



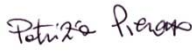


**C257 ARCHAEOLOGY CENTRAL
METHOD STATEMENT
STANDING BUILDING RECORDING
FORMER BROAD STREET TICKET
HALL (XSM10)**

CRL Document Number: C257-MLA-X-COL-CRG03-50001

**Supplier Document Number: Liverpool Street Old Broad Street Ticket Hall
Building Recording MS v1.0 27-11-13.docx**

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2a. Stakeholder review required? YES NO

(If NO, strike out sections 2a & 2b and go to section 3)


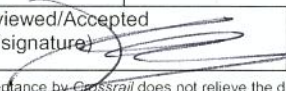
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2b. Review by Stakeholder (if required):

Stakeholder Organisation	Job Title	Name	Signature	Date	Acceptance
					<input type="checkbox"/>
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					<input type="checkbox"/>

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	S. CARVER	PROJ. ARCH	28/11/13	
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1 Introduction

Museum of London Archaeology (MOLA) was commissioned by Crossrail to undertake a rapid Standing Building Survey of the former Broad Street Ticket Hall (access is not possible to the Queen Victoria Tunnel at this time), located to the south of Liverpool Street Station, and due to be substantially altered by the Crossrail Construction Scheme. See plan P30103-C1M12-E00-D-5004 from the WSI, appended to the PDF version of this MS. The former Broad Street Ticket Hall is item [11], and the Queen Victoria Tunnel item [12].

This task has been commissioned by Crossrail as part of its commitment to the assessment and recording of non-listed built heritage affected by the works on the site of Liverpool Street Station (as stated in section 5.3 of the WSI (Crossrail 2010).

MOLA wish to access the former Broad Street Ticket Hall at Liverpool Street (housing an LUL/Powerlink sub-station) in order to make a rapid record of the historic elements of both the former Broad Street Ticket Hall.

This methodology has been adapted to a short visit by one Buildings Archaeologist (accompanied by an appropriately accredited person), during Engineering Hours (night), without the use of a photographic tripod, and only hand-held, battery powered, additional lighting, in order to comply with Powerlink's access requirements.

Unlike most other tasks undertaken for Crossrail, there is no Principal Contractor overseeing this work.

1.1 Event Codes

The sitecode is **XSM10**.

1.2 Programme & staffing

It is planned that the fieldwork be conducted on the night of the 2nd/3rd December 2013, from 23:00h.

The MOLA Buildings archaeologist will be Azizul Karim, accompanied and supervised by an appropriately accredited Crossrail member of staff: Field Engineer (LU Interface) Lee Dutton.



2 Brief summary of the standing structure

2.1 Former Broad Street Ticket Hall

Former below-ground ticket hall, now used as a LUL Powerlink sub-station. The structure is significant as the sole surviving part of Broad Street Station, constructed in 1865 and demolished in 1986. Elements of the historic fabric survive in good condition and includes: glazed tiles, blocked up archways, numerous stanchions, stairs, handrails and glazed tiles surrounding advertising hoardings. The structure is significant as a sole surviving section of the now demolished Broad Street station. To be demolished.

The WSI requires a Level 2 historic building survey to be undertaken of the structure prior to demolition, in accordance with the guidance and standards laid down by English Heritage (EH 2006).

2.2 Queen Victoria Tunnel

*Access to the QVT is **not** required.*

Branching off from the Metropolitan Line, the Queen Victoria Tunnel is an early element of the London Underground dating to the late 19th century when the Metropolitan Line was extended from Moorgate. Much of the historic fabric has been lost with the insertion of modern fixtures, fittings and plastering, with only the outline of the tunnel being extant. The tunnel is part of the historic development of the London Underground network and it is to be partially demolished.

Due to its proximity to the Broad Street Ticket Hall the WSI recommended that historical research be conducted on the tunnel and plans be made of the affected area, in conjunction with the works specified for Broad Street Station Ticket Hall and access tunnel.



3 Specific objectives and research aims

Mitigation aims, as specified in Section 5.3 of the WSI comprise the recording of the structural remains of the former Broad Street Ticket Hall to Level 2 of the English Heritage specifications (2006), and that plans be made of the Queen Victoria Tunnel. The Level of recording was selected according to the nature of the structure and the purpose for which the record is intended.

