ARDENT | CONSULTING ENGINEERS

LINDEN HOMES

LAND EAST OF TYE LANE, WALBERTON

CONSTRUCTION MANAGEMENT PLAN

REPORT REF NO 183240-06C
PROJECT NO. 183240
APRIL 2019

LAND EAST OF TYE LANE, WALBERTON, WEST SUSSEX

CONSTRUCTION MANAGEMENT PLAN

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DRAWINGS

183240-008D Proposed Construction Phasing Plan
183240-009B Indicative Site Setup Plan

APPENDICES

Appendix A Proposed Site Layout Plan

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DOCUMENT CONTROL SHEET

REV	ISSUE PURPOSE	AUTHOR	CHECKED	APPROVED	DATE
-	Draft Client Issue	AP	AP	-	23.11.18
-	Second Draft Client Issue	AP	KM	-	30.11.18
-	Final Client Issue	AP	AP	KM	11.02.19
A	Final Client Issue	AP	AP	KM	11.02.19
B	Final	AP	AP	KM	29.04.19
C	Final	KI	AP	KM	13.05.19

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1.0 INTRODUCTION

1.1 Ardent Consulting Engineers (ACE) has been appointed by Linden Homes to prepare a Construction Management Plan (CMP) for the proposed residential development comprising 175 dwellings on the land east of Tye Lane, Walberton.

1.2 The planning application for this development (WA/44/17/OUT) which was granted planning permission in February 2018. The proposed site layout plan is provided within **Appendix A**.

1.3 This CMP has been prepared to discharge Condition 6 of the planning permission.

1.4 The aim of this report is to provide the local planning authority, Arun District Council (ADC) and West Sussex County Council (WSCC) as local Highway Authority, with sufficient information on the management of construction traffic during the construction phases and details concerning the operational hours of the construction site and the inclusion of wheel washing facilities.

1.5 This report also seeks to highlight site specific requirements in order to put in place a level of control that minimises, where practical, the impact of the works on the surrounding area, neighbouring properties and the general public.

1.6 Following the adoption of this CMP, the Developer will be responsible for ensuring the document is updated as and when necessary, to include any amendments, revisions or improvements to the construction logistics or adaptations to address unforeseeable changes to the construction programme, as and when applicable.

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2.0 SITE LOCATION / DEVELOPMENT PROPOSALS

