CONSTRUCTION & ENVIRONMENT MANAGEMENT PLAN

HALIFAX ROAD, PENISTONE

Rev A – 10TH NOVEMBER 2021



BARRATT HOMES

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1. Introduction
    a. Site Details
    b. Development Proposals
    c. Sensitive considerations
    d. Purpose of the CEMP
2. Construction Information
    a. Construction Management Plan
        i. Site Compound & Operative parking
        ii. Construction Traffic
        iii. Loading Areas
        iv. Materials Storage
    b. Measures to prevent mud, grit & dirt leaving site
    c. Measures to control emissions of dust & dirt
    d. Health and Safety on site
    e. Network Rail Boundary
3. Availability of Statement
4. Appendix A: Construction Management Plan
5. Appendix B: Site Compound Layout
6. Appendix C: Site Managers - Occupational Safety, Health & Environmental System
7. Appendix D: Barratt David Wilson Environmental Policy

1. INTRODUCTION

a. Site Details

The development area covers the vacant agricultural fields South of Halifax Road as outlined below:



b. Development Proposals

The site was recently granted a Full Planning Permission for a residential development of 400 residential houses. The development includes associated estate roads, parking areas, public open space and landscaping.

c. Sensitive Considerations

The table below lists a number of receptors which have been identified as being potentially sensitive to the works during the construction of the development due to their location and proximity to the site and access road.

Receptors	Location	Category	Level of Sensitivity
Well House Lane	South/East of Site	Residential Properties	Medium
Scout Dike	South of Site	Leisure	Low
Clayton Factory	West of Site	Industrial	Medium

Those listed as low priority are separated from the new site by vacant agricultural land and are of a category at low risk of disturbance by any noise created during the construction phase of the development.

Medium level relates to those at a closer level to the site activities. These properties are only classed as medium as they are not directly adjacent the construction works and their orientation shelters them from the impact of the prevailing wind reducing the potential impact upon them.

d. Purpose of the CEMP

This Construction Environmental Management Plan has been prepared in respect of condition 28 under application number 2020/0274.

It is a document that provides the details and broad principles to avoid, and effectively manage, potential adverse construction impacts upon the environment, and to ensure activities comply with relevant legislation, government and industry standards, codes of practice and best practice guidance. It details the environmental controls, mitigation measures and safety procedures that will need to be adopted during construction of the Proposed Development. It sets out roles and responsibilities for the management of these controls and safety procedures.

The relevant planning condition is as follows:

Condition 28
No development shall take place, including any works of demolition, until a Construction Method Statement has been submitted to, and approved in writing by, the Local Planning Authority. The approved statement shall be adhered to throughout the construction period. The statement shall provide for:
i. The parking of vehicles of site operatives and visitors
ii. Means of access and routing for construction traffic
iii. Loading and unloading of plant and materials
iv. Storage of plant and materials used in constructing the development
v. Measures to prevent mud/debris being deposited on the public highway.
Reason: In the interests of highway safety in accordance with Local Plan Policy T4..

2. CONSTRUCTION INFORMATION

a. Construction management plan

The proposed Construction Management Plan (CO-01) contained within Appendix A indicates our proposals for the build route of the site shown as Road Phasing. In addition, the following items are indicated on the plan and will be installed and managed for the duration of the work on site:

- Position of site main site compounds, car parking and Welfare facilities
- Access to site compound and throughout site (permanent and temporary)
- Position of site storage and loading areas
- Wheel wash facilities (where applicable)

i. Site Compound & Operative parking

The site compounds with operative parking are to be located on the central POS area of the site with access directly off the main Spine Road. A plan of our standard main compound setup is contained within Appendix B.

A temporary compound will be used just off the Halifax Road entrance until the Spine Road is constructed and access can be taken to the main compounds. It is intended that the site will be built on two fronts, one from each compound and focussing on Barratt and David Wilson products.

