



CAPITAL TRANSPORT PLANNING

Construction Logistics Plan

Former Cooks Garage, Forge Lane, Northwood
January, 2020

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Prepared for:

Powell Skeete Associates

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Capital Transport Planning is a Transport Planning and Highways consultancy, specialised in assisting clients through the planning process. Our transport consultant has vast transport planning experience acting on behalf of clients to overturn refused planning applications, providing documents to support planning applications, working on the behalf of Highway Authorities within a County Council and London Borough Council.

1. Introduction

- 1.1. This outline Construction Logistics Plan (CLP) has been prepared for the proposed redevelopment of Cooks Garage, Forge Lane in the London Borough of Hillingdon.
- 1.2. This outline CLP has been prepared in accordance with Transport for London's (TfL) Construction Logistics Plan Guidance and with reference to Hillingdon's guidance on construction logistics.
- 1.3. This logistics plan will be treated as a working document and required input from various stakeholders.
- 1.4. The key elements that we have considered to produce the document are:
- Traffic management
 - Pedestrian routes
 - Site security
 - Personnel Access
 - Vehicle Access
 - Welfare facilities and accommodation

Site Context

- 1.5. The application site is located to the north of the London Borough of Hillingdon in Northwood. The site is not located in an accessible part of Northwood, achieving 2 (Poor) using TfL's WebCAT planning tool, the full report can be found in Appendix D. The application site is located on Forge Lane, which is an unclassified road under the jurisdiction of the Local Highway Authority (LHA). The site location plan can be found in Appendix A.

Development Proposal

- 1.1. It is proposed that a single storey front extension, creation of first floor level and change of use from storage/distribution (Use Class B8) to day care facility (Use Class D1).

Hours of Operation

- 1.2. Standard hours will be as per Hillingdon Council's permissible hours for noisy works:
- 08:00 to 18:00 hours Monday to Friday
 - 08:00 to 13:00 hours Saturday
 - No noisy activities on site at any time

- 1.3.** Operations that need to be undertaken outside of standard working hours will be agreed with Hillingdon Borough Council with notice being provided to the neighbours at least 14 days ahead of these activities occurring or on the day for extenuating circumstances. TfL will be informed of any implications for the Transport for London Road Network.
- 1.4.** No road closures or parking suspensions are expected to be required during construction.

2. Context, considerations and challenges

Policy Context

National Planning Policy Framework (NPPF)

- 2.1. The NPPF promotes the use of sustainable transport throughout the UK, safe road design, and the efficient and sustainable delivery of goods and supplies. The NPPF sets out the long-term strategy for sustainable development.

Traffic Management Act (2004)

- 2.2. Part 2 of the Traffic Management Act sets out the responsibility of local authorities to manage traffic networks within their geographical area of responsibility. This includes efficient use of the network and the requirement to take measures to avoid contributing to traffic congestion. Part 5 outlines the responsibility of local authorities in Greater London to manage the strategic route network. This includes TfL's role to manage certain areas of the Greater London route network.

The London Plan (2016)

- 2.3. The London Plan sets out the Mayor's vision for 'Good Growth', creating a more inclusive, greener and safer city that supports the health and wellbeing as London grows to a projected 10.8m people by 2041. Policy T7 of the Plan requires the submission of CLPs to ensure construction is safer, cleaner and makes efficient use of the road network, including through the use of non-road modes wherever available.

The Mayor's Transport Strategy (MTS) (2018)

- 2.4. The MTS promotes the use of CLPs as a 'travel plan' that aims to improve the sustainability of construction freight movements by establishing site management and procurement processes to reduce the impact of construction traffic on the street network.

London Borough of Hillingdon - Development Management Policies Local Plan Part 2 (2020)

2.5. Hillingdon council's local plan development management policies (2020)

sets out requirements in relation to transport in Policy DMT 7: Freight

A) Development proposals that generate a high number and/or intensity of transport and movements such as those relating to logistics and distribution or freight will be required to demonstrate that:

i) they are conveniently located to enable direct routing to the strategic road network; and

ii) there is no deleterious impact on residential areas, local air quality levels, local amenity or the highway network.

B) The Council will in principle support the use of the Blue-Ribbon Network for rail and freight transport subject to compliance with other policies of this Local Plan.

Context Maps

2.6. Below are the TfL required context plans. They are below in figure 1, 2 and in Appendix B

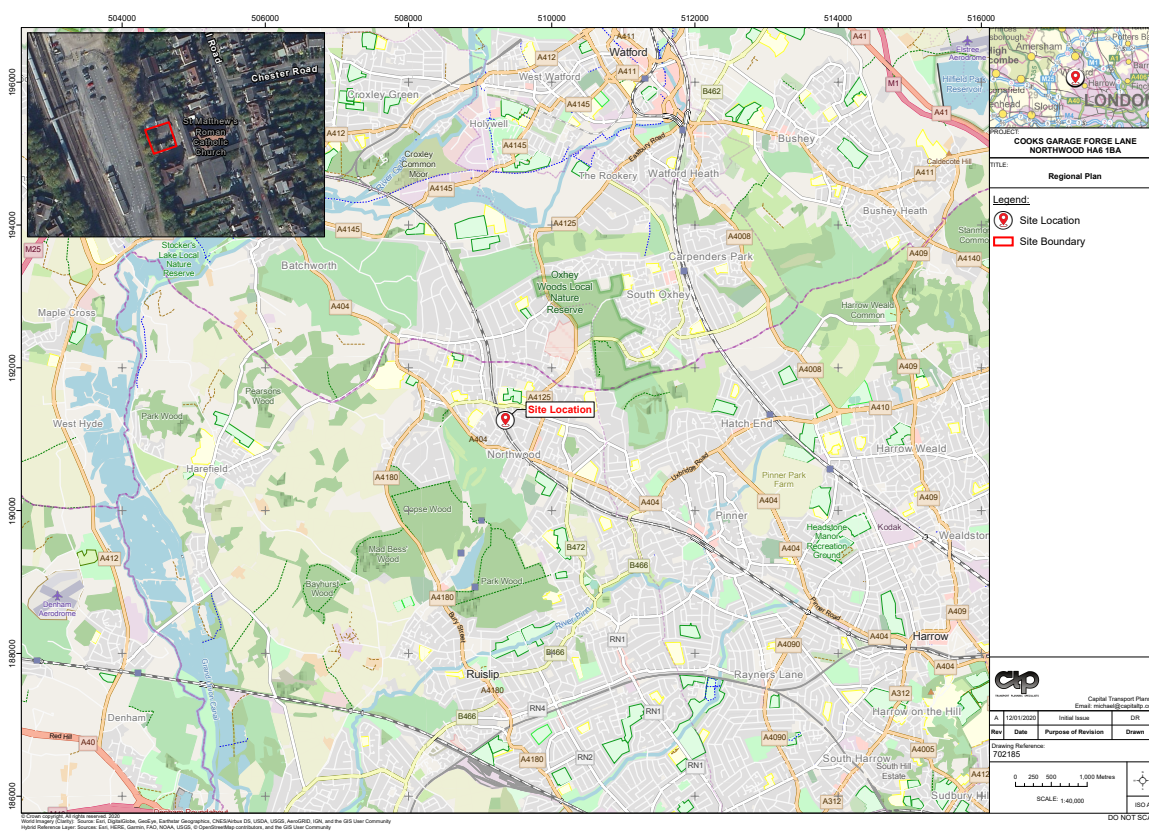


Figure 1. Regional Context Plan



Figure 2. Local Context Plan

Local Access Including Highways, Public Transport, Cycling and Walking

2.7. Highways, carriageways and footways

The application site is located on Forge Lane. The site is in close proximity to local access roads such as Hollowell Road, Roy Road and access to local distributor roads such as Green Lane.

Adequate footways are provided on Hollowell Road leading to the application site. There are no footways provided on Forge Lane.

2.8. Railway/Underground

The site is located 0.2 miles north of Northwood Underground Station. This is a 3-minute walk from the application site. Northwood provides eastbound access to Central London and eastbound to Hertfordshire.

2.9. Bus Routes

The site benefits from a bus services within walking distance. The closest being the Northwood bus stops. Both bus stops are within 3 minutes walking distance and provides access to the bus 8, 282 and H11.

2.10. Cycling

The application site is not in close proximity to any established cycle routes in the. It is considered that cyclists are still able to utilise the surrounding highway network.

Considerations and Challenges

2.11. From experience, the success of any project relies on a robust logistics plan and a strong site management team with controlled supervision. The contractor welcomes input from Hillingdon Borough Council, local businesses, residents and Ward Members should alternatives be proposed.

2.12. The main challenges with the development are:

- Protecting the free-flow of traffic on the public highway (Hallowell Road)
- Operating in close proximity of the St Matthews RC Church
- Managing site deliveries/collections whilst ensuring the neighbouring residents' daily arrangements are not affected by the works

3. Construction programme and methodology

3.1. Powell Skeete Associates have developed a provisional construction programme. This construction programme may be revised if the principal contractor believes and changes are required. The construction programme can be seen below in table 1.

