

Land West of Copthorne

Construction Management Plan
St Modwen

March 2018



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This document has 23 pages including the cover.

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Client signoff

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Table of contents

Chapter	Pages
1. Introduction.....	5
1.1. Scope of Development	5
1.2. Construction Phases and Timescales (item a).....	6
1.3. Issue and Revision	6
2. Management Framework	7
2.1. Legislation, Regulation and other Requirements	7
2.2. Role and Responsibilities	7
2.3. Management Review.....	8
2.4. Communication.....	8
3. Site Specific Controls	10
3.1. Access and road routing for all construction traffic associated with the Project (Condition 8b and 8k) .	10
3.2. Monitoring noise, dust and vibration in accordance with the British Standards (Condition 8c)	15
3.3. Provision of wheel washing facilities and details of their operation and location (Condition 8d)	16
3.4. Construction work including delivery times (Condition 8e).....	16
3.5. Means of suppressing dust arising from the development and site boundary fence (Condition 8f)	17
3.6. Proposed external construction lighting (Condition 8g).....	18
3.7. Temporary construction site enclosures (Condition 8j)	19
3.8. Public access routes	21
3.10. Details of the scheme to protect residential properties from the noise sources identified in the ES (item m)	22
 Figures	
Figure 1 Temporary access for initial site set up	11
Figure 2 Proposed site accesses.....	13
Figure 3 Floodlights	18
Figure 4 110v fluorescent lights	18
Figure 5 Locations of temporary site enclosures	20
Figure 6 Site map identifying existing footpaths (Design and Access Statement 2013)	21
 Tables	
Table 2.1 Roles and Responsibilities	7
Table 3.1 Background noise levels in local residential areas.....	15



1. Introduction

This Construction Management Plan (CMP) sets out the policies and controls required to ensure that adverse effects are minimised during the construction process. Its objective is to provide the information requested by Mid Sussex Council to discharge planning condition 8 of the permission granted to St Modwen to develop Land West of Copthorne (reference 13/04127/OUTES).

Condition 8 states as follows:

Prior to any works commencing (including site clearance/preparation and/or demolition), a construction management plan shall be submitted to and be approved in writing by the Local Planning Authority after consultation with WSCC and the Highway Agency. Thereafter the applicant and contractors shall complete the works in accordance with the approved plan throughout the construction period in order to minimise disturbance during demolition and construction and will include details of the following information for approval:

- a) the phased programme of construction works;
- b) the means of access and road routing for all construction traffic associated with the development;
- c) details of a scheme for the monitoring of noise, dust and vibration (including any piling) in accordance with the appropriate British Standard (BS). The report on the assessment made under the BS shall include estimated values of LAeq and show all calculations;
- d) provision of wheel washing facilities and details of their operation and location;
- e) construction work including delivery times;
- f) details of a means of suppressing dust arising from the development and site boundary fencing;
- g) details of all proposed external lighting to be used during construction;
- h) details of areas for the loading, unloading, parking and turning of vehicles associated with the construction of the development;
- i) details of areas to be used for the storage of plant and materials associated with the developments;
- j) details of the temporary construction site enclosure to be used throughout the course of construction;
- k) details of any construction accesses to be used;
- l) details of the appropriate public consultation that will be required;
- m) details of scheme to protect residential properties from the noise sources identified in the Environmental Statement

Details of how measures will be put in place to address any environmental problems arising from any of the above shall be provided. A named person shall be appointed by the applicant to deal with complaints, shall be available on site and their availability made known to all relevant parties. The applicant will need to discuss these matters with the Highway Authority prior to submitting any applications for licences etc.

1.1. Scope of Development

Planning permission for a mixed use development was gained for a site to the west of Copthorne, Sussex in 2014, subject to the discharge of several planning conditions. The scheme consists of:

- Up to 500 new homes (30% defined as affordable housing);
 - A 1.93ha site of a new one form entry primary school, to serve the new neighbourhood;
 - Employment provision of 15,500sqm of GIA of use class B1c (light industry) and B8 (storage or distribution);
 - Land for a two GP doctors surgery of up to 500 sqm GIA and associated parking;
 - A new principal access from the A264 and a secondary access from Shipley Bridge Lane;
 - A network of footpaths and cycleways within the site and links to the surrounding area;
 - Associated services and infrastructure including a comprehensive surface water drainage strategy;
 - Retention and positive management of key landscape features;
-

- Structural landscape planting;
- Informal open space with space for formal sports pitches if required; and
- New allotments.

1.2. Construction Phases and Timescales (item a)

Condition 8a) requires information about the phased programme of construction works.

Details of proposed phasing of development are provided in the site-wide phasing plan submitted to discharge condition 2.

In line with the site wide phasing plan referred to above, construction activity is expected to be completed over several phases as summarised in the programme below:

- 2018/19 Primary access development;
- 2018-22 Residential development;
- 2018–22 Landscape works;
- 2019/20 Employment land development; and
- 2019–21 Development of other infrastructure, including pedestrian/cycling trails, GP surgery and primary school.

1.3. Issue and Revision

An electronic version of this plan will be held by the Managing Contractor. This plan will be maintained and updated regularly by the Project Team with assistance from the Contractor's Health Safety & Environment (HS&E) Team.

2. Management Framework

2.1. Legislation, Regulation and other Requirements

The Project will comply with all relevant legislation and regulations, and will additionally obtain and comply with all necessary consents to ensure legal construction works.

A legislation register will be maintained and updated following any changes to applicable legislation. Any applicable changes will be evaluated and communicated to the relevant project personnel through a newsletter, briefings or toolbox talks. The project specific procedures will also provide guidance to activity specific legislation.

Other requirements and regulations from Local Authorities, Highways Agencies or other Statutory Bodies will be reviewed by the Project and applied where applicable.

All work carried out on the Project will be conducted with due cognisance of client standards, obligations and best practice.

2.2. Role and Responsibilities

All contractors involved with the scheme will agree to and support this CMP as the principal document, demonstrating a planned and systematic approach to implementing relevant policy through an effective management system.

