

# Regular Playground Maintenance and Inspection

## The reasons it matters

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Someone once said, "One hundred years from now, it will not matter what kind of car I drove, what kind of house I lived in, how much money I had in my bank account, nor what my clothes looked like. But the world may be a little better because I was important in the life of a child."

Each day in America, three children die from child abuse, nine are murdered, 13 die from guns and 27 die from poverty. Keeping our children safe and healthy in today's world has become a number one priority. Unfortunately, one of the most important things in a child's life, the art of play, has its own hidden dangers.

Each year, more than 200,000 children are injured on playgrounds. Most of these injuries could have been prevented. The National Playground Safety Institute (NPSI) and the National Recreation and Park Association (NRPA) have created a checklist for hidden hazards in playground environments. Be sure to inform the owner or operator of any unsafe conditions you discover. The time you take today may make a world of difference in the life of a child.

### PLAYGROUND MAINTENANCE AND ACCIDENTS

The National Playground Safety Institute (NPSI) has for almost twenty years stated that

the lack of playground maintenance or improper maintenance has been a leading cause of playground accidents.

According to the United States Consumer Product Safety Commission (CPSC) and the National Playground Safety Institute (NPSI), there are many national organizations trying to improve playground safety, yet there has been no relevant impact on the reduction of reported playground injuries. So why should we be concerned about playground maintenance if the frequency and severity of playground accidents has leveled off? One reason is that one out of every three lawsuits alleges improper or lack of maintenance as the cause of the injury. Playground owners/operators have direct control over this statistic. Therefore, if you can't afford to properly maintain a playground, don't build one!

The fact remains that children continue to be injured while playing in the safest environment man can create. Children like to take risks and this risk taking process can lead to injury. Risk taking is part of a child's growth and development process. And without risk taking activities or challenging play environments, we limit children's learning and developmental opportunities. As teachers and administrators,

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parents and caregivers, we must stop trying to child proof the play environment and begin to develop new, exciting, challenging, yet safety compliant play environments.

With this goal in mind your challenge is to develop a customized program of maintenance and inspection of your new equipment that meets the needs, expectations and resources of your school district. You'll want to know what constitutes a proper playground safety program. This article will give some guidance and practical suggestions to help answer this question.

**TODAY'S MAINTENANCE AND INSPECTION STANDARD OF CARE**

Public play equipment designers and manufacturers must, according to ASTM F1487 Section 13, provide the owner/operator clear and concise inspection, maintenance, and repair instructions, including, but not limited to, what, when, and how to inspect, maintain, and repair.

Owner/operators of public playgrounds must, according to ASTM F1487 Section 13.2.1-3, maintain the protective surfacing within the use zone in accordance with

Specification ASTM F1292 appropriate for the fall height of each structure. Plus the use zone must be kept free of any extraneous materials that could cause injury, infection, or disease; and shall establish and maintain detailed

installation, inspection, maintenance, and repair records for each public-use playground equipment area.

While this is a big step in identifying who is responsible for what, it does not always give you

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quantitative or qualitative direction. The reason for the lack of detailed maintenance and inspection directions is the fact that we cannot assume that all installations are the same. There are several variables such as amount of playground use, types of materials used in manufacturing play components, and regional environmental factors that make it impossible to use a cookie cutter approach to establishing maintenance and inspection standards.

#### **MAINTENANCE CATEGORIES**

Most authorities use three categories of maintenance to describe the tasks at hand. These categories of maintenance are routine, preventive, and renovation or repair.

Routine maintenance consists of tasks performed on a regularly scheduled basis. This may be daily, weekly, bi-weekly, or monthly. It might consist of a specific procedure or inspection process. Many routine maintenance tasks are custodial in nature such as daily or weekly litter pick-up, sweeping walkways of any loose-fill surfacing

materials, raking out foreign matter and leveling, loosening compacted areas, or replacing displaced loose playground protective surfacing such as sand.

Preventive maintenance consists of tasks that occur less frequently but are nevertheless important. Examples of this type of playground maintenance might include coating metal play equipment with rust-inhibiting paint every three years to help prevent the natural deterioration of metal components; or to inspect all swing S-hooks, hangers, and chains quarterly looking for excessive wear or damage. The purpose of this type of task is to replace the chain before it breaks, i.e. to prevent an accident.

Renovations and repairs are done to restore an item or area to sound condition after damage or deterioration. These are the most costly forms of maintenance. Most renovations and repairs require more capital resources in the way of materials and supplies than routine or preventive maintenance. Renovations are usually scheduled and can be incorporated into a school's annual

maintenance budget.

#### **INSPECTION CATEGORIES**

NPSI promotes two forms of periodic inspections — Low Frequency and High Frequency. These inspections are not to be confused with a Playground Safety Audit. An audit is a one-time comprehensive evaluation of a playground to identify areas of non-compliance to the standard of care such as life-threatening or permanently debilitating hazards. The purpose of a periodic inspection program is to maintain a standard of care and to identify all new hazards on a playground resulting from rapid or evolving changes such as vandalism, storm damage, weather, breakage, wear and litter.

