



# Facility Condition Assessments

The **Penn State Facilities Engineering Institute (PSFEI)** has a strong history of helping facility managers efficiently maintain their building and grounds infrastructure. One of the tools used to accomplish this task is a [Facility Condition Assessment \(FCA\)](#). PSFEI staff, experienced in building systems operation, building envelope, code compliance, and accessibility requirements, have developed a quality condition assessment program.

## What is an FCA?

An FCA is a comprehensive planning tool used to determine the physical condition and functional performance of a facility. It is completed by PSFEI's team of professional engineers, building system specialists, and technicians after conducting a thorough field investigation to collect data and evaluate the condition of the following categories:

- Architectural
- Structural
- Building Envelope
- Civil
- Electrical
- Mechanical
- Plumbing
- Americans with Disabilities Act (ADA)
- Safety and Code Compliance

Conducting FCAs on a recurring basis is a key component of an effective maintenance and repair program for any facility.

## What steps are needed to complete the FCA?

In order to accurately assess the status of a facility, the physical and functional condition should be evaluated.

The physical condition of the facility is an evaluation of the building elements and will be assessed by a visual inspection of building components. The functional condition is a measure of the facility's need to support and serve its intended mission.

Although a thorough field investigation will be completed by qualified professionals, personnel familiar with the day-to-day operations should be present to reveal known facility deficiencies.

## How will this information be used?

The data and information collected as part of the field investigation will be used by PSFEI's team to:

- Identify various forms of deficiencies—physical, policy, and programming.
- Determine the estimated cost to correct each deficiency.
- Assign a priority level to each deficiency to assist facility managers with a recommended order of completion.
- Analyze life-cycle costs of facility components for long-range planning and budgeting purposes.
- Calculate the cost of facility upgrades necessary to advance mission capability.
- Calculate a Facility Condition Index (FCI) score to rate the overall condition of the facility.



## What is the FCI rating and why is it important?

A key component of the FCA is the calculation of the FCI. The FCI is an accepted benchmark used by facility managers worldwide to rate the overall condition of their facilities. The index is based on hard numbers, not opinions. The following formula (often expressed as a percentage) is used to calculate the FCI:

$$\text{FCI} = \text{cost of deficiencies} / \text{current replacement value} \times 100$$

## How will the results of an FCA help my facility?

The fundamental issue with any facility manager is the availability of tools for proper planning and allocation of maintenance and repair dollars. The results of an FCA are intended to resolve this issue by providing timely and qualitative data that will identify the deficiencies, aid the decision-making process, and help prioritize projects.

The FCI value calculated for each facility will provide the baseline data to compare facility conditions. After this value is established, a comparison between similar buildings may be made, ultimately allowing facility managers to prioritize facility repair and/or replacement.

Information gathered regarding the operating and life-cycle cost of the facility will allow a facility manager to better understand the dollars necessary to sustain and maintain components for longevity.

Overall, every level of facility management will benefit from the results of an FCA. The ability to accurately determine the annual funding level to maintain each facility at an acceptable level is a critical element of a successful facility management program.

## How will I receive the result of the FCA?

PSFEI's IT team has developed a web-accessible business tool called [WebiFM](#) to communicate the results of the facility condition assessment. WebiFM provides an organized method for viewing technical information, data-filtering tools for viewing critical data groups, interactive capabilities for clients to confirm corrective action against deficiencies, and graphical tools for improved comprehension.

## For more information

For more information about FCAs, please contact:

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