The Managing Contractor is responsible for maintaining this document and ensuring it is implemented and complies with legal and contractual amendments and that all project personnel are aware of the contents of this CMP and understand their role in fulfilling the project's obligations. The Contractor's Site Manager is responsible for ensuring it complies with all relevant legal requirements and offering advice in best practice.

Delivery of the Project will comply with the requirements of this plan.

Staff, operatives and subcontractors have the authority and responsibility to protect the environment at all times during execution of the works; responsibilities are highlighted during the site induction. All personnel will be trained in the necessary skills to fulfil their role. Key personnel for specific job roles are set out in the table below.

Contact details for all key contractors will be displayed on notice boards in the site office.

Table 2.1 Roles and Responsibilities

Role	Key Responsibilities
Project Director	Overall responsibility for undertaking the Project
Site/Project Manager	<ul style="list-style-type: none"> • Responsible for the implementation of CMP and procedures; • Ensure site management issues are discussed and communicated effectively to the project team; • Provision of a register of construction activities; • Support the site team to ensure compliance with relevant legislation; • Assist in preparation of relevant permits, licences and consents as required; • Develop relevant toolbox talks for site; • Ensure works are carried out in accordance with all consents; • Ensure staff are aware of and implement mitigation measures identified in the CMP and method statements; and • Single point of contact for external parties.

2.3. Management Review

The Project Manager will undertake a review of the Project and include the following for input into the annual management review:

- Results of internal audits and evaluations of compliance with legal and other requirements;
- Training records, including tool box talks;
- Communication(s) from external interested parties, including complaints;
- The extent to which objectives and targets have been met;
- KPI data;
- Status of corrective actions;
- Follow-up actions from previous management reviews;
- Changing circumstances, including developments in legal and other requirements related to the environmental aspects; and
- Recommendations for improvement.

2.4. Communication

2.4.1. Internal

Communication of site management issues within the Project will be maintained through combined monthly project review meetings, chaired by the Site/Project Manager. Bulletins will be produced and displayed throughout site offices as required to raise awareness of current issues and reinforce toolbox talks.

The Site/Project Manager and their team will ensure that meetings and discussions are carried out in a spirit of openness and co-operation to determine lessons learnt from any incident and wherever practicable, to take action to mitigate similar risks. All incidents/near misses will be reported to the Project Director.

2.4.2. External communication and management of complaints

Contractors are committed to ensuring that the Project will have minimal impact on residents, landowners, and local businesses. Following the closure of the formal public consultation on the planning application in 2013 discussions have continued with local stakeholders and residents. St Modwen continues to receive feedback and queries via its website, email address, postal address and telephone line, all of which have remained live. The methods of communication between local residents, stakeholders and St Modwen will be re-publicised before construction commences.

All complaints will initially be reported to the Site Manager (or other appointed person), contact details will be made available to local residents once appointed. The contact details will also be posted at the main site entrance for wider consultation with the general public. This appointed person will ensure that any complaints received follow due process as outlined below.

All complaints will be managed through the site management team in the first instance. Once resolved outcomes and lessons learnt will be recorded. Any complaints received through the contractor or through the regulatory authority, will be logged and reviewed in line with the contractor's procedures and brought to St Modwen's attention.

Where a complaint is substantiated and a failing in the operational procedures is causing an issue, a detailed review and further implementation of appropriate procedures will be undertaken if necessary.

2.4.3. Local Liaison Group

A Local Liaison Group (LLG) will be established to provide local community representatives with information about construction activity and act as a forum for discussion on site issues.

The following officers, stakeholders and representatives of the local community will be invited to sit on the LLG:

- Local Residents (invitees to initial meeting to select smaller number of representatives for subsequent meetings);
- Mid Sussex District Council Planning Department representative;
- Developer representatives;

Land West of Copthorne
Construction Management Plan

- Contractor Representatives;
- District Council Ward members; and
- Parish Council members.

It is proposed that meetings will be held quarterly, or with a frequency to be agreed by the LLG, at a local venue to be organized by the developer. Invitations to the first meeting to be sent by post with follow up meeting invitations sent by email.

The first LLG meeting will agree the scope and format of the meetings, but it is proposed that the following items will be covered:

First meeting only:

- Invited local residents to appoint representatives to the LLG.
- Confirmation of LLG members and contact details.
- Details of site management and points of contact for members of the public.

Standing items:

- Construction Programme and update on progress.
- Developer's Report of progress.
- Any future construction issues anticipated (e.g. delivery of large loads).
- Issues arising from construction work/ any complaints received/ how resolved.

Minutes of meetings will be circulated to the LLG members and electronic copies sent to Mid Sussex District Council.

3. Site Specific Controls

3.1. Access and road routing for all construction traffic associated with the Project (Condition 8b and 8k)

Condition 8b) requires information about the means of access and road routing for all construction traffic associated with the development and condition 8k) requires details of any construction accesses to be used.

The anticipated peak construction traffic generation at the site is estimated to be 60 vehicle trips by employees before and after peak hours and 60 two-way HGV movements per day. This level of traffic is only likely to occur during the early phases of development, when the site access, primary road, service infrastructure and first phase of residential dwellings and commercial buildings are all being constructed. After this, traffic levels will be lower. All construction traffic will access the site via the A264 to avoid the use of more sensitive roads.

The temporary access for the initial site set up, prior to all approvals for the temporary A264 access, will be from the A2220 Copthorne Road, sharing the access with the adjacent APH construction site as shown on Figure 1.

Following the approvals and until the completion of the roundabout, access for construction traffic onto the Site then will be provided using a temporary left-in, left-out junction direct from the A264.

It is proposed that the embankment for the new roundabout will be constructed as the first on-site activity. During this initial enabling phase, the construction compound and parking will be located in the existing eastbound layby and the requirement for larger construction vehicles to access the site will be relatively limited as no deliveries are required. Vehicles will approach the Site from the west, to avoid crossing the oncoming traffic lane.

Upon completion of the embankment, a new more established temporary site entrance, suitable for construction traffic and delivery vehicles, will be formed to the west of the new roundabout location. The site compound will be relocated within the Site as shown on Figure 2. Vehicles will approach the Site along the A264 from the west and turn left onto the new road, with egress as left out only. During this phase, the junction would be accompanied by the narrowing of lanes and a reduced the speed limit on the A264 gained by a Temporary Traffic Regulation Order. Signage will be implemented to reiterate traffic management plans, prohibiting non-works traffic entering the site and prohibiting right turns (into and out of the site) for all construction traffic.