#### **“PAY ME NOW” OR —“PAY ME (MORE) LATER”**

Regardless of the type of maintenance being performed each will need to be addressed during a scheduled inspection or by a special work request. Scheduled maintenance, whether routine, preventive, or renovation, should be performed on playground equipment before it requires a repair. A pro-active scheduled maintenance and

inspection program will prevent most major repairs, equipment failures and possible injuries to the public.

A good maintenance and inspection program will minimize the wasteful reallocation of resources needed to defend staff actions or lack thereof in the event of a lawsuit. In addition the program can eliminate staff stress and the frustrations of reorganizing priorities and work schedules for unexpected and unscheduled repairs.

Every school district or playground owner should develop its own criteria for providing routine and periodic maintenance and timely renovations by establishing a frequency for safety inspections. A staff training program will be required to ensure a successful outcome once you have established the frequency of your inspection process that complements the level of detail covered within the inspection process or processes. The maintenance program will evolve from these considerations, documented history of known routine, preventive maintenance tasks plus manufacturer's maintenance requirements.

#### Case Study: The Wheaton Park District

The Wheaton Park District of Wheaton, IL (WPD), in 1989 developed a comprehensive public playground safety and maintenance program. The WPD is approaching the 20th year of its playground safety program. The program has resulted in many accomplishments. These accomplishments have repeatedly surfaced at each of its annual WPD playground safety team meetings. The accomplishments include:

Heightened staff awareness of playground safety at all levels.

Established a historical file of all sites providing excellent information retrieval.

A blueprint to bring all sites

into compliance with current CPSC playground safety guidelines and ASTM standards.

Created a knowledge and experience base to adapt to future guidelines and standards.

Annual meetings with all employees responsible for implementing the playground safety program to discuss progress and program deficiencies as identified by our inspection process and to set new goals and objectives for the coming years.

#### HIGH AND LOW FREQUENCY PLAYGROUND SAFETY INSPECTION AND MAINTENANCE

There were many similarities in the routine and preventive maintenance deficiencies that required corrective action on almost every inspection cycle. Since loose-fill surfacing is the predominant type used by the WPD, displaced surfacing was a constant area of maintenance.

Over time the findings from our more frequently performed inspection process, or High Frequency Inspections, pointed out many recurring custodial type maintenance tasks. These items showed up on all of our inspections regardless of the level or type of inspection being performed:

Sand and engineered wood fiber mulch almost always requires leveling in kick-out areas.

Loose-fill surfacing material needs to be removed from adjacent hard surface areas.

Sand surfacing requires mechanical tilling to reduce compaction.

Litter and other debris need to be picked up within the playground use zones.

Waste receptacles need to be emptied on a regular basis.

Swing chains need to be untwisted but not on the same frequency as the other items.

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***“Now is the time to start a pro-active playground safety, maintenance and inspection program. And remember, a playground provides a lot more than just child s play or recess.”***

Low Frequency Inspections, which were performed on a more monthly basis, detected several different types of maintenance concerns in addition to those already mentioned. Many of the detected deficiencies require a much greater knowledge base and more experience to detect and analyze the problem and then take the correct action to eliminate the problem.

Items commonly found include:

- Metal equipment requiring painting almost annually
- Tightening loose hardware
- Immediately removing graffiti
- Sanding, repairing, or replacing wood equipment and wood timber containment borders whenever they present a hazard
- Repairing or replacing missing information and regulatory signs
- Repairing or replacing broken playground components
- Lubricating moving parts
- Caulking sectional slide seams
- Replacing worn swing seats and chain

The frequency of maintenance and inspections is based on sev-

eral variables that only you, the owner/operator, analyze. Schools may be held to a high level of supervision and maintenance by parents but you cannot forget that this playground and the adjoining grounds provide a valuable community asset that should be available to all your constituents not just during school hours but before and after school, holidays, and during summer vacation when school supervision will not be present.

#### **FINAL THOUGHTS**

Don't delegate the responsibility of designing, installing, maintaining, inspecting, or supervising your playgrounds to the PTA or other volunteers. You must take an active ownership role in the entire process but do invite the interested members of the community to participate in the program and process. You must train and assign someone within your organization to take ownership of the program and provide the necessary resources to support your program. Don't establish a program or playground safety policy with measurable goals and objectives that cannot be achieved.

Now is not the time to remove

playgrounds from your budget. Now is the time to start a pro-active playground safety, maintenance and inspection program. And remember, a playground provides a lot more than just child's play or recess. It is an outdoor classroom where children learn some of life's lessons such as respect, cooperation, communication and leadership while developing strength and agility as well as a multitude of new physical skills.

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