



THAKEHAM

Construction Environmental Management Plan

Hardriding Farm, Pease Pottage, West Sussex



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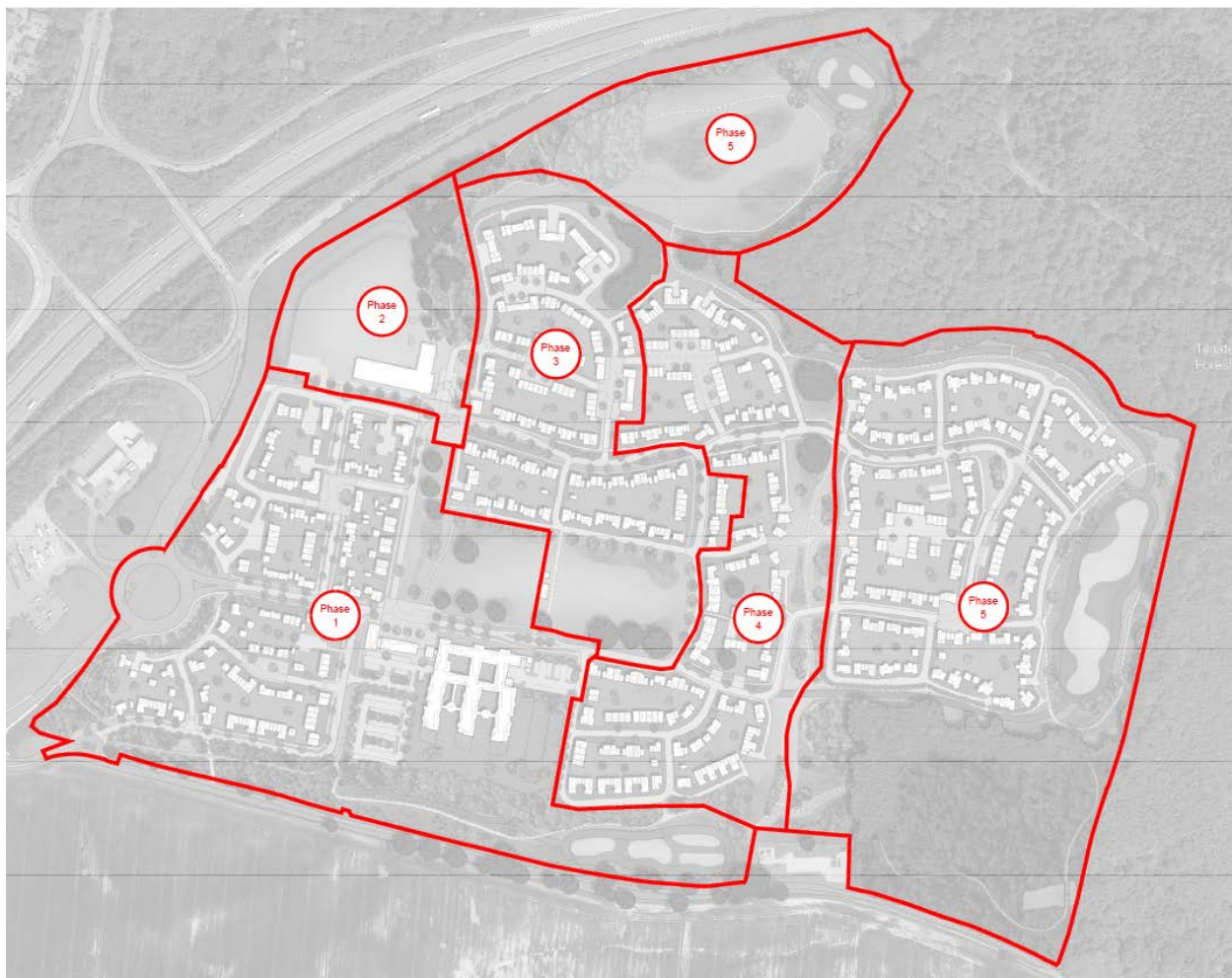
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1.0 Introduction

1.1 General

This Construction Environmental Management Plan (CEMP) is for a phased development of up to 619 dwellings, a care facility, community building, primary school and all associated infrastructure including highway works, utilities, drainage, and landscaping as permitted under Outline planning consent from Mid Sussex District Council Ref: DM/15/4711 dated 28 November 2016. The entire scheme is being delivered by Thakeham whereas the new care facility is being constructed by St. Catherine's Hospice. Both organisations will liaise closely with one another to ensure a coordinated approach in the delivery of the scheme.

The CEMP is structured to cover the whole development and its environment together with five chapters dealing with each of the five main phases as set out for identification purposes below. The CEMP for each subsequent phase will be completed following approval of Reserved Matters and prior to commencement of works contained within that phase.



1.2 Objectives

The purpose of a CEMP is to outline how a construction project will avoid, minimise or mitigate effects on the environment and surrounding area. It is a 'live' document that is to be reviewed and updated at regular intervals throughout the project life cycle.

The CEMP is not intended to be used to discharge planning conditions (other than Conditions 4, 17, and 24 of the Outline consent), nor is it intended to be a detailed summary of specialist disciplines, such as drainage or ecology. It is therefore important to cross reference the supporting documents that were submitted with

the Outline and Reserved Matters planning applications with this document. The CEMP will be provided to all contractors and suppliers at the procurement stage and kept on site to enable the pertinent chapters to be reinforced to each operative during the site induction and tool box talks.

1.3 Site Description, History, and Current Use

The site comprises an irregular shaped parcel of land, the majority of which is cultivated agricultural fields with a general downward slope in an easterly direction from a high point near Hardriding Farm located in the north-western part of the site on the Phase 1 & 2 boundary. The agricultural fields are interspersed within lines of mature trees with further mature vegetation present adjacent to the northern and eastern boundaries. A few farm buildings are present at the location of Hardriding Farm with the area immediately beyond to the north being used as a green waste recycling facility and the siting of a single mobile phone mast. The western most part of the site is laid to lawn with intermittent tarmac hardstanding and used for car boot sales.

An area of designated Ancient Woodland is in Phase 3 on the northern part of the site however this is currently occupied with the various outbuildings, stores, and the green recycling waste facility.

1.4 Surrounding Land Uses

The site is bound to the north and north-west by the M23 J11 southbound off-slip with Tilgate forest beyond and to the east; to the south by Parish Lane, an SGN gas supply facility, further agricultural fields, and commercial properties including a vehicle recycling centre; to the west the motorway service station with the village of Pease Pottage the other side of the motorway which is connected to the development by an interconnecting bridge and single lane carriageway over the M23.

Except for a small number of dwellings and farm buildings to the east that are further along Parish Lane between the site and the London to Brighton railway line, most of the existing residential properties nearest to the site are on the opposite side of the M23 at Pease Pottage village and the Tollgate Hill Broadfield estate to the north-west of the gyratory.

2.0 Outline Planning Conditions

2.1 Outline Planning Condition No.3

'Prior to or in parallel with the submission of the first reserved matters application(s) a site-wide phasing plan shall be submitted and approved in writing by the Local Planning Authority. The development shall thereafter be carried out in accordance with this plan, unless otherwise agreed in writing by the Local Planning Authority'

The Site Wide Phasing Plan was submitted and approved on 10.10.17. Refer to Appendix A for Drawing No. T048-PHASING_01

2.2 Outline Planning Condition No.4

'Prior to the commencement of any development or enabling works, a site-wide Construction Environmental Management Plan (CEMP) shall be submitted to and approved in writing by the Local Planning Authority.

The CEMP shall describe the environmental protection and mitigation measures to be applied during site preparation and construction. This will include, but not be limited to: biodiversity and ecology, landscape and visual impact, water (particularly groundwater effects), air quality and noise, lighting, archaeology and construction waste. The CEMP shall also include, but not be limited to details of: construction works information, including hours of work, programme etc.; screening and hoarding: proposed access arrangements: construction plant and materials: and soils handling proposals in compliance with detailed guidance in Defra Construction Code of Practice for the Sustainable Use of Soils on Construction Sites, including the accompanying Toolbox Talks.

The CEMP must address all recommended construction phase mitigation arising out of the Environmental Statement and supporting appendices.

Prior to the commencement of development or enabling works, on a particular phase, a phase specific CEMP shall be submitted to and approved in writing by the Local Planning Authority. The phase specific CEMP shall include details as specified in any approved Outline Site-Wide Construction Environmental Management Plan.

The development shall only be implemented in accordance with the approved site-wide and phase specific CEMP.'

This plan includes both the Site-Wide and Phased CEMP details and incorporates the environmental matters referred to above.

2.3 Outline Planning Condition No.17

'The development hereby permitted shall not commence unless and until a Construction Management Plan has been submitted which shall provide plans and details of the following:

- *Construction traffic routing and signage.*
- *Location of site offices.*
- *Location of plant and materials storage.*
- *The area within the site reserved for the loading, unloading and turning of HGV's delivering plant and materials.*
- *The area reserved within the site for parking for site staff and operatives.*
- *Wheel washing facilities.*
- *Scheme to minimise dust emissions from site.'*

This plan includes the construction matters referred to above.

2.4 Outline Planning Condition No.24

'The development hereby permitted shall not be occupied unless and until all existing accesses serving the development, other than hereby approved, shall be closed and obliterated.'

This plan demonstrates the benefits of retaining the existing access for use by construction traffic and only closing it to traffic upon completion of the development. It is understood both the Local Planning Authority and the County Council in their capacity as Highway Authority are willing to accept this upon receipt and approval of this CEMP.

3.0 Site Wide Construction Environmental Management Plan

3.1 Project Description and Off-Site Works

The development will consist of up to 619 dwellings, a primary school that is proposed to be transferred to WSCC, a care facility being delivered by St. Catherine's Hospice, and a community centre consisting of a shop and café. Significant infrastructure improvements are being carried out off-site focusing on a new roundabout to access the development, capacity improvements to the M23 Junction 11 gyratory, and footway / cycleway upgrades across Horsham Road Bridge.

3.2 Project Roles, Responsibilities and Contacts

Thakeham has overall responsibility for the development and will have a dedicated on-site management team consisting of a Project Manager, Site Managers, Finishing Foremen, Gateman, and Materials Manager, all of whom being supported by Thakeham's Head Office staff.

In tandem with Thakeham, there will be a dedicated civil engineering contractor assuming responsibility for the off-site highway works. This will be a contractor who's familiar with undertaking such works and will be approved by both Highways England and West Sussex County Council prior to commencement. Contact details for this contractor will be displayed on signs in the locality of the roadworks.

The School and Hospice will likewise have their own site teams and contact details for both of these will be provided once contracts have been awarded and prior to commencement.

Key Contact Details are provided in Appendix B and will be updated throughout the project duration.

3.2 Health & Safety Policies and Responsibilities

CDM Regulations place a statutory obligation for all construction activities to identify key roles, namely the Client, Principle Designer, and Principle Contractor and on multi-phased developments these roles can vary and are confirmed to the HSE via 'F10' notifications.

The Client, which in this case is Thakeham and St Catherine's Hospice, are responsible for appointing the Principle Designers and Principle Contractors.

All site operations will receive careful planning and be carried out in a safe and professional manner with due consideration to the surrounding environment. Site Rules will be issued to all site personnel as well as being displayed in the site offices, canteen, and notice boards. The Site Rules will form part of the inductions that are carried out by the Site Manager with all site personnel and gives guidance on the required behaviour and conduct as well as environmental considerations.

All operations will be carried out in accordance with health and safety legislation and good practices with the necessary safety signs and notices being displayed throughout the site.

3.3 Constraints and Restrictions

Onsite restrictions consist of existing tenants, root protection zones & ancient woodland, areas with a high ecological value, and existing services including an intermediate pressure gas main serving nearby Crawley.

Offsite constraints are mostly highway orientated with high volumes of traffic at peak times on Brighton Road and junction 11 on the M23, maintaining 24-hour access to the service station opposite the site entrance, and Parish Lane being both very narrow and accommodating a national cycle route. Other offsite constraints include the gas facility on Parish Lane, ancient woodland abutting the eastern boundary, and notable road side verges in close proximity to the site.

Refer to Appendix C for the Site Constraints Plan Drawing No. W991-SK02

3.4 Considerate Contractor, Public Engagement, and Advance Notifications

The site will be registered on the Considerate Constructors Scheme and local residents and businesses will be kept informed of progress in the form of regular letter drops and visits if appropriate. The resident neighbour letters will contain details of Thakeham's website where there will be a 'contact us' tab to allow the public to consult directly should any concerns arise. In addition, a Considerate Constructors sign will be displayed at the site entrance with contact details for the Project Manager. Site visits by local schools will be encouraged to engage with the wider community.

Off-site road works will be pre-planned in association with the Highway Authority and carried out under licence using approved traffic management contractors. Motorists and the public will be informed of planned works by way of information boards placed on the road side verges which will advise the public of the duration of the works and emergency contact details.

Liaison with the Services Manager will be required during the early stages of the site access roundabout to co-ordinate traffic movements and residents and businesses on Parish Lane will be kept closely informed of any works that may affect them.

3.5 Indicative Programme

The following key operational dates are for planning purposes only and are subject to change pending Reserved Matters planning approval and market conditions. For further details refer to phase specific CEMP.

Offsite Highway Works	-	July 2018 to December 2019
Phase 1 Development	-	August 2018 to December 2020
Phase 1 Hospice	-	2020 to 2023
Phase 2 School	-	2019 to 2022
Phase 3 Development	-	2020 to 2022
Phase 4 Development	-	2022 to 2024
Phase 5 Development	-	2023 to 2026

3.6 Working Hours

Site working hours will be 08:00 to 18.00 Monday to Friday and 09:00 to 13:00 Saturdays however elements of the off-site highway works will be carried out at night time to avoid peak traffic flows and minimise delays to motorists.

3.7 Construction Site Access Arrangements

The site is currently accessed via a priority junction on the eastern side of Brighton Road just north of the service station entrance and is currently used by the tenants of two dwellings on the site, a small yard and farm buildings, access to the mobile phone mast, and a commercial green waste composting facility; and as such the entrance is suitable for HGV's. Vehicular access to these premises will continue up until December 2020. Furthermore, the existing entrance is used every weekend (pending weather) for car boots sales however these will cease operating prior to commencement of the development.

With slight modification to suit the Brighton Road realignment; the existing access into Hardriding Farm is ideal to facilitate construction access to all phases, including the hospice and school, for the duration of the entire project as it segregates construction traffic from the public, will not obstruct and delay the new Fastway 20 bus service, will eliminate the risk of damage to the newly constructed estate roads, and ultimately will make a much safer environment for the residents and users of the school and hospice.

Photo looking south onto Brighton Road taken at existing Hardriding Farm access



Photo looking north onto Brighton Road taken at existing Hardriding Farm access



Photo looking north taken on existing access road



To facilitate the retention of the existing access the horizontal and vertical alignment of the junction will need reconstructing to tie into the realigned southbound carriageway of Brighton Road together with drainage additions to prevent private surface water run-off onto the public highway as currently there are no such preventative measures in place. Vehicles will have to turn left when exiting the site and this can be achieved by the installation of signage and road markings. With regards to visibility a 4.5m x 120m sightline can be achieved, and vehicular tracking in and out of the access has been proved acceptable by way of Autotrack software.

