


CONSTRUCTION & ENVIRONMENTAL MANAGEMENT PLAN

Benwick Community Primary School
High Street, Benwick, March,
Cambridgeshire, PE15 0XA



Contract Name:	Benwick Community Primary School
Contract Number:	CM8547
Contract Commencement Date:	May 2024
Contract Completion Date:	October 2024
Document Revision	B

Plan prepared by:	Signature:	Name:	Date:
		B. Garside	23.11.2023

CONTENTS

- 1.0 INTRODUCTION/ CONTRACT/ PREMISES DETAILS
- 2.0 ASSESSMENT / SCHEDULE OF WORK
- 3.0 VEHICLES ACCESSING THE SITE PER DAY/ PER WEEK
- 4.0 SITE LOGISTICS PLAN
- 5.0 RESOURCES
- 6.0 RISK ASSESSMENT & CONTROL MEASURES
- 7.0 CONTROL OF NOISE, DUST & VIBRATION
- 8.0 PROTECTION OF ECOLOGY, BIODIVERSITY & VEGETATION
- 9.0 EMERGENCY ARRANGEMENTS
- 10.0 DISTRIBUTION
- 11.0 SIGN OFF
- 12.0 APPENDICES
 - 12.1 LOGISTICS
 - 12.2 PHASING & PROGRAMME
- 13.0 REVIEW OF PLAN

1.0 INTRODUCTION/ CONTRACT/PREMISES DETAILS

Details of Project

RG Carter Cambridge have been contracted by Cambridgeshire County Council to design and construct new extension and refurbishment of the existing building at Benwick Community Primary School.

The works will consist of the construction of a new teaching block building housing 2 classrooms and associated ancillary spaces.

Internal modifications include refurbishment of existing pupil toilet facilities.

The works will require the project to be carried out in 1 key area of work which include an construction phases for the new build teaching classrooms. Internal refurbishment works will take place during the school summer holiday period.

Project duration including start and finish dates

The project has been programmed for a duration of 23 construction weeks, with key dates detailed below.

- Site setup commencement – May 2024
- Internal Refurbishment works – August 2024
- Overall Project completion – October 2024

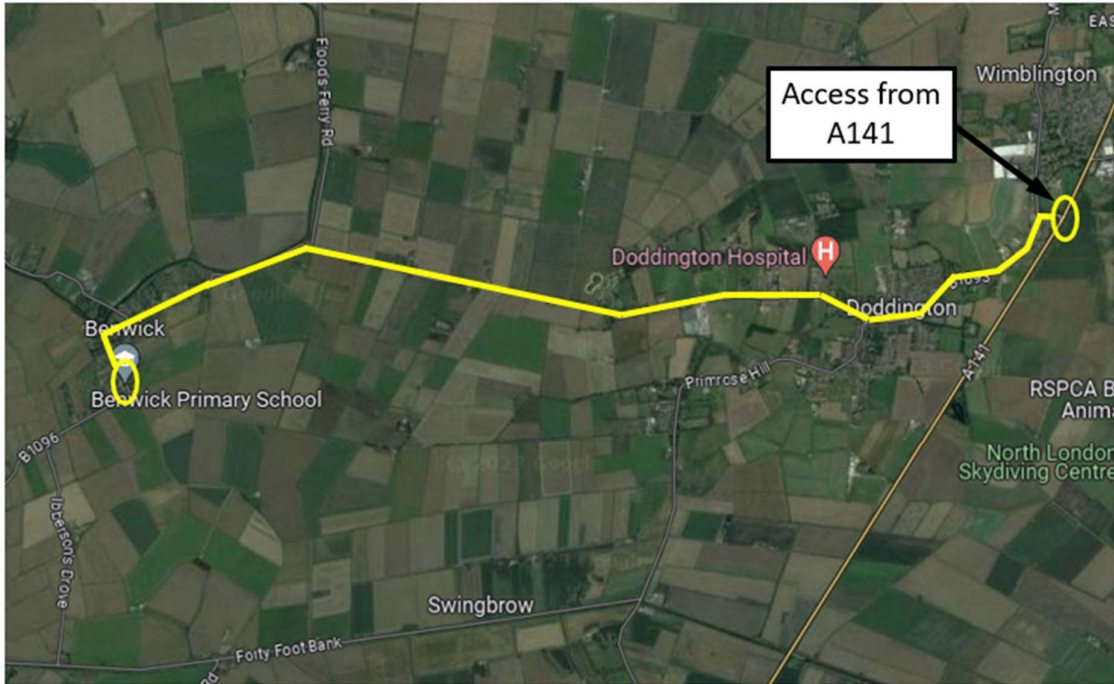
Site operation times

The construction site will operate from 08:00 to 17:00, Monday to Friday, and 08:00 to 13:00 on Saturdays, with prior agreement with the client.

