US Army Corps of Engineers®
Engineer Research and Development Center

Sustainable Project Rating Tool (SPiRiT)

Technology

SPiRiT is a required rating tool that offers a checklist, strategies, and scores to help Army installations rate themselves on their demonstrated abilities to create and maintain sustainable facilities, and to plan improvements to the process of designing, building, and maintaining sustainable facilities. SPiRiT, which is based on the Green Building Council's Leadership in Energy and Environmental Design Rating System 2.0 (LEED 2.0™), and which is tailored to Army-specific needs, embodies accepted energy and environmental principles. SPiRiT takes a "whole building" perspective to help preserve the environment and improve facility life-cycle management, and to integrate environmentally responsible practices into the facility delivery process from its design stages.

Problem

Decisions made during the planning and design phases of a construction project affect the sustainability of the facility throughout its entire life cycle. In the past, it was common for construction projects to proceed without special consideration for the complex range of environmental issues that together determine whether a project, in the long run, is "sustainable." Those environmental issues may involve such planning issues as: picking the right site; specifying the density and relationship of buildings; minimizing types and amounts of waste produced during construction or throughout the life of the built facility; minimizing the use of energy and natural resources; maintaining a balance between development, social equality, ecology, and economics; and meeting the broad range of human needs—from the immediate needs for a safe, comfortable, and healthy environment, to the need for a built environment that does not "buy" the requirements of the present at the expense of future generations. Even when such environmental issues gained prominence, there was still no tool or scale that could rate a project on its success in creating a "sustainable" facility.

Expected Cost To Implement

The cost to acquire the SPiRiT rating tool is negligible. The SpiRiT document is available—free of charge—for download through the Internet in Adobe® Acrobat® (PDF) format, which is accessible to both Windows® and Apple® Macintosh operating systems with the (free-for-download) Acrobat® Reader. The cost to implement SpiRiT is integrated with the costs of other normal planning and design activities:

- Project teams hold charrettes to create Form 1391 (to request project funding).
- Once a project is approved for design, project teams hold SPiRiT goal-setting and design charrettes.
- Teams document SPiRiT related decisions during design (design analysis).
- Teams use DrChecks to review design.

- Project teams self rate to determine final SPiRiT score.
- If a team does not meet SPiRiT "bronze" rating, they notify Headquarters, U.S. Army Corps of Engineers.

Benefits/Savings

SPiRiT helps facility planners and project delivery teams by measuring success in meeting mandated requirements for sustainable design and development. More important, the self-assessment tool helps users achieve an environmentally friendly, cost effective process for maintaining the Army facility life-cycle. Use of the tool helps users:

- preserve a clean environment
- maintain sustainable sites
- maximize water efficiency
- conserve energy and preserve the atmosphere
- conserve materials and resources
- improve the facility delivery process
- ensure success in current and future missions
- lower ongoing costs
- provide healthy places to live and work.

Status

A memorandum from the Office of the Assistant Chief of Staff for Installation Management (OACSIM) (4 May 01) requires Army activities to use SPiRiT as a self-assessment tool to evaluate sustainability for all facility construction and repair projects. Engineer Technical Letter (ETL) 1110-3-491, "Sustainable Design for Military Facilities," has been revised to incorporate SPiRiT.

ERDC POC

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Distribution Sources

SPiRiT is available for download through the Sustainable Design and Development website at URL:

http://www.cecer.army.mil/SustDesign/SPiRiT.cfm

Available Documentation

Specific questions related to "How to do Sustainable Design and Development" are answered through the Sustainable Design and Development website at URL:

http://www.cecer.army.mil/SustDesign/HowSD.cfm

Available Training

Information regarding formal (classroom) training and also self-study course is available through the Sustainable Design and Development website at URL:

http://www.cecer.army.mil/SustDesign/Training.cfm

Available Support

Specific questions about the SPiRiT self-assessment tool may be directed to the listed ERDC POCs.