Construction Management Plan

Project name	City of London Primary Academy Islington	**Project no**	LOC 0053
Project address	Former Richard Cloudesley School 99 – 103 Golden Lane Estate London EC1Y 0TZ		
Client name	City of London		
Client address	City of London, Guildhall, PO Box 270, London, EC2P 2EJ		
Client contact no	020 7332 1030		

Authorised by	**Title**	**Signature**
Eamon Rafferty	Div Director	

Revision	**Date**	**Purpose**	**Amendment**	**Updated by**	**Initial**
-	TBC	Draft – Issued for inclusion in Planning Discharge.		SMcC / DL	
1		Incorporate comment from PBA Eng	Note added ref dust pollution pages 17 & 21.	SMcC	
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Important
Construction work shall not commence until the CDM co-ordinator and client are satisfied that this construction phase plan has been satisfactorily developed – and have advised us accordingly in writing.
Further guidance & information relating to the construction phase plan and CDM requirements is located within the **ISG Construction company management system**

Circulation			
Copy no	**Issued to**	**Name**	**Location**
1.	City of London	Laura Frickey	Guildhall, PO Box 270, London, EC2P 2EJ
2.	Hawkins brown	Ciaran Gallagher	159 Saint John Street London EC1V 4QJ

3.	Arcadis	Gareth Kitney	Arcadis House | 34 York Way, London | N1 9AB | United Kingdom
4.	Montague Evans	Jon Bradburn	5 Bolton Street, London W1J 8BA.
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Construction Management Plan

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1. Project details
Brief description of project
Demolition of the former Richard Cloudesley School, City of London Community Education Centre, garages and substation; erection of a 3 storey building with rooftop play area (Class D1) (2300.5sq.m GEA) and a single storey school sports hall (Class D1) (431sq.m GEA) to provide a two-form entry primary school; erection of a 14 storey (plus basement) building to provide 66 social rented units (Class C3) (6135sq.m GEA), and affordable workspace (Class B1a) (244sq.m GEA), landscaping and associated works (Duplicate application submitted to the London Borough of Islington as the majority of site falls within Islington Borough).

1.2 Project programme dates	
Planned commencement date	Q4 2018
Planned completion date	Q1 2021
Other key project dates – sectional handover	
Completion & Handover of School	Q2 2020

2. Targets
2.1 Common targets
To complete the project works :- • on time • to specification • within budget • without reportable accidents or environmental incidents • to ensure that no persons, or the environment, is put at significant risk • to ensure that all relevant legislation is complied with • to achieve a considerate constructors score of 40 or over • Target Zero accidents, incidents, defects, environmental incidents.

2.2 Project specific targets (including health, safety, quality and environment)	
1	100% CSCS Cards for operatives
2	Safe and Secure site
3	A CCS score giving 'Performance Beyond Compliance'
4	On time, on budget and defect free
5	Exceed community engagement targets

Construction Management Plan

3. Project team details and organisation			
3.1 Professional team			

Client	City of London		
Name	Laura Frickey		
Address	City of London, Guildhall, PO Box 270, London, EC2P 2EJ		
Email			
Contact no	**Office**	**Fax**	**Mobile no**

Project manager	Arcadis		
Name	Gareth kitney		
Address	Arcadis House, 34 York Way, London N1 9AB		
Email			
Contact no	**Office**	**Fax**	**Mobile no**

Architect	Hawkins Brown		
Name	Carol Lees		
Address	159 St John Street, London, EC1V 4QJ		
Email			
Contact no	**Office**	**Fax**	**Mobile no**

M&E consultant	Peter Brett Associates		
Name			
Address	Peter Brett Associates, 33 Bowling Green Lane, London EC1R 0BJ		
Email			
Contact no	**Office**	**Fax**	**Mobile no**

Structural engineer	Peter Brett Associates		
Name	Rahul Patalia		
Address	Peter Brett Associates, 33 Bowling Green Lane, London EC1R 0BJ		
Email			
Contact no	**Office**	**Fax**	**Mobile no**

Quantity surveyors	Turner & Townsend Cost Management		
Name	Geoffrey Wood		
Address	Low Hall, Calverley Lane, Horsforth, Leeds LS18 4GH		
Email			
Contact no	**Office**	**Fax**	**Mobile no**

3.2 Principal Contractor: ISG Construction Ltd			
Position	Operations Director		
Name	Paul McBurney		
Address	33 Aldgate House, London		
Contact no	**Office**	**Fax**	**Mobile no**

Position	Divisional Director		
Name	Eamon Rafferty		
Address	33 Aldgate House, London		
Contact no	**Office**	**Fax**	**Mobile no**

Position	Senior Project Manager		
Name	Steven McCarthy		
Address	33 Aldgate House, London		
Contact no	**Office**	**Fax**	**Mobile no**

Position	Senior Construction Manager		
Name	TBA		
Address (project)			
Contact no	**Office**	**Fax**	**Mobile no**

Position	Building Services Manager		
Name	Tamika Blood		
Address (project)	33 Aldgate House, London		
Contact no	**Office**	**Fax**	**Mobile no**

Position	Senior Quantity Surveyor		
Name	Phil Rees		
Address (project)	33 Aldgate House, London		
Contact no	**Office**	**Fax**	**Mobile no**

Position	Logistics Manager		
Name	TBC		
Address			
Contact no	**Office**	**Fax**	**Mobile no**

Position	Document Controller

Construction Management Plan

Name	Julie Clement			
Address	33 Aldgate House, London			
Contact no	**Office**	**Fax**		**Mobile no**

Position	Project Health & Safety Supervisor / Co-ordinator			
Name	TBC			
Address (project)				
Contact no	**Office**	**Fax**		**Mobile no**

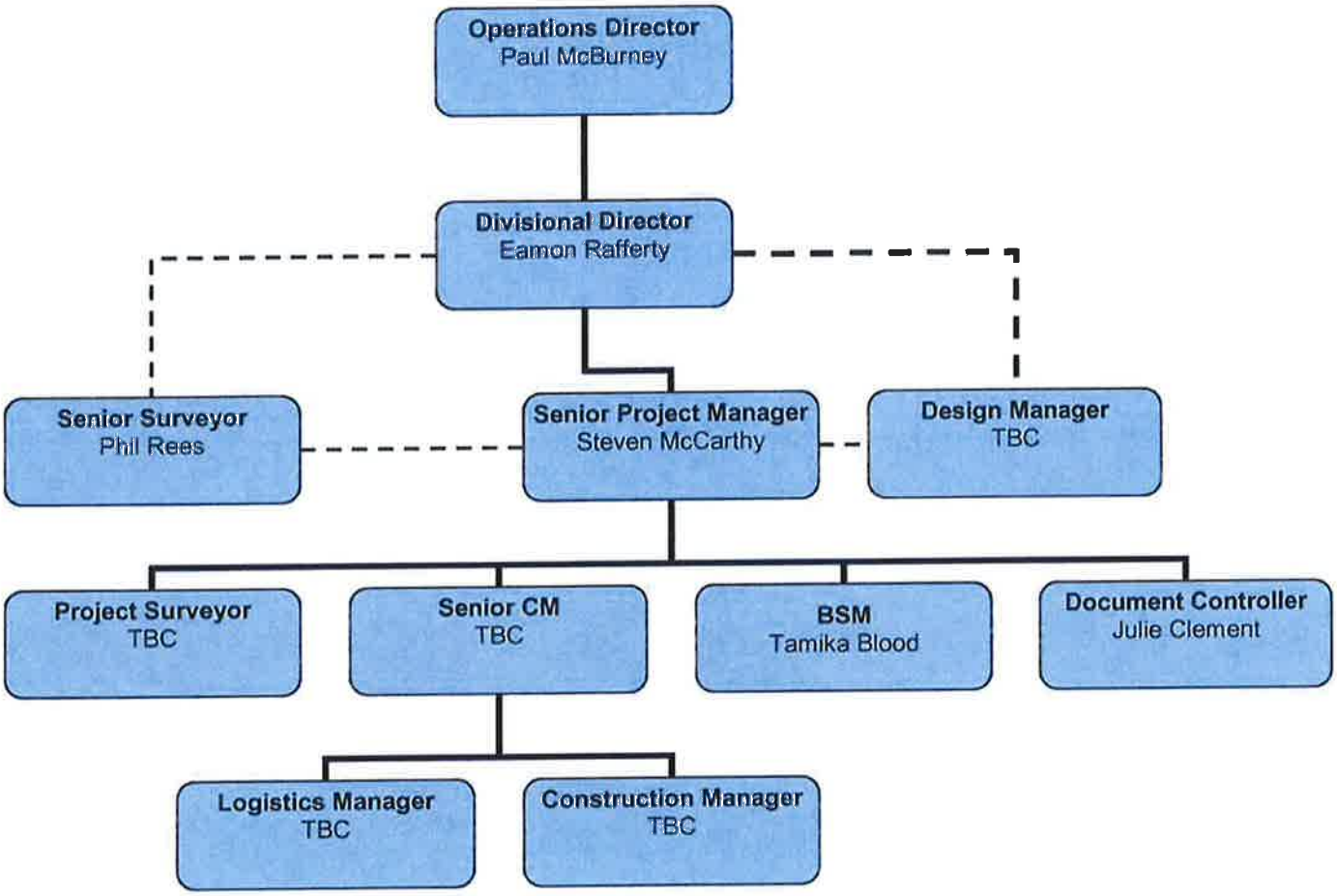
Position	Fire Safety Co-ordinator			
Name	TBC			
Address (project)				
Contact no	**Office**	**Fax**		**Mobile no**

Position	Appointed Person			
Name	TBC			
Address (project)				
Contact no	**Office**	**Fax**		**Mobile no**

Position	COSHH Co-ordinator			
Name	TBC			
Address (project)				
Contact no	**Office**	**Fax**		**Mobile no**

Position	Community Engagement Contact (Available 24/7 on mobile below)			
Name	Steven McCarthy			
Address (project)	33 Aldgate House, London			
Contact no	**Office**	**Fax**	N/A	**Mobile no**

4. Project structure



4.1 Roles and responsibilities of the ISG project team

This must be used as a check list throughout the various stages of the project.

Responsibilities – General	Role
Read and comply with the ISG Health and Safety policy and Company management system.	All members of the project team

Actions / responsibilities – Pre- construction	Role
Organise / chair project start up meeting	PM
Obtain any tender Health & Safety information such as pre-construction information pack. Prepare and maintain the Construction phase plan.	PM
Identify significant hazards and read the relevant sections within the Company management system. Obtain from the HSQ&E advisor guidance and advice as required.	PM
Once complete, issue the Construction phase plan to project team and all contractors.	PM / QS
Prepare a site logistics plan and transport and traffic management plan	PM / CM
Obtain and display a copy of the F10 addition notification from the CDM Coordinator / notify other authorities as required	PM
Hazardous waste notification to Environmental Agency	PM / CM / QS
Obtain and display a copy of the Health and Safety policy statement	PM / CM
Obtain and display the current insurance certificate	PM /CM
Contact the service authorities and establish the location of existing services	PM / CM
Prepare a project directory.	PM / CM / DC
Notify third parties e.g. adjacent projects, neighbouring houses, schools, businesses, etc. where necessary.	CM
Plan and arrange site welfare facilities	PM / CM
Plan and arrange temporary services and electrics	PM / CM
Check that the temporary site building(s) comply with the requirements of the code of practice for fire prevention on construction sites.	PM / CM
Ensure a comprehensive fire risk assessment is carried out.	PM / CM / QS
If the project is over £3m, ensure a fire detection system is installed within the project offices	PM / CM / QS
Review and complete project environmental aspects and impacts form	PM
Complete environmental checklist	PM
Complete a site waste management plan	PM

Actions / responsibilities – Procurement	Role
Ensure that all subcontractors that are put onto the tender list are competent, they have a good Health and Safety record and have passed the pre-qualification procedure and that they have carried out similar work to this project	PM / QS
Review subcontractors Health and Safety questionnaire that was issued with the tender enquiry	HSQEA
Arrange post-tender meetings with all potential subcontractors to discuss Health and Safety considerations	PM / QS
Ensure Health and Safety compliance forms part of the successful subcontractors contract	PM / QS
Conduct all subcontract pre-start meetings	PM / QS
Supply the appointed subcontractors with a copy of the project Construction phase plan, site rules, meeting agenda's and schedule of meeting dates	PM

Actions / responsibilities – Health & safety planning	Role
Obtain Designers risk assessments were appropriate and issue to the subcontractors	PM
Display emergency telephone numbers on the site notice boards.	CM
Ensure subcontractors have produced method statements and risk assessments prior to any work starting	PM / CM
Ensure all subcontractor method statements and risk assessments are reviewed before work starts and any lifting requirements are passed onto the Appointed Person for review.	PM / CM
Ensure all operatives, staff and members of the professional team attend the project inductions	CM
Ensure all subcontractors have identified hazardous substances and issued the associated COSHH assessment and material data sheets	CM / CC
Review all COSHH assessments	CM / CC
Ensure areas have been allocated for material storage and that precautions and measures are in place for the storage of any hazardous materials	CM / CC / Ganger
Ensure adequate PPE is available for visitors	PM / CM
Ensure major incident plan has been communicated to staff and preventive actions implemented	PM
Ensure transport and traffic management plan implemented and communicated to staff	PM
Ensure lifting operations are planned, controlled & supervised at all times. That a project lifting procedure is compiled maintained and reviewed.	PM / AP
Ensure that daily co-ordination and weekly review lifting team meetings are held and recorded.	PM / AP
Maintain construction programme and ensure subcontractors are working to the latest programme	PM / CM

Actions / responsibilities – supervision and co-ordination	Role
Ensure all risk assessments, method statements and COSHH assessments are communicated by the subcontractors to their operatives.	CM
Issue requirements for weekly tool box talks to subcontractors	CM
Implement red, yellow and green card system	PM / CM
Implement and maintain monthly subcontractor performance league table	PM
Organise, attend and manage the following meetings as detailed in Section 9.2 of this Construction	PM / CM

Actions / responsibilities – supervision and co-ordination	Role
phase plan.	
Carry out daily inspections and review subcontract compliance with method statements and risk assessments	Project team / subcontractors
Where necessary, issue improvement / prohibition notices to subcontractors.	All site staff

Actions / responsibilities – inspections / records / audits	Role
Ensure welfare facilities are maintained to the required standard.	CM
Obtain and maintain up to date plant registers from all subcontractors	CM
Maintain an up-to-date register of operative training certificates	CM
Maintain and keep up-to-date the construction phase plan, transport plan, traffic management and major incident plan	PM
Maintain an up-to-date accident book	CM
Complete the company accident report form(s) in the event of a reportable incident.	PM / CM
Investigate reportable accidents/incidents.	HSQEA / PM / CM
Ensure an F2508 is completed and submitted to the HSE for all reportable accidents/incidents.	PM / CM / SA
Notify the HSQ&E department of all reportable accidents/incidents and near misses	PM / CM
Carry out daily inspections of the site boundary and hoardings	CM / Ganger
Carry out daily inspections of all work areas	CM / Ganger
Carry out weekly fire safety checks and inspections	QS
Ensure inspections are carried out on scaffolding: • every 7 days • before use • after any modification / alteration • after any event that could have affected its stability	PM / NM / CM / SC

Actions / responsibilities – Inspections / records / audits (cont)	Role
Ensure all mobile towers have a 'Scaff Tag' , recorded on a plant register and that they are inspected: • every 7 days • before use, including after and adjustment. • after any event that could have affected stability	CM / SC
Ensure all hoists and lifts are recorded on a plant register and inspected: • before first use and visual daily check • weekly by operator • every 6 months by manufacturer / installer • in accordance with manufacturers recommendations	CM / SC
Ensure that all lifting equipment is identified and recorded onto the project lifting plan and that inspections are carried out on all lifting equipment and accessories i.e. cranes, slings, chains, eye bolts etc	PM / AP

• in line with the lifting procedure and project lifting plan	
Carry out and record weekly site safety inspections	SC
Carry out inspections on excavations daily prior to work, and after any event that could have affected stability	SC
Inspect confined spaces prior to any works*	Subcontractor
• ensure all plant is recorded onto a plant register and that it is inspected before use and: • in accordance with manufacturers recommendations and planned maintenance schedule	CM / SC
Ensure all electrical equipment is PAT tested and inspected before use and: • every 3 months	Subcontractors/CM
Carry out safety inspections/system checks on the site conditions	HSQE Manager / SCM
Carry out Health and Safety system audits on the implementation of the Company management system	HSQE Manager
Report Health & Safety performance to the client within the project reports and client meetings	PM
Provide the CDM Coordinator with the relevant documentation required for the H&S file.	PM
Chair the project four weekly Health, Safety & Environmental review meeting	PM / CM
Attend the project four weekly Health , Safety & Environment review meeting	Project team

Roles and responsibilities of the Client

Throughout the project the client will be responsible for:

- ensuring that suitable arrangements are made to manage the project safely
- ensuring that designers and contractors are promptly supplied with information relevant to their purposes
- ensuring that contractors (Principal Contractors on notifiable projects) are informed of the minimum time to be allowed for planning and preparation before construction commences
- on notifiable projects appointing a CDM Co-ordinator and a principal contractor, otherwise he will himself be deemed responsible for the duties assigned to those roles
- on notifiable projects ensuring that construction does not commence before a construction phase plan is in place

Roles and responsibilities of the design team

The design team will be responsible for:

- not commencing work on a project unless the client is aware of his duties
- avoiding risk to construction workers, cleaners, maintenance workers, and anyone affected by their activities, together with anyone using the structure if it is designed as a workplace
- eliminating hazards, and reducing the risk from remaining hazards, giving priority to collective measures
- providing sufficient information regarding the design to assist the client, the CDM Co-ordinator, other designers and contractors
- not carrying out design (other than initial design) for a notifiable project unless a CDM co-ordinator has been appointed
- providing information regarding a notifiable design promptly so that the health and safety file may be prepared and issued on completion of the project
- ensuring that the design takes into account the requirements of the Workplace Health, Safety Welfare Regulation

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Roles and responsibilities of Principle Designer
The PD coordinator is responsible for: • On notifiable projects advising and assist the client and co-ordinating and liaising with both the designers and the principal contractor. • Ensuring that the information required from the client is obtained and issued. However, the co-ordinator will not be required to prepare a formal pre-construction health and safety plan. Information required from the client, designers and others must be included in the package issued to the principal contractor (pre-construction information pack) • Preparing the health and safety file and passing it on to the client at the end of the construction phase.

Roles and responsibilities of the principal contractor
• For notifiable projects, contractors must not commence work unless they have been provided with the names of the co-ordinator and principal contractor • Principal contractors must ensure that every contractor is informed of the minimum time provided for planning and preparing before they commence construction works. • The principal contractor must ensure that every construction worker is provided with suitable site induction training • The principal contractor must ensure that his employees have been provided with the necessary information and training, and that other contractors have complied with a similar duty • The principal contractor is responsible for planning, managing and monitoring the construction works, and for ensuring that the other contractors carry out their duties. • The principal contractor is responsible for giving access to the relevant parts of the construction phase plan to the other contractors, and for consulting with those contractors before finalising the relevant parts of the plan • The principal contractor is required to identify to each contractor the information required for the health and safety file, and to ensure that the information is promptly provided to the co-ordinator

5. Project establishment – project offices, welfare and storage	
The following project office, welfare and storage arrangements will be provided.	
Project office(s)	Open plan offices located near Basterfield Service road.
	Initial Oasis unit(s) will be utilised until such time that the main accommodation will be set up.
Meeting room	1 meeting room to incorporated into site set up.
Canteen	to be included in site welfare
Drying room	to be included in site welfare
Toilets / washing	to be included in site welfare
Heating food	to be included in site welfare
Electric supplies	240v sockets will be available within the offices and canteen areas, PAT tested and inspected on a regular basis.
Water supplies	Running water will be available in site welfare areas.
Note: All temporary electrical supplies to project accommodation are to be checked on a three-monthly basis.	

Project Layout (access roads, walkways & traffic management plan).
A Site Logistics plan marked up with traffic routes and key installations is produced and displayed – see **Appendix A.** It is regularly reviewed and forms part of the induction process. The layout will be well presented and easily understood by any person. If necessary, the information may be depicted on more than one layout.

Arrangements that have been considered
1. Separate pedestrians and construction vehicle traffic at or before the project entrance
2. Provide "pedestrians only" areas
3. Provide "construction vehicles only" area where only designated personnel can enter
4. Provide where necessary a trained 'banksman'
5. Provide safe pedestrian routes to and from work locations
6. Provide safe construction vehicle routes around the project
7. Project address and date
8. Location of cabins, welfare etc
9. Provide a plan / drawing of access and egress to the project
10. Show local routes/road systems including one-way schemes, car parking etc
11. Specify areas where the project will need to provide traffic control
12. Detail speed limits / height and width restrictions
13. Parking restrictions
14. Other local traffic characteristics: rail crossing, trams, vehicular and pedestrian flow
15. Mobilising / demobilising of plant
16. Deliveries to project / loading / storage areas.
17. Vehicle route / area / turning / reversing.
18. Signage.
19. Overhead / underground services, identified and marked
20. Temporary lighting.
21. Vehicle maintenance / refuelling areas (with appropriate emergency / environmental considerations)
22. Installation of tower crane including associated road closure.

6. Project security
Security assessment and arrangements The security needs are considered for the project at the planning stage and reviewed throughout the contract. Special attention is made to deter access by children and to protect the members of the public. All visitors are directed to the project office from where access into the construction area is controlled.

Project security arrangements
Security arrangements for the project boundary are

Robust hoardings with adequate lighting will be installed along all the external site boundaries if not already secured by party / boundary walls. There will be secure gated access for pedestrians and material deliveries.
Security arrangements for compound, offices, stores are
Site security guard will be in place during site working hours. There will also be a logistics manager employed who will work alongside the site security and ISG's construction managers to set up and maintain compound, office and storage facilities.
Security arrangements for the plant and equipment are
All plant and equipment will be securely stored away by the various Specialist trade contractors in lockable storage containers and tool chests.
Security arrangements for the building/project during construction are
All plant and equipment will be securely stored away by the various trades in lockable storage containers and tool chests.
The security systems and devices in place are
A thumb scanner and turnstile system will be installed at the entrance to the project and this will be controlled by a dedicated security guard. Everyone coming onto the site will be given a project specific induction and will need to complete a questionnaire to ensure their competency.
Measures to protect children/public are
A designated liaison officer will be employed to communicate with local community. No deliveries will be allowed during drop off and pick up hours.
Comments and security problems
N/A

Control measures for access
The control measures for security/access to the project during working hours are
Thumb scan and turnstile controlled by a Security guard will be in place at the pedestrian entrance to the site.
Subcontractors' security responsibilities

All subcontractors to be responsible for their offices, storage and workshop areas.

7. Arrangements for controlling significant project risk
The following existing restrictions have been identified from the pre-construction information pack and supporting information, such as designers risk assessments and project visits.

Existing hazards / considerations / restrictions	Notes / controls
Hours of working throughout the project to include all excavation and construction work.	**WORKING HOURS** It is a condition of the planning permission that working hours are restricted to between **08:00** and **18:00** hours Mondays - Fridays and between **09:00** and **14:00** hours on Saturdays. Saturday's 09:00 – 14:00 proposed further to request from stakeholder engagement. (with 2 hours on and 2 hours off noise restrictions) **No work** will be permitted outside of these hours or at all on Sundays, bank or public holidays. Basement excavation works are restricted to the same hours with the exception of Saturdays when no such works will be permitted at all.
Adjacent buildings	Works surrounded by private residential buildings. Works to be carried out in strict accordance to TMP and CMP.
Noise restrictions	Noisy works to the existing building line comprising of forming new openings and breaking down existing piles / pile caps to be carried out as per hours of working above. **All contractors working on site to keep strictly to the Islington CoPC and to keep to the guidance given in BS 5228 (parts 1,2 and 4).**
Access restrictions	Access for construction traffic onto site will be off Golden Lane only.
Present land use and ground conditions	Full soils investigation carried out, limited risk. **No contain nation has been highlighted**
Environmental Considerations.	**Vibration – We have noted the requirements set out in Islington's CoPC (Page 12) and will be working to the limits as set.** **Air Pollution and Dust Control - We have noted the requirements set out in Islington's CoPC (Page 7) and the AQDRA undertaken for the planning application in developing the dust mitigation measures to employ (Appendix E).**
Existing services – underground and overhead	None. All services have been surveyed and will be isolated at boundary of site.
Traffic systems / management to Loudoun Road	Subject to site specific traffic management plan.

