

Carpet

MAINTENANCE FOR SCHOOL FACILITIES



Why Carpet?



Schools and classrooms are more than just buildings; they are an investment in the education of the youth of today for a brighter and more positive future. Add up all the facts about carpet and its application in today's educational environment, and the advantages are obvious. Carpet is part of a successful investment in schools, providing many benefits to a good learning environment.

GOOD ACOUSTICS FOR A BETTER LEARNING ENVIRONMENT

Of all the factors that can be added to an environment to control acoustics, carpet is one of the best. Quieter environments allow students to hear more easily, enhancing the learning environment. Students can concentrate and hear instruction from the teacher, making learning easier and more effective.

THE SAFETY ISSUE

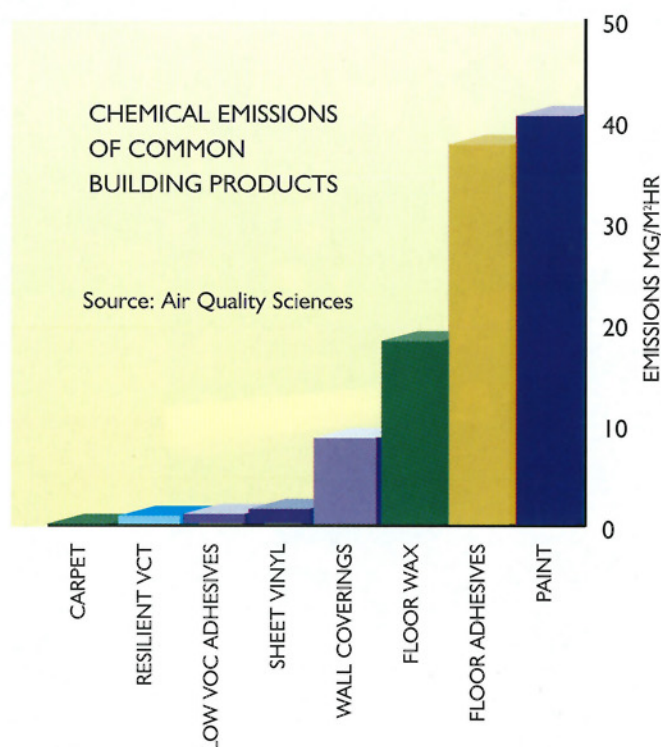
There are fewer slips and falls with carpet and reduced severity of injuries when falls do occur. Whether it is students entering the building in inclement weather; or having a student slide down in a chair, this situation is important. Falls that occur where there are liquids on hard flooring, whether at the entry or inside the building, are a liability. Large mats at entry-ways are a good choice to minimize falls. From a safety standpoint, the non-glare feature of carpet is an advantage for students who may be visually impaired.

CARPET INSULATES

Everyone agrees that carpet "feels" warmer in two ways. Carpet provides actual thermal resistance, or R-value. In an independent study, carpet, compared to other floor covering materials, provides a truly warmer building. Even beyond the R-value advantage is the perception that carpet is warmer and more comfortable.

BREATHE EASILY

Simply put, what falls to the carpet (common dust, pollutants, and many things that we breathe) tends to stay on the carpet until it's vacuumed. Unlike smooth surfaces that allow dust and other allergens to recirculate, properly maintained carpet leads to a healthier environment. In a government study in Sweden, when carpet was banned from public buildings and replaced with smooth surfaces, the allergic reactions of people increased as carpet use decreased. This shows that there is no correlation between allergy symptoms and carpet use. The air over carpet is just as healthy as over any smooth floor. Of course, any surface needs to be cleaned.



THE ECONOMY OF CARPET

The sum of the initial cost of carpet, plus the maintenance costs over the total time of the life of the carpet, is usually less than hard surface flooring. Cleaning carpet is also less labor intensive. In a recent survey of commercial buildings that have maintenance programs for hard surfaces and carpet, it was discovered that carpet costs much less to maintain! When maintaining a hard floor, damp or dry mopping cannot be ignored for more than a couple of days. Carpet is forgiving and can simply be vacuumed.

WHAT'S THAT SMELL?

Odors can come from wallpaper, furniture, paint, and carpet, as well as many other products. In the graph on the previous page, the emissions from common interior products are compared, with carpet having minimal emissions. Most often odor from new carpet will dissipate within 2-4 days with proper ventilation. There is no known link between new carpet odor and any impact on health.

CARPET CLEANING AGENTS

The cleaning agents used in the common care and maintenance of carpet are usually more environmentally friendly than those used to maintain hard floors. For the most part, carpet cleaning chemistry is comprised of neutral detergents that are safe for people and easy on the environment.

CHOOSING THE RIGHT CARPET

To have a good performing carpet for the heavy traffic expected in a school, choosing the right carpet is of utmost importance.

The CRI's specification guidelines provide easy steps for choosing an appropriate carpet for any area—a corridor, a classroom, or an office—and includes classifying carpet's use according to expected traffic; determining the performance required for the location; and determining the carpet's physical characteristics desired. Compromising any specification recommendation can dramatically affect the way a carpet looks and its ease of cleaning.

