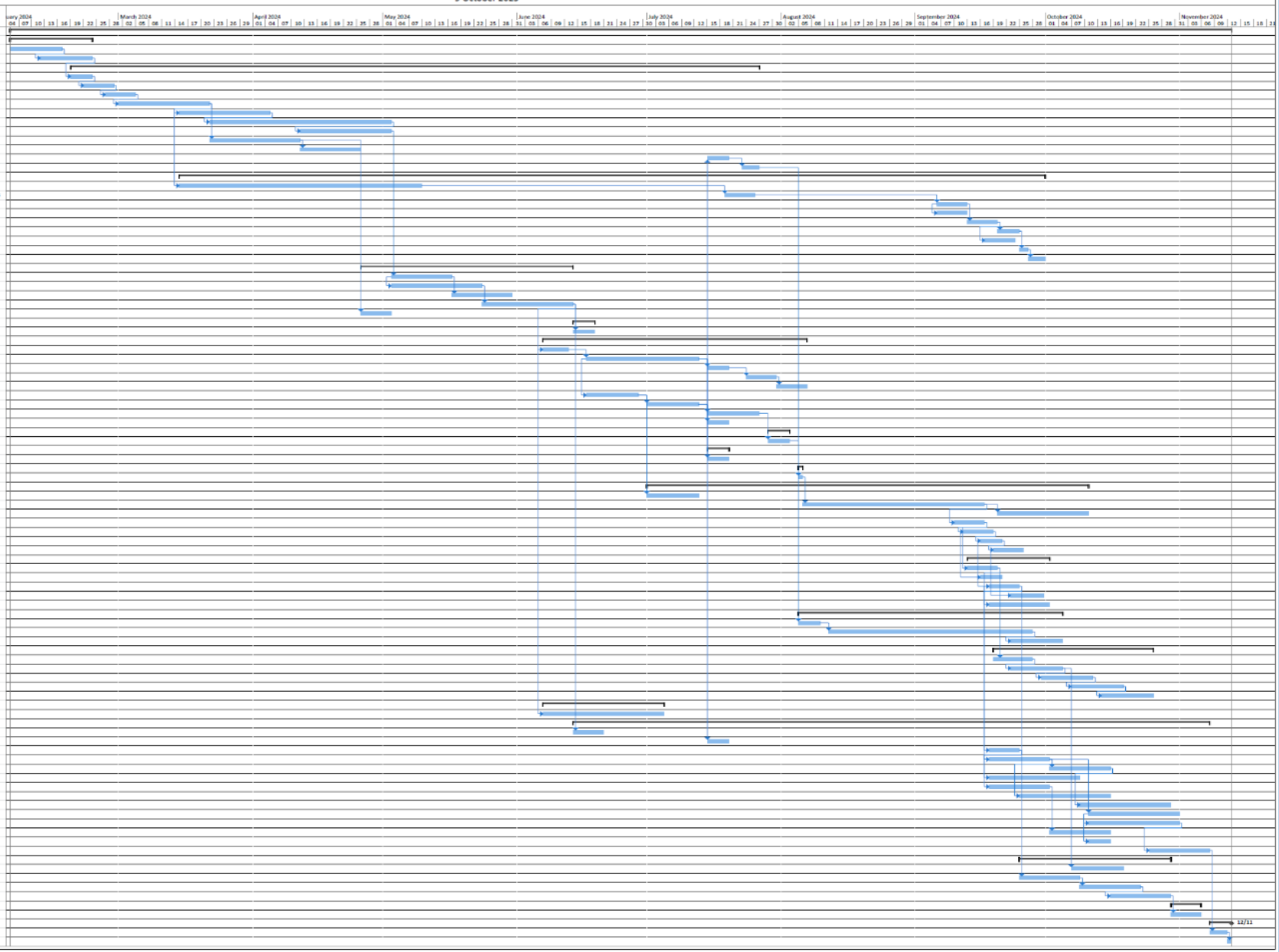


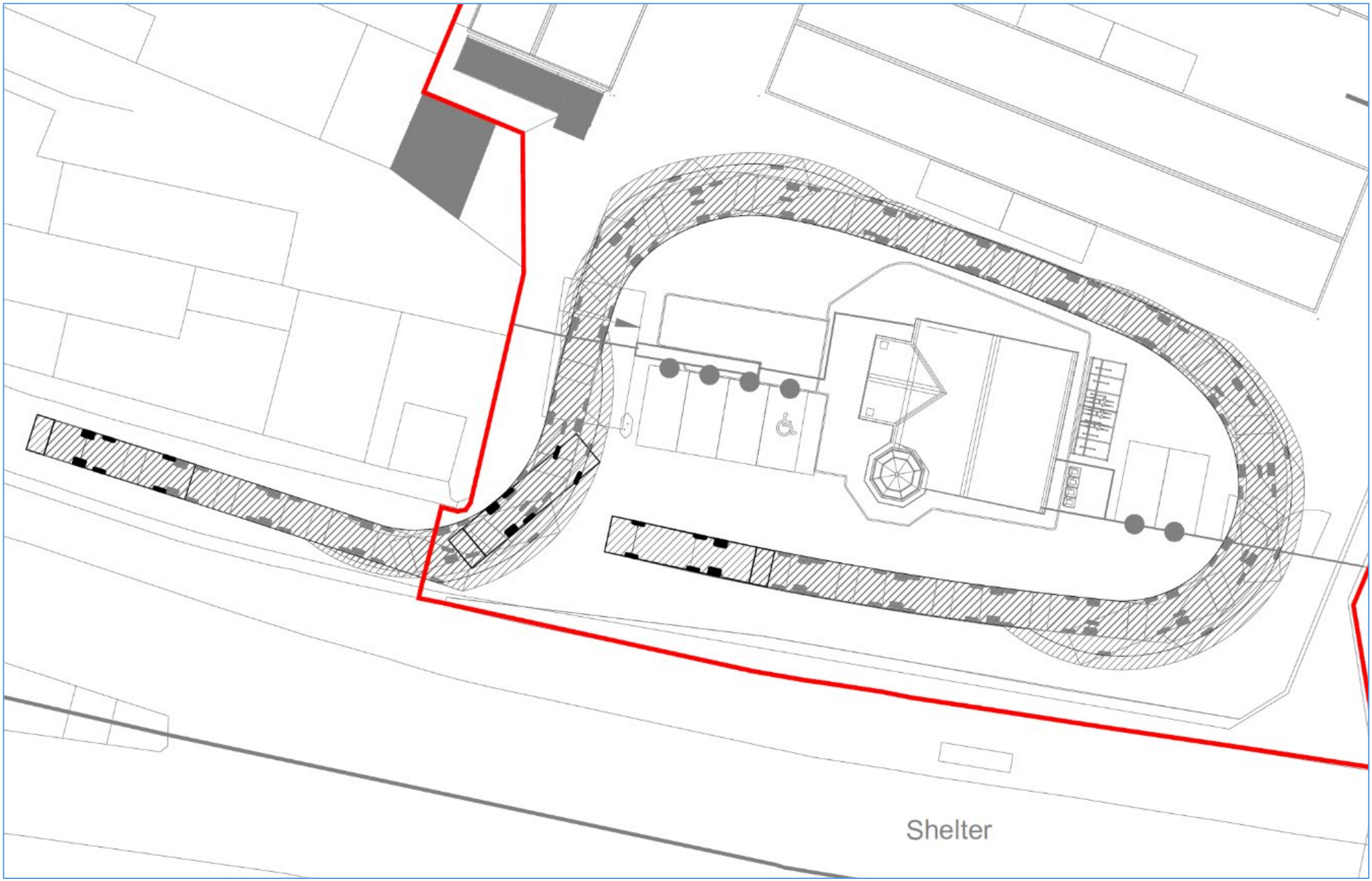
Programme of Works

APPIAN Construction Ltd

Hayes Programme
9 October 2023

ID	% Comp	Task Name	Duration	Start	Finish	Predecessors
1	0%	**Hayes CM Programme**	**202 days**	**Mon 05/02/24**	**Tue 12/11/24**	
2	0%	**Enabling Works**	**15 days**	**Mon 05/02/24**	**Fri 23/02/24**	
3	0%	Demolition of Existing Structure	2 wks	Mon 05/02/24	Fri 16/02/24	
4	0%	Grubbing & crushing hard stand	2 wks	Mon 12/02/24	Fri 23/02/24	3FS-1 wk
5	0%	**Civils Works**	**115 days**	**Mon 19/02/24**	**Fri 26/07/24**	
6	0%	Strip and probe site	1 wk	Mon 19/02/24	Fri 23/02/24	4FS-1 wk
7	0%	Cut to formation level	1 wk	Thu 22/02/24	Wed 28/02/24	6FS-2 days
8	0%	Lay piling platform	5 days	Tue 27/02/24	Mon 04/03/24	7FS-2 days
9	0%	Piling works	3 wks	Fri 01/03/24	Thu 21/03/24	8FS-2 days
10	0%	Prepare pile caps & ground bea	3 wks	Fri 15/03/24	Thu 04/04/24	9FS-1 wk
11	0%	Place pile caps	6 wks	Fri 22/03/24	Thu 02/05/24	10FS-2 wks
12	0%	Place ground beams	3 wks	Fri 12/04/24	Thu 02/05/24	11FS-3 wks
13	0%	Install lift pits	3 wks	Fri 22/03/24	Thu 11/04/24	9
14	0%	Install utility ducts	2 wks	Fri 12/04/24	Thu 25/04/24	13
15	0%	Prep GF slab re-bar, hydrocell e	5 days	Mon 15/07/24	Fri 19/07/24	42
16	0%	Pour Ground Floor RC slab	4 days	Tue 23/07/24	Fri 26/07/24	15FS+1 day