Table. 1 Construction Programme

Construction phase	Start	End
Site setup and demolition	Feb-2020	Feb-2020
Drainage	Feb-2020	Mar-2020
Sub-structure	Mar-2020	Mar-2020
Super-structure	Mar-2020	Jun-2020
Cladding	Jun-2020	Aug-2020
Fit-out, testing and commissioning	Aug-2020	Nov-2020

Site setup and demolition

3.2. Once the main site preparations around and within the building starts, there will be less than 1 lorry per day removing materials from the site on average. The lorries will be loaded within the site boundary. This is expected to take less than one month to complete.

Drainage

3.3. If required any plant will be offloaded on site, a site traffic marshal will assist the entry and exit from Forge Lane. As no basement is being proposed drainage works are to be carried out over the course of one month.

Sub-structure

3.4. Minimal works to the existing substructure of the building will be carried out. Substructure works are not expected to last for longer than one month.

Super-structure

3.5. Due to the building being existing, superstructure works are not expected to last longer than 3 months. These works will involve infrequent trips by the largest possible 10 metre construction vehicles that will be assisted by banksmen.

Cladding

- 3.6.** Façade deliveries will vary in size due to the different elements of façade required. Deliveries will be well organised and ensure lorries are fully loaded to reduce the number of deliveries required.

Fit-out testing and commissioning

- 3.7.** This will involve deliveries of materials such as metal framing/plasterboard/plastering materials/ceiling materials/mechanical and ventilation materials/electrical materials/flooring materials/painting and decoration etc.
- 3.8.** During the last few months of the project, there will be a large amount of furnishing to be installed at the site. This will involve the use of smaller vans compared to earlier stages of the construction.

Waste Removal/Skips

- 3.9.** Skip collections/drop-off will be required throughout the entire construction phase of the project. This will be in the form of skips and will be collected on a requested basis.

4. Vehicle routing and site access

4.1. The most appropriate construction vehicle route from the site has been considered.

4.2. It is proposed that construction vehicles approach the site from the south. This would be primarily from the M25/A40. The construction vehicles would approach the site from the Strategic Road Network, in this case Swakeley's Road (B467). The construction vehicles would continue north on Breakspear Road (B467) until it meets with Ducks Hill Road (A4180). Turning left on to Ducks Hill Road, the vehicles would continue and turn right on to The Avenue. The vehicles would go across on to Green Lane before turning right onto Hallowell Road. The construction vehicles would then access Forge Lane from Hallowell Road, accessing the site.

4.3. It is proposed that construction vehicles would follow the same route as the arrival when departing the site.

4.4. The proposed vehicle routing can be seen below in figure 3, 4 and in Appendix C.

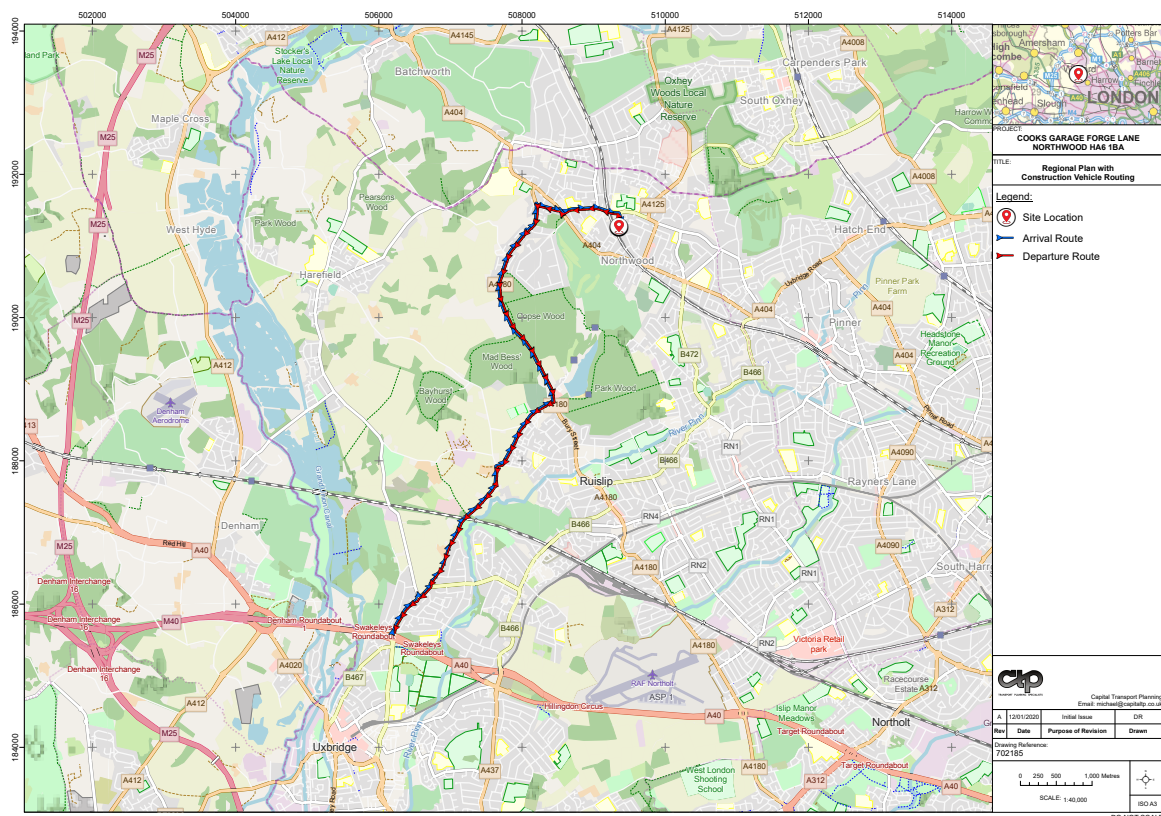


Figure 3. Construction Vehicle Routing – Regional

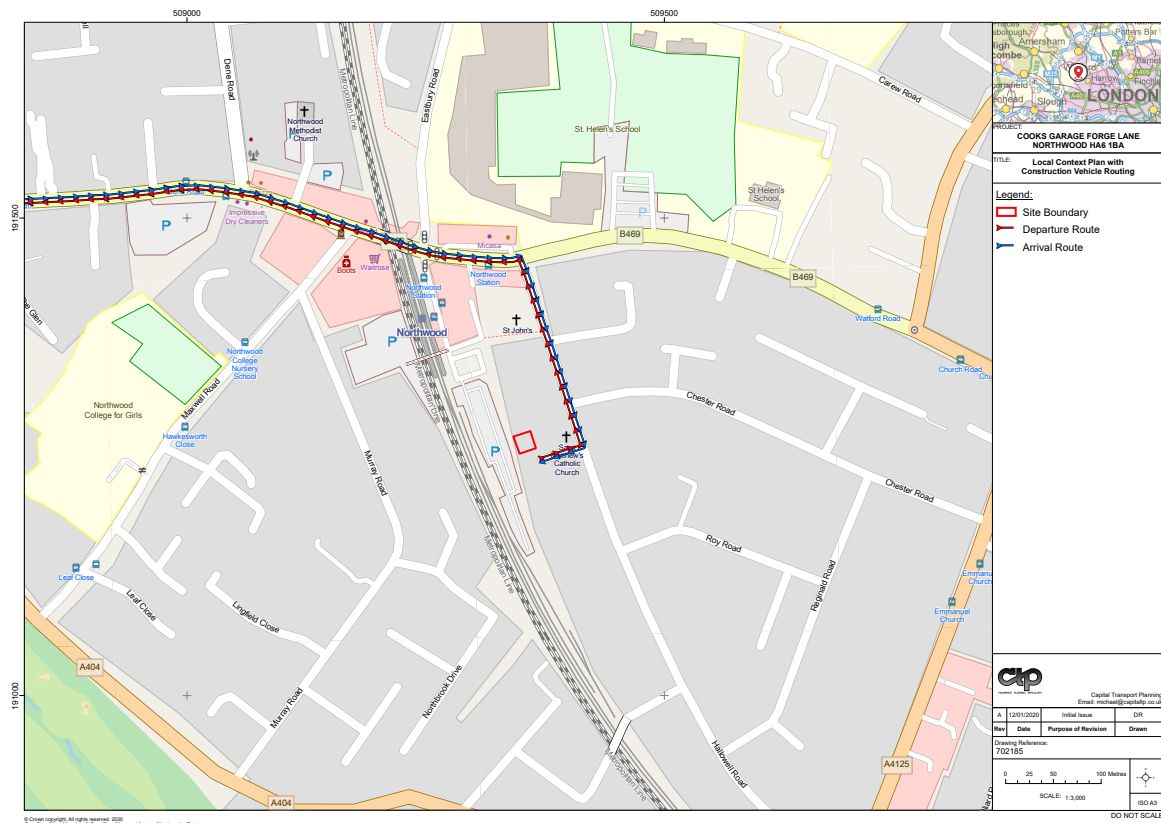


Figure 4. Construction Vehicle Routing – Local

Pedestrian/Cycling Access

4.5. Pedestrians and cyclists will access the site from Hallowell Road. They will travel along Forge Road and approach the site from the south. All construction related deliveries will be accompanied by a banksman and it is considered that the pedestrian/cycle route will be maintained and safety preserved.