The historic building recording survey will therefore be carried out in accordance with the WSI and other guidance for such work (eg English Heritage guidance 2006), other applicable standards and guidance (especially RCHM(E) 1996, and IFA Standard and guidance for archaeological investigation of standing buildings or structures, 2008, and using as appropriate the terms and methods specified in the Museum of London Archaeological site manual (3rd edition 1994).

Level 2 is a descriptive record appropriate for buildings judged not to require a fuller record, and comprises the survey of the inside of the structure (these structures have no outside). The record typically consists of sketch drawings, photography and notes made on site by a MOLA Senior Archaeologist and will present conclusions regarding the structure's development and use.

In accordance with PPS5 policy HE12, copies of any records will be supplied to the local historic environment record.

Further to the specified aims above are the following objectives:

- To investigate the fabric of the structure before demolition/alteration/refurbishment, with the aim of elucidating its structural history, and record and analyse the resulting evidence for this history using applicable archaeological methods.
- To make a record of the existing building in its present condition, by means of photography, measured survey where necessary and annotated sketches.
- To carry out an appropriate level of documentary research in order to give a written account of the structure.
- To report the results in suitable form in accordance with Crossrail requirements, and archive the records.

The survey will therefore concentrate on capturing a record of the structure in its present state, prior to demolition or alteration, ensuring that the overall layout and extent of the structures are represented, along with the various fabrics used in their construction.



4 Built heritage investigation and methodology

The Standing Building Survey consists of making a rapid written, drawn, and photographic record of the whole structure and of selected elements of the historic fabric and decoration. This will require a MOLA Standing Buildings specialist who will need to be accompanied, for approx 3–5 hours, and no more than 7.4 hours (7 hours 24 minutes).

Aside from paper and pencil/pen, the equipment required consists of:

- Electronic distance measure tool (Disto)
- Wooden plastic or canvas measures [*metal measures are not permitted*]
- Camera with flash, but without a tripod
- Small portable internal-battery LED lights (no tripod, stand on floor) Workstar Nightsearcher:
<http://www.nightsearcher.co.uk/Products/tabid/55/agentType/View/PropertyID/151/Default.aspx>

The records produced will initially form a preliminary report to Crossrail, and may well form a small part of eventual publication of the archaeological/historical results of the Crossrail scheme, before being stored in the London Archaeological Archive & Research Centre.

4.1 On-site investigation

Non-intrusive physical investigation of the former Broad Street Ticket Hall will be done on site, prior to alteration or demolition of their fabric. This aspect of the investigation will be selective, aimed at elucidating significant details regarding the function, or the order of construction and development, as far is possible prior to demolition or alteration. The on-site analysis and recording of the fabric and the methods of construction of the built heritage is an important part of this process.

4.2 Drawn records

The Site Supervisor may make notes and/or sketches on site in order to record the location or nature of features or fabric of the structure. These will be included in the archive material. Further measured drawings will thus be drawn on site as necessary, in order to capture a representative example of features. Consequently, a single occurrence of such features will be recorded in detail as a representative example of their type, whilst simply the presence of the remaining examples will be noted and located.

The schedule of drawings that are likely to be produced is as follows:



- **Site plan**, to show outlines of the structure, and nearest site grid control points,
- **Sectional elevation**,
- **Details**; scale 1:50, 1:20 or 1:10, of any significant details of interest. These may include any features related to the buildings and of intrinsic interest, such as equipment. No such features have yet been identified, but they may be exposed after removal of debris and vegetation.

Details of the scales and conventions used are given in the *Archaeological Site Manual* (MoL 1994). The Project Manager and Site Supervisor(s) will be responsible for ensuring that the specified methodologies are employed.

The use of existing section/elevation and plan drawings, is an important factor as these drawings will be used on site and details annotated.

Drawings for the archive record are to be printed on durable and dimensionally stable paper.

4.3 The photographic record

In addition to the measured and annotated drawings made on site, photographs will be taken by MOLA on site. These have a dual purpose in that they enable close analysis of the structure at a later stage by the MOLA buildings team, as well as providing a further visual and archival record of the structure, prior to alteration.

