



22 Frogna! Way
London Borough of Camden

Construction Management Plan

For

BTP Chartered Surveyors

Construction Management Plan Pro-forma

PRO-FORMA

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INTRODUCTION

A Construction Management Plan (CMP) should help developers minimise the impact of their construction on the surrounding community, both for the construction on site and the transport arrangements for servicing the site.

The completed and signed CMP should address how any impacts associated with the proposed works will be mitigated and manage the cumulative impacts of construction in the vicinity of the site. The level of detail included in a CMP will depend on the scale and kind of development. Further policy guidance is set out in Camden Planning Guidance ([CPG 6: Amenity](#)) and ([CPG 8: Planning Obligations](#))

This CMP follows the best practice guidelines in [Transport for London's](#) (TfL's Standard for [Construction Logistics and Cyclist Safety \(CLOCS\)](#) scheme) and [Camden's Minimum Requirements for Building Construction \(CMRBC\)](#).

The approved contents of this CMP must be complied with unless otherwise agreed with the Council. The project manager shall work with the Council to review this CMP if

problems arise in relation to the construction of the development. Any future revised plan must also be approved by the Council and complied with thereafter.

It should be noted that any agreed CMP does not prejudice or override the need to obtain any separate consents or approvals such as for road closures or hoarding licences.

If your scheme involves any demolition, you need to make an application to the Council's Building Control Service. Please complete the "[Demolition Notice](#)"

Please complete the questions below with additional sheets, drawings and plans as required. The boxes will expand to accommodate the information provided, so please provide as much information as is necessary.

(Note the term 'vehicles' used in this document refers to all vehicles associated with the implementation of the development, e.g. demolition, site clearance, delivery of plant & materials, construction, etc.)

Section 1 – Site Contacts

Q1. Please provide the full postal address of the site and the planning reference relating to the Construction works.

Site Address: 22 Frognal Way, London, NW3 6XE

Planning application reference: TBC

Type of CMP – Draft CMP to accompany planning application

Q2. Please provide contact details for the person responsible for submitting the CMP

Name: Peter Sturgeon

Address: Motion, 8 Duncannon Street, London, WC2N 4JF

Tel: 020 7031 8141

Email: psturgeon@motion-uk.co.uk

Q3. Please provide the registered contact address details for the main contractor responsible for undertaking the works.

Name: To be completed following the appointment of a contractor.

Address:

Tel:

Email:

Q4. Please provide full contact details of the site and project manager responsible for day-to-day management of the works.

Name: To be completed following the appointment of a contractor.

Address:

Tel:

Email:

Q5. Please provide full contact details of the person responsible for dealing with any complaints from local residents and businesses, etc. In the case of [Community Investment Programme \(CIP\)](#), please provide contact details of the responsible Camden officer.

Name: To be completed following the appointment of a contractor.

Address:

Tel:

Email:

Q6. Please provide full contact details of the person responsible for community liaison if different to above.

Name: To be completed following the appointment of a contractor.

Address:

Tel:

Email:

Q7. Please provide full contact details including the address where the main contractor accepts receipt of legal documents for the person responsible for the implementation of the CMP.

Name: To be completed following the appointment of a contractor.

Address:

Tel:

Email:

Section 2 – About the Site

Q8. Please provide a site location plan and a brief description of the site, surrounding area and development proposals for which the CMP applies.

The application site is located at the eastern end of Frogna Way, within the London Borough of Camden, approximately 300 metres south west of Hampstead underground station. Frogna Way is an unadopted road with a gravel surface, grass verges and some street trees. The road is approximately 160 metres long and serves 11 houses and also provides access to two garages owned by residents of Church Row. Frogna Way is a cul-de-sac with vehicular access provided from Frogna to the west by way of a priority junction. Vehicular access is controlled by a rising arm barrier. An adopted pedestrian footpath forms part of Frogna Way at the end of the cul-de-sac where it provides access to Church Row. A site location plan is attached at **Appendix A**.

The site benefits from a driveway which is accessed from Frogna Way. In the vicinity of the site, Frogna Way widens to provide a turning area, which enables vehicles, including heavy goods vehicles such as refuse vehicles, to turn. This area also provides vehicle and pedestrian access to adjoining properties, as well as Church Row. A plan showing these access points is attached to this pro-forma at **Appendix B**.

The proposals include the demolition of the existing detached house and the construction of a new 7 bedroom residential property with 5 bedrooms, 1 guest bedroom and 1 nanny room over three floors.

Q9. Please provide a very brief description of the construction works including the size and nature of the development and details of the main issues and challenges (e.g. narrow streets, close proximity to residential dwellings).

The proposals include the demolition of the existing property on site and the construction of a new 3 storey, 7 bedroom residential property with 5 bedrooms, 1 guest bedroom and 1 nanny room. The site falls away from the site entrance towards the south and has a high point to the north east corner. The design of the building works with the natural topography of the site and provides accommodation at upper ground, lower ground and basement levels.

Given that access to Frogna Way is barrier controlled, traffic flows are relatively light and a 5 mile an hour speed limit is in operation. The footpath on Frogna Way is paved and clearly defined over some of the length of the road, although in other areas, Frogna Way operates as a shared surface. It has been observed that pedestrians can be encountered over any part of the road, including groups of school children travelling to and from local schools. The management of construction vehicles on Frogna Way to maintain safety for all road users, specifically pedestrians is a key objective of this CMP.

The property is bound to the north, south and east by residential properties. To the west the site is bound by Frogna Way and the access to the adjacent Church Row garages. Frogna Way is private and managed by FWRA on behalf of residents. The CMP will also need to ensure that any adverse effects of construction work on residents is minimised and that access along Frogna Way and to properties is not obstructed at any time.

This CMP has been drafted to reflect the key principles and requirements of FWRA as specified in their document "Construction Management for Large Developments", November 2014. A copy of the document is attached at **Appendix C**.

Q10. Please identify the nearest potential receptors (dwellings, business, etc.) likely to be affected by the activities on site (i.e. noise, vibration, dust, fumes, lighting, etc.).

The property is bound to the north, south and east by residential developments, which will be the nearest receptors likely to be affected by activities on site.

Q11. Please provide a scaled plan detailing the local highway network layout in the vicinity of the site. This should include details of on-street parking bay locations, cycle lanes, footway extents and proposed site access locations.

Motion drawing 150431-02 attached at **Appendix D** shows the existing highway arrangement in the vicinity of the site.

Q12. Please provide the proposed start and end dates for each phase of construction as well as an overall programme timescale. (A Gantt chart with key tasks, durations and milestones would be useful).

As planning approval has yet to be granted, the programme below provides an indication of the duration of each phase of the works. The programme will be updated with the dates envisaged for each phase of works once planning permission has been granted and the date for works to start on site has been determined. At present it is envisaged that the total project duration will be approximately 96 weeks.

Phase	Weeks
Site Setup	3
Demolition	5
Excavation	36
Structural Works	21
Non-Structural Works/ Internal Fit Out/ Site Clear Up	31

Q13. Please confirm the standard working hours for this site, noting that the standard working hours for construction sites in Camden are as follows:

- 8.00am to 6pm on Monday to Friday
- 8.00am to 1.00pm on Saturdays
- No working on Sundays or Public Holidays

The provisional working hours for the site will be between 08:00 and 18:00 Monday to Friday and 08:00 and 13:00 on Saturdays.

Q14. Please indicate if any changes to services are proposed to be carried out that would be linked to the site during the works (i.e. connections to public utilities and/or statutory undertakers' plant). Larger developments may require new utility services. If so, a strategy and programme for coordinating the connection of services will be required. If new utility services are required, please confirm which utility companies have been contacted (e.g. Thames Water, National Grid, EDF Energy, BT. etc.) You must explore options for the utility companies to share the same excavations and traffic management proposals. Please supply details of your discussions.

It is proposed that an FTTP (Fibre Optic Cable) will connect to the premises. These works will be discussed and agreed with the FWRA and if directed, with owners of properties neighbouring any works at an early stage. The contractor will hold discussions with the service provider when appointed.

Q15. Please confirm when an asbestos survey was carried out at the site and include the key findings.

An asbestos survey will be carried out prior to the works commencing on site. The key findings of the survey will be reported when they become available.

Section 3 – Transportation Issues Associated with the Site

- Q16. Please provide a brief description of the proposed working hours within which vehicles will service the site during the construction period (Refer to the [Guide for Contractors Working in Camden](#)). Construction vehicle movements are generally acceptable between 9.30am to 4.30pm on weekdays and between 8.00am and 1.00pm on Saturdays). If there is a school in the vicinity of the site or on the proposed access and/or egress routes, then deliveries must be restricted to between 9.30am and 3pm on weekdays during term time. Construction vehicles must be managed and prevented from causing obstructions to the highway.**

Due to the proximity of the site to schools, deliveries will take place between 09:30 and 15:00 on a weekday during term time and 08:00 and 13:00 on a Saturday. Outside of term time deliveries will take place between 09:30 and 16:30 on weekdays and between 08:00 and 13:00 on Saturdays. Refuse collection normally takes place on a Wednesday morning between 07:00 and 10:00 and construction vehicles will be scheduled to arrive outside of these hours. The Construction Project Manager will check the Council's website following public holidays to ensure that any changes to collection days are noted and deliveries are rescheduled accordingly.

Deliveries will be scheduled to distribute vehicle movements throughout the delivery hours to prevent more vehicles delivering than can be accommodated on site at any one time. All servicing will occur on site and no vehicles will be allowed to obstruct, park or wait on Froggnal Way other than immediately outside the site access for as short a period as possible. Vehicles will not be permitted to stop or wait in the 'bellmouth' area at the entrance to Froggnal Way. Vehicles must never be left unattended on either side of the barrier at the entrance to Froggnal Way. Vehicles must not obstruct any of the points of access or the pedestrian route shown on the plan at **Appendix B**.

All deliveries are to be booked in with Construction Project Manager at least 24 hours before and all drivers will be required to phone 20 minutes prior to arriving on site to confirm that the loading area on site is clear. If the loading area is not available, the vehicle shall not proceed to the site and will be given an alternative delivery time. Vehicles will not be permitted to wait or stack on the roads within the borough.

- Q17. Please provide details of the typical sizes of all vehicles and the approximate frequency and times of day when they will need access to the site, for each phase of construction. You should estimate the average daily number of vehicles during each major phase of the work, including their dwell time at the site. High numbers of vehicles per day and/or long dwell times may require vehicle holding procedures. You will need to consider whether the roads on the route(s) to and from the site are suitable for the size of vehicles to be used. Please provide details of other known developments in the local area or on the route.**

An indicative programme of works is provided in the table below highlighting the maximum duration of key phases of the construction project. The dates of each phase of works will be confirmed and revised if necessary by the building contractors' Construction Project Manager (CPM), once appointed.

Phase	Weeks
Site Setup	3
Demolition	5
Excavation	36
Structural Works	21
Non-Structural Works/ Internal Fit Out/ Site Clear Up	31

- **3 axle, 26 tonne G.V.W, Grab Lorry**

These vehicles are approximately 8 metres long and 2.5 metres wide. They will be used to remove demolition material and spoil from the site during the demolition and excavation phases of the project. The maximum dwell time of the vehicle will be 30 minutes and up to 4 vehicles per day could be expected to visit the site during the demolition and excavation phases of the project.

- **3 axle, 26 tonne G.V.W, Concrete lorry**

These vehicles are typically 8.4 metres long and 2.5 metres wide. Deliveries will take place during the structural phase of the programme and up to 3 vehicles could be expected on the day of a concrete pour. There would typically be 3-4 days between concrete pours. Concrete lorries would have a dwell time of approximately 30 minutes.

- **4 wheel, 18 tonne G.V.W, Flat-bed truck**

These vehicles are typically 8.0 metres long and 2.4 metres wide. Flat bed vehicles will be used to deliver various materials including scaffolding, steelwork, timber, reinforcement, brick and block work, roofing materials, plaster, joinery etc. Deliveries are likely to be expected on average once per day during site setup, structural works and fit out/clear up phases of the programme with an average dwell time of 30 minutes. When scaffolding is erected and dismantled the vehicle would need to be onsite for up to 5 hours.

- **Box van (luton)**

This will be a vehicle with length of up to 6 metres and a width of 2 metres. We anticipate a maximum of 2 deliveries per day throughout the setup and fit out phases of the works with a maximum dwell time of 30 minutes.

A this stage, it is expected that an average of 2-3 HGVs will visit the site daily throughout the duration of the works, However, there will be periods during excavation or concrete pouring when numbers will be higher. The daily number of HGV movements and programme will be discussed further with FWRA upon appointment of the contractor.