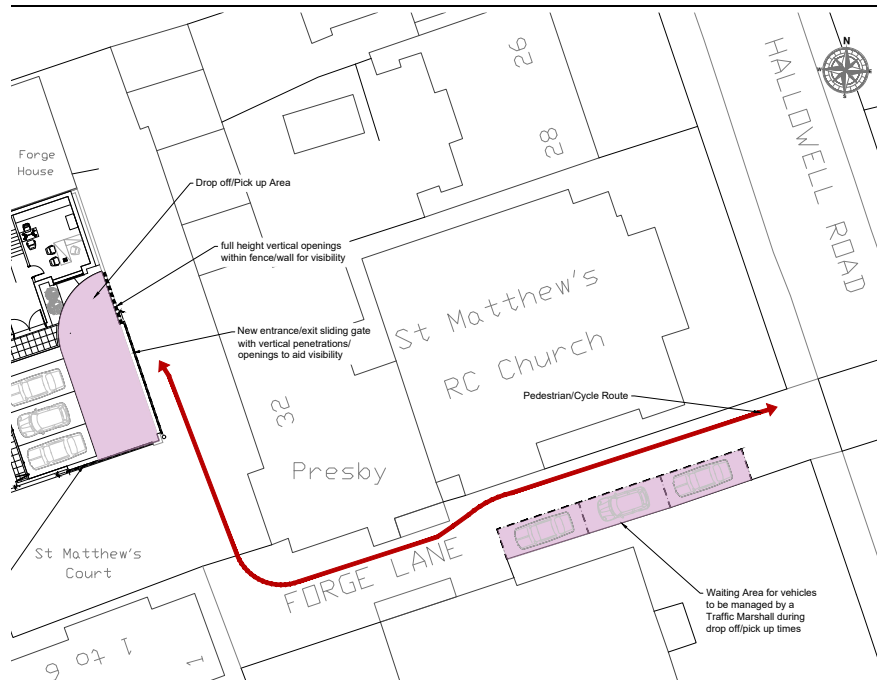


Figure 5. Pedestrian/Cycle Route

4.6. The proposed pedestrian/cycle route is presented above in Figure 5 and in Appendix D.

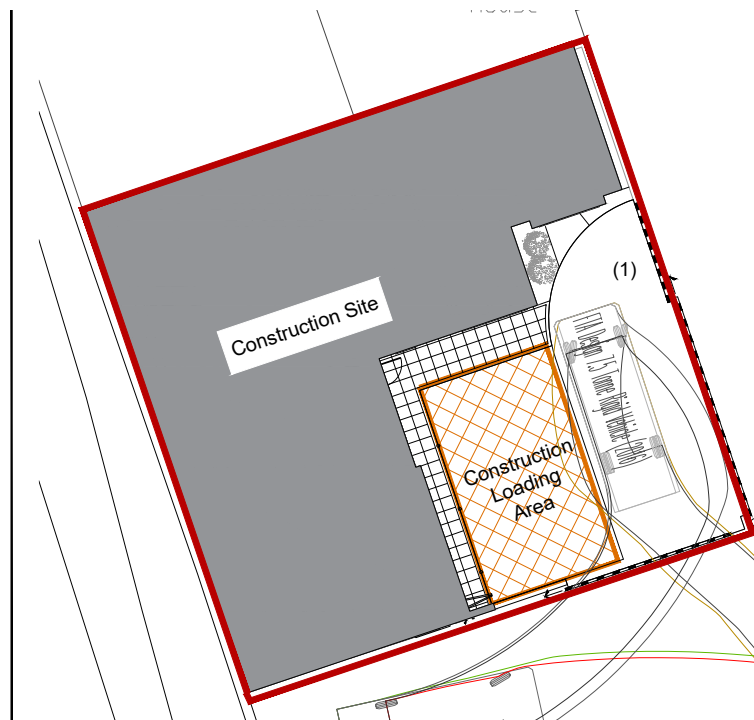


Figure 6. Loading and unloading area

Accessing the Site

- 4.7.** Vehicles will enter the site from within the hoarding line and materials will be unloaded within the loading and unloading area shown above in Figure 6 and Appendix E.
- 4.8.** Banksman will be available upon the arrival of construction vehicles to assist with safe access and egress.
- 4.9.** Loading and unloading will occur direct from the rear/side of the lorry and will be immediately transported to its end destination within the building.
- 4.10.** The largest vehicle that will be on site is a 7 metre 7.5 tonne rigid lorry. This has been tested using swept-path analysis and is presented below in Figure. 6 and 7 and Appendix E.

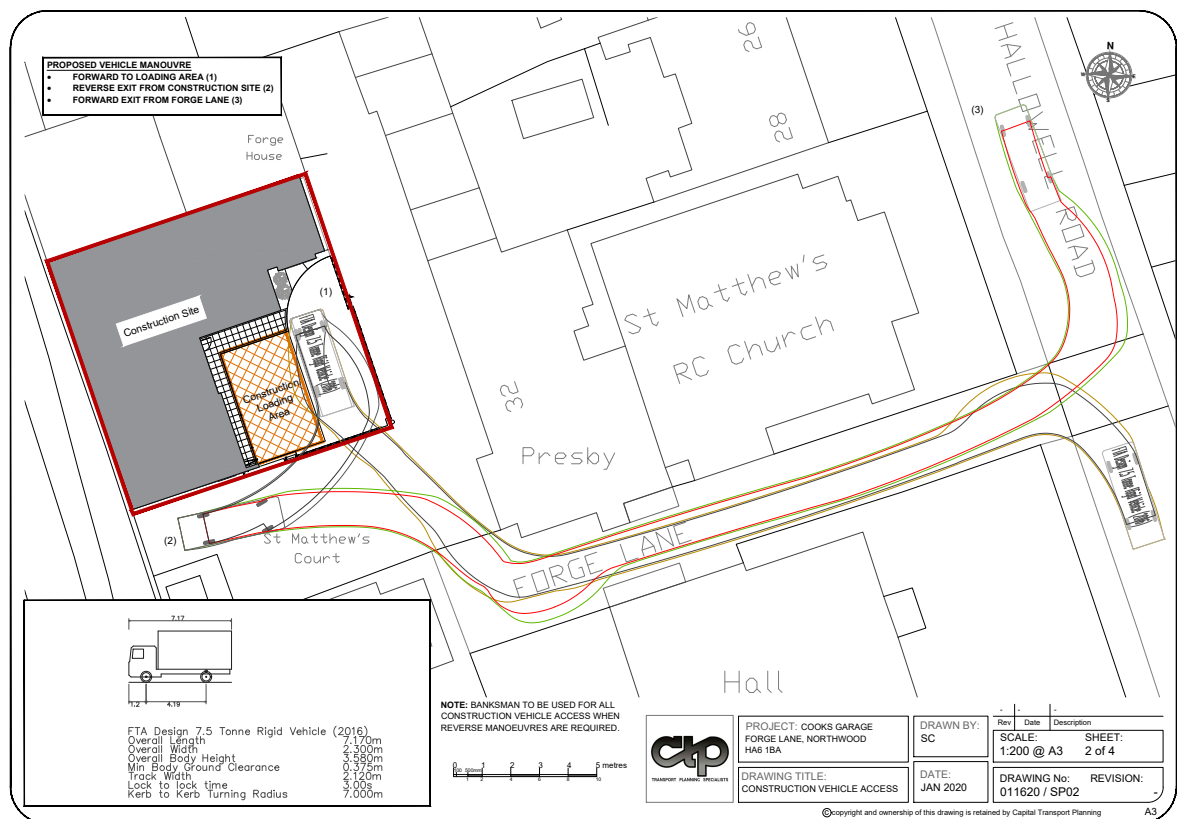


Figure 7. Swept-path analysis access

- 4.11.** The swept-path analysis presented above in figure 7, shows construction vehicles leaving the site in a forward gear. This manoeuvre will also be assisted by banksman to ensure the safest of departure.

5. Strategies to reduce impacts

5.1. The table below sets out the planned measures that are considered to be practical for this site and can either already be committed to, are proposed or being considered.

Table 2. Planned Measures Checklist

Measure	Committed	Proposed	Considered
Measures influencing construction vehicles and deliveries			
Safety and environmental standards and programmes	X		
Adherence to designated routes	X		
Delivery scheduling		X	
Re-timing for out of hours deliveries		X	
Re-timing for out of peak deliveries		X	
Use of logistics and consolidation centres		X	
Measures to encourage sustainable freight			
Freight by Water			X
Freight by Rail			X
Material procurement measures			
DfMA and off-site manufacture			X
Re-use of material on site			X
Smart procurement			X
Other measures			
Collaboration amongst other sites in the area			X
Implement a staff travel plan			X

Safety and Environmental Standards and Programmes

- 5.2. The contractor and subcontractors will be required to adhere to several contractual agreements, in line with TfL's Guidance for Developers. The contractor will be required to comply with TfL's '*Standard for construction logistics: Managing work related road risk (WRRR)*'

FORS and CLOCS

- 5.3. All vehicle and driver management practices will be required to comply with the FORS and Construction Logistics and Community Safety (CLOCS).
- 5.4. FORS Bronze will need to be confirmed by all subcontracted transport/haulage providers that the contractor intends to use.
- 5.5. Within 30 days of achieving accreditation, or equivalent within an alternative scheme, the contractor shall inform the authority by e-mailing a report to fors@tfl.gov.uk detailing its compliance with the safety clauses (the safety, licensing and training report).

