



**C261 ARCHAEOLOGY EARLY EAST**  
**Method statement for Archaeological**  
**Test Pit Evaluation at Pudding Mill**  
**Lane:**  
**Addendum to document C261-MLA-X-**  
**RGN-CR140-50036**

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## **1 Introduction**

This document forms an addendum to a previous method statement produced for the archaeological investigations to be undertaken at Puttying Mill Lane (document no. C261-MLA-X-RGN-CR140-50036). The addendum outlines the methods and procedures for the excavation of an archaeological test pit within the EIP area. The requirements are set out in:

- A Crossrail **Site-specific Written Scheme of Investigation** (SS-WSI): *Package C152 Puttying Mill Lane Portal, Archaeology Site-specific Written Scheme of Investigation, Doc. No. C152-SWN-C2-RSI-CR094\_PT002-0001 Version 10, 12.05.10* (Crossrail 2010a)
- An **Addendum to the WSI**: *C152 – Puttying Mill Lane Portal, Addendum to WSI: Test pit Evaluation, Watching Brief & Detailed Excavation [sic] (XSK10), Doc. No. C152-SWN-C2-RSP-CR094\_PT002-50001 Revision 2.0, 12.08.11* (Crossrail 2010b)

This Method Statement has been developed in conjunction with the Principal Contractor, who will be responsible for ensuring that the archaeological works may be carried out as specified.

If the project design or scope/method of working are subject to changes during the works, the method statement will be updated and re-issued to the Project Archaeologist and CDM Advisor for approval, in accordance with the specified document control procedures. The works are to be undertaken under the site code **XSK10**.

## 2 Fieldwork Methodology

### 2.1 Evaluation Methodology

The test pit is to measure 4m in length and c 4.5m in depth. One side of the trench is to be battered to a 60 degree angle. The other is to be stepped in 1.7m for every 1m in depth. This is to allow for a vertical section face, suitable for recording and palaeoenvironmental/geoarchaeological sampling. The trench will measure c 14m in width. The full details for the method of excavation of the test pit are outlined in the Principal Contractors method statement (document no. 100211CRL\_WPP50011\_TSK1\_ADD1).

At the commencement of the evaluation, the C350 Principal Contractor will break out the concrete slab over the test pit. They will then remove any underlying modern overburden down to the first significant archaeological horizon, using a mechanical excavator fitted with a flat-bladed ditching bucket, under supervision by the C257 MOLA Supervisor.

At the first significant horizon, MOLA staff will enter the trench to assess, clean, investigate and record archaeological deposits and features. Wherever possible, any significant archaeological strata and features will be left *in situ* at the field evaluation stage, pending a decision with regard to an appropriate mitigation strategy they will be adequately protected from deterioration, for example, by covering or wrapping the deposits and features in a geo-textile such as Terram and sealing this with a layer of sand or other suitable soft materials.

However, where possible, it may be decided to selectively remove any low grade dumped deposits, 19th-century building foundations or modern intrusive features etc to expose archaeological deposits below, in order to more firmly establish the character of the archaeological sequence.

- The removal will not be undertaken if there is the obvious potential to damage any archaeological remains visible beneath
- No foundations will be removed if this would make any part of the trench unstable.

If archaeological deposits are present, without sufficient modern intrusions to allow an adequate assessment of underlying strata, the following methodology will be adopted:

- For stratified occupation deposits, land surfaces, structures etc. – further hand investigation, sampling and recording at the relevant archaeological horizon(s). Occupation deposits will not be subject to machine excavation. Hand investigation will be selective and sample-based, not total and focused to the stated objectives. The aim at the field evaluation stage will be to establish the nature, extent, date and survival quality of any potentially significant archaeological remains. Such remains will be left *in situ* where feasible, as described above.
- For extensive uniform dumped levelling or infill – grading down carefully by machine, using a toothless ditching bucket, under archaeological supervision.

This would be undertaken in individual spit depths of up to 300mm each, working along the length of the trench. If further archaeological horizons, artefact scatters, cut features etc. are present within these deposits hand investigation, recording and sampling will be carried out, to a degree appropriate to the extent and significance of remains. The methodology will be reviewed on site and revised where necessary, in the light of ground conditions encountered and in discussion with the Project Archaeologist.

- In the event of any *in-situ* articulated human remains being uncovered during the evaluation they will be cleaned and recorded by MOLA staff. The preferred option is that any *in-situ* human remains are not excavated or removed from site during the initial evaluation. Instead they will be reburied under a layer of Terram and clean sand before the trench is backfilled. However, in order to determine the nature of earlier deposits or the density of human remains it may be deemed necessary to excavate selective *in-situ* burials during the evaluation. This decision will be made on a trench by trench basis in conjunction with the Project Archaeologist. Any ex-situ human bones discovered will be collected, bagged up, examined by an Osteologist on-site and reburied in the trench in which they were found before it is backfilled. It is assumed that any excavated spoil that may possibly contain disarticulated human remains will be used to backfill the trenches from which it was derived and will not be removed from site.

Once the level of undisturbed floodplain deposits has been reached, excavation will proceed by machine under MOLA supervision. The alluvial deposits will be removed in spits measuring c 0.1 m in thickness, using a toothless machine bucket.

The archaeologists will vacate the trench while each spit is being machined out. The spoil removed from each spit will be piled in a safely accessible place away from the trench for inspection, to facilitate the recovery of artefacts. This spoil will be examined by the archaeologists with hand tools to establish whether remains of archaeological interest survive within the alluvium. The MOLA site supervisor will advise when examination of the spoil from each spit is completed and ready to be disposed of.

Geoarchaeological sampling will be undertaken by monolith and adjacent bulk samples on the most representative part of the trench sequence. The sampling will aim to take continuous samples through the whole of the Holocene alluvial sequence. Further details on the geoarchaeological sampling strategy and investigation are outlined in Section 4.

Excavation of the spits will cease on instruction of the MOLA supervisor to allow examination and hand cleaning of the deposits sufficient enough to ascertain the absence or presence of archaeological material within each exposed horizon. Provision will be made by the Principal contractor to remove any spoil generated by hand excavation.

Adequate provision for the pumping and removal of water ingressing into the trench will be made by the principal contractor. If water ingress becomes excessive the excavation will cease (see also H&S assessments below).

## **2.2 Evaluation Recording Methods**

The archaeological remains will be recorded to best practice standards, in order to achieve archaeological objectives. The site recording will include as a minimum:

- The written record of individual context descriptions on appropriate pro-forma sheets.
- The drawn record: including, plans and section drawings of appropriate features, structures and individual contexts (1:10 1:20 or 1:50). Isolated archaeological remains (artefacts) may be spot located in plan and a height provided where possible. Deposits which are regular in plan (pits and ditches) may be located though co-ordinates, annotated with dimensions, and may be recorded digitally.
- A stratigraphic matrix of the sequence of deposits and structures encountered in the trench will be produced.
- The photographic record: photographs taken with a digital camera of resolution of 12 megapixel or greater, providing similar resolution to a conventional 35mm SLR. The photographic record will include photographs of archaeological features, appropriate groups of features, structures, and quaternary deposits. Each photograph will be recorded on site using a proforma photographic record sheet, showing image number, area/test pit, context number(s), subject/description, direction of view, and date. In addition, appropriate record photographs will be undertaken to illustrate work in progress.
- Levels on plans, sections and other fieldwork records shall be related to OS datum.
- The location of the evaluation trench, temporary grids and baselines will be electronically surveyed by MOLA Geomatics staff. After fieldwork a digital trench location plan will be produced.
- Other appropriate drawn and written records will be produced (for environmental sampling etc).

