DOFF CLEANING METHOD STATEMENT
52 PRINCESS STREET, MANCHESTER

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METHOD STATEMENT

Project Name:	52 Princess Street, Manchester	**Project Number:**	J1820
Work Activity:	Masonry Doff Cleaning to External Elevations	**Approved By:**	
Date:	25 July 2019	**Site Foreman:**	Tom Roberts
Prepared By:	Steven Eccleshare	**First Aider:**	Tom Roberts

1. DESCRIPTION OF WORKS:

The scope of works includes Doff Cleaning, Masonry Repairs, Brick Replacements & Repointing to four external elevations of 52 Princess Street, Manchester.

Types of Repairs include: -

- Re pointing works
- Masonry Repairs
- Brick Replacements
- Hot Water Doff Cleaning

2. INDUCTIONS:

All inductions are to be booked in prior to starting on site.
All inductions are to be at site office.

3. RESOURCES

Name (Role)	Qualifications & Training	Induction carried out by	Date of Induction
Steven Eccleshare (Contracts Director)	• Directors Role for Health & Safety (31/03/2023) • SMSTS (Exp 31/12/19) • CSCS - Site Manager (Exp 04/2024) • NVQ level 6 - Construction Contracting Operations Management		
John Clare (Masonry Cleaner Conservation)	• Stonehealth Approved Operator (Exp Jun 21) • CSCS – Heritage skills (Exp Jan 2021) • Health & Safety Awareness • Supervisor Diploma level 3 • PASMA (Exp 29/03/2024) • Face Fit Tested		

Tom Roberts (Supervisor)	• SSSTS (Exp 31/03/2022) • CSCS Card (Exp Jan 2020) • Manual Handling (From 17/02/2017) • First Aid (Exp 28/03/2020) • Face Fit Tested		
Gary Mitchell (Stone Cleaner/ Conserver)	• Stonehealth Approved Operator (Exp Jun 21) • CSCS Card (Exp Apr 24) • Health & Safety Awareness (Exp 31/10/19) • Abrasive Wheels • Manual Handling (From 18/03/2019) • Working from Height (09/11/2017) • Face Fit Tested		

Working Hours

Working hours are as follows: -
Works are based on a 39-hour week
Monday-Thursday 8.00am - 4.30pm
Fridays 8.00am - 3.30pm

Water/Power

Power
To be supplied by Main Contractor

Water
Mains water supply adjacent to work area

Materials

The following materials are required to carry out repair works as described in Bullen Conservation Ltd scope of works

- Diesel
- Lime/sand Mortar

Permits

Permit to access work area.

4. ACCESS:

All access equipment required to carry out the works in line with the scope of works are listed below: -

Tube and fitting access scaffold supplied by Armitage Construction

5. MATERIALS HANDLING:

A list of materials to be used on the project as listed below: -

- Diesel/petrol – fuel
- Visqueen protection sheeting
- Hydraulic Lime/sand Mortar

Occupational Health/COSHH

Control of Task Specific Risks

Significant Activity Hazards	Controls
Working at Heights	All scaffold to be erected by fully trained operatives and introduce a scafftag check system. A rescue plan to be in place in all works at height. Do not stand on guard rails or handrails Do not over reach. Do not climb outside of the tower
Manual Handling	Manual Handling Must be avoided wherever possible. All operatives to have received Manual handling training. All bagged materials to be maximum 25 kgs. Delivery vehicles shall be unloaded by Skanska Bam Fork truck within main compound. Correct gloves, footwear, clothing etc shall be worn. Two persons shall be instructed to lift no more than 33kgs in any one joint lift.
Control of hazardous substances. Lime/Sand/Resin/Dust/Fuel	All hazardous substances hazardous to health should be completely removed and replaced using a safer alternative. As a last resort the correct P.P.E MUST be provided, worn and maintained when handling hazardous substances. Manufactures information and Data sheets must be readily available at all times. All waste materials are to disposed of as the manufacturer's recommendations at a licenced tip with written proof.
Struck by moving Plant/vehicles	Use designated pedestrian walking routes. Adhere to exclusion zones and do not enter unless authorised
All COSHH in attached appendix Keim – Algicid-Plus	

Storage

All fuel cans to be removed from site each day and stored in work vans off site.
All waste to be removed each day to skips provided on site by Armitage Construction.