Location of site

The site is located on High Street with the entrance of the site to the North side of the site along Cambridge Row. Benwick Community Primary School is approximately 11 miles, 17.7km from the A141.

Site Access – Wider Road Network Plan – From A141



Site Access - Public Transport Network Plan



Site Location Plan



-  Site Compound
-  Site Boundary

Adjoining roads and speed limits

Benwick High Street is a 30mph limit leading to Doddington Road to the North which becomes a 60mph, B1093 Benwick Road heading East to the A141 is a 60mph limit reducing to 30mph as it passes through Doddington, before reaching the A141.

Pedestrian footways

There is a pedestrian footway to one side of Benwick High Street which is not to be affected by the construction works.

There is a pedestrian footway to one side of Cambridge Row, which is also not to be affected by the construction works.

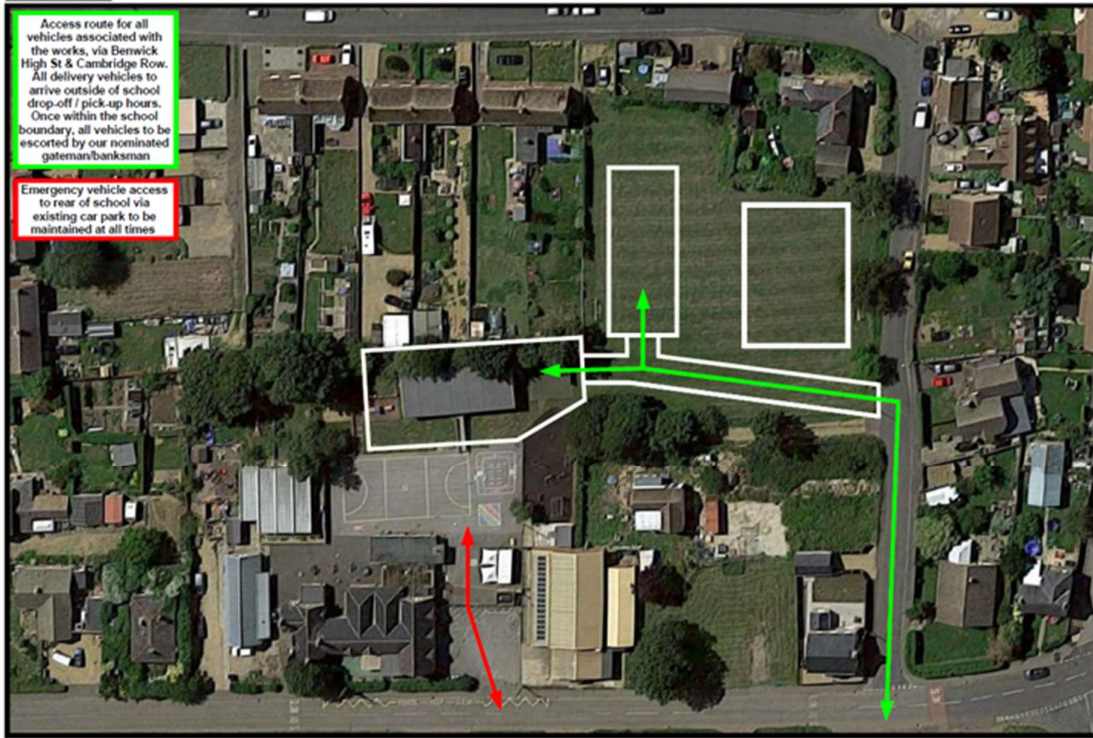
Transport and parking

There will be provision for parking on site during the construction works to mitigate congestion to the surrounding road network and disturbance of residential parking. All site operatives and visitors to site will be encouraged to car or van share or utilise public transport throughout construction to further minimise impact to the road network.