Operatives will be directed to access and exit the site via the A629 Halifax Road.

ii. Construction Traffic

Prior to the Section 278 works and permanent site entrance from Halifax Road are complete, temporary access/egress points off Halifax Road will be used. These temporary access/egress points are currently existing kerbed farm access/egress points. The temporary access/egress points will be tarmac to prevent debris being carried onto the existing highways. All construction traffic will access the site via the A629 Halifax Road and the main spine road which is to be the first phase of development. Construction traffic will not access the site from Well House Lane due to how narrow that road is.
Once within the site construction traffic will be directed to the main compound and loading area via the Spine road and return via a one-way loop as shown in Appendix A.
Traffic returning up the spine road from site will be directed via the wheel wash facility to ensure wheels and chassis are clean before re-entering the public highway.

iii. Loading Areas

The main loading area for the site is to be located opposite the site compounds and will be accessed from both the spine road and a temporary haul road constructed to the West of the area. This area will allow any delivery vehicles and plant used to unload them to be fully off the main road during activities of loading/unloading plant and materials.

iv. Materials Storage

Material storage will be located directly behind the loading area away from the main spine road. Plant and other vehicles accessing the materials will be able to use the loading area as a self-contained section off the main spine road to ensure no congestion along that route.

b. Measures to prevent mud, grit & dirt leaving site

Construction access to the site will be via the A629 Halifax Road, therefore cleanliness of vehicles and plant travelling between the site and the main road is an important consideration.

This means that action needs to be taken to prevent mud or other debris from leaving the construction site and getting onto the highway. In this instance several measures are being implemented by the developer.

Firstly, road signage erected for the duration of the construction period will be placed either side of the site entrance. The signs will be standard construction warning signage reading 'Slippery Road' with 'Mud on the Road' sub plate.

An automatic wheel wash will be installed on the exit from the site compound and loading area so that vehicles leaving the site that require it can clean their tyres and chassis to wash off mud and debris before they exit. The location for this facility is indicated on the Construction Management Plan.

Lastly a road sweeper vehicle will be employed to visit site and clean the site roads each day to prevent a build-up of mud, grit and dirt. This will take place every afternoon prior to the close of site and will also be on call as necessary through each day should there be a need for its services. The site manager will monitor this situation as part of their daily duties and request measures as necessary.

Top soil is to be stripped and stored in safe areas within the site ready to be reused in gardens and landscape areas. Any surplus will be removed by specialist haulage vehicles in accordance with the above statement and will be kept to an absolute minimum. All vehicle loads being transported from site will be covered to reduce dust emissions.

The strip, remodeling and storage of all soil will be wholly retained within the site including the plant conducting the works ensuring minimal vehicular movement to and from the site.

Throughout the main construction of the site plant movements to and from the site will be minimal with most plant remaining on site for the duration of the program. Delivery vehicles and staff private vehicles will be restricted to the site compound area therefore limiting their ability to transfer dirt from the main construction site to the Public Highway.

c. Measures to control emissions of dust & dirt

The site manager (to be appointed) will ultimately be responsible for dust suppression on the site. Roles and responsibilities are clearly defined within the Barratt Group Occupational Safety, Health & Environmental Management System. A copy of the roles and responsibilities of the Site Manager accompany this statement within Appendix C.

Also accompanying this report (Appendix D) is a brief Environmental Policy Statement outlining the group's vision on environmental issues.

Dust comprises particles typically in the size range 1-75 micrometres (µm) in aerodynamic diameter and is created through the action of crushing and abrasive forces on materials. The large dust particles fall out of the atmosphere quickly after initial release and therefore tend to be deposited in close proximity to the source of emissions. Dust therefore is unlikely to cause long-term or widespread change to local air quality; however, its deposition on property and cars can cause 'soiling' and discolouration. This may result in complaints of nuisance through amenity loss or perceived damage caused, which is usually temporary.