P.P.E:

All correct P.P.E to be worn whilst handling or working with the materials as indicated on product data sheets in specific task sheets.

Fuelling

All fuelling of plant to be carried out in a well-ventilated area using the correct P.P.E.

Waste Disposal

All waste from site is to be removed each day to skips on site.

Mixing of Materials (Sand/Lime)

Correct P.P.E must be worn whilst handling lime and fuel.

Handling

Operatives must be fully trained in manual handling.

All materials delivered to site are to be under 25kg. If any materials are larger than 25kg then an individual lifting task must be carried out by Tom Roberts (Supervisor).

Delivery of Materials

All large deliveries of materials must be taken at main yard distributed via Bullen Conservation Ltd.'s van to individual work areas.

All deliveries must be booked in with Armitage Construction prior to delivery.

All delivery drivers must wear full hi-visibility clothing whilst delivering materials.

6. PLANT:

The following is a list of essential plant required to complete the specified works: -

- Hot Water Doff System.
- Petrol Generator

Small plant to be fully PAT tested and visually inspected daily.

Copies of Face Fit Test Records to be handed to Armitage Construction.

Hand arm vibration records to be completed daily and a copy handed to Armitage Construction.

Bullen Conservation Ltd supervisor to complete a plant reception form and pass over to Armitage Construction site manager upon request. The reception form is to include all test dates and when next test date is due.

All cutting and grinding plant must be used by well wetting materials along with dust extraction units at all times.

7. P.P.E:

PPE issued for specific task

Gloves	Hi-Vis cold grip/cut resistance level 2/resistance level 4/EN388
Filters	3M P3 filters (3125)
Respirators	3M 6300 respirator/clean shaven
Protective clothing	Full pulsarail orange hi-vis clothing
Safety glasses	Low light glasses/anti-fog/anti-scratch
Safety goggles	Ultrasonic goggle/anti-fog/anti-scratch/impact goggle - EN166-1B
Safety helmet	Comfort plus safety helmet - centurion reflex
Ear defenders	Port west PW40 - ear defenders - EN352
Boots	Steel sole plates (no rigger boots)

8. ENVIRONMENT:

All Bullen waste to be washed down off the façade and collected in hessian sacking in a tea bag arrangement, then removed to waste skip on site.

Bullen Conservation Ltd.'s operatives to form a rescue net on the ground floor to prevent and waste removed paint going into the drains.

9. SERVICES:

Prior to Bullen Conservation Ltd starting works on site Armitage Construction to carry out a survey of all work areas and isolate any services which may affect the scope of works or the safety of the operatives.

10. ACCIDENTS & EMERGENCY PROCEDURE

In the case of an accident on site Bullen Conservation Ltd.'s operatives are to be made aware of the arrangements for local hospitals and the Armitage Construction rescue procedure in the site safety induction.

Working at Height Rescue plan

In the likelihood of a fall or emergency on a scaffold, then operatives working in the vicinity to notify nearby workers of an accident.

Armitage Construction will then call the emergency services if required and provide the following information: -

Details of the Operative.
Male/Female
Age –approximate
Weight-approximate
Known problems from the fall/broken leg. Conscious, Unconscious
Equipment damage
Amount of time fallen/accident

The injured party should be kept warm and still until the emergency services arrive.

11. WELFARE:

Armitage Construction to provide Bullen Conservation Ltd with welfare on site.

12. METHODOLOGY

Bullen Conservation Ltd.'s operatives to receive full site briefing by Bullen Conservation Ltd.'s Health and Safety Director (Steve Eccleshare) including RAMS, COSHH and Task Briefing. Bullen Conservation Ltd.'s operatives to report to site office for daily site safety briefing from Armitage Construction.