Public transport is available and is located reasonably close to site, the following summarises the availability

- Bus – There are local bus stops on Lilyholt and Doddington roads that can serve the site, located within a 7-minute walk from site.

Site Logistics – Contractor Site Access / Emergency Access



Deliveries / Contractor Vehicle Access

Contractor Access

All contractors will access the site compound via Cambridge Row to the North of the site.

Deliveries

All deliveries will be via the site access point from Cambridge Row

Due to works being carried out in a live school environment, all deliveries will adhere to the following arrangements

- No deliveries will be accepted during pick up and drop off times between the hours of 8.15am and 9.30am and 14.45pm and 3.45pm.
- Traffic Marshals will be used to hold traffic during movements where necessary.
- All deliveries will be required to forward drive through the North of the site.
- All delivery drivers are to contact site minimum 30 minutes prior to arrival to enable preparation of the banksman and traffic marshalling team.
- All lorries are to use the dedicated access route.

2.0 ASSESSMENT / SCHEDULE OF WORK

Vehicular access

There are no roads with weight, width or height restrictions in place on the main routes to the site.

Vehicular access will be via Benwick High Street and then Cambridge Row, to the North of the site, leading directly into the site compound.

All vehicular movements in and out of site will be banked at all times.

The site can accommodate both rigid vehicles.

Co-ordination & control of delivery vehicles

All suppliers and sub-contractors are issued with the site logistics plans. The plan details the routes to be taken to site, the site access gate to be used and the location of the unloading / distribution areas.

The logistics manager will prepare a weekly delivery schedule. This schedule will be posted in the site office and discussed daily with the site logistics team and communicated to school representatives.

Delivery drivers are to contact the site manager, prior to arrival, to ensure that the necessary arrangements can be made with the site logistics team. On arrival at site, deliveries will be directed to the required unloading location by the Banksman and Traffic Marshall.

The site logistics plan will evolve as the contract progresses and will be regularly updated to reflect the latest site conditions. These logistics, planned deliveries and any updates will be shared and coordinated with the school.

Wheel Washing / Maintenance

Wheel Washing

Wheel washing facilities will be available at the compound entrance gates, dedicated drainage within a bunded area will be installed to mitigate overspill. All contractors / delivery drivers are to clean all wheels prior to leaving site.

Maintenance of Cambridge Row

An initial dilapidation condition survey will be carried out for record purposes.

The site management team will inspect the road on a weekly basis and will ensure any defects are corrected, to the original state prior to the works, immediately ensuring the access road maintains a satisfactory and safe condition.

Following the completion of the works the road will be reviewed and assessed against the dilapidation survey, where any damage will be identified and restored to its former condition.

Pedestrian access

Pedestrian site operatives and visitors are to access the site through the main gates and into the site compound.

Pedestrian routes on site will be segregated from vehicular access routes with barriers.

Controlled crossing points are in place, where pedestrian routes are required to cross vehicular and shared routes and to allow the working off the live site (for instance where pupils are required to access the sports field).

Banksman to manage deliveries and contractors at all times

Facial recognition turnstile will be used during the teaching wing phase to ensure only authorised operatives have access to site.

Cleaning of site and adjoining roads

Access to and from site is surfaced with an asphalt finish on the public roads. All vehicles leaving site will have their wheels washed by a mobile pressure washer to mitigate mud and debris on the surrounding access road and road network. (See Wheel Washing above for clarity of procedures).