Site Location

2.1 The development site is located along Yapton Lane, Walberton and shown within **Plate 2.1** below.

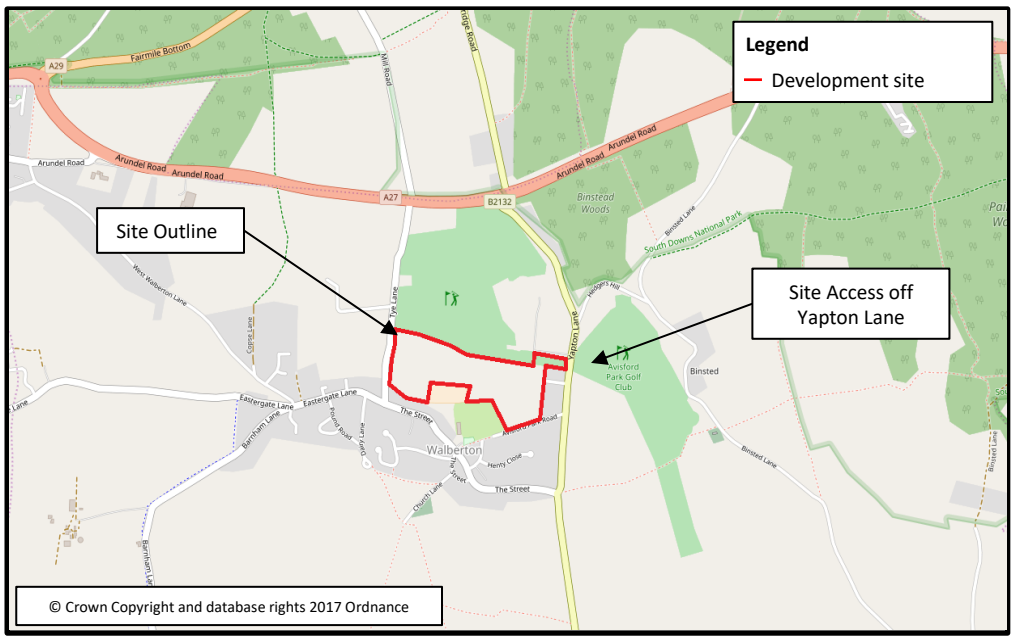

Plate 2.1: Site Location Plan

Local Highway

2.2 A vehicular access will be provided directly from Yapton Lane, comprising a simple priority 'T' junction, with a 5.5 metres carriageway width with 2.0 metres footways on either side.

2.3 Yapton Lane is a two-way single carriageway road of varying width, between 6.5 metres and 7.1 metres. Yapton lane is subject to a 30mph speed limit to the south of the site access point; while the speed limit is 40mph heading north.

2.4 Yapton Lane continues north for approximately 700 metres and connects to the A27. The A27 runs broadly in east – west direction

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and provides connections to Portsmouth and Chichester to the west and Worthing, Brighton and Eastbourne to the east.

2.5 A pedestrian route is proposed to the southwest of the site that will connect the development to Tye Lane.

Highway Restrictions

2.6 There are no highway restrictions along Yapton Lane adjacent to the site.

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3.0 PROPOSED PROGRAMME AND RESTRICTIONS

3.1 The works associated with the development are envisaged to start in March 2019, and would take circa 58 months to complete the following phases,

- Start on Site (Junction Works including first 100m section of the access road) – March 2019
- First Foundations in Phase 1 – May 2019
- First Legal Completion – December 2019
- Last Legal Completion – December 2023

3.2 An indicative phasing plan is provided within **ACE Drawing 183240-008D.**

3.3 The vehicular site access with footways will be constructed in first 8 weeks before the start of Phase 1.

3.4 It would not be appropriate to construct the proposed pedestrian link to the southwest of the site (that will connect the development to Tye Lane) or a link from the site onto Avisford Park Road during Phase 1 as this will result in an active pedestrian links through a building site. Hence, these link will be constructed as part of the final phase of development (Phase 6).

3.5 Similarly, the cycle/pedestrian link on the southwestern corner of the site that will link the site to Yapton Lane will also be constructed as part of Phase 6.

3.6 Working Hours will be in line with outline planning consent:-

- Monday to Friday - 08:00 to 18:00 hours
- Saturday - 08:00 to 13:00 hours
- Sundays and Bank Holidays - No working to take place

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3.7 Working hours to remain as per outline consent unless otherwise agreed in writing from ADC.

3.8 Outside the above times there will be no construction works, including vehicle movement on site, which are audible at the boundary of noise sensitive premises in the vicinity of the site.

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4.0 SITE SET-UP AND LOGISTICS

Site Contact Details

4.1 Linden Homes are the Site Contractors.

4.2 These details will be placed on the hoardings on the front of the site to identify the site manager.

4.3 The below outlines the anticipated set-up procedures and logistical impact/mitigation for the construction phases.

Enabling Works/Formation of Site Perimeter

4.4 At commencement, the perimeter of the site will be established and securely protected complete with all necessary signage in accordance with HSE requirements. An indicative site setup plan is provided within **ACE Drawing 183240-009B**.

Site Facilities

4.5 The site offices and associated portacabin etc. will be located within the site. These areas could also be designated for any cycle parking as well as welfare facilities.

4.6 The dedicated areas for recycling / waste store and plant storage facility will also be provided.

Excavation and Ground Works

4.7 Prior to commencing excavations, the site area will be checked for overhead and underground services. Service Plans will be obtained from Utility providers.