17	0%	**Drainage and External Works**	**142 days**	**Fri 15/03/24**	**Mon 30/09/24**	
18	0%	Drainage and attenuation	8 wks	Fri 15/03/24	Thu 09/05/24	10SS
19	0%	Subbase	1 wk	Fri 19/07/24	Thu 25/07/24	18FS+10 wks
20	0%	Kerbing	1 wk	Fri 06/09/24	Thu 12/09/24	19FS+6 wks
21	0%	Bollards	1 wk	Fri 06/09/24	Thu 12/09/24	20SS
22	0%	Permeable paving	1 wk	Fri 13/09/24	Thu 19/09/24	20
23	0%	Car park combined DBM	3 days	Fri 20/09/24	Tue 24/09/24	22
24	0%	Gate foundations	5 days	Tue 17/09/24	Mon 23/09/24	22FS-3 days
25	0%	Car park wearing course	2 days	Wed 25/09/24	Thu 26/09/24	23
26	0%	Car park white lining	2 days	Fri 27/09/24	Mon 30/09/24	25
27	0%	**Structural Frame**	**35 days**	**Fri 26/04/24**	**Thu 13/06/24**	
28	0%	Deliveries	2 wks	Fri 03/05/24	Thu 16/05/24	12
29	0%	GL 1-3, A-G	3 wks	Fri 03/05/24	Thu 23/05/24	28SS
30	0%	Deliveries	2 wks	Fri 17/05/24	Thu 30/05/24	28
31	0%	GL 4-7, A-G	3 wks	Fri 24/05/24	Thu 13/06/24	29
32	0%	Lift shaft installation	5 days	Fri 26/04/24	Thu 02/05/24	13FS+2 wks
33	0%	**Blockwork/Pre-Cast**	**3 days**	**Fri 14/06/24**	**Tue 18/06/24**	
34	0%	Pre-cast sections to DA units	3 days	Fri 14/06/24	Tue 18/06/24	31
35	0%	**Roof & Cladding**	**43 days**	**Fri 07/06/24**	**Tue 06/08/24**	
36	0%	Roof nets, hand rails GL 1-7, A-G	4 days	Fri 07/06/24	Wed 12/06/24	31FS-1 wk
37	0%	Roof	4 wks	Mon 17/06/24	Fri 12/07/24	36FS+2 days
38	0%	Install mansafe	1 wk	Mon 15/07/24	Fri 19/07/24	37