All temporary works to gain access will be subject to separate approvals from West Sussex County Council. Wider access routes will focus on Junction 10 of the M23 and the A264 (Copthorne Way) and therefore A roads such as the A22 to the east of the development site, the A23 to the south and the A2011 to the west.

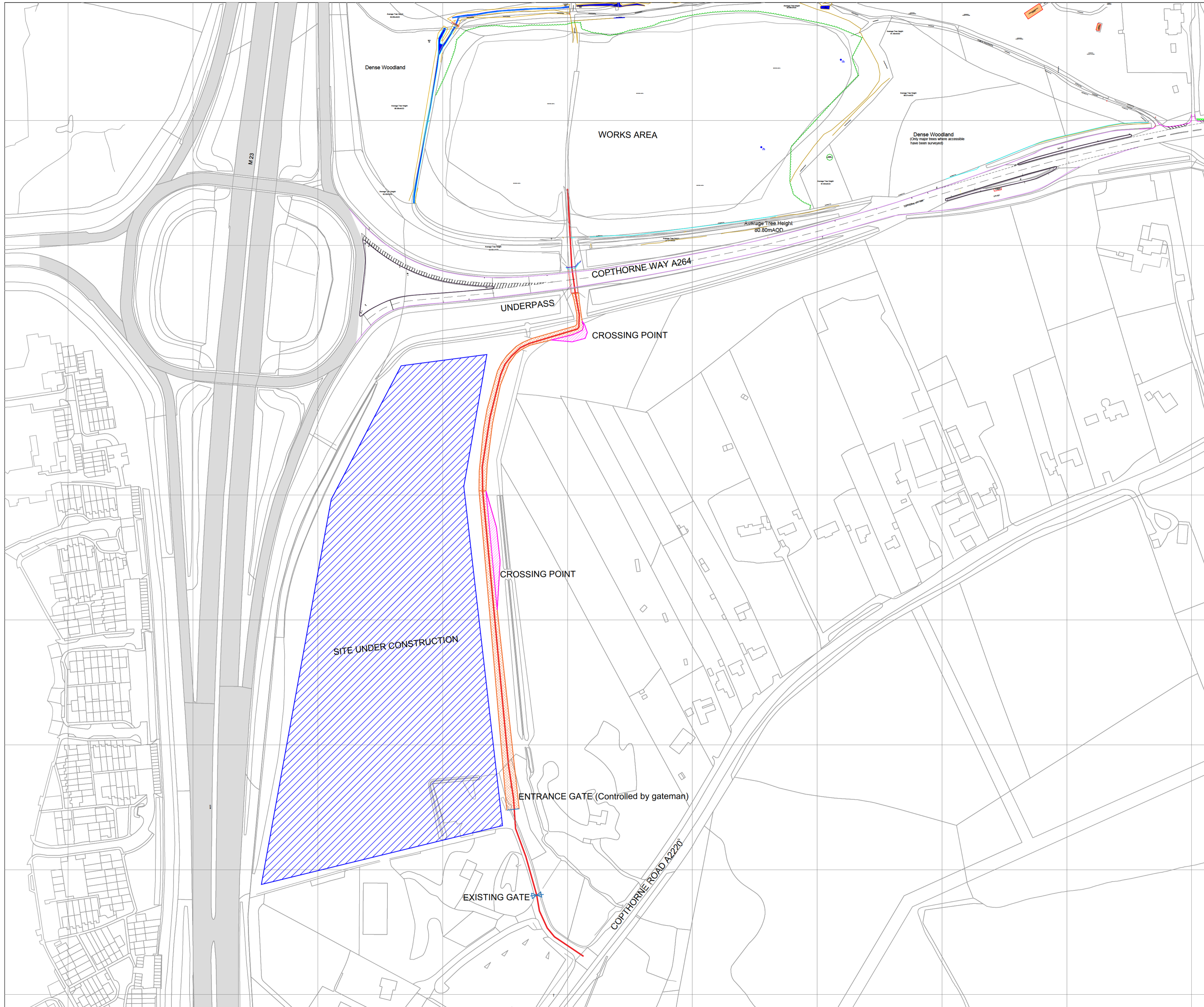
Construction of the Shipley Bridge Lane junction and northern half of the central spine road will be accessed from the north. This will not be used for intensive housebuilding. Construction vehicles will not use Shipley Bridge Lane east but instead the construction access route will utilise the B2037 running to the north of the development and the B2036 to the west, before connecting to the major road network.

Routes will be agreed with the relevant highway authorities and distributed to all contractors and delivery drivers, including information on relevant speed limits and accident hotspots. This information will also be included all related driver inductions. The construction access point will be signposted from local roads.

Relevant on-site signs will be placed throughout the construction site to indicate speed limits and mark pedestrian crossing points and routes.

