



STATE COLLEGE AREA SCHOOL DISTRICT

PLAYGROUND MASTERPLAN

JUNE 3, 2019





MAINTENANCE OVERVIEW

MAINTENANCE

Nature based play spaces have different maintenance needs than fixed equipment sites. However, this does not mean that maintenance is more complicated, once the basic approach is understood. A useful reference tool is the Nature Play: Maintenance Guide by Play England.¹

INSPECTION PROGRAM

All playgrounds require routine inspections, to determine health and safety, as well as maintenance needs. It is recommended that those responsible for playground maintenance go through a training program, similar to the National Recreation and Parks Association's Playground Maintenance Course.²

The State College Area School District (SCASD) should develop a schedule of inspections, both High Frequency (often) and Low Frequency (less often), that is reasonable and realistic given staff and resources, and regular enough to keep playgrounds safe for use.

Frequency of inspections should be based on the level of use on the playground, environmental issues (such as weather and being located next to the ocean – salt damage), type of surfacing, type of equipment, and other pertinent factors.

Playground components with moving parts require more frequent inspection, maintenance, and replacement. Inspections should also be based on manufacturer's recommendations along with industry standards and play safety guidelines.

Visual Inspections: Playgrounds should have a daily visual inspections, to identify hazards from vandalism, use, or weather conditions. These inspections can be done by school staff and do not require any specific training.

Any health and safety issues should be noted and communicated to State College Area School District (SCASD) staff responsible for playground maintenance.

Operational Inspections: Playgrounds should have monthly operational inspections, to identify issues related to wear and tear, loose and worn parts, and surfacing issues, particularly in relation to accessibility. These inspections should be done by staff trained in playground maintenance.

Annual inspections: Playgrounds should have annual inspections, to identify issues related to health and safety, such as structural deficiencies, broken equipment, and surfacing issues, particularly in relation to attenuation. These inspections should be done by staff trained in playground maintenance.

MAINTENANCE RECORDS

It is essential that proper record keeping is established for all playgrounds, to ensure health, safety, and accessibility. These records should include manufacturers documentation of all equipment, plans and specifications, documentation of all inspections, injury records, as well as maintenance work of all structures, nature areas, and surfacing.

It is recommended that this documentation be retained for a specified time (at least 10-15 years), which should be confirmed with the State College Area School District's (SCASD) legal department.

TREES AND CLIMBING

Children naturally want to climb trees, and low branches offer wonderful opportunities for swinging and climbing. The State College Area School District (SCASD) should determine if trees within the playgrounds are allowed to be climbed during school and recess times.

Risk–benefit assessments are a good tool to determine if trees are an acceptable play element within a playground. Managing Risk in Play Provision: Implementation Guide³ provides a hypothetical example of how to do a risk–benefit assessment of whether or not children should be allowed to climb trees, including how to perform a visual inspection for weak or damaged branches, which would otherwise be left to the child's judgment.

This tool could be revisited each year, as part of the annual inspection, in case weather and use modifies the environment. In general, the risk benefit assessment is recommended as a tool to evaluate nature play areas, as they change seasonally and through use.

PLANTS AND VEGETATION

Plants attract living creatures, such as birds, butterflies, and insects, and enable children to interact with, observe, and learn about nature. They also provide a supply of loose parts and demonstrate seasonal change.

However, new planting areas are particularly susceptible to damage and vandalism. They may need temporary protection during the establishment period or during times of stress or over use. All planting areas benefit from routine maintenance and the following actions should be noted:

MULCHES: Recommended to a depth of 2-3" at all planted areas to suppress weeds and retain soil moisture. Mulches are biodegradable and need to be topped up annually.

WATERING: During the establishment period, watering will be required in dry conditions and periods of stress or overuse. Likely, contractors will be responsible for the survival of the plants during the establishment period. However, the cost of maintenance, specifically for damage to plants through use, must be taken into account. Once established, most plants will be able to find adequate soil moisture to survive. Most trees will take two years to establish. Shrubs and perennials will be established after the first year.