A Stage 2 Road Safety Audit was undertaken on drawings showing the retained site access in July 2017 and the following problems were identified and action taken:

- 2.1.1. Problem: Surface water run-off from private road onto highway.
Action: Install new drainage to reduce run-off onto highway.
- 2.1.2. Problem: Existing gate may compromise safety due to a large vehicle overhanging road.
Action: Existing gate will be removed to eliminate risk.
- 2.3.1. Problem: Insufficient room for vehicles entering and egressing to pass.
Action: Full time Gateman / Banksman to be provided.
Access road to be widened.
Traffic Management Plan to identify off-site waiting areas.
- 2.5.1. Problem: Vehicles exiting the site and turning right.
Action: Installation of signage and road markings showing left turn only.

To satisfy Problem 2.3.1 above Thakeham will provide a full time Gateman, and banksman as necessary at the main entrance. They will control the flow of construction traffic giving priority to vehicles entering the site to prevent vehicles waiting to enter from Brighton road. Furthermore, the Traffic Management Plan that is provided to all sub-contractors and suppliers will provide details of suitable off-site HGV waiting zones to enable timed and controlled deliveries as well as restrictions during peak traffic hours, namely before 09:00 and after 16:00. Suggested off-site waiting zones are the M23 Pease Pottage Service Station opposite the

site entrance, the A264 at Faygate, and the Hickstead Service Station on the A23. Refer to Appendix H: Off-site Construction HGV Waiting Areas

Towards completion of the development and once all significant operations and deliveries have ceased, the existing access will be removed and reinstated as verge to the satisfaction of WSCC Highways.

To prevent detritus from being carried out onto the highway, a wheel cleaning facility will be provided on site at the exit barrier where vehicles will be inspected by the gateman prior to leaving. In addition, a road sweeping programme will be implemented to keep the access road and Brighton Road clean with regular weekly visits and in the event any detritus is inadvertently taken onto Brighton Road extra visits will be implemented. Part of the Gateman's responsibilities will be to keep a daily record on the cleanliness of Brighton Road outside the construction access.

All vehicles will enter and leave the site in a forward gear and reversing on any part of the access road will be strictly prohibited with adequate warning and directional signage installed.

There will be a short period of time during the offsite Brighton Road realignment works when the existing access will not be in use however this will be after the new roundabout is formed and during this period construction traffic, and that of the existing tenants, will temporarily use new the roundabout.

In the unlikely event use of the retained access compromises highway safety, under the terms of the S38/278 Agreement, WSCC can serve notice on Thakeham to close the existing access within 8 months of receiving such instruction. Should this occur, the existing access will be removed, construction traffic diverted to the new roundabout and boulevard, and this CEMP will be updated accordingly to the satisfaction of WSCC.

Details showing the retained access are shown on Drawings W991-7050 and W991-7051 in Appendix D.

Parish Lane will only be used by construction traffic for works associated with the Parish Lane realignment, the installation of new services and drainage, construction of the pumping station, and as access to the proposed gas pressure reduction station that is located near to the existing SGN gas facility.

3.8 Public, Visitor, Sales, and End User Access Arrangements

All traffic not associated with construction will, during 2019, enter and exit the development via the new site access roundabout, and in addition from 2020 will be able to utilize the realigned Parish Lane access.

Show homes and marketing centres will be located on either side of the boulevard with temporary visitor parking areas to minimise casual on street parking.

New street signage will be installed to direct visitors with temporary signage provided as necessary to assist first time visitors to the school and hospice areas.

It is intended to commence to run the Fastway 20 bus service through the site from 2020 with the first bus stop being located near to the community hub. As the development grows a second stop will be installed in Phase 3 and a third in Phase 4.

Public areas will be segregated from construction areas at all times by suitable fencing or similar.

3.9 Off-Site Construction Traffic, Deliveries, and Signage

Thakeham, and the Principle Contractor working on behalf of St. Catherine's, will have responsibility for ensuring delivery instructions are passed down to all subcontractors and suppliers; such instructions will include delivery routes and site rules, restrictions on delivery times to between the hours of 0900 and 1600

only thereby avoiding the AM & PM peak, off-site waiting areas and phone-in requirements for large or more complex deliveries that require pre-arranged arrival time allocation, and ensuring materials are delivered on suitable vehicles for their size in order to reduce articulated vehicle movements.

All delivery vehicles will be instructed to approach the site from Junction 11, thereby channelling all construction traffic via the M23 southbound, the A23 northbound, the A264 westbound from Horsham and in turn the A24, or via Crawley Avenue / Brighton Road which links Pease Pottage to the industrial area north of Crawley at County Oak.

Upon exiting, all delivery vehicles will turn left out of the site towards the new site access roundabout and be required to carry out a U-turn and proceed back towards the Junction 11 gyratory for onward travel via the M23 northbound, A23 Southbound, A264 eastbound towards Horsham, or Brighton Avenue / Crawley Avenue towards County Oak.

Whether intentionally or not, it will be unavoidable that some delivery drivers attempt to use the B2114 Brighton Road linking Pease Pottage to Handcross or even Horsham Road / Forest Road towards Colgate and Horsham. Whilst these routes will be prohibited for HGV use in connection with the site, they are acceptable for small vans and light commercial vehicles; so whilst delivery instructions won't promote the use of these B-Roads, only companies of drivers of HGV's that don't follow the prescribed Junction 11 route will be reprimanded. All vehicle registration plates entering the site will be logged by the gateman thereby assisting the policing of traffic routes.

Temporary signage will be installed in close proximity to the site directing construction traffic on arrival and departure and will include 'No Construction Traffic' signs on the southbound exit on the new Brighton Road roundabout, southbound exit on the existing Brighton Road roundabout, Parish Lane, and Horsham Road Bridge.

Details showing the offsite construction traffic routes, indicative signage proposals, and remote waiting areas are on Drawings W991-7050 and W991-7051 in Appendix G.

3.10 On-Site Construction Traffic, Contractor Parking, Pedestrians and Workers Travel Plan

Thakeham encourage all their contractors to vehicle share where possible to minimise off site traffic and on-site parking and this requirement is discussed with each contractor at the Pre-start Meeting.

Construction traffic will enter the site from the Hardriding Farm access located off Brighton Road as detailed in section 3.7 Access to be permitted by a Thakeham employed gateman who will direct vehicles into the site compound and car park located on the northern boundary. At no point during the construction project will parking be permitted off site or in completed areas within the development.

All Operatives and visitors to the project will be site inducted and briefed on traffic management and pedestrian routes and updated monthly through sub-contractor meetings. All pedestrian routes will be segregated from construction traffic with the use of designated crossing points, barriers and signage to give clear direction. Where necessary traffic Marshalls/Banksmen will be used. Refer to Appendix G: Site setup – Phase 1 RM and Construction traffic

3.11 Location of Site Offices, Material Storage, and Construction Plant

The main site compound including material storage, car parking, project offices and welfare facilities will be located at the northern boundary of the site adjacent to the M23. Satellite offices and secondary material storage areas may be located in various locations on each of the phases.

Materials will be off loaded from delivery vehicles in the main compound area in a designated offloading area, transferred to the designated material areas on each phase by use of a telehandler and stored in line with the manufacturer's instructions.

Designated locations will be positioned on each phase for construction plant and will include refuelling points and bucket changing areas.

3.12 Archaeology, Ecology, Contamination, Arboriculture and Landscaping

A Full Environmental Statement (ES) accompanied the Outline application, this document provided chapters regarding Archaeology & Ecology.

Archaeology

Chapter 13 of the approved ES provides a description of archaeological baseline conditions of the site, considered the potential effects of development on any assets and presented measures to avoid, reduce or provide mitigation where necessary.

Construction groundworks for the proposed development have the potential to remove identified potential below ground archaeological remains. Therefore, the ES suggests that a programme of archaeological mitigation work will be required prior to the commencement of development.

The approved ES states that following the completion of the archaeological mitigation work, there will be no residual effects on archaeological assets during construction or operation phases, as all effects will have been mitigated at the design and construction stage.

In accordance with the requirements of the ES, Condition 15 of Outline planning permission DM/15/4711 states that:

'No development shall take place prior to the implementation of a programme of archaeological work in accordance with a Written Scheme of Investigation (including details for recording and publishing findings) which has been submitted to and approved by the Planning Authority.'

In accordance with Condition 15, prior to the development of any phase of the development a Written scheme of Investigation (WSI) detailing the programme of archaeological work for that phase will be submitted to the Local Planning Authority for approval. Once approved, the works shall be carried out in accordance with the WSI prior to the commencement of development for that phase.

Contamination

Chapter 12 of the approved ES provides a description of Baseline Data has been provided by undertaking a desk study and preliminary risk assessment, with the results of the subsequent intrusive investigations and analysis of soils and groundwater samples used to develop the assessment further.

Thakeham will put in place any mitigation measures that may be required to break pollutant linkages associated with soil and ground gas hazards together with good site management to mitigate potential risk to controlled waters, the health of ground workers and adjacent users. Additional investigation and analysis during the detailed design phases, will determine the mitigation measures that will be incorporated into the construction.

During the construction phase, fuel will be stored on-site for plant and other machinery. The use/storage of this fuel includes the risk of spillage, hence increasing the potential for contamination migration to on and off-site surface water courses. Therefore, mitigation measures will be put in place, including appropriate storage and handling practices, appropriate construction phasing and engineering to minimise un-surfaced and vegetated areas, run-off interception and settlement facilities and wheel washing to prevent mud tracking, are proposed and would be enacted during construction.

Ecology, Arboriculture and Landscaping

Chapter 10 of the approved ES provides an overview and assessment of the likely effects of the proposed development in respect of nature conservation. This chapter details a number of mitigation measures which are required through the construction phase for each phase of the development.

Hedgerows and trees will be protected from potential damage through the use of temporary barriers (e.g. Heras fencing) and construction would be undertaken in accordance with BS 5837:2012 *Trees in relation to design, demolition and construction*. All contractors' compounds would be located away from hedgerows to minimise potential lighting and disturbance impacts. No lighting would be left on during the night during the construction period. Any security lighting will be low-level and motion activated short-timers.

Water quality will be protected through adherence to the relevant Pollution Prevention Guidelines (PPGs). Where high risk activities, such as refuelling and use of concrete is proposed, method statements will be prepared and implemented.

Retained tree and hedgerow habitats within the construction area will be protected during construction to minimise the risk of disturbance to nesting birds, where hedgerow removal is required, this will take place outside of the main bird-breeding season or under a watching brief by a suitably qualified ecologist. In addition to the measures indicated regarding nesting birds, a Natural England Dormouse Mitigation licence will be required prior to any hedgerow removal required for implementation.

An Arboricultural Impact Assessment and Method Statement (AIA & MS) is required to be submitted and approved prior to the commencement of development of enabling works for a particular phase by Condition 6 of the Outline planning permission. All works will be carried out in accordance with the approved AIA & MS for that phase.

Part of the offsite works at Horsham Road Bridge affect 'notable road verges'. The affected verges are designated as 'notable road verges' due to the presence of Bee orchids (*Ophrys apifera*). The unaffected areas of this verge will be temporarily fenced off during the works.

3.13 Surface Water Run-Off Control, Groundwater, and Drainage

The nearest watercourse is the Broadfield Brook located 1.0km northwest of the site which flows through Crawley. A small existing lagoon associated with an existing composting facility is located towards the north of the site, however no positive outfalls have been identified as part of the topographic survey. In the wider context an existing highways ditch network is shown to flow from west to east immediately south of Parish Lane to the south of the site. This ditch network discharges in to a small watercourse located south east of the site which outfalls to a water body referred to as "New Pond". From here New Pond outfalls to Silt Lake and ultimately Tilgate Lake north of the M23 via a culvert under the motorway. The route of the watercourse is a north easterly heading through Tilgate Forest.

The underlying geology is designated as a secondary aquifer and as there are no known groundwater abstractions within 1km of the site, it is deemed that the site is not sensitive with respect to groundwater resources and the site is not located within or near a Groundwater Source Protection Zone.

During the construction phase the greatest potential effects on the water environment originate from construction-derived pollution i.e. sediment, oil, chemicals and cement products. There is an on-site stream which is determined to be of 'medium' sensitivity; Therefore, mitigation measures, including the provision of measures to intercept and treat such run-off prior to it leaving the Site.

The provision of wheel-cleaning equipment for site plant to prevent the tracking of mud onto the public highway and therefore into the off-site surface water drainage systems.

A number of measures will be employed during construction to prevent the release of suspended sediments including:

- Site access points will be regularly cleaned to prevent build-up of dust and mud;
- Earth movement will be controlled to reduce the risk of silt combining with the Site runoff;

- Wheel wash facilities will be used (where required) to isolate sediment rich runoff;
- Cut-off ditches and/or geotextile silt-fences will be installed around excavations, exposed ground, stockpiles to prevent the uncontrolled release of sediments from the Site;
- Sediment traps will be required on all surface water drains in the surrounding region; and
- Silty water abstracted during excavations will be discharged to the settlement tanks.

Oils and Hydrocarbons: Measures will be taken to protect controlled waters from the release of oil and hydrocarbons. Wherever possible plant and machinery will have drip trays beneath oil tanks/engines/ gearboxes/ hydraulics which will be checked and emptied regularly and correctly disposed of via a licensed waste disposal operator.

Oils and hydrocarbons will be stored in designated locations with specific measures to prevent leakage and release of their contents, including the siting of the storage area away from the drainage system on an impermeable base, with an impermeable bund that has no outflow and is of adequate capacity to contain 100% of the contents. Valves and trigger guns will be protected from vandalism and kept locked when not in use. There is a risk of accidental spillage of oils and fuels. An emergency spillage action plan will be produced, which site staff will have read and understood. Onsite provisions will be made to contain a serious spill or leak through the use of booms, bunding and absorbent material.

Concrete and Cement Products: Several onsite precautions will be taken to reduce the potential magnitude of an effect. These include pre-mixing the majority of concrete used and delivering it from an offsite source, thereby negating the need to mix concrete onsite and reducing the creation of alkaline waste water onsite. Wherever possible, any mixing and handling of wet concrete that is required onsite will be undertaken in designated areas; and a designated area will be used for any washing down or equipment cleaning associated with concrete or cementing processes and facilities provided to remove sediment prior to disposal of foul water.

Water Supply: The mixing of concrete (which requires a significant volume of water) is proposed to be undertaken offsite and therefore will not contribute directly to the proposed development's supply demand. The water supply to the site during the construction phase will be provided by the existing South East Water network From a metered connection.

Wastewater Generation: It is proposed that effluent generated from temporary sanitary facilities will be disposed via tanks in the interim. Once the pumping station is live they will discharge into the existing foul sewerage network located nearby to the site therefore minimising pollution risk of untreated effluent discharging to nearby surface waterbodies.

3.14 Air Quality, Noise and Lighting

Air Quality

During the construction phase the greatest effects on air quality are expected to result from dust. To mitigate the potential impacts from dust during construction activities the site layout has been planned so that machinery and dust causing activities are located away from receptors. Further measures Thakeham will put in place to mitigate the potential impacts from dust during construction activities are set out further in 3.15.

Where possible the use of diesel or petrol-powered generators and use mains electricity equipment will be avoided. All on-road vehicles comply with NRMM standards, where applicable and all vehicles are to be switched off engines when stationary.