In addition to the vehicles above, there will be a need to transport plant to the site such as an excavator and crane. Delivery of plant will typically only require delivery at the start of the relevant phase of work and collection at the end. Where possible, plant will be used that can be delivered to the site on flat bed rigid low loaders that can manoeuvre to and from Frogna! Way in forward gear. Alternatively, consideration will be given to the use of mobile plant that can be driven to and from Frogna! Way in forward gear. The CPM will provide full details in writing of all plant needed and the strategy for delivery and collection to the Council and the FWRA at the earliest opportunity. Once the strategy has been agreed with these parties, residents will be informed of arrangements for collection and removal of plant in advance in writing. No tracked plant will be driven on Frogna! Way.

We are aware of consented developments at numbers 1A, 2, 28, 40, 50 and 63 Frogna! and 44 Frogna! Lane. The Construction Project Manager will liaise with the Project Managers of the consented developments to ensure that deliveries are coordinated where possible. There are no known large developments or works in prospect in, or accessed from, Frogna! Way. The contractor will continue to monitor the progress of planning applications in the area and will ensure that deliveries are coordinated with any consented schemes if appropriate.

Q18. Please provide details of any temporary structures which would overhang the public highway (e.g. scaffolding, gantries, cranes etc.)

No temporary structures will overhang the public highway.

Q19. Please provide details of hoarding requirements or any other occupation of the public highway.

Secure and lockable hoarding will be provided along the frontage of the property within the boundary of the site. The hoarding will display a 24/7 emergency contact number and second back up number available for out of hours emergencies. The numbers will connect to an operator without the need for voicemail, queuing or menu navigation. Motion Drawing 150431-01 at **Appendix E** shows the location of the hoarding.

Q20. Please provide accurate scaled drawings of any highway works necessary to enable construction to take place (e.g. construction of temporary vehicular accesses). Use of the public highway for storage, site accommodation or welfare facilities is at the discretion of the Council and is generally not permitted. If you propose such use you must supply full justification, setting out why it is impossible to allocate space on-site. You must submit a detailed (to-scale) plan showing the impact on the public highway including; the extent of hoarding, pedestrian routes, parking bay suspensions and remaining road width for vehicle movements. We prefer not to close footways but if this is unavoidable, you should submit a scaled plan of the proposed diversion route showing key dimensions. Please provide details of all safety signage, barriers and accessibility measures such as ramps and lighting etc.

No highway works will be necessary to enable construction to take place. All materials, site accommodation and welfare facilities will be stored on site.

Q21. Please provide details of any proposed parking bay suspensions and temporary traffic management orders which would be required to facilitate construction. If construction vehicles cannot access the site, details are required on where they will wait to load/unload.

At this stage, it is not anticipated that parking bay suspensions or temporary traffic management orders are required. All servicing will take place on site in accordance with the strategy detailed at question 16.

Section 4 - Traffic Management for the Site

- Q22. Please provide details describing how pedestrian and cyclist safety will be maintained, including any proposed alternative routes (if necessary), and any Banksman and/or Traffic Marshall arrangements. You should supply details of any diversion, disruption or other anticipated use of the public highway during the construction period (alternatively a plan may be submitted). Vulnerable footway users include wheelchair users, the elderly, people with walking difficulties, young children, people with prams, blind and partially sighted people, etc. A secure hoarding will generally be required to the site boundary with a lockable access. Any work above ground floor level may require a covered walkway adjacent to the site. A licence must be obtained for scaffolding and gantries. The adjoining public highway must be kept clean and free from obstructions. Lighting and signage should be used on temporary structures/ skips/ hoardings, etc. Appropriate ramping must be used if cables, hoses, etc. are run across the footway.**

The potential risks to both cyclists and pedestrians have been considered and vehicles with appropriate safety equipment will be used. This equipment will include safety bars, additional mirrors and advisory signage. In addition, all movements into and out of the site, and movements into and out of Frognal Way, will be supervised by trained traffic marshals in order to manage the interaction between construction vehicles and other road users.

A traffic marshal will be permanently stationed at the junction of Frognal Way with Frognal during site working hours. This traffic marshal will operate the barrier to enable construction vehicles to enter Frognal Way. When an HGV (over 7.5 tonnes) is due to access the site a second traffic marshal will be stationed on Frognal to supervise and assist manoeuvres onto Frognal Way and through the entrance barrier. From this point, this second traffic marshal will escort HGVs to the site at walking pace (less than 5 miles per hour).

At the turning area at the end of Frognal Way, a third traffic marshal will be deployed and both marshals will supervise turning and reversing manoeuvres on Frognal Way and manage the interaction between construction vehicles, other vehicles and pedestrians. When leaving the site, the third traffic marshal will escort the HGV back to the barrier at walking pace.

All marshals will be senior, trained personnel who are able to communicate clearly in English. Traffic marshals will wear high visibility yellow clothing with the contractors name and the words "traffic marshal" front and back. All marshals will communicate with the site, and with each other, by mobile phones or radios.

Due to the close proximity of the site to the school, all deliveries will be limited on weekdays to between 09:30 and 15:00 during term time and to between 09:30 and 16:30 outside of term-time.

A secure and lockable hoarding will be provided within the site boundary.

- Q23. Please detail the proposed access and egress routes to and from the site, showing details of links to the [Transport for London Road Network \(TLRN\)](#). Such routes should be indicated on a drawing or diagram showing the public highway network in the vicinity of the site. Consideration should also be given to weight restrictions, low bridges and cumulative impacts of construction (including neighbouring construction sites) on the public highway network. Consideration should be given to any major trip generators (e.g. schools, offices, public buildings, museums, etc.) on the route, and how any problems can be avoided or mitigated.**

Vehicles will access the site from the A41 and travel eastbound on Arkwright Road making a left turn onto Frognal. Vehicles will continue in a northbound direction and turn right into Frognal Way. The site egress route will be the reverse of the access route. A vehicle routeing plan is shown in **Appendix F**. Due to the proximity of the site to schools, deliveries will be limited to between 09:30 and 15:00 on weekdays during term-time and between 08:30 and 13:00 on Saturdays. Outside of term time, deliveries will be permitted during the week between 09:30 and 16:30.

It will be required that all HGVs call a minimum of 20 minutes prior to arrival at the site to ensure that the loading area on site is available and arrange to be met by a traffic marshal in accordance with the procedure detailed at question 22.

Q24. Please describe how the access and egress arrangements for construction vehicles will be managed. Confirm how contractors, delivery companies and visitors will be made aware of the route (to and from the site) and of any on-site restrictions, prior to undertaking journeys.

All contractors, delivery companies and visitors will be advised of and required to adhere to the specified route and all other measure detailed in this plan prior to journeys being undertaken. No contractors or visitors will be permitted to park on Frogmal Way and will be instructed to travel to the site by public transport, by foot or cycle. The CPM will provide all site personnel with details of local public transport services and locations where parking can occur away from Frogmal Way.

Q25. Please provide details of the parking and loading arrangements for construction vehicles with regard to servicing and deliveries associated with the site (e.g. delivery of materials and plant, removal of excavated material). This is required as a scaled site plan, showing all points of access and where materials, skips and plant will be stored, and how vehicles will access and egress the site.

All construction vehicles will park and load within the site boundary. Construction vehicles are able to access Frogmal Way in a forward gear and manoeuvre at the eastern end of Frogmal Way so as to reverse into the site. All HGV manoeuvres will be supervised as detailed at question 22. Drawings 150431-TK01 – TK06, attached at **Appendix G**, shows swept path analysis of an 8.4 metre long concrete lorry (the largest vehicle expected on site) and an 8 metre grab lorry manoeuvring to and from the site in this way.

The property benefits from a large garden and materials, site accommodation and plant will be stored on site. Where necessary, suitable ground protection such as ground-guards will be used to protect the underlying ground from compaction and will also protect tree roots from damage. Drawing 150431-01, attached at **Appendix E**, shows the proposed site plan showing where materials will be stored and the points of access to the site.

Demolition material and spoil will be removed from the site by grab lorries and concrete delivered directly to the site using ready mix lorries.

Q26. Please provide swept path drawings for any tight manoeuvres on vehicle routes to and from the site including proposed access and egress arrangements at the site boundary (if necessary).

Please refer to **Appendix G**. The swept path analysis demonstrates that there is room for construction vehicles to manoeuvre along Frogmal Way and turn outside the site without conflicting with cars that have been observed to park outside properties in the turning area at the end of the cul-de-sac.

Section 5 – Environmental Issues

To answer these sections please refer to the relevant sections of **Camden’s Minimum Standards for Building Construction (CMRBC)**.

Q27. Please provide details of the times of [noisy operations](#), outlining how the construction works are to be carried out.

The following measures will be implemented:

- Noisy work will be restricted to between 08:00 and 18:00 Monday to Friday and between 08:00 and 13:00 on Saturdays. No works will be carried out on Sundays and Bank Holidays.
- Where possible and practical, contractors will use well-maintained and silenced plant and equipment including compressors, generators and power tools.
- The Best Practicable Means (BPM), as defined in Section 72 of the Control of Pollution Act 1974, shall be employed at all times to reduce noise (including vibration) to a minimum, with reference to the general principles contained in British Standard BS5228: 2009 ‘Noise and Vibration Control on Construction and Open Sites’.

The contractor will provide further detail once appointed.

Q28. Please confirm when the most recent noise survey was carried out (before any works were carried out) and provide a copy. If a noise survey has not taken place please indicate the date (before any works are being carried out) that the noise survey will be taking place, and agree to provide a copy.

A noise survey will be carried out following the appointment of a contractor.

Q29. Please provide predictions for [noise](#) and vibration levels throughout the proposed works.

Details to be provided following the appointment of a contractor.

Q30. Please provide details describing mitigation measures to be incorporated during the construction/[demolition](#) works to prevent noise and vibration disturbances from the activities on the site, including the actions to be taken in cases where these exceed the predicted levels.

Details to be provided following the appointment of a contractor and a copy provided to the Council.

Q31. Please provide evidence that staff have been trained on BS 5228:2009

Details to be provided following the appointment of a contractor.

Q32. Please provide details on how dust nuisance arising from dusty activities, on site, will be prevented.

Hoardings bordering the frontage of the property along Froggnal Way will help contain any dust. Where required, scaffolding and sheeting can be erected to further contain dust. Water dampening will also be used if considered necessary. More details will be provided by a contractor once appointed.

Q33. Please provide details describing how any significant amounts of dirt or dust that may be spread onto the public highway will be prevented and/or cleaned.

Wheel and chassis wash facilities will also be provided on site for delivery and muck away vehicles in order to limit the potential for any transfer of material from the site. Any material transferred from the site to Froggnal Way will be promptly removed and any rutting or damage to the road surface promptly repaired by the raking of any loose surface materials.

Q34. Please provide details describing arrangements for monitoring of [noise](#), vibration and dust levels.

Details to be provided following the appointment of a contractor.

Q35. Please confirm that a [Risk Assessment](#) has been undertaken in line with the [GLA's Control of Dust and Emissions Supplementary Planning Guidance \(SPG\)](#), and the risk level that has been identified, with evidence.

Details to be provided following the appointment of a contractor.

Q36. Please confirm that all relevant mitigation measures from the [SPG](#) will be delivered onsite.

All relevant mitigation measures will be delivered. Further detail to be provided following the appointment of a contractor.

Q37. If the site is a High Risk Site, 4 real time dust monitors will be required, as detailed in the [SPG](#). Please confirm that these monitors will be installed 3 months prior to the commencement of works, and that real time data and quarterly reports will be provided to the Council detailing any exceedances of the threshold and measures that were implemented to address these.

Details to be provided following the appointment of a contractor.

Q38. Please provide details about how rodents, including [rats](#), will be prevented from spreading out from the site. You are required to provide information about site inspections carried out and copies of receipts (if work undertaken).

Details to be provided following the appointment of a contractor.

Section 6 – Monitoring, Compliance, Reporting and Consultation about Traffic and Activities related to the Site

(Refer to [Tfl best practice guidance](#) and [\(CMRBC\)](#) sections: [noise operations](#), abatement techniques, noise levels, vibration levels, [dust levels](#), rodent control, community liaison, etc.)

Q39. Please provide details describing how traffic associated with the development will be managed in order to reduce/minimise traffic congestion. Deliveries should be given set times to arrive, dwell and depart. Delivery instructions should be sent to all suppliers and contractors. Trained site staff must assist when delivery vehicles are accessing the site, or parking on the public highway adjacent to the site. Banksmen must ensure the safe passage of pedestrians, cyclists and motor vehicular traffic in the street when vehicles are being loaded or unloaded. Vehicles should not wait or circulate on the public highway. An appropriate location outside the borough may need to be identified, particularly if a large number of delivery vehicles are expected.