Collision Reporting

- 5.6. All collisions and accidents involving the projects' vehicle and drivers will be reported to the Project Manager and relevant parties.
- 5.7. Within 15 days of the contract variation date, the contractor will provide the authority with a collision report. The contractor shall provide the authority with an updated collision report on a quarterly basis or within 5 days of a written request.

Adherence to Designated Routes

- 5.8. The route plan will be given to all suppliers when orders are placed to ensure drivers are fully briefed on the required route to take. The supplier will be made aware that these routes are required followed at all times unless agreed or alternative diversions are in place.

Delivery Scheduling

- 5.9. Due to the scale of the development and the projected number of deliveries, it is proposed that a booking delivery system will be used to manage deliveries of materials, plant and equipment to the site
- 5.10. All deliveries and collections must be booked 24 hours in advance and will be considered on a first come first served basis.

- 5.11. Deliveries will arrive outside of the following peak hours:
- 07:30 – 10:00 Monday to Friday
 - 15:30 – 18:00 Monday to Friday
- 5.12. All special deliveries to the site that require licensing (e.g. tower crane and piling rigs) would be delivered outside of standard hours in accordance with the conditions of the licence therefore avoiding any unnecessary closures and minimising disruption to the public highway.

Retiming for out of peak deliveries

- 5.13. Wherever possible the contractor will schedule deliveries to avoid the network peaks.

Use of Logistics and Consolidation Centres

- 5.14. Due to the scale of the development, it is not considered viable or beneficial to use logistics and consolidation centres.

DfMA and off-site manufacture

- 5.15. Due to the scale of the development, it is not considered beneficial to manufacture elements of the development off-site.

Re-use of materials on site

- 5.16. The contractor will be required to investigate opportunities to minimise waste and where waste generation is unavoidable, to maximise the recycling and reuse potential of demolition and construction materials.

Smart Procurement

- 5.17. The contractor will investigate the use of local suppliers wherever possible to minimise the length of journeys associated with deliveries. Opportunities to source materials and equipment from the same supplier will be sought to reduce vehicle movements.

Collaboration amongst other sites in the area

- 5.18. Due to the scale of the development, it is not considered beneficial to collaborate with other sites in the area.

Implement a Staff Travel Plan

- 5.19. This is not required due to the low number of staff onsite.

6. Estimated vehicle movements

6.1. The number of average vehicle movements has been estimated using the TfL toolkit and are summarised in tables 3 and 4 below.

Table 3. Number of vehicles in peak phase (By phase)

Construction phase	Start	End
Site setup and demolition	Feb-2020	Feb-2020
Basement excavation and piling	Feb-2020	Mar-2020
Sub-structure	Mar-2020	Mar-2020
Super-structure	Mar-2020	Jun-2020
Cladding	Jun-2020	Aug-2020
Fit-out, testing and commissioning	Aug-2020	Nov-2020

Table 4. Number of vehicles in peak phase (including overlaps)

Construction phase	Period of stage	No. of trips (monthly)	Peak no. of trips (daily)
Site setup and demolition	Q1 2020 - Q1 2020	14	1
Basement excavation and piling	Q1 2020 - Q1 2020	34	1
Sub-structure	Q1 2020 - Q1 2020	34	1
Super-structure	Q1 2020 - Q2 2020	34	1
Cladding	Q2 2020 - Q3 2020	20	1
Fit-out, testing and commissioning	Q3 2020 - Q4 2020	18	1

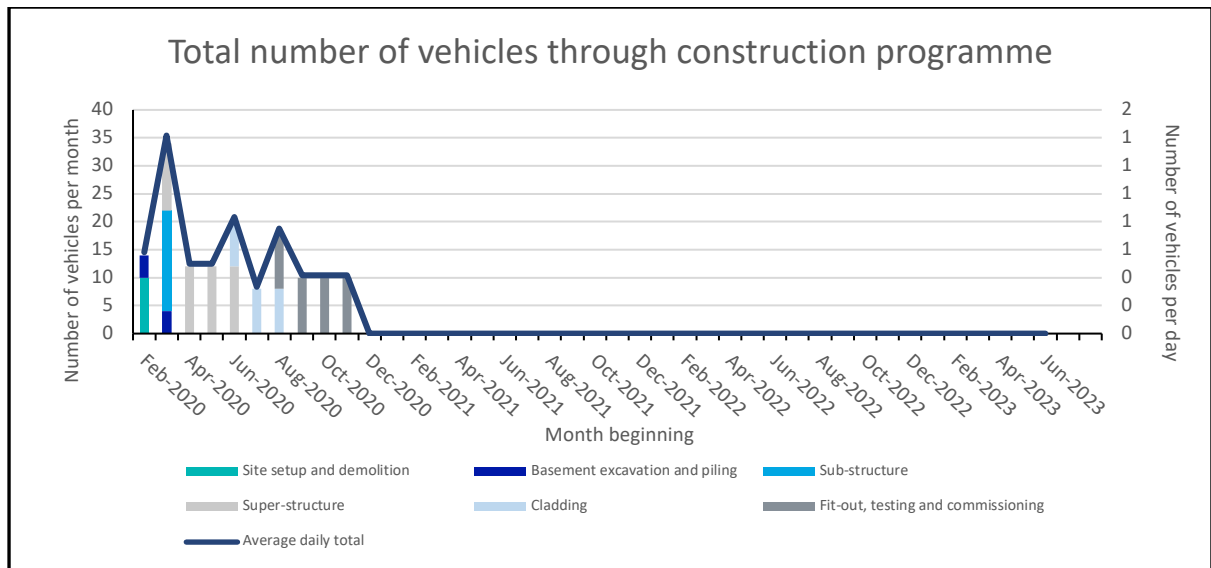


Figure 8. Total number of vehicles through construction programme

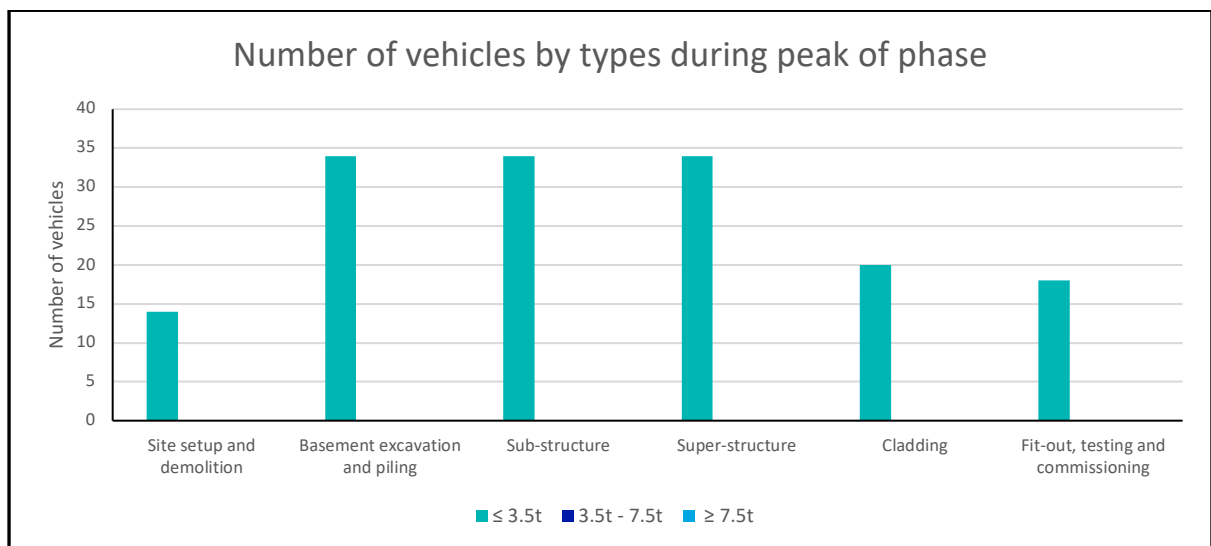


Figure 9. Number of vehicles by types during peak of phase

7. Implementing, monitoring and updating

Implementing

- 7.1.** The contractor will be responsible for implementing the CLP and ensuring that it is kept up to date as the construction progresses.
- 7.2.** They and their subcontractors will be required to adhere to several agreements, in line with TfL's Guidance for Developers. The main contractor, once appointed will be required to comply with TfL's 'Standard for construction logistics: Managing work related road risk (WRRR)'

Utility companies

- 7.3.** Each utility company will get the required permit from the local authority at the appropriate time. UKPN or all relevant utility companies will gain all the relevant open notice and work permits required for the excavation and reinstatement to install a new service through the highway if needed.