Land West of Copthorne
Construction Management Plan

Figure 1 Temporary access for initial site set up



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Legend

-  Proposed Haul Road
- Geotextile
- 250mm crush
-  Proposed Access Route

Rev	Date	Description	Drawn	Checked
0	27/03/18	For Information	AA	HR



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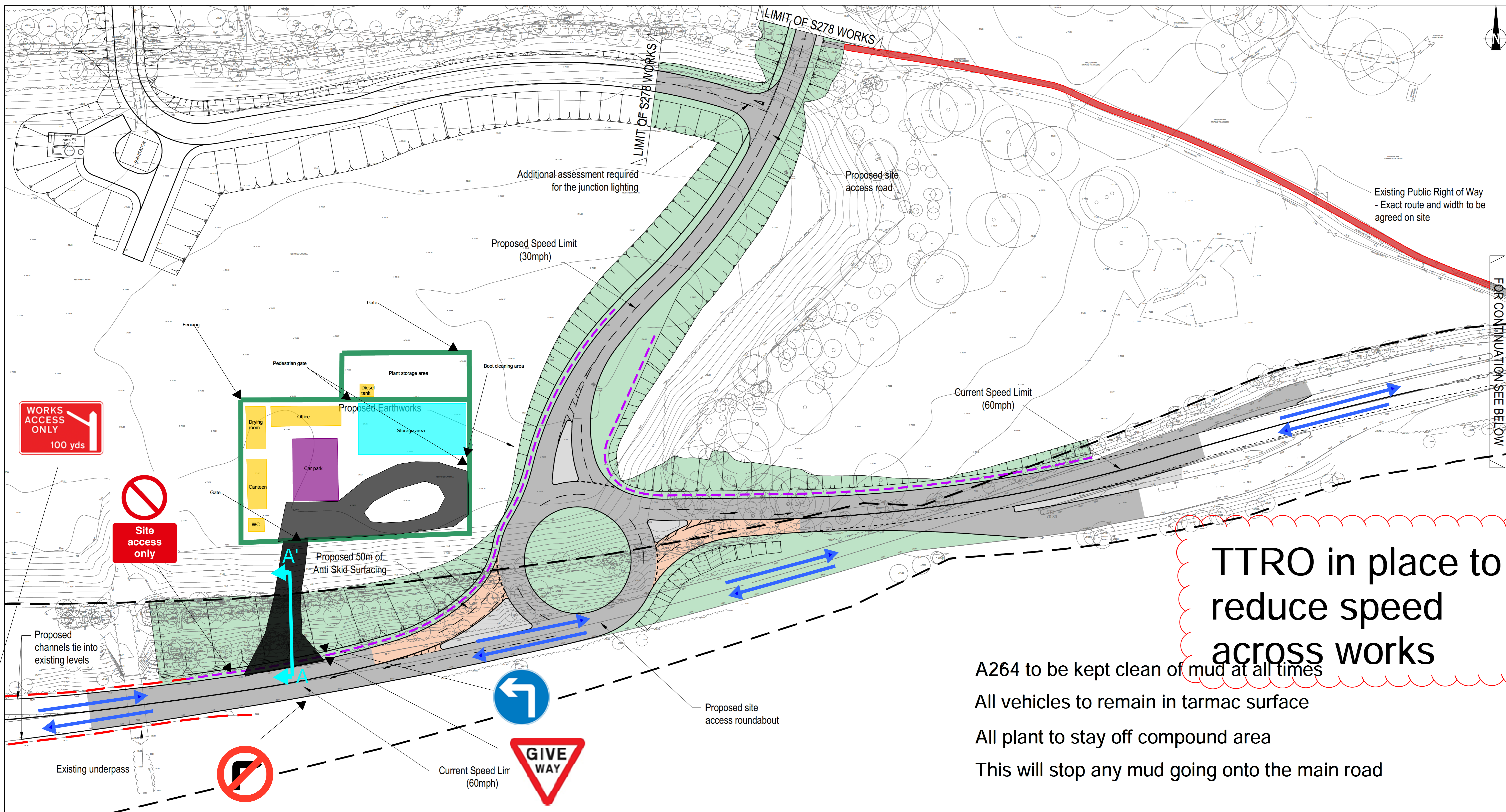
Project and Drawing Title:
Copthorne - Haul Road Proposal

Status:
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Construction Management Plan
Figure 2 Proposed site accesses



- NOTES:
- THIS DRAWING TO BE READ IN CONJUNCTION WITH OTHERS IN PBA DRAWING SERIES 24205/01.
- KEY:
- EXISTING HIGHWAY BOUNDARY
 - PROPOSED KERBLINE
 - EXISTING KERBLINE
 - PROPOSED CARRIAGEWAY
 - PROPOSED VERGE / LANDSCAPING
 - PROPOSED FOOTWAY
 - PROPOSED ANTISKID
 - EXISTING VEHICLE RESTRAINT SYSTEM
 - PROPOSED VEHICLE RESTRAINT SYSTEM

