Canal & River Trust
Making life better by water

Graffiti removal specification / methodology for LBC

Prison Bridge and Town Bridge, Devizes: Graffiti Removal



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Introduction

The Canal & River Trust is proposing a campaign of graffiti removal works as part of a wider strategy to seek to address anti-social behaviour on the waterway, and with particular emphasis on removal of offensive graffiti from its valued heritage assets on the Kennet & Avon Canal.

The Trust has experienced a rise in similar incidents along the Kennet & Avon and so have purchased specialist graffiti removal equipment and set up a specially trained selected team of operatives who have undergone training on the use of the specialist cleaning equipment using `Therma-Tech` system. Therma-Tech system has been the subject of training webinars for Historic England

https://historicengland.org.uk/services-skills/training-skills/online-training/webinars/

Our Trust staff have attended the Historic England webinar training and attended specialist on site training days for its local operatives using this equipment and trained directly by highly experienced staff from the Therma Tech team. The Trust team has recently completed similar specialist works to GII Listed Bridges under previously consents (**Ref: 20/09833/LBC)**

Therma Tech is a modular range of super-heated water cleaning equipment, producing a liquid spray at 150°C. It is highly effective at melting and removing many paints, surface treatments, chewing gum, wax, oil/bitumen and organic matter from a wide range of substrates, often without the addition of chemicals.

Trained Trust operatives will use heated pressurized water spray to gently remove soiling , thus reducing the need for the use of chemical treatments. Only trained personnel will operate the cleaning equipment.

Where soiling cannot be removed by use of pressurized heated water alone (after trial areas tested) a proprietary graffiti remover product shall be tested for dwell time & efficacy. Therma Tech treatment will then be repeated to remove.

Restorative Graffiti Remover
Multi-purpose, low hazard graffiti remover.
Dwell: The working temperature should be between 6-25°C. Dwell time is normally in the range 30-60mins. Subject to trails / test panel. Higher ambient temperature and thinner graffiti coatings require shorter time.

Every effort will be taken to avoid `ghosting` / over cleaning. Where any `ghosting` patches are experienced a proprietary product shall be tested for dwell time & efficacy. Subject to trails / test panel.

Restorative Ghosting Remover (Concentrate)
Alkaline cleaning product that is excellent for the removal of residual graffiti 'ghosting'.

Dwell – 2 mins only.

Ensure product is stored at, or brought up to working temperatures prior to use. Ideal working temperature range from 5-25C. Avoid freezing and direct sunlight

Storage

Allow 2 minutes dwell time only

The Trusts trained operatives will remove graffiti in accordance with the Graffiti Removal Guidance document in the Appendix. Works will be supervised by the Trusts Heritage Advisor to ensure best practice is observed.

Further details of the Therma Tech system specifications and material data sheets are also included in the Appendix for information.

Appendix 1

Methodology for Graffiti Removal

https://www.restorative-products.com/sites/default/files/products/Technical-Information-Sheet-ThermaTech-System-expanded.pdf

Therma Tech Specification

https://www.restorative-products.com/sites/default/files/products/Single-Pages-ThermaTech-Brochure_0.pdf

Technical Guide Graffiti Removal:

K & A

For use by operatives who have completed on-site training in use of Therma Tec ONLY

To be read in conjunction with Therma Tec Technical Information sheet

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1. OBJECTIVES

- **Ensure Health & Safety (operative & public)**
- **Ensure Legal Compliance (Listed Building Consent requirements)**
- **Ensure Corporate Compliance (Environmental Appraisal / SEA)**
- **Ensure NO damage caused by graffiti removal (by over-cleaning)**
- **Ensure NO pollution caused by graffiti removal (to ecology / environment)**
- **Ensure graffiti removal does not cause damage to the substrate material**
- **Safeguard against residual `shadow / ghosting` image damage**

2. RESPONDING TO A GRAFFITI INCIDENT

- **Recording:** type of media used, type of background material, estimate of timing
- **Photographic Record:** extent & detail
  Log as ZX on SAP
- **Report as Heritage Crime**: report to local Police obtain crime number
- **Is the structure a Listed Building?: check with Heritage Advisor** – Listed Building Consent may be required for removal. Note location and context.
- RAMS will be needed for LBC.
- **Are there complex mix of materials or fragile surfaces?** Some situations may require specialist conservators to be brought in – if in doubt ask!
- **Is it deemed Offensive**? Provide temporary cover hessian (no fixings into masonry)
- **E APP requirements**: works subject to E App controls (ecology / environment) to avoid any damage / pollution to waterways flora/ fauna.

- Note check for presence of Bat roosts!
- **Use SEA 003 – Painting and graffiti removal**

3. **ASSESS TYPE OF SUBSTRATE / BACKGROUND**
   Important to note variable porosity / permeability and surface condition

- **Masonry: Bath Stone** (limestone porous / permeable) Any decorative elements / moldings? Care must be taken with Bath Limestone: Always use most gentle / softest method first and gradually increase strength. Note overcleaning causes `ghosting` / gun shading` patchy appearance.
- **The closer the Therma Tec nozzle is to the surface the higher the surface pressure – high pressure may damage the masonry surface**

  Brick types :
  Blue engineering brick (harder are generally easier to clean)
  Furness / Coleford brick – modern replacements
  historic / original red brickwork – tend to be softer more porous
- Concrete: surface texture finish (rough / smooth)
- Metal surface: (signage / bridge structure faces)

4. **ASSESS TYPE OF GRAFFITI MEDIA**
   (water soluble generally easier to remove safely)

- Aerosol spray paint
- Marker pen
- Acrylic paint
- Crayon

5. **TRIALS – ALWAYS CARRY OUT TRIALS FIRST!**

- Protection of adjacent areas prior to works
- COSHH
- Ensure no water run off for cleaning works – recommend use of VAC recovery system
- Select small discrete area
- **Care to use mildest /softest methods first and build up slowly**
- **CLEAN IN STAGES – leave an interval between treatments**
- Complete trial area recording method used & allow to dry
- Note timings
- RE-ASSESS / increase strength gradually / REPEAT
- Record findings Trial methodology BEFORE proceeding with entire area
- **Objective:** sensitive removal of Graffiti without leaving Residue `Ghosting` image **AND** without `Over-cleaning` - Balance to be struck !

6. `TYPICAL` SCENARIOS

- **Note: each situation needs to be assessed separately based on the factors above**

- **There is NO one size fits all solution!**

- **Always proceed with CARE and do not use excessive pressure on Therma Tec**

Suggested methodologies for Trials

A – 1. Hot Water only & brushing
2. Treat with dilute chemical cleaner
3. Treat with less dilute chemical cleaner

B – 1. Therma Tec (low pressure first)
2. Treat with proprietary Graffiti removal gel (note dwell time critical)
3. Treat with proprietary Ghost remover or White Vinegar

****A combination of techniques may be needed where there are multiple background materials****