Construction Environmental Management Plan (CEMP) (Condition 11)

Project Name:	Woodley School	**Contract No:**	10009738
Completed by:	Neil Hickingbottom	**Date:**	July 26

Revision Number	Description of changes made	Updated by	Date of Update
00	1st Issue	NH	Aug 26

This document forms Appendix B.2 of the Construction Phase Plan.

Contents

1. Introduction 3
2. Planning Condition 11 Construction Environmental Management Plan (CEMP) 3
3. Specific Project Environmental Requirements 4
4. Condition 11 Detailed Responses 5
General - Existing site conditions 5
1) A Timetable of all works 8
2) Details of vehicle sizes and routes, times of vehicle movements, identify the location of any HGV waiting areas and include details of the management of said areas (and) 8
3) Details of the parking of Vehicles of site operatives and visitors (and) 10
4) Details and location of signage 10
5) Details of loading and unloading plant and materials used in constructing the development (and) 11
6) Details of storage of plant and materials used in constructing the development 11
7) Measures to be taken to minimise the deposit of mud, grit and dirt on public highways by vehicles travelling to and from the site, including the provision of adequate wheel washing facilities within the site (and) 12
8) Measures to control and monitor the emission of dusts and dirt during construction 12
9) A Site Waste Management Plan, detailing recycling/disposing of waste resulting from demolition and construction works 13
10) Details of mitigation of noise and vibration arising from all construction related activities to (these details should also include suitable restrictions on the hours of working on the site including times of deliveries) 14
11) Details of artificial lighting used in connection with all construction related activities and security of the construction site 15
12) Site manager and resident liaison officer contact details (including their remit and responsibilities) (and) 15

1. Introduction

This CEMP has been prepared in accordance with the Kier SHEMS Environmental Management Standards and Guidance. It identifies specific environmental issues associated with Woodley School in general with a focus on the requirements in Planning Condition 11 and stipulates the procedures that will be used to manage them. Relevant environmental information will be communicated as required and should be read in conjunction with the Construction Environmental Management Plan (CEMP) Biodiversity which covers Condition 3

All amendments to this CEMP must be made and documented by project management in consultation with the Safety, Health and Environmental Manager or Environmental Manager / Adviser.

2. Planning Condition 11 Construction Environmental Management Plan (CEMP)

Condition 11 is a Prior to Commencement Condition and is listed in full below. Each point is responded to in section 4.0

Condition Ref	Condition
Bullet point Number	No development shall take place, until a Construction Environmental Management Plan (CEMP) has been submitted to, and approved in writing by, the Local Planning Authority. The Construction Management Plan shall provide
1)	A timetable of all works
2)	Details of vehicle sizes and routes, times of vehicle movements, identify the location of any HGV waiting areas and include details of the management of said areas
3)	Details of the parking of vehicles of site operatives and visitors
4)	Details and location of signage
5)	Details of loading and unloading of plant and materials
6)	Details of storage of plant and materials used in constructing the development
7)	Measures to be taken to minimise the deposit of mud, grit and dirt on public highways by vehicles travelling to and from the site, including the provision of adequate wheel washing facilities within the site
8)	Measures to control and monitor the emission of dust and dirt during construction
9)	A Site Waste Management Plan, detailing recycling/disposing of waste resulting from demolition and construction works
10)	Details of mitigation of noise and vibration arising from all construction related activities to (these details should also include suitable restrictions on the hours of working on the site including times of deliveries)
11)	Details of artificial lighting used in connection with all construction related activities and security of the construction site
12)	Site manager and resident liaison officer contact details (including their remit and responsibilities)
13)	Details of the use of traffic management/banksmen for large deliveries
14)	Point(s) of access for construction traffic and the routing of such traffic to and from the site; and
15)	Details of engagement with local residents and occupants or their representatives. A communications plan detailing the responsible person, their contact details and how this will be communicated to residents and the Local Authority must be included.
	The agreed plan shall be adhered to throughout the construction of the development and no change therefrom shall take place without the prior written consent of the Local Planning Authority.

3. Specific Project Environmental Requirements

In review of the Pre-Construction Information pack issued by Kirklees Council has noted no significant environmental concerns. Below is a summary of the relevant environmental items from the pre-construction pack:

- Deliveries, collections and storage restrictions – Deliveries, collections and material storage will be managed to avoid the adjacent primary school drop-off and pick-up periods, between 08:30–09:15 and 15:00–15:30. Roads will be kept clear of spoil and rubble, and delivery-time restrictions will be included within subcontract orders
- Storage of hazardous materials – Only minor quantities of materials, such as glues and solvents, are expected to be classed as hazardous. These materials will be placed in secure containers on delivery, stored appropriately on site, and transferred into sealed drums before removal from site.
- Ground conditions – The GEO-Environmental Exploratory Investigation, undertaken prior to demolition, ground remediation and bulk excavation works, identified a moderate to low contamination risk, as noted in the extract below. Since then, the site has been demolished, and the client has completed extensive earthworks and ground remediation to improve the site's bearing capacity. A further site investigation report, relating to Condition 6, has been prepared by the demolition contractor for submission

Contamination Risk Assessment

The table below shows a summary of the risk assessments undertaken for each pollutant linkage, the revised conceptual model and recommendation for either remediation and / or further investigation.