NOTES:
Tie ins will be regulated by traffic lights

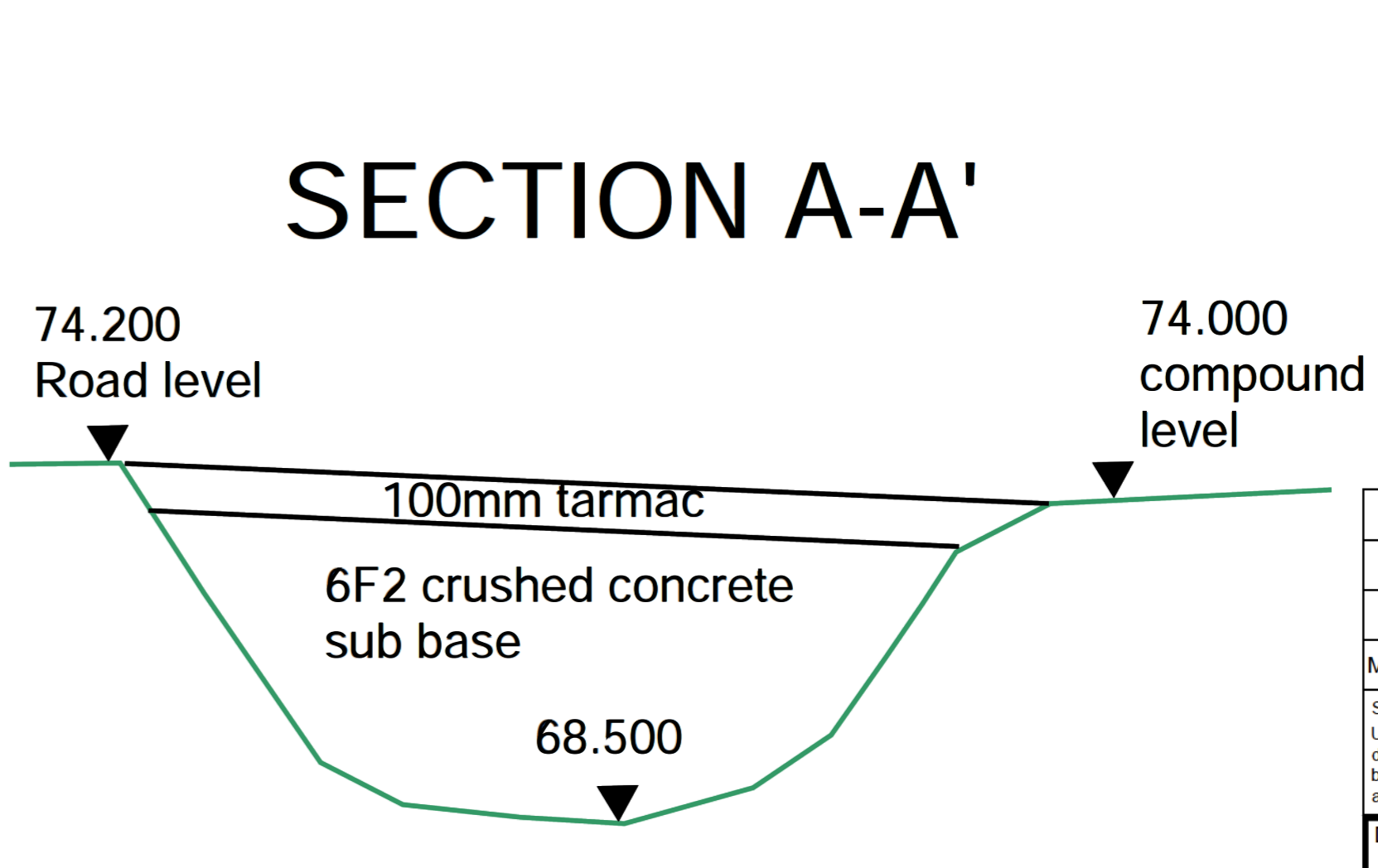
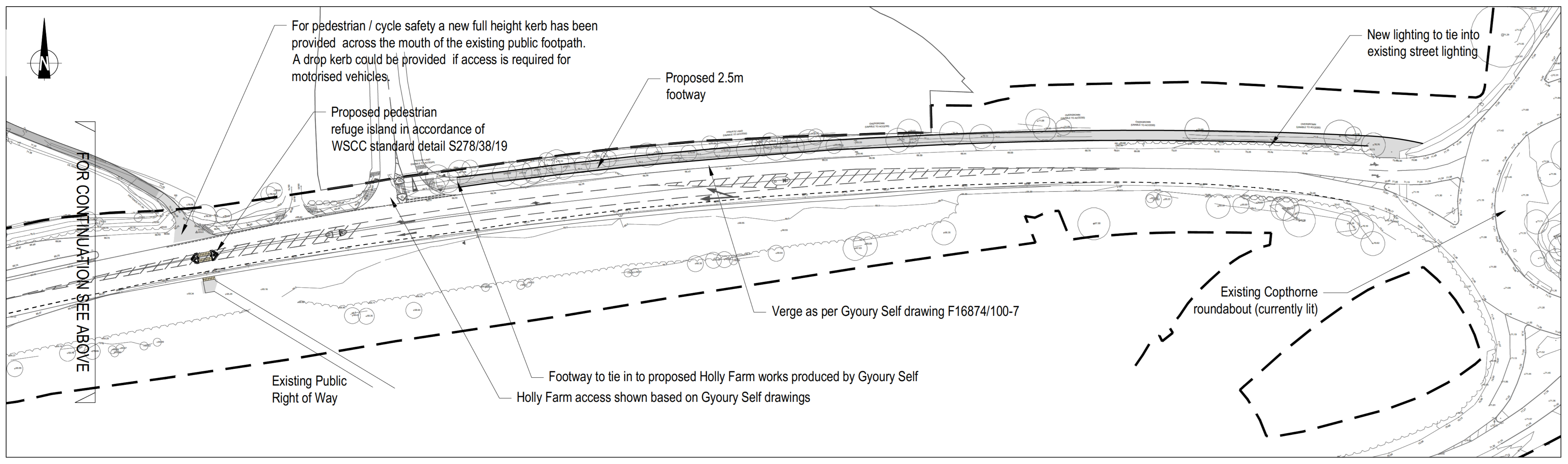
One way traffic on the compound area.

No turn right permitted on westbound direction

TTRO in place to reduce speed across works

A264 to be kept clean of mud at all times
All vehicles to remain in tarmac surface
All plant to stay off compound area
This will stop any mud going onto the main road

Compound



Mark	Revision	Date	Drawn	Chkd	Appd
B	UPDATED TO SUIT WSCC COMMENTS	11.10.17	CS	PK	PK
A	UPDATED FOLLOWING COMMENTS	20.04.17	JW	PK	PK

SCALING NOTE: Do not scale from this drawing. If in doubt, ask.
UTILITIES NOTE: The position of any existing public or private sewers, utility services, plant or apparatus shown on this drawing is believed to be correct, but no warranty is given in respect of this. Other such plant or apparatus may also be present but not shown. The Contractor is therefore advised to undertake his own investigation where the presence of any existing sewers, services, plant or apparatus may affect his operations.

Drawing Issue Status: TECHNICAL APPROVAL

LAND WEST OF COPTHORNE
PROPOSED SITE ACCESS ROUNDABOUT
GENERAL ARRANGEMENT

Client

ST. MODWEN
THE UK'S LEADING REGENERATION SPECIALIST

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Date of 1st Issue	Designed	Drawn
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AS Scale	Checked	Approved
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Drawing Number	Revision	
24205/01/100	B	

3.1.1. Initial tree removal works

Vehicles associated with initial tree removal works, in advance of construction activity, will enter and leave the site via Shipley Bridge Lane. At peak, there will be approximately 5 lorries (bulk lorries either collecting chip or timber) leaving and entering site per day. These vehicles will be limited to the existing concrete track on the site.

There will be a maximum of 6 site personnel vehicles accessing the site at any one time during this work. They will mainly arrive between 7:30 and 8 am and leave between 5:30pm and 6:30pm; however, there may be some trips during the day for consumables, fuel etc.

Warning signs will be erected on the bend at Shipley Bridge Lane which indicate "caution lorries turning" and a sign at the site exit will direct traffic to the left, to Antlands Lane, avoiding Copthorne Village.

Heras fencing will be erected at the padlocked 5 bar gate leading from the track to Westway and warning notices will be put up that vehicles will be using the track.

On site, timber and chip collection lorries are not permitted to leave the existing concreted area, which will be scraped clean regularly by an excavator in order to prevent mud and debris being taken up the track and soiling the highway.

