Interim Standard for Storm Water Management Design Parameters

Basis for Design Requirements

The University of Texas (UT) holds a Municipal Separate Storm Sewer System (MS4) Permit which requires UT to do the following:

- Limit the increase in erosion and discharge of pollutants in stormwater as a result of new development or re-development
- Implement a comprehensive master planning process to include all new development and re-development
- Provide resources for the long term maintenance and operation of the best management practices

Design Parameters

The following are design and construction parameters that help meet the required objectives. These are pre-requisites from the Sustainable Sites Initiative (SITES) Version 2. Designs for stormwater management must be implemented and must meet these requirements.

The prerequisites are as follows:

Context P1.1: Limit development on farmland

Context P1.2: Protect floodplain functions

Context P1.3: Conserve aquatic ecosystems

Context P1.4: Conserve habitats for threatened and endangered species

Pre-Design P2.1: Use an integrative design process

Pre-Design P2.2: Conduct a pre-design site assessment

Pre-Design P2.3: Designate and communicate Vegetation and Soil Protection Zones

Water P3.1: Manage precipitation on site

Water P3.2: Reduce water use for landscape irrigation

Soil+Veg P4.1: Create and communicate a soil management plan

Soil+Veg P4.2: Control and manage invasive plants

Soil+Veg P4.3: Use appropriate plants

Materials P5.1: Eliminate the use of wood from threatened tree species

Construction P7.1: Communicate and verify sustainable construction practices

Construction P7.2: Control and retain construction pollutants

Construction P7.3: Restore soils disturbed during construction

O+M P8.1: Plan for sustainable site maintenance

O+M P8.2: Provide for storage and collection of recyclables

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Note the following regarding particular pre-requisites.

Pre-Design P2.3 Designate and communicate Vegetation and Soil Protection Zones (VSPZ)

Not all sites will meet the criteria for designating a VSPZ. Those sites that meet the Site Context are required to designate a VSPZ.

Water P3.1 Manage Precipitation on site

Retain the precipitation volume from the 60th percentile precipitation event as defined by the U.S. EPA in the Technical Guidance on Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the Energy Independence and Security Act (or local equivalent for projects outside the United States).

Engineered Design Requirements

Detailed design drawings must be provided for stormwater management. The drawings must be signed and sealed by a Professional Engineer registered in Texas.

The maximum permissible velocity for conveying stormwater runoff for the one hundred (100) year storm is six (6) feet per second and includes all transitions to or from channels and waterways with similar or different materials. In all cases, the velocity for the one hundred (100) year storm must be non-erosive. The minimum permissible velocity for the two (2) year storm is two (2) feet per second.

For more detail on methods of incorporating the pre-requisites into the design, refer to the SITES Rating System document at https://www.usgbc.org/resources/sites-rating-system-and-scorecard