Basement Works

Shorts Gardens

60-72 Shorts Gardens
London WC2H 9AU

10669 / 004

REV 00

Steve Dennington

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Status of This Revision				
Overall Approval Status		**Yes**	**No**	**Date**
Cat A	Accepted for implementation. Work may proceed as planned.			
Cat B	Accepted for implementation with comments incorporated			
Cat c	Not accepted for implementation. Resubmission required.			
Date Returned to DE Specialist Works Ltd Project Manager				

Revision History		
Date	Revision No.	Details of Revision
17/01/2022	00	Initial Issue of Document

	Print Name	**Signature**	**Date**
Sign off by DE Specialist Works Ltd Operations/Project Manager	Steve Dennington	S Dennington	17/01/2022
Sign off by DE Specialist Works Ltd Operations Director	Roger Stoker	R Stoker	17/01/2022
Sign off by Client / Principal Contractor	**Print Name**	**Signature**	**Date**

Contents

1. Key Personnel Details

Name	Position	Contact number	E mail
Paul Ford	Chairman	0207 734 6655	Paul.ford@degroupuk.com
Marc Smith	SHEQ Director	07889 726344	Marc.smith@degroupuk.com
Robert Pincham	Managing Director	0207 734 6655	Robert.pincham@degc.uk
Kelly Hynds	Construction Director	0207 734 6655	Kelly.hynds@degc.uk
Roger Stoker	Operations Director (Visiting)	07720 088595	Roger.stoker@desw.uk
Steve Dennington	Operations Manager (Visiting)	07715 090467	Steve.dennington@desw.uk
Daniel Maree	Project Manager (Site Based)	07540 108287	Daniel.maree@desw.uk
TBC	Site Manager (Site Based)	TBC	TBC
TBC	Groundworks Supervisor	TBC	TBC

2. Project Details

Principal Contractor / Client	Legendre	**Job No**	10669
Contract / Site Name	Shorts Gardens	**Reference No**	004
Site location	60 – 72 Shorts Gardens London WC2H 9AU	**Revision**	00
		Date	17/01/2022
Works / Tasks to be carried out	Basement Works as per Fairhurst structural engineer's drawings.		

Dates / Times the works will be carried out		
Date from / to	01/03/2022	01/06/2022
Daily start time	08:00 hours (Monday to Friday)	17:30 hours

3. Significant Hazards & Risks.

Significant details of risk assessment or reference to risk assessment				
Hazard	**Identified at risk**	**Uncontrolled risk**	**Control measures to be applied**	**Residual risk**
High	FIRE	Operatives, Staff and Public	No smoking allowed on site. Only 110v task lighting to be used and all lights / power tools are to be unplugged when not in use and at end of shift. All hot works must be under cover of a permit. Stairs to be always kept clear for escape.	**Low**
High	Risk of Electrocution	Operatives	All power tools to be 110V and PAT tested. All lighting to be 110V and PAT tested. All existing	**Low**