Existing hazards / considerations / restrictions	Notes / controls
Delivery and Removal of Materials	During the various stages of the project the traffic movement to Golden Lane will peak and trough. compliant.
Preventing falls	Robust fixed scaffold handrails and access stairs will be installed around and into the main excavations. All working platforms will have ladder access, double guard rails and inside handrails and toe boards. All working at Height activities will e subject to the issue and approval of a detailed RAMS before any works commence. All work at height will be in full compliance with The Work at Height Regulations and will follow the hierarchy of controls.
Control of lifting of operations	A tower crane and hoist will be installed on site during the course of the project and all these lifts will be controlled by a designated lifting supervisor and banksman. A robust lifting plan shall be developed and maintained throughout the project by a CPCS Appointed Person.
Maintenance of plant and equipment	Daily (visual), weekly, 6 monthly and annual checks will be carried out on all items of plant and equipment and logged to ensure that all is in good working order.
Excavations	Extensive deep excavations will be carried out which will involve earthwork support and safe working practices. A contiguous piled wall will be utilised to retain the existing structure but due to the depth of the excavations there will be a requirement to install a complex temporary works scheme which will be developed by the Specialist contractors and the Structural Engineer. All excavations shall be recorded on a register and inspections in line with our procedure will be completed. Falls into excavations by persons, plant and objects shall be suitably prevented.
Traffic routes and segregation of vehicles and pedestrians	A logistics plan has been developed for the initial early ground works and this will be reviewed further and developed to suit the programme of works. Currently the deliveries and offloading are via Loudoun Road into a designated loading bay. Traffic flow on Loudoun Road will be modified to prevent unnecessary vehicle movements in residential areas. Traffic marshals shall be present to protect pedestrians and road users.
Storage of materials (particularly hazardous materials) and work equipments	Materials will be stored in metal containers at the risk of the Trade Contractors. All hazardous materials will be stored in a designated area, with a spill kit and clear signage warning of the dangers. Flammable substance storage areas shall be clearly located on the fire plan and will be sited to minimise risk.

7.1 Project specific health risks	
Existing risks / considerations / restrictions	**Notes / controls**
Removal of asbestos	Removal carry out prior to demo under controlled removal procedures as RAMS
Manual handling	Lifting assessments to be carried out for all operations so that mechanical lifting can be maximised where possible to avoid the need for manual lifting. Where practicable many items will be reduced to the 20kg limit

7.1 Project specific health risks	
Existing risks / considerations / restrictions	**Notes / controls**
	for lifting.
Use of hazardous substances	Large quantities of concrete will be poured and the task specific RAMS will highlight the measures to be taken to ensure that there is no irritation or burning from the concrete. Suitable overalls, Impervious boots, gauntlets, goggles etc to be worn during the placing of concrete. In line with COSHH assessments.
Reducing noise and vibrations	Methodology to be adopted to ensure that quiet methods are used for breaking etc. No noisy works carried out beyond the agreed timeframes Noisy works to the existing building line comprising of forming new openings and breaking down existing piles / pile caps to be carried out as per hours of working above. **All contractors working on site to keep strictly to the Islington CoPC and to keep to the guidance given in BS 5228 (parts 1,2 and 4).** **Vibration – We have noted the requirements set out in Islington's CoPC (Page 12) and will be working to the limits as set.**
Exposure to UV radiation (from the sun)	Sun cover supplied to workers and highlighted within Induction and via signage and communication on site. Supplies provided within the welfare.

8. Subcontract management

8.1 Contractor selection

Contractors will be selected in accordance with ISG's Company management system procedures. Adherence to these procedures will ensure all subcontractors are competent to carry out the particular works based on the information available at time of placing order.

8.2 Contractor co-ordination

Works involving all contractors on site will be incorporated into the contract and short-term programmes. Requirements for interface and segregation of contractors will be identified through risk assessments and incorporated into method statements. Risk assessments/ method statements must be produced by the contractors and reviewed by the project team before the works commence on site. This information will be communicated by means of regular co-ordination meetings on site and during their progress meetings.

8.3 Contractor control

Control will be implemented through risk assessments and method statements. Risk Assessments and Method Statements must be prepared and reviewed prior to the activity being undertaken on site. Operatives must be briefed on their risk assessments and method statements before commencement of the respective tasks. A record is to be kept of the briefing activity.

8.4 Inductions

All personnel (including visitors or the client's professional team) wishing to access and work on this project must attend the project HS&E induction. On this project there will be 4 types of Induction:

- full project specific induction – which everyone **shall** attend
- project supervisors induction – which the subcontractors foreman and project managers **shall** attend

- lifting team induction which all members of the project lifting team **shall** attend.
- visitors induction – which **all** visitors **shall** attend

The full project induction will be given on the following days at 8.30am: **Monday to Friday**

The **full project specific induction** informs all operatives, staff and management of the specific risks associated with this project together with the arrangements in place for Health, Safety and Welfare.

The **supervisors' induction** is specifically addressed to the project management and foreman and is to complement the full project induction. This communicates to the subcontractors project management and foreman what we expect from them, how we expect them to behave and set a good example to others.

The **project visitor's induction** will be given to every visitor that comes on to this project, including our own staff (no matter how senior), any HSE inspectors, any person from the client's team etc. This induction highlights specific risks to any visitor's health and safety whilst they are on this project. The visitor's project induction will be handed to each visitor as they sign in at the security / signing in point.

Note: All visitors to the project will need to be accompanied at all times when they are not in a clearly designated safe route or area.

9. Co-ordination, communication and co-operation

9.1 Construction programme

TBC

9.2 Project meetings

Meeting	Purpose	Parties Involved	Frequency
Design Team	Co-ordinate design Resolve design issues Monitor information release	Architect	Weekly
		Structural Engineer	
		M&E	
		Landscaping	
Client Progress	Gives client an overall picture of the project including health and safety	Client	Fortnightly
		ISG	
		Client Design Consultants	
Community Liaison	**To update the local community representatives on progress made and planned to listen to concerns.**	**ISG, CoL, Arcadis, Islington, Local Residential Representatives.**	**Monthly**

Meeting	Purpose	Parties Involved	Frequency
Subcontractor progress	Review progress against programme Resolve co-ordination issues Discuss key issues incl HSQ&E	ISG / subcontractors	Weekly
Monthly Health & Safety Review	Internal review of the health and safety performance and issues over the past month	ISG project team	Monthly
Lifting Team weekly review	To ensure co-ordination, communication and update of the project lifting plan	Project lifting team members	Weekly
Lifting team daily co-ordination	To ensure co-ordination of contractors using lifting equipment on the project	Project lifting team	Daily

9.3 Tool box talks

To reinforce project Health, Safety and Environmental issues and the requirements of the Method Statements / Risk Assessments, each subcontractor will be required to carry out Tool box talks. The Project Leader / Nominated Manager will agree a programme for Tool box talks with each subcontractor and monitor their compliance.

All Tool box talk records will be maintained within the project office.

9.4 Third party and client considerations

Co-operation and communication with third parties and the Client will be maintained at all times throughout this project. The following third party and Client considerations will be taken into consideration:

Issue	Comment
Noise	Noisy works to the existing building line comprising of forming new openings and breaking down existing piles / pile caps to be carried out as per hours of working above. **All contractors working on site to keep strictly to the Islington CoPC and to keep to the guidance given in BS 5228 (parts 1,2 and 4).**
Vibration	Vibration – We have noted the requirements set out in Islington's CoPC (Page 12) and will be working to the limits as set.
Dust Pollution	. Air Pollution and Dust Control - We have noted the requirements set out in Islington's CoPC (Page 7) and the AQDRA undertaken for the planning application in developing the dust mitigation measures to employ (Appendix E).
Social Exclusion	

10. Handling design changes during the project

The following arrangements will be implemented to ensure effective exchange of design information

All design information to be issued and received via a web based link (CONJECT / BIW). This will be controlled by ISG's Document Controller and Design Manager.

Contractor's design – permanent - The following design activity is to be managed by ISG Construction

10. Handling design changes during the project
Refer to current Design Responsibility Matrix.
Contractor's design – temporary - The following design activity is to be managed by ISG Construction Scaffold, Crane base, hoist, accommodation hard standing, temporary propping scheme for excavations and underpinning.

11. Information and training
Induction training **shall** be provided to everyone wishing to work and visit this project (see Section 8.4 of this Construction phase plan). Refresher induction training **shall** be provided as project conditions change. The following tasks have been identified as requiring specific training:

Task	Training required
Scaffolding	CISRS
Hoist operator	CPCS
Plant operator	CPCS
Crane operator and banksman	CPCS

Statutory notices and health & safety awareness posters **shall** be displayed on the hoardings, within the canteen, on Health and Safety Notice boards and within the site Office.

A copy of this Construction phase plan, together with the project specific project safety rules **shall** be formally issued to each subcontractor prior to their start on the project.

12. First aid and accident reporting
12.1 First aid
• The first aiders on Project will identify themselves by wearing a white safety helmet • The first aid boxes are located in the project office located in the • A copy of all first aid certificates will be maintained within the project office.

Name	Certificate expiry Date
TBC	

12.2 Accidents, accident and near miss reporting
Accidents, incidents and near misses shall be reported to / by the Project manager, in accordance with internal company procedure 304.22. Subcontractors are required to comply with the requirements of this procedure and inform project management of any accident / incident. The project accident book is located in the project manager's office. All ISG Construction's reportable accidents will be reported to the HSE by the HQSE Director/Manager.

12.3 Project emergency references

Contact	Name	Contact number
Health & Safety Executive	Rose Court, 2 Southwark Bridge, London SE1 9HS	0207 5562100
Environment Agency	WCC	0800 807060
Environmental Clean-up	National Customer Contact Centre, PO Box 54, Rotherham S60 1BY	0800 807060
Police	Central London Police	999
Fire	**London Fire Brigade**	999
Hospital	**Saint Bartholomew's Hospital**	
Hospital address	W Smithfield, London EC1A 7BE	0203 416 5000

13. Project rules

The Project manager will ensure the project rules are drawn up, and displayed in the project office and the canteen. All project staff and operatives will receive a copy of the rules as part of their induction.

14. Fire management

Fire extinguishers **shall** be located at fire points. Fire points will be located within 30 metres of any point in the building, ideally near fire exits and in corridors. Each fire point **shall** contain water and a carbon dioxide fire extinguisher.

A fire extinguisher trolley with a rotary alarm will house the fire extinguishers and **shall** be placed at each fire point, so if necessary project operatives can raise the alarm

Each fire point will be numbered and identified with a fire point sign. Each fire extinguisher will also be numbered to correspond with the fire point to where it has been allocated. A missing sign will be placed behind the fire extinguisher trolley, to discourage subcontractors from moving / using our extinguishers.

All extinguishers **shall** be maintained and inspected weekly. A record of inspections **shall** be kept.

All fire point locations and fire exits will be clearly identified on laminated project layout plans, and displayed on each floors information board and at the project entrance. The location of the muster point will also be clearly displayed.

Fire point locations, fire exits and the muster location **shall** be given to all operatives at the project induction.

For all projects over £3m there **shall** be a fire detection system within the project and within our project offices that will alert 24hr security guards, a central station or the Fire Brigade.

Where there is a canteen and hot food is prepared a dry powder, extinguisher **shall** be provided and kept within the kitchen area, together with a fire blanket. Canteen and cooking areas must always have a fire detection system.

Temporary accommodation will be constructed from non-combustible materials and all walls and doors **shall** achieve 30 mins fire resistance. Where food is cooked in a canteen the walls **shall** be built to 1 hour fire resistance

Heaters in project offices and welfare facilities must be fixed above floor level have enclosed elements and be fitted with metal guards. Drying racks and coat hooks will be located safely away from heaters.

A project Fire Plan will be developed as the project progresses and this will be updated on a regular basis to suit the sequence of the works and ever changing site conditions

15. Monitoring and audit (health, safety, quality and environment)

15.1 On-site monitoring

15. Monitoring and audit (health, safety, quality and environment)

The Nominated Manager shall ensure that performance is monitored on site on an on-going basis, through regular inspections of the site and works in progress, commensurate with the nature of the works and associated risks.

Quality inspections will be undertaken in accordance with the Inspection and test plan which will be developed in collaboration with our Sub Contractors.

15.2 2nd party monitoring

Safety / Environmental and Quality inspections will be undertaken on a fortnightly basis (approximately) by the company's HSQ&E Managers, and scored inspection sheets prepared. Non-confirming activities will be addressed in a timely fashion.

The HSQ&E Manager's will visit and inspect the works at any time, either of their own volition or by request.

15.3 Audit

Periodic audits to confirm the implementation of Health Safety, Quality and Environmental systems will be carried out in accordance with company procedures.

15.4 Contract review

Monthly contract review meetings will take place to review all aspects of the project.

15.5 Non conformance

Non-conforming subcontractors or suppliers will be managed via the company's non-conformance processes.

15.6 Health and safety file

The Health and Safety File will be compiled by the Principle Contractor. The project team will be responsible for providing such information as is requested by the Principle Contractor.

- layout and format
- storage of information
- arrangement for the collection and gathering of information

16. Environmental management

16.1 Environmental aspects and impacts

The identification and control process relating to the project aspects and impacts are outlined in the attached **Appendix B**

16.2 Project waste management plan

Refer to detail in Site Waste Management Plan (Live document sample within appendix)

16.3 Groundwater control - The following groundwater control arrangements are required:

Attenuation tanks and silt traps will be installed.

16.4 Contaminated ground - The following groundwater control arrangements are required:

Not applicable

16.5 Water discharge agreements - The following groundwater control arrangements are required
Discharge licence for the Wheel wash facilities and separation tanks to be applied for if required.

16.6 Wildlife / habitat / archaeological protection - The following groundwater control arrangements are required
Existing trees to be pruned prior to nesting season and tree protection zones set up during the works.

16.7 Management of fuel (oil & diesel) - The following arrangements will be implemented for managing the oil and fuel stored on site	
Location	A designated holding area will be made available and controlled by the Logistics Manager / Gate man.
Do not store tanks on the top of containers unless a suitable and sufficient risk assessment has been produced and reviewed by the HSQ&E Manager.	
Tank	Self-bunded with 110% capacity and lockable
Drip protection	Drip trays and bunded areas will be provided.

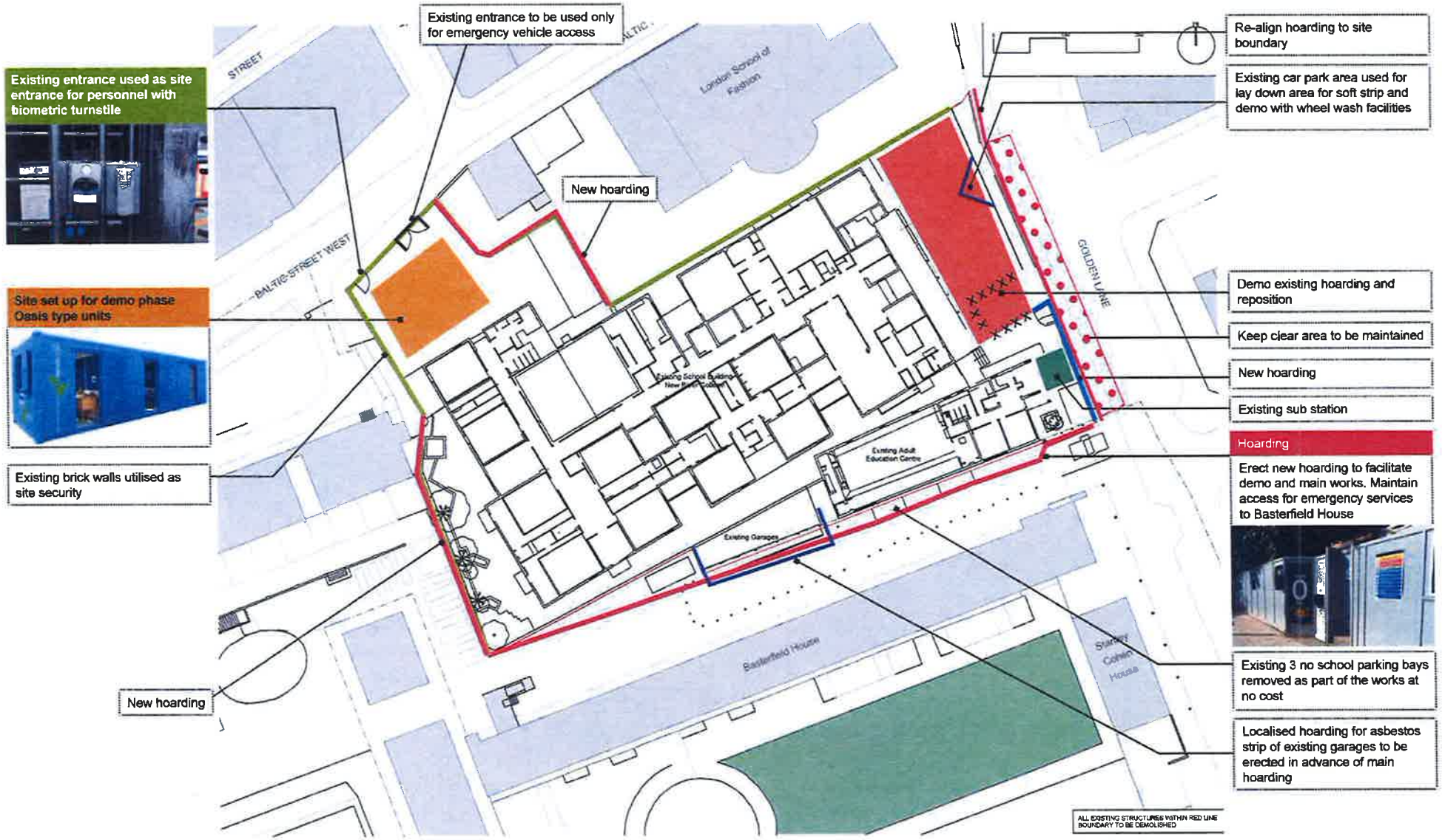
17. Community engagement		
The following process will be adopted as part of the project community engagement approach		
Activity	**Yes**	**No**
Newsletters – see attached initial Newsletter to be circulated	√	☐
Regular review meetings with neighbours.	√	☐
Feedback questionnaire	√	☐
CCS	√	☐

Appendices

Appendix A

ISG Site Logistics

Demolition phase logistics



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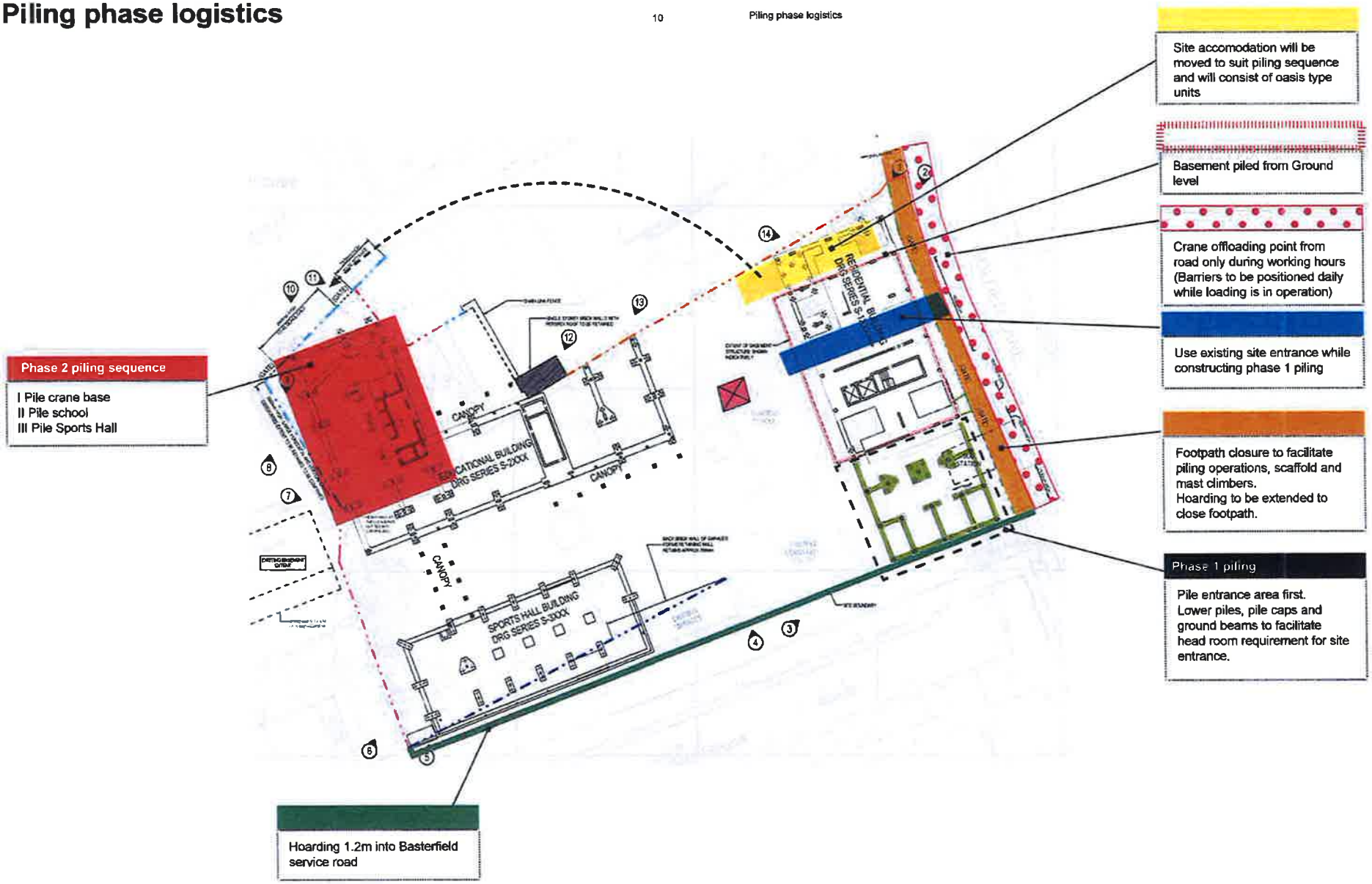
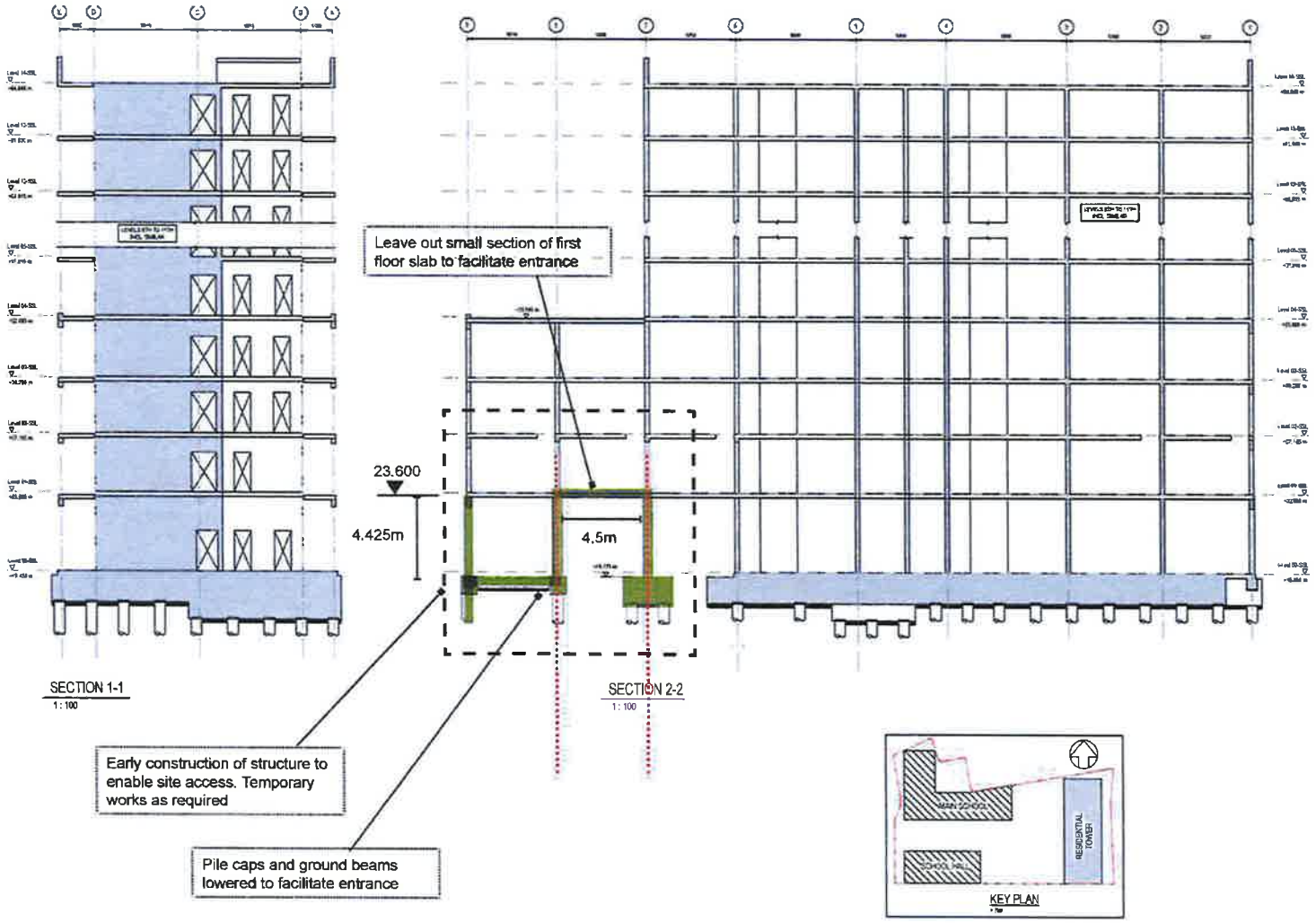
Piling phase logistics



Temp site entrance diverted through building



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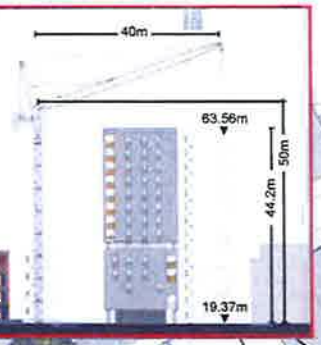
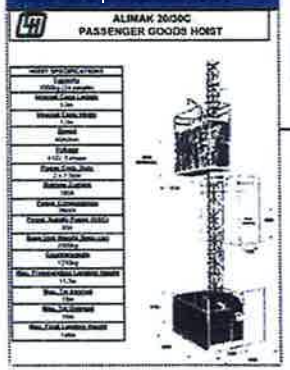
Construction phase logistics

Tower crane (J168HPA)

4Te under hook 40m radius.
Out of service radius 10m.