## **2.3 Survey and setting out method**

The location of the trial pit will be set out by the Principal Contractors surveyors. The survey data will be made available to the MOLA Geomatics department. MOLA geomatics staff may be required on site to record significant archaeological remains uncovered during the excavation. Survey data will be recorded to the Crossrail London Survey Grid co-ordinates, and also to OSGB36 co-ordinates, using GPS/GNSS.



### 3 Geoarchaeological investigation methodology

Geoarchaeology is the study of soils and sediments in either a natural or anthropogenic context, that either contain human cultural material or are contemporary with human habitation within the region being studied (i.e. the Pleistocene/Lower Palaeolithic and later). It can include techniques of landscape reconstruction such as palaeobotany, soil micromorphology and palynology etc.

Given the floodplain nature of the Putting Mill Lane site a significant part of the work will involve the sampling and geoarchaeological recording of the floodplain sequence exposed within the trenches. Of primary interest will be the prehistoric peats, channel fill sediments and the estuarine alluvial deposits. These will be recorded according to standard sedimentological criteria in order to ascertain the depositional environment and site formation processes. This will involve characterising the visible properties of each deposit, in particular relating to its colour, compaction, texture, structure, bedding, inclusions, clast-size and dip. Geoarchaeological recording will be undertaken by and/or under advice of a MOLA Senior geoarchaeologist.

As the floodplain sequences are likely to be fairly uniform and laterally extensive, the geoarchaeological recording of the floodplain sequence can be selective, focusing on the most representative part of each distinct deposit sequence exposed within the trial pit. Any major unconformities within the sequence will be recorded as these may indicate distinct landforms and features; for example tidal creeks/channels dissecting the wetlands, or terrestrial soils within the alluvium.

Geoarchaeological sampling of the sedimentary sequence will involve sampling by monolith tins to remove undisturbed columns of sediment suitable for offsite sub sampling and analysis. The monolith tins can be retained for future pollen, diatom, soil chemistry and soil micromorphological work. Bulk slab samples will, be taken adjacent to the monolith tins at intervals of c 0.10m. The bulk samples will be taken to retrieve plant macro fossils, molluscs, ostracods and sufficient identifiable organic material suitable for radiocarbon dating. Further details are given below in Section 4.1.

#### 3.1 Sampling strategy

At the initial field evaluation stage, sampling would be targeted to establishing the palaeoenvironmental potential of deposits e.g. by testing sub-samples of bulk material. This allows the more detailed sampling described below to be undertaken in a more informed manner generally as part of the following mitigation phase of the archaeological project (where this is warranted).

##### General Methodology

For each trench the Contract Manager and MOLA Supervisor will ensure the following with the support of a MOLA Environmental Archaeologist / Geoarchaeologist:

- That a range of suitable samples are collected from the site for the recovery of an appropriate range of environmental evidence that will contribute to the research strategy that underpins the requirement for excavation and recording.
- That the environmental procedures outlined in the *Archaeological Site Manual* (MoL 1994) and *Environmental archaeology: a guide to the theory and practice of*



- That general bulk samples, 40 litres in size (20L if waterlogged) will be the standard samples taken and that the processing methods are designed to recover a wide a range of materials from the same deposit in a single sample. In addition, as a number of post-excavation analytical techniques will be employed on the material recovered, a number of different sampling approaches will be required. These might include: gridded/spatial bulk samples, to sample horizontal stratigraphy where it survives (i.e. soil horizons with insitu Mesolithic material), the sample size will depend on feature; column bulk samples (c 2-20L) to sample ditches, natural deposits; spot samples for dating; monolith and micromorphology samples to recover *in-situ* blocks of sediments or complex strata.

Sample	Sampled by	Material	Processing
Hand Collected	archaeologist	Human Bone	Hand washing
	archaeologist	Large/small mammal, bird, fish	Power hosed
Bulk (general 40 litre sample)	archaeologist	Large/small mammal, bird, fish, reptile, amphibian, marine molluscs, eggshell, plant macrofossils	Flotation or wet sieving
		Insects	Paraffin flotation
		Artefacts	Hand Washed
Column bulk (20 litre)	Archaeologist on advice of geoarchaeologist	Freshwater and terrestrial molluscs, ostracods	Disaggregated and wet sieved
Monolith	geoarchaeologist	Sediments	Laboratory cleaning
		Pollen and Diatoms	Sub-sampled for external Specialist
Kubiena	geoarchaeologist	Soils/complex strata	External Specialist
Spot/Grab	archaeologist	Coprolites, unidentified organic materials	Specialist
	geoarchaeologist	Pollen, diatoms, ostracods, forams, radiocarbon	Sub-sampled from augerhole cores for external specialists

- The sampling strategy will be monitored throughout the excavation and adapted in light of the preservation and the type of features encountered. A MOLA Environmental Archaeologist/Geoarchaeologist will undertake site visits to provide advice and additional advice will be sought from the EH Regional Archaeological Science Advisor when necessary. A MOLA Environmental Archaeologist/Geoarchaeologist will be on site during any visit made by the EH Regional Archaeological Science Advisor.
- As a general policy, uncontaminated negative features will be bulk sampled and bone collected by hand. Horizontal stratigraphy if it survives will be sampled on a spatial basis where appropriate. Unstratified contexts, make-up layers and contexts thought to have a high degree of residual or intrusive material will not be

sampled. Bulk samples may also be taken to recover artefacts such as evidence for metalworking and/or other industrial activity.

Processing of samples will take place at the MOLA base during the evaluation, if required, so that results can feed back onto site and inform any modifications needed in the sampling strategy. The MOLA Head of Human Environment or a suitable MOLA Environmental Archaeologist will be present to discuss the sampling and results of any processing undertaken during any site visit made by the EH Regional Science Advisor.

## 4 Health and Safety Method Statement

### 4.1 Introduction and Purpose

#### 4.1.1 Project Background

Archaeological investigations are to be carried out on this site by Museum of London Archaeology (MOLA). The requirements are set out in:

- A Crossrail **Site-specific Written Scheme of Investigation** (SS-WSI): Package C152 Puttying Mill Lane Portal, Archaeology Site-specific Written Scheme of Investigation, Doc. No. C152-SWN-C2-RSI-CR094\_PT002-0001 Version 10, 12.05.10 (Crossrail 2010a)
- An **Addendum to the WSI**: C152 – Puttying Mill Lane Portal, Addendum to WSI: Trial Trench Evaluation, Watching Brief & Detailed Excavation (XSK10), Doc. No. C152-SWN-C1-RSP-CR094\_PT002-00002 Revision 1.0, 12.12.10 (Crossrail 2010b)

### 4.2 Scope of Document

This Method Statement sets out the specific MOLA safe methods of working to be applied to the excavation of the trial pit within the EIP area.

This method statement has been developed in conjunction with the Principal Contractors, who will be responsible for ensuring that the archaeological works may be carried out as specified.