Bullen Conservation Ltd.'s operatives to be fully aware of methods of work and associated Risks.

Sequence and methodology:

Hot Water Doff Cleaning

Proceed to work area.

1) Proceed to inspect the work area and distribute plant ready for cleaning.
2) At the Base of the scaffold using hessian sacking form a dam to prevent any run off water spilling over onto the general public footpath.
3) Position petrol generator in a well-ventilated area agreed with Wardens away from the direct work zone, this to be positioned directly on a drip tray.
4) Identify the water supply and distribute hoses to work area ensuring no trips and falls are left in place.
5) All Plant to be distributed to work area on plant and bogeys. Plant to be removed from van via ramps and winches and NOT manually lifted at any time.
6) Consideration to be given for moving plant and safe movement of materials at all times whilst in the site compound.
7) Position into place the Hot Water Doff cleaning system, then set up water supply from pump to cleaning lance and distribute hose and position on at work area using hose protectors (ensure the hoses are at a maximum of 20 meters length so the pressure can be maintained throughout for recording purposes).
8) The Pump is to be placed in a suitable position outside the proposed line of construction to prevent waste water pooling around the operative whilst at work.
9) When works are ready to proceed clean the masonry in the following manner.

10) Install hessian sacking around the base of the area to be cleaned to act as a filter for the deposits that are to be washed from the building and prevent going into street drains.
11) Initially thoroughly and carefully wet down the masonry by initially well wetting with clean cold water to gently soften any carbon crustations and bring algae to the surface.
12) Leave the water to soak into the masonry then agitate with mason's soft conservation bronze bristle brush, if required use wooden spatulas taking care not to damage or scratch the face of the Masonry.
13) After a 10-minute dwell time re- wet the face of the Masonry and gently agitate again the masonry with a soft bronze conservation masons brush, this should be just enough to loosen the carbon and moss build up and rotated in a circular motion.
14) After a further dwell period of 10 mins prepare the Doff cleaning system ready to rinse the area to remove all deposits.
15) Before rinsing the Masonry, run water through the doff cleaning system for at least 1 minute to allow to reach the correct pressure and temperature (this can be ran free within the compound area).
16) Under the guidance of the Conservation Supervisor wash clean the area using low pressure (1 bar) and relatively hot water (80-100ºC) at a distance of 300mm to 400mm away from the masonry face.
17) This process should be fully recorded until the desired clean is achieved.
18) On completion of the cleaning process above, to apply the Keim Algicid-Plus.
19) On completion of cleaning process remove all waste and 'Caution Signs' etc., and remove from site.

Please refer to product information sheet – Keim Algicid-Plus

I confirm having read the Method Statement, Health and Safety Policy and all associated Appendices. All my work will be carried out in full compliance with this information

Print Name:	**Signature:**

RISK ASSESSMENT

Site:	52 Princess Street, Manchester	**Distribution:**
Job No:	J1820	Armitage Construction
Prepared by:	Steve Eccleshare	Bullen Conservation Ltd (Tom Roberts)
Date:	25/07/2019	Bullen Conservation Ltd (Site operatives)

Process	Hazard	Risk	Level of Risk	Controls
Delivery of plant	Contact /impact	Collisions to general public, visitors and employees	High	Protective barriers to be in place to cordon off work area along with pedestrian walkways in place. Warning lights to be fitted to plant. Competent Banksman to be used in all plant movements.
Working at height	Falls of persons	Death or serious injury to employees or others	High	Any platform is to be fitted with handrails and toe boards. A rescue plan to be in place in all works at height. Do not stand on guard rails or handrails Do not over reach Do not climb outside of the scaffold
Cutting out of Masonry	Falling materials, flying particles etc			All plant and tools are to be securely leashed to prevent falling and causing injury below. An exclusion zone should be formed around the scaffold to prevent risk of falling tools / materials etc