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4.8 Once identified, the service routes will be identified and clearly marked. If markings are lost during the working operation, the exercise will be repeated to ensure service routes remain clearly marked as required during the duration of the works.

4.9 Works will be undertaken in accordance with the relevant HSE Guidance Document.

4.10 Trenches will be inspected regularly and excess groundwater pumped out regularly during inclement weather.

4.11 Vehicle plant will be kept at a safe working distance from the trench to prevent potential collapse.

Access and Egress, Deliveries and Loading of Plant Material

4.12 The access to the construction site will be the proposed vehicular entrance off Yapton Lane which will be formed at the outset of the project. The haul roads will be installed within the site to accommodate construction vehicles movements.

4.13 Any delivery vehicles will be accompanied onto and from the site by the qualified banksmen.

4.14 It is envisaged that the following movements will occur as part of the construction phase, along with anticipated timescales:

- The delivery and pick up of contractor equipment (generators, storage facilities) would occur at the beginning and end of the project. This should comprise deliveries using a 16.5 metres articulated lorry;
- The delivery of concrete (ready mixed /precast blocks) would occur throughout this phase. It is estimated that this would comprise deliveries using a large tipper/concrete mixer/7.5

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tonne lorry type vehicle, with timely deliveries to avoid quieting on the public highway;

- Delivery of steel products such as sheets or reinforcement would utilise as much as possible rigid trucks, and on occasions when necessary articulated vehicles will have to be used to carry longer lengths of these items;
- The delivery of aggregates/cement would comprise deliveries using a 7.5 tonne lorry/rigid truck type vehicle;
- The delivery of general building materials would occur throughout this phase using a large tipper/7.5 tonne lorry type vehicle;
- Delivery of fuel would occur throughout this phase using a small oil tanker/rigid truck type vehicle, however the use of diesel storage bowsers on site would minimise the need for excessive number of deliveries.
- Any delivery of a crane would be required to arrive at the beginning of the construction phase and removed at the end unless an alternative lifting method is used; and
- Small routine deliveries would occur throughout the contract using a transit type van.

Routing Plan

4.15 The internal vehicular and pedestrian routes are indicated within the indicative site set up plan within **ACE Drawing 183240-009B**. The delivery vehicles would drive around the car park to turn around.

4.16 On a wider network basis, given the A27 provides easy connections to the strategic highway network in the region, it is likely to be a primary route taken by the construction traffic. This route has been chosen as it minimises vehicles needed to pass by sensitive locations

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such as residential areas and schools. Drivers will be issued with routing instructions and the site access will be clearly signed.

Procedures

4.17 Linden Homes will apply the following measures:

- Ensure that the management and interaction of pedestrians and vehicular movements to and from site are controlled, managed and shall be safe at all times through the use of pedestrian walkways which will be segregated from construction traffic where possible;
- Use of maximum speed limit of 10mph around site;
- Signage will be provided to guide both vehicles and pedestrians;
- Secure hoarding will be provided to prevent unauthorised access to the site; and,
- Temporary lighting will be provided to ensure that there is a safe environment for pedestrians after dark.

4.18 The placement of orders for materials shall be carefully managed to ensure that vehicle movements to and from site are minimised. Opportunities to combine and consolidate deliveries (and use of initiatives such as reverse logistics) shall be explored.

4.19 Combining the delivery of aggregates with the removal of demolition material could significantly reduce the number of HGV movements. Linden Homes will employ additional measures to manage the potential impact associated with deliveries to the site.

4.20 The management and control strategy shall include, but not be limited to:

- The identification and establishment of designated routes within the site to ensure that safe and controlled movement of

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vehicles and pedestrians around the site, provision for waiting vehicles and controlled parking areas if and where appropriate;

- The identification of systems that will ensure that pedestrians and vehicles are segregated and kept apart as far as is practical;
- The use of temporary road closures, diversions and footway closures (if necessary);
- Control on the timing of lorry movements which will be confined to the permitted hours;
- Management of abnormal loads and large plant which may need to take place at other times, with prior consent of the Council.