Material & personnel hoist



Existing brick walls utilised as site security/ hoarding

Hoarding

Site offices and welfare

Tower crane radius restricted by SMIE system

Scaffold within London School of Fashion to facilitate works

Readymix mortar silos

Crane offloading point from road only during working hours (Barriers to be positioned daily while loading is in operation)

Footpath closure to facilitate piling operations, scaffold and mast climbers. Hoarding to be extended to close footpath.

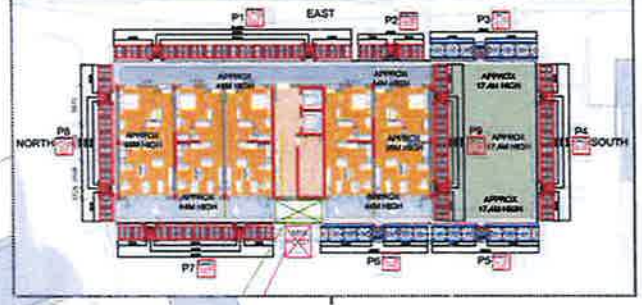
Reposition main site access gates with personnel access and wheel wash

Safe route

Site security

Temporary UKPN transformer and ISG MDU

Mast climber alternative considered for access



10m out service radius

40m radius

Area for mobile cranage

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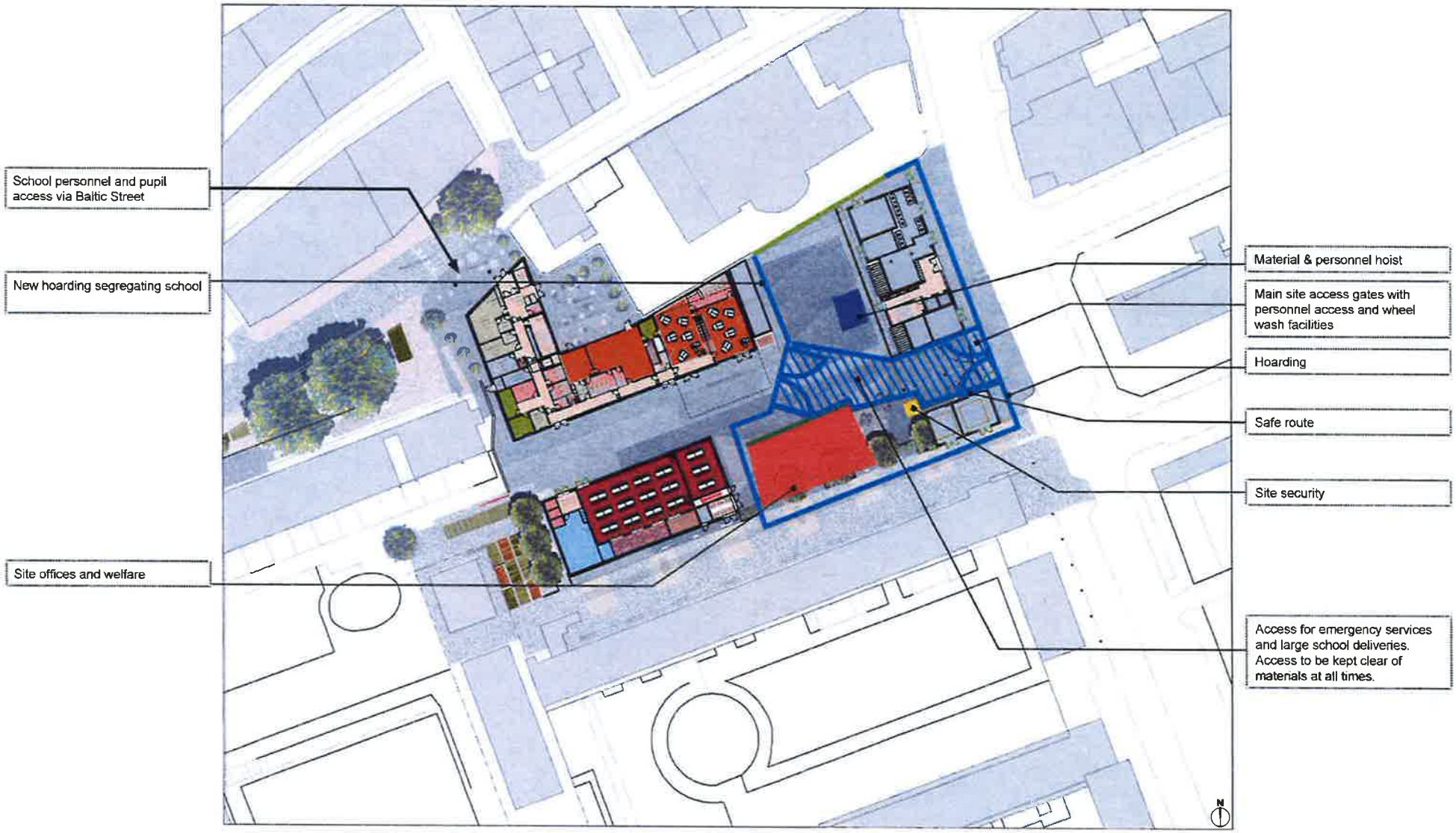
Construction phase logistics
Early handover of school



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Appendix B

ISG Construction Methodology

1.3.6 Methodology for construction stage

Our approach to management of the construction has been outlined below and is supported by our detailed logistics plans included as an appendix

As discussed with the City of London and your team, a key focus for us is a robust, smooth and efficient delivery of the Academy and associated residential units with minimal disruption to the adjacent sites and the local residents.

Phase 1 Pre-construction

- Isolation of all existing services
- Full Asbestos R&D Survey followed by Asbestos removal
- Soft Strip
- Soil investigation and bore holes
- Pile and foundation design
- Demolition of building and existing car park
- Unexploded Bomb and Archaeological Surveys
- Formation of Temporary Substation - relocate existing substation to allow residential block to be constructed

Phase 2 Construction

- Establish site control line and level
- Install piling mat and test
- Commence piling operations (2no rigs) enabling early construction of the residential block south side
- Construct the residential block in 2 sections
- Commence construction of pile caps and underground drainage and ducted services
- During the piling, establish Phase 2 site set up and install the Tower Crane
- School's structural works - Mobile cranes and mobile concrete pumps
- School's cladding and roofing works - Tube and fitting scaffold, with loading platforms fed by telehandler
- School fit out – Once watertight
- Residential structural works - Tower crane, mobile concrete pump and material / goods hoist
- Residential cladding and roofing works - Mast Climbers. Hoist will facilitate roofing operations
- Residential fit out - Early fit out to the lower level apartments using temporary weather protection

Please refer to 'Proposed piling and site entrance sequence' plan in the Appendix.

Site set up demolition phase

Initially we will set up offices within the school playground adjacent to Baltic Street West. Personnel access will be via the existing gates from Baltic Street. The site set up will consist of welfare facilities and site office sufficient to accommodate the strip out and demolition works in hand. Within this area will be positioned the necessary decontamination units if asbestos is encountered.

The main site access will be from Golden Lane the existing hoarding will be utilised with the existing gates moved further north in order the site access can pass the proposed stair core to the residential block.

Throughout the project we intend to use the existing brick walls for site security. Where there are no walls we will erect a fully boarded hoarding 2.4m high. Where we are to demolish existing walls this will be undertaken at the tail end of project with Herris fencing being used to temporary extend the site boundary whilst the works are undertaken a section at a time.

During this phase site security, will be maintained during working hours by a biometric turn stile gate on Baltic Street West and a gate man / banksman on Golden Lane.

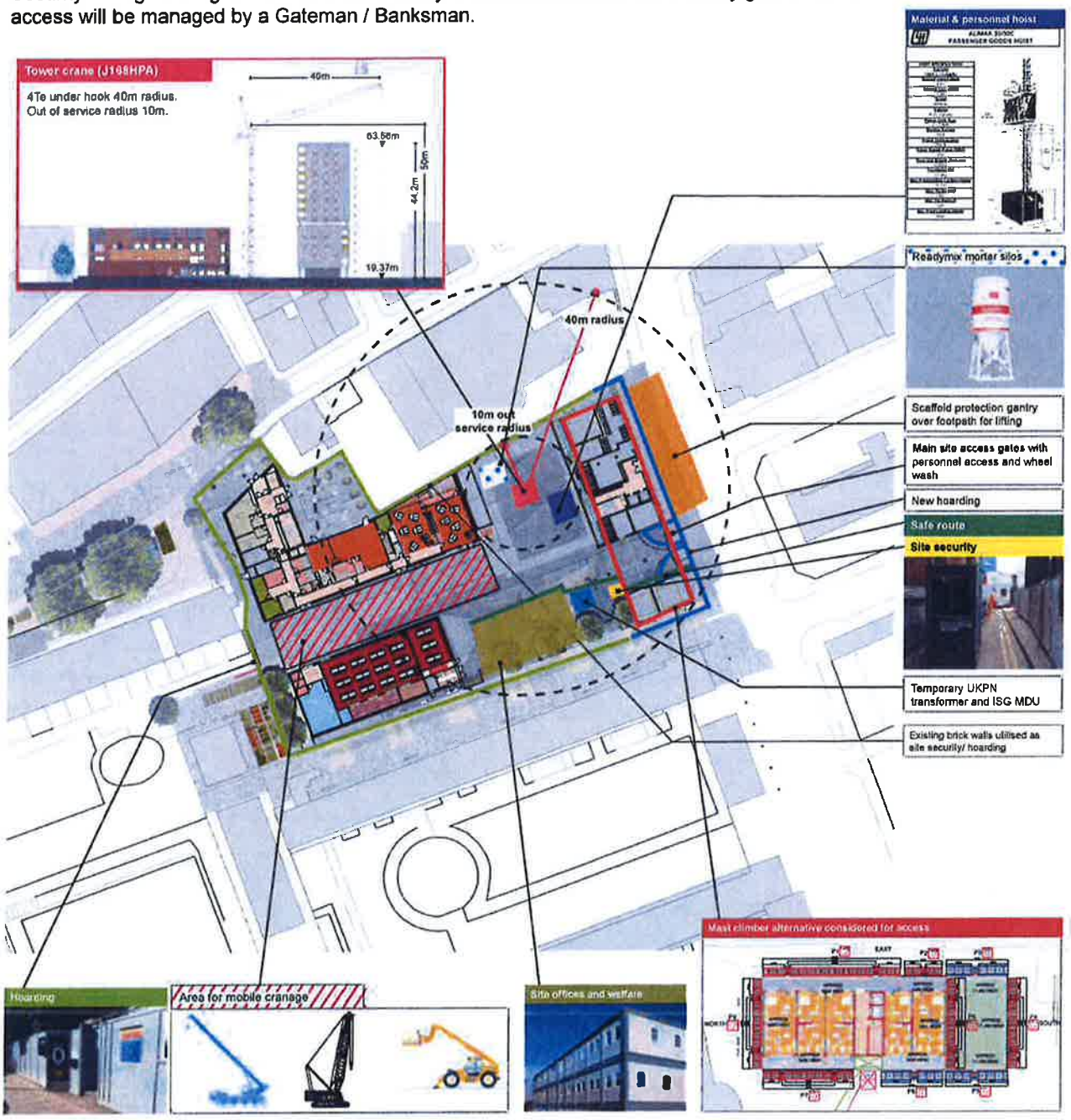
The existing car park off Golden Lane will be used as a laydown area for skips for removal of soft strip and demo material. All suitable brick and concrete arising from the demolition process will be taken off site crushed and brought back to be re used as hard standings and temporary roads. We have chosen to crush off site as it will minimise the noise and dust created by this process.

Please refer to 'Phase 1 logistics and demolition' plan in the Appendix.

Site set up construction phase

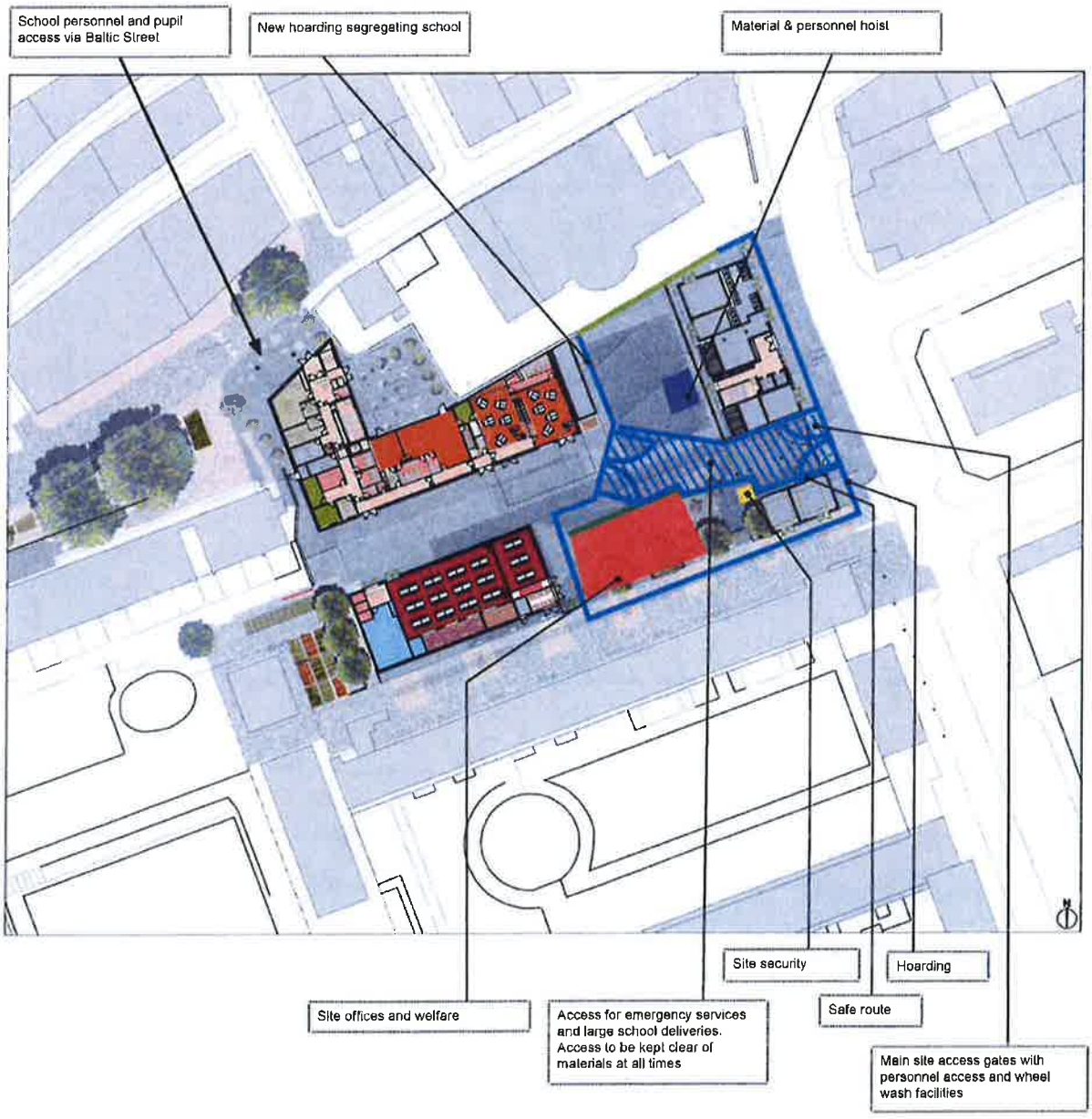
At the start of the construction phase we intend to site our office and welfare facilities along the Boundary line to the east of the sports Hall. These will consist of Canteen, drying/changing room and offices. This area will be completely segregated from the site with a clear defined safe route from Golden Lane. Within this compound we will also position the temporary UKPN transformer and ISG's MDU.

Security during working hours will be afforded by a biometric turnstile and security guard. Vehicle access will be managed by a Gateman / Banksman.



Site set up early completion and handover of school

We have reviewed the working area required for construction of the Residential Block and confirm we consider we will be able to work within a reduced site area thus facilitating the earlier handover of the School Buildings. During this period, we envisage the school personnel and pupils gaining access via Baltic Street West. School deliveries which cannot be accessed from this side will be managed traversing through the site in a controlled manor. The access route will be kept clear at all times in case of use by the emergency services.



The sections below provide a high level overview of our processes and approach. We have developed a full and robust methodology for the delivery and management of the works which can be made available upon request.

Managing health & safety

Health and safety on-site will be managed by our dedicated H&S manager and supported by our in-house H&S team and ISO 18001 management system. All personnel, subcontractors and visitors to site will undergo full H&S training as part of their site induction. A project-specific health, safety and environmental plan will be developed, implemented and enforced at all times. This will include live risk assessments and their mitigation. Full details of H&S risk on this project have been developed and can be made available upon request.

Approach to quality control and handing over a defect free building

Our management of quality control is outlined in our Absolute completion approach and is supported by our ISO 9001 accredited management system. This approach ensures that all projects are delivered to the highest standard and, through the use of Construction App and SnagR, that they are fully handed over, defect free.

Progress reporting

In collaboration with the Project Manager, monthly progress meetings will be scheduled for the duration of the project. Supplementary to the monthly progress report and due to the importance of the programme within the NEC3 form of Contract, the programme will be constantly monitored and updated weekly. This allows the processes of EWN's, NCE's, PMI's and CE's to be carried out as intended under the contract. By continually monitoring progress of both design and construction activities, any potential time delays can be notified to the project team and a Risk Reduction Meeting called. Early identification of these risks increases the potential to mitigate. In line with the contract documents the programme will be issued for acceptance at periods no later than 4 weeks, however if a significant Compensation Event arises prior to this date a new programme will be issued showing the impact to works. Included within a programme for acceptance will be a full update of all design and construction activities, along with all implemented Compensation Events and Agreed PMI's and their impact on key completion dates. Supporting the programme will be a comprehensive planning report detailing labour histograms, a narrative of upcoming key tasks etc.

Reduction of noisy works and dust control

We will ensure minimal disruption and nuisance of our works through regularly engagement with local residents / stakeholders and a robust noise / dust mitigation strategy. The greatest impact will be during the demolition phase, where we will carry out noisy works intermittently (2 hours on, 2 hours off) and will closely monitor noise levels to ensure they do not exceed acceptable levels. Additionally, we will control dust through dampening measures and undertake crushing of materials off site where possible.

Tree protection

We will utilise the Arboricultural survey and planning conditions to identify trees, both on and adjacent to site, which require protecting and will develop, in conjunction with Southern Ecological Solutions, a comprehensive tree protection plan for each individual tree. Once identified, we put physical protection measures in place throughout the works.

Summary of temporary works

The following temporary works will be required and will be further developed;

- Constructing close to existing walls
- Piling mat
- Temporary roads and hard standings
- Tower Crane installation
- Use of Cantilever loading platforms
- Hoist Installation
- Earth work support for excavations
- Omission of first floor slab to aid early use of permanent access
- Back propping of mast climbers for south elevation

Cranage strategy

Residential Block - Tower Crane for construction of the building and Goods Passenger Hoist to be erected to behind the structural concrete frame.

School Buildings - Mobile Crane or crawler crane to be used for construction of the frame. Telehandler to be used for constructions of envelope, roof and fit out.

Approach to the soft landing principles

This project will be supported by a dedicated ISG Soft Landing specialist, as part of our BIM team, who is involved throughout all stages of the project. Our team will work in close collaboration with City of London's soft landings champion with the mutual objective to ensure that all members adhere to their obligations. As part of this process we will create a Soft Landings Implementation Plan, which outlines in detail the process, objectives, responsibilities and targets we are aiming to achieve through the soft landing process.

Handover strategy (to be developed into a Handover Plan in Stage Two)

We will develop, in conjunction with the City of London and your team, a handover strategy which picks up the unique requirements your organisation has at handover. This will include our approach to coordinating with your facilities management teams in the commissioning/witnessing of equipment, development of O&M manuals, the training of your team and the aftercare support we would provide. Once agreed this will be developed into a comprehensive Handover Plan.

Innovation for construction delivery

- Early school building commencement achieved by phased construction of residential block
- Brick cladding panels in lieu of traditional brickwork
- CLT construction in lieu of concrete frame for Sports Hall Construction
- Temporary weathering on residential block to facilitate early fit out
- Precast Walls and Columns to be used in conjunction with insitu concrete
- Prefabricated toilet pods to be considered for construction of the Residential Block
- Mortar to be site mixed to order

How contractors will deal with stakeholder/site liaison during the works

To ensure the highest satisfaction and minimal disruption to local neighbours/stakeholders we will utilise a dedicated Stakeholder Liaison Manager who be responsible for regular communication with local residents/stakeholder and will act as the main point of contact for all queries.

1.3.7 Specific methodology for construction stage

The proposed project consists of an existing school (post WW2), and workshops. The plan is to demolish the existing buildings and construct a new 3 storey school and a 14-storey apartment tower block

The heating and hot water for the development will be by district heating from the 'Bunhill Heat & Power' plant. The heat will be transferred through plate heat exchangers and metered for use. In each apartment, there will be a 'HIU' (Heat Interface Unit) serving both the heating and hot water which is a combined unit with a heat meter which will be connected via a wired or wireless network.

The school will have a single heat meter for all the heating and hot water.

Each apartment will be metered for electrics, water and heat with Openreach available. The proposed new Sub Station is to be located within the ground floor of the apartment block and is to serve the whole development for the power.