Experience has taught that a low profile, densely tufted, tight loop construction is very functional in a school. A density rating of 4500 or above is advised. Nylon, which makes up about two thirds of the carpet produced, is a resilient, hard-wearing fiber. Solution-dyed nylon will be colorfast and will have enhanced cleanability.

The color of the carpet is one factor that many



overlook. It is true that lighter colors make rooms and hallways look brighter, but a light color will make successful maintenance difficult at best. Tweeds or patterns in the carpet are also a good choice, to add interest to the floor and to hide soiling.

PROPER CARPET INSTALLATION

Proper installation is also critical to carpet performance. STANDARD FOR INSTALLATION OF COMMERCIAL CARPET, CRI 104 is the standard for proper installation. A professional installer will understand these guidelines and know that carpet must be installed correctly to perform satisfactorily over time.

Most school carpet is installed using the direct glue method of installation, whereby the carpet is adhered directly to the subfloor with an adhesive. Because direct-glued carpet does not require a secondary woven backing, as does carpet that is to be installed with a stretch-in installation, unitary backings are commonly specified.

Carpet installed in accordance with the manufacturer's recommendation and with the industry standard, CRI-104, will avoid many common installation problems, such as the development of wrinkles and buckles, zippering, and seam failures. The Carpet and Rug Institute recommends that adequate adhesive be applied and seams be secured with seam sealers to prevent the most common causes of installation complaints with school carpet.

Carpet Maintenance

THE SIMPLE APPROACH

Here are three primary reasons for cleaning and maintaining carpet:

TO MAKE CARPET LOOK GOOD

The primary reason to clean is for good carpet appearance. Everyone wants schools to be clean and attractive. Clean environments promote a sense of well-being and create an attitude that promotes productivity. In some studies, the appearance of the occupied buildings has a tremendous effect on worker and student attitudes. In schools, this includes their learning ability as well. It's true that a carpet that looks clean feels clean and comfortable.

2 TO MAKE CARPET LAST LONGER

Carpet in schools must function as an economically practical floor covering, performing well over a considerable period of time. In most cases, the carpet is expected to last ten years or longer.

What makes this possible? The answer is regular vacuuming and proper, periodic, extraction cleaning. Properly maintained carpet can last several times as long as poorly kept carpet. The longer carpet lasts, the less expensive the carpet becomes over time.

3 TO PROMOTE A CLEANER ENVIRONMENT

To promote a healthy environment as Dr. Michael Berry states in his excellent book, *Protecting the Built Environment: Cleaning for Health*, "A clean environment is sanitary. When a sanitary condition exists,



an adverse health effect is unlikely. Manufacturers' recommendations for cleaning provide adequate guidelines, calling for frequent vacuuming and periodic professional cleaning that emphasizes extraction of foreign substances and minimizing residue. In the long run, these measures protect the carpet and promote environmental health."

Cutting maintenance budgets or "deferring" maintenance to save money may result in more expense to restore the total environment. The well-being of our children is far too important; they deserve clean schools.

DEVELOPING THE CARPET MAINTENANCE PLAN

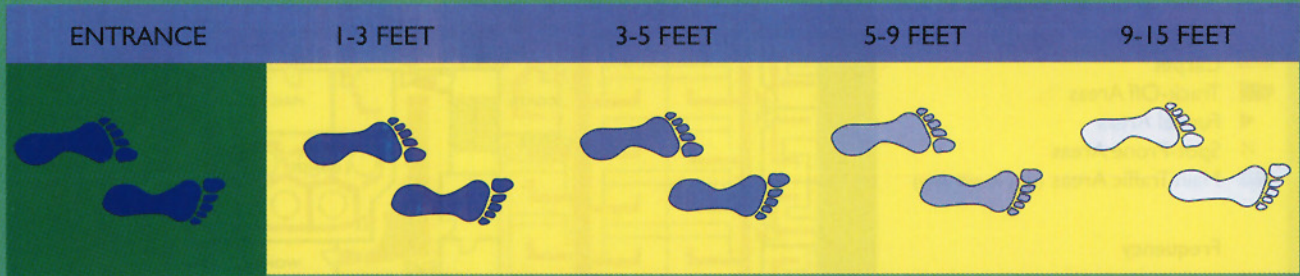
There are several considerations when developing a carpet maintenance plan, including building layout and planning for traffic flow and activities, and proper cleaning that includes spot and spill removal, vacuuming, and extraction cleaning. The following suggestions are proven and effective. Compare each suggestion to the characteristics of your buildings and the school situation.

BUILDING LAYOUT AND PLANNING

It is important to create a maintenance plan based on the school's blueprint. The plan will help identify high traffic areas in the building that need the most attention. Next, identify other types of floor covering, entry points, and other areas that will require specialized attention. Entrances that provide little protection from the outside elements are the most difficult to keep clean.



USE PROPERLY SIZED ENTRANCE MATS



Performing additional maintenance in entry areas and other wipe-off regions can reduce the amount of maintenance in other parts of the facility

The next step is to determine the schedule for maintenance and the type of cleaning each area requires. This will help in setting budgets for labor, equipment and materials.