			electrical services to be either isolated or protected prior to demolition works commencing. All live services to be clearly marked.	
Med	Using Brock	Operatives	Only the trained person is to operate the Brock. All other operatives to stay clear of the Brock when in use. Chapter Eight barriers to be set up to cordon off the demolition areas.	**Low**
Med	Using 360 Excavator	Operatives	Only the trained person is to operate the 360 Excavator. All other operatives to stay clear of the 360 Excavator when in use. Chapter Eight barriers to be set up to cordon off the groundwork areas.	**Low**
Med	Using Skid Steer	Operatives	Only the trained person is to operate the Skid Steer. All other operatives to stay clear of the Skid Steer when in use. Chapter Eight barriers to be set up to cordon off the groundwork areas.	**Low**
Med	Using Track Saw	Operatives	Only the trained person is to operate the Track Saw. All other operatives to stay clear of the Track Saw when in use. Chapter Eight barriers to be set up to cordon off the groundwork areas.	**Low**
Med	Using Core Drill	Operatives	Only the trained person is to operate the Core Drill. All other operatives to stay clear of the Core Drill when in use. Chapter Eight barriers to be set up to cordon off the groundwork areas.	**Low**
Med	Manual Handling	Operatives	Operatives are not to carry more than 20kg individually. Larger sections of concrete and steel to be reduced into smaller pieces if necessary. Mechanical means to be used whenever possible. The correct type of gloves are to be used depending on what type of material is being handled.	**Low**
Med	Using hand tools	Operatives	Only competent operatives to use hand tools. Only use hand tools that are in good condition. Discard any damaged hand tools. Always wear the correct PPE.	**Low**
Med	Using Power Tools	Operatives	All power tools to be 110V. All power tools to be PAT tested. Power tools to be used only for the purpose they are made for. Hands to be always placed on the correct part of the tool.	**Low**
Med	Loading of Skips	Operatives and public	Operatives to always follow manual handling guidelines. Barriers to be placed around skips to always prevent unauthorized access. Only skip drivers are allowed to put the chains on the skip prior to lifting. Skips are not to be over loaded.	**Low**
Med	Slips, trips, and falls	Operatives	Extension leads to be clipped up at high level. Floors to be checked for trip hazards on a regular basis. Fire escape routes are to be always kept clear. Mobile towers and podiums to always have full edge protection. Podium gates to be closed.	**Low**
Med	Unloading/ loading of transport	Operatives	Operatives are not to stand on flat bed lorries without edge protection. Whenever possible mechanical means are to be used.	**Low**
Med	Use of PPE	Operatives	Operatives to always wear 5-point PPE (Safety Hat, Safety Footwear, Hi Vi, Gloves and Safety Spectacles). Additional PPE to be worn as per Section 15.	**Low**
Med	Dust	Operatives	All operatives to wear face fit masks. Dampen down masonry and concrete all the time. Extract if damping down not working.	**Low**

Low				**Low**

In order to ensure that the greatest risks are addressed first it is necessary to be able to rank those risks.

To do this takes a subjective judgment of both the likelihood of damage occurring (the likelihood) and the potential damage that would occur if the worst were to happen (the severity). By assigning a value to each task's likelihood and hazard and multiplying those together a risk value for that task is established.

LIKELIHOOD - Probable Frequency (taking into account whatever precautions are currently being taken):

Improbable Occurrence	Low
Possible Occurrence	Low
Occasional Occurrence	Medium
Frequent Occurrence	Medium
Regular Occurrence	High
Common Occurrence	High

SEVERITY of the hazard -:

Trivial injury	Low
Minor Injury	Low
Major injury to one person	Medium
Major injuries to several people	High
Death of one person	High
Multiple fatalities	High

RISK - The expression of the risk is then the sum of multiplying likelihood by severity as in the grid below:

		Likelihood		
		High	**Medium**	**Low**
Severity	**High**	**High**	**High**	**Medium**
	Medium	**High**	**Medium**	**Low**
	Low	**Medium**	**Low**	**Low**

4. Methodology & Sequence of Works

Prior to works commencing

1. All managers, supervisors and operatives will attend a Legendre and DESW Site Induction.
2. All operatives will complete the DESW Induction Form.
3. All operatives will read the DESW RAMS and sign the register to confirm they have fully understood the safe system of works and associated risks.
4. CSCS cards will be checked, and copies taken.
5. All operatives will sign in and out each day.
6. Areas to be cleaned at the end of each shift.

7. Legendre will inform DESW of any asbestos containing materials within the building and forward copies of the latest R & D Surveys. Legendre to remove asbestos prior to DESW commencing works.
8. Legendre will inform DESW of any live electrical, water or gas services near to the basement works. Legendre will isolate / protect services prior to DESW commencing works.
9. Legendre will inform DESW of any lead painted surfaces adjacent to the areas of the basement works. Legendre to remove lead paint prior to DESW commencing works.