Enabling Works

Sub-Station/Electrics

- There is an existing sub-station which requires decommissioning and has three loads to it. Two of the loads are known but the third is unknown until further investigation. This will be carried out by UKPN assisted by our Building Services Manager.
- The enclosure/building may have ACM due to its age and this needs to be on the Asbestos survey with UKPN present at the time of the survey. Our BSM will liaise with UKPN regarding access to survey the enclosure.
- There is currently a scope of works for a new internal sub-station, with a budget figure of £80,000.00 to £100,000.00. we will liaise with UKPN to obtain a fixed price for;
  - The removal of the existing sub-station
  - A temporary sub-station for temporary builder's supply
  - The installation of the new sub-station to the ground floor of the tower block

ISG will procure the UKPN package as soon as appointed as possible to prevent any delays to the programme

Mains Water

- The water main will be decommissioned by Thames Water and then reinstated as a temporary supply with a sub meter. This will be for site-wide water supply

Openreach telecommunications

- Openreach will be procured to decommission their service prior to the demolition works. We will then liaise with their project manager to allow for their service to be reinstalled during the construction phase. Consideration will be required for the service to the School of Fashion if it is shared

Natural Gas Mains

- The gas main will be decommissioned during the demolition works and will then be reinstated during the construction phase. It is unsure at present where the meter housing is to be located but all pipe work to the school will be installed prior to the meter installation

Phase 1 Pre-construction operations

Following isolation of all existing services, we intend to commence demolition from Golden Lane again using the existing car park as a laydown area for skips and plant storage. We will work our way through the building towards the back removing material as we go, once we have reached the back of the site we will work our way back removing the existing car park as we work our way out of the gate. As we clean back the existing over site we will arrange for UXB surveys and consult with MOLAS as to the possibility of Archeological finds.

It is envisaged during this phase depending on discussions with UKPN we will be able to relocate the existing substation to a temporary position allowing the residential block to be constructed.

Phase 2 Construction operations

Commence piling operations as sequenced in the diagram below. This will enable early construction of the residential block south side and early construction of the Tower Crane base in line with our construction and access strategy. It is envisaged we will use 2 no piling rigs.

The strategy for Construction is to construct the residential block in 2 sections first section south side including core. This we intend to take up to 2nd floor level installing temporary works to enable us to leave out the first floor slab over the permanent access way. This will enable us to 'flip' the site access on Golden Lane and construct all three building simultaneously. Once we are able to use the permanent access way through the residential block we will start construction of the north side.

Upon confirmation of site levels, we will commence construction of the pile caps and underground drainage and ducted services. During the piling, we would look to establish our phase 2 site set up and install the Tower Crane.

The structural works for both school buildings will be undertaken using mobile cranage and mobile concrete pumps.

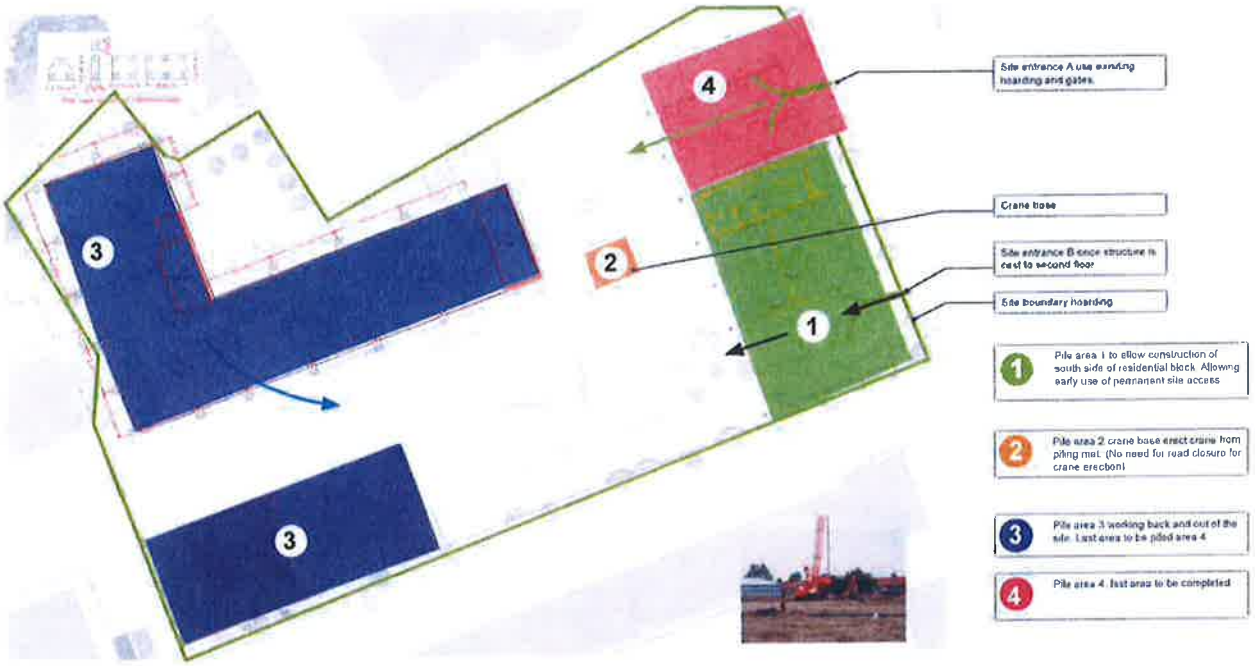
The structural works for the residential block will be undertaken by tower crane, mobile concrete pump and material / goods hoist.

The cladding and roofing works for the School Buildings will be undertaken using tube and fitting scaffold, with loading platforms fed by telehandler.

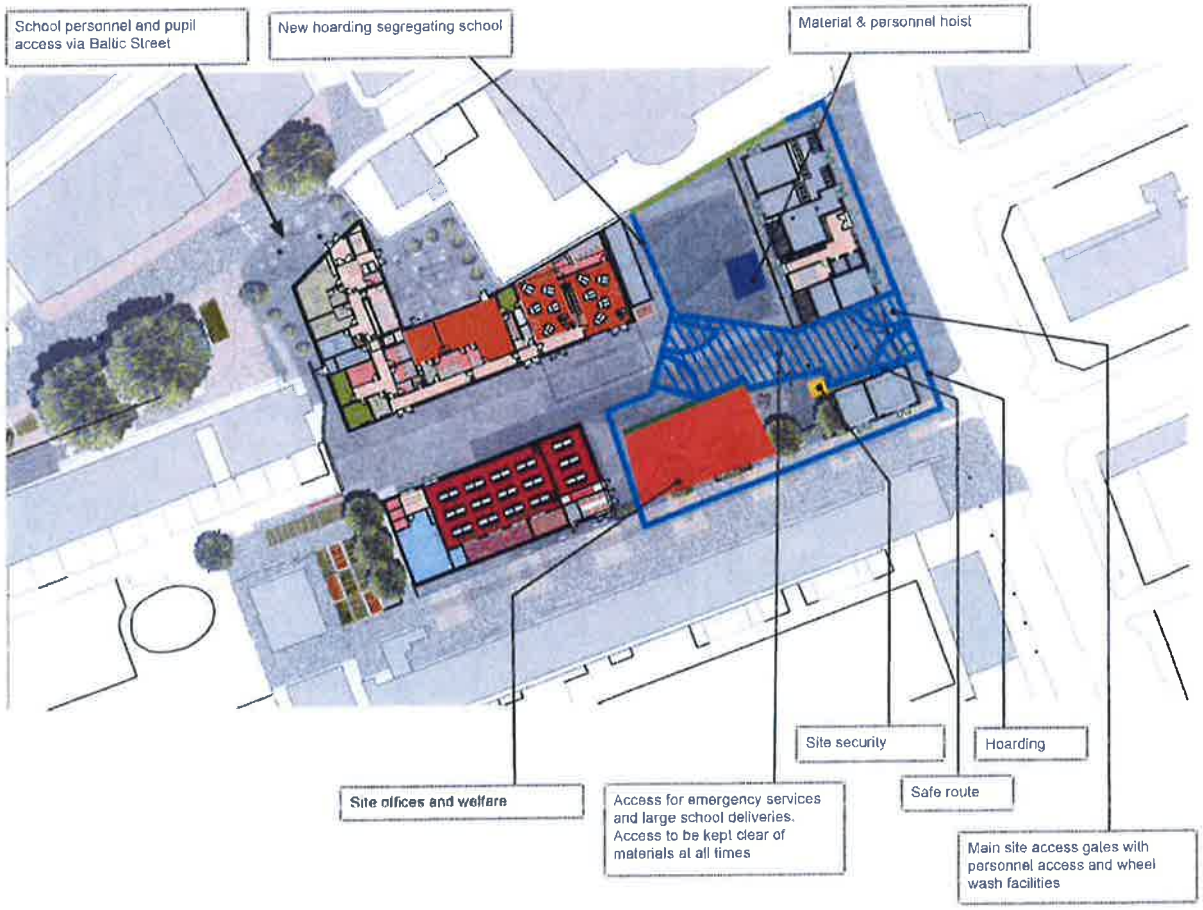
The cladding on the residential block will be undertaken by using Mast Climbers. On the North and East elevations these will be founded on scaffold gantries. The installation of the hoist will closely follow the construction of the frame and will be used to facilitate the roofing operations.
Fit out of the school buildings will commence once we are watertight.

Fit out of the Residential Block will commence once we have sufficiently advanced the frame and cladding elements we will employ temporary weathering to facilitate early fit out to the lower level apartments.

Proposed piling and site entrance sequence



Early handover of school



Appendix C

ISG Strategic Construction Programme

TBC

Appendix D

ISG Community Engagement / Social Exclusion Statement.

1.3.10 Combatting social exclusion

ISG are committed to maximising social value on all our projects. The City of London will benefit from ISG's unparalleled track record and consistent approach, deployed by our experienced staff

Our Social Value Coordinator, Larene Linley will work with our partner organisations, Supply Chain, Commercial and Operational teams to ensure that job ready schemes, work placements, traineeships and/or apprenticeships and new recruits will be maximised on the City of London Academy project.

These schemes will focus specifically on socially excluded groups such as:

- Long-term unemployed
- Those not in employment, education or training
- Care leavers
- People with mental health challenges
- Ex-military service personnel
- Lone parents
- Ex-offenders

We commit to the following targets for the City of London Academy:

Aim	Our commitment	The beneficiaries	Minimum Target
Work placements from other pathways Support unemployed people into employment via work placements	We will create work placement opportunities for local individuals through organisations such as Islington Jobcentre plus (JCP) and local training providers ELBA, City Gateway and St. Mungo's Bricks and Mortar. We will also offer work experience to locals from the housing estates that surround the site	Local unemployed people of all ages	■ 30 clients ■ 6 x 2 week work placements
Work placements in education Provide local students with the opportunity to meet construction professionals and succeed through bringing their studies to life	We will support local students from for example Lewisham Southwark College studying brickwork, painting and decorating and plumbing etc and by inviting them to site to undertake work experience with ISG and our Supply Chain partners	Lewisham Southwark College students / other suitable local colleges	■ 10 x 1 week placements to suit the students and college timetable
Work placements in education Provide those in full time higher education and graduates with work placement opportunities	We will support local students from for example Lewisham Southwark College studying subjects such as mechanical and/or electrical by inviting them to site to undertake work experience with ISG and our Supply Chain partners	Lewisham Southwark College students / other suitable local colleges	■ One higher education, 3 month placement (with an aim for 6 months)
Employment support Graduates	We will support local students from for example Lewisham Southwark College studying courses such as mechanical and/or electrical by inviting them to site to undertake work experience with ISG and our Supply Chain partners	Lewisham Southwark College students / other suitable local colleges	■ One graduate, employed full-time
Employment Support Jobs created	Working closely with our supply chain to advertise employment opportunities to local people	Local Labour	■ 5 job opportunities promoted through local employment initiatives

Aim	Our commitment	The beneficiaries	Minimum Target
Apprenticeships created **Create employment opportunities for young people**	We will create new employment opportunities for local apprentices from within the 8 preferred London Boroughs on site, hosted by either ISG or our Supply Chain Partners. We will also measure the number of weeks that are spent on site by our apprentices	Young local people who are enrolling on new apprenticeships	4 new apprentices: ■ 1 x M&E ■ 1 x Joinery ■ 1 x Brickie or Painting and decorating ■ 1 x Groundwork GCO ■ These will be written into the subbies contracts with a promise of continuity for the apprentice
Support existing apprentices to continue their training	We will also engage K10 and encourage sub-contractors to bring apprentices to site to continue their training	Existing apprentices	■ 6 existing apprentices
Apprentice training weeks recorded	We will record all apprentice training weeks on site	All apprentices	■ 120 weeks on site
Qualifying the workforce	Support the workforce with training opportunities such as health and safety, NVQ's, trade specific training, supervisory and leadership and management training.	Existing workforce	■ 30 construction completion certificates
Education activities	We will support local schools and colleges with a range of activities including site visits, curriculum support and support with careers events	Local schools and colleges	■ 6 activities (10 people per event) ■ 60 people supported
Community Activities	Support community activities such as upgrading community gardens/ decorating a community centre using ISG supply chain and volunteers from the community.	Local community	■ 1 Community Centre supported or similar endeavour ■ 10 people/volunteers involved

In order to maximise work related opportunities for local people, ISG will look to build on the successful implementation of our 'Sector Based Work Academy'. Although similar training models exist, it was highly innovative for a construction company to create a partnership that provided inexperienced, unemployed people with employability skills, a construction qualification, CSCS cards, work experience and registration with a labour agency.

We will maximise the impact of the project investment by identifying local employment partners, usually those of the local council and Job Centre Plus, and commit to advertising vacancies there first and foremost. This helps target more long-term unemployed applicants. We will increase applicants' chances of success by running these Sector-Based Work Academies, which have a proven track record of leading to employment.

Larene, with support from Dr Vicky Hutchinson, ISG's National Social Responsibility Manager and Peter Kelly, Head of Sustainability for Construction, will develop a programme in partnership with the Islington, Barnsbury Rd, Jobcentreplus (JCP) branch and local training providers ELBA, City Gateway and St. Mungo's Bricks and Mortar. The aim will be to provide unemployed people with a routeway into employment. Through this Academy, we will also:

- Showcase career opportunities to young people to help intervene before they become NEET
- Provide those unemployed with qualifications and experience that help them secure employment
- Support later career-changers to help them secure more highly-skilled, better paid work

The programme will begin with a recruitment day hosted by JCP, where a combination of Jo Emmerson at ELBA, Katrina Lister at City Gateway and Bjorn Grant at St. Mungo's Bricks and Mortar as well as ISG staff will present to JCP clients the benefits of working in Construction. Those that subsequently enrol will receive four weeks of training in Maths, English, Employability Skills and Level 1 Construction from either ELBA, City Gateway or St. Mungo's Bricks and Mortar. From ISG, candidates will receive a mock interview, post interview feedback and a site tour. Candidates also have the opportunity to complete a CSCS test and obtain a CSCS card free of charge.

Once the training is complete, clients will be given the opportunity to interview for a two-week work placement on site with ISG. Individuals that complete the placement successfully will be provided with an employer's reference, meaning they could register with a labour agency. ISG can then arrange further training for those that were successful at interview, on courses such as Manual Handling and Vehicle Banksman via our in-house training facility, The Academy.

To date in the Manchester area, 48 people have successfully completed the programme, benefitting the local economy by an estimated £75,201 ('Community investment values from the Social Value Bank', HACT and Daniel Fujiwara.) Furthermore, our clients are delighted by the added value that we provide:

"Wigan Council is committed to ensuring that local people benefit from Council investments. In addition to the contract, ISG have provided exceptional value, working with those who are far from the workplace and readying them for employment. Additionally, their partnership with local colleges has supported over 100 students with curriculum support and placements. We are absolutely delighted."

Karen Hewitt
Business Manager, Leisure & Property, Wigan Council

ISG are confident of similar successful outcomes at the City of London Academy and will set a target of running the Sector Based Work Academy 3 times over the lifetime of the project with a minimum of 30 clients to sit the programme and 6 going on to receive two-week placements. These targets will also aim to include those specifically from the neighbouring estates that surround the City of London Academy site. Once set up, we will use this model across the rest of our London projects to further our social value aspirations.

Work placements

We will maximise work placement opportunities through our Sector Based Work Academy by working with Islington Job Centre Plus, The Prince's Trust, ELBA, City Gateway and St. Mungo's Bricks and Mortar to maximise the number of opportunities realised by local people.

We will also partner with Lewisham Southwark College to provide work experience opportunities and aim to instigate a minimum of 10, one-week work placements. Our Social Value Coordinator, Larene Linley, will review the construction programme with the project manager, Steve McCarthy and subcontractors to identify where work packages can support students with work experience. Larene will then liaise with Lewisham Southwark College to share relevant opportunities that are available on site for those studying on full time programmes, such as Brickwork, Plumbing, Tiling, Carpentry & Joinery and Mechanical Engineering.

ISG will provide one work placement opportunity for a minimum of 3 months (with an aim for 6 months) for an existing full-time higher level student at Lewisham Southwark College, for example, for an individual who is studying Mechanical Engineering at Level 3 who might be interested in a placement with ISG in Quantity Surveying or with our M&E supply chain partner. In addition, we will also employ a new graduate starter in September 2018, who will be allocated to work directly on this scheme. We will therefore support 2 individuals with Project Initiated Higher Level Skills.

Kyle Slater had been unemployed for some time before attending a presentation on working in Construction delivered by ISG's Larene Linley. Kyle was keen to start work in Construction and joined ISG's Sector Based Work Academy, gaining four weeks' training with Vocational Solutions and achieving a L1 Construction H&S qualification. He also enjoyed a site visit and a work placement at ISG's Powey Lane Fire Station project in Mollington.

Kyle passed his CSCS test and registered with Spectrum agency, where he has benefitted from further training gaining full-time employment with our subcontractor Byrne Civil Solutions.

Apprenticeships

ISG has a solid track record of creating and sustaining apprenticeships. We maximise apprenticeship opportunities for young people through:

- A national campaign to recruit higher level apprentices into the business and opportunities to meet recruitment requirements with new apprentices
- Making it a contractual requirement of subcontractors to create new apprenticeships when packages are let
- Encouraging subcontractors to bring their existing apprentices to site
- Engaging regional shared apprenticeships schemes such as K10 to place apprentices on packages which are not otherwise long enough or sufficiently high value to warrant another approach.

ISG recognise that the City of London are an organisation that values the importance of apprenticeships. We will therefore advertise the new apprentice opportunities via both The City of London and Islington Apprenticeship Programme and would be interested in getting involved with the London Councils ESF Programme once fully launched.

ISG shares the same passion for investing in training and apprenticeships, and as such we recently established our own apprenticeship training programme. This programme sees the business embracing higher-level and technical apprenticeships as a way of attracting more diverse talent and complementing our traditional recruitment and talent-development scheme. We currently have 26 trainees across ISG, however this is only the beginning.

Our apprenticeship training programme is a Group-wide, inter-disciplinary initiative and as such, 13 candidates will be starting our higher apprenticeship programme in September 2017. We are also part of the government 'Apprentice Diversity Champion Network' and have pledged to:

- Be passionate advocates of diversity and inclusion in the workplace and work hard to make sure our people feel empowered and supported at ISG
- Create and run an ISG group higher apprenticeships programme
- Promote higher apprenticeships in construction to female apprentices through engagement with external partners and schools
- Promote higher apprenticeships in construction to BAME apprentices through engagement with local schools
- Engage with a minimum of five schools in London boroughs near our sites

To date, our projects in London continue to support apprentices and now that they are all moving more fully into the fit-out stage, we expect these numbers to increase throughout the rest of 2017.

Project	New Apprentice Starts	Existing Apprentice Starts	Cumulative Weeks
Aldermans House	0	5	149
Royal Botanical Gardens Kew	2	2	191
20 Old Bailey	1	5	88
Dixon House	2	1	20
Totals	5	13	448

Case study

Apprentices at The Temperate House, Kew

With the support of the Heritage Lottery Fund, the Rank Foundation and other funders, Kew is recruiting six new Apprentices to learn heritage restoration and construction management techniques through the landmark restoration of its Victorian Temperate House. Drawn from Kew's diverse local community these young people are gaining an invaluable start to their construction careers, providing the next generation of skilled artisans in an area of specialisation facing significant national skills shortages.

Joel McLachlan working hard to help restore one of the biggest heritage conservation projects in the country, The Temperate House, Kew.

The first two Apprentices to be recruited – Bally Gill and Joel McLachlan are now immersed in their training at the Temperate House project. The programme lasts for around two years and is designed to combine unparalleled on-the-job experience on a major heritage conservation project, underpinned by formal education leading to recognised vocational qualifications.

Bally is training as an Apprentice Quantity Surveyor and Construction Manager, learning about all aspects of building practice including for example commercial management of sub-contractors and processing of instructions and other contract notices. The programme has enabled him to embark on a Business Administration course which is run by his tutor. He has completed level 2 of the training to-date and is now studying for his stage 3 qualification. Bally is employed by ISG and is working towards joining ISG's training scheme after his final apprenticeship qualification is gained.

Joel is a Woodwork Apprentice, gaining experience of surveying and repairing the extensive timber elements of the Temperate House restoration, including repairing the decayed sections of the existing timber windows and other timber elements in the Grade 1 listed glasshouse. He is studying for a level 2 CITB Bench Joinery Diploma and NVQ Level 2 at the Building Crafts College in Stratford. This course will provide him with an advanced standard of joinery skills and the qualifications necessary to move into further training or employment following the Apprenticeship. Joel is also employed by ISG and is working alongside the specialist joinery sub-contractor, Doug Phillips Ltd.

"By the end of my Apprenticeship at Kew I hope to have gained a thorough understanding of quantity surveying, and I would very much like to go on to work permanently in the building conservation industry. I am extremely grateful for this opportunity"

Bally Gill, Quantity Surveying Apprentice

To achieve our commitments at the City of London Academy, we will adopt the same approach as previous projects within the City of London. Larene Linley will work with the project Surveyor, Phil Rees, during the procurement of contracts to brief tenderers about our commitment to the recruitment of both new and existing apprentices. Larene will then review the programme with the Project Manager, Steve McCarthy, to identify the packages which can most viably support the creation of a new apprenticeship, and those packages where we are confident that our supply chain can bring existing apprentices to site. Phil and Steve will engage with relevant subcontractors to discuss these opportunities, and Larene will provide links to CITB and information on training providers and funding opportunities for new apprentices. Larene will also design an Employment and Skills Plan which is tailored to the training opportunities provided by the project.

Wherever new direct apprentices cannot be supported, we will create apprenticeships through the Shared Apprenticeship Scheme, K10. This allows apprentices to complete a full apprenticeship programme by working with a number of different local contractors, to gain the skill sets they require to become qualified and provide continuity.

This strategy ensures that where a package value or length is not sufficiently large enough to warrant the creation of a new apprenticeship, we are still showing leadership to our supply chain and promoting the value and implementation of apprenticeships. This also helps keep apprentices in employment and guards against them becoming displaced. We have found this to be an effective vehicle for fulfilling our commitment to the development of trade apprentices within the industry.

Larene will liaise with Adam Sapey at K10 to communicate opportunities for new apprenticeships and to provide opportunities for existing apprentices on in-scope packages longer than 3 months. We will also work with CITB to promote apprentices in our supply chain through supply chain mini-briefings. We will signpost the supply chain to CITB to create training plans and help them gain access to funding.

For the City of London Academy, we will deliver a minimum of 4 new and an additional 6 existing apprentices. We anticipate that the new apprentices will be supported by one or more of the following subcontractors:

- Electrical
- Plumbing
- Drylining
- Joinery
- Brick/blockwork
- Tiling
- Painting and decorating

We envisage that these will be Level 2 apprenticeships, helping young people get on the first rung of the career ladder, supporting local people into employment.

Our performance against targets is tracked and monitored in monthly project reviews, client reports and monthly board reports.

Partner Organisations

Across London we have built relationships with numerous partner organisations and continue to support their services. Here are some of our highlights...

City Gateway - breaking down barriers to employment

Having recognised the economic and social disparities between the City of London and Tower Hamlets, ISG have engaged with City Gateway for over 6 years, combating social exclusion and enhancing access to employment opportunities.

We provide NEET Apprenticeship placements (for people Not in Employment Education or Training), with a completion success rate of 90% (18% above the national average).

In the last 2 years, we have involved 52 volunteers across 20 different job roles, from 12 departments and project teams to support City Gateway's wider skills development programmes through volunteering our time to undertake CV and interview skills workshops, Apprenticeship Challenges, and mentoring.

We have also recently donated £10,000 to City Gateway's Women's Project, supporting diverse and socially marginalised women in the community to develop employability skills and secure employment to support themselves and their families.

In 2016 we were awarded "Volunteer Group of the Year" and shortlisted for "Advocate of Youth" and Apprenticeship Programme of the Year" at their annual summer ball.

Our programme of engagement has also received Business in the Community awards for the last 4 years. And a finalist for the Lord Mayor of London Dragon Award for Social Inclusion.