FORS

- 7.4.** All fleet operators to have Silver accreditation as a minimum within 90 days of being awarded the contract.
- 7.5.** The contractor shall ensure that the fleet operators maintain Bronze Accreditation by way of an independent assessment in accordance with the FORS Standard.

Vehicle Safety

- 7.6.** The contractor will ensure that any van it uses to provide services will carry a prominent sign or sign to warn cyclists of dangers of passing the vehicle on the inside.
- 7.7.** Any vehicle more than 3.5t must have side guards; close proximity sensors; rear cyclist warning signs; Fresnel lens or CCTV; driver licence checks and driver safety training.

Driver License Checks

- 7.8.** The contractor will ensure its drivers have a driving license check with the DVLA before starting deliveries.

Driver Training

7.9. The contractor shall ensure its drivers who have not undertaken:

- Approved driver training in the last three years, undertakes approved driver training or substitutes training within 60 days of the start of the contract.
- A FORS e-learning safety module in the last 12 months, undertakes a FORS e-learning safety module.

Collision Reporting

7.10. Within 15 days of the contract variation date, the contractor will provide the authority with a collision report. The contractor shall provide the authority with an updated collision report on a quarterly basis or within 5 days of a written request.

Failure to Comply

7.11. If the contractor fails to comply with WRRR requirements and other undertakings contained in the CLP, the authority may refuse the contractor, its employees, agents and freight vehicles entry onto any property that is owned, occupied or managed by the authority for any purpose (including, but not limited, to deliveries).

Monitoring

7.12. During the works the contractor will undertake the following monitoring and reviews:

- General review of site activities and compliance with the CLP;
- A ground movement analysis will be completed and a monitoring regime and trigger levels will be agreed with Hillingdon Council and third parties wall representatives;
- Boundary monitoring for dust;

7.13. Trigger levels will be set at two values. The first trigger will be a warning level while the second trigger will indicate that an unacceptable level has been reached. The first trigger will indicate that works must be adjusted imminently and the second trigger will indicate that work must cease.

7.14. Should a programme for movement, noise, dust or vibration be required for monitoring, this will be undertaken and agreed with Hillingdon Council prior to commencement of works. Wherever possible, plant and equipment will be switched off when not in use.

- 7.15.** Should the monitoring of waste be necessary, targets can be agreed and set.

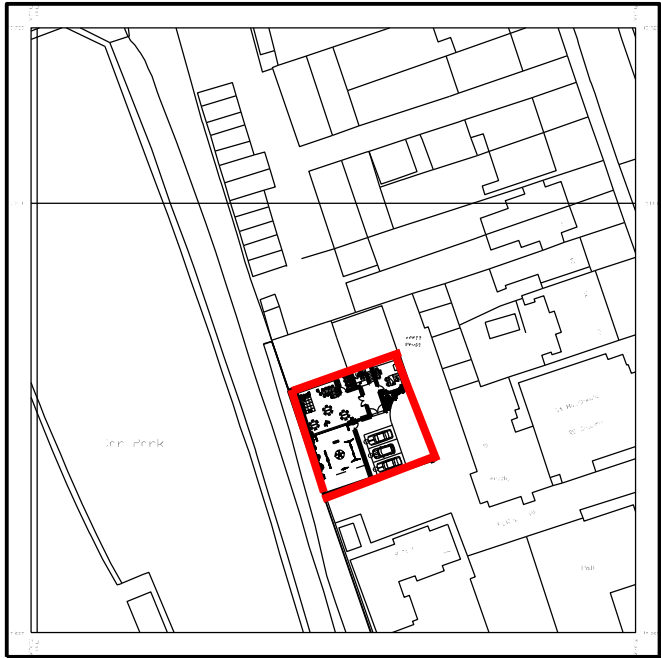
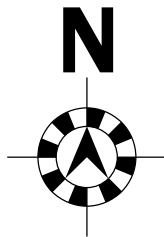
Updating the CLP

- 7.16.** Once the CLP has been agreed, the contractor will be required to comply with its contents. If any element of the planned construction is amended during the life of the project that impacts on how the logistics are managed to and from the site, then the contractor will submit a revised version of this CLP for further approval.

APPENDIX A – LOCATION PLAN

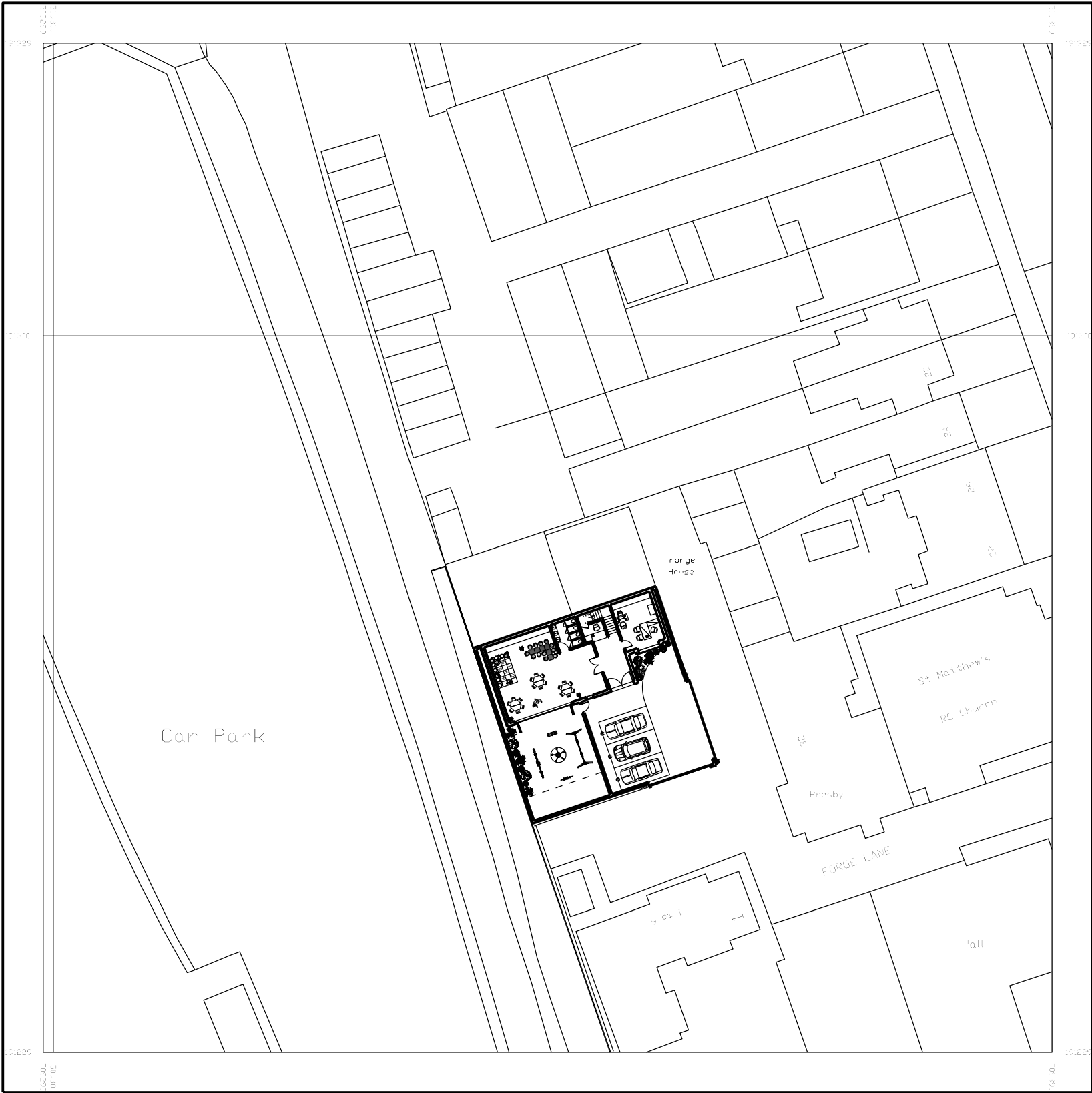
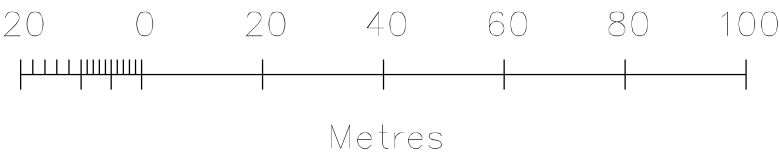
NOTES:

All construction to comply with all relevant and current building regulations.
For building regulation compliance please refer building regulation/ structural engineers drawing.
All Dimensions to be measured by contractor on site prior to construction. Not for construction.