### 4.3 Responsible Persons and Site Management

#### 4.3.1 Site Management

The MOLA Senior Archaeologist/Site Supervisor will ensure that a copy of the MOLA Welfare, Health & Safety Method Statement is made available to the Principal Contractor at the site. Where further changes or additions to the WH&S Method Statement are required and agreed these should be appended to the site master copy by the MOLA Senior Archaeologist/Site Supervisor.

All changes to the WH&S Method Statement will be signed off by the Project Archaeologist, Crossrail H & S Advisor, MOLA Senior Contract Manager and MOLA .

## **4.4 Health and Safety Control Measures**

### **4.4.1 Site Access/Vehicle Movements**

On arrival at the site, MOLA staff will sign in, establish contact with the nominated Site Manager (or equivalent) attend any inductions etc. in accordance with the required access procedure for the site (to be notified to MOLA in advance by the Principal Contractor). All MOLA staff working on site will carry identification and CSCS cards.

Safe access routes from the site gate to work Areas and any offices and/or facilities will be erected and maintained at all times throughout the course of the archaeological monitoring of the works by the Principal Contractor.

### **4.4.2 Services**

The location and making safe of live services before or during archaeological works is the responsibility of the relevant Principal Contractor in control of the site. MOLA staff will exercise care and due diligence and report any discovery of unexpected services or other ground hazards promptly to the Principal Contractor, Project Archaeologist and MOLA H & S Officer.

## **4.5 Safety of Excavations**

### **4.5.1 Entering the trial pit during the evaluation**

- Daily inspections will be carried out by the Principal Contractor before works commence. The details of the inspection regime are outlined in the principal contractors task statement (document ref: 100211CRL\_WPP50011\_TSK1)
- MOLA staff will not enter any area of the evaluation trench until the Principal Contractor (Morgan Sindall) has informed MOLA staff that it is safe to do so, and that there is safe access/ingress to the archaeological investigation areas. MOLA staff will not enter the excavation if they believe it is unsafe to do so.
- MOLA Staff will not enter a trench if it is declared unsafe by the Principal Contractor.
- The Principal Contractor will supply attendances as required in Section 5.6.1.

### **4.5.2 Confined Spaces**

- At the time of writing no areas have been defined by MOLA or the Principal Contractor as Confined Spaces. This will be kept under constant review.

### **4.5.3 Machine Excavation**

- All machining described in section 3, as specified in the Addendum to the WSI, will be monitored by MOLA Senior Archaeologist/ Site Supervisor, but will at all times be under the control of the Principal Contractor.

#### **4.5.4 Hand Excavation during Evaluation or Targeted Watching Brief**

- Hand excavation will be limited to selected times/areas defined by the MOLA Senior Archaeologist/ Site Supervisor, with the agreement of the Principal Contractor, and will be properly fenced, demarcated and signed.

#### **4.5.5 Lone Working**

- The monitoring MOLA Supervisor will complete the necessary signing in procedures for each site visit and will also notify the Principal Contractor's Site Manager of their presence, which works are to be monitored. The MOLA Supervisor will only be providing an attendance to observe, monitor and record the defined Principal Contractor's works and therefore will not be working alone. In particular the MOLA Supervisor will not attend works or enter excavations when the Principal Contractor is not present.

#### **4.5.6 Contamination**

MOLA understand that the site is contaminated (potentially with hydrocarbons, heavy metals, waste oil, animal fats, and suspected asbestos: CSJV Package C248 – Puttying Mill Lane, Contaminated Land Control Plan, CSJV-C248-PLN-001), to a degree requiring special measures stated in the Principal Contractor's documentation (CSJV Works Package Plan (WPP), CRL doc. no. C248-SKC-C-GMS-CR094\_WS111-50013). MOLA will comply with the Principal Contractor's requirements, including:

- Separation of the site into demarcated, fenced, 'clean' and 'dirty' areas
- Decontamination unit forming the entrance/exit to the dirty area, with facilities for boot and glove wash, storage and disposal of disposable overalls. The Principal Contractor will provide MOLA staff with disposable overalls and P3 face masks (including fitting masks to individuals).
- The Principal Contractor is responsible for disposal materials and water from the dirty area, with which MOLA will comply.
- MOLA staff will not disturb or damage asbestos, or undertake asbestos removal from a building, structure, or buried material. If asbestos is found the Principal Contractor will be responsible for it being dealt with by a licensed contractor. In addition, the CSJV Works Package Plan states (CRL doc. no. C248-SKC-C-GMS-CR094\_WS111-50013):
  - all staff to be briefed and made aware of asbestos. Excavations to cause minimal disturbance of identified asbestos;
  - stockpile areas to be segregated and materials damped down/covered as appropriate;
  - upon identification of suspected asbestos, excavation works are to stop and methodology reassessed

Also: Disposable overalls will be provided to the operatives working in close contact to such contamination so as to minimise dermal contact and contamination being transported back into homes. Overalls will not be worn in areas outside of the working zone. No eating, drinking or smoking is allowed on site. There will be access to washing facilities so hands and face can be washed prior to meal breaks and after

completion of works. Disposable inner gloves to be worn under heavy duty work gloves. The wearing of dust masks will be implemented considering that it not just asbestos the operatives will come across in the trench excavations

#### 4.5.7 **Ordnance**

MOLA has received the Principal Contractor's Construction Phase Unexploded Ordnance Threat Assessment (Volume 4: Puttying Mill Lane to Shenfield, Doc. No. 1D0101-G0G00-00556). This identified an overall Medium Risk from German WWII Iron Bombs, and a Low Risk from anti-aircraft, small arms ammunition, and incendiary bombs.

Consequently the Principal Contractor's WPP states that:

- Principal Contractor's operatives to receive UXO identification training.
- Excavation to be undertaken to the requirements of the Principal Contractor's site specific UXO strategy document.
- The MOLA Supervisor shall comply with the PC's rules. If Ordnance is unexpectedly found the MOLA Supervisor shall inform the PC immediately and withdraw to a safe place outside the area designated by the PC.

#### 4.5.8 **Site Rules**

- All MOLA Staff will comply with the Principal Contractor's site rules and with the MOLA single person watching brief rules (when applicable).

### 4.6 **Planning and Resources**

#### 4.6.1 **Principal Contractor's Supply of Attendances**

The site specific requirements for services, facilities and attendances to be provided by the Principal Contractor, to enable MOLA to undertake the defined archaeological works are set out above. Those items in **bold will be required** for this site – others may be required, depending on site conditions, which will be reviewed on site by the MOLA Supervisor in conjunction with the Principal Contractor's nominated Site Manager (these requirements will be communicated to the Principal Contractor in the event that they are needed):

##### 4.6.1.1 **Likely to be required**

- **site accommodation and welfare facilities with electricity and water.** To include furnished main base cabin as office/work space; separate male/female changing areas, toilets and washing facilities with water; drying facilities; plus additional steel cabin for secure storage of MOLA PPE, equipment, camera and paperwork and finds. For the basic monitoring component of a small watching brief, these facilities would normally be shared with the Principal Contractor's site establishment and separate work space is not normally required. It is provisionally estimated that accommodation etc for up to 1 to 3 people will be required for the watching briefs.
- **general site security** including hoardings, gateway, warning notices, etc; to create a secure site perimeter, sufficient to prevent unauthorised access. If the

Principal Contractor has retained security guards, it is recommended that the archaeological investigation areas be added to their schedule for regular patrols, particularly out of hours.