P8775 ISG | City of London | Primary Academy Islington

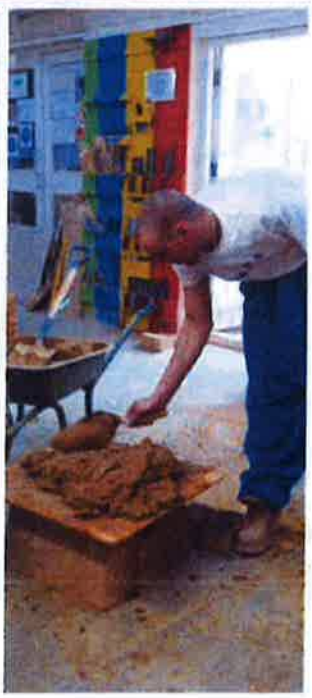
"ISG have worked with City Gateway for many years and I am continually impressed with their ambition and passion to provide meaningful opportunities to young people and women from disadvantaged and disengaged backgrounds. I have seen this mostly through the apprenticeship programme ISG have built which has created many sustainable long term job opportunities. In recent years ISG have been able to expand the work they do with City Gateway and now provide additional support for our Women's Project and Pre-Apprenticeship Volunteer Programme. ISG is constantly leading by example in CSR and we regularly reference the great work they are doing to our partners. The work ISG is doing is very inspirational and it is a real pleasure partnering with them".

Stephen Brown
Corporate Partnership Manager, City Gateway

THE LORD MAYOR'S 2013 SOCIAL INCLUSION AWARD FINALIST

THE LORD MAYOR'S 2011 SOCIAL INCLUSION AWARD WINNER

BIG TICK 2014 BIG TICK 2013 BIG TICK 2012 BIG TICK 2012



St Mungo's

Combating homelessness and social exclusion
Over the last 3 years, a number of our project teams around London have been supporting the St Mungo's homeless Charity through fundraising, volunteering, pro-bono work and providing employment opportunities.

One team working in Kings Cross have raised over £40,000 for the charity's "Bricks & Mortar" construction skills school by fundraising with cycle rides, mountain climbing, cake sales, ping-pong tournaments and much more.

Recognising that skills development is the first step back into sustained employment, ISG worked closely with the employment team at St Mungo's to offer placement opportunities for their clients on a live construction site. We approached our supply chain to see if there was interest in hiring a graduate from the construction skills school. Two subcontractors, E Poole and EP Ceramics, responded positively and offered initial placements that resulted in permanent employment after the trial period.

EP Ceramics and E Poole met with St Mungo's candidates to show them around the project site and speak with them about the work that they would be doing. This was a great opportunity for the candidates to see what was happening on site and be prepared for what lay ahead if successful.

Two people successfully completed work trials and are now employed with their respective companies. ISG also provided additional training through our internal Academy including and Asbestos Awareness course, adding to their learning and development whilst on site.

"St Mungo's offers people a chance to get back on their feet and as an employer E. Poole are very keen to support their work and offer opportunities where we can. We hope that by joining our team they will get the opportunity to realise their potential and change their life for the better." Steve Lee, Project Manager at E.Poole.

The Prince's Trust (TPT)

As part of our 20:20 Sustainability Strategy, we will be embarking on a partnership with The Prince's Trust around all things Education and Employment, building on what has been achieved across ISG. By partnering with the TPT, we ensure that we get access to those with existing relationships with excluded groups and those that provide holistic support (e.g. pastoral support, access to drug and alcohol / debt counselling etc.). The City of London can therefore have confidence that ISG will continue to provide similar meaningful training opportunities for local unemployed individuals, especially with disadvantaged and hard-to-reach groups.

Construction Youth Trust (CYT)

We also support the Construction Youth Trust (CYT), a charity that targets those facing barriers to entry into the Construction industry. We are already providing work placements for those Not in Education, Employment, or Training (NEETS) from the CYT. This increases individuals' likelihood of securing employment by providing them with experience for their CV, a reference and exposure to network of new contacts in the industry. We have offered 16 pre-employment placements in the past 13 months, 6 of which resulted in the candidate gaining employment as a result of the placement.

Pastoral Support

From our experience, we have learned that it is essential to provide a single point of contact for beneficiaries, whether they be young people on work experience, unemployed people on work experience, new entrants, apprentices, etc. Larene Linley will therefore support recruitment, ensuring that opportunities are made available to the widest group of people. She will get in touch with the beneficiary if they do not arrive in the morning and check on their wellbeing. Larene will establish a discretionary fund in order to pay for items such as breakfast, travel and CSCS cards for beneficiaries if these things become a 'blocker' to their successful progression. Larene will also be the point of contact with the supply chain and the partner organisation, ensuring that we work in a joined-up fashion, providing the fullest support to each individual as and when it is required.

Appendix E

ISG Environmental Management

1.3.11 Environmental management

ISG Construction have been certified to the requirements of ISO14001 Environmental Management Systems since 2003. In March 2017, our certification body; BSI, determined that we met the requirements of the new 2015 version of the standard and we are anticipating the issue of the new certification by the end of April.

The ISG Environmental and Sustainability Policies are reviewed regularly by senior management and are signed by our Chief Executive; Paul Cossell. As part of our business planning process the senior management team determine the aims and direction for the company and from this our 2020 Sustainability Vision was developed which sets clear and ambitious goals which we work towards.

From the 2020 Sustainability Vision, we have developed our processes and procedures in our Company Management System to ensure that we achieve our goals and meet the objectives set by senior management. Our progress is regularly monitored by internal auditing, data gathering and analysis and is reported in our annual sustainability report which is published on our website. As a result of this approach, we are highly experienced in delivering projects that have been recognised for their environmentally conscious and sustainable design and construction. Measures taken include energy and water efficient installations, sustainable sourcing of materials, prevention of waste, use of recycled materials, and maximising diversion of waste from landfill through reuse and recycling initiatives.

As with all our projects, before any works can start a detailed environmental risk evaluation must be carried out. Our 'Environmental Aspects & Impacts' evaluation as part of our Sustainability Management Plan will determine the biggest environmental risks to the project and any options for sustainability improvements. From this evaluation, we can determine what control measures will be needed to mitigate the risks identified.

The control measures will be recorded in a project specific Sustainability Management Plan (SMP) addressing the anticipated environmental aspects and impacts of the works. The SMP also includes the projects sustainability targets as well as roles and responsibilities. It is a working document that is reviewed and updated in line with the programmed works.

ISG implement best practice environmental management on all sites. At The City of London Academy, this will include:

- Noise, Dust and Vibration Management
- Site Hours
- Waste Management
- Energy and Water
- Pollution Prevention
- Air, Water and Land Quality
- Emergency Preparedness and Pollution Incident Control

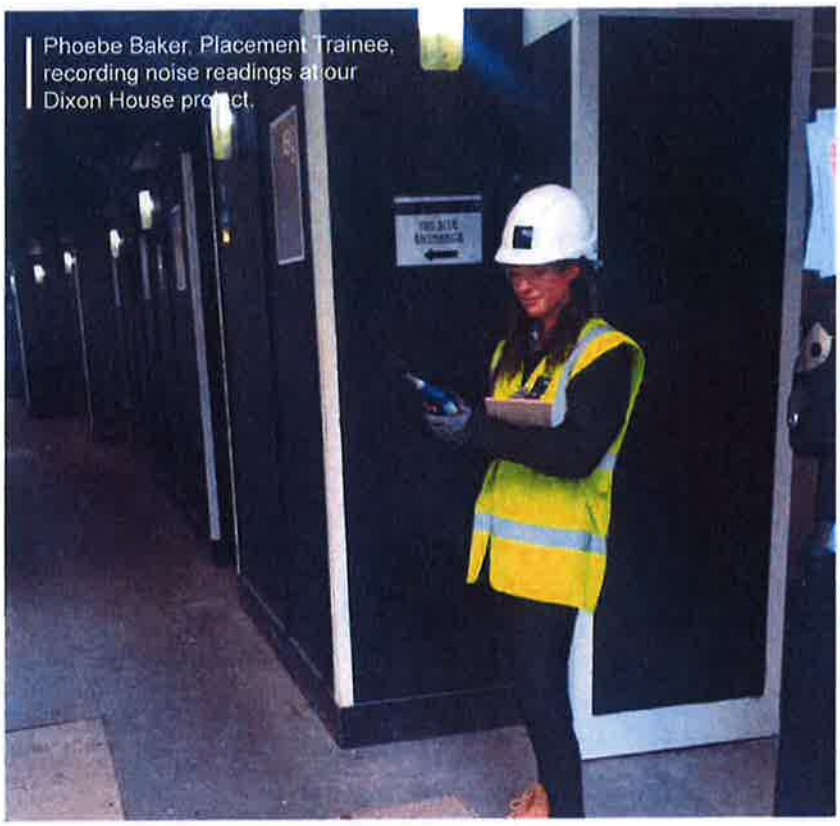
Site personnel

Steven McCarthy will be trained by our noise, dust and vibration consultant Cassella and will be responsible for air quality and relevant controls on site along with monitoring of vehicle emissions. A log of site conditions will be kept as part of the site diary. This will record the results of the dust monitoring regimes for the duration of the project.

Safeguarding air quality

Where dust is likely to result from works being undertaken, adequate damping down and screening will be put in place by the relevant subcontractor. This applies to any stockpiled demolition materials (short term spoil heaps). Screens or barriers will be provided around dust generating activities.

Removal of loose material will be managed to ensure it happens as soon it is practically possible. Hoarding will be cleaned using wet methods to stop the re-emission of dust into the air. The site log book will record date, time, current site activity, weather conditions, vehicle movements and actual dust levels.



Phoebe Baker, Placement Trainee, recording noise readings at our Dixon House project.

Inventory and timetable:

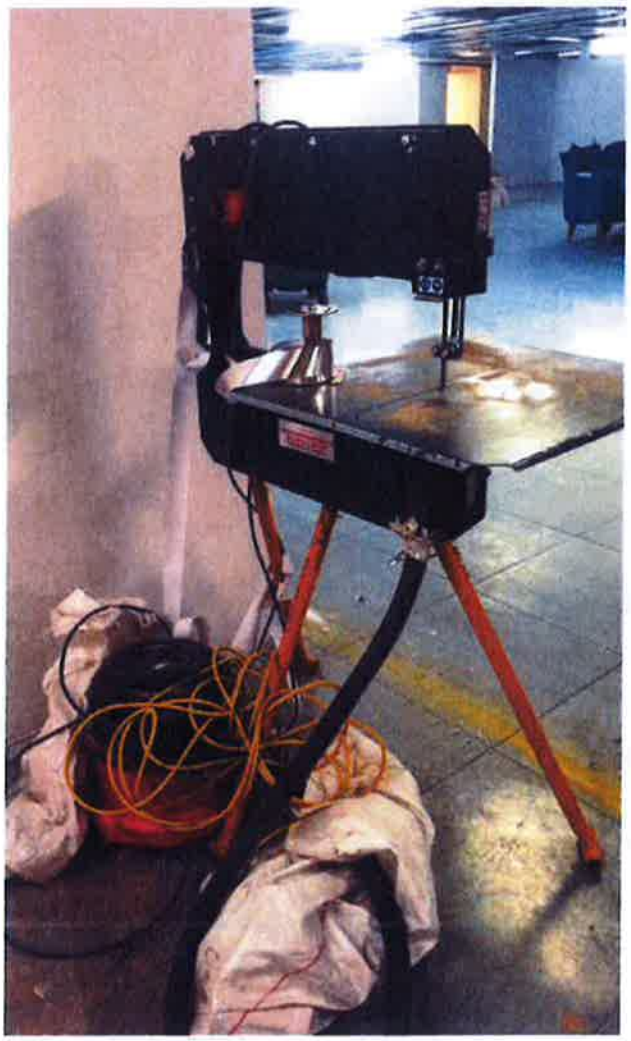
Programmed works	Dust and NOx air pollutant generating activities	Timing	Key controls
Demolition of existing one storey school, community centre and associated buildings	Demolition of existing structures including brick work, timber and glass	5-Oct-17 to 06-Dec-17	■ Damping down at all times from portable demisters and demolition equipment with hydraulic attachments and dust suppression systems ■ Dust monitoring system in place with text message trigger levels set at 150, 250 and 500ug limits ■ Regular inspection and site records. ■ Temporary stockpiles of demolition arisings to be damped down and removed from site as quickly as practicable ■ All NRMM to be compliant with EU Directive 97/68/EC – Stage IIIB, relevant plant to be entered on NRMM register prior to arrival on site
Substructure	Earth movement and piling, operation of NRMM	19-Feb-18 to 25-Apr-18	■ Damping down as and when required ■ Temporary stockpiles of excavation arisings to be damped down and removed from site as quickly as practicable ■ All NRMM to be compliant with EU Directive 97/68/EC – Stage IIIB, relevant plant to be entered on NRMM register prior to arrival on site ■ Suitable and sufficient ply hoarding installed at the site boundary
Superstructure	Concrete works, operation of NRMM	12-Apr-18 to 30-Nov-18	■ All NRMM to be compliant with EU Directive 97/68/EC – Stage IIIB, relevant plant to be entered on NRMM register prior to arrival on site ■ Potential to change the structure for the school from concrete to CLT reducing NRMM requirements
Envelope	Operation of NRMM	4-Jun-18 to 21-Mar-19	As above

Dust and emission control methods

Having assessed the risks associated with the project, the following dust control measures have been identified as necessary for the project:

- Industry wide methods of water suppression, wheel washing and damping down.
- Sufficient water to be provided at all times for effective dust/particulate mitigation
- Monitoring of dust levels with set, text message trigger action levels
- Develop and implement a nuisance communications plan including dust prior to works taking place
- Display the name and contact details for the air quality manager on the boundary
- Display the name and contact details for the MD of the Construction South business
- Record and respond to any air quality complaints
- Maintain a complaints log and make available to the City of London on request
- Carry out regular inspections to monitor compliance with control measures
- Increase inspection frequency when higher risk works are taking place e.g. demolition and earthworks or winds are up
- Fully enclose high dust risk activities
- Remove material from site as soon as possible
- Carry out soiling checks of buildings affected by the site in a 100m radius
- All NRMM to comply with Euro III B standards
- Instigate a 10mph speed limit on route in and out of site
- Implement Green Travel Plan to promote travel via public transport and cycling
- Use appropriate dust suppressant with any cutting tools e.g. water for cutting stone
- Promote reuse of materials and effective recycling
- High specification concrete finish calls for accuracy in casting, avoiding the need for scabbling
- Fine powder material such as cement to be stored carefully to avoid splitting and in appropriate site containers
- Road sweepers are to be used to ensure there is not any build-up of dust on the highway
- No dry sweeping will be a site rule
- Ensure waste vehicles are securely covered before leaving the site
- Implement a wheel washing facility as required
- Effective planning and management processes for dust
- Maintaining the site in a clean condition with regular monitoring and maintenance where required
- Areas of work in progress will be regularly cleared to avoid build-up of waste materials which could lead to dust generation.
- Materials will be removed from site regularly to maintain clean and safe working areas.
- Use of vehicles and plant with low emission levels
- Use of handling methods to minimise dust generation

These control methods are in line with the Mayor's Supplementary Planning Guidance on dust and emissions, Chapter 5 and Appendix 7. An analysis of the sensitivity of the area to dust and soiling effects on people and property will be completed should we successfully tender for this project.



Site log book

The project site diary will contain an air quality log to record details and actions taken in response to incidents or dust-causing episodes and the mitigation measures taken to remedy any harm caused. Records of measures employed to prevent a similar incident recurring will also be maintained in line with the routine site inspection and resolution regime.

Site monitoring

Monitoring Protocols

For the demolition stage and groundworks, dust levels will be monitored via a fixed-point dust monitor and the results automatically logged. Text message trigger levels will be set and will notify both Steven McCarthy and the Senior Construction Manager. Once these packages complete, dust monitoring will continue using a Casella hand held direct reading dust monitor at agreed locations on the boundary adjacent to the nearest receptors. Levels will be recorded on a log with additional environmental information and site activity information. This information will be contained within the site diary and maintained throughout the project.

Alert levels will be as follows:

Reading	Action
150ug	Be aware, take steps to reduce the dust levels
250ug	Take action. Reduce the dust levels by suppressing with water and or by changing the work method being used.
500ug	Stop works and assess. Suppress dust levels with water and change the work method.

Notifications will be made to the City of London if and when levels exceed 250ug and include what steps were taken at the time to reduce the dust levels.

Vehicle and NRMM emissions

Ultra-Low Emissions Zone

More stringent vehicle emissions controls will be put in place from 2020, this is outside the timescale of project completion and hence will not influence the works directly.

Power generation

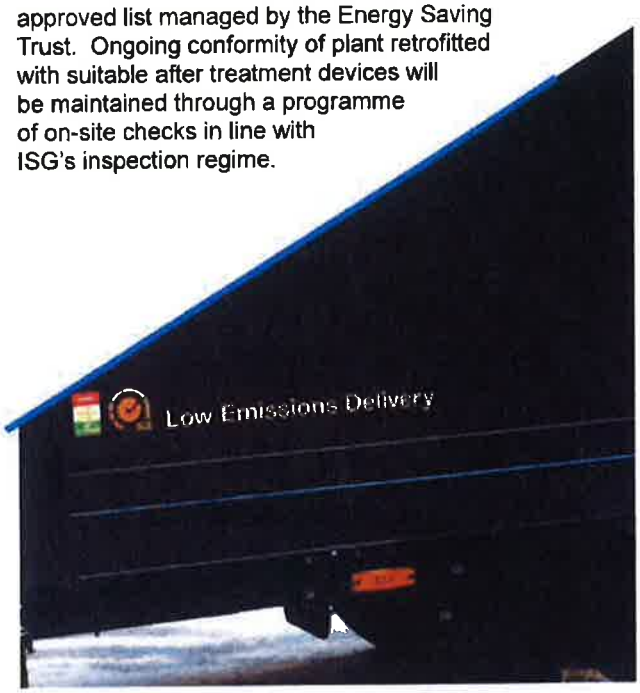
Permanent electrical energy supplies will be used throughout the project.

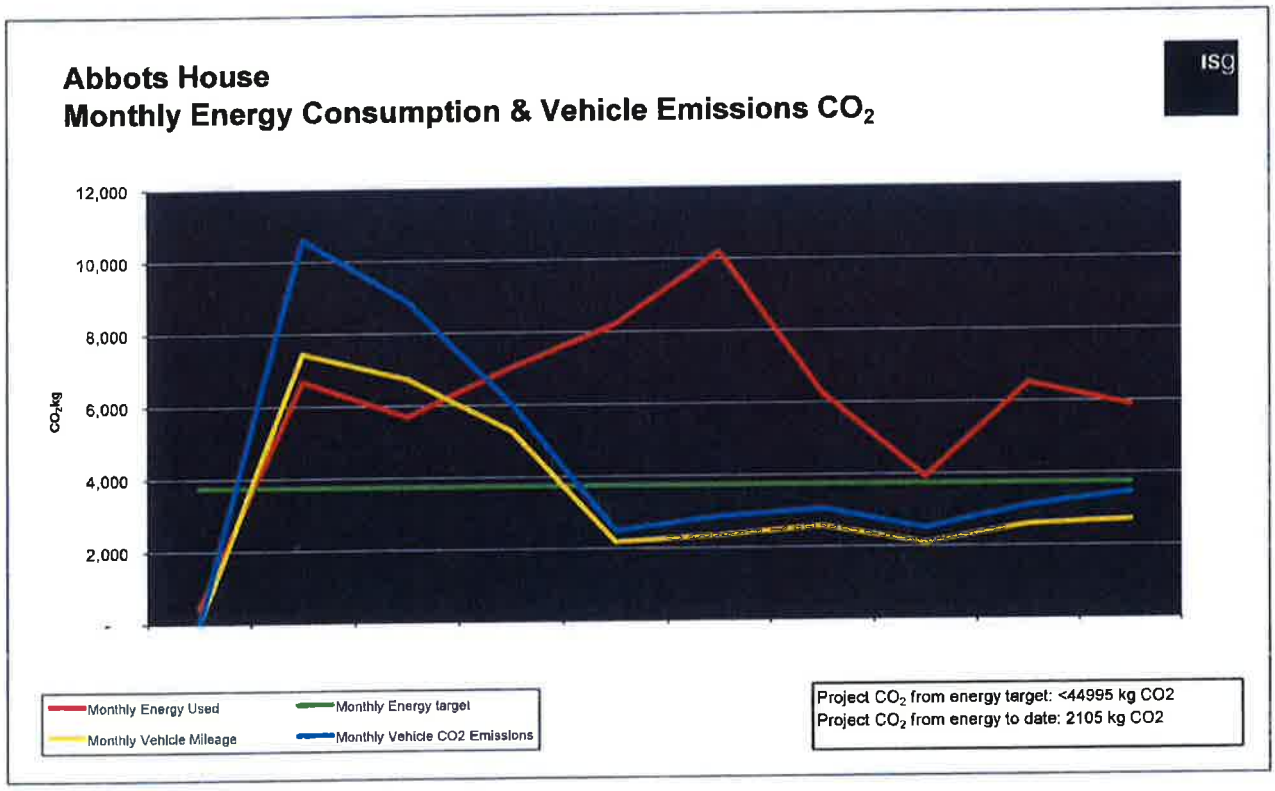
Non-Road Mobile Machinery (NRMM)

All subcontractors will employ the most modern and efficient plant and equipment, e.g. Euro 3B Status or above, to ensure that not only is fuel usage kept to a minimum, but also that particulate emissions are reduced. All Non-Road Mobile Machinery (NRMM) will be registered via the Mayor of London's official website http://nrmm.london/, further to this no NRMM equipment will be permitted on site unless it has been registered on the NRMM database and shown to comply with Stage IIIB emission criteria of Directive 97/68/EC. Regular inspections will be made throughout the project in adherence with ISG's ISO 14001 Environmental Management System. The above requirements will apply to both variable and constant speed engines for both NOx and PM.

Small scale Non-Road Mobile Machinery (NRMM)

NRMM with a power output less than 37kW will be fitted with an after-treatment device (DPF) stated on the approved list managed by the Energy Saving Trust. Ongoing conformity of plant retrofitted with suitable after treatment devices will be maintained through a programme of on-site checks in line with ISG's inspection regime.





Ensure the procurement of sustainable materials

Our approach to the procurement of sustainable materials is guided by our Procurement, Sustainability and Materials policies. Our Procurement Policy details our approach to compliance with the highest ethical standards in accordance with the UN Global Compact and ensures we minimise the environmental impact of our purchasing. ISG is committed to responsibly choosing materials and components to reflect sustainable outcomes in terms of sourcing, content and health and wellbeing.

Through our in depth-experience of delivering both BREEAM Outstanding and LEED Platinum projects, ISG are well versed in understanding the issues surrounding responsible, legal and sustainable selection and procurement of materials. We use the responsible sourcing spreadsheet developed by BuildUK to help choose materials which are BES 6001 certified. We are also proud to have been directly involved in the statements released by the industry regarding procuring products which comply with a recognised responsible sourcing scheme e.g. timber and dimensional stone. We encourage our suppliers to work with us and to improve continuously with respect to our policies and procedures. We recognise that improving our procurement performance is an ongoing process and that our suppliers are important partners in our journey to become more sustainable.

Initiatives we have implemented include the development of a materials sign off sheet that was put together as part of the London Olympic Velodrome project. This sheet was a contractual requirement for all our supply chain to complete prior to bringing any materials to site. This sheet ensured that we had sight of the materials the subcontractors wished to use in advance and we could review and sign off to ensure they met our requirements e.g. responsibly sourced, low VOC's etc. This sheet now forms part of our Company Management System and is being used across all ISG projects.