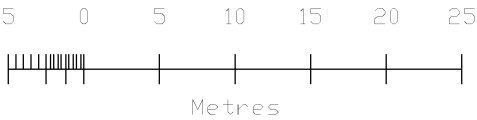
02 LOCATION PLAN

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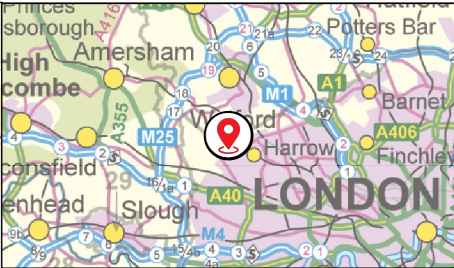
01 PROPOSED BLOCK PLAN

SCALE 1:500



C	17/08/2018	Planning
B	20/06/2018	Planning
A	11/01/2018	Planning
D1	21/03/2017	Planning
REV.	DATE	REASON FOR ISSUE
POWELL SKEETE ASSOCIATES ARCHITECTS & DEVELOPMENT CONSULTANTS		
Stanmore - BIC Stanmore Place Howard Road Stanmore HA7 1GB		
Project Address: Cooks Garage		
Forge Lane		
Northwood		
HA6 1BA		
Project Number: PSA 1453		
Description: Conversion of garage storage facility to children's day care nursery		
SCALE: 1:500 & 1:1250@A3		
RAJ1008 C		

APPENDIX B – CONTEXT PLANS



PROJECT:
**COOKS GARAGE FORGE LANE
NORTHWOOD HA6 1BA**

TITLE:
Local Context Plan

Legend:
 Site Boundary



Capital Transport Planning
Email: michael@capitaltp.co.uk

Rev	Date	Purpose of Revision	Drawn
A	12/01/2020	Initial Issue	DR

Drawing Reference:
702185

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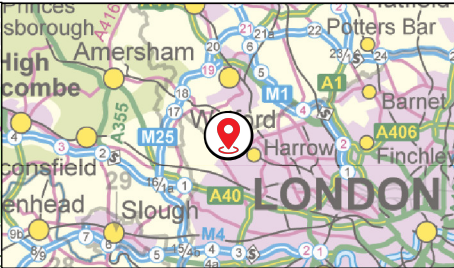
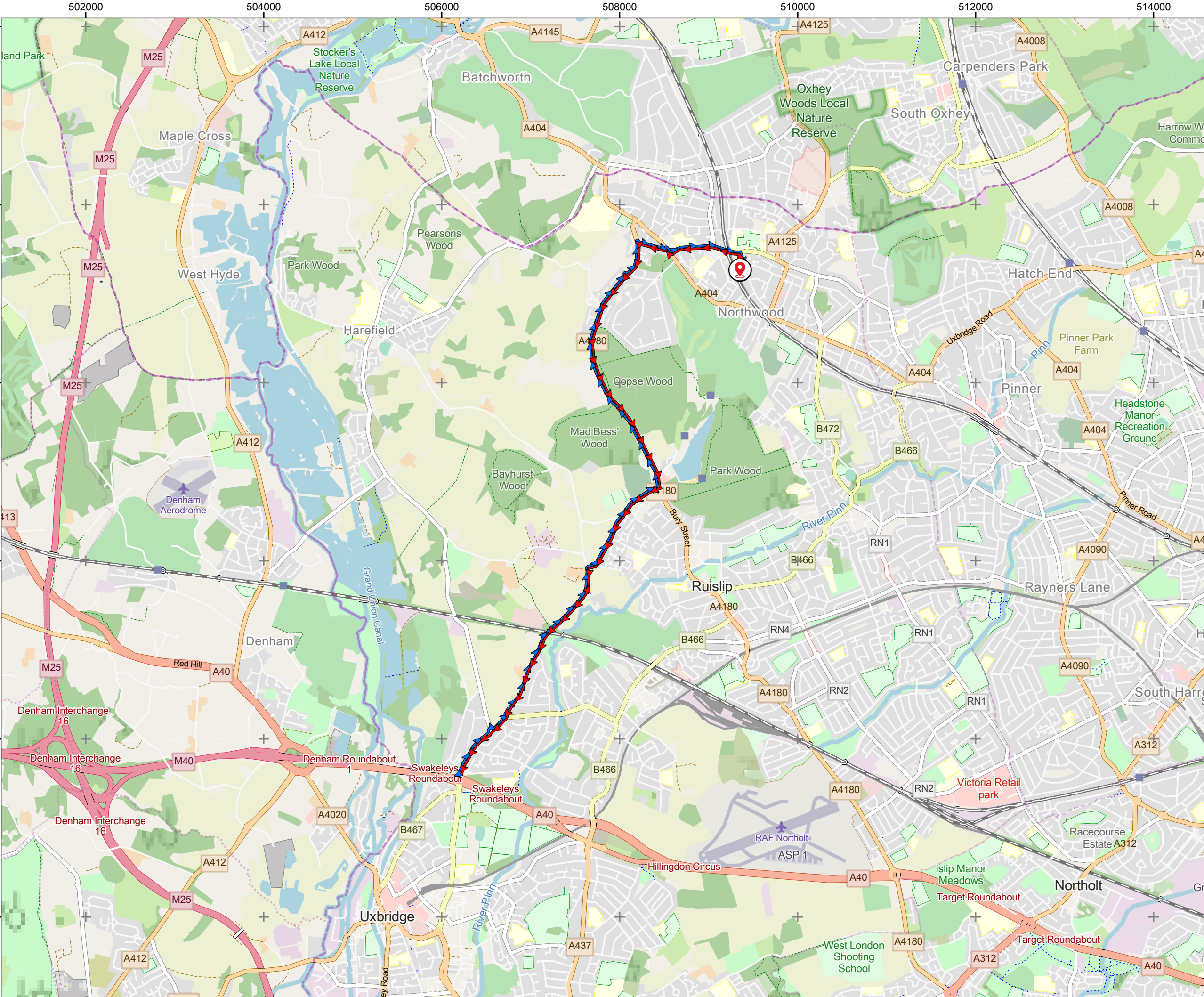
Metres

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ISO A3

APPENDIX C – CONSTRUCTION VEHICLE ROUTING PLANS



PROJECT: **COOKS GARAGE FORGE LANE
NORTHWOOD HA6 1BA**

TITLE: **Regional Plan with
Construction Vehicle Routing**

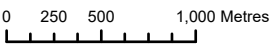
- Legend:**
-  Site Location
 -  Arrival Route
 -  Departure Route



Capital Transport Planning
Email: michael@capitaltp.co.uk

A	12/01/2020	Initial Issue	DR
Rev	Date	Purpose of Revision	Drawn

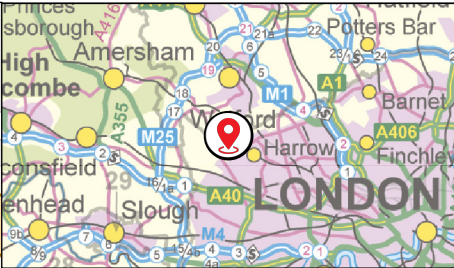
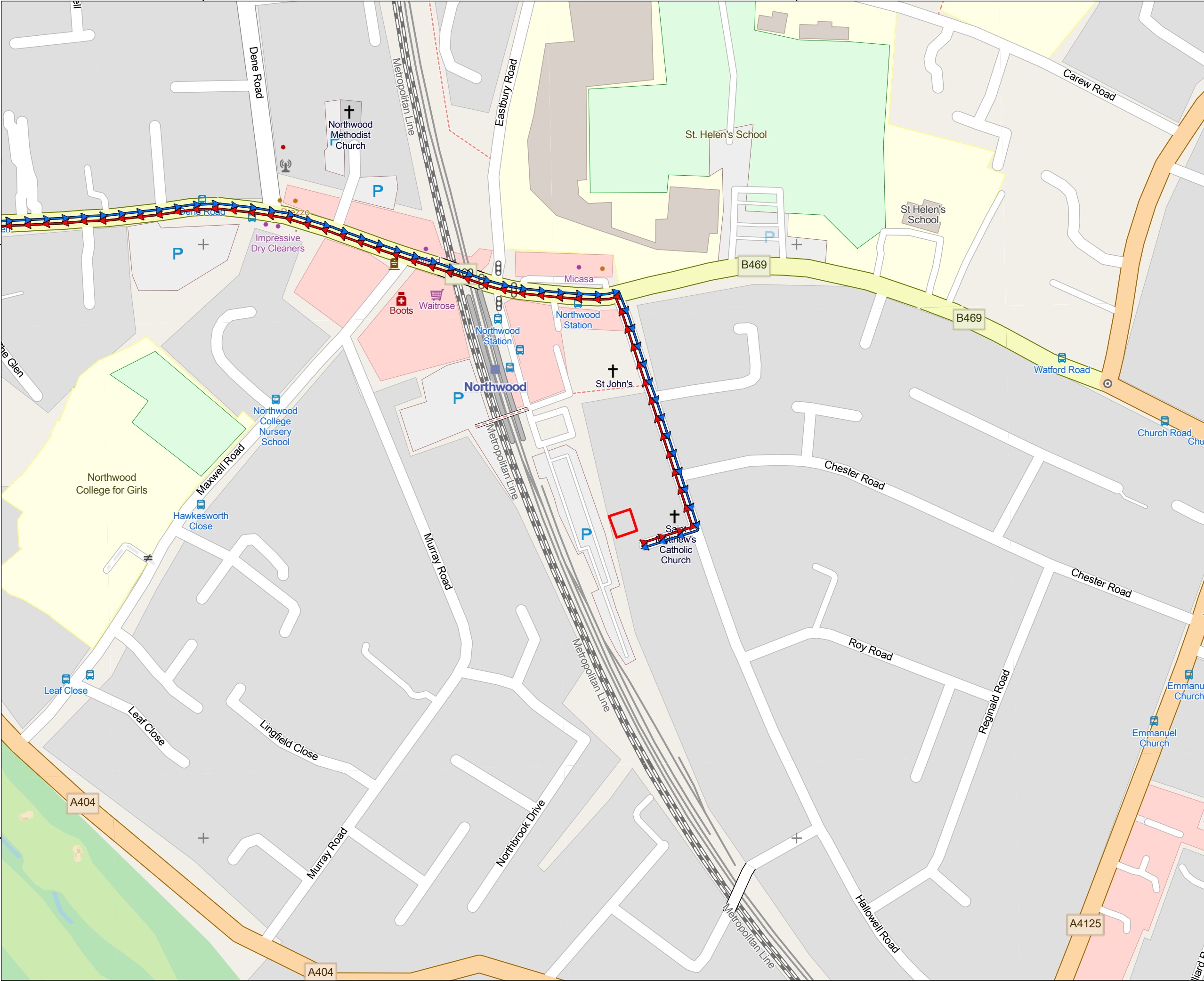
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ISO A3