All traffic associated with the development will be managed by the Construction Project Manager. The following measures will be put in place:

- All deliveries shall be pre booked and allocated set arrival times;
- Delivery instructions shall be sent to all suppliers and contractors including the maximum dwell times;
- Suppliers shall call the Construction Project Manager a minimum of 20 minutes before their vehicle arrives at site to confirm that there is space to accommodate the vehicle on site;
- The loading/collection area within the site shall be clear of vehicles and materials before the next lorry arrives;
- Suitably qualified traffic marshals will be used as detailed at question 22;
- If loading space is unavailable construction vehicles shall not proceed to the site and will be given an alternative delivery slot;
- Vehicles shall not wait or stack on any road within the Borough;
- Vehicles will not obstruct Froggnal Way at any time in accordance with the guidelines specified at question 16.

Q40. Please provide details of any other measures designed to reduce the impact of associated traffic (such as the use of [construction material consolidation centres](#)).

The contractor will investigate the potential for using construction material consolidation centres and other measures to reduce the impact of traffic associated with the development works.

Q41. Please provide details of consultation on a draft CMP with local residents, businesses, local groups (e.g. residents/tenants and business associations) and Ward Councillors. Details should include who was consulted, how the consultation was conducted and a summary of the comments received in response to the consultation. In response to the comments received, the CMP should then be amended where appropriate and where not appropriate a reason should be given. The revised CMP should also include a list of all the comments received. Developers are advised to check proposed approaches to consultation with the Council before carrying it out.

Consultation is ongoing with the Froggnal Way Residents Association. Consultation and liaison with the FWRA will continue throughout the planning and build process.

The principal contacts for the FWRA are

Douglas Maxwell – resident and FRWA Honorary Secretary
Tel – 020 7435 2162
Mobile – 07801 418616
Email douglas@fwra.org.uk

Neil Norris – Road Manager
Mobile – 07941 071403
Email – neilnorris@sky.com

Q42. Please provide details of community liaison proposals including any Construction Working Group that will be set up, addressing the concerns of the community affected by the works. Please confirm how the contact details of the person responsible for community liaison will be advertised to the local community and how the community will be updated on the upcoming works i.e. in the form of a newsletter/ letter drop, or weekly drop in sessions for residents.

Consultation and liaison with the FWRA will continue throughout the planning and build process. A project meeting with the FWRA, main contractor, project manager and scheme architect will take place prior to the main contractor taking possession of the site. Further meetings will take place from time to time as required.

At the start of work on site, traffic marshals, site agent and relevant main contractor staff will attend an induction on the operation of the Frogal Way access barrier and action to be taken if problems occur. This will include requirements for essential access and arrangements if attendance of the emergency services should be required. If emergency services attend Frogal Way, the barrier is to be raised and left up and construction traffic movements suspended until emergency vehicles have left the road or confirmation has been given the movements can resume.

Q43. Please provide details of any schemes such as the ‘Considerate Constructors Scheme’, the ‘Freight Operators Recognition Scheme’ or ‘TfLs Standard for construction logistics and cyclist safety – [CLOCS scheme](#)’ that the project will be signed up to. Note, the [CLOCS standard](#) should be adhered to and detailed in response to question 46. Such details should form part of the consultation and be notified to the Council. Contractors will also be required to follow the “[Guide for Contractors Working in Camden](#)” also referred to as “[Camden’s Considerate Contractors Manual](#)”.

The main contractor will be registered with the Considerate Constructors Scheme and will follow Camden’s Considerate Contractors Manual. Further details of schemes to be provided following the appointment of a contractor.

Q44. Complaints often arise from the conduct of builders in an area. Please confirm steps being taken to minimise this e.g. provision of suitable smoking area, tackling bad language and unnecessary shouting.

Contractors and site personnel will be required to behave in a considerate and respectful manner towards the FWRA, residents and members of the public at all times. Contractors and personnel will not smoke on Frogal Way or gather on verges in front of properties on Frogal Way. All litter and waste will be disposed of on site and meals consumed in on site welfare facilities.

Q45. Please provide a plan of existing or anticipated construction sites in the local area and please state how your CMP takes into consideration and mitigates the cumulative impacts of construction in the vicinity of the site.

We are not aware of any other large development or works in prospect in, or accessed from, Frogna! Way. However we are aware of consented developments at numbers 1A, 2, 28, 40, 50 and 63 Frogna! and 44 Frogna! Lane. The Construction Project Manager will liaise with the Project Managers of the consented developments to ensure that deliveries are coordinated where possible. The contractor will continue to monitor the progress of planning applications in the area and will ensure that deliveries are coordinated with any consented schemes if appropriate.

Q46. Please provide details to confirm that all contractors and sub-contractors operating large vehicles over 3.5 tonnes will meet all of the following conditions, as outlined in the [CLOCS Standard](#)

OPERATIONS:

- **Quality operation:** accreditation via an approved fleet management audit scheme e.g. [Fleet Operator Recognition Scheme \(FORS\)](#) or equivalent.
- **Collision reporting and analysis:** of any collision involving injury to persons, vehicles or property, ideally including use of the [CLOCS](#) Manager collision reporting tool.
- **Traffic routing:** any route specified by the client is adhered to unless otherwise specified.

i. [VEHICLES:](#)

- **Warning signage:** warning cyclists of the dangers of passing the vehicle on the inside
- **Side under-run protection:** fitted to all vehicles over 3.5 tonnes which are currently exempt
- **Blind spot minimisation:** front, side and rear blind-spots completely eliminated or minimised as far as is practical and possible
- **Vehicle manoeuvring warnings:** enhanced audible means to warn other road users of a vehicle's left hand turn or other manoeuvres

ii. [DRIVERS:](#)

- **Training and development:** approved progressive training and continued progressive training especially around vulnerable road users (including for drivers excluded from Certificate of Professional Competence requirements)
- **Driver licensing:** regular checks and monitoring of driver endorsements and that drivers hold the correct licence for the correct vehicle

STANDARD FOR CONSTRUCTION CLIENTS

- **Construction logistics/management plan:** is in place and fully complied with – as per this document.
- **Suitability of site for vehicles fitted with safety equipment:** that the site is suitably prepared for vehicles fitted with safety equipment to drive across.
- **Site access and egress:** should be carefully managed, signposted, understood and be clear of obstacles.
- **Vehicle loading and unloading:** vehicles should be loaded and unloaded on-site as far as is practicable.
- **Traffic routing:** should be carefully considered, risk assessed and communicated to all contractors and drivers.
- **Control of site traffic, particularly at peak hours:** other options should be considered to plan and control traffic, to reduce traffic at peak hours.
- **Supply chain compliance:** contractors and sub-contractors throughout the supply chain should comply with requirements 3.1.1 to 3.3.2.

All contractors and sub-contractors operating large vehicles over 3.5 tonnes will be required to meet the conditions detailed above. Details will be provided following the appointment of a contractor.

Q47. Please provide details of any other relevant information with regard to traffic and transport (if appropriate).

N/A

The agreed contents of this Construction Management Plan must be complied with unless otherwise agreed with the Council. The project manager shall work with the Council to review this Construction Management Plan if problems arise in relation to the construction of the development. Any future revised plan must be approved by the Council and complied with thereafter.

It should be noted that any agreed Construction Management Plan does not prejudice further agreements that may be required such as road closures or hoarding licences.

Signed:

Date:

Print Name:

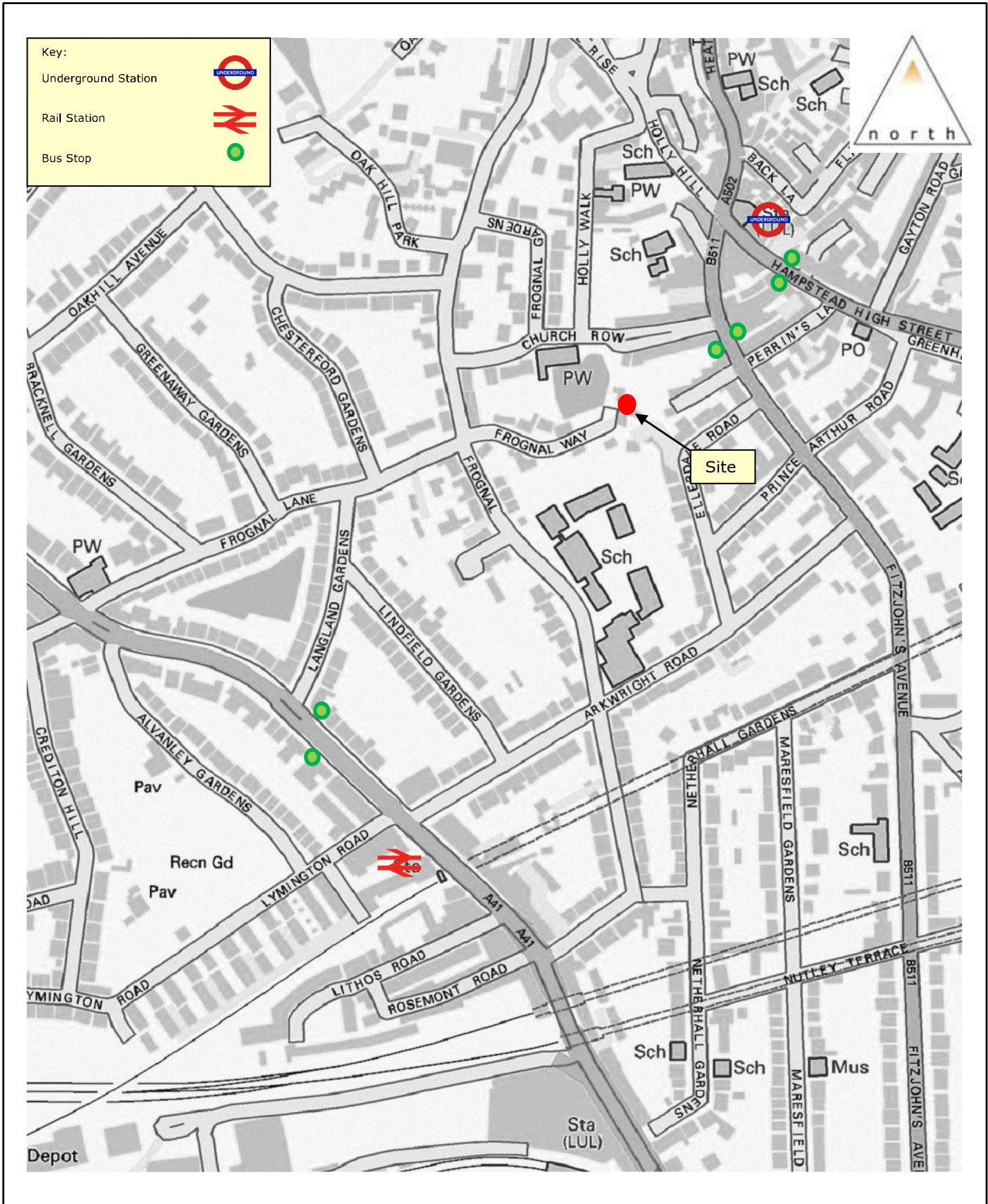
Position:

Submit: planningobligations@camden.gov.uk



Appendix A

Site Location Plan



22 Frogнал Way, London

Site Location Plan

Not to Scale

Appendix B

Pedestrian and Vehicle Access Plan

Key:

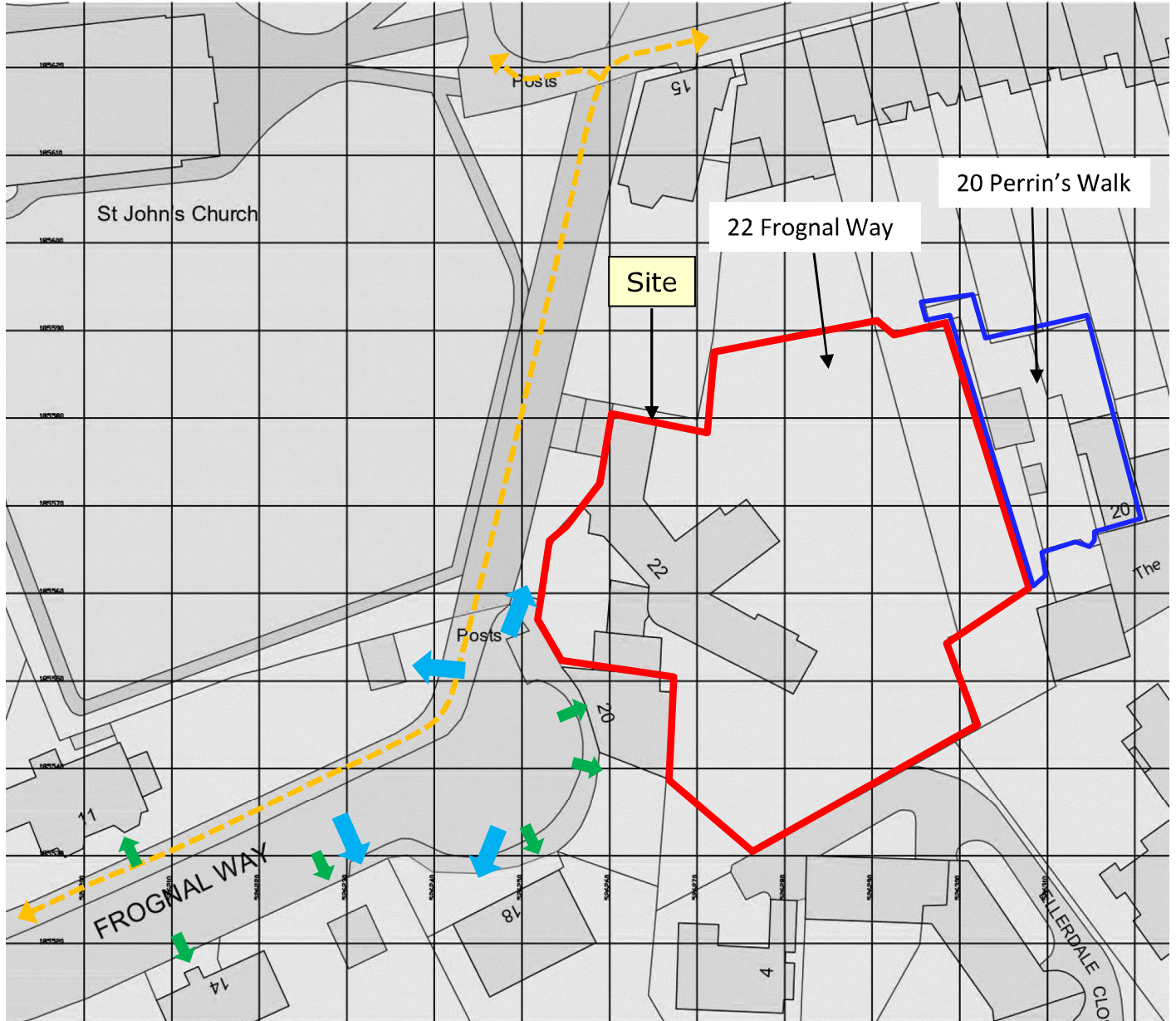
Vehicle Access



Pedestrian Access



Pedestrian Route



22 Frognal Way, London

**Location of Pedestrian and Vehicle Accesses
and Pedestrian Route**

Not to Scale

Appendix C

FWRA Construction Management for Large Projects

1.0 Introduction

Frognal Way is an unadopted road close to the centre of Hampstead with a gravelled surface, irregular grassed verges, and several street trees. The road is about 160 metres long and serves eleven houses, and provides access to two garages owned by residents in Church Row. It is a cul-de-sac for vehicles, and a footpath, which is part of Frognal Way but adopted, connects the road to Church Row and Hampstead village for pedestrians only. Access for motor vehicles is controlled by an automatic rising arm barrier at the junction with Frognal. The residents collectively are responsible for maintaining the road surface and the barrier, and for various other costs.

Frognal Way Residents Association (FWRA) was set up in its present form in 1998 to manage the road and preserve its amenities for the benefit of residents and the public, and in particular to control parking. Since the road is unadopted, the association is the street authority under the Street Works Act. On behalf of residents, it seeks the co-operation of individual owners in measures to limit the adverse effects of construction works on their fellow residents. Such owners will in turn benefit from the observance of these measures by new owners undertaking construction work in the future.

The contents of this document are derived from previous construction management plans, both voluntary and those required by the council as local planning authority pursuant to a Section 106 planning agreement. Some additions have been made in response to the specific circumstances of No 22. The provisions relate mainly to the management and control of construction traffic which, in Frognal Way, demands significantly more of the main contractor and management team than might be the case on similar sites elsewhere.

The document deals mainly with construction management as it affects Frognal Way. There are other requirements, both statutory and good practice, which are not necessarily covered here: for example working hours; site health, safety and welfare; building regulations; noise and dust mitigation; tree protection; reduction of waste and its responsible disposal; avoidance of pollution and contamination; general conduct of workpeople and so on. These are primarily matters for the main contractor and/or the consultants managing the project and are also covered by the Considerate Constructors Scheme with which all recent projects have been registered (see Section 6.9).

For this project, the association plans to take a less hands-on approach than on previous projects such as No 4 Frognal Way. In other words, the main contractor should take responsibility for managing construction traffic and other activities as set out in this document, and the project management team should ascertain at the outset that they have the necessary capability, and thereafter check that these activities are being satisfactorily managed. The association will maintain liaison both direct and through the project managers, but will not normally become involved on a day to day basis. This should not be taken to imply a lowering of residents' expectations in relation to construction management.

Disclaimer: nothing in this document reduces the responsibility of the property owner, consultants or contractors for the safe design, construction and management of the project including vehicle movements, and compliance with any laws relating thereto.

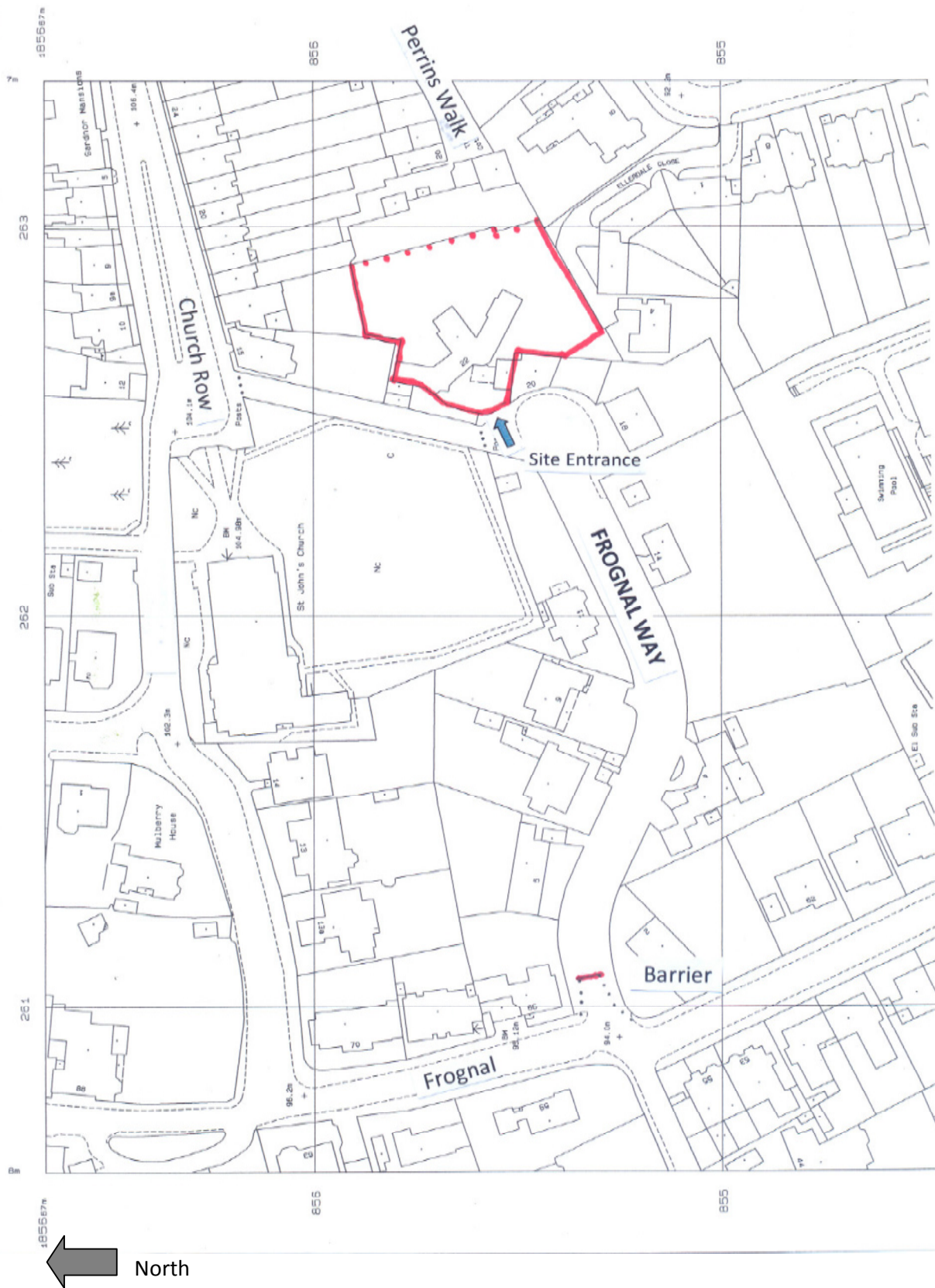


Fig 1 - Plan of Froggal Way (not to scale)

2.0 Background

Froggnal Way is unusually quiet for central London and has been described as semi-rural. For these reasons, it is popular with purchasers who seek an escape from urban life, and the houses command premium prices. In the last few years there have been three major house developments, as well as some work at No 22 itself carried out by the previous owners; and hence the road has seen significant construction activity. Rather than becoming accustomed to this however, residents appear to have become sensitised to it, and this has implications for the management of future projects.

Because the road is a cul-de-sac for vehicles there is only one way in and out, both for residents, local authority services such as refuse and recycling, and emergency services. Therefore it is essential that access is maintained along the road and to properties at all times, and it should never be blocked by construction traffic.

As mentioned above, motor vehicular access is physically controlled by an automatic barrier, with access limited to residents and their visitors and employees. These arrangements were introduced because of excessive parking by outsiders which regularly obstructed access to properties, in particular to No 22 itself (see Fig 2 below). The introduction of access control was only achieved with considerable cost and effort on the part of the residents; and as a result, parking control has remained a sensitive issue, and is the underlying reason for the very detailed requirements which appear later in this document.

Froggnal Way is shared surface, although parts of it have a paved margin along the northern edge; and pedestrians may be encountered anywhere. In term time these include large numbers of children travelling to, from and between schools, sometimes in large unsupervised groups. Because of the infrequency of vehicular traffic in the road, a lowering of road safety awareness has been observed on the part of both children and adults.



Fig 2 - Parking in 2002 before establishment of access control and barrier

3.0 Key Principles

3.1 Vehicles

- 3.1.1 Vehicles should not obstruct the road at any time, even for a short period. If necessary vehicles must wait outside Frogmal Way.
- 3.1.2 Vehicles should not park or wait in the 'bellmouth' area at the entrance to Frogmal Way at any time, even for a short period. In particular, vehicles must never be left unattended in front of the barrier on either side.
- 3.1.3 Vehicles should not obstruct personnel or vehicular access to properties, nor the pedestrian route to Church Row, at any time, even for a short period (see Section 4.0 and Fig 5 below).
- 3.1.4 Vehicles should not park or wait in the road at any time, even for a short period, except outside the site gates (see Section 4.0 below).
- 3.1.5 Vehicles should keep to a safe speed not exceeding 5 mph in Frogmal Way.
- 3.1.6 Vehicles should not reverse unsupervised, except for short distances as necessary to turn or park.

3.2 Additional requirements for HGVs (vehicles over 7.5 tonnes ie. skip lorry size and above).

- 3.2.1 HGVs should give the main contractor advance warning of their arrival on site by mobile telephone or radio, and should not attempt to enter Frogmal Way unless or until permission to do so has been given.
- 3.2.2 HGVs should be manually supervised by one or more banksmen when passing through the barrier in either direction, and when reversing, turning or manoeuvring.
- 3.2.3 Additional supervision should be provided for very large vehicles, particularly when they need to enter or leave the road in reverse, or reverse the full length of the road to / from the site.
- 3.2.4 The barrier should be manually operated by the duty traffic marshal using the override key when HGVs are entering or leaving. Keypad or remote operation by the driver should not be used.

3.3 Other

- 3.3.1 Only vehicles necessary for the actual carrying out of the works should travel to site. Site operatives should travel by public transport, or if necessary, park in adjoining streets.
- 3.3.2 HGVs should remain at site for no longer than necessary to load or unload. Drivers' compulsory work breaks ("tacho breaks") should not be taken in the road.