	Pollutant Linkage	Risk	Recommendations
1	Contaminants posing a risk to future site users via dermal contact, ingestion and inhalation (of soil, dust and fibres).	**Moderate (localised)**	-ACM (chrysotile) identified in made ground localised to the west of site. -Elevated PAHs in the made ground localised to the centre of site. -**Recommendations:** Remediation may be required in soft landscaping areas.
		Low	-No elevated heavy metals, PCBs and petroleum hydrocarbons identified across the site. -**Recommendations:** No remediation required.
2	Volatile contaminants posing a risk to future site users via the inhalation of vapours.	**Low**	-No elevated volatile contaminants across the site. -**Recommendation:** No remediation required.
3	Gas posing a risk to buildings and future site users via the migration of gas into building causing explosion and asphyxiation.	**Low**	-No significant made ground identified on site. Low TOC/SOM. -**Recommendation:** No remediation required.
4	Mobile contamination posing a risk to controlled waters via the migration through permeable strata.	**Low**	-No elevated contaminants identified in groundwater. -**Recommendations:** No remediation required.
5	Organic contaminants posing a risk to water pipes.	**Low**	-Elevated hydrocarbons identified but not at pipeline depth. -**Recommendations:** Water pipeline risk assessment to be completed.

- Asbestos – All materials found during the demolition of the site buildings has been removed. Small area identified in made ground is to be remediated during the demolition works.

- Dust/noise and vibration activities will be monitored/controlled, i.e. damping down/temporary screens etc These will also be monitored at the boundary with specialist dust/noise and vibration monitoring equipment.
- Drainage – prevention and control of any hazardous substances entering the drainage system.
- The Arboricultural Survey/Summary (for Kirklees) has indicated four areas (post demolition) that will require tree protection, however only two of these areas are in the new school boundary (site boundary). Tree protection measure will be introduced in these areas. Other trees identified in the report and been removed by the demolition contractor as part of their works.
- Ecological Impact Assessment residual effects – The Ecological Impact Assessment for Woodley School summarises the residual effect significance as follows:
  - Habitats – Minor beneficial effect from the creation of new habitat to achieve biodiversity net gain; not significant.
  - Bats – Minor beneficial effect through the provision of bat boxes as part of the new scheme; not significant.
  - Birds – Minor beneficial effect through the provision of bird boxes as part of the new scheme; not significant.
  - Badgers and hedgehogs – Negligible neutral effect.
  - Invasive species – Negligible neutral effect
- Flood risk and water environment – The site-specific Flood Risk Assessment confirms that the site is located within Flood Zone 1, which represents a very low probability of flooding of less than 0.1%. No nearby watercourses or wells have been identified.
- Standing heritage and archaeology – The site has been cleared, and demolition works have been completed by the client. No standing heritage assets or archaeological features are present on site.
- Sensitive neighbours – The site is located within a residential area. Residential properties border the northern boundary, while Almondbury Cricket Club is located to the west. To the south and east are playing fields associated with the former school site, which has now been demolished. Hill View Academy primary school is located approximately 70m from the construction area.
- Unexploded Ordnance - A UXO desk top study and risk assessment has been completed, and the site risk is low. During WW2 the site was home to 4No 4.7" guns but there has been considerable development on the site and surrounding area since then.

4. Condition 11 Detailed Responses

General - Existing site conditions

Remediated working area – Following demolition of the existing school, the site has been remediated to support the forthcoming new build works. The remediated area, shown in green on Figure 1 below, has been excavated, compacted and capped with clean stone to provide a suitable working platform before construction activities commence.

Areas that have generally been left untouched are:

- The existing fenced tarmac sports pitches on the southern boundary that are to be repaired and resurfaced as part of the permeant works
- There are small strips of grass around most of the site boundaries adjacent to the timber hoarding and a small borrow pit created to the west boundary which has had the existing topsoil stripped and removed

from site to expose the virgin ground for use as general fill across the site area. These areas will be filled with selected back fill or imported fill before the topsoil and soft landscaping is installed.

- The tree protection zones will be established (as noted in the arboricultural report) to the north/east of the site adjacent to the proposed site compound, see Figure 2 plan. There are no proposed damaging activities in or close to the tree protection zones and will generally be shielded from the project works by the site establishment.

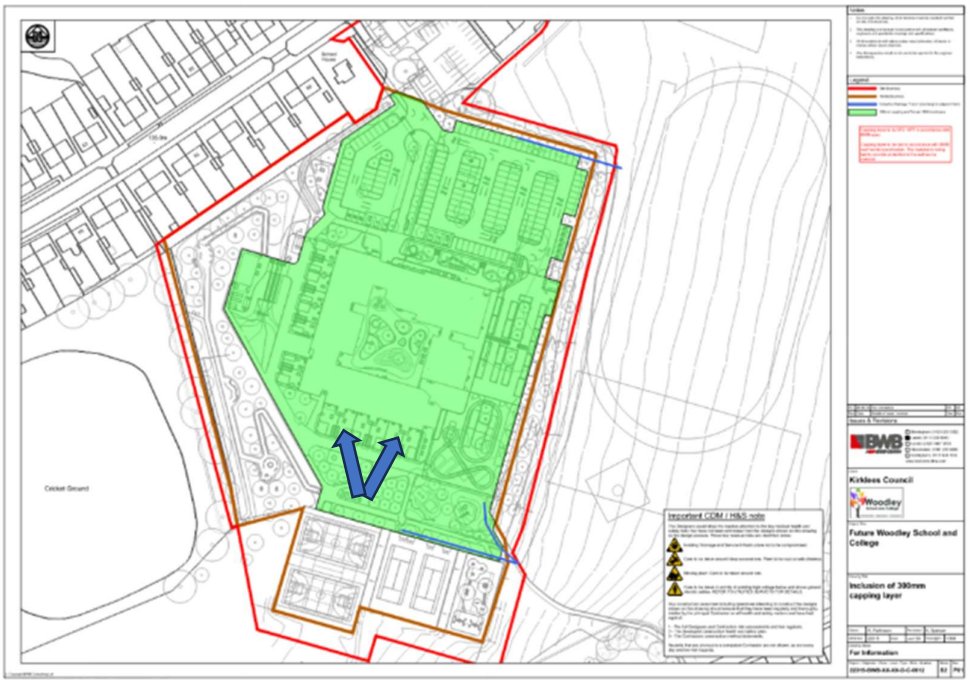


Figure 1 Site plan showing remediated area highlighted in green





Photographs 1-2 Showing remediated site area (July 26) (see Figure 1 for location)

