

The following article was published in the Summer 2007 issue of Campus Facility Magazine

Care for Multiple Types of Floors in Colleges and Universities

Colleges and universities are often at the cutting edge of building design. Architects and planners are encouraged by school administrators to be creative and try something “original” in the hopes that the new facility will help the school stand out among its competitors and convey a forward-looking, progressive message to teachers, parents, and staff—as well as potential students.



This innovative approach does not apply to a facility’s outside appearance alone. Inside as well several new products, including upholstery, carpeting, and flooring materials, are being incorporated. In fact, schools now have a variety of different flooring options to choose from and often select multiple flooring materials for the same facility, including more sustainable products such as bamboo and rubber flooring, which appear to be growing in popularity.

Although rarely consulted, custodians often find caring for these many floor types extremely challenging. At one time, vinyl composition tile (VCT) floors were the standard when it came to flooring materials. And because they were so common, custodial crews became very familiar with how best to maintain them.

But today, architects and school administrators often mix and match flooring materials--for example, sheet vinyls,

some of which are waxable while others do not require finishing. Polished stone, such as marble and granite, is often installed in “important” school buildings and those where a first impression of the school is of greater concern. Ceramic glazed tile and quarry tile are popular because they have a high-quality look and are relatively inexpensive to purchase and maintain.

Terrazzo is yet another flooring choice. Although it goes in and out of style, it appears to be in style once again with new designs and colors. Terrazzo is appreciated because it is so durable and can last forever. However, for decades it has been considered “bland.” Now, to make it more appealing, terrazzo comes in a variety of colors and designs and is often combined with other materials, such as marble or granite, in the same floor.

Floor Maintenance System

“There really is only one way for cleaning professionals to tackle the challenges of maintaining multiple types of floors,” says Gary Cirone, vice president and global manager for Tornado Industries, a leading manufacturer of professional cleaning equipment. “They’ve got to develop a floor care system.”

According to Cirone, school administrators should always ask hard-surface floor manufacturers for the cleaning and maintenance requirements of the floors installed. Some chemicals and cleaning equipment may be safe on one type of floor but will seriously damage another. “Unfortunately, this information often gets lost or is not always available,” he says. “In this case, probably the most trusted person they can turn to is their local jansan distributor.”

Distributors not only know what kinds of chemicals and equipment are available to address a variety of flooring types, but they often are familiar with most of the traditional as well as newly introduced flooring materials, according to Cirone. With this knowledge, they can work with school cleaning professionals to develop an appropriate floor care system.

Creating an organized and formulated approach to floor care maintenance can be broken down into six key components:

1. Floor types
2. Traffic flow
3. Soil prevention
4. Proper chemicals
5. Proper equipment
6. Floor maintenance frequencies

Floor Types

Usually, along with the warranties manufacturers provide with their floors, they will include floor care and maintenance information. It is very important to keep this information handy. With carpeting, this is becoming critical because many carpet manufacturers will not accept responsibility for carpet damage if proper cleaning products, equipment, and certified technicians are not used to maintain them. Most hard-surface floor manufacturers have not taken these steps yet, but will usually list products or equipment that should not be used on their floors. Along with following their guidelines, it is a very good idea to keep a log of the ongoing

maintenance routine. The information could prove useful should there be a claim against the warranty.

Traffic Flow

Do you know how many people walk on your school's floors every day? Is there more traffic in the mornings, afternoons, or evenings? How many school entries are directly across from asphalt tar parking lots or grass and other landscaping materials?

Knowledge of daily traffic flow, patterns, and outdoor entry



conditions is critical to floor care maintenance. "This helps cleaning professionals determine where to put their greatest efforts," says Cirone.

"And knowing where they are walking *from* lets us know what they might be tracking in on their shoes. Once these are determined, we can develop a proper program to care for the floors."

Soil Prevention

At a recent Chicago trade show for the professional cleaning industry, many attendees remarked how no matting materials were placed at any of the building's many entries. In some areas, entries were adjacent to parking lots and many attendees used a little-maintained service entrance in the back of the building because it was near parking.