TRAFFIC FLOW AND ACTIVITIES

USE PROPERLY SIZED ENTRANCE MATS to keep exterior dirt from tracking throughout the building. Using mats that extend for six to fifteen feet inside the entrance will trap eighty percent of soil and moisture from the first five or six footsteps.

Grit mats are designed to trap gritty or sandy types of soil. Most designs with loops, bars, or ribs, feel hard to the touch, and are meant to scrape off feet. Grit bars may also be incorporated into the entry as an inset in the floor. Clean these mats by taking them to a drainage area and hosing them off.

Barrier mats are usually synthetic carpet fiber, such as olefin or nylon, that is fused into a rubber or vinyl material. They come in a variety of lengths, widths, and colors and are meant to trap moisture. Olefin mats are economical and effective, and nylon mats are more durable, with a higher absorbency rate.

How often should the mats be changed? Most find that changing the mats is easier than continually cleaning the same mat. In areas where moisture is high and tracking is constant; i.e., winter in Minnesota, rotate barrier mats as often as twice a week. In other times, rotate them every week to two weeks.

Where should the mats be placed? The most advantageous location is inside the access areas or entry areas of the building. Although there are types of mats with backings that prevent "creeping" or moving on top of a carpet, it is not recommended that soil-control mats

be placed on top of the carpet. Mats placed on top of carpet may discolor it, and may trap moisture. For maximum benefit and ease of maintenance, soil-control mats should be on hard surfaces.

What are the options for obtaining soil-control mats? Renting mats from a business service can mean a regularly scheduled change. They pick up the dirty one and put a clean one down. Purchasing the mats and cleaning them will require three to four mats for the same area, allowing the cleaning of several mats at a time, saving on labor. While the initial cost of these mats may be somewhat expensive for schools, the long-term savings in reduced maintenance is attractive for the cleaning staff and administration alike.







THE USE OF COMMON SENSE IS REQUIRED FOR a highly effective maintenance program requires the use of common sense. The more traffic you have in an area, the more time will be needed to care for that area. As simple as it seems, this is a good guideline for establishing maintenance schedules.

Also, what types of soil and spill problems pose an extra challenge in maintenance?



- Beverages that contain strong dyes, such as red dye, can be detrimental to carpet and other surfaces. Eating and drinking should be confined to designated areas.
- Adopt a "no gum chewing" policy to prevent damage to desks, fabric, and floor coverings. Removing gum is time-consuming and requires chemicals and techniques that can shorten the life of any surface.
- Provide plenty of convenient receptacles.
- Preventive maintenance of the school's air circulation system reduces airborne soil and contaminants and improves the cleanliness of the facility.

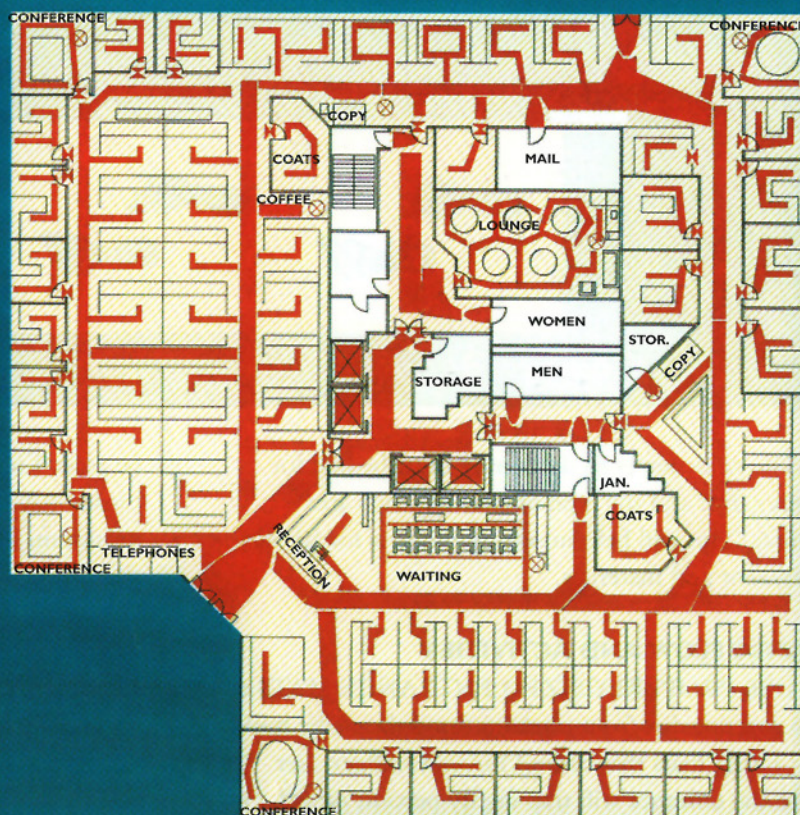
Inadequate ventilation can be a primary concern for schools. Poor system design or failure to meet current ventilation standards is a difficult situation;

VACUUMING

-  Hard Floor
-  Carpet
-  Track-Off Areas
-  Funnel Areas
-  Spot-Prone Areas
-  Main Traffic Areas (shapes will vary)

Frequency

-  Vacuum Daily
-  Vacuum Weekly



however, proper use and regular maintenance of the existing system will optimize the value of the ventilation system.