- **providing safe access** to the site and the specified archaeological investigation areas via separately identified pedestrian routes, signing, safety guard-rails, secure ladders etc. This includes segregating these areas from any vehicles and plant operating nearby eg via a robust physical barrier.
- **locating and making safe any live services or hazardous substances (above or below ground)**: preliminary services searches should be carried out by the Principal Contractor via the statutory undertakers etc, plus on-site inspection and testing where required. Where there is reason to believe from previous uses that the ground or adjacent buildings may be contaminated the Principal Contractor should make arrangements for advance inspection, sampling, testing and where necessary specialist remediation. The results of such surveys should be forwarded to MOLA *prior to commencement on site*. Any identified hazards will be addressed in the health and safety planning. Any unexpected hazards encountered during the investigations will also need to be made safe by the Principal Contractor before archaeological fieldwork may continue. In the event of the accidental disruption of a live service by archaeologists or sub-contractors under archaeological supervision the MOLA supervisor will inform both their project manager and the Principal Contractor and, when appropriate, call the relevant emergency number.
- **supply of plant and equipment**; principally a 360 degree tracked mechanical excavator of minimum 12 ton size; supplied with driver, breaker, and flat-bladed ditching bucket. Other plant such as dumpers, compressor/breakers, hoist and pumps may also be needed.
- **accreditation and supervision of operatives, plant and equipment**, including supply of sufficient qualified banksmen/supervisors to control plant movements and adequate certification for plant and operatives.
- **transport/mounding/storage of spoil** from archaeological investigation areas. This includes removal from site, if necessary.
- **temporary support**: design, installation and maintenance of appropriate temporary support to excavations, where deeper than c 1.2 m (or as required in unstable ground). This will principally be via the initial concrete ring and installation of subsequent ring segments forming the shaft, but locally within the shaft area may be via benching/battering back and/or shoring, depending on a depth and ground conditions.
- **other safety measures in deep excavations**, including monitoring of air quality and provision of rescue facilities and equipment in any areas defined by the Principal Contractor or MOLA as a Confined Space
- **adequate ventilation** and protection from noise, fumes and dust where plant is in use, especially within confined spaces or standing buildings
- **development of a safe method of working**: archaeologists will not be able to work within excavations whilst attendances (such as installing temporary support or removing spoil) are taking place, and when demolition, construction or heavy plant activity occurs adjacent or overhead.
- **first aid**: provision of first aid facilities, and an emergency plan. On watching briefs with small numbers of staff, MOLA may not be able to supply a qualified



first aider. In that case, the services of the Principal Contractor's qualified first aider(s) may be required.

- **Secure storage** for finds, and for tools and equipment.
- **managerial services** – nominated points of contact for Principal Contractor and other key members of development team.
- **technical advice** to be available if required (eg via client or Principal Contractor's consulting engineer) re protection of adjacent streets and buildings, removal of obstructions, depth of excavation, live services etc.
- **pumping-out (dewatering/drainage)**: a suitable method to keep the trenches dry, eg pumping into a previously investigated trench, to create a sump.
- 

#### **4.6.1.2 Unlikely to be required**

- **specific site security**: it may be necessary to separately secure individual archaeological working areas via a physical barrier (such as Heras fencing) eg if there are public areas nearby or human remains are encountered.
- **site preparation and clearance**. Removal of structures, vegetation, rubbish, spoil heaps, demolition materials, slab, modern obstructions, infill, made ground, etc. as required, prior to and during the archaeological investigation. The majority will be mechanical excavator, under archaeological supervision, but occasional hand work by labourers may be needed (eg clearing individual obstructions or removing spoil from investigation areas if the machine cannot re-enter).
- **110v. site lighting and power supply** for access routes to excavations, plus individual task lighting within trenches (eg tripod-mounted spotlights) if required. The need for lighting depends on the depth, season and weather conditions or on ambient light level if working inside a shaft or standing building
- **filling back and reinstatement** upon completion (trenches are normally backfilled, for safety reasons, unless there are client instructions to the contrary).

#### **4.6.2 Equipment**

Equipment will be supplied by the MOLA equipment central store:

- First Aid Kit
- Hand tools, dumpy levels, stationary, grid pegs, digital camera, etc.
- Power auger if required

Any specialised equipment such as power augers will have certification of maintenance kept at MOLA headquarters.

#### **4.6.3 PPE**

All MOLA staff are supplied with and will wear or use the following PPE where required and as appropriate:

Safety Helmets (EN397)

Ear Defenders (EN 352-3)  
Safety spectacles (EN166)  
Dust masks plain and valved (EN149 2001) **NB these are NOT the P3 masks required for the contamination regime which may be required on this site.**  
Hi-visibility vests (EN471) – orange  
Gloves Nitrile PVC, EN374  
Safety footwear - steel toecap and mid-sole boots and Wellingtons EN345-47 (No riggers are allowed)  
Flame retardant overalls  
Disposable overalls

Additional PPE to the above will need to be supplied by the Principal Contractor, in particular; the P3 dust masks and disposable overalls if contamination is found and this becomes a requirement of the Principal Contractor.,

#### **4.6.4 Staff**

The evaluation test pit will require 1 full time senior archaeologist, with an additional archaeologist when required. Specialist staff (i.e. surveyors, photographer, geoarchaeologist) may also need to attend the works.

## **4.7 Briefing Arrangements**

### **4.7.1 MOLA Staff Induction – New Starters**

- All MOLA staff shall receive a full induction including Health and Safety on commencement of their first day of work with the organisation. A record of the induction is kept.
- The MOLA Supervisor will be briefed by MOLA Contracts Manager/Assistant Contracts Manager on all relevant aspects of work before work commences. This briefing will include all SS-WSI, Method Statements (PC's and including this document.
- The MOLA Supervisor will be responsible for briefing any other MOLA staff on site before they commence work on all aspects of the work and documents.

### **4.7.2 Site Specific Inductions, Weekly Briefings and Tool Box Talks**

- Where a site is under the control of a Principal Contractor (as in this case), MOLA staff will attend all initial site inductions and subsequent toolbox talks as required and managed by the Principal Contractor.
- Irrespective of whether the site is controlled by MOLA or a Principal Contractor, on larger projects e.g. those with more than 2-3 staff and of a week or longer duration, regular toolbox talks will be given by the MOLA Supervisor or other suitable member of staff using the CITB: construction site safety tool box talks manual. As a minimum requirement these talks will occur 1–2 times per week and be of 10–15 minutes duration.

## **4.8 First Aid**

### **4.8.1 Trained First-Aid Personnel**

Where possible with the small numbers of MOLA staff during watching briefs, there will be at least one MOLA Archaeologist who is a qualified First Aider (ie 3 day FA at work course) on site. If not, the Principal Contractor's first aider(s) responsible for the watching brief task(s) will be identified by MOLA at the Principal Contractor's Induction, and their services used if required.