3.2. Monitoring noise, dust and vibration in accordance with the British Standards (Condition 8c)

Condition 8c) requires information regarding the monitoring of noise, dust and vibration (including any piling) associated with the development in accordance with the appropriate British Standard (BS). It expects reporting on the assessment made under the BS to include estimated values of LAeq and show all calculations.

3.2.1. Dust and air pollution

During all construction works, regular visual inspections would be undertaken by the responsible person to identify dust creating activities and to ensure that the appropriate planned mitigation is being used. Where visible dust is seen, further mitigation measures (usually the use of water sprays) will be applied to reduce these, as far as practicable. Dust and air quality monitoring will be undertaken across the programme to manage cumulative impacts, including PM₁₀ monitoring and dust soiling rates. Monitoring stations will be located at the site boundary adjacent to construction activity and at opposite ends of the Site so that the contribution by each element of the work programme can be determined. Based on pre-construction monitoring, baseline data action trigger levels will be determined. In instances where these levels are breached, this will be investigated by St Modwen and the appropriate Site Manager to determine if the construction activities were responsible and appropriate action will be taken.

3.2.2. Noise and vibration

The ES indicates that noise modelling has been used to identify the nearest noise sensitive receptors and the baseline noise levels. Construction works are not expected to take place outside the day time period of 0800hrs until 1800hrs. This information has been used to determine the following noise categories which will be used during noise monitoring.

Table 3.1 Background noise levels in local residential areas

Receptor	LAeq, 12h	BS5228 category
Dwellings north east of the site on Shipley Bridge Lane	50	A
Dwellings east of the site on Westway / Erica Way	52-55	A
Dwellings south of the site on A2220 Copthorne Way	54	A

The limit that will be applicable at these receptors is therefore 65dB during weekday and on Saturday mornings. There will be no external working in the evenings or on Sundays or Bank Holidays. In order to undertake monitoring activities Contractors will:

- Provide a description of the construction activities and the method of working as well as proposed hours of working;
- Establish an inventory of sound power levels, either from measurements, manufacturers' specifications, or BS 5228 databases;
- Use sound power levels, the description of the works and the construction programme to establish predicted airborne noise levels in accordance with BS 5228: Part 1. Predicted noise levels will initially be based on construction noise only, 1m from any affected façade containing windows to bedrooms or living rooms in any residential property or noise-sensitive business, and account for acoustic screening;
- Identify suitable mitigation measures as appropriate, review Best Practicable Means and re-work all calculations as necessary;
- Adopt appropriate baseline ambient noise monitoring results, from various sources including:
 - a) St Modwen's baseline ambient noise and vibration information;
 - b) Measurements by St Modwen's other Contractors, where available; and
- Undertake additional baseline noise surveys at the reasonable request of Mid Sussex Council.

3.3. Provision of wheel washing facilities and details of their operation and location (Condition 8d)

Condition 8d) requires information regarding wheel washing facilities, the details of their operation and their location.

A hose and pressure washer will be located at both the primary and secondary entrances to the Site for the duration of the construction works. All HGVs and construction vehicles will be required to wash their wheels on entrance and exit to prevent any dirt/dust leaving the site and maintain a clean road surface. The Site Manager will ensure that the area around the Site, including the public highway, will be regularly and adequately swept to prevent any accumulation of dust and dirt. The Site Manager will monitor the road quality at the site entrance and along specified routes during periods of substantial earthworks.

3.4. Construction work including delivery times (Condition 8e)

Condition 8e) requires information about construction work including delivery times.

Construction works will be undertaken for each phase as follows:

1. Site preparation

- a) Field survey (Topographical surveys, ecology, archaeology, land/soil grade, heritage etc);
- b) Preliminary earthworks and levelling; and
- c) Earthworks, services and drainage.

2. Access works (primary access and primary service corridors)

- a) Road foundations;
- b) Road surfacing; and
- c) Pedestrian network.

3. Building works

- a) Foundations; and
 - b) Residential/other structures;
-

4. Landscaping works and planting

Working hours be between 0800hrs and 1800hrs from Monday to Friday, 0900hrs to 1300hrs on Saturdays and no work will be undertaken on Sundays and Bank Holidays. Deliveries will be made between 0930hrs and 1630hrs to ensure that peak traffic periods are avoided.

The plant and equipment that is likely to be employed at the Site during the enabling/infrastructure phase of construction may include scrapers, dozers, 360 degree excavators, backhoe loaders, dumpers, dump trucks, rollers and compressors. The construction of the built development may also utilise other heavy equipment, such as lifting plant, cranes and fork lift trucks. The precise nature and quantity of plant employed during construction will vary with each stage of development.

Any spoil that is generated from the development will be reused on site where possible and it is not envisaged that significant quantities of spoil will be removed off site. Topsoil will be stripped and stored separately for later re use within the proposed development and landscaped areas. Any contaminated spoil would need to be removed to an appropriately licensed landfill for disposal and appropriate consents gained.

3.5. Means of suppressing dust arising from the development and site boundary fence (Condition 8f)

3.5.1. Dust and air pollution

The Site will be registered with the Considerate Constructor Scheme (by the Contractor for that phase of works) and managed in accordance with their guidelines. Construction dust may be generated as a consequence of ground excavation works. If dry weather is experienced during the construction period, then dust may be generated by the movement of vehicles on the site, remediation works, site clearance, cut and fill operations and grading works.

The Project will take measures to control the impact of dust, by applying best practice measures for keeping surfaces damp and evaluating the suitability of weather conditions for performing specific site works. The principles of industry good practice will be applied to ensure that the potential for fugitive dust emissions is minimised and is not a cause for nuisance complaints from neighbouring properties. To prevent unacceptable impact from dust re-suspended by construction vehicles, the following mitigation measures will be employed as necessary:

- damping down dusty surfaces;
- controlling the speed of mobile plant crossing un-surfaced areas;
- the use of a mechanical road sweeper on public roads;
- use of solid perimeter site hoardings and
- covering of HGVs carrying dusty materials.