4.21 The movement of all construction related vehicles will be monitored by the Project Manager/Site Manager Contractor.

4.22 All deliveries will be booked to arrive on site at certain times. In the tender information that will be sent out to sub-contractors they will be reminded of the routes to site and sticking to allocated delivery times when called in by the Site Manager.

4.23 Construction traffic management will be an agenda item at all regular meetings and anticipated delivery vehicle movements will be discussed. Any activities not undertaken in accordance with the CMP will be discussed and corrective action taken as appropriate.

Community Engagement

4.24 The Contractor will undertake newsletter to local stakeholders prior to starting on site and then every three months. A meeting will be held with local residents, Walberton Parish Council, site construction team and groundworker prior to starting on site, so there is a point of contact.

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Disruption to Public Highway

4.25 It is anticipated that there would not be any significant disruption to the public highway, other than during the construction of the site access and the arrival/departure of vehicles from the site.

4.26 In addition to this, vehicles will not be loading along the public highway and therefore won't affect the operation of both the public highway and adjacent bus stop.

4.27 To warn approaching pedestrians and vehicles, appropriate warning signage will be provided in accordance with the requirements set out within Chapter 8 of the Traffic Signs Manual.

4.28 During the construction phase, it is envisaged that a crane will be brought into the site. To ensure the safe arrival of this vehicle (if this is an abnormal load), the standard Highways England Electronic Service Delivery for Abnormal Loads (ESDAL) process would be followed by the contractor. If required, a traffic management plan could also be provided by the contractor detailing vehicle routing, to ADC/WSCC.

4.29 The Contractor will work closely with ADC/WSCC to minimise disruption to the operation of the existing highway network during demolition/construction. The Contractor will maintain engagement with local authority officers to establish a work program to minimising conflicts.

Measures to Reduce the Need to Travel

4.30 The on-site parking spaces for visitors will be available within the hoarding lines. These spaces will be kept to a minimum and will be managed accordingly, with visitors booking a space in advance of their arrival. Construction workers will be encouraged to travel to the site by sustainable modes.

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4.31 Drivers of delivery vehicles travelling to the site will be informed of the routing to and from the site, to ensure that the most direct and efficient routes are taken, thereby reducing vehicle emissions.

4.32 Materials used to construct the development would be locally sourced where possible to reduce the distance travelled from the suppliers to the site, and boost the local economy.

Recycling/Disposing of Waste and Environmental Controls

4.33 Suitable on-site measures will be put in place to maximise recycling potential. This may involve using materials within the site or for materials to be taken off-site to recycling facilities.

4.34 The Contractors will aim to maximise the recycling of materials within the development, thereby minimising the amount of vehicles carrying waste. As shown within **ACE Drawing 183240-009B,** a recycling area has been provided.

Fuel Storage

4.35 All fuel storage will be kept to a minimum on site. Where fuel is stored the following measures will be in place: -

- Contained in a double-skinned proprietary fuel storage vessel.
- Clearly sign posted.
- Kept locked at all times with authorised access only.
- Emergency spill kit will be provided adjacent to the fuel store.
- Emergency procedures will be included within the Site Health and Safety Plan.

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Dust Monitoring

4.36 The construction of any new building frame are activities prone to generating dust. This may become problematic during prolonged spells of dry weather.

4.37 A strict regime of dust control measures will be implemented by the developer/contractor and this will include damping down with water and vapour sprays during dust generating activities. The site management will monitor conditions to ensure the correct measures are implemented and emissions are controlled.

Noise Monitoring/Control

4.38 The noise levels will be monitored using a hand-held class 1 sound level meter.

4.39 The most appropriate guidance to follow for construction noise is BS 5228-1:2009+A1:2014 'Code of practice for noise and vibration control on construction and open sites. Noise'. To assess the limits for reasonable construction noise experienced at the nearest residential properties, Example Method 1 (the ABC Method) of BS 5228, within section E.3.2, should be used. Table E.1 from the standard is reproduced below. The site would fall under category A, therefore the daytime limit would be 65dBA and 55dBA on evenings and weekends (if applicable).