### **4.8.2 First Aid Documents**

The MOLA site safety documents will be located with the first aid kit in the site office/mess hut/canteen. The safety documents will include a minimum of:

- Current Health and Safety at Law Poster for display where legislation requires
- Accident Book compliant with the Data Protection Regulations.
- MOLA Public Liability Insurance & Employers Liability Insurance for display
- Where To Get First Aid poster – to be displayed if required.
- Current MOLA Health and Safety Policy
- A copy of the site Welfare, Health and Safety Method Statement, extracted from the Site WSI, and modified as agreed during the course of the site.

### **4.8.3 First Aid Equipment**

A MOLA First Aid kit, of an appropriate size for the site, will be located in the site office/mess hut/canteen or in the case of this site a 'bum bag' will be carried by the MOLA Senior Archaeologist at all times.

## **4.9 Accident, Incident, Near Miss and Environmental Incident Reporting**

### **4.9.1 Reporting of Accidents/Incidents and Dangerous Occurrences**

The Reporting of Injuries, Diseases and Dangerous Occurrences (RIDDOR) Regulations, 1995 sets out requirements for the reporting of certain types of accidents. RIDDOR notifiable accidents will be reported immediately by the MOLA site supervisor as specified in Section 0 of the method statement, above.

### **4.9.2 Documentation**

In order to identify quickly problem areas and allow corrective action to be taken all accidents, dangerous occurrences and near misses, including those that do not cause injury, will be reported immediately to:

Principal Contractor's Site Manager  
MOLA supervisor  
MOLA H & S officer

MOLA Senior/Contracts Manager  
Crossrail Project Archaeologist  
Crossrail Helpdesk.

The site accident book for both the Principal Contractor and MOLA should be filled in giving details of the incident.

#### **4.9.3 Investigation of Accidents and Dangerous Occurrences**

MOLA will comply with the Principal Contractor's and Crossrail procedures.

MOLA will also initiate internal procedures as follows:

- Initial accident/incident report to MOLA Senior Contract Manager and Field Manager and action taken as appropriate.
- Non Riddors investigated by Senior Contract Manager/Field Manager.
- Riddors investigated and reported on to Senior Management Consultant by MOLA H & S Consultants.

#### **4.9.4 Key Project Personnel**

- George Dennis, Senior Contracts Manager, MOLA
- Elaine Eastbury, Contracts Manager, MOLA
- Craig Halsey, Assistant Contracts Manager, MOLA

### **4.10 Emergency Procedures – Site General**

All MOLA staff will comply with the Principal Contractor's procedures as outlined at the Site Specific Induction.

### **4.11 Emergency Services Contact Details**

The Principal Contractor will confirm the hospital location:

Newham General Hospital  
Glen Road,  
Newham,  
London  
E13 8BL

Telephone 020 7476 4000

Tube: The hospital is one mile from Plaistow Station (District and Hammersmith & City lines) – a taxi may be required.

The MOLA supervisor will dial 999 for fire, ambulance and police in the case of an emergency if the Principal Contractor's Site Manager or his deputy is not present on site.





## 5 Risk Assessments

### 5.1 MOLA Risk Assessment – Test pit evaluation

Site - Puttying Mill Lane		Type of Work			Evaluation Trench
Persons Affected	No	Classification	No		
Employees	1-3	Experienced	1-3		
Other workers		Inexperienced			
Public		Disabled			

Known and Suspected Hazards on site (tick as appropriate)					
Mobile Plant	x	Power Auger		Ionising radiation	
Moving Machine Parts		Access equipment		Lasers	
Moving objects		Hazardous Substances		Ultraviolet	x
Falls from height	x	Contamination	x	Temperature	
Falls on level	x	Micro organisms		Noise	x
Manual Handling	x	Vermin/Weil's Disease	x	Vibration	
Buried services	x	Fumes/Gas		Weather	x
Electrical		Lone working		Hot/cold objects	
LPG etc		Welfare		Physical attack etc	
Fire/Explosion		Confined spaces		Vehicles	
Chainsaw		Hand Tools	x	Human Remains	
UXO	x	Fumes/gases	x	On/Near Water	

#### Control Measures Required

Compliance with H&S at Work Act 1974, Construction(Design and Management) Regulations 2007 and MOLA H&S Policy

Compliance with MOLA Generic or Site Specific Risk Assessment(s) for the Hazards marked above  
Compliance with Principal Contractor's safety policy, site specific method statement, permits to work, instructions.

Attendance of Principal Contractor's induction on first day at work

Implementation and attendance of tool box talks by Principal Contractor and MOLA

MOLA supervisors to be trained and competent.

Certified First Aider on site.

#### Assessment of Remaining risk (Low, Medium, High) (see notes on reverse)

	L	M	H		L	M	H		L	M	H
Mobile Plant		x		Power Auger				Fumes/gases	x		
Machine Parts				Access equipment				Lasers			
Moving objects				Hazardous Substances				Ultraviolet	x		
Falls from height	x			Contamination		x		Temperature			
Falls on level	x			Micro organisms				Noise	X		
Manual Handling	x			Vermin/Weil's Disease	x			Vibration			
Buried services		x		Fumes/Gas				Weather	X		
Electrical				Lone working				Hot/cold objects			
LPG etc				Welfare				Physical attack etc			
Fire/Explosion				Confined spaces				Vehicles			
Chainsaw				Hand Tools	x			Human Remains			

UXO	<input checked="" type="checkbox"/>						On/Near Water			
<b>Emergency action/additional assessment required for remaining medium/high risk</b>										
See Site Specific Risk Assessment for Buried Services										
<b>Competent Person(s) appointed to take action:</b>				<b>Report seen by (initials)</b>						
MOLA Supervisor				PM CJH				Archaeologists  TBC		
				SA(s) TBC						
				Client JC/ND						
				Contractor C350 Morgan Sindell						
				Other						



