Site management

SS2 | Possible point

Glossary

Intent

To encourage environmentally sensitive building exterior and hardscape management practices that provide a clean, well-maintained and safe building exterior while supporting high-performance building operations.

To encourage environmentally sensitive building exterior and hardscape management practices that provide a clean, well-maintained and safe building exterior while supporting high-performance building operations.

Encourage grounds/site/building exterior management practices that have the lowest environmental impact possible and preserve ecological integrity, enhance diversity and protect wildlife while supporting building performance and integration into surrounding landscapes.

To preserve ecological integrity and encourage environmentally sensitive site management practices that provide a clean, well-maintained, and safe building exterior while supporting high-performance building operations and integration into the surrounding landscape.

To assess site conditions before design to evaluate sustainable options and inform related decisions about site design.

To preserve and improve ecological integrity while supporting high-performance building operations.

To preserve ecological integrity and encourage environmentally sensitive site management practices that provide a clean, well-maintained, and safe building exterior while supporting high-performance building operations and integration into the surrounding landscape.

To encourage environmentally sensitive building exterior and hardscape management practices that provide a clean, well-maintained and safe building exterior while supporting high-performance building operations.

To assess site conditions before design to evaluate sustainable options and inform related decisions about site design.

Requirements

Employ an environmentally sensitive, low-impact building exterior and hardscape management plan that helps preserve surrounding ecological integrity. The plan must employ best management practices that significantly reduce harmful chemical use, energy waste, water waste, air pollution, solid waste and/or chemical runoff (e.g., gasoline, oil, antifreeze, salts) compared with standard practices. The plan must address all of the following operational elements that occur on the building and grounds:

- Maintenance equipment.
- Snow and ice removal.
- Cleaning of building exterior.
- Paints and sealants used on building exterior.
- Cleaning of sidewalks, pavement and other hardscape.

Employ an environmentally sensitive, low-impact building exterior and hardscape management plan that helps preserve surrounding ecological integrity. The plan must employ best management practices that significantly reduce harmful chemical use, energy waste, water waste, air pollution, solid waste and/or chemical runoff (e.g., gasoline, oil, antifreeze, salts) compared with standard practices. The plan must address all of the following operational elements that occur on the building and grounds, as applicable:

- maintenance equipment;
- snow and ice removal;
- cleaning of building exterior;
- paints and sealants used on building exterior; and
- cleaning of sidewalks, pavement and other hardscape.

Have in place over the performance period a low-impact site and green building exterior management plan that addresses the topics listed below. One point is earned for each four items addressed.

- Maintenance equipment
- Plantings
- Animal and vegetation pest control
- Landscape waste
- Irrigation management
- Fertilizer use

- Snow removal (where applicable)
- Cleaning of building exterior
- Paints and sealants used on building exterior
- Other maintenance of the building exterior

Establishment

Create and implement a site management policy that employs best management practices to reduce harmful chemical use, energy waste, water waste, air pollution, solid waste, and/or chemical runoff for all of the following operational elements on the building and grounds:

- use of low emissions maintenance equipment;
- snow and ice removal;
- cleaning of building exterior, pavement, and other impervious surfaces;
- erosion and sedimentation control (for ongoing operations and for construction activity);
- organic waste management (returned to the site or diverted from landfills);
- invasive and exotic plant species management (through monitoring and eradication);
- fertilizer use (testing soils before using fertilizer to prevent overapplication of nutrients);
- irrigation management (monitor irrigation systems manually or with automated systems at least every two weeks during the operating season for appropriate water usage, system times, leaks, or breaks); and
- storage of materials and equipment.

Performance

None.

Complete and document a site survey or assessment[1] that includes the following information:

- *Topography.* Contour mapping, unique topographic features, slope stability risks.
- *Hydrology.* Flood hazard areas, delineated wetlands, lakes, streams, shorelines, rainwater collection and reuse opportunities, TR-55 initial water storage capacity of the site (or local equivalent for projects outside the U.S.).
- *Climate.* Solar exposure, heat island effect potential, seasonal sun angles, prevailing winds, monthly precipitation and temperature ranges.
- *Vegetation.* Primary vegetation types, greenfield area, significant tree mapping, threatened or endangered species, unique habitat, invasive plant species.
- *Soils.* Natural Resources Conservation Service soils delineation, U.S. Department of Agriculture prime farmland, healthy soils, previous development, disturbed soils (local equivalent standards may be used for projects outside the U.S.).
- *Human use.* Views, adjacent transportation infrastructure, adjacent properties, construction materials with existing recycle or reuse potential.
- *Human health effects.* Proximity of vulnerable populations, adjacent physical activity opportunities, proximity to major sources of air pollution.

The survey or assessment should demonstrate the relationships between the site features and topics listed above and how these features influenced the project design; give the reasons for not addressing any of those topics.

[1] Components adapted from the Sustainable Sites Initiative: Guidelines and Performance Benchmarks 2009, Prerequisite 2.1: Site Assessment.

Establishment

Develop a five-year site improvement plan that includes the following:

- documentation of existing site conditions;
- site improvement objectives;
- performance standards to evaluate ongoing progress; and
- monitoring protocols.

The improvement plan must address the following topics.

- *Hydrology.* Protection and improvement of water bodies on-site, rainwater management and reuse opportunities, potable water-use reduction.
- *Vegetation.* Documentation of existing vegetation on-site, turf area reduction, management of native and invasive plants, protection of threatened, endangered or unique species.
- *Soils.* Documentation of general soil structure, preservation of healthy soils, remediation of compacted soils, identification of previously developed area.

The plan must be developed with professionals trained and experienced in the above disciplines.

Performance

Show that at least 5% of the site is vegetated. Implement all no-cost and low-cost measures. Develop a new improvement plan and implement all new no-cost and low-cost measures every five years.

Establishment

None.

Performance

Demonstrate that the following performance criteria were met:

- Use no calcium chloride or sodium chloride deicers, and/or establish reduced treatment areas equal to 50% of applicable paving area.
- Prevent erosion and sedimentation, and restore any eroded soils.
- Prevent air pollution from construction materials and activities.
- Divert from landfills 100% of plant material waste via low-impact means.
- Prevent the over application of nutrients. Use no ammonia-based fertilizers, biosolid-based fertilizers (for continuous application), synthetic quick-release fertilizers, or “weed and feed” formulations.

Blanket applications of herbicides are prohibited; turf weeds may be controlled by spot spraying only.

- Monitor irrigation systems manually or with automated systems at least every two weeks during the operating season and correct any leaks, breaks, inappropriate water usage, or incorrect timing.
- Store materials and equipment to prevent air and site contamination.

AND

Meet one of the following options:

Option 1. Limited turf area

Limit turf to 25% or less of the vegetated area.

Playgrounds and athletic fields in schools or parks are excluded from this option.

OR

Option 2. all manual or electric-powered equipment

Use all manual or electric-powered equipment in all site management operations.

Option 3. reduction in emissions from site management equipment

Show and maintain a 50% reduction in hydrocarbon (HC) and nitrogen oxide (NOx) emissions, and a 75% reduction in carbon monoxide (CO) emissions from baseline conditions.

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