3.0 VEHICLES ACCESSING THE SITE/ PREMISES PER DAY/ PER WEEK

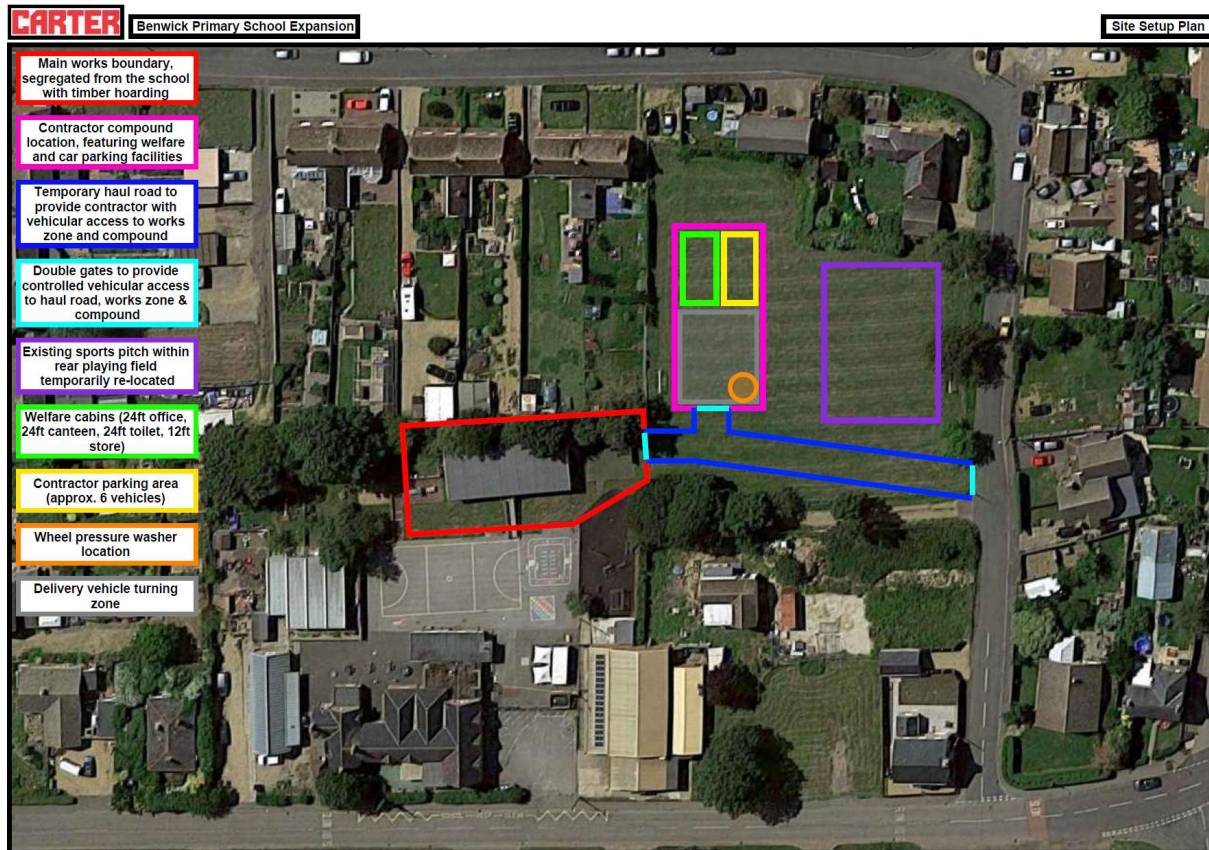
Vehicles attending the site are summarised as follows:

Vehicle	For	Location Visiting	Frequency	Period
Cars	Staff, Contractors & Visitors	Site	Average 7no Daily	Contract duration 23 weeks
Vans	Deliveries & Contractors	Materials compound & Site	Average 7no Daily	Contract duration 23 weeks
20>ton lorries	Deliveries / spoil away	Main Site Compound	Average 3no Daily	Groundworks 6 weeks
20<ton lorries	Deliveries	Main Site Compound Off-loading area	Average 1-2no Daily	Contract duration 23 Weeks
Skip Lorry	Skip Exchanges	Storage compound	Twice weekly	Contract duration 23 weeks
38t Low Loaders	Plant Deliveries	Main Site Compound	6-10 visits	Groundworks Duration 6 weeks
40t Articulated	Steel & Modular Construction Deliveries	Main Site Compound	Average 1-2no daily	2 Days - Steel
Mobile Crane	Materials lift, steel, modular erection /	Main Site Compound	4 to 6 Visits	1 week steel
Concrete lorries	Concrete deliveries	Main Site Compound	Average 5no Weekly	Groundworks 6 weeks