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Table E.1 **Example threshold of significant effect at dwellings**

Assessment category and threshold value period (L_{Aeq})	Threshold value, in decibels (dB)		
	Category A [A]	Category B [B]	Category C [C]
Night-time (23.00–07.00)	45	50	55
Evenings and weekends [D]	55	60	65
Daytime (07.00–19.00) and Saturdays (07.00–13.00)	65	70	75

NOTE 1 A significant effect has been deemed to occur if the total L_{Aeq} noise level, including construction, exceeds the threshold level for the Category appropriate to the ambient noise level.

NOTE 2 If the ambient noise level exceeds the threshold values given in the table (i.e. the ambient noise level is higher than the above values), then a significant effect is deemed to occur if the total L_{Aeq} noise level for the period increases by more than 3 dB due to construction activity.

NOTE 3 Applied to residential receptors only.

[A] Category A: threshold values to use when ambient noise levels (when rounded to the nearest 5 dB) are less than these values.

[B] Category B: threshold values to use when ambient noise levels (when rounded to the nearest 5 dB) are the same as category A values.

[C] Category C: threshold values to use when ambient noise levels (when rounded to the nearest 5 dB) are higher than category A values.

[D] 19.00–23.00 weekdays, 13.00–23.00 Saturdays and 07.00–23.00 Sundays.

Plate 4.1: Example Thresholds of Significant Effect at Dwellings

4.40 Should any non-compliance be identified through the monitoring process, inspection records will be issued to the site management team and copied to Director level for action.

4.41 The specific measures on site will be taken as follows to reduce noise generated by operations on the site:-

- All plant will be silenced in accordance with current best practice.
- Wherever practical plant used for breaking out will be 'crushing' rather than hammering (e.g. cutting down piles).
- Where practical all fixings and holes will be formed / cast into concrete to avoid drilling and cutting on site (e.g. cast in situ fire sleeves will be used for all Soil Vent Pipes.
- As far as practical, off-site manufacture will be utilised to reduce production activity on site.
- Where extremely noisy activities are unavoidable (e.g. elements of demolition) methods of working will be agreed with ADC and WSCC.

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5.0 HIGHWAY SAFETY AND CONSIDERATE BEHAVIOUR

5.1 Where possible, all deliveries will be made outside of the peak traffic periods and school arrival/departure times.

5.2 Engines of vehicles will be switched off when possible, to ensure unnecessary noise is kept to a minimum.

Training, Induction and Best Practice

5.3 All HGVs/drivers accessing the site would conform to the requirements of the Fleet Operator Recognition Scheme (FORS) and CLOCS (Construction Logistics and Cycle Safety) standard for construction logistics.

5.4 All drivers who attend the site on a regular basis will attend an induction, which will comprise:

- *Site procedures including waiting, parking and loading areas;*
- *Access routes;*
- *Cyclist awareness;*
- *Environmental considerations including noise, vibration, dust and cleanliness procedures;*
- *Review of hazards and risk reduction*

Highway Conditions

5.5 Any damage made to the public highway that is a direct result of construction works associated with the site will be repaired by the developer.

5.6 Wheel washing facilities will be provided within the site in order to remove any sediment that may be deposited along the public highway. This could include wheel spinners with water jets. The

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location of the wheel washing facility is provided within an indicative site set up plan within **ACE Drawing 183240-009B**.

Waste Management

5.7 The construction works on the site are anticipated to produce the following wastes:

- Mixed construction waste;
- Light mixed and compactable waste;
- Mixed inert waste;
- Timber from construction;
- Plasterboard;
- Mixed metals from construction;
- Paper, cardboard & plastics; and,
- Hazardous waste – small quantities of part full paint tins, mastic tubes and aerosols.