## 5.2 MOLA Site Specific Risk Assessment – Contaminated Land

MOLA RISK ASSESSMENT		CONTAMINATED LAND			
Significant Hazards		Assessment of Risk			
		Insignif	Low	Medium	High
1	Presence solid/liquid form of contaminants			•	
2	Gas/fumes/odour/airborne particles			•	
3	Ingestion, inhalation, dermal contact			•	
4	Pollution of water table, drains, water supply			•	
5	Pollution of atmosphere			•	
ACTIONS ALREADY TAKEN TO REDUCE RISKS					
<p><b>Compliance with:</b>                      MOLA Health and Safety Policy Operational Procedures (September 2010)                      Compliance with Principal Contractor’s site specific method statement (Works Package Plan), Environmental Management Plan, safety policy, site rules, instructions.                      Provision and Use of Work Equipment Regulations 1998 (amended 2002), Control of Lead at Work Regulations(2002), Control of Asbestos regs 2006, Control of Asbestos at work Regulations 2002 and ACOP 2nd Edition, Management of Health and Safety at Work Regulations 1999, HSG66 Protection of Workers and General Public During Development of Contaminated Land- HSE</p>					
<p><b>Planning:</b>                      Obtain copy of contamination/ground conditions/environmental report before work commences/MS/WSI is prepared. Implement any site-specific recommendations                      Specific risk assessment under COSHH by competent person may be applicable                      Allow for greater duration of project where exposure time to contaminates should be limited. Allow for extra staffing to reduce individual exposure time.                      Consider and negate/minimise impact of any excavations on water table/drainage etc: seek specialist advice - Environment Agency/ Environmental Health                      Consider negate/minimise how movement of spoil/mounding may affect locality/environment e.g. dust: seek specialist advice –Environment Agency/ Environmental Health                      Consider need to provide/demarcate ‘Clean’ and ‘Dirty’ areas of site and appropriate hygiene facilities                      Consider need to provide appropriate/specialised PPE e.g. Goggles, Dust Masks, Half masks and filters, Disposable overalls and gloves, PVC Safety footwear Wellingtons, Escape Set and Breathing apparatus, full-face respirator PVC gauntlets, chemical overalls. Access to the site for representatives of the local Environmental Health Officer Provide clear instructions on what to do in an emergency – make sure staff know the right telephone numbers and where the nearest A&amp;E department is                      Ongoing site monitoring of gas/volatile concentrations by Principal Contractor</p>					
<p><b>Physical:</b>                      Compliance with Principal Contractor’s site specific method statement (Works Package Plan) and Environmental Management Plan, in particular:</p> <ul style="list-style-type: none"> <li>• Division of the site into demarcated and fenced ‘clean’ and ‘dirty’ areas</li> <li>• Use of disposable overalls and P3 face masks (masks to be fitted to individuals) to be provided by Principal Contractor.</li> <li>• Nitrile gloves to be worn (not surgical latex gloves).</li> <li>• No eating, drinking or smoking allowed on site.</li> <li>• Decontamination unit forming entrance/exit to dirty area, with boot and glove wash, and storage and disposal of disposable overalls.</li> </ul>					

- MOLA to comply with Principal Contractor’s requirements for disposal of materials and water from the contaminated area (by the Principal Contractor).

All staff to observe any rules regarding exposure limits. All staff to report obvious signs of contaminants – eg discarded containers, odd coloured deposits, strange smells.

All staff to wear the required additional and standard PPE. At the end of each working day those items which cannot be cleaned and disinfected, i.e. overalls, should be disposed of properly.

Clear demarcation of contaminated areas. All staff to observe decontamination procedures with regards to dirty and clean areas of the site, especially with regards to eating and smoking

**Management:**

Monitoring of all staff and activity to ensure compliance with the above.

**Training:**

All staff to be given induction and regular tool box talks specific to the contaminants on site indicating nature, appearance, smell, method and required preventative procedures.

Site specific/COSHH risk assessments for specific hazards to be communicated to all staff

**MOLA SITE/TASK SPECIFIC RISK ASSESSMENT**

**For each site, location, and task the appropriate generic assessment should be reviewed to ensure that all significant hazards and their risks are identified and controlled. Completion of this Risk Assessment will ensure that your assessment is both appropriate and complete**

**Site/Location/Task:** Puttying Mill Lane trial pit evaluation

<b>Frequency and Duration of Task:</b>	<b>Daily – TBC</b>	<b>Number of Staff Involved:</b>	<b>1–3</b>
----------------------------------------	--------------------	----------------------------------	------------

**Specific Hazards Identified?**

Hydrocarbons, lead, arsenic, chromium, mercury, nickel, cyanide, waste oil, animal fats, and suspected asbestos (see separate risk assessment in 6.3 below) in made ground, and, to a lesser extent, in alluvium and river terrace deposits. Also vapours from volatile contaminants (and possibly methane).

**Control Measures Required?**

- Division of the site into demarcated and fenced ‘clean’ and ‘dirty’ areas
- Use of disposable overalls and P3 face masks (masks to be fitted to individuals) to be provided by Principal Contractor.
- Nitrile gloves to be worn (not surgical latex gloves).
- No eating, drinking or smoking allowed on site.
- Decontamination unit forming entrance/exit to dirty area, with boot and glove wash, and storage and disposal of disposable overalls.
- MOLA to comply with Principal Contractor’s requirements for disposal of materials and water from the contaminated area (by the Principal Contractor).

<b>Assessment of Remaining Risks:</b>	High	Medium	<b>Low</b>
---------------------------------------	------	--------	------------

<b>Serious and Imminent Danger Identified:</b>	Yes	<b>No</b>
------------------------------------------------	-----	-----------

<p><b>What Emergency Action Required?</b>                  MOLA supervisor to report all accidents/incidents to Principal Contractor's Site Manager or specified deputy in his absence.                  Ensure all serious none emergency casualties not treatable by first aid are accompanied to the nearest A&amp;E:</p> <p>Newham General Hospital                  Glen Road,                  Newham,                  London                  E13 8BL                  020 7476 4000</p> <p><b>Emergencies: MOLA supervisor to call 999 in absence of PC Site Manager or specified deputy.</b></p>			
<p><b>Circumstances Requiring Additional Assessment?</b></p>			
<p><b>Competent Persons Appointed to Take Action</b>                  Principal Contractor Site Manager: Mark Whiteman                  MOLA Site Supervisor: TBC</p>			
<p><b>Circulation of Risk Assessment</b></p>			
<b>Employees</b>	TBC		
<b>Principal Contractor</b>	C350 Morgan Sindell		
<b>Client</b>	Crossrail/JC/ND		
<b>Sub Contractor</b>			
<b>Public/Visitors</b>			
<b>Other Occupier</b>			
<b>Risk Assessment Prepared by</b>	<b>Signed:</b> CJH	<b>Name:</b> Craig Halsey	<b>Date:</b> .18.09.11

### 5.3 MOLA Site Specific Risk Assessment – Asbestos

MOLA RISK ASSESSMENT		ASBESTOS			
Significant Hazards		Assessment of Risk			
		Insignif	Low	Medium	High
1	Inhalation of asbestos-containing dust			•	
<b>ACTIONS ALREADY TAKEN TO REDUCE RISKS</b>					
<p><b>Compliance with:</b>                      MOLA Health and Safety Policy Operational Procedures (September 2010)                      Compliance with Principal Contractor’s site specific method statement (Works Package Plan), Environmental Management Plan, safety policy, site rules, instructions.                      Control of Asbestos Regulations 2006                      Control of Asbestos at Work Regulations 2002 and ACOP 2nd edition                      Work with asbestos insulation, asbestos coating and asbestos insulating board, ACOP, 2nd edition.                      HSE Guidance Notes EH36 - Work with asbestos cement.                          EH35 - Probable dust concentrations                          EH37 - Work with asbestos insulating board                          IND G 264 - Selecting Respiratory Protective Equipment for Work with Asbestos</p>					
<p><b>Planning:</b>                      The commissioning project manager will obtain a copy of the asbestos certificate for any building or structure before work commences (see section 19 H&amp;S policy)                      Where there is no certificate, no work will commence where age or use of a building would suggest presence of asbestos until it has been surveyed by a competent body – Not MOLA staff.                      The survey or certificate must indicate that any asbestos is in good condition before work commences in that area.                      MOLA is not a licensed contractor for the removal of asbestos not and only a licensed contractor will be used if applicable for all asbestos-related work. Note MOLA cannot act a Principal contractor under CDM 2007 and will not sub contract this work under normal circumstances – refer to Hascom for advice                      A method statement will be prepared by the contractor before work starts, which will be approved by a competent person - Hascom.                      Where asbestos is accidentally disturbed/loose in the ground Sections 19.08-9 of the policy will apply</p>					
<p><b>Physical:</b>                      Compliance with Principal Contractor’s site specific method statement (Works Package Plan) and Environmental Management Plan, in particular:</p> <ul style="list-style-type: none"> <li>• Division of the site into demarcated and fenced ‘clean’ and ‘dirty’ areas</li> <li>• Use of disposable overalls and P3 face masks (including fitting masks to individuals), to be provided by Principal Contractor.</li> <li>• Nitrile gloves to be worn (not surgical latex gloves).</li> <li>• No eating, drinking or smoking allowed on site.</li> <li>• Decontamination unit forming entrance/exit to dirty area, with boot and glove wash, and storage and disposal of disposable overalls.</li> <li>• MOLA to comply with Principal Contractor’s requirements for disposal of materials and water from the contaminated area (by the Principal Contractor).</li> <li>• On identification of suspected asbestos, excavation to stop and Principal Contractor to be informed</li> </ul> <p>MOLA staff will not disturb or damage asbestos or undertake asbestos removal.                      All contractors will wear Impervious hooded overalls and approved respirators will be worn when working with asbestos cement and control or action levels are likely to be exceeded. Entry to work areas will be restricted by use of barriers and warning signs. Damping down and measures to prevent sheets breaking will be used be used to prevent the release of dust. Thorough cleaning of the area by dustless methods</p>					