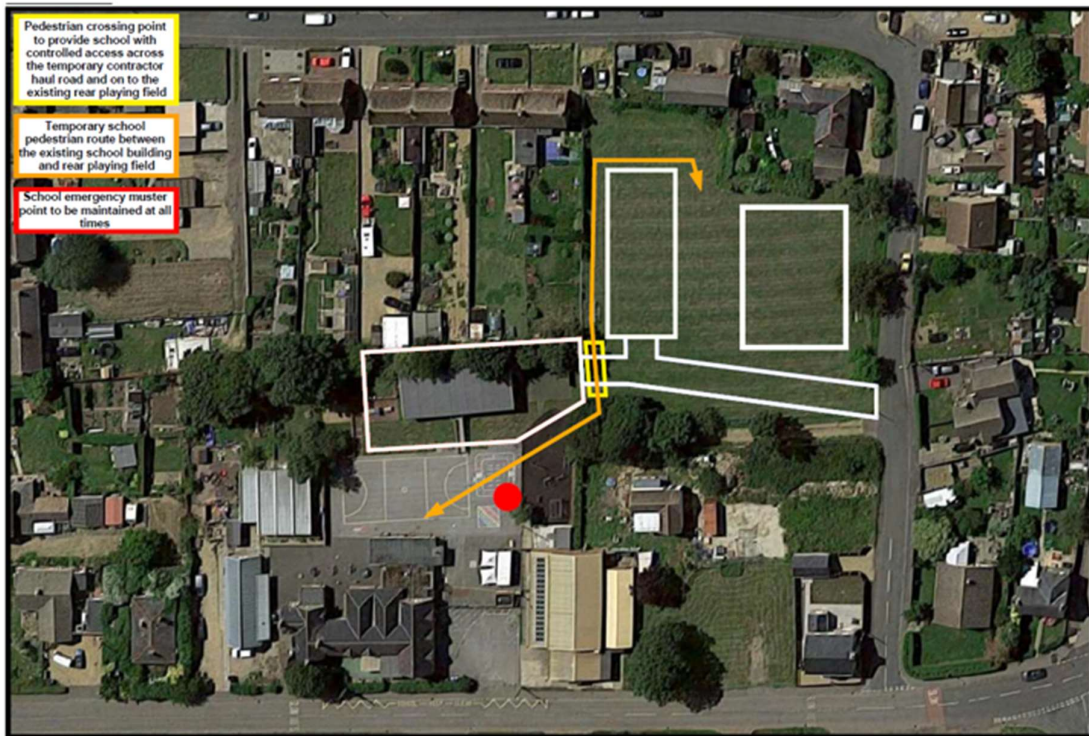
4.0 SITE LOGISTICS PLAN

The Site Logistics Plan, also included as an appendix to this document, details of the following:

- Specified delivery routes to access the site
- Designated pedestrian paths and crossing points
- Material off load area
- Storage areas for refuge, skips, plant and materials
- Site office and welfare locations
- Signage
- All deliveries will be called off in a 'Just in Time' basis mitigating the requirement for stacking areas.



Site Logistics – Pedestrian Management



5.0 RESOURCES

Personnel

The project and site managers will be responsible for the supervision and coordination of the logistics team and deliveries. They will also be responsible for the updating of the Traffic Management Plan.

Logistics team:

- Logistics Co-ordinator
- Banksman
- Traffic Marshall / Gatemen

Ancillaries

Signage will be provided to guide deliveries to the loading, distribution and storage areas. Contractors and site visitors will be directed to the dedicated pedestrian walkways that will be segregated and have visible signage.

PPE will be required to be worn in dedicated site areas, PPE free zones are detailed on the Vehicle and Pedestrian logistics plan i.e., Inside the site compound area only.

Plant and Equipment

Excavators will be on site for the extent of groundworks period.

Mobile cranes will be used for the modular & structural steel erection elements.