Replace air filters monthly, and inspect air ducts frequently for buildup of contaminants. Where air intakes are located near ponds or standing water, filters and air ducts should be inspected more frequently. In high humidity environments, mold and mildew can grow quickly in air ducts and other components of the air handling system, then spread throughout the facility on air currents.

A common problem for the maintenance staff is that the ventilation systems are turned off during unoccupied hours. This creates an ideal, moist environment for biological growth that can be costly to remove. In essence, much of the savings from energy management may be offset by facility maintenance to remediate biological contamination. Energy management can be even more expensive if permanent damage to the ventilation system or facility occurs, or if facility evacuation becomes necessary because of biological contamination.

To prevent the buildup of contaminants,



temperature should be maintained at a constant 68°F-74°F (20°C-23°C). Ideal indoor relative humidity levels should range from 40% to 60%. Continuous operation of the ventilation system is essential for maintaining these conditions and for continually providing fresh air exchange.

PREVENTIVE MEASURES

The most cost-effective way to maintain any school's floor coverings is to identify and implement

VACUUMING SCHEDULE AND EQUIPMENT

LIGHT TO MEDIUM

TRAFFIC AREAS: Conference rooms, administrative/teacher offices, auditoriums, limited access areas, break areas, media centers, classrooms with limited use. Vacuum every other day, concentrating on main traffic areas.

HEAVY TRAFFIC AREAS:

Entrances (use entry mats to limit tracked-in soil), corridors, student break areas, classrooms, congested channels and principal passage routes. Vacuum after every school day.

VACUUMING EQUIPMENT:

Use vacuum cleaners with high airflow (suction) and with high efficiency filtration. Replace and dispose of vacuum bags before the bag is full.

preventive measures. Much of the interior soil comes from outside, so it's important to clean exterior walkways often, shoveling snow and removing leaves, sand and other debris. Periodically, pressure washing may be needed.

Other preventive tips include restricting food and beverage consumption to specific areas, prohibiting chewing gum, and placing trashcans in easily accessible areas. Also, consider asking teachers and students to play a role. If they check classrooms for debris and straighten desks and chairs each day, classrooms will remain cleaner on an ongoing basis.

VACUUMING - VERY IMPORTANT!

Vacuuming is the single most effective and economical means of keeping the facility floor coverings clean. It has been proven that 90% to 95% of all dry soil by weight can be removed from carpet by following scheduled, routine vacuuming procedures.

EQUIPMENT SELECTION

When selecting equipment, rather than choosing equipment based solely on cost, look for durability in a vacuum cleaner to reduce long-term costs of maintaining or replacing the equipment. Poor quality vacuum cleaners may continue to operate, but cleaning efficiency can deteriorate quickly, and equipment maintenance or replacement costs are high.

Consider efficient filtration. A vacuum that has an extremely high airflow (suction) has very little value if dust and other contaminants pass through the vacuum bag and become airborne. Select a vacuum that offers high efficiency filtration: a high efficiency particulate air (HEPA) or near-HEPA filter. Use disposable vacuum bags, and replace them before the bag is full, avoiding reduced airflow and soil removal. Efficient vacuum

cleaners offer high airflow and adjustable, rotating brush agitation for more effective soil removal.

Because equipment choice is so important, CRI identifies vacuum cleaners that are tested to meet strict standards for soil removal, containment of the dust within the bag and the machine, and carpet appearance retention, with an IAQ "green" label.

Choose vacuums that bear this label for assurance of effective cleaning and good air quality. For complete details on the program, including a listing of approved vacuum cleaners, go to the CRI web site, www.carpet-rug.org

DETERMINING VACUUM FREQUENCY

Once equipment has been selected, set a schedule for frequency of vacuuming. Using the facility diagram, classify carpet areas into high traffic, moderate traffic, and light traffic areas. Vacuum high traffic areas daily or more frequently as the need arises. Vacuum moderate traffic areas two to three days each week or as needed, and vacuum light traffic areas a minimum of once or twice weekly.

In most schools, high traffic areas include corridors, break areas, classrooms used daily, cafeterias, entry ways, congested channels, and principal passage routes. Medium traffic areas may include teacher break areas, media centers, offices, and classrooms used on a part-time basis. Light traffic areas include conference rooms, teacher offices, auditoriums, and any area where access is limited.



TREATMENT OF SPOTS AND SPILLS

Floor coverings are subjected to a variety of spills on a daily basis, and prompt removal is recommended. The more time the spill remains on carpet, the more difficult it will be to remove. With hard surfaces, immediate removal is required because of the potential liability involved. Spills on carpet should be addressed quickly, and under no circumstances should the carpet remain wet more than 24 hours. Using a portable extractor is an easy way to remove spots quickly and effectively.

Be committed to a daily spot treatment program. Most carpet available today has a soil-resist treatment, making spots easier to remove; however, no carpet is completely stain-proof.