39	0%	Biodiverse roof works	1 wk	Wed 24/07/24	Tue 30/07/24	38FS+2 days
40	0%	PV	5 days	Wed 31/07/24	Tue 06/08/24	39
41	0%	Wall cladding GL A, 1-7	2 wks	Mon 17/06/24	Fri 28/06/24	37SS
42	0%	Wall cladding GL 1, A-G	2 wks	Mon 01/07/24	Fri 12/07/24	41
43	0%	Wall cladding GL 7 A-G	2 wks	Mon 15/07/24	Fri 26/07/24	42
44	0%	Fit RWP's to clad areas	5 days	Mon 15/07/24	Fri 19/07/24	42
45	0%	**External Doors**	**5 days**	**Mon 29/07/24**	**Fri 02/08/24**	
46	0%	External doors	1 wk	Mon 29/07/24	Fri 02/08/24	43
47	0%	**Signage**	**5 days**	**Mon 15/07/24**	**Fri 19/07/24**	
48	0%	Install external signs	1 wk	Mon 15/07/24	Fri 19/07/24	42
49	0%	**Phase 1**	**1 day**	**Mon 05/08/24**	**Mon 05/08/24**	
50	0%	Building Sign Off	1 day	Mon 05/08/24	Mon 05/08/24	46
51	0%	**Mezz**	**74 days**	**Mon 01/07/24**	**Thu 10/10/24**	
52	0%	Cleats	2 wks	Mon 01/07/24	Fri 12/07/24	41
53	0%	Joists all floors	6 wks	Tue 06/08/24	Mon 16/09/24	50
54	0%	Staircase 1	3 wks	Fri 20/09/24	Thu 10/10/24	53FS+3 days
55	0%	Decking 1st floor	1 wk	Tue 10/09/24	Mon 16/09/24	53FS-1 wk
56	0%	Decking 2nd floor	1 wk	Thu 12/09/24	Wed 18/09/24	55FS-3 days
57	0%	Decking 3rd floor	1 wk	Mon 16/09/24	Fri 20/09/24	56FS-3 days
58	0%	Decking 4th floor	1 wk	Thu 19/09/24	Wed 25/09/24	57FS-2 days
59	0%	**Fire Protection**	**13 days**	**Fri 13/09/24**	**Tue 01/10/24**	
60	0%	Ceiling & columns ground floor	1 wk	Fri 13/09/24	Thu 19/09/24	55FS-2 days