(approved vacuum) will be carried out, or by damping, waste will be sealed in bags and labelled, and taken to a licensed tip.

**Management:**

Where the type of asbestos and possible exposure has not been established, 'worst case' precautions are to be taken. Work by licensed contractors will be monitored to ensure entry restrictions, warning signs and method statements are complied with. Only authorised and trained personnel will work with asbestos materials (not MOLA staff), and all work will be monitored to ensure compliance with all current guidance

**Training:**

Site Supervisors and those in charge of sites will be made aware of the contents of the ACOPs and other guidance, and precautions. Those personnel working with asbestos cement will be trained in the precautions and requirements of EH36. Training in the use, care, cleaning & maintenance of respiratory protective equipment will be provided prior to the issue of respirators.

<b>MOLA SITE/TASK SPECIFIC RISK ASSESSMENT</b>			
<p>For each site, location, and task the appropriate generic assessment should be reviewed to ensure that all significant hazards and their risks are identified and controlled. Completion of this Risk Assessment will ensure that your assessment is both appropriate and complete</p>			
<b>Site/Location/Task:</b>	Puttying Mill Lane trial pit evaluation		
<b>Frequency and Duration of Task:</b>	<b>DAILY – TBC</b>	<b>Number of Staff Involved:</b>	<b>1–3</b>
<b>Specific Hazards Identified?</b> Potential for asbestos to be present in soil – considered ‘very likely’			
<b>Control Measures Required?</b>			
<b>Assessment of Remaining Risks:</b>		High	Medium
<b>Serious and Imminent Danger Identified:</b>		Yes	No
<b>What Emergency Action Required?</b>			
<b>Circumstances Requiring Additional Assessment?</b>			
<b>Competent Persons Appointed to Take Action</b> Principal Contractor Site Manager: Mark Whiteman MOLA Supervisor: TBC			
<b>Circulation of Risk Assessment</b>			
<b>Employees</b>	TBC		
<b>Principal Contractor</b>	C350 Morgan Sindell		
<b>Client</b>	Crossrail/JC/ND		
<b>Sub Contractor</b>			
<b>Public/Visitors</b>			
<b>Other Occupier</b>			
<b>Risk Assessment Prepared by</b>	Signed: CJH	Name: Craig Halsey	Date: 18/09/11

## 5.4 Mechanical Excavators – Trial Pit evaluation

MOLA RISK ASSESSMENT		MECHANICAL EXCAVATORS			
Significant Hazards		Assessment of Risk			
		Insignif	Low	Medium	High
1	Shovel or load dropping inadvertently		•		
2	Overturning of machine		•		
3	Materials dropping from shovel or bucket			•	
4	Persons struck by machine			•	
5	Restriction of driver's vision.			•	
6	Hydraulic fluid spray		•		
7					
<b>ACTIONS ALREADY TAKEN TO REDUCE RISKS</b>					
<p><b>Compliance with:</b>                      MOLA Health and Safety Policy Operational Procedures (September 2010)                      Construction(Design and Management) Regulations 2007                      Control of noise at Work regulations 2005                      Control of Vibrations at Work Regulations 2005                      British or European Standards including:                      5228: Noise on construction sites.                      6912: Safety in earthmoving machinery                      6913: Operation &amp; maintenance of earthmoving machinery</p>					
<p><b>Planning:</b>                      MOLA Staff will not operate Mechanical excavators.                      Choice of hire equipment and requirements assessed with regards to ground conditions and local operational requirements.                      Choice of Excavators and driver/operator to be from sub-contractors competent to provide the machinery and service required.</p>					
<p><b>Physical:</b>  <u>180 degree machines</u> - When using the backhoe the front bucket must be lowered to the ground  <u>360 degree machines</u> - At least 600mm clearance to be allowed for tail swing.                      No persons are allowed to stand or work within operating radius without the operator's permission.                      Loads must not be slewed over personnel, vehicle cabins or huts.                      Overhangs are not to be created on high workfaces. Wheels/tracks are to be at 90 degrees to the workface.                      Travel and operations on a gradient must be controlled to ensure machine stability.                      A banksman is to be used where driver's vision is impaired or operating in congested areas.</p>					
<p><b>Management:</b>                      Certification of drivers must be checked.                      Drivers must be over 18 years old.                      MOLA Staff must not operate mechanical excavators                      All trenching and deep excavation work must be supervised to ensure the stability of machine and excavation, and that persons do not work within the swinging radius of a backhoe.                      Vehicles must be checked by drivers before use and secured afterwards.                      Management must ensure speed restrictions are enforced, and monitor use on sloping ground.                      Noise levels are to be monitored and assessed as may be necessary.</p>					
<p><b>Training:</b>                      Driver training to CITB/CSCS (or equivalent) standard is required; also to comply with BS 6264:                      Operator training for earthmoving machinery. Excavator driving by uncertificated operatives is not permitted; this also applies to our subcontractors and the self-employed.</p>					