Methodology & Sequence of works

West Core

10. On completion of all the demolition to the West Core the ground works will commence.
11. Temporary Works will be removed in conjunction with basement works as per the TW approved sequence.
12. The line of the piling will be marked out.
13. Using a core drill, 450mm holes will be cored through the slab to suit the piling as per the specialist RAMS.
14. When completed the piling team will set up the rig, generator, and concrete mixing machine. Spreaders will be used to reduce the load onto the slab to less than 10kn/m2.
15. Alternate soft piles will be cored followed by alternate hard piles as per the specialist RAMS.
16. Piles will be cored and poured as per an agreed sequence and testing methodology.
17. The tops of the pile rebar cage will have sleeves as required.
18. Using a track saw the line of the capping beam will be cut to full depth of slab as per the specialist RAMS.
19. When complete the piles and remaining slab will be cut down to the required height.
20. The rebar for the capping beam will then be fixed and shutters installed.
21. The capping beam will then be filled with concrete pumped from the lorry in Shorts Gardens.
22. After 3 days the shutters will be struck.
23. The underpinning will then be carried out as per the specialist RAMS.
24. The existing slab will then be broken out with a 360 machine and the rubble mechanically moved to the skips in Shorts Gardens
25. When complete the ground will be excavated down to the specified level.
26. The rebar for the perimeter retaining walls will then be fixed and the shutters installed.
27. The retaining wall will then be filled with concrete pumped from the lorry in Shorts Gardens.
28. After 3 days the shutters will be struck.
29. The ground will then be excavated for the lift pit and chamber.
30. Blinding will be laid, and the slab rebar fixed.
31. The slabs will then be poured with concrete pumped from the lorry in Shorts Gardens.
32. The wall rebar will then be fixed and the wall shutters installed.
33. The walls will then be poured with concrete pumped from the lorry in Shorts Gardens.
34. The blinding and rebar for the main slab will laid/fixed and poured with concrete pumped from the lorry in Shorts Gardens.
35. The RC capping for the pump chamber will be carried out at the same time.
36. The slab will have a smooth trowel finish.

Central Area

37. The double lift pit will be formed as per the method above.

38. Drainage will be installed within the existing trenches as per the Fairhurst drainage drawings.
39. All drainage trenches will be backfilled to the specified level.
40. Dowels will be installed to the edges of all slabs and the rebar laid.
41. The slabs will then be poured with concrete pumped from the lorry in Shorts Gardens.
42. To existing pits where there is no drainage these will be filled with Filcor to the specified level.
43. Dowels will be installed to the edges of all slabs and the rebar laid.
44. The slabs will then be poured with concrete pumped from the lorry in Shorts Gardens.
45. The slab will have a smooth trowel finish.
46. All poured concrete will have cubes taken for testing at 7 and 28 days.
47. Please refer to 003 RAMS regards water management.

5. Resources

Resources
1 x DESW Project Manager 1 x DESW Site Manager 1 x Groundwork Supervisor 10 – 15 Groundwork Operatives 1 x 360 Excavator Operator 1 x Skid Steer Operator 1 x Floor Saw Cutter 1 x Core Driller 1 x Piling Team
Plant, equipment and materials to be used
1 x 360 Excavator 1 x Skid Steer 1 x Floor Track Saw 1 x Core Drill 1 x Conveyor Belt Hilti TE1000/TE3000 Breakers Makita Repo Saws Makita Disc Cutters 4 Wheeled Bogeys and Pallett Trucks Chapter Eight Barriers Dust Extraction Equipment
To include details of inspection/certification requirements
Inspection and test sheets for all plant Pat tests for all 110V tools and small plant

6. Access / Egress / Work at Height

Details of access and egress to work areas

The project office and site accommodation is based in Endell Street a short walk from site. Access and egress for personnel to site will be via the main site entrance in Shorts Gardens. Once signed in access and egress to the work faces will be via Legendre safe routes throughout the building. Emergency routes and fire escapes will be set up by Legendre.

Specific detailed description of safe working at heights/prevention of falls					
Hierarchy for managing and selecting equipment for work at height					
	Equipment	**Selected equipment**			**Details of use, also give reasons why equipment is not used.**
		To be used	**N/A**	**Not suitable**	
1	**MEWPS Scissor lifts, cherry pickers etc.**		✓		
2	**Scaffolding/Fixed Guardrails**		✓		
3	**Mobile Towers**		✓		
4	**Safe Stands**		✓		
5	**Podium/access platform with guardrails.**		✓		
6	**Stepladders**		✓		
7	**Ladders**		✓		
8	**System Safety Decking**		✓		
9	**Nets/Airbags other soft landing systems**		✓		
10	**Safety Harness/Safety Lines**		✓		
Detail of work at height					
N/A					

7. Protectives Measures

Protection needed for any other persons								
Other employees (✓ if required yes/no)	**Yes**	**No**	**Employees of others (✓ if required yes/no)**	**Yes**	**No**	**Members of public(✓ if required yes/no)**	**Yes**	**No**
	✓			✓				X
Detail procedures								
Chapter Eight barriers will be used to cordon off the works areas.								
Signage								
Is site specific signage required? (✓ if required yes/no)							**Yes**	**No**

	✓	
Full details below		
Legendre the Principal Contractor will fit all main signage. DESW the Trade Contractor will fit site specific groundworks signage to the Chapter Eight barriers.		