RESIDUE PRECAUTIONS

Spot removal solutions may leave residue in the carpet that attract soil. To completely remove the spotting agent, thoroughly rinse the area several times with lukewarm tap water. A mist type sprayer is recommended to prevent over-wetting. Blot with paper towels, and pat dry after each rinse. Several rinses are often necessary to thoroughly remove residue. A small, portable extractor is recommended for efficient rinsing and spot removal. Never use any of the solutions in concentrations stronger than those recommended.



SIMPLE GUIDELINES-IN SEQUENCE

Complete removal of many common spills may require the repeated use of a single solution or the use of a combination of solutions. Always use the spot-cleaning solutions in the concentrations recommended.

Act Quickly! The longer the delay, the higher the probability a spill will become a permanent stain.

Blot Liquids with a dry, white, absorbent cloth or white (no printing) paper towels. Do not scrub the area! Continue to blot until the area is completely dry.

Gently scrape up semi-solids with a rounded spoon and vacuum. Do not add moisture.

Locate the spill on the spot removal chart and follow the directions carefully.

Pretest any spot removal agent in an inconspicuous area to make certain the solution will not damage the fiber or the dye. After applying several drops to the testing area, hold a white cloth on the wet area for ten seconds. Examine the carpet and cloth for color transfer, color change, or damage to the carpet. If a change occurs, another cleaning solution must be selected.

Apply a small amount of the selected cleaning solution to a white cloth and work in gently. Work from the edges of the spill to the center to prevent the spill from spreading. Do not scrub! Blot, absorbing as much as possible, and repeat, if necessary.

Continue using the first cleaning solution as long as there is a transfer of the spill to the cloth. It is not necessary to use all of the cleaning solutions if the first solution removes the spill. Be patient! Complete removal of the spill may require repeating the same step several times.

Rinse the affected area thoroughly with cold water after the spill has been removed. Blot with a dry cloth until all of the solution has been removed. Some cleaning solutions will cause rapid soiling if the solution is not completely removed.

Place a one-half inch layer of white paper towels over the affected area to absorb all the moisture, and weigh down with a flat, heavy object. Continue to change paper towels as needed.

DESCRIPTION OF SPOT REMOVAL PROCEDURES

CAUTION—Read the following information carefully! Too often a carpet is damaged or bleached when home remedies or mixtures are used without consulting a professional source first. Many suppliers that sell cleaning and spot treatment products to professional carpet cleaners are willing to assist you in selecting the right agents and procedures for your situation. This service is free and can help you to get great results in a very short time as well as protect the appearance of the carpet.

Vacuum—All dry spills, such as chalk, should be vacuumed. Pouring any liquid onto a dry spill may create additional problems. **Volatile Dry Solvent (Dry Cleaning Fluid)**—Exercise caution when using a volatile dry solvent. A nonflammable spot removal solution is preferred. Never pour volatile dry solvent directly onto the carpet or allow a dry cleaning solution to reach the backing. Volatile dry solvents may destroy the latex that holds the carpet components together.

Nonvolatile Dry Solvents—Many nonvolatile dry solvents contain amyl or ethyl acetate, ingredients used in many paint, oil, and grease (POG) removers, and can leave residues that may cause rapid soiling. When using a POG remover, always rinse the area thoroughly with a dry cleaning solvent. Many nail polish removers contain a nonvolatile dry solvent and can be an effective cleaning solution. Nail polish removers containing amyl or ethyl acetate also contain alcohol to assist in rinsing residues. See residue precautions.

Detergent Solution—1/4 teaspoon liquid, non-lanolin, dishwashing detergent to one cup water. Mix professionally formulated detergent solutions according to the manufacturer's recommendations. **NEVER USE A STRONGER CONCENTRATION!** Thorough rinsing is necessary to remove detergent residues that may cause rapid soiling. You may need to rinse with warm water several times to completely remove residues. (See residue precautions.) Care should be used in selecting a detergent. Never use a laundry detergent of any type, because laundry detergents may contain optical brighteners (fluorescent dyes) that dye the fiber. Do not select an automatic dishwashing detergent because many contain bleaching agents that destroy dyes and some fibers. A professionally formulated, neutral detergent solution, specifically designed for use on carpet, should also be considered for consistent spot removal results.

Warm Water Rinse—Use lukewarm tap water in most cases to rinse the spotting agent from the fiber. Failure to completely rinse the solutions from the fiber may cause accelerated soiling.

Vinegar Solution—Mix one cup of white vinegar (a 5% acetic acid solution) and two cups of water. This is used most often to lower the alkalinity caused by detergent solutions or alkaline spills. A professional solution may also be used (available from sanitation suppliers).

Ammonia Solution—Mix two tablespoons of household ammonia and one cup of water, or use a professional protein spotter, available from sanitation suppliers.

Spot Removal Kit—Available from most carpet retail stores and professional carpet cleaning suppliers. Follow directions closely! Some spot removal kits contain a detergent solution and a stain-resist solution. Use of the stain resist solution prior to the complete removal of the spill may cause a permanent stain. (Other spot removal kits may have dry absorbent cleaning products for fast spot removal.) It is suggested that a professional spotting kit be purchased and that a portable spot extractor be used.