This means that thousands of people were able to “walk in” grease and oil stains as well as a host of other soils, dust, and contaminants into the facility, likely marring the appearance of the convention hall’s floors. “In fact, 85 percent of all soil enters a facility on the feet of building occupants,” says Cirone. “High-performance matting systems, at least 10 to 12 feet in length, are the most effective way to stop soil from entering buildings.”

Proper Chemicals

As referenced before, manufacturers will usually suggest the proper cleaning chemicals to use on their floors. However, local distributors will likely be able to suggest specific brands and products that might work best as well as offer suggestions as to how to use these chemicals for high-quality results. They will also be aware of Green-certified cleaning chemicals that have been recently introduced. Certification means that the products have been tested and proven to have a reduced impact on the user and the environment and work as well as, if not better than, conventional floor care chemicals.

Proper Equipment

Using the right equipment is essential. Most experts agree that the cost of floor care is more than 80 percent labor. This means that selecting floor care equipment that increases productivity and therefore saves labor hours can be a major cost savings.

The first step is selecting equipment large enough to tackle multiple floor care needs. Studies indicate that using a 16-inch floor machine on a 5,000-square-foot floor will take approximately 5.5 hours to clean. However, using a 24-inch ride-on equipment to clean the same area may only take 13

minutes. When the labor savings are calculated, it is clear the larger ride-on machine pays for itself very quickly.

Additionally, the type of floor equipment used must be carefully evaluated. Conventional floor machines use a rotary disk system. These machines have proven their value; however, newer technologies have been introduced such as cylindrical brush technology that appears to be especially effective when multiple types of floors must be maintained. Cylindrical machines have counterrotating brushes at either end of the machine. Whereas the pad on a rotary disk machines cleans just the top surface of the floor, cylindrical brushes can penetrate porous areas, removing grit and soil that rotary machines often cannot reach. “[Cylindrical machines] also tend to use less chemical and water, making them Greener than conventional floor machines,” adds Cirone, “and are safe and effective for use on virtually any type of flooring material.”

Floor Maintenance Frequencies

There are multiple levels of required floor maintenance, mostly depending on the traffic flow issues discussed earlier. In general, the more cleaning that can be performed on a daily basis, such as sweeping, vacuuming, and damp mopping, the less interim and restorative floor care will be necessary.

On a monthly schedule, most “busy” multiple floor areas of a facility will require scrubbing with a floor machine. This is especially necessary to keep grout lines from becoming soiled. The machine loosens and helps remove soils on the floor while having minimal impact on the floor’s finish.

Most hard-surface floors will need to be refinished once or twice per year. However, these costly refinishing cycles can

be stretched considerably if an effective floor maintenance program is in place. “Some facilities have been able to reduce refinishing cycles to every other year and even longer,” says Cirone. “Often they have accomplished this by developing the proper chemical, equipment, and maintenance frequency combinations with the help of their jansan distributor.”

Although the many types of flooring materials and their differing maintenance needs can be a real challenge for cleaning professionals, the jansan industry is moving quickly to develop new products and technologies to address these needs. And the goal is not only to be able to maintain the appearance of these floors, but to do it in a less labor-intensive way that is also safer for the cleaning worker as well as the environment.

Sidebar: How much does floor care cost?

Some of the most common variables that have a major impact on floor care costs include:

- Wages paid. Schools in large metropolitan areas are more likely to be unionized and generally pay an hourly rate 20 percent to 30 percent higher than suburban or rural schools.
- The age of the floor. Older floors take longer.
- Size of the work area. Working on smaller floor areas may be less productive and more costly proportionally than larger areas; try to clean large floor areas at the same time.
- Type of flooring material. Marble, granite, vinyl, and VCT will each have different care needs.

- Density and traffic flow. Usually the higher the density (more crowded) the area or the greater the traffic flow, the longer the work will take.
- Ride-on versus manual. Ride-on machines are generally faster than handheld machines or performing tasks manually.
- Type of machine. Cylindrical machines tend to be easier to use, reducing worker fatigue and improving worker productivity.
- Technician and supervisory skills. Knowledgeable workers properly supervised get more work done in less time.
- Amount and type of soil and finish present.
- Desired level of gloss, permanence, and so forth.

Wm. R. Griffin, President of Cleaning Consultant Services, Inc.