The smaller particles of dust (less than 10µm in aerodynamic diameter) are known as particulate matter (PM10) and represent only a small proportion of total dust released; this includes a finer fraction, known as PM2.5 (with an aerodynamic diameter less than 2.5µm). As these particles are at the smaller end of the size range of dust particles they remain suspended in the atmosphere for a longer period of time than the larger dust particles, and can therefore be transported by wind over a wider area. PM10 and PM2.5 are small enough to be drawn into the lungs during breathing, which could have a potential impact on human health.

An assessment of the likely significant impacts on local air quality due to the generation and dispersion of dust and PM10 during the construction phase has been undertaken using the available information for the Proposed Scheme, significant previous experience and professional judgement.

The assessment considers the risk of potential dust and PM10 impacts from the following activities: demolition; earthworks; general construction activities and track-out. It takes into account the nature and scale of the activities undertaken for each source and the sensitivity of the area to an increase in dust and PM10 levels to assign a level of risk. Risks are described in terms of there being a low, medium or

high risk of dust impacts. Once the level of risk has been ascertained, then site specific mitigation proportionate to the level of risk is identified, and the significance of residual effects determined.

In addition to impacts on local air quality due to on-site construction activities, exhaust emissions from construction vehicles and plant may have an impact on local air quality adjacent to the routes used by these vehicles to access the Site and in the vicinity of the Site itself. Using a professional judgement on the number of vehicles and plant associated with the construction phase a qualitative assessment of their impact on local air quality has been undertaken by considering the following:

- The number and type of construction traffic and plant likely to be generated by this phase of the Proposed Scheme;
- The number and proximity of sensitive receptors to the Application Site and along the likely routes to be used by construction vehicles; and
- The likely duration of the construction phase and the nature of the construction activities undertaken.

Construction activities that have the potential to generate and/or re-suspend dust and PM10 include:

- Securing of the Site and the implementation of temporary fencing;
- Creation of internal access, haulage routes; parking and traffic measures;
- Creation of construction compounds;
- Site clearance, including vegetation and tree removal and removal of existing below ground services and structures;
- Earthworks and surface re-profiling/sub-base works to obtain required finished floor levels;
- Foundation construction (at this stage it is assumed that strip foundations would be required);
- Materials handling, storage, stockpiling, spillage and disposal;
- Movement of vehicles and construction traffic within the Site (including excavators and dumper trucks);
- Use of crushing and screening equipment/plant;
- Exhaust emissions from site plant, especially when used at the extremes of their capacity and during mechanical breakdown;
- Construction of buildings, roads and areas of hardstanding alongside fabrication processes;
- Internal and external finishing and refurbishment; and
- Site landscaping after completion.

The majority of the releases are likely to occur during the working week. However, for some potential release sources (e.g. exposed soil produced from significant earthwork activities) in the absence of dust control mitigation measures, dust

generation has the potential to occur 24 hours per day over the period during which such activities are to take place.

The following three construction related activities have been assessed:

Earthworks and Remediation: As the site is over 10,000m² the potential for dust emissions is considered to be **large**.

Construction: The volume of buildings to be constructed on site is to be in the region of 25,000 – 75,000m³ therefore the potential for dust emissions is considered to be **medium**.

Trackout: The levels of traffic is relatively low in comparison with flows on surrounding roads. It is therefore considered that the potential dust emission magnitude is **small** for trackout.

Given there is currently no buildings on the site, no demolition activities are proposed.

ASSESSMENT OF THE SENSITIVITY OF THE STUDY AREA

It is known that the prevailing wind direction is from the west. Therefore, receptors located to east of the Application Site are more likely to be affected by dust and particulate matter emitted and re-suspended during the construction phase.

Under low wind speed conditions, it is likely that the majority of dust would be deposited in the area immediately surrounding the source. The majority of the surrounding area is comprised of residential to the South East with industrial to the North West and agricultural fields elsewhere. The residential area to the South is likely to be affected by trackout dust only due to the prevailing wind direction.