Regular site inspections to monitor compliance with air quality and dust control procedures will be carried out and inspection results recorded. The frequency of site inspections will be increased when activities with a

high potential to produce dust and emissions are being carried out, and during prolonged dry or windy conditions. Any exceptional incidents that cause dust and air quality pollutant emissions, either on or off the site, will be recorded and the action taken to resolve the situation is recorded in the log book.

Thakeham will display the name and contact details of person(s) accountable for air quality pollutant emissions and dust issues on the site boundary along with the head office contact information.

Noise

The construction of the development will involve processes and equipment with the potential to cause disturbance to neighbouring residents such as the cottages on Parish Lane.

On-site construction activities will not take place between the hours of 6pm - 8am, and not before 9am or after 1pm on Saturdays, or the remaining hours of the weekend without additional consideration to controlling noise and with the prior approval of the LPA. During construction, Thakeham will employ best practicable means to control noise from construction operations. This includes the selection of relatively quiet, modern and well-maintained construction plant.

Solid timber hoarding, to areas of construction is to be used where adjacent to sensitive receptors. Consideration to neighbouring residential properties has been given when locating the main site compound.

Stationary equipment and plant such as generators will be placed as far as practicable from noise sensitive properties, and where practical in areas benefiting from natural or purpose-built attenuation such as bunding or behind non-sensitive buildings.

Delivery of materials and removal of waste from the site will be planned to minimise disturbance to neighbouring properties. Idling of plant, machinery and delivery vehicles will be prohibited when not in use.

With the aforementioned measures in place and appropriately planned and managed construction operations, no adverse impacts are anticipated.

Lighting

Where possible a daylight only construction schedule will be adopted to minimise adverse lighting. It is unavoidable that construction work may require work during the hours of darkness in consideration of shorter daylight availability during winter months.

The temporary lighting scheme for the construction phase of the works may be required in these circumstances. The main considerations for the construction phase lighting are:

- To provide lighting when natural light levels fall below a safe level for site activity
- To provide adequate lighting for vehicle and pedestrian access around the site
- To provide lighting for storage, prefabrication and laydown areas
- To provide lighting for construction activity within the building footprint
- To reduce light spill at the site boundary to acceptable levels for the general environment
- To reduce light levels at the south and west boundaries to acceptable levels for the identified potential bat flight path along the stream corridor in accordance with condition

3.15 Construction Waste, Dust Suppression, Earthworks, and Soil Movements

Every effort will be made to keep waste materials to a minimum during the construction of the site. Any waste that is unavoidable will be disposed of as per the manufacturer's instructions and with regards to COSHH and waste regulations guidelines. All waste will be segregated into type (Timber, hardcore, plasterboard,

metal and hazardous materials) Waste areas will be located on each phase with covered skips provided for each waste type. Quantity of waste and recycling percentages will be reviewed on a monthly basis.

Materials will be removed from site as soon as possible, enclosed chutes and covered skips to be used. Drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment will be minimised and use fine water sprays on such equipment wherever appropriate. Site fencing, barriers and scaffolding will be kept clean using wet methods.

Only cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction will be used. An adequate water supply on the site for effective dust/particulate matter mitigation (using recycled water where possible). Full enclosure will be provided of specific operations where there is a high potential for dust production and is active for an extensive period. This will form part of each operatives RAMS which will be reviewed on a 3monthly basis. If extra prevention is deemed necessary by the site management team or health and safety advisors they will be implemented accordingly.

For the whole duration of the development, wheel cleansing and road sweeping will be in use. To minimise the impact of construction plant temporary hard standings will be installed to avoid plant running "off road". As soon as practical, the permanent roads and drainage will be constructed and plant will be restricted to these hard standings, reducing the potential for tracking any dirt or mud onto the roads. In the summer months dampening down methods will be deployed. A site speed limit of 10mph will also be enforced.

Goal is to keep as much soil on site as possible, a soil strategy will be put in place to reduce double handling of any material. Designated areas will be allocated for stockpiles of material. Consideration will be taken when carrying out large earthworks movements in inclement or hot weather conditions. Haul roads will be laid for transportation of soil to the stockpile areas. All stockpiles to be bunded in neat graded formation at all times. Arisings for the S278 works will be removed off-site.

3.16 Site Security, Fencing and Hoarding

All boundaries of the development will be secured with various methods including 2-metre-high close board fencing, hoarding or double clipped heras panels. A recorded inspection will be carried out on the boundaries on a weekly basis. A gateman will monitor the front entrance to the development during work hours signing in all operatives and visitors to the site and recording the vehicle number plates. A combination of CCTV and Infrared detection beams will be deployed within the site compound, site phases and boundaries of the site, where deemed necessary a manned operative will be employed during out of hours.

4.0 Phase 1 Construction Environmental Management Plan

4.1 Description of Phase and Indicative Programme

Phase 1 area occupies the south west corner of the site and comprises approximately 12.6 hectares of land which is currently largely laid to grass and includes a number of existing trees around its edges.

The phase consists of 156 dwellings, comprising a mix of 1 and 2-bedroom apartments, and 2, 3 and 4-bedroom houses, chalets and bungalows with buildings ranging from one to three storeys in height. It includes a community hub building containing a café, shop and community meeting rooms, the care facility for St Catherine's and associated highways, parking areas, landscaped open space and play areas. This part of the wider development site also includes both the primary and secondary vehicular access points.

The following key approximate operational dates:

Phase 1 Development	-	August 2018 to December 2020
Site start	-	August 2018
1 st completion	-	June 2019

4.2 Access & Egress

Phase 1 will be accessed via the current Hardriding Farm access on the eastern side of Brighton Road just north of the service station entrance.

Local signage directing vehicles in and out of the site will be in place.

Access will be permitted by a gateman who will direct vehicles into the site. On the exit there will be a left only sign to stop attempts to cross traffic and will encourage vehicles turning out of the site to U turn on the new roundabout rather than going into Pease pottage or Handcross.

Pedestrians and vehicle traffic routes for the phase are detailed on the site setup plan. All pedestrian access routes will be segregated clearly from vehicle routes.

4.3 Site Set Up

Along with the main site set up satellite offices will be located to the south of the site to allow for easier access to the south side of the phase, Silos and welfare will be centrally located. Locations shown on the site setup plan

4.4 Contractor Parking and Material Storage

The parking will be maintained in the car park on the northern boundary of the site, at no parking be permitted off site or in completed areas within the phase.

Along with the materials storage located at the northern boundary up with the main site compound, secondary material storage areas will be in various locations on the phase.

4.5 Phase Security, Fencing & Hoarding

During the phase Thakeham will ensure that they take reasonable steps to prevent unauthorised access to the site as detailed in 3.16.

4.6 Archaeology, Ecology, Contamination, Arboriculture and Landscaping

Archaeology

In accordance with the approved Environmental Statement and Condition 15 of the Outline planning permission an Archaeological Written Scheme of Investigation will be produced and submitted to the Local Planning Authority to secure a scheme of archaeological works in relation to Phase 1.

Once approved, the archaeological works will be carried out in accordance with the approved WSI prior to the commencement of development.

Contamination

Further ground investigation undertaken (GE10853 – GIRV1DW211015) show no significant concentrations of potentially mobile contaminants were encountered as part of the investigation and no remedial action is considered necessary with regards to soil contamination and adjacent land users.

Whilst the investigation undertaken on the site to date is considered to be thorough, it remains possible that previously unexpected soil conditions may be encountered during the process of site construction. A Discovery strategy is included within the ground investigation report, which will be communicated by Thakeham to the contractor. A copy of this strategy should be lodged on site, and provisions made to ensure that all workers are made aware of their responsibility to observe, report, and act on any potentially suspicious or contaminated materials they may encounter.

Gas monitoring undertaken between May 2017 and January 2018, concluded that the development site is of very low risk in respect to ground gases.

Arboriculture

Hedgerows and trees will be protected from potential damage through the use of temporary barriers (e.g. Heras fencing) and construction would be undertaken in accordance with BS 5837:2012 *Trees in relation to design, demolition and construction*.

An Arboricultural Impact Assessment and Method Statement is required by Condition 6 of the Outline permission, the condition stipulates that the development shall only be implemented in accordance with the approved document unless otherwise agreed by the Local Planning Authority.

Ecology

In accordance with the approved ES, and in addition to the tree protection measures required by Condition 6 of the outline permission, all contractors' compounds would be located away from hedgerows to minimise potential lighting and disturbance impacts. No lighting would be left on during the night during the construction period. Any security lighting will be low-level and motion activated short-timers.

Water quality will be protected through adherence to the relevant Pollution Prevention Guidelines (PPGs). Where high risk activities, such as refuelling and use of concrete is proposed, method statements will be prepared and implemented.

Retained tree and hedgerow habitats within the construction area will be protected during construction to minimise the risk of disturbance to nesting birds, where hedgerow removal is required, this will take place outside of the main bird-breeding season or under a watching brief by a suitably qualified ecologist. In addition to the measures indicated regarding nesting birds, a Natural England Dormouse Mitigation licence will be required prior to any hedgerow removal required for implementation.

4.7 Public Interface and Protection

Public areas will be segregated from construction areas at all times by suitable fencing or similar.

5.0 Phase 2 Construction Environmental Management Plan

5.1 Description of Phase and Indicative Programme

5.2 Access & Egress

5.3 Site Set Up

5.4 Contractor Parking and Material Storage

5.5 Phase Security, Fencing & Hoarding

5.6 Archaeology, Ecology, Contamination, Arboriculture and Landscaping

5.7 Public Interface and Protection

6.0 Phase 3 Construction Environmental Management Plan

6.1 Description of Phase and Indicative Programme

6.2 Access & Egress

6.3 Site Set Up

6.4 Contractor Parking and Material Storage

6.5 Phase Security, Fencing & Hoarding

6.6 Archaeology, Ecology, Contamination, Arboriculture and Landscaping

6.7 Public Interface and Protection

7.0 Phase 4 Construction Environmental Management Plan

7.1 Description of Phase and Indicative Programme

7.2 Access & Egress

7.3 Site Set Up

7.4 Contractor Parking and Material Storage

7.5 Phase Security, Fencing & Hoarding

7.6 Archaeology, Ecology, Contamination, Arboriculture and Landscaping

7.7 Public Interface and Protection

8.0 Phase 5 Construction Environmental Management Plan

8.1 Description of Phase and Indicative Programme

8.2 Access & Egress

8.3 Site Set Up

8.4 Contractor Parking and Material Storage

8.5 Phase Security, Fencing & Hoarding

8.6 Archaeology, Ecology, Contamination, Arboriculture and Landscaping

8.7 Public Interface and Protection

Appendix A:

Site Wide Phasing Plan Drawing No. T048-PHASING_01



Tilgate Forest

Note:
Phasing Plan is indicative only. Boundary to each Phase to be updated following each Reserved Matters application.

REV	DATE	NOTE

DEVELOPMENT
Land East of Brighton Road
Pease Pottage

DRAWING TITLE
Phasing Plan



THAKEHAM
Thakeham Homes Limited
Thakeham House | Summers Place
Stane Street | Billingshurst
West Sussex | RH14 9GN

DRAWN	DATE	SCALE
CA	March 2017	1:1500 @ A1

DRG No.	REV.
T048-PHASING_01	

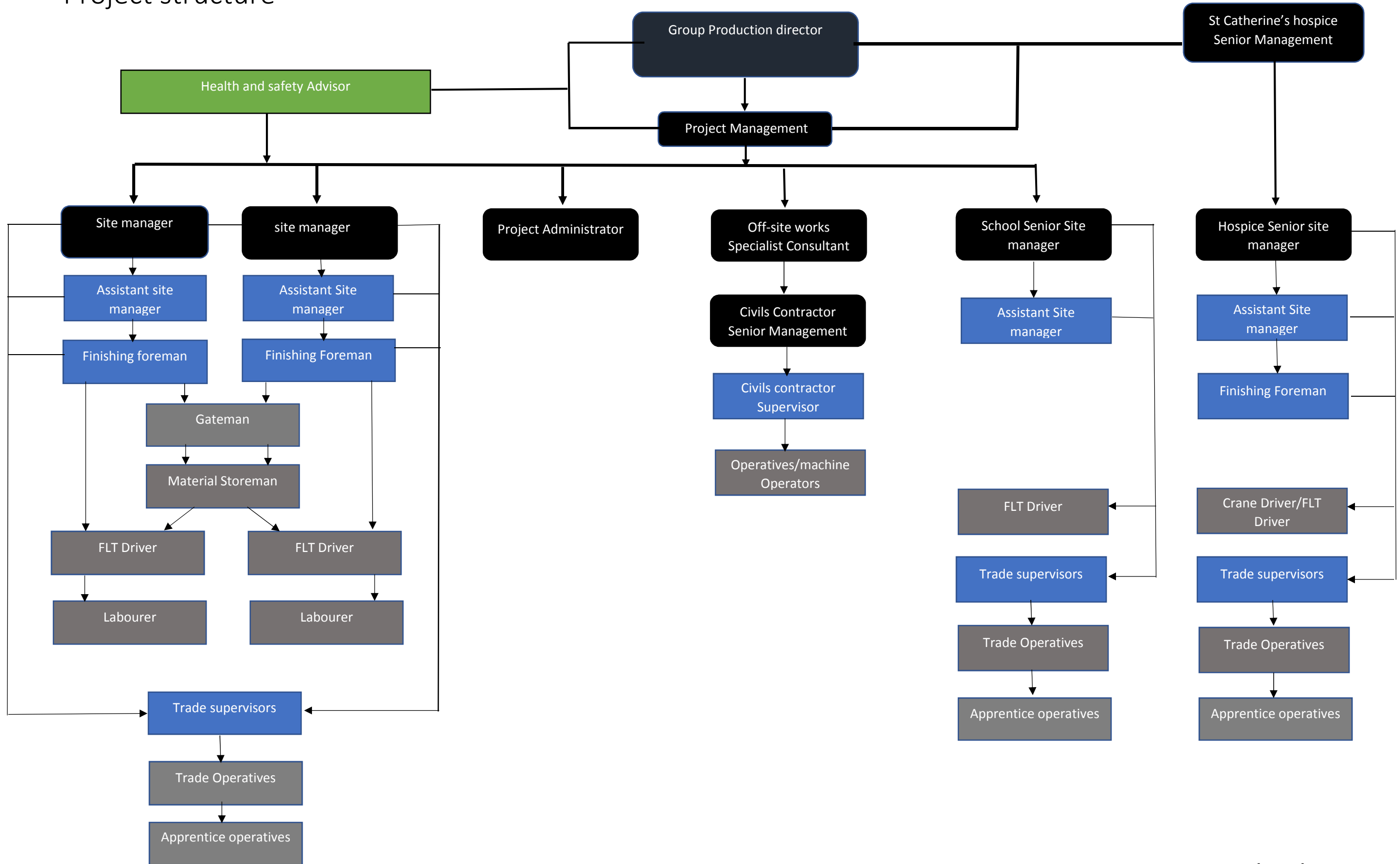
Appendix B:

Project Directory and Organogram

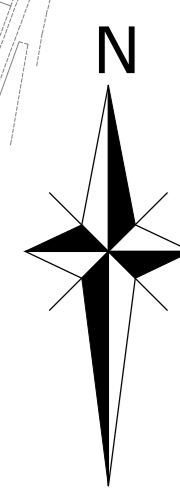


THAKEHAM Project structure

Pease pottage (Construction)



Site Constraints Plan Drawing No. W991-SK02



- NOTES:
1. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE RELEVANT SPECIFICATION AND ALL OTHER RELATED DRAWINGS ISSUED BY THE ENGINEER.
 2. DO NOT SCALE FROM THIS DRAWING. WORK FROM FIGURED DIMENSIONS ONLY.
 3. ALL DIMENSIONS SHOWN ON THIS DRAWING ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
 4. ALL DIMENSIONS, LEVELS AND SURVEY GRID COORDINATES ARE TO BE CHECKED ON SITE AND THE ENGINEER NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO THE COMMENCEMENT OF THE WORKS.
 5. NO DEVIATION FROM THE DETAILS SHOWN ON THIS DRAWING IS PERMITTED WITHOUT PRIOR PERMISSION FROM THE ENGINEER.
 6. ALL EXISTING SERVICE ROUTES HAVE BEEN TRANSCRIBED FROM THE RESPECTIVE UNDERTAKERS RECORDS AND AS SUCH NO RESPONSIBILITY IS ACCEPTED BY ARDENT CONSULTING ENGINEERS FOR THE ACCURACY OF ROUTES SHOWN.
 7. THE AVOIDANCE AND PROTECTION OF SERVICES DURING THE WORKS IS THE RESPONSIBILITY OF THE CONTRACTOR.
 8. THE CONTRACTOR IS REMINDED OF HIS OBLIGATION TO VERIFY THE ROUTE OF ALL SERVICES ON SITE PRIOR TO THE COMMENCEMENT OF THE WORKS.
 9. THE CONTRACTOR SHOULD ALLOW FOR ANY NECESSARY LIAISON WITH THE STATUTORY UTILITIES DURING THE COURSE OF THE WORKS TO AVOID ANY DISRUPTION TO RETAINED SERVICES.
 10. THE CONTRACTOR SHOULD NOTE THAT THE SERVICES SHOWN ARE NOT TO BE CONSIDERED EXHAUSTIVE. PRIVATE SERVICES MAY BE PRESENT WITHIN THE LIMIT OF WORKS AND CARE SHOULD BE TAKEN TO LOCATE AND AVOID THESE DURING CONSTRUCTION.