61	0%	Ceiling & columns 1st floor	1 wk	Mon 16/09/24	Fri 20/09/24	56SS+2 days
62	0%	Ceiling & columns 2nd floor	1 wk	Wed 18/09/24	Tue 24/09/24	57SS+2 days
63	0%	Ceiling & columns 3rd floor	1.15 wks	Mon 23/09/24	Mon 30/09/24	58SS+2 days
64	0%	Stair pod 1	2 wks	Wed 18/09/24	Tue 01/10/24	62SS
65	0%	**Lift Installation**	**45 days**	**Mon 05/08/24**	**Fri 04/10/24**	
66	0%	Scaffolding	1 wk	Mon 05/08/24	Fri 09/08/24	46FS+1 wk
67	0%	Lift Installation	7 wks	Mon 12/08/24	Fri 27/09/24	66
68	0%	Commissioning	2 wks	Mon 23/09/24	Fri 04/10/24	67FS-1 wk
69	0%	**Binning Out**	**27 days**	**Thu 19/09/24**	**Fri 25/10/24**	
70	0%	Ground Floor	7 days	Thu 19/09/24	Fri 27/09/24	60FS-1 day
71	0%	1st floor	2 wks	Mon 23/09/24	Fri 04/10/24	70FS-1 wk
72	0%	2nd floor	2 wks	Mon 30/09/24	Fri 11/10/24	71FS-1 wk
73	0%	3rd floor	2 wks	Mon 07/10/24	Fri 18/10/24	72FS-1 wk
74	0%	4th floor	2 wks	Mon 14/10/24	Fri 25/10/24	73FS-1 wk
75	0%	**Paint Existing Façade**	**20 days**	**Fri 07/06/24**	**Thu 04/07/24**	
76	0%	Paint existing façade	4 wks	Fri 07/06/24	Thu 04/07/24	36SS
77	0%	**Electrical**	**105 days**	**Fri 14/06/24**	**Thu 07/11/24**	
78	0%	Lightning protection - steel fram	5 days	Fri 14/06/24	Thu 20/06/24	31
79	0%	Lightning protection - roof work	5 days	Mon 15/07/24	Fri 19/07/24	37
80	0%	Ground floor containment	1 wk	Wed 18/09/24	Tue 24/09/24	60FS-2 days