<b>MOLA SITE/TASK SPECIFIC RISK ASSESSMENT</b>			
<p><b>For each site, location, and task the appropriate generic assessment should be reviewed to ensure that all significant hazards and their risks are identified and controlled. Completion of this Risk Assessment will ensure that your assessment is both appropriate and complete</b></p>			
<b>Site/Location/Task:</b>	Puttying Mill Lane Trial Pit evaluation		
<b>Frequency and Duration of Task:</b>	<b>Daily</b>	<b>Number of Staff Involved:</b>	<b>1–3</b>
	<b>TBC</b>		
<p><b>Specific Hazards Identified?</b></p> <p>Persons struck by machine                      Fall of material from bucket                      Overturning of machine                      Hydraulic fluid spray                      Fire/explosion</p>			
<p><b>Control Measures Required?</b></p> <p>All mini excavators and similar plant to be operated and controlled by trained and CPCS certified Principal Contractors' operatives under the overall supervision of Morgan Sindall supervisor or designated deputy                      No MOLA staff to operate any plant                      No MOLA staff to supervise or direct machine operations except for archaeological work as specified in the MS                      Compliance with Principal Contractor's permit to work                      Archaeological supervision to be by MOLA Supervisor only                      No staff to stand/move within operating circle of active plant                      All staff to attend induction and toolbox talks                      All staff to wear required PPE                      First Aider and First Aid Box present                      Machine to operate within Principal Contractor's Method Statement and Risk Assessments</p>			
<b>Assessment of Remaining Risks:</b>		High	Medium
<b>Serious and Imminent Danger Identified:</b>		Yes	No
<p><b>What Emergency Action Required?</b></p> <p>MOLA supervisor to report all accidents/incidents to Principal Contractor's Site Manager or specified deputy in his absence.                      Ensure all serious none emergency casualties not treatable by first aid are accompanied to the nearest A&amp;E:</p> <p>Newham General Hospital                      Glen Road,                      Newham,                      London                      E13 8BL                      020 7476 4000</p> <p><b>Emergencies: MOLA supervisor to call 999 in absence of PC Site Manager or specified deputy.</b></p>			
<p><b>Circumstances Requiring Additional Assessment?</b></p>			

<b>Competent Persons Appointed to Take Action</b>			
Principal Contractor Site Manager: Mark Whiteman			
MOLA Site Supervisor: TBC			
<b>Circulation of Risk Assessment</b>			
<b>Employees</b>	TBC		
<b>Principal Contractor</b>	C350 Morgan Sindall		
<b>Client</b>	Crossrail/JC/ND		
<b>Sub Contractor</b>			
<b>Public/Visitors</b>			
<b>Other Occupier</b>			
<b>Risk Assessment Prepared by</b>	Signed: CJH	Name: Craig Halsey	Date: 18/09/11

**From:** Sam.Wilson@morgansindall.com  
**Sent:** 20 October 2011 13:16  
**To:** Halsey, Craig  
**Cc:** Mark.Whiteman@morgansindall.com; Ray.Johnson@morgansindall.com; Richard.Lodh@morgansindall.com  
**Subject:** RE: EIP MOLA trench  
Craig,

To confirm Morgan Sindall's acceptance of your Method Statement addendum. You can now submit to Crossrail for approval. As soon as this is done, please inform us (send confirmation sheet). We can then commence the works. As previously mentioned, we intend to start the works on Monday 24<sup>th</sup> October. If possible could you work with Crossrail to achieve this sign off date.

Regards,

Sam

**Sam Wilson**  
Senior Engineer  
Infrastructure  
**D 07748 158 530**     [sam.wilson@morgansindall.com](mailto:sam.wilson@morgansindall.com)



**Morgan Sindall plc**  
Head Office Corporation Street  
Rugby Warwickshire CV21 2DW  
**T** 01788 534638  
[morgansindall.com](http://morgansindall.com)

**Please consider the environment before printing this email**

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**From:** Halsey, Craig [mailto:chalsey@mola.org.uk]  
**Sent:** 20 October 2011 11:38  
**To:** Wilson, Sam (MS)  
**Cc:** Whiteman, Mark (MS); Johnson, Ray (MS); Lodh, Richard (MS)  
**Subject:** RE: EIP MOLA trench

Sam,

The document has been amended with your comments. I just require an email confirmation from you that you're happy with the final version. I can then upload the document to eb to get Crossrail approval.

Regards

Craig

---

**From:** Sam.Wilson@morgansindall.com [mailto:Sam.Wilson@morgansindall.com]  
**Sent:** 19 October 2011 14:52  
**To:** Halsey, Craig  
**Cc:** Mark.Whiteman@morgansindall.com; Ray.Johnson@morgansindall.com; Richard.Lodh@morgansindall.com  
**Subject:** RE: EIP MOLA trench

Craig,

See below comments site have on the Method Statement addendum;

- As this document is an addendum, are sections 2.1, 2.2, and 2.3 required? Would this information be listed in the

original document? This is an attempt to reduce the size of the document (32 pages)

- Section 3.1, should read "The other is to be stepped in 1.7m for every 1m in depth"
- Section 4, 2<sup>nd</sup> paragraph, should read "...nature of the Stratford site..." ? not Plumstead
- Section 5.5.1, Dailey inspections of excavations, refer to our task statement (which details inspection regime)
- Section 5.5.1, Morgan Sindall will inform the MOLA operatives when they can enter the excavation. We do not operate a Clearance to Enter Permit, please re-word
- Section 5.5.1 – Reference required to Principle Contractor attendances
- Section 5.6.1.2 3<sup>rd</sup> paragraph, If temporary roofing not required, remove bullet point
- Section 6 Risk assessment, add Fumes/Gas
- Page 31, should CPSP read CPCS for plant operator qualifications?

Please address the comments raised and gain your appropriate approval. If you have any queries, feel free to contact a member of the site team. Once we receive confirmation of your approval, we will be able to commence the works. We propose a start date of no later than Monday 24<sup>th</sup> October.

Regards,

Sam

**Sam Wilson**

Senior Engineer  
Infrastructure

**D 07748 158 530**     [sam.wilson@morgansindall.com](mailto:sam.wilson@morgansindall.com)



**Morgan Sindall plc**

Head Office Corporation Street  
Rugby Warwickshire CV21 2DW  
**T** 01788 534638

[morgansindall.com](http://morgansindall.com)

**Please consider the environment before printing this email**

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**From:** Halsey, Craig [mailto:chalsey@mola.org.uk]  
**Sent:** 18 October 2011 14:51  
**To:** Wilson, Sam (MS)  
**Cc:** Whiteman, Mark (MS); Johnson, Ray (MS); Lodh, Richard (MS)  
**Subject:** EIP MOLA trench

Sam,

Attached is the MS for the trial pit evaluation for your comment. Once you've approved this I'll send a copy over to Jay Carver.

Do you have a plan of where the trench is located? I don't have anything on file here. It may be a good idea to attach a plan to the MOLA MS.

Thanks

Craig

Craig Halsey  
Assistant Contract Manager  
Museum of London Archaeology  
Mortimer Wheeler House  
46 Eagle Wharf Road  
London N1 7ED  
Tel: 0207410 2221  
Email: [chalsey@mola.org.uk](mailto:chalsey@mola.org.uk)

[www.museumoflondon.org.uk/archaeology](http://www.museumoflondon.org.uk/archaeology)



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**From:** Sam.Wilson@morgansindall.com [mailto:Sam.Wilson@morgansindall.com]  
**Sent:** 18 October 2011 11:28  
**To:** Halsey, Craig  
**Cc:** Mark.Whiteman@morgansindall.com  
**Subject:** EIP MOLA trench

Craig,

As per our phone conversation this morning, please see attached our Task Statement for the excavation works complete with addendum for the MOLA trench. The specific reference is on the front sheet is "100211CRL\_WPP50011\_TSK1\_ADD 1". Please reference this within your task briefing.

Once your task briefing is complete, please send it across to me for review and site approval. Once this is achieved, we are ready to mobilise subject to your approval from Crossrail (if required).

Regards,

Sam

**Sam Wilson**  
Senior Engineer  
Infrastructure  
**D 07748 158 530**     [sam.wilson@morgansindall.com](mailto:sam.wilson@morgansindall.com)



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