The Project Manager and Site Supervisor(s) will therefore be responsible for ensuring that the following methodologies are employed:

- The record will include photographs taken by MOLA, using a digital camera with a built-in flash, and if permitted floor-standing LED lights (see 4). The photographic record will be sufficiently thorough and detailed to illustrate all significant phases, structures, important stratigraphic and structural relationships, and individual items of interest.
- The images will include, as necessary, one or more external views of the elevation and of the structure generally in its present setting, and further close up views to show the general character of the well, its fabric and details of features with significance for construction, use and modification of the structure.
- Significant fixtures and fittings will be noted and recorded at an appropriate level of photographic detail.
- Photographs taken by field staff.
- A computerised photographic index will be compiled, relating image number, context numbers (if relevant), survey area, direction of view and other related information.



4.4 Documentary archive research

A survey of documentary sources for the history of the structure will be undertaken, aimed at presenting evidence for dates of construction and major modifications. Research may also include, as required, published comparative material to help identify and date the fixtures, fittings, materials, techniques and decoration in the building.

4.5 Written records

The Project Manager and Site Supervisor will be responsible for ensuring that the description of the building in the final report corresponds to Level 2 in English Heritage specifications (EH 2006). This will form a descriptive record, incorporating an introductory description followed by an account of the construction, development and use of the building, citing the evidence of the fabric and evidence from documentary sources to support the conclusions drawn.

The text that presenting the results of the investigation of the building will refer to photographs and drawings in the report. In general, and where not otherwise mentioned, the terms and procedures of the *Archaeological Site Manual* (MoL 1994) will apply.

4.6 Archiving and Dissemination

The site-specific publication and archive requirements will be agreed in conjunction with the Project Archaeologist in the light of the overall approach being developed for the Crossrail project (eg publication format and the extent to which individual sites may be grouped spatially or thematically; and degree to which the archive will be systematised and deposited as a single whole).



5 Site-specific safety considerations

The site is currently the location of a working electricity sub-station, and therefore various amendments to the standard recording procedures have been made for safety reasons. The main site-specific safety issues are highlighted here, while a full risk assessment is produced in the last section of this document.

5.1 Electrical equipment

MOLA staff will not touch the electrical equipments of the sub-station, either directly or indirectly with their recording equipment (see 5.2 and 5.3).

The work will be undertaken at night, during engineering hours, when the power supply to LU is turned off, in order to reduce the risk of

The MOLA Buildings Archaeologist will be accompanied at all times by the Crossrail Field Engineer (LU Interface) (see 1.2).

5.2 Photography.

No tripods or mains/cable-powered lighting or lighting stands will be used on site, therefore no power cables will be required. Instead the photographs will be taken using a combination of available light and flash, and small battery-powered floor-standing lights (see 4).

5.3 Surveying and recording

No metallic tape measures will be used on site. Instead wooden, plastic or canvas measures may be required, alternatively and in addition, an electronic laser Disto measuring tool will be used.

5.4 PPE

All MOLA staff are supplied with and will wear or use the following PPE if and where required and as appropriate (though it is not anticipated, Crossrail are to advise if dust masks or flame retardant overalls are required):

- Safety Helmets (EN397)

- Ear Defenders (EN 352-3)

- Safety spectacles (EN166)

- Dust masks plain and valved (EN149 2001)

- Hi-visibility vests (EN471)

- Gloves Nitrile and latex disposable, PVC, EN374



Safety footwear - steel toecap and mid-sole boots and Wellingtons EN345-47 (No riggers are allowed)

Flame retardant overalls, if required by the Principal Contractor or Crossrail

5.5 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.

All accidents and emergencies must be reported to the Crossrail Field Engineer (LU Interface), see section 1.2 – mobile 07 961 188 341), who will call the emergency services, if required. They will also be reported to the Crossrail Incident Report Desk Call: 020 3197 5000.

All accidents and emergencies must be reported to the following personnel at Crossrail and MOLA:

- Jay Carver, Project Archaeologist, Crossrail Central, Crossrail Ltd, 25 Canada Square, London E14 5LQ
DD 0203 229 9258, Int 2258
Mobile 07870 191 705
- Projectwide Construction Safety Manager, Crossrail Central, Crossrail Ltd, 25 Canada Square, London E14 5LQ
Mobile 07718 861941
- George Dennis, Senior Contracts Manager, Museum of London Archaeology, Mortimer Wheeler House, 46 Eagle Wharf Road, London N1 7ED
DD 0207 410 2200, Int 2256
- Ian Grainger, Health and Safety Compliance Manager, Museum of London Archaeology, Mortimer Wheeler House, 46 Eagle Wharf Road, London N1 7ED
DD 0207 410 2200, Int 2271



5.6 Emergency Response

An Emergency Preparedness/Continuity Plan has been prepared by MOLA and submitted to Crossrail for approval.