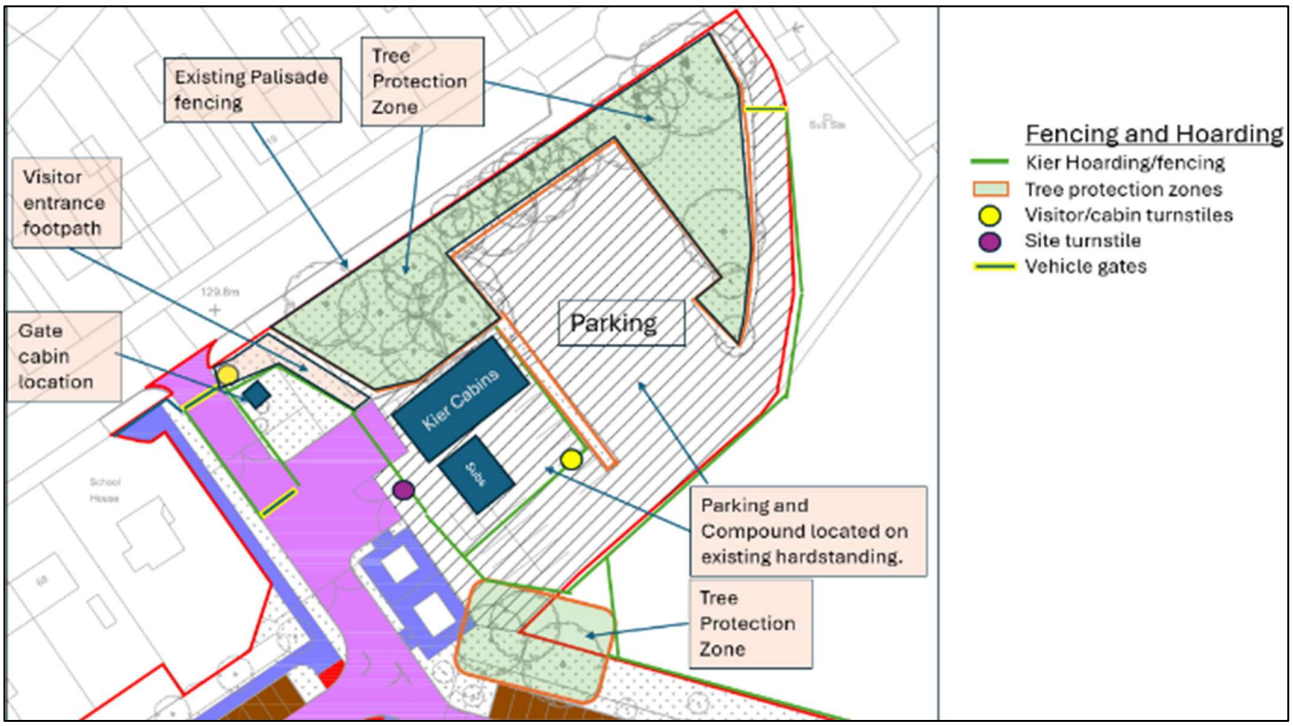


Figure 2 Entrance area tree protection locations

Planning Conditions (11)

1) A Timetable of all works

The full programme has been issued separately as part of the contract documents.
The Proposed Construction Milestones are currently:

- Start on site – Quarter (Q) Q3-Q4 2026
- Commence steel frame – Q4-Q1 2026-2027
- Roof works – Q1 2027
- Ground Floor slabs – Q1 2027
- Facades works – Q1-Q2 2027
- Internal finishes – Q2-Q3 2027
- MEP – Q2-Q3 2027
- External Finishes – Q3-4 2027
- Testing and Commissioning – Q4 2027
- Project Completion – Q1 2028

2) Details of vehicle sizes and routes, times of vehicle movements, identify the location of any HGV waiting areas and include details of the management of said areas (and)
13) Details of the use of traffic management/banksman for large deliveries (and)
14) Points of access for construction traffic and the routing of traffic to and from the site

The project is located just off the A629 Wakefield Road, providing suitable access for construction traffic and deliveries from the M1 and M62 motorways. Construction traffic will access the site in accordance with the Traffic Management Plan, with these delivery routes, access arrangements and on-site controls communicated to subcontractors and suppliers prior to attendance. See Figure 2a Site Location and Access Routes

A range of delivery vehicles will be required throughout the works to transport materials, plant and equipment to site, including:

- Articulated lorries, up to approximately 16.5m in length, for deliveries including structural steel, bricks, plasterboard, fixed furniture and drainage materials such as pipes and fittings.
- Low loader vehicles, typically averaging approximately 15m in length, for the delivery and removal of tracked excavators, dumpers, mobile elevated working platforms (MEWPs) and other construction plant.
- Flatbed vehicles ranging from approximately 5m long 3.5 tonne vehicles to 9m long 18 tonne vehicles, for the delivery of masonry, reinforcement, plasterboard, drainage pipes and associated fittings.
- Concrete wagons, typically between 7.5m and 9m in length depending on delivery capacity, generally ranging from 4m3 to 8m3.
- Eight-Wheel ridge tipper truck is typically 9 to 10 m long (16-20t) for the delivery/collection of bulk stone/topsoil etc and excavated material.
- Transit-type vehicles and small vans for smaller material deliveries, tools and consumables

Site deliveries will be restricted during the adjacent school drop-off and pick-up periods, namely 08:30 to 09:15 and 15:00 to 15:30. This restriction will help minimise congestion and keep the local highway network as clear as reasonably practicable during peak pedestrian and vehicle movements associated with the school.