6.0 RISK ASSESSMENT & CONTROL MEASURES

HAZARD	RISK(S)	RISK RATING			CONTROL MEASURES	RESIDUAL RISK					
		L	S	R		L	S	R			
Pedestrians / site vehicles	Crushing injuries to pedestrians	5	10	50	Pedestrians to be given full priority over any movements. Banksman & Traffic Marshall to ensure footpath is clear of pedestrians prior to any movements occurring. Movements to be banked from compound to work faces and vice versa at all times	2	10	20			
Public / Vehicle movements	Crushing injury to site workers, public, collision with site traffic, insurance claims, damage to property	2	10	20	Procedures outlined in this document to be enforced and monitored	1	10	10			
Road traffic accident on access road(s) due to site vehicle movement	Injuries to drivers, passengers, damaged property, insurance claims	2	10	20	Traffic warning signs to be used around site entrance	1	10	10			
Gatemen / Traffic Marshall exposure to heat / sunlight	Dehydration, sunburn, skin cancer	3	5	15	Logistics Coordinator to take regular water breaks when hot, wear sun cream, wear long sleeved shirts	1	5	5			
Abusive behaviour from road users	Injury to workers, delay to works	2	3	6	Traffic to be held up for as short a time as possible, adequate signage to display information	1	3	3			
Damage to signage	Improperly signed site entrance	5	3	15	Logistics Coordinator to check condition of signs frequently & report any damage to SMS, signs to be kept clean and weighted down when in use	1	3	3			
Placing traffic signs	Injury to operative from passing vehicle	2	6	12	Operatives to face traffic when placing signs and wear hi-vis clothing, be aware of traffic near by	1	6	6			
Risk Rating (1-100) = Likelihood (1-10) x Severity (1-10)											
(1-9) insignificant			(10-24) acceptable			(25-39) undesirable			(40-100) unacceptable		

7.0 CONTROL OF NOISE, DUST & VIBRATION

Control of Site Noise and Vibration

Noise, unwanted sound, and vibration emissions during demolition and construction activities can negatively impact on local environment, residents, businesses and structures. Minimising these unwanted emissions are beneficial to both the surrounding area and to the progress of the project itself. It is noted that the construction works area is generally isolated from the school building and as such vibration and noise will therefore be of a lesser extent.

However, RG Carter will plan and programme our site operations to minimise the impact of noise and vibration for the duration of the project for the following reasons:

- To be considerate to our neighbours – RG Carter are an active member of both the Cambridge and the national Considerate Contractor Schemes. RG Carter strive to minimise the impact our sites have on the local community
- To avoid structural damage – vibration can cause damage to adjoining and nearby structures
- To prevent harm to wildlife – noise and vibration can disturb local wildlife as well as humans
- To avoid programme delay – works on site can be stopped if the site is found to be making too much noise and causing a noise or vibration nuisance
- To avoid fines / prosecution – failure to adhere to noise level limits can result in fines, prosecution and reputational damage
- To comply with contractual requirements – failure to do may lose future work with the Client

Noise and vibration minimising / mitigating measures will be utilised throughout all stages of the construction project and the construction has taken into account the potential health and learning effects on children and adults during the development phases, as such RG Carter will implement the following:

Design stage

The reduction of noise and vibration in the construction process on site has started off site. The design of the new construction and fitting out of the new buildings utilises modern building methods and off-site fabrication.

- Steel framing – the new building frame is steel and structural framing elements and will be fabricated off-site, minimising works on site
- Brickwork plinth and cladding facades – reducing the requirement for significant noise from cement mixers.
- Temporary works – installation of spreader plates / mats, as foundations for cranes, plant and accommodation, instead of granular material bases, reducing mechanical excavator movement, time, and vibrating rolling.

Throughout the construction phase

- Procurement - early engagement of specialist Supply Chain to maximise their experience and expertise
- Risk assessments, method statements, toolbox talks, and training provided to minimise the effects of noise and vibration on the operatives, and their close working

colleagues (correct use of ear protection, operating times to reduce the likely hood of Hand Arm Vibration)