MOLA staff will comply with the Crossrail, LUL, and Powerlink requirements, as briefed at the start of the single visit.

Employers Incident Response Contact	Crossrail Incident Report Desk: 020 3197 5000
Site Incident Response Contact	Field Engineer (LU Interface) Lee Dutton: 07 961 188 341
MOLA Incident Response Contact	<ul style="list-style-type: none">Nicholas Elsdon, Assistant Contracts Manager nelsden@museumoflondon.org.uk Direct Line (nights only): 01883 724 994 Mobile (reception unlikely at night): 07 872 127 296
Local A&E location	Full A & E at: The Royal London Hospital, Whitechapel Road, E1 1BB Telephone 0207 377 7781 Tube: The hospital is located opposite Whitechapel underground station. For night work take a taxi if possible. (also served by night bus N205, from Stop L, towards Stratford International) It is served by the Hammersmith and City and District lines before 00:44 and after 05:26.

5.6.1 Route to Hospital

The Crossrail supervisor will advise on route to hospital during their task briefing. It is envisaged that a taxi would be the most appropriate form of transport to hospital, if required.



6 Bibliography

Crossrail, 2010 *C138 Liverpool Street Station, Archaeology Site-Specific Written Scheme of Investigation, Doc. no. C138-MMD-T1-RST-C101-00001* Version 2, 29.04.10 [WSI]

Crossrail, 2010 *C140 Whitechapel Station, Archaeology Site-specific Written Scheme of Investigation, Doc. No. C140-HYD-T1-JLTI-DO61_00001, v3, 15/12/10* [WSI]

English Heritage, 2006 *Understanding Historic Buildings: A guide to good recording practice*

Institute for Archaeologists (IFA), 2008 *Standard and guidance for archaeological investigation of standing buildings or structures*

MOLA for Crossrail, 2012 *C261 Archaeology Early East, Method Statement, Archaeological Watching Briefs, Whitechapel Station (XSH10), Document Number: C261-MLA-X-ACT-CR140-50003 v4, 30.01.12*

Museum of London, 1994 *Archaeological site manual* (3rd edition)

Royal Commission on Historical Monuments, England [RCHM(E)], 1996 *Recording historic buildings: a descriptive specification*



7 Risk Assessments

An overall risk assessment has been carried out and control measure defined. More detailed advance assessments and control measure have then been produced for individual risks identified as Medium or High. Finally specific risks have been defined for which the advance assessments need to be reviewed and augmented on site, with other members of the works team.



MUSEUM OF LONDON ARCHAEOLOGY		SITE RISK ASSESSMENT REGISTER												
For Site: Liverpool Street: former Broad Street Ticket Office (Liverpool Street Substation)					Type: Standing Building Recording									
Persons Affected			No	Classification			No							
Employees			1	Experienced			1							
Other workers				Inexperienced										
Public				Disabled										
Known and Suspected Hazards on site (mark as appropriate) and include numbered risk assessment in WSI														
1 Access		✓	17 Contaminated Land				33 Plant as lifting equipment							
2 Ladders			18 Weil's Disease			✓	34 Human Remains							
3 Plant			19 Psittacosis				35 Public Safety							
4 Dumpers			20 UXO				36 Violence (to Staff)							
5 Scaffolding (inc Towers)			21 Asbestos			✓	37 Chainsaw							
6 Excavations			22 Welfare/housekeeping				38 Power Auger							
7 Work at height			23 Lone working			✓	39 Hand Auger							
8 Slips, Trips, falls		✓	24 Manual Handling				40 Foreshore/water							
9 Underground services			25 Fumes/Gas				41 Adverse Weather							
10 Overhead Power Lines			26 Dust				42 Spoil Mounding							
11 Electrical		✓	27 Noise				43 LPG(Butane)							
12 Fire (inc LPG)			28 Deep Excavations				44 Medical waste and other hazardous substances							
13 Confined spaces			29 Power Tools				45 Storage							
14 Breaking Out			30 Vibration				46 Animals							
15 Hand Tools			31 Vehicles				47 Ionising and non-ionising radiation							
16 Spray paint			32 Lifting Equipment(Hoists)				48 Sharps							
Assessment Of Remaining Risk From Specific Risk Assessments Included in WSI With This Register														
	L	M	H		L	M	H		L	M	H			
1 Access	✓			17 Contaminated Land				33 Plant (lifting)						
2 Ladders				18 Weil's Disease	✓			34 Human Remains						
3 Plant				19 Psittacosis				35 Public Safety						
4 Dumpers				20 UXO				36 Violence (to Staff)						
5 Scaffolding (inc Towers)				21 Asbestos	✓			37 Chainsaw						
6 Excavations				22 Welfare/housekeeping				38 Power Auger						
7 Work at height				23 Lone working	✓			39 Hand Auger						
8 Slips, Trips, falls	✓			24 Manual Handling				40 Foreshore/water						
9 Underground services				25 Fumes/Gas				41 Adverse Weather						
10 Overhead Power Lines				26 Dust				42 Spoil Mounding						