- KEY
- SITE BOUNDARY
 - APPROXIMATE BOUNDARY OF EXISTING HOUSE AND COMPOSTING FACILITY
 - DESIGNATED NATIONAL CYCLE ROUTE 20 TO PARISH LANE
 - GAS VALVE COMPOUND
 - GAS VALVE COMPOUND EASEMENT (17m)
 - UKPN OVERHEAD CABLES
 - UKPN ELEC CABLE
 - 18" IP GAS MAIN
 - GAS MAIN EASEMENT (6m FROM CENTRELINE)
 - 12" HP GAS MAIN
 - GAS MAIN EASEMENT (17m FROM CENTRELINE)
 - THAMES WATER FOUL SEWER
 - THAMES WATER STORM SEWER
 - THAMES WATER ABANDONED SEWER
 - TELECOMMUNICATIONS MAST
 - ANCIENT WOODLAND
 - INDICATIVE 15m BUFFER FROM ANCIENT WOODLAND
 - ROOT PROTECTION AREA (RPA) FOR A & B CATEGORY TREES AND HEDGEROW (HIGH & MEDIUM QUALITY)
- FOR FULL DETAILS REFER TO TREE REFERENCE PLAN BY ACD, THA19914-01
 - ROOT PROTECTION AREA (RPA) FOR C CATEGORY TREES (LOW QUALITY)
- FOR FULL DETAILS REFER TO TREE REFERENCE PLAN BY ACD, THA19914-01
 - EXISTING WATERCOURSE

DRAFT FOR DISCUSSION

ARDENT CONSULTING ENGINEERS

Suite 207
One Aile Street
ET 8DE

1 020 7488 4588
1 020 7488 3756

www.ardent-ce.co.uk
enquiries@ardent-ce.co.uk

CLIENT: THAKEHAM HOMES

PROJECT TITLE: LAND EAST OF BRIGHTON ROAD, PEASE POTTADE

DRAWING TITLE: SITE CONSTRAINTS PLAN

SCALE: 1:1250 @ A0	DATE: 21/04/16	DESIGNED: HMB
DRAWN: HMB	CHECKED: JEC	APPROVED: -
DRAWING NO: W991-SK02	REV: -	

Appendix D:

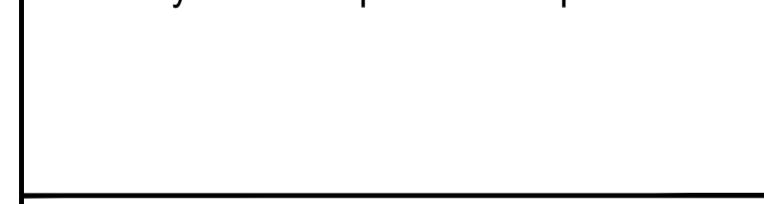
Overlay of Masterplan and Topographical Survey



REV	DATE	NOTE
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DEVELOPMENT	Pease Pottage	
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DRAWING TITLE	Overlay of Masterplan and Topo	
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THAKEHAM

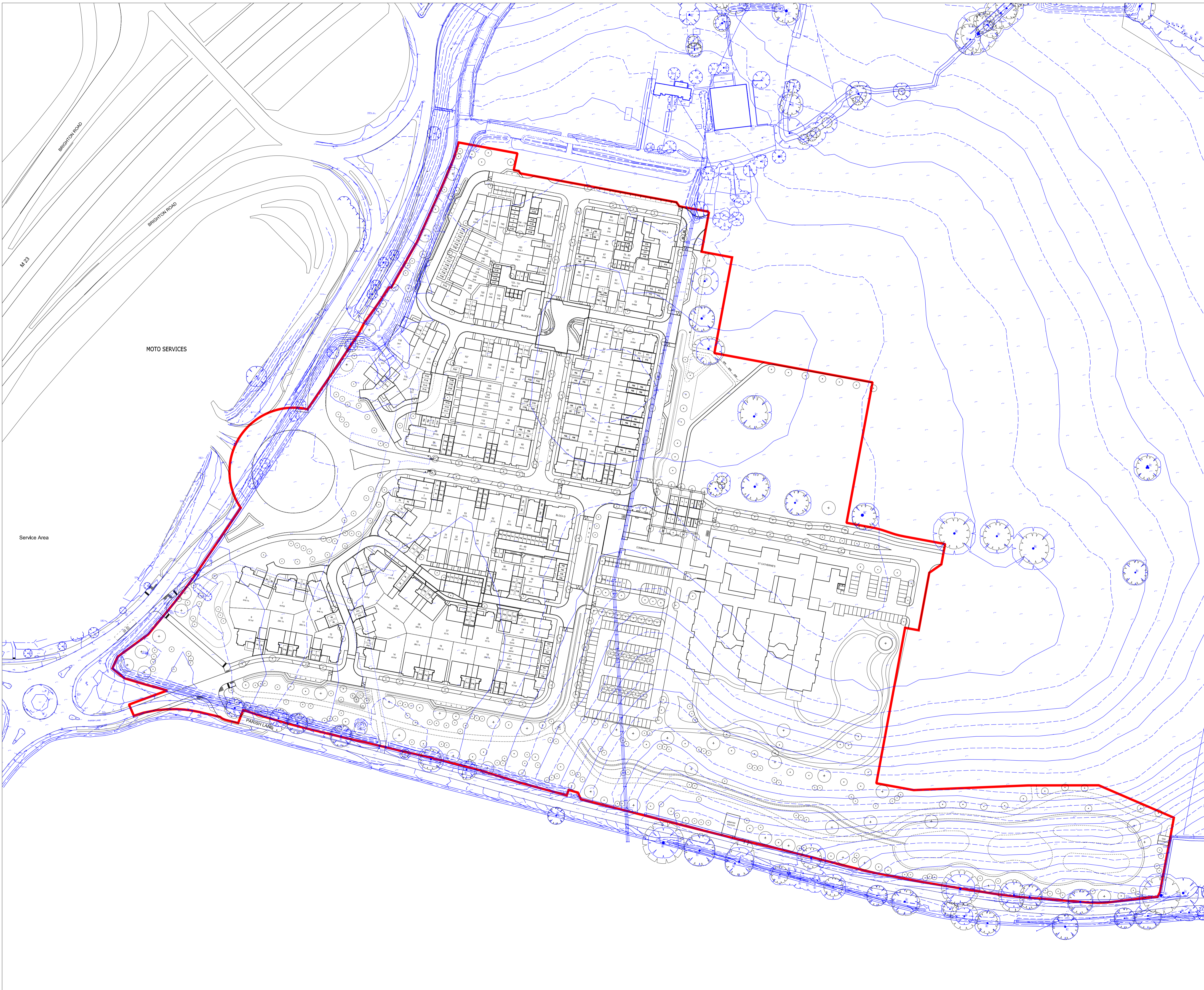
Thakeham Homes Limited
Thakeham House | Summers Place
Stane Street | Billingshurst
West Sussex | RH14 9GN

DRAWN	DATE	SCALE
CA	June 2017	1:2000 @ A1

DRG No.	REV.
OVERLAY_SK02	

Appendix E:

Phase 1 RM – Site Layout with Topographical Survey Overlay



Notes:
 Do not scale from this drawing.
 All contractors must visit the site and be responsible for taking and checking dimensions.
 All construction information should be taken from figured dimensions only.
 Any discrepancies between drawings, specifications and site conditions must be brought to the attention of the supervising officer.
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This drawing is for planning purposes only. It is not intended to be used for construction purposes. Whilst all reasonable efforts are used to ensure drawings are accurate, JTP accept no responsibility or liability for any reliance placed on, or use made of, this plan by anyone for purposes other than those stated above.

Key

— Phase 1 RM Boundary

D3	19.09.17	Changes to housetypes	SYK	ASD	AD
D2	07.09.17	Updated in line with masterplan revisions.	ASD	ASD	AD
D1	07.08.17	Issued for Information	ASD	ASD	AD

Rev	Date	Description	Drawn	Chkd
-----	------	-------------	-------	------

Drawing Status

FOR INFORMATION

Client



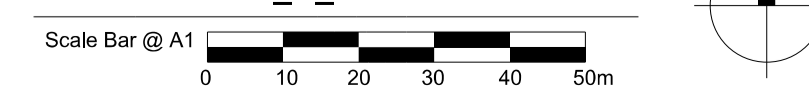
jtp 23-25 Great Sutton Street
 London, EC1V 0DN
 T: +44 (0)20 7017 1780
 F: +44 (0)20 7017 1781
 W: www.jtp.co.uk