Fig 3 – Junction of Frogal Way and Frogal showing barrier



Fig 4 – Approach to No 22 Frogal Way. Site entrance is on the left

4.0 22 Frogna! Way

Much of the material in this document is derived from experience on earlier developments in Frogna! Way, notably No 4. The circumstances on the No 22 project differ in two important ways:-

a – The site is out of view of the junction with Frogna! and the barrier, and is much further from it – more than twice the distance.

b – Personnel and vehicular access to five other properties are located close to the site entrance, as is the pedestrian route to Church Row. No 22 has very little frontage to Frogna! Way (see Fig 5 below).

On the other hand, and depending on the development proposals adopted, the site is quite large and some parking for construction traffic on site would be available to compensate for this. This is a factor which should be taken into account in the logistics planning and programming of the works. Parking and / or access may also be available in or from Perrins Walk.

Under these circumstances, the project is expected to require a traffic marshal on duty at the junction with Frogna! during working hours, who is in radio or telephone contact with the site. This may be a member of the contractor's staff or alternatively, the function may be contracted out to a specialist firm. Traffic marshalling is dealt with further in the following section.

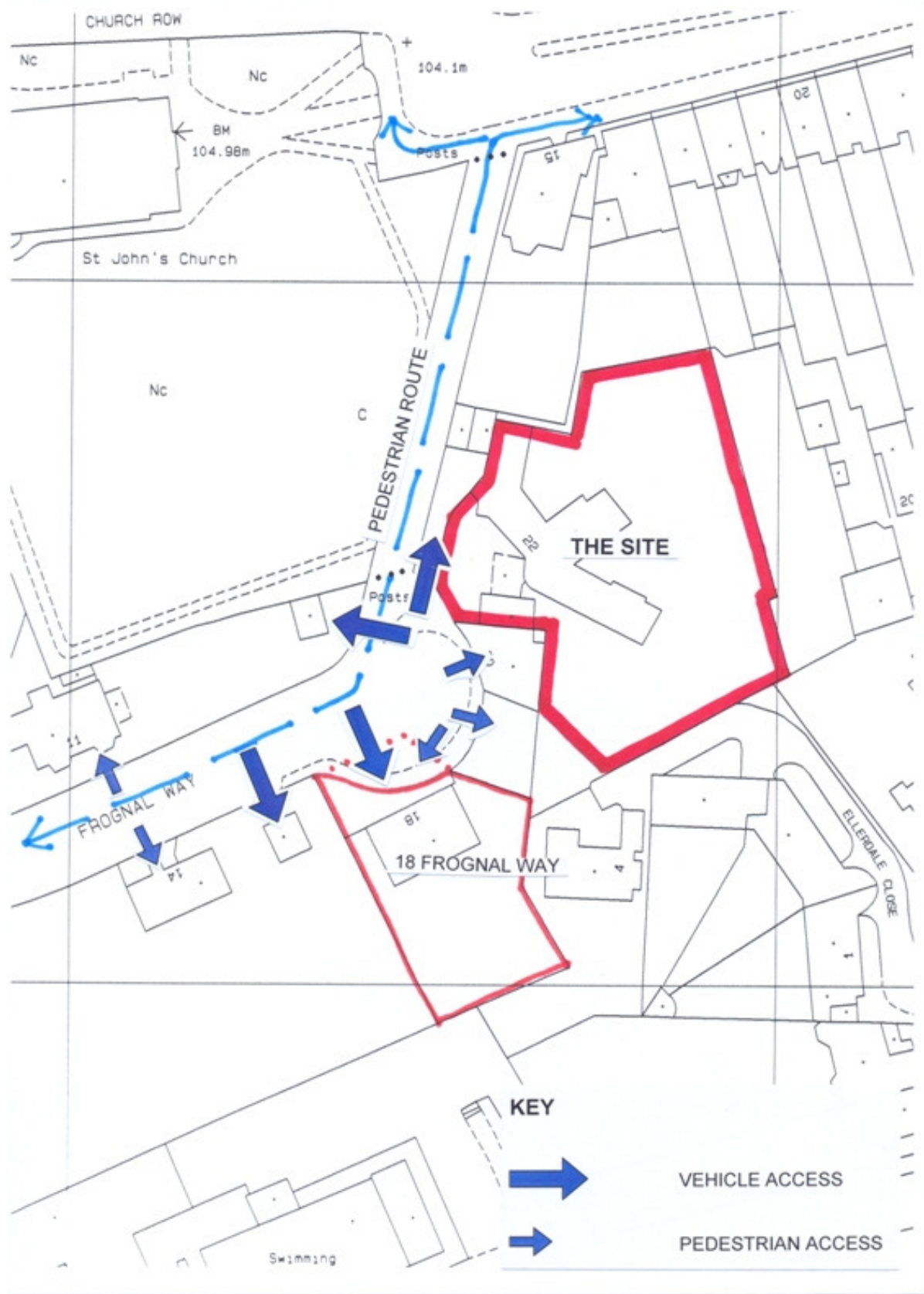


Fig 5 – Plan of site showing pedestrian route and positions of vehicle and pedestrian access to properties (not to scale)

5.0 Methodology

The following is a suggested approach to construction traffic and access management for the No 22 Frogal Way project. It is broadly similar to that employed on No 4 Frogal Way, save as indicated in the preceding section.

5.1 Pre-Construction

5.1.1 There should be an overall construction plan designed to facilitate construction of the works and taking account of, for example, sequence of working across the site eg. north-east to south-west; lifting arrangements for materials and equipment over the existing house, if applicable.

5.1.2 The number and sizes of vehicles coming to site should be the minimum needed to carry out the works safely and efficiently.

5.1.3 Consideration should be given to the size of plant and equipment needed for the works and the transport needed to bring and remove them. This should as far as possible be within the sizes that can transit the barrier safely.

In the event that large plant and machinery or large components need to be delivered / removed from site, arrangements should be discussed at an early stage with FWRA. Residents should be informed in advance and in writing, either by the contractor or FWRA, as may be agreed.

5.1.4 Provision should be made for operation of a permit to enter road system; supervision of HGVs as described above; and, most importantly, the stationing of a responsible senior person at the barrier to act as traffic marshal (see Informatives).

Additional traffic marshals should be available to cover breaks, holidays, absences etc. When on duty, the traffic marshal should undertake traffic marshalling only, and should never be diverted onto work on site, road tidying etc.

Note: during large vehicle movements, the duty traffic marshal may direct the movements of other trade vehicles unconnected with the works as reasonably necessary, but should give priority to emergency services vehicles and utilities vehicles on call-out.

5.1.5 The number of HGV movements per day and sizes of vehicles should be agreed between the project manager / main contractor and FWRA and incorporated into the construction management plan. The number of movements should not exceed the capacity of the road / site to accommodate them in accordance with Section 3 (and especially 3.1.4).

5.1.6 At the start of work on site, the traffic marshals, site agent and other main contractor staff as required should attend an induction on the operation of the barrier, and the action to be taken if a problem arises.

5.2 Construction Phase

- 5.2.1 Vehicles should normally be admitted by the duty traffic marshal. If there is no room on site / in the road, vehicles should be diverted elsewhere to wait until other contractor's vehicles have left the road.
- 5.2.2 HGVs (see Section 3) should not normally arrive or depart outside permitted working hours.
- 5.2.3 HGVs should be banked through the barrier and if necessary along the road. Long vehicles which need to enter in reverse should be banked the full length of the road with additional banksmen as necessary.
- 5.2.4 HGVs should only be admitted one at a time, unless there is room for more than one on the site. HGVs should never be allowed to back up along Froggnal Way or 'wait' in front of adjoining properties.
- 5.2.5 The barrier should not be left raised except when vehicles are passing through, if there has been a malfunction, or for emergency access (see 5.3.2).
- 5.2.6 During the spoil removal ('muckaway') stage of the works, wheel and chassis washing should take place before vehicles leave site. Any material from site deposited in Froggnal Way should be promptly removed, and rutting or damage of the road surface made good eg. by raking.
- 5.2.7 Tracked vehicles should not be driven on the road. Where works outside the site boundary are required (see 5.4 below), rubber tracked plant should be used.
- 5.2.8 Skips should be loaded and unloaded on site and not placed on the road at any time, even while skips are being exchanged. Skips should not be dragged or pushed along the road surface.
- 5.2.9 Materials and equipment should be stored on site and not be placed or stored in the road at any time. Loose items, such as plastic traffic cones, should never be left in the road overnight.
- 5.2.10 The contractor may not alter the road surface outside the site boundaries, for instance by laying additional hard standing, even if it is temporary.
- 5.2.11 No contaminants, mud or slurry may be discharged to the road drainage gullies.
- 5.2.12 Every care should be taken to avoid damage to property, including the barrier, street furniture, lamp posts and lanterns. If such damage does occur, FWRA should be notified together with the owner or the local authority as appropriate.
- 5.2.13 Except as provided in 5.4 below, no works should take place in the road other than loading and unloading. Vehicles waiting in front of the site gates should switch off engines.

5.2.14 During the finishing stages of the project, when a number of different trades may be on site, the main contractor should remain responsible for traffic management unless the responsibility is passed on with the agreement of FWRA. Unless devolved as above, this responsibility should extend to all trade vehicles, including persons for whom the employer is responsible ie. who are not subcontractors.

5.3 Essential Access

5.3.1 Local authority and similar vehicles ie. Camden contractors, refuse collection vehicles, utilities etc. should normally be given priority access.

5.3.2 If emergency services attendance is required, the barrier should be raised and left up. Emergency services vehicles arriving at the barrier in response to a voice or automated emergency call must be allowed immediate access to the road. Construction traffic movements should be suspended until the emergency services have left the road, or indicated they can resume. The barrier should be lowered when the emergency is over.

5.4 Works in Froggnal Way

5.4.1 This subsection applies to necessary works beyond the site boundary including mains services connections / renewals, FTTP cable installation, works to perimeter walls and surface treatment at the junction of the site and the road.

5.4.2 Arrangements for such works should be discussed in advance with FWRA and, if directed, the owners of neighbouring properties in Froggnal Way.

5.4.3 Works involving excavation other than in the immediate vicinity of the site eg. FTTP cable installation will require the prior agreement of FWRA and individual residents, and discussion should be opened with FWRA at an early stage.

5.4.4 Access along the road and to properties should be maintained throughout (see above, especially Section 3 Key Principles). If in exceptional cases this is not possible, the main contractor should submit proposals in advance to FWRA and, if directed, the owners of neighbouring properties in Froggnal Way. These should include dates and times of work, the length of time access will be interrupted, and arrangements for emergency access to affected properties (including the site) in case it is required.

5.5 Other Development

5.5.1 The association is not aware of any other large developments or works in prospect in, or accessed from, Froggnal Way. If such are commenced, the main contractor should co-operate with the other contractor(s) in relation to traffic movements and similar matters.

6.0 Other Requirements

The following are additional requirements not covered elsewhere:-

- 6.1 There should be an appropriate site security procedure set up by the project managers and /or main contractor and operating 24/7.
- 6.2 There should be a 24/7 emergency contact number (and preferably a second back up number) available to all residents in case of emergencies out of hours. This number should be displayed on the site hoarding and connect directly to a human operator without the need for queuing, voicemail, or menu navigation.
- 6.2 On the assumption that FWRA, the project management team and the main contractor (when appointed) will maintain regular liaison, a formal complaints procedure is not considered necessary as part of these arrangements.
- 6.3 An initial project meeting should take place prior to the main contractor taking possession of the site, to include FWRA, the main contractor, the project manager and the architects. Further meetings should take place from time to time if required, or if necessary to resolve issues.
- 6.4 Refuse is collected once a week usually on Wednesdays in the morning (see 7.0 Informatives). HGV movements should be avoided and other traffic scheduled so far as possible to avoid these times.
- 6.5 Traffic marshals should be experienced and responsible senior personnel, fluent in English, and with the necessary personal authority to gain the co-operation of construction vehicle drivers. Traffic marshals should wear high visibility yellow clothing with the contractor's name and TRAFFIC MARSHAL on back and front.
- 6.6 Site welfare facilities should be provided in accordance with H&S requirements and normal practice with the intention that these be used for meal breaks etc. Workpeople should not sit on the verges etc. in front of other properties nor smoke in the road.
- 6.7 All waste and litter should be disposed of on site and not placed in the street bins, nor in residents' refuse bins. This includes both waste arising from the works and operatives' personal litter (see 7.4 below).
- 6.8 Workpeople should at all times behave in a considerate and respectful manner towards the association's personnel and residents. In the event of a serious or repeated breach, the association may seek the exclusion of the individual(s) concerned from site under the terms of the construction contract.
- 6.9 The main contractor or the site should be registered with the Considerate Constructors Scheme and its requirements fully complied with. All recent developments in the road have been so registered.