An off-site HGV holding area is not proposed, as the site has sufficient capacity to receive HGVs within the site boundary and accommodate vehicles awaiting unloading without waiting on the public highway. See Figure 2b Site Access and Egress.

A full-time gateman will control access, receive delivery vehicles and direct drivers to the appropriate unloading location after a brief driver induction. On-site banksmen will be provided to manage vehicle movements, assist with safe manoeuvring and oversee unloading activities.
Scheduled deliveries will be managed through the electronic Biosite booking system, which requires subcontractors and suppliers to pre-book delivery time slots. This will allow vehicle movements to be coordinated effectively and will reduce the risk of multiple deliveries arriving at the same time.

Larger deliveries, such as structural steel and precast elements, will be allocated longer delivery slots within the schedule and additional banksmen will be provided to receive vehicles, manage their movement on site. These items will be offloaded by crane rather than forklift truck, and delivery arrangements will be planned accordingly to avoid delays and maintain safe traffic flow.
Other than the gateman and banksman to manage the deliveries and the requirement to schedule the deliveries on Biosite there are no specific traffic management requirements for larger deliveries e.g. on articulated lorries or low loader vehicles.

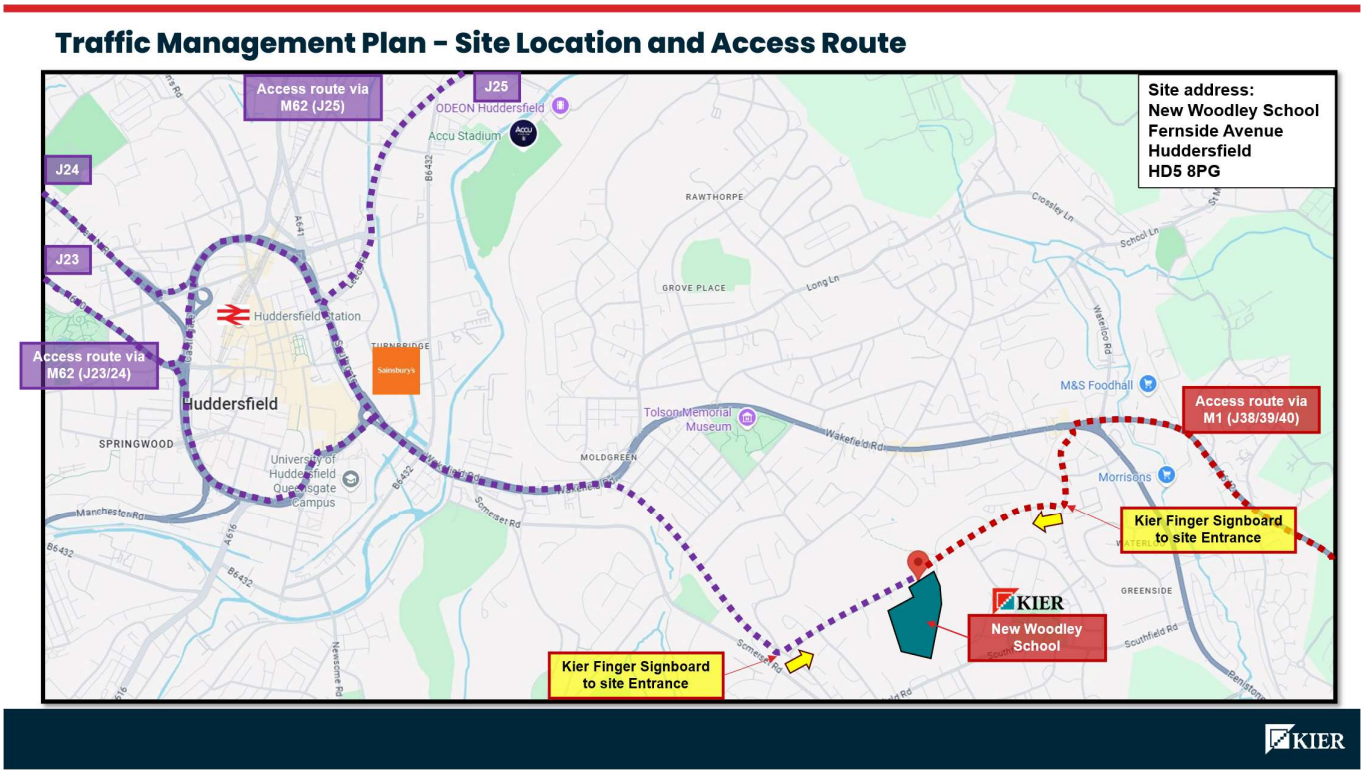


Figure 2a Site Location and Access Route

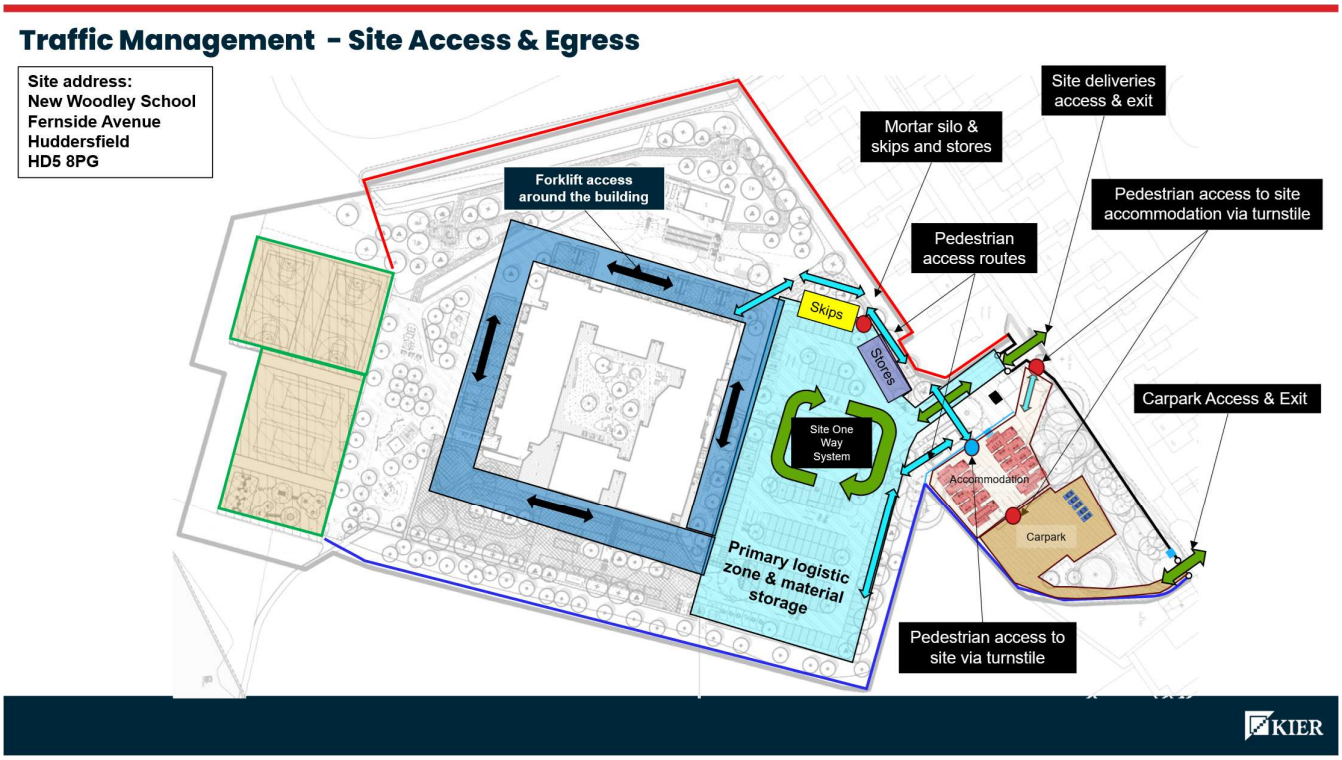


Figure 2b Site Access and Egress

3) Details of the parking of Vehicles of site operatives and visitors (and)