Taking the above into account the sensitivity of the area to changes in dust and PM10 has been derived for each of the construction activities considered. The results are shown in the Table below:

POTENTIAL IMPACT	SENSITIVITY OF SURROUNDING AREA		
	EARTHWORKS	CONSTRUCTION	TRACKOUT
Dust Soiling	Medium	Medium	Medium
Human Health	Low	Low	Low

RISK OF IMPACTS

The predicted dust emission magnitude has been combined with the defined sensitivity of the area to determine the risk of impacts during the construction phase, prior to mitigation. The table below provides a summary of the risk of dust impacts for the Proposed Scheme. The risk category identified for each construction activity has been used to determine the level of mitigation required.

POTENTIAL IMPACT	SENSITIVITY OF SURROUNDING AREA

	EARTHWORKS	CONSTRUCTION	TRACKOUT
Dust Soiling	High	Medium	Low
Human Health	Low	Low	Low

CONSTRUCTION VEHICLES AND PLANT

The greatest impact on air quality due to emissions from vehicles and plant associated with the construction phase will be in the areas immediately adjacent to the Site access. Construction traffic will access the site from the North via Halifax Road. Due to the size of the Site, it is considered likely that the construction traffic will be low in comparison to the existing traffic flows on these roads.

Based on the current local air quality in the area, the proximity of sensitive receptors to the roads likely to be used by construction vehicles, and the numbers of construction vehicles and plant that will be used, the impacts are therefore considered to be of **negligible** significance. Therefore, the resultant potential effect is **not significant.**

MEASURES ADOPTED WITHIN THE CEMP

The construction works will include various site clearance and construction activities, which all have the potential to generate particulate emissions arising from dust.

The main sources of particulate emissions during construction activities include:

- Haulage routes, vehicles and construction traffic;
- Materials handling, storage, stockpiling, spillage and disposal;
- Exhaust emissions from site plant, especially when used at the extremes of their capacity and during mechanical breakdown;
- Site preparation and restoration after completion;
- Construction and fabrication processes; and
- Internal and external finishing and refurbishment.

A number of mitigation methods will be implemented to minimise the nuisance and impact arising from dust produced during construction. These include;

General Communication

- The name and contact details of person(s) accountable for air quality and dust issues should be displayed on the site boundary. This may be the environment manager/engineer or the site manager. The head or regional office contact information should also be displayed.
- Display the head or regional office contact information.

Site Management

- All dust and air quality complaints should be recorded and causes identified. Appropriate remedial action should be taken in a timely manner with a record kept of actions taken including of any additional measures put in-place to avoid reoccurrence.
- The complaints log should be made available to the local authority on request.
- Any exceptional incidents that cause dust and/or air emissions, either on- or off- site should be recorded, and then the action taken to resolve the situation recorded in the log book.

Monitoring

- Regular site inspections to monitor compliance with the DMP should be carried out, inspection results recorded, and an inspection log made available to the local authority when asked.
- The frequency of site inspections should be increased when activities with a high potential to produce dust are being carried out and during prolonged dry or windy conditions.

Preparing and Maintaining the Site

- Plan the site layout so that machinery and dust causing activities are located away from receptors, as far as is practicable.
- Where practicable, erect solid screens or barriers around dusty activities or the site boundary that are at least as high as any stockpiles on site.
- Where practicable, fully enclose site or specific operations where there is a high potential for dust production and the Site is active for an extensive period.
- Avoid Site runoff of water or mud.
- Keep Site fencing, barriers and scaffolding clean using wet methods.
- Remove materials that have a potential to produce dust from Site as soon as possible, unless being re-used on Site. If they are being re-used on-Site cover appropriately.
- Where practicable, cover, seed or fence stockpiles to prevent wind whipping.

Operating Vehicle/Machinery and Sustainable Travel

- Ensure all vehicle operators switch off engines when stationary - no idling vehicles.
- Avoid the use of diesel or petrol powered generators and use mains electricity or battery powered equipment where practicable.
- A Construction Logistics Plan should be produced to manage the sustainable delivery of goods and materials.