Project
**Land East of Brighton Road,
 Pease Pottage**

Drawing Title
**Phase 1 RM - Site Layout
 with Topo overlay**

Scale @ A1 1:1000 Job Ref. 01064B

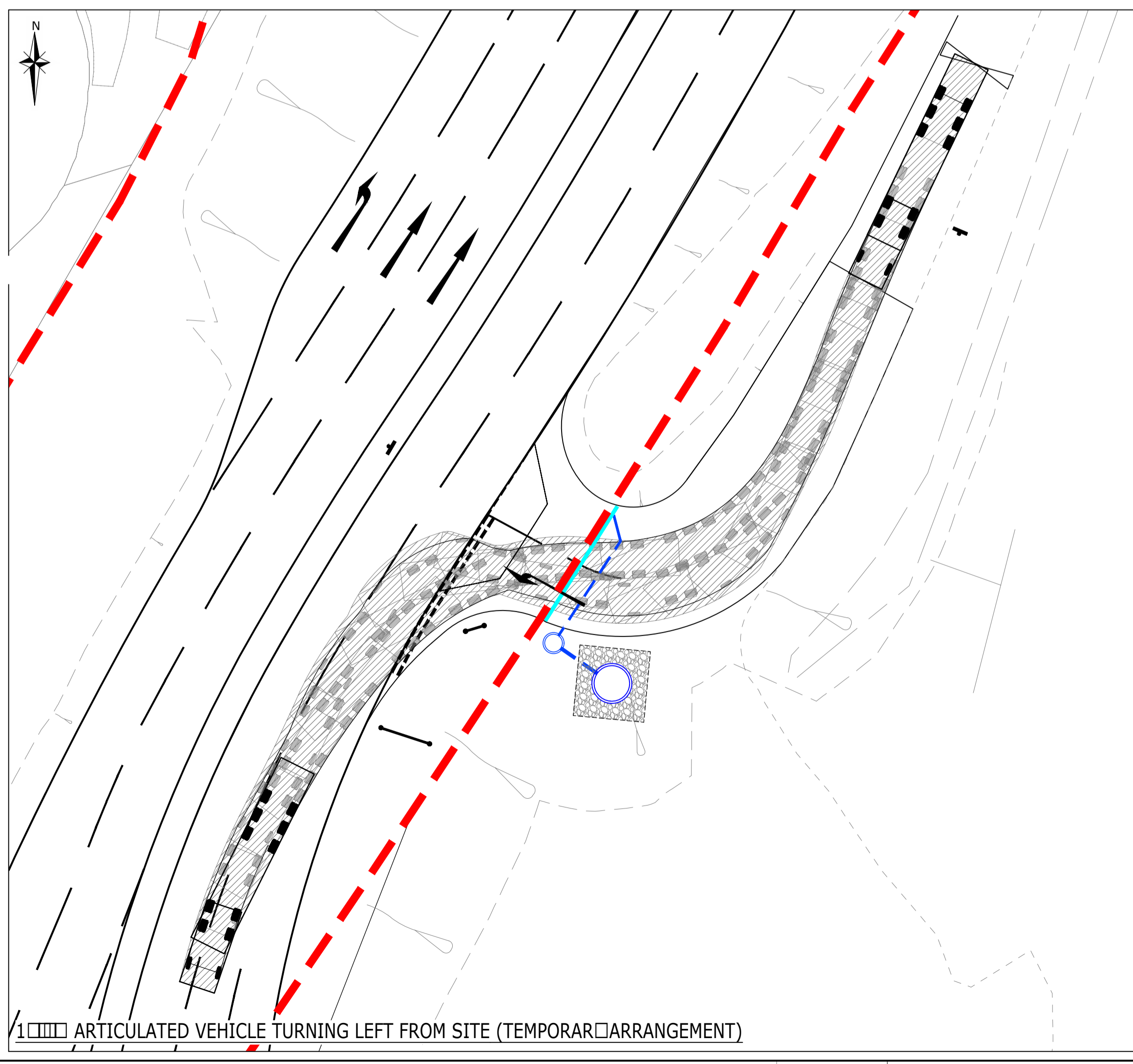
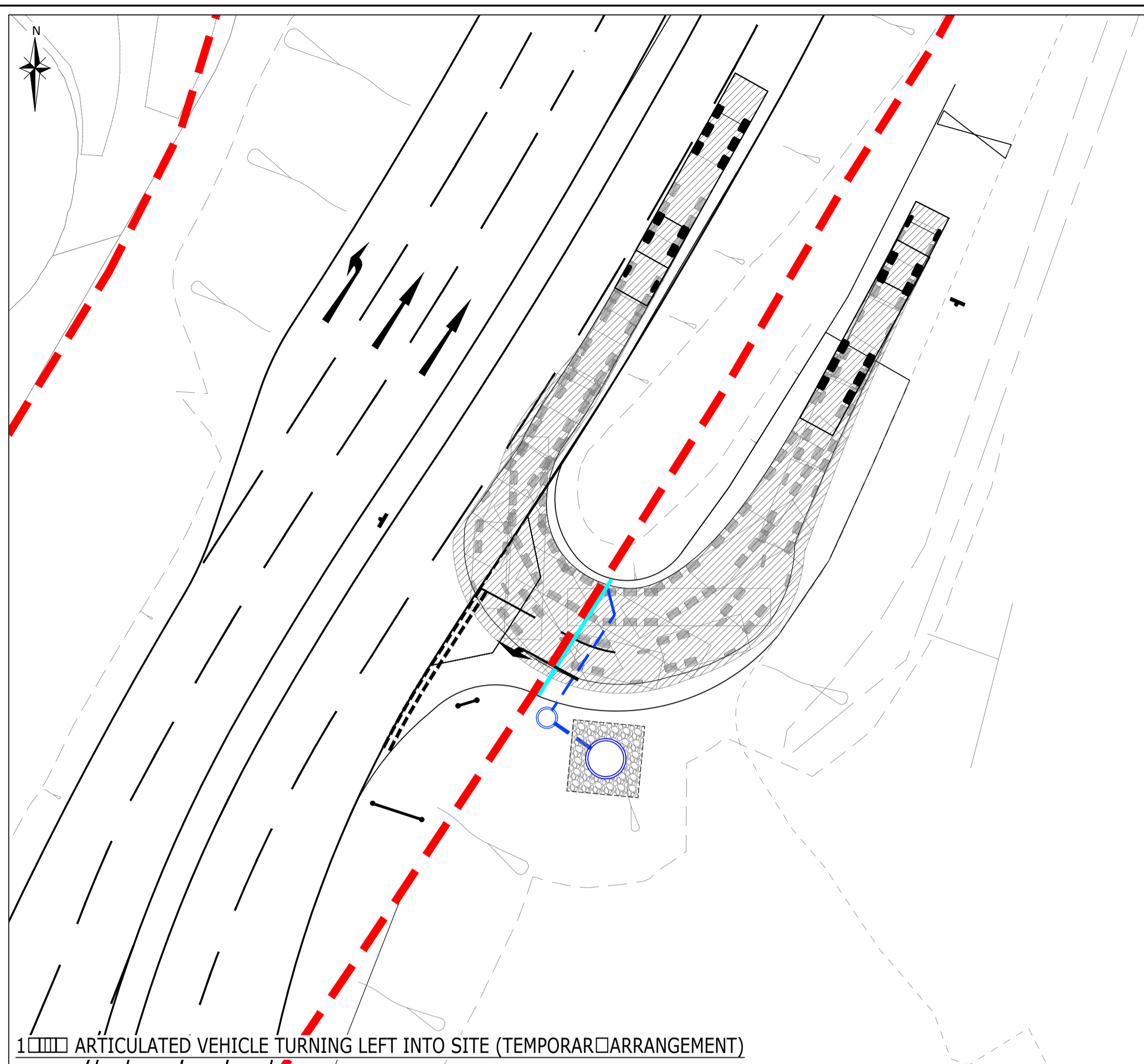
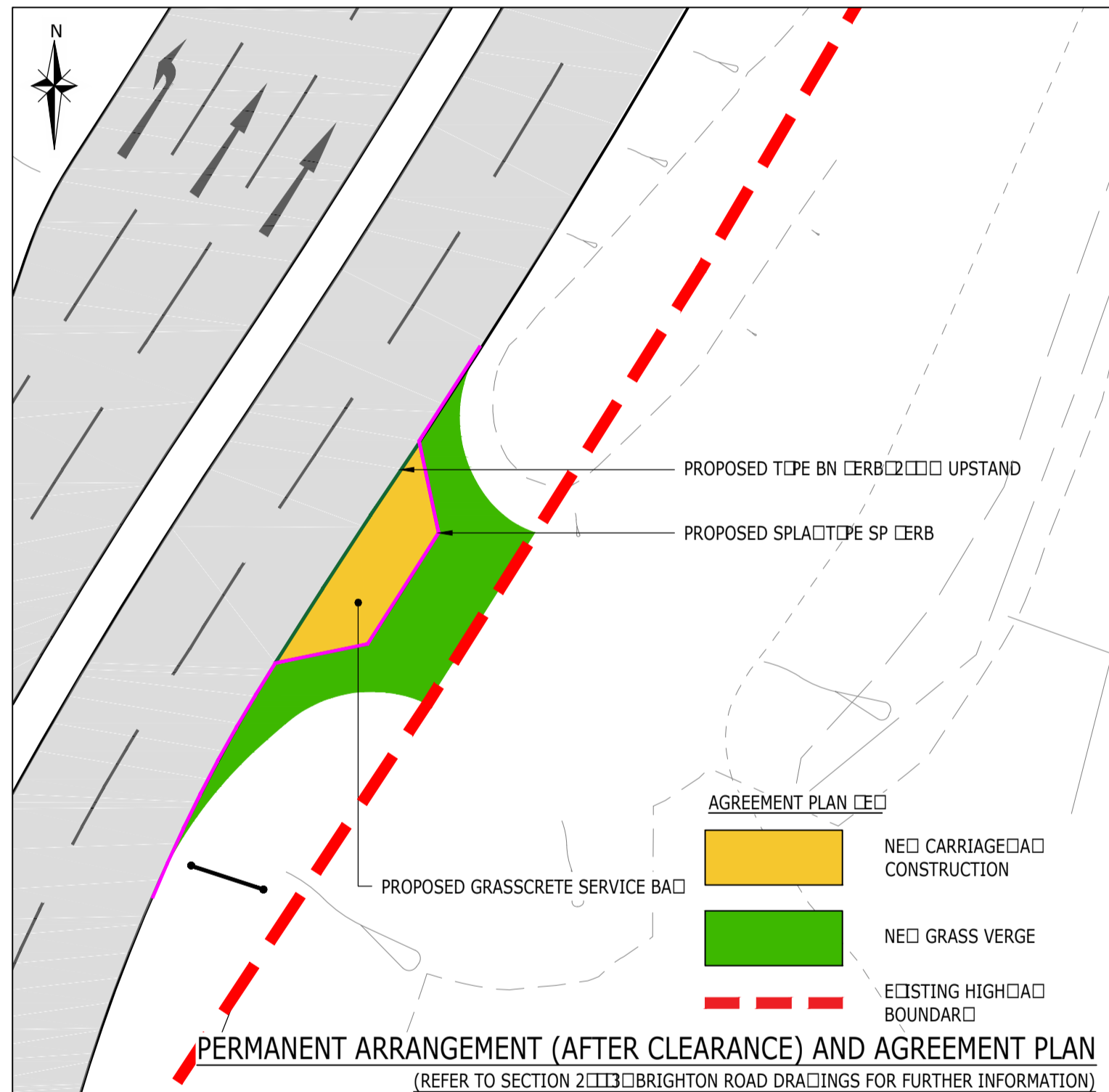
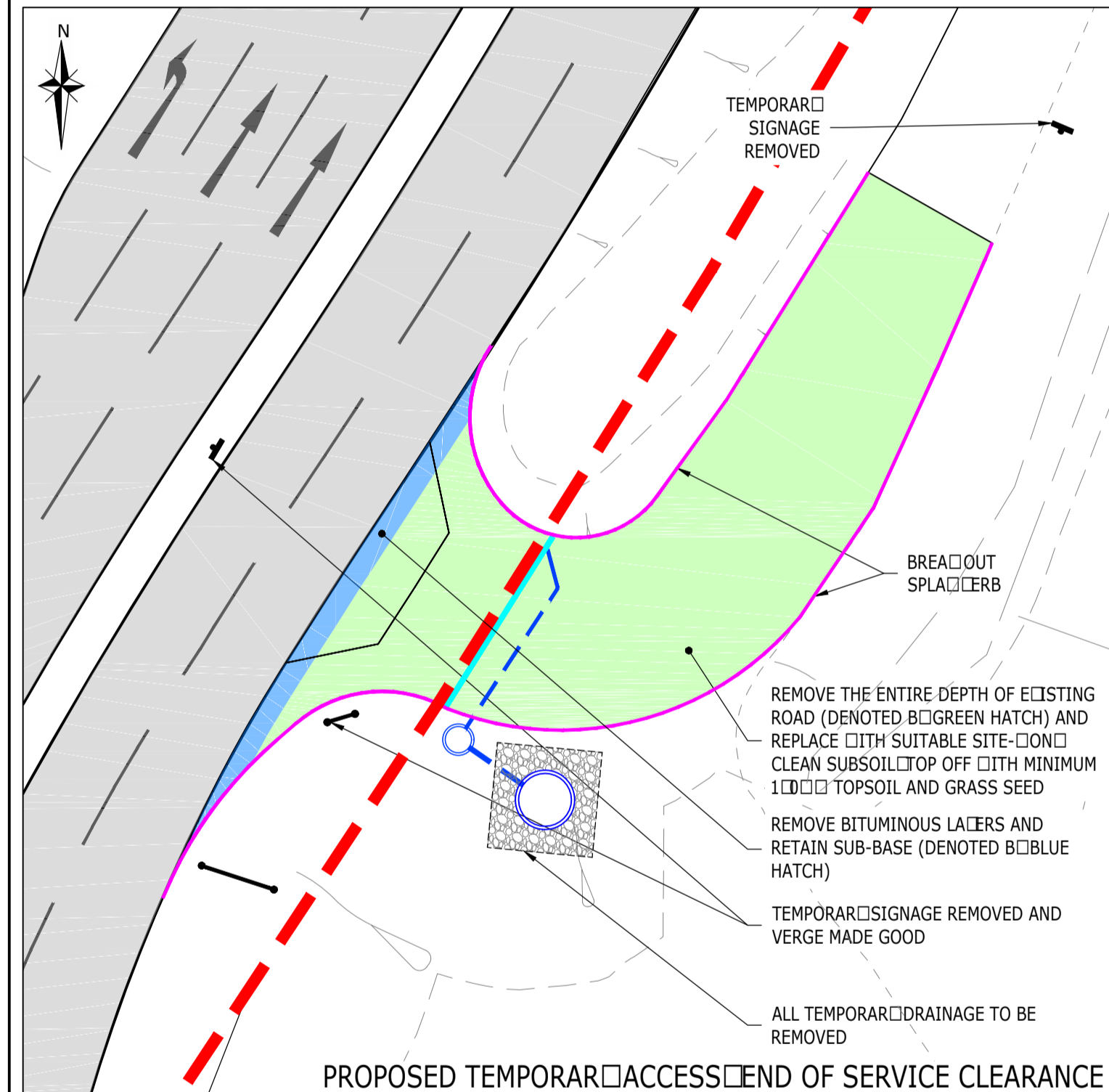
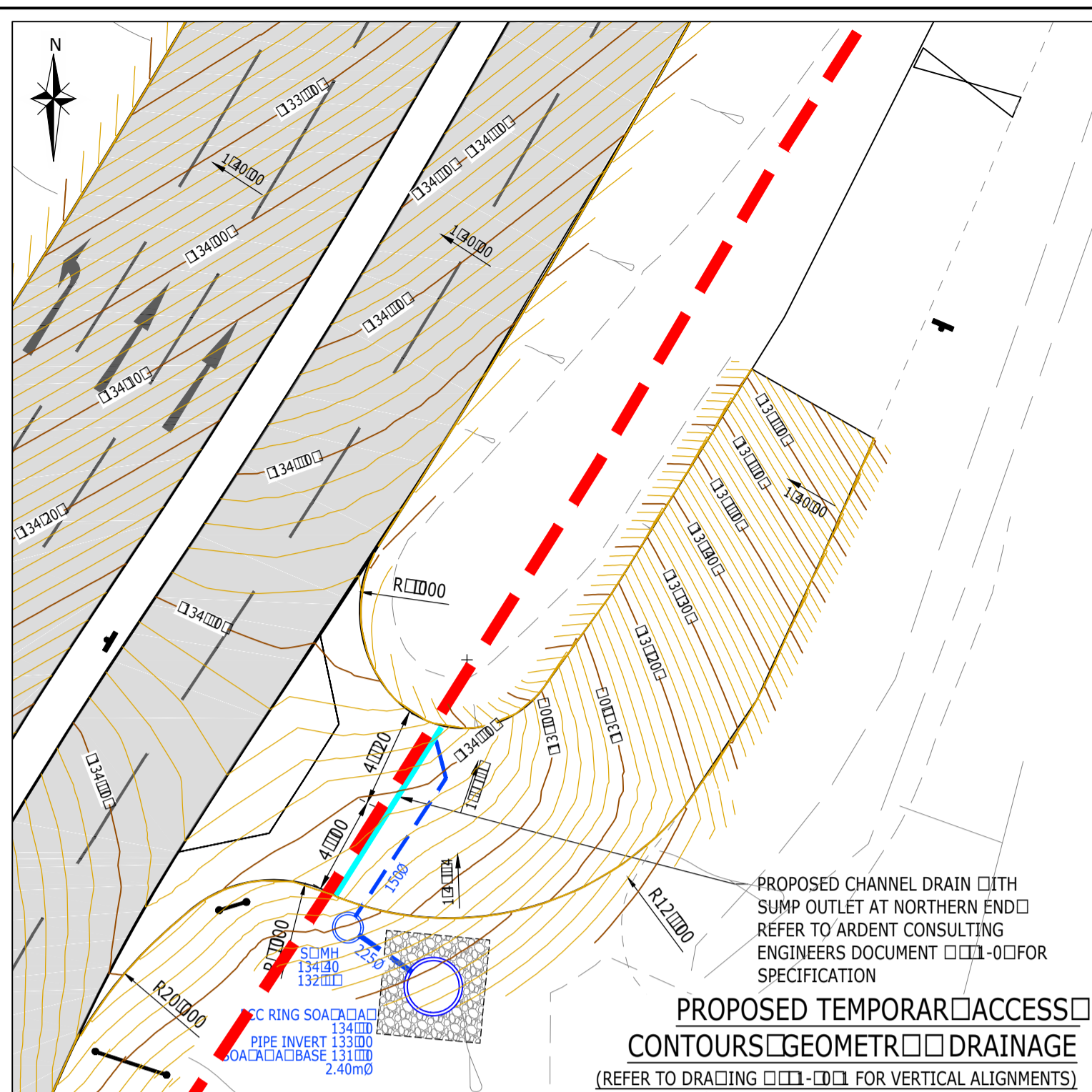
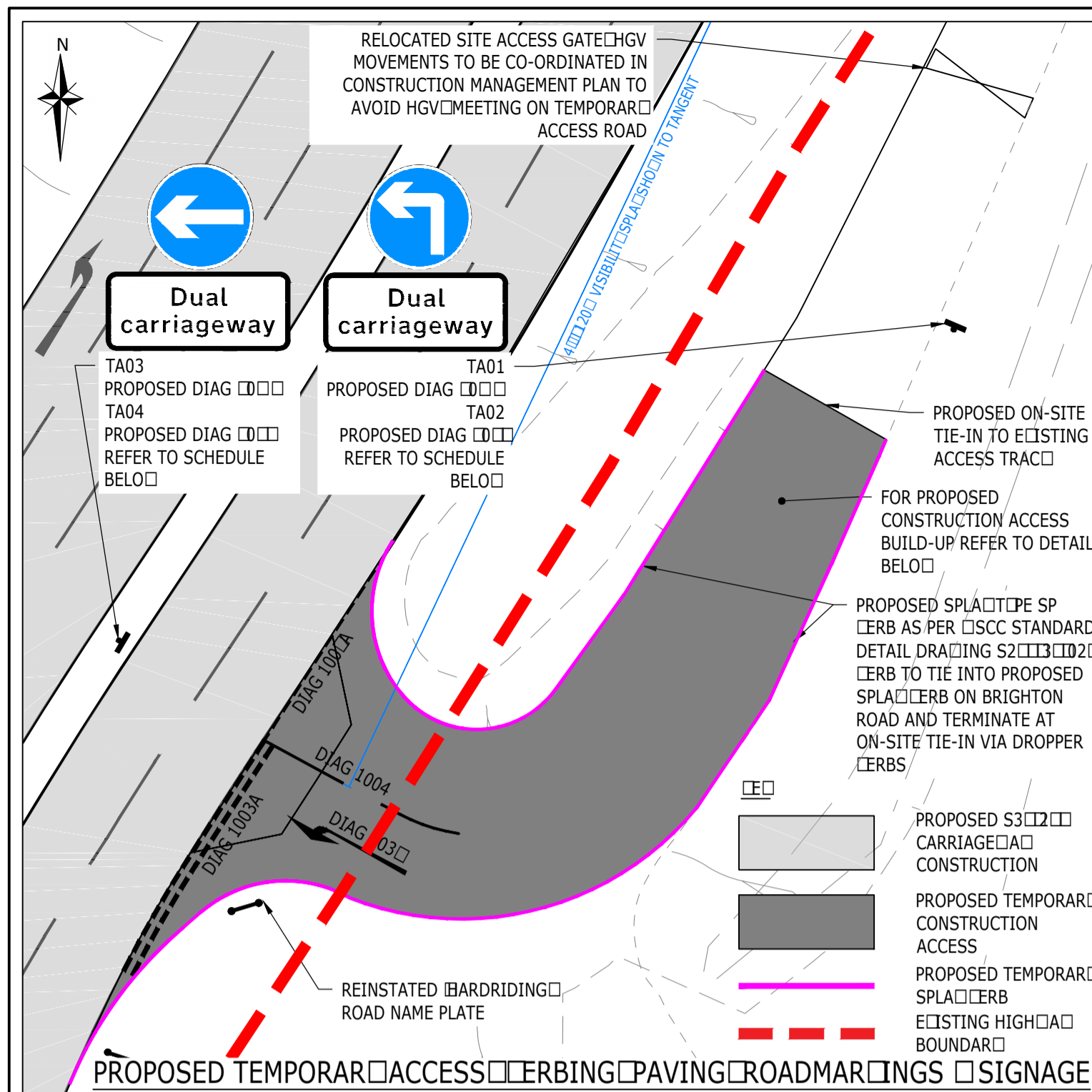
Drawing No. 01064B_S_22 Revision D3