PROJECT: **COOKS GARAGE FORGE LANE NORTHWOOD HA6 1BA**

TITLE: **Local Context Plan with Construction Vehicle Routing**

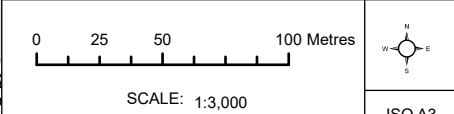
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 - ➔ Departure Route
 - ➔ Arrival Route



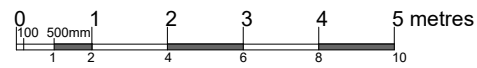
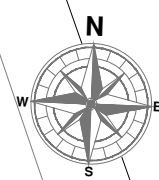
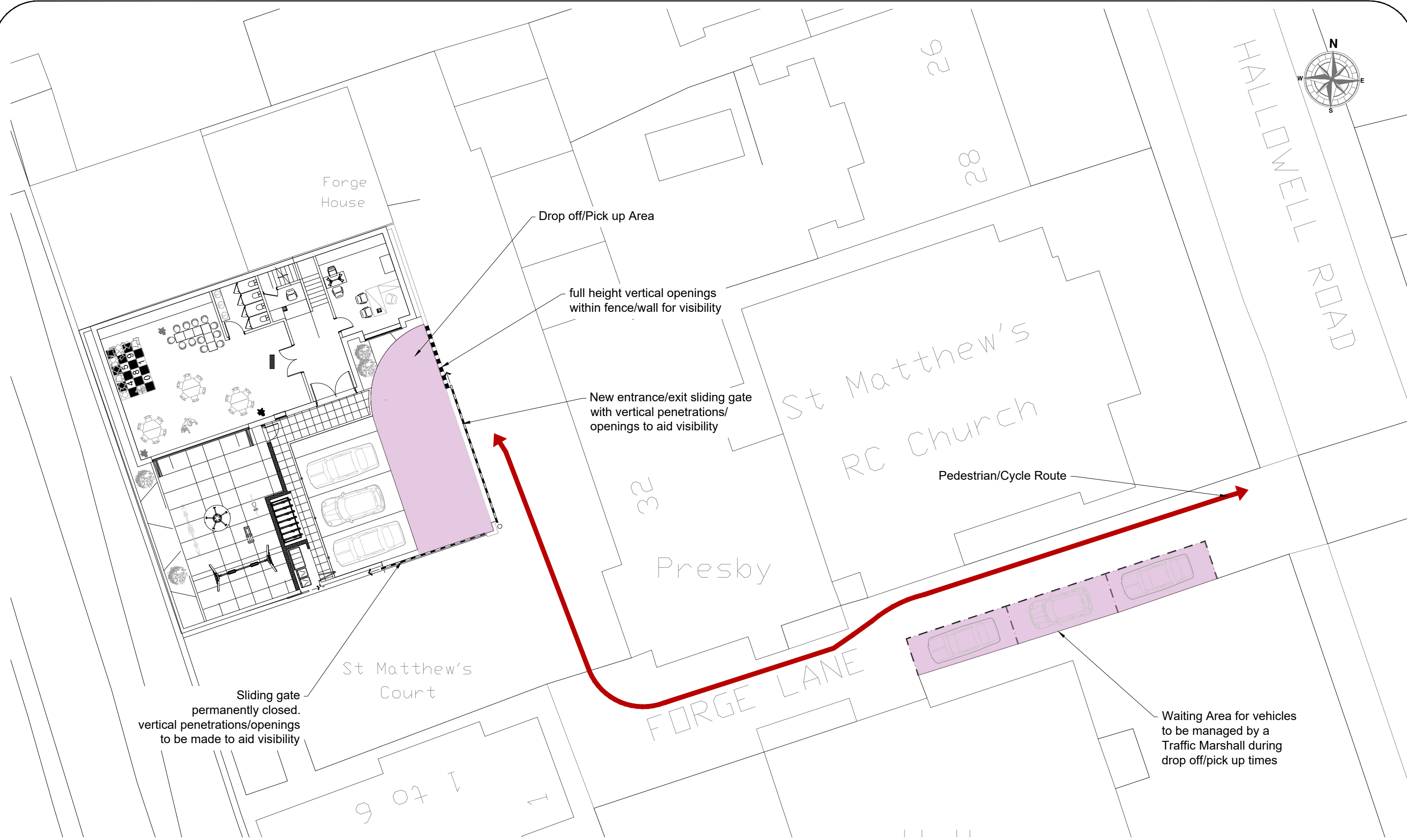
Capital Transport Planning
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A	12/01/2020	Initial Issue	DR
Rev	Date	Purpose of Revision	Drawn

Drawing Reference:
702185



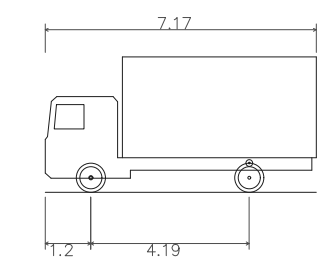
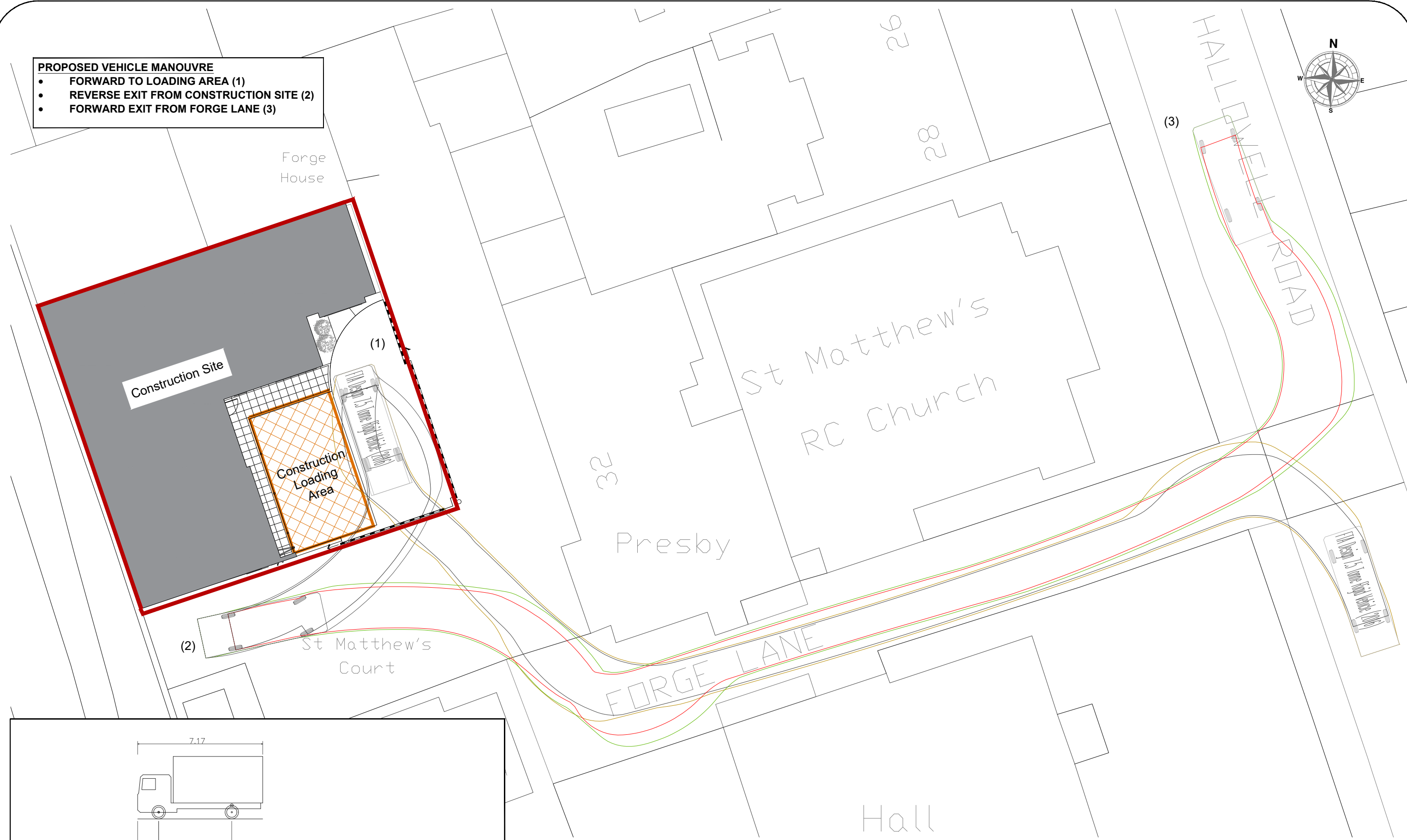
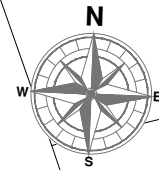
APPENDIX D – PEDESTRIAN/CYCLE ROUTE



