



• DESIGN • REVIEW • GUIDE •

Graffiti Removal from Masonry

Burlington is well known as a community with a high quality of life, small and cohesive neighborhoods, a vibrant downtown and waterfront – all within a spectacular setting on the shores of Lake Champlain. This deserving reputation is due in part to the City’s small size, entrepreneurial spirit, civic-minded citizens and activist government. One of the many factors that makes Burlington such a great place to live, work and visit is the community’s attention to detail, and respect for its setting, heritage and quality urban design.

Burlington’s Design Review process strives to protect the city’s unique qualities and strong sense of place by carrying out citywide development and design objectives. The purpose of this *Design Review Guide* is to help applicants in preparing projects to be reviewed by the City’s Design Advisory Board and Development Review Board. Through materials such as this, the Department of Planning & Zoning seeks to make information available well before the final design of a project, saving the applicant, and the city, time and money.

Once considered a “big city” problem, graffiti is becoming increasingly common in Burlington. The reasons why individuals choose to “tag” a building are complex. However, this edition focuses on how to clean-up, and possibly prevent, graffiti from leaving a lasting scar on your property. This *Design Guide* will focus specifically on removing graffiti and other markings from masonry.

KNOW YOUR MATERIALS

First, it’s necessary to understand the materials - both the building and the graffiti. Masonry includes brick, marble, stone, tile, granite, and concrete. Masonry is hard, dense, fire-resistant, porous, permeable, and sensitive to abrasion. Masonry is also very susceptible to lasting damage from staining and scratches. The degree of the material’s permeability will influence how it should be cleaned and treated.

Smooth surfaces, such as polished granite or marble, are easier to clean. The pores are very small, making it harder for the paint to soak-in deeply. Rough surfaces, like brick or weathered limestone, allow the pigment to nestle into every crevice making it difficult to remove.

Some masonry is very sensitive to harsh chemicals. Acid-sensitive stones include limestone, marble, glazed architectural brick, and most polished stones. Alkali-sensitive stones includes some types of granite, most sandstones, and Indiana limestone. These are likely to be severely stained when treated with the wrong cleaning agent.



Graffiti on marble

It is important to understand the graffiti itself - what was used, and how long it has been there. Graffiti can be applied with any number of paints, markers, chalks - even shoe polish or lipstick. Some are water-soluble, while others may require a solvent to unbind the pigment.

QUICK AND GENTLE

The basic advice – remove it as soon as possible by the most gentle means. It’s important to remove it before it’s had a chance to set. As paint dries, the pigment and solvent penetrates the porous material, and hardens over time. The longer it is on, the more likely it will be visible no matter what you do, and the more likely there will be more graffiti in the future. Removing graffiti quickly discourages additional vandalism. Whether it is a budding artist, a neighborhood gang, or a love-struck teenager, graffiti is intended to be seen. When it is quickly removed, its impact is gone and they may look for another location.



Graffiti “Ghost”

The most effective removal strategy includes a combination of the right cleaning materials and the right cleaning methods. The most commonly used method is ‘poulticing’. A poultice is an absorbent material and a cleaning solution combined into a paste or slurry, which is held in constant contact with the marking. The cleaning agent permeates the masonry and softens the pigment, which is then absorbed by the poultice without staining or wearing away the masonry surface.

Other methods include wet and dry blasting, high-pressure washing, and mechanical sanding or grinding. However, these can be very damaging to the material and the mortar, and should be left to a professional specially trained in cleaning masonry - especially if it is

a historic building or a valuable sculpture. Most masonry products are very sensitive to abrasion, so you must be careful not to remove the top outer surface - particularly of brick. When brick is fire-hardened, a hard outer surface protects the interior from the elements. When a harsh cleaning process (e.g. abrasive cleaners and sandblasting) is used, it can lead to irreparable damage by removing this outer surface and the mortar, making the masonry susceptible to water damage and seeping. Like the enamel on your teeth – it doesn't grow back, nor can it be 'reapplied'.



Brick and Mortar damage

Use mild cleaners to prevent permanent damage to the masonry surface or staining. Water is the best, especially for older brick buildings. Try a low-pressure (100 to 300psi) power wash with fresh water and possibly a mild cleaner on new graffiti. If it is water-soluble, and only a day or two old, this process may work well. Be careful to use a neutral or non-ionic detergent. Laundry detergents are often acidic or alkaline, and may contain agents that will leave a stain on the masonry.

Organic solvents are another option. Like water and detergent, these solvents work best when used as part of a poultice. Their downside is that some can be very toxic, and therefore should be used with great caution. Other options include alkaline compounds and bleaches, **but be careful**. Using the wrong type of cleaner can cause permanent staining – much more damage, both visually and structurally - of your masonry than the graffiti ever did.

Regardless of the cleaning method or agent, **always test it first!** Find a hidden area to test so that if something goes wrong, it won't be noticed. Always follow all recommended safety precautions and disposal requirements when using specialized cleaning solvents.

GRAFFITI PREVENTION

Prevention begins with keeping your property well maintained, and prompt removal of any graffiti. Even when the graffiti can't be totally removed, a wall can be painted to cover the scar and deter more graffiti. This is especially useful for areas that are not directly in the public view - just be sure to paint the entire wall area rather than just the graffiti.



Painting over graffiti

Barrier coatings can be an effective way to protect your investment by preventing graffiti from sticking or to make it easier to remove. The most commonly used coatings

are transparent, and are promoted for both porous and non-porous masonry surfaces. Temporary coatings are removed every time the graffiti is removed and therefore must be reapplied. Permanent coatings can withstand most graffiti removal processes.

If you are considering a barrier coating, understand the maintenance schedule. Often the coating will have to be reapplied or patches may be left as it wears off. In addition, some coatings have a glossy finish which may not be appropriate for your building. Ultraviolet light and the accumulation of dirt can also effect the look of a barrier coating. And finally, don't treat just one portion of the building - treat all surfaces to ensure the coating provides a uniform appearance.

THINGS TO REMEMBER:

- ✓ **Prompt** removal is the best treatment and defense.
- ✓ Use the most **gentle** means to prevent damage.
- ✓ Use **caution** when using dangerous and toxic chemicals. Always consider using someone trained in their use and disposal.
- ✓ **Test** your removal methods and materials to be sure.
- ✓ Hire a **trained professional** for valuable surfaces, historic buildings or unstable materials.
- ✓ A well **maintained** property and landscaping will help deter vandalism.

ADDITIONAL INFORMATION

general information

- **Burlington Dept. of Planning & Zoning**

149 Church St., Burlington, VT 05401

802.865.7188 www.ci.burlington.vt.us/planning/

historic building rehabilitation

- **Preservation Briefs, National Park Service**

#1: "Assessing Cleaning and Water-Repellent Treatments for Historic Masonry Buildings."

#38: "Removing Graffiti from Historic Masonry."

866-512-1800 www2.cr.nps.gov/tps/briefs/presbhom.htm

historic building rehabilitation

- **VT Division for Historic Preservation**

National Life Bldg., Drawer 20

Montpelier, VT 05620-0501

800.622.4553 www.uvm.edu/~vhnet/hpres/org/vdhp/vdhp1

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