

## **Masonry**

As in most communities, many buildings in St. Charles consist of brick masonry. Some structures also consist of stone, concrete block and marble. Masonry is a strong, durable building material and, when well maintained, can last for centuries. Two very common repair activities are masonry cleaning and repointing. While both may improve the appearance of a building, care must be taken to determine the proper techniques used so that no harm is done to the masonry.

### **Masonry Cleaning**

It should not be assumed that all masonry needs cleaning. Surface stains generally cause few problems and can even enhance the charm of an older building. However, evidence may indicate that heavy dirt and other pollutants are now harming the masonry. It is, therefore, reasonable to clean masonry only where it is necessary to halt deterioration or to remove unsightly and heavy soiling while taking care not to destroy the natural characteristics that come with age.

#### **Some Questions to Consider:**

- ◆ How clean of a surface is desired or necessary?
- ◆ What is the nature of the soil and how tightly is it adhering to the surface?
- ◆ What is the masonry type and what are its characteristics?
- ◆ How is the surface constructed; are there any metal attachments that could rust?
- ◆ How can the environment and the public's and workers' health best be protected during the cleaning?

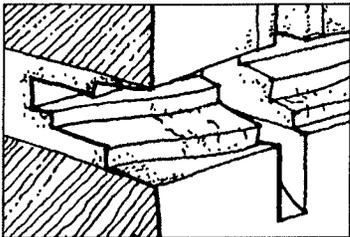
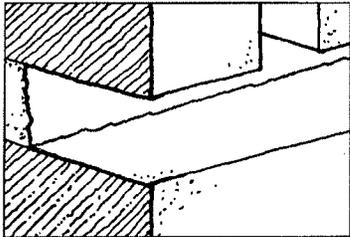
**"Why should a gracefully aged building look brand new?"**

**"More damage can be done to a masonry surface in one day's cleaning with improper and harmful techniques than one century's normal weathering.**

**"Unless there is evidence that dirt, paint or stains are destroying the masonry, it should be left alone."**

## PREPARING THE JOINT FOR REPOINTING.

BELOW: A WELL-RAKED JOINT WITH EVEN SURFACE AND SCRAPED TO A DEPTH OF APPROXIMATELY 2 1/2 TIMES THE HEIGHT OF THE JOINT.



ABOVE: UNEVEN SCRAPING WITH THE USE OF A RADIAL SAW. IF MORTAR CAN BE REMOVED ONLY WITH THE USE OF POWER TOOLS, THEN IT PROBABLY SHOULD NOT HAVE BEEN REMOVED IN THE FIRST PLACE.

The basic principle in cleaning masonry is to select the gentlest method possible to achieve an acceptable level of cleanliness. Working with a professional helps to ensure that the method chosen is right for your building.

### The 3 Major Cleaning Methods:

- ◆ **Water:** This method ranges from hand scrubbing to pressure washing to steam cleaning. It softens and rinses dirt deposits from the surface. Water cleaning generally is the simplest, gentlest, safest and least expensive method.
- ◆ **Chemical:** Chemical cleaners include acids, alkalines or organic compounds in either liquid or vapor forms. The chemicals react with the dirt and/or the masonry to hasten the removal process. However, when used improperly, the chemical methods can cause serious damage to the environment from run-off, including plants, animals and rivers.
- ◆ **Abrasive:** Abrasives include grit blasting, grinders or sanding disks to remove dirt or stains. *All abrasive methods are inappropriate ways to clean old masonry.*

To select the best cleaning technique, a patch test should be performed and the results observed for a sufficient time period (all four seasons, if possible) to determine the immediate and long-range effects of the cleaning method.

## Repointing

Repointing is the removal of deteriorating or failing mortar from masonry joints and replacing it with new mortar. Repointing can restore the visual and physical integrity of the masonry. Generally, it is better to clean the masonry with gentlest method possible before resorting to repointing, unless the mortar is badly eroded.

Some obvious signs of deterioration may assist in the decision to repoint the mortar, including:

- ◆ Disintegration of mortar.
- ◆ Cracks in mortar joints.
- ◆ Loose bricks, cornice sections or decorative elements.

As a general rule, only repoint where there is deterioration and repointing should only be done by an experienced professional.

### Further Points to Consider

- ◆ Duplicate the original mortar in strength, composition, color and texture.
- ◆ The joint should be raked carefully to an even face and uniform depth, preferably with the use of hand tools.
- ◆ Duplicate old mortar joints in width and in profile.

### THE REPOINTING PROCESS.