- Site set-up – the power to the temporary office / welfare cabins will be supplied from the mains, avoiding the use of generators
- Site boundary – Solid hoarding will be erected where sensitive areas have been highlighted to mitigate passage of sound.
- Plant location - where possible, keep noisy plant and works away from public areas and if required, erect a solid screen close to the source of noise (straw bales, acoustic barrier)
- Vibration and noise monitoring - if deemed necessary, installation of vibration and noise monitoring equipment. It is envisaged that any piling requirements will be light in nature and less intrusive.
- Programme - plan and programme the works so that noise and vibration can be minimised through optimisation of available methods
- Quality control - Test and Inspection plans will be generated and executed to minimise abortive or revisiting work
- Communication – regular communication with the site operators, local residents and school staff to advise of significant site activities planned and to receive feedback on off-site activities / events that may be affected to enable programme review and implications
- Communication – systems in place (letter drops, contact details on hoarding notices) to receive, and be receptive, to feedback. Feedback will be constantly monitored throughout the construction program. Site contact details with clear point of contact (site manager) will be provided for any immediate complaints or concerns. These will also be displayed upon all site hoardings and at the front construction access gate(s).
- Use of existing features - maintaining vegetation, where possible, around the site will assist in absorbing noise
- Site induction – all operatives and site visitors will receive a site induction, which will include a section dedicated to the Considerate Contractors Scheme, that will identify residential areas adjacent to the site and reinforce expected behaviour
- Radios - no radio policy on site

Demolition

- Soft strip – carried out with small tools first to minimise periods of large plant activity

Plant

- Concrete pumps – minimise concrete delivery vehicles movement and duration on site
- Small tools – battery tools will be utilised were possible and our supply chain will provide the latest noise and vibration limiting tools
- Plant noise and vibration - modern, well maintained, suppressed / silenced plant procured and controlled on site, reducing noise and vibration
- Noisy plant – kept away from public areas and erect a solid screen close to the source of noise (straw bales, acoustic barrier), and will only take place within the identified working hours.

Vehicular movement on site

- Policy of switching engines off when stationary, in situations such as wagons being loaded with demolition materials, delivery vehicle being unloaded.

Vehicular movement off site

- Supply chain orders to stipulate maximum size of vehicles, primarily due to restricted access but also reduces vibration
- Vehicular Loading and Unloading Carried out with the site only, with hoarding gates closed, contributes to reducing noise breakout
- Plan deliveries and arrange routes and times to minimise potential nuisance to the local community.

Control of Site Dust

The management of dust suppression on site will essentially follow the guidance detailed in 'The control of dust and emissions from construction and demolition – Best Practice Guidance'. The general hierarchy will be – Prevention – Suppression – Containment. In doing so the construction has considered the health and learning effects on children and adults during the development phases.

The management of dust on site will start before any works commence on site. The site-specific risks and mitigation measures will be determined by the completion of an Air Quality Risk Assessment (AQRA). It will also be necessary to carry out dust monitoring at the location of the sensitive receptors to establish a baseline situation before construction begins. A method statement, covering all stages of the construction project, will then be developed from the AQRA.

Once works start on site the control measures will be put in place. Some will be in place from the start and others will be implemented as they are required. The following are details of some of the controls and procedures that will be put in place to control dust and dirt on site during construction:

- Programme – The main dust causing operations will be programmed to be completed during the wettest periods.
- Quality control – RG Carter will carry out regular and comprehensive quality checks during the construction process. This will minimise the need for the unnecessary removal and replacement of defective works.
- Stakeholder engagement – To ensure that those sensitive to the impacts of the operations on site are notified and consulted before work commences and throughout the construction / demolition operations. Regular meetings will be held with Stakeholders and site contact details will be displayed to allow contact if required between meetings.
- Site layout – The location of occupied buildings adjacent to the site will determine the location of stockpiles and haul road, pedestrian routes, storage areas and site welfare. Solid hoardings, to act as a wind break and contain dust, will be erected to site areas that are deemed sensitive.
- Site inspections – The Site Manager, as part of RG Carter's daily site inspections, will monitor the site, and surrounding areas, for dust and debris. His inspection will include the site housekeeping, scaffolds, stockpiles, storage areas, hoardings, site roads, site entrances and adjoining roads.
- Site Management – All operatives and visitors will receive a site-specific induction. The induction will include specific and general measures of dust control on site – no eating on site, site waste bins to be used for general waste, maintain clean and tidy works areas, skips to be kept covered. The site management, and wider logistics, team will ensure adherence to these measures.