4) Details and location of signage

Staff, contractor and visitor parking will be provided on the existing hardstanding area at the site entrance. The parking area will be accessed via a separate small-vehicle entrance, independent of the main construction access, to maintain clear segregation between private vehicles and construction delivery traffic. This arrangement is shown on Figure 3a below. Access to the site accommodation area will be controlled by two turnstiles: one adjacent to the main site entrance from the public highway, and a second serving the car park area. Remote doorbell access will be provided for new visitors requiring entry to the site cabins.

Temporary fingerboard signage, indicated on Figure 2a, will be installed at each end of Fernside Avenue to clearly signpost the site. Reference to Figure 3a, all site entrances will be clearly identified (Deliveries/Parking and Pedestrian Entrances) and will display the required statutory signage. The main entrance will be controlled by a gateman, who will manage deliveries and direct visitors as required. On-site signage will be reviewed and adapted to suit the site set-up. This will include signage for

- the maximum site speed limit of 5 mph,
- pedestrian routes and the vehicle turning circle including crossing points,
- waste segregation areas and skip identification (i.e. mixed waste/timber/metal/plaster board)
- storage areas for various materials and subcontractors
- caution/hazard warnings i.e. lifting zones, ear defenders required, deep excavations (also fenced off) etc
- signed exclusion zones will be segregated with pedestrian or Heras type fencing, i.e. during lifting operations