Manual Handling	Muscular/skeletal injuries	Injury to employees	Med/High	Manual Handling Must be avoided wherever possible. All operatives to have received Manual handling training. All bagged materials to be maximum 25 kgs. Delivery vehicles shall be unloaded within main compound. Correct gloves, footwear, clothing etc shall be worn. Two persons shall be instructed to lift no more than 33kgs in any one joint lift.
Control of substances hazardous to health	Contact with Hazardous substances.	Damage to health of employees and others around you.	Med/High	All hazardous substances hazardous to health should be completely removed and replaced using a safer alternative. As a last resort the correct P.P.E MUST be provided, worn and maintained when handling hazardous substances. Manufactures information and Data sheets must be readily available at all times. All waste materials are to disposed of as the manufacturer's recommendations at a licenced tip with written proof. COSHH assessments attached
Masonry Dust	Inhalation Flying fragments	Damage to lungs Damage to eyes	High High	Respirators to be face fit tested. Operatives to be clean shaven. Respirator filters to be changed on a regular basis. High impact goggles to be worn at all times of cutting/drilling masonry. Dust extractors to be used alongside of dampening down masonry. Wet cutting saws to be used when practicle. Grinders with vacuums to be used as an alternative to wet cutting.

Drilling/cutting	Hand arm vibration	Injury to employees	Med	Eliminate work process entirely. Use alternative methods. Carry out vibration records as guidance sheet. Provide P.P.E in the form of padded gloves. Train operatives in the correct use of power tools and ensure job/task rotation to reduce exposure to a minimum. Do not exceed trigger times (EAV) as per the assessments Record usage time for monitoring purposes Keep warm at all times to ensure blood circulation Do not overgrip tools
Slips / Trips				Keep working area clear of materials and debris
Struck by moving vehicles				Use designated pedestrian walking routes. Adhere to exclusion zones and do not enter unless authorised

Risk Assessment Review

Item Needing Action	Action to be Taken	Priority of Item (1 low, 5 high)	Task Assigned to	Completion Date

Manual Handling Assessment Checklist

Site:	52 Princess Street, Manchester	**Date:**
Job Description: Doff Cleaning, Masonry Repairs, Brick Replacements & Repointing to four external elevations		
Name: Steve Eccleshare	**Signature:**	
Is an assessment needed **– Is there a potential risk of injury to an employee during the work activity**		**Yes**
Does the task involve lifting more that 25kg for a single person or 33kg for a two-man lift		**Yes / No**
If the answer is yes to either question then the assessment should be continued		

Task	Can mechanical means be employed Yes / No	If yes – control measures to be put in place
Loading / Offloading		
Transporting to required location		
Lifting to position		
Manoeuvring into place		

If the answer is no to any of the activities, can alternative measures be put in place to effectively reduce the risk e.g. levers / rollers / jacks / multiple lifting (3 persons = 37.5kg max. 4 persons = 50kg max)

Task	Yes / No	Control Measures

If the answer is no to the remaining tasks, can the environment be changed to allow control measures to be implemented, e.g. alter scaffold / increase access routes / alter programme to eliminate other trades nearby

Task	Yes / No	Control Measures

If the answer is still no to any of the activities, then under the present conditions an effective means of eliminating the risks or reducing to an acceptable level cannot be achieved and advice should be sought from your supervisor before commencing this work activity.

DOFF

What is DOFF?

The DOFF Integra is a market leading, expertly engineered system that utilises a normal water supply to remove some of the more resistant forms of unwanted matter from a range of surfaces. The DOFF Integra is an advancement of the original DOFF Standard, providing greater ease of operation - eg improved manoeuvrability, quick release of modular components, digital displays and easy loading.

The water supply is fed via a pump into a hot-box where it is rapidly heated to temperatures of up to 150°C.
The heated water is then fed through high temperature heat resistant hoses to the special nozzle at a rate of between 3 to 5 litres per minute.

Once cleaned, the surface dries within minutes which prevents any long-term damage as a result of trapped moisture.