- Site maintenance – Operatives using scaffolds will be responsible for maintaining clean walkways. The site management will arrange regular cleaning of site hoardings, haul roads, pedestrian routes, site entrances and adjoining roads, organising road sweepers when required. Stockpiles will be kept to a minimum with regular removal. Internal cleaning will also be the responsibility of the sub-contractors and if required assisted by RG Carter labour. Rubbish bins will be located around site. Vacuums will be located on floors for general use, eliminating the need for sweeping.
- Construction methods – The methods adopted during construction will aid reduction of dust and debris. Internal soft stripping will be carried prior to demolition and dampening down will be used during the demolition operations. Composite cladding elements also reduces concrete works on site. Off-site The use of premixed concrete and mortar will reduce mixing on site. The use of retarder for construction joints instead of scabbling and forming builder’s work holes in walls and floors (Precast) during construction instead of cutting afterwards. All on-site cutting, depending on material, will be vacuumed assisted or wet-cutting. All access scaffolds will be enclosed by debris netting to contain any emissions.
- Plant and vehicles – Parking on site for site operatives and visitors will be permitted. A 5mph speed limit will be enforced on the site haul roads. Delivery vehicles will switch off engines before and during loading / off-loading. All deliveries of granular materials and removal off site of spoil, demo arisings, etc. will be in covered vehicles. The site temporary electric supply will be mains supplied negating the need for generators. Diesel bowsers on site will be adequately bunded and spill kits points positioned nearby.

8.0 PROTECTION OF ECOLOGY, BIODIVERSITY & VEGETATION

The management and protection on site of the existing vegetation and biodiversity will follow the guidance provided within the Preliminary Ecology Assessment and all good practices.

The construction phase shall implement best practice protection measures in addition to sensitive lighting strategies and will also minimise potential operational degradation of the existing features namely scattered Trees, Hedgerows and Green Infrastructure.

Any root protection zones will be implemented at the site setup stage, where identified and required and prior to any enabling works such as haul roads, access routes and large vehicular movements commencing.

Existing boundary vegetation shall be protected during the construction phase.

During the construction phase, toolbox talks pertaining to precautionary measures to minimize risks of injury to wildlife will be undertaken, with clear actions should wildlife be identified on site during construction activities.

Implementation of covering any construction trenches or pits, or provision of wooden plank ramps alternatively, to be provided overnight will be undertaken, where necessary, for the purposes of protection of wildlife.

9.0 EMERGENCY ARRANGEMENTS

Details of the site First Aid, Fire and Emergency Procedures will be disseminated to all site operatives and visitors during their site induction. These will be in line with the emergency procedures for the hospital.

Fire Arrangements

The project fire coordinator will contact the Local Fire and Rescue Service to advise them of the project.

A fire risk assessment will be prepared for the site and welfare set up.

The site fire plan will be prepared and agreed with the Principal Designer and client representatives.

The fire plan will include details of the dedicated emergency escape routes, assembly point, locations of fire points, site set up, hazardous areas, refuelling area and access routes for emergency vehicles.

The fire safety plan and emergency arrangements will be posted at the fire points and in the site cabins. The fire points will consist of fire extinguishers and a means of alarm. The fire extinguishers and alarms will receive a recorded check on a weekly basis.

Fire drills will be carried out on a monthly basis.

Both the fire plan and the fire risk assessment will be revised and updated on a monthly basis as the project progresses or at intervals as required.

First Aid Arrangements

All site managers are trained first aiders, first aid kits will be available in the site offices.

Road traffic accidents

Road traffic accidents are to be reported to the site team immediately. RGC company insurers are to be notified as soon as practically possible.

10.0 DISTRIBUTION

- Site managers
- Principal Designer
- HSE Advisor
- All sub-contractors and suppliers at placement of orders

11.0 SIGN OFF

To be signed by Logistics co-ordinator, forklift driver banksman, security guards.

NAME	COMPANY	SIGNATURE	DATE

12.0 Appendices

11.1 Appendix A – Vehicle Tracking

11.2 Appendix B – Program

13.0 REVIEW OF PLAN:

Contract Name: Benwick Community Primary School	Contract No: CM8547
--	----------------------------

	ANY CHANGE	DESCRIPTION OF CHANGE
Plan Reviewed by:	Ben Garside	
POSITION;	Senior Design Manager	
DATE REVIEWED:	15.11.2023	
NEXT REVIEW DATE:	As required	