5.8 The Site Manager, or nominated other, will be responsible for undertaking checks of the Waste Transfer Notes and Hazardous Waste Consignment Notes to ensure waste is being managed in line with current waste legislation.

5.9 Waste will be segregated into individual waste containers (e.g. metal, hardcore, timber, etc.) and monitored in relation to type and weight/volume. The reuse of materials onsite shall be encourage; and opportunities to recycle materials both on and offsite shall be maximised.

5.10 All waste shall be transferred to suitably permitted or exempt waste treatment or disposal sites.

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Appendix A

Rev	Date	By	Description
D	08/04/19	AM	Link to Tye Lane widened to 3m
C	14/03/19	AM	Surfaced link to Avisford Park Rd added
B	11/02/19	AM	Landscaping updated to latest layout
A	18/01/19	AM	Landscaping updated to latest layout

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Project	Land East of Tye Lane, Walberton
Title	Landscape Masterplan
Client	Linden Homes

Scale	Not to Scale	Drawn	SW
Date	October 2018	Checked	GC
Drawing No.	CSA/3823/111	Rev	D

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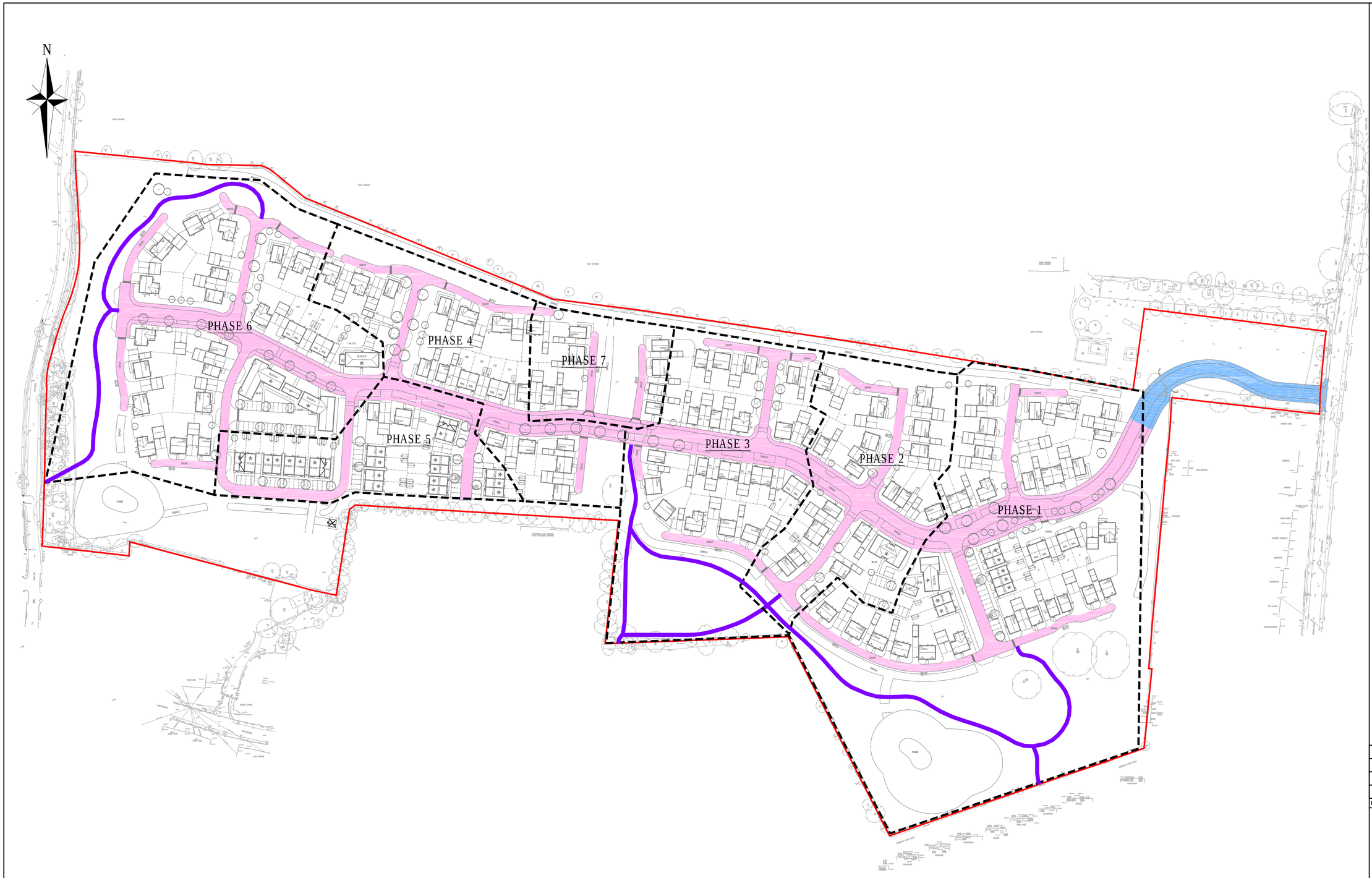
Appendix B