Scale @ A3 1:2000 Do not refer to Scale Bar when printed at A3

Appendix F:

Construction Site Access Drawing No's. W991-7050 & W991-7051

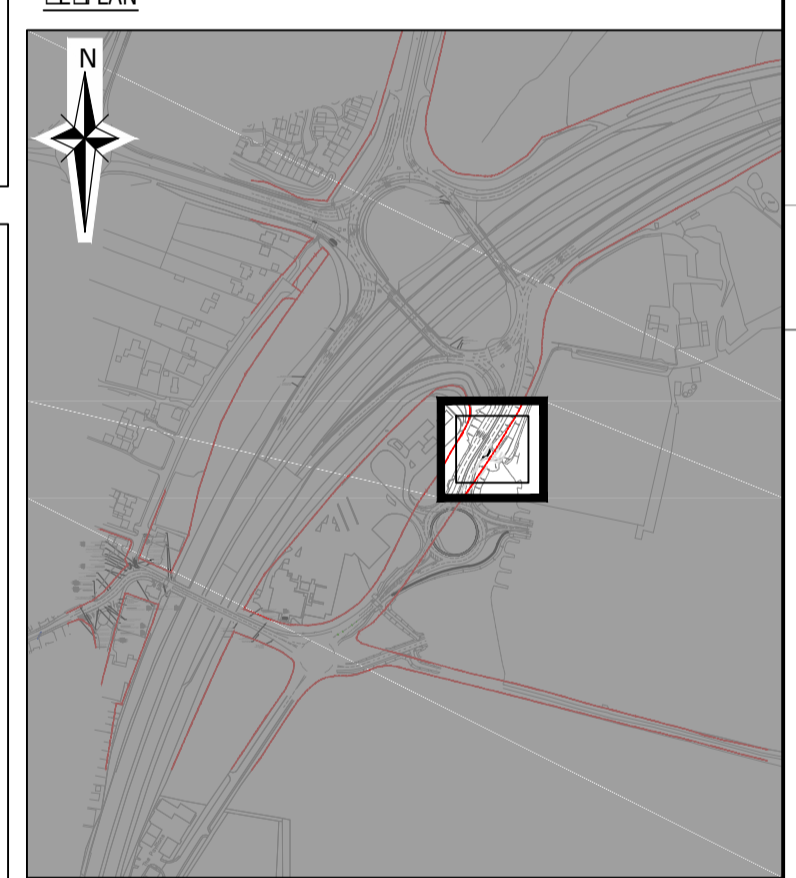
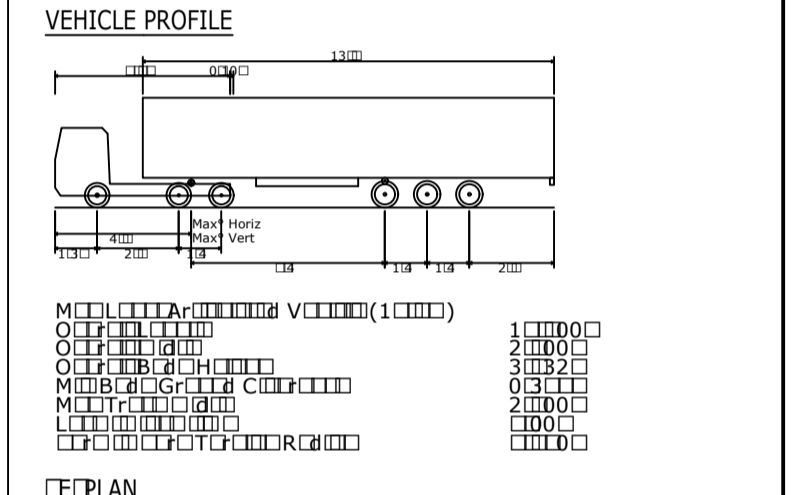


- NOTES
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE RELEVANT SPECIFICATION AND ALL OTHER RELATED DRAWINGS ISSUED BY THE ENGINEER
 - DO NOT SCALE FROM THIS DRAWING FOR FIGURED DIMENSIONS UNLESS OTHERWISE STATED
 - ALL DIMENSIONS SHOWN ON THIS DRAWING ARE IN METRES UNLESS OTHERWISE STATED
 - ALL DIMENSIONS LEVELS AND SURVEY GRID CO-ORDINATES ARE TO BE CHECKED ON SITE AND THE ENGINEER NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO THE COMMENCEMENT OF THE WORKS
 - NO DEVIATION FROM THE DETAILS SHOWN ON THIS DRAWING IS PERMITTED WITHOUT PRIOR PERMISSION FROM THE ENGINEER

- TRAFFIC MANAGEMENT
- THE CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING AND MAINTAINING A SATISFACTORY TRAFFIC MANAGEMENT SYSTEM FOR THE DURATION OF THE WORKS
 - WHERE NECESSARY ALL TRAFFIC MANAGEMENT PROPOSALS SHALL BE SUBMITTED TO AND AGREED WITH THE LOCAL AUTHORITY AND POLICE CONSTABULARY PRIOR TO IMPLEMENTATION

CDM NOTES

- THE ATTENTION OF THE CLIENT (PRINCIPAL DESIGNER/PRINCIPAL CONTRACTOR) DESIGNERS AND CONTRACTORS IS DRAWN TO THE FOLLOWING POTENTIAL RISKS IN CONJUNCTION WITH THE PROPOSED ON-SITE AND OFF-SITE WORKS AS DESIGNED FOR THIS PROJECT
- WORKS IN THE VICINITY OF LIVE SERVICES INCLUDING GAS/ELECTRICITY AND BY MUST BE NECESSARILY THE ADVICE OF ALL STATUTORY SERVICE COMPANIES MUST BE SOUGHT BEFORE ANY WORKS COMMENCE
 - WORKS WITHIN AND ADJUTING THE EXISTING HIGHWAY WILL ENTAIL TRAFFIC HAZARDS AND ALL APPROPRIATE SAFETY MEASURES INCLUDING BARRIERS SIGNS AND LIGHTING MUST BE UNDERTAKEN TO THE APPROVAL OF THE LOCAL AUTHORITY THE HIGHWAY AUTHORITY AND THE POLICE DEPARTMENT
 - HAZARDOUS MATERIALS INCLUDING CEMENT AND BITUMINOUS MATERIALS ARE SPECIFIED AND THE MANUFACTURERS ADVICE ON SAFE HANDLING PROCEDURES MUST BE OBTAINED AND MADE CLEAR TO ALL OPERATIVE
 - THE CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING ALL EXISTING SERVICES WITHIN THE VICINITY OF THE WORKS HAND DUG AND ENSURE THESE ARE PROTECTED THROUGHOUT THE DURATION OF THE WORKS ALL UTILITIES PLANT SHOULD BE CLEARLY MARKED ON THE GROUND PRIOR TO COMMENCEMENT OF THE WORKS
 - THE CONTRACTOR MUST ENSURE ALL WORKING AREAS ARE FULLY SECURED



SUBJECT TO TECHNICAL APPROVAL

C	CONTOURS AND LONG SECTIONS UPDATED	AMG	JEC	GH	16.02.18
B	GATE DRAINAGE AND ADDITIONAL SIGNAGE ADDED TO DRAWING	DE	JEC	GH	14.07.17
A	ACCESS RELOCATED 1m SOUTH	FBC	JEC	GH	30.06.17
Rev	Description	Drn	Chk	App	Date

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Client

THAKEHAM HOMES

LAND EAST OF BRIGHTON ROAD, PEASE POTTS

CONSTRUCTION SITE ACCESS (SHEET 1 OF 2)

At Scale: 1:250
Date: 16.06.2017
Designed by: KI

Drawn by: KI
Checked by: JEC
Approved by: TRF

Drawing Number: W991-7050
REV C

CONSTRUCTION SPECIFICATION

SURFACE COURSE
40mm OF HRA 30/4 F SURF 40mm REC WITH 20mm PRE-COATED CHIPPINGS TO BS EN 1310-4 HOT ROLLED ASPHALT (PSV 11)

BINDER COURSE
20mm OF AC 20 HDM BIN 40mm REC TO BS EN 1310-1 ASPHALT CONCRETE

BASE
200mm OF AC 32 HDM BASE 40mm REC TO BS EN 1310-1 ASPHALT CONCRETE (TO BE LAID IN TWO LACERS)

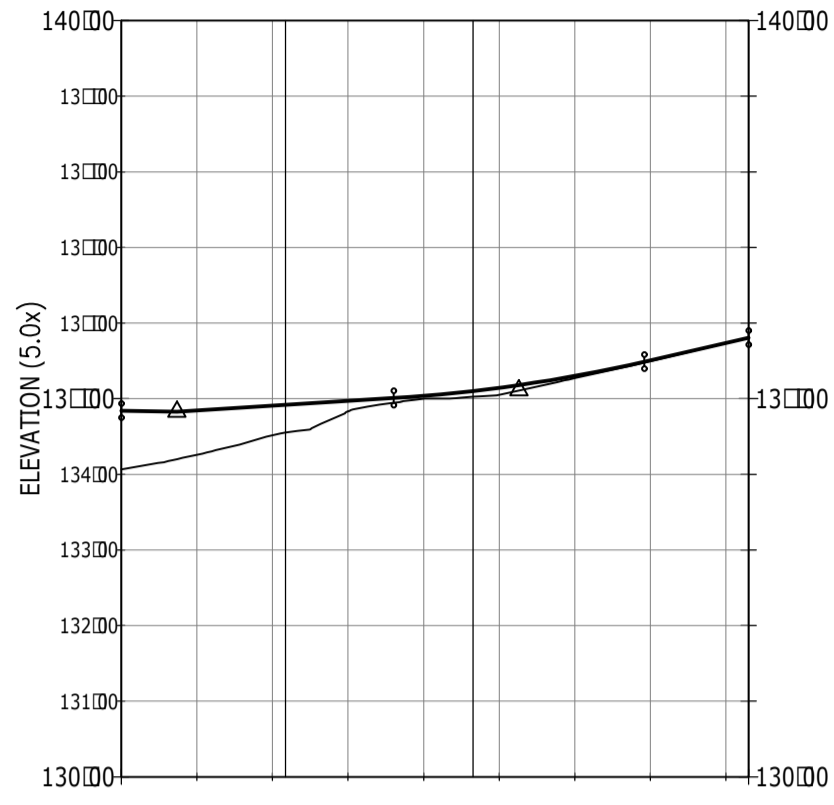
SUB-BASE CAPPING
100mm MINIMUM TYPE 1 GRANULAR MATERIAL TO CLAUSE D3 MCH1 AND 30mm MINIMUM CLASS 1 FACEDS TO BE USED TO CLAUSE D3 AND TABLE 1 OF SERIES D0 OF MCH1 (MATERIAL TO BE CHECKED AND APPROVED ON SITE BY HIGHWAYS INSPECTOR PRIOR TO USE) (BASED UPON A DESIGN CURB OF 1 - IF DIFFERENT REFER TO ENGINEER FOR CLARIFICATION)

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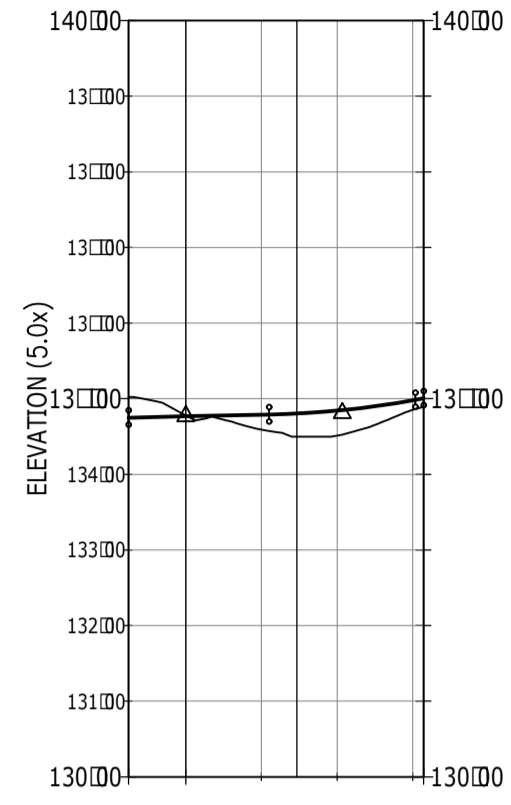
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DIMENSION	MCHS (mm)	GEOS (mm)	SP (mm)
1003A	400	300	200
1004	4000	2000	100
100CA	400	300	100
103C	4000	-	-