Should any activity associated with the construction phase cause, or appear likely to cause, visible dust to be carried towards any sensitive boundary, particularly at nearby properties, the activity giving rise to the emissions will be modified or suspended until the conditions giving rise to the emissions have been resolved.

Storage locations for potentially dusty materials will be located away from the site boundary in so far as practicable. All dust and air quality complaints will be recorded with work carried out to identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken;

Air pollution, arising from odour, fumes and smoke, may arise from the following activities:

- Use of heavy plant and machinery; and
- Road vehicles, particularly HGVs.

Pollution to air will be managed in order to reduce impacts to a minimum and to eliminate where practicable, through construction industry good practice, to manage and monitor dust emissions. Management will be achieved through:

- No fires permitted on site;
- All fuels, oils and other Volatile Organic Compounds (VOC's) will be stored in secure, sealed, labelled containers;
- Consideration will be made to using prefabricated materials where possible so that localised air

pollution is minimised;

- Vehicles and plant will be switched off when not in use;
- Ensure vehicles and plant are not over loaded to prevent labouing;
- Modern, well-maintained plant and equipment is used; and
- Mains electricity supply will be used in preference to generators where practicable.

3.5.2. Site boundary fence

Standard heras fencing will be utilised on the boundaries to each phase. This will seek to ensure public safety (including prevention of uninvited intruder entrance to the site). Solid ply face (painted) hoarding will be erected on the western boundary adjacent to the existing housing.

All fencing will be in place prior to the commencement of construction works and will remain in place for the duration of that phase of the build programme.

3.6. Proposed external construction lighting (Condition 8g)

Condition 8g) requires details of all proposed external lighting to be used during construction.

During the winter, there may be periods during the construction phase where the site is in operation outside of daylight hours, but still within the 0800hrs to 1800hrs working time. In this case, it may be necessary to provide flood lighting. In order to minimise impacts on local residents and businesses, the floodlights will be directed into the site. Figure 3 provides an illustration of the type of floodlights that could be employed at the site.



Figure 3 Floodlights



Figure 4 110v fluorescent lights

As well as the floodlights for the main site area, 110 volt fluorescent lights are provided at 6m intervals along walkways to provide lighting for pedestrians as required. An example of the type of lighting that could be used is provided in Figure 4.

The lighting scheme will be designed to ensure that minimum standards such as the HSE guidance HSG 38 Lighting at Works regarding the minimum measured illuminance for getting to and from the worksites are met.

Though the main periods when lighting will be required will coincide with the less active periods for those nocturnal species of greater sensitivity (bats and dormouse) the lighting shall be designed with the following in mind:

- Do not provide excessive lighting. Use only the minimum amount of light needed for safety.
- Minimise light spill. Eliminate any bare bulbs and any upward pointing light. The spread of light should be kept near to or below the horizontal. Flat cut-off lanterns are best.
- Where possible use narrow spectrum bulbs to lower the range of species affected by lighting.
- Where possible use light sources that emit minimal ultra-violet light, and avoid the white and blue wavelengths of the light spectrum to avoid attracting lots of insects.
- Reduce the height of lighting columns. Light at a low level reduces impact. However, higher mounting heights allow lower main beam angles, which can assist in reducing glare.
- Lighting within the light sensitive areas could be fitted with passive infra-red motion sensors to reduce disturbance by light spillage.

To mitigate impact on adjacent properties the lighting will be kept to the areas necessary to enable safe working and for security purposes only.

3.7. Temporary construction site enclosures (Condition 8j)

Two temporary construction site enclosure will be located within the Site, as illustrated in Figure 5. The first temporary enclosure (labelled 1) will be used during the construction of early phases in the south of the site and then landscaped. A second enclosure (labelled 2) will be used to support the construction of later phases, before being landscaped once construction works are completed. Both enclosures are therefore temporary. The enclosures will contain:

- A loading area, separated into an infrastructure/services area and a residential area;
- Unloading area, separated as above;
- Materials storage, separated as above;
- Waste storage; and
- Parking area.

The temporary enclosure locations adhere to a general safeguarding stand-off (of a minimum of 15m) which will be applied between any construction works and main watercourses or areas of ancient woodland. This will ensure that these sensitive areas stay protected and that any impacts they experience would be at most negligible.

The details of the layout within the two site compound areas cannot be known until contractors have been appointed. On appointment, the contractors will submit compound layout details to the local planning authority for further approval before commencement of construction works. These details will include locations of parking, storage, and site office and welfare facilities.

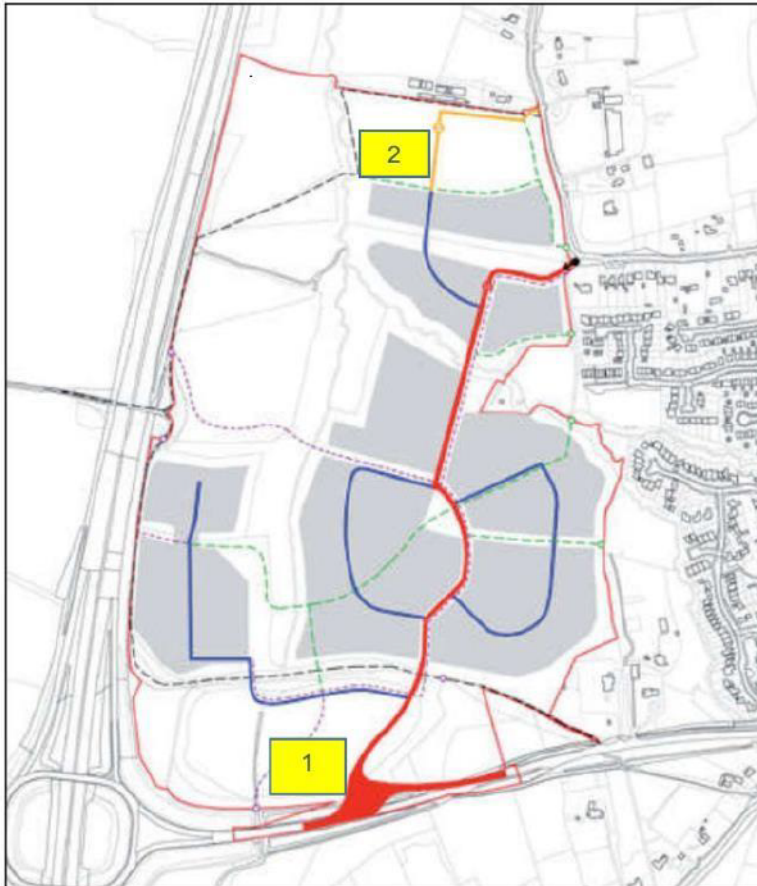


Figure 5 Locations of temporary site enclosures

3.7.1. Areas for the loading, unloading, parking and turning of vehicles associated with the construction of the development (Condition 8h)

Vehicles associated with site construction will use the primary access to gain entry to the site. They will then enter a fenced, storage/unloading area to the north west of the primary access, with wheel washing facilities. The area will be arranged in a loop to decrease the need for reversing/turning.