This sign off sheet is used on all projects to ensure the following:

- Complying with all applicable environmental and health and safety legislation
- Not using any timber from species prohibited under CITES or from illegal sources
- Ensuring the use of timber products from sustainable sources and the use of custody certification schemes such as FSC or PEFC
- Promoting the use of recycled products and materials or those containing a high recycled content e.g. Celsa steel rebar which is 98% recycled content due to Celsa operating an electric arc furnace
- Promoting the use of durable materials and products with increased lifespan e.g. Bolon flooring which could be used as part of the school development
- Encouraging the use of materials with a low embodied energy/carbon impact e.g. Net Effect Interface Carpet Tiles
- Encouraging the use of materials with Environmental Product Declarations e.g. British Gypsum range of products including plasterboard
- Encouraging the use of materials that are CARES or BES 6001 certified. e.g. BES 6001 Plasterboard – Gyproc from British Gypsum and certified CARES rebar from ArcelorMittal Kent Wire Limited
- Encouraging the use of products with a low or zero Ozone Depletion Factor e.g. Rockwool Insulation
- Encouraging the use of products that have low Volatile Organic Compounds (VOC) content e.g. Dow Corning sealants and F-Ball carpet adhesive
- Encouraging the use of products using non-toxic materials. e.g. phenol formaldehyde resin ply wood as opposed to urea formaldehyde resin ply wood
- Sourcing products and materials locally wherever practicable
- Encouraging the reuse of materials to minimise waste e.g. offcuts of plasterboard, returnable packaging for ceiling tiles, pallets, cable drums

Reducing waste as far as possible

ISG was a signatory to WRAP's Halving Waste to landfill Commitment, and our figures show that we reduced waste to landfill by 79% in 2012, from our 2008 baseline figure. Our target was to reduce waste to landfill by 50% before 2012. To have exceeded the target so emphatically is a significant achievement, and we continue to improve.

The primary drivers for managing waste on site are our resource efficiency policy and management procedure as well as our BREEAM compliant Resource Management Plan, managed via Smartwaste. This details all requirements for the management of waste on our projects and in our offices, including the legal, duty of care and best practice elements. The waste management process is subject to audit as part of our audit programme.

On site, we manage waste according to the waste hierarchy. We design out waste by hosting workshops with the design team and specialist subcontractors. These workshops incorporate the results of BIM clash detection where relevant, and will review the use off-site fabrication by building on our experience with organisations such as Buildoffsite. Options we are looking to implement for offsite manufacture at the City of London Academy include:

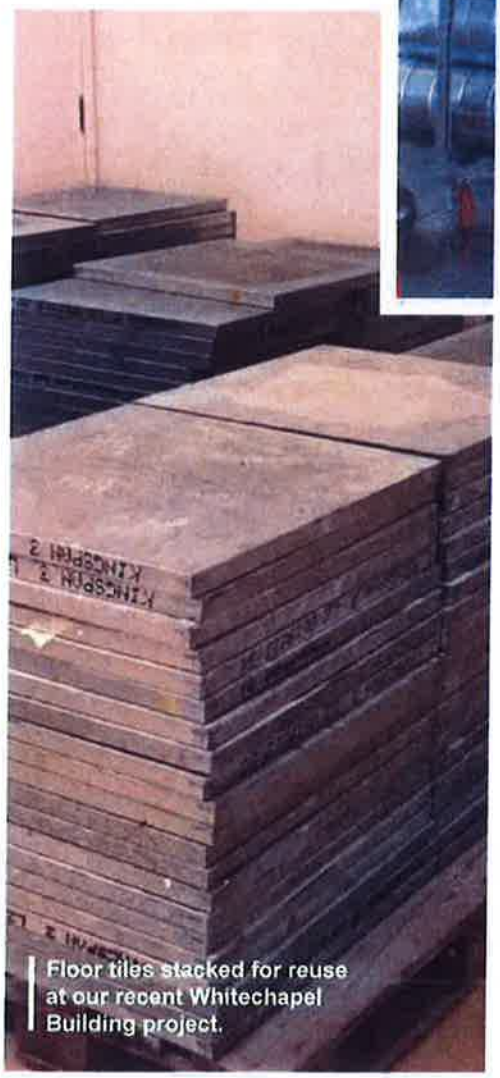
- Pre-cast stairs
- Pre-cast service risers
- GRC brick panels
- Bathroom pods for the residential block
- Balconies for the residential block
- Curtain walling
- CLT/Glulam frame for the school hall
- Elements of the mechanical and electrical installation

Outcomes of these options and the designing out waste workshops are then tracked through our Resource Management Plan.

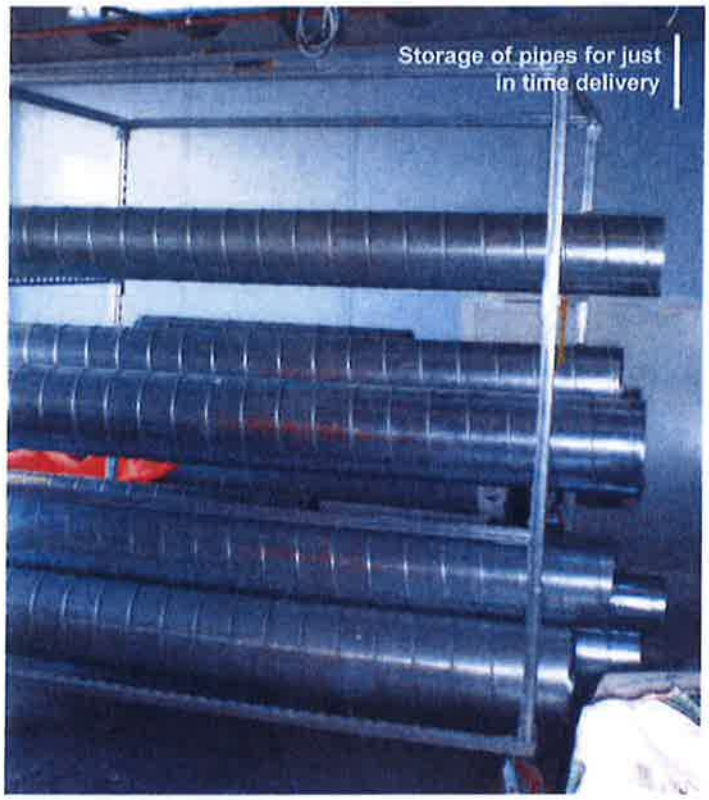
In line with project specific requirements, we will collect waste data monthly as well as maintaining a register of all waste transfer records for the site. We work with our supply chain to ensure that they do not over order materials and can return packaging for reuse as well as reusing any suitable packaging for the protection of finished works. To prevent damage and unnecessary rework we will ensure the completed works are adequately protected and create an environment of respect for other people's work. Programming and sign off procedures will also ensure rework is not created by having to revisit areas. Any opportunities for reuse of off cuts such as plasterboard and materials for supplier take back such as pallets will be identified and implemented where feasible.

We aim where possible to maximise segregation on site, where site constraints allow. Given the tight nature of this particular project, segregation may be limited. We will focus our efforts on the biggest waste streams such as metal, inert, timber, plasterboard, packaging and general waste. These waste streams will then be taken to a Materials Recovery Facility (MRF) for further segregation and recycling. We regularly engage with Community Wood Recycling to take timber off-cuts in order that waste is kept to a minimum. Other waste reduction techniques we will look to adopt include the use of a baler to reduce the volume of packaging waste and a degassing unit to reduce hazardous waste from pressurised cans.

On all our projects, we have a minimum diversion of waste from landfill target of 90%, however for this project, we will set ourselves a stretch target of 95% diversion from landfill to gain the exemplary credit in BREEAM and therefore an extra 1% towards the Excellent rating.



Floor tiles stacked for reuse at our recent Whitechapel Building project.



Our Head of Sustainability, Peter Kelly, chairs the Chartered Institute of Waste Management Construction and Demolition Waste Forum and is therefore on hand to provide expert advice as and when required.

At a recent project in London, over 100 tonnes of waste were mitigated from the project. We worked with our client, the architects, and our supply chain to minimise waste production by:

Reduction

- We worked with the supply chain to mitigate packaging requirements for light fittings, carpet and flooring deliveries, and furniture. In some instances, bespoke crates and specialised covers were developed for reuse by the suppliers.

Reuse

- Strip out materials and furniture were donated to local charities
- Site office set up materials such as doors were reused from previous projects and taken to subsequent projects after completion
- Our drylining contractor pre-cut materials and scheduled works to reuse off-cuts in the 1st – fix patressing of internal walls and subsequently used whole panels for the final finish. This reduced their potential waste by 75%

Minimise energy use

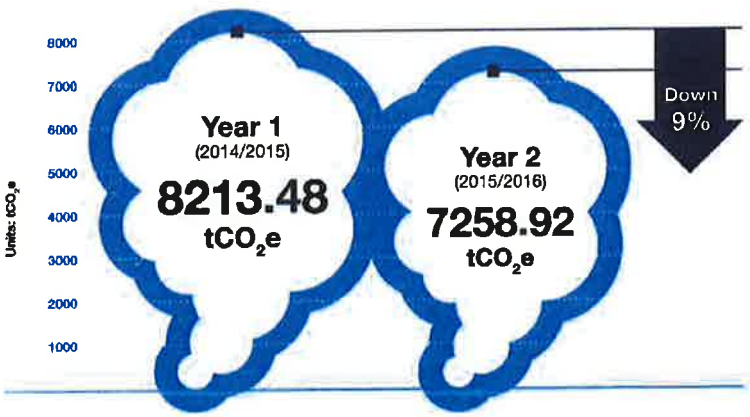
We are committed to ensuring we minimise our energy use wherever possible and have just obtained external verification of our Greenhouse Gas emission data showing an impressive 28% reduction in our emissions since our 2014-15 baseline year! This week we have officially enrolled in the Science-Based Target initiative and we now appear in the global list of Companies Taking Action.

We believe in reducing our carbon impact by managing our direct and indirect emissions. During The City of London Academy project, we will work to reduce carbon emissions by:

- Ensuring energy supplies are from mains electricity at all times
- Procuring green energy for the project
- Procuring energy through our Energy Manager, Daniel Saunders who ensures that the right supply size is procured
- Sub-metering welfare facilities from site activities, crane use etc so energy can be monitored accurately
- Specification of A rated energy efficient site cabins with PIRs, timers on all heaters and door closers / draft exclusion on external doors
- Installing low voltage, LED temporary site and hoarding lighting
- Installing non-essential electricity on a circuit that can be switched off when not in use
- Implementing a green travel guide to encourage the use of public transport
- Plant and equipment will be powered by mains electricity in preference to petrol or diesel engine
- All plant and equipment will be maintained in good and efficient working order
- Non-road mobile machinery (NRMM) will be registered on the NRMM portal, use ultra-low sulphur tax-exempt diesel and be fitted with appropriate exhaust after-treatment such as catalysts, diesel particulate filters as stated on the approved list managed by the Energy Saving Trust
- Maintaining a strict, just-in-time delivery schedule to minimise vehicle movements and pollution
- Procuring locally both directly and through our supply chain to reduce distance travelled to site by deliveries
- Setting targets for both electricity consumption and fuel use in-line with previous performance on schemes of similar size and complexity and reporting against them on a monthly basis
- Creating a high visibility carbon reduction campaign on the project with a site energy champion

We will be monitoring the carbon footprint of the project through temporary electric usage on the construction floors and vehicle and operative journeys to site. A graph detailing monthly consumption against targets will be produced and displayed on site in compliance with the CCS and the BREEAM Construction Impacts credit.

ISG global greenhouse gas emissions



For a detailed breakdown of these emissions including a verification report, please visit **www.isgplc.com/en/who-we-are/sustainability**

Pollution prevention

As part of our Target Zero initiative we will aim to have zero environmental incidents on this project. It is a priority to ensure that our projects minimise negative environmental impacts through pollution prevention. Based on our site specific environmental risk evaluation, we will instigate a range of control measures to mitigate the risk of pollution to ground water, land and air.

These measures include a range of controls such as

- Works carried out in accordance with our ISO 14001 certified Environmental Management System
- Spill kits, drip trays and plant nappies
- Securely bunded storage areas / compounds
- Damping down of dusty activities
- Protection of drains
- Wheel wash if necessary
- Concrete washout control will be implemented
- Trees will be protected at all times and subject to daily inspection
- Regular maintenance and checks of all plant and hydraulic systems
- Maintaining the site in a clean and tidy condition
- All waste vehicles will be properly covered when leaving site
- Works carried out in accordance with BS 5228-1:2009, BS 5228-2:2009 and with guidance document "The Control of Dust and Emissions during Construction and Demolition"

All prevention methods are included within the Sustainability Management Plan and are communicated to our staff via our environmental training and to our suppliers via the onsite induction meetings, toolbox talks and daily activity briefings.

We are also members of the Supply Chain Sustainability School which is a multi, award winning initiative by the industry with more than 6,000 supply chain members receiving free practical support in the form of e-learning modules, tailored sustainability self-assessments, targeted action plans and sustainability training. Modules include environmental management, energy and carbon, sustainable construction, responsible sourcing of materials and waste management. We will endeavour to either procure members of our supply chain already engaged with the school, or encourage through our contracts participation for those that are not.

ISG is also part of the continuous improvement group for the school which ensures that new modules are added and the existing updated. This initiative is also a valuable source of information on local suppliers and subcontractors in an area we are potentially looking to work.

ISG operates an ISO 14001 certified management system which will ensure that the best practical means will be employed at all times to reduce the likelihood of an environmental emergency. Our Environmental Incident Response Plan is implemented on all our projects and is subject to regular inspection by the site and sustainability teams and audit by our compliance team. Non-conformances will be raised to both subcontractors and the site team by the ISG Compliance Manager, Simon Attwood should any failings be identified.

Any near miss, minor or major incident is reported monthly via the Sustainability Management Report and discussed at the HSQ&E 4 Weekly Meeting where any preventive actions will be discussed and approved. Where necessary, a group wide Environmental Alert is issued detailing the nature of the incident, mitigation measures, any clean up actions, measures to prevent recurrence and the outcome of a review of our procedures to update where necessary.

We have a national agreement with Cleansing Services Group who will respond at short notice, 24 hours a day to a request from any of our sites to help deal with a pollution incident.

Spill kit station

Dealing with complaints and compliments

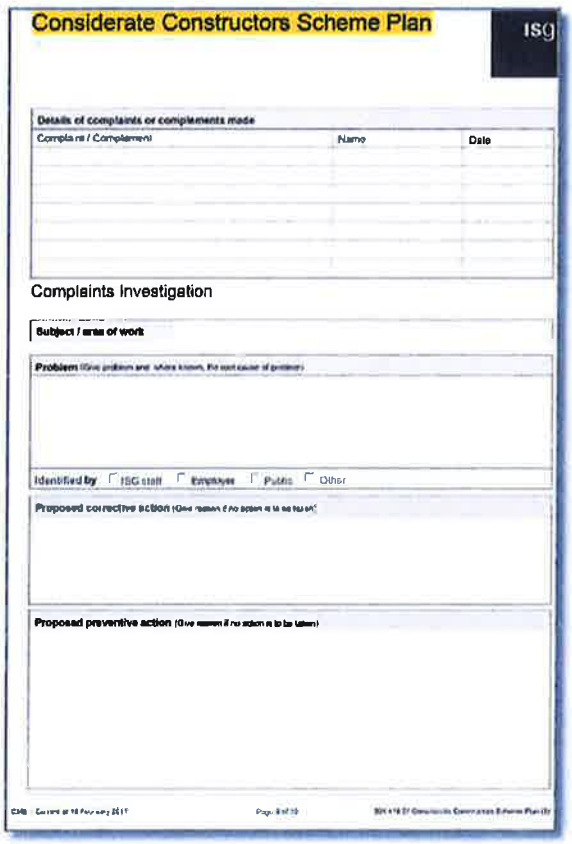
ISG are adept at working in sensitive areas and we recognise that strong, proactive stakeholder and neighbour relations are crucial as we aim to make the impact of construction as positive as possible to the local community. Larene Linley will be our nominated liaison manager and will act as the single point of contact for community and public relations throughout the duration of the project. Larene will be fully supported by Steven McCarthy and the rest of the construction team.

By being a proactive contractor, our experience has shown that this helps to reduce complaints and fosters an ethos of feedback and dialogue to ensure that our presence in the Golden Lane community is beneficial. We will keep local people informed of planned works and mitigate any negative impacts as far as possible. This includes:

- Instigation of meetings with the local residents group at first on a weekly basis followed by monthly once our strategy is in place.
- Project newsletter to neighbours and local residents and businesses containing our contact details and regular updates on progress, particularly stages of the project that may be a cause for concern such as the demolition and piling.
- Project website/notice board to keep project and community stakeholders informed of project progress as well as community engagement opportunities.
- 24 hours' email address and telephone helpline

The City of London Academy project will be registered under the Considerate Constructors Scheme. Forming part of this is a rigorous Compliments/Comments/ Complaints process which we follow.

We will provide a hotline number for the project so that people affected by an issue arising from our activities can quickly contact us and we can resolve as efficiently and effectively as possible. Corrective and preventative actions will be implemented where relevant and we will maintain a complaints and compliments register which documents these activities and helps us to avoid a recurrence of the issue either on this project or other ISG projects.


Considerate Constructors Scheme Plan

ISG

Details of complaints or compliments made

Complaint / Compliment | Name | Date

Complaints Investigation

Subject / area of work

Problem

Identified by ☐ ISG staff ☐ Employee ☐ Public ☐ Other

Proposed corrective action

Proposed preventive action

Steven McCarthy will be responsible for ensuring that the complaint is fully investigated to establish its validity. Steven is also responsible for ensuring that corrective action is taken to the satisfaction of the complaint. Once Steven is satisfied that the complaint is satisfactorily closed out, the details are recorded. An analysis of the complaints received during the month are discussed at the HSQ&E 4 Weekly Meeting where any preventive action requirements will be discussed and approved.

Appendix F

ISG Traffic Management plan

Site Traffic Management and Plan

Project name	**City of London Primary Academy Islington**
Project number	LOC 0053
Original issue date	09-05-2018
Revised date	-
Revised date	-
Revised date	-

Contents

Site Traffic Management and Plan

18. Additional information

19. Traffic management risk assessment

20. Traffic management diagram

1. Introduction	Yes	No

This site traffic management assessment and plan has been developed so that operations on company sites may continue without risk of personal injury, damage to plant / vehicles and property etc. The control measures identified in the assessment / plan should be effectively implemented, monitored and reviewed. Any alteration to working practices must be evaluated and incorporated into the assessment / plan and the review date recorded.

Regulation 27 Traffic routes

1) A construction site must be organised in such a way that, so far as is reasonably practicable, pedestrians and vehicles can move without risks to health or safety.
2) Traffic routes must be suitable for the persons or vehicles using them, sufficient in number, in suitable positions and of sufficient size.
3) A traffic route does not satisfy paragraph (2) unless suitable and sufficient steps are taken to ensure that –
   a) Pedestrians or vehicles may use it without causing danger to the health or safety of persons near it;
   b) Any door or gate for pedestrians which leads onto a traffic route is sufficiently separated from that traffic route to enable pedestrians to see any approaching vehicle or plant from a place of safety;
   c) There is sufficient separation between vehicles and pedestrians to ensure safety or, where this is not reasonable practicable –
      i) Other means for the protection of pedestrians are provided, and
      ii) Effective arrangements are used for warning, any person liable to be crushed or trapped by any vehicle of its approach.
   d) Any loading bay has at least one exit for the exclusive use of pedestrians; and
   e) Where it is unsafe for pedestrians to use a gate intended primarily for vehicles, at least one door for pedestrians is provided in the immediate vicinity of the gate, is clearly marked and is kept free from obstruction.
4) Each traffic route must be –
   a) Indicated by suitable signs where necessary for reasons of health and safety;
   b) Regularly checked; and
   c) Properly maintained.
5) No vehicle is to be driven on a traffic route unless, so far as is reasonably practicable, that the traffic route is free from obstruction and permits sufficient clearance.

Once complete this assessment / plan should be brought to the attention of those concerned and a copy readily displayed on site.

2. Management	Yes	No
Has the traffic management risk assessment been completed to the rear of this document?	☑	☐
Is the site wholly owned / operated by the Company? If not, are there clear boundaries between operations? If not, what control measures have been implemented? All persons driving/operating plant on site will be trained and will drive in accordance with site rules regarding speed and load* security and capacity.	☑	☐

Site Traffic Management and Plan

List of control measures
N/A Site wholly owned / operated by ISG

3. Proximity Hazards	Yes	No
Are there any overhead electric powers lines present on the site?	☐	☑
Details N/A		
Are there any underground services present on site? If yes, are they effectively demarcated so as to prevent damage? If not, what controls are in place to prevent accidental contact? All areas of excavation will be scanned in accordance with safe system of work 'avoidance of danger from underground electricity cables, using the cable avoidance tool'	☐	☑
Are there any other proximity hazards and considerations on site such as water courses, railway lines, schools, community centres, residential areas etc. likely to affect or be affected by site traffic? If yes, what are they and what control measures are in place? **Mobile Plant and Site Traffic will not exceed 10 MPH whilst travelling around residential / pedestrian areas.**	☑	☐
Details All services to be cut off at boundary of site.		
Are there any restrictions on plant / vehicle movements due to nearby schools etc.	☐	☑
Details The site is set in a residential area with a school nearby. No plant will be required to move onto the public highways.		

4. Plant / vehicles operating on public highways	Yes	No
Are there any overhead electrical power lines on site? If yes please provide details of control in place and consultation with service provider.	☐	☑
Details (refer to section 3) N/A		
Are plant / vehicles wholly owned / operated by company employees?	☐	☑
All operators who operate plant / vehicles on a public highway must have a valid driving license in addition to a valid CPCS operator's card or equivalent.	☑	☐
If plant is operating outside of day light hour's plant must be fitted with suitable lights in accordance with the Road Vehicles Lighting Regulations 1989.	☑	☐
Plant / vehicles operating on adopted roads must be operated in accordance with the Road Traffic Act 1988.	☑	☐

5. Site plant/ vehicles	Yes	No
Is there a planned maintenance procedure in place?	☑	☐
Records to be kept on site	☐	☐
Are plant vehicles inspected daily and defects reported?	☑	☐
Is CCTV fitted to all required plant? 1 meter high 1 meter length all round vision required	☐	☑

Are vehicles fitted with effective mirrors?	☑	☐
Are vehicles fitted with reversing bleeper's and flashing beacons?	☑	☐
Are risk assessments and method statements available for specific site operations?	☑	☐
Are all plant operatives trained and authorised?	☑	☐

6. Personnel and pedestrians	**Yes**	**No**
All employees, contractors and visitors are required to wear high visibility clothing i.e. vests or coats.	☑	☐
Have banksmen been deployed on site? If yes, have the banksmen been issued with information, instruction and training?	☑	☐
Provide details All site banksmen to be trained and records kept of competence on site.		

7. Site travelling routes	**Yes**	**No**
Are travelling routes clearly demarcated?	☑	☐
Does the site have a one-way system?	☐	☑
Does the site have passing points?	☑	☐
Is there a maximum speed limit in place and signs indicating such?	☑	☐
Are there effective earth bunds in place? N.B. earth bunds must be 1.5m	☐	☑
Are travelling routes on a reasonable gradient?	☑	☐
Are there any blind corners, which cannot be eliminated?	☐	☑
Site travelling routes see section 18 of this document		

8. Tipping areas	**Yes**	**No**
Does the site have designated tipping areas?	☑	☐
If yes, are tipping areas provided with suitable turning areas?	☑	☐

9. Terrain	**Yes**	**No**
Does the terrain represent any abnormal risks of plant / vehicle overturning or other hazard associated with working on gradients?	☐	☑
N/A		

10. Site parking	**Yes**	**No**
Does the site have a designated parking area for employees and visitors? If not, what parking arrangements are in place? All site staff will be asked to park on the local public highway	☐	☑
No parking is permitted on site. All visitors and operatives are to use local public car parks.		

Site Traffic Management and Plan

11. Training	Yes	No
Only trained and authorised operatives are permitted to operate site plant and vehicles.	☑	☐

12. Compound area	Yes	No
Is there a designated compound area with a designated pedestrian area?	☑	☐

13. Public highways	Yes	No
Does the work entail working on adopted highways as defined in the New Roads and Street works Act?	☐	☑
Yes, have the control measures, detailed in chapter 8, been implemented	☐	☑
N/A		

14. Road clearance	Yes	No
Are road clearance operations required and in place? Road sweeper?	☑	☐
Are there any other requirements for road clearance on this site?	☑	☐
Wheel wash facilities to be employed on site and regular boundary inspections to take place and labour used to clear up surrounding pavements areas.		

15. Material delivery, storage and collection	Yes	No
Has the safe system of work / site rules for delivery drivers been issued to all drivers?	☑	☐
Are there any restrictions on deliveries or collections?	☑	☐
Is there a designated storage area for materials?	☑	☐
Is there a clear and safe route to the designated area?	☑	☐
All drivers are required to wear 5 points of PPE including high visibility clothing whilst out of the vehicle cab.	☑	☐
Is there a requirement for an offsite compound	☐	☑
Is there a requirement for an offsite holding area for delivery drivers	☐	☑
Include details of any holding areas, off site compounds, information provided to the supply chain, directions, etc. Site logistics plans attached to document.		