8. Emergency / Non – Routine Procedures

Description of emergency/rescue and fire procedures

In the event of an emergency raise the alarm, notify principal contractor and contact the emergency services. Fires are not to be tackled.
Move to muster point as advised in Site Induction. Roll call to be carried out by the DE Specialist Works Project Manager for DESW operatives only.
The first aid box and eye wash stations are kept in the DE Specialist Works site office.
All accidents to be reported to the DE Specialist Works Project Manager, the DE Group SHEQ Department and Legendre.

The nearest A & E Department is: -

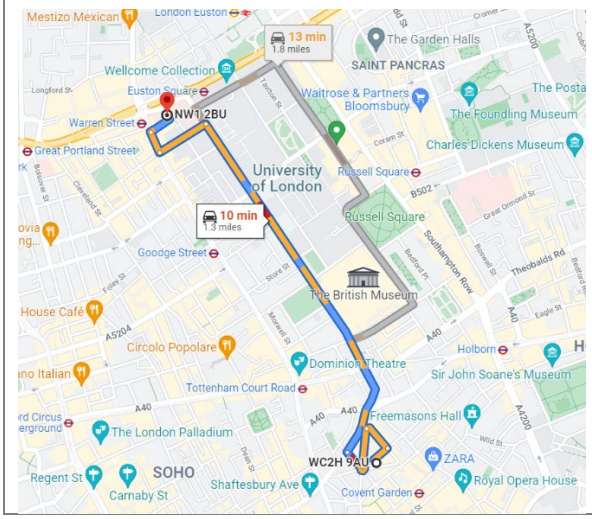
University College Hospital

235 Euston Road

London NW1 2BU

Tel: 020 3456 7890

The map below shows the quickest route by car to the A&E hospital. Warren Street and Euston Square tube stations are also close to the A&E hospital. The closest tube station to site is Covent Garden.



9. Materials, Handling & Storage

Arrangements for delivery, stacking, storing and movement on site of plant/materials

All deliveries will be via Shorts Gardens within the Legendre controlled road closure. All materials will be off loaded by tower crane, hi-ab, moffet or manually. Vertical movement if not by crane will be by hoist. Horizontal movement will be by 4-wheel trollies and pallet trucks. Small items will be manually moved under assessment. All plant and materials will be stored in agreed locations taking care not to overload the existing floor structure.					
Manual handling assessment		**Yes**	✓	**No**	
A Manual Handling Assessment will be carried out by the DESW Project Manager for the groundworks prior to works commencing and reviewed at regular intervals and if sequences and methodologies change.					

10. Environmental Considerations.

Environmental controls
Dust suppression will be by water spray for the demolition of concrete and masonry structures. Water taps will be turned off when spraying not required. Extractions units will be used where water is unable to suppress the dust. Noisy works will follow Camden guidelines. We propose to work 2 hours on 2 hours off if required. Externally noise and vibrations will be checked daily by receptors installed by Legendre.
Description/frequency of clearance of debris from site including waste transfer procedures
Regular collection of the following waste: - Concrete, masonry and earth using 8 yard wait and load skips and grab lorries. All waste will go to DE Group approved waste recycling centres from where recycling reports will be issued.