SPOT REMOVAL CHART

	DRY CLEANING FLUID	NAIL POLISH REMOVER	DETERGENT SOLUTION	WARM WATER RINSE	WHITE VINEGAR SOLUTION	AMMONIA SOLUTION	SPOT REMOVAL KIT	CALL A PROFESSIONAL
BLOOD			2	3		1	4	5
CHEWING GUM	1							2
CHOCOLATE	1		2	5	4	3		6
COFFEE			1	3	2		4	5
CRAYON	2	1						3
DYE	3		1	2				4
FINGERNAIL POLISH		1	2	3				4
HAND LOTION	1		2	4		3		5
ICE CREAM	1		2	5	4	3		6
INK (BALLPOINT)	2	1	3	6	5	4	7	8
KOOL-AID			1	3	2		4	5
LATEX PAINT			1	3		2	4	5
LIPSTICK	2	1	3	6	5	4	7	8
MUSTARD			1	3	2		4	5
SOFT DRINKS			1	4	3	2	5	6
TOMATO SAUCES			1	3	2		4	5
UNKNOWN	2	1	3	6	4	5	7	8
URINE			1	2	3	4		5
VOMIT			1	4	3	2	5	6

Perform steps in order (1,2,3, etc.) while following the spot removal directions.



SPOT CLEANING SUMMARY

- Address spills as soon as possible.
- Dry spills: Vacuum to lift and remove residue.
- Liquid spills:
 - Blot with absorbent cloth or plain, white paper towel.
 - Special spot cleaning kit is available from a professional service. Most spills can be removed with a solution of 1/4 teaspoon of clear (non-bleach, non-lanolin) liquid dishwashing detergent with one cup of warm water. Spray solution on spot; allow to remain eight to ten minutes to lift the spill; clean by blotting. Thoroughly rinse with warm water, and blot until absorbent towel shows no moisture transfer.
- Call a Professional—Consider consulting a certified carpet cleaning professional with questions



CARPET EXTRACTION CLEANING

The purpose of cleaning is to take up the soil that vacuuming does not remove and to improve the visible appearance of the carpet. Cleaning methods will vary, but the goal remains the same.

Cleaning should be implemented before the soil in the carpet is easily visible. Carpet manufacturers have recommended methods for cleaning. In order to preserve carpet finishes and life, as well as any applicable warranties, use the manufacturer's recommendation for a cleaning system. This will prevent the buildup of residues from cleaning, and the possibility of rapid resoiling.

A facility-wide cleaning should take place at least twice a year, to remove the accumulation of soil overlooked during daily maintenance. All surfaces, including ceilings, walls, windows, ventilation system, and floor coverings, should receive intensive cleaning to remove embedded or hidden soil. Heavy use areas may require more frequent intensive cleaning.

Carpet should be extraction-cleaned a minimum of twice a year, usually prior to the school year and during the winter holiday. In considering cleaning methods, base the selection on the carpet manufacturer's recommendations and specific site conditions.

When extraction-cleaning carpet, follow several common-sense precautions: In high humidity

conditions, clean the carpet just prior to school opening and completely dry the carpet. Indoor humidity greater than 60% is considered extremely high. Consider using air movers or drying fans with wet cleaning methods.

- When properly performed, most cleaning methods should leave the carpet dry within six to eight hours. Technician error or environmental conditions may extend drying time significantly. Under no circumstances should drying time exceed 24 hours.
- Supply natural or mechanical ventilation during the cleaning and drying phases of periodic cleaning. Adequate ventilation is necessary to speed drying time. Use air movers (drying fans) to reduce drying time.
- Follow directions for mixing solutions carefully! Using a solution stronger than the concentration recommended will not improve cleaning efficiency and may leave behind detergent residue that can lead to accelerated soiling.
- Limit access to damp carpet until it is completely dry to avoid rapid re-soiling.

One of the most beneficial features of hot water extraction cleaning is its capability of removing deep-down soils. Procedures should be followed as stated in the Institute of Inspection, Cleaning and Restoration Certification Carpet Cleaning Standard S001 unless otherwise preempted by the cleaning equipment manufacturer's recommendations.

In some instances, you may want to consider the use of a professional carpet cleaning contractor who



uses high-performance, truck-mounted, restorative extraction equipment. These units should develop a minimum of 130°F on the surface of the carpet in order to provide sanitizing during cleaning.