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11 Electrical	✓		27 Noise			43 LPG(Butane)			
12 Fire (inc LPG)			28 Deep Excavations			44 Medical waste and other hazardous substances			
13 Confined spaces			29 Power Tools			45 Storage			
14 Breaking Out			30 Vibration			46 Animals			
15 Hand Tools			31 Vehicles			47 Ionising/non-ionising rad			
16 Spray paint			32 Lifting Equipment			48 Sharps	✓		

General Project Controls


Contracts Manager in over all charge of project is: **Nick Elsdon** Tel: 020 7410 2282 (nights only: 01883 724 994 or 07 872 127 296)
 Supervisor (sole MOLA member of staff) : **Azizul Karim**
 Number, training and experience of supervisors will be sufficient for the project
 All staff will comply with the: MOLA H&S policy, Principal Contractors site rules, all WSIs, Risk assessments, safe systems of work Permits to work.
 All staff will have sufficient training and experience for the tasks they undertake or be under close supervision
 All staff will be CITB H&S tested and hold a CSCS card appropriate to their profession or be in the process of obtaining one where appropriate
 All staff will be fit to undertake their work
 All staff will be inducted on first day of work, briefed on the WSI and the specific hazards and control measures attendant on their work on site
 Tool box talks/staff briefing will be conducted on the hazards and control measures on a regular basis (at least weekly or more frequently if circumstances dictate)
 Appropriate PPE to be worn
 First Aid kit on site, First aider/appointed person on site. Nearest accident and emergency unit located and contact numbers obtained

Competent Person(s) appointed to take action: Ian Grainger H&S Compliance Manager Contract Manager Project officer Senior Archaeologist Sub-contractor	All Risk Assessments seen by (initials)	
	PM	
	SA	
	Client	
	Contractor	
	Other	
Nearest A&E	Royal London Hospital	




		RISK ASSESSMENT		AREA/TRENCH: Throughout the site	REFERENCE NO: 0001			
PROJECT: Liverpool Street: former Broad Street Ticket Office (Liverpool Street Substation)								
ACTIVITY/TASK/HAZARD: ACCESS				COMPLETED BY: I Grainger		DATE COMPLETED: 29.03.12		
TO BE READ IN CONJUNCTION WITH: MS				OVERALL REVIEW DATE: 05.09.2012				
Hazards	Initial Risk Rating			Persons Affected	Control Measures	Remaining Risk L/M/H	Action By (initials)	Reviewed/amended On site (date & initials)
	L	M	H					
Fall of persons from height Fall of objects from height Slips Trips falls Collapse of structure Ladders & Scaffolding will NOT be required in this instance	✓			Staff	All access routes will be kept clear of debris/obstructions/hazards. All safe access routes will be clearly sign posted All hazards will be marked and in an exclusion zone All access routes will be well lit. All stepped access will be maintained in good condition All access routes will be inspected daily, after adverse weather, or when it is altered.	L	SA	
All persons affected by this hazard must be made aware of the contents of this Risk Assessment								