3.7.2. Areas used for the storage of plant and materials associated with the developments (Condition 8l and 8j)

Two locations will be identified as areas, as demonstrated in Figure 5, for the storage of plant/materials and spoil, adjacent to un/loading areas. Location 1 will be used for storage of materials during the construction of the earlier phases of development. It will be located to the north and west of the primary access and will eventually be incorporated into the landscape scheme. As indicated above it will be separated into an area for machinery and materials related to infrastructure/services and residential development.

The second location (2) will be located in the far north west of the Site and will be utilised during later phases of the scheme and will be incorporated within the landscape scheme at the end of the development phase. The second location will be divided up in the same way as the first.

Both storage areas will be bound by a solid fence to ensure that the appearance of the area does not detract from the overall aesthetic quality of the Site, as it is developed.

3.8. Public access routes

The Site benefits from a Public Right of Way (PROW) that connects it with Manor Royal in Crawley and the future North East Sector development via the accommodation bridge over the M23. This PROW runs across the north and north west of the site and (post construction) will pass alongside proposed allotments and informal public open space and through an area of retained woodland to connect with the M23 footbridge. Surface improvements will be made to the PROW during the construction process. A further PROW to the south and south west of the site will pass alongside the proposed employment area, landscaped public open space and retained woodland, adjacent to the proposed residential area. Details of existing and proposed PROWs are provided in Figure 6.

During the construction process both PROWs will be temporarily diverted to the perimeter of the construction site, with appropriate fencing and signage, to ensure public safety. The required consents for this diversion will be gained, following discussion with the relevant Council officers.



Figure 6 Site map identifying existing footpaths (Design and Access Statement 2013)

3.9. Public consultation (item I)

Following the closure of the formal public consultation on the planning application in 2013, discussions have continued with local stakeholders and residents. St Modwen continues to receive feedback and queries via its website, email address, postal address and telephone line, all of which have remained live. The methods of communication between local residents, stakeholders and St Modwen will be re-publicised before construction commences.

Signs will be erected in the local area to inform local residents and commuters of the timeframe for construction works and details of any potential disruption caused. This information will also be distributed through local newspapers and using social media. Meetings will be held with local residents to discuss any concerns, if required.

3.10. Details of the scheme to protect residential properties from the noise sources identified in the ES (item m)

As identified in the ES several mitigation techniques will be used to protect residential properties from the noise sources identified in the ES. Best Practicable Measures (BPM) will be applied during construction works to minimise noise and vibration impacts arising from construction activities. BPM are defined in Section 72 of the Control of Pollution Act 1974 and Section 79 of the Environmental Protection Act 1990 as those measures which are practicable having regard among other things to local conditions and circumstances, to the current state of technical knowledge and to financial implications.

The effects of noise from construction sites will be controlled by introducing management and monitoring processes to ensure that best practice methods are planned and employed to minimise noise during construction. A Noise Management Plan will be produced by St Modwen's contractors prior to start on site. The Plan will include management and monitoring processes to ensure as a minimum:

- Integration of noise control into the preparation of method statements;
- Ensuring proactive links between noise management activities and community relations activities;
- Preparing details of site hoardings, screens or bunds that will be put in place to provide acoustic screening during construction, together with an inspection and maintenance schedule for such features. If equipment is known to create noise in a particular direction this will be considered when locating the machinery on site;
- Developing procedures for the installation of noise insulation where required, put in place as early as reasonably practicable;
- Materials will be unloaded from vehicles slowly and not dropped;
- Developing a noise monitoring protocol when monitoring will be undertaken, that compliments the St Modwen cumulative monitoring schedule;
- Preparing and submitting Section 61 consent applications where required;
- Undertaking and providing to St Modwen, and where required the local authority Environmental Health Officer, all monitoring required to ensure compliance with all acoustic commitments and consents; and
- Implementing management processes to ensure on-going compliance, improvement and rapid corrective actions to avoid any potential non-compliance.

St Modwen's contractors will, as far as reasonably practicable, ensure that the noise from reversing alarms is controlled and limited. The use of traffic marshalling, a circular parking system and off-site consolidation of goods and materials with controlled distribution to site will eliminate the need for reversing alarms in most areas. Where reversing alarms are to be used, this will be managed through the following hierarchy of techniques:

- The site layout will be designed to limit and, where reasonably practicable, avoid the need for the reversing of vehicles. Contractors will seek to ensure that drivers are familiar with the worksite layout;
- Reversing alarms incorporating one or more of the features listed below or any other comparable system will be used where reasonably practicable:
 - a) highly directional sounders;
 - b) use of broadband signals;
 - c) self-adjusting output sounders; and
 - d) flashing warning lights
- Reversing alarms will be set to the minimum output noise level required for health and safety compliance.

Plant and equipment liable to create noise and/or vibration whilst in operation will, as far as reasonably practicable, be located away from sensitive receptors. Use of generators on-site will be minimised. All plant, equipment and noise control measures applied to plant and equipment shall be maintained in good working order and operated such that noise emissions are minimised as far as reasonably practicable. As far as reasonably practicable, any plant, equipment or items fitted with noise control equipment found to be defective will not be operated until repaired.

Machines in intermittent use will be shut down or throttled down to a minimum during periods between working. Static noise emitting equipment operating continuously will be housed within suitable acoustic enclosures, where appropriate, and acoustic covers will be closed when machine is in operation.

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