ROAD SIGNAGE		ROAD SIGNAGE	
SIGN NO	SIZE (mm)	REFLECTIVITY REQUIREMENT	PERFORMANCE CLASS
TA01	2100	BS EN 12289-2 RAZ	TYPE 1 SP 14
TA02	340	BS EN 12289-2 RAZ	MATERIAL TA01
TA03	2100	BS EN 12289-2 RAZ	TYPE 1 SP 14
TA04	340	BS EN 12289-2 RAZ	MATERIAL TA03

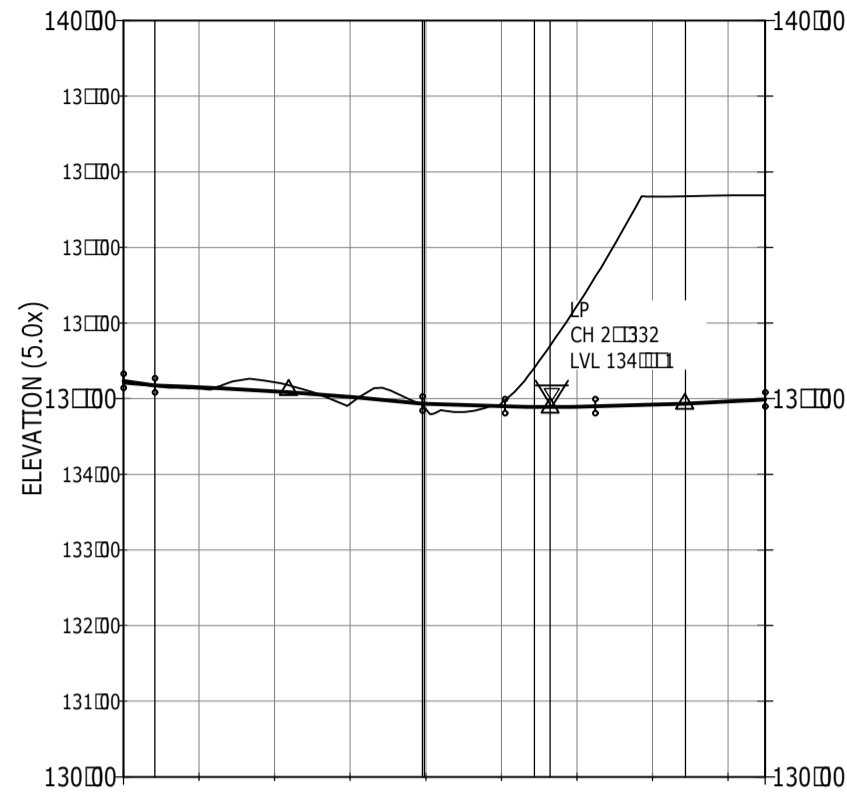
PROFILE VIEW CONSTRUCTION ACCESS
SCALE 1:1000
DATUM 130000



PROFILE VIEW CONST ACCESS NTH
SCALE 1:1000
DATUM 130000



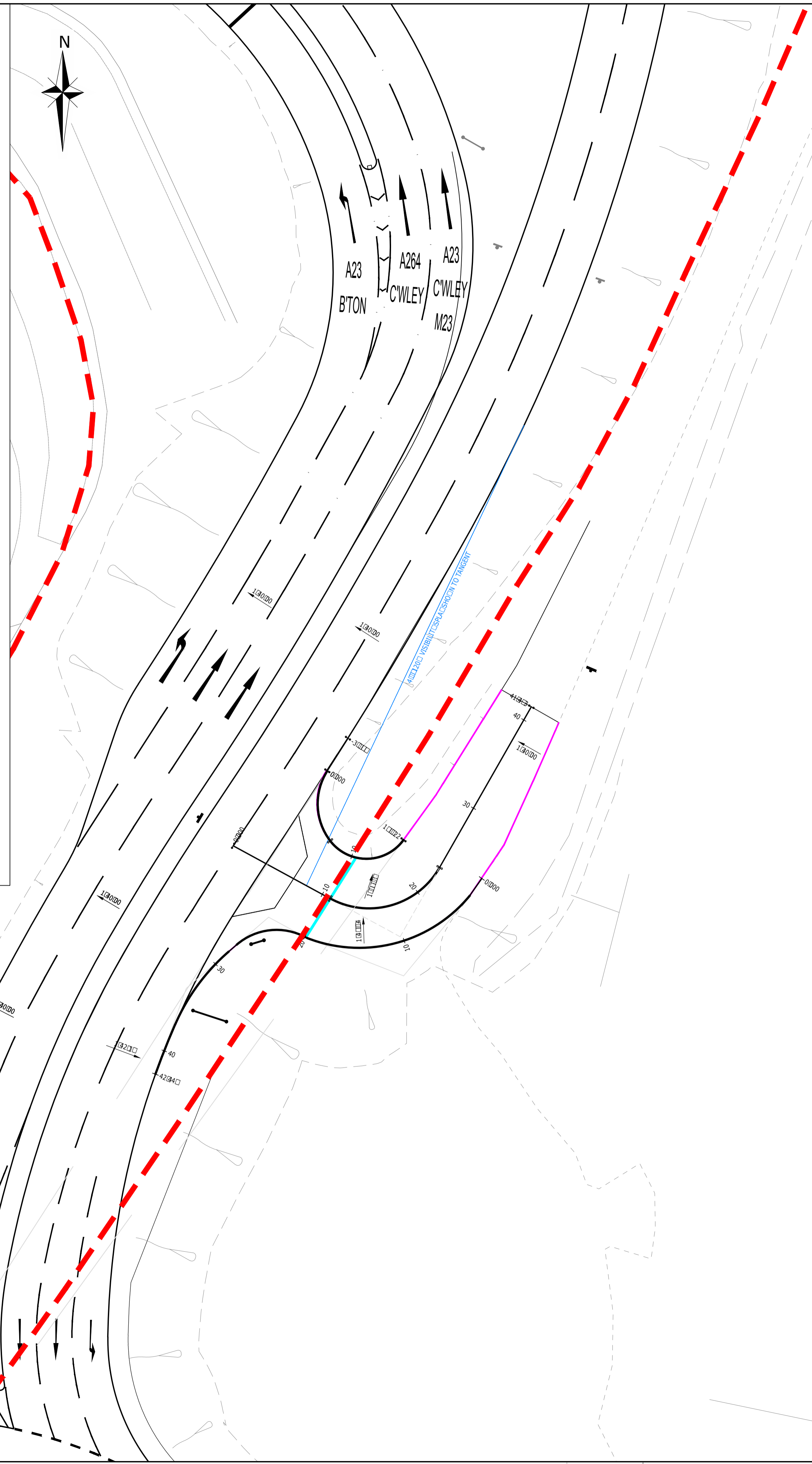
PROFILE VIEW CONST ACCESS STH
SCALE 1:1000
DATUM 130000



CHAINAGE	0000	10000	10000	20000	20000	30000	30000	40000
HORIZONTAL GEOMETR	R10000		R12000		R14000		R16000	
VERTICAL GEOMETR	GR10000 (-0.00)	GR10000 (1.00)	GR10000 (1.00)	GR10000 (1.00)	GR10000 (1.00)	GR10000 (1.00)	GR10000 (1.00)	GR10000 (1.00)
EXISTING LEVELS	134000	134000	134000	134000	134000	134000	134000	134000
FINISHED LEVELS	134000	134000	134000	134000	134000	134000	134000	134000

CHAINAGE	0000	10000	10000
HORIZONTAL GEOMETR	R10000	R10000	R10000
VERTICAL GEOMETR	GR10000 (0.00)	GR10000 (0.00)	GR10000 (0.00)
EXISTING LEVELS	134000	134000	134000
FINISHED LEVELS	134000	134000	134000

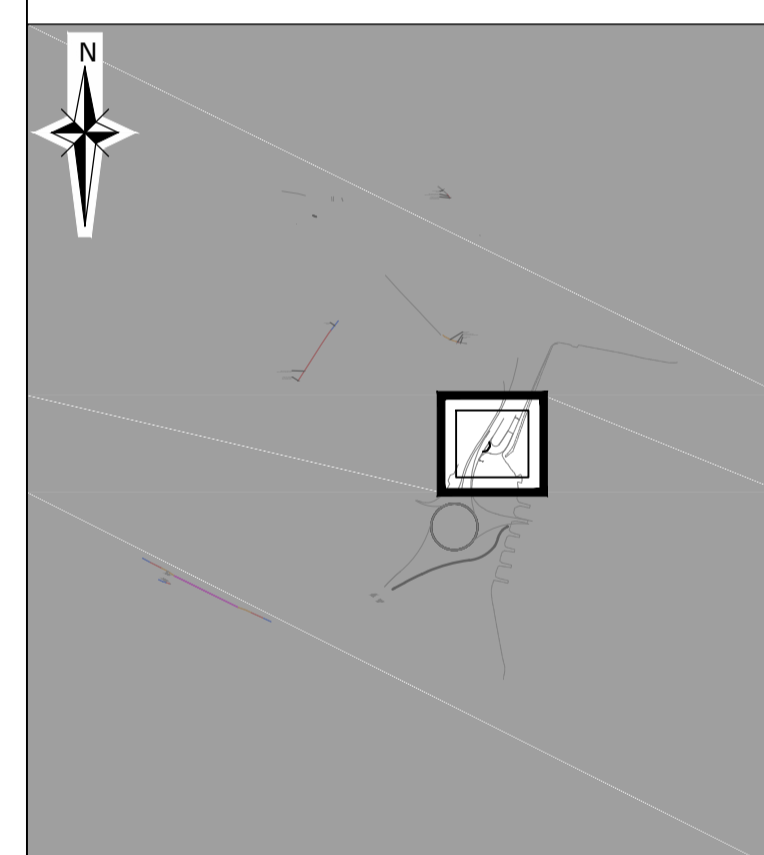
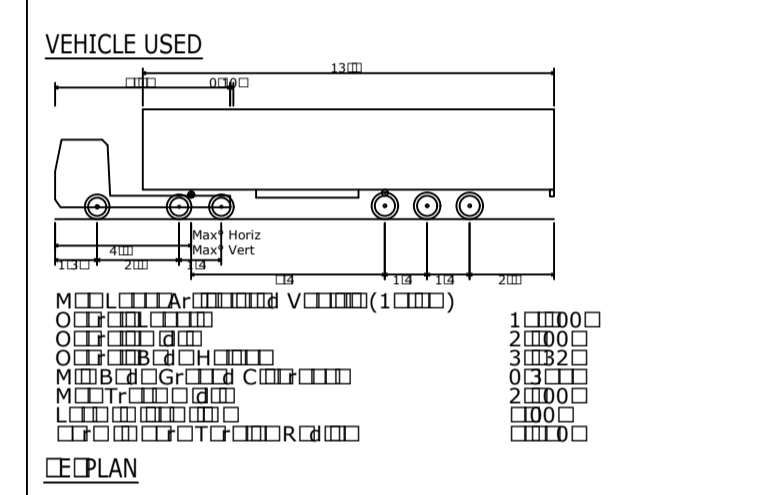
CHAINAGE	0000	10000	10000	20000	20000	30000	30000	40000
HORIZONTAL GEOMETR	R10000	R10000	R10000	R10000	R10000	R10000	R10000	R10000
VERTICAL GEOMETR	GR10000 (-0.00)	GR10000 (0.00)	GR10000 (0.00)	GR10000 (0.00)	GR10000 (0.00)	GR10000 (0.00)	GR10000 (0.00)	GR10000 (0.00)
EXISTING LEVELS	134000	134000	134000	134000	134000	134000	134000	134000
FINISHED LEVELS	134000	134000	134000	134000	134000	134000	134000	134000



- NOTES
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE RELEVANT SPECIFICATION AND ALL OTHER RELATED DRAWINGS ISSUED BY THE ENGINEER
 - DO NOT SCALE FROM THIS DRAWING FROM FIGURED DIMENSIONS UNLESS OTHERWISE STATED
 - ALL DIMENSIONS SHOWN ON THIS DRAWING ARE IN METRES UNLESS OTHERWISE STATED
 - ALL DIMENSIONS, LEVELS AND SURVEY GRID CO-ORDINATES ARE TO BE CHECKED ON SITE AND THE ENGINEER NOTIFIED IMMEDIATELY OF ANY DISCREPANCIES PRIOR TO THE COMMENCEMENT OF THE WORKS
 - NO DEVIATION FROM THE DETAILS SHOWN ON THIS DRAWING IS PERMITTED WITHOUT PRIOR PERMISSION FROM THE ENGINEER

- TRAFFIC MANAGEMENT
- THE CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING AND MAINTAINING A SATISFACTORY TRAFFIC MANAGEMENT SYSTEM FOR THE DURATION OF THE WORKS
 - WHERE NECESSARY ALL TRAFFIC MANAGEMENT PROPOSALS SHALL BE SUBMITTED TO AND AGREED WITH THE LOCAL AUTHORITY AND POLICE CONSTABULARY PRIOR TO IMPLEMENTATION

- CDM NOTES
- THE ATTENTION OF THE CLIENT/PRINCIPAL DESIGNER/PRINCIPAL CONTRACTOR/DESIGNERS AND CONTRACTORS IS DRAWN TO THE FOLLOWING POTENTIAL RISKS IN CONJUNCTION WITH THE PROPOSED ON-SITE AND OFF-SITE WORKS AS DESIGNED FOR THIS PROJECT
- WORKS IN THE VICINITY OF LIVE SERVICES INCLUDING GAS/ELECTRICITY AND BY WHICH BE NECESSARY THE ADVICE OF ALL STATUTOR SERVICE COMPANIES MUST BE SOUGHT BEFORE ANY WORKS COMMENCED
 - WORKS WITHIN AND ABUTTING THE EXISTING HIGHWAY WILL ENTAIL TRAFFIC HAZARDS AND ALL APPROPRIATE SAFETY MEASURES INCLUDING BARRIERS, SIGNS AND LIGHTING MUST BE UNDERTAKEN TO THE APPROVAL OF THE LOCAL AUTHORITY, THE HIGHWAY AUTHORITY AND THE POLICE DEPARTMENT
 - HAZARDOUS MATERIALS INCLUDING CEMENT AND BITUMINOUS MATERIALS ARE SPECIFIED AND THE MANUFACTURERS ADVICE ON SAFE HANDLING PROCEDURES MUST BE OBTAINED AND MADE CLEAR TO ALL OPERATIVES
 - THE CONTRACTOR WILL BE RESPONSIBLE FOR LOCATING ALL EXISTING SERVICES WITHIN THE VICINITY OF THE WORKS HAND DUG AND ENSURE THESE ARE PROTECTED THROUGHOUT THE DURATION OF THE WORKS. ALL UTILITIES PLANT SHOULD BE CLEARLY MARKED ON THE GROUND PRIOR TO COMMENCEMENT OF THE WORKS
 - THE CONTRACTOR MUST ENSURE ALL WORKING AREAS ARE FULLY SECURED