		RISK ASSESSMENT		AREA/TRENCH: Throughout the site	REFERENCE NO: 0008			
PROJECT: Liverpool Street: former Broad Street Ticket Office (Liverpool Street Substation)								
ACTIVITY/TASK/HAZARD: SLIPS, TRIPS, FALL (On Level)				COMPLETED BY: DS	DATE COMPLETED: 29.03.2012			
TO BE READ IN CONJUNCTION WITH: MS				OVERALL REVIEW DATE:				
Hazards	Initial Risk Rating			Persons Affected	Control Measures	Remaining Risk L/M/H	Action By (initials)	Reviewed/amended On site (date & initials)
	L	M	H					
Injury to self and others Dropping of equipment/materiel	✓			Staff	<ul style="list-style-type: none"> All work areas to be kept free of obstruction and debris All work areas to be well lit All safe pedestrian routes to be sign posted. Dangerous areas to be sign posted and subject to exclusion zone. All protective barriers to be in place as appropriate All surfaces to be kept level and dry where practicable Staff to be physically fit for the conditions on site All staff to be briefed on safe pedestrian routes and changes thereto All visitors to be inducted and accompanied by site staff 	L	SA	
All persons affected by this hazard must be made aware of the contents of this Risk Assessment								




		RISK ASSESSMENT		AREA/TRENCH: Throughout the site & buildings to be surveyed both internally and externally		REFERENCE NO: 0011		
PROJECT: Liverpool Street: former Broad Street Ticket Office (Liverpool Street Substation)				COMPLETED BY: I Grainger		DATE COMPLETED: 29.03.12		
ACTIVITY/TASK/HAZARD: ELECTRICAL (Equipment and Supplies)		TO BE READ IN CONJUNCTION WITH: MS		OVERALL REVIEW DATE:				
Hazards	Initial Risk Rating			Persons Affected	Control Measures	Remaining Risk L/M/H	Action By (initials)	Reviewed/amended On site (date & initials)
	L	M	H					
Electrocutation of persons Fire Damage to equipment Trips (over flex etc) Accidental contact with live electrical source via metallic tools such as tape measure	✓			Staff	MOLA staff will follow all instructions given by the Crossrail Field Engineer at the start of work briefing/induction. Substation will be powered down and made safe for duration of MOLA inspection Flame retardant overalls will be worn if required MOLA staff will not touch electrical equipment of the sub-station either directly or with their recording gear. Metallic tape measures not to be used on site. MOLA staff will not use electrical equipment (except battery powered lights). Dry powder/ CO2 fire extinguishers to be available. Signs warning of electrical hazard will be displayed on supply units.	L	SA	
All persons affected by this hazard must be made aware of the contents of this Risk Assessment								



		RISK ASSESSMENT			AREA/TRENCH: Throughout the site & buildings to be surveyed both internally and externally	REFERENCE NO: 0018			
PROJECT: Liverpool Street: former Broad Street Ticket Office (Liverpool Street Substation)					COMPLETED BY: DS	DATE COMPLETED: 09.03.2012			
ACTIVITY/TASK/HAZARD: WEILS DISEASE (LEPTOSPIROSIS)					TO BE READ IN CONJUNCTION WITH: MS				OVERALL REVIEW DATE:
Hazards	Initial Risk Rating			Persons Affected	Control Measures	Remaini ng Risk L/M/H	Action By (initials)	Reviewed/amended On site (date & initials)	
	L	M	H						
Leptospirosis: bacteria transmitted by rat faeces and urine surviving in standing water, damp ground Fever like symptoms (leptospirosis) can lead to organ failure/death – Weils Disease Transmission via broken skin or ingestion Rats also cause: Bites and scratches Damage to food and property. Identify and deal with any significant rat presence on site prior to commencement of works where possible	✓			Staff	<ul style="list-style-type: none"> All staff to be briefed on hazard at general induction and site induction where applicable. All staff to carry HSE G 406 instruction card All staff will: <ul style="list-style-type: none"> wear gloves, maintain high standard of personal hygiene, Clean and Cover any cuts or abrasions promptly with a waterproof plaster wash hands before eating or drinking. There will be no eating drinking and smoking outside designated areas, All food will be kept covered and secure all food. Supervisor will maintain basic visual surveillance of staff for flu like symptoms. Staff to report ill health to supervisor Staff should register with their doctor that they work in environments where Weils disease may be a problem 	L	SA		
All persons affected by this hazard must be made aware of the contents of this Risk Assessment									