FIVE METHODS

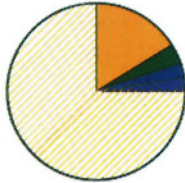
- Absorbent compound or dry powder is a minimum-moisture cleaning method. This method consists of applying a dry absorbent compound to the carpet pile and working the powder through the pile with agitation brushes. The soil attaches to the compound and is then removed with thorough vacuum cleaning. In heavy-soiled areas, a pre-conditioner may be applied prior to the application of the dry compound for more effective cleaning results. The key to this method is spending adequate time with post vacuuming.
- Absorbent pad or bonnet cleaning is a method that involves the use of an absorbent cotton/rayon pad that is rotated with a 175-300 RPM machine. A pre-conditioner is applied to heavily-soiled areas. A cleaning solution or bonnet chemical is applied to the carpet pile and then agitated with the bonnet and the rotary machine. The rotating pad absorbs the cleaning solution and attached soil particles. When the pad stops absorbing soil, rotate the pad to the opposite side or rinse it out. One pad may be used for up to 1/2 hour before it needs to be replaced with a clean one. Pads at the end of the day should be cleaned out for the next use.
- The dry foam extraction method uses a cleaning solution that has been aerated before it is applied to the carpet. The solution is worked into a foam and applied to the pile fiber using a reel type brush action with a specifically designed dry foam machine. Once the foam application is completed, suspended soils and excess foam are extracted by wet vacuuming. Some dry foam machines have their own extraction capabilities, while others require an additional wet vacuuming step to remove suspended soil and cleaning agent.
- In the rotary shampoo method, the shampoo solution is injected through specially designed brushes. Some rotary shampoo systems contain their own extraction capabilities. Others require a separate wet vacuum step to remove suspended soils and cleaning solution. Most rotary shampoo solutions dry to a crystalline residue that holds the soil in suspension. This residue and soil are removed by dry vacuuming.
- Hot water extraction (steam cleaning) can be used on all types of carpet. Hot water extraction employs a method of injecting hot water and cleaning solutions with high water pressures. The quantity of solution injected must match the vacuum extraction capability. The solution, soil, and residual moisture must be thoroughly extracted immediately to avoid over-wetting the carpet and to reduce drying time. Most common types of equipment used for this method are truck mounts or "walk-behinds." Use overlapping strokes to prevent uneven coverage during cleaning and do not rush the machine.

For optimum results, it is highly recommended to vacuum the carpet when it is dry and before it is subjected to traffic.

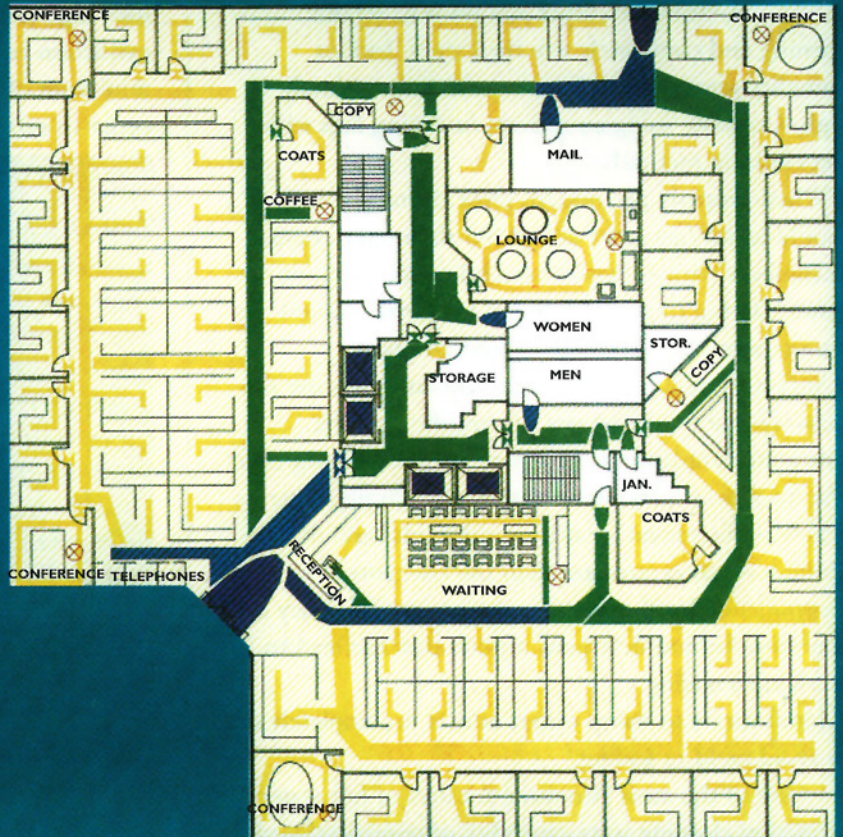
CLEANING

- Hard Floor
- ▨ Carpet
- ◀ Track-Off Areas
- ◀ Funnel Areas
- ⊗ Spot-Prone Areas
- Main Traffic Areas (shapes will vary)

Carpet Cleaned=25%



- Every Week
- Every Two Weeks
- Every Month
- Every Three Months



SUMMARY: EXTRACTION CLEANING FOR ALL AREAS

SCHEDULE:

Just prior to school year and during school's winter holiday. If soil accumulation becomes seriously visible between the two scheduled cleanings, extraction clean the soiled area.

PROCEDURE:

Perform in an unoccupied building; ventilate (run HVAC system) during and for 48 hours afterwards. If using wet method, extract moisture thoroughly. If possible, dry within 12 hours, but certainly within 24 hours.