FERTILIZER: New planting areas will benefit from an annual application of a slow release fertilizer.

VANDALISM: Many trees and shrubs will regrow if they are broken, though this will depend on the extent of the damage. Damaged joints should be checked and cleaned to prevent the tree from becoming infected and to ensure healing.

GRASS: Grass offers considerable play value. Maintenance of grass within play areas can follow a typical mowing regime as established by the State College Area School District (SCASD), and should be able to be mowed either by hand or by riding mower, depending on steepness of the grade. Weekly mowing should be acceptable, depending on weather conditions.

TREE TRUNKS, LOGS, AND BOULDERS

Fallen or cut down tree trunks, logs, and boulders offer children and young people great play value, including the opportunity to discover different textures, practice balancing and climbing, or providing passive places to sit or hang out with peers.

The State College Area School District (SCASD) should review the condition of tree trunks, logs, and boulders regularly, and modify maintenance to take account of the natural aging process of natural materials. Right after installation, this could be done through monthly or biannual inspections.

As the trees age over time, they should be monitored more closely, as part of a weekly inspection. Different tree species will also age at different rates. The design team has selected tree species with care to the aging process, but weather and heavy use can advance cracking, splitting, and rot. The inspections should include removal of loose objects, sharp or ragged edges, moss and algae when necessary.

Not all boulders are the same. Some are susceptible to frost, others are hard and brittle, and others may weather very rapidly. While the design team has selected boulders with care, it is possible that weather and heavy use may cause advanced aging and cracking. Boulders should be inspected monthly for cracking and extremely sharp edges.

ENGINEERED WOOD FIBER

Maintenance of playground ground mulch (also referred to as Engineered Wood Fiber or EWF) is critical for playground safety and accessibility. EWF naturally settles on a stable play surface but with use, the material will shift around.

Depending on weather and usage, the EWF may need to be topped off with additional material, wetted, and compacted to depths recommended by manufacturer.

The State College Area School District (SCASD) should review the need to install new material on an annual basis.

On a daily basis:

- Visually inspect the EWF surface for debris, sharp objects, fallen branches, trash, and other hazards, and remove as soon as possible upon discovery.

On a weekly basis:

- Visually inspect under high-traffic play features, such as slides or swings, if EWF is worn down use rake or shovel to move additional EWF from low-traffic areas to areas that have been worn down.
- Rake EWF to keep surface level and maintain original depth.
- A level surface is required for wheelchair access and ADA-compliance.
- At accessible entrances onto playground surface, ensure that the surface material, accessible route, or the top of the access ramp is within one-quarter (1/4) inch of the finished grade of play area border.

On an annual basis:

- Determine if new EWF material is needed.
- Check performance of drain system by ensuring that water is flowing from drain system outflow pipe immediately after rain.
- Ensure there is no standing water on playground surface.

FIXED EQUIPMENT

Fixed equipment should be inspected based on manufacturer's recommendations along with industry standards.

Steel and plastic equipment are often viewed as not needing maintenance as regularly as natural elements. Unfortunately, this is not the case. UV degradation and heavy use impacts fixed equipment and can significantly shorten its lifespan. Additionally, fasteners and moving parts can corrode quickly, and must be inspected frequently to ensure health and safety of children and other users.

It is recommended that all fixed equipment be inspected on a monthly basis, with particular focus on fasteners and moving parts. If painted components chip or have exposed rust, it is recommended that they be lightly sanded and painted.

Any advanced rust noted on components that has compromised the structural integrity of the metal should be replaced immediately.

Through a regular maintenance regime and trained staff, the playgrounds within the State College Area School District (SCASD) will provide play value for decades of children to enjoy.

¹ <http://www.playengland.org.uk/media/120468/nature-play-maintenance-guide.pdf>

² <https://www.nrpa.org/careers-education/certificate-programs/playground-maintenance-course/>

³ <http://www.playengland.org.uk/resource/managing-risk-in-play-provision-implementation-guide/>