11. Noise

PPE, Noise assessment, Vibration assessment (HAVS), COSHH assessments and permit to work procedures					
Noise Assessment	**Is a noise assessment required? (✓ if required yes/no)**	**Yes**	✓	**No**	
Full details below					

Type of machine	**Name of machine**	**dB (A) max. at source**	**Area of use:**	**Ear protection requirements and type**
Breaker	Hilti TE1000	85	Demolition of concrete mezzanine slab	Ear defenders
Disc Cutter	Makita	84	All areas	Ear defenders
Repo Saw	Makita	94	All areas	Ear defenders
360 Excavator	TBC	TBC	TBC	TBC
Skid Steer	TBC	TBC	TBC	TBC
Track Saw	TBC	TBC	TBC	TBC
Core Drill	TBC	TBC	TBC	TBC

12. Vibration

Vibration assessment	Is a vibration assessment required? (✓ if required yes/no)		Yes	✓	No	
Full details below: -						
Type of Machine	**Name of Machine**	**Vibration Level m/s²**	**Exposure limit and control measure**			
Breaker	Hilti TE1000	5	4 Hours			
Disc Cutter	Makita	11	2 Hours			
Repo Saw	Makita	20	2 Hours			
360 Excavator	TBC	TBC	TBC			
Skid Steer	TBC	TBC	TBC			
Track Saw	TBC	TBC	TBC			
Core Drill	TBC	TBC	TBC			

13. COSHH

COSHH assessment	Is a COSHH assessment required? (✓ if required yes/no)		Yes		No	X
Summary of details below: - N.B. Full COSHH must be attached						
Type of Materials	**Manufacturer**	**Hazard/effect**	**Exposure limit and control measure**			
TBC	TBC	TBC	TBC			

14. Permit to Work

Permit to work required				
Permit to/type	**Yes**	**No**	**Location on Site**	**Details when used**
Hot works	✓		All work areas	For cutting existing steel work/rebar
Confined space				
Access				
Excavate	✓		Basement	For removal of basement slabs/earth
Work on or near electrical equipment				
Other				

15. PPE

Detail any personal protective equipment required (PPE)
DE SPECIALIST WORKS LTD OPERATE A 5 POINT PPE POLICY AS LISTED BELOW

PPE item	Yes	No	Type	Details when used: -
1. Safety Footwear			Steel toecap with mid sole protection safety boots	At all times
2. Head Protection			Only helmets to BS 5240 or EN 397 less than 3 years old will be worn	At all times
3. Hi-Vis clothing			Hi-visibility vest	At all times
4. Gloves, include type			General site use (EN420 minimum)	At all times
5. Eye Protection			Light eye protection (EN166)	At all times
			Goggles for cutting and grinding	As required
Ear Protection			BS EN 353 part 3 – SRN30	As required
Respiratory Protection			FFP1 / FFP2 / FFP3	Not to be used
RPE			Sundstrom Sr100 half masks.	As required
Coveralls			White Coveralls	As required

16. Specific Training / Competence Requirements

Competent person/supervision/training/procedures:		
First name	**Surname**	**Training / level of competence**
Daniel	Maree	SMSTS/SEATS/TWC/PASMA/ FAW
Training/site induction procedures		
All operatives to have a Legendre and DE Specialist Works induction and regular TBTs All operatives to be asbestos awareness trained		

17. Changes to Authorised Methodology

Procedures for changing or departing from method statements: -

Changes to the RAMS may be carried out by the site supervisor only after prior authorisation from a member of DE Specialist Works management, preferably the person who prepared the original Plan of Work, the Operations Manager, or the following nominated Directors.

- Roger Stoker
- Marc Smith

All changes will be recorded on the site generated RAMS; this will be given a reference number, date and name of person who authorised changes.

In the event of significant change, the project will cease, and plan of work shall be withdrawn. The project shall be re-evaluated by the relevant Operations/Project Managers and the revised method statement submitted to the Client.

18. Responsible Persons

Name of competent person/s who prepared these RAMS: -			
Name	**Job title**	**Signature**	**Date**
Steve Dennington	Operations Manager	S Dennington	17/01/2022
Name and contact details of Health and Safety Officer/Manager or Consultant (Must include qualifications/membership of professional H&S body)			
Name	**Contact Details**	**Qualifications/membership of professional H&S body**	
Marc Smith	07889 726 344	CMIOSH MIIRSM	

19. RAMS Briefing / Acceptance Records

Names of all operatives involved in this operation – RAMS Reference Number – 10669 004 REV - 00 Rams Title – Basement Works N.B. To be completed by all operatives involved in the works after the Site Supervisor has explained the contents.				
First name	**Surname**	**Job title**	**Signature**	**Date**