		RISK ASSESSMENT		AREA/TRENCH: Throughout the site & buildings to be surveyed both internally and externally	REFERENCE NO: 0021			
PROJECT: Liverpool Street: former Broad Street Ticket Office (Liverpool Street Substation)								
ACTIVITY/TASK/HAZARD: ASBESTOS				COMPLETED BY: DS	DATE COMPLETED: 09.03.2012			
TO BE READ IN CONJUNCTION WITH: MS				OVERALL REVIEW DATE:				
Hazards	Initial Risk Rating			Persons Affected	Control Measures	Remaining Risk L/M/H	Action By (initials)	Reviewed/amended On site (date & initials)
	L	M	H					
Inhalation of asbestos containing dust/asbestosis (MOLA working within buildings for which an asbestos report has been requested and will be received prior to the commencement of works. No intrusive works are to be conducted during the survey ensuring the risk of exposure is negligible)	✓			Staff & Contractor	MOLA not licensed asbestos contractor. MOLA staff will not remove or disturb known or suspected asbestos Asbestos survey report will be obtained where applicable. Staff will be briefed at induction on known locations of asbestos and conditions and entry restrictions attendant on these. staff will not work in areas where asbestos removal is undertaken until Air Certificates indicate 0.1 fibres per cm ² over 4 hrs Report suspected asbestos to supervisor if found in building or below ground. If suspected asbestos discovered work will cease in that area/room/trench until the nature and condition of the asbestos has been determined and a safe system of work is in place	L	SA	



					Appropriate PPE to be worn Impervious hooded overalls and approved respirators where applicable Entry to be restricted by barriers and warning signs. Dampening down of machine and other work operations in dry weather Wind direction work restrictions where applicable			
All persons affected by this hazard must be made aware of the contents of this Risk Assessment								



			RISK ASSESSMENT – WORKING ALONE		AREA/TRENCH: Throughout the site & buildings to be surveyed both internally and externally		REFERENCE NO: 0023	
PROJECT: Liverpool Street: former Broad Street Ticket Office (Liverpool Street Substation)								
ACTIVITY/TASK/HAZARD: LONE WORKING			COMPLETED BY: I Grainger		DATE COMPLETED: 14.03.12			
TO BE READ IN CONJUNCTION WITH: MS			OVERALL REVIEW DATE:					
Hazards	Initial Risk Rating			Persons Affected	Control Measures	Remaining Risk L/M/H	Action By (initials)	Reviewed/amended On site (date & initials)
	L	M	H					
Inability to summon help through injury Violence Entrapment Falling from height and slips/trips Electrocutation Drowning Suffocation/asphyxiation Poisoning	✓			Staff	The one MOLA Buildings archaeologist will NOT work alone , but be accompanied at all times by the Crossrail Field Engineer.	L	SA	
All persons affected by this hazard must be made aware of the contents of this Risk Assessment								

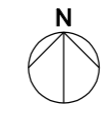
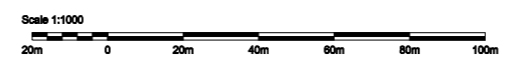


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REV	DATE	SCHEME DESIGN 3 ISSUE	DESCRIPTION	PWC	MC	DSW	BY	CHKD	APP	CAD	ACC
A03	18/02/2009	SCHEME DESIGN 3 ISSUE									

- Non-listed historic building
- Historic street furniture



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 www.crossrail.co.uk
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CONTRACT No. / CONSULTANT:
 1199 / MOTT MACDONALD
 TITLE:
**LIVERPOOL STREET STATION
 NON-LISTED BUILT HERITAGE
 LOCATION PLAN**
 SCALE: 1:1000 @ A1
 DRAWING AND CAD FILE No.: P30103-C1M12-E00-50004
 REV: A03
 RESTRICTED