Operations

- Only use cutting, grinding or sawing equipment fitted or in conjunction with suitable dust suppression techniques such as water sprays or local extraction, e.g. suitable local exhaust ventilation systems.
- Ensure an adequate water supply on the Site for effective dust/particulate matter suppression/mitigation, using non-potable water where possible and appropriate.
- Use enclosed chutes and conveyors and covered skips.
- Minimise drop heights from conveyors, loading shovels, hoppers and other loading or handling equipment and use fine water sprays on such equipment wherever appropriate.
- Ensure equipment is readily available on site to clean any dry spillages, and clean up spillages as soon as reasonably practicable after the event using wet cleaning methods.

Waste Management

- Avoid bonfires and burning of waste materials.

Measures Specific to Earthworks

- Re-vegetate earthworks and exposed areas/soil stockpiles to stabilise surfaces as soon as practicable.
- Only remove the cover in small areas during work and not all at once.

Measures Specific to Construction

- Avoid scabbling (roughing of concrete surfaces)
- Ensure sand and other aggregates are stored in bunded areas and are not allowed to dry out, unless this is required for a particular process, in which case ensure that appropriate additional control measures are in place.
- Ensure bulk cement and other fine powder materials are delivered in enclosed tankers and stored in silos with suitable emission control systems to prevent escape of material and overfilling during delivery.
- For smaller supplies of fine powder materials ensure bags are sealed after use and stored appropriately to prevent dust.

Measures Specific to Trackout

- Use water assisted dues sweeper(s) on the access and local roads, to remove, as necessary, any material tracked out of the site.
- Avoid dry sweeping of large areas.
- Ensure vehicles entering/leaving site are covered to prevent escape of materials during transport.
- Record all inspections of haul routes and any subsequent action in a site logbook.
- Implement a wheel washing system.

d. Health and safety on-site

Barriers, platforms and hoarding will be erected, adapted and maintained throughout the construction phase to completely segregate the public from construction activity. The solid hoarding will be installed around the perimeter of the site at ground level and remain throughout the construction phase.

The contractor will ensure that the contractor's name and contact details, including a telephone number for complaints, are clearly displayed on the Site hoarding in at least two locations. Persons with the appropriate authority to act to resolve any problems that may occur will attend the telephone line during all operational hours.

The local authority will be notified of this telephone number prior to the commencement of works.

e. Network Rail Boundary

At the time of issuing this report an initial site meeting between Barratt David Wilson representatives and Network Rails Asset Manager (Daryl Carrick; Darryl.Carrick@networkrail.co.uk) was conducted on 27/09/2021. Measures to safeguard the adjacent railway line were discussed and will be formalised via a scope of works and estimate from Network Rail. The area adjacent the railway is not included within the immediate phases of the site start but it is agreed that the boundary will be secured by the developer with 1.8m high site secure heras fencing.

Before construction starts in this area further details are to be reviewed by Network Rail, including but not limited to:

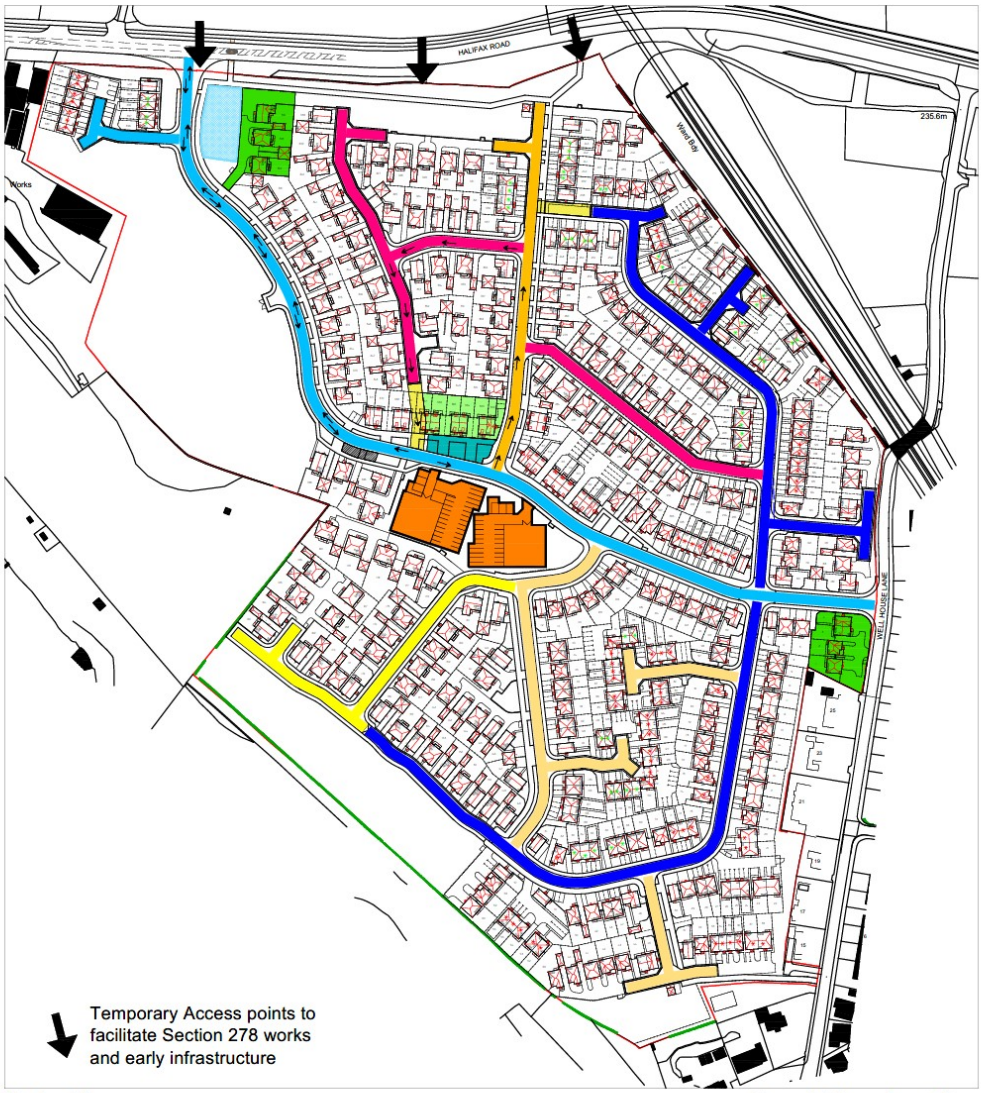
- Heras Fencing Location and spec
- Vehicle barriers to private drives facing boundary
- Method statements and risk assessments for plot construction along the boundary
- Proposed Levels
- Crane plan for roof truss installation

3. AVAILABILITY OF CEMP

This information will be made available to the public upon request to the Barratt Homes Head Office and also within the site manager's compound on site throughout the duration of the development. The construction management plan will be displayed in poster format at large scale within the site compound area so that it is visible by all visitors on first arrival to site and will be used as part of the onsite induction to all operatives working within the site.