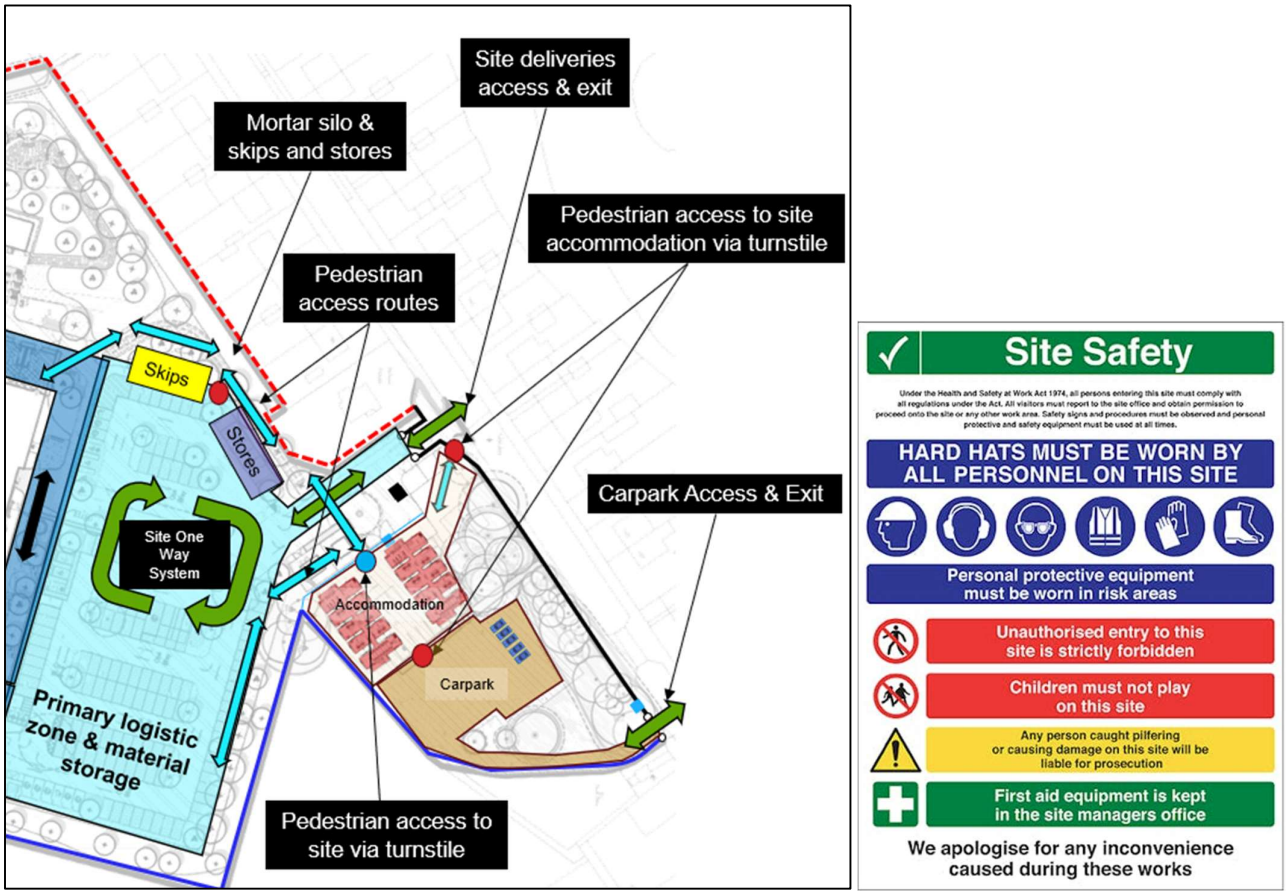


Figure 3a Parking and example of statutory signage to entrances.

5) Details of loading and unloading plant and materials used in constructing the development (and)
6) Details of storage of plant and materials used in constructing the development

On arrival all vehicles will be escorted to designated offloading areas which will be segregated from pedestrian routes, see figure 3a logistics zone and materials storage area. Materials will be offloaded from delivery vehicles using a telehandler and transferred to the storage area or directly to the building, as required.
Some deliveries may be offloaded using vehicle-mounted cranes, such as HIABs with the telehandler used to relocate materials thereafter where necessary.

Loading bays will be provided to each elevation of the building to support the loading out of materials using a telehandler to the first floor and roof areas. Figure 5a shows the lifting strategy for various elements of the building including cranes to unload and install structural stell/precast floors/roofing materials and later MEP plant. MEWPs (mobile elevating work platforms) will be used around the building perimeter for installing SFS walling before scaffold in progressively erected for the brickwork, which is loaded on to the scaffold by a telehandler via loading bays.

Part of the ground remediation works, already completed by Kirklees was the installation of a 300mm stone capping layer and the retention of the tarmac access road on to Fernside Avenue. This will provide good, clean access for delivery vehicles and enable material storage areas to be established early in the works.
Storage containers, shown as “Stores” on figure 5a will be used to secure smaller, higher-value components, while larger materials, such as drainage pipes/bricks, will be stored within the larger compound. Secure tool stores will be

kept in the containers initially and later in the building following the construction of the external walls to provide additional security.
Large plant, including telehandlers, excavators and dumpers, will have a designated parking area adjacent to the storage containers, which will be monitored outside site working hours using CCTV.
Locked mobile bunded fuel bowsers (Minimum 110% of the total volume) will also be located within a small secure compound, with fire extinguishers and spill kits/nappies provided and labelled with an Enviro-tag. Plant nappies will be used during refuelling activities to prevent ground contamination.