81	0%	1st & 2nd floor containment	2 wks	Wed 18/09/24	Tue 01/10/24	62FS-1 wk
82	0%	3rd & 4th floor containment	2 wks	Wed 02/10/24	Tue 15/10/24	81
83	0%	Main Panel	3 wks	Wed 18/09/24	Tue 08/10/24	80FS-1 wk
84	0%	Ground floor lighting & fire alar	2 wks	Wed 18/09/24	Tue 01/10/24	80FS-1 wk
85	0%	1st & 2nd floor lighting & fire al	3 wks	Wed 25/09/24	Tue 15/10/24	81FS-1 wk
86	0%	3rd & 4th floor lighting & fire al	3 wks	Wed 09/10/24	Tue 29/10/24	82FS-1 wk
87	0%	Install sub boards	3 wks	Fri 11/10/24	Thu 31/10/24	81FS+7 days
88	0%	Sub main wiring	3 wks	Fri 11/10/24	Thu 31/10/24	87SS
89	0%	Access control F&I	2 wks	Wed 02/10/24	Tue 15/10/24	84
90	0%	PV	3 days	Fri 11/10/24	Tue 15/10/24	88SS
91	0%	Commissioning	2 wks	Fri 25/10/24	Thu 07/11/24	88FS-1 wk
92	0%	**Mechanical**	**25 days**	**Wed 25/09/24**	**Tue 29/10/24**	
93	0%	Ground floor AH	2 wks	Mon 07/10/24	Fri 18/10/24	71
94	0%	1st & 2nd floor AH	2 wks	Wed 25/09/24	Tue 08/10/24	62
95	0%	3rd & 4th floor AH	2 wks	Wed 09/10/24	Tue 22/10/24	94
96	0%	Commissioning	2 wks	Wed 16/10/24	Tue 29/10/24	95FS-1 wk
97	0%	**Landscaping**	**5 days**	**Wed 30/10/24**	**Tue 05/11/24**	
98	0%	Soft landscaping	5 days	Wed 30/10/24	Tue 05/11/24	96
99	0%	**Handover**	**3 days**	**Fri 08/11/24**	**Tue 12/11/24**	
100	0%	Staff Training	2 days	Fri 08/11/24	Mon 11/11/24	91
101	0%	Handover	1 day	Tue 12/11/24	Tue 12/11/24	100




Shelter