APPENDIX A

Construction Management Plan
Halifax Road, Penistone



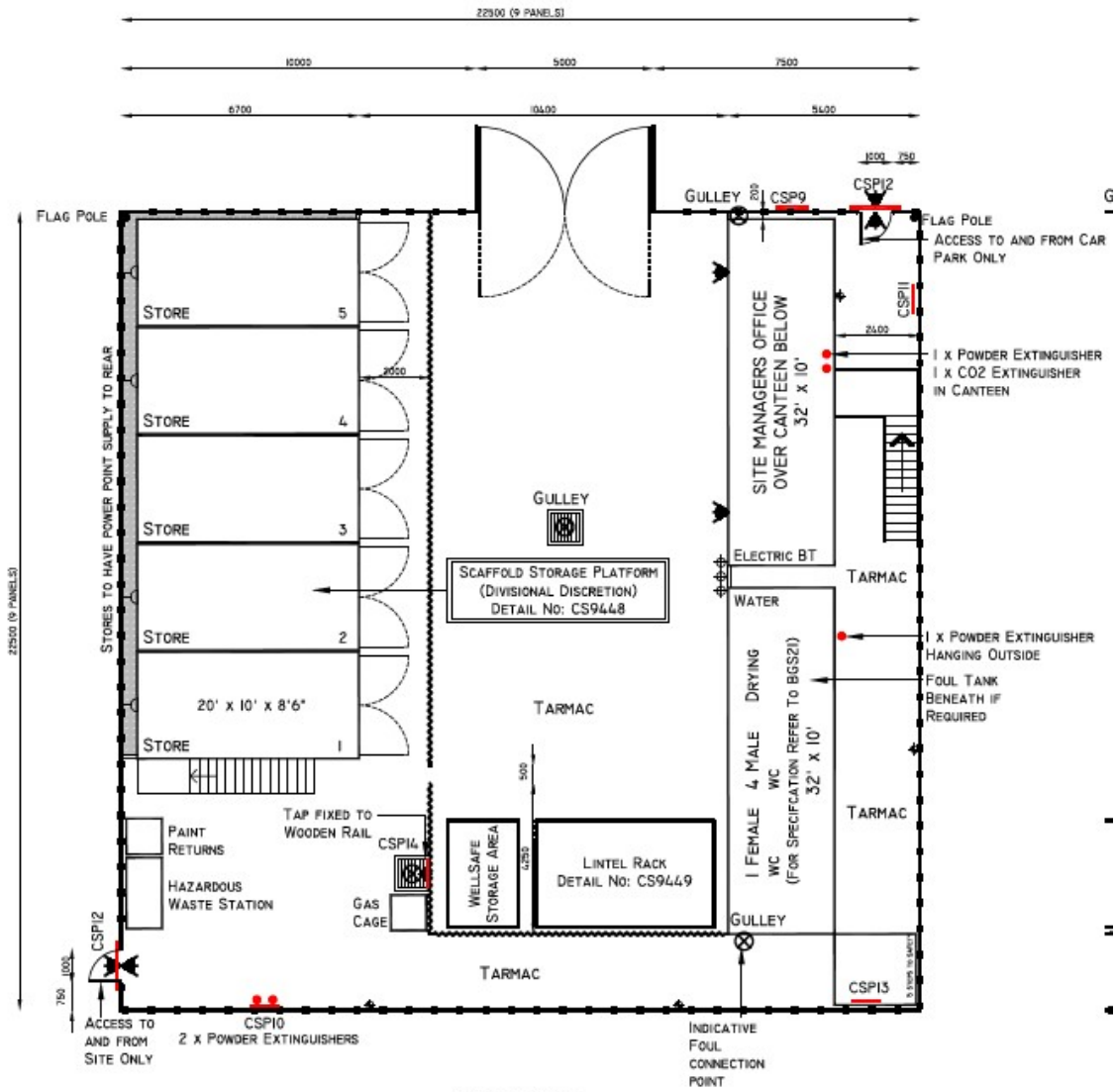
Main Key

- Temporary Compound
- Semi-permanent Compound
- Sales centre, show homes and parking
- Network Rail Boundary
- Materials & Plant Loading Area
- Materials & Plant Storage Area
- Automatic Wheel Wash
- Construction Traffic Direction

Road Phasing Key

- Phase 1
- Phase 2
- Phase 3
- Phase 4
- Phase 5
- Phase 6

APPENDIX B



OPTION 1
STANDARD COMPOUND
<50 LC / YEAR

APPENDIX C

Barratt Developments PLC Occupational Safety, Health & Environmental System Role & Responsibilities – Site Managers/Project Managers	RR 16 Page 1 of 1 Issue date: Sept 2016