16. Monitoring and control	Yes	No
This is the responsibility of the project manager / site manager / general foreman and visiting health and safety advisor(s).	☑	☐

Site Traffic Management and Plan

19. Traffic Management risk assessment			
Project name	**CoLPAI**	**Project no**	**LOC 0053**
Risk assessment no	**01**	**Person conducting assessment**	**S McC**
Supervisor	**TBC**	**Date**	**09-05-2018**
Location	**99 Golden lane London**		
Notes 1. Control measures are to ensure that residual risks are reduced to a minimum. Where controls fail to reduce from high refer assessment to your line manager. 2. If the operations are likely to affect the public or the safe operation of a public transport system, the control measures must reduce the likelihood of significant harm to the level that existed before our work commenced.			
Impact - Uncontrolled runoff with high suspended solid load and/or contamination			

Risk rating: H = High, M = Medium, L = Low

Site Traffic Management and Plan

Hazard	Persons in danger	Harmful consequences	Risk rating	Control measures	Residual risk
Vehicular / Pedestrian Movements - consideration must be given to the following:				Ensure a Site Traffic Assessment and Plan is completed.	
Unauthorised operators / drivers.	Operatives / General Public / Site Visitors etc.	Personal injury, possible death. Damage to plant / vehicles.	**H**	▪ Only trained and authorised operatives to operate site plant / vehicles (CPCS or equivalent). ▪ Site Management to monitor the use of site plant / vehicles.	**L**
Contact between site plant / vehicles / site user vehicles and pedestrians.	Operatives / General Public / Site Visitors etc.	Personal injury, possible death. Damage to plant / vehicles.	**H**	▪ Ensure a Site Traffic Assessment and Plan is completed. ▪ Only trained and authorised operatives to operate site plant / vehicles (CPCS or equivalent). ▪ Site Management to monitor the use of site plant / vehicles. ▪ Only trained and authorised operatives to operate site plant / vehicles (CPCS or equivalent). Ensure that operatives have a valid driving licence if operating on adopted highway. ▪ Segregate site plant from public vehicles - if this is not practicable then:- ▪ Ensure minimal construction vehicle movements / journeys by good planning / sequencing of work. ▪ Ensure that the route of least inconvenience and most safe is used at all times.	**L**

Hazard	Persons in danger	Harmful consequences	Risk rating	Control measures	Residual risk
				▪ Ensure that pedestrians at work wear high visibility vest coats. ▪ Deploy a banksman whilst depositing or removing materials in the build areas from adopted highways. ▪ Ensure that plant is operated at a safe speed as site conditions permit (e.g. gradient, weather etc.) and does not exceed the specified site speed. ▪ Ensure that site plant has suitable warning devices - flashing beacons, reversing alarms as appropriate. ▪ Ensure that plant / vehicles are maintained to manufacturer's standards. ▪ Erect suitable signage. ▪ Ensure that plant / vehicles operating on adopted highways have the appropriate Road Fund License (Road Tax). ▪ Site Management to monitor the above control measures.	
Terrain – working / travelling on gradients.	Operatives / General Public / Site Visitors etc.	Personal injury, possible death. Damage to plant / vehicles.	**H**	▪ Only trained and authorised operatives to operate site plant / vehicles (CPCS or equivalent). ▪ Ensure that the machine is operated within the safe operating capability of the machine. ▪ ROPs fitted as required.	**L**

Site Traffic Management and Plan

Hazard	Persons in danger	Harmful consequences	Risk rating	Control measures	Residual risk
				▪ Consideration should be given to the travelling surface. ▪ Ensure that the route of least inconvenience and most safe is used at all times. ▪ Ensure that plant is operated at a safe speed as site conditions permit (e.g. gradient, weather etc.) and does not exceed the specified site speed. ▪ Site Management to monitor the above control measures.	
Existing structures / overhead cables etc.	Operatives / General Public / Site Visitors etc.	Personal injury, possible death. Damage to plant / vehicles.	H	▪ Only trained and authorised operatives to operate site plant / vehicles (CPCS or equivalent). ▪ Ensure that structures and overhead services are effectively demarcated and brought to the attention of those concerned. In accordance with GS6. ▪ Ensure that the route of least inconvenience and most safe is used at all times. ▪ Site Management to monitor the above control measures.	L
Material deliveries / storage.	Operatives / General Public / Site Visitors etc.	Personal injury, possible death. Damage to plant / vehicles.	H	▪ Ensure that there is no un-authorised access to any unloading /storage area. - set up an exclusion zone. Provide Banksmen as required. ▪ Limit deliveries to periods of low pedestrian / vehicular traffic.	L

Hazard	Persons in danger	Harmful consequences	Risk rating	Control measures	Residual risk
				▪ Ensure that materials are unloaded / loaded in a safe and controlled manner using the correct plant / equipment. ▪ Ensure that any plant used during this activity is maintained and used in accordance with the manufacturer's instructions and current legislation. ▪ Site Management to monitor the above control measures.	
Compound areas.	Operatives / General Public / Site Visitors etc.	Personal injury, possible death. Damage to plant / vehicles.	**H**	▪ Ensure that consideration is given to the position of compound areas e.g. safe access and egress. ▪ Ensure that the compound is situated safe from structures and overhead services. ▪ Ensure that there is no un-authorised access to compound area. ▪ In the event of un-authorised access ensure that materials, substances are stored in a safe manner to further prevent the risk of injury or damage. ▪ Site Management to monitor the above control measures.	**L**
Road clearance.	Operatives / General Public / Site Visitors etc.	Personal injury, possible death. Damage to plant / vehicles.	**H**	▪ Ensure that roads are kept free from debris. ▪ Ensure road cleaning plant / vehicles are provided with flashing beacons, ▪ Site Management to monitor the above control measures.	**L**

Site Traffic Management and Plan

20. Traffic Management Diagram

Appendix G

ISG Waste Management Plan

Site Waste Management Plan (SWMP)

1. Project Summary

Project Number:	LOC 0053	**Site Address:**
Project Value:	£35,000,000.00	Former Richard Cloundesly School 99 Golden Lane London
Project Start Date:	15/10/2018	
Planned Project Completion Date:	16/01/2021	
Gross internal floor area of project (m^2):		
Description of Works:		
Demolition of Existing School and construction of new school, sports hall and residentail block		

Do the works include demolition?	Select...	**If so will a pre- demolition audit be completed?**	Select...

2. Responsibilities

Position	Company	Responsibility (Change to suit project requirements)
Project / Site Manager	ISG	Implementation of this SWMP including minimisation and segregation of site waste, management of waste transfers and checking WTNs for accuracy and legal compliance etc.
Sustainability/ Environmental Manager/ Advisor	ISG	Advice on the effective implementation of this SWMP and legal compliance

Site Waste Management Plan (SWMP)

ISG

3. Duty Of Care

Waste Type	Waste Management Company	Certificate of Registration (Waste Carriers License) No.	Expiry Date	Destination Facility Address	Destination Facility Waste Management Licence/ Permit No.	Appointed By ISG / Subcontractor
☐ Construction ☐ Demolition ☐ Excavation						Select...
☐ Construction ☐ Demolition ☐ Excavation						Select...
☐ Construction ☐ Demolition ☐ Excavation						Select...
☐ Construction ☐ Demolition ☐ Excavation						Select...
☐ Construction ☐ Demolition ☐ Excavation						Select...
☐ Construction ☐ Demolition ☐ Excavation						Select...
☐ Construction ☐ Demolition ☐ Excavation						Select...
☐ Construction ☐ Demolition ☐ Excavation						Select...
☐ Construction ☐ Demolition ☐ Excavation						Select...
☐ Construction ☐ Demolition ☐ Excavation						Select...

Site Waste Management Plan (SWMP)

4. Waste Minimisation

Decisions taken at pre-construction on waste minimisation, e.g. design decisions, reuse of materials, construction methods, materials selection etc. (including information from client's SWMP where relevant):

Decisions Taken	Action Owner	Intended Result (weight or volume)
e.g. - Client decisions to maintain partitioned areas / floor plans etc. - Client undertakes a pre-redevelopment audit to identify features and materials for reuse		Estimate the weights/volumes based on the amount of waste materials you think will not be wasted as a result of decisions taken.
e.g. - Architect decisions to maintain floor plans or to re-use items within the new scheme. - Change spec for pre-fabricated items (no off-cuts on site)		
e.g. - Tender requirements to re-use or donate to a specified cause, or achieve 100% diversion from landfill which would involve incineration (waste to energy)		
e.g. - Donation of materials to charity - Retention of spares by client etc. - Implementation of pre-redevelopment audit		
e.g. - Reuse of off-cuts. - Supplier take-back schemes for pallets, cable drums, ceiling and carpet off-cuts etc.		

Site Waste Management Plan (SWMP)

5. Project Targets

Every project must set a target for construction and demolition waste.

	Target (Tonnes /100 m2) / (Tonnes /£100K)	Waste Type Targeted	Target	Total Waste Target	What was achieved	Total waste achieved
Target 1:	Tonnes/ £100k	☐ Construction ☑ Demolition ☐ Excavation ☐ Hazardous		0		
Target 2:	Tonnes/ £100k	☑ Construction ☐ Demolition ☐ Excavation ☐ Hazardous		0		
Target 3:	Select...	☐ Construction ☐ Demolition ☐ Excavation ☐ Hazardous				
Target 4:	Select...	☐ Construction ☐ Demolition ☐ Excavation ☐ Hazardous				

Recycling rate / diversion from landfill: (Target to be agreed at prestart meeting – min 95%)

Target 1:	**Diversion from landfil target (%)**	☐ Construction ☐ Demolition ☐ Excavation ☐ Hazardous	**Target**		**Achieved**	
Target 2:	**Diversion from landfil target (%)**	☐ Construction ☐ Demolition ☐ Excavation ☐ Hazardous	**Target**		**Achieved**	
Target 3:	**Diversion from landfil target (%)**	☐ Construction ☐ Demolition ☐ Excavation ☐ Hazardous	**Target**		**Achieved**	
Target 4:	**Diversion from landfil target (%)**	☐ Construction ☐ Demolition ☐ Excavation ☐ Hazardous	**Target**		**Achieved**	

Site Waste Management Plan (SWMP)

6. Waste Forecasts

Waste Material & European Waste Catalogue (EWC) Code	Hazardous Waste	Waste Type	Estimated Quantity (Tonnes)	Waste Management Action			
				% Reused	% Recycled	% Waste to Energy	% Landfill
	Select...	Select...					
	Select...	Select...					
	Select...	Select...					
	Select...	Select...					
	Select...	Select...					
	Select...	Select...					
	Select...	Select...					
	Select...	Select...					
	Select...	Select...					
	Select...	Select...					
	Select...	Select...					
	Select...	Select...					
	Select...	Select...					
	Select...	Select...					
		Target	Total	Estimated	Estimated	Estimated	Estimated
	All Waste		0	0%	0%	0%	0%

Site Waste Management Plan (SWMP)

7. Actual Waste Quantity

Waste Material & European Waste Catalogue (EWC) Code	Hazardous Waste	Waste Type	Actual Quantity (Tonnes)	Waste Management Action			
				% Reused	% Recycled	% Waste to Energy	% Landfill
	Select...	Select...					
	Select...	Select...					
	Select...	Select...					
	Select...	Select...					
	Select...	Select...					
	Select...	Select...					
	Select...	Select...					
	Select...	Select...					
	Select...	Select...					
	Select...	Select...					
	Select...	Select...					
	Select...	Select...					
	Select...	Select...					
		Target	Waste	Estimated - Actual	Estimated - Actual	Estimated - Actual	Estimated - Actual
		All Waste	0	0% - 0%	0% - 0%	0% - 0%	0% - 0%

Site Waste Management Plan (SWMP)

8. Ongoing Review

*This plan must be reviewed regulary and any time significant change occurs

Rev No.	Date	Reviewed By:	Comments/ Change

9. BREEAM

Estimated construction waste tonnes/100m2		Actual construction waste tonnes/100m2:	
Estimated % diversion from landfill for construction waste		Actual % diversion from landfill for construction waste:	
Estimated % diversion from landfill for demolition waste		Actual % diversion from landfill for demolition waste:	

10. Post Completion Review:

Name:		**Date:**	
Total Cost of Skips / Bins: £ obtain this figure from the commercial team		**Difference between estimated and produced**	
Total Waste Estimated (tonnes):		**Total Waste Produced (tonnes):**	
£/ tonne:		**£ per Tonne Saved/ Wasted:**	

Appendix H

ISG Fire Plan

Project Fire Plan, Risk Assessment & Temporary Accommodation / Buildings

Project Name	City of London Primary Academy Islington	**Project №**	LOC 0053
Initial document completed by	S McC	**Date of assessment**	09-05-2018
Responsible Person named for the project			
Print Name	S McC		
Signature		**Date**	09-05-2018

Documents to Reference:
"The 9th edition the Joint Code of Practice";" CDM 2015 Regulations 29, 30, 31 and 32 the protection from fire of construction site and buildings undergoing renovation" and "HSG 168".

Definitions:

Temporary Accommodation(s)
Are areas that are segregated within the building under construction or undergoing refurbishment that may be used as site offices, stores, workshops etc during the course of the works? Part of the structure of the temporary accommodation may be formed by the structure of the building under construction.

Temporary Building(s)
Temporary structures for use on construction sites including pre-fabricated cabins, site huts, cargo containers, caravans, tool stores etc. The structure of the temporary building is independent from the structure of the building under construction. A temporary building may be positioned inside or outside the building under construction

People affected / at risk of being harmed: (tick those at risk at the stage of the project if not pre start risk assessment)

☑ Site Operatives ☑ Visitors to the project ☐ Existing client staff ☐ Persons residing nearby ☐ Night workers ☑ Contractors

☐ Workers in remote areas or lone working ☐ Public in released areas of site

Number of Persons likely to be on site for the period of this assessment: (estimated)

Overall fire risk on the project: at present 20 Lower ☐ Normal ☐ Higher ☐

Risk Level: (***Acceptable / Unacceptable***, further control measures required) please state: **acceptable**

Project Fire Plan, Risk Assessment & Temporary Accommodation / Buildings

To be reviewed on a monthly basis or after significant change;

Reviewed by responsible person (initial)																	
Date reviewed																	

Temporary Accommodation ☐ **or Temporary Building** ☑

Please provide details below and include any specific areas that may affect the fire risk

Issue	Detailed Information
Temporary building Location and fire integrity Please state: Inside or open air	**NB:** In no circumstances should Temporary Buildings be sited within high fire risk structures such as timber frame: Open air
Proximity of other Buildings to site:	**NB:** Where the fire break is less than 6m, temporary building(s) must be constructed of materials that do not significantly contribute to the growth of fire or the propagation of smoke and corrosive or toxic fumes. 2mtrs
Number of building(s) or accommodation:	3
Size of building or accommodation:	TBA
Size of building footprint or accommodation:	TBA
Number of floors:	1
Number of internal stairways (please indicate if these are 'protected'):	0
Number of external stairways(including scaffold):	0
Number of fire exits	TBA

Project Fire Plan, Risk Assessment & Temporary Accommodation / Buildings

Location of Hydrant or Water supply:	

Building / Construction site Particulars **refurbishment** ☐ **New build** ☑ **Other** ☐

Please provide details of the building/site below and include any specific areas that may affect the fire risk

Issue	Detailed Information
Approximate date of construction (refurb only):	N/A
Type of Building	RC frame brick clad
Size of Building:	14 storey Resi 3 storey school single storey sports hall
Size of Site footprint:	80m x 40m
Number of floors including ground floor:	2
Number of floors below ground floor:	0
Materials of Construction of external walls:	brick
Materials of Construction of internal walls:	brick
Materials of Construction of floors:	concrete
Materials of Construction of roof:	Steel & felt
Number of internal stairways (please indicate if these are 'protected'):	1
Number of external stairways(including scaffold):	0
Number of existing Lifts:	0
Number of temporary Lifts:	0
Fire fighting lifts present:	0
Fire fighting shaft:	0
Dry/Wet Rising Main:	0
Locating of Hydrant or Water supply:	Golden Lane

Project Fire Plan, Risk Assessment & Temporary Accommodation / Buildings

Type and number of Temporary Accommodation Units.	2
Proximity of other Buildings to site	15m

Project & Temporary Accommodation / Buildings Fire Risk Assessment

Ref No.	Hazard	Existing control measures in place (italics identifies those not adequately controlled/not in place) NB – None is acceptable for pre-construction assessments	Risk category With controls High Med Low	Further Action Yes / No

1	Sources of Ignition	Control Measures	High	Med	Low	Yes	No
	Electricity	PAT and temporary electric testing	☐	☐	☑	☐	☑
	Hot surfaces	FLT engine covered	☐	☐	☑	☐	☑
	Sparks from cutting and grinding	Hot works permit / fire watcher	☐	☐	☑	☐	☑
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
2	Sources of Fuel	Control Measures	High	Med	Low	Yes	No
	Diesel	Fuel stored outside / FLT checked daily	☐	☐	☑	☐	☑
	Packaging	Remove as it is produced	☐	☐	☑	☐	☑
	Waste timber	Removed as it is produced and stored outside in a designated area	☐	☐	☑	☐	☑
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐

Project & Temporary Accommodation / Buildings Fire Risk Assessment

Ref No.	Hazard	Existing control measures in place (italics identifies those not adequately controlled/not in place) NB – None is acceptable for pre-construction assessments	Risk category With controls High Med Low	Further Action Yes / No

3	Sources of Oxygen	Control Measures	High	Med	Low	Yes	No
	Natural	No controls required	☐	☐	☑	☐	☑
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐

4	Rapid Fire & Smoke Spread through Building	Control Measures	High	Med	Low	Yes	No
	No risk		☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐

Project & Temporary Accommodation / Buildings Fire Risk Assessment

Ref No.	Hazard	Existing control measures in place (italics identifies those not adequately controlled/not in place) NB – None is acceptable for pre-construction assessments	Risk category With controls High Med Low	Further Action Yes / No

5	Fire Spread to Adjacent Properties	Control Measures	High	Med	Low	Yes	No
	Existing building	Fire alarm system of the existing building in place / brick building therefore fire rated	☐	☐	☑	☐	☑
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐

6	Fire Spread to / from Temporary Site Buildings	Control Measures	High	Med	Low	Yes	No
	Site cabins	Fire rated cabins used / fire points provided / fire marshals on site / end of shift checks	☐	☐	☑	☐	☑
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐

Project & Temporary Accommodation / Buildings Fire Risk Assessment

Ref No.	Hazard	Existing control measures in place (italics identifies those not adequately controlled/not in place) NB – None is acceptable for pre-construction assessments	Risk category With controls High	Med	Low	Further Action Yes	No
7	**Persons unaware of fire (failure / no warning systems)**	Control Measures	High	Med	Low	Yes	No
	Failure to escape	**Site alarm system connected to the existing system / induction provided to all persons**	☐	☐	☑	☐	☑
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
8	**Persons cannot escape safely (poor escape routes & exits)**	Control Measures	High	Med	Low	Yes	No
	Blocked escape routes	**Escape routes provided and identified / daily checks carried out**	☐	☐	☑	☐	☑
	Unidentified escape routes	**As above**	☐	☐	☑	☐	☑
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐

Project & Temporary Accommodation / Buildings Fire Risk Assessment

Ref No.	Hazard	Existing control measures in place (italics identifies those not adequately controlled/not in place) NB – None is acceptable for pre-construction assessments	Risk category With controls High	Med	Low	Further Action Yes	No
9	**Persons cannot be accounted for**	Control Measures	High	Med	Low	Yes	No
	Failure to escape from the building	**Signing in place / roll call to be carried out**	☐	☐	☑	☐	☑
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
10	**Fire Grows rapidly (fire-fighting systems)**	Control Measures	High	Med	Low	Yes	No
	Accumulation of flammable waste	**Clean as you go implemented therefore removal of waste as it is produced**	☐	☐	☑	☐	☑
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐

Project & Temporary Accommodation / Buildings Fire Risk Assessment

Ref No.	Hazard	Existing control measures in place (italics identifies those not adequately controlled/not in place) NB – None is acceptable for pre-construction assessments	Risk category With controls High	Med	Low	Further Action Yes	No
11	**Fire Service unaware of Fire**	Control Measures	High	Med	Low	Yes	No
	No means of informing them	**Alarm system connected to the existing building / fire marshals in the existing building and on site**	☐	☐	☑	☐	☑
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
12	**Fire Service unaware of site hazards/risks (lack of information)**	Control Measures	High	Med	Low	Yes	No
	Failure to inform the fire service	**Fire marshal to meet the fire service and provide necessary information**	☐	☐	☑	☐	☑
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐

Project & Temporary Accommodation / Buildings Fire Risk Assessment

Ref No.	Hazard	Existing control measures in place (italics identifies those not adequately controlled/not in place) NB – None is acceptable for pre-construction assessments	Risk category With controls High	Med	Low	Further Action Yes	No
13	**Fire Service cannot gain access**	Control Measures	High	Med	Low	Yes	No
	No risk		☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
14	**Fire-fighting Equipment (location/numbers/type)**	Control Measures	High	Med	Low	Yes	No
	Insufficient number of fire points	**Numbers to be decided in relation to the risk and size of the area / regular recoded checks carried out / daily visual checks completed**	☐	☐	☑	☐	☑
	Unsuitable media for fire risk	**As above**	☐	☐	☑	☐	☑
	Empty / part empty extinguishers	**Weekly recorded fire checks completed / daily visual checks completed**	☐	☐	☑	☐	☑
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐

Project & Temporary Accommodation / Buildings Fire Risk Assessment

Ref No.	Hazard	Existing control measures in place (italics identifies those not adequately controlled/not in place) NB – None is acceptable for pre-construction assessments	Risk category With controls High	Med	Low	Further Action Yes	No
15	**Fire Drills**	Control Measures	High	Med	Low	Yes	No
	Regular fire drills required	**These will be held weekly on site**	☐	☐	☑	☐	☑
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
16	**Assembly Points**	Control Measures	High	Med	Low	Yes	No
	Fire assembly point required for site personnel	**To be highlighted on logistics plans and communicated at site inductions**	☐	☐	☑	☐	☑
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐

Project & Temporary Accommodation / Buildings Fire Risk Assessment

Ref No.	Hazard	Existing control measures in place (italics identifies those not adequately controlled/not in place) NB – None is acceptable for pre-construction assessments	Risk category With controls High	Med	Low	Further Action Yes	No
17	**Alarms**	Control Measures	High	Med	Low	Yes	No
	Fire alarms will be installed to new buildings under construction	**Regular checks required**	☐	☐	☑	☐	☑
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
18	**Heat / Smoke Detection**	Control Measures	High	Med	Low	Yes	No
	Not Required		☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐

Project Fire Risk Assessment & Temporary Accommodation / Buildings

19	Trained Persons	Control Measures	High	Med	Low	Yes	No
	Site personnel to be trained	Records to be monitored and checked and no of trained personnel kept up to date.	☐	☐	☑	☐	☑
	Fire Marshalls		☐	☐	☐	☐	☐
	Fire Extinguisher training		☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
20	**Lighting inc Emergency**	Control Measures	High	Med	Low	Yes	No
	Temporary Lighting to be installed to all new buildings	Regular maintenance required	☐	☐	☑	☐	☑
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
21	**Inspections and Maintenance**	Control Measures	High	Med	Low	Yes	No
	All fire equipment will be checked	Logs and records to be maintained	☐	☐	☐	☑	☑
			☐	☐	☐	☐	☐

Project Fire Risk Assessment & Temporary Accommodation / Buildings

			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
22	**Hot Works**	Control Measures	High	Med	Low	Yes	No
	All hot works will require a permit	**Permits to be issued and sign off and inspection procedure to be implemented.**	☐	☐	☑	☐	☑
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
23	**Fire Resisting Materials / Compartmentation**	Control Measures	High	Med	Low	Yes	No
	Residential Stairs	**Stairs to Residential block to be a fire compartment during construction phase.**	☐	☐	☑	☐	☑
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐
			☐	☐	☐	☐	☐

Appendix I

LBI CoCP

CODE OF PRACTICE FOR CONSTRUCTION SITES

ISLINGTON

CODE OF PRACTICE FOR CONSTRUCTION SITES

CONTENTS

INTRODUCTION

We recognise that demolition and construction are an important part of our borough's development and improvement. However, in improving our working and living environment we must not ignore the effect of construction works on those in the surrounding neighbourhood.