CLEANING HARD SURFACE FLOORING

Daily maintenance of hard surface floor coverings presents a greater challenge to the average maintenance staff than carpeted surfaces. Hard surface flooring must receive constant care because of its inability to hide soil and damage to the finish by dry soil. Hard surfaces that have become wet due to spills, leaks, or even tracked-in moisture must be a constant concern to the maintenance staff, as well as the risk management staff. Daily maintenance of hard surface floors includes dry mopping, wet mopping, and spot

mopping. Classification of maintenance by traffic level is also necessary for hard surfaces, but frequency must be increased in order to maintain an attractive appearance level.

With hard surfaces, some high traffic areas, such as corridors and entrances, may require dust mopping several times daily. Light and medium traffic areas should be cleaned a minimum of once per day or as needed.

Spot mopping should occur on a daily basis or more frequently to remove spills and to touch up high traffic areas. Perform wet mopping a minimum of three times per week. Wet mopping is critical to the maintenance of hard surface floor covering. Use disinfectants cautiously in the presence of children and replenish the solution in water pails regularly to prevent the spread of dirt, bacteria, and fungi to uninfected surfaces.

Remove wet spills immediately to minimize falls and injuries. Store clean wet mops in cool, dry areas

Hard surface floor coverings should be stripped and refinished or recoated yearly to restore the original finish and to prepare the surface for another school year. Many hard surface manufacturers recommend a minimum of 3-4 coats of finish to properly protect the surface of the floor coverings. If intervals between periodic cleaning or spray buffing are greater than

those recommended, it may be necessary to increase the number of coats applied to properly protect the finish. Because of possible environmental impact of chemicals used in the stripping and recoating process, these procedures are best performed when school is out of session. Plenty of fresh air ventilation should be provided to allow any odors to dissipate.

CARPET ADJOINING HARD SURFACES

Transition areas where carpet and hard floors meet can be a challenge. To avoid problems, observe a few common sense rules.

During treatment of hard floors, whether stripping, finishing or maintaining, keep chemicals

off the carpet. Many of the chemicals used to maintain hard floors can cause damage to carpet.

2 After damp maintenance of hard surfaces, dry completely before allowing traffic onto carpet, to help prevent tracking of any residues of hard surface cleaning agents.

3 When using rotary equipment on hard surfaces next to carpet, be careful not to allow pads or brushes to come in contact with the carpet and, thus, abrade the carpet pile.

4 Do not set buckets or equipment used for the maintenance of hard floors on the carpet. Residues on the bucket may cause soiling or staining.



SUMMARY - MAINTENANCE FOR CARPET IN SCHOOLS

VACUUMING SCHEDULE AND EQUIPMENT:

- Light to Medium traffic areas: Conference rooms, administrative/teacher offices, auditoriums, limited access areas, break areas, media centers, classrooms with limited use. Vacuum every other day, concentrating on main traffic areas.
- Heavy traffic areas: Entrances (use entry mats to limit tracked-in soil), corridors, student break areas, classrooms, congested channels and principal passage routes. Vacuum after every school day.
- Vacuuming equipment: Use vacuum cleaners with high airflow (suction) and with high efficiency filtration. Replace and dispose of vacuum bags when bag is half full.

SPOT CLEANING:

- Address spills as soon as possible. The sooner spills are addressed, the easier they are to clean.
- Dry spills - vacuum to lift and remove residue.
- Liquid spills - blot with absorbent cloth or plain, white paper towel. Special spot cleaning kit is available from a professional service; however, most spills can be removed with a solution of 1/4 teaspoon of clear (non-bleach, non-lanolin) liquid dishwashing detergent with 1 cup of warm water. Spray solution on spot; allow to remain on spot 8 to 10 minutes to lift the spill; clean the spot by blotting. Thoroughly rinse with warm water, and blot until absorbent towel shows no moisture transfer.

EXTRACTION CLEANING FOR ALL AREAS:

- Schedule: 1) Just prior to school year, and 2) during school's winter holiday just prior to school start-up. If soil accumulation becomes seriously visible between the two scheduled cleanings, extraction clean the soiled area.
- Procedure: Perform in an unoccupied building; ventilate (run HVAC system) during and for 48 hours afterwards. If using wet method, extract moisture thoroughly. If possible, dry within 12 hours, but certainly by 24 hours.





The Carpet and Rug Institute

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The Carpet and Rug Institute (CRI) offers this manual as a tool to assist in planning and implementing a school carpet maintenance program. The goal is better carpet performance over a longer period of time by making maintenance easier and more effective.

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The Carpet and Rug Institute (CRI), headquartered in Dalton, Georgia, is the national trade association for the carpet and rug industry. Its members are manufacturers, suppliers, and service providers, representing over 90% of all carpet produced in the United States. CRI is the source for science-based information and insight into how carpet and rugs can create a better environment— for living, working, learning and healing. CRI is committed to providing support in maintaining quality educational environments.

For more information, visit the CRI website at www.carpet-rug.org, where you can find specification guidelines, maintenance guidelines, CRI-104, *Installation for Commercial Carpet*, and reference to carpet manufacturers.



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