7.0 Informatives

- 7.1 The barrier at the entrance to Frogal Way is approximately 3.450 metres clear opening, but the effective width for high sided vehicles may be reduced by the cross camber. This is for guidance only, and contractors should carry out their own assessment.
- 7.2 Underground services run along Frogal Way, including some which may not be recorded; in particular connections to individual properties, and services to and around the barrier.
- 7.3 Local authority refuse and recycling collections normally take place on Wednesday mornings. Following public holidays, this sometimes moves to Thursday, and over Christmas and the New Year the days may change entirely. The collection days and any changes are posted on the council's website.

On collection days there are usually three separate collections, and HGV movements should be avoided while these are carried out (see 5.0 Methodology). Collections start at 0700 and are usually complete by 1000.

- 7.4 Litter removal in the main part of Frogal Way is carried out by the association, and not by the local authority. This includes providing, emptying and maintaining the green street bins (see 6.7 above).
- 7.5 Frogal Way is not gritted by the local authority in the event of snow and ice, and the association does not normally carry this out. The main contractor may arrange for gritting with the prior agreement of FWRA, at the contractor's expense unless otherwise agreed beforehand.
- 7.6 The principal contacts for Frogal Way Residents Association are:-

Douglas Maxwell – resident and FWRA honorary secretary

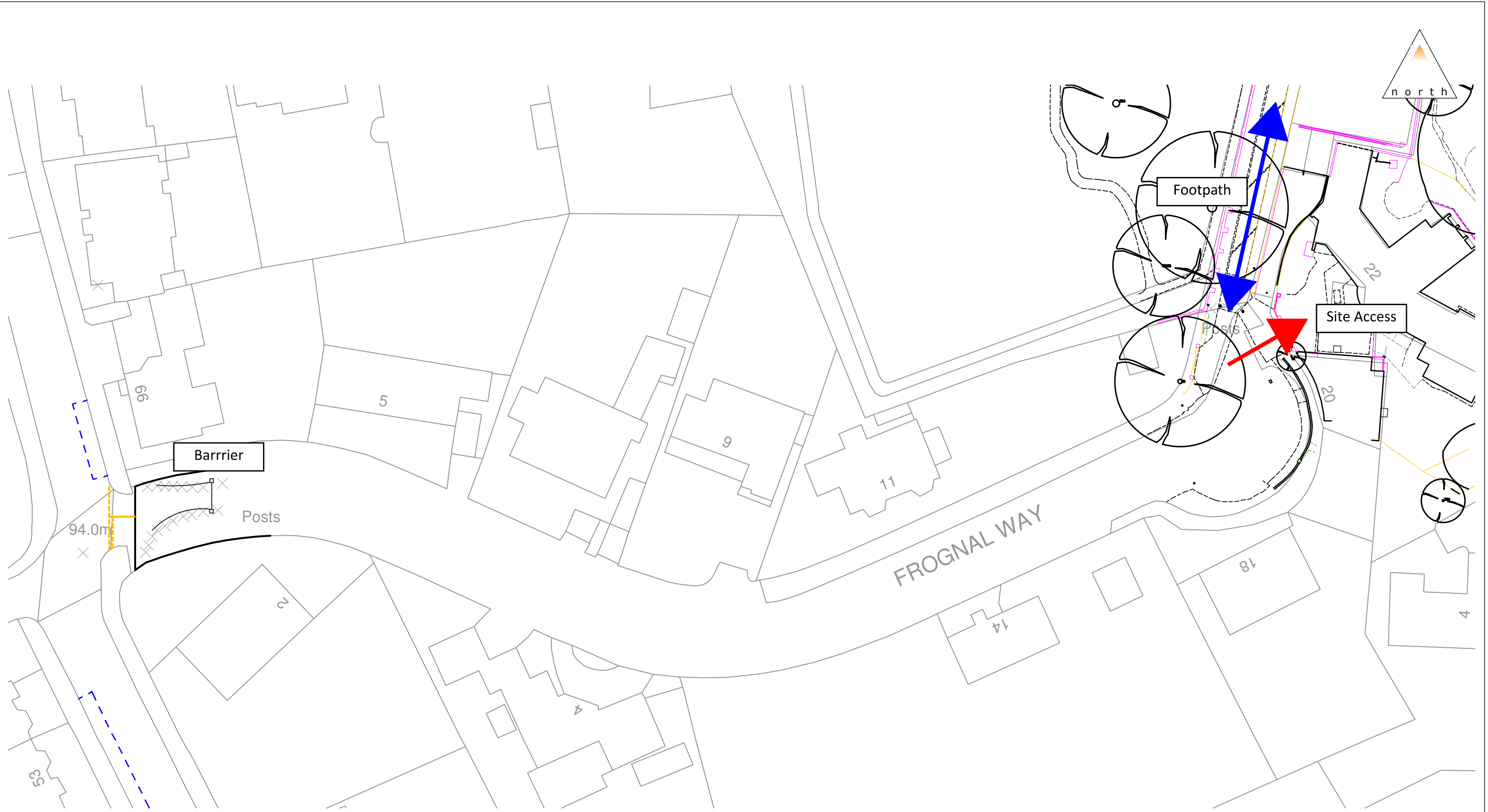
Tel 020 7435 2162
Mobile 07801 418616
E-mail douglas@fwra.org.uk

Neil Norris – road manager

Mobile 07941 071403
E-mail neilnorris@sky.com

Appendix D

Existing Highway Arrangement



LEGEND	
Resident Permit Holders Only	---

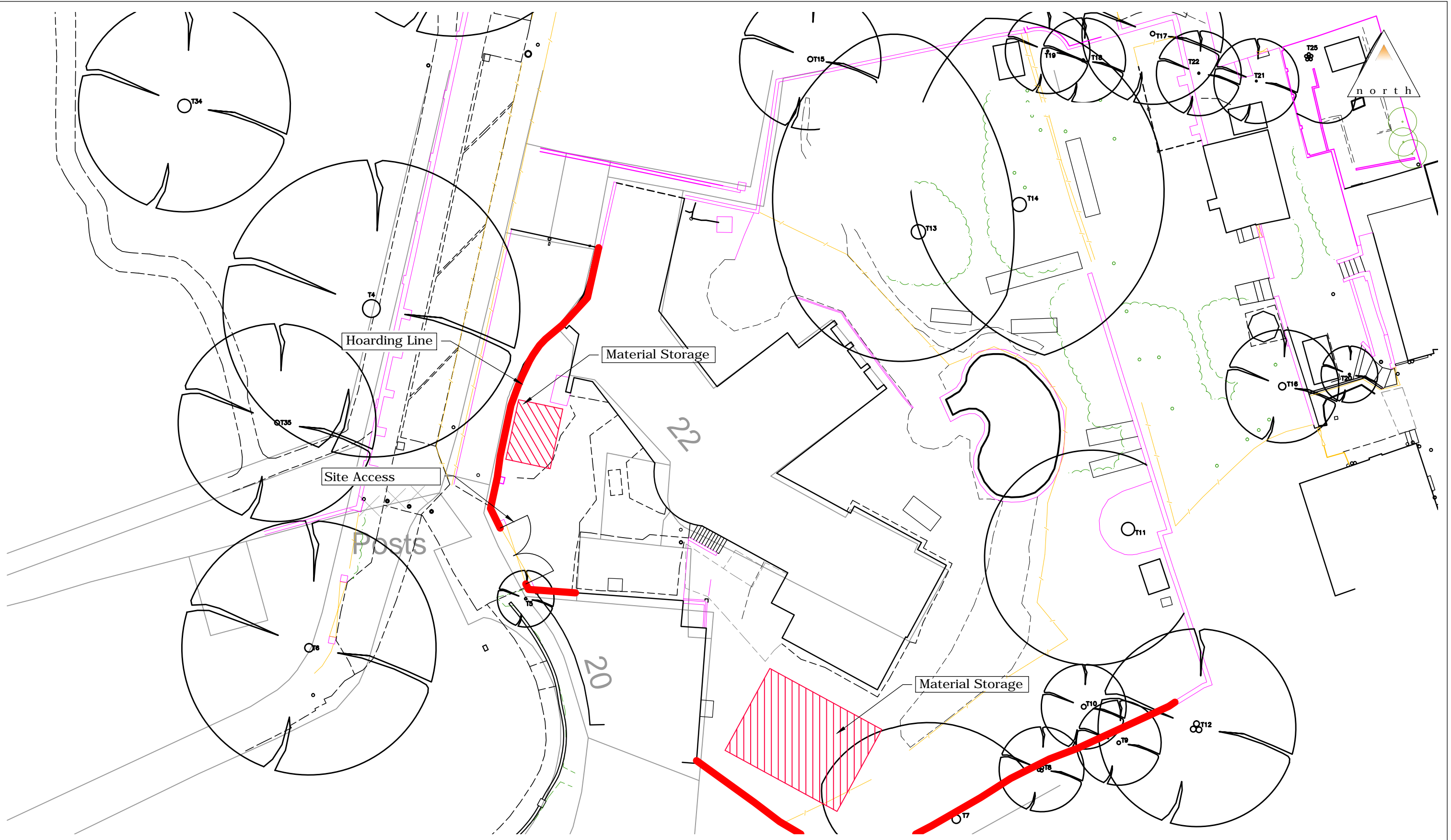

 232 High Street
 Guildford
 Surrey
 GU1 3JF
 T: 01483 531 300
 www.motion-uk.co.uk

Golden Cross House
 8 Duncannon Street
 London
 WC2N 4JF
 T: 020 7031 8141

Project: 22 Froggnal Way	
Title: Existing Highway Arrangement	
Scale: 1:500 (@ A3)	
Notes:	Drawing: 150431-02
	Revision: -

Appendix E

Site Set Up



232 High Street
 Guildford
 Surrey
 GU1 3JF
 T: 01483 531 300

Golden Cross House
 8 Duncannon Street
 London
 WC2N 4JF
 T: 020 7031 8141

www.motion-uk.co.uk

Project:
 22 Frogmal Way

Title:
 Site Set-Up

Scale: 1:500 (@ A3)

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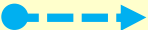

Drawing:
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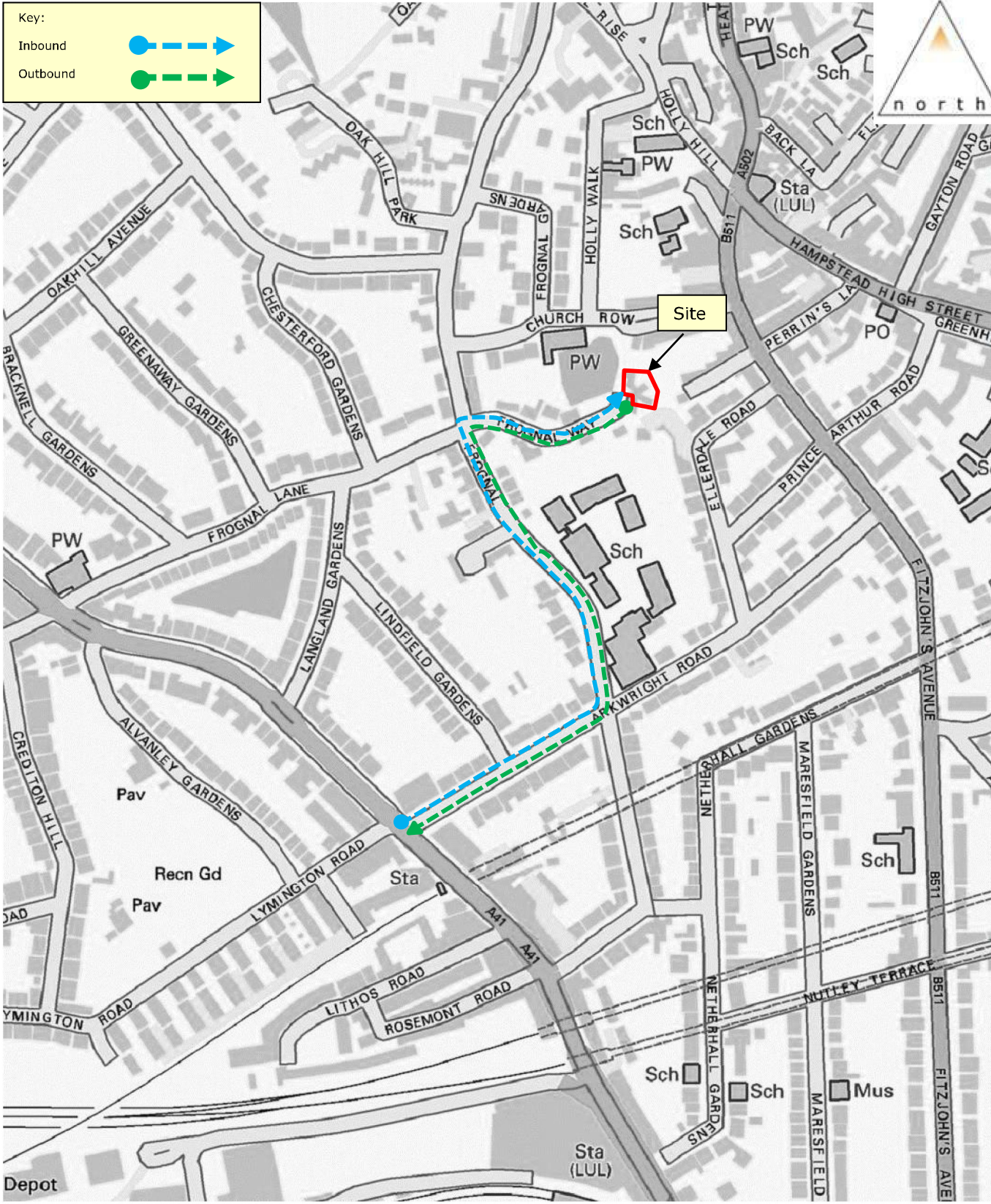
Revision:

Appendix F

Routeing Plan

Key:

- Inbound 
- Outbound 



22 Frognal Way, London

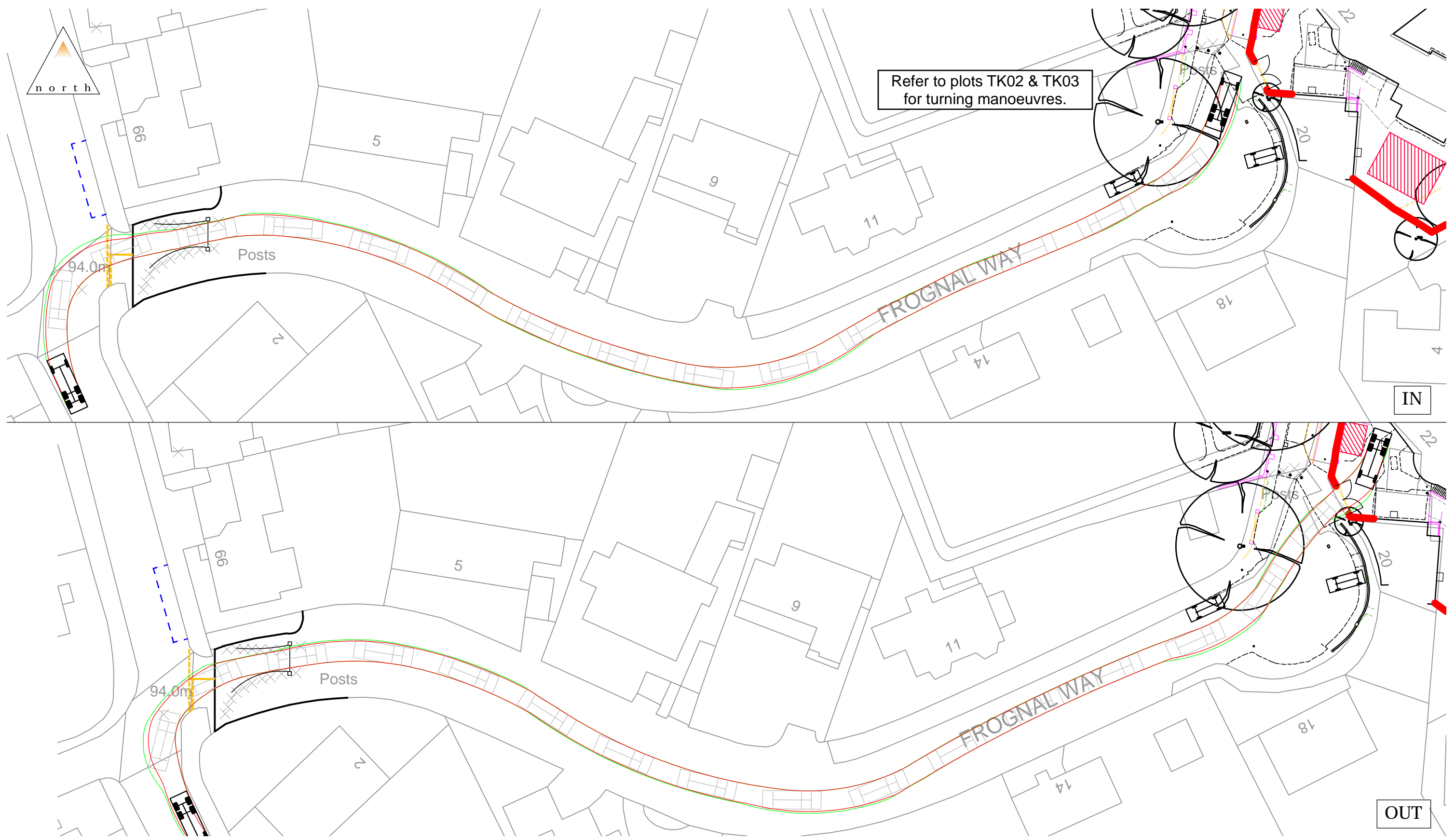
Vehicle Routeing Plan

Not to Scale

Appendix G

Swept Path Analysis

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Mercedes Actros Rigid Tipper 6x4 2632K

Overall Length	8.040m
Overall Width	2.490m
Overall Body Height	3.191m
Min Body Ground Clearance	0.257m
Track Width	2.490m
Lock to Lock Time	5.00s
Wall to Wall Turning Radius	8.750m

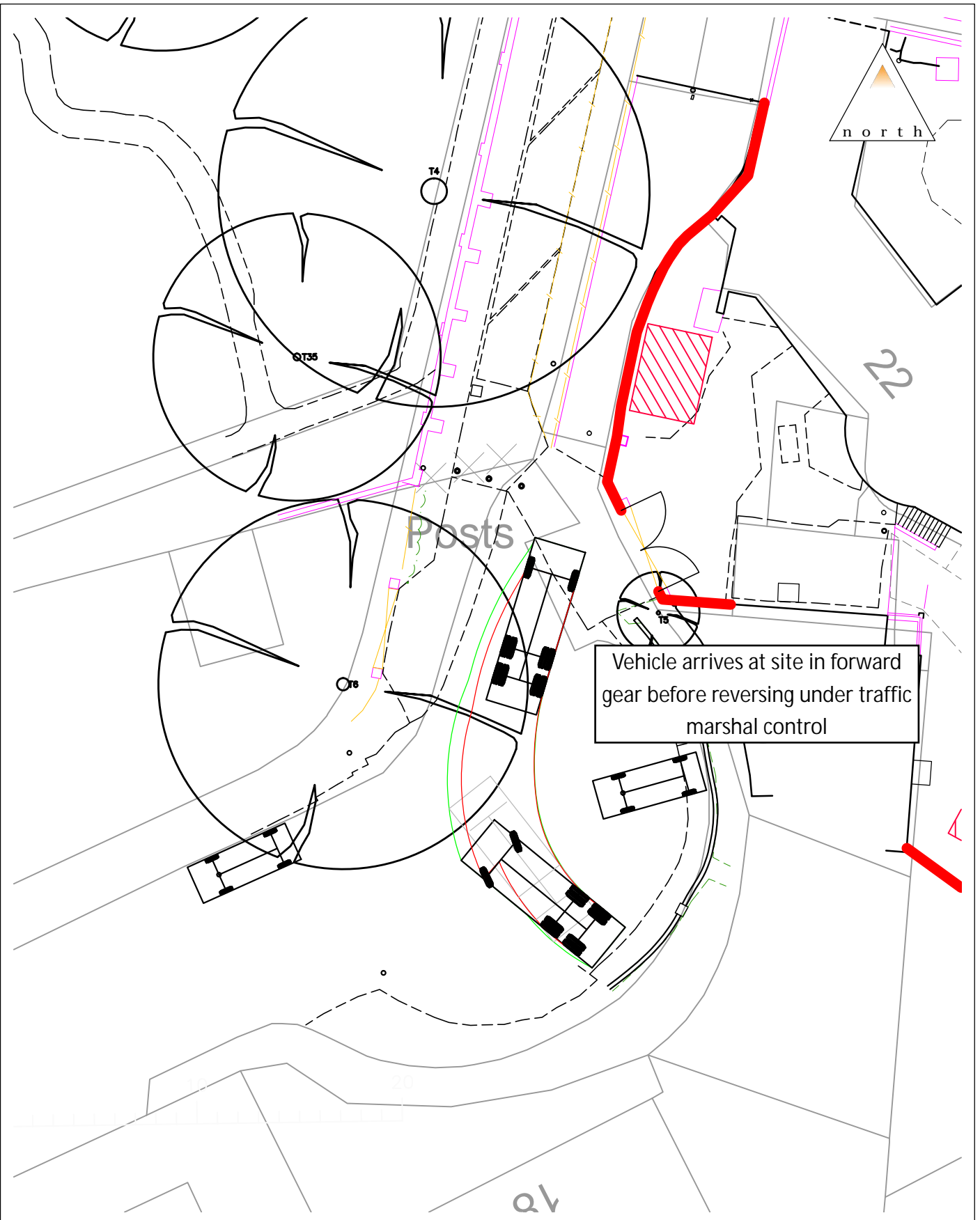
232 High Street
Guildford
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GU1 3JF
T: 01483 531 300

Golden Cross House
8 Duncannon Street
London
WC2N 4JF
T: 020 7031 8141

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Project: 22 Frognal Way	
Title: Swept Path Analysis	
Scale: 1:500 (@ A3)	
Notes:	Revision: -
Drawing: 150431-TK01	

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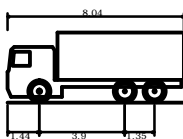
232 High Street
 Guildford
 Surrey
 GU1 3JF

T: 01483 531 300

Golden Cross House
 8 Duncannon Street
 London
 WC2N 4JF

T: 020 7031 8141

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Mercedes Actros Rigid Tipper 6x4 2632K
 Overall Length 8.040m
 Overall Width 2.490m
 Overall Body Height 3.191m
 Min Body Ground Clearance 0.257m
 Track Width 2.490m
 Lock to Lock Time 5.00s
 Wall to Wall Turning Radius 8.750m

Project:

22 Frognal Way

Title:

Swept Path Analysis
 Entry Manoeuvre Pt 1

Scale: 1:250 (@ A4)

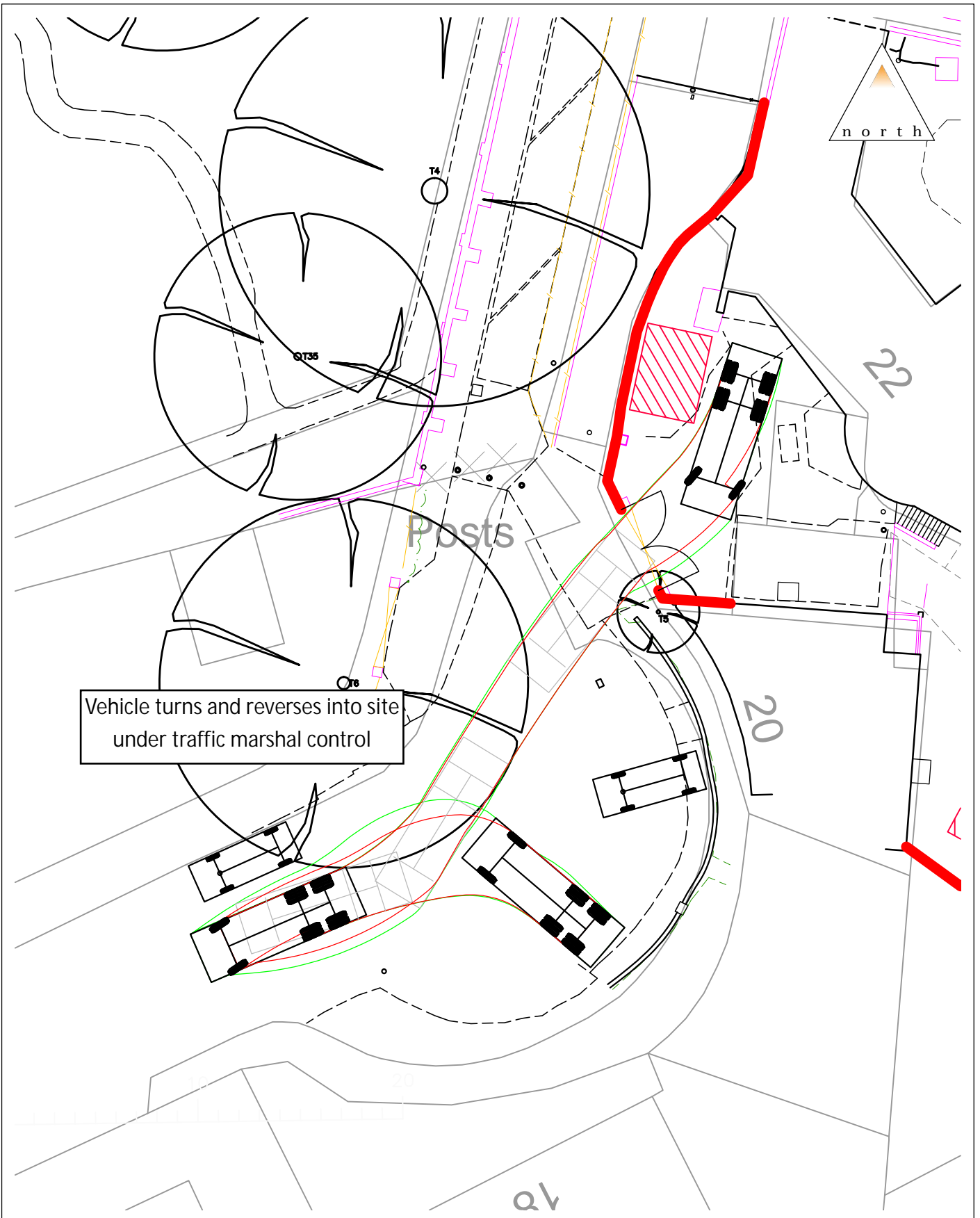
Drawing:

150431-TK02

Revision:

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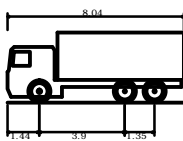
232 High Street
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T: 01483 531 300

Golden Cross House
 8 Duncannon Street
 London
 WC2N 4JF

T: 020 7031 8141

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Mercedes Actros Rigid Tipper 6x4 2632K
 Overall Length 8.040m
 Overall Width 2.490m
 Overall Body Height 3.191m
 Min Body Ground Clearance 0.257m
 Track Width 2.490m
 Lock to Lock Time 5.00s
 Wall to Wall Turning Radius 8.750m

Project:

22 Frogmal Way

Title:

Swept Path Analysis
 Entry Manoeuvre Pt 2

Scale: 1:250 (@ A4)

Drawing:

150431-TK03

Revision:

-



Refer to plots TK05 & TK06 for turning manoeuvres.

94.0m

Posts

FROGNAL WAY

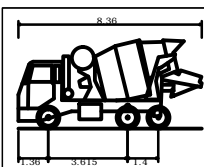
IN

94.0m

Posts

FROGNAL WAY

OUT



Concrete Mixer	
Overall Length	8.360m
Overall Width	2.390m
Overall Body Height	4.027m
Min Body Ground Clearance	0.358m
Max Track Width	2.413m
Lock to Lock Time	6.00s
Kerb to Kerb Turning Radius	8.210m



232 High Street	Golden Cross House
Guildford	8 Duncannon Street
Surrey	London
GU1 3JF	WC2N 4JF
T: 01483 531 300	T: 020 7031 8141

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Project:
22 Frognal Way

Title:
Swept Path Analysis

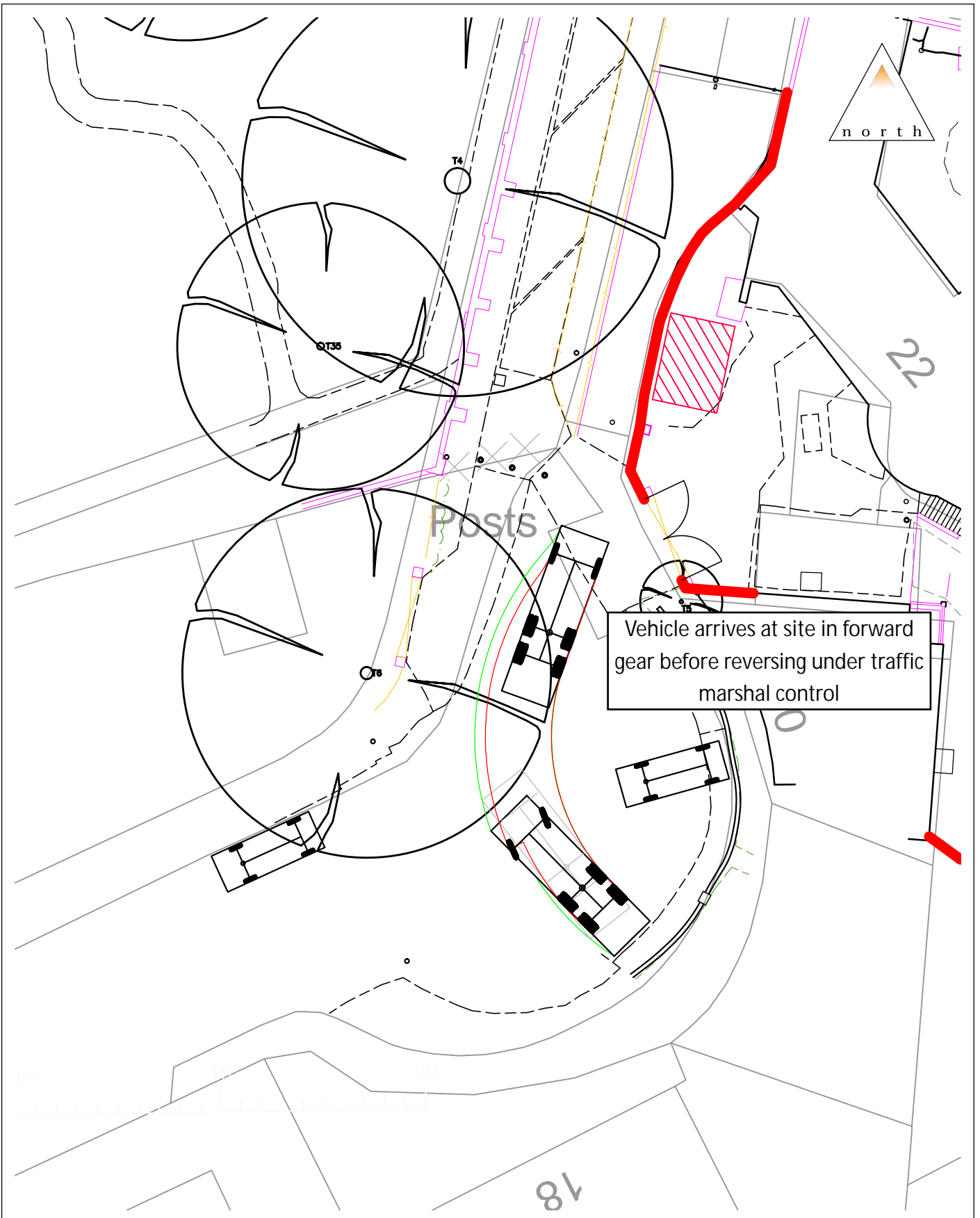
Scale: 1:500 (@ A3)

Notes:

Drawing:
150431-TK04

Revision:
-

L:\Projects\22 Frognal Way\Drawings\150431-TK04-TK05-TK06.dwg



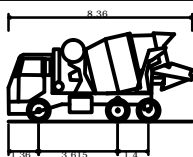
232 High Street
Guildford
Surrey
GU1 3JF

T: 01483 531 300

Golden Cross House
8 Duncannon Street
London
WC2N 4JF

T: 020 7031 8141

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Concrete Mixer
Overall Length
Overall Width
Overall Body Height
Min Body Ground Clearance
Max Track Width
Lock to Lock Time
Kerb to Kerb Turning Radius

8.360m
2.390m
4.027m
0.358m
2.413m
6.00s
8.210m

Project:

22 Frognal Way

Title:

Swept Path Analysis
Entry Manoeuvre Pt 1

Scale: 1:250 (@ A4)

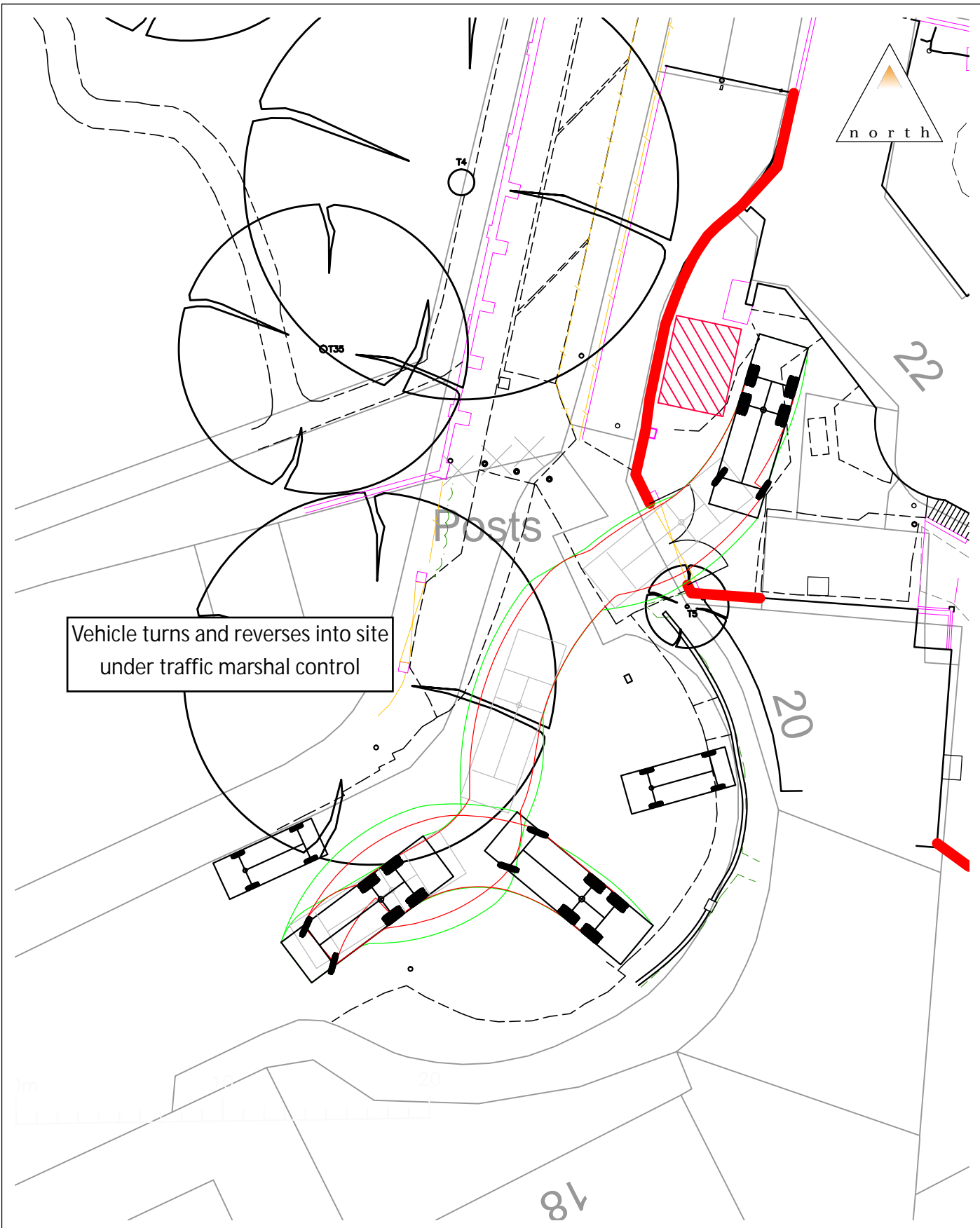
Drawing:

150431-TK05

Revision:

-

L:\Projects\22 Frogmal Way\Drawings\150431-TK04-TK05-TK06.dwg



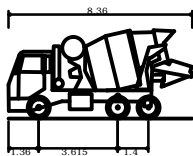
232 High Street
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Concrete Mixer
 Overall Length 8.360m
 Overall Width 2.390m
 Overall Body Height 4.027m
 Min Body Ground Clearance 0.358m
 Max Track Width 2.413m
 Lock to Lock Time 6.00s
 Kerb to Kerb Turning Radius 8.210m

Project:

22 Frogmal Way

Title:

Swept Path Analysis
 Entry Manoeuvre Pt 2

Scale: 1:250 (@ A4)

Drawing:

150431-TK06

Revision:

-