As a result, we have developed this code of practice for the developer, contractors, community groups and commercial users, as guidance on good environmental practice.

We will provide information on the code early on in any planning application process and working to the code may become part of your planning conditions.

We plan to work with the developer and contractors in recognising and tackling the possible effects of construction. These can include air pollution, noise and vibration, traffic congestion, dust and contamination of land and water. By making contractors aware, at an early stage of our code of practice, they can put preventative measures in place from the start.

The code will apply to all types of building work: demolition, site preparation, excavation and tunnelling work, maintenance, construction and fit-outs. There will be some cases though, such as emergency work, where the guidelines in the code cannot be followed. Please contact the relevant council team as soon as possible in these cases. We also recognise that it may not be appropriate to apply the code in full for some smaller developments. In these cases we would expect you to follow the spirit of the code.

It will be the responsibility of the main contractor to make sure all other contractors and workers are aware of and follow the guidance in the code.

LEGAL FRAMEWORK

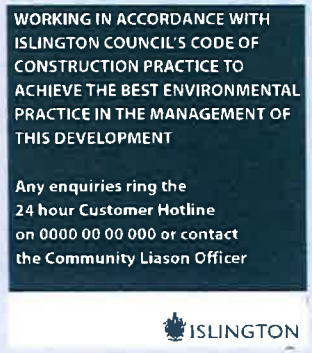
This code is for guidance only. You should contact your own legal adviser if you are not sure of your legal obligations.

Where following the code of construction practice is a condition of your planning permission, any failure to keep to the code could result in us taking legal action. If the guidance is followed we should not need to serve statutory notices. However, if we do need to, we will use all available powers to enforce considerate working.

You may want to apply for prior consent for work on construction sites under section 61 of the Control of Pollution Act 1974. Here the code will help you make a successful application. You should contact the public protection division for advice and an information pack.

In terms of noise and controlling vibration, we expect you to use 'best practicable means' at all times. This means that you will have to use the most practical measures possible to control noise and vibration as defined in section 72 of the Control of Pollution Act 1974. You must also keep to recommendations and good practice as shown in British Standard 5228:1997, Noise and Vibration Control on Construction and Open Sites.

You are responsible for making sure that that all activities keep to all current codes of practice and other relevant documents.



COMMUNITY RELATIONS

If you warn local residents and businesses about activities that are likely to take place on site, it will help reduce their concerns. If you have a point of contact for enquiries or complaints, it shows that you are taking responsibility for your actions and are aware of the surrounding community.

We will ask you to appoint a member of staff to work with the local residents, the business community and us. This liaison officer must be available at all times while the site is in use. You must display, on the site boundary, a contact board. This must include information such as the contractors' names, the name of the liaison officer, and a contact number and address for complaints.

You must also confirm that you are working to the standards shown in this code of practice and any registration to the considerate contractor scheme, if this is relevant. In the case of emergencies, you must also display a 24-hour contact number.

The liaison officer will be responsible for logging complaints and taking appropriate action.

At least two weeks before any work starts, you must send leaflets to the surrounding community, both residential and commercial, about the proposed work. This leaflet will need to include a start and likely finish date, and the contact name and number of the liaison officer. If works are to go beyond our standard working hours and we have agreed to this, you will need to send further leaflets giving details of the changes.

CONSIDERATE CONTRACTORS

We do not have our own considerate contractors scheme but we do encourage contractors to take part in the national scheme. For information on the scheme and how to apply go to considerate constructors at http://www.ccscheme.org.

Hours of working
Sites will be allowed to carry out noisy work
between the hours of: 8am - 6pm Monday to Friday
8am - 1pm Saturdays

Noisy works must not take place outside of these hours (including Sundays or public and bank holidays).
As far as is reasonably practical you must keep to these hours.

We will only consider work outside these hours if it is necessary for access to roads or railway tracks or for reasons of safety and you must negotiate this with us. If you want to do this, please contact the public protection division at least seven days before you need access. You must provide us with details of the works and why you cannot carry it out during the main working hours. You must also give details of the measures you are taking to reduce noise levels, and the predicted noise levels at any specially sensitive buildings such as residential property, hospitals, schools and businesses.

We realise that some activities can take place on site without residents being disturbed. This work may be carried out outside our standard working hours if it does not disturb people at the nearest occupied property to where the work is taking place.

STANDARDS TO PROTECT THE ENVIRONMENT: THE SITE

Temporary Structures

If you have to erect scaffolds, hoardings, gantries and other temporary structures you will need to make an application to the streetworks team, (see useful contacts on page 18). whose details are at the back of this document.

All structures must have a clear path between them at least 1.2 to 1.8m wide. There should be no recesses for people to be able to hide in. All structures must be lit using bulkhead lights at 3m centres with a 110v supply and hoardings must be a minimum of 2.4m high.

No temporary structures should cover utilities covers (such as gas, water or electricity covers) or any street gullies. All gates on the site must open inwards and not onto the highway.

All temporary structures must be kept in a safe and well-maintained condition at all times, and must display an information board with the relevant contact details for the particular site.

We ask you to reuse hoardings in accordance with our sustainability policy
(See page 14).

Cranes

If you need to use a crane or mobile access platform you will need a permit from our streetworks team. The streetworks team need 10 days notice before they can issue approval. If the permit is approved it may require you to work outside normal working hours for traffic reasons. If this is the case then you will need to contact our noise team at least one week before the start of works to get approval to vary the site working hours and inform local residents and businesses.

Road closures

If you require a temporary traffic order for a road closure you will need an application form six weeks prior to the proposed start date. This can be obtained from our streetworks team. As with crane permits you may be requested to work outside normal working hours. You should contact the public protection division at least seven days prior to the date of operation for approval and inform local residents and businesses.

Connections

If you require a new sewer connection you will need a licence from our streetworks team for the works to be carried out.

You may also require new supplies to the site from various utilities, such as gas, water and electricity. The sooner the streetworks team are informed of this information and proposed dates for the connections, the sooner these can be organised and any disruption reduced.

Nuisance

Construction works can cause unnecessary debris on the highway such as mud, spoil, concrete and dust. You must do everything you can to stop this happening. There should be facilities on your site for washing down vehicles, such as wheel washers or jet washers, and you must make sure lorries are covered when they leave the site. You must not wash mud, spoil, concrete and dust into street gullies.

Construction traffic

All vehicle movements to and from your site should be planned and agreed with us in advance and enforced with your contractors and drivers. There are roads designated within Islington for oversized or large vehicles. Vehicles must not park outside the site at any time of the day or night unless specifically agreed. Vehicles must enter the site immediately and are to leave the site in a safe and controlled manner. The area around the site or any road within Islington is not to be used as a "holding" area for deliveries.

There is to be no contractor parking on the highway at any time anywhere within Islington. We may require vehicles associated with the site to display stickers or markings, so they can be easily identified.

There are several lorry bans within Islington; these are areas, which have a 7.5T weight limit. Vehicles on or over this limit can load and unload within these areas but cannot drive through.

There are roads which have specific weight restrictions, due to weak structures, and vehicles over the limits must not go over them there are also height restrictions and again any vehicle over the height must not drive through.

Current restricted areas include

- the area bounded by City Road, Islington High Street, Essex Road, Balls Pond Road and Southgate Road (excluding New North Road)
- the area bounded by Pentonville Road, Islington High Street, Upper Street, Holloway Road, Camden Road and York Way (excluding Caledonian Road and Hillmarton Road)
- the area bounded by Dartmouth Park Hill, Highgate Hill, Holloway Road and Tufnell Park Road (excluding Junction Road)

Further areas are currently under construction or planned for implementation in future years. Developers should contact our council's traffic and engineering safety team for further information. (see useful contacts on page 18).

The following roads have bridges that have gross vehicle weight restrictions.

- Wallace Road
- Highbury Grove
- King Henry's Walk
- Caledonian Road
- Sussex Way
- Wharf Road
- Packington Street
- Wallace Road - Canonbury
- Roman Way N7
- Kingsbury Road
- Clerkenwell Road
- Crouch Hill
- Willow Bridge Road

The above list was correct at the time of publication, however developers should contact the bridges section of the council for up to date information on the current status of any bridges on their planned access route.

Routes for oversized vehicles are listed at Scotland Yard police headquarters.

When works are finished

We expect you to leave the area of highway that has been occupied by your works as you found it. If there is damage to the highway or gullies we will carry out the necessary repairs and you will be charged appropriately.

Air pollution and dust

We have declared the whole borough to be an 'air quality management area' and introduced measures to reduce air pollution levels whenever possible. Construction sites can be a major source of pollution if not managed and controlled properly and we expect all site operators working in Islington to achieve high standards of pollution and dust control.

The Building Research Establishment (BRE) has now published its 'Pollution Control Guides' available from HIS Rapidoc (BRE bookshop) at Willoughby Road, Bracknell, Berks, RG12 8DW (telephone 01344 404 407) or visit website www.brebookshop.com.

It is not possible to reproduce the BRE guide here, but the following points from the guide illustrate the sort of actions that should be considered at the pre-project planning, management, costing and operational stages.

Planning and management

- identifying construction activities likely to cause pollution problems along with methods to minimise them. Environmental risk assessments may need to be prepared for all activities identified as potentially generating pollution discharges, including identifying existing hazardous materials such as asbestos and polychlorinated biphenyl (PCB's)
- specify and select low emissions materials and fuel (low sulphur red diesel is now available) consider regular monitoring for particulate matter where there is a risk of dust affecting your neighbours together with appropriate remedial action

Site preparation, demolition, earthworks and landscaping

- use damping down sprays in dry weather, use wheel washers and regularly sweep around the site
- use screening and hoardings
- cover skips and loaded lorries
- use rubble chutes and handle materials carefully to avoid generating dust
- the use of concrete crushers on site will not generally be sanctioned in the city because of the potential to cause dust and nuisance to neighbours. Any crushing plant agreed will need to be authorised under the Environmental Protection Act 1990. Appropriate measures, such as enclosing the plant and built in water sprays will have to be used at all times

Haulage routes, vehicles and plant

- use the most modern and least polluting mechanical and electrical plant incorporating diesel exhaust particulate filters and oxidation catalysts wherever possible
- use ultra low sulphur gas oil or low sulphur 'red diesel' fuel in all qualifying vehicles and plant
- maintain plant engines and exhaust systems
- site plant exhausts must avoid public areas and air outlets on adjoining buildings
- provide hard standing at site entrance/exits with provision of wheel washing facilities and sweeping when appropriate

Materials handling, storage, stockpiles, spillage and disposal

- use silo or covered storage for cement and other powdered materials
- use sheeting for friable boards and building blocks
- use bundled areas (secure and impervious areas) for diesel fuel or chemicals
- undertake regular site inspection for spillage of cement and other powders
- fabrication processes and internal and external finishes
- cutting materials for building should be carried out offsite whenever possible
- use cutting and drilling plant with water sprays or dust extraction/collection wherever possible
- install screens round cutting areas and use water sprays near rear public areas
- use shears and guillotines where possible to replace disc cutters used on re-bar and decking etc
- carefully site the tar burners and asphalt burners; control their temperature and make sure the boiler lid stays in place whenever it is used
- you must not have bonfires on the site for any purpose
- make sure all equipment is properly maintained and switched off when not in use to reduce fumes.
- do not over rev equipment and vehicles when in use
- you must take precautions to control fumes from stored fuel oils
- consider carrying out regular monitoring where there is evidence of fumes and dust becoming airborne. Have contingency plans in place in cases of accidental release

For further information about air quality please contact our pollution team.

CONTAMINATED LAND

PPS23, 'Planning Policy and Guidance: Planning and Pollution Control' (June 2004) highlights the need to be aware of land contamination issues when considering planning applications. If you believe land may be contaminated, you are responsible for investigating the land to see what measures are needed to make sure it is safe and suitable for the purpose proposed.

In these cases it is your responsibility to prove to us that you have carried out a thorough risk assessment associated with land contamination. These assessments should be based on 'the suitable for use' approach and identify 'pollutant links'. This includes deciding where sources of contamination may be and identifying any risks to people, animals, plants or buildings on a site-by-site basis. You should carry out any investigation in consultation with our pollution team (see useful contacts on page 18). You should make recommendations based on this risk assessment and give them to us. If you believe work is necessary to deal with the contamination you should send us a full remediation statement for our approval.

Below we have listed some of the appropriate guidance:

- Construction Industry Research and Information Association, Remedial Treatment for Contaminated Land, volume 111 (Investigation and Assessment), Special Publication 103, CIRA (London), 1995
- British Standards Institution BS5930: 1999 Code of Practice for Site Investigation, BSI (London)
- British Standards Institution BS10175: 2001 Investigation of Potentially Contaminated Sites, Code of Practice, BSI (London)
- Department for Environment, Food and Rural Affairs and the Environment Agency. (2002) The Contaminated Land Reports: CLR 7-10. DEFRA 2002

WASTE DISPOSAL AND THE 'DUTY OF CARE'

In some cases the measure you take may involve digging up and disposing of soil. It is important that you get a licence for this activity. Section 34 of the Environmental Protection Act 1990 places a 'duty of care' on all those involved in dealing with waste, from creating it to disposing of it.

You must dispose of the material to an appropriately licensed or exempt waste-management site. You can get details about appropriate licensed sites from the Environment Agency (see useful contacts on page 18).

The requirements of the Waste Management Licence Regulations 1994 and associated code of practice mean that you must describe the waste in enough detail to make sure it is managed correctly.

Asbestos

Contractors are expected to carry out risk assessments for the works that they are to undertake. These should consider the presence of asbestos and the associated level of risk, together with the development of safe working practices.

A licensed asbestos-removal contractor should carry out work involving treating or removing asbestos products. You must keep to current statutory requirements and Health and Safety Executive (HSE) approved codes of practice and guidance.

A licensed contractor must deal with asbestos waste in line with Environment Agency requirements.

The following legislation applies.

- The Control of Pollution (Special waste) Regulations 1996
- Health and Safety at Work Act 1974
- The Asbestos Licensing Regulations 1983 and amendments

Noise

You may want to apply for 'prior consent for work on construction sites' under section 61 of the Control of Pollution Act 1974. Here the code will be most helpful in making a successful application. You should contact the public protection division for advice and an information pack (see useful contacts on page 18).

British Standard 5228 gives guidance on calculating noise levels from construction works and assessing the likely affects it will have on neighbouring residential premises; in particular if it is likely to generate complaints. We expect all contractors working onsite to keep to the guidance in British Standards 5228 (Parts 1, 2 and 4). This means that you will have to use the most practical measures possible to control noise, vibration and dust.

We do not have a noise standard for the borough; instead, we offer the following as a guide.

When you are planning your construction work you should carry out a background noise survey before work begins on the site. This should identify surrounding residential properties and the nearest property where construction noise could cause a problem. Average noise levels should be measured over 1 hour and 10 hours between 8am and 6pm.

If the predicted values are higher than the measured corresponding background values by 5dB(A) or less, you can consider that the effect of construction noise will not be significant.

If the predicted values are higher than the measured corresponding background values by between 5dB(A) and 10dB(A), you can consider the effect of the construction noise as acceptable, but you should still try to reduce it.

If the predicted values are higher than 10dB(A) above background, the effect is significant and you must review the equipment and methods you are using.

Vibration
With vibration, we have adopted the following levels in terms of temporary or short- term effects. We measure these as peak particle velocity (PPV).

To protect occupants, users and building structures from harm and damage, the following levels of vibration from all sources, during demolition and construction are not to be exceeded.

- 3mm/s PPV (3 millimetres per second peak particle velocity) for residential accommodation, listed buildings, offices in A2 use and those properties in a poor state of repair
- 5 PPV (millimetres per second peak particle velocity) for non-vibration-sensitive buildings

More stringent criteria maybe necessary for commercial premises that are vibration sensitive, use such as hospitals, photographic studios and educational premises.

If construction vibration is likely to be continuous, it may be a better idea to set limits in terms of vibration dose value (VDV). Guidance can be found in British Standard 6472: 1992 'Evaluation of human exposure to vibration in buildings (1Hz to 80 Hz)'.

Below, we have given some examples of methods to reduce, as far as possible, noise and vibration created by construction work. You can get more guidance from British Standard 5228:1997.

You should choose machinery, which has the quietest noise output available for the activity you are carrying out. If the activity is going to be noisy, you should consider other methods of working. You must make sure that people working onsite are not exposed to noise levels higher then those stated in the Noise at Work Regulations 1989.

Machinery and vehicles must be fitted with effective silencers wherever available, and kept in good working order. You should keep acoustic covers closed while they are being used. Equipment must be operated so it produces as little noise as possible. You must shutdown equipment when it is not in use.

Machinery must be based as far away from noise-sensitive properties as reasonably possible. You should also use barriers and enclosures if any activities are likely to be noisy at sensitive premises. You can find advice for constructing these structures in British Standard 5228 part 1 1997 (Appendix B3/ B4). You should also position port-a-cabins and stores as onsite barriers between noisy work and sensitive receivers. Hoardings to reduce noise breakout from activities should enclose sites. Gates and access points should not face onto any especially sensitive buildings such as residential property, hospitals, schools and businesses. Gates and access points should be kept open for as little time as possible.

All deliveries to the site and removing of waste must take place during our standard working hours (8am-6pm Monday to Friday and 8am-1pm Saturdays). Vehicles must not queue on the public highway. Wherever practical you should provide lorry-holding areas on the site.

If you are carrying out piling (driving steel or concrete piles into the ground for foundations), you must use methods, which will reduce the generation of noise and vibration. You should consider other methods for impact-driven piles, such as continuous flight auger-injected piles or auger-bored piles (where piles are drilled rather then hammered into the ground). You can get further advise on different sorts of piling from BS 5228 1992 part 4.

Fixed items of construction equipment should be electrically powered rather than diesel or petrol driven. If this is not possible, you should provide other protection against noise such as baffles, covers or enclosures.

You need to allow enough time for lengthy concrete pours. If overruns are likely, you should contact the council's noise team (see useful contacts on page 18).

Where possible, you should use equipment that breaks concrete by crushing it rather then drilling through it, as this produces less noise.

You should tell everyone onsite to reduce noise as far as possible both to protect the community and their own health and safety. You must not allow antisocial behaviour such as shouting, using radios and swearing.

Water

You must dispose of site run-off and wastewater produced as a result of site activities, in line with the requirements of the Environment Agency and Thames Water Utilities Ltd. You must have enough protection in place to make sure any dangerous materials used onsite do not come into contact with watercourses, groundwater or wastewater.

You should create a suitable drainage system onsite for the construction phase. This system should aim to minimise the quantity and improve the quality of water before it leaves a building. This will reduce flooding and pollution. You should investigate ways to reuse water that is usually wasted during construction. For example, you should collect, store and re-use water that collects on site for lower-grade uses.

For more advice, see sections 6.8, 6.9 and 6.10 of our Special Planning Guidance Green Construction document or contact our Environmental Policy Co-ordinator in the planning policy section (see useful contacts on page 18).

Pest Control

Before you start work onsite, you will need to put down bait for pests, such as rats. If an infestation occurs you will have to ensure that a specialist pest control company treats it. You need to take particular care when baiting land next to railway land or nature reserves that bait is not taken up by wildlife highlighted in our Biodiversity Action Plan.

You must also take preventative measures, such as, stopping and sealing all disused drains and sewers. You must not allow rubbish or materials that can easily rot onsite. Any catering onsite must pay strict attention to how food is delivered, handled, stored and disposed of.

STANDARDS TO PROTECT THE ENVIRONMENT – WASTE DISPOSAL, RECYCLING AND SUSTAINABILITY

Recycling

We are keen to promote the positive use of surplus or waste materials in reducing the effect on the environment and the costs of disposing of them. As a result, if possible, you should attempt to reuse any materials produced from demolition or construction work in the planned development.

Waste
You should aim to reduce the quantity of waste produced during demolition and construction by following the waste management priorities below:

You should develop a demolition waste audit of the development site before you demolish anything. You should then salvage any materials from the site if you can reuse them including:

- brick, concrete, hardcore
- subsoil, topsoil
- timber, metal, steel frames, plastics
- infrastructure – e.g. granite kerbs, signs

If possible, you should reuse these for lower-quality uses for example, access roads and footpaths, or as a concrete aggregate.

You should also develop a construction waste management plan, which tackles:

- waste arising through the development process
- ways of recycling waste
- ways of reusing and recycling waste

You can identify markets to sell or donate materials to, such as the British Research Establishment Materials Information Exchange, Waste Alert North London (the council is a member) and the Waste Exchange Listing Service (see www.click2waste.com).

For more advice, please refer to section 5 of our Special Planning Guidance Green Construction document on waste or contact our Environmental Policy Co-ordinator in the planning policy section (see useful contacts on page 18).

Protection of Trees

Before work starts, you must carry out a tree survey within the site. You should include those trees on adjoining land that are within a distance from the site boundary, equivalent to half the height of the tree. The survey should give the species, age, canopy spread and condition of the tree clump or individual tree, as well as the ground levels at the bottom of the trunks. You must send this together with any work proposed to the trees, to our planning department to see if any are protected by tree preservation orders or are preserved because they are in a conservation area or are trees which may be worthy of protection.

If any tree is cut down without agreement or dies as a result of activity on the site, you must provide a replacement. You should agree these beforehand with our Tree Preservation Officer. Every tree you plant should be replaced until successfully established.

During work, you must make sure that you reduce, as far as possible, any negative effects on mature trees, for example:

- do not use trees for fixtures or fittings
- do not store materials against trunks or under the spread of the tree
- do not allow flames within 5 metres of the outer branches of the crown
- do not allow the soil level within the canopy spread of any trees to change
- if trenches are needed for services, these should be dug by hand beyond the edge of the tree canopy. You must not destroy roots over 2.5cm in length as this may damage the tree.

You can get extra advice from British Standards 3998 and our Tree Preservation Officer in the greenspace and leisure division (see useful contacts on page 18).

Ecology
Certain sites in the borough are home to valuable wildlife. These include railway land and nature reserves. Please refer to our Biodiversity Action Plan that will help you identify these sites at an early stage. These sites can be easily disturbed so you should get advice from our Nature Conservation Officer in our Greenspace team (see useful contacts on page 18).

Under the Wildlife and Countryside Act 1982, the law protects all species of bat and their roosts. If you believe that bats may be present in areas likely to be affected by the work, you must stop all work and contact our Conservation Officer in greenspace (see useful contacts on page 18).

Archaeology
If you know that a site has an archaeological importance, you will need an archaeological investigation as either a desktop study or a programme of on-site investigation or both. This will be attached as a condition to the planning permission relating to the development, or carried out before you take possession of the site. You should let know the Greater London Archaeological Service (based at English Heritage) about any archaeological matters (see useful contacts on page 18).

If you discover human remains, or possible human remains, you must immediately contact the police who will let the Home Office know. You should also contact the Greater London Archaeological Service if this is relevant.

USEFUL CONTACTS

Noise and Pollution Teams
Public Protection Division
222 Upper Street, London N1 1XR
T 020 7527 3258
E noise.issues@islington.gov.uk

Streetworks Team / Traffic & Engineering team
Street Management Division
Municipal Offices
222 Upper Street
London N1 1YA
T 020 7527 2000 (Street Scene)

Parking Services
Street Management Division
T 020 7527 1338
(for information on parking permits and location of parking shops) or
Contact Islington
T 020 7527 2000

Environmental Policy Co-ordinator
Planning Policy Section
Municipal Offices
222 Upper Street
London N1 1YA
T 020 7527 2001

Considerate Contractors Scheme
PO Box 75
Great Amwell, Ware
SG12 9UY
T 01992 550050

English Heritage
Greater London Archaeological Advisory Service
23 Saville Row
London, W1S 2ET
T 020 7973 3735

British Research Establishment
HIS Rapidoc (BRE Bookshop)
Willoughby Road, Bracknell,
Berks, RG12 8DW
T 01344 404 407
w www.brebookshop.com

Greenspace and Leisure division:
T Contact Islington on 020 7527 200

Environment Agency
Thames Region,North East Area Office
Apollo Court
2 Bishops Square Business Park
St Albans Road West
Hatfield
Hertfordshire
AL10 9EX
T Customer Services Line: 08708 506 506
w enquiries@environment-agency.gov.uk