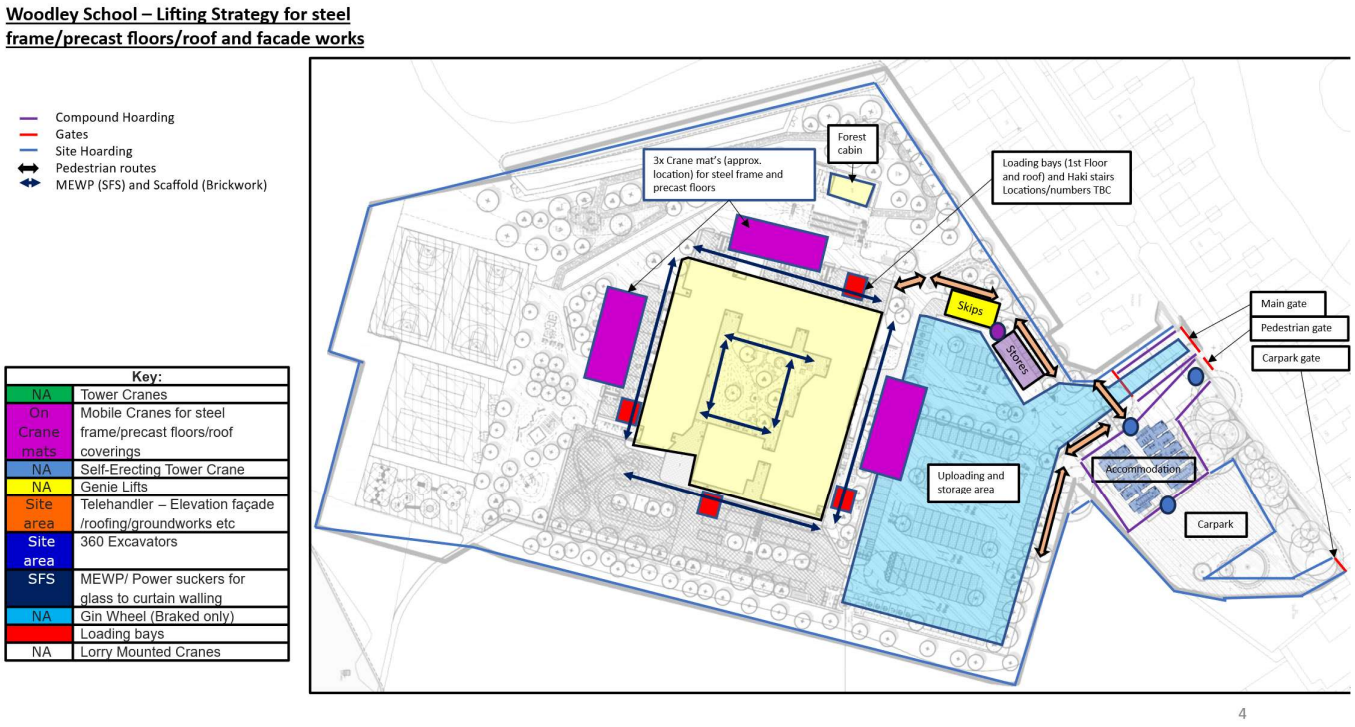


Figure 5a Lifting Strategy Steel frame/precast floors/roof and external facade works

7) Measures to be taken to minimise the deposit of mud, grit and dirt on public highways by vehicles travelling to and from the site, including the provision of adequate wheel washing facilities within the site (and)

8) Measures to control and monitor the emission of dusts and dirt during construction

As noted in 5) the site has been established with a 300mm clean stone capping layer, together with the existing tarmac access road onto Fernside Avenue. As the bulk excavation works have already been completed, the remaining excavation activities will be mostly the drainage and service trenches and the mass concrete-filled building foundations. Where possible, excavated materials will be retained and reused as fill within landscaped areas or will be temporarily stockpiled prior to removal from site. Sheeted lorries and covered skips will be used when transporting excavated materials off site to minimise dust in dry conditions.

The stone capping layer will be maintained and kept clean to so reducing the risk of mud being carried out on tyres on to the public highway. This includes the on-site tarmac entrance area that will be kept clean to allow vehicles to be inspected and any mud/grit to be removed (jet washed) before leaving the site. The site roads will also be dampened down in dry or windy weather. In addition, road sweepers will be made available to clean up any dust at the site entrance and surrounding estate roads if required.

Dust, noise and vibration monitoring equipment will be installed to the Northern boundary, close to the nearest receptors (residential properties) to record and allow monitoring of levels during the project. Details of the dust and noise monitoring equipment are shown in figure 7a.

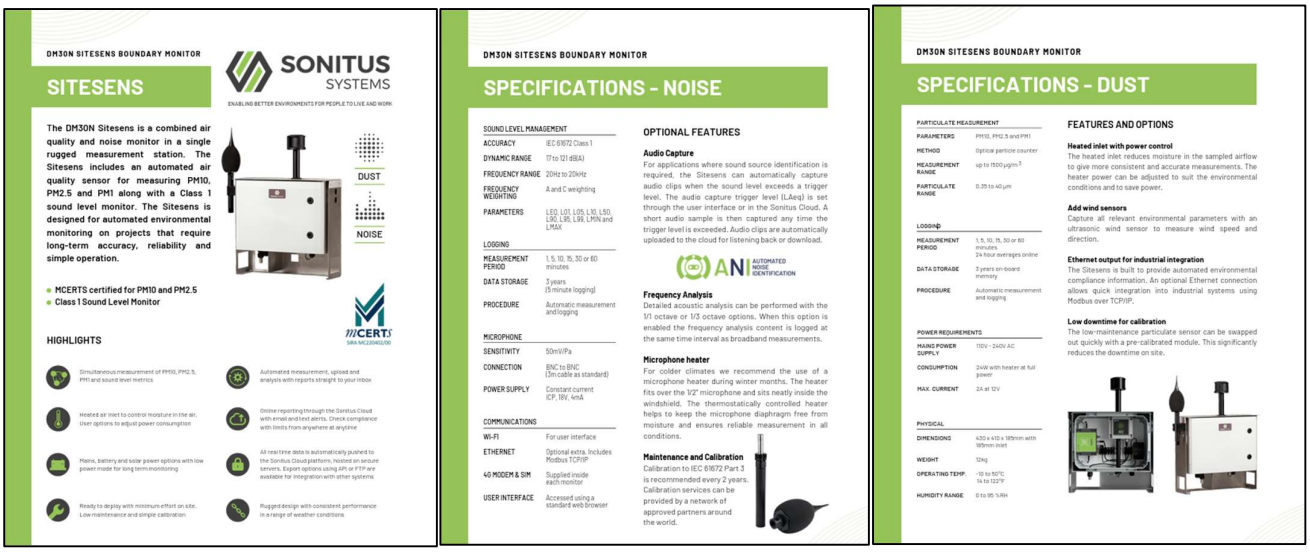


Figure 7a Dust and noise monitoring equipment features

9) A Site Waste Management Plan, detailing recycling/disposing of waste resulting from demolition and construction works

All waste will be managed in accordance with the Kier Waste Management Operating Procedure OP-GR-065

AWN (Associated Waste Management) will manage waste through the implementation of a bespoke version of the Building Research Establishment (BRE) SMARTWaste tool. The project team will use SMARTWaste to identify and record waste streams, forecast waste volumes and identify suitable methods to eliminate, or where this is not practicable, reduce waste generated by the project.

When considering management options for identified waste streams, Kier and supply chain members will adhere to the principles outlined in the waste hierarchy noted below.



Kier and its sub-contractors must ensure waste is stored away from drains. Containers/skips shall be in good condition and, where required, covered to prevent dust and litter being blown out. If there is any likelihood of stored waste contaminating the area surrounding the site, all necessary steps must be taken to ensure no contamination occurs. This may include the use of containment bunds with rain shelters and the use of sealed containers, i.e. clip-top drums.