Site Managers/Project Managers shall:

1. Be responsible for the implementation of the Health and Safety, Environmental Policies and the Occupational Safety, Health and Environmental Management System (OSHEMS) on the development and for monitoring performance standards.
2. Have an understanding of Safety, Health and Environmental (SHE) Law, in particular the Management of Health and Safety at Work Regulations and, Construction Design and Management Regulations. Ensure that where necessary the requirements of SHE legislation are applied to developments.
3. Ensure that the Construction Phase Safety, Health and Environmental Plan is implemented on site and that it is updated where required.
4. Ensure Method Statements and/or Risk Assessments for all work activities are in place and are appropriate prior to work commencing. Monitor site activities in accordance with the agreed safe system of work.
5. Ensure suitable and sufficient welfare facilities are provided and that they are maintained at least daily.
6. Ensure any new persons arriving on site, including Sales team members are instructed in accordance with the site SHE induction.
7. Maintain appropriate SHE records on site.
8. Ensure that the Traffic Management Plan and Fire Plan are appropriate to the level of risk and that necessary control measures are in place for identified hazards.
9. Attend regular meetings with the Sales team as required.
10. Provide subcontractors with suitable supervision where appropriate.
11. Ensure that suitable PPE is worn.
12. Ensure that all machinery and plant, including power and hand tools, are inspected, they are in good condition and that any defects are reported.
13. Ensure that emergency escape routes and fire control measures are maintained on site.
14. Ensure that adequate first aid facilities are provided and available.
15. Co-operate with the SHE Managers and act on their recommendations.
16. Accompany Enforcement Authorities on site visits and act appropriately upon any recommendations. Inform the Contracts Manager of any visits and take necessary action if any issues are raised.
17. Ensure that statutory notices are displayed, and that statutory registers are being maintained up to date.
18. Ensure COSHH assessments are in place for all hazardous substances.
19. Ensure SHE inspections of projects are undertaken.
20. Ensure that all identified hazards or unsafe practices are dealt with and records maintained of action taken.
21. Provide/ensure SHE briefings are being undertaken.
22. Wear the correct PPE on site visits and actively promote a positive SHE culture.

APPENDIX D

ENVIRONMENTAL POLICY STATEMENT

Safeguarding the Environment

Introduction

This is the Environmental Policy of Barratt Developments PLC (the Group).

The policy reflects the Group's commitment to the environment and has been approved by our Board. The policy is communicated to all our employees, is displayed at all work locations and is made available through our website, to the public.

Objectives

The aims of our policy are to:

Identify and minimise the risks to the environment from the Group's activities.

Comply with current environmental legislation and act in anticipation of future requirements.

Set targets to deliver continuous improvement in the management of environmental issues across the Group.

Policy

To achieve these objectives the group is committed to seeking to:

- Prevent pollution, reduce waste and to ensure the efficient use of materials, energy and water.
- Use sustainable, reusable or recyclable products.
- Ensure that all wastes, particularly hazardous or contaminated wastes are tested, transported and disposed of in an environmentally acceptable manner, in accordance with statutory duty of care requirements.
- Minimise noise levels, traffic movements, emission of pollutants and disturbance to the public and local ecosystems, wildlife habitats and preserve heritage.
- Review its activities and identify issues, which could have a significant impact on the environment.
- Minimise risks of environmental incidents through the formulation and adoption of appropriate risk management procedures and, in conjunction with the appropriate authorities, to maintain an emergency response capability to deal with accidental pollution.
- Engage with our supply-chain to ensure compliance with this policy.
- Provide the necessary awareness and training to enable staff at all levels to understand and contribute to the implementation of this policy.
- Ensure each development has a robust plan in place for the management of waste, from inception through the duration of its construction.

This policy statement outlines the Group's commitment to minimising the adverse environmental impact from our operations.

David Thomas, Chief Executive
20th July 2016

BARRATT
DEVELOPMENTS PLC