Liverpool Street Sub Station



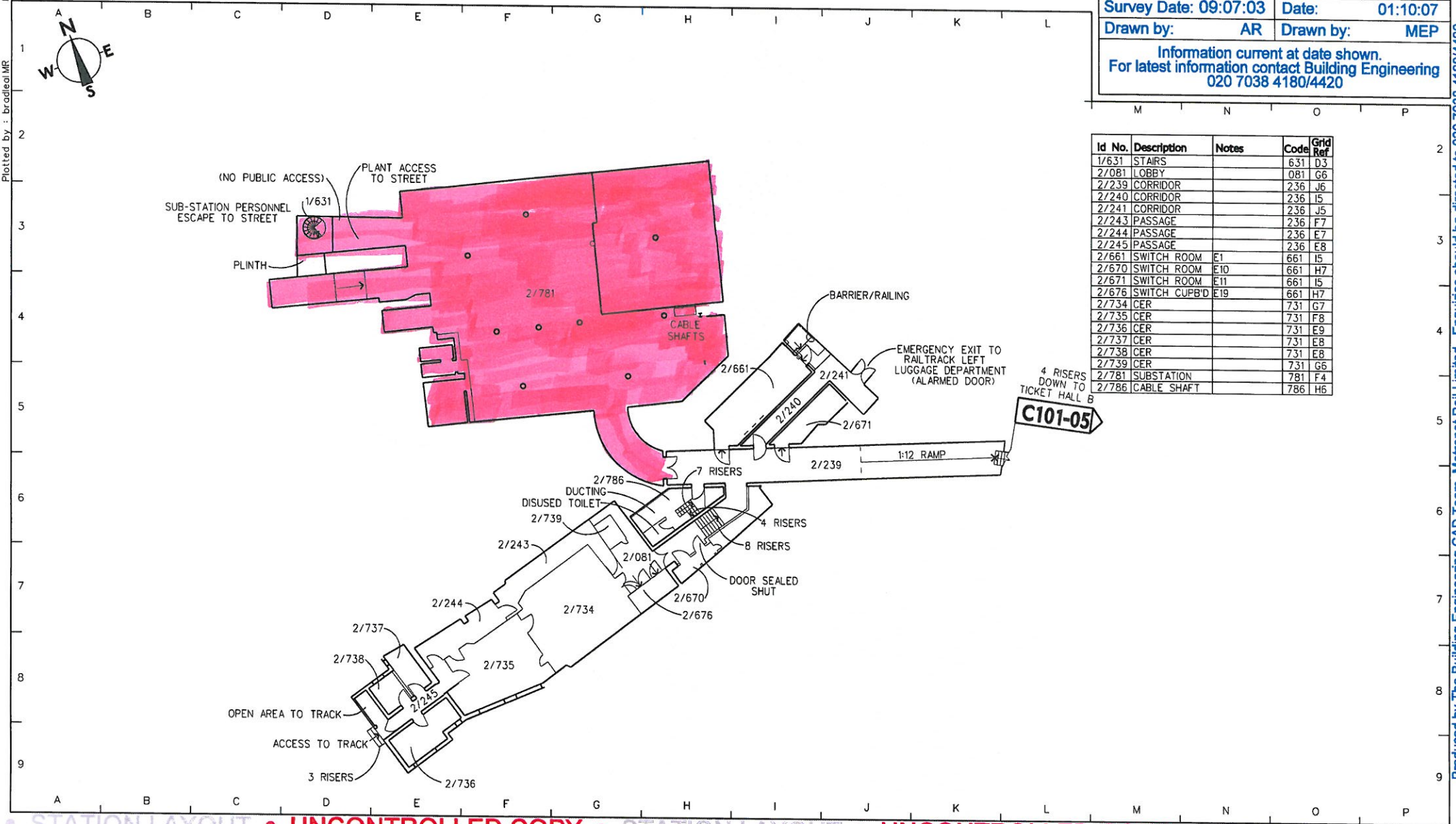
STATION LAYOUT Not for construction purposes

CONTROLLED TYPE 2 INFORMATION
Produced by
Building Engineering CAD Team
Metronet Rail Limited

Total of 17 Drawings C101-1a to 16	Drawing number: C101-11s
Issue: 13 (2004/05)	Revision: D
Survey Date: 09:07:03	Date: 01:10:07
Drawn by: AR	Drawn by: MEP
Information current at date shown. For latest information contact Building Engineering 020 7038 4180/4420	

Plotted by : brodieal.MR

Produced by The Building Engineering CAD Team, Metronet Rail Limited. Enquiries should be directed to 020 7038 4180/4420



Id No.	Description	Notes	Code	Grid Ref
1/631	STAIRS		631	D3
2/081	LOBBY		081	G6
2/239	CORRIDOR		236	J6
2/240	CORRIDOR		236	I5
2/241	CORRIDOR		236	J5
2/243	PASSAGE		236	F7
2/244	PASSAGE		236	E7
2/245	PASSAGE		236	E8
2/661	SWITCH ROOM	E1	661	I5
2/670	SWITCH ROOM	E10	661	H7
2/671	SWITCH ROOM	E11	661	I5
2/676	SWITCH CUPB'D	E19	661	H7
2/734	CER		731	G7
2/735	CER		731	F8
2/736	CER		731	E9
2/737	CER		731	E8
2/738	CER		731	E8
2/739	CER		731	G6
2/781	SUBSTATION		781	F4
2/786	CABLE SHAFT		786	H6