PROJECT: COOKS GARAGE FORGE LANE, NORTHWOOD HA6 1BA	DRAWN BY: SC	Rev	Date	Description
		SCALE: 1:200 @ A3	SHEET: 4 of 4	
DRAWING TITLE: GENERAL ARRANGEMENT PLAN	DATE: JAN 2020	DRAWING No: 011620 / GA01	REVISION:	

APPENDIX E - SWEPT-PATH ANALYSIS/LOADING & UNLOADING

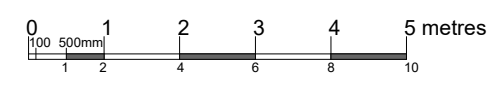
- PROPOSED VEHICLE MANOUVRE**
- FORWARD TO LOADING AREA (1)
 - REVERSE EXIT FROM CONSTRUCTION SITE (2)
 - FORWARD EXIT FROM FORGE LANE (3)



FTA Design 7.5 Tonne Rigid Vehicle (2016)

Overall Length	7.170m
Overall Width	2.300m
Overall Body Height	3.580m
Min Body Ground Clearance	0.375m
Track Width	2.120m
Lock to lock time	3.00s
Kerb to Kerb Turning Radius	7.000m

NOTE: BANKSMAN TO BE USED FOR ALL CONSTRUCTION VEHICLE ACCESS WHEN REVERSE MANOEVRES ARE REQUIRED.



PROJECT: COOKS GARAGE
FORGE LANE, NORTHWOOD
HA6 1BA

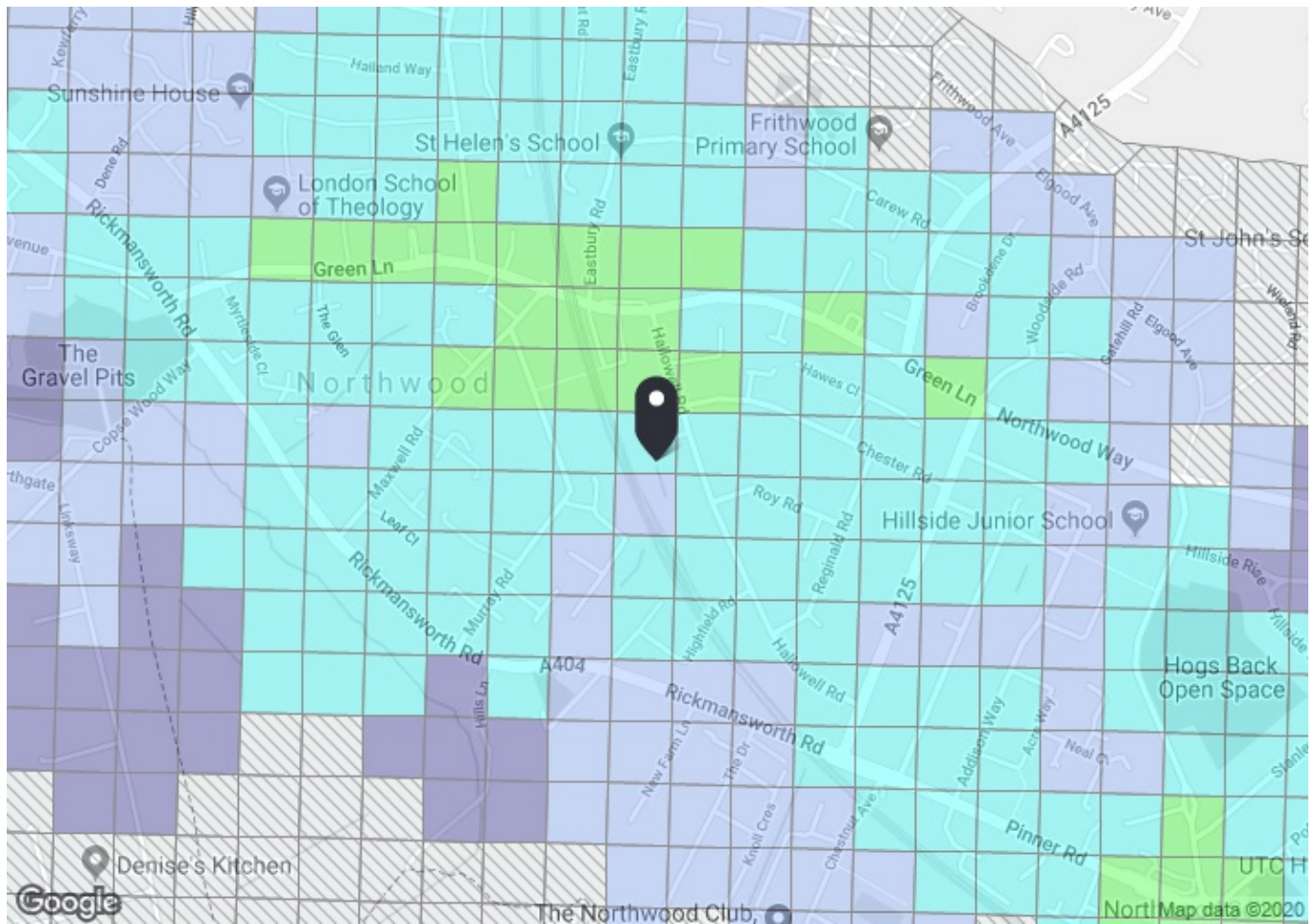
DRAWING TITLE:
CONSTRUCTION VEHICLE ACCESS

DRAWN BY:
SC

DATE:
JAN 2020

Rev	Date	Description
-	-	-
SCALE: 1:200 @ A3		SHEET: 2 of 4
DRAWING No: 011620 / SP02		REVISION: -

APPENDIX F – PTAL REPORT



PTAL output for Base Year 2

HA6 1BA
Northwood HA6 1BA, UK
Easting: 509366, Northing: 191209

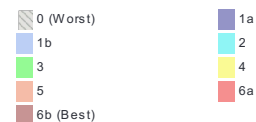
Grid Cell: 137904

Report generated: 16/01/2020

Calculation Parameters

Day of Week	M-F
Time Period	AM Peak
Walk Speed	4.8 kph
Bus Node Max. Walk Access Time (mins)	8
Bus Reliability Factor	2.0
LU Station Max. Walk Access Time (mins)	12
LU Reliability Factor	0.75
National Rail Station Max. Walk Access Time (mins)	12
National Rail Reliability Factor	0.75

Map key - PTAL



Map layers

 PTAL (cell size: 100m)

Calculation data

Mode	Stop	Route	Distance (metres)	Frequency(vph)	Walk Time (mins)	SWT (mins)	TAT (mins)	EDF	Weight	AI
Bus	NORTHWOOD STATION	331	323.16	3	4.04	12	16.04	1.87	0.5	0.94
Bus	NORTHWOOD STN GREEN LANE	282	318.99	5	3.99	8	11.99	2.5	1	2.5
Bus	NORTHWOOD STN GREEN LANE	H11	318.99	4	3.99	9.5	13.49	2.22	0.5	1.11
LUL	Northwood	'Watford-BStreetSF '	363.79	2.33	4.55	13.63	18.17	1.65	0.5	0.83
LUL	Northwood	'Watford-AldSfast '	363.79	3.67	4.55	8.92	13.47	2.23	1	2.23
LUL	Northwood	'Aldg-WatfordSlow'	363.79	3.67	4.55	8.92	13.47	2.23	0.5	1.11
LUL	Northwood	'BakStr-WatfordSlow'	363.79	1.67	4.55	18.71	23.26	1.29	0.5	0.64
LUL	Northwood	'Wembley-WatfordSL '	363.79	0.67	4.55	45.53	50.07	0.6	0.5	0.3
Total Grid Cell AI:										9.66