KEY:

- SITE BOUNDARY
- FIRST 100m SECTION OF THE ROAD TO BE COMPLETED IN FIRST 8 WEEKS TIME BEFORE PHASE 1 START
- ROAD AND DRIVEWAYS TO BE FULLY SERVICED IN 24 WEEKS
- PEDESTRIAN LINKS

FOR INFORMATION ONLY

Rev	Description	Drn	Chk	App	Date
D	PHASING AMENDED	KI	AP	KM	29/04/19
C	PEDESTRIAN LINKS ADDED	KI	AP	KM	26/04/19
B	LAYOUT UPDATED	KI	KI	KM	11/02/19
A	LAYOUT UPDATED	KI	KI	KM	08/01/19

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Client:

LINDEN HOMES SOUTHERN

Project Title:

LAND EAST OF TYE LANE, WALBERTON

Drawing Title:

PROPOSED CONSTRUCTION PHASING PLAN

A1 Scale	Date	Designed by
1:1000	NOV 2018	KI
Drawn by	**Checked by**	**Approved by**
KI	AP	KM

Drawing Number	Rev
183240-008	D

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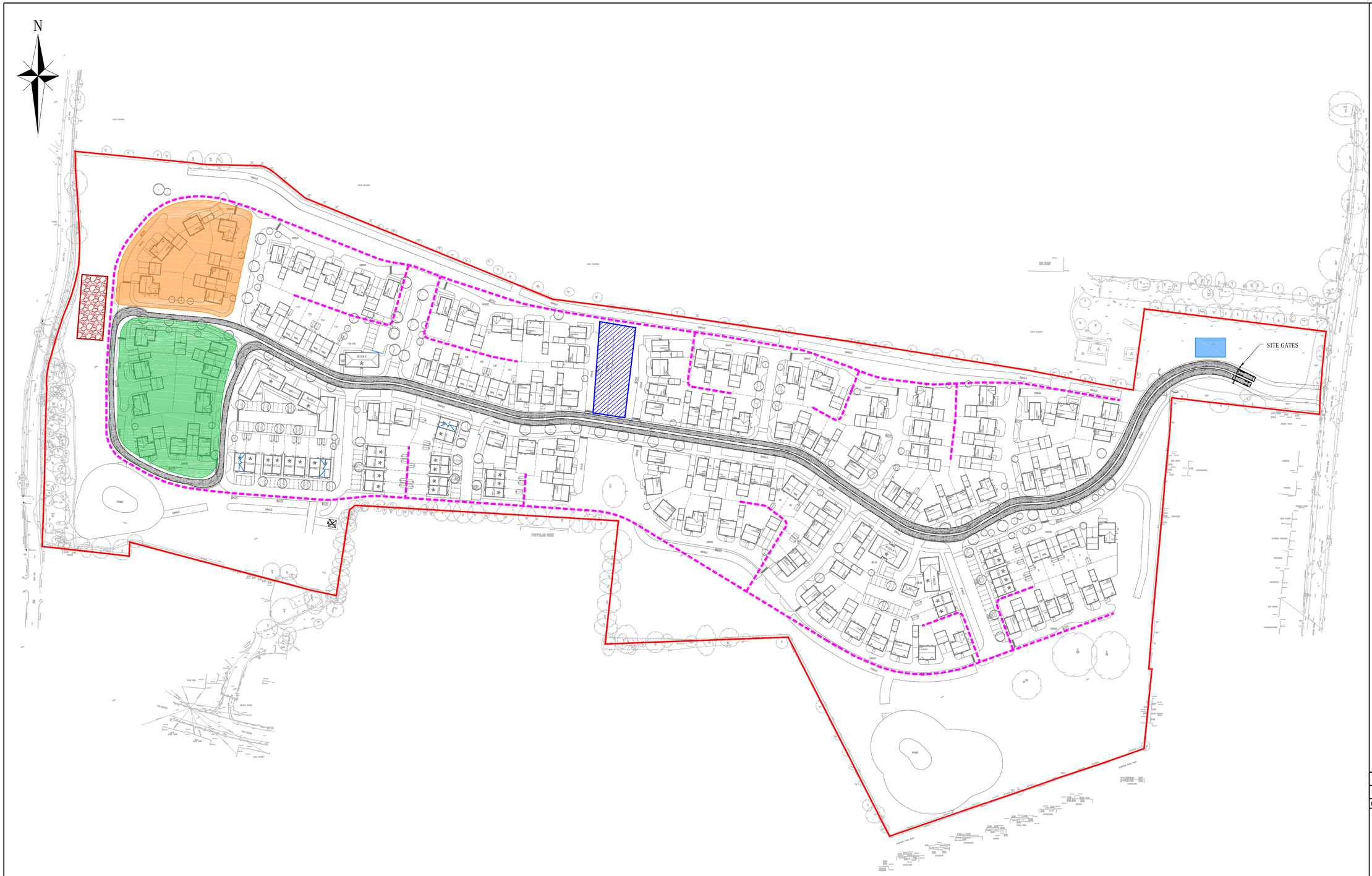
Appendix C



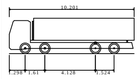
KEY:

- SITE BOUNDARY
- GATEMAN AND WHEEL WASH ONCE ROAD CONSTRUCTED. ROAD BRUSH TO REPLACE WHEEL WASH.
- COMPOUND,OFFICES/WELFARE
- WASTE/RECYCLING AREA
- BRICK/BLOCK STORAGE
- CAR PARK
- TYPE 1 PEDESTRIAN WALKWAY

NOTE:

PERIMETER OF THE SITE FULLY HERAS FENCED WITH FEET AND DOUBLE CLIPPED

VEHICLE USED:



Large Tipper	
Overall Length	10.201m
Overall Width	2.500m
Overall Body Height	2.893m
Min Body Ground Clearance	0.343m
Max Track Width	2.500m
Lock to lock time	6.00s
Kerb to Kerb Turning Radius	11.550m

FOR INFORMATION ONLY

Rev	Description	Drn	Chk	App	Date
B	LAYOUT UPDATED	KI	KI	KM	11/02/19
A	LAYOUT UPDATED	KI	KI	KM	08/01/19

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Client:

LINDEN HOMES SOUTHERN

Project Title:

LAND EAST OF TYE LANE, WALBERTON

Drawing Title:

INDICATIVE SITE SETUP PLAN

A1 Scale	Date	Designed by
1:1000	NOV 2018	KI
Drawn by	**Checked by**	**Approved by**
KI	AP	KM

Drawing Number	Rev
183240-009	B

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