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DOFF



What is the DOFF most effective in removing?
Paint coatings (most oil and plastic types)
Certain types of graffiti
Bird or vermin fouling
Algae, moss, and fungi
Wax coatings
Chewing gum
Bitumen, Oil, Grease and many others, all without causing any damage or disfiguring the substrate.

What surfaces should I use the DOFF on?
We recommend the DOFF for use on surfaces such as brick, stone, concrete, tiled (glazed and encaustic), wood, faience and terracotta.
It is a useful sterilisation tool for kitchens, toilets, swimming pools, hospitals and factories.

Where can I use DOFF?
DOFF can be used in Building restoration, Industry, Food production, Hygiene control, Hospitals, Factories, Transport & vehicle depots, Workshops etc.

How does DOFF work?
A normal water supply is taken through the pump into the Hotbox, where a range of temperatures of up to 150° C can be achieved. The low volume of super heated water and steam (5 litres per minute) is then fed through heat resistant hoses to special nozzles where a genuine 150° C is delivered. The surface being cleaned does not suffer any damaging pressure, thermal shock or deep saturation and dries within minutes. A range of different lances and nozzles are available.



TECHNICAL SPECIFICATION — DOFF INTEGRA

Power Supply Consumption	230 volt 50 hz 13 amp or 6.5 Kva (generator), 50 hz 30 amp or 6.5 Kva (generator), 115 volt 60 hz 30 amp or 6.5 Kva (generator), 110v 50hz 30 amp or 6.5Kva (generator)
Water Consumption	Min 3, max 5 litres per minute. Use only clean cold water supply – if bowser or other, consult our technical team for advice
Maximum Operating Pressure	100 bar 1450 psi
Temperature Range	30°C to 150 °C
Maximum Water Input temp.	30 °C
Dry Weight kg	89 (hotbox) + 34.5 (pump) = when loaded 123.5
Measurement mm	Length / Width / Height Pump 500 / 282 / 310 Hotbox 680 / 630 / 1030 When pump loaded length = 960
Export Packing mm	1020 / 820 / 1150

TECHNICAL DATA SHEET

KEIM ALGICID-PLUS

1. PRODUCT DESCRIPTION

KEIM Algicid Plus is a non-acid fungicide wash to resist algae and micro-organism on all mineral surfaces.

2. FIELD OF APPLICATION

KEIM Algicid Plus is suitable for all mineral surfaces which exhibit micro-organisms. Surfaces to be treated three hours prior to cleaning, as a preventive protection against attack of micro-organisms.

3. PRODUCT PROPERTIES

Material characteristics
- Easy to apply
- Non-flammable
- Inhibits mould and fungal growth

4. APPLICATION INSTRUCTIONS

Substrate preparation and application
Any algae should be wire brushed to remove all growths and then treated with KEIM Algicid Plus, brush or low-pressure spray applied and allowed to remain undisturbed for three hours before thoroughly washing off. Where algae growth is severe a further treatment of KEIM Algicid Plus should be applied as detailed and allowed to remain and dry on the surface.

Consumption
Approx. 0.2 lt/m² per application.

Consumption rates are offered for guideline purposes only and are quoted for smooth rendered surfaces. Actual rates are the responsibility of the applicator. Project specifications should be referred to for specific rates.

Cleaning of tools
Clean immediately after use with water.

5. PACKAGING

5 lt and 20 lt container

6. STORAGE

Approx. 12 months, if kept cool but frost free in tightly closed containers.

7. SAFETY INSTRUCTIONS

Cover surfaces which are not to be treated, in particular plants, etc. Protect the eyes and skin from splashes. Keep out of reach of children.

Please, refer to the EC Material Safety Data Sheet

The stated values and properties are the result of extensive development work and practical experience. Our recommendations for application, whether given verbally or in writing, are intended to provide assistance in the selection of our products and do not establish a contractual relationship. In particular, they do not release those purchasing and applying our products from the duty of establishing for themselves, with due care, the suitability of our products for the intended application. Standard building industry practices must be complied with. We retain the right to make modifications to improve the products or their application. This edition supersedes all earlier editions.

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