Before waste is removed from Woodley School, all subcontractors / waste contractors must provide the project team with legible copies of the following documentation:

- Waste Carriers Registration Certificates.
- Environmental Permits i.e. (Waste Management Licences and Pollution Prevention Control Permits).
- Notification certificate of exemption from environmental permitting.

The project team will ensure that the removal of all inert / non-hazardous waste is recorded on waste transfer notes (WTNs) and all hazardous waste is recorded on hazardous / special waste consignment notes (H/SWCNs). Legible copies of all WTNs and H/SWCNs must be kept for a minimum of two years (three years for H/SWCNs) following collection. These documents will be stored on site and made available on request.

Demolition and bulk excavation works have been completed prior to the start of the new build works; therefore, the primary waste stream construction waste. Construction waste will be segregated in skips (i.e. timber/ plasterboard/ metal/ cardboard/ brick-mortar (rubble) and mixed waste) where practicable to support off-site recycling and minimise the volume of waste sent to landfill.

As part of the Waste Management Plan, a Resource Efficiency Management Plan will be prepared to:

- Set project-specific resource efficiency targets.
- Review and establish targets for waste, materials, water and energy efficiency.
- Prepare a waste forecast for each anticipated waste stream, including concrete, bricks and plasterboard, in consultation with subcontractors.
- Identify suitable closed-loop recycling schemes that can be implemented on the project, such as plasterboard and pallet return schemes.
- Identify any waste exemptions, registrations or licences required for the project.
- The subsoils and the clean stone capping layer will probably be classified as inert or non-hazardous (subject to remediation report conclusions). Therefore, these materials may be suitable (supported by the required documentation e.g. using SoilFLO Digital Waste Tracking software) to be taken directly to an appropriate receiving site for use as fill, rather than being transferred to a recycling facility prior to reuse elsewhere.

10) Details of mitigation of noise and vibration arising from all construction related activities to (these details should also include suitable restrictions on the hours of working on the site including times of deliveries)

Large mechanical plant will be used during the construction works, including excavators, dumpers, and cranes. However, no activities are currently planned that are expected to generate excessive levels of noise or vibration as the project construction phase does not include piling, demolition plant or crushing equipment, which would typically present a higher risk of nuisance.

Normal site working hours will be 07:30 to 17:00 Monday to Friday. Saturday working will be by exception only and, where required, will be restricted to 07:30 to 13:00. No works are expected on Sundays or Bank Holidays.

Plant operations will be restricted from starting before 08:00 (unless by exception) and site deliveries will be restricted outside the adjacent school drop-off and pick-up periods, namely 08:30 to 09:15 and 15:00 to 15:30. This restriction will help minimise noise and vibration around the site entrance during these periods.

Activities with the potential to generate noise, vibration (and dust) will be identified through site-specific risk assessments and method statements (RAMS), with appropriate control measures implemented before works commence to minimise their impact. These measures may include:

- Acoustic shielding using barriers, earth bunds,
- Were possible locate noisy activities i.e. cutting stations away from receptors i.e. residential housing.
- Exclusion zones will also be established where necessary for noisy activities with suitable hearing protection PPE used to protect the workforce.
- Hand-Arm Vibration Syndrome (HAVS) monitoring will be undertaken for relevant small plant and equipment use.
- As a general measure a solid hoarding will be maintained around the site perimeter to assist in reducing noise and dust impact, particularly to the rear gardens along the northern elevation. The east, west and south elevations adjoin playing fields and the cricket club pitch.
- Implement no plant idling policy and keep engine compartment doors closed when running.

11) Details of artificial lighting used in connection with all construction related activities and security of the construction site

External escape routes and general access walkways will be illuminated using low-level LED bulkhead lighting. Occasional LED floodlighting used may be used in larger areas, such as the site compound and material storage areas, during low-light conditions, particularly during the winter period at the start and end of the working day and for occasional activities i.e. concrete pours of floors slabs that may take several hours. External lighting will be controlled by timers to ensure it is switched off overnight and at weekends when not required.

Internal LED lighting within the new building will be provided primarily to corridors and larger rooms to support background lighting and emergency escape routes. A limited number of LED floodlights may also be used within the main hall where required. Internal temporary lighting will be controlled by time switches to ensure it is switched off overnight and at weekends when not in use.

The site will be secured by 24-hour CCTV positioned around the perimeter hoarding and within key site areas, including the stores and plant parking area, site accommodation and compound. CCTV will include off-site monitoring outside normal working hours. Where a temporary power supply is not yet available, solar-powered CCTV units will be used until a permanent supply is provided.
Where required, a mobile security guard will attend site to investigate incidents and will notify site staff and/or the police as appropriate.
All plant and equipment are also isolated when not is use to prevent unauthorised use.

12) Site manager and resident liaison officer contact details (including their remit and responsibilities) (and)
15) Details of engagement with residents and occupants or their representatives. A communications plan detailing the responsible person, their contact details and how this will be communicated to residents and the Local Authority must be included.

The site management team's contact details (contact detail below) will be displayed on site boundary posters, together with information explaining how residents can raise concerns or queries with the project team. These contact details will also be included in regular newsletters distributed to nearby properties. The newsletters will keep

residents informed of project progress, upcoming activities and any planned community engagement opportunities, such as open-door events.
The site will also be registered with the Considerate Constructors Scheme which has independent contact details for contacting the project.

Regular meetings will be held with the client, Kirklees Council (Local Authority), including fortnightly coordination meetings and monthly progress reviews. Any issues or concerns raised through these meetings will be discussed, recorded where required and addressed by the project team.

Kier will implement the Social Value Execution Plan as part of the project deliverable to support delivery of the project's social value commitments. The plan sets out how the project team will plan, deliver, record and report Community Benefit KPIs, meet the Considerate Constructors Scheme deliverables and monitor progress against the agreed social value commitments throughout the project.

Primary contact details –
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