SUBJECT TO TECHNICAL APPROVAL

C	CONTOURS AND LONG SECTIONS UPDATED	AMG	JEC	GH	16.02.18
B	ALIGNMENTS UPDATED	FBC	JEC	GH	14.07.17
A	ACCESS RELOCATED 1m SOUTH	FBC	JEC	GH	30.06.17
Rev	Description	Drn	Chk	App	Date

ARDENT CONSULTING ENGINEERS

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worksafe consultant
www.smesitd.com

SSIP
SAFETY PROMOTED BY

Client
THAKEHAM HOMES

PROJECT
LAND EAST OF BRIGHTON ROAD, PEASE POTTAGE

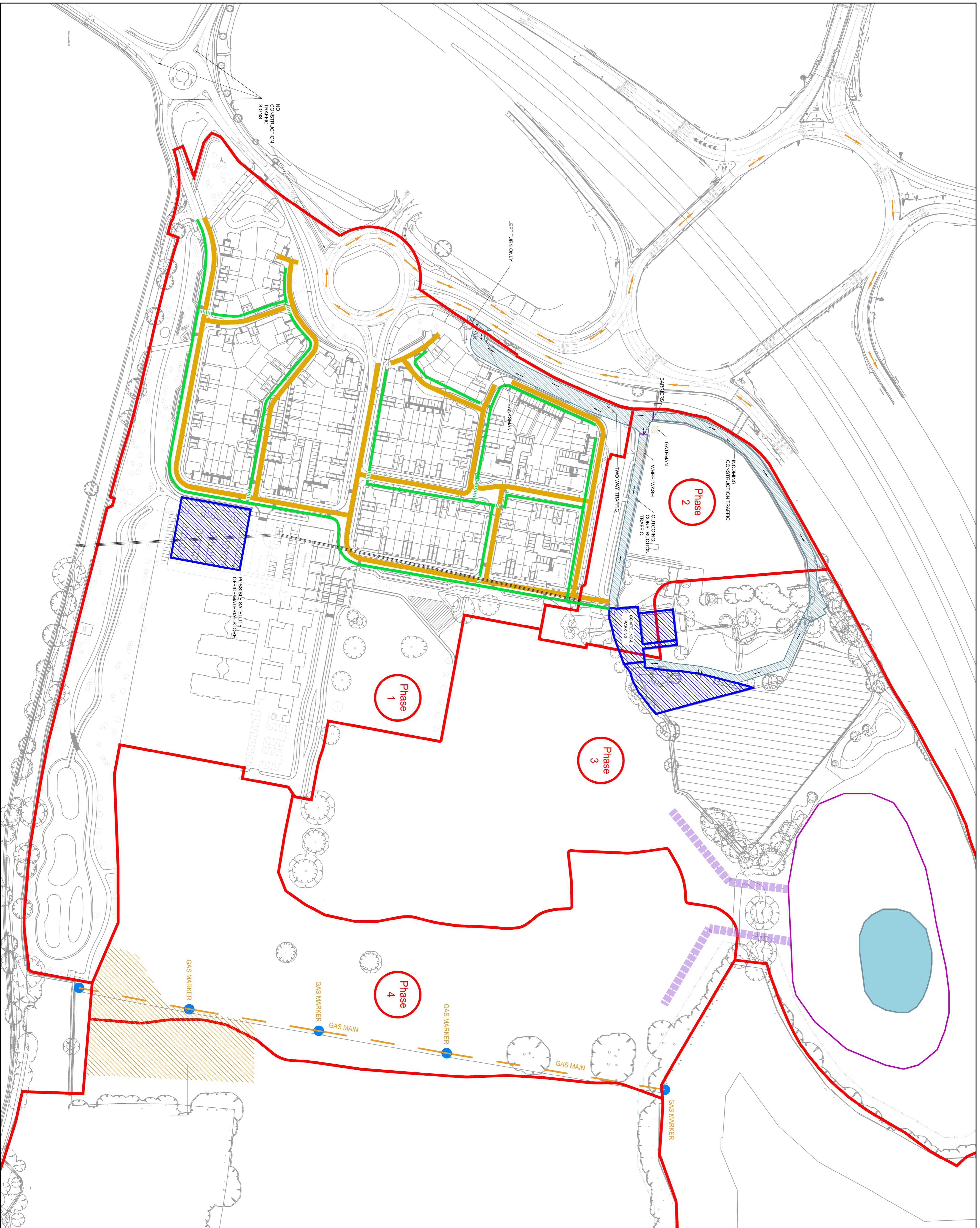
DESCRIPTION
CONSTRUCTION SITE ACCESS (SHEET 2 OF 2)

A1 Scale	Date	Designed by
1:250	16.06.2017	KI
Drawn by	Checked by	Approved by
KI	JEC	TRF
Drawing Number	REV	
W991-7051	C	

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Appendix G:

Site setup – Phase 1 RM and Construction traffic



- KEY**
- Orange line: Offsite Construction Traffic Route
 - Orange dashed line: Main Construction Route - All Vehicles
 - Orange solid line: Plant / Forklift Routes
 - Blue solid line: Pedestrian Routes
 - Blue dashed line: Gateman / Wheel Wash
 - Blue solid line: Office / Material Storage / Construction Plant
 - Blue solid line: Site Spoil
 - Blue dashed line: Paving Boundaries
 - Yellow line: Gas Main
 - Orange dashed line: Underground BT
 - Orange solid line: Overhead Electric
 - Blue dashed line: Indicative Haul Roads

<p>THAKEHAM</p> <p>Thakeham Homes Limited Thakeham House Summers Place Stane Street Billingshurst West Sussex RH14 9GN</p>	<p>REV. DATE NOTE</p> <p>DEVELOPMENT Hardriding Farm Brighton Road, Pease Pottage West Sussex, RH11 9AA</p>
	<p>DRAWING TITLE Site Setup</p>
<p>DRAWN DATE SCALE</p> <p>March 2018 1:1250 @ A1</p>	<p>DWG No. T048 SITE SETUP</p>

Appendix H:

Off-site Construction HGV Waiting Areas

HGV Holding Areas

Pease Pottage



Hickstead



Three Lorry holding area have been identified:

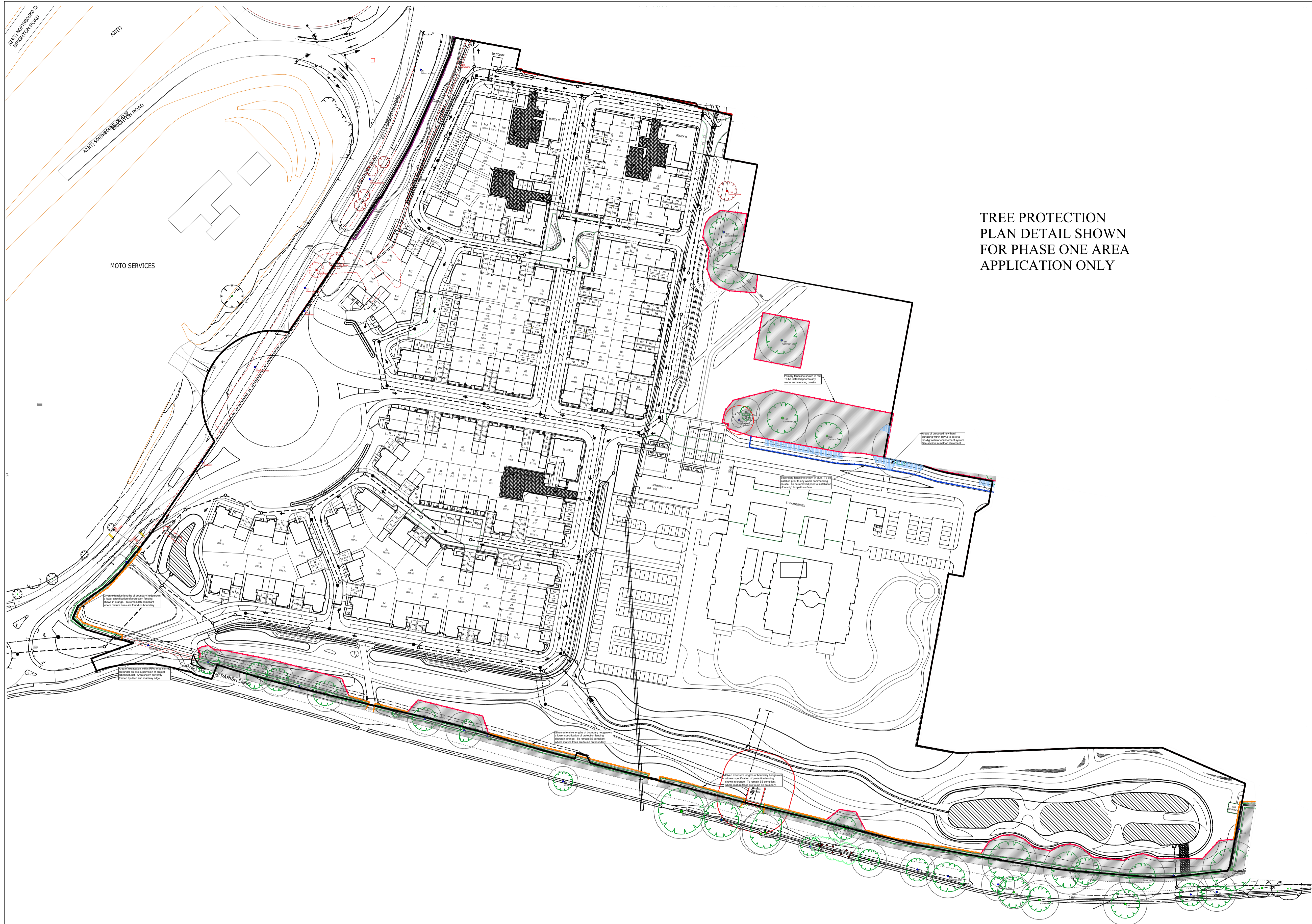
- Pease Pottage – Moto service station opposite the site entrance off Brighton road
- Hickstead – From the south at Ricebridge Services off the A23
- Faygate – From the west a Layby by the cabin café off the A264

Faygate



Appendix I:

Tree Protection Plan



**TREE PROTECTION
PLAN DETAIL SHOWN
FOR PHASE ONE AREA
APPLICATION ONLY**

WHY TREE PROTECTION IS NEEDED

- 1) **Soil compaction kills roots** - caused by plant movement and storage of materials within protected areas.
- 2) **Trenching severs roots** - many small roots grow within the top 600mm of soil. Even the removal of the top 200mm can cause damage.
- 3) **Soil pollution kills roots** - Dripping fuel storage or cement wastings can contaminate the soil resulting in root death.
- 4) **Raising & lowering levels kills roots** - The soil used to increase levels can compact the underlying soil (see point 1). Lowering levels will remove roots causing damage to the tree.
- 5) **Bark and branch damage** - bark removal and branch damage can allow disease and fungi into the tree.

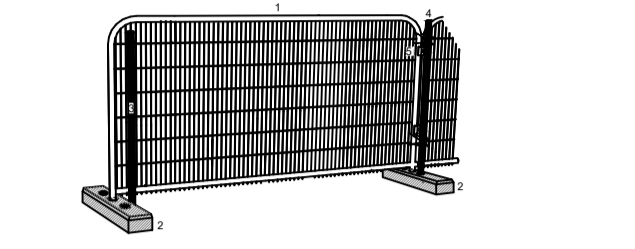
The impact of any of the above can take years to show - trees can have huge reserves of food and water.

LEGEND

TREE PROTECTION FENCING & EXCLUSION ZONE

All fencing shall be installed prior to any plant activity on site whatsoever, including: demolition, utility installation, groundworks, and soil stripping.

Once erected, all TPF will be regarded as sacrosanct, and will not be removed or altered without prior recommendation by the project arboriculturist and approval of the local planning authority. The TPF shall comprise of unobscured green panels (e.g. Heralds), well braced by attachment to scaffold pole uprights driven firmly into the ground. Should any alternative method of fence construction be proposed, consultation with the project arboriculturist will be obtained to clarify the efficacy of the revised design prior to informing the local planning authority and obtaining their consent. Once the exclusion zone has been protected by barriers and/or ground protection, construction work can commence. All weather notices may be erected on the barriers.

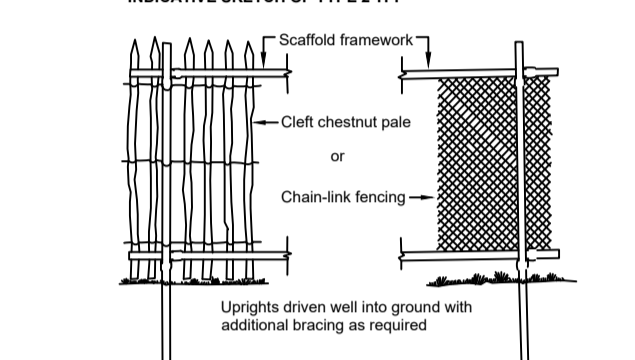


1. Weldmesh (e.g. Heralds) Panels, 2. Concrete or rubber ground blocks
3. Scaffold pole uprights driven firmly into ground, then secured to panel
4. Uprights driven into ground through future in ground block, then secured to panel
5. Panels to be attached using scaffold clamps

HEDEGROW PROTECTION FENCING & EXCLUSION ZONE

All fencing shall be installed prior to any plant activity on site whatsoever, including: demolition, utility installation, groundworks, and soil stripping.

The TPF shall comprise of either 'Cleft chestnut pale' or 'Chain-link' fencing, well braced by attachment to scaffold pole uprights driven firmly into the ground.



INDICATIVE SKETCH OF TYPE 2 TPF

Scaffold framework
Cleft chestnut pale or Chain-link fencing
Uprights driven well into ground with additional bracing as required

NO-DIG SURFACE

Cellular confinement system (CCS) to be used to create the area of hard surface, above the existing ground level. Topsoil to be retained. Depth of CCS to be 50-75mm for pedestrian surfaces and 100-200mm for vehicular surfaces. Surface to be proven to approved details and specifications. To be installed under arboriculturist supervision. All specifications subject to engineering design. Cells to be filled with 20-40mm clean graded angular waste to manufacturers details and specifications.

TreeTex T300 geotextile or similar laid over CellWeb
Porous surface to finish
Peg and board edging
Top soil to BS3882:2007
Original ground level
Depressions and soft spots in formation to be filled with sharp sand to levels required
CCS/Cellular confinement system (Geosynthetic CellWeb or similar approved)

TREE TO BE RETAINED (Green circle)
TREE TO BE REMOVED (Red circle)

A CATEGORY TREE (Green circle)
B CATEGORY TREE (Blue circle)
C CATEGORY TREE (Yellow circle)
U CATEGORY TREE (Red circle)

ROOT PROTECTION AREA FOR RETAINED TREES (Red outline)
ROUTE AVOIDING PROTECTION AREAS (SR)

NOTE:
FOR PLANNING PURPOSES ONLY
DO NOT SCALE FROM DRAWING

0 10 20 30 40 50m

A 16/05/17 Detailed site layout AJB
Rev Date Details Drawn

ACD ENVIRONMENTAL

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THAKEHAM

scheme: Land at Hard Ridings Farm,
Pease Pottage
client: Thakeham Homes
drawing: Tree Protection Plan
date: November 2015
scale: 1:1000@A1
dwg no: THA19914-03A Phase One
drawn: AJB checked: MW